AGRICULTURAL ASSESSMENT REPORT

HOLMES DYER

Boyer Road PSP

October 2024

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Executive Summary

The Boyer Road Precinct Structure Plan (BPSP) study area covers approximately 103 hectares and is located on the north western peri-urban outskirts Bridgewater in the Brighton Municipality of Southern Tasmania.

Six properties are included within the BPSP and they range in size from 7.61 to 31.33 hectares of land and are used for principally residential purposes, with the exception of a single title which is almost entirely covered by a conservation covenant. The southern area of BPSP study area is covered by Future Urban zoned land (approximately 58 hectares) and Landscape Conservation zoned land (approximately 45 hectares) on the northern area.

The land associated with the BPSP study area is severely constrained for agricultural land use activity due to the low/very low land capability of the ground, extensive coverage of native vegetation, absence of irrigation water and the land is divided into six separate titles which limits any potential scale and level of intensification.

The BPSP study area holds a negligible level of local and regional agricultural prominence.

Effectively five of these properties are used for residential purposes and a single property is used for environmental conservation (as per a conservation covenant).

The development of the BPSP study area is associated with the Future Urban zoned land, although no definite design plans are currently available.

The land use zoning adjacent to the BPSP study area includes:

- North: Rural, Landscape Conservation and Utilities (TasWater).
- East: Rural Living and Community Purpose (Northern Christian School.
- South: Rural, General Residential and utilities (Boyer Road).
- West: Agriculture and Landscape Conservation.

A single very small Rural zoned property to the south of the BPSP is best described as a small lifestyle block and has no formal agricultural land use activity conduct therewith, whilst to the north the rural zoned land is used for low intensity sheep grazing on heavily degraded pastures. A combination of the setbacks (north and south) and the presence of a substantial area of native vegetation to the north would be expected to mitigate any negatives associated with any future residential development on the Future Urban zoned land on the BPSP study area.

Agricultural land use activity does occur on the Agriculture zoned land adjacent to the west of the BPSP and this involves grazing livestock on a limited scale and a market garden enterprise. The opportunity to intensify and future scale of agricultural land use activity on this adjacent land is constrained by the low land capability of the land present, prevailing low rainfall climate and limited access to irrigation water.

A number of measures could be undertaken to mitigate the potential negative impacts on the agricultural land use activities undertaken on the Agriculture zoned land, and this includes establishing a shelter belt, secure fencing, weed control and dog control activities.

The proposed development of the Future Urban zoned land on the BPSP study area is consistent with the PAL policy and could be undertaken without undue and unnecessary loss and negative impacts to agricultural land.

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Purpose

Thie agricultural assessment report has been undertaken on behalf of Holmes Dyer in order to provide an assessment of the agricultural qualities and use of the land covered by the BPSP study area.

1 General overview

1.1 LAND CAPABILITY

The currently recognised reference for identifying land capability is based on the class definitions and methodology described in the Land Classification Handbook, Second Edition, C.J Grose, 1999, Department of Primary Industries, Water and Environment, Tasmania.

Most agricultural land in Tasmania has been classified by the Department of Primary Industries and Water at a scale of 1:100,000, according to its ability to withstand degradation. A scale of 1 to 7 has been developed with class 1 being the most productive for agriculture and resilient to degradation and class 7 the least suitable to agriculture. Class 1, 2 and 3 are collectively termed "prime agricultural land". For planning purposes, a scale of 1:100,000 is often unsuitable and a re-assessment is required at a scale of 1:25,000 or 1:10,000. Factors influencing capability include elevation, slope, climate, soil type, rooting depth, salinity, rockiness and susceptibility to wind, water erosion and flooding.

1.2 REPORT AUTHORS

Jason Lynch possesses a Bachelor of Applied Science (horticulture) and is a certified practising agriculturalist (CPAg) with over 25 years' experience in the agricultural industry in Tasmania. He has previously been engaged by property owners, independent planners, and surveyors to undertake evaluations and studies across various council based interim planning schemes. This work involves the assessment of land for development purposes and potential conflict.

Georgia McCarthy holds a Bachelor of Agriculture degree and a Post Graduate Certificate in Agricultural Consulting. She has seven years' experience in agribusiness and agricultural consulting in Tasmania. Georgia is qualified to undertake agricultural and development assessments as well as land capability studies.

2 Property details

2.1 LOCATION

The Boyer Road PSP (BPSP) study area is located on the north west outskirts of Bridgewater and consists of six separate property titles which cover a total area of 103.61 hectares. Table 1 and
Figure 1.

Table 1 Study area location identification details

Owners	Property ID	Title reference	Address	Hectares (approx.)	Map ID (Figure 1)
David and Loretta Olsen	7676361	44724/8	50 Boyer Road, Bridgewater TAS 7030	17.17	1
Jeanette Cooper	7676396	44724/9	170 Boyer Road, Bridgewater TAS 7030	17.74	2
Matthew Booth	1972194	44724/2	182 Boyer Road, Bridgewater TAS 7030	7.61	3
Mona Chui Yee Ho and Mung Ching Wong	2808927	152364/2	31 Cobbs Hill Road, Bridgewater 7030	31.33	4
Gavin Rolf and Karen Woodhouse	2097491	135574/1	29 Cobbs Hill Road, Bridgewater 7030	19.74	5
Nicholas Turner and Karen Sturges	2097504	135574/2	25 Cobbs Hill Road, Bridgewater 7030	10.02	6

Five of the properties involved with the BPSP study area are held as private tenure (as per 50, 170 and 182 Boyer Road, and 25 and 29 Cobbs Hill Road) and a single title (as per 31 Cobbs Hill Road) is covered by a conservation covenant (covenant ID 12588).

Adjacent properties are held as private tenure are located to the north, east and north, conservation covenant covers title adjacent to the north west, and TasWater tenure land is located adjacent to the north.[1]
Figure 2

The zoning of the properties involved with the BPSP study area includes Future Urban zoning (as per the 50, 170 and 182 Boyer Road properties) and split Future Urban and Landscape Conservation zoning (as per 25, 29 and 31 Cobbs Hill Road properties).[2] The Future Urban zoned loan covers approximately 58 hectares and Landscape Conservation covers approximately 45 hectares of the BPSP study area.
Figure 3

The land zoning on adjacent and nearby properties includes:

- North: Rural and Utilities.
- East: Rural Living and Community Purpose.
- South: Rural, General Residential and Utilities.
- West: Agriculture and Landscape Conservation.[3]

[1] The LISTmap dataset
[2] The LISTmap dataset
[3] The LISTmap dataset

The topography of the BPSP study area is characterised by the elevated high ground on the northern and eastern areas (highest point on the far northern point at 140m ASL) which leads down over gentle/moderate sloping ground (8-18^0) down to gently sloping (1-8^0) and undulating land that covers the southern and western areas.

The vegetation present on the properties involved with the BPSP study area includes:

- Open pastureland: as per 50, 170 and 182 Boyer Road.
- Native vegetation: as per 31 Cobbs Hill Road.
- Native and open pastureland: as per 25 and 29 Cobbs Hill Road.

It should be noted that the open pastureland present on the subject properties is typically in a heavily degraded condition with limited improved species present (e.g. perennial ryegrass, cocksfoot, Phalaris and clovers) and with various broadleaf (e.g. hoary cress, capeweed, wild mignonette and various flat weeds) and woody weeds (African boxthorn and gorse) are present.

Infrastructure present on the properties involved with the BPSP study area includes:

- 50 Boyer Road: boundary and internal paddock fencing, stockyards, various sheds and a residential dwelling (Genappe House is a heritage listed building).
- 170 Boyer Road: boundary and limited internal paddock fencing, various sheds and a residential dwelling.
- 182 Boyer Road: boundary and internal paddock fencing, stockyards and various sheds.
- 25 Cobbs Hill Road: boundary and internal paddock fencing and a residential dwelling.
- 29 Cobbs Hill Road: boundary fencing, various sheds, boundary and limited internal paddock fencing and a residential dwelling.
- 31 Cobbs Hill Road: boundary fencing.

Appendix 1 has a series of images which documents the BPSP study area.

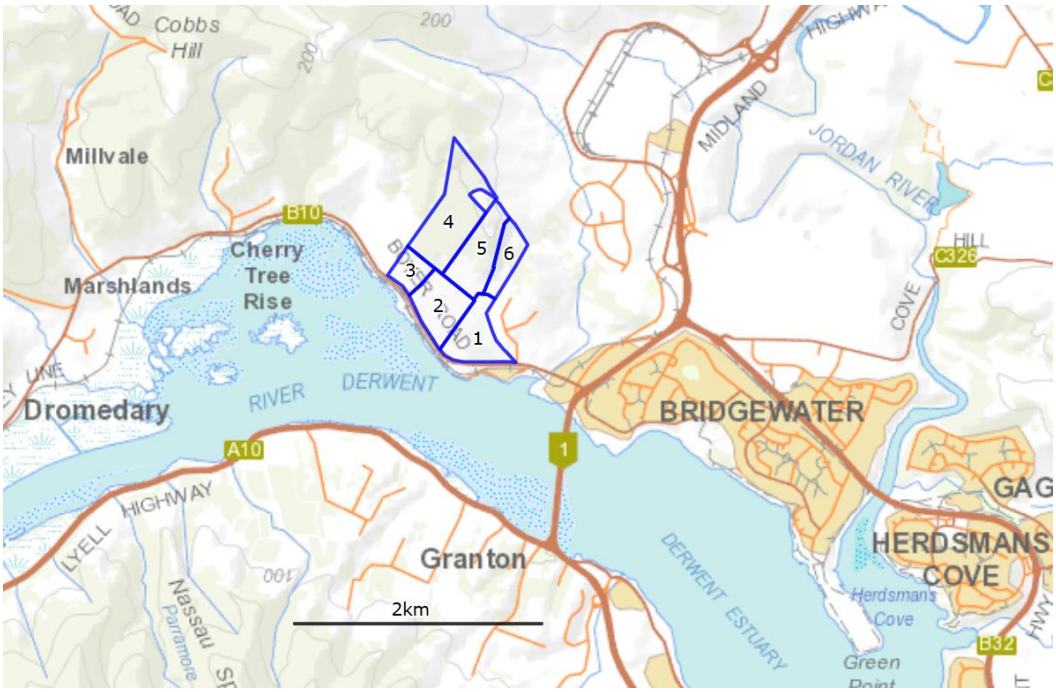

Figure 1 Location map of the BPSP study area. (source the LISTmap)

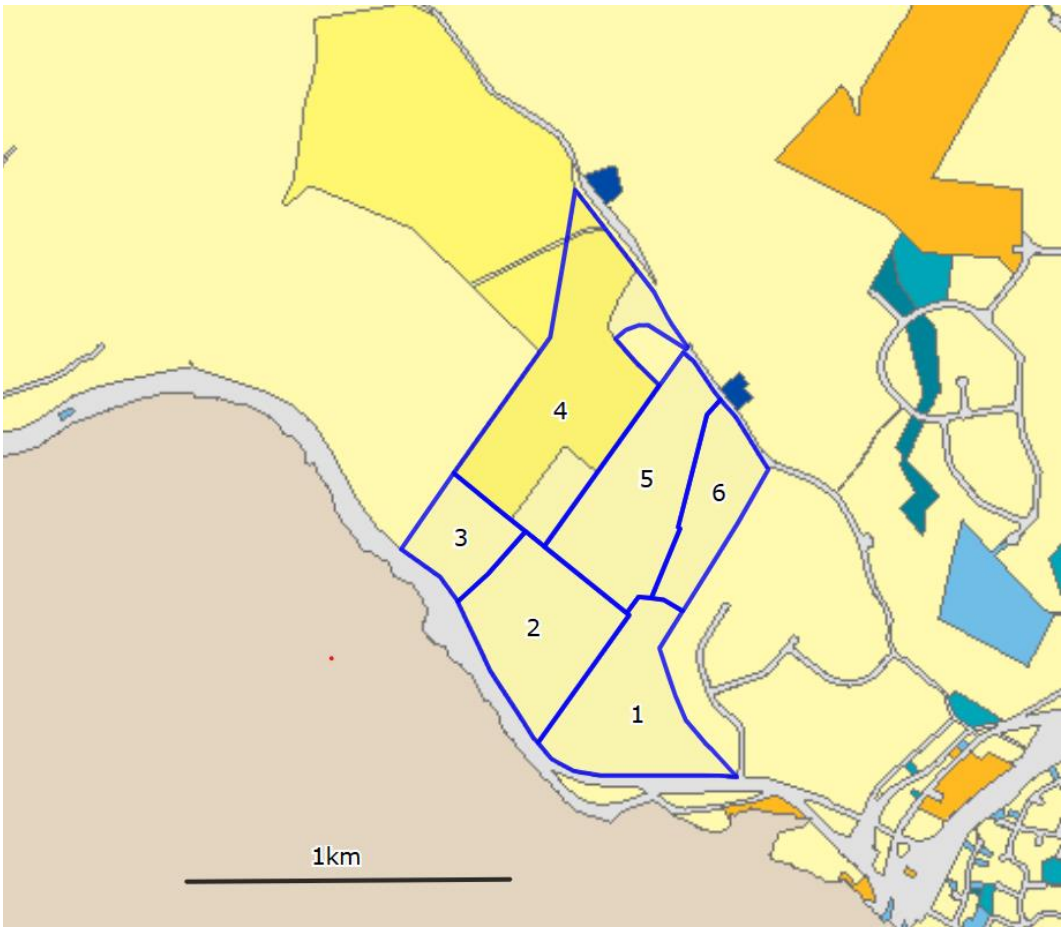

Figure 2 The majority of the BPSP study area is held as private freehold land (yellow shaded) as is the land to the north, east and south, conservation covenant (gold shaded) covers the north, TasWater land (dark blue shaded) is adjacent to the north, and further to the east is land covered by Public Reserve (orange shaded), Authority Freehold (light blue shaded) and Local Government (magenta shaded). (source the LISTmap)

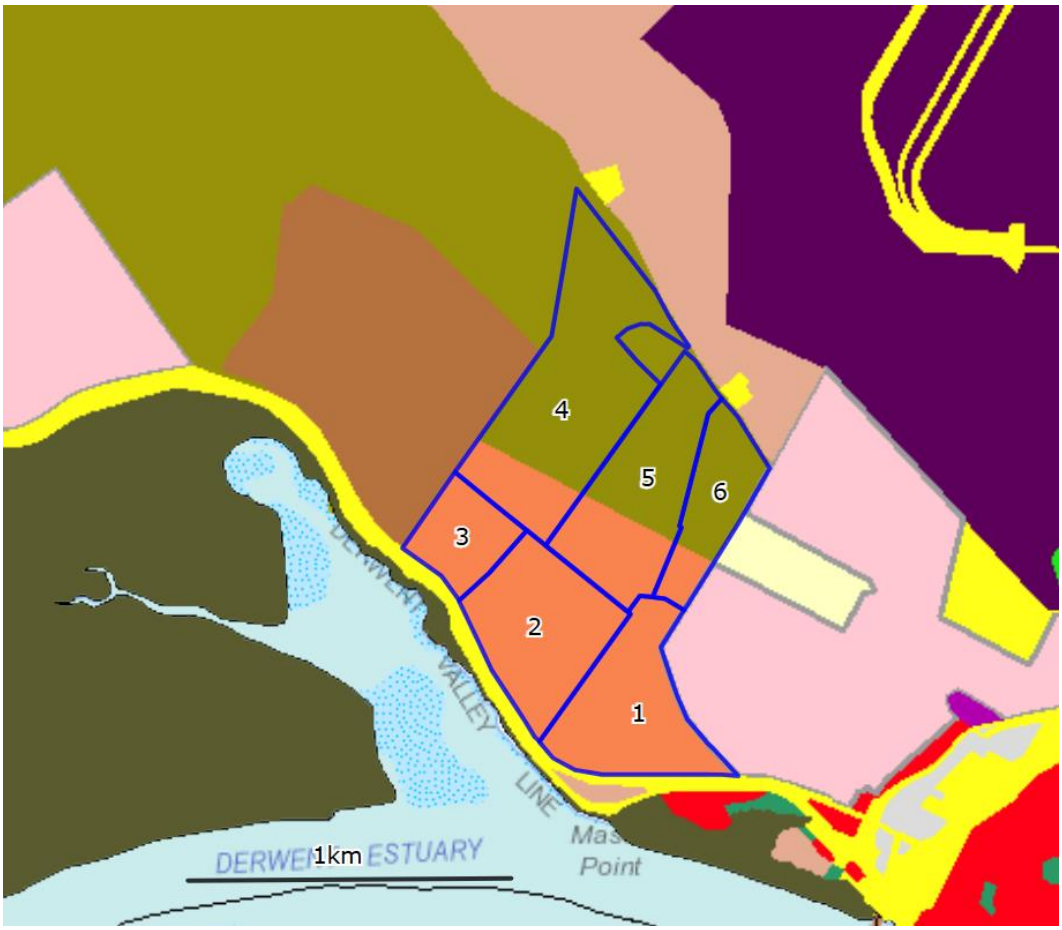

Figure 3 The southern area of the BPSP is covered by Future Urban (orange shaded) zoning and the balance with Landscape Conservation (olive shaded) which extends to the north west, with adjacent land to the west as Agriculture (dark brown shaded) zoned land, adjacent to the north is Rural (light brown shaded) and Utilities (yellow shaded) zoned land, adjacent to the south is Rural (light brown shaded), General Residential (red shaded) and Open Space (light green shaded), and to the east is Rural Living (pink shaded), General Industrial (purple shaded) and Utilities, with Environmental Management (dark green shaded) zoned land to the south and further to the west. (source the LISTmap)

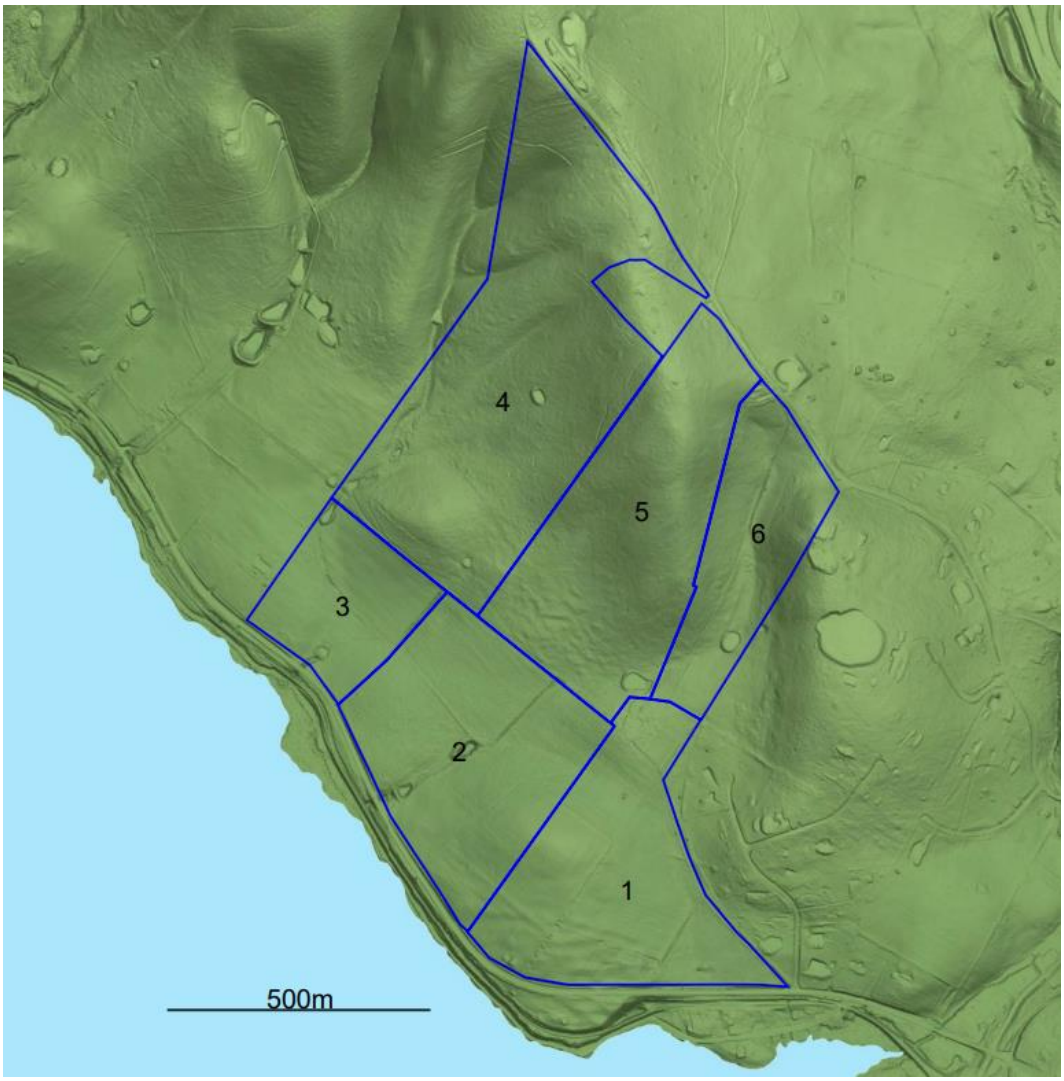

Figure 4 Topography of the BPSP study area. (source the LISTmap)

3 Land capability

Land capability of the study area was assessed according to the Tasmanian land capability classification system (Grose, 1999). Land is graded according to its ability to sustain a range of agricultural activities considering the chances of degradation of the land resource. Class 1 land is prime agricultural and class 7 land is unsuitable for agriculture due to severe limitations. A wide range of limitations are considered, and the most significant limitation determines the final classification. For example, limitations can be in relation to soils and could include stoniness, topsoil depth, drainage and erosion hazard. Limitations to topography could include slope angle and associated erosion hazard.

3.1 SITE VISIT

Desktop research was conducted to review available data associated with geology, topography, presence of threatened native vegetation, land capability, soil information and climatic data of the study area and surrounding area. Pinion Advisory consultants Jason Lynch and Georgia McCarthy conducted a site visits on the 16th and 23rd of October 2024 to ground-truth the available dataset information. The site assessment included inspection of the soil profile (to spade depth), an evaluation of the topography and vegetation as well as examination of land use on the study area and neighbouring properties.

3.1.1 Land capability assessment

The original land capability assessment of the area was modelled undertaken by DPIWE at a scale of 1:100,000 and reported in their Derwent Report[4] [5] in 2000. The properties involved with the BPSP was classified as class 4, 5 and 6 land to be present.

A more detailed recent assessment in October 2024 by the report authors identified class 4, 4+5, 5 and 6+7 land to be present. Figure 5

The soil present in the BPSP study area were identified and compared to the available datasets and were typically lighter textured sandy loam soils. [6] [7]

[4] Musk R. A. and DeRose R. C. (2000) Land Capability Survey of Tasmania. Derwent Report. Department of Primary Industries, Water and Environment, Tasmania
[5] Musk R. A. and DeRose R. C. (2000) Land Capability Survey of Tasmania, Derwent, 1:100 000 map. Department of Primary Industries, Water and Environment, Tasmania.
[6] Spanswick S. & D. Kidd, (2000) Revised Brighton Reconnaissance Soil Map of Tasmania. Brighton Report. Department of Primary Industry Water & Environment.
[7] Spanswick S. & D. Kidd, (2000) Revised Brighton Reconnaissance Soil Map of Tasmania. 1:100,000 Brighton Soil Reconnaissance Map. Department of Primary Industry Water & Environment.

Table 2 Land capability class definitions.[8]

Class	Definition
4	Land well suited to grazing but which is limited to occasional cropping or to a very restricted range of crops. The length of cropping phase and/or range of crops are constrained by severe limitations of erosion, wetness, soils or climate. Major conservation treatments and/or careful management is required to minimise degradation. Cropping rotations should be restricted to one to two years out of ten in a rotation with pasture or equivalent to avoid damage to the soil resource. In some areas longer cropping phases may be possible but the versatility of the land is very limited.
4+5	At least 60% land suitable to cropping and grazing with minimal limitations to use, up to 40% land suited to grazing with moderate limitations to use.
5	Land with slight to moderate limitations to pastoral use. This land is unsuitable for cropping, although some areas on easier slopes may be cultivated for pasture establishment or renewal. The effects of limitations on the grazing potential may be reduced by applying appropriate soil conservation measures and land management practices.
6	Land marginally suitable for grazing because of severe limitations. This land has low productivity, high risk of erosion, low natural fertility or other limitations that severely restrict agricultural use.
6+7	At least 60% land suitable to grazing with severe limitations to use, up to 40% land unsuited for agricultural use.
7	Land with very severe to extreme limitations which make it unsuitable for agricultural use.

The key land capability limitations associated with the property are:

- Erosion (e) associated with the risk rill and sheet erosion caused by surface water movement and wind scouring on bare and exposed soil and potential for degraded soil structural due to pugging from livestock movement on waterlogged soils and/or inappropriate and excessive ground cultivation activities.
- Soils (s) associated with challenging growing conditions for pasture and/or crops due to limitations such as soil depth, texture contrast, shallower depth and the presence of rock and stone.

[8] Grose C.J. (1999) Land Capability Handbook: Guidelines for the Classification of Agricultural Land in Tasmania. 2nd Edition, DPIWE, Tasmania.

Figure 5 Land capability of the BPSP study area.

Table 3 BPSP land capability characteristics

Land capability class	Land characteristics							
	Geology and soils	**Slope %**	**Topography and elevation**	**Erosion type and severity**	**Soil qualities**	**Agricultural versatility**	**Main land management requirements**	**Climatic limitations**
4se (approx. 37.8 ha)	A complex of dermosol, vertosol and podosol soil types formed from Quaternary alluvium. Red brown clay loam soils (dermosol soil type), grey sandy loam soils (podosol soil type), and red brown sandy soils (vertosol soil type).	2-8%	Gently sloping and undulating ground. 10-20m ASL	Low/moderate risk. Rill and sheet erosion due to surface water movement and wind scouring on bare and exposed soils and structure decline due to excessive and inappropriate soil cultivation.	Moderate to well drained. Variable top soil depth (20-40+cm). Moderate soil moisture and nutrient holding capacity. Occasional stone and rock fragment present in the soil profile.	This is technically suitable for cropping, however in practice due to the complete lack of irrigation water and small area of land it would not be cropped. This land is suitable for grazing with moderate limitations associated with the low rainfall environment, and any scale of grazing enterprise is severely limited.	Moderate/high. Avoid situations that lead to the exposure of bare soil, therefore maintain sufficient ground cover. The risk of soil compaction in winter from soil cultivation, machinery and stock movement increases significantly during periods of soil water logging albeit infrequently as this occurs.	Moderate to high. This land experiences cool winters and warm summer conditions. Receives on average approximately 518mm annual rainfall, has up to 10 annual frost events, has 1,160 GDD (Oct to April) and 780 chill hours (May to August).

Land capability class	Land characteristics							
	Geology and soils	**Slope %**	**Topography and elevation**	**Erosion type and severity**	**Soil qualities**	**Agricultural versatility**	**Main land management requirements**	**Climatic limitations**
4se.1 (approx. 2.3 ha)	Dermosol soil type, as per the Belmont soil profile class derived from Jurassic dolerite geology Black/brown to black clay soils.	5-15%	Gently sloping and undulating ground. 90-100m ASL	Moderate/high risk. Rill and sheet erosion due to surface water movement on bare and exposed soils and structure decline due to excessive and inappropriate soil cultivation.	Well to rapidly drained. Shallow top soil depth (20-40cm). Low soil moisture holding and moderate nutrient holding capacity. Occasional stone and rock fragment present in the soil profile.	This is technically suitable for cropping, however in practice due to the complete lack of irrigation water and small area of land it would not be cropped. This land is suitable for grazing with moderate limitations associated with the low rainfall environment, and any scale of grazing enterprise is severely limited.	Moderate/high. Avoid situations that lead to the exposure of bare soil, therefore maintain sufficient ground cover. The risk of soil compaction in winter from soil cultivation, machinery and stock movement increases significantly during periods of soil water logging albeit infrequently as this occurs.	Moderate to high. This land experiences cool winters and warm summer conditions. Receives on average approximately 518mm annual rainfall, has up to 10 annual frost events, has 1,160 GDD (Oct to April) and 780 chill hours (May to August).

Land capability class	Land characteristics							
	Geology and soils	**Slope %**	**Topography and elevation**	**Erosion type and severity**	**Soil qualities**	**Agricultural versatility**	**Main land management requirements**	**Climatic limitations**
4+5se (approx. 6.9 ha)	Dermosol soil type, as per the Belmont soil profile class derived from Jurassic dolerite geology. Black/brown to black clay soils and clay loam soils.	3-8	Gently to moderate sloping and undulating ground and forms a natural gully line. 30-60m ASL	Low to moderate risk. Rill and sheet erosion due to surface water movement on bare and exposed soils and structure decline due to excessive and inappropriate soil cultivation. During periods of high flow in the waterway which bisects this land it is possible stream bank erosion could occur.	Poor to imperfectly drained. Top soil depth of 30-40cm. Moderate/high soil moisture holding and moderate nutrient holding capacity. Stone and rock fragments present on the soil surface and throughout the in the soil profile.	This is unsuitable for cropping. This land is suitable for grazing with moderate/severe limitations associated with the low rainfall environment, and any scale of grazing enterprise is severely limited.	Moderate to high. Avoid situations that lead to the exposure of bare soil, therefore maintain sufficient ground cover. The risk of soil compaction in winter from soil cultivation, machinery and stock movement increases significantly during periods of soil water logging albeit infrequently as this occurs.	This land experiences cool winters and warm summer conditions. Receives on average approximately 518mm annual rainfall, has up to 10 annual frost events, has 1,150 GDD (Oct to April) and 800 chill hours (May to August).

Land capability class	Land characteristics							
	Geology and soils	**Slope %**	**Topography and elevation**	**Erosion type and severity**	**Soil qualities**	**Agricultural versatility**	**Main land management requirements**	**Climatic limitations**
5se (approx. 10.3)	Texture contrast soils, as per the kurosol soil type and consistent with the Forcette soil profile class, derived from siltstone geology. Shallow brown and grey/brown sandy loam soil over a mottled orange subsoil.	3-8	Gently sloping and undulating ground and forms the extreme foot slopes of the south west flanks of the Genappe Spur. 25-45m ASL.	Moderate/high risk. Rill and sheet erosion due to surface water movement on bare and exposed soils and structure decline due to excessive and inappropriate soil cultivation.	Poor to imperfectly drained. Shallow top soil depth (5-20cm). Low soil moisture and nutrient holding capacity. Frequent presence of stone and rock fragments in the soil profile.	Unsuitable for cropping. Suitable for grazing purposes with very severe restrictions.	Moderate/high. Avoid situations that lead to the exposure of bare soil, therefore maintain sufficient ground cover. Fence off and control access to livestock.	Moderate to high. This land experiences cool winters and warm summer conditions. Receives on average approximately 518mm annual rainfall, has up to 10 annual frost events, has 1,140 GDD (Oct to April) and 825 chill hours (May to August).

Land capability class	Land characteristics							
	Geology and soils	**Slope %**	**Topography and elevation**	**Erosion type and severity**	**Soil qualities**	**Agricultural versatility**	**Main land management requirements**	**Climatic limitations**
5se.1 (approx. 2 ha)	Dermosol soil type, as per the Belmont soil profile class derived from Jurassic dolerite geology Black/brown to black clay soils.	8-18	Moderate sloping ground. 40-80m ASL	Low to moderate risk. Rill and sheet erosion due to surface water movement on bare and exposed soils and structure decline due to excessive and inappropriate soil cultivation. Some areas of land are subject to mass movement, as per mostly low risk although some medium risk areas are present.	Poor to imperfectly drained. Top soil depth of 30-40cm. Moderate/high soil moisture holding and moderate nutrient holding capacity Stone and rock fragments present on the soil surface and throughout the in the soil profile.	Unsuitable for cropping. This land is suitable for grazing with moderate/severe limitations associated with the low rainfall environment, and any scale of grazing enterprise is severely limited. This land is covered by native vegetation and it would be inappropriate to clear and convert this land due to relative very low level of potential agricultural land use activity. This land should be left as native vegetation and not cleared and/or converted to agricultural use.	Moderate to high. Avoid situations that lead to the exposure of bare soil, therefore maintain sufficient ground cover. Maintain the current native vegetation cover on this land and do not clear this land. Fence off and control access to livestock.	This land experiences cool winters and warm summer conditions. Receives on average approximately 518mm annual rainfall, has up to 10 annual frost events, has 1,150 GDD (Oct to April) and 800 chill hours (May to August).

Land capability class	Land characteristics							
	Geology and soils	**Slope %**	**Topography and elevation**	**Erosion type and severity**	**Soil qualities**	**Agricultural versatility**	**Main land management requirements**	**Climatic limitations**
6+7se (approx. 44.3 ha)	Texture contrast soils, as per the kurosol soil type and consistent with the Forcette soil profile class, derived from siltstone geology. Very shallow grey/brown sandy loam soil over a mottled orange subsoil.	8-18	Gently to moderate sloping and rolling ground and forms the foot slopes of the south west flanks of the Genappe Spur. 25-145m ASL.	Low to moderate risk. Rill and sheet erosion due to surface water movement on bare and exposed soils and structure decline due to excessive and inappropriate soil cultivation. Some areas of land are subject to mass movement, as per mostly low risk although some medium risk areas are present.	Poor to imperfectly drained. Shallow top soil depth (5-20cm). Low soil moisture and nutrient holding capacity. Frequent presence of stone and rock fragments in the soil profile.	Unsuitable for cropping. Suitable for grazing purposes with very severe restrictions. In reality this land is covered by native vegetation and it would be inappropriate to clear and convert this land due to relative very low level of potential agricultural land use activity. This land should be left as native vegetation and not cleared and/or converted to agricultural use.	High. Avoid situations that lead to the exposure of bare soil, therefore maintain sufficient ground cover. Maintain the current native vegetation cover on this land and do not clear this land. Fence off and control access to livestock.	Moderate to high. This land experiences cool winters and warm summer conditions. Receives on average approximately 518mm annual rainfall, has up to 10 annual frost events, has 1,140 GDD (Oct to April) and 825 chill hours (May to August).

4 Water resources

4.1 CURRENT WATER RESOURSES

It appears that all of the residential dwellings present on the properties located in the BPSP study area are serviced by TasWater for the provision of drinking water.[9]

The study area is not located within a declared irrigation district and not serviced by an irrigation scheme.

No irrigation dams are present within the BPSP study area.

Six small stockwater holes are present that are located in-stream on the 2 minor waterways that flow through the northern and southern areas of the BPSP study area.

Two waterways are present in the study area:

- Northern waterway (identified as stream 1 on Figure 6)
    - An unnamed tributary of the Derwent River
    - Feeds two small in-stream stockwater dams, none of which have an irrigation water allocation allocated and none of these dams have a dam ID allocated.
- Southern waterway (identified as stream 2 on Figure 6)
    - An unnamed tributary of the Derwent River
    - Feeds four small in-stream stockwater dams, none of which have an irrigation water allocation allocated and none of these dams have a dam ID allocated.

None of the properties involved in the BPSP study area have an irrigation water allocation license to extract water from the either of the two waterways which are present.

A single groundwater bore, ID 17404, has been identified within the BPSP study area, as per on the central north western boundary of the 182 Boyer Road property. This bore was installed in 1998 and appears to have been abandoned soon after installation and not used to extract groundwater.[10]

It is reasonable to consider that the properties involved with the BPSP study area that any and all agricultural land use activity regardless of intensity and scale is severely limited due to a combination of the low rainfall climate in conjunction with the complete lack of access to irrigation water.

[9] Pers comms property owners interviewed as part of the site land holder property visits.
[10] The Listmap datasets.

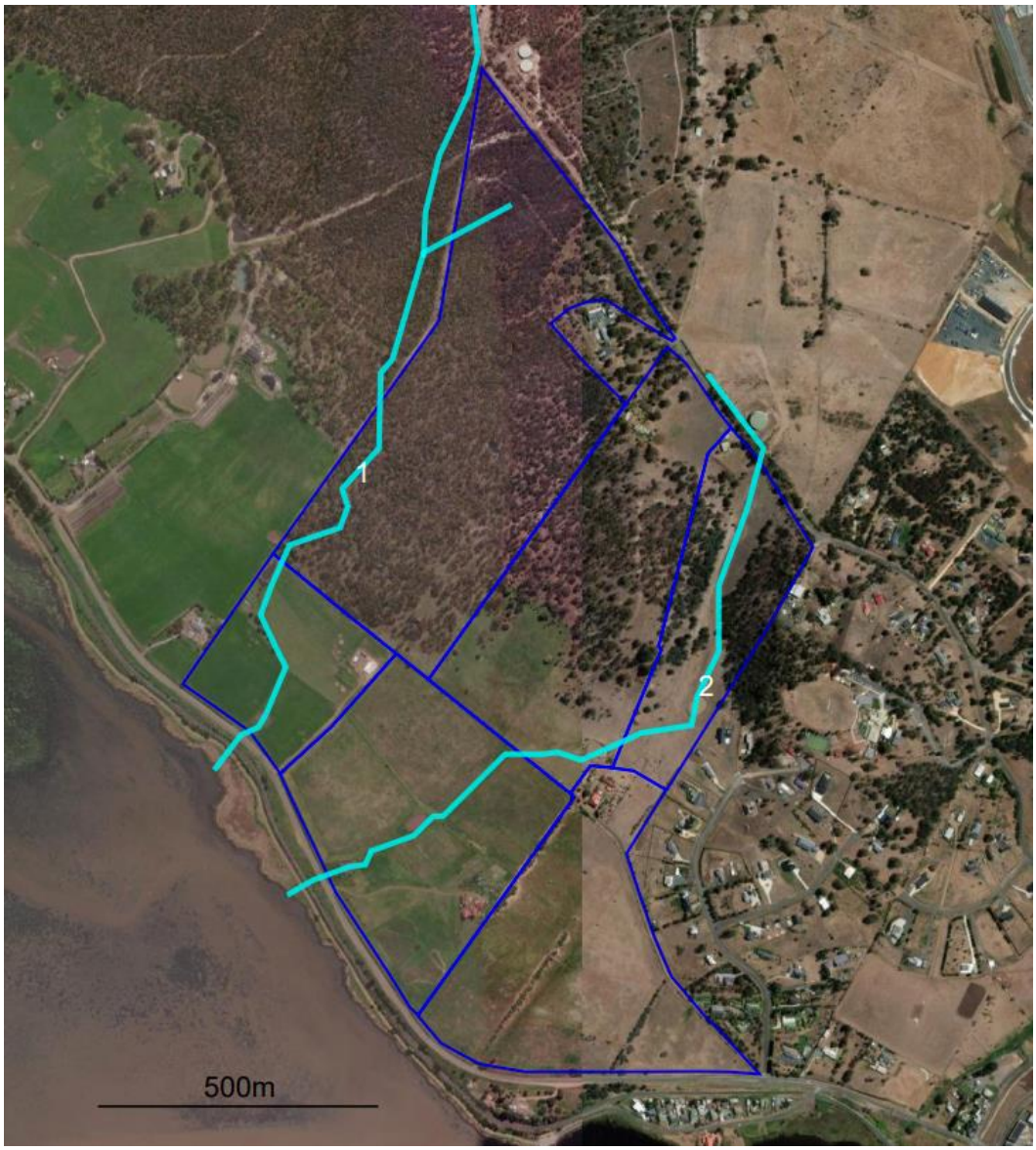

Figure 6 Waterways present on the BPSP study area. (source the LISTmap)

4.2 FUTURE WATER RESOURCES

An assessment of the potential to extract irrigation water from either of the waterways present in the study area are outlined in Table 4. The amount of available irrigation water is very low, and effectively incapable to supporting anything more than a small scale irrigated land use activity. If all the available total irrigation water present in the waterway 1 and 2 was combined used it would allow for the production:

- 0.7 hectares of fully irrigated pasture (typical annual use of 5 ML/ha).
- 1.9 hectares of vineyard (typical annual use of 2 ML/ha).

Table 4 Potentially allocated irrigation water from the waterways present[11]

Waterway ID (Figure 6)	Reliability	Availability limit (ML)	Currently allocated (ML)	Potentially available (ML)
1	High Availability	1.16	0	1.16
	Mid Availability	0.32	0	0.32
2	High Availability	1.82	0	1.82
	Mid Availability	0.51	0	0.51

No other waterways are present in the locale and adjacent or nearby properties which would be considered to have anything more than nominal amounts of available irrigation water.

Based on available datasets[12] [13] the groundwater in this district typically has low yields (<2 L/s) is considered suitable for domestic, garden, livestock and small area irrigation. This area of south east Tasmania is not recognised as having a significant groundwater resource. The geology underlying the BPSP consists of:

- Fractured Jurassic dolerite which typically has a successful bore yield (>0.03 L/s) of 81.8% and average yield 1.24 L/s.
- Porous Quaternary alluvium which typically has a successful bore yield (>0.03 L/s) of 61.8% and average yield 0.77 L/s. Consistent with property titles
- Fractured Permian mudstone which typically has a successful bore yield (>0.03 L/s) of 79.6% and average yield 1.24 L/s.

The yield of bores, regardless of the geology's aquifer is often of lower quality and contains excessive amounts of salt (>1,500 TDS) and limits its use to stockwater. It is reasonable to consider that the opportunity to extract groundwater on and/or in the near vicinity of the BPSP is very limited.

Currently at this time Pinion Advisory is not aware of plans by Irrigation Tasmania to service the BPSP nor adjacent or nearby land with an irrigation scheme. The nearest irrigation scheme is 10 km to the east, as per the South East Irrigation Stage 3 (SEIS3) and this services the middle and lower Coal Valley and Sorell.

Theoretically potable water, supplied by TasWater, could be used a source of irrigation water, however it does come with significant management constraints including:

- Cost[14]:
    - Current (2024/25) TasWater fixed annual connection charge varies with the diameter of the inlet pipe, such as a 50mm connection costs $2,459 whilst a 100mm connection costs $9,838.

[11] Department of Natural Resources and Environment, Water Access Tool, accessed 29/9/24.

[12]Matthews W, Latinovic M. (2006) South East Tasmanian Groundwater Map. Department of Infrastructure and Energy.

[13] Department of Natural Resources and Environment, Groundwater Information Access Portal.

[14] TasWater Price and Service Plan 4. 1 July 2022-30 June 2026. CM record number 22/40133.

    - TasWater delivery costs would be anticipated to cost approximately $1,200/ML which is over four times greater than the most expensive irrigation water delivery charges charged TasWater in the SEIS.
- Surety:
    - TasWater is not obliged to give priority access to an irrigation water users. An example would be during periods when water restrictions apply (e.g. summer) and the supply of water to irrigation users could be restricted.
- Flow rate and delivery[15]:
    - The minimum water delivery pressure is 220 kPa and the flow rate is determined by the size of the outlet.
    - If a smaller outlet is available, then it may be necessary to require a buffer dam to ensure sufficient irrigation water delivery. The exact size of any buffer dam would be calculated based on the required irrigation schedule flow rate, irrigation season length and size of the TasWater outlet.

The opportunity to develop new water resources within the BPSP study area and on adjacent and nearby properties is severely limited and realistically not possible.

It would be reasonable to consider that the majority of agricultural land use activity will be dominated by dryland production systems.

[15] TasWater Price and Service Plan 4. 1 July 2022-30 June 2026. CM record number 22/40133

5 Land use

The properties involved with the BPSP study area are principally used for residential purposes and have either no or severely limited agricultural land use activity.

Table 5 Property land use activity.

Property Address	Land use activity
50 Boyer Road	Residential use and low intensity and small-scale dryland livestock grazing. No commercial agricultural land use activity.
170 Boyer Road	Lifestyle use and enjoyment of the rural bucolic amenity of the location. No commercial agricultural land use activity.
182 Boyer Road	Residential use and low intensity and small-scale dryland livestock grazing. No commercial agricultural land use activity.
25 Cobbs Hill	Residential use and grazing by horses. No commercial agricultural land use activity.
29 Cobbs Hill	Residential use and retained native vegetation. No commercial agricultural land use activity.
31 Cobbs Hill	Retained for native vegetation use, as per a conservation covenant. No commercial agricultural land use activity.

5.1 AGRICULTURAL AND PRIMARY INDUSTRIES CONDUCTED

Each of the properties and associated land owners involved in the BPSP study area were visited and interviewed (in person or via an email questionnaire) to obtain information on the past and current agricultural land use activity and management practices which has and is conducted on the subject properties.

In summary none of the properties are involved in any commercial scale agricultural land activity, and all properties are effectively used for residential purposes with the exception of the title located on the far north which is almost entirely covered by a conservation covenant.

Attached in Appendix 1, Table 7 and Table 8 are responses by the land owners in relation the past and current agricultural land use activity and management practices which has and is conducted on the subject properties.

5.1.1 Potential pastoral use

The land associated with the BPSP has the potential to be used for pastoral use, albeit restricted due to a combination of the prevailing land capability of the ground and low rainfall environment (annual rainfall of 518mm[16]). In total 51 hectares of open

[16] Bureau of Meteorology, Bridgewater Treatment plant BoM station# 94005.

pastureland are present on the BPSP, and this would support a modelled potential sustainable total carrying capacity of approximately 470 DSE/ha[17].

470 DSE would equate to equate to a sheep enterprise consisting of 105 mature breeding ewes, finishing 125 prime lambs and running 15 replacement ewe lambs, and this would generate a possible annual gross margin return of approximately $6,500.

At an operational level the exact numbers of sheep run on the property will vary, such as the number of replacement ewes required, sucker lambs sold directly at weaning and the associated number of prime lambs finished.

It would be reasonable to consider that supplementary feeding of livestock run on the property would be required when pasture growth is limiting, such as during winter and to a lesser extent during summer.

Based on the current condition of the pastures present on the properties involved in the BPSP the carrying capacity would be closer to approximately 170 DSE.

A 470 DSE sheep based grazing enterprise as could be undertaken on a combined land holdings nor that of individual properties within the BPSP would not constitute and/or be recognised as a commercial scale grazing operation.

The approximately 51 hectares of open pasture land are present across five properties and it would not be realistic to achieve the modelled carrying capacity due to limitations associated with a loss of production efficiencies due to the dilution of the operational and management capacities.

5.1.2 Potential cropping use

The class 4 land present on the properties associated with the BPSP covers a total combined area of approximately 40.1 hectares (as per the class 4 land) has the theoretical potential to be cropped.

Due to the complete current and future lack of access to irrigation water the range of crops which could be grown is severely restricted and effectively limited to low rainfall dryland cereal production such as wheat or barley.

It should be noted that class 4 land would only be suitable for cropping potentially on an average cropping rotation of 2 times in 10 years, and this equates to a sustainable annual cropping area of 8 ha/yr.

Due to the low rainfall dryland climate, small amount of cropping land available and ability to grow only cereal crops it would be realistic to considered cropping to be viable agricultural land use activity of the land associated with the BPSP.

The approximately 40.1 hectares of cropping land are present across four properties and it would not be realistic to undertake cropping activities due to limitations associated with a loss of production efficiencies due to the dilution of the operational and management capacities.

[17] A dry sheep equivalent (DSE) is a standard unit used to compare the feed requirements of different classes of livestock to assess the carrying capacity of a farm or paddock. One DSE is defined as the amount of feed required by a two-year-old 50 kg 'dry' Merino sheep (wether or non-lactating, non-pregnant ewe) to maintain its weight.

5.1.3 Potential perennial horticultural use

Due to a combination of the prevailing low rainfall dryland environment and complete current and future lack of access to irrigation water the potential to grow perennial horticultural crops, such as wine grapes, olives or cherries is severely diminished and in reality, would not be possible.

6 Adjacent land use activity

Land use on the properties adjacent to and nearby the BPSP includes residential use, a school, utilities (road, railway and TasWater), lifestyle use and small scale agriculture.

The likely most sensitive boundary would be adjacent to the north west of the BPSP (as per the 182 Boyer Road property) on the 232 Boyer Road property is used for small scale agricultural land use activity.

All other property boundaries have uses which are similar and/or compatible with the potential residential purposes intended for the BPSP or are separated by the extensive native vegetation which would be retained on the north eastern area of the BPSP.

Land use activity on adjacent land includes:

- North east
    - Title 127385/1 of the 158 Cobbs Road property title (approximately 22.5 hectares), Rural zoned, no residential dwelling present, covered by rough grazing land.
    - Title 127216/1 of the 158 Cobbs Road property (approximately 26.8 hectares), split between Rural and General Industry zoned, degraded pasture land used for sheep grazing and a residential dwelling is present.
    - The 26A and 56 Cobbs Hill Road properties (combined area of approximately 1.6 hectares), Utilities zoned, TasWater land, with 3 large water reservoirs.
    - The 29A Cobbs Hill Road property (approximately 2.2 hectares), Landscape Conservation zoned, mostly covered by native vegetation, residential dwelling present, the property is used for residential and amenity purposes and no agricultural land use activity is undertaken.

- North west
    - The 194 Boyer Road property (approximately 1 hectare), Agriculture zoned, residential dwelling present, residential dwelling present, with pastureland (approximately 0.4 hectares) and is best described as a lifestyle block.
    - The 232 Boyer Road property (approximately 43.85 hectares), split Agriculture and Landscape Conservation zoned, covered by pastureland (approximately 18.2 hectares), native vegetation (approximately 10.3 hectares) and a Conservation Covenant (approximately 10.3 hectares), cropping ground (approximately 1.5 hectares) and the balance by dams and residential dwelling and amenity areas, and a residential dwelling is present. This property is used for agricultural land use activity, as per grazing livestock and cropping, albeit at small scale.
- East
    - The 4, 8, 20, 24, 32, 36, 40, 42, 46, 52, 58 and 60 Serentiy Drive properties (ranging in size from approximately 0.48-0.65 hectares), Rural Living zoned, residential dwelling present on each block, and no agricultural land use activity is present.
    - The 9 Cobbs Hill Road property (approximately 2.26 hectares), Rural Living zoned, residential dwelling present, and the property is used for residential and amenity purposes and no agricultural land use activity is undertaken.

    - The 7 Cobbs Hill Road property (approximately 8.1 hectares), Community Purpose zoned, covered by buildings and an oval as part of the Northern Christian school.

- South
    - Boyer Road and the Derwent Valley Railway line, which are Utilities zoned land.
    - The 89 Boyer Road property (approximately 1.23 hectares), Rural zoned, separated by Boyer Road and the Derwent Valley Railway line to the north from the BPSP, a residential dwelling is present, and the property is used for residential and amenity purposes and no agricultural land use activity is undertaken.
    - The 1, 2, 3, 4, 5, 6 , 7, 8, 9, 10, 11, 12 and 13 Riverside Drive properties (ranging in size from approximately 0.015-0.11 hectares), General Residential zoned, separated by Boyer Road and the Derwent Valley Railway line to the north from the BPSP, residential dwelling present on each block.

7 Local and regional importance

The BPSP study area is within the north west peri-urban rural area of Bridgewater area, and it is reasonable to consider that it holds a negligible level of local and regional prominence.

Table 6 provides details on the prominence of the BPSP study area in terms of the area and quality of the land within the Derwent land capability mapping area.

The BPSP study area accounts for less than 0.05% of the Derwent land capability mapping area.

Table 6: Local and regional importance of the study area

Land capability	Derwent mapping area		BPSP study area	
	Area (ha)	Mapping area (%)	Area (ha)	Derwent mapping area (%)
Prime	144	0.007	0	0
Non-prime	173,451	82.14	103	0.059
Exempt	37,726	17.85	0	0
Total	211,321	100.00	103	0.048

The BPSP study area clearly holds a negligible level of agricultural prominence and it should be noted that any current and future potential agricultural land use activity is severely constrained by a number of factors:

- Low land capability of the ground:
    - Limited area of class 4 present (approximately 40.1 hectares) which theoretically could be used for low frequency cropping (2-3 times in 10 years) with a severely restricted range of crops and can be used for grazing minimal limitations (albeit having a low carrying capacity). In reality the complete absence of irrigation water and being present across four properties means it would not be cropped.
    - Class 5 is unsuitable for cropping and is suitable for grazing with moderate/severe restrictions and has a low carrying capacity.
    - The majority of the study area is covered by class 6+7 land which severely restricted/unsuitable for agricultural land use activity.
    - No prime agricultural land is located within 1km of the subject property.
- Lack of access to irrigation both currently and in the future:
    - Only a very small amount of irrigation water (3.8 ML of combined high and mid availability irrigation water entitlements) is available.
    - Not located within an irrigation district and not serviced by an irrigation scheme.
    - No operational bores are located in the BPSP, and groundwater yields in this locale are often unreliable.
    - Sourcing irrigation water from TasWater comes at a particularly high cost and limited surety, with both of these factors making this irrigation water option unrealistic.
    - In reality agricultural land use activity is restricted to dryland activity only.

- Divided into 6 property titles:
    - Property sizes range from 7.6-31.3 hectares in size, with the largest block covered by a conservation covenant and not able to be considered for agricultural use.
    - Smaller land holdings mean it is not possible to undertaken agricultural land use activities at a large scale and justify the investment and use infrastructure to undertake more intensive grazing and/or cropping activities (e.g. larger tractors, cultivators).

8 Protection of Agricultural Land policy compliance

8.1 PRINCIPLE 1

Principle 1 states

"Agricultural land is a valuable resource and its use for the sustainable development of agriculture should not be unreasonably confined or restrained by non-agricultural use or development".

Response: No land present on any of the subject BPSP properties is zoned as Agriculture or Rural. The current level of agricultural land use activity, as is conducted on the 50, 170 and 182 Boyer Road properties, involves pastoral based activities, are of a non-commercial scale, and are best described as lifestyle blocks.

The grazing activities undertaken on the BPSP study area are severely constrained by the low rainfall climate and small amount of available pastureland.

8.2 PRINCIPLE 2

Principle 2 states

"Use and development of prime agricultural land should not result in unnecessary conversion to non-agricultural use or agricultural use not dependent on the soil as the growth medium"

Response: This is not applicable as no prime agricultural land is present within the BPSP study area.

8.3 PRINCIPLE 3

Principle 3 states

"Use and development, other than residential, of prime agricultural land that is directly associated with, and a subservient part of, an agricultural use of that land is consistent with this Policy."

Response: This is not applicable as no prime agricultural land is present within the BPSP study area.

8.4 PRICNIPLE 4

Principle 4 states

"The development of utilities, extractive industries and controlled environment agriculture on prime agricultural land may be allowed, having regard to criteria, including the following:

Response: This is not applicable as no prime agricultural land is present within the BPSP study area.

8.5 PRINCIPLE 5

Principle 5 states

"Residential use of agricultural land is consistent with the Policy where it is required as part of an agricultural use or where it does not unreasonably convert agricultural land and does not confine or restrain agricultural use on or in the vicinity of that land".

Response: The proposed residential use of the BPSP study area (as per the Future Urban zoned land is not intended nor required as part of any agricultural land use activity.

8.6 PRINCIPLE 6

Principle 6 states

"Proposals of significant benefit to a region that may cause prime agricultural land to be converted to non-agricultural use or agricultural use not dependent on the soil as a growth medium, and which are not covered by Principles 3, 4 or 5, will need to demonstrate significant benefits to the region based on an assessment of the social, environmental and economic costs and benefits".

Response: This is not applicable as no prime agricultural land is present within the BPSP study area.

8.7 PRINCIPLE 7

Principle 7 states

"The protection of non-prime agricultural land from conversion to non-agricultural use will be determined through consideration of the local and regional significance of that land for agricultural use".

Response: As identified as section 7 of this report the BPSP study area accounts for less than 0.05% of the Derwent land capability mapping area. Due to limitations associated with the low quality of the land, lack of access to irrigation, majority of land is covered by a conservation covenant and being divided into small land holdings means the current and future potential agricultural use is severely limited.

8.8 PRINCIPLE 8

"Provision must be made for the appropriate protection of agricultural land within irrigation districts proclaimed under Part 9 of the Water Management Act 1999 and may be made for the protection of other areas that may benefit from broad-scale irrigation development".

Response: The BPSP is not covered by a proclaimed irrigation district. None of the subject properties involved in the BPSP have access to irrigation water, and therefore it is

not possible to consider that irrigated agricultural land use activity can and could be undertaken.

Even if irrigation water was theoretically made available it would not benefit nor be applicable to broad scale irrigation development due to the small amount of available land and low land capability of the ground present.

8.9 PRINCIPLE 9-11

The remaining principles are not relevant to the BPSP subject area. These principles relate to the following:

- Planning schemes facilitating agricultural use on land zoned for rural purposes (Principle 9); and
- Plantation forestry (Principles 10 and 11).

9 Southern Tasmanian Land Use Strategy

The Southern Tasmanian Land Use Strategy (STRLUS) is a policy document which supports and assist to manage change, growth, and development within Southern Tasmania.

STRULS "provides comprehensive land use policies and strategies for the region based upon: The vision for the State as outlined by Tasmania Together:

- A more defined regional vision;
- Overarching strategic directions; and
- A comprehensive set of regional planning policies addressing the underlying social, economic, and environmental issues in Southern Tasmania.[18]

Section 16.5 of STRLUS provides a series of policy guidelines, PR1-PR5 which provides direction in relation to the use and protection of agricultural land.

9.1 PR 1 SUPPORT AGRICULTURAL PRODUCTION ON LAND IDENTIFIED AS REGIONALLY SIGNIFICANT BY AFFORDING IT THE HIGHEST LEVEL OF PROTECTION FROM FETTERING OR CONVERSION TO NON-AGRICULTURAL USES.

- PR 1.1 Utilise the 'Significant Agriculture Zone' to identify regionally significant agricultural land in planning schemes and manage that land consistently across the region.
    - Response: The BPSP land is zoned as Future Urban and Landscape Conservation and is not identified as Agriculture zoned land (formerly the Significant Agriculture Zone).
- PR 1.2 Avoid potential for further fettering from residential development by setting an acceptable solution buffer distance of 200 metres from the boundary of the Significant Agriculture Zone, within which planning schemes are to manage potential for land use conflict.
    - Response: No definite plans and/or designs are currently available for the development of the Future Urban zoned land on the BPSP study area. It should be noted that a number of measures could be undertaken to mitigate the potential negative impacts on the agricultural land use activities undertaken on the Agriculture zoned land, and this includes establishing a shelter belt, secure fencing, weed control and active dog management activities.
- PR 1.3 Allow for ancillary and/or subservient non-agricultural uses that assist in providing income to support ongoing agricultural production
    - Response: The proposed development on the Future Urban zoned land on the BPSP study area will not include any ancillary and subservient non-agricultural uses.
- PR 1.4 Prevent further land fragmentation by restricting subdivision unless necessary to facilitate the use of the land for agriculture.
    - Response: The BPSP study area which would be subject to the development is Future Urban zoned land, and therefore it was planned to be subject to subdivision in order to facilitate residential development on small land holdings.
- PR 1.5 Minimise the use of significant agricultural land for plantation forestry

[18] Southern Tasmania Regional Land Use Strategy 2010 – 2035. Amended 17 May 2023.

- Response: None of the subject properties involved with the BPSP study area are used for forestry, as per either the production nor harvest of native and/or plantation forest.

9.2 PR 2 MANAGE AND PROTECT THE VALUE OF NON-SIGNIFICANT AGRICULTURAL LAND IN A MANNER THAT RECOGNISES SUB-REGIONAL DIVERSITY IN LAND AND PRODUCTION CHARACTERISTICS.

- PR 2.1 Tailor planning scheme standards, particularly the minimum lot size for subdivision, according to the designated subregion.
  - The future proposed development of the Future Urban zoned land within the BPSP study area would comply with all applicable minimum lot sizes.
- PR 2.2 Ensure the minimum lot size takes into account the optimum size for the predominating agricultural enterprise within that subregion.
  - Response: The subject BPSP study area has a negligible level of local and regional prominence and is incapable to supporting any meaningful agricultural land use activity.
- PR 2.3 Utilise the settlement strategy to assess conversion of rural land to residential land through rezoning, rather than the potential viability or otherwise of the land for particular agricultural enterprises.
  - Response: The BPSP study area which would be subject to the development is Future Urban zoned land, and therefore it was planned to be subject to subdivision in order to facilitate residential development on small land holdings.
- PR 2.4 Ensure opportunities for down-stream processing of agricultural products are supported in appropriate locations or 'on-farm' where appropriate supporting infrastructure exists and the use does not create off-site impacts.
  - Response: Response: The proposed development on the Future Urban zoned land on the BPSP study area will not include any use associated with down-stream processing of agricultural products.
- PR 2.5 Provide flexibility for commercial and tourism uses provided that long-term agricultural potential is not lost and it does not further fetter surrounding agricultural land.
  - Response: The specific use(s) of the Future Urban zoned land will be identified in the near future, and it is not currently possible to determine if commercial and/or tourism uses will occur within the BPSP.
- PR 2.6 Ensure the introduction of sensitive uses not related to agricultural use, such as dwellings on small non-farming titles, are only allowed where it can be demonstrated the use will not fetter agricultural uses on neighbouring land.
  - Response: A significant buffer (350-700m and largely covered by native vegetation) exists between the Rural zoned land located to the north of the Future Urban zoned land on the BPSP study area. A number of mitigation measures can be undertaken, such as establishing a shelter belt, secure fencing, active dog management and weed control, in order mitigate the potential negative impacts on the adjacent Agriculture zoned land to the west of the Future Urban zoned land on the BPSP study area.

9.3 PR 3 SUPPORT AND PROTECT REGIONALLY SIGNIFICANT EXTRACTIVE INDUSTRIES.

None of the subject properties involved with the BPSP study area are used for extractive industries.

The Brighton General Industry zoned land further to the east of the BPSP is setback 680m at the closest point from the potential residential development areas, and this includes a substantial buffer (500m wide) associated with the native vegetation present.

It is reasonable to consider that the proposed residential development of the BPSP would not negative impact existing and/or potential extractive industries.

9.4 PR 5 SUPPORT THE FOREST INDUSTRY.

None of the properties involved with the BPSP study area are used for forestry, as per either for the production or harvest of native and/or plantation forest.

10 Constraint analysis and review

10.1 BPSP STUDY AREA

The BPSP study area is subject to a number of constraints which severely limits the current and future agricultural land use activity of the block, and includes:

1. Low/very low level of land capability and associated severely limited scope for agricultural land use activity, and effectively severely restricts the scale and intensity of all forms of agricultural land use activity and effectively limits the use to low intensity livestock grazing enterprise.

2. The absence of irrigation water, with only a very small amount (3.8 ML) of irrigation water which could be extracted from the two waterways which flow through the study area. No irrigation dams are present within the BPSP study area. The BPSP study area is not located within an irrigation district and not serviced by an irrigation scheme. No operational groundwater bores are located within the BPSP study area. Groundwater yields in this locale are often unreliable and sourcing irrigation water from TasWater comes at a particularly high cost and limited surety and effectively rules out this option.

3. Existing sensitive use (as per the residential dwellings and school to the east) development on the land nearby to the south of the study area applies a degree of constraint and heightened risk of issues relating to incompatible land use activity, as per agricultural versus residential issues including complaints and objections against:
    a. Noise from normal farming practices such as the use of machinery (eg tractors), gas guns and livestock.
    b. Odours from the use of fertiliser (eg organic and/or biological products), compost, and soil conditioners
    c. The application of agricultural chemicals and associated risk of spray drift and chemical trespass, and this can also include both actual and the perceived threats
    d. Dust when paddocks are being cultivated and the application of fertilisers and soil conditioners
    e. Trespass by unauthorised visitors
    f. Biosecurity issues primarily associated with weed infestation due to the movement of garden weeds and challenges associated with managing weed incursions from multiple sources

4. The BPSP study area is divided into six separate property titles. Four properties have residential dwellings present and one is almost entirely covered by a conservation covenant. Smaller land holdings mean it is not possible to undertake agricultural land use activities at a larger scale and justify the investment and use infrastructure to undertake more intensive grazing and/or cropping activities (e.g. larger tractors, cultivators).

It is reasonable to consider that the BPSP study area is incapable of being used to support meaningful agricultural land use activity and no type of commercial scale agriculture could be undertaken.

10.2 ADJACENT AGRICULTURAL LAND

Agricultural land use activity is undertaken on properties adjacent to and nearby the north and west of the BPSP study area:

- West
    - Agricultural zoned land covering 42 hectares and includes two separate property titles, and this forms part of a larger parcel of Agriculture zoned land which in total covers a total of 56.5 hectares divided amongst a total of four separate property titles.
    - The Agriculture zoned properties immediately adjacent to the BPSP study area (as per on the 182 Boyer Road and 31 Cobbs Hill Road properties) includes the properties at 194 Boyer Road (1 hectare) and 232 Boyer Road (split zoned as Agriculture 30.4 hectares and Landscape Conservation 11.6 hectares).
    - All of these Agriculture zoned properties have a residential dwelling present on them.
    - This Agriculture zoned land use principally used for grazing livestock and a small market garden cropping enterprise.
    - Irrigated pasture production and market gardening occurs albeit the extent of irrigation is limited and does not occur on a broadscale (e.g. using centre pivot irrigators). None of the dams located on the Agricultural zoned land are registered.
    - This Agricultural zoned land is not located within a declared irrigation district and it is not serviced by an irrigation scheme.
    - No commercial standalone agricultural land use activity would be undertaken on these Agriculture zoned properties.
- North
    - Rural zoned land covering 36 hectares and includes two separate property titles, and this forms part of a larger parcel of Rural zoned land which extends further to the east and north east and in total covers a total of 620 hectares divided amongst a total of approximately 102 separate property titles.
    - The Rural zoned properties immediately adjacent to the BPSP study area (as per the 25, 29 and 31 Cobbs Hill Road properties) includes title 127385/1 (23 hectares) and the title 127216/1 of the 158 Cobbs Hill Road property (split zoned as Rural 13 hectares and General Industrial 13 hectares).
    - The Rural zoned land use principally used for grazing livestock albeit at a low intensity and typically on degraded and rundown land, and it should be noted extensive areas of land in this zone are covered by remnant native vegetation and includes patches of threatened native vegetation communities.
    - No commercial standalone agricultural land use activity is undertaken on these Rural zoned properties.

The possible negative impacts on the adjacent Agriculture zoned land and associated agricultural land use activities to the north west of the proposed BPSP development area could include trespass, biosecurity issues (weeds) and dogs menacing livestock.

The use and application of agricultural sprays on must abide by the Tasmanian Code of practice for ground and aerial spraying 2014 and any applicable agricultural chemical label requirements.

In terms of managing possible negative impacts to the adjacent Agriculture zoned land appropriate mitigation measures may include:

- Fencing:
    - An appropriately designed fence which provides security, privacy and screening for all land owners.
    - This fence must be built of sturdy materials and be provided with ongoing maintenance.
- Weed management:
    - A commitment should be given that during the development and construction phase of the BPSP Future Urban zoned land that weed control activities will be undertaken.
    - All declared weeds and weeds of national significance should be managed according to best practice.
    - It would be appropriate that weed control advice and recommendations be provided by an appropriately experienced agronomist.
- Dog management:
    - The Brighton council must rigorously and strictly enforce all laws relating dog control.
    - Any reports of dogs menacing livestock must be responded to promptly responded to and dealt with.
- Establishment and maintenance of boundary shelter belt vegetation to provide screening:
    - Establish a 275m long shelter belt along the southern portion of the north west boundary (as per the north west boundary of the 182 Boyer Road property) of the BPSP study area. Figure 7
    - The shelter belt should be composed of mixed native species, include hardy short shrubbery and taller tree species and provide screening from ground level up to 8-10m in height and approximately 3-4m wide.
    - It would be appropriate to see specialist advice on the design, establishment and ongoing care and maintenance of the shelter belt.
- Sufficient boundary buffer setback:
    - The boundary setback buffers must comply with the applicable sections of the Tasmanian Planning Scheme.
    - It should be noted that the presence of an appropriate shelter belt and secure fencing in conjunction with the nature of the current and likely future agricultural land use which can and could be undertaken.

In terms of managing possible negative impacts to the adjacent Rural zoned land to the north it is important to consider that a substantial buffer (approximately 350-700m wide) which is largely covered by native vegetation separates the Rural zoned land and the Future Urban zoned land on the BPSP study zone.

It is reasonable to consider that the width of separation distance and presence of native vegetation would significantly mitigate and be expected to mitigate any negative impacts between the any future residential developments on the BPSP study area's Future Urban zoned land and the Rural zoned land to the north.

Figure 7 Proposed location of the shelter belt (green line) along the southern area of the north west boundary of the BPSP study area (as per the 182 Boyer Road property).

11 Conclusions

1. The BPSP study area covers approximately 103 hectares and is located on the north western peri-urban outskirts Bridgewater.

2. The land associated with the BPSP study area is severely constrained for agricultural land use activity due to the low/very low land capability of the ground, extensive coverage of native vegetation absence of irrigation water and the land is divided into 6 separate titles one of which is almost entirely covered by a conservation covenant.

3. The BPSP development area is intended to cover the Future Urban zoned land which is present on the western area.

4. The BPSP study area has Rural Living and Community Purpose zoned land adjacent to the east, Rural, Landscape Conservation and Utilities zoned land to the north, Rural, General Residential and Utilities zoned land to the south, and Agriculture and Environmental Management zoned (as per the Derwent Estuary) zoned land to the west.

5. The Rural zoned land to the north is used for low intensity sheep grazing on heavily degraded pastures.

6. The presence of a substantial setback which is largely covered by native vegetation would be expected to mitigate any negatives associated with any future residential development on the Future Urban zoned land on the BPSP study area.

7. Effectively the only meaningful location where agricultural land use activity occurs is to the north west, and this involves grazing livestock at a limited scale and a market garden enterprise.

8. A number of measures could be undertaken to mitigate the potential negative impacts on the agricultural land use activities undertaken on the Agriculture zoned land to the west, and this includes establishing a shelter belt, secure fencing, weed control and dog management activities.

9. The proposed development of the BPSP study area is consistent with the PAL policy.

10. An assessment of relevant sections of STRLUS PR1, PR2, PR3, PR4 and PR5 provides a basis for progression of the future development of the Future Urban zoned land of the BPSP study area.

Appendix 1 Supporting images

Image 1 Northerly view towards the central eastern area (170 Boyer Road and 29 Cobbs Hill Road properties) of the currently zoned Future Urban land on the BPSP study area. (Taken on 23/10/24)

Image 2 Western view over the western area of the 29 Cobbs Hill Road property on the BPSP study area. (Taken on 23/10/24)

Image 3 Easterly view towards over central southern area (as per the 170 Boyer Road property) of the BPSP study area. (Taken on 16/10/24)

Image 4 Easterly view over the Rural zoned land (as per title 127216/1 of the 158 Boyer Road property) adjacent to the east. (Taken on 16/10/24)

Image 5 Example of the land and native vegetation on the conservation covenant present on the 31 Cobbs Hill Road property located on the north area of the BMSP study area. (Taken on 16/10/24)

Image 6 Southerly view from the southern end of the 25 Cobbs Hill Road property towards Genappe House on the 50 Boyer Road property located on the south west area of the BPSP study area. (Taken on 16/10/24)

Image 7 Easterly view towards Genappe House on the 50 Boyer Road property on the south western area of the BPSP study area. (Taken on 16/10/24)

Image 8 Westerly view from the western boundary area of the 170 Boyer Road property on the central area of the BPSP study area. (Taken on 16/10/24)

Image 9 Westerly view along Serenity Drive and the Rural Living zoned land adjacent to the southern area of the BPSP study area. (Taken on 16/10/24)

Image 10 Northerly view over the Agricultural zoned land (as per the 232 Boyer Road property) adjacent to the north westerly boundary of the 170 Boyer Road property. (Taken on 16/10/24)

Image 11 Topsoil profile of the heavy clay dermosol soil present on the 182 Boyer Road property on the BPSP study area. (Taken on 16/10/24)

Image 12 Topsoil profile of the alluvial soil present throughout much the western area of the BPSP study area. (Taken on 23/10/24)

Image 13 Topsoil profile of the deep Forcette soil profile association present throughout much of the eastern areas of the BPSP study area. (Taken on 16/10/24)

Appendix 2 Property land use activity details

Table 7 Property land use activity responses from the property owner (Part 1).

Property address	50 Boyer Road	170 Boyer Road	182 Boyer Road
Property owners	David and Loretta Olsen	Jeanette Cooper	Matthew Booth
In the recent past (say last 10 years) has any agricultural land use activity been undertaken on the property: yes, no or unsure?	Yes	Yes	Yes
Do you currently undertake any agricultural land use activity on the property: yes or no?	Yes		Yes
If yes, what was it, eg running sheep, cattle or other (please state)?	Periodically undertake short term cattle agistment.	Runing sheep.	Harvest fodder, and previously have graze sheep and cattle and agist horses.
If running sheep, horses or cattle please state how many animals were involved and what class (e.g., ewes, cows, lambs, calves etc…)?	Variable, ranges up to fifteen cattle run on the property for a short period (roughly up to four months over winter)	Variable, ranges up to ten sheep.	Variable, ranges up to twenty sheep or cattle (either or)
If yes, what sort of land management activities do you engage in, such as apply fertiliser, control weeds?	No	No fertiliser applied. Ongoing weed control activities undertaken.	Ongoing weed control.
If yes, do you undertake any property improvements, such as new fencing, establish new pastures?	Previously fencing has been undertaken fertiliser was applied and weed control activities undertaken.	Previously fencing has been undertaken and weed control activities undertaken.	Previously fencing has been undertaken and weed control activities undertaken.

Table 8 Property land use activity responses from the property owner (part 2).

Property title	25 Cobbs Hill Road	29 Cobbs Hill Road	31 Cobbs Hill Road
Property owners	Nicholas Turner and Karen Sturges	Gavin Rolf and Karen Woodhouse	Mona Chui Yee Ho and Mung Ching Wong
In the recent past (say last 10 years) has any agricultural land use activity been undertaken on the property: yes, no or unsure?	Yes	Yes	No
Do you currently undertake any agricultural land use activity on the property: yes or no?	No.	Yes.	No
If yes, what was it, eg running sheep, cattle or other (please state)?	Previously agisted horses.	Currently running sheep.	Not applicable
If running sheep, horses or cattle please state how many animals were involved and what class (e.g., ewes, cows, lambs, calves etc…)?	In the past up to four horses were agisted on the property.	Approximately fifteen breeding ewes.	Not applicable
If yes, what sort of land management activities do you engage in, such as apply fertiliser, control weeds?	No fertiliser applied and no weed control activities undertaken.	No fertiliser applied and no weed control activities undertaken.	None undertaken.
If yes, do you undertake any property improvements, such as new fencing, establish new pastures?	Previously fencing has been undertaken and weed control activities undertaken.	Previously fencing has been undertaken and weed control activities undertaken.	None undertaken.