NOTICE OF AN APPLICATION FOR PLANNING PERMIT

Benalla Rural City Council
PO Box 227, Benalla, VIC 3671
DX 32230

1 Bridge Street East, Benalla 3672
Telephone: (03) 5760 2600
Facsimile: (03) 5762 5537
Email: council@benalla.vic.gov.au
www.benalla.vic.gov.au

ABN 42 379 380 529

The land affected by the application is located at:
High Street, Baddaginnie, Crown Allotments 25 and 26 Township of Baddaginnie

The application is for a permit to:
Subdivide the land into 6 lots

The applicant for the permit is:
Ms Stacey Cole
Onley Consulting

The application reference number is:
P0101/24
DA7686

You may look at the application and any documents that support the application online at the following link:
https://www.benalla.vic.gov.au/Your-Property/Building-Planning/Planning/Advertised-Planning-Permit-Applications

If you cannot access the link, please contact Benalla Rural City Council on 5760 2600 for an alternative arrangement.

Any person who may be affected by the granting of the permit may object or make other submissions to the Responsible Authority.

An objection must:
* **be made to the Responsible Authority in writing;**
* **include the reasons for the objection; and**
* **state how the objector would be affected.**

The Responsible Authority must make a copy of every objection available at its office for any person to inspect during office hours free of charge until the end of the period during which an application may be made for review of a decision on the application.

The Responsible Authority will not decide on the application before:

3 December 2024

If you object, the Responsible Authority will tell you its decision.

Planning and Environment Regulations 2015 - Form 2 – Section 52(1)

Application for Planning Permit for a Subdivision

Supplied by	Stacey Cole
Submitted Date	13/09/2024

Application Details

Application Type	Planning Permit for a Subdivision Version 1
Applicant Reference Number	6139
Responsible Authority Name	Benalla Rural City Council
Responsible Authority Reference Number(s)	(Not Supplied)
SPEAR Reference Number	S236889P
Application Status	Submitted
Planning Permit Issue Date	NA
Planning Permit Expiry Date	NA

The Land

Primary Parcel	HIGH STREET, BADDAGINNIE VIC 3670 Volume 2010/Folio 984 SPI 25\PP5026 CPN A19289 **Zone:** 32.03 Low Density Residential
Parcel 2	HIGH STREET, BADDAGINNIE VIC 3670 Volume 2010/Folio 985 SPI 26\PP5026 CPN A19289 **Zone:** 32.03 Low Density Residential

The Proposal

Plan Number	(Not Supplied)
Number of lots	6
Proposal Description	6 Lot subdivision
Estimated cost of the development for which a permit is required $	0

Existing Conditions

Existing Conditions Description	The site is located at on the Corner of High & Clarendon Streets, Baddaginnie and is located within the eastern aspect of the Benalla Township, a short walk from the centre of town.The allotment in question is square in shape, with the \ northern boundary having a large frontage to High Street, the western boundary fronts Clarendon Street and the southern boundary fronts Moore Street. A non-developed road reserve adjoins the western boundary. The allotment is currently vacant, with a stock dam in the southwest corner. There is a combination of native and exotic vegetation on the site. The allotments will have ready

	access to power and telecommunication infrastructure.The neighbouring surrounds are residential in nature to the south and west, with the immediate land to the north and east being zoned farmland. The land abuts a TRZ3 Council Road and a TRZ1 zone exists north of the allotment to support the Victrack Rail line. Allotments to the east appear to be lifestyle type properties despite being zoned Farm Zone. The Low Density Residential allotment to the south is also undeveloped.
Title Information - Does the proposal breach an encumbrance on Title?	The proposal does not breach an encumbrance on title, such as a restrictive covenant, section 173 agreement or other obligation such as an easement or building envelope.

Applicant Contact

Applicant Contact	Mrs Stacey Cole Onley Consulting 98 Nixon Street, Shepparton, VIC, 3630 Business Phone: 0358217171 Email: stacey@onleys.com.au

Applicant

Applicant	(Applicant details as per Applicant Contact)

Owner

Owner	Jeremy Sloan 292 Terrett Road, Goomalibee, VIC, 3673

Declaration

I, Stacey Cole, declare that the owner (if not myself) has been notified about this application.

I, Stacey Cole, declare that all the information supplied is true.

Authorised by	Stacey Cole
Organisation	Onley Consulting

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

VOLUME 02010 FOLIO 984

Security no : 124116504345V
Produced 10/07/2024 09:22 AM

CROWN GRANT

LAND DESCRIPTION

Section 25 Township of Baddaginnie Parish of Warrenbayne.

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
JEREMY BADEN SLOAN of "RIVERSDALE PARK" 292 TERRETT ROAD COOMALIBEE VIC 3673
AU887260C 07/10/2021

ENCUMBRANCES, CAVEATS AND NOTICES

Any crown grant reservations exceptions conditions limitations and powers noted on the plan or imaged folio set out under DIAGRAM LOCATION below. For details of any other encumbrances see the plan or imaged folio set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP560557J FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: HIGH STREET BADDAGINNIE VIC 3670

DOCUMENT END

TITLE PLAN		EDITION 1	TP 560557J

Location of Land

Parish: WARRENBAYNE
Township: BADDAGINNIE
Crown Section: 25
Crown Allotment:
Crown Portion:

Last Plan Reference:
Derived From: VOL 2010 FOL 984
Depth Limitation: NIL

Notations

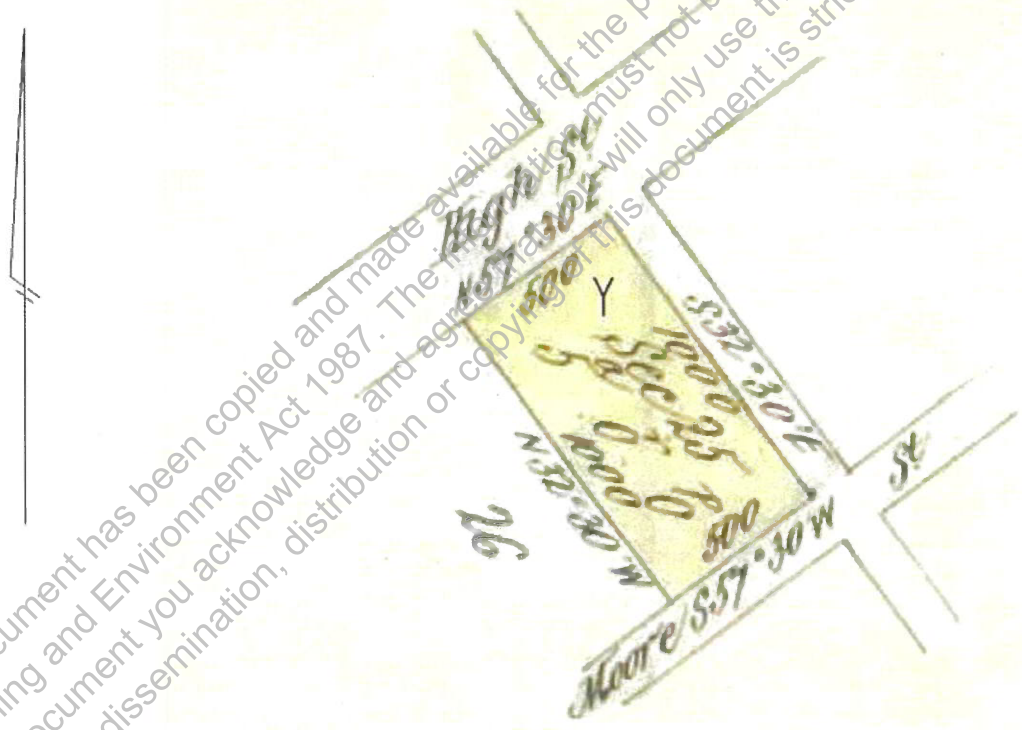
SUBJECT TO THE RESERVATIONS EXCEPTIONS CONDITIONS AND POWERS CONTAINED IN CROWN GRANT VOL. 2010 FOL. 984 AND NOTED ON SHEET 2 OF THIS PLAN

ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN

Description of Land / Easement Information

THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT
COMPILED: 10/07/2000
VERIFIED: AK

COLOUR CODE
Y = YELLOW



LENGTHS ARE IN LINKS	Metres = 0.3048 x Feet Metres = 0.201168 x Links		Sheet 1 of 2 sheets

TITLE PLAN		TP 560557J

LAND DESCRIPTION INCLUDING RESERVATIONS EXCEPTIONS CONDITIONS AND POWERS SHOWN ON THE CROWN GRANT

ALL THAT PIECE OF LAND in the said Colony containing five acres more or less being Section twenty five in the Township of Baddaginnie Parish of Warrenbayne County of Delatite

delineated with the measurements and abuttals thereof in the map drawn in the margin of these presents and therein coloured yellow EXCEPTING however unto us our heirs and successors all gold and auriferous earth or stone and all mines containing gold within the boundaries of the said land AND ALSO reserving to us our heirs and successors free liberty and authority for us our heirs and successors and our and their agents and servants at any time or times hereafter to enter upon the said land and to search and mine therein for gold and to extract and remove therefrom any gold and any auriferous earth or stone and for the purposes aforesaid to sink shafts erect machinery carry on any works and do any other things which may be necessary or usual in mining

PROVIDED ALWAYS that the said land is and shall be subject to be resumed for mining purposes under Section 68 of the said Act AND PROVIDED ALSO that the said land is and shall be subject to the right of any person being the holder of a miner's right or of a mining lease to enter therein and to mine for gold and silver and to erect and to occupy mining plant or machinery thereon in the same manner and under the same conditions and provisions as those to which such person had at the time of the passing of the said Act the right to mine for gold and silver in and upon Crown lands PROVIDED that compensation shall be paid to the said GRANTEE

his heirs executors administrators assigns and transferees by such person for surface damage to be done to such lands by reason of mining thereon such compensation to be determined as provided by the 117th Section of the said Act and the payment thereof to be a condition precedent to such right of entry.

LENGTHS ARE IN LINKS	Metres = 0.3048 x Feet Metres = 0.201168 x Links		Sheet 2 of 2 sheets

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

VOLUME 02010 FOLIO 985

Security no : 124116504162U
Produced 10/07/2024 09:18 AM

CROWN GRANT

LAND DESCRIPTION

Section 26 Township of Baddaginnie Parish of Warrenbayne.

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
JEREMY BADEN SLOAN of "RIVERSDALE PARK" 292 TERRETT ROAD GOOMALIBEE VIC 3673
AU887260C 07/10/2021

ENCUMBRANCES, CAVEATS AND NOTICES

Any crown grant reservations exceptions conditions limitations and powers noted on the plan or imaged folio set out under DIAGRAM LOCATION below. For details of any other encumbrances see the plan or imaged folio set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP773131H FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

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

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

Street Address: HIGH STREET BADDAGINNIE VIC 3670

DOCUMENT END

TITLE PLAN		EDITION 1	TP 773131H

Location of Land

Parish: WARRENBAYNE
Township: BADDAGINNIE
Section: 26
Crown Allotment:
Crown Portion:

Last Plan Reference:
Derived From: VOL 2010 FOL 985
Depth Limitation: NIL

Notations

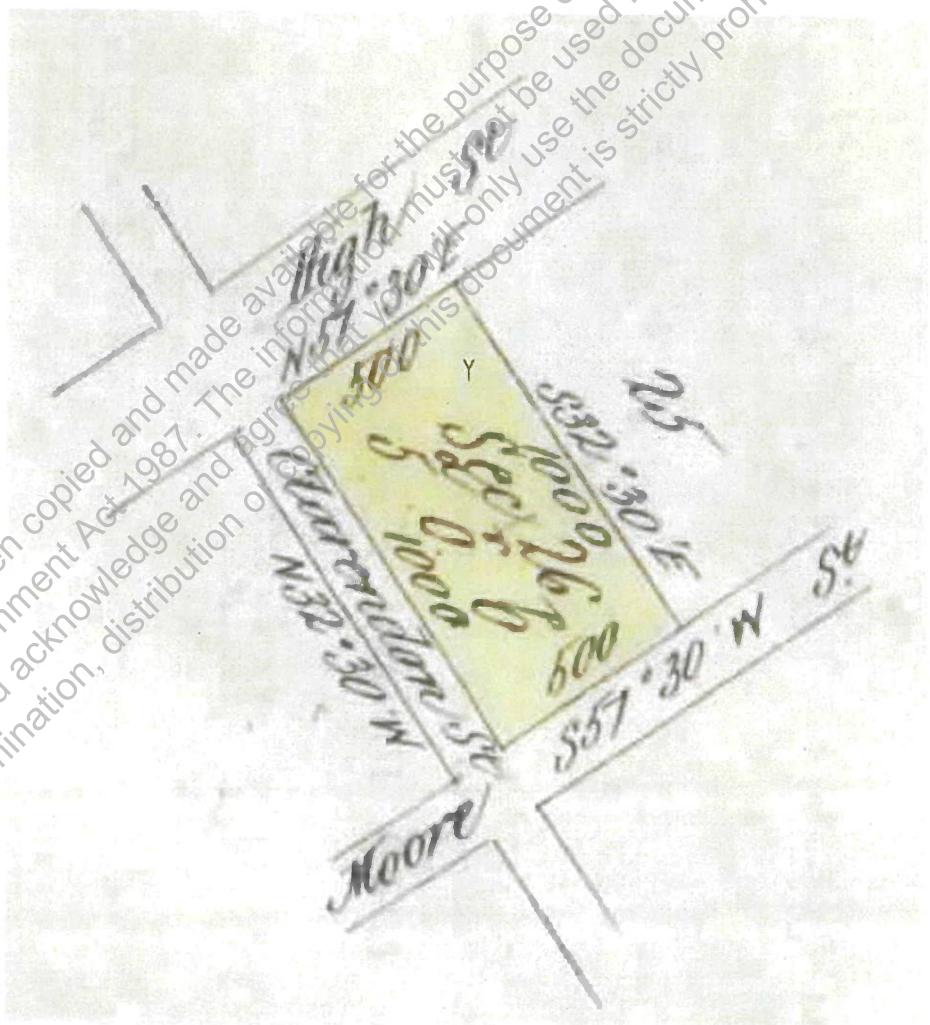
SUBJECT TO THE RESERVATIONS EXCEPTIONS CONDITIONS AND POWERS CONTAINED IN CROWN GRANT VOL. 2010 FOL. 985 AND NOTED ON SHEET 2 OF THIS PLAN

ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN

Description of Land / Easement Information

THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT
COMPILED: 16/02/2003
VERIFIED: L.S.

COLOUR CODE
Y=YELLOW



LENGTHS ARE IN LINKS	Metres = 0.3048 x Feet Metres = 0.201168 x Links		Sheet 1 of 2 sheets

TITLE PLAN		TP 773131H

LAND DESCRIPTION INCLUDING RESERVATIONS EXCEPTIONS CONDITIONS AND POWERS SHOWN ON THE CROWN GRANT

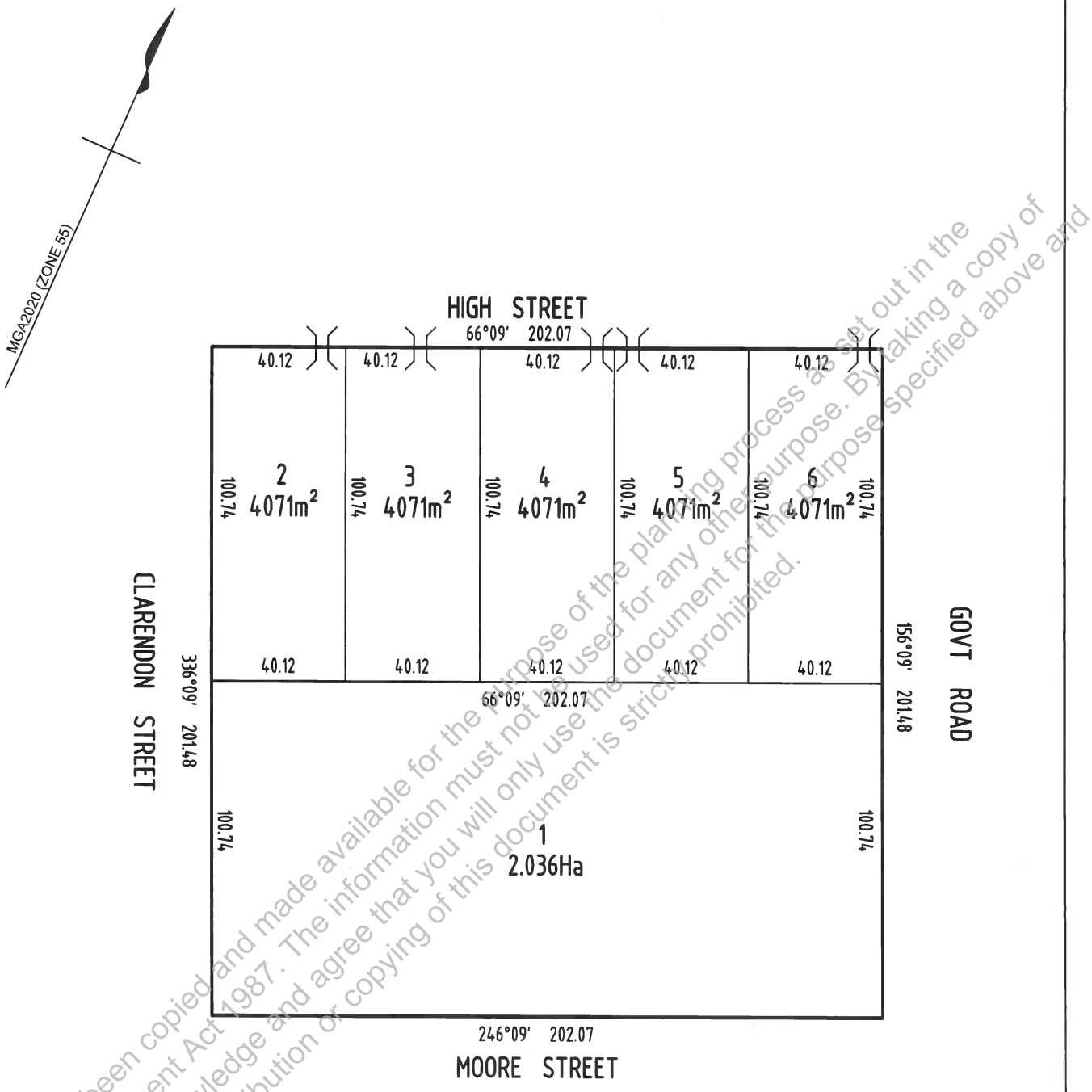
ALL THAT PIECE OF LAND in the said Colony containing *two acres more or less being Section twenty six in the Township of Baddaginnie Parish of Warrenbayne County of Delatite*

delineated with the measurements and abuttals thereof in the map drawn in the margin of these presents and therein coloured yellow EXCEPTING however unto us our heirs and successors all gold and auriferous earth or stone and all mines containing gold within the boundaries of the said land AND ALSO reserving to us our heirs and successors free liberty and authority for us our heirs and successors and our and their agents and servants at any time or times hereafter to enter upon the said land and to search and mine therein for gold and to extract and remove therefrom any gold and any auriferous earth or stone and for the purposes aforesaid to sink shafts erect machinery carry on any works and do any other things which may be necessary or usual in mining

PROVIDED ALWAYS that the said land is and shall be subject to be resumed for mining purposes under Section 68 of the said Act AND PROVIDED ALSO that the said land is and shall be subject to the right of any person being the holder of a miner's right or of a mining lease to enter thereon and to mine for gold and silver and to erect and to occupy mining plant or machinery thereon in the same manner and under the same conditions and provisions as those to which such person had at the time of the passing of the said Act the right to mine for gold and silver in and upon Crown lands PROVIDED that compensation shall be paid to the said GRANTEE

his heirs executors administrators assigns and transferees by such person for surface damage to be done to such lands by reason of mining thereon such compensation to be determined as provided by the 117th Section of the said Act and the payment thereof to be a condition precedent to such right of entry.

LENGTHS ARE IN LINKS	Metres = 0.3048 x Feet Metres = 0.201168 x Links		Sheet 2 of 2 sheets



LEGEND

PROPOSED ACCESS

Onleys
PO Box 2120
98 Nixon Street
Shepparton Vic 3630
Tel (03) 5821 7171
www.onleys.com.au

SCALE
1:1250
12.5 0 12.5 25 37.5 50
LENGTHS ARE IN METRES

PROPOSED PLAN OF SUBDIVISION

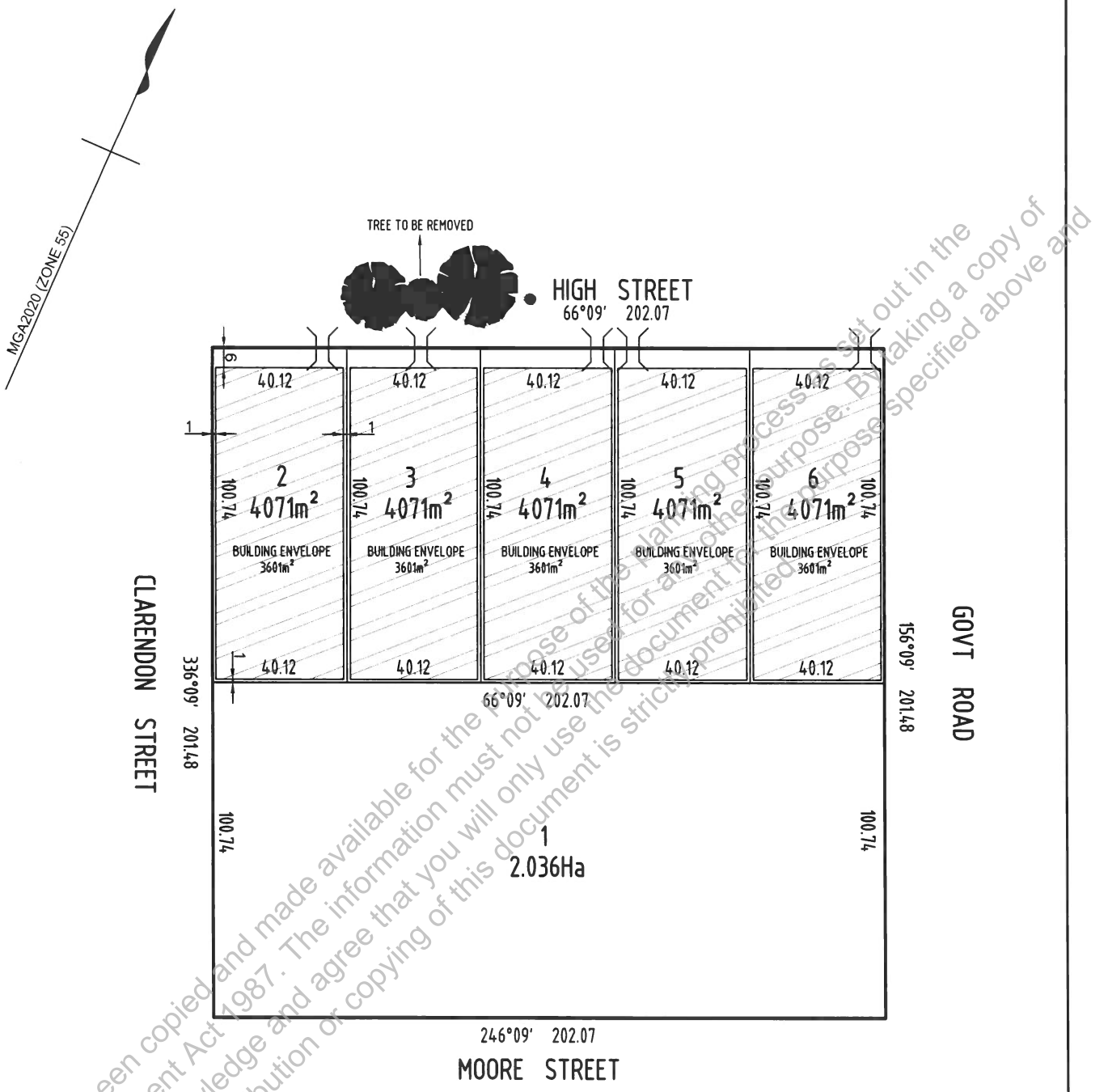
COUNTY OF DELATITE
PARISH OF WARRENBAYNE
CROWN ALLOTMENT: -
CROWN SECTION: 25 & 26 TOWNSHIP OF BADDAGINNIE
TITLE: C/G V.2010 F.984
TITLE: C/G V.2010 F.985

SURVEYORS REF:	Sheet 1 of 2 Sheets	
6139	SCALE	SHEET SIZE
VERSION: 02	1 : 1250	A3

CLIENT: J. SLOAN
CORNER OF HIGH ST AND
CLARENDON ST, BADDAGINNIE

MEASUREMENTS AND AREAS ARE APPROXIMATE ONLY AND ARE SUBJECT TO SURVEY.
LENGTHS ARE IN METRES.

DRAFTED BY: JG 6139 PROP02.dwg



LEGEND

PROPOSED ACCESS

BUILDING ENVELOPE

NOTE: BUILDING ENVELOPES ARE INDICATIVE AND PROOF THE LOTS CAN SUPPORT A DWELLING.

SCALE
1:1250
12.5 0 12.5 25 37.5 50
LENGTHS ARE IN METRES

Onleys
PO Box 2120
98 Nixon Street
Shepparton Vic 3630
Tel (03) 5821 7171
www.onleys.com.au

PROPOSED PLAN OF SUBDIVISION

COUNTY OF DELATITE
PARISH OF WARRENBAYNE
CROWN ALLOTMENT: -
CROWN SECTION: 25 & 26 TOWNSHIP OF BADDAGINNIE
TITLE: C/G V.2010 F.984
TITLE: C/G V.2010 F.985

DRAFTED BY: JG 6139 PROP02.dwg

SURVEYORS REF:	Sheet 2 of 2 Sheets	
6139	SCALE	SHEET SIZE
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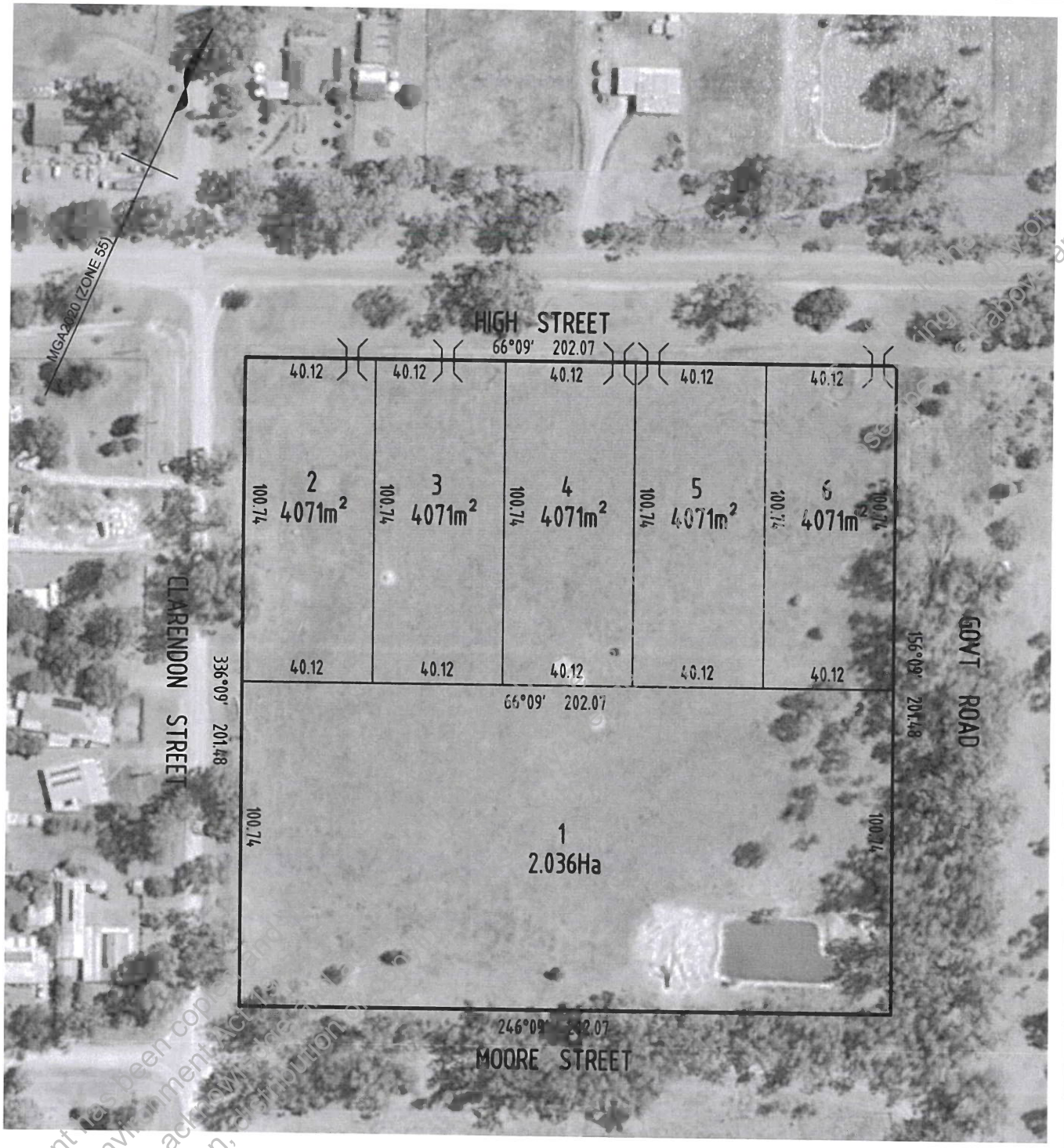

LEGEND

PROPOSED ACCESS

Onleys
PO Box 2120
98 Nixon Street
Shepparton Vic 3630
Tel (03) 5821 7171
www.onleys.com.au

SCALE
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12.5 0 12.5 25 37.5 50
LENGTHS ARE IN METRES

PROPOSED PLAN OF SUBDIVISION

SURVEYORS REF:	Sheet 1 of 2 Sheets	
6139	SCALE	SHEET SIZE
VERSION: 02	1 : 1250	A3

CLIENT: J. SLOAN
CORNER OF HIGH ST AND CLARENDON ST, BADDAGINNIE

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LENGTHS ARE IN METRES.

COUNTY OF DELATITE
PARISH OF WARRENBAYNE
CROWN ALLOTMENT: -
CROWN SECTION: 25 & 26 TOWNSHIP OF BADDAGINNIE
TITLE: C/G V.2010 F.984
TITLE: C/G V.2010 F.985

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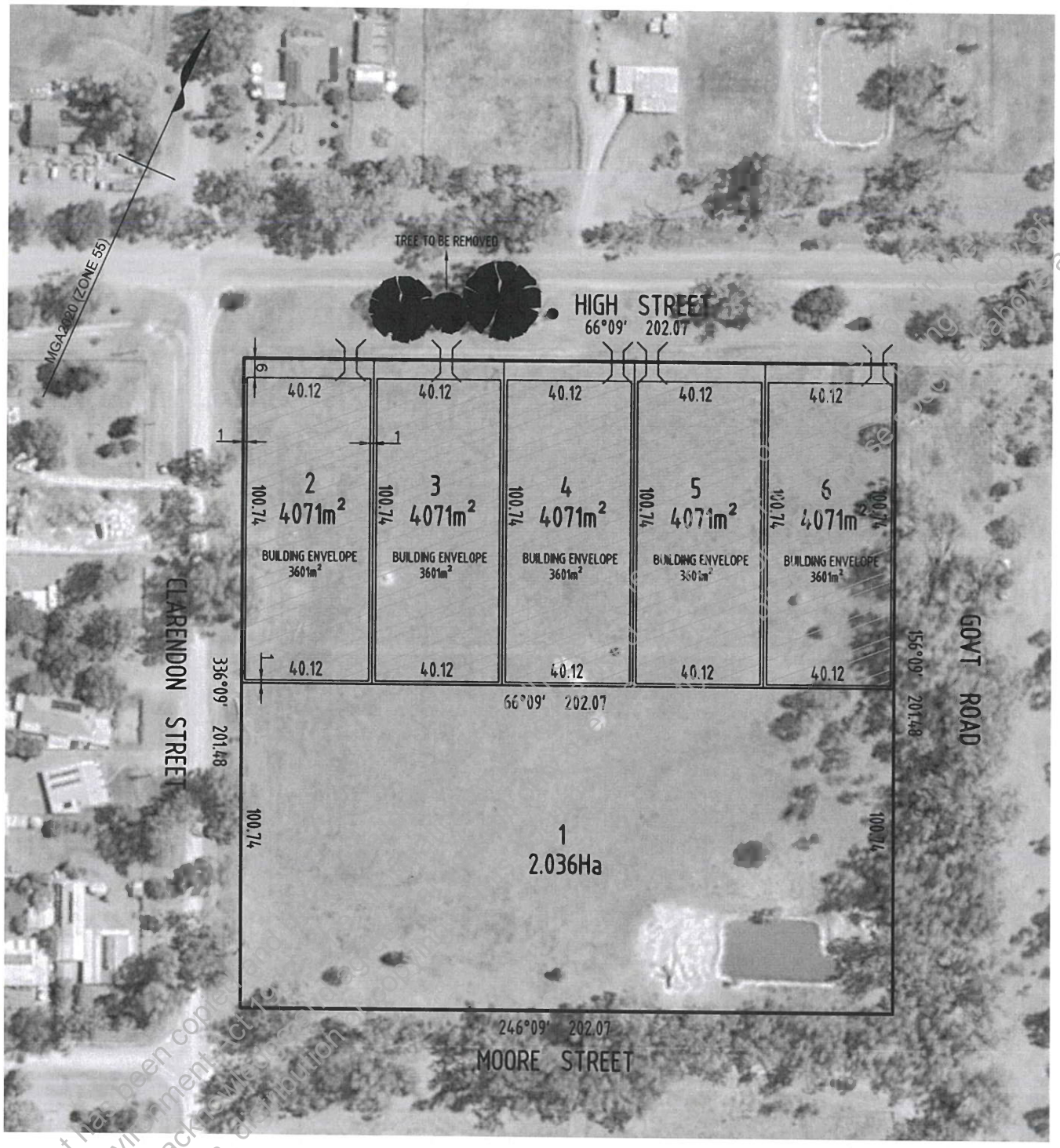

NOTE: BUILDING ENVELOPES ARE INDICATIVE AND PROOF THE LOTS CAN SUPPORT A DWELLING.

LEGEND

PROPOSED ACCESS

BUILDING ENVELOPE

SCALE
1:1250
12.5 0 12.5 25 37.5 50
LENGTHS ARE IN METRES

Onleys
PO Box 2120
98 Nixon Street
Shepparton Vic 3630
Tel (03) 5821 7171
www.onleys.com.au

PROPOSED PLAN OF SUBDIVISION

COUNTY OF DELATITE
PARISH OF WARRENBAYNE
CROWN ALLOTMENT: -
CROWN SECTION: 25 & 26 TOWNSHIP OF BADDAGINNIE
TITLE: C/G V.2010 F.984
TITLE: C/G V.2010 F.985

DRAFTED BY: JG 6139 PROP02.dwg

SURVEYORS REF:	Sheet 2 of 2 Sheets	
6139	SCALE	SHEET SIZE
VERSION: 02	1 : 1250	A3

CLIENT: J. SLOAN
CORNER OF HIGH ST AND CLARENDON ST, BADDAGINNIE

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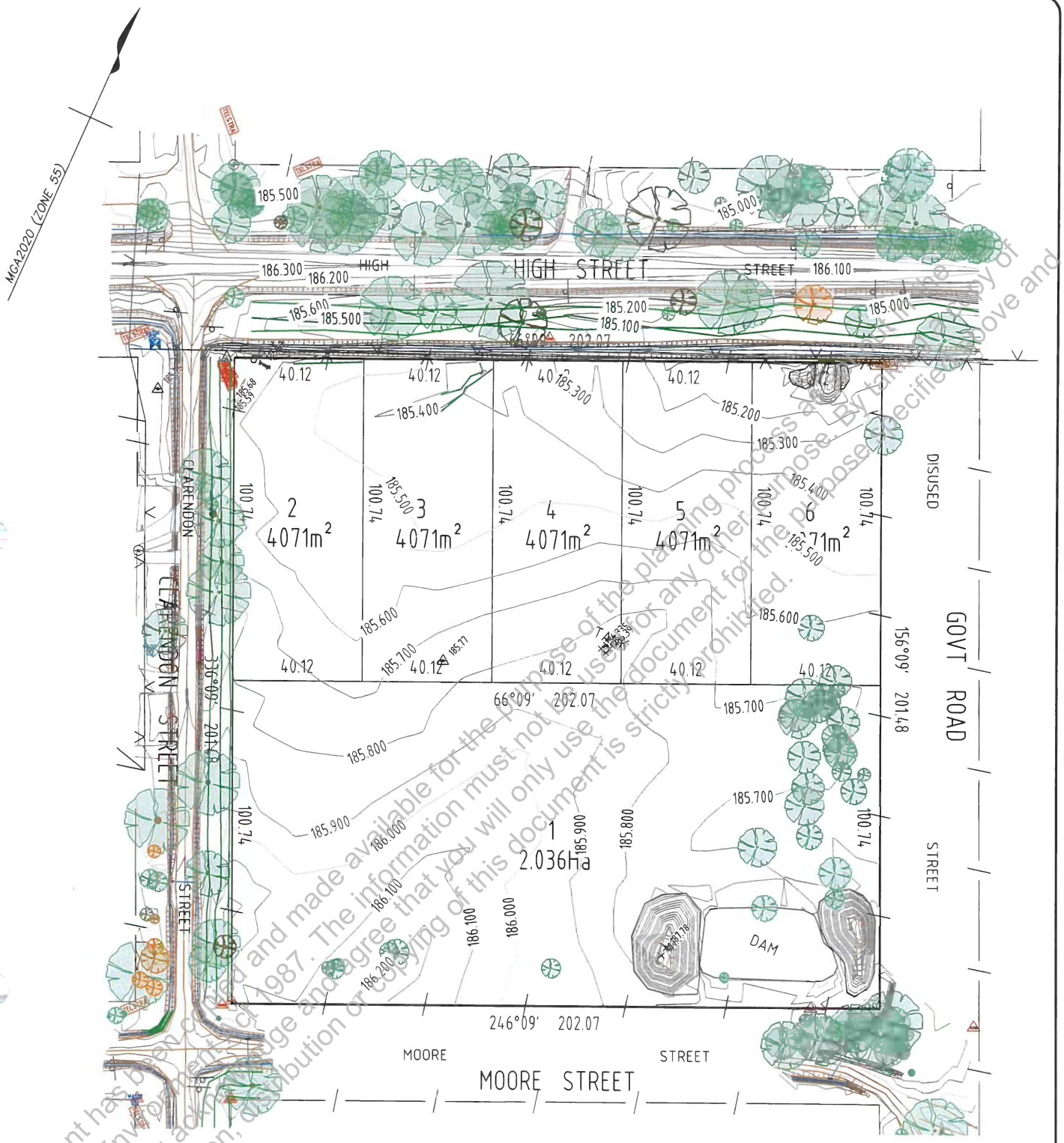
LENGTHS ARE IN METRES.



Onleys
SURVEY DESIGN IRRIGATION
PO Box 2120
98 Nixon Street
Shepparton Vic 3630
Tel (03) 5821 7171
Fax (03) 5821 2725

PROPOSED PLAN OF SUBDIVISION

COUNTY OF DELATITE
PARISH OF WARRENBAYNE
CROWN ALLOTMENT -
CROWN SEC 25 & 26 TOWNSHIP OF BADDAGINNIE
TITLE: C/G V.2010 F.984
TITLE: C/G V.2010 F.985

SURVEYORS REF: 6139	Sheet 3 of 3 Sheets		
VERSION: 01	SCALE 1 : 1250	SHEET SIZE A3	

CLIENT: J SLOAN
CORNER OF HIGH ST AND
CLARENDON ST, BADDAGINNIE
MEASUREMENTS AND AREAS ARE APPROXIMATE ONLY AND ARE SUBJECT TO SURVEY.
LENGTHS ARE IN METRES

PTS DRAFTED BY: LH 6139 PROP01.dwg

PLANNING PROPERTY REPORT

Environment, Land, Water and Planning

From www.planning.vic.gov.au at 13 September 2024 08:18 AM

PROPERTY DETAILS

Crown Description:	**Allot. 25 TOWNSHIP OF BADDAGINNIE**
Address:	**HIGH STREET BADDAGINNIE 3670**
Standard Parcel Identifier (SPI):	**25\PP5026**
Local Government Area (Council):	**BENALLA** www.benalla.vic.gov.au
Council Property Number:	**A19289 (Part)**
Planning Scheme:	**Benalla** Planning Scheme - Benalla
Directory Reference:	**Vicroads 47 F3**

This parcel is one of 2 parcels comprising the property. For full parcel details get the free Property report at Property Reports

UTILITIES

Rural Water Corporation:	**Goulburn-Murray Water**
Urban Water Corporation:	**Goulburn Valley Water**
Melbourne Water:	**Outside drainage boundary**
Power Distributor:	**AUSNET**

STATE ELECTORATES

Legislative Council:	**NORTHERN VICTORIA**
Legislative Assembly:	**EUROA**

OTHER

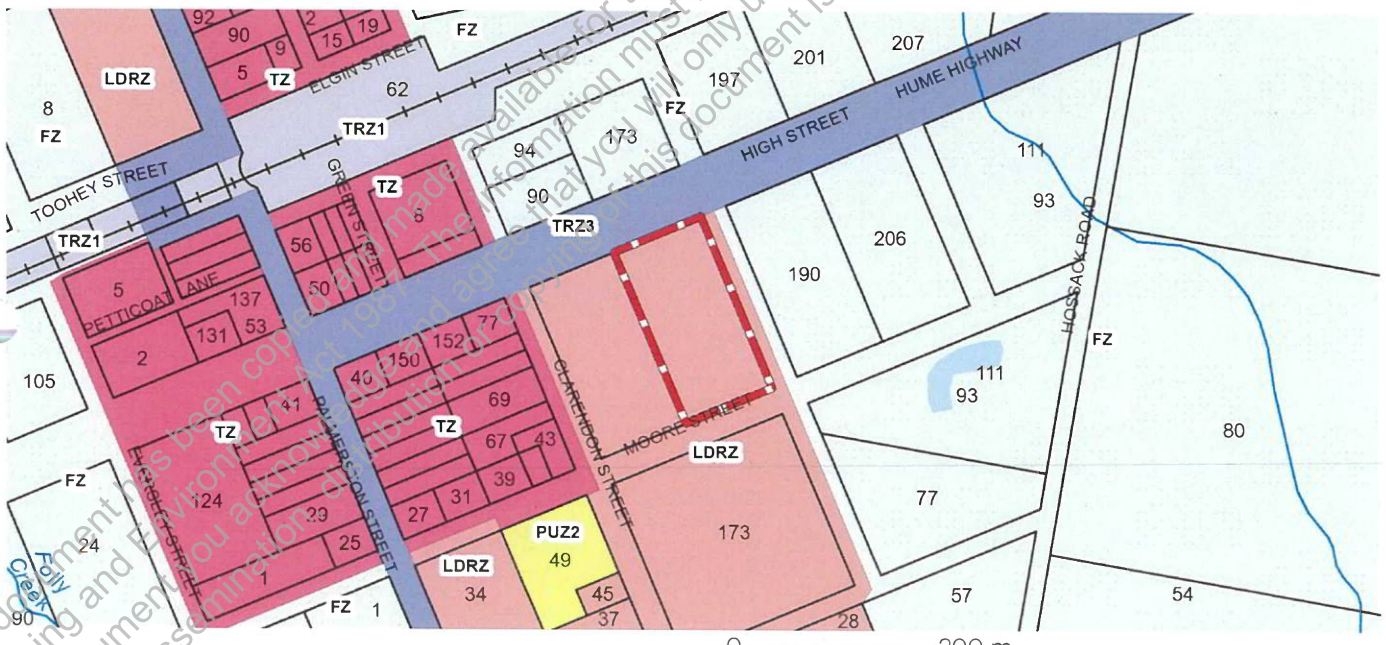
Registered Aboriginal Party: **Yorta Yorta Nation Aboriginal Corporation**

View location in VicPlan

Planning Zones

LOW DENSITY RESIDENTIAL ZONE (LDRZ)

SCHEDULE TO THE LOW DENSITY RESIDENTIAL ZONE (LDRZ)



FZ - Farming
LDRZ - Low Density Residential
PUZ2 - Public Use-Education
TRZ1 - State Transport Infrastructure
TRZ3 - Significant Municipal Road
TZ - Township
Railway line
Water area
Water course

Note: labels for zones may appear outside the actual zone - please compare the labels with the legend.

PLANNING PROPERTY REPORT

Environment, Land, Water and Planning

Planning Overlay

None affecting this land - there are overlays in the vicinity

OTHER OVERLAYS

Other overlays in the vicinity not directly affecting this land

BUSHFIRE MANAGEMENT OVERLAY (BMO)

Note. due to overlaps, some overlays may not be visible, and some colours may not match those in the legend

Further Planning Information

Planning scheme data last updated on 11 September 2024.

A **planning scheme** sets out policies and requirements for the use, development and protection of land. This report provides information about the zone and overlay provisions that apply to the selected land. Information about the State and local policy, particular, general and operational provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting https://www.planning.vic.gov.au

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the ***Planning and Environment Act 1987.*** It does not include information about exhibited planning scheme amendments, or zonings that may abut the land. To obtain a Planning Certificate go to Titles and Property Certificates at Landata - https://www.landata.vic.gov.au

For details of surrounding properties, use this service to get the Reports for properties of interest.

To view planning zones, overlay and heritage information in an interactive format visit https://mapshare.maps.vic.gov.au/vicplan

For other information about planning in Victoria visit https://www.planning.vic.gov.au

PLANNING PROPERTY REPORT

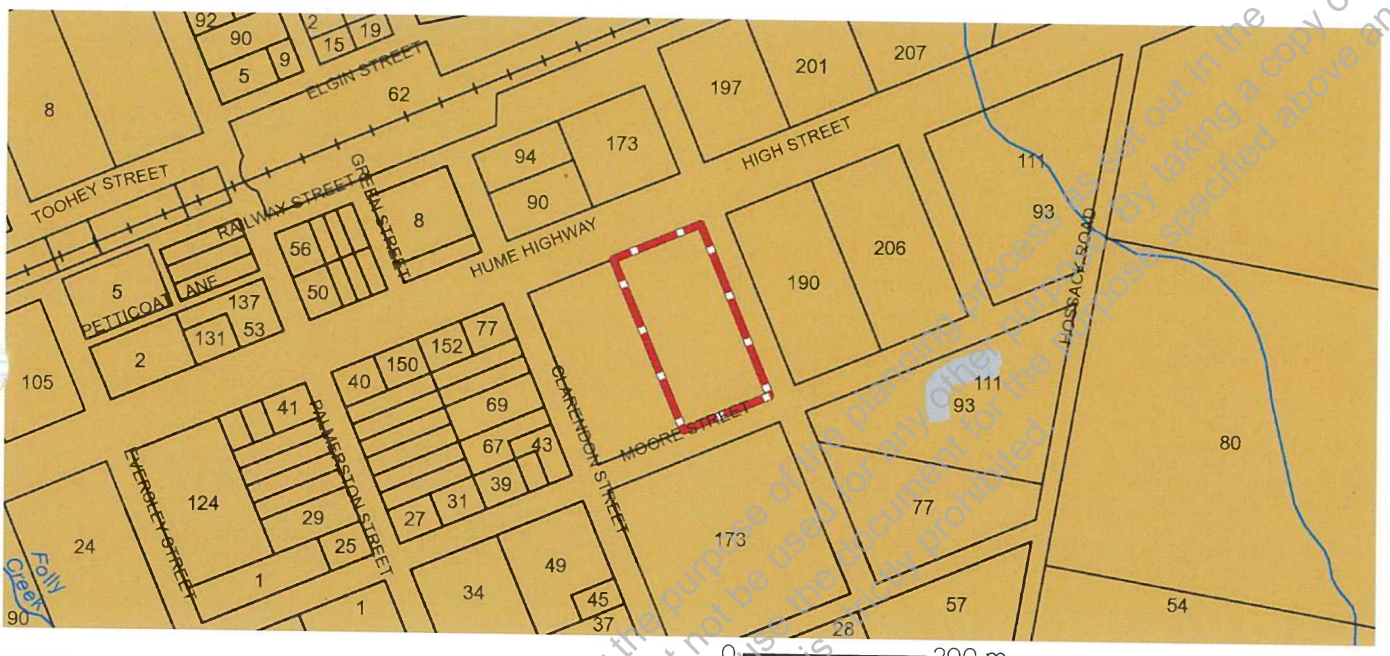
Environment, Land, Water and Planning

Designated Bushfire Prone Areas

This parcel is in a designated bushfire prone area. Special bushfire construction requirements apply to the part of the property mapped as a designated bushfire prone area (BPA). Planning provisions may apply.

Where part of the property is mapped as BPA, if no part of the building envelope or footprint falls within the BPA area, the BPA construction requirements do not apply.

Note: the relevant building surveyor determines the need for compliance with the bushfire construction requirements.



Designated Bushfire Prone Areas
Railway line
Water area
Water course

Designated BPA are determined by the Minister for Planning following a detailed review process. The Building Regulations 2018, through adoption of the Building Code of Australia, apply bushfire protection standards for building works in designated BPA.

Designated BPA maps can be viewed on VicPlan at https://mapshare.vic.gov.au/vicplan/ or at the relevant local council.

Create a BPA definition plan in VicPlan to measure the BPA.

Information for lot owners building in the BPA is available at https://www.planning.vic.gov.au

Further information about the building control system and building in bushfire prone areas can be found on the Victorian Building Authority website https://www.vba.vic.gov.au. Copies of the Building Act and Building Regulations are available from http://www.legislation.vic.gov.au. For Planning Scheme Provisions in bushfire areas visit https://www.planning.vic.gov.au.

Native Vegetation

Native plants that are indigenous to the region and important for biodiversity might be present on this property. This could include trees, shrubs, herbs, grasses or aquatic plants. There are a range of regulations that may apply including need to obtain a planning permit under Clause 52.17 of the local planning scheme. For more information see Native Vegetation (Clause 52.17) with local variations in Native Vegetation (Clause 52.17) Schedule.

To help identify native vegetation on this property and the application of Clause 52.17 please visit the Native Vegetation Information Management system https://nvim.delwp.vic.gov.au/ and Native vegetation (environment.vic.gov.au) or please contact your relevant council.

You can find out more about the natural values on your property through NatureKit NatureKit (environment.vic.gov.au)

PLANNING PROPERTY REPORT

Environment, Land, Water and Planning

From www.planning.vic.gov.au at 13 September 2024 08:18 AM

PROPERTY DETAILS

Crown Description:	**Allot. 26 TOWNSHIP OF BADDAGINNIE**
Address:	**HIGH STREET BADDAGINNIE 3670**
Standard Parcel Identifier (SPI):	**26\PP5026**
Local Government Area (Council):	**BENALLA**
Council Property Number:	**A19289 (Part)**
Planning Scheme:	**Benalla**
Directory Reference:	**Vicroads 47 F3**

www.benalla.vic.gov.au

Planning Scheme - Benalla

This parcel is one of 2 parcels comprising the property. For full parcel details get the free Property report at Property Reports

UTILITIES

Rural Water Corporation:	**Goulburn-Murray Water**
Urban Water Corporation:	**Goulburn Valley Water**
Melbourne Water:	**Outside drainage boundary**
Power Distributor:	**AUSNET**

STATE ELECTORATES

Legislative Council:	**NORTHERN VICTORIA**
Legislative Assembly:	**EUROA**

OTHER

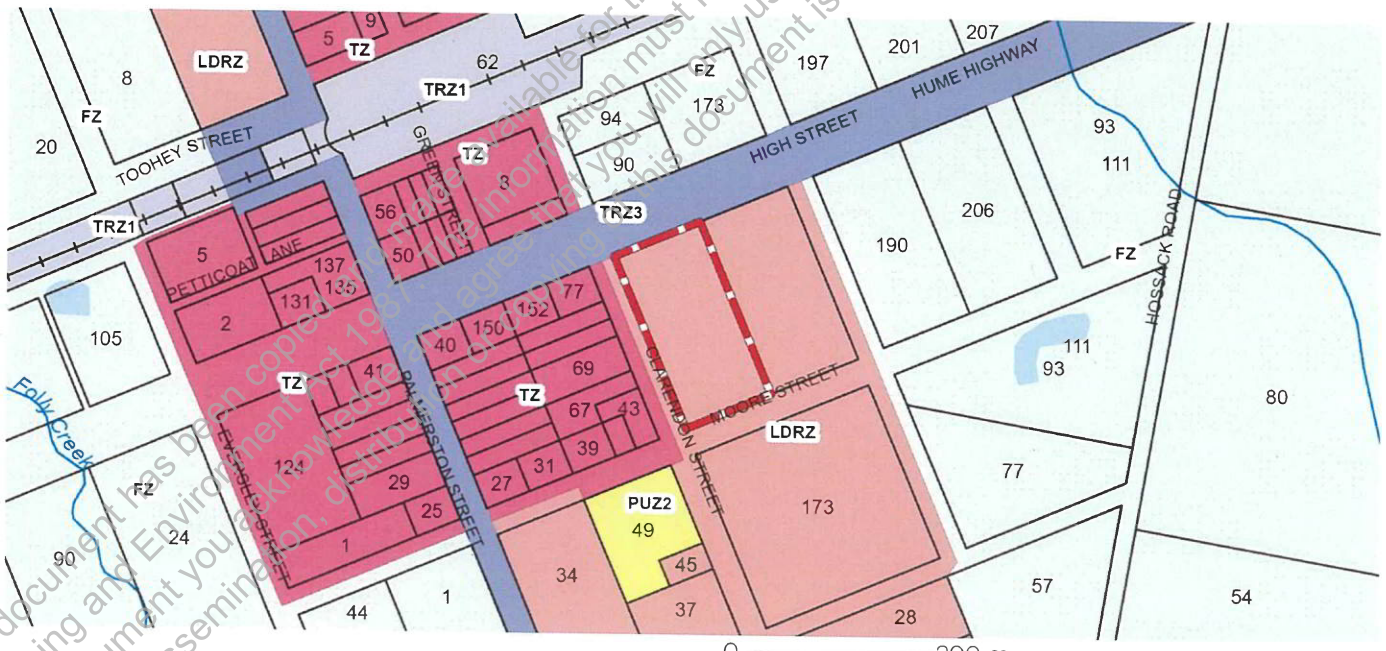
Registered Aboriginal Party: **Yorta Yorta Nation Aboriginal Corporation**

View location in VicPlan

Planning Zones

LOW DENSITY RESIDENTIAL ZONE (LDRZ)

SCHEDULE TO THE LOW DENSITY RESIDENTIAL ZONE (LDRZ)



FZ - Farming
TRZ1 - State Transport Infrastructure
Railway line
LDRZ - Low Density Residential
TRZ3 - Significant Municipal Road
Water area
PUZ2 - Public Use-Education
TZ - Township
Water course

Note, labels for zones may appear outside the actual zone - please compare the labels with the legend.

PLANNING PROPERTY REPORT

Environment, Land, Water and Planning

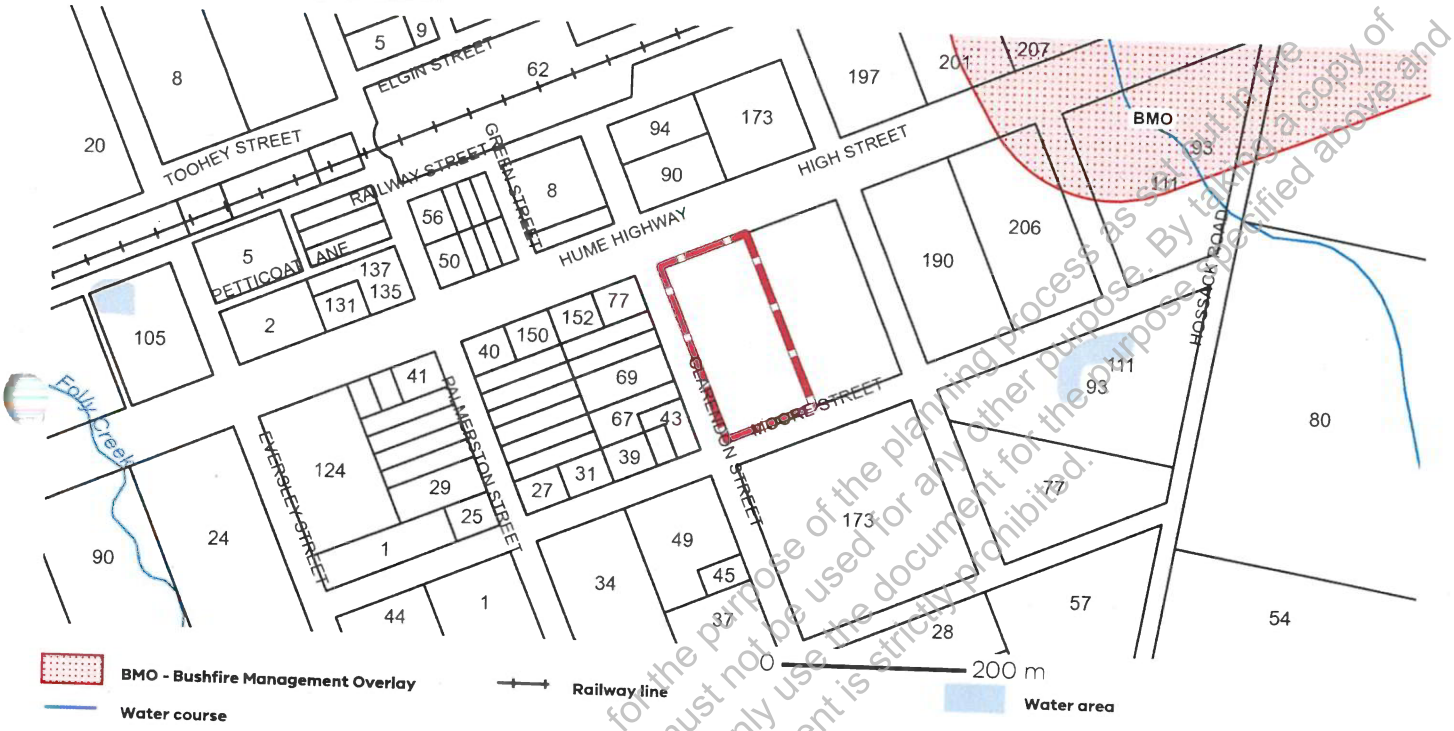
Planning Overlay

None affecting this land - there are overlays in the vicinity

OTHER OVERLAYS

Other overlays in the vicinity not directly affecting this land

BUSHFIRE MANAGEMENT OVERLAY (BMO)



Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend

Further Planning Information

Planning scheme data last updated on 11 September 2024.

A **planning scheme** sets out policies and requirements for the use, development and protection of land. This report provides information about the zone and overlay provisions that apply to the selected land. Information about the State and local policy, particular, general and operational provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting https://www.planning.vic.gov.au

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the ***Planning and Environment Act 1987.*** It does not include information about exhibited planning scheme amendments, or zonings that may abut the land. To obtain a Planning Certificate go to Titles and Property Certificates at Landata - https://www.landata.vic.gov.au

For details of surrounding properties, use this service to get the Reports for properties of interest.

To view planning zones, overlay and heritage information in an interactive format visit https://mapshare.maps.vic.gov.au/vicplan

For other information about planning in Victoria visit https://www.planning.vic.gov.au

PLANNING PROPERTY REPORT

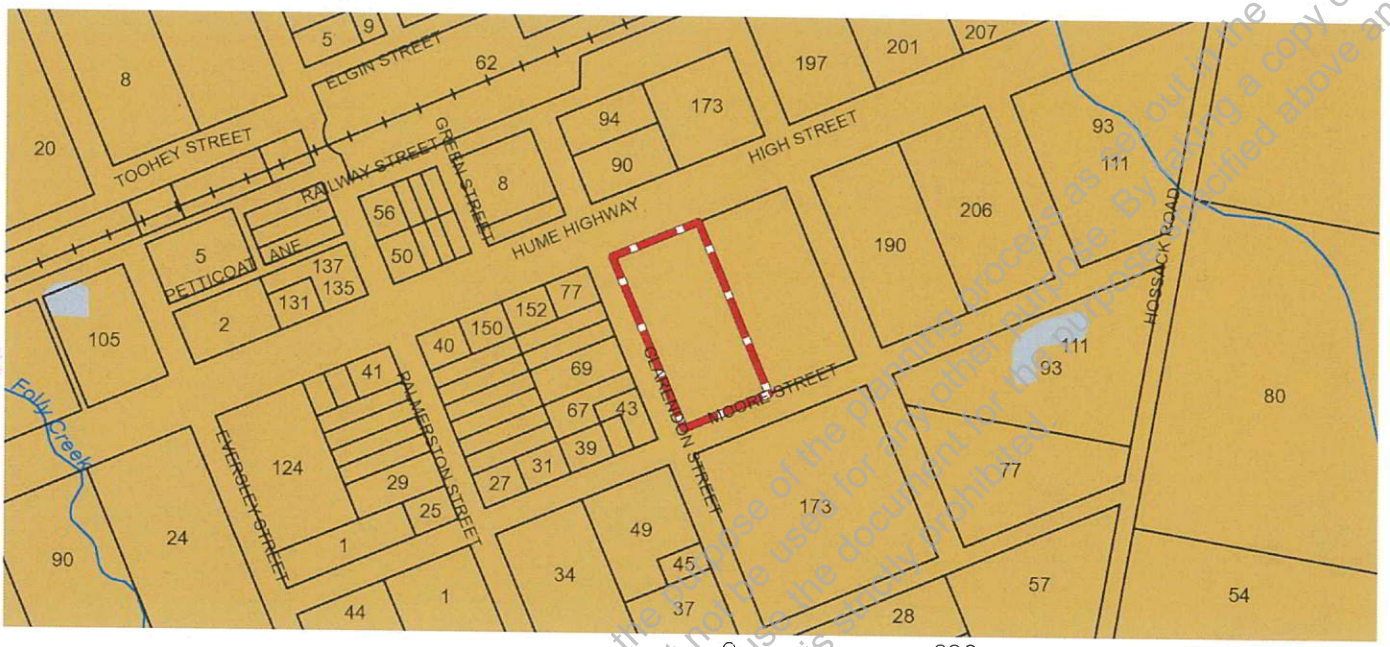
Environment, Land, Water and Planning

Designated Bushfire Prone Areas

This parcel is in a designated bushfire prone area. Special bushfire construction requirements apply to the part of the property mapped as a designated bushfire prone area (BPA). Planning provisions may apply.

Where part of the property is mapped as BPA, if no part of the building envelope or footprint falls within the BPA area, the BPA construction requirements do not apply.

Note: the relevant building surveyor determines the need for compliance with the bushfire construction requirements.



Designated Bushfire Prone Areas
Railway line
Water area
Water course

Designated BPA are determined by the Minister for Planning following a detailed review process. The Building Regulations 2018, through adoption of the Building Code of Australia, apply bushfire protection standards for building works in designated BPA.

Designated BPA maps can be viewed on VicPlan at https://mapshare.vic.gov.au/vicplan/ or at the relevant local council.

Create a BPA definition plan in VicPlan to measure the BPA.

Information for lot owners building in the BPA is available at https://www.planning.vic.gov.au.

Further information about the building control system and building in bushfire prone areas can be found on the Victorian Building Authority website https://www.vba.vic.gov.au. Copies of the Building Act and Building Regulations are available from http://www.legislation.vic.gov.au. For Planning Scheme Provisions in bushfire areas visit https://www.planning.vic.gov.au.

Native Vegetation

Native plants that are indigenous to the region and important for biodiversity might be present on this property. This could include trees, shrubs, herbs, grasses or aquatic plants. There are a range of regulations that may apply including need to obtain a planning permit under Clause 52.17 of the local planning scheme. For more information see Native Vegetation (Clause 52.17) with local variations in Native Vegetation (Clause 52.17) Schedule.

To help identify native vegetation on this property and the application of Clause 52.17 please visit the Native Vegetation Information Management system https://nvim.delwp.vic.gov.au/ and Native vegetation (environment.vic.gov.au) or please contact your relevant council.

You can find out more about the natural values on your property through NatureKit NatureKit (environment.vic.gov.au)

A.C. Geotechnical.

Land Capability Assessment

Corner High Street & Clarendon Street, Baddaginnie

Report Number: 24281

A.C. Geotechnical.

Distribution

Land Capability Assessment

Corner High Street & Clarendon Street, Baddaginnie

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2 **Confidentiality** – This report was prepared for Jeremy Sloan and may contain confidential information. If you receive this report in error, please contact A.C. Geotechnical Pty Ltd and we will arrange collection of this document.

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For and on behalf of
A.C. Geotechnical Pty Ltd
ABN: 74 624 767 700
P.O Box 539
Beaconsfield Vic 3807

Accreditation	Land Capability Assessment for On-site Wastewater Management Certificate CET, 2015
Experience	10 years' experience in geotechnical engineering and environmental assessments, with a focus on wastewater management across all states of Australia.

Edition	Description	Date
001	First Edition	25/08/2024

A.C. Geotechnical.

1. SUMMARY:

The following summary table should be read in conjunction with the entire report.

Designs wastewater load	4 Bedroom dwelling	900 L/day
Soils characteristics	Horizon A	Horizon B
Soil category	3b Loam	6b Medium clay
Indicative permeability	0.5-1.5 m/d	0.06-0.12 m/d
Critical site features	• Proposed small lot sized. • Potential high design wastewater loads. • Onsite dam on proposed lot 1. • Low permeable clay soils	
Minimum treatment requirements	Secondary	
Disposal system	Suitability	Area required
Absorption trenches	Not suitable	N/A
Wick trenches	Suitable	68 m (1.6 m wide trenches)
Subsurface Irrigation	Suitable	410 m^2
ETA Beds	Suitable	100 m^2
Mound	Suitable	220 m^2
Wastewater can be sustainably disposed to land		Yes

A.C. Geotechnical.

Table of Contents

2. INTRODUCTION:

A.C. Geotechnical Pty Ltd (AC) have been engaged to undertake a Land Capability Assessment (LCA) for the proposed subdivision of Corner High Street & Clarendon Street, Baddaginnie

The objectives of the assessment was to determine the following:

- Sub-surface ground profile and geological setting.
- The depth to groundwater (if encountered).
- The permeability of the soil profile.
- The capability of the site to sustainably manage wastewater within the allotment boundaries.
- A management program that should be put into place to minimise health and environmental impacts of on-site wastewater management, including the impact on surface water and groundwater.

2.1 Proposed Development:

It is proposed subdivide the site into six lots, five lots will be 4,071 m^2 and one lot will be 2.36 ha.

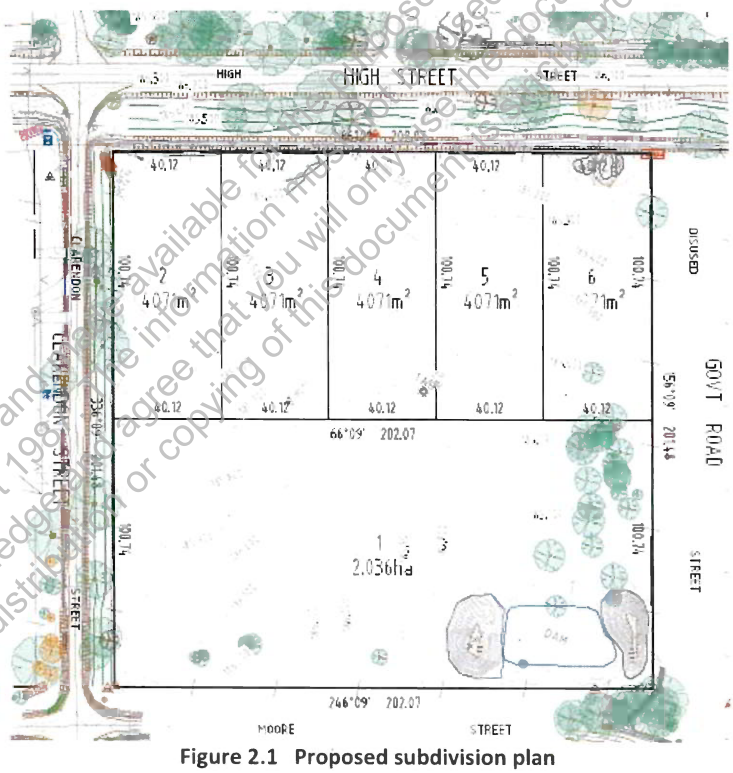

Figure 2.1 Proposed subdivision plan

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3. SITE DESCRIPTION:

3.1 Site Location:

The subject site is located between High Street, Clarendon Street and Moore Street The site is surrounded by similar size properties, the assumed land use of these properties is summarised in **Table 3.1**.

Table 3.1 -Surrounding land use

North	Low density residential
South	Low density residential
East	Low density residential
West	Low density residential

3.2 Site Topography and Condition:

The site is currently setup for grazing livestock, with a perimeter post and wire fence. The site is relatively level, a dam is located in the south-east corner, with an earth mound of material won from the excavation of the dam at the east and west end.

Vegetation on the site comprises open pasture. Scattered trees are located in the south-east corner and a trees are located outside the site boundary on all sides.

Figure 3.2 Proposed subdivision plan

Additional site photographs are included in **Appendix B.**

3.3 Key Site Information:

A summary of site characteristic and wastewater loading are included in **Table 3.3**.

Table 3.3 -Key site features

Site Address	Corner High Street & Clarendon Street, Baddaginnie
Owner/Applicant	Jeremy Sloan
Local Council	Benalla
Zoning	Low Density Residential (LDRZ)
Total Land Area	Approximately 4.06 ha Proposed subdivision 1 x 2.36 ha lot & 5 x 4,071 m^2 lots
Domestic Water Supply	Reticulated/Tank
Design Wastewater Load (Litres/Day)	EPA Guideline for onsite wastewater management, May 2024, Household on mains water 180 L / person / day. Persons = no. bedrooms + 1 (4 + 1 = 5 persons) **Design wastewater load** 5 x 180 = 900 L / day
Design Organic Material Load	EPA Guideline for onsite wastewater management, May 2024, 60 g per person per day (5 x 60) = 300 g/day
Availability of sewer	Sewer is not likely to become available to this area in the near future
Groundwater Quality	Groundwater is classified as Brackish (3500 - 7000 mg/L TDS) www.vvg.org.au
Water Table	Local registered bores in the area suggest the ground water is held approximately 5 m below the surface
Climate	Average annual rainfall 630.3 mm
Flood Potential	Outside a 1 in 100-year flood event
Water Catchment Area	N/A
Proximity to Waterways	Onsite dam
Vegetation	Pasture
Exposure	Open
Slope	Relatively level
Landform	Plains
Erosion Potential	Negligible
Surface Drainage	Good
Rocks and Rock Outcrop	None

3.4 Site Geology:

According to the Geological Survey of Victoria, the site is in an area of Quaternary aged sediments, belonging to Shepparton Formation. An extract from GeoVic 3 is included in **Figure 3.4**.

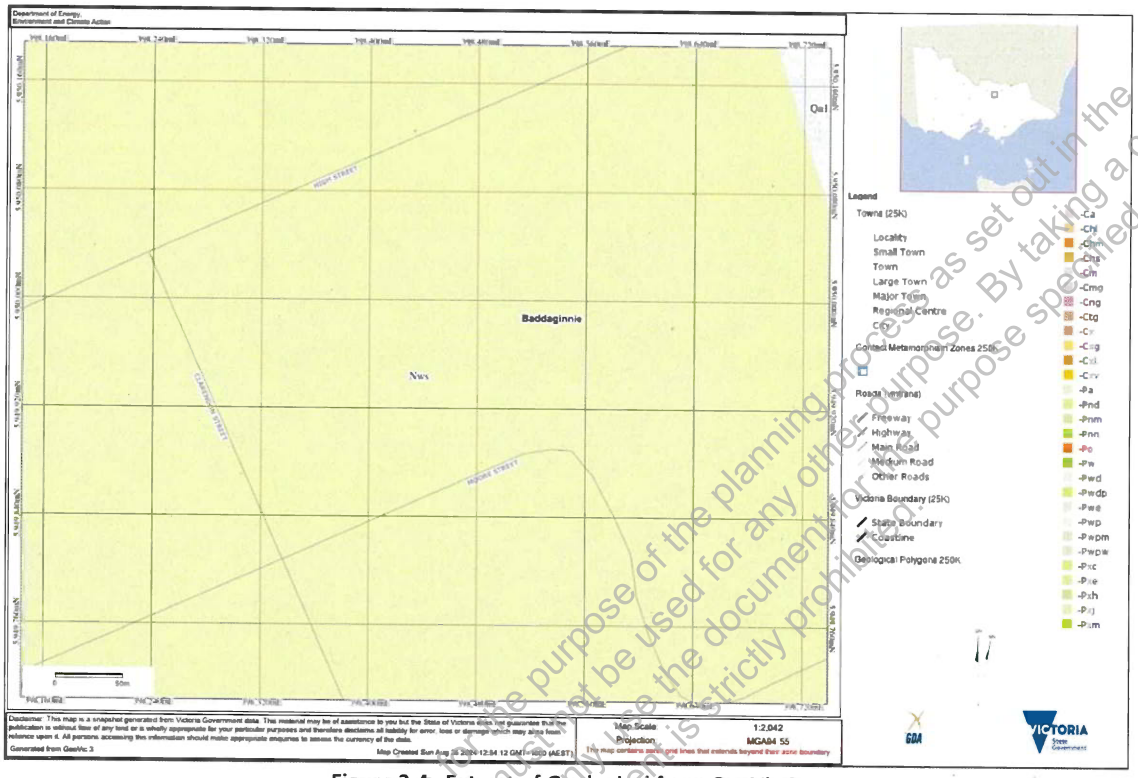

Figure 3.4 Extract of Geological from GeoVic 3

4. SOIL ASSESSMENT AND CONSTRAINTS:

4.1 Soil Profile:

The soil profile encountered during the investigation consisted of dark brown silt overlaying medium plasticity, pale brown, silty clay.

The critical soil horizon are the medium plasticity silty clay.

No groundwater was encountered during this investigation. No abnormal moisture conditions were identified through this assessment.

Borelogs are included in **Appendix C.**

4.2 Site Exposure:

A general assessment of the site exposure is as follows:

The site is exposed to the prevailing winds. The proposed effluent disposal area is generally exposed to sun and wind all year round.

4.3 Soil Assessment:

Laboratory analysis on each sample collected included the following:

- Texture Analysis using ribboning technique.
- Modified Emerson Analysis.
- Electrical Conductivity.
- pH analysis.

A summary of the analysis is included in **Table 4.3**.

Table 4.3 -Summary of soil assessment

BORE HOLE 1	**SAMPLE DEPTH: 200mm**	**SAMPLE DEPTH: 600mm**
SOIL ASSESSMENT (AS1547-2012)	**SOIL HORIZON: A**	**SOIL HORIZON: B**
Soil Colour	Dark brown	Pale brown
Soil Texture	Loam	Light clay
Coarse Fragments (%)	None	None
Soil Structure	Weak	Moderate
Soil Dispersion	Non-dispersive	Non-dispersive
Soil Permeability	0.5-1.5 mm/d	0.06-0.12 mm/d
Soil Category	3b	5b
pH 1:5 Ratio Electronic Method	6.52	6.68
Electrical Conductivity	0.065 dS/m	0.070 dS/m
Salinity Hazard	Non-saline	Non-saline

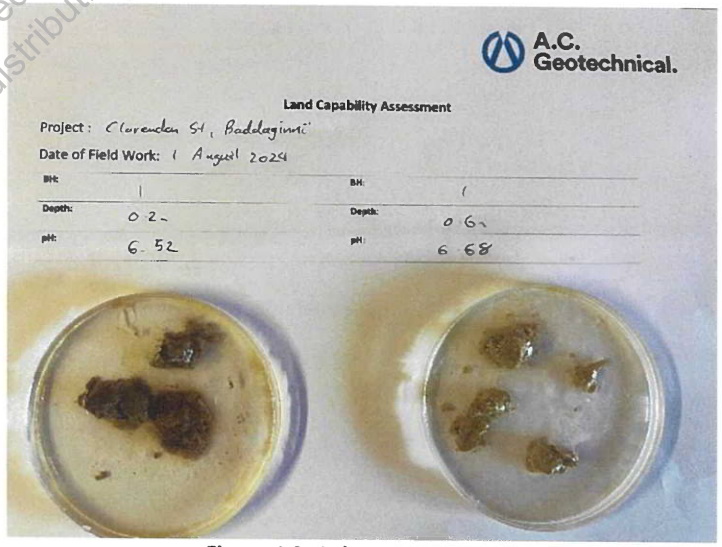

Figure 4.3 Laboratory Analysis

4.4 Field Assessed Permeability:

Insitu permeability testing with a constant head permeameter were undertaken in multiple locations across the site, see site plan for locations in **Attachment A,** in accordance with AS 1547-2012 using the constant-head test method. The field assessed permeability was calculated using the Talsma-Hallam constantly maintained head of water equation identified in AS 1547-2012.

$$K_{sat} = \frac{4.4\ Q\ [0.5\sinh^{-1}(H/2r) - \sqrt{\{(r/H)^2 + 0.25\}} + r/H]}{2\pi H^2}$$

Where:
K_{sat} = saturated hydraulic conductivity of the soil in cm/min.
4.4 = correction factor for a systematic under-estimate of soil permeability in the mathematical derivation of the equation.
Q = rate of loss of water from the reservoir in cm^3/min.
H = depth of water in the test hole in cm.
r = radius of the test hole in cm.

A summary of permeability results are included in T**able 4.4**. Permeability Calculations are included in **Appendix D**.

Table 4.4 -Summary of insitu permeability

	Constant Head Permeability
Indicative permeability (K_{sat})	0.11 m/day

Note: The results in the table above are based on average readings taken from the test holes.

The corresponding Ksat value of 0.11 m/day in EPA Onsite Wastewater Management – Code of Practice Publication No. 891.4 July 2016 Appendix A Table 9 is category 5 (light clay soil).

4.5 Critical site Features:

The critical site features are:

- Proposed small lot sized.
- Potential high design wastewater loads.
- Onsite dam on proposed lot 1.
- Low permeable clay soils

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5. LAND CAPABILITY ASSESSMENT MATRIX:

Table 5.1 and **Table 5.2** includes a Land Capability Assessment (LCA) matrix in accordance with EPA Publication 746.1. The LCA has been developed for the whole site however soils information relates to soils within the vicinity of the proposed Land Application Area (LAA).

Table 5.1 -Land capability assessment matrix - Site

Land Features	Land Capability Class Rating					Site Rating	Comments	Mitigation
	Very Good (1)	Good (2)	Fair (3)	Poor (4)	Very Poor (5)			
	General Characteristics							
Site drainage	No visible signs of dampness	Moist soil but no standing water		Visible signs of dampness i.e. water tolerant plants	Water ponding on surface	1	No abnormal moisture conditions	N/A
Runoff	None	Low	Moderate	High	Very High	3	Proposed small lot sizes	Secondary treatment of wastewater recommended
Flood / inundation potential (yearly return exceedance)	Never		< 1 in 100	>1 in 100 to < 1 in 20	> 1 in 20	1	Negligible flood potential	N/A
Proximity to water courses	> 60 metres			< 60 metres		4	Onsite dam	Minimum setback distances can be maintained
Slope (%)	0 - 2	2 - 8	8 – 12	12 – 20	> 20	1	Relatively level	N/A

Landslip	No potential for failure		Low potential for failure	High potential for failure	Present or Past Failure	1	No landslip potential	N/A
Groundwater table (m) seasonal watertable depth	>5.0	2.5 – 5.0	2.0 – 2.5	1.5 – 2.0	<1.5	1	Groundwater held at approximately 5.0 m below the surface	N/A
Rock Outcrops (% of land surface containing rocks >200mm)	0%	<10%	10-20%	20-50%	>50%	1	None encountered	N/A
Erosion Potential	No erosion potential	Minor	Moderate	High	Severe erosion potential	1	No erosion potential	Maintain current level of surface cover where practical
Exposure	High sun and wind exposure		Moderate	Low sun and wind exposure		1	High exposure to sun and wind	N/A
Landform	Hill crests, convex side slopes and plains		Concave side slopes and foot slopes		Floodplains and incised channels	1	Plains	N/A
Vegetation Type (land application area)	Turf or pasture				Dense Forest	1	Pasture	N/A
Fill	No Fill present		Fill Present			1	No fill encountered	N/A
Rainfall (mm/yr)[2]	<450	450 - 650	650 – 750	750 - 1000	>1000	2	Average annual rainfall of 630.3 mm	LAA size to be determined by water balance calculations
Pan evaporation (mm/yr)[3]	>1500	1250 - 1500	1000 – 1250	-	<1000	3	Annual evaporation of 1211.9 mm	LAA size to be determined by water balance calculations

Table 5.2 -Land capability assessment matrix - Soils

Soil Profile Characteristics								
Profile depth	>2.0m	1.5–2.0m	-	1.0–1.5m	<1.0m	1	Deep soil profile	N/A
Shrinkage* (%)	Low <4%	Moderate 4-12%	High 12-20%	Very High >20%		2	Medium plasticity, clay soils	N/A
Permeability* (m/d)	0.15–0.30	0.08–0.15 0.30-0.60	0.06-0.08 0.60-1.50	- 1.50-2.00	<0.06 >2.00	2	Light clays	LAA size to be determined by water balance calculations
Soil Permeability Category [1]	2 and 3	4		5	1 and 6	4	Light clays	LAA size to be determined by water balance calculations
Coarse fragments* (%)	<10	10-20	20-40		>40	1	None	N/A
Emerson Test* (dispersion / slaking)	4,6,8	5	7	2,3	1	1	Non-dispersive	N/A
Electrical Conductivity (Ece) (dS/m)	<0.3	0.3-0.8	0.8-2.0	2.0-4.0	>4.0	1	Non-saline	N/A
pH	6-8		4.5-6		<4.5, >8	1	Neutral soils	N/A

[1] Source: AS1547-2012
[2] Source BOM station – Benalla Airport (082170)
[3] Source BOM station – Benalla Airport (082170) 2019
* Relevant to soil layer(s) associated with wastewater application

6. MANAGEMENT PROGRAM:

The onsite wastewater system design and management program must suit the capability of the site and will consider the proposed development. The following sections discuss the inputs used to assess the suitability and requirements of EPA approved land based systems. Detailed design for the system is beyond the scope of this study.

6.1 Treatment System:

Based on site conditions and constraints outlined in the previous sections, secondary treatment of effluent is considered necessary for sustainable management of wastewater.

Untreated domestic wastewater typically has values of 200-300mg/L biochemical oxygen demand (BOD5) and 200-300mg/L total suspended solids (TSS). Indicative target effluent quality for secondary treatment systems are < 20mg/L BOD5, < 30mg/L TSS and <10cfu/100mL E.Coli.

The two most common options capable of achieving the desired performance are, aerated wastewater treatment systems (AWTS) and single pass sand filters. A summary of these systems is outlined below.

6.1.1 Aerated Wastewater Treatment System (AWTS):

AWTS are pre-fabricated or pre-engineered treatment systems designed to treat small wastewater flows. They are tank-based systems that typically employ the following processes:

- Settling of solids and flotation of scum in an anaerobic primary chamber.
- Oxidation and consumption of organic matter through aerobic biological processes.
- Clarification – secondary settling of solids; and
- Disinfection prior to disposal.

Good maintenance of AWTS (e.g. removal of sludge) is essential to ensure a consistently high level of performance. By law, AWTS are required to be serviced quarterly by an approved maintenance contractor.

6.1.2 Sand Filters:

Sand filters provide advanced secondary treatment to water that has already undergone primary treatment in a septic tank or similar device. They contain approximately 600mm depth of filter media (usually medium to coarse sand, but other media can be incorporated) within a lined excavation containing an underdrain system. Selection of the filter media is critical, and a carefully designed distribution network is necessary. A dosing well and pump is normally used to allow periodic dosing. Depending on the desired level of treatment, sand filters can be single pass or may incorporate partial recirculation.

6.2 Treatment System Location:

Based on requirements of EPA 891.4, above-ground and in-ground treatment systems must comply with the same setback distances to building footings and boundary fences as land application systems.

6.2.1 Septic Tank Sizing:

The minimum septic tank size should be 4,000 L.

6.3 Land Application:

A range of possible land application systems have been considered, such as absorption trenches/beds, evapotranspiration/absorption (ETA) beds, mound systems and sub-surface irrigation. AS1547:2012 outlines factors affecting the construction and operation of common land application systems and a guide to selecting a system taking into consideration site features, subsurface soil conditions and identified constraints. The suitability of EPA approved land based systems are discussed in **Table 6.3.**

Table 6.3 Land Application System

Land Application	Description	Site Suitability
Absorption Trenches	Trenches are the most common type of land application system and are generally used on lots which are reasonably flat and where water soaks into the soil readily in all weather conditions. Commonly, distribution pipes, self-supporting arch trenching or box trenching are laid in trenches filled with aggregate/rock. Effluent then soaks into the surrounding soil.	Not considered suitable due to small lot size
ETA Beds	Beds are shallower forms of trenches. Because beds have smaller sidewall area compared with trenches, the absorption provided by sidewall loading is reduced. This is compensated for by reducing the design loading rate.	Suitable
Wick trench	Wick trenches consists of an absorption trench with an adjoining shallow wicking bed. This system promotes high evaporation and transpiration by having a larger surface area than other trench / bed systems.	Suitable
Mound System	A mound system permits the absorption area to be sited in a location where the natural water table or impermeable rock approaches the ground surface. The mound is filled with medium-grade sand to provide suitable filtering before intercepting the natural soils. A pump/siphon dosing system distributes effluent uniformly through a bed of aggregate placed at the top of the mound. The sand media in the mound system acts as a secondary treatment system, removing the need for a separate sand filter or AWTS	Suitable
Sub-surface Irrigation	Subsurface drip irrigation requires secondary treated effluent dosing lines buried in the topsoil at shallow depth. Irrigation systems operate by both soil absorption and evapotranspiration from plants/trees	Suitable

6.3.1 Disposal systems:

Water balance modelling has been undertaken to calculate the minimum size of the LAA. The water balance takes into account the average annual rainfall, evaporation data, the daily effluent load, the design irrigation/loading rates for secondary treated effluent, the seasonal crop factor and the retained rainfall. The water balance model is designed so that the land application area is based upon a depth of saturated soil (i.e. water stored within indicative soil porosity) that meets the upper limits of acceptance for each land application method. The water balance must ensure that the soil can sustain growth during the summer months. The design system parameters used for the water balance calculations are summarised in **Table 6.3.1**.

Table 6.3.1 Design System Parameter

Treatment system	Application System	DIR / DLR	Runoff coefficient	Maximum storage depth
Primary treatment	Absorption trenches		Not suitable	
Secondary treatment	ETA Beds	10	25%	0 mm
	Wick trench	10	-	-
	Mound System	5	25%	0 mm
	Sub-surface irrigation	3	25%	0 mm

6.4 Land Application Outputs:

Minimum Land Application Area (LAA) sizing for each application method was calculated using water balance calculations. LAA sizing calculations are included in **Appendix D**. The minimum required disposal area for each system is summarised in **Table 6.4**.

Table 6.4 Required Land Application Area (LAA)

Dwelling Size	4 Bedroom Dwelling
Wastewater output	900 L / day
Disposal System	**Minimum LAA required**
Wick trench	68 m (160 m wide trenches)
Subsurface irrigation	410 m^2
ETA Beds	100 m^2
Mound	220 m^2

6.5 Proposed Wastewater Envelope

The proposed lots have adequate space to provide a 410 m^2 LAA for subsurface irrigation. An irrigation area of 410m^2 only takes up approximately 10% of the smallest lot size and will have minimum impact of proposed building locations on each lot.

6.6 Designated Area:

The Land Application Area (LAA) shall be located in a designated area to enhance evapotranspiration and shall:

- Not be used for purposes that compromise the effectiveness of the system or access for maintenance.
- Be used only for effluent application.
- Have boundaries clearly delineated by appropriate vegetation or other type of border.
- Have no run-off seepage or effluent beyond the designated area.

The site plan in **Appendix A** presents several potential areas suitable for LAA placement as well as setback areas from site features which must be maintained. Please note that the final LAA placement is the responsibility of the owner and should be included in a detailed design providing the minimum LAA and setback distances are maintained.

The required LAA will be smaller than that marked on the site plan. An appropriately sized LAA, as discussed in **Section 6.4,** must be located entirely within the area nominated on the site plan.

Setback distances for secondary treated wastewater disposal are included in **Section 6.6.1**.

6.6.1 Setback Distances:

The minimum setback distances for secondary treated wastewater are summarised in **Table 6.6.1.** The proposed LAA must adhere to these minimum setback distances.

Table 6.6.1 Minimum Setback Distances

Landscape feature or structure	Setback distance (m) (secondary treated wastewater)
Building	
Wastewater field up-slope of building	3
Wastewater field down-slope of building	1.5
Wastewater field up-slope of cutting/escarpment	15
Allotment boundary	
Wastewater field up-slope of Allotment boundary	3
Wastewater field down-slope of Allotment boundary	1.5
Services	
Water supply pipe	1.5
Wastewater field up-slope of potable supply channel	150
Wastewater field down-slope of potable supply channel	10
Gas supply pipe	1.5
In-ground water tank	7.5
Stormwater drain	3
Recreational areas	
Children's grassed playground	3
In-ground swimming pool	3
Surface water – up-slope of	
Waterway, non-potable creeks, dams, channels	30
Groundwater bores	
Category 2b to 6 soils	20

6.7 Monitoring, Operation and Maintenance:

The septic tank is de-sludged every 3 years; however, this frequency may vary depending on the following conditions.

- whether the tank is an adequate size for the daily wastewater flow
- the composition of the household and personal care products
- the amount of organic matter, fat, oil and grease washed down the sinks
- the use of harsh chemicals such as degreasers
- overuse of disinfectants and bleaches
- the use of antibiotics and other drugs, especially dialysis and chemotherapy drugs
- whether any plastic or other non-organic items are flushed into the tank.

After pump-out, tanks must not be washed out or disinfected. They should be refilled with water to reduce odours and ensure stability of plumbing fixtures. A small residue of sludge will always remain and will assist in the immediate re-establishment of bacterial action in the tank.

To ensure the treatment systems function adequately, residents must:

- Use soapy water (made from natural unscented soap), vinegar and water or bi-carbonate of soda and water to clean toilets and other water fixtures and fittings.
- Read labels to learn which bathroom and laundry products are suitable for septic tanks. Generally plain, noncoloured, unscented and unbleached products will contribute to a well-functioning septic tank.
- Use detergents with low levels of salts (e.g. liquid detergents), sodium absorption ratio, phosphorus and chlorine (see www.lanfaxlabs.com.au).
- Wipe oils and fats off plates and saucepans with a paper towel and dispose of in the kitchen compost bin.
- Use a sink strainer to restrict food scraps entering the septic system.
- Ensure no structures such as pavements, driveways, patios, sheds or playgrounds are constructed over the tank or absorption trench area.
- Ensure the absorption trench area is not disturbed by vehicles or machinery.
- Engage a service technician to check the sludge and scum levels, pumps and alarms annually.
- Keep a record of the location of the tank and the trenches and all maintenance reports (including the dates of tank pump-outs, tank inspections and access openings) and ensure the service technician sends a copy of the maintenance report to the local Council.
- Have the tank desludged when the combined depth of the scum and sludge is equal to the depth of the middle-clarified layer.

Indications of failing septic tanks and soil absorption trenches

- Seepage along effluent absorption trench lines in the soil.
- Lush green growth down-slope of the soil absorption trench lines.
- Lush green growth down-slope of the septic tank.
- Inspection pits and/or the soil absorption trenches consistently exhibiting high water levels.
- Soil absorption trench lines become waterlogged after storms.
- General waterlogging around the land disposal area.

- Presence of dead and dying vegetation (often native vegetation) around and down-slope of the land disposal areas.
- A noxious odour near the tank and the land disposal area.
- Blocked water fixtures inside the house, with sewage overflowing from the relief point.
- High sludge levels within the primary tank (within about 150 mm of inlet pipe).
- Flow obstructed and not able to pass the baffle in the tank.
- The scum layer blocking the effluent outflow.

6.7.1 Storm Water Management:

All stormwater must be disposed of to the legal point of discharge.

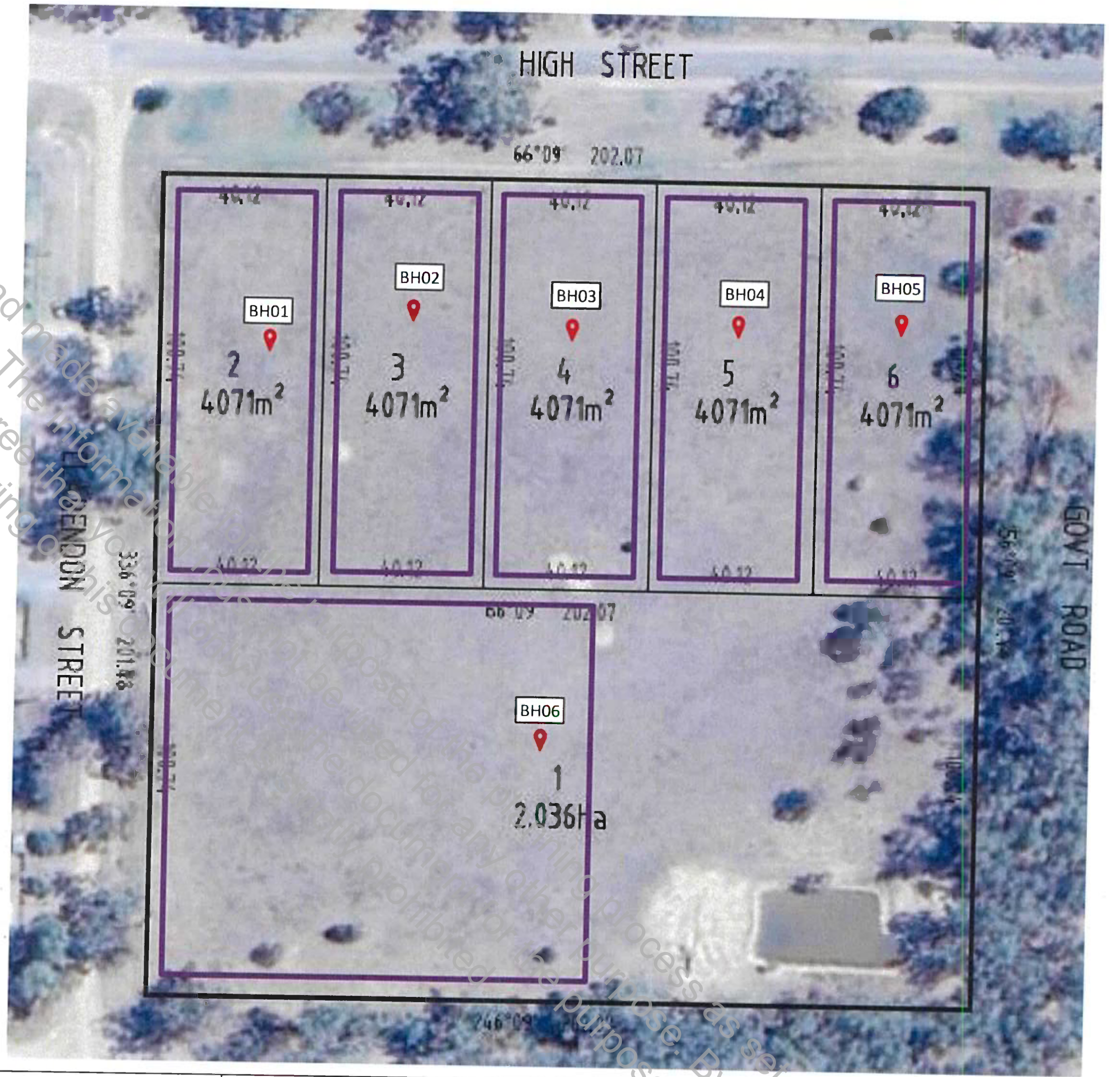
Note: An agricultural drain (AG) must be installed on the high side of the wastewater envelope. The drain is to be installed a minimum of 100mm into the naturally occurring clay soils and allow sufficient fall to intercept and drain all overland and subsurface run-off to a legal point of discharge. If a legal point of discharge cannot be obtained, the drainage line may discharge directly to the surface soils, a minimum distance of 10 metres beyond the wastewater disposal area.

7. CONCLUSIONS:

From this investigation it is concluded that the use of an on-site wastewater treatment and disposal system on each proposed lot is environmentally sustainable if the recommendations made in this report are followed.

8. REFERENCES:

- Environmental Protection Authority – Guideline for onsite wastewater management, May 2024,
- Municipal Association Victoria (MAV) January 2014, Model Land Capability Assessment Framework
- Australian/New Zealand Standard AS/NZS 1547-2012 – On-site domestic wastewater management.
- A.C. Geotechnical Pty Ltd - Field and Laboratory data (where applicable) collected and recorded.
- Environmental Protection Authority - "Code of Practice - Septic Tanks", March 1996" ~ Publication 451.
- Environmental Protection Authority, Information Bulletin- "Land Capability Assessment for onsite Domestic Wastewater Management", March 2003 ~ Publication 746.1.



Notes

1. LAA must be setback a minimum of 1.5 m from all boundaries
2. LAA area must be setback a minimum of 1.5 m from the proposed dwellings.
3. LAA area must be setback a minimum of 30 m from the dam on lot 1.
4. Minimum setback distances are outlined in **Section 6.6.1.**
5. The actual disposal system will be significantly small than the LAA indicated.
6. The disposal system must be located entirely within the indicated LAA.

A.C. Geotechnical.	Not to Scale Investigation locations are approximate	Legend Investigation Location Suitable disposal area	Attachment A: Site Plan Corner High Street & Clarendon Street Baddaginnie

A.C. Geotechnical.

Appendix B

Site Photographs

A.C. Geotechnical.

A.C. Geotechnical.

Appendix C

Borelog

Borehole Record BH01

A.C. Geotechnical.

Project Number	24281	Date	1/08/2024
Project	Land Capability Assessment	Drilling Method	HA
Location	Corner High Street & Clarendon Street, Baddaginnie	Logged	AC

Depth (m)	Description	
0.00	SILT (ML): Dark brown, firm, moist.	Disturbed sample - 0.2 m
0.30	Silty CLAY (CI): Medium plasticity, pale brown, stiff, moist, near plastic limit.	Disturbed sample - 0.6 m
2.00	Borehole terminated - target depth achieved	

Borehole Record BH02

A.C. Geotechnical.

Project Number	24281	Date	1/08/2024
Project	Land Capability Assessment	Drilling Method	HA
Location	Corner High Street & Clarendon Street, Baddaginnie	Logged	AC

Depth (m)	Description	
0.00	SILT (ML): Dark brown, firm, moist.	Disturbed sample - 0.2 m
0.20	Silty CLAY (CI): Medium plasticity, pale brown, stiff, moist, near plastic limit.	Disturbed sample - 0.6 m
2.00	Borehole terminated - target depth achieved	

Borehole Record BH03

A.C. Geotechnical.

Project Number	24281	Date	1/08/2024
Project	Land Capability Assessment	Drilling Method	HA
Location	Corner High Street & Clarendon Street, Baddaginnie	Logged	AC

Depth (m)	Description	
0.00	SILT (ML): Dark brown, firm, moist.	Disturbed sample - 0.2 m
0.30	Silty CLAY (CI): Medium plasticity, pale brown, stiff, moist, near plastic limit.	Disturbed sample - 0.6 m
2.00	Borehole terminated - target depth achieved	

Borehole Record BH04

A.C. Geotechnical.

Project Number	24281	Date	1/08/2024
Project	Land Capability Assessment	Drilling Method	HA
Location	Corner High Street & Clarendon Street, Baddaginnie	Logged	AC

Depth (m)	Description	
0.00	SILT (ML): Dark brown, firm, moist.	Disturbed sample - 0.2 m
0.30	Silty CLAY (CI): Medium plasticity, pale brown, stiff, moist, near plastic limit.	Disturbed sample - 0.6 m
2.00	Borehole terminated - target depth achieved	

Borehole Record BH05

A.C. Geotechnical.

Project Number	24281	Date	1/08/2024
Project	Land Capability Assessment	Drilling Method	HA
Location	Corner High Street & Clarendon Street, Baddaginnie	Logged	AC

Depth (m)	Description	
0.00	SILT (ML): Dark brown, firm, moist.	Disturbed sample - 0.2 m
0.30	Silty CLAY (CI): Medium plasticity, pale brown, stiff, moist, near plastic limit.	Disturbed sample - 0.6 m
2.00	Borehole terminated - target depth achieved	

Borehole Record BH06

A.C. Geotechnical.

Project Number	24281	Date	1/08/2024
Project	Land Capability Assessment	Drilling Method	HA
Location	Corner High Street & Clarendon Street, Baddaginnie	Logged	AC

Depth (m)	Description	
0.00	SILT (ML): Dark brown, firm, moist.	Disturbed sample - 0.2 m
0.30	Silty CLAY (CI): Medium plasticity, pale brown, stiff, moist, near plastic limit.	Disturbed sample - 0.6 m
2.00	Borehole terminated - target depth achieved	

A.C. Geotechnical.

Appendix D

Constant Head Calculations & Water Balance

INSITU CONSTANT HEAD PERMEABILITY

A.C. Geotechnical.

Project Address:	Corner High Street & Clarendon Street	**Project Number:**	24281
Location:	Baddaginnie	**Date:**	24/08/2024
Client:	Jeremy Sloan		

INPUT DATA

Borehole		**Reservoir**	
Borehole diameter	100 cm	**Diameter**	97 mm
Borehole Depth	500 cm	**Base area**	295.4426 mm2
Water level from surface	250 cm		
Depth of water in hole	250 cm		

FIELD DATA

	Test 1	Test 2	Test 3	Test 4	
Time intervals (min)	Water depth in reservoir				
Initial Depth	200	200	200	200	
5					
10					
15					
20	192	192	193	191	**Average**
Q (cm2/min)	11.817704	11.817704	10.340491	13.294917	**11.817704**
Ksat (cm/min	0.007595333	0.007595333	0.006645917	0.00854475	**0.007595333**
Ksat (m/d)	0.109372798	0.109372798	0.095701199	0.123044398	**0.109372798**

WICK TRENCH SIZE CALCULATIONS

A.C. Geotechnical.

Project Address:	Corner High Street & Clarendon Street	**Project Number:**	24281
Location:	Baddaginnie	**Date:**	24/08/2024
Client:	Jeremy Sloan		

INPUT DATA

Daily flow allowance (per person)	180 L
Daily wastewater volume	900 L
Effluent quality	Secondary
Soil texture	Sandy loam
Soil structure	Massive
Soil category	2b
Indicative Permeability	1.4-3.0 Ksat
Design Loading Rate	10 mm/d
Factor of Safety	1.2

ABSORPTION TRENCHES

L = Q / (DLR x (W/F))

Where:

L = length of trench

Q = Design daily flow in L/day

DLR = Design Loading rate in mm/d

W = width of trench in m

F = Factor of safety

Width of trench	1.6 m	Width of trench	2.5 m
Length =	**68 m**	**Length =**	**43.2**

WATER BALANCE
ETA BEDS

A.C. Geotechnical.

Project Address:	Corner High Street & Clarendon Street	**Project Number:**	24281
Location:	Baddaginnie	**Date:**	24/08/2024
Client:	Jeremy Sloan		

INPUT DATA		
Daily flow allowance (per person)	180	L
Daily wastewater volume	900	L
Effluent quality	Secondary	
Effective rainfall	0.75	%
Soil texture	Sandy loam	
Soil structure	Massive	
Soil category	1.4-3.0	
Indicative Permeability	1.4-3.0	Ksat

ETA BEDS		
DLR	10	mm/d
Porosity	40	%
Maximum Storage Depth	0	mm

Crop Factor - standard pasture	0.85	0.85	0.85	0.6	0.6	0.6	0.6	0.6	0.6	0.85	0.85	0.85	
crop factors -Lucene	0.95	0.9	0.85	0.8	0.7	0.55	0.55	0.65	0.75	0.85	0.95	1	
Crop factor - Shade	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Crop factor - woodlot	1	1	1	1	1	1	1	1	1	1	1	1	

Rainfall Data	Benalla Airport (082170)
Evaporation Data	Benalla Airport (082170)

Parameter	**Unit**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
Days in month		31	28	31	30	31	30	31	31	30	31	30	31	365
Rainfall (mm)		43.3	41.3	43.4	50.7	45.6	55.3	49.5	62.5	53.5	65.3	65.2	54.7	630.3
Evaporation (mm)		201.5	165.2	133.3	75	40.3	30	31	43.4	69	105.4	138	179.8	1211.9
Output														
Evapotranspiration (mm)		171.28	140.42	113.31	45	24.18	18	18.6	26.04	41.4	89.59	117.3	152.83	957.94
Percolation (mm)		310	280	310	300	310	300	310	310	300	310	300	310	3650
Total Output (mm)		481.28	420.42	423.31	345	334.18	318	328.6	336.04	341.4	399.59	417.3	462.83	4607.9
Inputs														
Effective Rainfall (mm)		32.475	30.975	32.55	38.025	34.2	41.475	37.125	46.875	40.125	48.975	48.9	41.025	472.73
Application Rate (mm)		279	252	279	270	279	270	279	279	270	279	270	279	3285
Total Inputs (mm)		311.48	-420.4	311.55	308.03	313.2	311.48	316.13	325.88	310.13	327.98	318.9	320.03	3757.7
Storage Calculations														
Waste Loading (mm)		448.8	389.45	390.76	306.98	299.98	276.53	291.48	289.17	301.28	350.62	368.4	421.81	
Volume of Wastewater (mm)		27900	25200	27900	27000	27900	27000	27900	27900	27000	27900	27000	27900	328500
Cumulative Storage (mm)		0	0	0	0	0	0	0	0	0	0	0	0	
Area													100	m2
Width													3	m
Length													20	m

WATER BALANCE
SUBSURFACE IRRIGATION

A.C. Geotechnical.

Project Address:	Corner High Street & Clarendon Street	**Project Number:**	24281
Location:	Baddaginnie	**Date:**	24/08/2024
Client:	Jeremy Sloan		

INPUT DATA	
Daily flow allowance (per person)	180 L
Daily wastewater volume	900 L
Effluent quality	Secondary
Effective rainfall	0.75 %
Soil texture	Sandy loam
Soil structure	Massive
Soil category	2b
Indicative Permeability	1.4-3.0 Ksat

SUBSURFACE IRRIGATION	
DLR	3 mm/d
Porosity	45 %
Maximum Storage Depth	0 mm

Crop Factor - standard pasture		0.85	0.85	0.85	0.6	0.6	0.6	0.6	0.6	0.6	0.85	0.85	0.85	
crop factors -Lucene		0.95	0.9	0.85	0.8	0.7	0.55	0.55	0.65	0.75	0.85	0.95	1	
Crop factor - Shade		0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Crop factor - woodlot		1	1	1	1	1	1	1	1	1	1	1	1	
Rainfall Data	Benalla Airport (082170)													
Evaporation Data	Benalla Airport (082170)													
Parameter	**Unit**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
Days in month		31	28	31	30	31	30	31	31	30	31	30	31	365
Rainfall (mm)		43.3	41.3	43.4	50.7	45.6	55.3	49.5	62.5	53.5	65.3	65.2	54.7	630.3
Evaporation (mm)		201.5	165.2	133.3	75	40.3	30	31	43.4	69	105.4	138	179.8	1211.9
Output														
Evapotranspiration (mm)		171.28	140.42	113.31	45	24.18	18	18.6	26.04	41.4	89.59	117.3	152.83	957.94
Percolation (mm)		93	84	93	90	93	90	93	93	90	93	90	93	1095
Total Output (mm)		264.28	224.42	206.31	135	117.18	108	111.6	119.04	131.4	182.59	207.3	245.83	2052.9
Inputs														
Effective Rainfall (mm)		32.475	30.975	32.55	38.025	34.2	41.475	37.125	46.875	40.125	48.975	48.9	41.025	472.73
Application Rate (mm)		68.049	61.463	68.049	65.854	68.049	65.854	68.049	68.049	65.854	68.049	65.854	68.049	801.22
Total Inputs (mm)		100.52	-224.4	100.6	103.88	102.25	107.33	105.17	114.92	105.98	117.02	114.75	109.07	1273.9
Storage Calculations														
Waste Loading (mm)		231.8	193.45	173.76	96.975	82.98	66.525	74.475	72.165	91.275	133.62	158.4	204.81	
Volume of Wastewater (mm)		27900	25200	27900	27000	27900	27000	27900	27900	27000	27900	27000	27900	328500
Cumulative Storage (mm)		0	0	0	0	0	0	0	0	0	0	0	0	
Land area required													**410**	**m2**

WATER BALANCE
MOUND SYSTEM

A.C. Geotechnical.

Project Address:	Corner High Street & Clarendon Street	**Project Number:**	24281
Location:	Baddaginnie	**Date:**	24/08/2024
Client:	Jeremy Sloan		

INPUT DATA	
Daily flow allowance (per person)	180 L
Daily wastewater volume	900 L
Effluent quality	Secondary
Effective rainfall	0.75 %
Soil texture	Sandy loam
Soil structure	Massive
Soil category	2b
Indicative Permeability	1.4-3.0 Ksat

MOUND SYSTEM	
DLR	5 mm/d
Porosity	40 %
Storage Depth	0 mm

Crop Factor - standard pasture	0.85	0.85	0.85	0.6	0.6	0.6	0.6	0.6	0.6	0.85	0.85	0.85	
crop factors -Lucene	0.95	0.9	0.85	0.8	0.7	0.55	0.55	0.65	0.75	0.85	0.95	1	
Crop factor - Shade	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
Crop factor - woodlot	1	1	1	1	1	1	1	1	1	1	1	1	

Rainfall Data	Benalla Airport (082170)
Evaporation Data	Benalla Airport (082170)

Parameter	**Unit**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
Days in month		31	28	31	30	31	30	31	31	30	31	30	31	365
Rainfall (mm)		43.3	41.3	43.4	50.7	45.6	55.3	49.5	62.5	53.5	65.3	65.2	54.7	630.3
Evaporation (mm)		201.5	165.2	133.3	75	40.3	30	31	43.4	69	105.4	138	179.8	1211.9
Output														
Evapotranspiration (mm)		171.28	140.42	113.31	45	24.18	18	18.6	26.04	41.4	89.59	117.3	152.83	957.94
Percolation (mm)		155	140	155	150	155	150	155	155	150	155	150	155	1825
Total Output (mm)		326.28	280.42	268.31	195	179.18	168	173.6	181.04	191.4	244.59	267.3	307.83	2782.9
Inputs														
Effective Rainfall (mm)		32.475	30.975	32.55	38.025	34.2	41.475	37.125	46.875	40.125	48.975	48.9	41.025	472.73
Application Rate (mm)		126.82	114.55	126.82	122.73	126.82	122.73	126.82	126.82	122.73	126.82	122.73	126.82	1493.2
Total Inputs (mm)		159.29	-280.4	159.37	160.75	161.02	164.2	163.94	173.69	162.85	175.79	171.63	167.84	1965.9
Storage Calculations														
Waste Loading (mm)		293.8	249.45	235.76	156.98	144.98	126.53	136.48	134.17	151.28	195.62	218.4	266.81	
Volume of Wastewater (mm)		27900	25200	27900	27000	27900	27000	27900	27900	27000	27900	27000	27900	328500
Cumulative Storage (mm)		0	0	0	0	0	0	0	0	0	0	0	0	
Basal Area													**220**	**m2**

NUTRIENT BALANCE

A.C. Geotechnical.

Project Address:	Corner High Street & Clarendon Street	**Project Number:**	24281
Location:	Baddaginnie	**Date:**	24/08/2024
Client:	Jeremy Sloan		

Nitrogeb Balance -Nitrogen		
Hydraulic Loading	900	l/day
Effluent N concentration	25	mg/l
Daily N loading	22500	mg/day
Annual N loading	8212500	mg/year
Denitrification loss	20	%
Denitrification loss	6570000	mg/year
Total annual N loading	6.57	kg/year
Plant uptake	220	kg/ha/year
Minimum area for uptake	**299**	**m2**

A.C. Geotechnical.

Appendix E

Property Reports

PROPERTY REPORT

Energy, Environment and Climate Action

From www.land.vic.gov.au at 09 August 2024 07:17 PM

PROPERTY DETAILS

Address:	**HIGH STREET BADDAGINNIE 3670**
Crown Description:	**This property has 2 parcels. See table below**
Standard Parcel Identifier (SPI):	**See table below**
Local Government Area (Council):	**BENALLA**
Council Property Number:	**A19289**
Directory Reference:	**Vicroads 47 F3**

www.benalla.vic.gov.au

SITE DIMENSIONS

All dimensions and areas are approximate. They may not agree with those shown on a title or plan.

Area: 40583 sq. m (4.06 ha)
Perimeter: 806 m
For this property:
— Site boundaries
— Road frontages

Dimensions for individual parcels require a separate search, but dimensions for individual units are generally not available.

Calculating the area from the dimensions shown may give a different value to the area shown above

For more accurate dimensions get copy of plan at Title and Property Certificates

PARCEL DETAILS

The letter in the first column identifies the parcel in the diagram above

	Lot/Plan or Crown Description	SPI
	TOWNSHIP OF BADDAGINNIE	
A	Allot. 25	25\PP5026
B	Allot. 26	26\PP5026

UTILITIES

Rural Water Corporation:	**Goulburn-Murray Water**
Urban Water Corporation:	**Goulburn Valley Water**
Melbourne Water:	**Outside drainage boundary**
Power Distributor:	**AUSNET**

STATE ELECTORATES

Legislative Council:	**NORTHERN VICTORIA**
Legislative Assembly:	**EUROA**

PROPERTY REPORT

Energy, Environment and Climate Action

PLANNING INFORMATION

Property Planning details have been removed from the Property Reports to avoid duplication with the Planning Property Reports from the Department of Transport and Planning which are the authoritative source for all Property Planning information.

The Planning Property Report for this property can found here - Planning Property Report

Planning Property Reports can be found via these two links
Vicplan https://mapshare.vic.gov.au/vicplan/
Property and parcel search https://www.land.vic.gov.au/property-and-parcel-search

Area Map

PLANNING PROPERTY REPORT

VICTORIA State Government | Environment, Land, Water and Planning

From www.planning.vic.gov.au at 09 August 2024 07:16 PM

PROPERTY DETAILS

Address:	**HIGH STREET BADDAGINNIE 3670**
Crown Description:	**More than one parcel - see link below**
Standard Parcel Identifier (SPI):	**More than one parcel - see link below**
Local Government Area (Council):	**BENALLA** www.benalla.vic.gov.au
Council Property Number:	**A19289**
Planning Scheme:	**Benalla** Planning Scheme - Benalla
Directory Reference:	**Vicroads 47 F3**

This property has 2 parcels. For full parcel details get the free Property report at Property Reports

UTILITIES

Rural Water Corporation:	**Goulburn-Murray Water**
Urban Water Corporation:	**Goulburn Valley Water**
Melbourne Water:	**Outside drainage boundary**
Power Distributor:	**AUSNET**

STATE ELECTORATES

Legislative Council:	**NORTHERN VICTORIA**
Legislative Assembly:	**EUROA**

OTHER

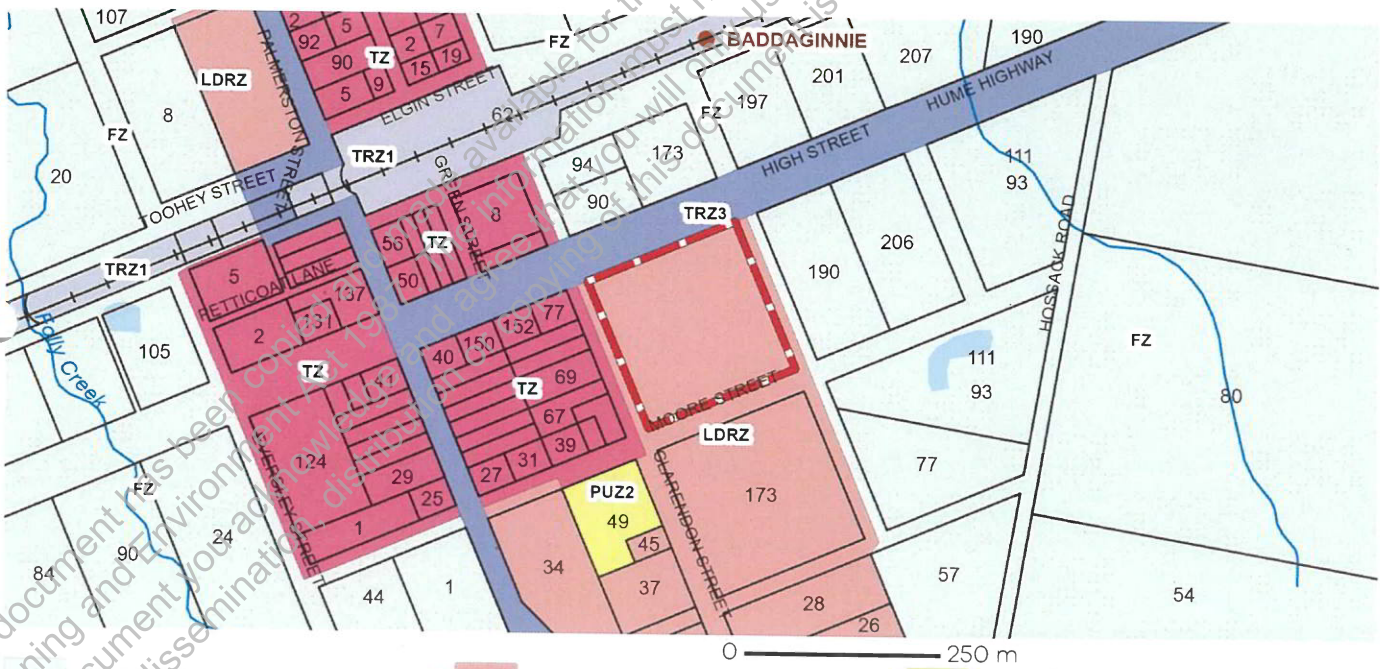
Registered Aboriginal Party: **Yorta Yorta Nation Aboriginal Corporation**

View location in VicPlan

Planning Zones

LOW DENSITY RESIDENTIAL ZONE (LDRZ)

SCHEDULE TO THE LOW DENSITY RESIDENTIAL ZONE (LDRZ)



FZ - Farming
TRZ1 - State Transport Infrastructure
Railway line
Water course
LDRZ - Low Density Residential
TRZ3 - Significant Municipal Road
Railway station
PUZ2 - Public Use-Education
TZ - Township
Water area

Note: labels for zones may appear outside the actual zone - please compare the labels with the legend.

PLANNING PROPERTY REPORT

Environment, Land, Water and Planning

Planning Overlay

None affecting this land - there are overlays in the vicinity

OTHER OVERLAYS

Other overlays in the vicinity not directly affecting this land

BUSHFIRE MANAGEMENT OVERLAY (BMO)

Note: due to overlaps, some overlays may not be visible, and some colours may not match those in the legend

Further Planning Information

Planning scheme data last updated on 7 August 2024.

A **planning scheme** sets out policies and requirements for the use, development and protection of land.
This report provides information about the zone and overlay provisions that apply to the selected land.
Information about the State and local policy, particular, general and operational provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting https://www.planning.vic.gov.au

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the ***Planning and Environment Act 1987.***
It does not include information about exhibited planning scheme amendments, or zonings that may abut the land.
To obtain a Planning Certificate go to Titles and Property Certificates at Landata - https://www.landata.vic.gov.au

For details of surrounding properties, use this service to get the Reports for properties of interest.

To view planning zones, overlay and heritage information in an interactive format visit https://mapshare.maps.vic.gov.au/vicplan

For other information about planning in Victoria visit https://www.planning.vic.gov.au

PLANNING PROPERTY REPORT

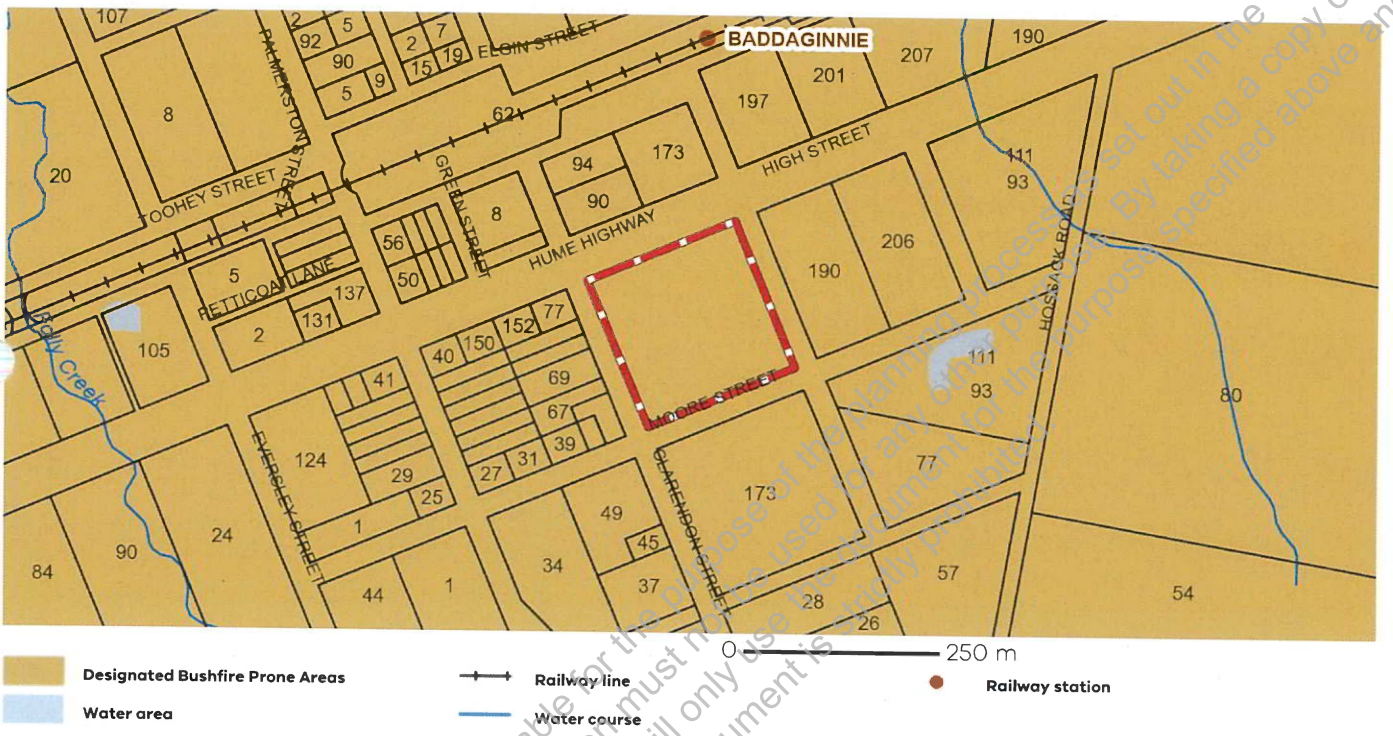
Environment, Land, Water and Planning

Designated Bushfire Prone Areas

This property is in a designated bushfire prone area. Special bushfire construction requirements apply to the part of the property mapped as a designated bushfire prone area (BPA). Planning provisions may apply.

Where part of the property is mapped as BPA, if no part of the building envelope or footprint falls within the BPA area, the BPA construction requirements do not apply.

Note: the relevant building surveyor determines the need for compliance with the bushfire construction requirements.



Designated BPA are determined by the Minister for Planning following a detailed review process. The Building Regulations 2018, through adoption of the Building Code of Australia, apply bushfire protection standards for building works in designated BPA.

Designated BPA maps can be viewed on VicPlan at https://mapshare.vic.gov.au/vicplan/ or at the relevant local council.

Create a BPA definition plan in VicPlan to measure the BPA.

Information for lot owners building in the BPA is available at https://www.planning.vic.gov.au

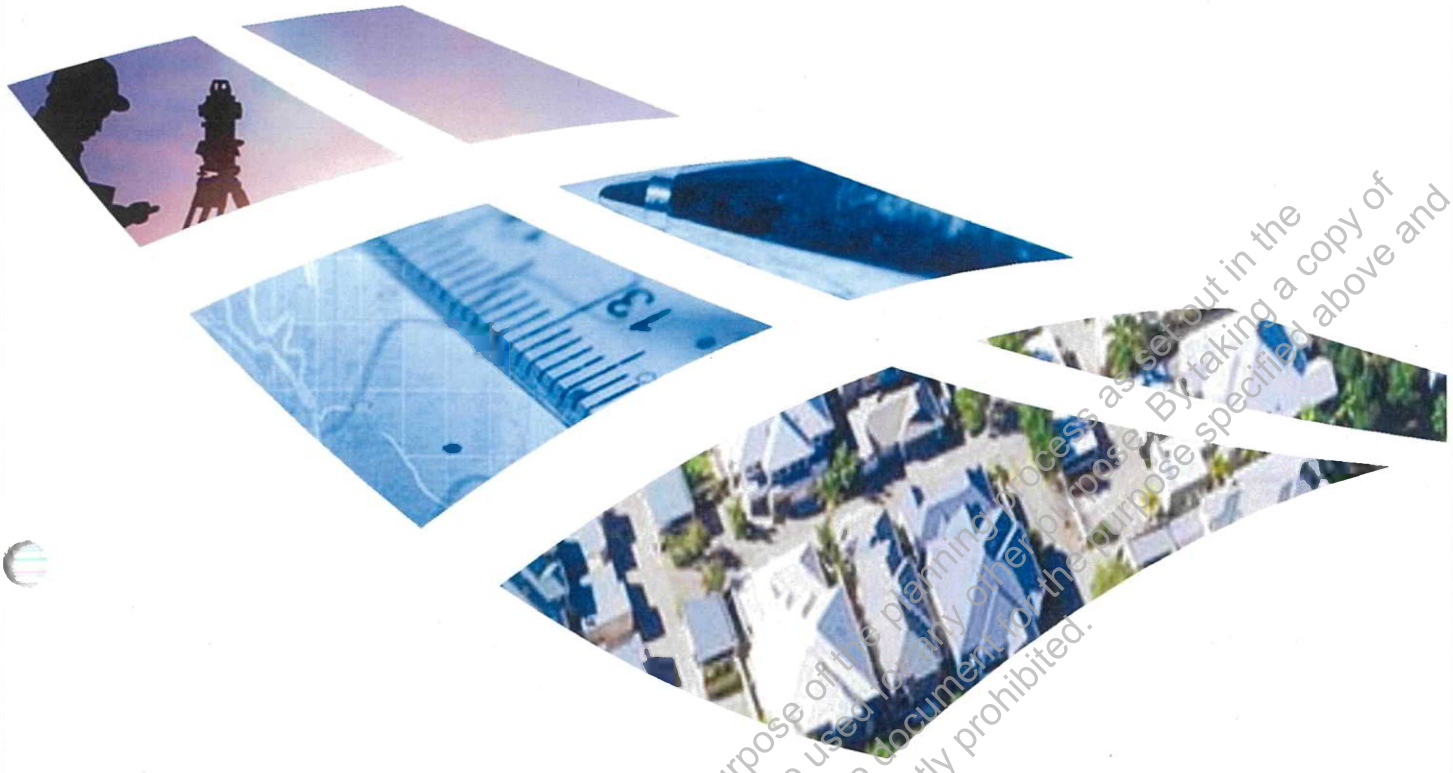
Further information about the building control system and building in bushfire prone areas can be found on the Victorian Building Authority website https://www.vba.vic.gov.au. Copies of the Building Act and Building Regulations are available from http://www.legislation.vic.gov.au. For Planning Scheme Provisions in bushfire areas visit https://www.planning.vic.gov.au

Native Vegetation

Native plants that are indigenous to the region and important for biodiversity might be present on this property. This could include trees, shrubs, herbs, grasses or aquatic plants. There are a range of regulations that may apply including need to obtain a planning permit under Clause 52.17 of the local planning scheme. For more information see Native Vegetation (Clause 52.17) with local variations in Native Vegetation (Clause 52.17) Schedule

To help identify native vegetation on this property and the application of Clause 52.17 please visit the Native Vegetation Information Management system https://nvim.delwp.vic.gov.au/ and Native vegetation (environment.vic.gov.au) or please contact your relevant council.

You can find out more about the natural values on your property through NatureKit NatureKit (environment.vic.gov.au)



TOWN PLANNING REPORT

6 LOT SUBDIVISION

ADDRESS

Cnr High & Clarendon Street
Baddaginnie

PREPARED FOR
Jeremy Sloan

DATE
31 July 2024

Onleys

SURVEY DESIGN PLANNING

Contents

1.0 APPLICATION

1.1 INTRODUCTION

This report has been prepared by Onleys on behalf of our client and landowners in support of a planning permit application seeking approval for a 6 Lot Subdivision of land. The subject land parcels are located at High Street, Baddaginnie being Crown Allotments 25 & 26 in the Parish of Warrenbayne. The subject lot is zoned Low Density Residential Zone, fronts a Transport 3 Zone and is not impacted by any Council Overlays save for a Designated Bushfire Prone Overlay.

1.2 PLANNING SCHEME REQUIREMENTS

Under the Benalla Shire Planning Scheme, a proposal of this nature generates a planning permit requirement addressing the following provision.

- Clause 32.03-3 of the Low Density Residential Zone indicates a permit is required to subdivide land.

1.3 SUMMARY

The site in question is a 4.00 - hectare allotment located on the south side of High Street, in the eastern area of the Benalla Township. The lot is zoned Low Density Residential.

The intention of this proposal is to subdivide the 4.00 hectares, into five residential based lots sized between 4071m^2 & 2.036 hectares, all with independent access to High Street or Clarendon Street.

The report addresses how the proposal meets the following requirements of the Moira Planning Scheme.

2.0 NOMINATED SITE & LOCALITY

2.1 SITE SUMMARY

The site is located at on the Corner of High & Clarendon Streets, Baddaginnie and is located within the eastern aspect of the Benalla Township, a short walk from the centre of town.

The allotment in question is square in shape, with the \ northern boundary having a large frontage to High Street, the western boundary fronts Clarendon Street and the southern boundary fronts Moore Street. A non-developed road reserve adjoins the western boundary. The allotment is currently vacant, with a stock dam in the southwest corner. There is a combination of native and exotic vegetation on the site. The allotments will have ready access to power and telecommunication infrastructure.

The neighbouring surrounds are residential in nature to the south and west, with the immediate land to the north and east being zoned farmland. The land abuts a TRZ3 Council Road and a TRZ1 zone exists north of the allotment to support the Victrack Rail line. Allotments to the east appear to be lifestyle type properties despite being zoned Farm Zone. The Low Density Residential allotment to the south is also undeveloped.

Crown Allot 25 & 26 Parish of Warrenbayne

Figure 1 – Aerial Image of Subject Site

2.2 SURROUNDING LOCALITY

The allotment is in the east aspect of the Baddaginnie Township. The immediate surrounding area is zoned for Township Zone, Low Density Residential Zone, Farm Zone, with Transport Zone 1 being in the nearby vicinity.

Figure 2 – Surrounding Area

Figure 3 – Surrounding Area Lot Layout

3.0 PROPOSAL

The subject site is located on the east side of the Baddaginnie Township on the southern side of High Street, comprising of a combined 4.00 hectares. The site is zoned as Low Density Residential Zone. The proposed subdivision will comprise of the creation of 6 lots within Crown Allotments 25 & 26 in the Parish of Warrenbayne.

Lots	Area (m^2)	Orientation
1	20360	West Facing
2	4071	North Facing
3	4071	North Facing
4	4071	North Facing
5	4071	North Facing
6	4071	North Facing

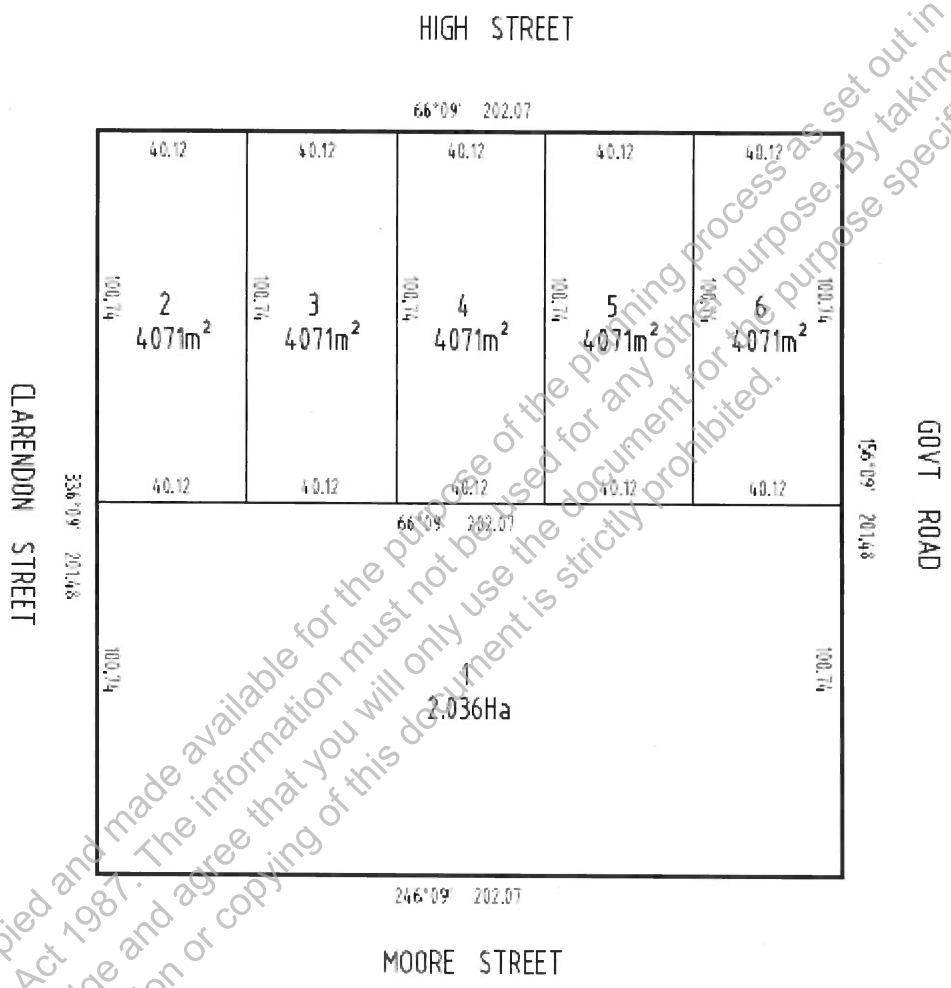


Figure 4 – Proposed Subdivision Layout

3.1 SITE LAYOUT

The proposed subdivision creates 6 new lots from the original allotment. The allotments will either have a north or west facing orientation with independent access for each allotment from High or Clarendon Street. The design for this development factors in the integration of street network, and relevant available utilities to effectively service this proposal.

4.0 PLANNING ASSESSMENT

The application is assessed against the following provisions of the Moira Shire Planning Scheme.

Section	Clause #	Provision
General Provisions		
Planning Policy Framework		
	2.01	Context
	2.02	Vision
	02.03-1	Settlement
	02.03-6	Housing
	11.01-1S	Settlement
	11.02-3S	Sequencing of Development
	12.01-1S	Protection of Biodiversity
	12.05-2S	Landscapes
	13.02-1S	Bushfire Planning
	13.04-1S	Contaminated and potentially contaminated land
	15.01-3S	Subdivision design
Particular Provisions		
Zones		
	32.03	Low Density Residential Zone
	65.02	Decision Guidelines - Subdivision
	56	Residential Subdivision

4.1 PLANNING POLICY FRAMEWORK

Clause 2.01 Context

Benalla Rural City covers an area of 2354 square kilometres, has a population of 14,020 (VIF 2019) and is situated in Victoria's northeast approximately 180 kilometres from Melbourne. The urban centre of Benalla is the major city and supports a network of smaller towns including Baddaginnie, Goorambat, Devenish, Swanpool, Tatong, Thoona and Winton.

Benalla Rural City is a diverse rural municipality based on the Broken River. It also includes fertile agricultural land along the Hollands Creek which is a major tributary to the Broken River.

The major water features are the Broken River, Hollands Creek, Winton Wetlands, Lake Nillahcootie and Lake Benalla. The wetlands, river corridors, Mount Samaria State Park, Reef Hills State Park and parts of the Warby Ranges State Park form the major environmental features and, along with roadsides, support most of the remaining native vegetation.

The municipality is strategically located on the nationally significant Hume and Midland Highways and Melbourne to Sydney Railway. This convergence of transport routes means Benalla is a significant transport hub which is a major benefit to local industry.

The economy is focussed on Benalla's regional centre role, agricultural production, tourism and manufacturing. It is dominated by employment in the manufacturing, retail trade, agriculture and health and community services sectors.

The Benalla Central Business District (CBD) serves a large rural hinterland and provides a wide range of higher order community services and facilities but faces strong competition from Shepparton and Wangaratta.

The municipality has a strong industrial base located to the north and east of Benalla. The industries are generally based on specialist manufacturing, processing of timber products, value adding to agricultural produce and providing a service base for the region.

The rural areas of the municipality are acknowledged for good soils and access to irrigation water. The major agricultural industries are prime lamb, beef production and broad acre cropping, with some irrigation and dairying. More recent agricultural uses include viticulture, horticulture and forestry.

Clause 2.02 Vision

A sustainable, thriving and cohesive community where lifestyle, culture, health and wellbeing are supported by strong leadership and community partnership.

Clause 2.03-1 Settlement

Benalla (pop 10,430 (VIF 2019)) is the major urban centre of the municipality, and provides the focus for most residential, commercial, retail and industrial opportunities. The Benalla CBD includes a traditional strip shopping centre along a main road and suffers from pedestrian and vehicular conflicts and retail fragmentation.

Benalla's central location in regional Victoria attracts regional offices for government departments and modern education facilities including the Goulburn Ovens Institute of TAFE.

Enterprise Park provides the bulk of industrial opportunities while Benalla has the capacity to accommodate larger industry that requires buffers to the north of town.

Benalla is situated on Lake Benalla, which is a significant natural feature of local and regional importance. Development at the interface with the lake environs needs to be carefully assessed and have regard to urban and landscape character including views.

Clause 2.03-6 Housing

Ageing population and decreasing household size requires the provision of a greater diversity in dwelling options. Medium density housing should maintain the character of residential areas and be located close to services. There is a high demand for supported accommodation for older people, particularly hostel and retirement housing.

The municipality has attracted residents to non-urban areas due to the ease of access from major population centres, attractive landscape and environment, lifestyle qualities and improved telecommunications. This form of land use can affect agricultural activities by

inhibiting the operation of farming activities raising the value of land above agriculture levels.

Rural residential living must be planned in locations that support existing communities and settlements, supplied with physical and community services, and not detract from agricultural or other land uses.

In managing housing, Council seeks to:

- Encourage a diverse housing mix that meets the changing demographics of the community, including medium density housing, standard residential development, low density residential and rural living development.
- Support planned rural residential opportunities whilst minimising environmental or agricultural impacts.

Response: The proposal supports the intent of this clause in that it is a subdivision that will create low density residential opportunities in an area identified by Council as suitable for this style of development.

Clause 11.01-1S Settlement

This clause is of relevance to promote the sustainable growth and development of Victoria and deliver choice and opportunity for all Victorians through a network of settlements.

Strategies that are relevant to the proposal include:

- *Develop sustainable communities through a settlement framework offering convenient access to jobs, services, infrastructure and community facilities.*
- *Support sustainable development of the regional centres of Ararat, Bacchus Marsh, Bairnsdale, Benalla, Castlemaine, Colac, Echuca, Gisborne, Hamilton, Kyneton, Leongatha, Maryborough, Portland, Sale, Swan Hill, Warragul/Drouin and Wonthaggi.*
- *Ensure regions and their settlements are planned in accordance with their relevant regional growth plan.*
- *Guide the structure, functioning and character of each settlement taking into account municipal and regional contexts and frameworks.*
- *Provide for growth in population and development of facilities and services across a regional or sub-regional network.*

Response: The proposed subdivision is consistent with the above policies as it will create low density residential style allotments within the Council's Low Density Residential Zone. Opportunities for low density and rural living style developments were also identified in the Benalla Urban Growth Strategy of 2019.

Clause 11.02-3S Sequencing of Development

This clause is of relevance to this application as its objective is to manage the sequence of development in areas of growth so that services are available from early in the life of new communities.

Strategies that are relevant to the proposal include:

- *Define preferred development sequences in areas of growth to better coordinate infrastructure planning and funding.*
- *Ensure that new land is released in areas of growth in a timely fashion to facilitate coordinated and cost-efficient provision of local and regional infrastructure.*
- *Require new development to make a financial contribution to the provision of infrastructure such as community facilities, public transport, and roads.*
- *Improve the coordination and timing of infrastructure and service delivery in areas of growth.*
- *Support opportunities to co-locate facilities.*
- *Ensure that planning for water supply, sewerage and drainage works receives high priority in early planning for areas of growth.*

Response: The proposed site is in the existing Low Density Residential area of Baddaginnie. The surrounding zones include Township Zone, Low Density Residential Zone, Farm Zone and a nearby Transport 1 Zone for the VicTrack Northeastern Railway Line.

Both power and telecommunications are available for the site, a Stormwater & Drainage assessment will form part of this application, along with a Land Capability Assessment to ascertain each lots suitability for wastewater management.

Clause 12.01-1S Protection of Biodiversity

This clause is of relevance as it seeks to assist the protection and conservation of Victoria's Biodiversity.

Strategies relevant to the proposal include:

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

Response: The proposed allotments have a selection of Native & Exotic Vegetation, which are not proposed to be removed as part of this application.

Clause 12.05-2S Landscapes

This clause is of relevance as it seeks to protect and enhance significant landscapes and open spaces that contribute to character, identity, and sustainable environments.

The strategies associated with this objective include:

- *Ensure significant landscape areas such as forests, the bays and coastlines are protected.*
- *Ensure development does not detract from the natural qualities of significant landscape areas.*
- *Improve the landscape qualities, open space linkages and environmental performance in significant landscapes and open spaces, including green wedges, conservation areas and non-urban areas.*
- *Recognise the natural landscape for its aesthetic value and as a fully functioning system.*
- *Ensure important natural features are protected and enhanced.*

Response: The proposed lots have been appropriately sited and designed. The new lots will be developed to minimise the extent of cut and fill by seeking to develop appropriate lot sizes.

Clause 13.02-1S Bushfire Planning

This objective of this clause is to strengthen the resilience of settlements and communities to bushfire through risk based planning that prioritises the protection of human life.

This policy must be applied to all planning and decision making under the Planning and Environment Act 1987 relating to land that is:

- Within a designated bushfire prone area.
- Subject to a Bushfire Management Overlay; or
- Proposed to be used or developed in a way that may create a bushfire hazard.

Response: The proposed subdivision will meet the objectives of Clause 13.02-1S. The site will have access to a constant water supply, and fire breaks, if required can be managed during the construction phase of the subdivision.

Notwithstanding, the proposal will meet the relevant regulations in accordance with the CFA Act 1958.

Standard conditions relating to the CFA guidelines can also be included subject to any permit issued.

Clause 15.01-3S Subdivision Design

This clause is relevant to the proposal as its objective is to ensure the design of subdivisions achieves attractive, safe, accessible, diverse, and sustainable neighbourhoods.

The strategies in support of this objective include;

- *Creating compact neighbourhoods that have walkable distances between activities.*
- *Creating urban places with a strong sense of place that are functional, safe and attractive.*
- *Providing a range of lot sizes to suit a variety of dwelling and household types to meet the needs and aspirations of different groups of people.*
- *Facilitating an urban structure where neighbourhoods are clustered to support larger activity centres served by high quality public transport.*

Response: The proposed subdivision layout is consistent with the Low Density Residential Zoning and utilises existing road infrastructure with all lots being designed to have direct access to either High or Clarendon Streets.

4.2 ZONING

Clause 32.03 Low Density Residential Zone

The subject land is located within the Low Density Residential Zone as shown in Figure 4 below. Clause 32.03-3 of the Low Density Residential Zone indicates a planning permit is required to subdivide land.

The purposes of the Low Density Residential Zone include:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To provide for low-density residential development on lots which, in the absence of reticulated sewerage, can treat and retain all wastewater.*

Response: The proposed development is consistent with the intention of the zone in that it is a low-density residential development within a designated Low Density Residential Zone.

Clause 32.08 -13 - Decision Guidelines

The Municipal Planning Strategy and the Planning Policy Framework	The proposal is considered to be consistent with Planning Policy Framework in that it will contribute to the Low Density Residential Zone.
The protection and enhancement of the natural environment and character of the area including the retention of vegetation and faunal habitat and the need to plant vegetation along waterways, gullies, ridgelines and property boundaries.	The proposal is consistent with the purpose of the zone, in particular providing low-density residential development on lots which, in the absence of reticulated sewerage, can treat and retain all wastewater. A Land Capability Statement accompanies this application.
The availability and provision of utility services, including sewerage, water, drainage, electricity and telecommunications.	Electricity and Telecommunications are readily available at the title boundaries. A Land Capability Assessment, along with a Drainage & Stormwater assessment also form part of this application.
In the absence of reticulated sewerage: • The capability and suitability of the lot to treat and retain all wastewater as determined by a Land Capability Assessment on the risks to human health and the environment of an on-site wastewater management	A Land Capability assessment accompanies this application, demonstrating that the treatment of all effluent can be dealt with within the confines of each proposed development.

system constructed, installed, or altered on the lot in accordance with the requirements of the Environment Protection Regulations under the *Environment Protection Act 2017*. • The benefits of restricting the size of lots to generally no more than 2 hectares to enable lots to be efficiently maintained without the need for agricultural techniques and equipment.	
The relevant standards of Clauses 56.07-1 to 56.07-4.	Addressed later in this report.

Clause 65.02 – Decision Guidelines Application to Subdivide Land

The suitability of the land for subdivision.	The land is suitable for subdivision and is located in a Low Density Residential Zone.
The existing use and possible future development of the land and nearby land.	The allotment is currently vacant, with a stock dam in the southeast corner. The proposal will create 5 allotments of similar size with a further larger allotment to the south at 2.036 hectares. Land to the south is also zoned low density residential but as yet undeveloped. Land to the east zoned Farming has a settlement more akin to lifestyle allotments.
The availability of subdivided land in the locality, and the need for the creation of further lots.	A review of online real estate websites indicates there is no allotments for sale in Baddaginnie that are currently zoned Low Density Residential Zone.
The effect of development on the use or development of other land which has a common means of drainage	A Stormwater and Drainage report accompanies this report.
The subdivision pattern having regard to the physical characteristics of the land including existing vegetation	The proposal creates allotments of size that are demonstrated to sustain a building envelope and supporting effluent treatment field without adversely impacting on native vegetation

The density of the proposed development.	The density of the proposal is consistent with the surrounding areas of the northeast area of the Baddaginnie Township.
The area and dimensions of each lot in the subdivision.	The lots range from 4071m^2 to 20360m^2.
The layout of roads having regard to their function and relationship to existing roads	No additional road infrastructure is proposed as part of this application
The movement of pedestrians and vehicles throughout the subdivision and the ease of access to all lots	The development will create 5 allotments with independent access to High Street, and 1 allotment with access to be established to Clarendon Street.
The provision and location of reserves for public open space and other community facilities.	The development is approximately 12 kilometres from the centre of Benalla and the associated surrounding sporting facilities. It is also felt that given the size of the proposed allotments, walking access to local parks is not as detrimental as it would be in a residential based development.
The staging of the subdivision.	The proposal is not a staged subdivision.
The design and siting of buildings having regard to safety and the risk of spread of fire.	N/A
The provision of off-street parking.	The proposed allotment sizes are considered adequate for off street parking for each allotment
The provision and location of common property.	Common Property does not form part of this application.
The functions of any body corporate.	A body corporate is not proposed as part of this development.
The availability and provision of utility services, including water, sewerage, drainage, electricity, and gas.	The proposed subdivision will include the provision of all available utilities.
If the land is not sewered and no provision has been made for the land to be sewered, the capacity of the land to treat and retain all sewage and sullage within the boundaries of each lot.	A Land Capability Statement confirming all effluent can be treated within the confines of each title is supplied with this application.

Whether, in relation to subdivision plans, native vegetation can be protected through subdivision and siting of open space areas.	As all lots are in excess of 4000m^2. No native vegetation will be deemed lost as part of this application.
The impact the development will have on the current and future development and operation of the transport system.	The development utilizes the existing council road infrastructure, with all allotments having access to High Street or Clarendon Street.

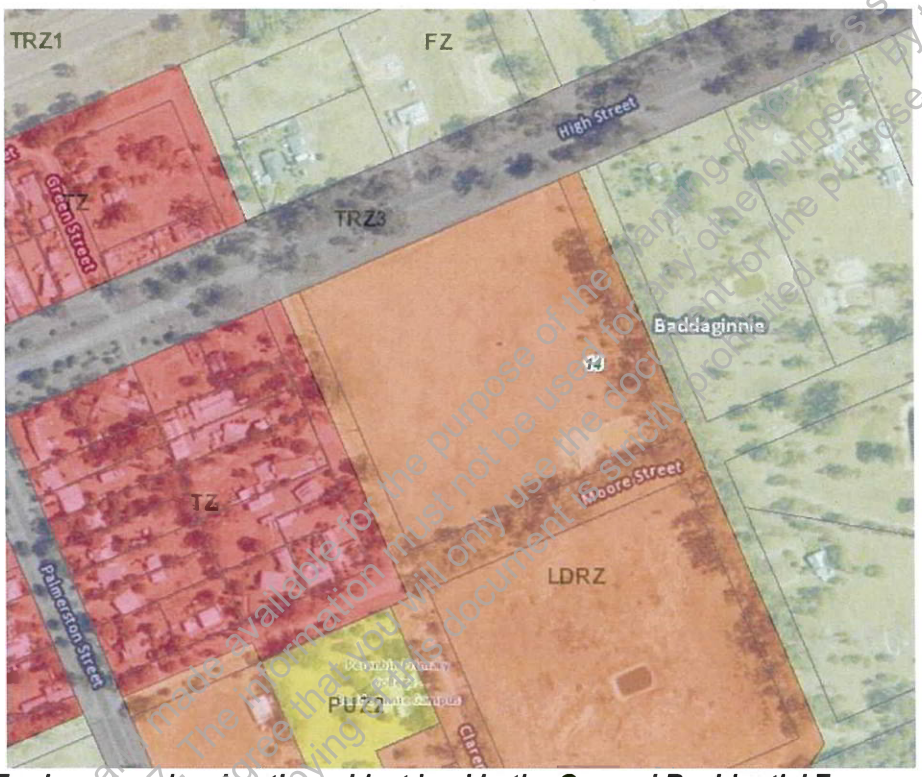


Figure 5 – Zoning map showing the subject land in the General Residential Zone

PARTICULAR PROVISIONS

Clause 56 Residential Subdivision

Pursuant to Clause 32.03-6, an application to subdivide land must meet the relevant standards of Clauses 56.07-1 to 56.07-4.

The following table provides an assessment against the applicable clauses.

Clause 56.07-1 **Drinking water Supply Objectives** To reduce the use of drinking water. To provide an adequate, cost-effective supply of drinking water.	**Standard C22** The supply of drinking water must be: • Designed and constructed in accordance with the requirements and to the satisfaction of the relevant water authority. Provided to the boundary of all lots in the subdivision to the satisfaction of the relevant water authority	**Complies** There is no governing water authority supplying water to Baddaginnie. It is envisaged potable water for each site will be collected in tanks from roof run off from any proposed dwelling.
Clause 56.07-2 **Reused and recycled water objective** To provide for the substitution of drinking water for non-drinking purposes with reused and recycled water.	**Standard C23** Reused and recycled water supply systems must be: • Designed, constructed, and managed in accordance with the requirements and to the satisfaction of the relevant water authority, Environment Protection Authority and Department of Health and Human Services. • Provided to the boundary of all lots in the subdivision where required by the relevant water authority.	**Not Applicable:** The use of reused or recycled water is not part of the development plan.
Clause 56.07-3 **Wastewater management objective** To provide a wastewater system that is adequate for the maintenance of public health and the management of	**Standard C24** Wastewater systems must be: • Designed, constructed, and managed in accordance with the requirements and to the satisfaction of the relevant water authority and the Environment Protection Authority.	**Complies.** The wastewater infrastructure will be designed and connected to the standards of the relevant water authority.

effluent in an environmentally friendly manner.	• Consistent with any relevant approved domestic wastewater management plan. Reticulated wastewater systems must be provided to the boundary of all lots in the subdivision where required by the relevant water authority.	
Clause 56.07-4 **Stormwater management objectives** To minimise damage to properties and inconvenience to residents from stormwater. To ensure that the street operates adequately during major storm events and provides for public safety. To minimise increases in stormwater and protect the environmental values and physical characteristics of receiving waters from degradation by stormwater. To encourage stormwater management that maximises the retention and reuse of	**Standard C25** The stormwater management system must be: • Designed and managed in accordance with the requirements and to the satisfaction of the relevant drainage authority. • Designed and managed in accordance with the requirements and to the satisfaction of the water authority where reuse of stormwater is proposed. • Designed to meet the current best practice performance objectives for stormwater quality as contained in the Urban Stormwater - Best Practice Environmental Management Guidelines (Victorian Stormwater Committee, 1999). • Designed to ensure that flows downstream of the subdivision site are restricted to pre-development levels unless increased flows are approved by the relevant drainage authority and there are no detrimental downstream impacts.	**Complies.** The stormwater infrastructure will be designed and connected to the standards of the relevant water authority.

stormwater. To encourage stormwater management that contributes to cooling, local habitat improvements and provision of attractive and enjoyable spaces.	• Designed to contribute to cooling, improving local habitat and providing attractive and enjoyable spaces. The stormwater management system should be integrated with the overall development plan including the street and public open space networks and landscape design. For all storm events up to and including the 20% Average Exceedance Probability (AEP) standard: • Stormwater flows should be contained within the drainage system to the requirements of the relevant authority. • Ponding on roads should not occur for longer than 1 hour after the cessation of rainfall. For storm events greater than 20% AEP and up to and including 1% AEP standard: • Provision must be made for the safe and effective passage of stormwater flows. • All new lots should be free from inundation or to a lesser standard of flood protection, where agreed by the relevant floodplain management authority. • Ensure that streets, footpaths, and cycle paths that are subject to flooding meet the safety criteria daVave< 0.35 m2 /s (where, da= average depth in metres and Vave= average velocity in metres per second). The design of the local drainage network should:	

	• Ensure stormwater is retarded to a standard required by the responsible drainage authority. • Ensure every lot is provided with drainage to a standard acceptable to the relevant drainage authority. Wherever possible, stormwater should be directed to the front of the lot and discharged into the street drainage system or legal point of discharge. • Ensure that inlet and outlet structures take into account the effects of obstructions and debris build up. Any surcharge drainage pit should discharge into an overland flow in a safe and predetermined manner. • Include water sensitive urban design features to manage stormwater in streets and public open space. Where such features are provided, an application must describe maintenance responsibilities, requirements, and costs. Any flood mitigation works must be designed and constructed in accordance with the requirements of the relevant floodplain management authority.	

5.0 CONCLUSION

The proposal for the subdivision of Crown Allotments 25 & 26 in the Parish of Warrenbayne on High Street, Baddaginnie represents a thorough and contextual design response that provides a Low Density Residential subdivision in a natural landscape character setting.

In summary, it is submitted that the proposal is a positive response to the site context and is strongly supported by the Benalla Planning Framework. In particular:

- The proposed subdivision supports the key directions of the Planning Policy Frameworks promoting housing diversity and providing land suitable for the construction of residential dwellings.
- The proposed subdivision is consistent with the Benalla Urban Growth Strategy, in that this land is identified as Residential Land.
- The proposal complies with the relevant objectives and standards of Clause 56.
- The proposed subdivision provides an appropriate design response to the constraints of the land having regard to the environmental site conditions including slope, native vegetation, land subject to inundation, and potentially contaminated land.
- The proposed subdivision will not impact on areas of Aboriginal Cultural Heritage Significance.

Given the above it is submitted that the proposal should be supported, subject to standard conditions.

STORMWATER MANAGEMENT PLAN

ADDRESS

Cnr High & Clarendon Street
Baddaginnie

PREPARED FOR
J Sloan

DATE
4 September 2024

Prepared by: Damien Ginger – Civil Manager
Checked by: Pell Meola – Senior Civil Designer

Onleys
SURVEY DESIGN PLANNING

Introduction

Onley Consulting has been engaged by J Sloan to prepare a Stormwater Management Plan for a proposed low density residential subdivision.
The subject site is located on the corner of High & Clarendon Streets, Baddaginnie.

Figure 1: Site of Works

Existing Conditions

The site area is 4.07 ha, with the property currently Low Density Residential Zone.
To date the site has been used for farming purposes.

The topograghy of the site is undulating, with fall towards the northeast.

Drainage Assessment

Hydrology

Benalla Rural City Council is the responsible authority for the major and minor drainage networks. As outlined in the Infrastructure Design Manual, Benalla Rural City Council requires the developer to construct - at its own cost – minor system typically comprising an open drain network with sufficient capacity to collect and convey stormwater flows from nominated design storm events.
In the case of low density residential subdivisions the nominated design storm event would be 20% AEP.

The developer must also ensure an overland flow path is provided for events at an Annual Exceedance Probability of 1%.

Internal drainage and method of disposal of stormwater from all roofed and sealed areas must be approved by Council.

Checking the Overlays for the property shows that it is not in an area subject to Inundation or Flooding.

Legal Point of Discharge (LPOD)

The legal point of discharge for the site is to the existing open drain located in High St on the northern side of the property.

The open drain continues east along High St and ultimately discharges into Woolpress Creek.

Figure 2: Legal Point of Discharge

Minor Drainage Network

As lots 2 to 6 currently fall towards High St, the properties can discharge directly into the existing open drain in High St.

A large proportion of Lot 1 does not currently drain to High St, instead draining into an existing dam in the southeast corner of the site. The overflow from the dam discharges into the unmade road reserve on the eastern side of the property, where it appears to continue in an easterly direction and flow into a dam on the neighbouring property.

In order to ensure there is no possibility of future nuisance flows, it is proposed to:

1. Collect all flows in a proposed open drain along the north side of Lot 1 and direct it towards the existing dam, and
2. direct the overflow from the dam into a piped system that runs through an easement in Lot 6 and discharge it into the open drain in High St.

Refer Appendix A for details on the drainage system.

Major Drainage Network

The major drainage system shall consist of planned drainage routes and overland flow paths. The system shall be designed to manage runoff on-site to avoid the increase of overland flow to adjacent drainage systems, as well as ensuring overland flows do not encroach on the lots themselves.

Onsite detention shall be provided on each lot to ensure 1% AEP events flows shall be contained and released into the existing open drain system at 20% AEP pre-development discharge rates.

Stormwater treatment

Treatment of the development's stormwater runoff is provided within the site to EPA requirements.

Treatment is provided by a number of different components in the treatment train:

1. Rainwater tanks for stormwater re-use,
2. Detention Basins for each lot,
3. Buffer Strips, and
4. Lot 1 Swale drain.

The above are shown to provide sufficient treatment of the entirety of the development. Refer to Appendix D for the MUSIC Report, verifying the above.

Figure 3 below shows the results for the overall catchment area treatment.

	Sources	Residual Load	% Reduction
Flow (ML/yr)	4.103694	2.659881	35.18326
Total Suspended Solids (kg/yr)	374.6842	48.23715	87.12592
Total Phosphorus (kg/yr)	0.858698	0.32214	62.4851
Total Nitrogen (kg/yr)	7.37446	3.625709	50.83425
Gross Pollutants (kg/yr)	100.5054	0	100

Figure 3: MUSIC Treatment train effectiveness results

Detention Storage

Detention basins shall be constructed in each lot. The basins shall be designed to provide detention for up to and including 1% AEP events to ensure flows do not exceed 1% AEP. The leftover material from the excavation of the basins shall be used to shape the lots to ensure minimum 1 in 200 fall to the basins.

The basins have been designed so that no earthworks are to be conducted within any tree protection zones.

The total detention volume required has been calculated based upon an allowable outfall determined by pre-development runoff rates.

Initial discharge from the higher reaches of the site would sheet flow to areas where the flows would become more channelled, therefore the Kinematic Wave Equation was utilised to determine the initial flow time, followed by the use of Mannings equation to determine the channel flow velocity. The pre-development Time of Concentration was then derived from the sum of the two flow times. Results are tabulated below:

DETERMINATION OF PRE-DEVELOPMENT RUNOFF RATE

Table 1: OVERLAND FLOW TIME (SHEET FLOW)

Kinematic Wave Equation:

$$t = \frac{6.94\,(L^{*}n)^{0.6}}{I^{0.4}*S^{0.3}}$$

$t^{*}I^{0.4}$= [redacted]

Data:
L (flow path length m)= [redacted]
n= [redacted]
S (slope m/m)= [redacted]

Iterate from Intensity diagram until figure below = figure above:

$t^{*}I^{0.4}$= 98.91

t (min)= 19
I (mm/hr)= 55.72

Table 2: OPEN DRAIN FLOW

$$= \frac{AR^{2/3}\,S^{1/2}}{n}$$

Q (l/s)= [redacted]
V (m/s)= [redacted]

Data:
Bed Width (m)= 2
Depth of flow (m)= 0.04
Batters (1:?)= 220
S (slope m/m)= 0.0031
n= 0.0325

A (Area of flow)= 0.432
P (wetted perimeter)= 19.60018
R (hydraulic radius)= 0.022041

Values of n:

Concrete	0.011-0.018
Earth (clear)	0.018-0.025
Earth (with weeds)	0.025-0.035
Short grass	0.030-0.035
Long grass	0.035-0.050

Sheet flow Time (From Kinematic Wave Equation above):	19 mins
Open Drain Flow Time (Drain length – 139m / 0.1345m/s):	17 mins
Pre-development Time of Concentration:	37 mins
20% AEP intensity:	38 mm/Hr

Table 3: Pre-Development Runoff Rate

Q=	C*I*A / 0.36	Data: C (Coefficient of runoff)=	0.26
		I (Intensity mm/hr)=	38
		A (Catchment area ha)=	4.0715
Q (l/s)=	107.44		

Total runoff is to be divided across proposed lots in proportion to post-development generated runoff.

Lot	Area (ha)	Coefficient of Runoff	CA:	Permissible Discharge Rate:	
1	2.036	0.3	0.6108	46.05	l/s
2	0.4071	0.4	0.1628	12.28	l/s
3	0.4071	0.4	0.1628	12.28	l/s
4	0.4071	0.4	0.1628	12.28	l/s
5	0.4071	0.4	0.1628	12.28	l/s
6	0.4071	0.4	0.1628	12.28	l/s
	4.0715		1.4250	107.44	l/s

Detention for lot 1 is to be provided in the existing Dam on the south-eastern corner of the lot with restricted outlet to road table drain in High St.

Detention for lots 2-6 is to be provided in two parts:

1. Tank storage for proposed dwellings, and
2. Open drain on downhill side of lots with restricted outlet to road table drain in High St.

Lot 1 detention basin

Detention storage requirements have been determined using Ensemble simulations using ARR2019 rainfall data sourced from BOM for the area and temporal patterns sourced from the ARR Datahub.

Capacity of the detention basin has been calculated from survey data and Digital Terrain Model, utilising Civil3d software.

Table 4: Detention volume summary (Lot 1)

Location	Catchment Area (ha)	Runoff coefficient	1% AEP Detention volume required (m^3)	Estimated Basin volume (m^3)	Total Discharge Flow (l/s)
Lot 1	2.036	0.30	166.4	170	46.05

The existing dam shall have an outfall pipe installed at 250mm below the existing high water mark. Given an average are of 700m^2, this provides a total of 166m^3 of detention storage above what would become the new permanent water level.

Lots 2-6 detention basins

Detention storage requirements have been determined using Ensemble simulations using ARR2019 rainfall data sourced from BOM for the area and temporal patterns sourced from the ARR Datahub.

Table 5: Detention volume summary (Lots 2-6)

Location	Catchment Area (ha)	Runoff coefficient	1% AEP Detention volume required (m^3)	Estimated Tank volume (m^3)	Discharge Flow (l/s)
Lots 2-6 Roof Area	0.045	1.0	12.27	12.45	3.39
Lots 2-6 Ground Area	0.3621	0.325	32.06	35	8.88

Each lot shall have a minimum 22 kl rainwater tank for the proposed dwellings to be plumbing into, with the upper 12.45 kl set aside for detention and the remaining storage to be available for re-use purposes.

Each lot shall also have a shallow detention basin located near the front of each property, where the ground runoff would gravitate to and the tank overflow shall be plumbed into. The combined tank and basin would outfall to the open drain in High St via a restricted pipe outlet to the lot access crossing headwall.

Details of 1% AEP drainage system

Lots 2 to 6 grade towards High St, where the 1% AEP flows would be contained within the road reserve and continue eastwards. The detention systems within the lots contain the flows to 20% AEP Pre-Development runoff rates, thus ensuring the downstream properties would not be adversely affected by the development.

In Lot 1 the northern half of the property discharges to the north, so a proposed swale drain along the northern boundary of Lot 1 would intercept these flows and direct them to the existing dam in the southwest corner. The proposed detention capacity of the dam is sufficient to contain all flows from the lot in events up to and including 1% AEP, thus ensuring the properties located on the eastern side of the unmade road reserve will not be adversely affected by the development.

Major Areal Flood Events

Although there is no record of flooding in the subject area, we would recommend that the floor level of any dwelling to be constructed on site to be elevated 300mm above natural surface level.

Conclusions

The above report illustrates that the proposed development complies with Benalla Rural City Council's drainage requirements.

The overland flows are controlled within the development area and adequately detained in the proposed detention basins and existing dam, and hence do not encroach on the neighbouring properties, lots, proposed roads or existing Council infrastructure.

300mm freeboard has been provided for all dwellings, thus minimising the risk of flooding in this development.

Appendix A

Drawings:

6139E.1 –Existing Site Plan
6139E.2 – Drainage Layout Plan

Appendix B

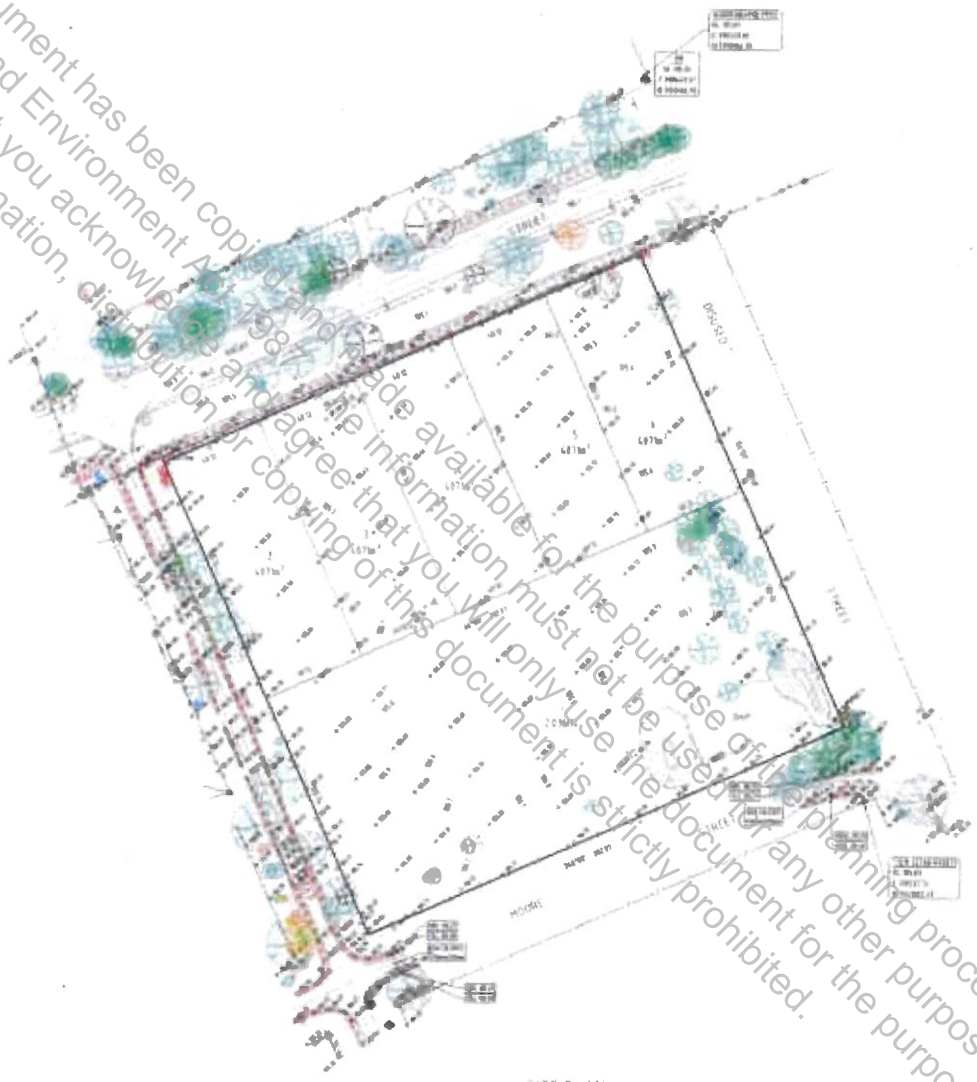
Detention Basin Calculations

Appendix C

MUSIC report

GENERAL NOTES

LEGEND



SITE PLAN
SCALE 1:1000

LOCALITY PLAN
NOT TO SCALE

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE
NO GUARANTEE IS GIVEN THAT ALL SERVICES ARE SHOWN.

PRELIMINARY

1:1000 (A1)
1:2000 (A3)

Onleys
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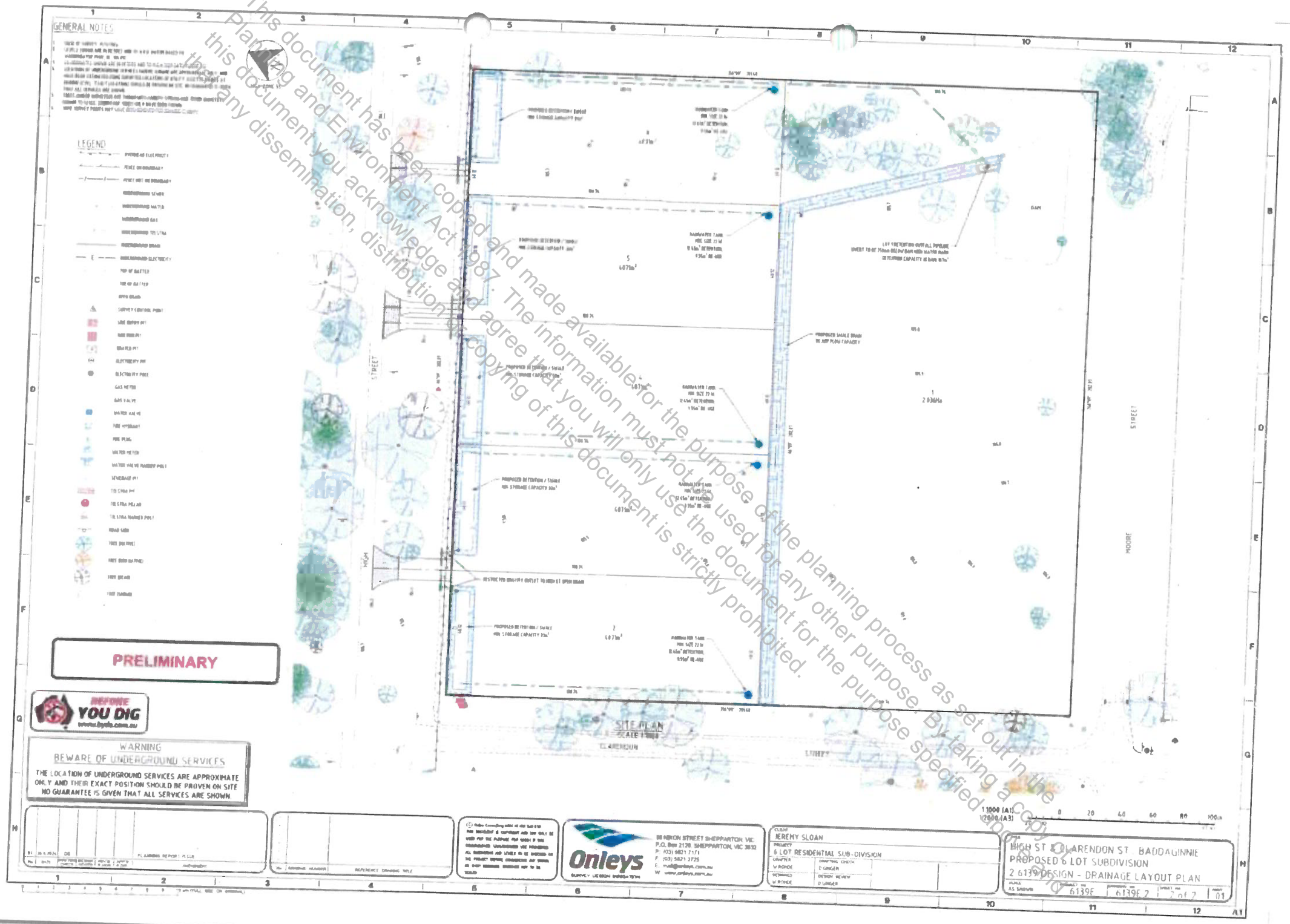
CLIENT: JEREMY SLOAN
PROJECT: 6 LOT RESIDENTIAL SUB-DIVISION

HIGH ST & CLARENDON ST, BADDAGINNIE
PROPOSED 6 LOT SUBDIVISION
16139 DESIGN - EXISTING SITE PLAN

PROJECT No. 6139E | DRAWING No. 6139E | SHEET No. 1 of 2 | ISSUE 01



Appendix B

Detention Basin Calculations
Lot 1

	A	B	C	D	E	F	G	H	I	J	K
1	Project :		**Sloan Ct**								
2	Town Location:		**Baddaginnie**								
3	Temporal Pattern Zone:		MB_Increments								
4			*For Retardation caculation enter here*								
5			*Catchment area*				2.036	*ha*			
6			*Volumetric runoff coefficient*				0.3				
7			AEP				1	%			
8			Frequency				Rare				
9			*Retardation required for no outfall condition*							1091.01	m^3
10			*& for outfall discharge via pipe of*				268.57	mm	k=	0.009	mm
11			*At a hydraulic gradient of*			*1 in*	500	=	46.053	l/sec	
12			*Retardation required for this outflow*							166.44	m^3

Lots 2-6 - Roof only

	A	B	C	D	E	F	G	H	I	J	K
1	Project :		**Sloan Ct**								
2	Town Location:		**Baddaginnie**								
3	Temporal Pattern Zone:		MB_Increments								
4			*For Retardation caculation enter here*								
5			*Catchment area*				0.045	*ha*			
6			*Volumetric runoff coefficient*				1				
7			AEP				1	%			
8			Frequency				Rare				
9			*Retardation required for no outfall condition*							80.38	m^3
10			*& for outfall discharge via pipe of*				101.19	mm	k=	0.009	mm
11			*At a hydraulic gradient of*			*1 in*	500	=	3.390	l/sec	
12			*Retardation required for this outflow*							12.27	m^3

Lots 2-6 - Ground runoff only

	A	B	C	D	E	F	G	H	I	J	K
1	Project :		**Sloan Ct**								
2	Town Location:		**Baddaginnie**								
3	Temporal Pattern Zone:		MB_Increments								
4			*For Retardation caculation enter here*								
5			*Catchment area*				0.3621	*ha*			
6			*Volumetric runoff coefficient*				0.325				
7			AEP				1	%			
8			Frequency				Rare				
9			*Retardation required for no outfall condition*							210.20	m^3
10			*& for outfall discharge via pipe of*				144.88	mm	k=	0.009	mm
11			*At a hydraulic gradient of*			*1 in*	500	=	8.880	l/sec	
12			*Retardation required for this outflow*							32.06	m^3

Appendix C
MUSIC report