

5.5 Planning Permit Application for the Use and Development of the Land For Rural Industry and a Caretakers Dwelling Associated With Industrial Hemp at 565 Murray Road, Vervale.

Responsible GM: Peter Benazic
Author: Frances Stipkovic

Recommendation(s)

That Council issue a Notice of Decision to Grant Planning Permit T190712 for the use and development of the land for Rural Industry and Caretakers Dwelling at 565 Murray Road, Vervale VIC 3814.

Attachments

1. Development Plans [5.5.1 - 4 pages]
2. Farm Management Plan [5.5.2 - 22 pages]
3. Independent Review [5.5.3 - 25 pages]

Executive Summary

APPLICATION NO.:	T190712
APPLICANT:	Mrs Renee Little
LAND:	565 Murray Road, Vervale VIC 3814
PROPOSAL:	Use and development of the land for Rural Industry and Caretakers Dwelling
PLANNING CONTROLS:	Special Use Zone, Schedule 1 Land Subject to Inundation Overlay
NOTIFICATION & OBJECTIONS:	Yes – Notification was carried out and 6 objections were received
KEY PLANNING CONSIDERATIONS:	Providing a high degree of assurance that the enterprise relied on for the secondary and tertiary land uses is feasible to justify the proposal. Clause 22.05 and the Westernport Green Wedge Management Plan The purpose of the Special Use Zone Schedule 1 which seeks to preserve land for horticultural pursuits. Minimising the risk associated with flooding with respect to the proposed buildings and works.
RECOMMENDATION:	Issue a notice to grant the planning permit

Background

- Planning Application T180116, which sought approval for the use and development of the land for a Host Farm and Caretakers Dwelling, was refused by Council on 24th May 2018. This application did not proceed to VCAT.
- Planning Permit T200241 was issued on 21st July 2020 for the development of a 24ML dam and associated works which is located at the rear of the site.
- With respect to this current application, a Section 57A Amendment was lodged with Council on 21st July 2020 which included an amendment to the proposed land uses to correctly align with the land use definitions under the Cardinia Planning Scheme as well as updated development plans in response to concerns raised by Melbourne Water.

In addition to this, Council sought an external review of this application from 'Plan it Rural' – Rural Planning and Development Consultants. Following their initial review, the applicant submitted information relating to feasibility of the pursuit (Soil Report, Land Management Plan) as well as a Farm Management Plan which formed part of the recirculated documents to the objectors and was further reviewed by Plan It Rural. The findings of this review are discussed in the assessment section of this report.

Subject Site

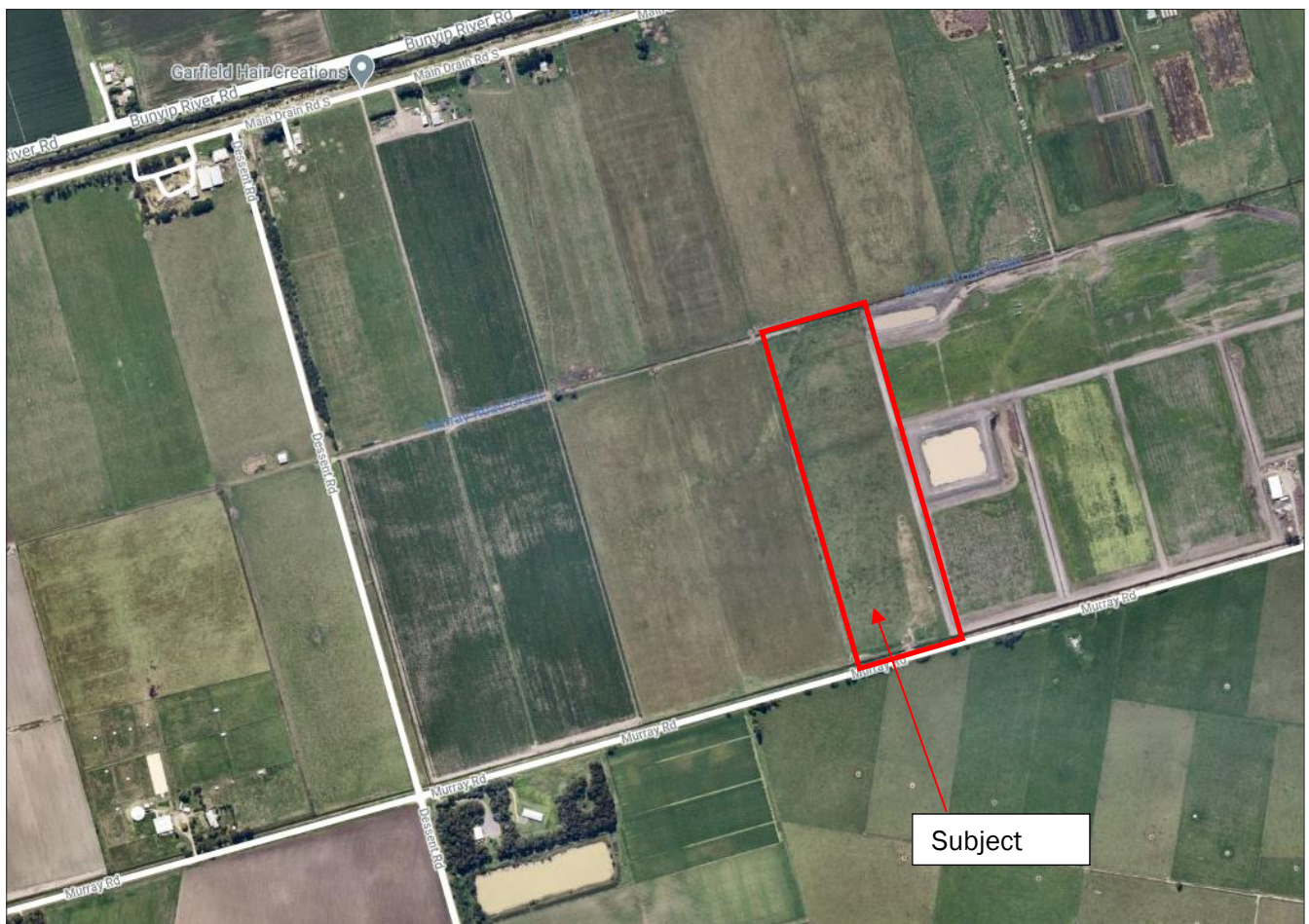


Fig 1: Aerial image of the subject site and surrounding locality – source: Nearmaps

The subject site is located on the northern side of Murray Road, Vervale approximately 4.8 kilometres from Bunyip-Modella Road located east. The site rectangular in shape, has a frontage to Murray Road of 160.9 metres and a total site area of 8.093 hectares.

The subject site is currently undeveloped and is not used for any purpose. Topography of the land is flat.

635 Murray Road (comprising 5 lots) adjoins the land to the east and is currently developed with a dam and is used for agriculture. The lot adjoining the subject site forms part of a broad-acre market garden and whilst there is no current crop, it forms part of a crop rotation which is required to rejuvenate soil and prevent disease (i.e. the site is part of an active horticultural operation).

1710 Main Drain Road (comprising multiple allotments) bounds the site to the north, north-west and west and is currently vacant.

Land in the vicinity is characterised by large rural allotments, many of which are currently used for agriculture (primarily crop raising). In terms of development, there are examples of dwellings and large outbuildings however they are subordinate in the broader vicinity. Many parcels in the area are Crown Allotments however there are examples of multiple parcels in the one ownership. Terrain in the area is flat.

Registered Restrictions

The land is known as Crown Allotment 17, Section N Parish of Koo-wee-rup East.

There are no Covenants or Section 173 Agreements registered on Title.

There are no easements affecting the land.

Relevance to Council Plan

Nil.

Proposal

Approval is sought for the use and development of the land for Rural Industry and a Caretakers Dwelling.

These uses are in association with proposed industrial hemp growing on the subject site. A description of each component is described below:

Associated soil-based enterprise

The applicant has advised that the basis of this enterprise is industrial hemp growing on the subject site. This crop is grown externally and will occupy approximately 77% of the site (6.25 hectares) having regard to the proposed buildings under this application and approved dam under Planning Permit T200241.

The applicant has advised that it is expected that 2-3 crops will be harvested per year. In terms of volume, this equates to 15 tonne of product per hectare ($15 \times 6.3 = 94.5$ tonnes per crop cycle).

Included in the application documents is an Authority for Low THC-Cannabis issued by the Department of Jobs, Precincts and Regions dated 29th February 2019. This approval has a 3 year expiry (the assumption is made there are opportunities for renewal).

In addition to industrial hemp, the applicant is also proposing passionfruit and avocado tree planting however this is considered supplementary and not a primary consideration with respect to the soil-based enterprise.

The applicant has provided details on the feasibility and viability of this enterprise as well as a Farm Management Plan which will be discussed in further detail in the assessment section.

Note: The use of the land for crop raising is as of right pursuant to Clause 37.01-1 (SUZ1). The Cardinia Planning Scheme does not specify the type of crop which can or should be grown therefore the chosen product (industrial hemp) is not a planning consideration.

Rural Industry

The Rural Industry component will be carried out in a proposed building setback 16 metres from the eastern boundary and 70.5 metres from the front title boundary. The building has a ground floor area of 495sqm and has a maximum height of 5.7 metres above natural ground level.

The floor layout comprises a fibre processing area, decorticator zone, hempcrete mixer and dry storage area.

Note: Additional storage areas are also provided and form part of a mezzanine level in this building which whist within the ground floor footprint, this equates to more than 500sqm in total area – a condition of approval will require amended plans to reduce the total floor area to no more than 500sqm.

Once the hemp is harvested, it is to be broken down to 3 main products: hurd, fibre and leaf. This involves a Decorticator which breaks down the primary produce. The building will also be used for the processing of the hemp hurd to form a building material known as Hempcrete Panels which is non-combustible. This involves the mixture of hemp hurd, lime and water and compressing the mixture. The fibre component of the hemp will be on-sold in its raw form which can be utilised for textiles and other products.

Hours of operations are Monday to Saturday: 8:00am – 4:00pm. A maximum of three (3) employees is required.

The applicant has also stated that training associated with the building product will be carried out however Council considers this an ancillary component to the enterprise, and as such does not trigger planning approval in its own right having regard to the scale.

Caretakers Dwelling

A Caretakers Dwelling is proposed to be located 23.8 metres from the eastern boundary and 29.8m from the front title boundary. This building comprises a kitchen/living/dining area, bedrooms, bathrooms and a garage. This building will be constructed using screw piles. A septic area is located at the front of the dwelling.

A new driveway is proposed which leads to the Caretakers Dwelling and Rural Industry building.

The applicant has advised that the Caretakers Dwelling will accommodate his entire family as this is to be a family run enterprise. The Caretakers Dwelling is required to establish the crop on the site and for security purposes and to also run the Rural Industry component.

Planning Scheme Provisions

Planning Policy Framework (PPF)

The relevant clauses of the PPF are:

- *Clause 11.01-1R Green wedges – Metropolitan Melbourne*
- *Clause 13.03-1S Floodplain management*
- *Clause 14.01-1S Protection of agricultural land*
- *Clause 14.01-1R Protection of agricultural land – Metropolitan Melbourne*
- *Clause 16.-01-3S Rural residential development*

Local Planning Policy Framework (LPPF)

The relevant clauses of the LPPF are:

- *Clause 21.01 – Cardinia Shire Key Issues and Strategic Vision*
- *Clause 21.03-4 Rural residential and rural living development*
- *Clause 21.04-2 Agriculture*
- *Clause 22.05 – Western Port Green Wedge Policy*

Relevant Particular/ General Provisions and relevant incorporated or reference documents

The relevant provisions/ documents are:

- *Clause 51.02 – Metropolitan Green Wedge Land*
- *Clause 52.06 – Car Parking*
 - *Clause 65 – Decision Guidelines*
 - *Cardinia Shire's Westernport Green Wedge Management Plan*

Cardinia Shire's Liveability Plan 2017-2029

Cardinia Shire's Liveability Plan has been developed to provide a clear framework for public health planning within the Shire, with a vision for Cardinia Shire to be a liveable, resilient community where the environment flourishes and residents are healthy, included and connected.

The Plan has a number of goals and actions relating to policy domains such as active travel, education, employment and housing.

This proposal has regard to the Plan as it supports investment, innovation and diversification within the local economy and provides additional employment opportunities

Zone

The land is subject to **Clause 37.01 - Special Use Zone Schedule 1**



Fig 2: SUZ1 mapping – source <https://mapshare.vic.gov.au/vicplan/>

1. The Special Use Zone – Schedule 1 ('SUZ1') applies to a large portion of the Cardinia Western Port Green Wedge. Its application recognises that soil is a finite resource and inappropriate use, development or subdivisions will result in the permanent loss of this valuable resource. The location is supported by the *Land Capability Study for the Cardinia Shire (February 1997)*.
2. The purposes of the SUZ1 are:
 - To preserve land of high agricultural quality for horticulture and other farming activities.
 - To discourage non-agricultural and non-soil based uses establishing on soil of high agricultural value.
 - To protect the area from the encroachment of urban and rural residential type development.
 - To minimise the potential for conflict between residents and normal farming practices that are related to the conduct of agricultural activities.
 - To encourage sustainable farming activities based on whole farm and catchment planning principles on an individual and community basis.
3. Before deciding on an application to use or subdivide land, construct a building or construct or carry out works, the Responsible Authority must consider, as appropriate:
 - The Land Capability Study for the Cardinia Shire (February 1997).
 - Whether the land is liable to flooding and any advice received from Melbourne Water.
 - Whether the use, building, works or subdivision will be detrimental to the horticultural significance of the area.
 - Whether the dwelling is reasonably required for the operation of the rural activity being conducted on the land.
 - Whether the use utilises the high quality soils for horticultural or agricultural pursuits.

- The impact of the use, building, works or subdivision on the character and appearance of the area.
- Whether the site is suitable for the use, building, works or subdivision and the compatibility of the proposal with adjoining and nearby farming and other land uses

Overlays

The land is subject to **Clause 44.04 - Land Subject to Inundation Overlay**



Fig 3: LSIO mapping – source <https://mapshare.vic.gov.au/vicplan/>

4. The purposes of the Land Subject to Inundation Overlay are:
 - To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
 - To identify land in a flood storage or flood fringe area affected by the 1 in 100 year flood or any other area determined by the floodplain management authority.
 - To ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity.
 - To reflect any declaration under Division 4 of Part 10 of the Water Act 1989 where a declaration has been made.
 - To protect water quality in accordance with the provisions of relevant State Environment Protection Policies, particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria).
 - To ensure that development maintains or improves river and wetland health, waterway protection and flood plain health.

5.

Planning Permit Triggers

The proposal for the use and development of the land for Rural Industry and a Caretakers Dwelling requires a planning permit under the following clauses of the Cardinia Planning Scheme:

- Pursuant to Clause 37.01-1 (SUZ1), a planning permit is required to use the land for Rural Industry and a Caretakers Dwelling.
- Pursuant to Clause 37.01-5 (SUZ1), a planning permit is required for buildings and works associated with a Section 2 use.
- Pursuant to Clause 44.01-2 (LSIO), a planning permit is required for buildings and works.

Note: Use of the land for crop raising is as of right under the SUZ1 and does not require planning approval.

Note: Buildings associated with Rural Industry cannot exceed 500sqm.

Note: There is no minimum lot size for a Caretakers Dwelling pursuant to Table 1 of Schedule 1.

Public Notification

The application has been advertised pursuant to Section 52 of the Planning and Environment Act 1987, by:

- *Sending notices to the owners and occupiers of adjoining land.*
- *Placing a sign on site*

The notification has been carried and Council has received 6 objections to date.

The key issues that were raised in the objections are:

- Inconsistency with the Special Use Zone Schedule 1
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- Viability of the agricultural operation/water access
- No attempt made to commence the crop component
- Enforceability issues associated with the Caretakers Dwelling
- Concerns over the industrial hemp crop and potential contamination
- Security concerns associated with the crop
- Proposed Rural Industry not consistent with the land use definition

Note: The Section 57A amendment documents were recirculated to objectors via email on 20th August 2020. Updated objections were received with the issues raised also listed above.

Referrals

The application was referred to Melbourne Water as a statutory referral as the site is located within the Land Subject to inundation Overlay.

Originally, Melbourne Water did not object subject to conditions. As this was inconsistent with the response received for Permit Application T180116, clarification was sought from Council's Planning Officer and subsequently Melbourne Water issued a revised response objecting to the proposal.

Consequently, amended plans were resubmitted by the applicant to address their concerns. Melbourne Water has since issued a revised referral response with no objection to the proposal subject to conditions.

Discussion

Planning Policy Framework

A number of state and local planning policies are relevant to this application, particularly those relating to agriculture, such as clauses 14.01-1S (Protection of agricultural land), 14.01-2S (Sustainable agricultural land use) and 21.04-2 (Agriculture). Broadly speaking, these policies identify land of agricultural importance and seek to ensure the continued viability and productivity of agricultural industries.

One of the key themes of these policies are strategies that seek to facilitate ongoing productivity and investment in high value agriculture and to ensure that the use and development of land gives consideration to land capability and can utilise economically and environmentally sustainable farming practices. As discussed in later in this section, information provided by the applicant by way of a Farm Management Plan and feasibility reports substantiate the viability of the enterprise and reasonable nexus between the agricultural activity and the proposed land uses. The Planning Policy Framework seeks to ensure that land is maximised for agricultural pursuits where there is capacity to do so.

The proposal delivers on policies that encourage 'value adding' and diversification of agricultural activities by way of the Rural Industry component which seeks to process the product grown on site and close the processing loop in the same facility. While the resulting hempcrete product is generally not what may be considered the typical output from agricultural activities in the area, it nonetheless represents an appropriate outcome that is aligned with the preference for soil-based activities to be undertaken, which in this case is the growing of hemp.

The fact that the rural industry and caretaker's house represent less than 25 per cent of the site area ensures the remainder of the land is not disturbed. Additionally, it is noted that the planning framework supports other rural activities beyond the core agricultural activities, with Clause 14.01-2S including strategies such as:

- Assist genuine farming enterprises to embrace opportunities and adjust flexibly to market changes.
- Encourage diversification and value-adding of agriculture through effective agricultural production and processing, rural industry and farm-related retailing.

The introduction of the proposed rural industry and caretaker's house is consistent with these strategies while also remaining consistent with the broader policy direction for land uses and development that does not diminish the long-term agricultural capability of the land.

These policies, combined with Clause 13.07-1S (Land use compatibility), also recognise the importance of land use compatibility and the avoidance of impacts on adjacent land. With a proposal that is based around horticulture, the proposal shares some similarity with surrounding land uses such as market gardens and will have similar characteristics in terms of built form (such as shedding and dams) and operational activities (such as plant and machinery). However, it also has fundamental differences through its introduction of a residential use (caretaker's house) and an industrial use (rural industry). Despite this, the proposal does not introduce any significant land use conflicts. While the caretaker's house is a residential use, its sensitivity is lower than typical dwellings due to its relationship and association with the other activities occurring on the site. The industrial use of the land is limited in terms of scale (i.e. it must meet zone requirements for building area) and the nature of the use (i.e. it must be a rural industry only).

The site's location within a green wedge requires consideration of Clause 11.01-1R (Green wedges – Metropolitan Melbourne), which seeks to protect the green wedges of Metropolitan Melbourne from inappropriate development. The green wedge is characterised by its rural landscape and the proposed development is consistent with this character, with built form that is subordinate to the landscape due to its setbacks from boundaries, single-storey height and limited site coverage. This outcome is also responsive to other policies contained at Clause 16.-01-5S 3S (Rural residential development) and Clause 21.03-4 5 Rural residential and rural living development.

Overall, the proposal delivers on the key directions of the state and local policy planning framework.

Clause 22.05 – Western Port Green Wedge Policy

This Policy, which was incorporated into the Cardinia Planning Scheme in August 2017, as well as Cardinia Shire's Western Port Green Wedge Management Plan (Incorporated Document) requires an extra layer of consideration for Planning Permit applications. This policy essentially applies to all Green Wedge Zone and Special Use Zone 1 land south of the Princess Highway as detailed in the mapping below. This Policy provides additional direction for land use and development applications and under this application is to be assessed in conjunction with the SUZ1.

Clause 22.05 identifies three distinct precincts within the Western Port Green Wedge and includes a vision and future direction for each of these precincts. The Subject Site is within Precinct 1, which is designated for 'Agriculture, horticulture and soil-based food production.'

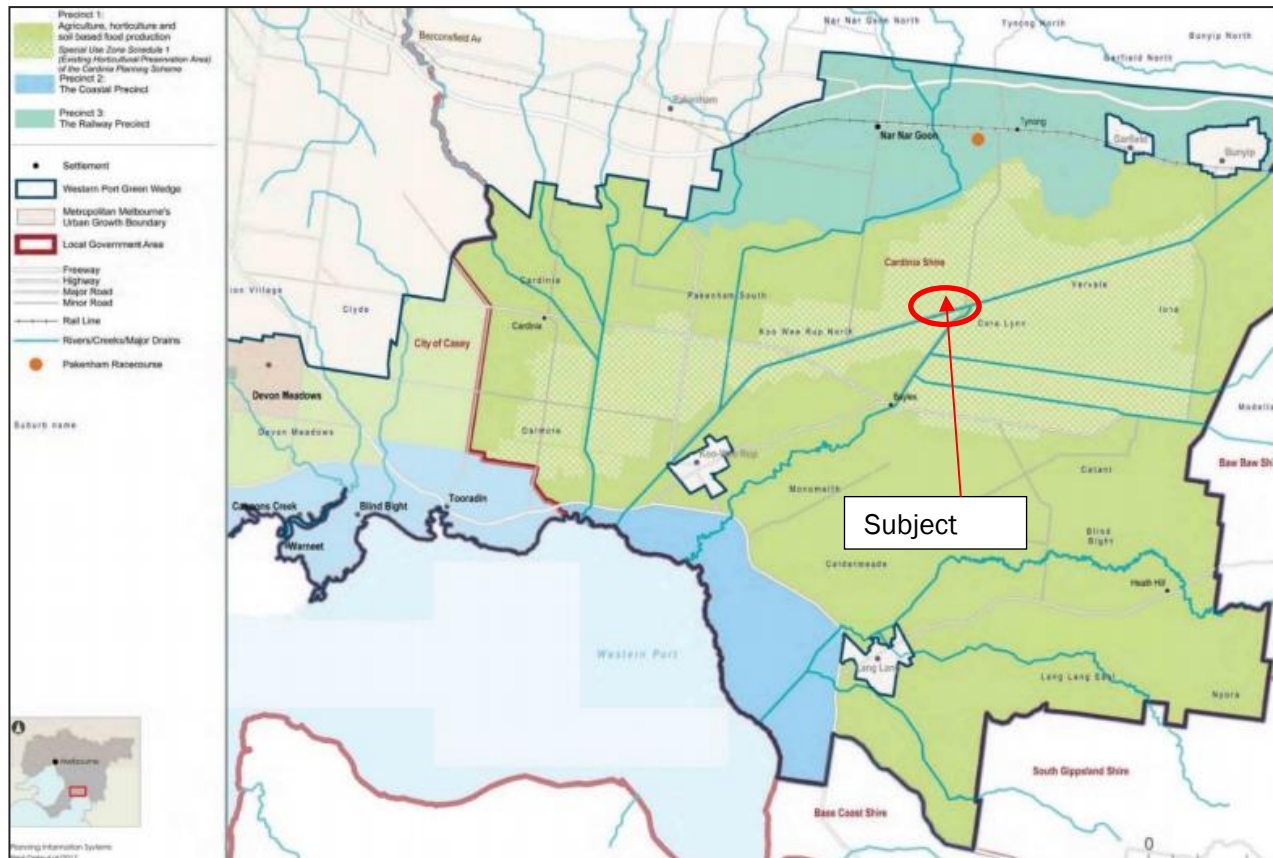


Fig 4: Cardinia Green Wedge Precincts – Clause 22.05 of the Cardinia Planning Scheme

The vision for Precinct 1 is:

Precinct 1 will be the hub of, agriculture, horticulture and soil-based food production within the Cardinia Western Port Green Wedge, taking advantage of its highly versatile soils, vegetable production (in particular asparagus), dairy and beef farming, other agricultural pursuits, potential access to Class A recycled water and the important role this precinct plays in food security. Land within the SUZ1 part of the precinct will be prioritised for soil-based agricultural and horticultural use and soil based food production with a focus on the consolidation of lots to support the economic viability of the agricultural and horticultural industry.

Opportunities for new, innovative or more intensive agriculture and horticulture and soil-based food production will be supported to ensure that the rich agricultural potential of the precinct is realised.

It will integrate biodiversity and agricultural outcomes by recognising ecosystem services which can improve agricultural efficiency.

Opportunities for linking the community with the local agricultural and horticultural industry will be identified and promoted to help establish food-based tourism within the precinct.

The future directions for Precinct 1 include a preference for soil-based agriculture to be the primary activity within the SUZ1 area, with non-rural uses to be discouraged. Other directions

include support for rural industry to allow farmers to value add to their produce and to support and protect the existing vegetable industry.

The application has evolved during the assessment process in response to concerns and comments relating to matters such as the land use characterisation and feasibility of the proposal. This process has included an independent review of the application material by rural consultants, which concluded that the application generally provides a sufficient level of detail to demonstrate the feasibility and viability of the proposal. While the review also found some gaps in the information (particularly in relation to water access and waste management), it recommended that this could be addressed via a condition of any planning permit.

The reviews and subsequent revisions to the application have resulted in a proposal that achieves the objectives and policies of Clause 22.05. An assessment of the application against the land use policy considerations of Clause 22.05-3 is provided below.

Ensure that green wedge soils and their versatility are recognised as a finite resource and are protected accordingly	The uses are to be undertaken in conjunction with the primary horticultural use of the land and
Maintain and protect the highly productive agricultural land from incompatible uses including non-soil based farming.	The rural industry and caretaker's house cover only a small area of the overall site and do not result in any irreversible impacts on the land; they are to be undertaken in conjunction with the primary horticultural use of the land and not incompatible with the surrounding uses.
Provide for the restructuring of lots in agricultural areas to reduce the impact of old and inappropriate subdivisions on the economic agricultural viability of the area.	The proposal does not provide for the restructuring or consolidation of land but it also does not prevent the land from being restructured in the future.
Minimise the risk of flooding which impacts on agricultural activities in the Koo Wee Rup Flood Protection District.	The entirety of the site is affected by flood but the proposal incorporates a fill pad to respond to the risk of flooding. Melbourne Water has not objected to the proposal, subject to conditions that will be imposed on any permit.

Overall, the proposal is an appropriate outcome that is consistent with the policy of Clause 22.05-3 and the broader vision and future directions of Precinct 1. While not consisting exclusively of horticulture, the proposal is nonetheless based on the horticultural activities to be undertaken on the land. The proposal reinforces the agricultural importance of the region and responds to the desire to support new or innovative forms of agriculture.

Clause 37.01 – Special Use Zone, Schedule 1

A primary purpose of the Special Use Zone Schedule 1 is: *To preserve land of high agricultural quality for horticulture and other farming activities.* Having regard to this Zone and the definition of Rural Industry and Caretakers Dwelling, Council must be satisfied that these uses will remain secondary and tertiary and that the soil-based operation proposed remains the primary land use, particularly in highly productive areas such as where the subject site is located.

As detailed above, the application documents (including feasibility/soil reports/land assessment/Farm Management Plan) were independently reviewed by a rural consultant. The main areas of concerns relating to feasibility and viability of the enterprise have been addressed and that soil based agriculture will remain the primary land use.

Whilst Council is not bound by the external review, it has greatly assisted in the decision-making process as the feasibility question is essentially the heart of Council's concerns when considering this application. Council needs to ensure that it does not support a "tailing wagging the dog" situation with such proposals. Council considers that this application has a hierarchy and three sequences with respect to the primary, secondary and tertiary land uses.

First and foremost, Council requires a high degree of confidence that the proposed soil-based operation is feasible based on the lot area, soil profile, also factoring in climate and water requirements as suggested in the review. This aspect is as of right under the Zone and where there is no established crop, understanding this detail is considered more vital. The growing of industrial hemp must be (and remain) the primary land use to which the secondary and tertiary land uses are reliant upon.

Now that this aspect is satisfied, the Rural Industry land use and the processing of the product then comes into consideration which must be directly linked with crop raising on the subject site (i.e. there cannot be a *reliance* of material brought in externally for the Rural Industry use however it's acknowledged that the definition allows for this to occur). In principal, Council has no significant concerns with this land use as it is complimentary and aligns with the Zone providing that crop raising on the subject site remains the dominant land use. The Rural Industry use supports soil-based agriculture with this component closing the processing loop on-site and provides for a more efficient process. As detailed above, a condition of approval will require an amended floor plan to ensure the area of this building does not exceed 500sqm in accordance with Schedule 1.

The applicant has stated in the application documents that a maximum three (3) employees is required for the enterprise and whilst there is no concern from a carparking perspective, a condition of approval will limit employee numbers for the Rural Industry to three (3) to ensure the enterprise is reliant on occupant/s of the Caretakers Dwelling.

The Caretakers Dwelling is considered a third-tier land use which requires a higher degree of scrutiny considering its accommodation aspect and strong emphasis in the Planning Scheme to ensure land in this Zone does not become used for rural-residential purposes. Council considers that this land use relies on both the crop (at this scale) and Rural Industry to justify its nexus. As the subject site is smaller than many surrounding farms with multiple land holdings, Council considers that the intensity/scale of both the crop raising and Rural Industry combined is required to justify the Caretakers on this site.

Throughout the application process (once amended), Council raised concerns with the notion of a family residing in a Caretakers Dwelling and whether this was inconsistent with the land use definition. The applicant submitted legal advice which concludes that a Caretakers Dwelling does not strictly exclude family members. This was further substantiated by the rural consultant and no known VCAT cases supporting this position.

An applicant is not required to demonstrate there is a *substantial* need for a Caretaker's Dwelling; the threshold for consideration requires a *reasonable* nexus. However, as stated by the Tribunal in *Laukart v Knox City Council* [2011] VCAT 1269, the Planning Scheme "does require some understanding that the business on site is of a scale or form that requires support of an onsite caretaker to distinguish the dwelling as primarily for taking care of the business, rather than primarily to provide general accommodation as a dwelling." The term "reasonable" is also reflected in the Decision Guidelines in Schedule 1:

Whether the dwelling is reasonably required for the operation of the rural activity being conducted on the land.

Having regard to the feasibility assessment and Farm Management Plan provided by the applicant and external review carried out, a *reasonable* nexus between the Caretakers Dwelling and enterprise (including Rural Industry) has been established via the primary and secondary land uses.

As with any similar proposal, this does carry a degree of risk that if the operation is unsuccessful, Council will be required to enforce the obligations of the Section 173 Agreement as per Part 2.0 of Schedule 1 and require that the Caretakers Dwelling be removed from the land. Nonetheless, whilst this risk would exist regardless, Council must have a high degree of confidence that the land uses assessed under this permit application will conform with the hierarchy detailed above. In light of the information received and having regard to the independent review carried out, Council considers it appropriate to apply staged approach to any Planning Permit granted which would ultimately require the crop and Rural Industry component be established prior to the construction/use of the Caretakers Dwelling. Whilst the approach may be considered unorthodox, this results in a material outcome on the site which is consistent with Planning Policy and the ultimate purpose of the Special Use Zone 1. This is an appropriate response having regard to the definition of a Caretakers Dwelling which requires a building, operation or plant to be a lawful use of the land noting that a Dwelling is a prohibited land use under the SUZ1 as the site is less than 10 hectares.

With respect to the proposed buildings, works and associated effluent disposal area, they are of minimal concern having regard to the Zone. The buildings are modest in scale relative to the land area and are well setback from buildings on adjoining and nearby land. The buildings are clustered together in close proximity of the frontage ensuring land allocated for crop raising is proportionately higher. The design elements of each building are suitable in a rural setting and consistent with many other buildings in the area. The setback of the Caretakers Dwelling from the eastern boundary exceeds the 20m listed in Schedule 1 however the shed for the Rural Industry use is setback 16.0m. As the adjoining land to the east is used for broad acre cropping, spraying in close proximity of this boundary does occur as stated by operators of this site in their objection. Whilst the shed is not considered 'habitable' it is reasonable to require an increased setback to 20m in line with Schedule 1 in light of the knowledge that spraying currently occurs on adjoining land. The separation of highly occupied buildings from the eastern boundary aims to reduce land use conflicts and ensure the adjoining site can continue to operate as usual.

Clause 44.04 - Land Subject to Inundation Overlay

A planning permit is required for all buildings and works under this provision.

An objective of this provision is to "ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity."

The amended plans submitted to Melbourne Water show the buildings in the same location on the site however a fill pad had now been incorporated to raise the finished floor level of the dwelling to .

As detailed above, this application has been referred to Melbourne Water who do not object to the proposal subject to conditions.

There are no watercourses on the subject site or nearby vicinity which would be impacted by the proposed development.

Having regard to the above, Council does not have concerns with the proposed buildings and works as it relates to this provision.

Clause 51.02 – Metropolitan Green Wedge Land: Core Planning Provisions

This provision lists prohibited land uses in Metropolitan Melbourne Green Wedge land.

Note: Land located in the SUZ1 in Cardinia Shire is classified as a rural zone and is located outside an Urban Growth Boundary therefore this provision applies.

The proposal is consistent with the Table at Clause 51.02-2 which specifically excludes a Dwelling (including Bed and Breakfast and Caretakers Dwelling under the nesting diagram) under the Accommodation section. Further to this, Rural Industry is also specifically excluded where Industry is listed.

Having regard to the above, this provision is satisfied.

Clause 52.06 – Car Parking

Pursuant to the table at Clause 52.06-5, the following car park rate applies for the Rural Industry land use:

Industry other than listed in this table	2.9	1	To each 100 sq m of net floor area
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Based on the total net floor area of the building (which is reduced to no more than 500sqm via condition), 14 car spaces are required on-site (rounded down from 14.5). The applicant has shown 3 formal car spaces adjacent to the shed however there is adequate area within the building zone to accommodate all spaces although it is acknowledged this specific proposal would not warrant 14 spaces. Notwithstanding this, as no car park waiver is being sought under this application these additional spaces will be required via condition.

Response to objections

■ Inconsistency with the Special Use Zone Schedule 1/Viability of the agricultural operation/access to water

As detailed above, one of the key purposes of the Special Use Zone Schedule 1 is to preserve land of high agricultural quality for horticulture and other farming activities. Other purposes of the zone include to discourage non-agricultural and non-soil based uses and to protect the area from the encroachment of urban and rural residential type development. The proposal is not inconsistent with these purposes.

While the proposal involves uses that are not in themselves horticultural or soil-based, they are nonetheless provided in direct support of the horticultural activities to be undertaken on the land. They do not represent urban or rural-residential types of development and they are not uses that would damage the land in a way that would be contrary to the 'preservation' of land for farming activities as the two land uses are directly linked with horticulture occurring of the subject site. It is further noted that whilst there is a general acknowledgment that Cardinia is suitable for food production, this is not a specific requirement when considering agriculture in general or horticulture as this can come in many forms. The overarching purpose is to ensure land in this area is highly productive where there is capacity.

The proposal also responds positively to the decision guidelines of the zone, which require consideration of matters such as the impact on the horticultural significance of the area, the impact on the character or appearance of the area, the suitability of the site for the proposal, and compatibility of the proposal with adjoining and nearby land uses.

As detailed above, the feasibility of the agricultural operation has been substantiated by the applicant by way of a Farm Management Plan and feasibility study which has been independently reviewed.

With respect to secured water rights, this was also highlighted in the latest review of the application documents by Plan it Rural who have recommended this form part of conditions on any permit granted. As water access is a primary aspect of this enterprise, a condition of approval will require evidence of secure water rights, for a minimum 5 years, to service the enterprise as described in the Farm Management Plan prior to the commencement of any development. A minimum 5 year time frame has been specified to provide Council with confidence water rights have been secured for a suitable timeframe to establish the enterprise.

Concerns have been raised that the applicant is seeking circumvent the Planning Scheme to enable accommodation which would otherwise be prohibited which may set a precedence. The SUZ1 does not specify a minimum lot size for a Caretakers Dwelling and by definition this land use requires a building, operation or plant to be lawful therefore each application will be assessed on its merits and agricultural pursuit put forward to Council. Whether or not this application is supported, the opportunity to apply for a Caretakers Dwelling currently exists for lots less than 10 hectares.

The land at 494 Eleven Mile Road, Cora Lynn has also been raised. Planning Permit T160474 was issued for the use and development of the land for a Dwelling and Rural Industry (distillery) on 23 March 2017. This site is greater than 10 hectares therefore a Dwelling could be considered. To date, the dwelling has been constructed however the Rural Industry aspect has not commenced. This Planning Permit has not expired. For clarity, there is no Section 173 Agreement registered on title which prohibits the use of the land for a Dwelling.

No attempt made to commence the crop component

Council acknowledges that an established crop/agricultural operation would assist in the decision-making process as sustained capability would then be demonstrated, however the Planning Scheme provisions do not specify that an agricultural operation *must* be established in order to consider an application acceptable. Notwithstanding this, and as detailed above, Council considers it of high value to apply a staged approach to the approval considering that the definition of a Caretakers Dwelling requires a building, operation or plant to be a lawful use of the land. This approach, whilst may be considered bold, achieves a material outcome on the site consistent with the planning policy and requires a great deal of investment from the permit holder.

Enforceability issues associated with the Caretakers Dwelling

Part 2.0 of Schedule 1 of the Special Use Zone requires that the owner must enter into a Section 173 Agreement which requires that the Caretakers Dwelling must be removed when no longer in use. This is a mandatory requirement and therefore must be imposed on any Planning Permit granted. If the crop raising or Rural Industry components were not successful, by definition this would result in a breach of both the Planning Permit and Cardinia Planning Scheme. Council would then have the legal ability to enforce the Section 173 Agreement. It's acknowledged this could be challenging however this is the only tool available to ensure it is removed when no longer in use. In such an event, this would require involvement from Council's Planning Compliance Department.

Proximity of the buildings to the eastern boundary

As detailed above, the Caretakers Dwelling is setback 23 metres from the eastern boundary which exceeds 20 metres specified in Schedule 1. Whilst the shed is not considered 'habitable' it is reasonable to require an increased setback to 20m in line with Schedule 1 in light of the knowledge that spaying currently occurs on adjoining land. The separation of highly occupied buildings from the eastern boundary aims to reduce land use conflicts and ensure the adjoining site can continue to operate as usual

Security concerns

Concerns have been raised with respect to security of the crop (although not THC variety) and potential impacts to adjoining farms. Whilst security should be considered by the landowner, this is not a relevant planning consideration as crop raising is as of right under the SUZ1. The owner must comply with any licensing requirements relating to security and other relevant agricultural legislation as required. The security issue is not relevant planning consideration having regard to this application. **Note:** In the event fencing is required for security purposes, this may trigger planning approval under the LSI0 however this can be assessed under a separate application and is subject to Melbourne Water approval. Such an application is exempt from advertising.

Concerns over the industrial hemp crop and potential contamination

A detailed above, the use of the land for crop raising is as of right under the SUZ1. This can occur without planning approval and the Cardinia Planning Scheme does not specify the type of crops which can or should be planted therefore the selected product (industrial hemp) is not a planning consideration. Whilst not disregarding the possibility of contamination, this is an issue which is not addressed under a Planning Permit application.

Proposed Rural Industry not consistent with the land use definition

Clause 73 of the Cardinia Planning Scheme defines Rural Industry as:

Land used to:

- a) *handle, treat, process, or pack agricultural produce;*
- b) *service or repair plant, or equipment, used in agriculture; or*
- c) *manufacture mud bricks.*

Based on the information submitted by the applicant, Council is satisfied that the manufacturing of hempcrete panels by processing hemp in its primary form aligns with this definition. This is because the proposal seeks to “process” (manufacture) “agricultural produce” (hemp).

Neither “process” nor “agricultural produce” is defined in the Cardinia Planning Scheme or the *Planning and Environment Act 1987*. However, several VCAT decisions provide clarity in the interpretation of these terms.

First, “process” is generally accepted to include a manufacturing component, as the ordinary meaning of the term (as defined by the Macquarie Dictionary) is “To treat or prepare by some particular process, as in manufacturing.” This position is taken by the Tribunal in *Rainsbury v Bass Coast SC* [2009] VCAT 2686. The Macquarie Dictionary further defines “manufacture” in part to include ‘to workup (material) into form for use.’ Council acknowledges that hempcrete production involves manufacturing—the decortication of the raw produce, the mixture of the hurd with lime and water, and the curing/drying of the panels all involve a manufacturing element—however, these are all contemplated within a “process” for the purposes of the definition of Rural Industry.

Next, the definition of Rural Industry requires the processing of “agricultural produce” as opposed to a secondary (pre-processed) product. Here, the Tribunal has analysed the definition of “agricultural produce” in several decisions. Whilst the decisions reach varying conclusions that are largely factually dependent, what seems apparent from these decisions is:

- A product used in the manufacturing process must be some sort of primary produce. *See Chocolate Vine Pty Ltd v Mornington Peninsula SC* [2019] VCAT 1500.
- That primary produce may be harvested on site or off site to be used in its raw form, but it cannot be pre-processed off site and then used in a secondary manufacturing process on site. *See Shaw v Mornington Peninsula SC* [2019] VCAT 1633; *Garrett v Maroondah CC* [2003] VCAT 1179.
- The substantial purpose of the Rural Industry use must be the processing (or handling, treating, packing) of that primary produce. *See Rainsbury v Bass Coast SC* [2009] VCAT 2686.

In *Chocolate Vine Pty Ltd v Mornington Peninsula SC* [2019] VCAT 1500, Deputy President Bisucci held that the processing of fruit, nuts and flowers on site constituted the processing of “agricultural produce”, and thus concluded that a chocolaterie was a Rural Industry use. The Tribunal reached this conclusion notwithstanding only 8% of the land was dedicated to the planting of fruit and nut trees, processed chocolate pastilles were imported from off site, and the main activity on the site was the manufacture and sale of chocolate.

In *Shaw v Mornington Peninsula SC* [2019] VCAT 1633, the Tribunal found that a microbrewery was appropriately classified as a Rural Industry because primary produce (both hops and unprocessed barley) were utilised in the brewing process. Even though some of the barley was imported from other sources, this fact was less relevant to the Tribunal than the unprocessed state of the imported barley used on site.

Finally, in *Rainsbury v Bass Coast SC* [2009] VCAT 2686, the Tribunal held a microbrewery that imported pre-processed malted barley was *not* a Rural Industry use as the malted barley was a secondary product and therefore not ‘agricultural produce’. Importantly, the decision explained that an ‘approach which . . . respects the ordinary meaning of the words agricultural produce, is that it is the product of agriculture in the state it is found when it leaves the farm gate.’ By importing a secondary product (malted barley) on site for the brewing process, it was determined that the barley was not in ‘the state it is found when it leaves the farm gate’, and therefore the brewing process did not constitute the processing of ‘agricultural produce’.

Rainsbury is also persuasive in instructing that the ‘substantial purpose’ of a Rural Industry must be the processing of agricultural produce. Finding that imported malted barley was a secondary material (i.e. not in the state it was found at the farm gate), it was noted that in this particular proposal, the only agricultural produce involved in the brewing process was hops. In paragraphs 19-20, Senior Member AP Liston stated:

[19] *In my opinion the substantial purpose of a rural industry, of the type contemplated here, is the processing of agricultural produce. Is the substantial purpose of brewing the processing of hops?*

[20] *In beer making the sugars are extracted from the malted barley together with other elements which contribute to the flavour and character of the final product. I do not think it can be concluded that hops are so central to the process of making beer that the substantial purpose of brewing is the processing of hops, an agricultural product.*

[21] *I find that a conventional micro brewery, which imports its malted grains from another processor, cannot be characterised as a rural industry.*

Whilst these cases involve the manufacture of different types of products—namely chocolate and beer—the aforementioned principles relating to the definition of ‘agricultural produce’ are instructive. Applying these principles to the current proposal, Council finds that the processing of raw hemp to manufacture hempcrete in the current proposal is appropriately categorised as Rural Industry for the following reasons:

- Agricultural produce (industrial hemp) is cultivated on the land. It is primary produce in its raw form when it is utilised on site through various processes.
- Hemp is the main component of hempcrete and the ‘substantial purpose’ of the hempcrete production involves the processing of hemp. Council considers this is relevant when comparing the current proposal to the chocolaterie in *Chocolate Vine Pty Ltd v Mornington Peninsula SC*. In that case, the processing of fruits and nuts were secondary ingredients in the final chocolate product. However, because the agricultural produce was a mere component of the manufacturing process, it was considered a Rural Industry use. In the current proposal, the primary component of the final product is agricultural produce, arguably making it even more appropriately classified as Rural Industry.
- The hemp crop is harvested on site or brought to the site in the ‘state it is found when it leaves the farm gate.’ Only when it is on site is the hemp processed, using a decorticator that breaks down the primary product into the leaf, fibre and hurd. It is then further manufactured by mixing the hurd with lime and water, and then pressing and curing the secondary product. The hemp is not imported in a secondary, processed form as all processing occurs on site.

Because of this, the proposal contrasts with the brewery in *Rainsbury v Bass Coast SC*, where the microbrewery at issue was held to not align with a Rural Industry use because the barley used in that operation was pre-processed (malted) off site from other sources and thus was not agricultural produce. Here, there is no doubt that the raw form of hemp processed in the first instance is indeed agricultural produce.

- The fibre component of the hemp will be on-sold in its raw form, which can be utilised for textiles and other products. This requires some form of packing for distribution purposes and is considered a component of Rural Industry.

For these reasons, Council is satisfied that the processing of hemp in its primary form to manufacture hempcrete in this instance aligns with the definition of Rural Industry in the Cardinia Planning Scheme.

Conclusion

The relevant Planning Scheme provisions clearly seek to ensure that agriculture, in particular soil-based agriculture, remains the primary land use for land located in the Special Use Zone 1 where the opportunity is available. In this instance, it is possible the subject site can be primarily utilised for a soil-based enterprise and having regard to the documentation submitted and including an independent review, Council has been provided with a high degree of confidence that the proposal put forward is feasible to warrant the secondary and tertiary land uses as per the hierarchy detailed above.

Having regard to this, it is recommended that the application be approved in a staged approach subject to the following conditions:

Conditions

Additional information

1. Before the development starts, amended plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will then form part of the permit. The plans must be drawn to scale with dimensions and must be generally in accordance with the plans submitted with the application but modified to show:

Development Plans

- a. The setback of the building used for Rural Industry increased to a minimum 20 metres from the eastern boundary.
- b. The floor layout of the Rural Industry building reduced to no more than 500sqm (including any mezzanine level).
- c. Deletion of the future fibre processing area
- d. A minimum 14 car parking areas shown in accordance with Clause 52.06 of the Cardinia Planning Scheme.

Farm Management Plan

- e. Details on soil profiling, raised beds and drainage works where required as referenced in the Land Assessment.
2. Prior to the commencement of any development approved under this Permit, it must be demonstrated that a water right has been secured, in accordance with relevant legislation, for a minimum five (5) years to service the agricultural operation as per the Farm Management Plan. This must have regard to the capacity of the dam approved under Planning Permit T200241.
 3. Prior to the commencement of any development approved under this Permit, a Waste Management Plan must be prepared which addresses any by-product or effluent as a result of the hemp processing/hempcrete production.

General

4. The use and development as shown on the endorsed plans must not be altered without the written consent of the Responsible Authority.
5. Once the development has commenced it must be continued and completed to the satisfaction of the Responsible Authority.
6. The exterior colour and cladding of the development must not result in any adverse visual impact on the environment of the area and all external cladding and trim of all of the buildings, including the roof, must be of a non-reflective nature.
7. All stormwater must be conveyed by means of drains to satisfactory points or areas of discharged approved by the Responsible Authority so that it will have no detrimental effect on the environment or adjoining property owners.
8. Stormwater works must be provided on the subject land to prevent overflows onto adjacent properties.
9. All earthworks must be undertaken in a manner that minimises soil erosion, and any exposed areas of soil must be stabilised to prevent soil erosion to the satisfaction of the Responsible Authority.

Rural Industry

10. The Rural Industry approved under this permit may only operate between the following hours:
 - Monday to Saturday: 8:00am – 4:00pm
11. Any deliveries to and from the subject site, relating to the Rural Industry use must occur within the operating hours specified above.
12. The Rural Industry must utilise industrial hemp grown on the subject site as a primary produce source to the satisfaction of the Responsible Authority.
13. No more than three (3) employees (who do not reside in the Caretakers Dwelling) may be associated with the Rural Industry use.
14. No retail sales may occur from the subject land.
15. Any education element associated with the enterprise must remain an ancillary component to the satisfaction of the Responsible Authority.
16. The use and development must not detrimentally affect the amenity of the area, through the:
 - a. Transport of materials, goods or commodities to or from the land;
 - b. Appearance of any building, works or materials;
 - c. Emission of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil;
 - d. Presence of vermin.
17. Any waste material not required for further onsite processing must be regularly removed from the subject land in accordance with the endorsed Waste Management Plan. All vehicles removing waste must have fully secured and contained loads so that no wastes are spilled or dust or odour is created to the satisfaction of the Responsible Authority.
18. Noise emitted from the premises must not exceed the recommended levels as set out in Noise from Industry in Regional Victoria (NIRV; EPA Publication 1411, 2011) or as amended.

Caretakers Dwelling

19. The use/development of the Caretakers Dwelling cannot commence and a Building Permit must not be granted, until such time that the agricultural operation considered under the permit application (industrial hemp) and Rural Industry approved under this Permit are established to the satisfaction of the Responsible Authority.
20. Prior to the issuing of a Building Permit for the Caretaker's Dwelling, the owner must enter into an agreement pursuant to Section 173 of the *Planning and Environment Act 1987* to provide for the following:
 - a. The Caretakers Dwelling must be removed from the subject land if either the industrial hemp crop generally in accordance with the endorsed Farm Management Plan or the Rural Industry use approved under Planning Permit T190712 ceases.

The Agreement must be registered on title with all costs borne by the Permit holder.

21. Before the Caretakers Dwelling is occupied, the building must:
- a. have access provided via an all-weather road to the satisfaction of the Responsible Authority.
 - b. be connected to a septic tank system to ensure wastewater is treated and retained on site in accordance with the State Environment Protection Policy (Waters of Victoria) under the Environment Protection Act 1970.
 - c. be connected to a reticulated potable water supply or have an alternative potable water supply, with appropriate storage capacity for domestic use, to the satisfaction of the Responsible Authority.
 - d. be connected to a reticulated electricity supply or have an alternative energy source.
22. All wastewater from the Caretakers Dwelling must be discharged into the reticulated sewerage system, to the satisfaction of the Responsible Authority, within 3 months of the sewerage system becoming available to the property.
23. All wastewater from the Caretakers Dwelling must be treated and contained on site in accordance with the EPA Septic Tank Code of Practice and Council requirements. No part of the septic tank system may be located within the fill pad.

Melbourne Water

24. The dwelling must be constructed with finished floor levels set no lower than 22.60 metres to Australian Height Datum (AHD), which is 600mm above the applicable flood level of 22.0 metres to AHD.
25. The shed must be constructed with finished floor levels set no lower than 22.30 metres to AHD, which is 300mm above the applicable flood level of 22.0 metres to AHD.
26. The dwelling and shed must be constructed on a fill pad set no lower than 22.15 metres to AHD, and must extend a minimum of 5 metres around the building footprints (maximum 10 metres around the shed to enable vehicle access), with the exception of the eastern side of the shed.
27. The driveway is to be filled to finished surface levels at least 200mm below but no more than 300mm below the 1% AEP flood level of 22.0 metres to AHD.
28. No filling or solid structures are to be placed within a minimum offset of 5 metres from the eastern boundary to enable any overland flood flows to enter the property and flow around the northern side of the fill pads.
29. Imported fill must only be placed on the property as shown in the submitted plans to ensure sufficient flood storage capacity is maintained on site.
30. The driveway must be constructed with twin 450mm diameter culverts (or equivalent flow area culverts) placed between Murray Road and the proposed Caretakers Residence to provide additional flood flow conveyance before the driveway is over topped by flood flow.
31. Any new fence must be an open style of construction or timber paling to allow for the passage of flood flow.

32. Prior to the issue of an Occupancy Permit, a certified survey plan, showing finished floor levels of the buildings, fill pads and driveway (as constructed) reduced to the AHD, must be submitted to Melbourne Water to demonstrate that the floor levels have been constructed in accordance with Melbourne Water's requirements.
33. Prior to the commencement of works, a separate application direct to Melbourne Water must be made for the approval of any new or modified stormwater connections or crossings to Melbourne Water's drains or watercourses. Apply using our online application process.

Expiry

A permit for the development and use of land expires if.

- a) the development does not start within two (2) years after the issue of the permit; or
- b) the development is not completed within four (4) years after the issue of the permit; or
- c) the use does not start within two (2) years after the completion of the development; or
- d) the use is discontinued for a period of two (2) years.

Notes:

- i. A Building Permit will be required for this development. To obtain a building permit you will need to contact a registered building surveyor.
- ii. Prior to installation works commencing on the septic tank system, a Permit to Install must be obtained from Council.

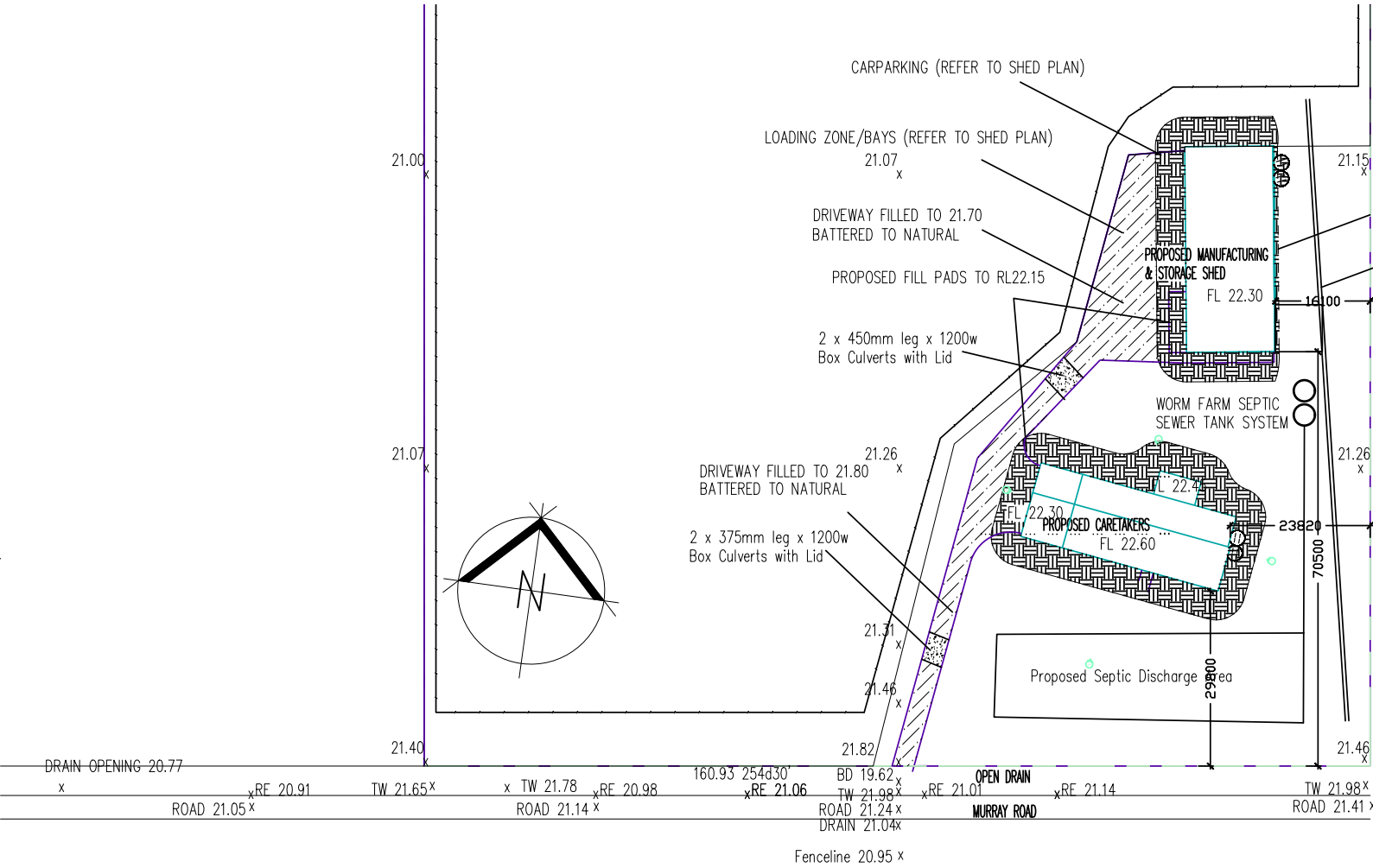
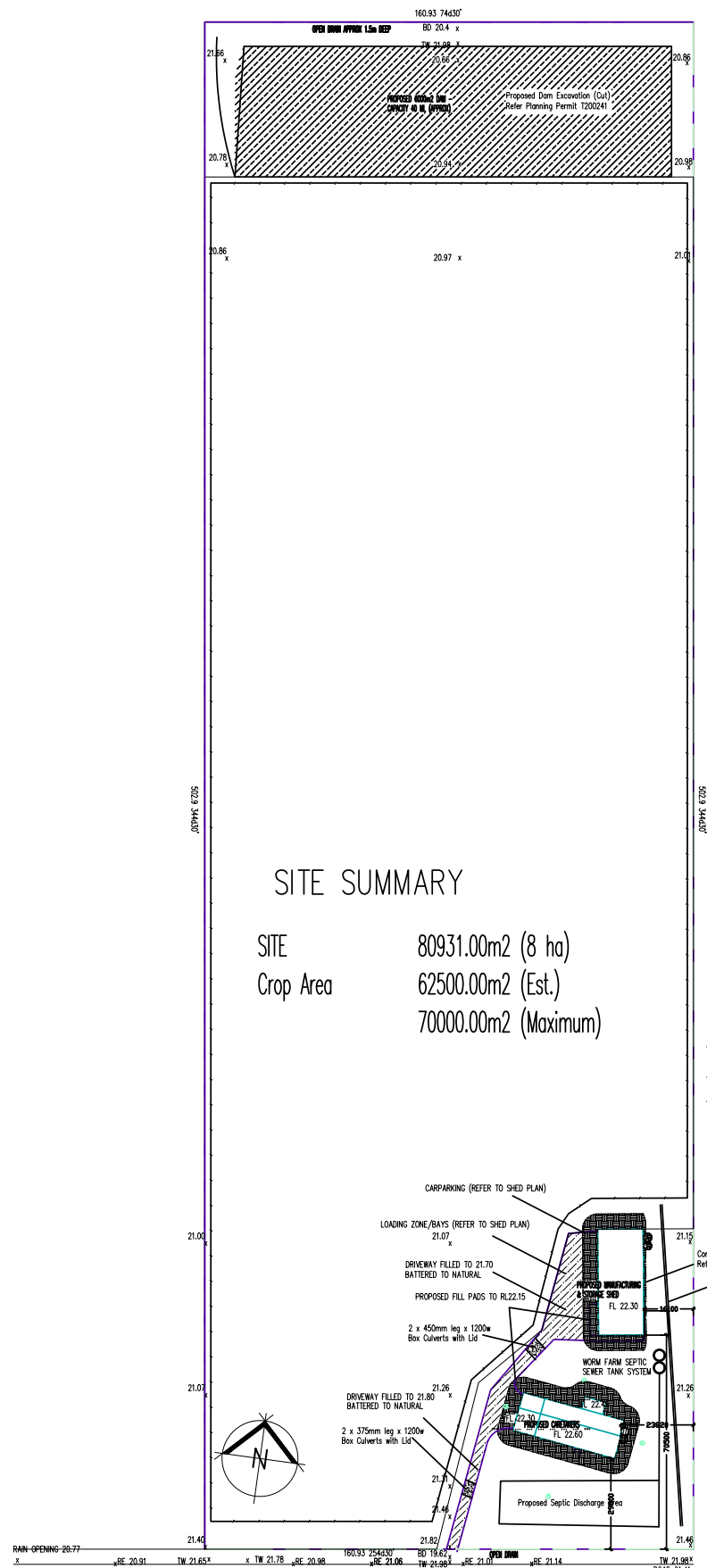
Melbourne Water Notes:

- iii. This property is subject to flooding and is located within the Koo Wee Rup Flood Protection District Zone 2. Melbourne Water has determined that the flood level for a storm event with a 1% chance of occurrence in any given year is 22.0 metres to AHD.

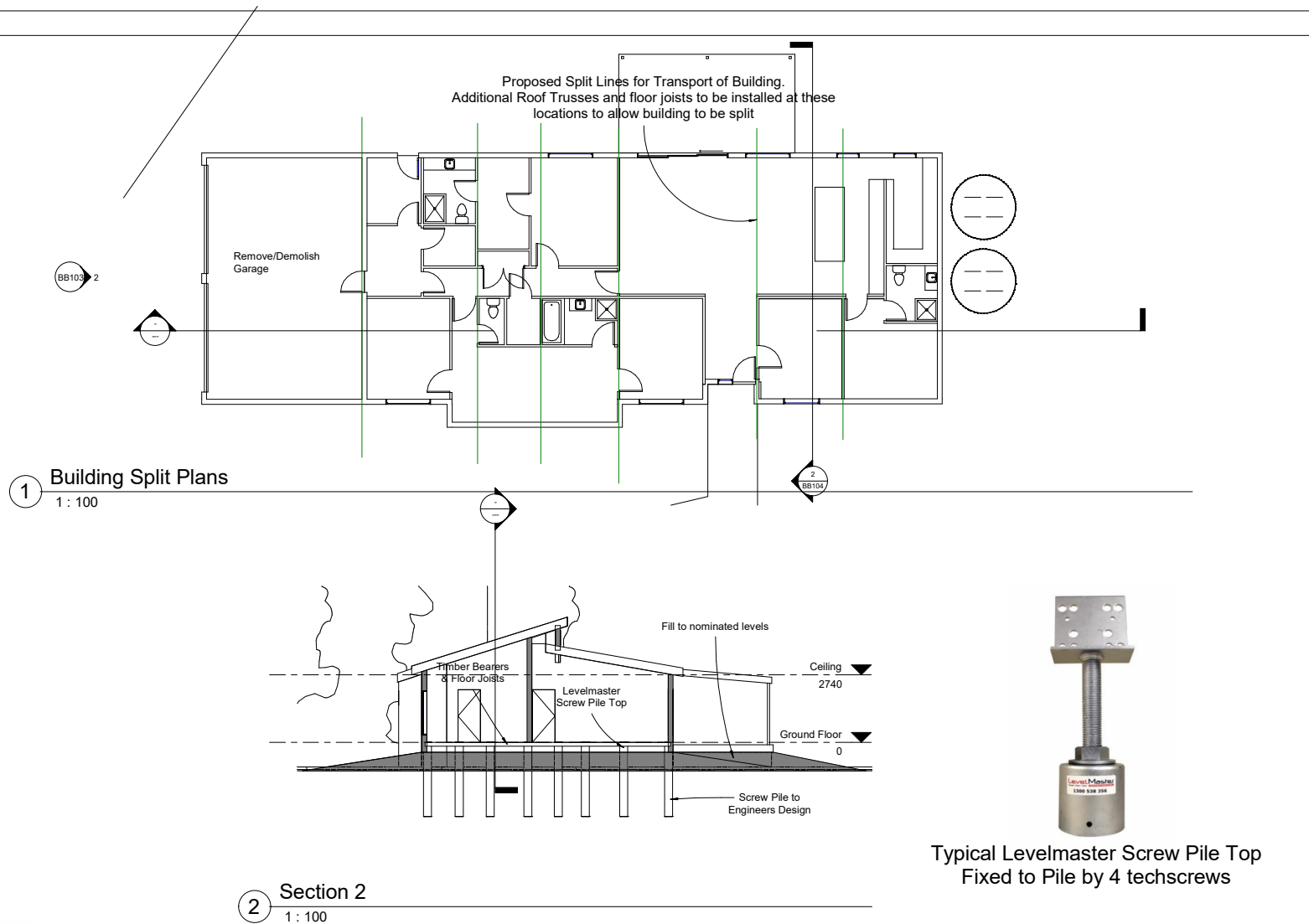


Builder/Designer: ADL Home Building & Constructions
Practitioner: Andrew Little DB-U 43766
Address: PO Box 4179 Narre Warren South VIC 3805

Phone: 0400 988 255
E-mail: andrewlittle77@live.com



A&R Little Property Investments Pty Ltd		Site Plan	
565 Murray Road Vervale		Project number	2000.01
		Date	06/08/2020
		Drawn by	ADL
		Checked by	ADL
		Scale	NTS
		VER-001-R1	



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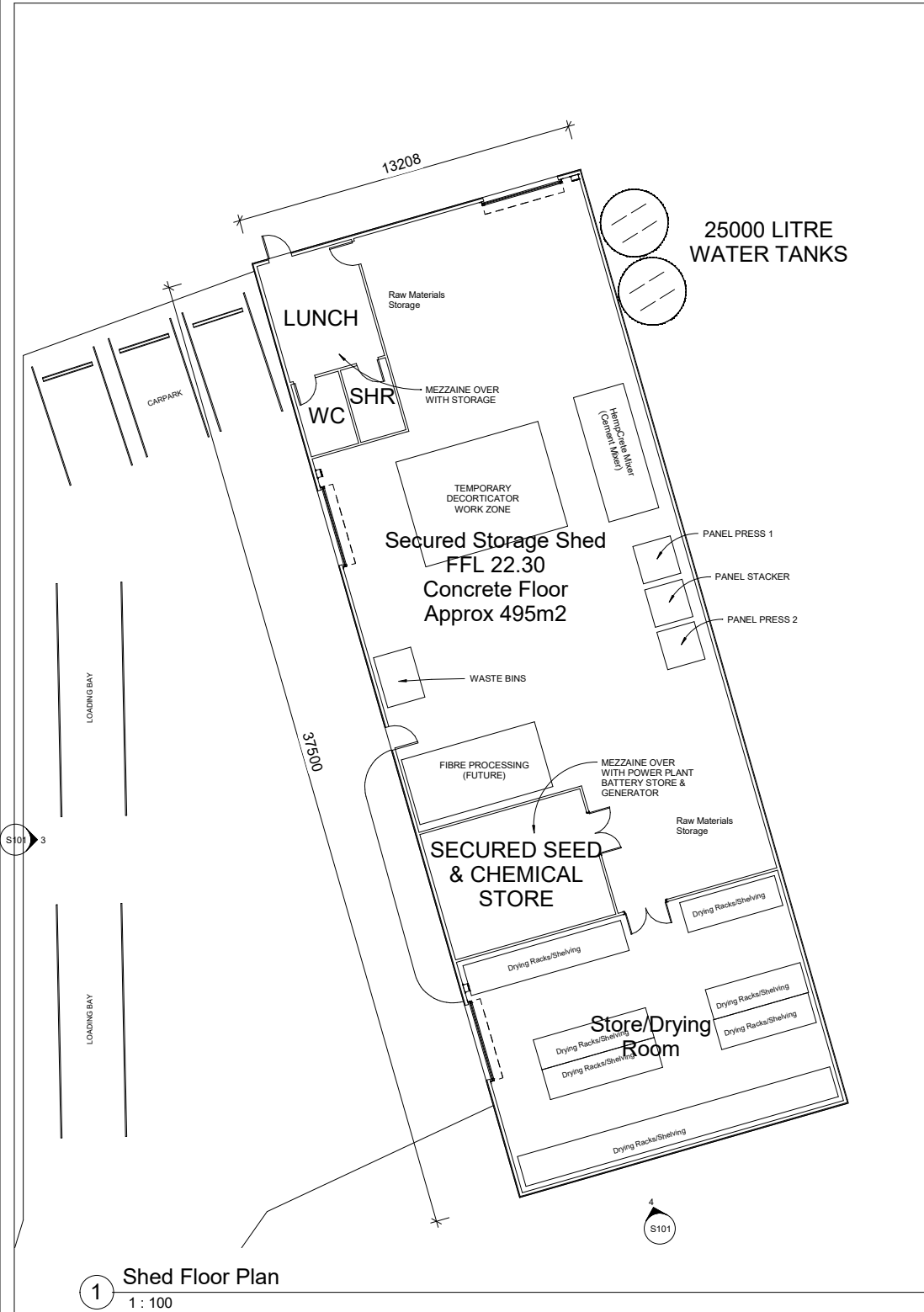
Phone: 0400 988 255
E-mail: andrewlittle77@live.com

A & R Little Property Investments Pty Ltd
Baw Baw Views
565 Murray Road Vervale

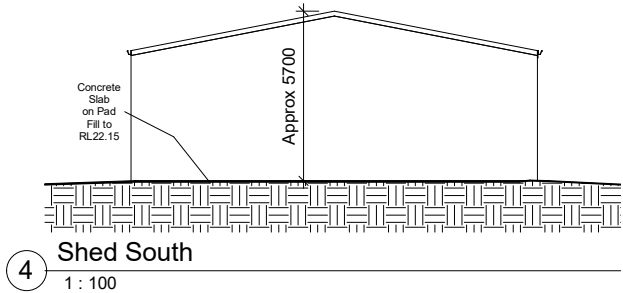
Transport Plan & Section

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Date	21/11/19	
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Checked by	Checker	
Scale		1 : 100

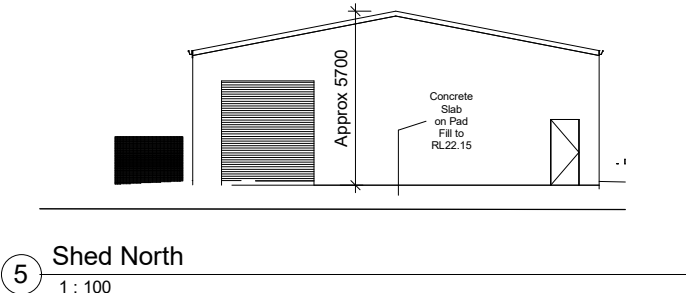
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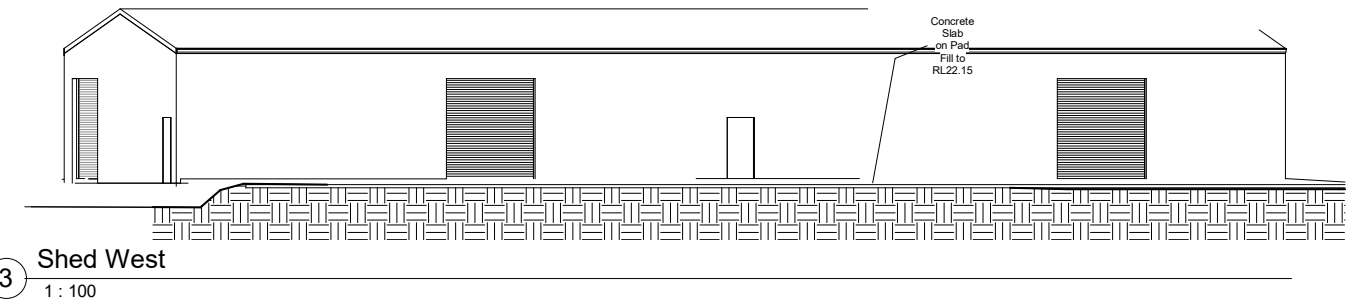
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1 : 100



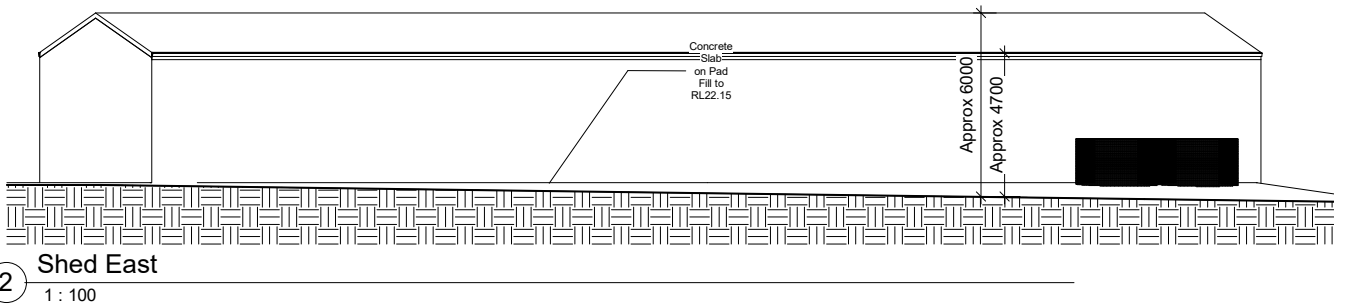
4 Shed South
1 : 100



5 Shed North
1 : 100



3 Shed West
1 : 100



2 Shed East
1 : 100



Builder/Designer: ADL Home Building & Construction
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A & R Little Property Investments Pty Ltd
Baw Baw Views

Shed		
Project number	ADL1906	S101
Date	21/11/19	
Drawn by	ADL	
Checked by	ADL	
Scale		1 : 100

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1 3D Street View



2 3D Internal View



Builder/Designer: ADL Home Building & Constructions
Practitioner: Andrew Little DB-U 43766
Address: PO Box 4179 Narre Warren South VIC 3805

Phone: 0400 988 255
E-mail: andrewlittle77@live.com

A & R Little Property Investments
Pty Ltd

Baw Baw Views

Overall Site 3D

Project number	ADL1906	S3d
Date	21/11/19	
Drawn by	Author	
Checked by	Checker	Scale

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Farm Management Plan

"Baw Baw Views"
565 Murray Road
Vervale

Report Prepared by
Dean Suckling
Enprove Pty Ltd

Report Date:
26th September 2020



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Plan Objective:

This Farm Management Plan is drawn to provide an assessment and value of the current agricultural activities and identify future improvements that will benefit the agricultural production values of the property and identify benefits of the proposed caretakers house at 565 Murray Road, Vervale.

This plan is for establishment and management of 6.5 hectares of irrigated hemp crop and the establishment and management mixed fruit production. The property is currently unused and doesn't appear to have had a dedicated agricultural use for some time.

Property Details:

Proponent:	Andrew Little
Property Address	565 Murray Road Vervale 3814
Property Description(s)	Allotment 17 Section N Parish of Koo-Wee-Rup
Zoning / Overlays	Special Use Zone Special Use Zone – Schedule 1 Land Subject to Inundation Overlay Land Subject to Inundation Overlay Schedule 1 Designated Bushfire Prone Area
Area	8.16 Hectares
Local Authority	Cardinia
Current Use	Vacant

Proposal Overview:

This proposal calls for the introduction of 6.5 hectares of hemp production. Hemp is a fast-growing plant, and two crops will be produced each year, under the right seasonal conditions a third crop will be produced.

This is a sector that is seeing a significant increase in interest and increasing diversity of use for the final products. This site is particularly exciting in that the product is to be used for the manufacture of hempcrete on the property as well. It is a building product that is considered carbon negative.

Hemp is a crop known for the ability to rejuvenate soils, it is a hardy, robust plant with the product being considered an environmentally sensitive one. Hemp is a plant known for its ability to sequester carbon into soils and byproducts can be used for bio-energy production.

The proposal land is 8.2 hectares and will have an effective cropping area of about 6.5 hectares. The property appears to have been used for the adhoc grazing and various crop raisings the past. It is currently sitting vacant pending direction. The property has fair soil quality, has few modern agricultural grasses and has no infrastructure.

The proponents are ambitious people and also want to maximise the use of the land, areas have been identified that can produce passionfruits and avocados on the property in the area assigned to the shedding and the caretakers house.

In the current condition, the pastoral production is estimated to be 2 tonnes of plant dry matter per annum per hectare (about 5 tonnes of hay). Notional agricultural production value of \$16,000 per annum could be assigned to the current production.

After the initial development period, the hemp activity is expected to produce up to 195 tonnes of hemp hurd, fibre and seed for sale and for processing at the site for hempcrete. It will also produce several tonnes of fruit. The indicative returns for the agriculture alone are expected to be \$195,000.

Siting a caretakers house on the property means that the property can be improved confidently, knowing that those improvements can be effectively utilised to increase production value. Crops can be constantly monitored for growth, pest issues, weather and irrigation requirements.

The development of the agriculture calls for the investment in agriculture of over \$20, 000, the improvement of soils to a productive agricultural level and the investment of a caretakers house and shedding.

The proposal is seen as a great example of high quality, high returning agricultural use of a small agricultural lot contained within the Special Use Zone which appears to be set aside for this type of use.

Justifications for a caretakers residence:

The justifications for a caretakers house on a small lot farm are the same as justifications for a big or any farm. The management times can be similar:

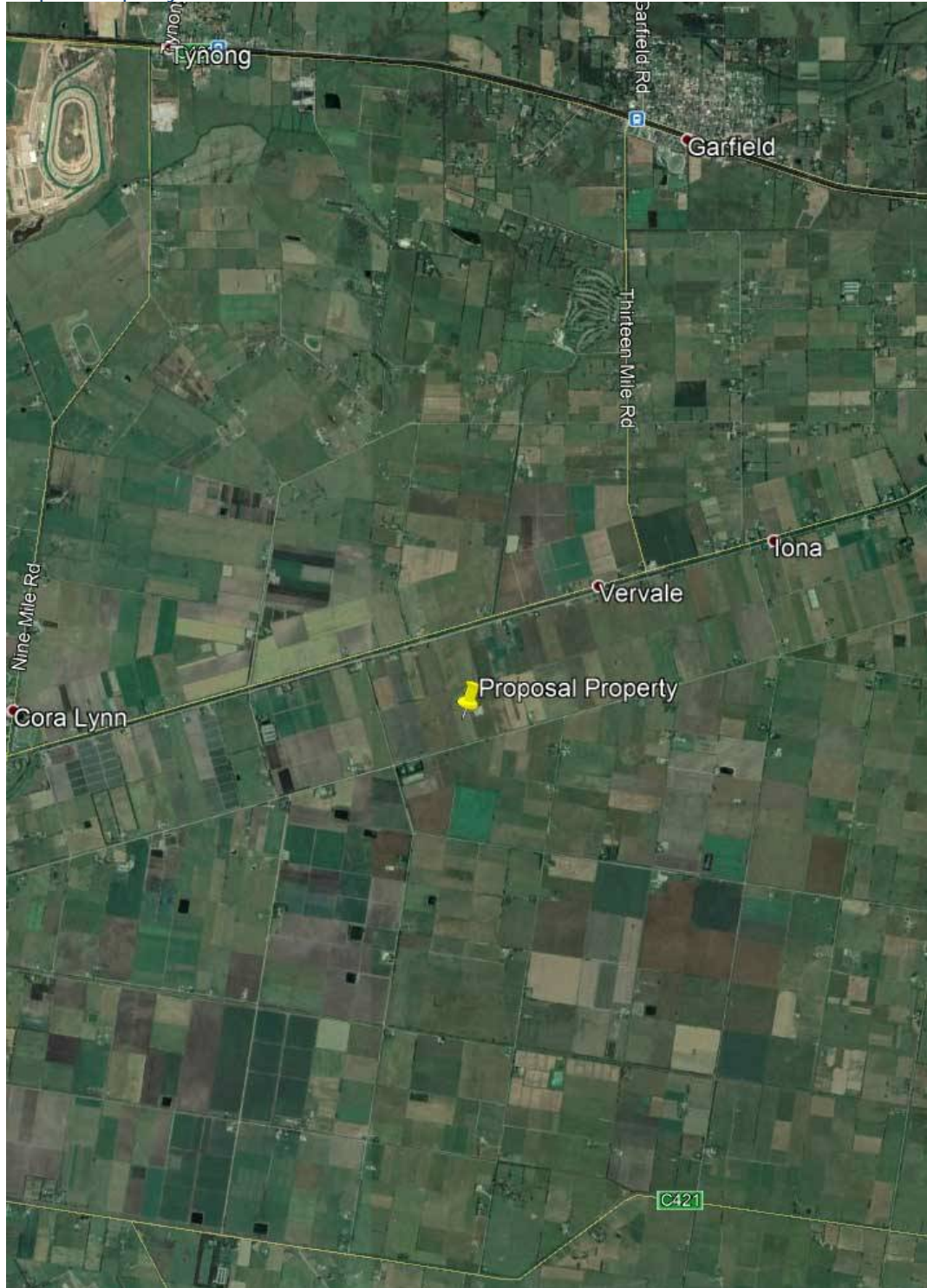
- Bio-security: New nationally mandated bio-security requirements mean all visitors, vehicles and new animals to the property need to be screened and, if necessary, disinfected. This needs to be monitored constantly.
- Crop security: This type of crop can be vulnerable to theft by those who don't understand it.
- Monitor Crops: (typical daily routine) check water, check for pests, check for fungus, check supports, check the fruit.
- Monitor and react to weather: Heat, frost, hail and wind can play havoc and responding quickly with a management decision can save a crop or at least minimise losses.
- Security and prevention of theft of equipment
- Agricultural Improvement: Remotely operated farms are always undermanaged as the above tasks cannot be completed promptly. This level of activity is near impossible to manage remotely, in winter when it's dark more than 12 hours a day, that means this monitoring will not occur for most of the time.
- Wildfire risk prevention and response: In the advent of wildfire, a resident in a caretakers house will be more responsive, conditions can be monitored, fire mitigation procedures implemented, and maybe even fires fought.
- Managing hemp is time-consuming: Time is best spent farming, not travelling.
- Irrigation of the hemp will take 6 hours and occurs every few days. The irrigator will need to be moved between the rows, and this will need to be monitored.

A caretakers house on a farm is a lot more than a place where people reside, it is the centre of an agricultural business. It is the administrative centre, office, meeting room, first aid shed, pharmacy, security and bio-security checkpoint, tea room and monitoring post for a 24 hour a day, 365 days a year business.

Running a farm requires many hours, more than an average working week, and there will never be a single day where a farm activity does not occur. It's not 9-5. Christmas Day, Easter, public holidays, weekends are not respite days, maybe less work, but never no work. It doesn't shut off when the house door is closed, the book work commences, BAS, Department of Agriculture Compliance forms, invoicing, emails, phone calls, banks, marketing, maybe even eating. Successful farming is relentless, inside and outside the house.

Site Location and Property Maps:

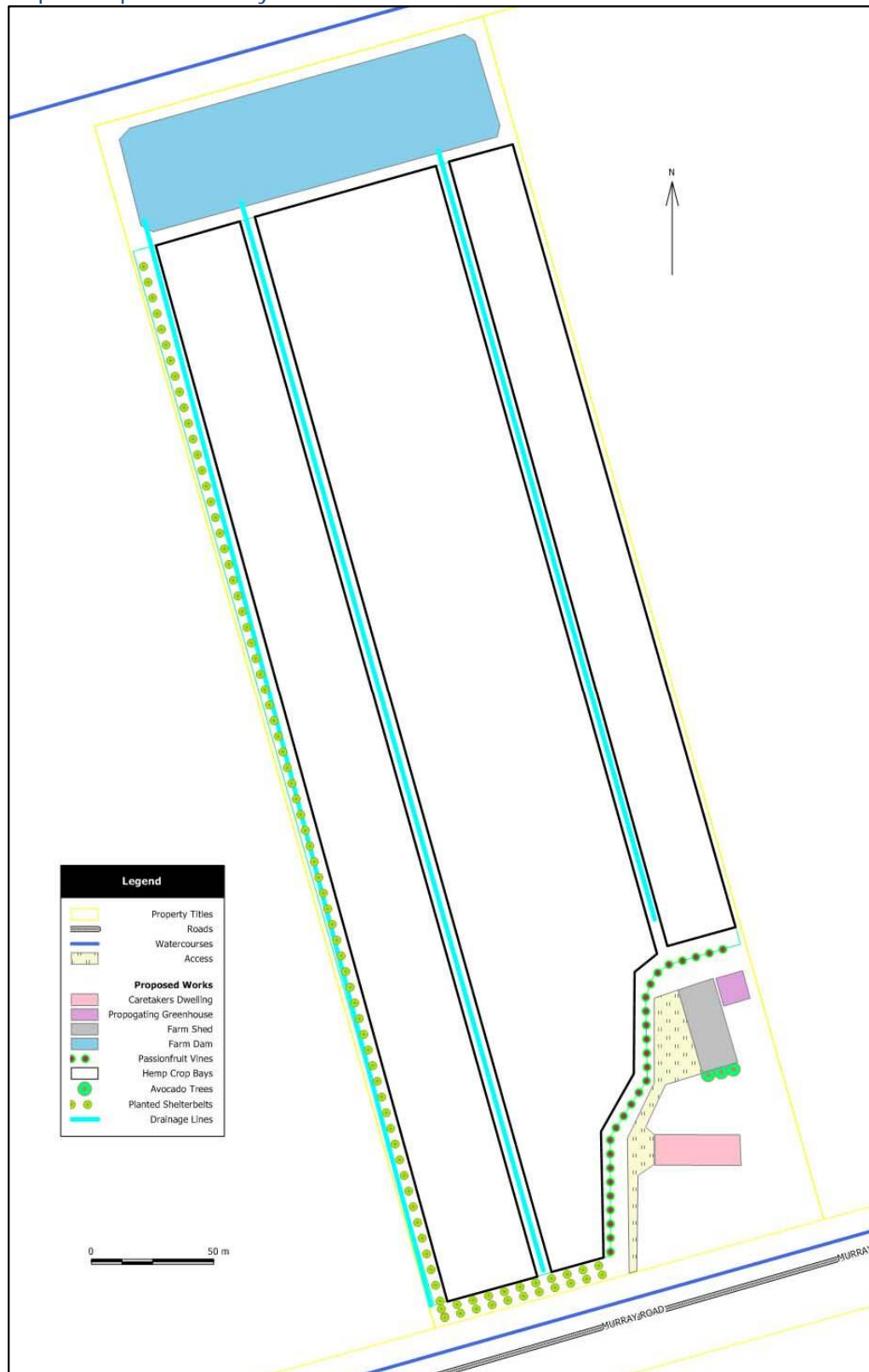
Map 1: Property Location:



Map 2: Proposed Site Map



Map 4: Proposed Site Layout



Map 5: Property Dimensions



Source: <http://mapshare.maps.vic.gov.au>

Farming Factors:

Site Topography:

The topography at the property is essentially level with an indicated elevation change of about 1 metre from the southern end of the property to the northern end. There are no marked topological features on the site. The north and south boundaries are abutted by channelised waterways.

Climate:

Vervale climate statistics:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Mean Max (°C)	25.6	25.7	23.6	20.0	16.5	14.0	13.4	14.5	16.6	19.1	21.2	23.7	19.5
Mean Min (°C)	13.6	14.0	12.5	10.3	8.5	6.7	6.2	6.4	7.7	8.8	10.4	11.9	9.8
Mean Rain (mm)	59.7	50.8	59.8	68.1	74.0	71.4	72.4	81.5	91.0	88.4	83.8	75.5	896.5
Median Rain (mm)	57.7	39.9	52.8	68.0	78.1	66.2	66.3	74.4	85.8	82.6	82.2	69.1	887.6
Mean Rain Days	6.4	5.4	6.7	8.4	10.8	11.6	13.0	13.2	12.5	10.4	9.0	7.4	114.8

Data: BOM 086375 Cranbourne, Rainfall BOM 85208 Longwarry (Gooneparoo)

The climate is the typical Mediterranean type of warm drier summers and cool, wet winters. Rainfall is remarkably consistent across the seasons. The climate is excellent for the chosen agricultural activity falling well in the recommended growing conditions.

Water Supply:

The property has a planning permit for the construction of a 24 megalitres dam to hold water for the irrigation of the crop and a new collector drain network is to be installed to ensure this is full each season. The hemp crops themselves will require 4 megalitres per hectare for completion (26 megalitres in total), so irrigation will be required in January, February and March in average rainfall years (1-1.5 megalitres irrigation per hectare per month). Rainfall will keep up with the requirements in other months.

The house and the shed will have new water tanks installed to collect rainwater from those roofs, and this will store about 100,000 litres. There will be over 700,000 litres available for harvest in an annual rainfall year from these roofs.

Weed and Pest Management:

The property is generally well maintained but does have some creeping noxious weed issues. Many smaller blackberry plants are establishing in the paddocks, but few established thickets. The crop planting program will eliminate most of these plants, but paddocks could be sprayed with a woody weed herbicide like Garlon or Brush-off.

The property will be subject to agricultural weeds like thistles, rushes (paddock reeds), flatweed and capeweed, and these will be managed as part of the farming routines.

There are no noted pest animals on the site, but rabbits do occur in the area.

Fire Management:

The land is not in a designated bushfire prone area in the planning scheme and is well separated from any major bushfire risk. Grassland fires can be of risk, but the area appears generally well managed by the agricultural uses. Regardless, the proponent is taking any risk very seriously and installing firefighting equipment at the shed and the caretakers house, including construction to relevant BAL ratings.

The land use is not seen to contribute any fire risk to the area as hemp crops are constantly managed, and green crops will act as fire breaks. Firewater supply will be available from tanks to be attached to the house and shed roofs and minimum water supply held as per recommended conditions.

The significant dam could also provide water for aerial fire fighting if required.

Soils:

The property land class is typical of the region, productive well-structured topsoil over heavy clay classed as a duplex soil. The soils may be prone to waterlogging during prolonged wet periods, particularly the lower areas. The topsoil depth is about 650 mm before clay is encountered.

A soil test was collected and analysed by others, and the results are presented below. Additional soil tests are currently being analysed to ensure the accuracy and consistency of data.

Top Soil observations (soil tests at rear):

- pH (calcium chloride) is indicating some soil acidity and will need to be corrected
- Very high phosphorus levels
- Good Potassium levels
- Fair sulphur levels (7.6 mg/Kg)
- Very good Organic Carbon levels (7.4 %)
- Trace elements are generally low excepting zinc and iron.
- Cation levels appear to be of very poor balance with an incredibly deficient exchangeable calcium level, low exchangeable magnesium and low exchangeable potassium.
- Exchangeable sodium and electrical conductivity are low, indicating no salinity issue.

Recommendations as provided by Hemp Farming Systems:

Assessment of and response to the soil analysis, and actions required to prepare the land for an industrial hemp crop

The soil analysis revealed that the field is in good condition and has an excellent soil carbon level, but adjustments to the acidity (low pH) and the over-all nutrient status are required to bring it to the comparatively high level of fertility required to support an industrial hemp biomass crop yielding up to 10 MT dry matter per ha.

Details:

pH adjustment: immediate application of lime @ 2.5 MT/Ha followed by dolomite @ 2.5 MT/ha to boost magnesium levels. Liquid pH plus will also be used to supply calcium and counter soil acidity.

Major nutrients

Nitrogen apply urea @ 100 kg/ha at least two weeks before sowing

Potassium and sulphur apply muriate of potash @ 100 kg/ha

Nitrogen and Phosphorus apply diammonium phosphate DAP @ 50-60 kg/ha

Essential micro-nutrients

Copper, manganese, molybdenum and boron (Cu, Mn, Mo, B) levels are low (iron and zinc Fe, Zn are high). The recommendation is to apply a general mix of all micronutrients as available from your supplier or specific element products (rates depending on concentration).

Other

Future crops will require plant available silica @ 25 kg/ha supplied as a specific product or as fused magnesium phosphate supplied via Vietnam (contains silica, Phosphorus, magnesium, calcium and micronutrients).

An annual soil testing program is being developed by Enprove to ensure fertility levels are adequate for best production, and a fertility management program will be established. Plant tissue testing will be conducted on crops to determine that there is adequate trace elements availability in the soil.

Crop Design:

The main crop of the property will be the hemp. The hemp variety (likely to be Yuma) to be planted here is for biomass, that is the stalk is the most important part. The main products are leaf, grain, fibre and hurd. The leaf is used in the manufacturing of bio-ethanol fuel or ploughed into the ground for carbon and soil quality. Fibre (the outer shell of the stalk): proposed to be on-sold as a raw product for use in textiles, rope making and can be used to create insulation batts as potential future use. Hurd (the inner part of the stalk) will be processed on-site to create hempcrete, an embodied carbon negative building product.

The production platform has been divided into three crop bays with a spoon drain running between each bay. This will also serve as the irrigation run for a travelling irrigator with a 40-metre throw. The drain will ensure that inundation can be managed and will collect waters for the main dam.

Mr Little has drawn a planting schedule, and that is attached at the rear. The planting and harvest times of hemp are flexible. Two or three crops will be grown each year, depending on the seasonal conditions. There will be two full-term crops, and the third crop may achieve full maturity, or it can be harvested early and is still useable. Three mature crops would occupy the ground for 9 months.

25-40 kilograms of hemp seed is planted per hectare or about 160 - 260 kilograms per crop. Seed can be planted by any standard sowing unit. The seed will also be side dressed with 250 kilograms of fertiliser per hectare (100kg Urea, 100 kg MOP, 50kg DAP) to ensure adequate fertility for emerging plants. Crops can be planted 2 weeks after harvesting the previous crop.

The crop is harvested by a finger bar mower, windrowed and transported for processing at the shed. The remaining trash is ploughed back in for soil conditioning.

Options are being explored for growing a winter crop to fill the remaining period of around 90 days, and that will be seedlings propagated in the greenhouse. Leeks and spring onions are the most suitable plantings based on successful crops in the surrounding area.

Avocadoes and passionfruit vines are to be planted to generate additional revenue. The avocadoes will occupy the sheltered position between the house and shed. The passionfruit vines will be along the fence line between the crop and the processing area. The proponent's experience shows these can generate very good income for low input.

Adverse impacts on adjacent land:

There are no caretakers houses within a 500 metres zone. As with any agriculture, hemp production will be seasonally busy, during sowing and harvesting, machinery can be active for long hours. It may be from time to time that some noise is generated but the same as any similar farming enterprise.

The proponents are keen to avoid excess herbicide use but acknowledge it will be required. Always ensure that correct spray equipment is used and do not spray on windy or high Delta-T days (high evaporation, low humidity) which could carry spray off-site.

Adverse impacts from adjacent land:

The properties within a 500-metre radius from the proposed farming are utilised for grazing animals or horticultural production. These activities are not expected to have any adverse impacts on the activity, although horticulture will use herbicides from time to time and spray drift could occur.

Infrastructure and Business Management:

Infrastructure Investment:

Currently, there is no suitable infrastructure on the property for the new hemp enterprise. The shedding, access, drainage lines, water dam and caretakers residence will need to be constructed. There are no buildings suitable for the enterprise, and they will need to be constructed.

The cropping itself does not require any infrastructure, but the irrigation system will have to be installed. The travelling irrigator is already owned, but a pump is required.

An all-weather driveway will be constructed of extracted material to the caretakers house and shed to allow access in all weather conditions. The waterway crossing will be constructed following the Melbourne Water requirements.

Staffing:

The property and farming are being developed by Mr Little and the family and initially will be run by them. The farming itself appears to be about a full-time position during hemp season. The workload will be significant at times, and contractors will be required and utilised as needed.

Opportunity Cost:

Hemp is among the highest returning soil-based agricultural activities and under the proposed cropping regime has similar returns to a fruit orchard. This would be considered high-value agriculture, and it is difficult to see many higher returning agricultures which could be established on the site.

The table on the following page demonstrates that the proposed hemp production is a very competitive use of agricultural land for return per hectare and rates well with other horticultural uses although other horticultural uses may require years of plant establishment to generate similar returns per land unit.

Indicative Agricultural Comparison Revenues:

Agricultural Activity	Indicative Revenue per Hectare \$
Fodder Production - Uncultivated, 8 rolls \$50 per roll	400
Cropping - Wheat (\$ 250 Tonne 1.74 Tonnes per ha)	435
Cropping - Canola (\$500 x 2 tonne per ha)	1000
Sheep Grow-out (MLA stocking rate) \$200 per sheep	1400
Fodder Production - Cultivated	1500
Beef Grow out (MLA stocking rate) 1.4 x 400 kg x \$3.50 kg	1950
Beef Bull Breeding	2000
Horticulture – Native Flowers	4000
Dairy - Predominantly Pasture	4500
Dairy - Supplementary Feeding (Fodders and Grains)	6000
Alpaca Breeding	10 000
Free Range Chicken – Meat (1500 Birds x \$3.50 x 3 cohorts)	12 600
Calf Rearing – Beef (3 cohorts annually)	15 000
Equine Breeding (extremely variable) - Thoroughbreds	15 000
Hemp Production (2 crops per year)	22 800
Horticulture - Berries (2000 plants x 10 kgs x \$1.50/kg)	30 000
Calf Rearing – Dairy (3 cohorts annually)	30 000
Market Gardening - Brassica Greens / Asian Ingredients	30 000
Horticulture – Pinot MV6 Grapes (20 Tonnes per hectare)	32 000
Horticulture - Orchards (Apple and Pear Limited)	34 000
Hemp Production (3 crops per year)	34 200
Free Range Chickens – Eggs Mobile (average 500 birds per ha, 0.9 eggs per bird per day, 50 cents per egg)	82 125
Free Range Chickens – Eggs Static (1500 birds per ha, 0.8 eggs per bird per day, 30 cents per egg)	130 000
Fish Breeding (goldfish in tanks)	150 000
Horticulture - Roses (7000 plants X 50 Stems x \$0.50)	175 000

NB: This is an indicative income table, where possible industry values have been used; otherwise, our experience has been drawn on. This table is designed to be indicative for agricultural activities in areas with a suitable climate, soils, water supply, total available land etc. There are, of course, many variabilities which will impact production returns. It does not assess profitability. It is indicating production only, value-added marketing, farm gate sales and processing will increase the returns.

Financial Projections:

This budget assesses the agricultural production component of this diverse proposal. The hemp hurd is assumed to be sold on, but in reality, will be used for hempcrete manufacturing which increases the product value dramatically. Infrastructure and equipment purchases are excluded.

The proponents have a more comprehensive business management plan but would prefer those details are not produced in a public document.

Indicative Annual Agricultural Return (excluding caretakers house and land costs, not CPI-adjusted):

Income /Cost Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6+
Hemp Production (Average 2.5 Crops per year)	\$74,000	\$158,000	\$185,000	\$185,000	\$185,000	\$185,000
Orchard / Fruits	\$0	\$2,000	\$4,000	\$6,000	\$8,000	\$10,000
Total Revenue	\$74,000	\$160,000	\$189,000	\$191,000	\$193,000	\$195,000
Annual Cropping Costs	-\$10,000	-\$10,000	-\$10,000	-\$10,000	-\$10,000	-\$10,000
Fertiliser	-\$10,000	-\$2,500	-\$2,500	-\$2,500	-\$2,500	-\$2,500
Apportioned Rates, Insurances, Utilities	-\$7,000	-\$12,000	-\$15,000	-\$15,000	-\$15,000	-\$15,000
Infrastructure Investment / Maintenance	-\$2,000	-\$2,000	-\$2,000	-\$2,000	-\$2,000	-\$2,000
Labour / Contractors		-\$10,000	-\$15,000	-\$15,000	-\$15,000	-\$15,000
Net Return \$	\$45,000	\$123,500	\$144,500	\$146,500	\$148,500	\$150,500

Notes:

Year 1; Single hemp crop, year 2: 2 hemp crops, an assumed average of 2.5 crops per year after that Value-adding to products is planned but not accounted in this budget.

Environmentally Sensitive Areas:

Natural Resource Management:

The property is rated as fully degraded, there are no areas of native vegetation remaining. The proponents are proposing to construct shelterbelts from endemic trees, and this will at least provide some biodiversity habitat. The proposed dam will be fenced and will create further biodiversity through regenerative plantings on the banks surrounds.

The channelised waterways at the north and south are similarly degraded.

Erosion and Compaction:

The property has a low risk of erosion due to level ground, sound vegetation and excellent growing conditions for that vegetation. Water erosion is unlikely due to the relatively small collection areas, the flat landscape, and there are no high-velocity waters. There will be a minor risk of erosion when paddocks are bared before plant germination if this occurs during flash rainfall events, but any sediments will collect in the farm dam and will not enter the waterway.

Compaction of soils in the paddocks may occur during wetter periods and paddocks should be avoided during these periods. Heavy vehicle traffic should be confined to constructed tracks, particularly during wetter seasons.

Groundwater:

VVG.org.au reports that groundwater is at a depth of fewer than 5 metres and is some risk of exposure to nutrients infiltrating from the surface if good nutrient management practices are not followed. Fertiliser management should be carefully controlled to minimise the nutrient build up in the soil, and nitrogen fertiliser applied sparingly, particularly during wetter periods. Maintaining plant coverage will assist in keeping soil nutrient levels lower to further minimise any risk.

Drainage:

The property has a minor, poorly defined drainage line at the western boundary and largely relies on overland flows to the northern waterway, soil infiltration and plant uptake for water management. A major new drainage line is to be constructed at the western edge of the property to carry water to the new farm dam which is located on the land contours to maximise the collection area. Additional spoon drains are also proposed along the row spaces which will feed into the dam.

There are no run-on drainage lines from other properties, and any excess water will be discharged to the northern waterway at the existing discharge point.

I certify that all the above statements are true and correct to the best of my abilities.



Dean Suckling
Agricultural and Environmental Consultant

Attached:
Soil test results
Hemp Planting Schedule

Image 1: Drone image of property looking north over Murray Road



Image 2: property frontage on Murrays Road

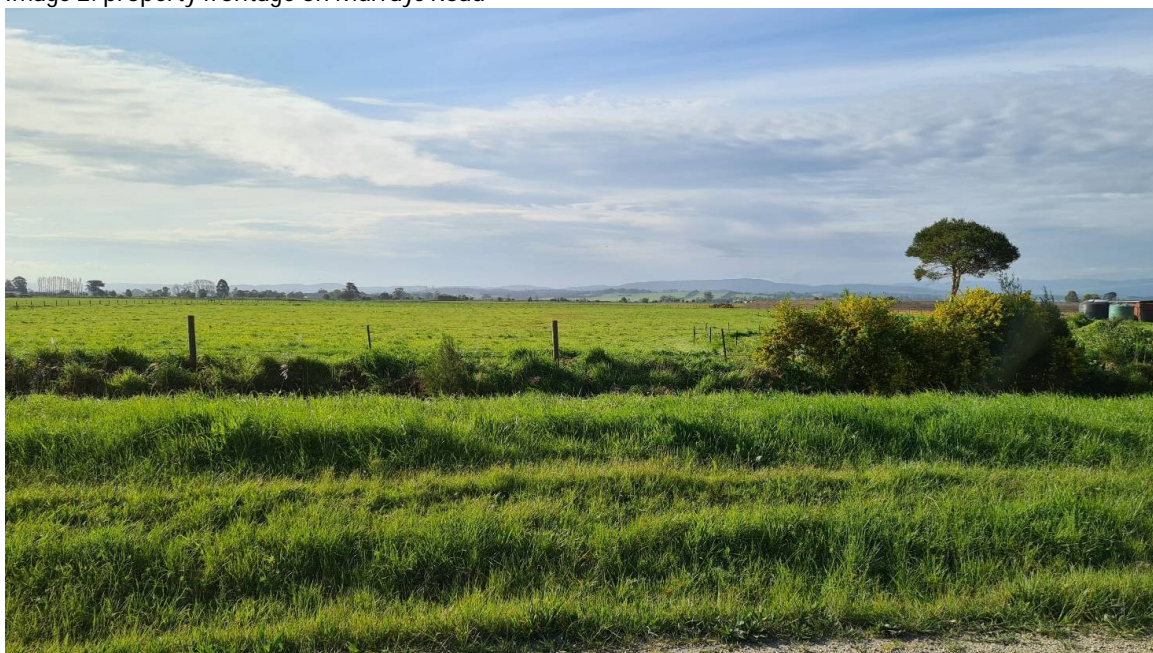


Image 3: Drone image of property looking south showing dam site in the foreground



Image 3: Channelised drainage line at front to the property



Image 5: Proposed hemp crop area




Image 6: Proposed shed, caretakers house and processing site



Image 7: Soil core of hemp crop showing excellent topsoil depth (650 mm)



Soil Test Results

Customer:	Andrew Little	
Sample Date:	5/08/2020	
Sample Name:	565 Murray Road	
Lab. No.	2008153668	
Test Type:	Soil Analysis	

Test Depth (centimetres)	0-10
Soil Colour	Black Grey
Gravel Content (%)	0
Texture	Clay

	Unit	Level Found	Target Level
Phosphorus (Olsen)	mg/Kg	92	25
Phosphorus (Colwell)	mg/Kg	91	40 - 63
Potassium Colwell	mg/Kg	255	150 - 200
Sulphur	mg/Kg	7.6	15
Organic Carbon	%	7.4	3 - 6
Organic Matter	%	12.7	5 - 12
Ammonium Nitrogen	mg/Kg	NT	
Nitrate Nitrogen	mg/Kg	NT	
Conductivity	dS/m	0.07	< 2.0
pH Level (H ₂ O)	pH	5.0	6.0 - 7.0
pH Level (CaCl ₂)	pH	4.4	5.4 - 6.4
Aluminium (CaCl ₂)	mg/Kg	NT	< 1.0
DTPA Copper	mg/Kg	1.5	1.5
DTPA Iron	mg/Kg	528	50 - 200
DTPA Manganese	mg/Kg	12	> 10
DTPA Zinc	mg/Kg	28.7	> 5.0
Boron (Hot CaCl ₂)	mg/Kg	0.4	> 1.5

Cations / Soil Structure	Unit	Level Found	Desired Levels
Cation Exchange Capacity	meq/100g	26.8	10 - 30
Exchangeable Calcium	meq/100g	3.8	
	BSP %	14.2	70 - 85
Exchangeable Magnesium	meq/100g	1.60	
	BSP %	6.0	10 - 20
Exchangeable Potassium	meq/100g	0.64	
	BSP %	2.4	3 - 8
Exchangeable Sodium	meq/100g	0.22	
	BSP %	0.8	< 5
Exchangeable Hydrogen	meq/100g	20.50	
	BSP %	76.58	< 1

EnProve Ag & Environment	0448 866 205	
www.enprove.com.au		
soil testing	agronomy	effluent management
dung beetles	consulting	farm mapping
All tests are conducted in a laboratory with ASPAC accreditation.		

A R Little Property Investments Pty Ltd
Baw Baw Views Crop Plan
 565 Murray Road Vervale

Crop Cycle & Crop Type	Comment	September	October	November	December	January	February	Month March	April	May	June	July	August	September
Conservative Crop Plan - 2 Industrial Hemp Crops														
Industrial Hemp Crop 1	Crop Size would be estimated to be 3-3.5m tall at Harvest		Planted (Early to mid October), Harvest (early Jan)											
Industrial Hemp Crop 2	Crop Size would be estimated to be 3-3.5m tall at Harvest					Planted (mid Jan), Harvest (Mid April)								
Winter Crop 1 Options are: Potatoes, Cabbage, Lettuce, Spring Onion									Planted (late April), Harvest (June-July)					
Winter Crop 2 Options are: Potatoes, Radish, Onion, Spring Onion, Lettuce												Planted (Mid July), Harvest (Mid-Late September)		
Best Case Crop Plan - 3 Industrial Hemp Crops														
Industrial Hemp Crop 1	Crop Size would be estimated to be 3-3.5m tall at Harvest		Planted (mid-late September) Harvest (Mid Dec)											
Industrial Hemp Crop 2	Crop Size would be estimated to be 3-3.5m tall at Harvest					Planted (Early Jan), Harvest (Mid-late March)								
Industrial Hemp Crop 3	Crop size would be estimated to be 2.5-3m tall at Harvest							Planted (Late March/Early April) Harvest (June)						
Winter Crop Options are: Potatoes, Radish, Onion, Spring Onion, Lettuce												Planted (June through July), Harvest (August-September)		
Worst Case Crop Plan - 1 Industrial Hemp Crops														
Industrial Hemp Crop 1	Crop size would be 4.5-5.5m at Harvest to increase yeild to reduce the loss of second crop yeild.		Planted (Mid October), Harvest (Late Jan/Feb)											
Winter Crop Options are: Potatoes, Radish, Onion, Spring Onion, Lettuce								Planted (April through July), Harvest (June through September)						
Summer/Autumn Crop Sweet Corn, Lettuce, Potatoes, Radish, Leeks							Plant (Feb) Harvest (April)							



Rural Planning and Development Consultants

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26th July 2020

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Use and development of land at 565 Murray Road Vervale for Rural industry (Hemp Processing), Caretaker's House and Education Centre

Plan-it Rural Pty Ltd has undertaken a review of application documents submitted to support the use and development of land at 565 Murray Road Vervale for Rural industry (Hemp Processing), Caretaker's House and use of the land for an Education Centre.

We were supplied with the following documents to review:

- Application to amend a current planning application in relation to application number T190712 (undated)
- Planning Report titled *CA17, 565 Murray Road Vervale* (November 2019, revised June 2020).
- Correspondence dated 25 June 2020 signed by Lucy Eastoe and Dominic Scally of Best Hooper Lawyers (Legal Opinion).
- Site Plan VER-001 dated 3 June 2020.
- Caretakers Floor Plan BB101 dated 21/11/19.
- Caretakers Elevation Plan BB102 dated 21/11/19.
- Bed and Breakfast Elevations BB103 dated 21/11/19.
- Overall Site 3D Plan S3d dated 21/11/19.
- Colour and Materials Schedule.
- Shed Floor Plan and Elevations S101 dated 21/11/19.
- Authority for Low-THC Cannabis dated 20/12/19.

We note that elevation plans for a Bed and Breakfast are included in the review package, however, we have been advised by Council that the applicants have been advised this use can only proceed in association with a dwelling. A dwelling is prohibited on a site less than 10 hectares. As such, we consider the Bed and Breakfast plans have been included in the review package in error.

Summary of Advice

Plan-it Rural Pty Ltd has undertaken a review of application documents submitted to support the use and development of land at 565 Murray Road Vervale for Rural industry (Hemp Processing), Caretaker's House and use of the land for an Education Centre. These uses are to be associated with the primary use of the land for industrial hemp production (Crop Raising).

Industrial hemp is a marketable commodity and the associated processing would be a logical value-add for the proponents. We note that industrial hemp is generally considered to be a broadacre crop and that the selection of an eight-hectare site for its production is at odds with this. However, small-scale production with value-adding can be established within peri-urban areas to take advantage of the proximity to a broad consumer base. Therefore, we do not take issue with the site selection provided there is sufficient information to ensure the proposal can be successfully implemented.

Unfortunately, we found that there was insufficient detail provided to support an informed decision.

We have reviewed the information from an agricultural perspective and consider that additional information is required, such as a detailed land management plan to establish land management outcomes; waste management; existing or proposed business connections for sales of byproducts; and logical sequencing for infrastructure development.

An anomaly of the planning system is that in rural zones, uses that require a permit must be justified based on the legitimacy of their association with agricultural uses that do not require a permit. As such, although the Agricultural Review seeks to understand the proponents' capability and the feasibility of the proposed crop raising, we acknowledge that the planning assessment largely ignores this aspect. As such, we have undertaken a Planning Review against the relevant planning controls, and planning policies.

This review found that the proposal has the potential to achieve planning policy objectives and the purposes of the zone, provided it is implemented and is sustainably managed.

The difficulty lies in the uncertainty around implementation and management due to the limited amount of information provided with the application.

The intention of the relevant zone is that the primary use of the land must be soil-based agriculture and that rural -residential use must be avoided. The achievement of this outcome relies on the ability to enforce the removal of the caretaker's house if the primary use (crop raising) ceases, as is the intention of the zone. It is recommended that revised dwelling plans should be requested that demonstrate that the dwelling can be easily removed. The S173 Agreement that is required by Clause 2.0 of the zone schedule should also secure the ongoing operation of the site in accordance with a Farm Management Plan. An example of such a condition is provided at pages 10-11 of the report.

The rural industry use is prohibited under the zone if the area it occupies exceeds 500 sqm. The information provided with the application does not make it possible to establish that this condition has been met. In addition, little operational detail has been provided to assess the proposed use. The same could be said of the Education Centre use which we recommend should undertake assessment as a separate use rather than being considered "ancillary." In any event, its association with the primary use of the land (crop raising) has not been established. It appears to be more strongly associated with the rural industry use.

Table 1 provides a summary of additional information we consider would be required to make an informed decision (please refer to the body of the review for full detail):

Table 1: Incomplete and missing information in relation to 565 Murray Road Vervale		
<i>Proposed use</i>	<i>Output</i>	<i>Might include but would not be limited to:</i>
<i>Crop Raising</i>	<i>Detailed land management plan to establish land management outcomes</i>	<ul style="list-style-type: none"> • Machinery requirements, soil testing and preparation, tillage or no tillage, any tree plantings • Waste management • Existing or proposed business connections for sales of byproducts • Logical sequencing for infrastructure development. • Security infrastructure.
<i>Caretaker's House</i>	<i>Revised Plans</i>	<ul style="list-style-type: none"> • Site Plan that spatially defines the area of land to be occupied by the use • Development Plans that demonstrate the dwelling can be easily removed or demolished.
<i>Rural industry</i>	<i>Additional detail in planning report:</i>	<ul style="list-style-type: none"> • traffic management, loading bays and car parking; • waste management, including storage and collection; • staffing and potential customer numbers; and • hours of operation, noise, and emissions.
	<i>Revised Plans</i>	<ul style="list-style-type: none"> • Site Plan that spatially defines and labels the area of land and the shed to be occupied by the use. • Schedule with total area occupied by each use on the site plan. • Fully dimensioned plans, including elevations. • Was car parking intended to be reduced to zero?
<i>Reduction of car parking requirement associated with Rural Industry to zero (if applicable)</i>	<i>Car Parking Demand Assessment</i>	<i>Revisions to the Planning Report.</i>
<i>Education Centre</i>	<i>Revised Plans</i>	<i>Site Plan that spatially defines and labels the area of land and the shed/caretakers house to be occupied by the use.</i>
	<i>Additional detail in planning report</i>	<i>Clarification on whether the training focuses on hemp processing or hemp production.</i>
<i>Potential permit triggers – buildings and works.</i>	<i>Additional detail in planning report</i>	<i>Contingent upon dam construction and height of the shed</i>

Agricultural Review

A thorough agricultural assessment of the proposal would require sufficient information to support the proponents' capability and the feasibility of the site for the proposed soil-based use and associated processing. Given the intent of the planning controls for the site, an assessment of the proposal should provide reasonable confidence that the proposal will be implemented.

This review relies on the contents of the Planning Report, Site Plan and Shed Plans and Elevations. We understand that we have been supplied with the full submission. As such, it is presumed the submission did not include a Whole Farm Plan or a Business Plan.

Industrial hemp is a marketable commodity and the associated processing would be a logical value-add for the proponents. We note that industrial hemp is generally considered to be a broadacre crop and that the selection of an eight-hectare site for its production is at odds with this. However, small-scale production with value-adding can be established within peri-urban areas to take advantage of the proximity to a broad consumer base. Therefore, we do not take issue with the site selection provided there is sufficient information to ensure the proposal can be successfully implemented.

Unfortunately, the application falls short with respect to the detail required to assess both capability and feasibility. Additional information will be required, such as a detailed land management plan to establish land management outcomes; waste management; existing or proposed business connections for sales of byproducts; and logical sequencing for infrastructure development.

This recommendation is based on the following shortcomings in the current submission:

Capability

With respect to the capability of the proponents, no information has been provided in relation to previous experience in cropping production, hemp farming or farming in general. There is no evidence of the proponents having a track record in product development for hempcrete.

Feasibility

With respect to feasibility, there is no detail on how the farming would be undertaken. This might include machinery requirements, soil testing and preparation, tillage or no tillage, any tree plantings or other land management considerations. There is no information on fertilizer or soil management requirements to support productivity.

Whilst there are figures relating to proposed productivity and profit from each product from the site, it is not clear how the figures were derived. For example, has there been a trial plot established on the site to determine potential yield? If not, how were the figures on productivity derived? The Planning Report mentions other food crops (carrots and potatoes) might be rotated on the site but there is no mention of whether an analysis has been undertaken to ensure the site can support these crops and whether other machinery requirements might arise from the production of alternative commodities.

Options for crop irrigation are not mentioned. Plan-it Rural has contacted Southern Rural Water and established the site is not within an irrigation district, as this was not addressed in the Planning Report. Plan-it Rural has established there are existing bores on properties in the vicinity of the subject site but the suitability of the groundwater in the area for specific crops would need to be further investigated. This is not addressed in the Planning Report. The 'storage' dam that is referred to at page 5 is not indicated on the site plan. Whilst dryland techniques might achieve adequate production for hemp, potatoes and carrots, there is no evidence that this has been considered as part of due diligence for the proposal.

Hempcrete Manufacture

With respect to the proposed rural industry, there is no detail on machinery requirements for processing, or whether three phase power is required or is available to the site. There is no information on the waste output of the manufacturing process and how it will be managed, or whether there is opportunity for waste products to be recycled/reused on site. There is no information on sales and marketing, and where additional products (fibre, seed) will be sold.

We note that the Planning Report refers to 'leaf' as a possible product. The authority from Department of Jobs, Precincts and Regions appears to prohibit this.

Crop Security

Given the nature of the product, details of crop security would appear to be important but have not been addressed in the Planning Report. For example, there is no indication of the type of fencing which would be required. It is also likely that there would be a need for signage that confirms licencing and that the crop is low-THC.

Planning Controls

The subject site is located approximately 633 metres east of the intersection between Murray Road and Dessent Road. We rely on the submitted Planning Report for an indication of the size of the lot, which is stated to be 8.09 hectares. The site is zoned Special Use Schedule 1 (Horticultural Preservation), is affected by the Land Subject to Inundation Overlay, and is in a Bushfire Prone Area.

Murray Drain runs along the northern boundary of the site. According to the submitted Planning Report, the site is not currently used for farming. It may be fenced but this is not clearly indicated in either the Planning Report or available aerial imagery. There is no other development on the site.

Permit Triggers

The *Special Use Zone Schedule 1 (Horticultural Preservation)* seeks to:

- Preserve land of high agricultural quality for horticulture and other farming activities
- To discourage non-agricultural and non-soil-based uses establishing on soil of high agricultural value.
- To protect the area from the encroachment of urban and residential type development.
- To minimise the potential for conflict between residents and normal farming practices that are related to the conduct of agricultural activities.
- To encourage sustainable farming activities based on whole farm and catchment planning principles on an individual and community basis.

The requirements and effects of this control in the context of the proposed uses are as follows:

- Agriculture (Crop raising) is a Section 1 use and does not trigger a planning permit.
- Rural Industry (Processing of Hemp) is a Section 2 use and includes the condition, "the gross floor area of all buildings associated with the use must not exceed 500 square metres". If this condition is not met, the use is prohibited. The proposed shed containing the rural industry is 495 square metres in area, but the area to be used for rural industry has not been identified.
- The use of the land for rural industry incurs a car parking requirement pursuant to Clause 52.06-5 of the Cardinia Planning Scheme. Rural Industry is not included in table listing car parking requirements. However, Rural Industry is a land use nested within Industry in the planning scheme. The car parking requirements for 'Industry' are 2.9 spaces per 100 sqm net floor area.

The site plan has not assigned any area to car parking. If there is no car parking being provided, this is an additional permit trigger and requires a Car Parking Demand Assessment. This has not been included in the Planning Report.

- Education Centre is not listed in Sections 1, 2 or 3 of the Table of Uses within the Schedule. However, at the head provision, Section 2 includes any use not in Section 1 or 3. As such, it is not clear why the use of the land for a 'training programme' use should not be assessed separately as part of the planning permission sought. The submitted legal opinion states that the use would be ancillary to the primary use, which is crop raising (or, at least, this must be the primary use for the proposal to achieve compliance with the applicable planning controls). However, none of the target participants are prospective hemp producers. The training would appear to be targeting users and prospective purchasers of the processed hempcrete – building professionals, architects, and homeowners. As such, the training programme is more closely aligned with the proposed rural industry. Either way, its scale would need to be managed to ensure the Education Centre does not become the primary activity in a zone which has soil-based agriculture as its primary purpose and seeks to discourage non-agricultural and non-soil based uses.
- Caretaker's House, which is a Section 2 use and includes the conditions:
 - Must be the only caretaker's house on the lot.
 - Must meet the requirements of Clause 2 of this schedule, which states that if the use is a caretaker's house ... an agreement must be entered into under Section 173 of the Act requiring the house or unit to be removed or demolished if the use ceases. This clause is awkwardly worded, but the intent would appear to be that a caretaker's house would be demolished or removed if the use for which it has a supervisory role were to cease.

As such, we consider the permit triggers under the zone are:

- Rural industry, and associated buildings and works;
- Reduction in car parking requirements relating to Rural Industry to zero;
- Caretaker's House and associated buildings and works; and
- Education Centre (training programme).

There are potential permit triggers below, that cannot be confirmed due to lack of information:

- Clause 4.0 of Schedule 1 to the Special Use Zone includes the following additional triggers for a permit for buildings and works:
 - A building which exceeds 7 metres in height. We note that the shed elevations do not specify the height. This detail would need to be established to ascertain whether this is an additional permit trigger.
 - Excavation or land fill works which are more than 1 metre in depth or height. The Planning Report mentions the possibility of building a dam, however this is not detailed on the site plan. The applicant should be advised that earthworks for a dam may trigger a planning permit.

The *Land Subject to Inundation Overlay* also affects the site. It includes the following purposes:

- To identify land in a flood storage or flood fringe area affected by the 1 in 100-year flood or any other area determined by the floodplain management authority.
- To ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity.

- To protect water quality in accordance with the provisions of relevant State Environment Protection Policies, particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria).
- To ensure that development maintains or improves river and wetland health, waterway protection and flood plain health.

The requirements and effects of this control in the context of the proposed development follows:

The Land Subject to Inundation Overlay (LSIO) triggers a permit for buildings and works, other than those exemptions listed in the Land Subject to Inundation Overlay Schedule. These exemptions indicate that the construction of the shed would not trigger a planning permit under the LSIO provided it is constructed with dirt or concrete floors and the floor levels are a defined distance above the flood level.

The Planning Report indicates that all buildings will be provided with timber floors and further states that all Melbourne Water requirements have been met. This is said to be detailed in Appendix 3 of the Planning Report which does not appear to have been supplied for review.

Based on the information supplied in the Planning Report and the associated plans, the proposed development of a shed for Rural Industry and an Education Centre, and a Caretaker's House will trigger a planning permit under the LSIO.

Planning Policy Context

The assessment of the application must consider the Planning Policy Framework, as follows:

State Planning Policies:

Clause 11.01-R Green Wedge Areas

Clause 11.03-S Peri-urban Areas

Clause 14 Natural Resource Management

Clause 14.01-1S Protection of Agricultural Land

Clause 14.01-2S Sustainable Agricultural Land Use

The above policies encourage the retention and sustainable management of agricultural land for productive purposes, including agribusiness activities and food production. The state policies broadly counsel against dispersed settlement, including the loss of identified agricultural production areas to residential uses. These intentions are strongly reflected in the purposes of the Special Use Zone Schedule 1, listed in the permit triggers section above.

Local Planning Policies:

Clause 21.04-2 (Agriculture)

This clause provides local content to support Clause 14.01 (Agriculture) above. The objective of the clause is to maintain agriculture as a strong and sustainable economic activity within the municipality. Key issues include:

- Maintaining and protecting high value agricultural land within the municipality
- Protecting productive agricultural land from incompatible uses and inappropriate development and subdivision, including non-soil-based farming on lands with high soil quality

- Accessing sustainable water supplies for agricultural activities
- Recognising the impact of intensive farming on surrounding uses.

Relevant strategies to achieve the objective are:

- Protect agricultural land, particularly areas of high quality soils, from the intrusion of urban uses, inappropriate development and fragmentation which would lead to a reduction in agricultural viability, the erosion of the right of farmers to farm land, and ultimately the loss of land from agricultural production.
- Encourage the establishment of alternative and innovative agricultural activities such as herb farming or small nurseries, particularly in areas where fragmented lot sizes limit opportunities for broadacre agricultural activities.
- Encourage the establishment of value-added industries to process local agricultural produce.
- Encourage the establishment of economically and environmentally sustainable farming practices.

Response:

The proposal has the potential to achieve the objectives listed above, provided it is implemented and sustainably managed. It represents an alternative agricultural activity that can be augmented with on-site processing and related activities, provided that the scale of associated uses is managed to ensure the site's primary use remains crop raising. Recommendations to establish the scale and management of the use are provided in the Planning Review section of the report.

Clause 22.05 (Western Port Green Wedge Policy)

This clause applies to the Western Port Green Wedge, including the subject land. The clause seeks to provide guidance and clear direction for preferred land uses within identified Green Wedge precincts, one of which is the Horticultural Preservation Area at Precinct 1, within Special Use Zone Schedule 1.

The elements of the Precinct Vision which directly relate to the proposed uses on the subject site are:

Precinct 1 will be the hub of agriculture, horticulture, and soil-based food production within the Cardinia Western Port Green Wedge, taking advantage of its highly versatile soils...

Land within the SUZ1 part of the precinct will be prioritised for soil-based agricultural and horticultural use and soil-based food production with a focus on the consolidation of lots to support the economic viability of the agricultural and horticultural industry...

Opportunities for new, innovative, or more intensive agriculture and horticulture and soil-based food will be supported to ensure that the rich agricultural potential of the precinct is realised...

It will integrate biodiversity and agricultural outcomes by recognising ecosystem services which can improve agricultural efficiency...

Opportunities for linking the community with the local agricultural and horticultural industry will be identified and promoted...

The future directions/preferred land uses that directly relate to the proposed uses on the subject site are:

- Soil-based agriculture [is] to be the primary activity within the Special Use Zone – Schedule 1.

- Discourage the use of non-soil-based agriculture (e.g. poultry farms, animal husbandry, horse riding schools etc) being located on soils within the Special Use Zone – Schedule 1.
- Support rural industry to allow farmers to value add to their produce.
- Support subsidiary visitor related activity, including farm gate sales of crops and goods produced in situ, cellar door sales and ancillary farm stay accommodation.

Response:

As was mentioned in relation to the previous clause, the proposal has the potential to achieve the objectives listed above, provided it is implemented and sustainably managed.

The intent within the vision of the precinct - to see the consolidation of lots - is supported to some extent by zone provisions which prohibit a dwelling on a lot less than ten hectares and which seek to ensure that the provision of a caretaker's houses does not become a de facto residential use. The concern with the proposal, as submitted, is that the plans for the caretaker's house do not appear to support ease in removal or demolition. The plans should be revised to demonstrate how this would be achieved if crop raising ceases to be the primary activity on the land.

Whilst the policy intent is that rural industry be supported to allow farmers to value add, the zone provisions clearly seek to manage the scale of such uses by limiting the area occupied by rural industry to 500 square metres. Currently, the proposal does not clearly delineate the area of land /within the shed to be assigned to the rural industry use. The minimal detail relating to the internal layout of the shed indicates that it may be intended to be partly used for a rural store. Additional detail is required to ensure that truck deliveries, loading and unloading, processing, storage, waste management, staff facilities and car parking (if any) can be contained within 500 sqm.

The areas given to the education centre use should also be shown on the site plan and within buildings. This use needs to be carefully managed to ensure that it maintains a supportive role for the rural industry and does not evolve into a sales office.

It is noted that the vision for Precinct 1 seeks to encourage the integration of ecosystem services and biodiversity with agriculture. This is becoming critically important with the unsustainable decline of pollinators and the enhancement of biodiversity has a well-accepted role in agriculture. This intent is also supported by one of the purposes of the zone: *To encourage sustainable farming activities based on whole farm and catchment planning principles on an individual and community basis.* As was mentioned in the Agricultural Review earlier in the report, the proposal provides no information on sustainable land management techniques, which would include the enhancement of biodiversity.

Planning Review

An anomaly of the planning system is that in rural zones, uses that require a permit must be justified based on the legitimacy of their association with agricultural uses that do not require a permit. As such, although the Agricultural Review earlier in the report seeks to understand the proponents' capability and the feasibility of the proposed crop raising, we acknowledge that the planning assessment largely ignores this aspect.

Rather, the focus must be on the use and development for which planning permission is being sought. In some respects, this makes it possible for the applicants to demonstrate the merits of the enterprise, provided they can supply critical information required to accurately assess the proposal.

We have previously noted that there may be additional permit triggers related to those activities and their associated development that are identified in the Planning Report:

- Accommodation (Caretaker's House)
- Manufacturing Processing (Rural industry)
- Training (Education centre)

There is a permit trigger relating to a reduction in car parking associated with the use of the land for industry which will ultimately need to be addressed by the applicant, potentially via an amendment to the application. This permit trigger has not been considered in this review as a Car Parking Demand Assessment was not provided in the application package.

Additional permit triggers for buildings and works, and the compliance of the proposal with Melbourne Water requirements (with respect to assessment under the LSIO) cannot be considered in this review due to lack of detail in the plans and the omission of Appendix 3 from the application package.

As such, the review considers the proposal for a caretaker's house, rural industry, and an education centre. References to VCAT cases are included where relevant.

Caretaker's House

As was mentioned in the Planning Policy section of the report, the provisions of the Special Use Zone Schedule 1 provide a condition for this land use. The use must comply with Clause 2.0 of the schedule, which states that if the dwelling is characterised as a caretaker's house ... an agreement must be entered into under Section 173 of the Act requiring the house or unit to be removed or demolished if the use ceases. This clause is awkwardly worded, but the intent would appear to be that a caretaker's house would be demolished or removed if the use for which it has a supervisory role were to cease.

If this condition were not included and enforced, it is likely that the zone provisions prohibiting dwellings on lots less than ten hectares would be undermined by the simple substitution of a caretaker's house for a dwelling. This risks also undermining the purpose of the zone that seeks to protect the area from the encroachment of urban and rural residential type development.

A caretaker's house is defined in the Cardinia Planning Scheme as follows:

A dwelling on the same site as a building, operation, or plant, and occupied by a supervisor of that building, operation, or plant.

There is a clear link between the proposed crop raising and associated rural industry to be undertaken on the site, and the provision of a caretaker's house to provide supervision. VCAT decisions have determined that, in establishing whether the use is bona fide, all that must be considered is whether there is a supervisory nexus between the enterprise and the caretaker's house. The case often cited in this regard is *Jablonski v Port Phillip CC* [2004] VCAT 1781 (10 September 2004). This case also established the need to ensure that, over a period, any nexus between the enterprise and the caretaker's house does not become obscured. This was done by imposing a condition that required the entering into of a S173 agreement to ensure the dwelling's association with a "caretaker" role was ongoing (similar to that required by Clause 2.0 of the SUZ1).

The above decision related to a caretaker's dwelling in an industrial zone. A consent order issued by VCAT in relation to *Doyle-Cox v Baw Baw SC* [2015] VCAT 1557 (30 September 2015), takes this further when approving a caretaker's dwelling in association with an existing dwelling and agricultural activities. A "Farm Management Plan" condition was imposed, as follows:

"Prior to the use of the caretakers dwelling commencing, a Farm Management Plan must be submitted to and approved by the Responsible Authority. This plan must include the following:

- a) Details of the farming enterprise including, but not limited to:
- I. Property information
 - II. Proposed land uses
 - III. Required resources
 - IV. Allowance for future expansion
 - V. Whole farm budget and economic viability
 - VI. Justification for the caretakers dwelling as an integral but ancillary part of the use”.

This requirement was supported by a condition requiring a S173 Agreement which ensured, amongst other matters:

- that the caretakers dwelling was occupied by the persons operating or managing the agricultural enterprise on the land; and
- that in the event that the agricultural enterprise described in the endorsed farm management plan were to cease, and there was no approved revision to the farm management plan, the caretakers dwelling must cease to be used and removed within six months.

The use of a S173 Agreement to ensure the supervisory nexus is continued was the tool approved by VCAT in the following three cases:

- Jablonski v Port Phillip CC [2004] VCAT 1781 (10 September 2004)
- Doyle-Cox v Baw Baw SC [2015] VCAT 1557 (30 September 2015)
- Campbell v Mornington Peninsula SC [2004] VCAT 1281 (5 July 2004) (re-characterised as a second dwelling).

A slightly different approach was applied in Eckersley v Yarra CC [2004] VCAT 826 (10 May 2004) where conditions were used to manage the ongoing supervisory nexus of the caretaker’s dwelling. Unusually, the permit would expire if the industrial operation ceased, and the permit was only valid for use with the registered business “Wimmera Logic”. Thus, the tribunal sought to manage a situation where accommodation other than a caretaker’s house was prohibited under the zone.

In Loughridge v Cardinia SC [2003] VCAT 108 (28 January 2003), the Tribunal upheld Council’s decision to refuse an application for a caretaker’s residence within the SUZ1, at CA7 Seven Mile Road, Nar Nar Goon. The site was 7.463 hectares in area and was used for cattle grazing. No evidence was put forward to support the applicant’s claim that once the caretaker’s house was established, the land would be used in a more intensive manner. The Tribunal took the view that the development of a dwelling on the land would encourage the notion that rural residential development was acceptable in an area clearly not intended for such use.

Overall, VCAT decisions have supported the management of concerns that the supervisory nexus be ongoing, and that there must be a mechanism for the dwelling occupation to cease and the caretaker’s house be removed if this is not the case.

In the present case, the caretaker’s house can be justified in relation to the proposed hemp production, provided it is implemented and the use is ongoing. In order to provide sufficient information to identify the nexus between the activities on the site and the requirement for a caretaker’s house, it is recommended that a farm management condition broadly in line with that approved in Doyle-Cox v Baw Baw SC be applied. This is obviously in addition to the S173 Agreement Condition required by Clause 2.0 of the SUZ1.

The Planning Report includes advice that the occupants of the caretaker's house would be the landowner/farm operator and immediate family members. The nature of farming is that its operational aspects involve the proponent (or a representative) living on site. This is for reasons of security of crops or infrastructure, and because farming is inevitably a lifestyle choice as well as a source of income. An actively pursued farm business involves long working hours and personal commitment to ensure success and to achieve responsible land stewardship. It would also be quite unusual if the landowners were a couple and only one (rather than both) was to be involved in the farm business. As such, if Council were to approve the proposal, the occupation of the caretaker's house by farm operator/s and their dependent children is likely to be inevitable.

It should be noted that section (a) vi. of the abovementioned farm management condition provides an opportunity to justify the individual family members expected to be on site. It is also recommended that the site plan be revised to define the area that would be subject to the caretaker's house use.

Whilst such a justification might be applied to the farm operators and their immediate family, we do not consider that the caretaker's house should be used to accommodate participants in the training programme. The Planning Report appears to imply that the training programme might be run as a Host Farm, given it is said to be undertaken over two days and the participants would be involved in the day to day running of the farm. Whilst "Host Farm" is not expressly stated as part of the proposal, this is also the case for other aspects of the proposal that would trigger a planning permit.

If the training programme were to be operated as a Host Farm, the supervisory nexus of the caretaker's house with soil-based agriculture would be diminished by the parallel operation of a tourism use. Tourism uses are not supported by the purposes of the zone. In the interests of clarity, it is recommended that if the application is approved, a condition be applied that prevents the caretaker's dwelling from being used for short stay accommodation.

It is important to note, also, that the hemp production at the site is authorised for a defined period of three years (according to the documentation from Department of Jobs, Precincts and Regions). This applies an even greater level of uncertainty around the ongoing use of the land, and the need to ensure that the caretaker's house can be easily removed or demolished.

Rural Industry

A change of use that introduces "industry" generates a number of information requirements which might include but would not be limited to:

- traffic management, loading bays and car parking;
- waste management, including storage and collection;
- staffing and potential customer numbers; and
- hours of operation, noise, and emissions.

The amenity expectations within the relevant zone would be low, however, in this case the information is also required to assess the scale of the operation. Unless the rural industry use can be contained within 500 sqm, it is prohibited. As such, additional information is required to accurately measure the area proposed to be occupied by the use. Site plans and floor plans should be revised to identify areas given to the different uses proposed for the site. This should support additional information such as detail on the processing requirements with respect to machinery, or the form in which raw material might be delivered (bales or hoppers)? Currently, it is not clear that the applicants have given sufficient thought to whether the operation in its various components can be feasibly operated within the proposed shed.

With respect to car parking, it is presumed that there will not be car parking provided. This is an additional permit trigger, as mentioned earlier in the report, and should form part of a revised application.

Our recommendation based on the information provided is that an assessment on the Rural industry use cannot reasonably be undertaken at this time.

Education Centre

It is acknowledged that a legal opinion has been provided that characterises the use of the land for a training programme as “Education Centre”. This is not disputed, but it is not clear why so much effort has been devoted to establishing that the use should be considered ancillary to the primary use of the site.

Education Centre appears to be a Section 2 use in the Special Use Zone Schedule 1. That is, whilst it is not listed amongst Section 1, 2 or 3 uses in Schedule 1, the head provision states that Section 2 can include uses that are not listed in Section 1 or 3. Our view would be that it is important to manage the scale of uses that purport to “support” the primary use on the site, which is crop raising. As such, it would be better to conduct a merits-based assessment of the Education Centre use in its own right rather than have it occupy ‘ancillary’ status where the appropriateness of the scale of the use becomes subject to a judgement call.

The Planning Report states that the topic of the training will be hemp production and processing and that it will take place in the shed and inside the caretaker’s house. Subsequently, the report refers to the possible income from ‘training seminars for hempcrete building.’ We note that the legal opinion lists the target participants as building professionals, architects, and homeowners which more closely reflects the latter reference from the Planning Report.

There is some doubt about whether the Education Centre could accurately be said to support the hemp production, given farmers do not appear to be amongst the target participants. As such, we recommend that the Education Centre use be assessed independently, allowing for the scale of the use to be managed.

We note that the caretaker’s house is proposed to be used to host training programmes. If the proposal is approved, the careful drafting of conditions will be required to ensure that the use of the land for a caretaker’s house remains dependent on the ongoing primary use of the site for crop raising.

Conclusion

We have reviewed application documents provided to support a planning permit application for Rural Industry, Caretaker’s House, and Education Centre. This would occur in association with the use of the land to produce industrial hemp (Crop Raising), which is an “as of right” use under the zone.

The purpose of the zone clearly seeks to ensure the primary use of the land is soil-based agriculture, whilst also seeking to protect the area from “rural-residential use”. As such, there must be a high degree of confidence that the enterprises can be implemented as described and that the approval of the proposal would not result in a dwelling being constructed and occupied whilst the crop raising fails to proceed in such a way as to represent the primary use.

Whilst the current level of information does not provide this certainty, we have provided examples where VCAT has supported caretaker houses subject to conditions. We have provided an example

where Baw Baw Shire Council received VCAT support for a consent order that conditioned the provision of similar detail to that which is currently missing from the agriculture proposal.

However, we consider that the level of information relating to the other 'supporting' uses of Rural industry and Education Centre is insufficient to make an informed decision.

As such, we recommend that the applicant be asked to amend the application to provide this detail. If the additional detail is not forthcoming, Council may have no option other than to refuse the application.



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Use and development of land at 565 Murray Road Vervale for Rural Industry and Caretaker's Dwelling

Plan-it Rural Pty Ltd has previously undertaken a review of application documents submitted to support the use and development of land at 565 Murray Road Vervale for Rural Industry (Hemp Processing) and a Caretaker's Dwelling. This would occur in association with the use of the land to produce industrial hemp (Crop Raising), which is an "as of right" use under the zone.

Council has requested a review of additional reports submitted in support of the proposed agricultural enterprise (Crop Raising). Specifically, Plan-it Rural Pty Ltd is to review the feasibility reports/crop planting schedule/soil report bookmarked in the planning submission and provide comments on the viability of this operation and whether there are any significant concerns.

This report has been prepared by Annemaree Docking, Director of Plan-it Rural. Annemaree is an Agricultural Scientist with 25 years industry and government experience. For more information, please refer to Appendix One.

We understand that we have been supplied with the full submission. As such, it is presumed the submission did not include a Whole Farm Plan or a Business Plan.

We note that the site plan has been revised to include the construction of a dam in the northern section of the lot.

Summary of Advice

Plan-it Rural Pty Ltd has undertaken a review of reports submitted to support the use of land at 565 Murray Road Vervale for industrial hemp production (Crop Raising).

We have reviewed the information from an agricultural perspective and consider that additional information is still required through a more detailed land management plan. Without this further information, it is difficult to assess the potential success of the venture. There remains an inability to establish land management and production outcomes; waste management; existing or proposed business connections for sales of products; or logical sequencing for infrastructure development demonstrated through an action or implementation plan.

We consider that the application material is deficient/sufficient in the following ways

- No climatic, geological or Ecological Vegetation Class (EVC) to inform land capability.
- Insufficient detail of crop raising risks and management.
- Insufficient detail of potential markets.
- Ambiguity in relation to yields, processing yields and accompanying potential crop business return.
- No detail of irrigation methodology or water sources, water right availability and associated costs.
- No detail of equipment requirements and access for either the farming or processing.
- No profile of the applicant to demonstrate capacity and skill to implement the proposal.

The previous review found that the proposal has the potential to achieve planning policy objectives and the purposes of the zone, provided it is well implemented and is sustainably managed. The difficulty continues to be that the calibre of information provided with the application provides no certainty around the successful implementation and management of the proposal

Feasibility

Further information has been provided via the Land Assessment by Hemp Farming Systems provided at page 38 of the submission.

Initial concerns are that there is still limited detail about the land management of both the crop production and the impact of the industrial processing on the site. There is no action or implementation plan. There is no waste management for any effluent or waste created by the processing, limited land capability information and only a high level view of the farming methodology.

Soil testing has been completed, but no other details of land capability have been included in the Land Assessment. Expected details for inclusion in a Whole Farm Plan would be:

- Soil type and geology
- Climatic data – rainfall, frost days, wind direction and speeds, average seasonal temperatures etc.
- Irrigation water availability, quality, licensing requirements and costs
- Ecological Vegetation Class (EVC)
- Proximity to logistics and markets

There is no real market analysis or detailed production figures. The figures for yield on pages 15 of the planning report and those outlined in the Land Assessment vary, with the consequence being that crop value is reduced significantly. There is no breakdown of the production figures and examples from existing operations and industry. There is no existing market linkages, network or market base. There is no real world justification for the potential return figures on page 15/16 of the planning report. Winter crops and rotational crops are mentioned, but there are no details or planning for their sale or contribution to the profitability of the operation. If their purpose is not commercial (ie. disease break) this is also not detailed.

The hemp farming and processing equipment is specialised. No details have been included of what equipment is required, if the business is planning to purchase this equipment or if relationships with contractors have been established with appropriate equipment to conduct the work to reduce the initial businesses expenses.

The Land Assessment has alluded to the need for soil profiling, raised beds or drainage works. No details of these works have been provided, their location or potential impact on water flows to the neighbouring properties.

The irrigation requirements have been outlined as approximately 1-3 ML per crop depending on rainfall (of which no data is included), but there is no discussion of how these irrigation requirements will be met or if discussions have commenced with the relevant rural water authority regarding obtaining the appropriate water right or licence for commercial horticulture, or if a water right is even currently available in this catchment. There is no outline of how this irrigation water would be applied, the associated infrastructure and pumping requirements – flood irrigation, overhead travelling irrigator, sprinklers etc?

The dam proposed is shown as 6000m² and 1.5m deep, with the annotation that it will be 40ML capacity, whereas the dam volume calculation shows the storage capacity to be only 9ML (6000m²x1.5m(d)=9000m³/1000=9ML) (<https://agriculture.vic.gov.au/farm-management/water/farm-water-solutions/how-much-water-is-in-my-dam>). There is also no topographical or catchment profiling of rainfall and run off to show that this dam capacity will ever be filled.

There is no reference in the document of any pest and disease risks for either hemp or winter crops, or their potential management.

There is no mention of the capacity of the applicant in terms of farm experience or expertise, expertise in manufacturing, sales, industry experience, connections or any other details that would show the ability of the applicant to successfully implement the proposal. This is a particularly significant omission.

Soil Report

The soil report by SWEP at page 42 of the submission shows that the soil requires some amendment for the successful production of hemp and to maximise yields. The recommended application rates of lime and dolomite are very high for a single year's application and would normally be spread over 2-3 years to protect soil biological health and maximise neutralising potential. This precaution has been included in the soil test recommendations. Application methodology has also not been detailed (surface application, cultivation, irrigation etc.) There is no long term soil management plan outlined or ongoing testing schedule. It is hard to tell if the nutrient applications proposed are annual, required with every crop rotation or if it is a one off application. There is no indication or profiling of the nutrient removed by the crop and an accompanying soil nutrient management program.

Crop Planting Schedule

The crop planting schedule by AR Little Property Investments Pty Ltd at page 47 outlines annual planting options including winter crop options. Three crop plans are outlined – Conservative, Best Case and Worst Case Crop Plans. No parameters are laid out for when or if any of the crop plans would be applied – weather conditions, manufacturing requirements etc. It does not provide any details of soil preparation, timing of cultivations for weed control or seed bed preparation, or if direct drilling can be used to minimise soil carbon loss. It provides no details of weed management and what form that will take (ie. cultivation or chemical controls; if chemicals are used, what is the timing of application, what chemicals would be used and what are their relative management requirements and impacts?) There is no discussion of the 'ideal' growing conditions for the optimal performance of the crop and how this site fits with that ideal.

Tree Planting Schedule

The tree planting schedule outlines individual tree placement, not a shelter belt planting as referred to in the plan and recommended in the Land Assessment. There is no reference to the Ecological Vegetation Class (EVC) for the area which would preferably inform the species selection. The industry standard for revegetation plantings would be 500 plants per hectare. A minimum shelterbelt width would be 10m with at least three rows of trees. There is no discussion of the shelterbelt construction (upper and middle storey species, planting density, prevalent wind direction, species percentage of composition, mortality management and replacement plantings) (<https://agriculture.vic.gov.au/farm-management/soil/erosion/effective-shelterbelt-design>).

Conclusion

We have reviewed application documents provided to support a planning permit application for Rural Industry and Caretaker's Dwelling. This would occur in association with the use of the land to produce industrial hemp (Crop Raising), which is an "as of right" use under the zone.

The purpose of the zone clearly seeks to ensure the primary use of the land is soil-based agriculture, whilst also seeking to protect the area from "rural-residential use". As such, there must be a high degree of confidence that the enterprises can be implemented as described and that the approval of the proposal would not result in a dwelling being constructed and occupied while the crop raising fails to proceed in such a way as to represent the primary use.

As such, we consider that the application material is deficient/sufficient in the following ways

- No climatic, geological or EVC to inform land capability.
- Insufficient detail of crop raising risks and management.
- Insufficient detail of potential markets.
- Ambiguity in relation to yields, processing yields and accompanying potential crop business return.
- No detail of irrigation methodology or water sources, water right availability and associated costs.
- No detail of equipment requirements and access for either the farming or processing.
- No profile of the applicant to demonstrate capacity and skill to implement the proposal.

In spite of the proposal having potential, the ambiguity and lack of detail of the application make it difficult to accurately assess the potential for the venture to succeed. It is recommended that Council may have no option other than to refuse the application.



Rural Planning and Development Consultants

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2nd November, 2020

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Use and development of land at 565 Murray Road Vervale for Rural Industry and Caretaker's Dwelling

Plan-it Rural Pty Ltd has previously undertaken a review of application documents submitted to support the use and development of land at 565 Murray Road Vervale for Rural Industry (Hemp Processing) and a Caretaker's Dwelling. This would occur in association with the use of the land to produce industrial hemp (Crop Raising), which is an "as of right" use under the zone.

Council has requested a review of additional reports submitted in support of the proposed agricultural enterprise (Crop Raising). Specifically, Plan-it Rural Pty Ltd is to review the farm management plan, business plan, climate data, tree planting information, farm equipment information and site plan bookmarked in the planning submission and provide comments on the viability of this operation and whether there are any significant concerns.

We understand that we have been supplied with the full submission.

Summary of Advice

Plan-it Rural Pty Ltd has undertaken a review of reports submitted to support the use of land at 565 Murray Road Vervale for industrial hemp production (Crop Raising).

We have reviewed the information from an agricultural perspective and consider that the additional information supplied has largely addressed the concerns regarding the application. The previous review found that the proposal has the potential to achieve planning policy objectives and the purposes of the zone, provided it is well implemented and is sustainably managed. The documents provided demonstrate this.

There are a few details still of concern, but that should be able to be readily addressed:

- Evidence of a secured water right to ensure the success of the project and viability of the business;
- Modelling of the dam catchment area to ensure the location of the dam will capture sufficient run off to provide the require irrigation water for the project;
- Waste management of any by-products or effluent resulting from Hempcrete production.

- Additional information regarding soil profiling;
- Demonstrate linkages between crop cultural compatibility and soil / climate data.

Feasibility

The Farm Management Plan demonstrates that thought has been given to the management requirements for the crop raising aspect of the project, although cultural information for hemp, avocados and passionfruit is still deficient with no clear linkages between crop cultural requirements and soil / climate data.

The Land Assessment has alluded to the need for soil profiling, raised beds or drainage works. No details of these works have been provided, their location or potential impact on water flows to the neighbouring properties.

Conclusion

We have reviewed application documents provided to support a planning permit application for Rural Industry and Caretaker's Dwelling. This would occur in association with the use of the land to produce industrial hemp (Crop Raising), which is an "as of right" use under the zone.

The purpose of the zone clearly seeks to ensure the primary use of the land is soil-based agriculture, whilst also seeking to protect the area from "rural-residential use". As such, there must be a high degree of confidence that the enterprises can be implemented as described and that the approval of the proposal would not result in a dwelling being constructed and occupied while the crop raising fails to proceed in such a way as to represent the primary use.

We consider that the application material is greatly improved and provides significant evidence of the enterprises' chances of success, with the following omissions that could be readily addressed by the applicant:

- Evidence of a secured water right to ensure the success of the project and viability of the business;
- Modelling of the dam catchment area to ensure the location of the dam will capture sufficient run off to provide the require irrigation water for the project;
- Waste management of any by-products or effluent resulting from Hempcrete production;
- Additional information regarding soil profiling;
- Demonstrate linkages between crop cultural compatibility and soil / climate data.

Given the additional information provided, as well as the discrete nature of the remaining concerns, it is recommended that Council approve the application with appropriate conditions to ensure the remaining concerns are addressed.

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Annemaree Docking

Professional Profile

I am a passionate advocate for innovative methods of land management and fostering healthy food systems, including designing and facilitating the implementation of contemporary models of farm planning, agribusiness, sustainability and economic development.

My career history shows the depth and breadth of experience I have had across industries with strong, well established links in the business, farming, food and tourism sectors. In addition to this, I have over 25 years experience in the livestock, horse, horticultural and viticultural industries and 15 years State and Local Government experience in Economic Development, Agriculture and Sustainability initiatives. I am also a mixed enterprise farmer myself, marketing produce both online and at Farmers Markets, and am actively involved in my community of local producers and consumers.

I am experienced in the successful delivery of land management and farming solutions using a holistic, systems thinking approach to problem solving and program development. As a leader and educator I design and deliver best practice programs to raise awareness, offer insights and facilitate behaviour change through the workplace and in the community.

I am undertaking my PhD researching regenerative agriculture systems with Deakin University's Centre for Regional and Rural Futures to further enhance my expertise, knowledge and networks in this field.

Career History

January 2016 – Current

Managing Director – Plan-It Rural

Kilmore, VIC

- Consultancy based in central Victoria supporting agriculture and rural businesses to manage planning and regulatory frameworks as well as encouraging the development of sustainable and regenerative, ethically sound, agriculture and permaculture food production systems.
- Go to www.planitrural.com.au for more information.

May 2018 – Current

Owner Manager – Dalhousie Farm

Kilmore, VIC

- Regenerative farming enterprise producing eggs, olive oil, vegetables and herbs, beef and providing horse agistment.

Feb, 2014 – Sept, 2018

South Morang, VIC

Agribusiness Officer – City of Whittlesea

- Established the innovative Agribusiness Program for the City of Whittlesea's Economic Development team
- Brokered the Postgraduate Industry Partnership Scholarship with Deakin University's Centre for Regional and Rural Futures. Industry Supervisor to the 3 year PhD program to deliver a comprehensive Land Capability Assessment and Agricultural Socio-Economic Analysis for the City of Whittlesea.

- Development and delivery of Agribusiness education programs and events, including attracting international and high profile speakers, such as Joel Salatin, Anthony Flaccavento and Charles Massy.
- Publishing the quarterly Rural News – new initiative. Distribution - 2000 households.
- Establishment and facilitation of the Agribusiness Community Reference Group.
- Representation on a number of peak industry and academic reference groups, including the Foodprint Melbourne project and Sustain: The Australian Food Network.
- Provision of technical expertise to all areas of Council and providing comment on behalf of Council to external consultations such as Planning Panels Victoria.
- Collaboration with Yarra Valley Water, Melbourne Polytechnic and Whittlesea Community Connections to develop the Community Farm Proposal.
- Comprehensive review of the rural municipal farm rate program and increase of farm rate discount from 15% to 40%.
- Delivery of the Farming and Rural Land Use Survey and Audit Report.
- On farm one on one business support service to rural landholders, including the development of crop reports, regulatory support and other advisory documents and extension services.

July, 2008 – Nov 2013

Broadford, VIC

Environment Officer / Sustainability Officer – Mitchell Shire Council

- Management and delivery of environmental sustainability programs.
 - Carbon management and tracking,
 - Water conservation
 - Green procurement.
- Attracting grant funding from a range of government and philanthropic sources.
- Seconded as the Wandong Recovery Centre Coordinator after the Black Saturday Fires, including managing staff and attending agencies.
- Development and implementation of the Sustainable Resource Management Strategy.
- Established and facilitated the Mitchell Shire Sustainability Taskforce.
- Established and facilitated the Mitchell Shire Building Sustainability Working Group.
- Representative on the Goulburn Broken Greenhouse Alliance Steering committee
 - ‘Watts Working Better’ regional street lighting retrofit program (14,000 lights over eight shires)
 - Local Government Sustainability Training Program.
- Mitchell Shire Representative on the South West Goulburn Landcare Steering Committee.
- Project Officer - ICLEI Energy and Emissions Data Management Project.
- Project Officer - Roadside Weed Management Program, including management of contractors.
- Project Officer - GBCMA Equine NRM Project

- Delivery of the Courses for Horses Horse Property Management Workshops
- Establishment of the Mitchell and Surrounds Equine Landcare Group
- Representative on working group for the 'Stable Waste to Soil benefit' feasibility paper.
- Project Officer - 'Don't Waste, Go Solar' Wallan Transfer Station Project.
- Project Officer - Building Audit and Resource Management Plan.

July, 2009 – April, 2010

Broadford, VIC

Bushfire Volunteer Support Project Officer

- Liaison with key voluntary organisations.
- Coordination of volunteers and recovery projects.
- Work with key stakeholders, such as government organisations, philanthropic bodies, voluntary groups, neighbouring local councils, emergency response agencies and fire affected individuals and advocacy groups.
- Establishment of volunteer coordination structures and software.
- Development and delivery of events, seminars, forums etc.
- Attracting grants and funding.
- Communications and media.

July, 2007 – July, 2008

Bendigo, VIC

Industry Development Officer – Department of Primary Industries

- Development and delivery of National Livestock Identification System (NLIS) industry education program.
- Delivery of BeefCheque and Beef Profit Partnership business development workshops programs.
- Attendance at field days and information sessions to promote the NLIS as well as related Meat and Wool team projects.
- NLIS website project team
 - Writing and publication of Agnotes
 - Content and design of webpage.
- Liaising with producers and other industry participants to promote the adoption and use of on farm technology related to NLIS (Cattle) and NLIS (Sheep).
- Acted as Communication Officer on the Equine Influenza Emergency Response Team.
- Editor of the publication 'Horse Notes'.

November, 2005 – June, 2007

Knoxfield, VIC

Market Access Project Officer – Biosecurity Victoria

- Assistance with surveillance programs, including Hazard Sites, Fruit Fly, Potato Cyst Nematode (PCN) and Phylloxera.
- Team leader of a surveillance team during the emergency response to the Phylloxera detection in the Yarra Valley.
- Contributed to the development and administration of the Bendigo/Heathcote and Grampians/Pyrenees Phylloxera Exclusion Zone development project.

- Contributed to the development of the Minerva database system.
- Development of Area Freedom Surveillance procedures for a range of targeted pests and diseases.
- Maintenance of PCN databases.
- Assistance with the administration of the QA document controls and Incident Reporting.

1995 – 2005

Victoria and NSW

Farm and Stud experience

Twenty five years experience working in a range of farming enterprises across Victoria and NSW.

- Management of staff, rosters and staff training programs.
- Client liaison and communication with various industry groups.
- Handling and starting young horses.
- Riding instruction, both children and adults.
- Care and handling of young stock, competition horses, broodmares & stallions.
- 'Foaling down' - Responsible for pre- and post-natal care of broodmares and foals – average 150-200 mares/season over five seasons.
- Veterinary Nursing.
- Preparation and escort of high value stock to Thoroughbred Yearling, Weanling and Broodmare Sales in Victoria, NSW and Queensland.
- Vineyard management.
- Milking of dairy cattle in swing over, herringbone and rotary dairy sheds.
- Assisting with the calving and general husbandry of cattle.
- Assisting with the lambing and general husbandry of sheep
- General farming tasks, including fencing, feeding, pasture and soil management, irrigation, tractor / heavy machinery work etc.

Education

- | | | |
|------|---|-------------|
| 2003 | University of Melbourne | Dookie, VIC |
| | <ul style="list-style-type: none"> ○ Bachelor of Applied Science (Agriculture) | |
| 2007 | Distance Learning Australia | |
| | <ul style="list-style-type: none"> ○ Certificate IV in Workplace Training and Assessment | |
| 2011 | Swinburne University of Technology | |
| | <ul style="list-style-type: none"> ○ Diploma of Carbon Management | |
| 2015 | Very Edible Gardens | |
| | <ul style="list-style-type: none"> ○ Permaculture Design Certificate | |
| 2017 | Deakin University Centre for Regional and Rural Futures | |
| | <ul style="list-style-type: none"> ○ Master of Science (Sustainable Regional Development)
(Incomplete. Transferred to PhD program) | |

- 2019 Deakin University Centre for Regional and Rural Futures
- PhD candidate. Climate Resilient Agriculture Project
 - Post graduate industry partnership between Deakin University and the City of Whittlesea

Other Educational Achievements

- Climate Reality Leadership – Al Gore and the Australian Conservation Foundation
- Climate Change and Community Wellbeing Short Course – University of Melbourne
- Moreland Energy Foundation Energy Auditing and Management Course
- Community Practitioner Short Course – Cavaye Community Development
- Leading and Facilitating Groups – University of Queensland
- Tools and Methods for Practice Change short course
- Introduction to Permaculture short course
- Certificate II in Agriculture – OH&S Procedures (Stock Handling)
- Advanced Equine Reproduction Management Short Course
- Level Two First Aid Certificate (Senior)
- Fire Safety Level 1 (Basic)
- Interstate Certification Assurance Auditors Course
- Weed Movement, Machinery Inspection and Cleaning Workshop.
- Introduction to Plantplan Emergency Response Training.
- Defensive Driver Training – Level One
- Trained in the Survey and Identification of Phylloxera.
- Trained in the Preliminary Identification of Fruit Flies.
- Trained in the Survey of Potato Cyst Nematode.
- Australian Chemical Users Permit

Volunteer work

- Secretary and board member of Sustain: The Australian Food Network
- Founding committee member and Secretary for the Mitchell and Surrounds Equine Landcare Group 2011-2013
- Southwest Goulburn Landcare Network representative for Mitchell and Surrounds Equine Landcare Group and instrumental in the establishment and conduct of the Farmblitz program 2013/14
- Current Vice President of BEAM Mitchell Environment Group.

References

Dr Robert Faggian
Deakin University – Centre for Regional and Rural Futures
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