
Farm Management Plan

Merrijig Lavender
Farm

152 Davies Road
Merrijig

Report Prepared by
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Plan Objective:

This Farm Management Plan is drawn to provide an assessment of current agricultural activities and identify future improvements that will benefit the agricultural production values of the property, and identify benefits of the proposed dwelling at 152 Daveys Road, Merrijig.

This plan is for establishing and managing a lavender farm, constructing a dwelling and shedding to support the lavender farm and producing lavender products for sale.

Future plans include the manufacture of lavender-based products and the creation of tourist facilities and photo opportunities, but these designs are yet to be finalised and are not part of this plan.

Property Details:

| | |
|--------------------------|--|
| Proponents: | Tony Roussos |
| Property Address: | 152 Davies Road Merrijig 3723 |
| Property Description(s): | Lot 11 LP148582 |
| Area: | 6.5 Hectares (16 acres) |
| Local Authority: | Mansfield |
| Zoning / Overlay(s): | Farming Zone Schedule to the Farming Zone Environmental Significance Overlay Environmental Significance Overlay – Schedule 1 Significant Landscape Overlay Significant Landscape Overlay – Schedule 1 Designated Bushfire Prone Area |
| Current Use: | Unused |

Proposal Overview:

Lavender is one of the most identifiable aromatics, yet Australian-produced lavender is at a serious shortfall with most products imported. This proposal calls for the introduction of a substantial lavender farm to produce lavender bunches and oils. The presence of a resident in a dwelling is seen as an important part of the successful and productive management and monitoring of those plants. The lavender will be produced by industry best practice management to ensure a premium product and return.

This plan is for a staged farm development, establishing a productive lavender farm and producing dried lavender and essential oils for sale. There is land reserved for future planting to occur as the business grows and establishes.

Lavender farming is high-value agriculture and often returns greater revenues than larger-scale agricultural enterprises. Lavender production suits smaller properties as larger producers shy away from the higher labour inputs and greater risks inherent in a low chemical environment. Lavender is an enduring product, enjoying sustained demand in a sometimes fickle consumer market. This product has several consumer uses, including dried bunches, dried aromatics, medicants, oils and propagated plants for sale. In the future, Merrijig Lavender will also value add and produce finished products like soap, essential oil, skin care products, perfumes, deodorisers and potpourri bags, but the plants need to be established first.

The enterprise will be good for the local tourist trade; lavender farm visits are popular, weddings and insta photos in lavender farms are on-trend, a visitor garden will be developed, and an on-farm shop constructed, but these plans are yet to be finalised and not included here.

The proponents have purchased the property and will develop the enterprise subject to the permit to construct a dwelling. This is their first lavender production venture, but they have experience in agriculture.

The property has been used for ad hoc grazing and fodder production. It is currently sitting vacant pending direction. The property has fair soil quality, few modern agricultural grasses, and no farm infrastructure. Pastoral production is estimated to be 1.5 tonnes of plant dry matter per annum (about 3 tonnes of hay) per hectare. A notional agricultural production value of \$6,000 per annum could be assigned to the current production.

The development of the enterprise calls for the investment in the agricultural infrastructure of over \$30,000, the improvement of soils to a productive agricultural level and the investment of a dwelling and shedding.

After the initial development period, the horticulture will produce 10,000 bunches of dried lavender, 300 litres of distilled lavender oil and 2,000 potted lavender plants for sale. This will provide an agricultural return of \$160,000 each year, and this is conservative.

Siting a dwelling on the property means that the property can be confidently improved, knowing that those improvements can be effectively utilised to increase productive value. A resident also means that animals can be monitored for health and welfare and rotated through the paddocks to ensure maximum feed utilisation.

This enterprise is seen as a great example of high-value horticultural production contained within the Farming Zone while contributing to the local economy and encouraging tourism.

The justifications for a dwelling on a small lot farm are the same as justifications for any farming property. The management times and tasks can be similar:

- Pest Animal Control: Probably the biggest issue on a lavender crop. Rabbits and echidnas will dig up, establishing lavender plants; this will wreck a young plant. Parrots, cockatoos, and wallabies will nip plant leaders, restricting plant establishment or flower stems.
- Biosecurity: New nationally mandated biosecurity requirements mean all visitors, vehicles and new plant stock to the property need to be screened and, if necessary, disinfected. This needs to be monitored constantly.
- Monitor lavender (typical daily routine), check water, check for pests, check for fungus, check supports, and check flowers.
- Monitor Flowers for Harvest: Flowers must be monitored daily for readiness and harvested accordingly.
- Monitor and react to weather: Heat, frost, hail and wind can play havoc and respond quickly with a management decision that can save a crop or minimise losses.
- Security and prevention of theft of produce and equipment:
- Do the work: Lavender must be constantly pruned, thinned and headed, pests controlled, and grass mowed.
- Weeding: Herbicides cannot be used, so hand and mechanical weeding are the main weed control techniques.
- Wildfire risk prevention and response: In the advent of wildfire, residents in the dwelling will be more responsive, fire mitigation procedures implemented, and even fires fought.
- Harvest and dry the lavender: The drying process is time-consuming, and not all can be hung simultaneously, so constant rotation is required.

A dwelling on a farm is a lot more than a place where people reside. It has an essential and ancillary purpose as a farm office, administrative centre, meeting room, first aid shed, security and biosecurity checkpoint, tea room, toilet block, and monitoring post for a 24-hour-a-day, 365 days a year business.

Good farming is about timeliness; constantly monitoring and reacting quickly is incredibly important. Failing to do so costs production and, sometimes, viability. The farm size is almost irrelevant, the quality of the farm management is what matters, and it's very difficult to achieve that remotely.

Agricultural Revenue comparison table:

| Agricultural Activity | Indicative Revenue per Hectare (19/07/2023) \$ |
|---|---|
| Fodder Production - Uncultivated, 8 rolls, \$100 per roll | 800 |
| Cropping - Wheat (Best white \$ 490 Tonne 1.74 Tonnes per ha) | 850 |
| Sheep Grow-out (MLA stocking rate) \$150 per sheep | 1050 |
| Canola (\$800 x 2 tonne per ha) | 1,600 |
| Beef Grow out (MLA stocking rate) 1.4 x 400 kg x \$3.50 kg | 1,960 |
| Fodder Production - Cultivated | 2,500 |
| Beef Bull Breeding | 3,000 |
| Dairy - Predominantly Pasture | 5,000 |
| Dairy - Supplementary Feeding (Fodders and Grains) | 6,500 |
| Horticulture – Native Flowers | 10,000 |
| Alpaca Breeding | 10,000 |
| Free Range Chickens – Meat (1500 Birds x \$3.50 x 3 cohorts) | 15,700 |
| Calf Rearing – Beef (3 cohorts annually) | 15,000 |
| Equine Breeding – Thoroughbreds (extremely variable) | 20,000 |
| Horticulture – Dryland Cool Climate Grapes (8 Tonnes per hectare) | 24,000 |
| Calf Rearing – Dairy (3 cohorts annually) | 30,000 |
| Horticulture – Lavender Dried (10,000 bunches x \$3 per bunch) | 30,000 |
| Horticulture – Irrigated Shiraz Grapes (15 Tonnes per hectare) | 30,000 |
| Horticulture - Berries (2000 plants x 10 kgs x \$2.00/kg) | 40,000 |
| Horticulture - Orchards (Apple and Pear Limited) | 34 000 |
| Market Gardening - Brassica Greens (2 Crops annually) | 35,000 |
| Horticulture – Lavender Oil (150 litres x \$500) | 45,000 |
| Free Range Chickens – Eggs Mobile (average 500 birds per ha, 0.9 eggs per bird per day, 60 cents per egg) | 100,000 |
| Fish Breeding (goldfish in outdoor tanks/dams) | 150,000 |
| Horticulture - Roses (7000 plants X 50 Stems x \$0.60) | 210,000 |
| Free Range Chickens – Eggs Static (1500 birds per ha, 0.8 eggs per bird per day, 45 cents per egg) | 260,000 |

Lavender is considered a high-value, high-returning agricultural activity.

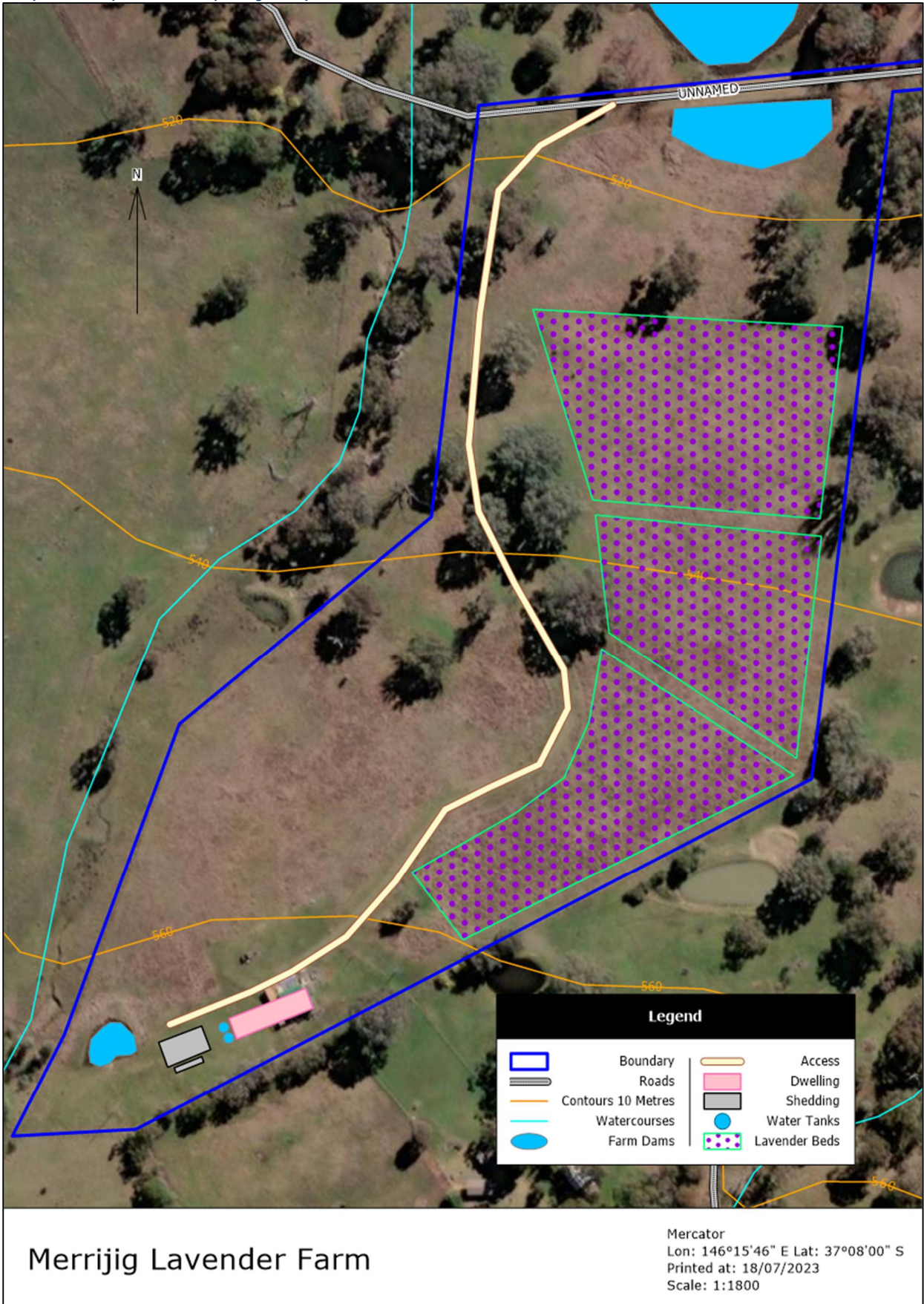
NB: This is an indicative income table where possible industry values have been used; otherwise, our experience has been drawn on. This table indicates agricultural activities in regions with suitable climate, soils, water supply, total available land etc. There are, of course, many variabilities that will impact production returns. It does not assess profitability. It indicates wholesale production only, value-added marketing, farm gate sales and processing will increase the returns by an average of 3.5 times.

Site Location and Property Maps:

Map 1: Property Location and Context:

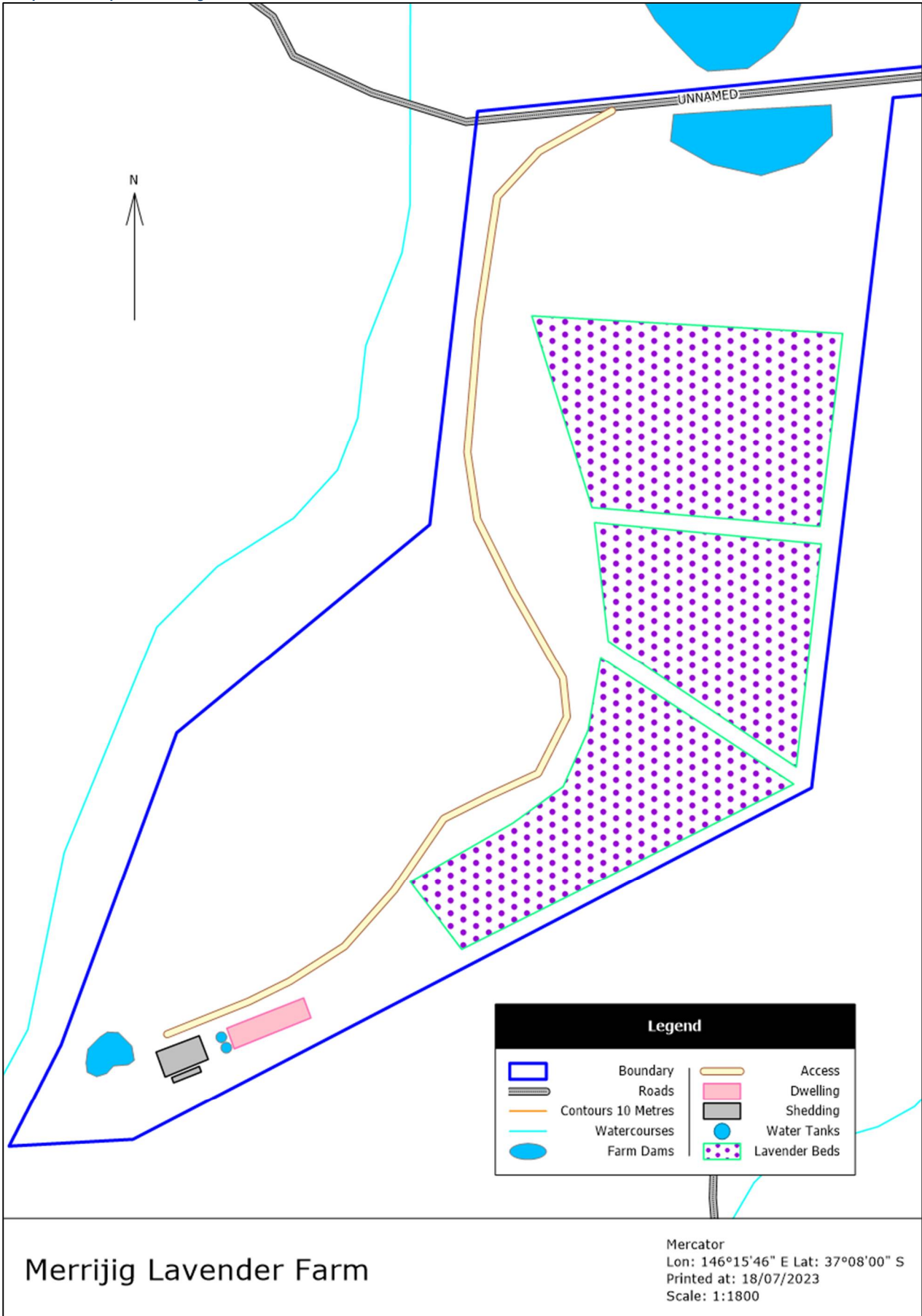


Map 2: Proposed Property Map



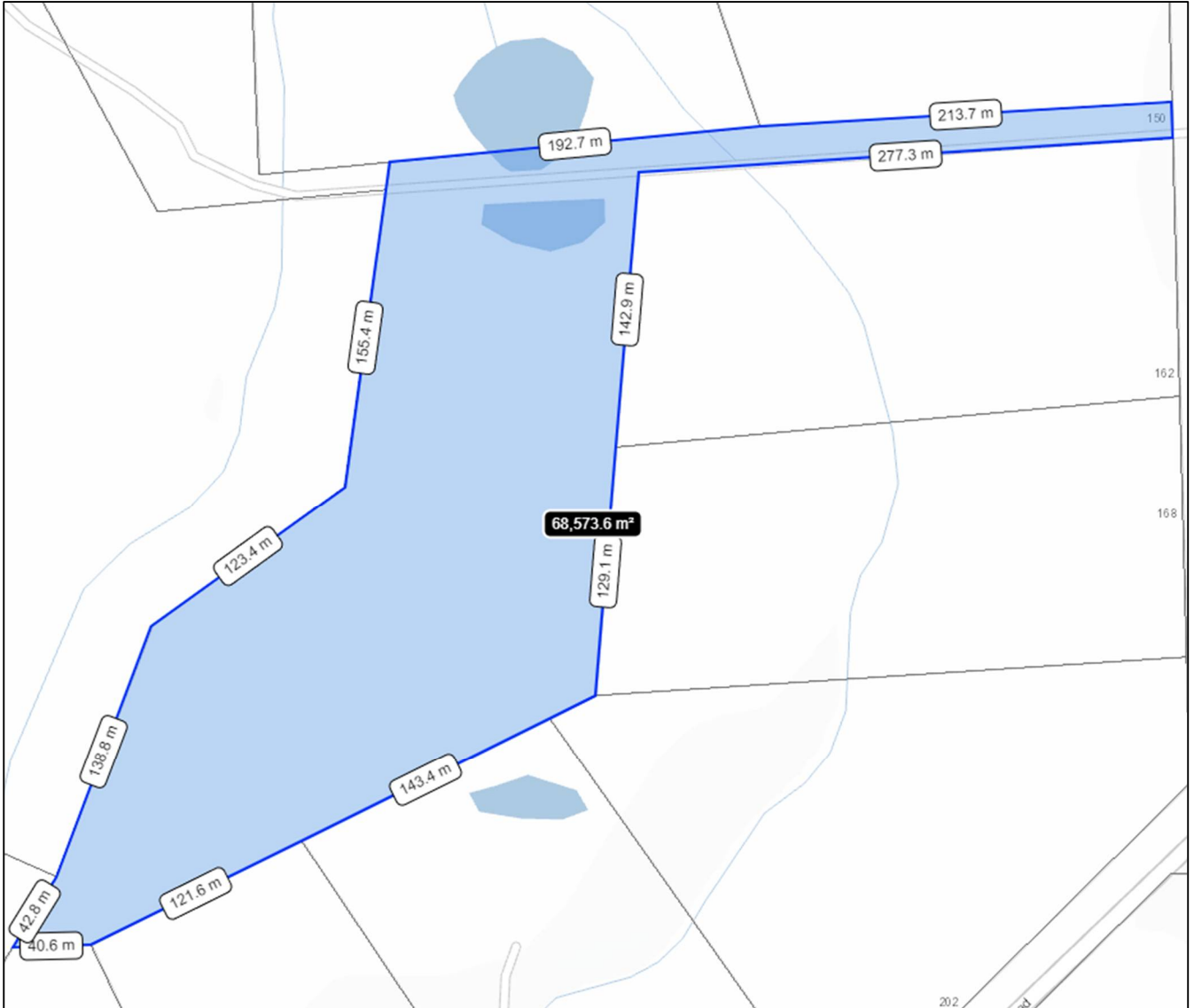
Merrijig Lavender Farm

Map 3: Proposed Layout



Merrijig Lavender Farm

Map 4: Property dimensions



Farming Factors:

Site Topography:

The topography at the property is a moderate slope rising from the northern end of the property to the southern end with a total elevation change of greater than 50 metres across the entire property. This gives an average gradient slope of about 10.6%. The site has no major topological features, including permanent waterlines and rocky outcrops.

Climate:

Merrijig climate statistics:

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|-------------------|------|------|------|------|------|------|------|-------|------|------|------|------|--------|
| Mean Max (°C) | 23.5 | 22.7 | 21.3 | 17.9 | 15.0 | 12.6 | 12.2 | 13.3 | 15.4 | 17.4 | 19.3 | 21.3 | 17.7 |
| Mean Min (°C) | 9.9 | 9.2 | 8.1 | 5.8 | 4.4 | 2.1 | 1.9 | 2.6 | 4.3 | 5.6 | 7.5 | 8.6 | 5.8 |
| Mean Rain (mm) | 59.6 | 54.9 | 69.0 | 62.7 | 70.9 | 90.6 | 85.8 | 106.8 | 84.5 | 83.6 | 88.1 | 76.2 | 905.0 |
| Median Rain (mm) | 50.0 | 27.4 | 47.3 | 51.4 | 68.6 | 83.9 | 82.6 | 110.2 | 83.0 | 72.2 | 74.0 | 71.2 | 952.0 |
| Mean Rain Days | 5.7 | 5.7 | 7.6 | 8.8 | 10.1 | 8.0 | 10.9 | 12.7 | 10.7 | 10.7 | 9.5 | 9.0 | 109.4 |
| MJ/m ² | 25.5 | 22.2 | 17.7 | 12.0 | 8.0 | 6.0 | 6.5 | 9.3 | 13.6 | 18.8 | 22.3 | 25.4 | 15.6 |

Data: Climate BOM 88023 Lake Eildon. Rain and Solar Exposure BOM 83077 Bald Hill

The climate is the typical temperate type of warm, dry summers and cool, wet winters. The climate is good for the chosen agricultural activity, with relatively consistent rainfall across the months. Solar exposure indicates flowering activity for October to March.

Water Supply:

Lavender is not a major water user and, when established, can be produced with minimal water. Irrigation may be necessary for establishing plants or if the weather gets dry. High water use can also impact flowering and scent intensity, so water use is well controlled. Being soil-based, the lavender should receive adequate water from the average rainfall, but a farm dam is available if required. There will also be 450,000 litres of rainfall available for harvest from the shed and dwelling rooves.

If ever required, the property is entitled to a domestic and stock groundwater licence, and that water is available at 10-20 meters, and water quality is excellent (<500 parts per million salinity).

Weed and Pest Management:

The property is not subject to any major pest and weed issues but has some creeping blackberry issues around trees and paddocks. These will be sprayed and will continue to be controlled. Any environmental and agricultural pests and weeds will be controlled by standard farm management methods such as sprays and/or physical removal.

The property appears clear of animal pest issues, although rabbits can be expected to be present, and controls may be required if they burrow in the lavender area.

Soils:

An agricultural soil test was collected from the proposed lavender area. The property land class is typical of the region, productive well-structured loams. The soils may be prone to waterlogging during wet periods and drying and cracking during dry periods but generally retain productivity.

Paddock observations (soil test analysis results next page):

- Soil is rated as sandy clay loam.
- Low pH (CaCl₂) 4.6 is slightly acidic.
- Aluminium is elevated due to the acidity (Al CaCl₂ 4 mg/Kg).
- Low phosphorus levels (Olsen P 4 mg/Kg)
- Good potassium levels (115 mg/Kg)
- Low sulphur levels (4.9 mg/Kg)
- Low Organic Carbon (2.5 %)
- Fair nitrogen levels (seasonally variable)
- Trace elements are okay, although boron will be required to improve flowering.
- Cation exchange capacity is low, meaning soils respond well to fertility inputs without soil lockup.
- The cation exchange ratio is poor, with low exchangeable calcium levels and very high exchangeable aluminium, which will discourage deep plant rooting.
- Low conductivity and good exchangeable sodium levels indicate no sodicity or salinity issue.

Recommendations:

The soils are suitable for lavender with a high sand content (57%) to ensure free draining around the roots. Lavender does not require highly fertile soil, but there are some fertility and conditioning actions that will improve the chemistry for lavender production.

Soil acidity management is the major requirement for the successful establishment of lavender. Agricultural lime should be ground spread to correct acidity in topsoil, and lime should be worked into the rows if they are ripped before planting. Lavender requires good soil calcium and a near-neutral pH to create optimum growth. Agricultural lime (calcium carbonate) will be required at 1 tonne per hectare.

Phosphorus and sulphur fertilisers should also be applied before planting to ensure rapid plant development, particularly for establishing plants.

The soil will require working before it can be useful, which could be the entire farming area or for prepared planting areas. Significant root matting and soil acidity mean that soil cultivation and adding agricultural lime will need to occur before attempting any plant establishment. Even after initial cultivation (by discing, ploughing or ripping), the soil may still be blocky, root-bound, unsuitable for planting, and may need several working passes. It will also require that root matter break down and form a suitable working tilth (this could be several months). It can be worked green, but a complete knockdown with a herbicide may be preferable to manage undesirable grasses and weeds.

Boron is an important trace element for flower set in lavender and should be added after liming (liming reduces boron availability).

As always, ongoing soil testing should be conducted to ensure adequate fertility and reduce potential excess and risk to the environment. Plant leaf testing can be conducted on establishing crops to identify any nutritional deficiencies in the developing stages.

Soil Test Results:

| | | | |
|--------------------------------|---------------------|--------------------------|-------------------|
| Customer: | Tony Roussos | Sample Date: | 05/07/23 |
| Sample Name: | Lavender | Lab. No.: | F7S23016 |
| Test Depth (cm): | 0-10 | Soil Colour: | Brown Black |
| Gravel %: | 0% | Assessed Texture: | Sandy Clay Loam |
| | Unit | Level Found | Good Range |
| Phosphorus Olsen | mg/Kg | 4.0 | 10 |
| Phosphorus Colwell | mg/Kg | 9 | 30 |
| Phosphorus Buffering Index | | 240 | |
| Potassium Colwell | mg/Kg | 115 | 120-200 |
| Sulphur | mg/Kg | 4.9 | 10-20 |
| Organic Carbon | % | 2.5 | 3 - 8 |
| Ammonium Nitrogen | mg/Kg | 11 | |
| Nitrate Nitrogen | mg/Kg | 1 | |
| Conductivity | dS/m | 0.04 | < 2.0 |
| pH Level (H ₂ O) | pH | 5.5 | 6.5 - 7.5 |
| pH Level (CaCl ₂) | pH | 4.6 | 5.6 - 6.6 |
| Aluminium (CaCl ₂) | mg/Kg | 4.0 | < 2.0 |
| DTPA Copper | mg/Kg | 0.51 | > 1.5 |
| DTPA Iron | mg/Kg | 473 | 100 - 400 |
| DTPA Manganese | mg/Kg | 28 | > 10 |
| DTPA Zinc | mg/Kg | 0.7 | > 5 |
| Boron (Hot CaCl ₂) | mg/Kg | 0.4 | > 1.5 |
| | Unit | Level Found | Good Range |
| Cations | | | |
| Cation Exchange Capacity | meq/100g | 2.82 | 5 - 20 |
| Exchangeable Calcium | meq/100g | 1.09 | |
| | BSP % | 38.68 | 70 - 85 |
| Exchangeable Magnesium | meq/100g | 0.59 | |
| | BSP % | 20.94 | 10 - 20 |
| Exchangeable Potassium | meq/100g | 0.24 | |
| | BSP % | 8.52 | 3 - 8 |
| Exchangeable Sodium | meq/100g | 0.07 | |
| | BSP % | 2.48 | < 5 |
| Exchangeable Aluminium | meq/100g | 0.83 | |
| | BSP % | 29.38 | < 2.0 |
| | Unit | Level Found | |
| MIR Particle Sizing | | | |
| Sand | % | 57.32 | |
| Silt | % | 19.98 | |
| Clay | % | 22.69 | |
| Classification | | Sandy Clay Loam | |

Laboratory Analysis CSBP Labs (Wesfarmers), Bibra Lake WA

Regenerative Farming:

A regenerative approach to soil management will be adopted to improve agricultural soil quality. This will focus on improving soil carbon with compost and poultry manures, and all plant prunings will be mown back into the rows to improve soil carbon. This will also stimulate soil biology, improve soil water holding capacity, increase topsoil depth and improve plant rooting and nutrient cycling.

A naturalistic approach will generally be adopted to managing the property; manufactured chemicals will be avoided as best practical. The property will adopt techniques to increase soil carbon and ultimately be positioned to take advantage of any future soil carbon credits.

Crop Design:

A total area of 2.0 hectares will be sown to lavender crops in raised beds, which will provide about 20,000 lavender plants when fully established. This development will be staged for work and water management over several years to ensure supply consistency. Commercial lavender has an effective plant life of 6-7 years before it needs to be replaced; one area will be planted or replaced each year.

A small area of lavender is to be planted initially, providing an ongoing propagation crop for the remainder of the planting. After that initial establishment, cuttings will be taken and propagated each year to allow the remainder of the crop to be sown in a cost-effective method. Some of these cuttings will also be propagated in pots to produce potted lavender plants for sale.

True lavender (English lavender) will be used for production; this is a lower-production crop but has a stronger lavender scent and achieves a premium return. Initially, the focus will be on the dried lavender product, and value-added products will follow.

Livestock:

Each year, a small grow-out flock of lambs will be brought in to utilise the pasture area and control the grass and weeds at the property. Sheep can graze the lavender growing area to control grasses and fertilise crops as they do not eat lavender.

Bees and Honey:

A lavender farm is inevitably a paradise for bees, and 2-3 hives will be trialled at the property to encourage honey production and pollination. One hundred and fifty litres of honey might be produced, but this aspect is not resolved yet. An increase of bees in an area where pesticide use has historically been high would be environmentally beneficial.

Infrastructure and Business Management:

Required Infrastructure:

There is limited infrastructure on the property for the proposed enterprise. The dwelling, shedding and watering network will need to be constructed. Lavender itself does not require any particular infrastructure apart from the provision of irrigation, which will be pressure-compensated drip irrigation.

The driveway will be constructed of extracted material to the house site to access in all weather conditions. Formed tracks will be constructed to the lavender beds allowing convenient access.

Staffing:

The proponents will develop and manage the lavender farm. Typically, a hectare in horticulture is expected to need about 300 hours per year to manage, weed, shape and harvest; the establishment is probably twice that.

With property management, marketing, ongoing propagation, drying, packing, and distilling the oil, the enterprise will want 2-3000 hours invested each year. It will be busy. As the enterprise grows, additional labour will be required.

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

Allowance for possible future expansion:

There is good scope to even double the lavender production within the property by offering the planned value-adding of products and agritourism activities. Any major increase in lavender growing would require additional land.

Marketing / Sales:

Marketing is not resolved yet; there will be no product for 2-3 years. The proponents are keen to create their own marketing brand and realise the full value of their products. A roadside stall will be constructed selling potted and dried lavender products. Local retailers will also be approached to sell the product, and eventually, they will open their own shops.

Otherwise, there are plenty of buyers for quality lavender oil ranging from multinationals to local artisans. Dried lavender is also a remarkably robust marketplace, with craft shops and cafes being big buyers.

Opportunity Cost:

A property like this is unlikely to be integrated into another farming property due to land size, property value and lack of agricultural investment. Horticulture is one of the higher-returning agricultural activities, and the presented farming has a very good return per area used. There are few forms of agriculture with better returns from soil-based farming.

Biosecurity Requirements:

Lavender plants are generally resistant to major pests or diseases, but pests can travel with seeds, flowers, and other plant material and should be inspected. Only clean certified plants from a certified supplier will be used for planting, and excess plant material should not be sent to other properties without being checked for any insects, larvae and fungus. Any movement into or out of the state or district should comply with Agricultural Department requirements, and products should be sterilised as and if required. Report any suspicious outbreaks to the appropriate authority.

Livestock should also be monitored for any disease issues. Sheep must have ear tags for buying and selling and appropriate transfer forms completed to track any issues.

Vehicles entering and leaving the farming area should have clean wheel arches, and shared farm equipment must always be cleaned before entering or leaving the site.

Financial Projections:

The proposal calls for an agricultural investment of over \$30,000 and the investment in a dwelling and shedding over \$400,000.

After the initial development period, the property could expect net revenue of over \$170,000 per annum.

Indicative Agricultural Returns (excluding buildings, equipment and land costs, not CPI-adjusted):

| Income /Cost Item | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 + |
|--|------------------|-----------------|-----------------|-----------------|------------------|------------------|
| Dried lavender (\$3 per bunch, 5,000 bunches/Ha) | \$0 | \$10,000 | \$20,000 | \$30,000 | \$30,000 | \$30,000 |
| Lavender Oils (\$400/litre, 150 lt/Ha) | \$0 | \$0 | \$0 | \$30,000 | \$60,000 | \$120,000 |
| Potted Lavender Plants | \$0 | \$4,000 | \$8,000 | \$12,000 | \$16,000 | \$16,000 |
| Total Lavender Revenues | \$0 | \$14,000 | \$28,000 | \$72,000 | \$106,000 | \$166,000 |
| Lamb Grow out Revenue | | \$4,500 | \$4,500 | \$4,500 | \$4,500 | \$4,500 |
| | | | | | | |
| Lavender Establishment Costs | -\$20,000 | | | | | |
| Lamb Purchases | -\$1,800 | -\$1,800 | -\$1,800 | -\$1,800 | -\$1,800 | -\$1,800 |
| Maintenance Costs | | -\$3,000 | -\$3,000 | -\$3,000 | -\$3,000 | -\$3,000 |
| Processing/ Staffing Costs (~25%) | 0 | \$0 | \$0 | -\$18,000 | -\$26,500 | -\$41,500 |
| Apportioned Rates, Insurances Utilities | -\$2,000 | -\$2,000 | -\$2,000 | -\$2,000 | -\$2,000 | -\$2,000 |
| Infrastructure Investment / Maintenance | -\$20,000 | -\$2,000 | -\$2,000 | -\$2,000 | -\$2,000 | -\$2,000 |
| | | | | | | |
| Net Return | -\$43,800 | \$9,700 | \$23,700 | \$49,700 | \$75,200 | \$120,200 |

Notes:

Agricultural revenues assume lavender and oil sales only: the ultimate plan is to produce value-added products for sale, which provides a revenue multiplier of about 3.5 times.

Determined on the initial 2-hectare lavender planting, an additional 2 hectares is available.

The presented numbers are very conservative, which is the best way to enter an agricultural enterprise.

Development Timeline:

| Year | Actions |
|---------|---|
| 2023/24 | <p>Permits General Site Clean-up for appearance, access safety and fire safety Lavender ordered (First stage) Soil conditioning and soil preparation work. Lavender rows prepared. First lavender planted in autumn. Building construction and works begin. Ongoing weed and pest controls</p> |
| 2024/25 | <p>2nd Stage Lavender rows prepared. Building works completed Ongoing weed and pest controls Minor Lavender harvest in summer, cuttings for next stage prepared in autumn.</p> |
| 2025/26 | <p>3rd Stage Lavender rows prepared. Next lavender planted in autumn. Building works completed Ongoing weed and pest controls First major Lavender harvest in summer. Cuttings for the next stage are prepared in autumn. Propagation of cuttings into pots for sale</p> |
| 2026/27 | <p>Lavender rows prepared. Next lavender planted in autumn. Building works completed Ongoing weed and pest controls Lavender harvest in summer. Cuttings for the next stage are prepared in autumn. Propagation of cuttings into pots for sale</p> |
| 2027/28 | <p>Lavender rows prepared. Next lavender planted in autumn. Building works completed Ongoing weed and pest controls Lavender harvest in summer. Cuttings for the next stage are prepared in autumn. Propagation of cuttings into pots for sale</p> |

Farming Timeline:

| Period | Action |
|-------------------|---|
| February 2024 | Blackberry control Farm-wide – <u>Completed</u> |
| March /April 2024 | Deep Rip Soil in stage 1 of Lavender field – Rest soil 4 weeks Install Plastic Weed Matt over Row mounds. Install irrigation to mound – Connected to Dam Pump Install Spoon Drain on South & East Boundary of lavender field. Install Temporary Roo Fence around Lavender Field |
| April/May 2024 | Lavender Rows Soil Preparation Plant Lavender Rows – (3 species) Install new Sheep Fencing and repair existing where required. Install sheep Water troughs. Site prep for Water Tank Installation Install Water Tank |
| May/ June 2024 | Introduce Weiner Lambs to farm – Drench Sheep Introduce Lamas at the same time as sheep – protect against predators. Monitor Sheep Development & growth rates. Monitor Plant Growth – Weekly Records Monitor and maintain all fencing to ensure that they are kept damage free. Sheep to graze between rows to keep weeds and grass under control. |

Farm Management - Lavender Growth and Dorper Sheep Management

The staged management of the farm will encompass the coordination and oversight of various processes to ensure optimal outcomes. In the context of agriculture, this will involve meticulous planning and execution to cultivate crops and manage livestock effectively. This report delves into the stage management of two distinct yet interconnected aspects of agriculture: growing lavender and managing Dorper sheep.

Lavender:

Soil Preparation: March / April

- Based on soil tests to achieve optimal pH levels and mitigate nutrient deficiencies.
- Amend soil as necessary with organic matter and minerals to create an ideal growing environment

Implement Temporary Roo Fencing:

- Erect 1.8m high, wire fencing around the perimeter of lavender rows to protect young plants from being trampled by kangaroos until established.

Planting: April/May

- A Select species of lavender suited to the climate and soil conditions is planted. Each species is sourced from the best growers and is aimed at producing a specific outcome.
- Plants are adequately spaced to allow for air circulation and minimize competition for nutrients.

Irrigation: May/June

- Implement the drip irrigation system to deliver water during the hot summer months directly to the plant roots while conserving water.
- Monitor soil moisture levels regularly and adjust irrigation schedules accordingly.

Establish Beehives:

- Beehives will be set up alongside the lavender rows to help with pollination and to optimise plant health.
- Lavender Honey will be harvested periodically for sale.

Weed Control: Ongoing once plants are established.

- Mulch around lavender plants to suppress weed growth and retain soil moisture.
- Sheep will be used to manage weeds between the rows.

Pest and Disease Management: Ongoing

- No natural predators of lavender however honeybees will be established to promote better essential growth.

Pruning and Harvesting: November to January

- Prune lavender plants regularly to promote bushy growth and improve air circulation.
- Harvest lavender flowers when they reach peak bloom for optimal fragrance and oil yield.

Managing Dorper Sheep:

Establish Grazing Rotation: May/June

- Divide grazing land into 3 paddocks to facilitate rotational grazing.

Fencing: May/June

- Installation of sheep fencing around paddocks to contain Dorper sheep and protect them from predators.
- The use of two Lamas to protect sheep.
- Natural Shelter belts – Established large gum trees.
- Regularly inspection of fences for damage to maintain security.

Water Provision:

- Access to clean drinking water in each paddock through troughs pumped from existing dams (2)
- Monitor water availability and quality to prevent dehydration and health issues.

Nutrition:

- Provide balanced nutrition through pasture grazing and supplemental feed as needed.
- Adjust feeding regimen based on the nutritional needs of Dorper sheep and seasonal variations in pasture quality.

Health Management:

- Implement a vaccination and deworming program to prevent disease outbreaks.
- Monitor Dorper sheep regularly for signs of illness or injury and provide prompt veterinary care when necessary.

Environmental Factors:

Natural Resource Management:

There are no major resource assets on the property, having been cleared for agriculture. There are some good quality paddock trees, and these will be retained and excluded from the farming activity. There are no permanent waterways or areas of high ecological value.

Erosion and Compaction:

The property has a minor erosion risk, although there is no obvious erosion. Sound vegetation cover can be maintained, and the water collection areas are small. Lavender plants will further resist and potential erosion.

The soils have a high sand content (57%), and sandy soils are generally resistant to compaction, although compaction of soils in the paddocks could occur in traffic areas such as gateways, fencelines and tracks. Heavy vehicle traffic should be confined to constructed tracks, particularly during wetter seasons.

Fire Management:

The land is in a designated bushfire area, although not of any greater risk than normal farmland. The land use is not seen to contribute any fire risk to the area as horticulture is constantly managed and, as a green crop, will act as fire breaks. Firewater will be available from tanks attached to the house and shed, and a minimum water supply will be held per any recommended conditions.

Adverse impacts on adjacent land:

There is not expected to be any change to the amenity of the adjacent land from the agricultural enterprise. Some farming noise may be generated occasionally, but the same as any similar agricultural enterprise.

Adverse impacts from adjacent land:

The properties within a 500-metre radius of the proposed dwelling are grazing, horticulture, vacant or lifestyle properties. Those activities generate minimal dust, odour, noise and chemical spray activity and do not create any issues for this farming.

Landscaping Plan Requirements:

There will be no requirement for landscaping as there is no possible view line of the proposed dwelling to or from any other residence adjoining or nearby, and therefore there will be no impact on the visual amenity of any of the adjoining properties.

Drainage:

The property has no formal drainage network relying on overland flows and ground infiltration for water clearance. A new swale drainage line may be constructed around the crop to clear water and divert it to the farm dam.

Compliance with Planning Scheme:

Farming Zone: 35.07-2 Use of land for a dwelling

A lot used for a dwelling must meet the following requirements:

- Access to the dwelling must be provided via an all-weather road with dimensions adequate to accommodate emergency vehicles.
- Each dwelling must be connected to reticulated sewerage, if available. If reticulated sewerage is not available all wastewater from each dwelling must be treated and retained within the lot in accordance with the requirements of the Environment Protection Regulations under the *Environment Protection Act 2017* for an on-site wastewater management system.
- The dwelling must be connected to a reticulated potable water supply or have an alternative potable water supply with adequate storage for domestic use as well as for fire fighting purposes.
- The dwelling must be connected to a reticulated electricity supply or have an alternative energy source.

Response:

- The proposal has an existing all weather road which will further be upgraded.
- The property can hold a septic/wastewater system in compliance with EPA Code of Practice IWRG 891.4 and Australian Standards AS/NZS 1547:2012 as demonstrated in the provided Land Capability Assessment. All landholders have the legal obligation to ensure there is no pollution under the legislated General Environmental Duty contained in the Environment Protection Act 2017.
- The dwelling will have 50,000 litres of water tanks connected and retain 10,000 litres in reserve for firefighting purposes.
- The property is already connected to mains power.

14.01-1S Protection of agricultural land

Objectives

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

Response:

- The farm management plan describes a farming primarily soil-based and techniques for providing soil care to improve productivity and longevity. This primarily involves the reduction of soil acidity and the improvement of soil structure with agricultural lime.
- Improved soil structure retains moisture longer and is more open to infiltration, reducing water run-off and mitigating flood risk elsewhere and improving water use efficiency.
- The property is unlikely to be integrated into another farmland in the region, it has become expensive, and many adjoining lots are already developed as small farms.
- The design of the property does not preclude it from being used for alternative agriculture in the future.
- The presented application demonstrates a viable agricultural enterprise best suited to a farm and requires a dwelling to facilitate the management and operation of that agriculture;

- The farm management plan proposes significant investment in the agricultural capability of the land;
- The proposal dwelling will not result in fragmentation of productive agricultural land as this has already occurred in the direct area;
- The proposal would not remove a significant area of the land from agricultural production; the proposal reintroduces agriculture at an advanced return;
- The dwelling will not have any significant impact on the agricultural activities of adjacent or nearby land, nor should it affect the expansion of any adjoining or nearby agricultural uses;
- The property is fully cleared and rated degraded, having no remaining areas of endemic vegetation; the significant paddock trees are to be protected from damage.
- The proposal will create no offsite impacts, including noise, odour, or nutrient loss and is of adequate size to contain all effluent.

14.01-1L Dwellings and subdivisions in rural areas

Objectives

To protect productive agricultural land from competing and inappropriate land uses, including residential use not associated with agriculture.

To prevent dwelling excisions and the development of existing small rural allotments from prejudicing any existing surrounding agricultural activities.

Response:

- As outlined in the farm management plan the, agriculture requires significant investment and ongoing monitoring and work to make it successful and viable. That investment relies on the co-investment of a dwelling and the farming activity to effectively justify each other.
- The proposal is one of low offence and hopefully one of appeal to those surrounding. The building's placement has been carefully considered to ensure that it doesn't compromise those adjoining; lavender farming is a low chemical, quiet farming type, and lavender is hopefully an appealing odour.
- The farming and placement of buildings are designed to work around the remaining vegetation and create no off-site impacts on the environment or neighbouring properties.
- The proposal provides all infrastructure to contain any additional stormwater with tanks and the existing farm dam. The site is capable of holding all generated effluents as outlined in the LCA

14.01-2S Sustainable agricultural land use

Objectives

To encourage sustainable agricultural land use.

Response:

- The farm management plan describes a farming primarily soil-based and techniques for providing soil care to improve productivity and longevity. This primarily involves the reduction of soil acidity and the improvement of soil structure with agricultural lime.
- The water use efficiency and return per land unit used are very good compared to other farming types.
- Lavender (and aromatic oils) can produce a significant financial return from a small lot and is compatible with ecological and biodiversity values.
- Lavender sales values and returns are stable, the demand is well understood, and the viability of the farming is excellent.
- Lavender will encourage pollinators like bees and butterflies, which are at a critically low population in farming environments due to unprecedented herbicide and pesticide use.
- The improved use of the land will increase soil carbon which is good for soil quality, and that carbon is primarily sequestered from the atmosphere reducing greenhouse gases and may become eligible for carbon credits.
- Lavender is a high-value, sustainable and growth agriculture with over 80% of imported overseas products.
- Improved soil structure retains moisture longer and is more open to infiltration, reducing water run-off and mitigating flood risk elsewhere.
- The property is unlikely to be integrated into other farmland in the region, it has become expensive, and many adjoining lots are already developed as small farms. The design of the property does not preclude it from being used for an alternative agriculture in the future.
- Lavender is suitable for areas with high native animal populations like this area; they do not consume lavender and are not impacted by its presence.

Site Images:

Image 1: Looking north over the farm showing the farm dam and proposed lavender fields.



Image 2: Looking south from the rear of the site.



Image 3: Proposed house and shed development area.



Image 4: Looking south over the planned lavender fields area.



Image 5: Looking north over the planned lavender fields.



Image 6: The shared access and main farm dam.



Image 7: Blackberry is the main weed and will need ongoing control.



Image 8: The property has some good-quality paddock trees, which will not be disturbed.

