Have Your Say Form - Draft Bush Fire Mapping and Bush Fire Mapping Policy

ANNEXURE 1

Submitted on	28 May 2025, 10:53PM
Receipt number	HYSBMP1
Related form version	1

Have Your Say - please provide your comments/suggestions/opinions on the following	Draft Greater Hume Council Bush Fire Mapping and Bush Fire Mapping Policy
What is your name (first and surname)?	[redacted]
What is your phone number?	[redacted]
What is your email address?	[redacted]
What is your address? (inc Street/Rural Number)	592 Lookout Road
I live in	Walla Walla
If other, name town/village/area	
Your Suggestions and/or Comments	Caution should be taken when considering the inclusion and application of the new and potential 'Category 3' which aims to incorporate private cropping and farming land as well as grassland and other non typical bushfire prone areas. We are unfortunately moving into a time where 'Climate Risk Modelling' will determine whether insurances and services will be made either very expensive or be denied completely based on what is considered increased risk. The new Category 3 zoning will put privately owned farming land in a very difficult position and may well cause the loss of the farming land through the inability to insure, provide necessary services and through devaluation/mortgage recall. Be careful how far we reach here as the effects could be dire and not due to fire.

Have Your Say Form - Draft Bush Fire Mapping and Bush Fire Mapping Policy

ANNEXURE 1

Submitted on	29 May 2025, 3:52PM
Receipt number	HYSBMP9
Related form version	1

Have Your Say - please provide your comments/suggestions/opinions on the following	Draft Greater Hume Council Bush Fire Mapping and Bush Fire Mapping Policy
What is your name (first and surname)?	[redacted]
What is your phone number?	[redacted]
What is your email address?	[redacted]
What is your address? (inc Street/Rural Number)	320 shoemarks road
I live in	Walla Walla
If other, name town/village/area	
Your Suggestions and/or Comments	No change required, leave it along as only increase rates and insurance to cover this , locals deal with it if a problem not government bodies, you will kills farmers and local industries!!!

Have Your Say Form - Draft Bush Fire Mapping and Bush Fire Mapping Policy

ANNEXURE 1

Submitted on	29 May 2025, 12:52AM
Receipt number	HYSBMP3
Related form version	1

Have Your Say - please provide your comments/suggestions/opinions on the following	Draft Greater Hume Council Bush Fire Mapping and Bush Fire Mapping Policy
What is your name (first and surname)?	[redacted]
What is your phone number?	[redacted]
What is your email address?	[redacted]
What is your address? (inc Street/Rural Number)	53 morgans road
I live in	Walla Walla
If other, name town/village/area	
Your Suggestions and/or Comments	Map seems to be land that is un maintained government land and reserves that have never had a fire in them around the walla area so you can just fix that, looks like a money grab for insurance companies and council for higher fees in the future when most fires are handled from local volunteers anyway. Change those maps back to 2011 and leave it alone.

Have Your Say Form - Draft Bush Fire Mapping and Bush Fire Mapping Policy

ANNEXURE 1

Submitted on	29 May 2025, 12:24PM
Receipt number	HYSBMP5
Related form version	1

Have Your Say - please provide your comments/suggestions/opinions on the following	Draft Greater Hume Council Bush Fire Mapping and Bush Fire Mapping Policy
What is your name (first and surname)?	[redacted]
What is your phone number?	[redacted]
What is your email address?	[redacted]
What is your address? (inc Street/Rural Number)	26 Hay Street Woomargama
I live in	Woomargama
If other, name town/village/area	
Your Suggestions and/or Comments	Considering I have an unused Road behind me that is unable to be cleared according to the roads board, and the old tip that is also a mess managed by council What hope would we have if a bushfire went thru

Have Your Say Form - Draft Bush Fire Mapping and Bush Fire Mapping Policy

ANNEXURE 1

Submitted on	29 May 2025, 12:59AM
Receipt number	HYSBMP4
Related form version	1

Have Your Say - please provide your comments/suggestions/opinions on the following	Draft Greater Hume Council Bush Fire Mapping and Bush Fire Mapping Policy
What is your name (first and surname)?	[redacted]
What is your phone number?	[redacted]
What is your email address?	[redacted]
What is your address? (inc Street/Rural Number)	320 shoemarks road
I live in	Walla Walla
If other, name town/village/area	Walla Walla
Your Suggestions and/or Comments	Leave the map as 2011 as no crop fires have done any damage to this region. Money grab from council/insurance companies for hire rate increases, /insurance policies, building standards.

Have Your Say Form - Draft Bush Fire Mapping and Bush Fire Mapping Policy

ANNEXURE 1

Submitted on	29 May 2025, 12:35AM
Receipt number	HYSBMP2
Related form version	1

Have Your Say - please provide your comments/suggestions/opinions on the following	Draft Greater Hume Council Bush Fire Mapping and Bush Fire Mapping Policy
What is your name (first and surname)?	[redacted]
What is your phone number?	[redacted]
What is your email address?	[redacted]
What is your address? (inc Street/Rural Number)	320 shoemarks road
I live in	Walla Walla
If other, name town/village/area	Walla Walla
Your Suggestions and/or Comments	No change to 2011 leave as is as no fires in this area, it's the volunteers who d8ght these fires anyway. It was the government lack of response that allowed the fires in the hills to get as far as they did.

Have Your Say Form - Draft Bush Fire Mapping and Bush Fire Mapping Policy

ANNEXURE 1

Submitted on	29 May 2025, 2:06PM
Receipt number	HYSBMP6
Related form version	1

Have Your Say - please provide your comments/suggestions/opinions on the following	Draft Greater Hume Council Bush Fire Mapping and Bush Fire Mapping Policy
What is your name (first and surname)?	[redacted]
What is your phone number?	[redacted]
What is your email address?	[redacted]
What is your address? (inc Street/Rural Number)	286 GEROGERY WEST ROAD GEROGERY 2642
I live in	Gerogery West
If other, name town/village/area	
Your Suggestions and/or Comments	I find it quite concerning and object that it appears the Greater Hume shire has taken the blanket approach to Bush Fire classification as "medium risk" across the majority of the shire. I used the online RFS tool as per the link below to see our current rating is no/low risk of bushfire which in my experience is more reflective of our property. Are we at risk of a grass fire yes as the majority of non bushland rural Australia is and has always been however with a lack of larger areas of native Australian bushland within close proximity, my view tis there is a difference that has failed to be acknowledged in the draft map regards the risk to life and property posed by a "bush fire" (I do understand the legal definition of bush fire includes grasslands) vs a fire that is moving across open managed grasslands. A concern is not to do with what can be built and where however changing our rating from no/low risk to medium will be used by insurance companies to increase rates yet again and also opens landholders up to potential future annual charges for state and local government charges/tax's etc. to manage this "new" risk rating . I also find it concerning that there is no rating for areas of population density (towns in the shire) yet if we are deemed of bushfire in open grasslands then id suggest smaller towns and the outskirts of larger towns are also at medium risk.

Have Your Say Form - Draft Bush Fire Mapping and Bush Fire Mapping Policy

ANNEXURE 1

Submitted on	29 May 2025, 3:43PM
Receipt number	HYSBMP7
Related form version	1

Have Your Say - please provide your comments/suggestions/opinions on the following	Draft Greater Hume Council Bush Fire Mapping and Bush Fire Mapping Policy
What is your name (first and surname)?	[redacted]
What is your phone number?	[redacted]
What is your email address?	[redacted]
What is your address? (inc Street/Rural Number)	49 camrlelot lane
I live in	Walla Walla
If other, name town/village/area	
Your Suggestions and/or Comments	Leave it as is solar farms more a fire hazard than the farming country, wakeup rates and insurance already killing farmers, don't need a rise again, Government don't fight fires on flat country local farmers do if any!!

ANNEXURE 2

15-19 Atkins Street

Morven NSW 2660

Colin Kane

Acting General Manager

Greater Hume Council

P.O. Box 99

Holbrook NSW 2660

Dear Colin

DRAFT SECTION 7.12 DEVELOPMENT CONTRIBUTIONS PLAN 2025 AND THE 2025/2029 DELIVERY PLAN AND THE 2025/2026 OPERATIONAL PLAN

It would be appreciated if this submission could be considered a response to the three documents referred to above.

Draft Section 7.12 Development Contributions Plan 2025

My comments in relation to this document is restricted to the Work Plan which I believe has been constructed around community **wants** rather community **need**. For the want of a better description the nice fluffy things to have versus basic community infrastructure.

In relation to Morven at the Community Meeting held on 27 February attended by the Mayor, several Councillors and Executive Staff there was much discussion around a community park/playground for Morven

I have included an extract from the current Plan below which outlines it was priority number 4 with a commitment of $200,000 towards the an estimated project cost of $300,000.

Walking Track					
Morven - Community Park	$300,000	$200,000	1-2 years		4

Whilst the determination from the meeting to defer this project to enable further community discussion around the need and potential location I believe it was the expectation from those present that either (i) the project would have slid down the list in priority or the funds would have been allocated to other much needed infrastructure such as road sealing or stormwater drainage.

In the Draft now on display there are no projects listed for the Morven community for the life of the Plan (approximately 3–5 years). This is incredibly disappointing.

There seems a reluctance for Greater Hume Council to fund basic community infrastructure from Section 7.12 Development Contributions but this is not supported by NSW Planning's Section 7.11 & 7.12 Development Contributions Practice Note.

I have included a snip below that indicates that both roads and stormwater drainage is considered ***local infrastructure*** and can be funded from this source.

Policy positions

Councils can use contributions to help fund the infrastructure they provide

Infrastructure contributions under section 7.11 and section 7.12 can fund items described by the EP&A Act as '**public amenities and public services**'. Public amenities and public services are not defined in the EP&A Act or other legislation. The practice notes use the term **local infrastructure** to mean both public amenities and public services.

Councils are generally responsible for providing local infrastructure such as local open space, local roads, traffic management works, stormwater drainage and community facilities such as libraries, childcare and recreation facilities. For the purposes of infrastructure contributions, local infrastructure ('public amenities and services') does not include water supply or sewerage services.

For that reason I would have thought that if the Morven Community Park was removed it would have been replaced with other basic community infrastructure as mentioned above.

Therefore I believe the Draft Plan currently on exhibition needs further discussion by Councillors prior to its adoption.

2025/2029 Draft Delivery Plan and 2025/2026 Operational Plan

Whilst the retention of funding (from the forward estimates) for stages 2 & 3 of the Brownrigg Street Drainage has been included in the 2025/2026 Operational Plan it is incredibly disappointing that there has been no further allocations for the much needed project in our growing community in forward estimates. **That means there will be no further Stormwater drainage works (other than stages 2 & 3) undertaken in Morven this decade!!**

Similarly, it is incredibly disappointing that there has been no funding for sealing of gravel streets for the period of the Delivery Plan being 30 June 2029.

That means there will be no streets sealed in Morven until after 2030. This is totally unacceptable.

From July 2024 Roads to Recovery Funding provided to all Councils across Australia will increase by 100%; phased in over 4 years which should provide Council with the capacity to undertake these relatively minor works in Morven.

Refer to the snip below of Greater Hume's Roads to Recovery allocation.

NSW	Greater Hume Shire Council	$11,388,908	$1,682,452	$2,070,711	$2,458,969	$2,588,388	$2,588,388

Alas there is no mention of sealing roads in Morven despite the Capital Works Program in 2028/2029 having a line item - *'to be determined' as shown in the snip below on pages 51 & 52:*

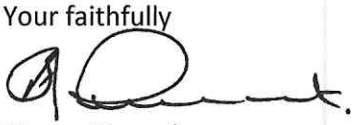
	Title: Road Construction Program - Urban - (Roads to Recovery)						
MAP REF	Location	Job Description	Funding Source	Budget 2025/26	Budget 2026/27	Budget 2027/28	Budget 2028/29
12	Queen St Walla Walla	Reconstruct (Complete length in urban area approx 500m and covering large drain) 3 stages	Roads to Recovery Funding	$600,000.00	$600,000.00	$600,000.00	
13	Staden St Lane	Reconstruction of pavement	Roads to Recovery Funding	$200,000.00			
	Market St Walla Walla	New Kerb and Channel and Trees	Roads to Recovery Funding				$400,000.00
	CBD lane way at rear of takeaway between Adams St and Creek St, Jindera	Construction and sealing of laneway + drainage (150m)	Roads to Recovery Funding				$200,000.00
	Staden St East Henty	Reconstruction of pavement	Roads to Recovery Funding				$500,000.00
	To be determined		Roads to Recovery Funding				$588,908.00
				$800,000.00	$600,000.00	$600,000.00	$1,688,908.00

There is an opportunity to provide the Morven community with some hope that their pleas are being heard by Council by allocating this funding to the sealing of streets in Morven.

It is noted and appreciated that $50,000 has been allocated in the 2025/2026 Operational Plan for additional streetlighting in Morven. This is badly needed however will need consultation with the community to ensure that most effective use the funding is achieved.

I sincerely hope that Councillors will give careful consideration to the issues made in this submission.

Your faithfully



Steven Pinnuck

ANNEXURE 3

Greater Hume Council

DEVELOPMENT CONTRIBUTIONS PLAN 2025

SECTION 7.12 ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979

Contents

ANNEXURE 3

1. Administration & operation of the plan

1.1 What is the name of this development contributions plan?

This development contributions plan is called the *Greater Hume Council Section 7.12 Development Contributions Plan 2025 (*"the development contributions plan").

1.2 Application of this development contributions plan

The development contributions plan applies to all land within the local government area of Greater Hume except the land where the Infrastructure Contributions Plan – South Jindera Low Density Residential Area applies.

1.3 When does this development contributions plan commence?

The development contributions plan commenced on 23 April 2025.

1.4 The purpose of this contributions plan

The primary purpose of the development contributions plan is:

- to authorise the imposition of a condition on all development consents and complying development certificates requiring the payment of a contribution pursuant to section 7.12 of the *Environmental Planning and Assessment Act 1979* (EP&A Act);
- to assist the Greater Hume Council *(*"council") in providing the appropriate public facilities that are required to maintain and enhance amenity and service delivery within the Greater Hume local government area; and
- to publicly identify the purposes for which the levies are required.

1.5 When is the levy applicable?

The levy is applicable to applications for development consent and applications for complying development certificates under Part 4 of the EP&A Act, except where exempt under section 1.6 below.

The amount to be levied is:

- 0.5% of development cost where the proposed cost of carrying out the development is more than $100,000 butless than $200,000; or
- 1.0% of development cost where theproposed cost of carrying out the development is $200,000 or more.

1.6 Are there any exemptions to the levy?

Under section 7.17 of the EP&A Act, the Minister for Planning has directed that a levy cannot be imposed in respect of development:

- where the proposed cost of carrying out the development is $100,000 or less; or
- for the purpose of disabled access; or
- for the sole purpose of providing affordable housing; or
- for the purpose of reducing a building's use of potable water (where supplied from water mains) or energy; or
- for the sole purpose of the adaptive reuse of an item of environmental heritage; or
- other than the subdivision of land, where a condition under section 7.11 of the EP&A Act has been imposed under a previous development consent relating to the subdivision of the land on which the development is proposed to be carried out.

In addition, Council will not impose a levy in respect of development for which Council considers by formal ratification at a full Council meeting as an exemption. For such claims to be considered, any such development will need to include a comprehensive submission arguing the case for exemption.

1.7 Relationship with other plans and policies

The development contributions plan repeals the *Greater Hume Shire Council*

ANNEXURE 3

Development Contributions Plan commenced on 16th August 2023.

The development contributions plan supplements the provisions of the *Greater Hume Local Environmental Plan 2012* and any amendment or local environmental plan which it may supersede.

1.8 Pooling of levies

The development contribution plan expressly authorises money obtained from section 7.12 levies paid for different purposes to be pooled and applied (progressively or otherwise) for the public facilities listed in the works program (Schedule 1) in accordance with the staging set out in that Schedule.

1.9 Construction certificates and the obligation of accredited certifiers

In accordance with clause 20 of the *Environmental Planning and Assessment* (Development Certification & Fire Safety) Regulation, a certifying authority must not issue a construction certificate for building work or subdivision work under a development consent unless it has verified that each condition requiring the payment of levies has been satisfied.

In particular, the certifier must ensure that the applicant provides a receipt(s) confirming that levies have been fully paid and copies of such receipts must be included with copies of the certified plans provided to the council in accordance withsection 242(2) of the *Environmental Planning & Assessment Regulation* (EPA Regulation).
Failure to follow this procedure may render such a certificate invalid.

1.10 Complying development certificates and the obligations ofaccredited certifiers

In accordance with section 7.21 of the EP&A Act, a certifying authority (Council or an accredited certifier) must impose a condition requiring monetary contributions in accordance with the development contributions plan which satisfies the following criteria:

- Pursuant to section 4.17(1) of the EP&A Act and the development contributions plan, a levy calculated inaccordance with Section 1.11 below.
- The amount to be paid is to be adjusted in accordance with Section 1.14 below.

1.11 How will the levy be calculated?

The levy will be calculated as follows: **Levy payable = L x $C**

Where:

- **L** is 0.005 where the cost of development is more than $100,000 and less than $200,000 or 0.01 where the cost of development is $200,000 or more; and
- **$C** is the cost of carrying out the proposed development (calculated inaccordance with Section 1.12 below).

1.12 How will the cost of carrying out the proposed development be calculated?

A development application or an application for complying development certificate must submit an estimated cost of development that has been calculated in accordance with clause 208 of the EP&A Regulation.

That clause provides as follows:

208 Determination of proposed cost of development—the Act, s 7.12(5)(a)

(1) The proposed cost of carrying out development must be determined by the consent authority by adding up all the costs and expenses that have been or will be incurred by the applicant in carrying out the development.

(2) The costs of carrying out development include the costs of, and costs incidental to, the following—

ANNEXURE 3

(a) if the development involves the erection of a building or the carrying out of engineering or construction work—

(i) erecting the building or carrying out the work, and

(ii) demolition, excavation and site preparation, decontamination or remediation,

(b) if the development involves a change of use of land—doing anything necessary to enable the use of the land to be changed,

(c) if the development involves the subdivision of land—preparing, executing and registering—

(i) the plan of subdivision, and

(ii) the related covenants, easements or other rights.

(3) In determining the proposed cost, a consent authority may consider an estimate of the proposed cost that is prepared by a person, or a person of a class, approved by the consent authority to provide the estimate.

(4) The following costs and expenses must not be included in an estimate or determination of the proposed cost –

(a) the cost of the land on which the development will be carried out,
(b) the costs of repairs to a building or works on the land that will be kept in connection with the development,
(c) the costs associated with marketing or financing the development, including interest on loans,
(d) the costs associated with legal work carried out, or to be carried out, in connection with the development,
(e) project management costs associated with the development,
(f) the cost of building insurance for the development,
(g) the costs of fittings and furnishings, including refitting or refurbishing, associated with the development, except if the development involves an enlargement, expansion or intensification of a current use of land,
(h) the costs of commercial stock inventory,
(i) the taxes, levies or charges, excluding GST, paid or payable in connection with the development by or under a law,
(j) the costs of enabling access by people with disability to the development,
(k) the costs of energy and water efficiency measures associated with the development,
(l) the costs of development that is provided as affordable housing,
(m) the costs of development that is the adaptive reuse of a heritage item.

(5) The proposed cost may be adjusted before payment of a development levy, as specified in a contributions plan, to reflect quarterly or annual variations to readily accessible index figures adopted by the plan between the day on which the proposed cost was determined by the consent authority and the day by which the development levy must be paid.
Example—
A contributions plan may adopt the Consumer Price Index.

6) To avoid doubt, this section does not affect the determination of the fee payable for a development application

Without limitation to the above, council may review the estimated cost of development and may seek the services of an independent person to verify the costs. In these cases, all costs associated with obtaining such advice will be at the expense of the applicant and no construction certificate will be issued until such time that the levy has been paid.

1.13 When is the levy payable?

A levy must be paid to council at the time specified in the condition on the development consent that imposes the levy. If no such time is specified, the levy must be paid prior to the issue of a construction certificate or complying development certificate.

1.14 How will the levy be adjusted?

Contributions required as a condition of consent under the provisions of the development contributions plan will be adjusted at the time of payment of the contribution in accordance with the following formula:

Contribution at time of payment
= $C$$_o$ + $A

Where:

C_o is the original contribution as set out in theconsent condition; and

$A is the adjustment amount which is:

$$\frac{\$C_o \times (\text{Current Index} - \text{Base Index})}{\text{Base Index}}$$

Where:

the **Current Index** is the most recent quarterlyConsumer Price Index for Sydney as published by the Australian Bureau of Statistics (Ref:6401.0) at the time the levy is paid; and

the **Base Index** is the quarterly Consumer Price Index for Sydney as published by the Australian Bureau of Statistics (Ref:6401.0) forthe period immediately prior to the date of the development consent.

Note: In the event that the Current Index isless than the Base Index, the contribution payable shall be that stated in the consentcondition.

1.15 Can deferred or periodic payments be made?

Council does not allow deferred or periodic payment of levies authorised by the development contributions plan.

1.16 Refund of Section 7.12 Contributions

Council will generally not support the refund of 7.12 contributions imposed under this plan with the exception of the following circumstances.

a) The application that the 7.12 contributions has been paid, however the application has been surrendered and written correspondence has been provided to Council confirming its surrendered.

b) The condition in a development consent imposing a 7.12 contribution was made in error due to the development being exempt from the imposition of 7.12 contributions.

2. Expected development &demand for public facilities

The relationship between expected development and the demand for publicfacilities is established through:

- population growth in parts of the Shire;
- the future population will require the provision of additional public facilities; and
- the future population will diminish the existing population's enjoyment and standards of public facilities unless additional facilities are provided.

Council is committed to providing the equitable distribution of public facilities for the benefit and well-being of all residents. Council's works program (Schedule 1) identifies the public amenities or services to be provided, recouped, extended or augmented by contribution monies derived by this plan.

This development contributions plan applies to all land within the local government area of Greater Hume. The contributions levied will be applied towards meeting the cost of provision or augmentation of public facilities that have been or will be provided across the entire local government area in accordance withthe works program (Schedule 1).

Department of Planning (DoP) Circular (Ref: PS 05-003) states there does not have to be a connection between the subject of the development consent levy and the object any monies derived are spent on. Consequently monies derived by this plan may be used to embellish public facilities in a location remote from that which the levy was derived (e.g. in another town).

Council may also levy contributions towards the provision of water and sewerage infrastructure. These contributions are levied under Section 64 of the *Local Government Act 1993* and therefore are not part of this Development contributions plan. Reference should be made to the separate contributions plan for levies towards water and sewer infrastructure.

3. Works program

The works program (Schedule 1) identifies the public facilities for which section 7.12 levies under the EP&A Act will be required.

Levies paid to council under a condition

authorised by the development contributions plan will be applied towards meeting the cost of provision or augmentation of public facilities that have been or will be provided. Schedule 1 provides a summary of public facilities, which have been or will be provided by council over the next five years. Schedule 1 also includes:

(i) the estimated cost of the facilities and the proportion to be amount funded under the plan.

(ii) the timing for the delivery of the facilities.

(iii) whether the facilities has been completed.

(iv) A map showing the location proposed facilities

4. References

The following reference documents have been utilised in the preparation of this Section 7.12 Plan.

- *Environmental Planning and Assessment Act 1979*
- *Environmental Planning and Assessment Regulation 2021*
- *Environmental Planning and Assessment (Development Certification & Fire Safety) Regulation 2021*
- Department of Planning Industry and Environment– Section 7.12 fixed development consent levie.
- *Greater Hume Local Environmental Plan 2012*

Dictionary

In this plan, unless the context or subject matter otherwise indicates or requires, the following definitions apply:

EP&A Act means the *Environmental Planning and Assessment Act 1979*

Council means Greater Hume Shire Council

Development contributions plan means*Greater Hume Council Section 7.12 Development Contributions Plan 2021*

levy means a levy under s7.12 of the EP&A Act authorised by the development contributions plan

public facility means a public amenity or public service

EP&A Regulation means the *Environmental Planning and Assessment Regulation 2021*

ANNEXURE 3

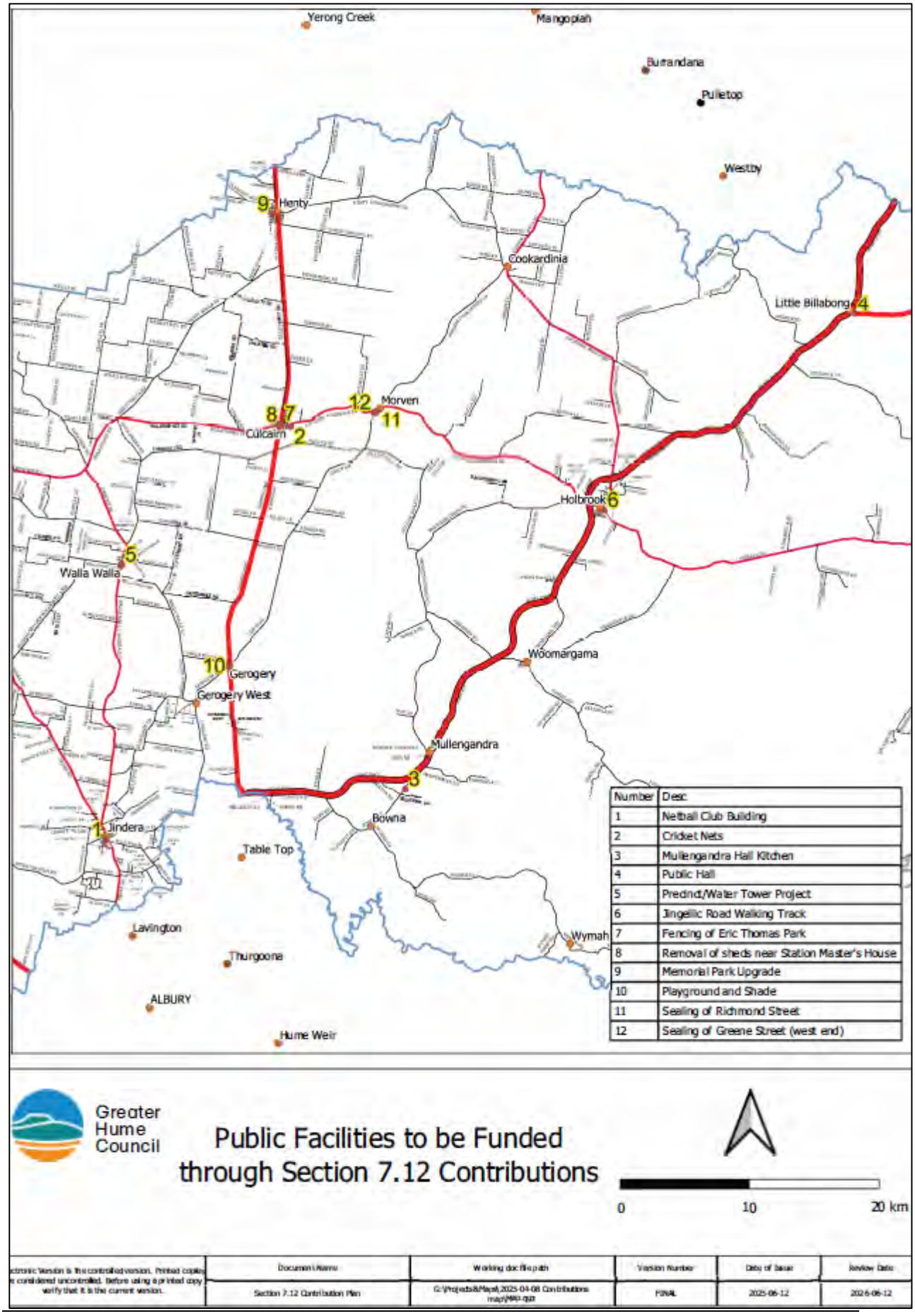
Schedule 1 – Works Program

Public facilities to be funded/ embellished through section 7.12 contributions are listed in the following Schedule.

Project description	Total Estimated Cost Subject to Indexation	Amount to be contributed by S7.12 payments	Estimated time frame	Project Completed	Number Shown in mapping Project
Jindera - Netball Building	$1,100,000	$150,000	1-2 years		1
Culcairn Cricket Nets	$100,000	$100,000	1-2 years		2
Mullengandra Hall Kitchen	$30,000	$30,000	1-2 years		3
Little Billabong Hall	$50,000	$50,000	1-2 years		4
Precinct / Water Tower project in Walla Walla	$100,000	$100,000	2-3 years		5
Holbrook-Jingellic Road Walking Track	$500,000	$500,000	2-3 years		6
Culcairn – Fencing of Eric Thomas Park	$50,000	$50,000	3-5 years		7
Culcairn – Removal of gal sheds near the Station Master's House and improvements to the car parking area.	$150,000	$150,000	3-5 years		8
Henty Memorial Park Upgrade	$280,000	$280,000	3-5 years		9
Gerogery Playground & Shade	$150,000	$150,000	3-5 years		10
Sealing of Richmond Street	$100,000	$100,000	4-6 years		11
Sealing of Greene Street (West)	$150,000	$150,000	4-6 years		12

ANNEXURE 3

Map showing the location of Proposed Works through Designation of Project Number



ANNEXURE 4

habitat

Planning Proposal

Amendment to Greater Hume Local Environmental Plan 2012

2028 Culcairn-Holbrook Road & Morven-Cookardinia Road, Morven

AUGUST 2024

Submitted to Greater Hume Shire Council

Contact

David Hunter, Director
Ashley Mackey, Consultant

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ABN 29 451 913 703
ACN 606 650 837

Document Control

PROJECT NUMBER
23148

REVISION NO	ISSUE DATE	VERSION STATUS	AUTHOR	APPROVED
01	16/08/2024	Final for submission	AM	DH

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Executive Summary

This Planning Proposal has been prepared by Habitat Planning and is submitted to Greater Hume Shire Council in support of a Planning Proposal to amend the *Greater Hume Local Environmental Plan 2012* (LEP).

Specifically, the Planning Proposal seeks to amend the LEP in relation to land described as Lots 136, 137 and 138 in DP753751 and Lot 1 in DP 240321 and addressed as 2028 Culcairn-Holbrook Road, Morven and Morven-Cookardinia Road, Morven.

The proposal seeks to change the zone of the subject site from RU1 Primary Production and RU4 Primary Production Small Lots to R5 Large Lot Residential and reduce minimum lot size from 100 hectares and eight (8) hectares to two (2) hectares.

The purpose of the amendment is to enable development of the subject land for a large lot residential character, consistent with the urban fringe of Morven.

The report has been prepared to address the requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act), as well as satisfying the requirements of the NSW Department of Planning, Infrastructure & Environment's guideline titled: *Local Environmental Plan Making Guideline* (August 2023)

For the purposes of the Guideline, the Proposal is classified as a 'Standard' Planning Proposal as it relates to a change the land use zone where the proposal is consistent with the objectives identified in the LEP for that proposed zone, but will not result in a significant increase in demand for supporting local, regional or State infrastructure and would require infrastructure funding. This is because the land will largely be serviced by on-site infrastructure.

This Planning Proposal provides an analysis of the physical and strategic planning constraints and opportunities of the site and considers the relevant environmental, social and economic impacts of the proposal and its strategic merit.

In this instance, the Planning Proposal is sought in response to the opportunities presented for the site being on the fringe of the Morven urban area. The Greater Hume Local Strategic Planning Statement ("the LSPS") also identified that the townships of Holbrook, Culcairn and Morven be further examined for future urban growth, indicating an ability for these towns to accommodate future growth of Greater Hume's population.

This outcome is broadly in line with the key strategic planning principles and a long term urban outcome that is derived for physical conditions of the land.

The Planning Proposal has strategic merit and is in the public interest for the following reasons:

- The proposal is generally consistent with the strategic planning framework including State, Regional and local planning strategies for Greater Hume Shire.
- It is considered that Morven provides a 'rural living' extension to the Culcairn village area, in that it is offers lifestyle opportunities in close proximity to a main village area;
- There is demand for larger lot residential properties within Morven, given its close proximity to Culcairn and ease of access to major transport corridors to larger regional centres
- There is an opportunity for the land to utilised in a form that is expected to better represent the long-term requirements for the Morven township.
- The subject land is well placed to integrate with the core urban area of the Morven township, and represents a transition from the higher density lots to rural land beyond.

It is recommended that Greater Hume Shire Council resolve to support the changes to the LEP as detailed in this Planning Proposal.

Table 1 Executive Summary Table

Item	Description	
Site Address	2028 Culcairn-Holbrook Road, Morven Morven-Cookardinia Road, Morven	
Property Description	Lot 136 in DP753751 Lot 137 in DP753751 Lot 138 in DP753751 Lot 1 in DP240321	
Existing Planning Controls	Land Zoning	RU4 Primary Production Small Lots RU1 Primary Production
	Minimum Lot Size	8 ha 100 ha
	Height of Buildings	N/A
	Floor Space Ratio	N/A
	Heritage	N/A
	Land Reservation Acquisition	N/A
	Site Specific Local Provisions	N/A
	Bush Fire Prone Land	No
Proposed Amendment	Amend the Land Zoning Map of the *Greater Hume Local Environmental Plan 2012* in relation Lots 136, 137 and 138 in DP753751 to change the zoning from **RU4 Primary Production Small Lots** to **R5 Large Lot Residential** Amend the Lot Size Map of the *Greater Hume Local Environmental Plan 2012* in relation Lots 136, 137 and 138 in DP753751 to change the minimum lot area from **8 hectares** to **2 hectares** Amend the Land Zoning Map of the *Greater Hume Local Environmental Plan 2012* in relation Lot 1 in DP 240321 to change the zoning from **RU4 Primary Production Small Lots** to **R5 Large Lot Residential** Amend the Lot Size Map of the *Greater Hume Local Environmental Plan 2012* in relation Lot 1 in DP 240321 to change the minimum lot area from **100 hectares** to **2 hectares.**	

Item	Description
Supporting Technical Studies	The planning proposal is supported by following assessments and technical studies: • **Appendix A** – Scoping Report • **Appendix B** – Consistency with Riverina-Murray Regional Plan 2041, prepared by Habitat • **Appendix C** – Consistency with State Environmental Planning Policies, prepared by Habitat • **Appendix D** – Consistency with Section 9.1 Ministerial Directions, prepared by Habitat • **Appendix E** – Flood Impact Assessment, prepared by Cumulus Engineering • **Appendix F** – Aboriginal Due Diligence Assessment, prepared by Habitat • **Appendix G** - Traffic Impact Assessment, prepared by onemilegrid • **Appendix H** – Lot Layout, prepared by Habitat • **Appendix I** – Preliminary Site Investigation, prepared by McMahon Earth Science
Type of Amendment	Standard

1. Introduction

1.1. Overview

This Planning Proposal has been prepared by Habitat Planning and is submitted to Greater Hume Shire Council in support of an amendment to the *Greater Hume Local Environmental Plan 2012* (LEP). Specifically, the Planning Proposal seeks to amend the zone and minimum lot size of the *Greater Hume Local Environmental Plan 2012* in relation to land described as Lots 136, 137 and 138 in DP753751 and Lot 1 in DP 240321 and addressed as 2028 Culcairn-Holbrook Road, Morven and Morven-Cookardinia Road, Morven.

The purpose of the amendment is to enable development of the land for a large lot residential character, consistent with the urban fringe of Morven. It is submitted by this Planning Proposal and supporting Scoping Report that Morven demonstrates demand for greater large lot residential uses given its close proximity to Culcairn and the ability to offer 'lifestyle' land opportunities while retaining access to essential services and employment.

This report has been prepared to address the requirements of Section 3.33 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), as well as satisfying the requirements of the NSW Department of Planning, Infrastructure & Environment's guideline titled *Local Environmental Plan Making Guideline* (December 2021).

For the purposes of the Guideline, the Proposal is classified as a 'Standard' Planning Proposal as it relates to a change where the proposal is consistent with the objectives identified in the LEP for that proposed zone. Although the proposed change will increase the development potential for the site, it will not result in a significant increase in demand for supporting local, regional or State infrastructure and would require infrastructure funding.

2. Site Description & Context

2.1. Site Context

The Morven township is located approximately 8 kilometres east of Culcairn, 18 kilometres west of Holbrook and 50 kilometres north of Albury. It is located on the Culcairn-Holbrook Road which provides direct access to each of the towns to the east and west. The site is identified in broader context at Figure 1 below.

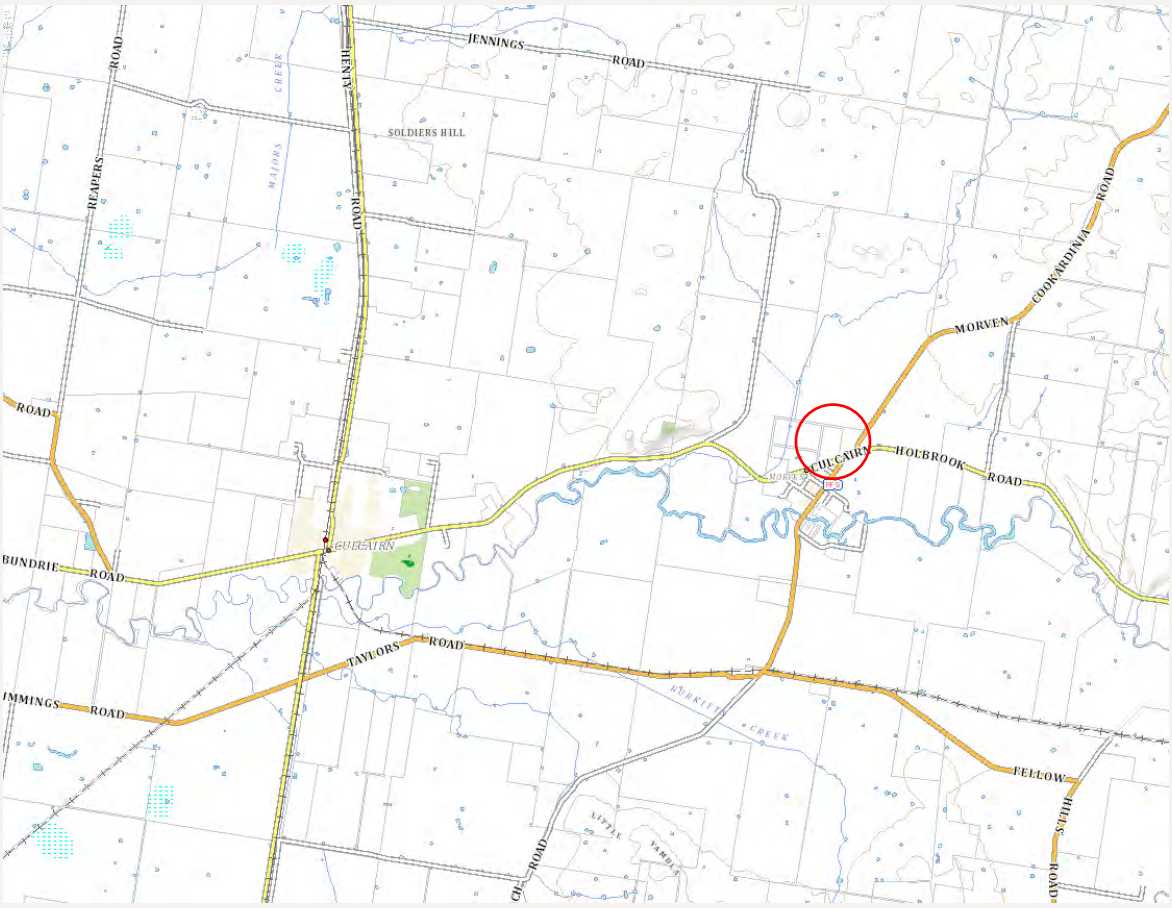


Figure 1 - Location of the subject site (highlighted) in context to Culcairn and the broader areas

2.2. Site Description

The subject land is a grouping of four (4) lots at the northern extent of the Morven township, described as Lot 136 in DP753751, Lot 137 in DP753751, Lot 138 in DP753751 and Lot 1 in DP240321. The land is bounded by Culcairn-Holbrook Road to the south and Morven-Cookardinia Road to the east. Privately owned properties adjoin the west and northern boundaries of the site, comprise RU4 zoned and RU1 zoned land respectively. The subject lots are shown in Figure 2 below.

Figure 4 further illustrates the subject land in context to the land zoning of Morven and demonstrates that the location of the land within proximity to the Morven urban area.

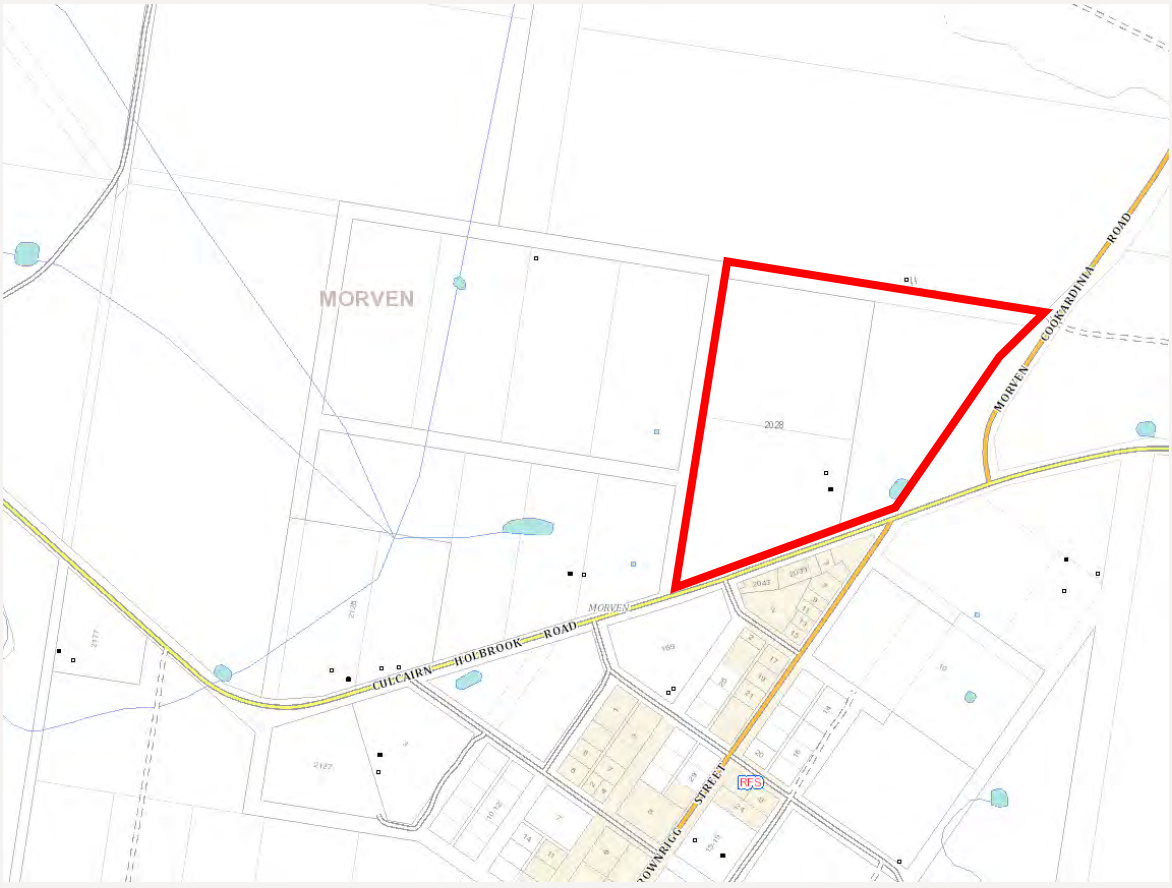


Figure 2 - Location of the subject lots in context to the Morven urban area

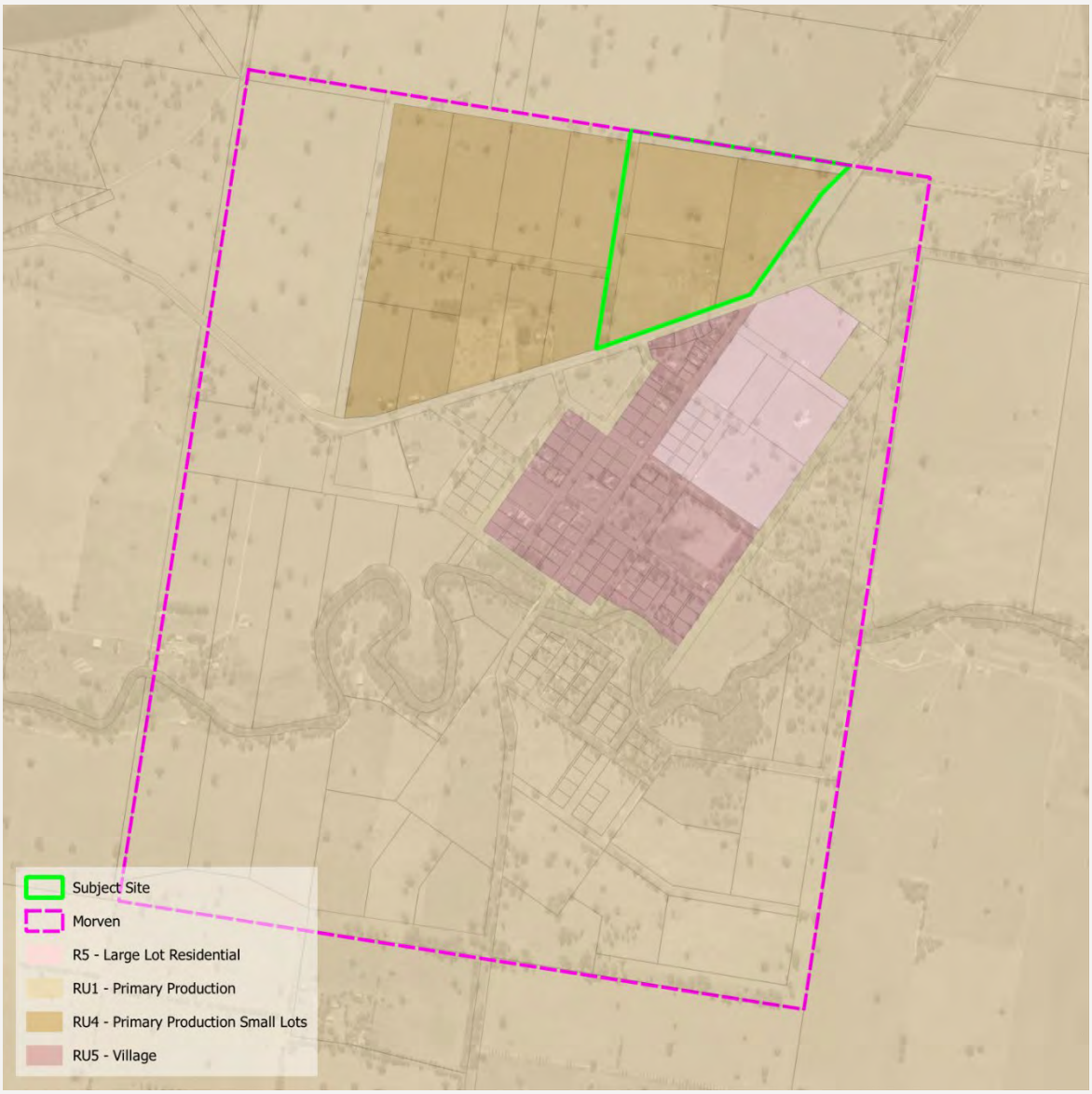


Figure 3 - Subject Site and Morven – Zoning Diagram

3. Planning Proposal

3.1. Objectives and Intended Outcomes

The objectives of the planning amendment are to rezone the subject site from RU1 Primary Production Zone and RU4 Rural Living Zone to a R5 Large Lot Residential Zone and reduce the Minimum Lot Size from 100 hectares and 8 hectares to 2 hectares.

The intended outcome is the provision of larger sized 'lifestyle lots' for residential dwellings within Morven, facilitating an orderly delivery of land supply.

3.2. Explanation of Provisions

This will be achieved by amending the Digital Land Zoning Map and Greater Hume Shire Lot Size Map Sheet LSZ_003C to change the subject site from 100 hectares/8 hectares to 2 hectares.

3.3. Justification

3.3.1. Section A - Need for the Planning Proposal

Q1. Is the planning proposal a result of an endorsed Local Strategic Planning Statement (LSPS), strategic study or report?

No. This is a privately initiated planning proposal.

Q2. Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

A planning proposal is the only way to achieve the intended outcomes.

3.3.2. Section B – Relationship to Strategic Planning Framework

Q3. Will the planning proposal give effect to the objectives and actions of the applicable regional, or district plan or strategy (including any exhibited draft plans or strategies)?

There is no current Greater Hume Housing Strategy. Future development is legislated and guided by:

- Riverina Murray Regional Plan 2041
- Greater Hume Local Strategic Planning Statement 2020
- Greater Hume Community Strategic Plan 2022-2032
- Greater Hume Economic Development and Social Plan 2017-2022

In the absence of a broader housing or settlement strategy completed by Greater Hume Shire, this planning proposal seeks to contextualise Morven within a broader planning context.

Morven was founded as a coach stop, though it was gradually overtaken as a strategic transport stop by the town of Culcairn and the north-south railway line. Now it is better categorised as a commuter suburb, being accessible from Culcairn and within commuting distance of Albury-Wodonga.

Culcairn has a lack of housing diversity, particularly a lack of larger lifestyle lots (see LSPS), which can be catered for in Morven, which is well positioned to serve the role of providing lifestyle lots for the Culcairn village context.

The next higher order towns are Holbrook (20km east), Albury (56km south) and Wagga Wagga (73km north). It is considered that Morven appeals to persons seeking a reasonable commuting distance of regional centres where land and housing are more diverse and relatively affordable.

Figure 4 – Location of the subject land in context to Culcairn and Holbrook

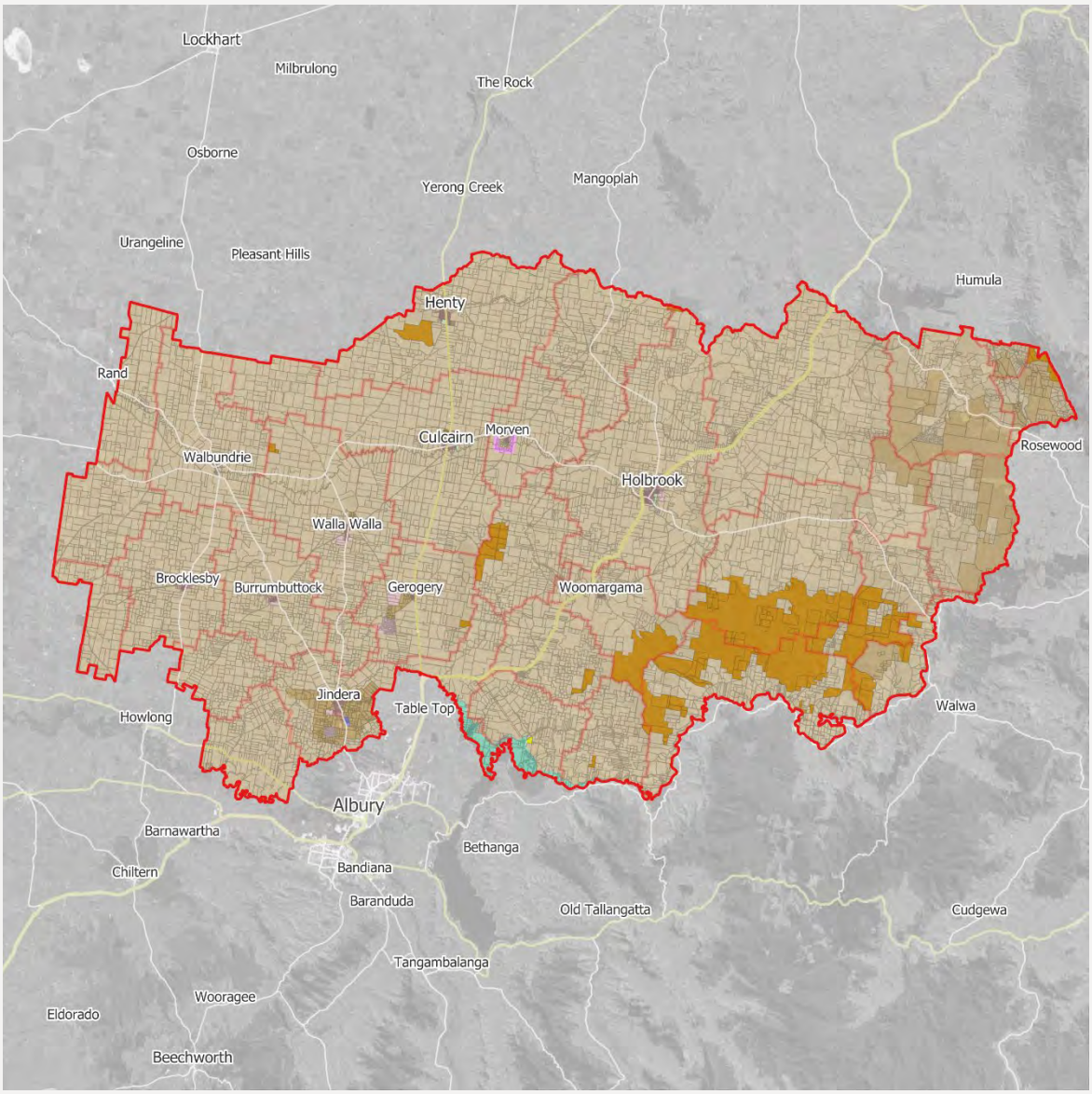


Figure 5 - Greater Hume LGA (suburbs/villages/towns)

More broadly, Greater Hume Shire is comprised of a number of small towns and villages, interspersed throughout the LGA including Morven/Culcairn, Walbundrie, Burrumbuttock, Gerogery, Holbrook, Jindera and Woomargama. Jindera is growing rapidly as commuter suburb of Albury.

There are two major transport corridors that transverse the LGA from north to south. The Hume Highway, and the Olympic Highway. The latter also runs parallel to the inland rail corridor connecting Melbourne and Brisbane, running through Culcairn and proximate to Morven. Each of these strategic transport routes has been identified in the Greater Hume LSPS as suitable for intensifying development.

Land use throughout Greater Hume LGA is generally described as productive agricultural land, dominated by broadacre farming and animal production. The LSPS notes an increase of renewable energy production (solar farms) and intensifying uses of agricultural land. As these uses become more prevalent, it will be important to clearly articulate the interface between urban areas, villages and RU1 Primary Production zones.

Zoning

Morven is host to three different zones – a small RU5 Village Zone, R5 Large Lot Residential and RU4 Primary Production Small Lot, encircled by RU1 Primary Production.

Neighouring Culcairn is not zoned appropriately for large lot residential use but is better structured for denser village style development. It is expected to continue to provide a role as a higher density village centre in the Shire.

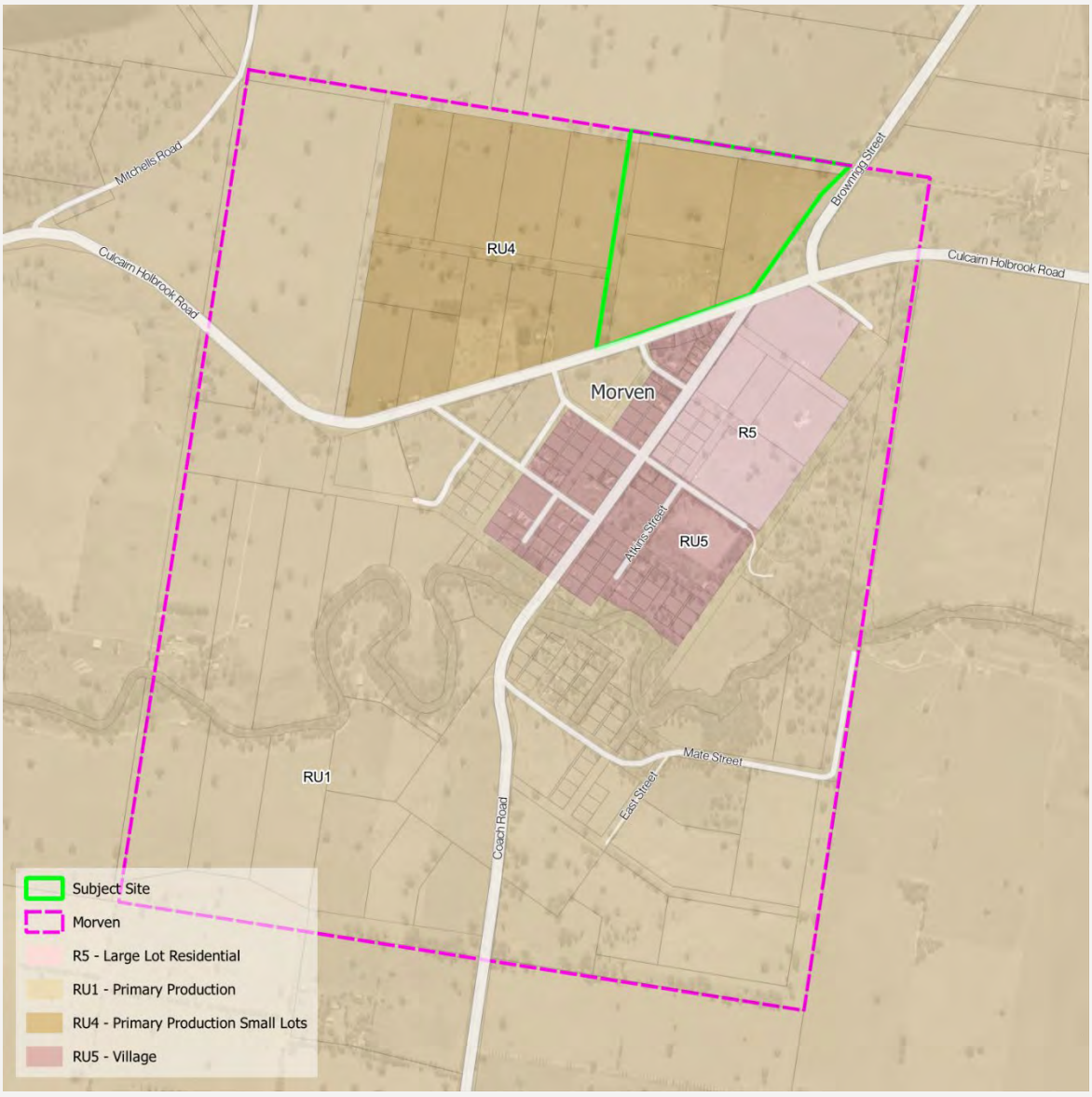


Figure 6 - Morven Zoning Map

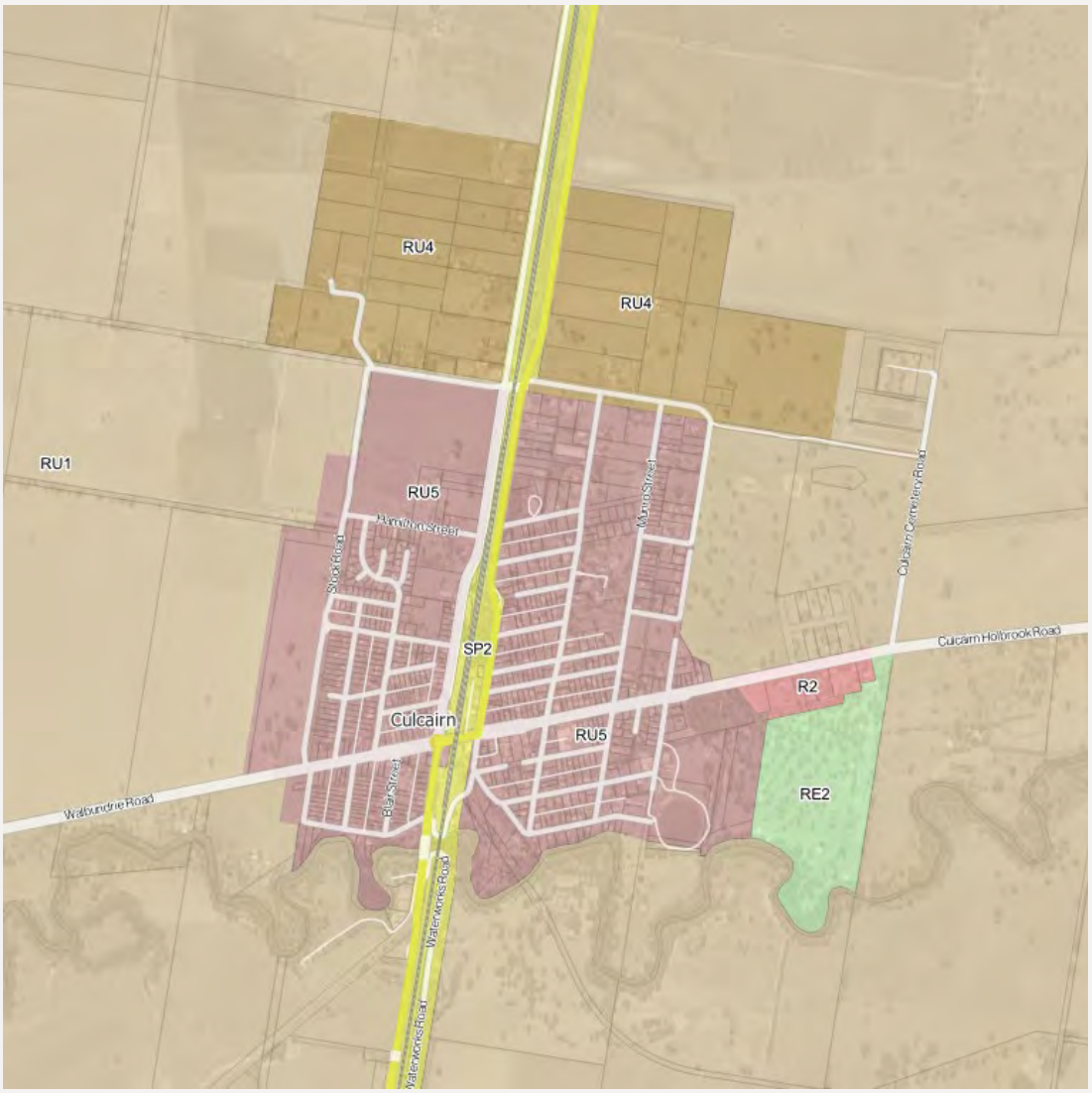


Figure 7 - Culcairn Zoning Map

Minimum Lot Size

The minimum lot sizes applied to Morven are generally larger and reflect the rural village character that has developed for the township. The core 'village' area is defined by a 1,200m2 minimum lot size and comprises single dwellings on larger lots (and grouping of lots) with on-site services. The periphery of the town comprises a transition of 2 hectare and 8 hectare lot sizes, to the east and north.

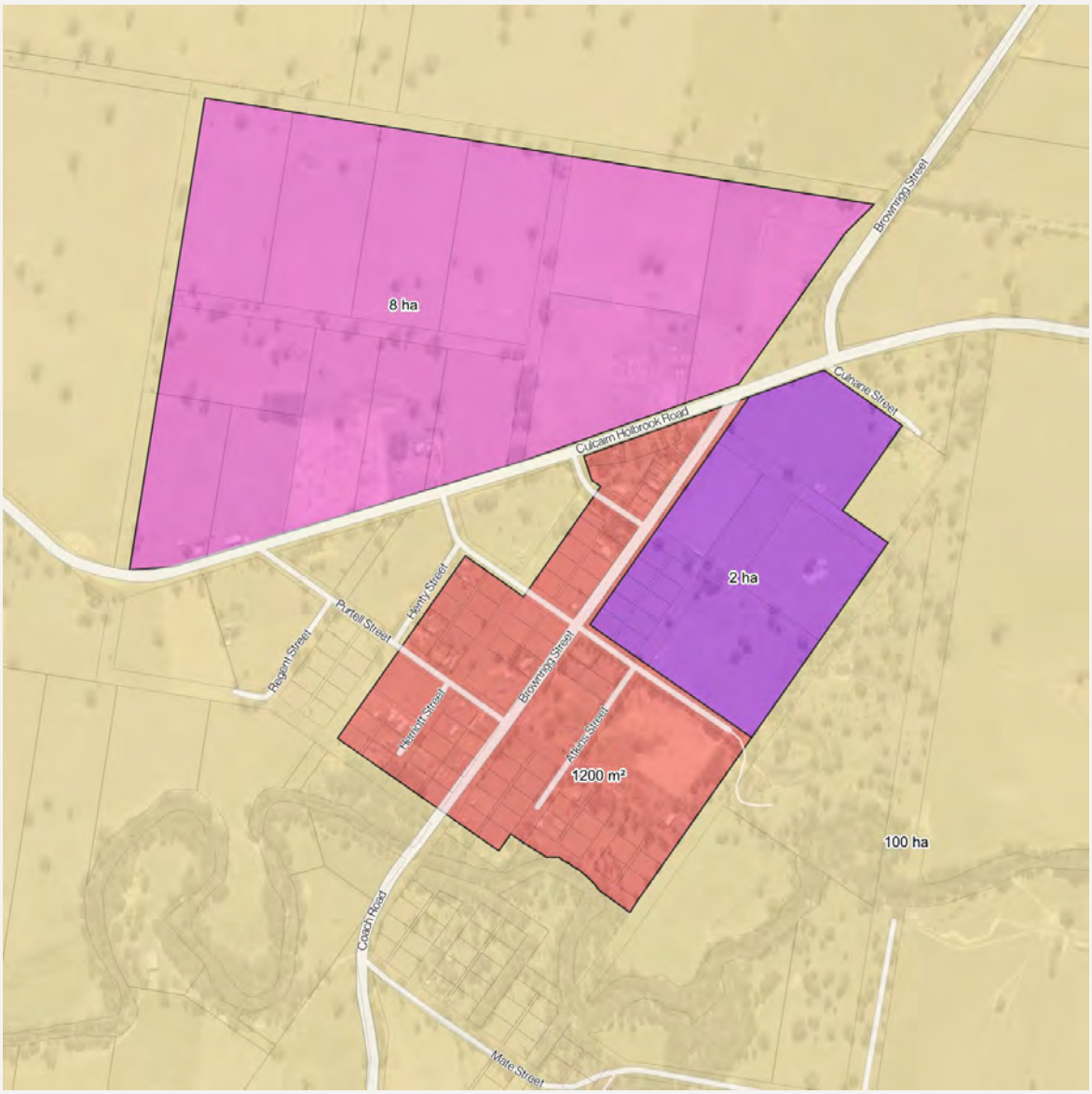


Figure 8 - Morven Minimum Lot Size

When compared to other rural villages of similar size and role in the Greater Hume LGA, there is a level of disparity between minimum lot sizes. Typically, 2 hectare minimum lot sizes are applied to the periphery of towns as the larger lot residential transition, however it is noted that the 2 hectare lot size has been applied with some areas of RU4 zone in Culcairn, Gerogery and Walla Walla which is in conflict to the zoning and MLS configuration that has been applied Morven.

It is appropriate in this instance to review the peripheral areas of Morven in contrast to their application across the other village areas.

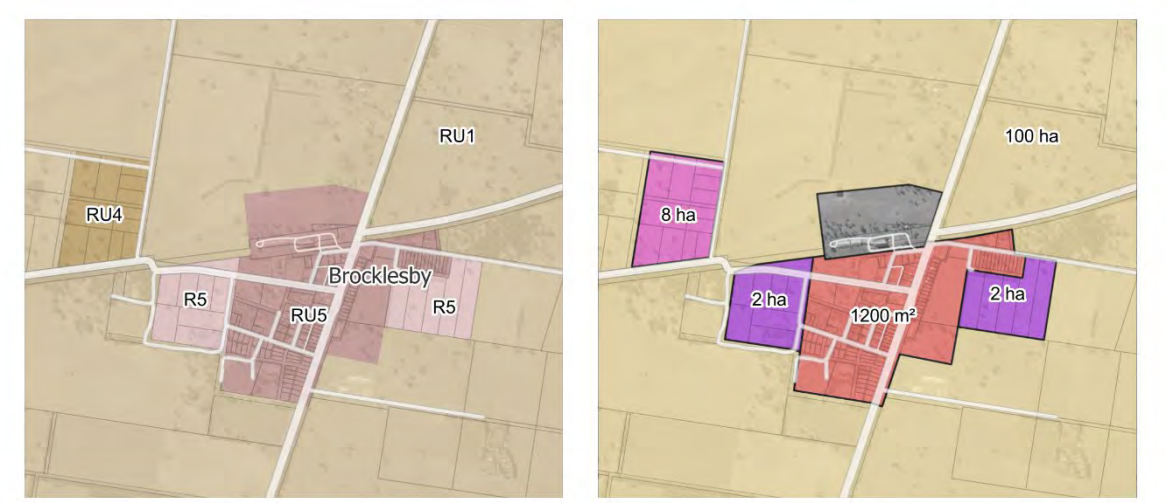


Figure 9 - Brocklesby Zone and MLS

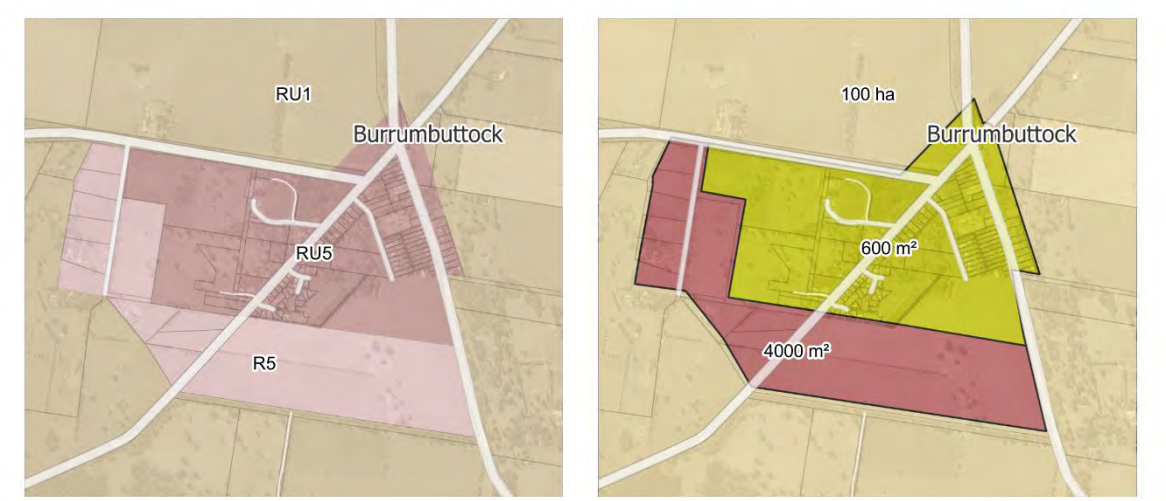


Figure 10 - Burrumbuttock Zone and MLS

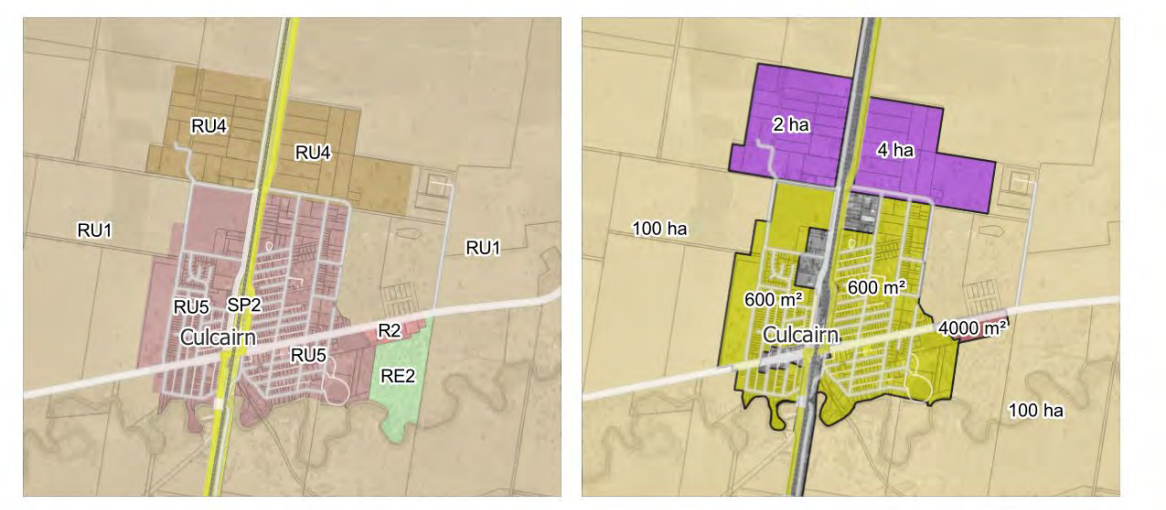


Figure 11 - Culcairn Zone and MLS

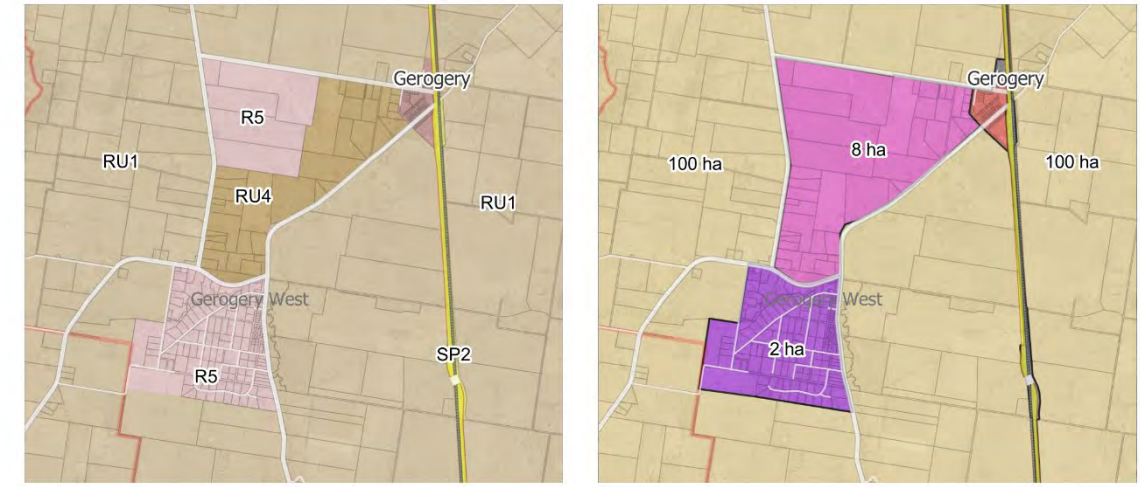


Figure 12 - Gerogery Zone and MLS

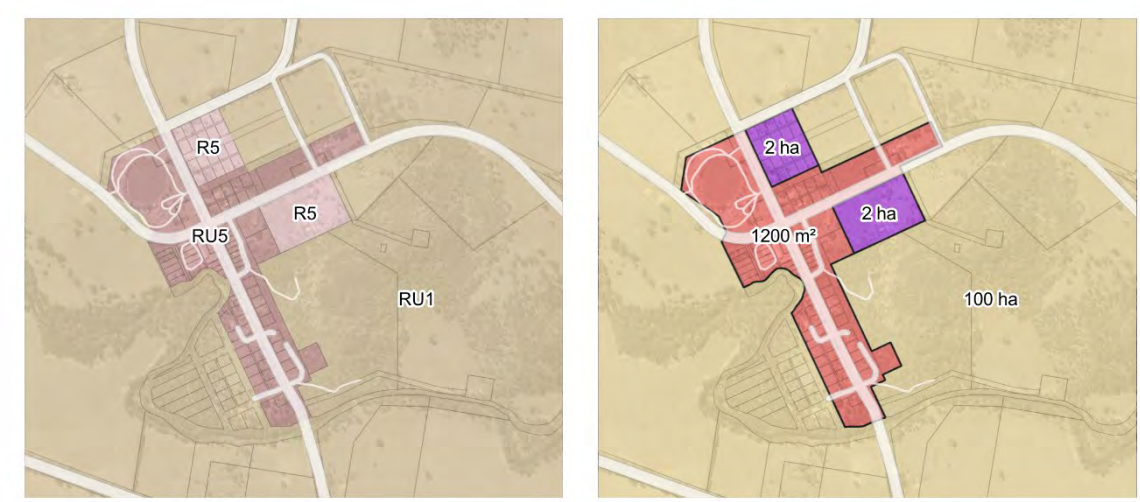


Figure 13 - Walbundrie Zone and MLS

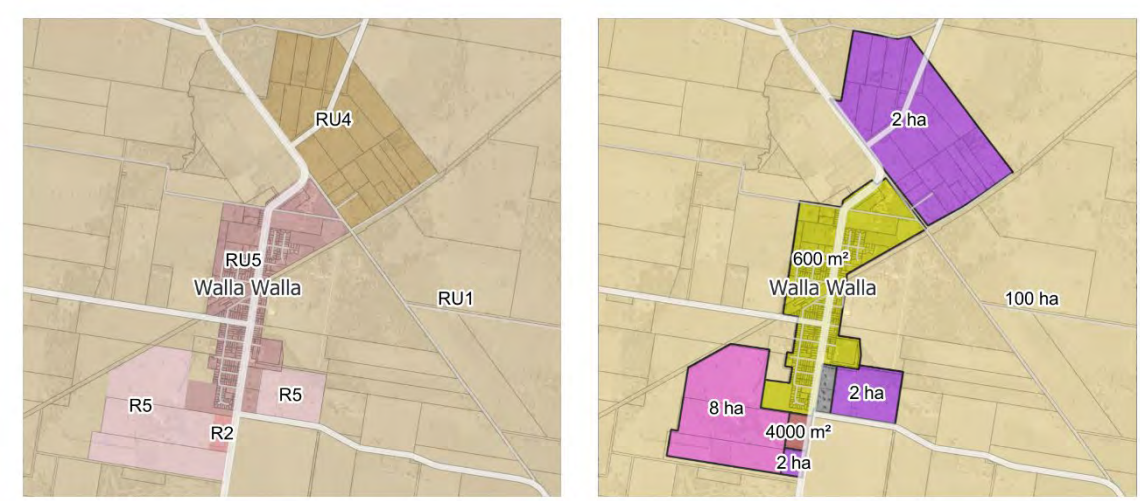


Figure 14 - Walla Walla Zone and MLS

Population and Demographics

The suburb of Morven had at the 2021 census, a population of 125 which has remained with relatively low and consistent growth (between 0-5%) over the past 20 years. It is noted that part of this stable population growth has been the retention of dwellings and minimal changeover of property in this period, as persons are able to access employment, education and services from the surrounding villages and have not been required to relocate throughout various life stages.

The population of Morven is a younger demographic than other areas of the Shire, indicating persons are likely moving to the township for lifestyle and affordability reasons while retaining accessibility to employment, larger villages and services.

In the broader Greater Hume LGA, the population is also growing rapidly, as demonstrated by the figures below. The total population of Greater Hume is also projected to increase from 10,686 to 11,765 people by 2036, requiring greater opportunities and diversity in housing.

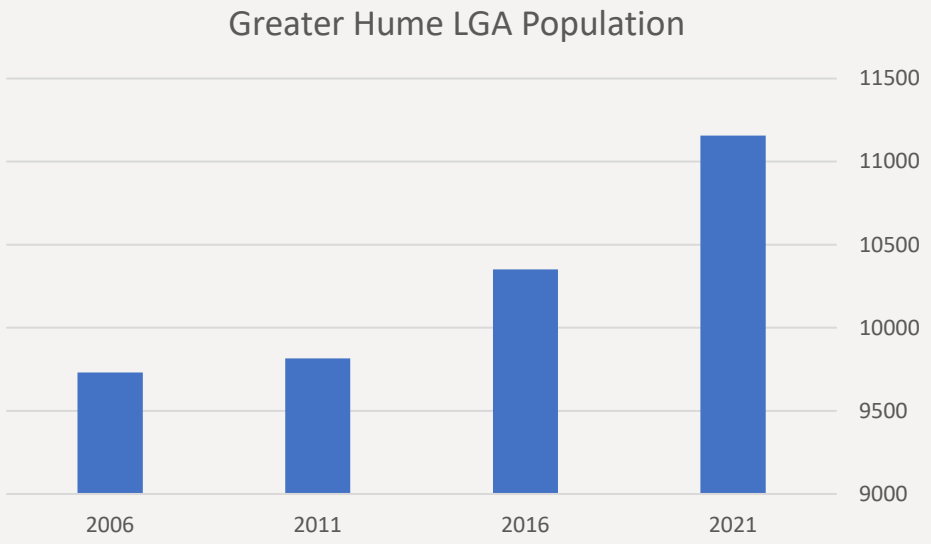


Figure 15 - Greater Hume Population (2006-2021)

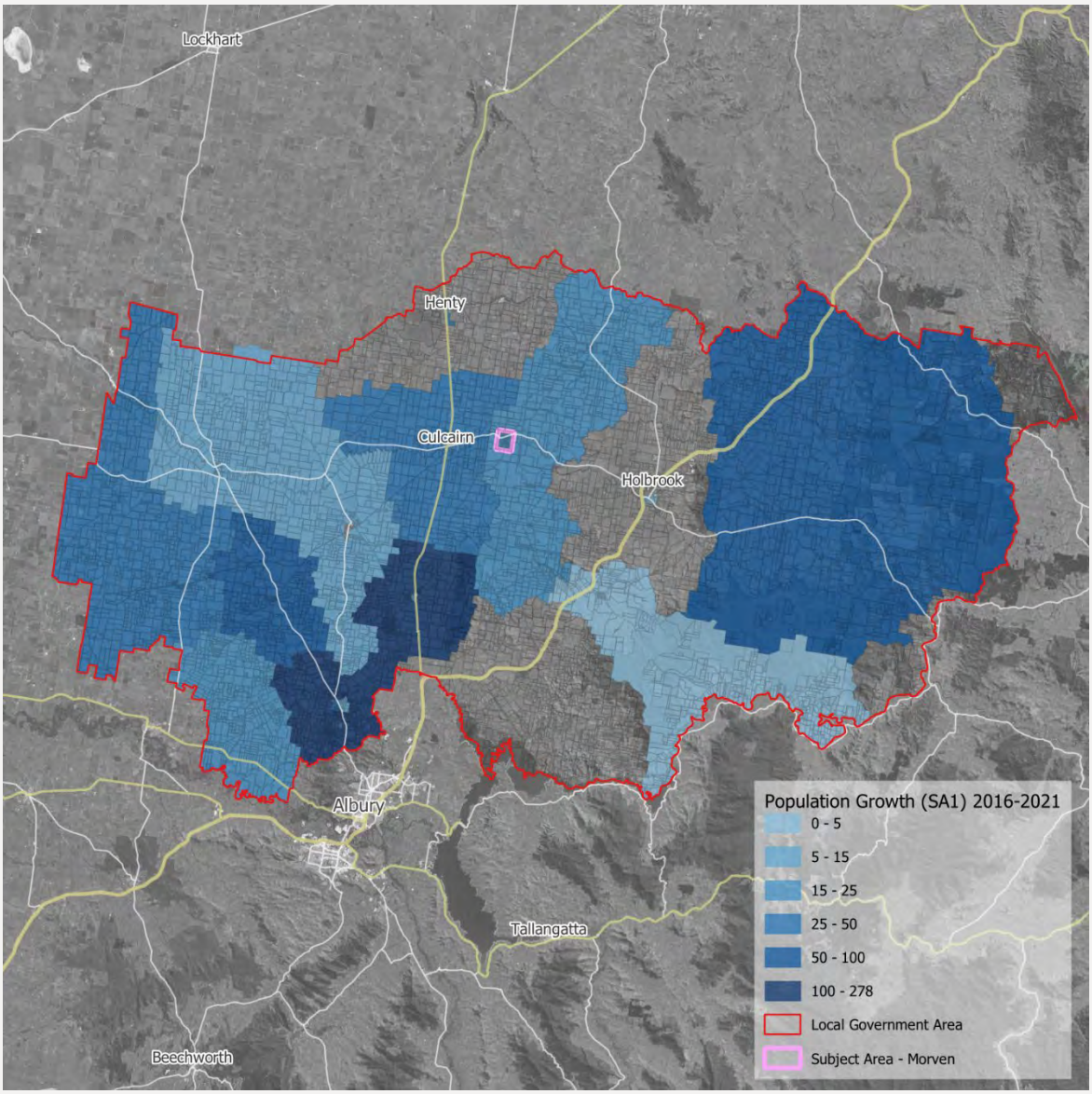
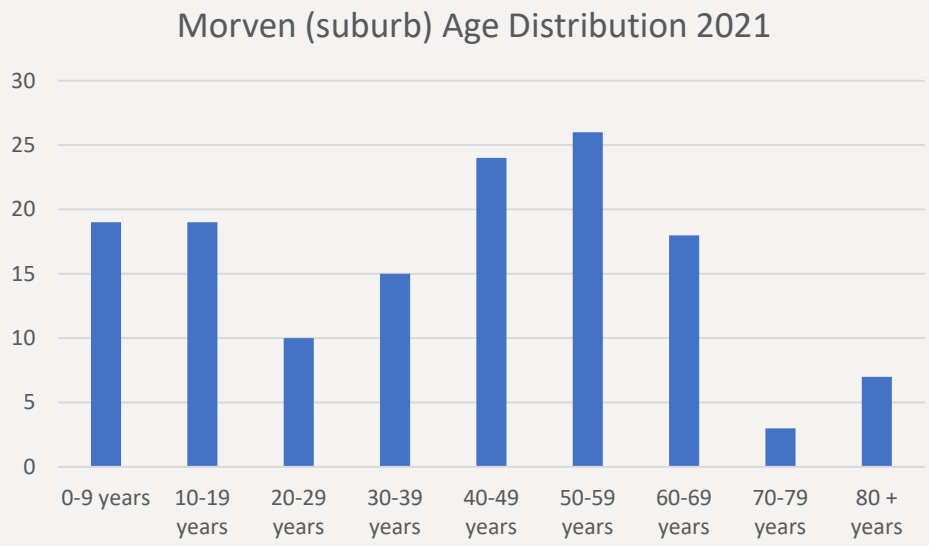


Figure 16 – Areas of population growth (by SA1 area) across Greater Hume Population (2006-2021)

Age Distribution

Relative to regional NSW, Morven has a young population; the 0-20 year and 30-50 year cohorts indicate a prevalence of families in the area. The 2021 census showed 11 couple families with children, 5 one parent families and 17 couples without children, each proportionately high for regional NSW.



Population Growth

Culcairn/Morven is located on the north/south transport corridor connecting Albury and Wagga Wagga, the Hume and Olympic Highways and inland rail corridor. The growth aligns with the corridors outlined in the Local Strategic Planning Statement (LSPS).

As noted in the LSPS, much of the population growth is occurring outside of the towns and villages and lacks focus, which can lead to inefficient land use outcomes. The growth map presented in the Greater Hume LSPS shows two key growth corridors that radiate north of Albury and along both the Olympic Highway and Hume Freeway corridors, leveraging the commuting proximities from Greater Hume villages.

Morven benefits from good accessibility to the Olympic Highway and is generally considered to be within the 'western growth arc' as shown within the LSPS, forming a grouping within the Culcairn village area.

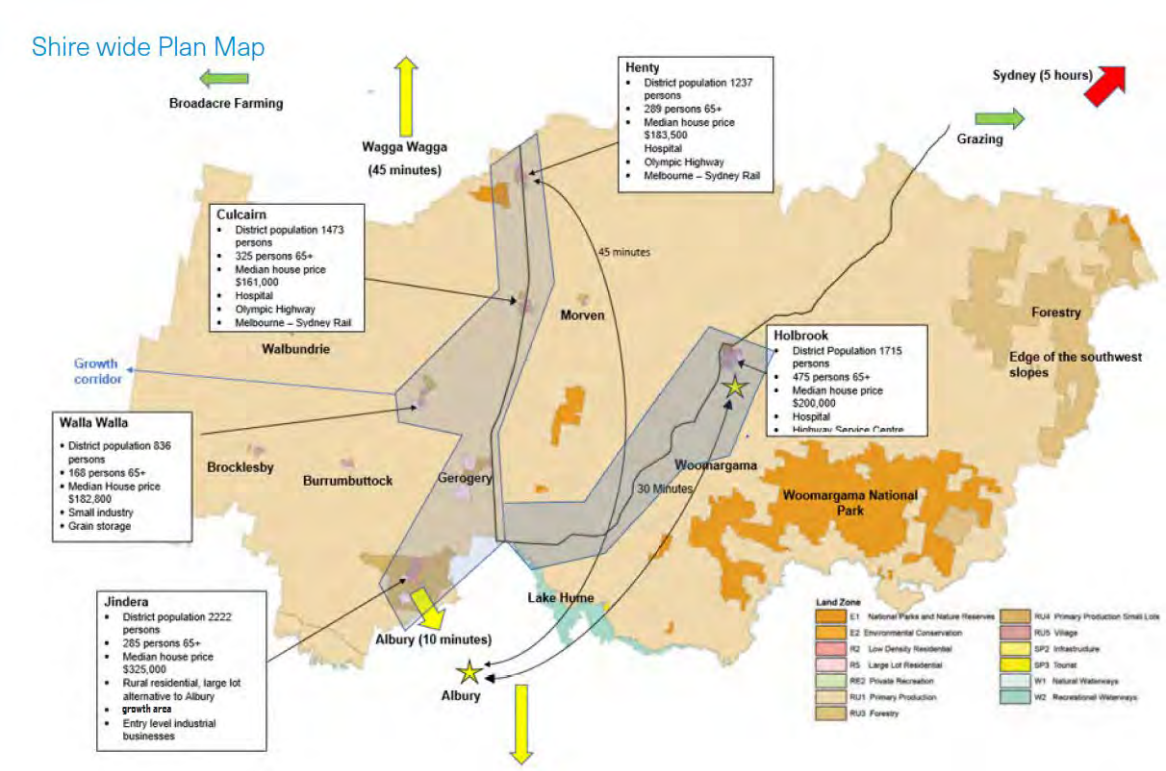


Figure 17 - Greater Hume LSPS growth map

Labour Force Participation

Morven also has a relatively high labour force participation rate (58%), and a majority of highly paid workers compared to the state average.

Overwhelmingly, people travel to work via private vehicle or work from home. The growing trend of workplace flexibility and the ability to work from home is being felt in regional Australia and particularly in Morven (10% of the working population)

Table 2 - ABS Suburb Profile (Census 2021)

Occupation	Morven	Morven %	NSW %
Managers	24	35.3	13.5
Labourers	16	23.5	8.8
Professionals	12	17.6	23.6
Clerical and Admin	7	10.3	13.8
Community and Personal Services	6	8.8	10.4
Technicians and Trades Workers	3	4.4	12.7

Table 3 - Dataset: Census of Population and Housing, 2021, ABS TableBuilder

SAL (Usual Residence)	Morven (Greater Hume Shire - NSW)
MTW06P Method of Travel to Work (6 travel modes)	
Public Transport	0
Vehicle	40
Active Transport	0
Other Mode	0
Worked at home	10

Riverina Murray Regional Plan 2041

The *Riverina Murray Regional Plan 2041* was adopted by the NSW government in 2022 and is the relevant regional strategy that provides the strategic planning framework to guide decision-making and development in the Riverina Murray region for the next 20 years.

The Minister's foreword to the document states that the Regional Plan "*provides a framework for recent government priorities around improving regional housing delivery…*"

and

"promotes more housing and greater housing choice in strategic locations throughout the region."

The Regional Plan is structured into by three (3) key parts, with 18 underlying objectives including:

- Part 1 – Environment.
- Part 2 – Communities and Places
- Part 3 – Economy

Each of these parts and objectives is supported by a number of different strategies and actions, which seek to achieve the objectives of the goal. Generally, the planning proposal aligns with the following objectives:

- *Objective 5 – Ensure housing supply, diversity affordability and resilience.*
- *Objective 6 – Support housing in regional cities and their sub-regions*
- *Objective 7 – Provide for appropriate rural residential development.*

A full analysis of the proposal against the objectives has been tabulated in Appendix B

Q4. Is the planning proposal consistent with a Council LSPS that has been endorsed by the Planning Secretary or GSC, or another endorsed local strategy or strategic plan?

The *Greater Hume Local Strategic Planning Statement* (LSPS) sets the land use framework on a local scale for Greater Hume Council's economic, social and environmental land use needs over the next 20 years. It addresses the planning and development issues of strategic significance to the Council through planning priorities and actions, spatial land use direction and guidance.

The LSPS gives effect to the *Riverina Murray Regional Plan 2041* implementing the directions and actions at a local level. It is also informed by other State-wide and regional policies including *Future Transport Plan 2056* and the *NSW State Infrastructure Strategy 2018 – 2038*.

The vision statement the LSPS outlines the following:

- *Greater Hume will continue to recognise the importance of the regional cities of Albury, Wodonga and Wagga Wagga and our community's ability to access higher level services, such as higher education, health services and employment. Recognising and enhancing this connection will be a key driver to the success of Greater Hume.*
- *Our towns and villages will capitalise on growth opportunities so that they continue to service our rural communities. Our towns will offer a variety of housing choice to retain the ageing population but will also provide an alternate rural lifestyle that will attract people to the area. As our towns continue to support new growth, our economic base will diversify. Our townships will be vibrant active places to visit and live providing a variety of basic economic and community services, within a rural heritage town setting, resilient to effects of climate change.*

To achieve this 20-year vision for Greater Hume, Council has identified nine planning priorities to focus future strategic planning consistent with the recommendations of the RMRP and Council's Community Strategic Plan 2017-2030.

Planning Priority One of the LSPS is to deliver housing and land supply and recommends monitoring of land uptake in the towns and villages and investigation of new residential areas that will:

Be located to avoid areas that are identified as important agricultural land or areas that create potential for land use conflict;

- *Align with the utility infrastructure network and its capabilities;*
- *Avoid or mitigate the impacts of hazards, including the implications of climate change;*
- *Protect areas with high environmental value and/or cultural heritage value and important biodiversity corridors;*
- *Not hinder development or urban expansion and will contribute to the function of existing townships;*
- *Create new neighbourhoods that are environmentally sustainable, socially inclusive, easy to get to, healthy and safe.*

The Actions for Planning Priority One includes:

2. Investigate and identify future potential for varied housing options in the townships of Henty, Holbrook, Morven and Culcairn – Short Term.

It is noted that the intent of this Planning Proposal is to deliver new large residential lots within Morven that will add to the diversity of housing products in the LGA generally. The provision of this housing should be considered in context with Culcairn given the close proximity and relationship that the two villages have.

Figure 18 – Morven Planning Map (Source: Greater Hume LSPS).

Q5. Is the planning proposal consistent with any other applicable State and regional studies or strategies?

The Planning Proposal is consistent with other relevant State or Regional studies as outlined below:

Housing 2041 – NSW Housing Strategy

The four pillars of Supply, Affordability, Diversity and Resilience are the foundations of Housing 2041. While it is necessarily broad in scope, specific to Greater Hume LGA the proposal will:

- Support additional supply in areas where there is demand;
- Allow for more affordable lots, through pragmatic infrastructure and service delivery;
- Provide more diverse housing, through increasing density, reducing lot size in residential and rural residential areas; and
- Embedding housing resilience in areas where employment opportunities are growing rapidly.

A 20-Year Economic Vision for Regional NSW

Noting the strategies for driving for economic growth in Regional NSW, the proposal's proximity to Albury and the Wagga Wagga SAP, this proposal supports housing in the area and the growth of a permanent, skilled labour market to support the initiatives.

Q6. Is the planning proposal consistent with applicable State Environmental Planning Policies?

Appendix C provides an assessment of the Planning Proposal against all State Environmental Planning Policies (SEPPs). In summary, many of the SEPPs are not applicable to the Greater Hume Local Government Area and even less are applicable to the circumstances of the Planning Proposal.

Notwithstanding, an assessment has been tabulated in Appendix C outlining whether the Planning Proposal is consistent, or where applicable, justifiably inconsistent with relevant SEPPs.

Q7. Is the planning proposal consistent with applicable Ministerial Directions (s.9.1 Directions)?

Section 9.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) provides for the Minister for Planning and Homes to give directions to Councils' regarding the principles, aims, objectives or policies to be achieved or given effect to in the preparation of LEP's.

A Planning Proposal needs to be consistent with the requirements of the Direction but in some instances can be inconsistent if justified using the criteria stipulated such as a Local Environmental Study or the proposal is of "minor significance".

An assessment of all s.9.1 Directions is undertaken in Appendix D.

In summary, the Planning Proposal is either consistent, or justifiably inconsistent with the relevant Directions. Where there is an inconsistency, it has been justified utilising the provisions within each of the Directions.

3.3.3. Section C – Environmental, Social and Economic Impact

Q8. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

The land has been used intensively for primary production and with the exception of some scattered trees, is cleared of any significant vegetation. While this proposal is for rezoning only, the intensification of development for residential purposes is not expected to adversely affect any populations. Specific assessments can be undertaken during subsequent development applications.

Q9. Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

The capacity of the subject sites to manage increased onsite water treatment (AWTS) will be considered. The outcomes of the proposal, particularly lot sizes that can be achieved will adhere to the outcomes of any relevant land and soil capability assessments.

The PSI has recommended the removal of some potentially hazardous materials and any impacts associated with eventual construction can be managed at a subsequent development application stage through the relevant legislation and policies.

The proposal is not expected to result in any disturbance of habitat areas or natural features of the area because it relates to the rezoning of a land that is largely devoid of any significant habitat. Further, the larger area of the lots being proposed means that areas of sensitivity (if identified) can be contained within future lots.

The land to be rezoned has been subject to ongoing agricultural activity for a significant period of time and has been heavily modified from its original state. There are no mapped areas of environmental land, there are no significant areas of native vegetation within the land and there are no areas of watercourses or other potentially sensitive landscapes. An area of mapped biodiversity value is noted further south along the Billabong Creek, however is well removed from the site.

Q10. Has the planning proposal adequately addressed any social and economic effects?

Due to the small scale of potential residential intensification, the proposal's social and economic effects, while positive, will be negligible.

As outlined, Morven is best described as a commuter suburb of nearby Culcairn and Albury further afield. This proposal seeks to further provide large lifestyle lots in a preferred location, better supporting housing in peri-urban areas and retaining employment, spending in local economies.

3.3.4. Section D – State and Commonwealth Interests

Q11. Is there adequate public infrastructure for the planning proposal?

The subject land is located within an area surrounded by large lot village areas and rural residential properties. The village area is serviced by sealed roads and some reticulated services, but largely contain a high proportion of on-site sewer services and wastewater disposal. The subject land can be serviced by some of these existing services, subject to upgrade and extension, however will rely on provision of new on-site services.

Electricity services are provided to the village area by Essential Energy and connected to all residential and rural properties in the village and peripheral areas. Further consultation will be undertaken with Essential Energy to confirm servicing capabilities of the network.

The small scale of the eventual subdivision will place negligible pressure on public infrastructure.

Q12. What are the views of State and Commonwealth public authorities consulted in accordance with the Gateway Determination?

ANNEXURE 4

While this proposal is yet to be assessed by the Department of Planning Housing and Infrastructure, a scoping report was prepared, shared, and discussed with Greater Hume Shire Council.

While generally supportive, Council has requested a number of technical reports, which have been attached to this proposal.

3.4. Mapping

The planning proposal seeks to amend the following maps:

3.4.1. Digital Zoning Map

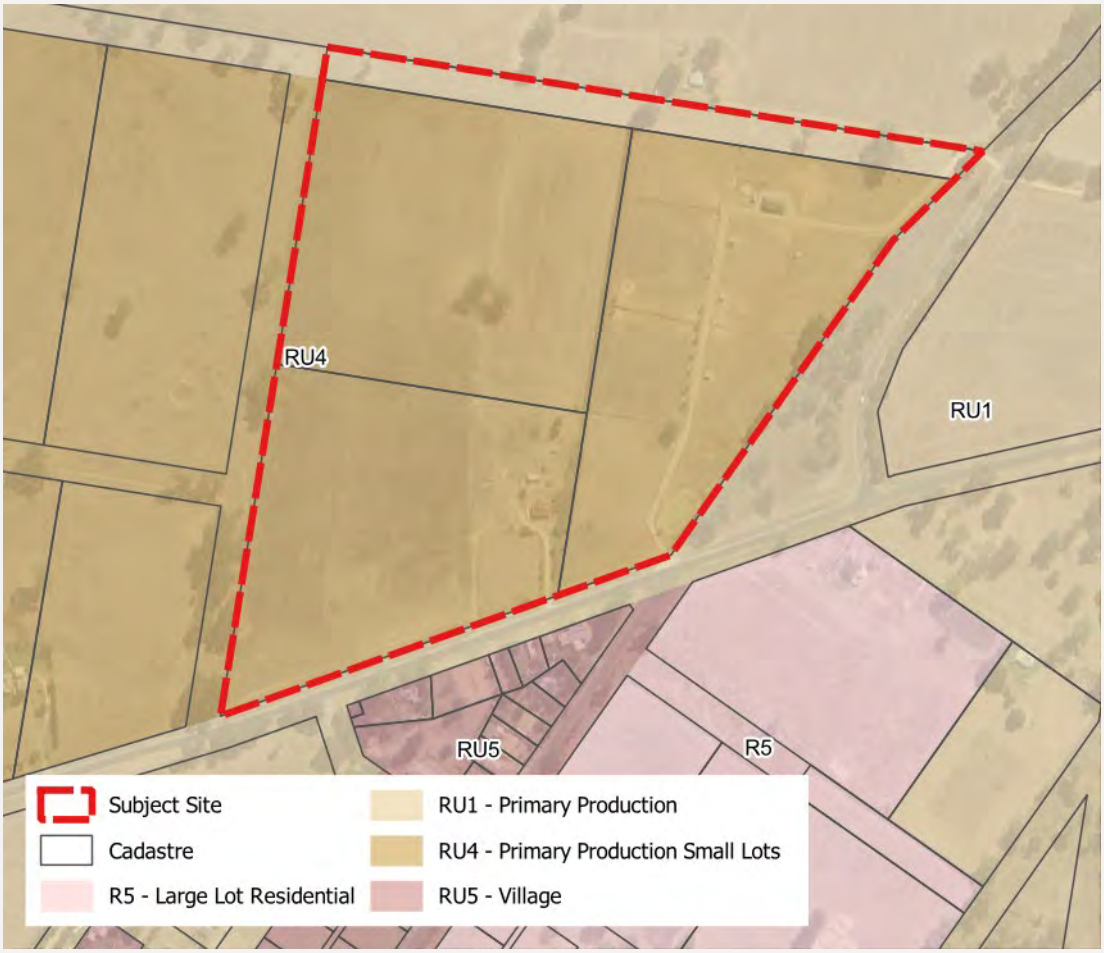


Figure 19 – Existing Digital Zoning Map (NSW DPHI)

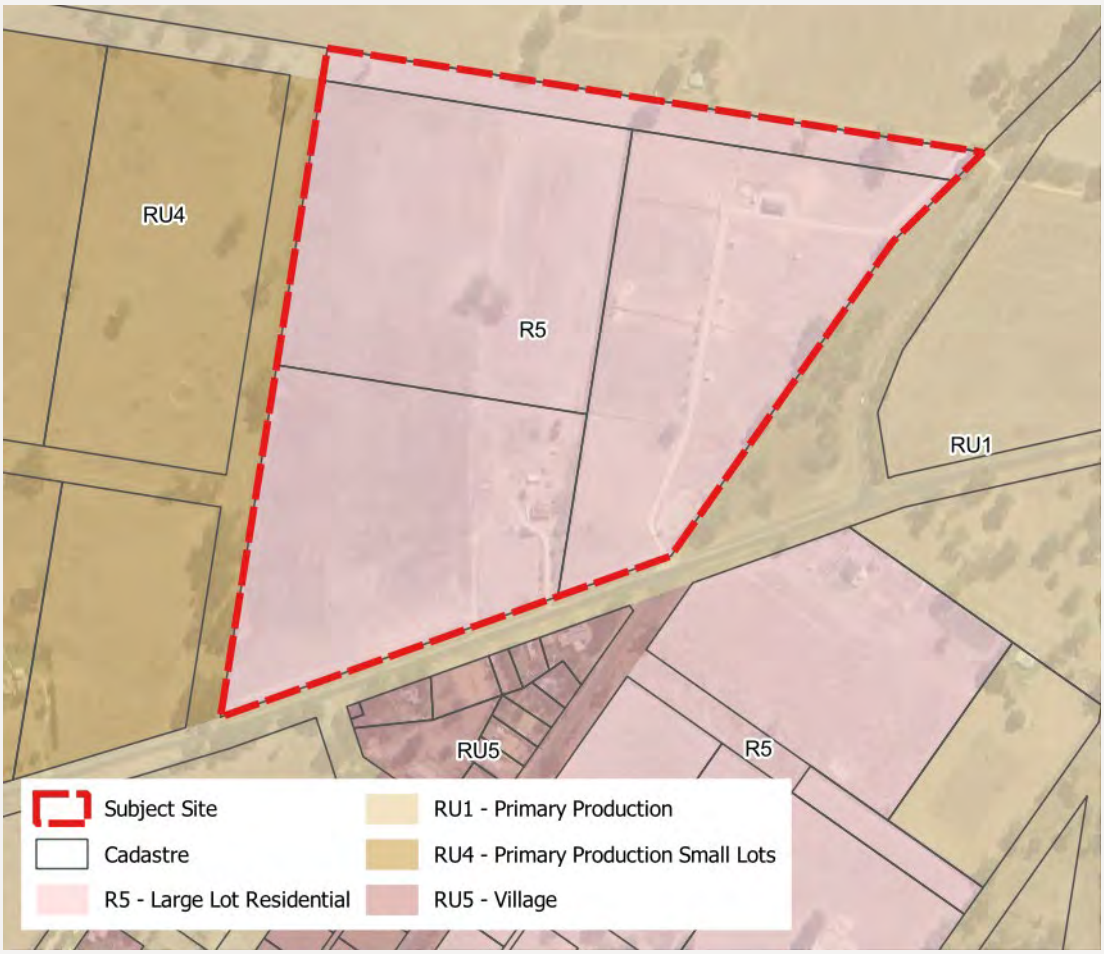


Figure 20 - Proposed Digital Zoning Map

3.4.2. Lot Size Map

The lot size is proposed to be reduced from 8ha and 100ha to 2ha for the entirety of the subject site.

The minimum lot sizes applied to Morven are generally larger and reflect the rural village character that has developed for the township. The core 'village' area is defined by a 1,200m^2 minimum lot size and comprises single dwellings on larger lots (and grouping of lots) with on-site services. The periphery of the town comprises a transition of 2 hectare and 8 hectare lot sizes, to the east and north.

When compared to other rural villages of similar size and role in the Greater Hume LGA, there is a level of disparity between minimum lot sizes. Typically, 2 hectare minimum lot sizes are applied to the periphery of towns as the larger lot residential transition, however it is noted that the 2 hectare lot size has been applied with some areas of RU4 zone in Culcairn, Gerogery and Walla Walla which is in conflict to the zone and configuration that has been applied Morven.

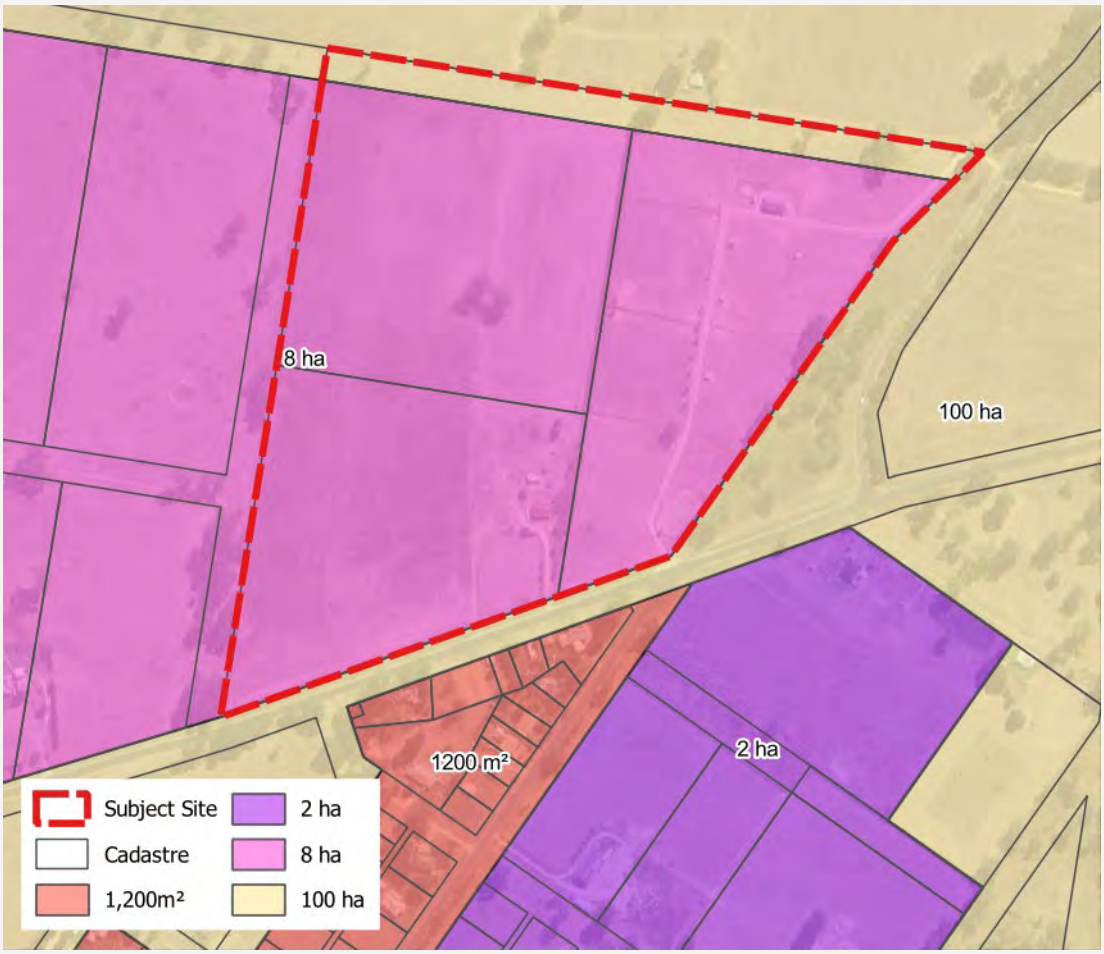


Figure 21 - Current Lot Size Map

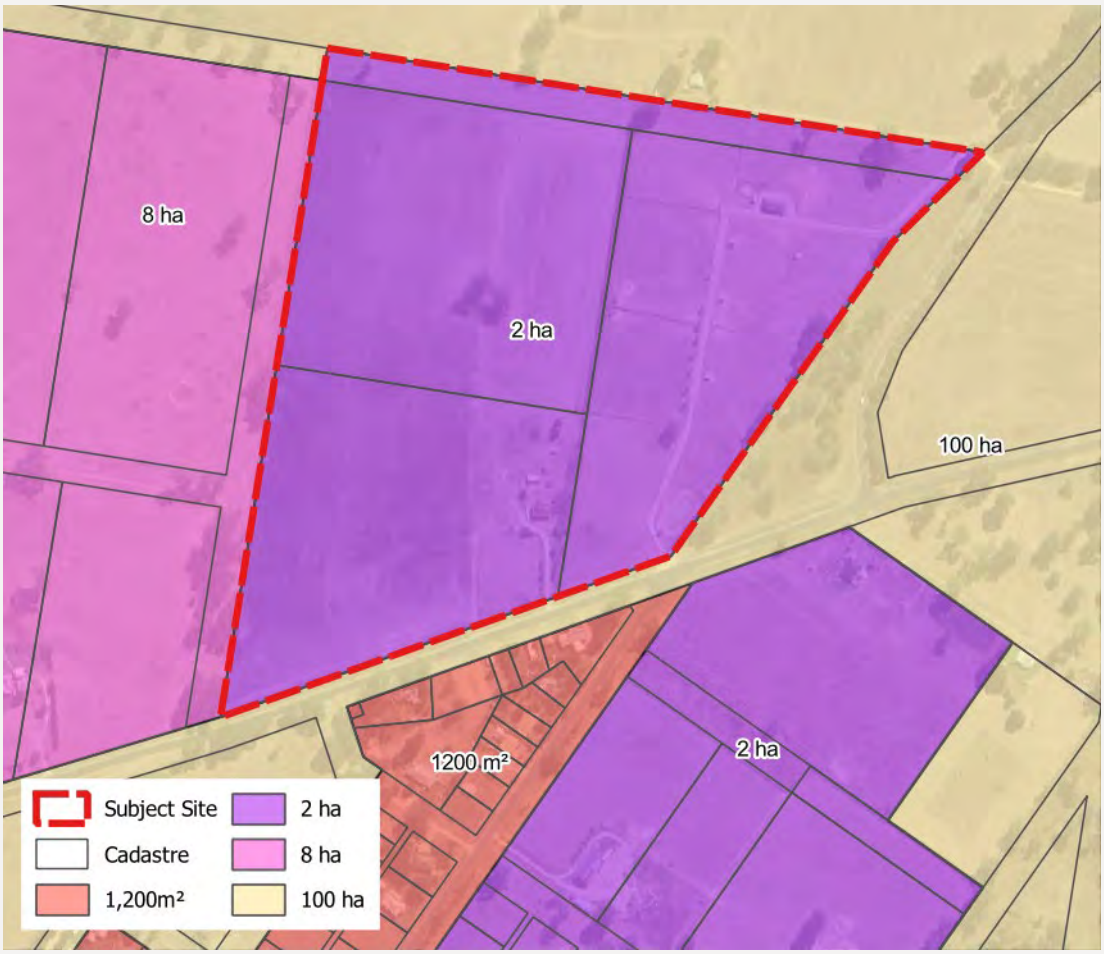


Figure 22 - Proposed Lot Size Map

3.4.3. Lot Layout

A staged lot layout has been prepared and following the planning proposal will be submitted to subdivide the subject site. (see Appendix H: Lot Layout). The lots will be of varying size, ranging from two to eight hectares.

Figure 23 - Lot Layout

3.4.4. Flooding

A complete flood risk assessment is provided in Appendix E. Shown is the 1% AEP flood depth overlaying the indicative lot layout. The report has recommended a freeboard of 500mm above the 1% AEP and the majority of the subject site will not be constrained for dwellings or access at the 1% AEP category. (Figure 25).

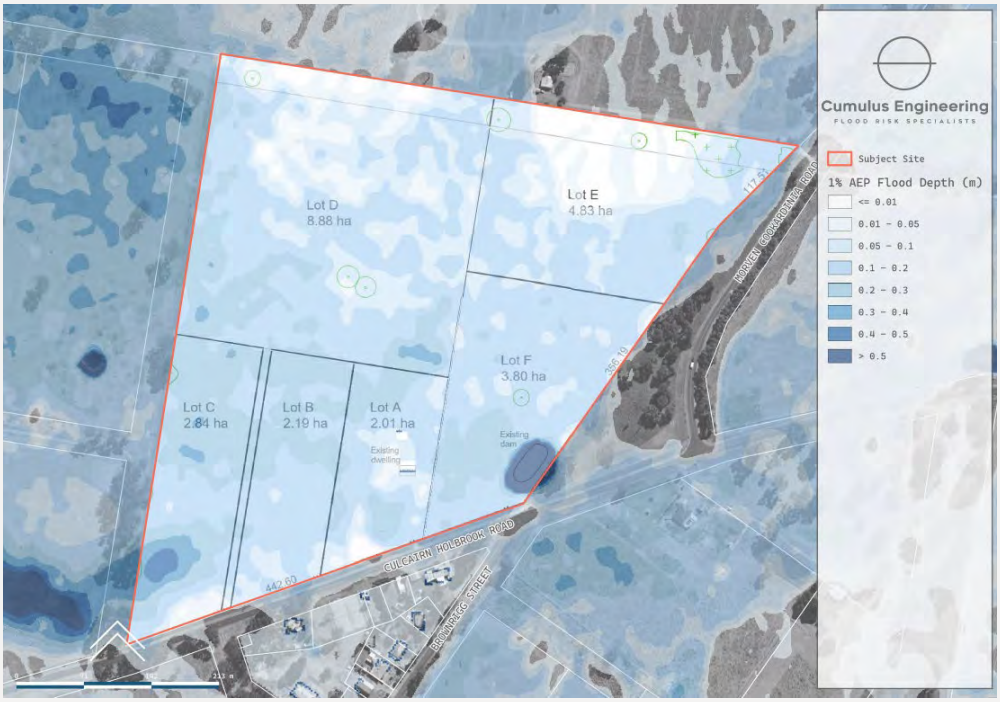


Figure 24 - 1% AEP Flood Depth (Cumulus Engineering)

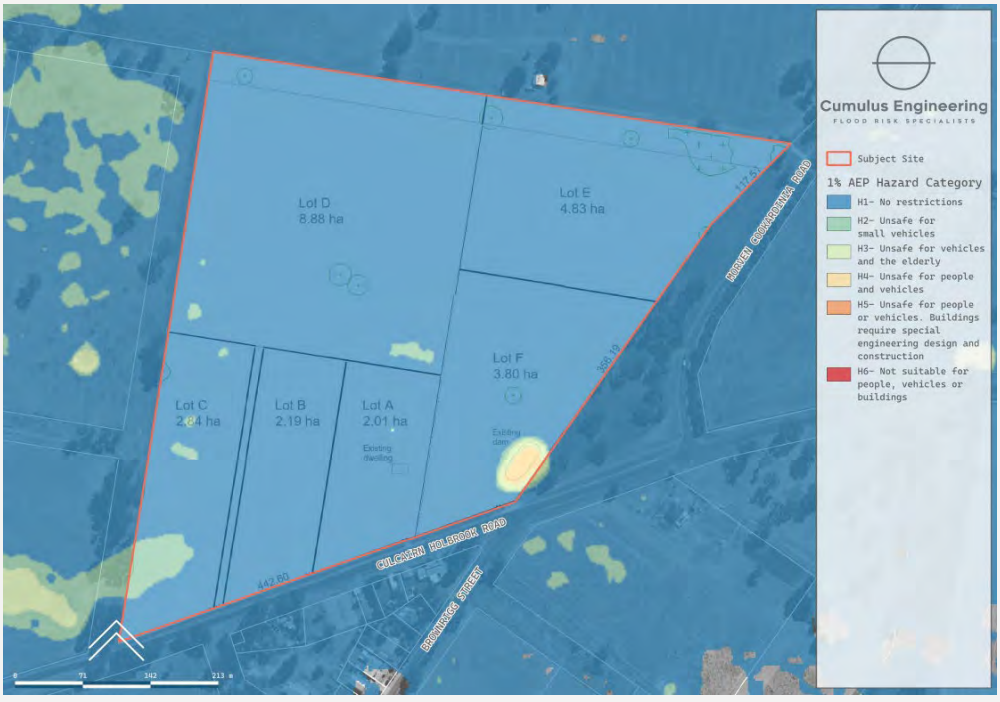


Figure 25 - 1% AEP Hazard (Cumulus Engineering)

3.4.5. Bushfire

There is no mapped bushfire risk for the site, only at the nearby Billabong Creek. Category 3 Vegetation (Grassland) has not been updated into the Bushfire mapping, though can be assessed during subsequent development applications and should not affect the viability of the planning proposal.

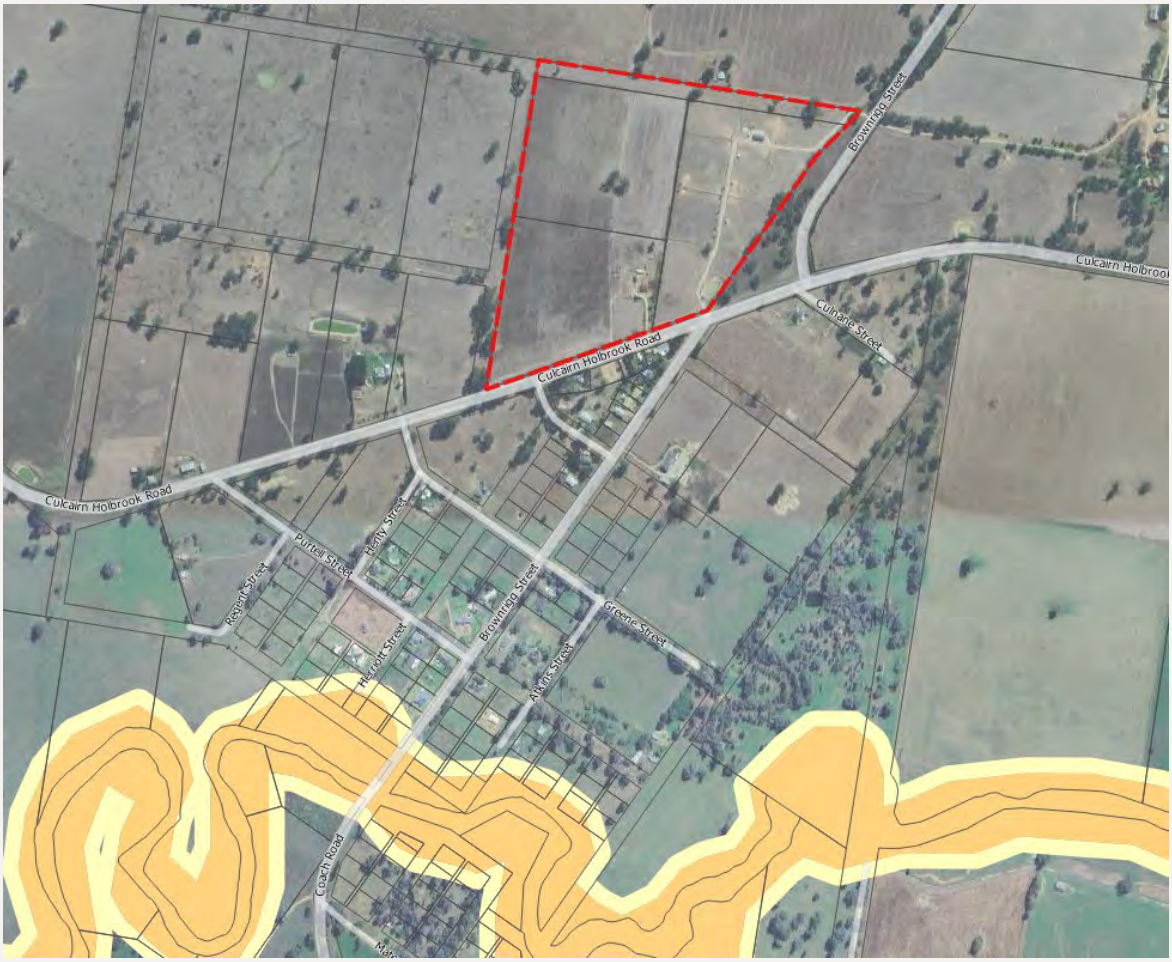


Figure 26 - Mapped Bushfire Risk (NSW RFS)

3.4.6. Biodiversity

Plant Community Types

Figure 27 - Plant Community Types

Plant Community Types mapped on the site indicate the potential presence of threatened ecological communities. Mapped for the site are areas of PCT 277: Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion

On site observations have indicated the mapped trees do not exist within the lot boundaries and that the mapping has most likely not been appropriately ground truthed. Regardless, the size of the proposed lots (minimum 2 hectares) will ensure that development can avoid any areas of sensitivity.

Terrestrial Biodiversity

Similarly, the site avoids areas of mapped Terrestrial Biodiversity and the large lot sizes can generally facilitate avoidance of any areas of sensitivity or accommodate these within the proposed future lots. Notwithstanding, the location of mapped terrestrial biodiversity is beyond the boundaries of the subject land.

Figure 28 - Terrestrial Biodiversity Map (NSW DPHI)

3.4.7. Traffic Impact

A Traffic Impact Assessment has been completed for the proposal, analysing any additional volumes expected to be generated by the eventual subdivision. The TIA has considered the existing traffic volumes for the adjoining road network and anticipated the potential future volumes that will be generated from the site, based on the proposed zone and minimum lot size changes.

In relation to rate of traffic produced by the Proposal, the TIA states that *"the traffic volumes generated by the proposed development are very low, and are expected to be easily absorbed into the surrounding road network."*

The TIA has also considered the impact of additional access points being created to the surrounding road network. In particular, the Culcairn-Holbrook Road has been noted as a higher order regional road. In this instance, there are a number of existing access points which will be utilised by the proposed development to minimise the creation of additional accesses to the road network. A total of three (3) new access crossovers are anticipated on the Culcairn-Holbrook Road, with two (2) existing accesses on the Culcairn-Holbrook Road and one (1) existing access on Morven-Cookardinia Road are to be retained and utilised.

The TIA generally concludes that:

- The proposed subdivision design is considered to be generally in accordance with the transport related requirements of the Greater Hume DCP and the Rural Housing Code in the State Environmental Planning Policy;
- The access design is appropriate;
- The proposed development is expected to have a negligible impact on the surrounding road network when compared to the existing operation."

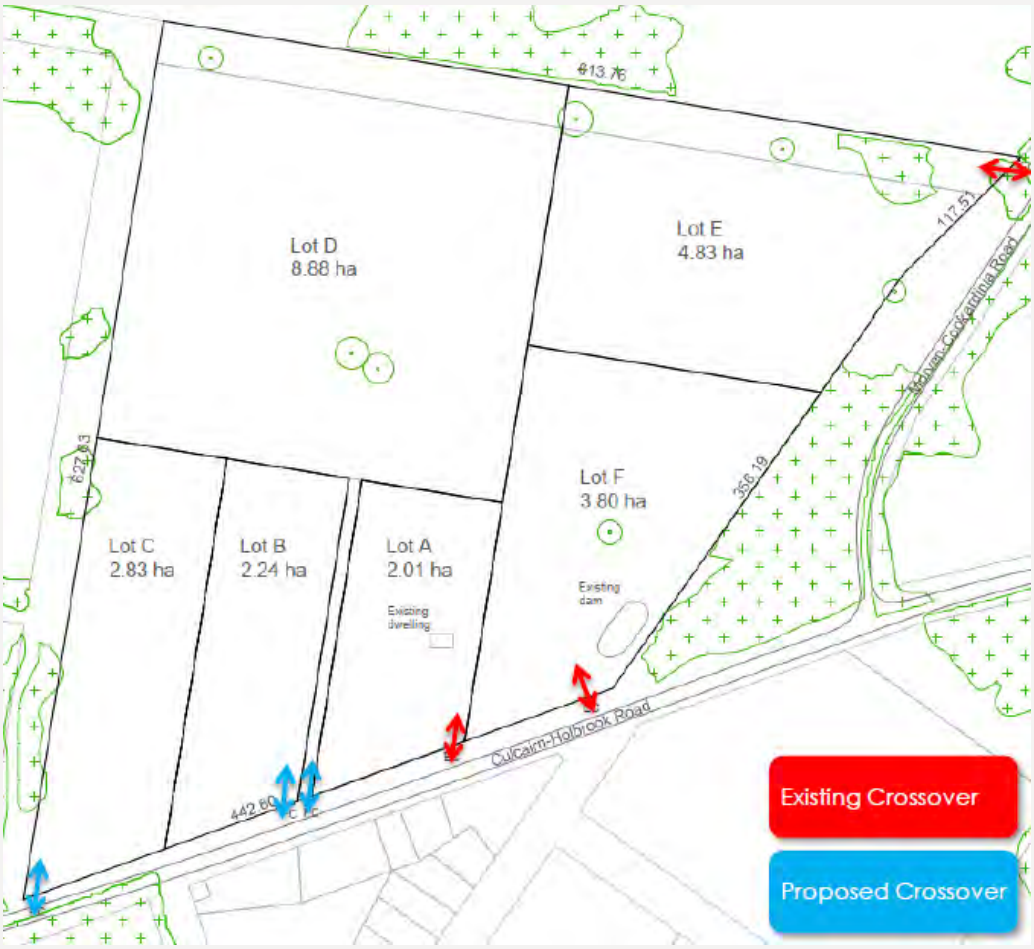


Figure 29 - New and existing crossovers (onemilegrid)

4. Consultation and Timeline

4.1. Community Consultation

The Planning Proposal will be exhibited in accordance with the requirements of Part 1, Division 1, Clause 4 of Schedule 1 of the EP&A Act, the NSW Department of Planning and Environment's: A Guide to Preparing Local Environmental Plans and any conditions of the Gateway Determination (to be issued).

As the Planning Proposal is categorised as a 'standard' proposal, it expected to be placed on public exhibition for 20 days or as otherwise outlined in Council's Community Participation Plan.

Written notification of the community consultation will be provided in a local newspaper and on Councils' website. In addition to this, any affected landowner/s adjoining the subject land will be notified in writing, as well as any Public Authorities, Government Agencies and other key stakeholders as determined by the Gateway Determination.

The future consultation process is expected to include:

- written notification to affected landowners (where practical).
- public notices to be provided in local media, including in a local newspaper and on Councils' website.
- static displays of the Planning Proposal and supporting material in Council public buildings; and
- electronic copies of all documentation being made available to the community free of charge (preferably via downloads from Council's website).

The written notice will contain:

- a brief description of the intended outcomes of the Planning Proposal.
- an indication of the land which is affected by the proposal.
- information on where and when the Planning Proposal can be inspected.
- the name and address of Council for the receipt of submissions.
- the closing date for submissions; and
- confirmation whether the Minister has chosen to delegate Plan Making powers to Council.

During the public exhibition period the following documents will be placed on public exhibition:

- the Planning Proposal.
- the Gateway Determination.
- any technical information relied upon by the Planning Proposal.
- relevant council reports.

An electronic copy of all of the above information to be placed on public exhibition will be made available to the public free of charge.

At the conclusion of the public exhibition period Council staff will consider submissions made with respect to the Planning Proposal and will prepare a report to Council.

4.2. Project Timeline

The project timeline for the Planning Proposal is outlined in Table 4.

It is noted however, that there are many factors that can influence compliance with the timeframe including Council staffing resources, the cycle of Council meetings and submissions received, and issues raised. Consequently, the timeframe should be regarded as indicative only.

Table 4 – Project Timeline (indicative)

Project Milestone	Anticipated Timeframe
Lodgement Lodge Planning Proposal with council and make any necessary adjustments or changes prior to council accepting the plan.	2 weeks for council to review and provide any comments regarding the submitted Planning Proposal and for the report to be updated.
Council Report (seeking Gateway Determination) Council planning officers to prepare a report to council seeking council endorsement of the Planning Proposal and referral to the NSW DPIE seeking the issuing of a Gateway Determination.	2 weeks to prepare council report and include on council agenda.
Request Gateway Determination Council to request a Gateway Determination from the NSW Department of Planning to proceed to Planning Proposal to public exhibition (including any delegation of plan-making powers to council)	2 weeks following Council resolution and request for a Gateway determination
Public Exhibition Undertake public exhibition of Planning Proposal in accordance with the conditions of the Gateway Determination.	2 weeks to prepare and place a public notice in the paper and 4 weeks to publicly exhibit the Planning Proposal.
Consider Submissions & Finalise Document Council planning officers to consider, respond and report on submissions received and issues raised (if any) and where necessary, recommended relevant changes to the Planning Proposal.	2 weeks to collate, consider and respond to submissions received (if any).
Council Report (consideration of submissions) Council planning officers to prepare a report to council post public exhibition that considers any submissions received.	4 weeks to prepare council report and include on council agenda.
Submission to NSW DPIE/Parliamentary Counsel Forward Planning Proposal to NSW DPE/Parliamentary Counsel (if delegated) for finalisation following public exhibition.	4 weeks

Notification Finalisation/gazettal of Planning Proposal	2 weeks

5. Conclusion

This Planning Proposal Scoping Report has been prepared by Habitat Planning and is submitted to Greater Hume Shire Council in support of a Planning Proposal to amend the *Greater Hume Local Environmental Plan 2012* (LEP) as it applies to the land addressed as 2028 Culcairn-Holbrook Road, Morven and Morven-Cookardinia Road, Morven

In order to achieve this outcome, the Planning Proposal seeks to:

- Change the Land Zoning Map of the *Greater Hume Local Environmental Plan 2012* in relation Lots 136, 137 and 138 in DP753751 to change the zoning from **RU4 Primary Production Small Lots** to **R5 Large Lot Residential**
- Change the Lot Size Map of the *Greater Hume Local Environmental Plan 2012* in relation Lots 136, 137 and 138 in DP753751 to change the minimum lot area from **8 hectares** to **2 hectares**
- Change the Land Zoning Map of the *Greater Hume Local Environmental Plan 2012* in relation Lot 1 in DP 240321 to change the zoning from **RU4 Primary Production Small Lots** to **R5 Large Lot Residential**
- Change the Lot Size Map of the *Greater Hume Local Environmental Plan 2012* in relation Lot 1 in DP 240321 to change the minimum lot area from 100 **hectares** to **2 hectares.**

In this instance, the Planning Proposal is sought in response to the opportunities presented for the site to accommodate future large lot residential growth opportunities and support the surrounding village areas (particularly Culcairn) as a large lot commuter village.

The outcome is not directly the result of a local strategic planning statement, strategic study or report, however it is noted that the LSPS has identified Morven as a key short term opportunity site to accommodate growth to ensure Greater Hume achieves the envisaged population increases.

This outcome is broadly in line with the key strategic planning principles and a long term urban outcome that is derived for physical conditions of the land.

The Planning Proposal has strategic merit and is in the public interest for the following reasons:

- The proposal is generally consistent with the strategic planning framework including State, Regional and local planning strategies for Greater Hume Shire.
- It is considered that Morven provides an ‘rural living’ extension to the Culcairn village area, in that it is offers lifestyle opportunities in close proximity to a main village area;
- There is demand for larger lot residential properties within Morven, given its close proximity to Culcairn and ease of access to major transport corridors to larger regional centres
- There is an opportunity for the land to utilised in a form that is expected to better represent the long-term requirements for the Morven township.
- The subject land is well placed to integrate with the core urban area of the Morven township, and represents a transition from the higher density lots to rural land beyond.

It is recommended that Greater Hume Shire Council resolve to support the changes to the LEP as detailed in this Planning Proposal.

Appendix A: Scoping Report

Appendix B: Consistency with Riverina-Murray Regional Plan 2041

Table 5 – Consistency with Riverina-Murray Regional Plan 2041

Part, Objective and Actions	Relevance to Planning Proposal	Consistency
Part 1 – Environment		
Objective 1 – Protect, connect and enhance biodiversity throughout the region.	The proposal and eventual subdivision will increase density in Morven, though is restricted to areas already zoned for urban and peri-urban residential development.	While acknowledging the land zoning, the proposal seeks to minimise any impacts on environmentally significant land. Sites will be subject to the relevant biodiversity assessment and the proposal will adhere to the recommendations.
Objective 2 – Manage development impacts within riverine environments	The subject sites do not adjoin any waterways.	N/A
Objective 3 – Increase natural hazard resilience	The subject site is not known to be at risk from Bushfire. Morven is within the Billabong Creek catchment area and is subject to overland flooding and drainage	Future residential development on the subject sites is not expected to increase risk to natural hazards. A Flood Risk Analysis has been undertaken (Appendix E) and is generally supportive of Large Lot Residential development and recommends a floor level of 500mm above freeboard.
Part 2 – Communities and places		
Objective 4 – Support Aboriginal aspirations through land use planning.	Not yet applicable, as the subject land is not known to contain any culturally significant land.	In the absence of any broader strategy for the area, the proposal will adhere to current legislation. Consideration of matters regarding Aboriginal Cultural Heritage is

Part, Objective and Actions	Relevance to Planning Proposal	Consistency
		required under the NSW *National Parks and Wildlife Act 1974.*
Objective 5 – Ensure housing supply, diversity, affordability and resilience.	This planning proposal seeks primarily to create more residential land availability throughout the Morven village.	This objective has been considered through the development of the Greater Hume Local Housing and Employment Strategy.
Objective 6 – Support housing in regional cities and their sub-regions	Morven is considered part of a 'sub-region'	Morven is not identified as a regional city, but rather forms part of the sub-regions, with proximity to both Wagga Wagga and Albury.
Objective 7 – Provide for appropriate rural residential development.	The proposal seeks to provide rural residential development.	The proposal seeks to provide more affordable and manageably sized R5 Large Lot Residential lots. The subject sites are located in areas zoned for peri-urban residential use.
Objective 8 – Provide for short-term accommodation	Not applicable.	Not applicable
Objective 9 – Plan for resilient places that respect local character	Not applicable	Not applicable

Part, Objective and Actions	Relevance to Planning Proposal	Consistency
Objective 10 – Improve connections between Murray River communities	Not relevant, as the proposal doesn't relate to connections between Murray River Communities.	Not applicable
Objective 11 – Plan for integrated and resilient utility infrastructure.	At a local level, the proposal may require some augmentation of local infrastructural networks.	Water is supplied to Morven from Riverina Water and Electricity from Essential Energy networks. Sewage will likely be treated onsite, and connection to any services can be proposed at subdivision/DA stage.
Part 3 - Economy		
Objective 12 – Strategically plan for rural industries	Not applicable	Not applicable
Objective 13 – Support the transition to net zero by 2050	Not relevant, as the proposal does not relate to energy use.	Not applicable
Objective 14 – Protecting and promoting industrial and manufacturing land	Not applicable	Not applicable
Objective 15 – Support the economic vitality of CBDs and main streets	Not applicable	Not applicable

Part, Objective and Actions	Relevance to Planning Proposal	Consistency
Objective 16 – Support the visitor economy	Not relevant, as the proposal does not relate to tourism.	Not applicable
Objective 17 – Strategically plan for health and education precincts	Not relevant as the proposal does not relate to health and education precincts.	Not applicable
Objective 18 – Integrate transport and land use planning	Yes, as the planning proposal will impact existing traffic networks.	At a local level, the Planning Proposal is consistent with this objective as it utilises and consolidates existing infrastructure.

Appendix C: Consistency with State Environmental Planning Policies

Table 6 – Consistency with State Environmental Planning Policies

Policy	Applicable to Planning Proposal	Consistency
State Environmental Planning Policy (Biodiversity and Conservation) 2021		
Chapter 2 – Vegetation in non-rural areas	Not applicable	Not applicable
Chapter 3 – Koala habitat protection 2020	Not applicable.	Not applicable.
Chapter 4 – Koala habitat protection 2021	Not applicable.	Not applicable.
Chapter 5 – River Murray lands	Not applicable.	Not applicable.
Chapter 6 – Bushland in urban areas	Not applicable.	Not applicable.
Chapter 7 – Canal estate development	Not applicable.	Not applicable.
Chapter 8 – Sydney drinking water catchment	Not applicable.	Not applicable.
Chapter 9 – Hawkesbury-Nepean River	Not applicable.	Not applicable.

Policy	Applicable to Planning Proposal	Consistency
Chapter 10 – Sydney Harbour Catchment	Not applicable.	Not applicable.
Chapter 11 – Georges River Catchment	Not applicable.	Not applicable.
Chapter 12 – Willandra Lakes Region World Heritage Property	Not applicable.	Not applicable.
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	Applies to all land in the State.	Not applicable to the current Planning Proposal.
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008	Applies to all land in the State.	The Planning Proposal does not conflict with the aims and functions of this SEPP with respect to exempt and complying development provisions.
State Environmental Planning Policy (Housing) 2021		
Chapter 2 – Affordable housing	Applies to all land in the State.	The subject Planning Proposal does not derogate from the aims and objectives of this State Environmental Planning Policy.

Policy	Applicable to Planning Proposal	Consistency
Chapter 3 – Diverse housing	Applies to all land in the State.	The subject Planning Proposal does not derogate from the aims and objectives of this State Environmental Planning Policy.
State Environmental Planning Policy (Industry and Employment) 2021		
Chapter 2 – Western Sydney employment area	Not applicable.	Not applicable.
Chapter 3 – Advertising and signage	Applies to all land in the State.	Not applicable
State Environmental Planning Policy No. 65 – Design Quality of Residential Apartments	Applies to all land in the State.	Not applicable to the current Planning Proposal.
State Environmental Planning Policy (Planning Systems) 2021		
Chapter 2 – State and Regional Development	Applies to all land in the State.	Not applicable to the current Planning Proposal.
Chapter 3 – Aboriginal land	Not applicable.	Not applicable.
Chapter 4 – Concurrences and consents	Applies to all land in the State.	Not applicable to the current Planning Proposal.

Policy	Applicable to Planning Proposal	Consistency
State Environmental Planning Policy (Precincts – Central River City) 2021		
Chapter 2 – State significant precincts	Applies to all land in the State.	Not applicable to the current Planning Proposal.
Chapter 3 – Sydney region growth centres	Not applicable.	Not applicable.
Chapter 4 – Homebush Bay area	Not applicable.	Not applicable.
Chapter 5 – Kurnell Peninsula	Not applicable.	Not applicable.
Chapter 6 – Urban renewal precincts	Not applicable.	Not applicable.
State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021		
Chapter 2 – State significant precincts	Applies to all land in the State.	Not applicable to the current Planning Proposal.
Chapter 3 – Darling Harbour	Not applicable.	Not applicable.
Chapter 4 – City West	Not applicable.	Not applicable.

Policy	Applicable to Planning Proposal	Consistency
Chapter 5 – Walsh Bay	Not applicable.	Not applicable.
Chapter 6 – Cooks Cove	Not applicable.	Not applicable.
Chapter 7 – Moore Park Showground	Not applicable.	Not applicable.
State Environmental Planning Policy (Precincts – Regional) 2021		
Chapter 2 – State significant precincts	Applies to all land in the State.	Not applicable to the current Planning Proposal.
Chapter 3 – Activation precincts	Not applicable.	Not applicable.
Chapter 4 – Kosciuszko National Park and alpine resorts	Not applicable.	Not applicable.
Chapter 5 – Gosford city centre	Not applicable.	Not applicable.
State Environmental Planning Policy (Precincts – Western Parkland City) 2021		
Chapter 2 – State significant precincts	Applies to all land in the State.	Not applicable to the current Planning Proposal.

Policy	Applicable to Planning Proposal	Consistency
Chapter 3 – Sydney region growth centres	Not applicable.	Not applicable.
Chapter 4 – Western Sydney Aerotropolis	Not applicable.	Not applicable.
Chapter 5 – Penrith Lakes Scheme	Not applicable.	Not applicable.
Chapter 6 – St Mary's	Not applicable.	Not applicable.
Chapter 7 – Western Sydney Parklands	Not applicable.	Not applicable.
State Environmental Planning Policy (Primary Production) 2021		
Chapter 2 – Primary production and rural development	Not applicable as the subject land has not been identified as state significant agricultural land on the draft SSAL Map prepared by NSW DPI.	Not applicable.
Chapter 3 – Central Coast plateau areas	Not applicable.	Not applicable.
State Environmental Planning Policy (Resilience and Hazards) 2021		

Policy	Applicable to Planning Proposal	Consistency
Chapter 2 – Coastal management	Not applicable.	Not applicable.
Chapter 3 – Hazardous and offensive development	Applies to all land in the State.	Not applicable to the current Planning Proposal.
Chapter 4 – Remediation of land	Applies to all land in the State.	Not applicable to the current Planning Proposal. Specific consideration of this SEPP will be undertaken as part of any subsequent Development Applications for infill development.
State Environmental Planning Policy (Resources and Energy) 2021		
Chapter 2 – Mining, petroleum production and extractive industries	Applies to all land in the State.	The Planning Proposal does not conflict with the aims, permissibility, development assessment requirements relating to mining, petroleum production and extractive industries as provided for in the SEPP.
Chapter 3 – Extractive industries in Sydney area	Not applicable.	Not applicable.
State Environmental Planning Policy (Sustainable Buildings) 2022		
Chapter 2 – Standards for residential development - BASIX	Applies to all land in the State.	The Planning Proposal does not conflict with the aims, permissibility, development consent, assessment and consultation requirements,

Policy	Applicable to Planning Proposal	Consistency
		capacity to undertake additional uses, adjacent, exempt and complying development provisions as provided in the SEPP.
Chapter 3 – Standards for non-residential development	Not applicable.	Though not applicable to the planning proposal, consideration of the SEPP may be required when assessing proposed developments for the site.
Chapter 4 - Miscellaneous	Not applicable.	Not applicable.
State Environmental Planning Policy (Transport and Infrastructure) 2021		
Chapter 2 – Infrastructure	Applies to all land in the State.	The Planning Proposal does not conflict with the aims, permissibility, development consent, assessment and consultation requirements, capacity to undertake additional uses, adjacent, exempt and complying development provisions as provided in the SEPP.
Chapter 3 – Educational establishments and child care facilities	Applies to all land in the State.	Not applicable to the current Planning Proposal.
Chapter 4 – Major infrastructure corridors	Not applicable.	Not applicable.

Policy	Applicable to Planning Proposal	Consistency
Chapter 5 – Three ports – Port Botany, Port Kembla and Newcastle	Not applicable.	Not applicable.
Draft State Environmental Planning Policies		
Corridor Protection SEPP	Not applicable.	Not applicable.

Appendix D: Consistency with Section 9.1 Ministerial Directions

Table 7 – Consistency with Ministerial Directions

No.	Title	Applicable to Planning Proposal	Consistency
1.	**Planning Systems**		
1.1	Implementation of Regional Plans	Yes, as this Direction applies to all Planning Proposals that apply to land where a Regional Plan has been prepared.	The Planning Proposal is consistent with the goals, directions and actions as contained within the *Riverina Murray Regional Plan 2041*. A full response in relation to this Regional Plan has been provided as **Appendix B.**
1.2	Development of Aboriginal Land Council Land	Not applicable, as the subject land is not identified on the Land Application Map of *State Environmental Planning Policy (Aboriginal Land) 2019*	Not applicable.
1.3	Approval and Referral Requirements	Yes, as this Direction applies to all Planning Proposals.	The Planning Proposal is consistent with this direction because it does not propose any referral or concurrence requirements or nominate any development as 'designated development'.
1.4	Site Specific Provisions	Not applicable, as the Planning Proposal does not seek to create any site specific provisions.	Not applicable.
1.	**Planning Systems – Place Based**		

No.	Title	Applicable to Planning Proposal	Consistency
1.5	Parramatta Road Corridor Urban Transformation Strategy	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.6	Implementation of North West Priority Growth Area Land Use and Infrastructure Implementation Plan	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.7	Implementation of Greater Parramatta Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.8	Implementation of Wilton Priority Growth Area Interim Land Use and Infrastructure Implementation Plan	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.9	Implementation of Glenfield to Macarthur Urban Renewal Corridor	Not applicable to the Greater Hume Local Government Area.	Not applicable.

No.	Title	Applicable to Planning Proposal	Consistency
1.10	Implementation of Western Sydney Aerotropolis Plan	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.11	Implementation of Bayside West Precincts 2036 Plan	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.12	Implementation of Planning Principles for the Cooks Cove Precinct	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.13	Implementation of St Leonards and Crows Nest 2036 Plan	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.14	Implementation of Greater Macarthur 2040	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.15	Implementation of the Pyrmont Peninsula Place Strategy	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.16	North West Rail Link Corridor Strategy	Not applicable to the Greater Hume Local Government Area.	Not applicable.

No.	Title	Applicable to Planning Proposal	Consistency
1.17	Implementation of Bays West Place Strategy	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.18	Implementation of the Macquarie Park Innovation Precinct	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.19	Implementation of the Westmead Place Strategy	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.20	Implementation of the Camellia-Rosehill Place Strategy	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.21	Implementation of South West Growth Area Structure Plan	Not applicable to the Greater Hume Local Government Area.	Not applicable.
1.22	Implementation of the Cherrybrook Station Place Strategy	Not applicable to the Greater Hume Local Government Area.	Not applicable.

No.	Title	Applicable to Planning Proposal	Consistency
Design and Place [This Focus Area was blank when the Directions were made]			
Nil			
Biodiversity and Conservation			
3.1	Conservation Zones	Yes, as this Direction applies to all Planning Proposals.	This planning proposal does not apply to land within a conservation zone or land otherwise identified for conservation/protection purposes.
3.2	Heritage Conservation	Yes, as this Direction applies to all Planning Proposals.	The Planning Proposal is consistent with this direction because it does not affect existing provisions within LEP relating to the protection of known European and Aboriginal heritage.
3.3	Sydney Drinking Water Catchment	Not applicable to the Greater Hume Local Government Area.	Not applicable.
3.4	Application of C2 and C3 Zones and Environmental Overlays in Far North Coast LEPs.	Not applicable to the Greater Hume Local Government Area.	Not applicable.

No.	Title	Applicable to Planning Proposal	Consistency
3.5	Recreation Vehicle Areas	Yes, as this Direction applies to all Planning Proposals.	The Planning Proposal is consistent with this direction as the land will not be developed for the purpose of a recreational vehicle area (within the meaning of the *Recreation Vehicles Act 1983*)
3.6	Strategic Conservation Planning	Not applicable, as the land is not identified as avoided land or a strategic conservation area under *State Environmental Planning Policy (Biodiversity and Conservation) 2021.*	Not applicable.
3.7	Public Bushland	Not applicable to the Greater Hume Local Government Area.	Not applicable.
3.8	Willandra Lakes Region	Not applicable to the Greater Hume Local Government Area.	Not applicable.
3.9	Sydney Harbour Foreshores and Waterways Area	Not applicable to the Greater Hume Local Government Area.	Not applicable.
3.10	Water Catchment Protection	Not applicable to the Greater Hume Local Government Area.	Not applicable.

No.	Title	Applicable to Planning Proposal	Consistency
Resilience and Hazards			
4.1	Flooding	The subject site experiences overland flooding and drainage.	Following the scoping report a Flood Risk Assessment was prepared, which concluded: • *"The flood depths and hazards are generally low across the site, and it is concluded that the proposed low-density residential development is appropriate from a floodplain management perspective, provided that the recommended flood mitigation measures, such as minimum floor levels, are implemented.* • *A freeboard of 500mm above the applicable 1% AEP flood level is recommended for the (a) proposed dwelling. Specific levels can be provided once building footprint locations are known.* • *A sensitivity analysis on Billabong Creek has been conducted and shows the site is not impacted in the 1% AEP by Billabong Creek"* Refer to Appendix E.
4.2	Coastal Management	Not applicable as the subject land is not located in a coastal management area.	Not applicable.
4.3	Planning for Bushfire Protection	Not applicable.	The site is not subject to mapped bushfire risk and is generally devoid of significant vegetation, having been historically used for primary production. Noting Council has

No.	Title	Applicable to Planning Proposal	Consistency
			not yet mapped Vegetation Category 3 (Grassland), the bushfire risk to proposed dwellings can be specifically assessed at a DA stage.
4.4	Remediation of Contaminated Land	A Section 10.7 Planning Certificate (Certificate No: 5854) was obtained from Council on 6 May 2024 and the certificate states the site has no matters prescribed within the meaning of the Contaminated Land Management Act 1997.	At the request of Council, a Preliminary Site Investigation (PSI) was undertaken in accordance with relevant guidelines and legislation, concluding: • *"Based on the findings of the PSI, it is concluded that contamination is potentially present and the information available is insufficient to enable an appropriate level of site-specific risk assessment for future development. As such further investigation and assessment is required."* • *"… however the identified potential contamination sources do not preclude the proposed rezoning."* Refer to Appendix I.
4.5	Acid Sulphate Soils	Not applicable, as the subject land is not identified as containing acid sulphate soils.	Not applicable.
4.6	Mine Subsidence & Unstable Land	Not applicable, as the subject land is not within a Mine Subsistence District.	Not applicable.
Transport and Infrastructure			

No.	Title	Applicable to Planning Proposal	Consistency
5.1	Integrating Land Use and Transport	Yes, as the Planning Proposal relates to urban land.	The land is to be urban zoned and developed; the further development/ intensification of this land is not expected to have an adverse impact on the established road network. Despite the scarce provision of public/active transport availability throughout Greater Hume LGA, the proposal seeks to consolidate residential land use and support their viable operation in the future. The Planning Proposal does not conflict with the aims or objectives of the two reference Transport studies outlined in this Direction.
5.2	Reserving Land for Public Purposes	Yes, as this Direction applies to all Planning Proposals.	The Planning Proposal is consistent with this Direction because it does not create, alter or reduce any provisions relating to land for public acquisition purposes.
5.3	Development Near Regulated Airports and Defence Airfields	Not applicable, the planning proposal does not seek to create, alter or remove a zone or a provision relating to land near a regulated airport which includes a defence airfield.	Not applicable.
5.4	Shooting Ranges	Not applicable, as the subject land is not located in the vicinity of a shooting range.	Not applicable.
Housing			

No.	Title	Applicable to Planning Proposal	Consistency
6.1	Residential Zones	The planning proposal relates to residential land zones.	• The planning proposal seeks to provide further residential land within the already defined urban areas of Morven. • The subject site, demographics and broader planning milieu has been investigated through the scoping report • The proposal seeks to broaden the choice of building typologies and locations Morven. • The proposal makes use of existing infrastructure.
6.2	Caravan Parks & Manufactured Home Estates	Yes, as this Direction applies to all Planning Proposals.	The Planning Proposal is consistent with this Direction as it does not reduce the opportunities for caravan parks and manufactured homes within the Greater Hume LGA
Industry and Employment			
7.1	Business and Industrial Zones	Not applicable.	Not applicable
7.2	Reduction in non-hosted short term rental accommodation period	Not applicable.	Not applicable.

No.	Title	Applicable to Planning Proposal	Consistency
7.3	Commercial and Retail Development along the Pacific Highway, North Coast	Not applicable, as the subject land is not located within proximity to the Pacific Highway.	Not applicable.
Resources and Energy			
8.1	Mining, Petroleum Production and Extractive Industries	Not applicable as the Planning Proposal does not impact on mining, petroleum or extractive industries.	The subject planning proposal will not (a) prohibit the mining of coal or other minerals, production of petroleum, or winning or obtaining of extractive materials, or (b) restrict the potential development of resources of coal, other minerals, petroleum or extractive materials which are of State or regional significance by permitting a land use that is likely to be incompatible with such development.
Primary Production			
9.1	Rural Zones	Applicable to this planning proposal	Not applicable.
9.2	Rural Lands	Not applicable, does not apply to the Greater Hume Local Government Area.	Not applicable.

No.	Title	Applicable to Planning Proposal	Consistency
9.3	Oyster Aquaculture	Not applicable as the subject site is not identified as a 'Priority Oyster Aquaculture Area' and is not identified in the *NSW Oyster Industry Sustainable Aquaculture Strategy* (2006)	Not applicable.
9.4	Farmland of State & Regional Significance on the NSW Far North Coast	Not applicable, does not apply to the Greater Hume Local Government Area.	Not applicable.

Appendix E: Flood Impact Assessment

Appendix F: Aboriginal Due Diligence Assessment

Appendix G: Traffic Impact Assessment

Appendix H: Lot Layout

Appendix I: Preliminary Site Investigation

31 July 2024

Colin Kane, Director Environment and Planning
Greater Hume Council
PO Box 99
Holbrook NSW 2644

Via Email, NSW Planning Portal

Dear Colin,

Re: Aboriginal Heritage Due Diligence Assessment
Lots 136, 137 and 138 in DP753751 and Lot 1 in DP 240321 addressed as 2028 Culcairn-Holbrook Road, Morven

This letter seeks to provide a Due Diligence Assessment in accordance with Section 8 of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* in support of a planning proposal for an amendment to the Greater Hume Shire Local Environmental Plan 2012 (LEP). In particular, the proposal seeks to rezone the subject site from RU4 Primary Production Small Lot Zone and RU1 Primary Production Zone to R5 Large Lot Residential Zone. Additionally, the proposal seeks to reduce the minimum lot size of from 8ha/100ha to 2ha.

1. Due Diligence Assessment

The Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (Code of Practice) was introduced in September 2010. It outlines a method to undertake 'reasonable and practical' steps to determine whether a proposed activity has the potential to harm Aboriginal objects within the subject area, and thereby determine whether an application for an Aboriginal Heritage Impact Permit (AHIP) is required.

The planning proposal and resulting LEP amendment will not necessitate any ground disturbance, though subsequent development applications for residential construction may.

Section 8 of these guidelines sets out the generic due diligence process. The provisions of Section 8 of the Due Diligence Code of Practice are addressed in the following table:

Table 1 Due diligence assessment (adapted from Section 8 of the Due Diligence Code of Practice)

Step	Response
Step 1 – Will the activity disturb the ground surface or any culturally modified trees?	There will be some ground disturbance associated with the eventual construction of a dwelling, however the majority of likely disturbance has already been made by the historical agricultural production on the site. For the purposes of the planning proposal and rezoning, no ground disturbance will occur. There are no culturally modified trees known to be on the subject land.

Step 2a – Search the AHIMS database and use any other sources of information of which you are already aware	There are no recorded aboriginal archaeological sites on the AHIMS database or on the Heritage Map in the LEP within 1km of the subject land. A copy of the AHIMS report is attached.
Step 2b – Activities in areas where landscape features indicate the presence of Aboriginal objects	The subject land is located approximately 1km north of Billabong Creek, which is an identified and known landscape feature that is known to be host to traditional landowners and Wiradjuri people. Notwithstanding, the area of proposed works has been highly modified by agricultural activity, is greater than 200m from the creek and is not expected to contain any items of Aboriginal cultural significance.
Step 3 – Can you avoid harm to the object or disturbance of the landscape feature?	As outlined above, the subject site is already highly modified by agricultural activity. It is not expected to contain any items of Aboriginal cultural significance that warrant avoiding.
Step 4 – Desktop assessment and visual inspection	Not applicable. As above.
Step 5 – Further investigations and impact assessment	Not required

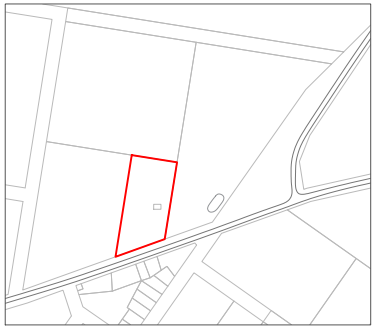
The due diligence assessment above considers the proposal is not likely to adversely affect any potential sites of Aboriginal Cultural Heritage. The land is considered highly disturbed and devoid of features that would signify occupation or would warrant further investigation.

While no application for an Aboriginal Heritage Impact Permit is deemed necessary at this stage, in accordance with the Code of Practice, any works should proceed with caution. In the event the applicant does identify or uncover an Aboriginal object during works, the items must be left in place and assessed by an appropriately qualified professional.

Should you have any queries please contact the undersigned directly on 6021 0662 or ashley@habitatplanning.com.au.

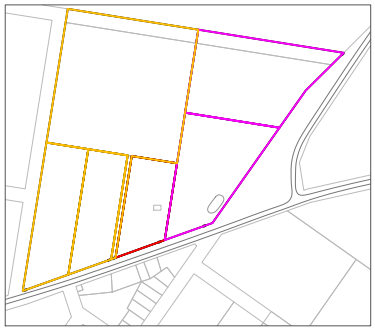
Ashley Mackey
Consultant

Lot Layout



Stage 1 - Lot A

Stage 2 - Lots B, C + D



Stage 3 - Lots E + F

Staging Diagram

Mapped Plant Community Type
277 - Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion

Proposed Lot Boundaries
Existing Lot Boundaries

PC Proposed Crossover
EC Existing Crossover

Morven-Cookardinia Road
Planning Proposal
Lot Layout
REV A | JUL24

habitat
Town planning + Urban design consultants

ANNEXURE 4

2028 Culcairn-Holbrook Road, Morven

Transport Impact Assessment

240243TIA001B-F

5 August 2024

onemilegrid

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www.onemilegrid.com.au

DOCUMENT INFORMATION

Prepared for	Habitat Planning		
File Name	240243TIA001B-F	Report Date	5 August 2024
Prepared by	JAR	Reviewed by	VPG

onemilegrid operates from Wurundjeri Woiworung Country of the Kulin nation. We acknowledge and extend our appreciation to the Wurundjeri People, the Traditional Owners of the land. We pay our respects to leaders and Elders past, present and emerging for they hold the memories, the traditions, the culture, and the hopes of all Wurundjeri Peoples.

CONTENTS

TABLES

FIGURES

1 INTRODUCTION

onemilegrid has been requested by Habitat Planning to undertake a Transport Impact Assessment of the proposed rezoning application to allow for development of the land at 2028 Culcairn-Holbrook Road, Morven for the purposes of a residential subdivision.

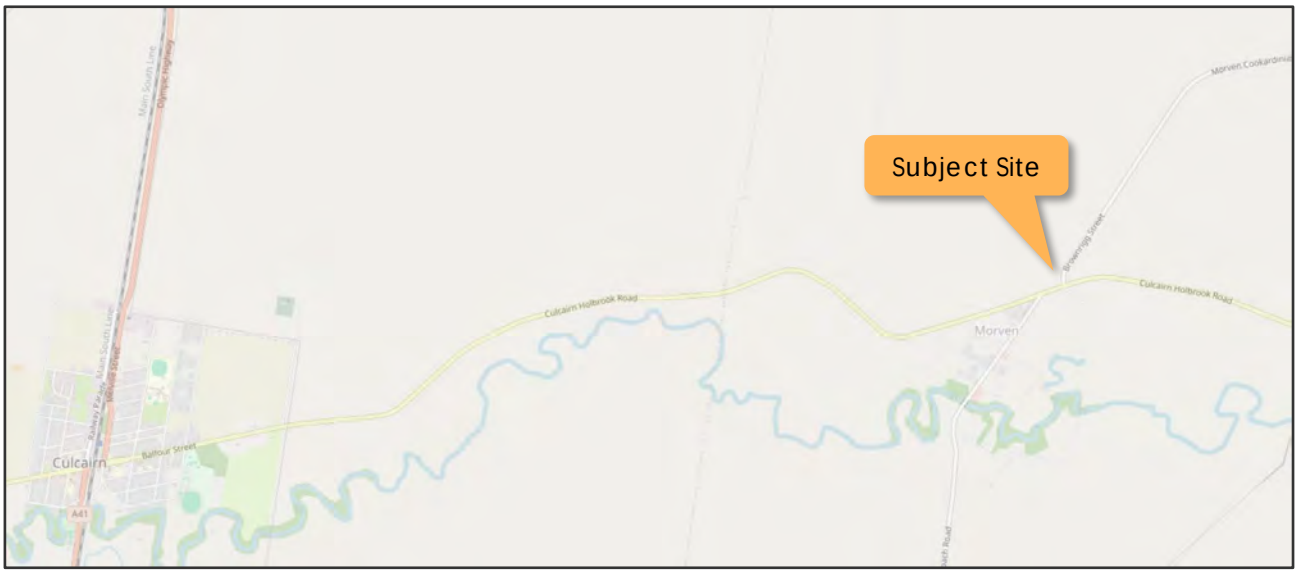
As part of this assessment the subject site has been inspected with due consideration of the development proposal, and relevant background information has been reviewed.

2 EXISTING CONDITIONS

2.1 Site Location

The subject site is addressed as 2028 Culcairn-Holbrook Road, Morven, and is located on the north side of Culcairn-Holbrook Road, with the road reserve for Morven-Cookardinia Road located on the eastern boundary of the site as shown in Figure 1.

Figure 1 Site Location



Source: OpenStreetMap

The site is currently occupied by a single dwelling located on the southern portion of the lot, accessed via a crossover to Culcairn-Holbrook Road. The site primarily accommodates rural land, with land surrounding the site generally the same use. The Morven township is located to the south of the subject site, which is characterised by low density residential dwellings.

Access to the site is currently available in three locations, with two unsealed crossovers provided to Culcairn-Holbrook Road, and one unsealed crossover provided in the north-east corner of the site to Morven-Cookardinia Road.

An aerial view of the subject site is provided in Figure 2.

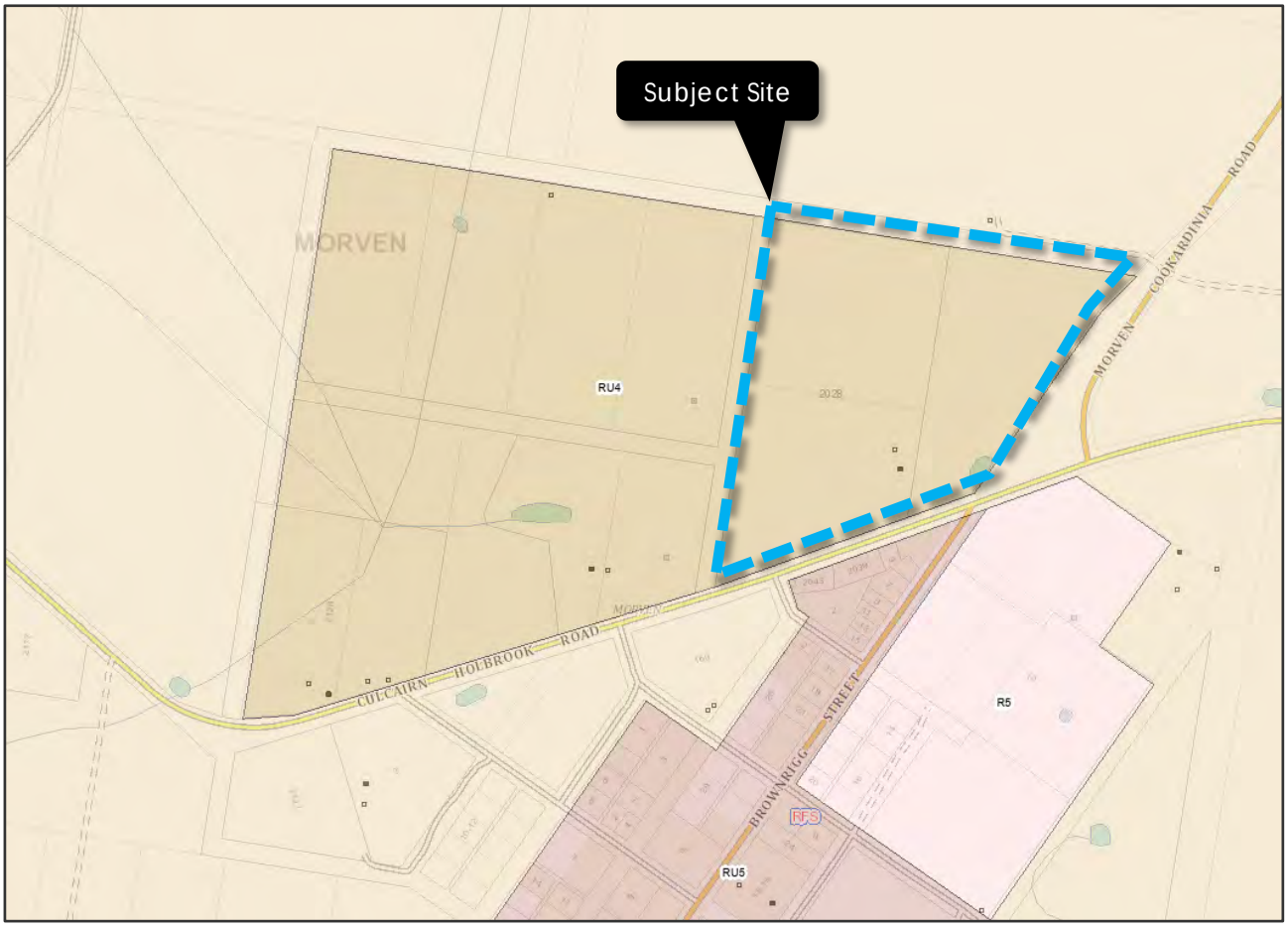
Figure 2 Site Context

Copyright Apple Maps

2.2 Planning Zones and Overlays

It is shown in Figure 1 the site is currently located within a rural zone (RU4), for which the permitted uses are listed in the Land Use Table of the Greater Hume Local Environmental Plan.

Figure 3 Local Environment Plan Zones



Additionally, the site abuts Culcairn-Holbrook Road, which is classified as a Regional Road controlled by Transport for NSW.

2.3 Road Network

2.3.1 Culcairn-Holbrook Road

Culcairn-Holbrook Road is a regional road generally aligned east-west, changing name to Young Street in the town of Holbrook in the east, and to Balfour Street in the town of Culcairn in the west. Culcairn-Holbrook Road provides a single traffic lane in each direction, with wide largely unvegetated verges either side of the carriageway adjacent to the site.

The cross-section of Culcairn-Holbrook Road at the frontage of the site is shown in Figure 4.

Figure 4 Culcairn-Holbrook Road, looking west adjacent to the subject site

Copyright Google (Image date: October 2023)

An 80 km/h speed limit generally applies to Culcairn-Holbrook Road in the vicinity of the site, with a speed limit sign adjacent the site increasing the speed limit to 100 km/hr east of the site.

2.3.2 Morven-Cookardinia Road

Morven-Cookardinia Road is a local road generally aligned north-south, running between Culcairn-Holbrook Road in the south, and Holbrook Wagga Road in the north. Morven-Cookardinia Road provides a single traffic lane in each direction adjacent to the site.

The cross-section of Morven-Cookardinia Road at the frontage of the site is shown in Figure 5.

Figure 5 Morven-Cookardinia Road, looking north adjacent to the subject site

Copyright Google (Image date: July 2022)

The default 100 km/h speed limit applies to Morven-Cookardinia Road in the vicinity of the site.

2.4 Traffic Volumes

Traffic Volume information for Culcairn-Holbrook Road was obtained via Transport for NSW's Traffic Volume Viewer. Review of the limited available data suggests that traffic volumes in 2010 were marginally lower than volumes observed in 2006. Regardless, for the purposes of a conservative estimate of the current volumes, growth rates of 3% per year (compound) have been applied to the traffic volumes provided for 2010 over a 14-year period, equivalent to a 51% increase. The estimated traffic volumes are shown below in Table 1.

Table 1 Culcairn-Holbrook Road Estimated Traffic Volumes

Direction	*Daily*
Eastbound	540 vpd
Westbound	542 vpd
Total	1,082 vpd

3 DEVELOPMENT PROPOSAL

3.1 General

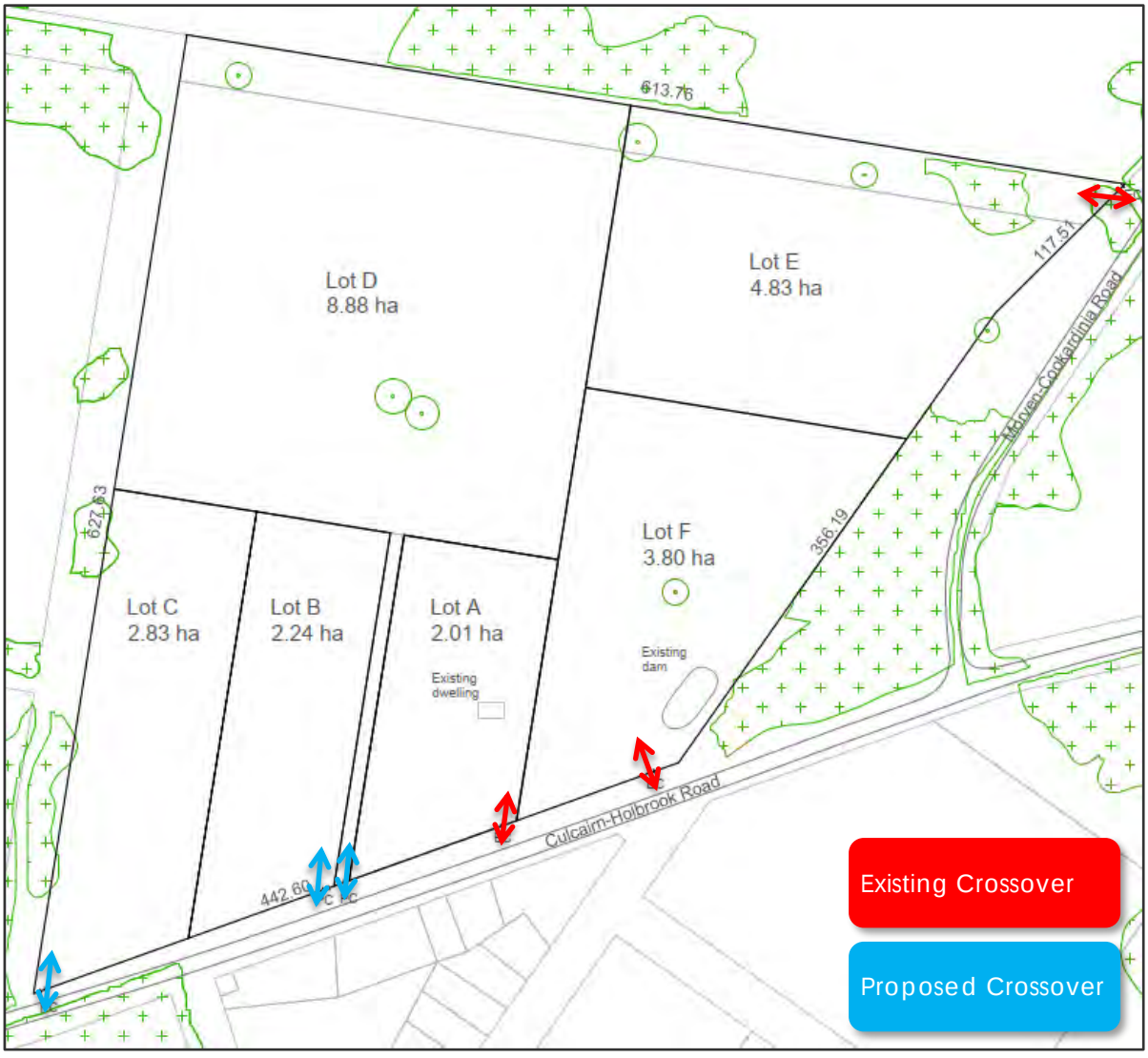
It is proposed to amend the Greater Hume Local Environment Plan to amend the zoning of the subject site from RU4 Primary Production Small Lots to R5 Large Lot Residential. The zoning amendments will allow for subdivision of the subject site for the purposes of a residential subdivision comprising six low-density dwellings in total.

3.2 Access

Vehicular access to five of the lots is proposed via direct crossovers to Culcairn-Holbrook Road. Lots A and F are to be accessed via existing crossovers to Culcairn-Holbrook Road, while access to Lots B, C and D will be provided by new crossovers, with an extended driveway being incorporated into lot D. The extended driveway providing access to Lot D (additionally dividing lot A and B) is proposed with a width of approximately 9 m from fence to fence. Lot E is to be accessed via an existing crossover to Morven-Cookardinia Road in the north-east corner of the site.

A view of the indicative lot layout is provided below in Figure 6.

Figure 6 Proposed Site Layout and Access Points



3.3 Access and Staging

The subdivision is proposed to be constructed across 3 stages. Of note, Lot D, the only lot that does not have a major frontage to a road, is to be constructed concurrently with Lot B, ensuring all lots are provided with access across all stages of the development.

4 DESIGN ASSESSMENT

4.1 General

The design of the proposed residential subdivision has been assessed, in relation to the Greater Hume Development Control Plan and the Rural Housing Code in the State Environmental Planning Policy (Exempt and Complying Development Codes).

4.2 Greater Hume Development Control Plan

It is proposed to amend the zoning of the subject site to R5 Large Lot Residential, which is subject to the requirements of the 'Rural Living' categorisation of residential development in the Greater Hume DCP. An assessment of the 'Car parking & access' subchapter of the DCP follows in Table 2.

Table 2 Car Parking & access design assessment

	Comments
14. As per Part 3A, Division 3, Subdivision 5 of the Rural Housing Code in the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.	Please see Section 4.3 below.
15. The main access point for the property should be from a sealed local road where practical and possible.	Generally satisfied – All properties are provided with an access point via a sealed road. All lots except Lot E are provided with access via Culcairn-Holbrook Road, a TfNSW Classified road. This is considered reasonable given the shape and orientation of the site with an extensive road frontage to Culcairn-Holbrook Road. Furthermore, each access point is only providing access to one lot and subsequently will generate a relatively low level of traffic, to go with the low traffic volumes carried by Morven-Cookardinia Road.
16. All-weather access roads and driveways within the property should follow the contours of the land as much as possible so as to avoid excessive cut and fill and potential erosion problems.	N/A – To be covered in detailed design.
17. Long dead-end sealed roads such as cul-de-sacs will be considered as inconsistent with the objectives for this control.	N/A – No Internal roads provided
18. Roads and driveways crossing gullies and streams, both within and external to the site, should be constructed using a culvert to Council's requirements. Applicants should check with Council to ascertain whether any other approvals are required to undertake works such as a vehicle crossing within a road reserve or waterway.	N/A

4.3 Rural Housing Code

A review of Part 3A, Division 3, Subdivision 5 (Car parking and access) of the Rural Housing Code in the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 follows.

4.3.1 Car parking requirements

(1) This clause applies only to lots in Zone R5 that have an area of less than 4,000m2.

(2) At least one off-street car parking space must be provided on a lot on which a new dwelling house is erected.

(3) At least one off-street car parking space must be retained on a lot on which alterations or additions to an existing car parking space are carried out.

(4) A car parking space under this clause may be an open hard stand space or a carport or garage, whether attached to or detached from the dwelling house.

It is noted the above requirements are related to car parking provisions not covered by proposed subdivision plan. Notwithstanding, given the size of the lots proposed, it is expected that each lot will comfortably accommodate all parking demands on site.

4.3.2 Garages, carports and car parking spaces

(1) This clause applies only to lots in Zone R5 that have an area of less than 4,000m2.

(2) A garage, carport or car parking space that is accessed from a primary road must—

(a) if the dwelling house has a setback from the primary road boundary of 4.5m or more—be at least 1m behind the building line of the dwelling house, or

(b) if the dwelling house has a setback from the primary road boundary of less than 4.5m—be at least 5.5m from that boundary.

(3) If the door or doors on a garage face a primary road, a secondary road or a parallel road, the total width of all those door openings must—

(a) be not more than 6m, and

(b) if the lot has a frontage of more than 15m—be not more than 50 per cent of the width of the building, measured at the building line to the relevant property boundary, and

(c) if the lot has a frontage of not more than 15m—be not more than 60 per cent of the width of the building, measured at the building line to the relevant property boundary.

(4) An open hard stand car parking space must measure at least 2.6m wide by 5.4m long.

As noted previously, the above requirements are related to car parking provisions not covered by the existing plan set. Regardless, the site is expected to meet all of the above requirements.

4.3.3 Vehicle access

(1) A lot on which an off-street car parking space is provided or retained under clause 3A.27 must have a driveway to a public road.

(2) A driveway on a lot must be constructed in accordance with AS/NZS 2890.1:2004, Parking facilities, Part 1: Off-street car parking.

All lots are proposed with a driveway to a public road. The design of the driveway crossovers has not been covered by the existing plan set, though each proposed crossover is expected to meet the requirements of AS/NZS 2890.1:2004.

4.4 Access Review

onemilegrid has undertaken a review of the proposed vehicular arrangements provided to the site with reference to the level of traffic generated, the site access location and the context of the surrounding road network.

In relation to traffic generation, given each lot will only service one residential dwelling, the level of traffic generated is expected to be low. It is generally accepted that residential dwellings in outer locations generate 10 vehicle movements per day with 1 movement during the peak hours. Noting the existing configuration of Culcairn-Holbrook Road and the low level of traffic it currently carries, the addition of 1 – 6 vehicles during the peak hours, will not impact on the operation of the roadway.

In relation to the siting of the access points, each has been appropriately located to reduce conflicts between abutting properties. It is noted that the proposed crossovers to lot B and D are proximate to each other, however noting the wide verge and low traffic volumes this is not expected to present an issue with regard to access or conflicts. All other crossovers to Culcairn Holbrook Road have greater separation, with a minimum of 100 metres between crossovers, providing clear sight distances between crossovers and the intersections with Richmond Street and Brownrigg Street.

Additionally, all crossovers are located away from the Culcairn Holbrook Road and Richmond Street intersections, therefore removing any potential conflict with turning movements at these intersections. It is acknowledged that the existing crossover to Lot F is located adjacent to the Culcairn Holbrook Road and Brownrigg Street intersection, however this is an existing condition that it is understood has recently been upgraded with Council approval and the proposal does not intend to change this. Regardless, similar to the above discussion, the crossovers lead to single dwelling lots only and accordingly the location of the site access will not present a safety or operational issue.

It is therefore considered that the subdivision has been appropriately designed to allow for access to each lot.

5 TRAFFIC

It is commonly accepted that as a 'rule of thumb' single dwellings may generate traffic at up to 10 vehicle trips per day.

When applied to the 6 lots proposed, a daily traffic generation of 60 vehicles per day can be expected, with 6 vehicles per hour during the morning and evening peak hour. Additionally, 1 of the dwellings is an existing dwelling, therefore the proposed development is only adding an additional 50 vehicle trips per day to the external road network.

Reviewing the volumes above, it is noted that a maximum of 6 vehicle movements during both the AM and PM peak hours are expected to be generated to the road network as a result of the development. Therefore, the traffic volumes generated by the proposed development are very low, and are expected to be easily absorbed into the surrounding road network.

6 CONCLUSIONS

It is proposed to amend the zoning of the subject site to subdivide the site for 6 residential lots.

Considering the analysis presented above, it is concluded that:

- The proposed subdivision design is considered to be generally in accordance with the transport related requirements of the Greater Hume DCP and the Rural Housing Code in the State Environmental Planning Policy;
- The access design is appropriate;
- The proposed development is expected to have a negligible impact on the surrounding road network when compared to the existing operation.

ANNEXURE 4

McMahon EARTH SCIENCE

2028 CULCAIRN HOLBROOK ROAD AND MORVEN-COOKARDINIA ROAD MORVEN NSW 2660

PRELIMINARY SITE INVESTIGATION

FOR THE PROPOSED REZONING OF LAND

MAY 2024

REPORT NO: 9990

DM McMahon Pty Ltd
6 Jones St (PO Box 6118)
Wagga Wagga NSW 2650
t (02) **6931 0510** www.dmmcmahon.com.au

ANNEXURE 4

Report type

Preliminary Site Investigation

For the proposed rezoning of land

Site address

2028 Culcairn Holbrook Road and Morven-Cookardinia Road

Morven NSW 2660

Report number

9990

Prepared for

Steven Pinnuck

Pinnuck Family Superannuation Fund

15-19 Atkins Street

Morven NSW 2660

Tel: 0429 310 205

Email: stevenpinnuck@bigpond.com

Prepared by

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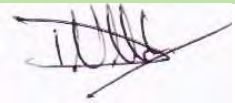
Document control

Role	Name	Signed	Date	Revision
Prepared by	**David McMahon** CEnvP SC BAppSc SA GradDip WRM MEnvMgmt MALGA MEIANZ MSSA		9/05/2024	0

ANNEXURE 4

Contents

ANNEXURE 4

1.0 Executive summary

DM McMahon Pty Ltd (McMahon) conducted this Preliminary Site Investigation (PSI) at the request of Ashley Mackey of Habitat Planning on behalf of Steven Pinnuck of Pinnuck Family Superannuation Fund for the proposed rezoning of land at 2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660. The rezoning includes amending the existing zoning of RU1 Primary Production and RU4 Primary Production Small Lots to R5 Large Lot Residential and amending the minimum lot size from 8ha to 2ha (Lots 136, 137 and 138 DP 753751) and from 100ha to 2ha (Lot 1 DP 240321).

The 24.1ha rezoning area (the site) is currently agricultural land, used for cropping and horse agistment. A map of the site investigated as part of this PSI and the current zoning map provided by Habitat Planning can be seen in **Attachment A**.

The issue of potential contamination is required to be considered whenever a planning proposal is presented to a planning authority where the new use may increase risk from contamination if it is present. Therefore, the purpose of this investigation is to provide Habitat Planning, Steven Pinnuck, and the planning authority with a statement of site suitability for the proposed land use and recommendations for further investigation, assessment, and site management if required.

The scope of work includes:

- A desktop study used to collect basic site information and identify the site characteristics.
- A detailed site inspection to complement the findings of the desktop study and site history and to identify any additional relevant site information.
- Undertake limited surface sampling for persistent agricultural chemicals in the paddocks and around the yards to assess the requirement for further investigation of these areas.
- Undertake limited surface sampling for fuel, oil, and pesticides around the sheds to assess the requirement for further investigation of these areas.
- From the information collected, develop a conceptual site model detailing the potential contamination source-pathway-receptor linkages.
- Provide a preliminary assessment of site contamination and contaminants of potential concern.
- Conduct a risk assessment for site suitability regarding potential contamination and the proposed development.
- Identify the data gaps in the assessment of site contamination.
- Provide recommendations for further investigation.

Findings of the investigation include:

- The desktop study found the site has a history of agricultural land use, with a house on site from at least 1959. This house was demolished by 1980 and the existing house was built sometime between 1998 and 2007. A horse arena, yards and a shed are to the west of the existing house with another horse arena and shed to the north of the house (built between 2019 and 2021). The eastern portion of the site is divided into

paddocks for horses with horse shelters in each paddock. The western half of the site is used for broadacre cropping.

- A site inspection complemented the desktop study and found the following sources of potential contamination that may materially affect the development:
    - Agricultural chemicals that may have been used across the paddocks and in the horse arenas and yards.
    - Asbestos containing material from the demolished house and in the rubbish pile.
    - Fuel and oil leaks and spills in the sheds.
    - Chemical storage in the sheds.
    - Septic system.
    - Bonfires.
    - Rubbish
    - Off-site sources including potential fuel storage to the south of the site.
- Soil sampling was conducted to assess contamination from agricultural chemicals across the paddocks, in the horse arenas and in the sheds, with samples from the sheds also assessed for contamination from fuel and oil leaks and spills. Samples from the sheds were analysed for heavy metals, organochlorine and organophosphate pesticides, hydrocarbons, and solvents.
- From the information collected, it is assessed that the potential contamination sources could pose a risk to future site users (through dermal contact, ingestion, or inhalation of potentially contaminated soils) but sampling returned chemical results that were below the criteria for residential land use.
- The risk assessment undertaken suggests that gross contamination from agricultural chemicals and from fuel and oil leaks and spills is not present at the site. Asbestos containing material was found in the location of the demolished house and in the rubbish pile on Lot 136. Further investigation is required in these areas.
- Data gaps exists around the suitability of the site for future development however the identified potential contamination sources do not preclude the proposed rezoning.
- Based on the findings of the PSI, further investigation and assessment is required as asbestos contamination is potentially present and the information available is insufficient to enable an appropriate level of risk assessment for future development. Investigations should identify the nature of the potential contamination and delineate its lateral and vertical extent to a sufficient degree that appropriate site management strategies can be devised, if required.

This executive summary and the findings of this PSI are subject to the recommendations in **Section 10.0** and limitations as stated in **Section 11.0**. A protocol for unexpected finds as outlined in **Section 12.0** has also been developed as part of this risk assessment framework if additional potential contamination sources are identified during planning or development.

ANNEXURE 4

2.0 Objectives

The objective of this investigation is to:

- Provide information regarding potential contamination on site.
- Provide a factual record of the works completed and results.
- Undertake a risk assessment for health risk to future site users and the environment.
- Provide a statement of site suitability or recommendations for further investigation.
- Prepare the PSI in general accordance with the relevant guidelines and legislation, namely:
    - NSW EPA, Consultants Reporting on Contaminated Land: Contaminated Land Guidelines, (2020).
    - State Environmental Planning Policy (Resilience and Hazards) 2021.
    - National Environment Protection (Assessment of Site Contamination) Measure (NEPM), (2013).

3.0 Scope of work

The scope of work includes the following:

- Review the available information regarding historical, current, and proposed land use of the site and surrounds.
- Review the environmental setting of the site and surrounds.
- Assess the potential contamination sources and chemicals of potential concern.
- Conduct limited sampling across the site to assess the need for further investigation.
- Assess the potential contamination source-pathway-receptor linkages from the chemicals of potential concern, environmental setting, and land use.
- Develop a conceptual site model to assess potential contamination risk from the source-pathway-receptor linkages.
- Provide a clear statement on site suitability for the present and future land use and the need for further investigation.

ANNEXURE 4

4.0 Site identification

The site identification and details are as follows.

- Address: 2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660.
- Real property description:
    - Lot 136 DP 753751.
    - Lot 137 DP 753751.
    - Lot 138 DP 753751.
    - Lot 1 DP 240321.
- Development area centre co-ordinate: 511148E 6054514N MGA GDA z55.
- Property size: 24.4ha (total development area).
- Owner:
    - Lot 136 DP 753751– Morven Enterprises Pty Ltd.
    - Lot 137 DP 753751– Morven Enterprises Pty Ltd.
    - Lot 138 DP 753751 – Steven John Pinnuck.
    - Lot 1 DP 240321 – Steven John Pinnuck.
- Local Government Area: Greater Hume Shire Council.
- Current zoning: RU1 Primary Production and RU4 Primary Production Small Lots.
- Proposed zoning: R5 Large Lot Residential.
- Present use: Agricultural.
- Development Application reference: Not known.

ANNEXURE 4

5.0 Site history

From research of the available resources, the following site history is offered.

Historical owners and occupiers

Lot 136 DP 753751

1947 owned by Thomas M. Shearer.

1978 owned by Victor Wilbur Shearer (brother of Thomas M. Shearer).

1978 Perpetual Lease Grant issued.

Other owners unknown.

Lot 137 DP 753751

1912 Suburban Holding Lease issued to Henry James Deakes.

1920 Suburban Holding Grant issued to Henry James Deakes.

1922 owned by James Malcolm Baldwin (labourer).

1930 owned by Selina Louisa Baldwin (widow).

1946 owned by Austin James Walter Baldwin (farmer).

1970 (July) owned by Kathleen Mary Verina Jones (married woman).

1970 (September) owned by Kingsley Tayler Shearer (apiarist)

1976 Perpetual Lease Grant issued.

Other owners unknown until it was purchased by Steven John Pinnuck in 2021 from Malcolm Sydney Shearer (son of Kingsley Tayler Shearer).

Lot 138 DP 753751

1947 owned by Reginald Shearer.

1978 owned by Kingsley Tayler Shearer (apiarist).

1978 Perpetual Lease Grant issued.

Other owners unknown until it was purchased by Steven John Pinnuck in 2021 from Malcolm Sydney Shearer (son of Kingsley Tayler Shearer).

Lot 1 DP 240321

1971 Grant upon Purchase of Unnecessary Road by Kingsley Tayler Shearer.

Other owners unknown until it was purchased by Steven John Pinnuck in 2021 from Malcolm Sydney Shearer (son of Kingsley Tayler Shearer).

Council records

A Section 10.7 Planning Certificate (Certificate No: 5854) was obtained from Council on 6 May 2024 and the certificate states the site has no matters prescribed within the meaning of the Contaminated Land Management Act 1997.

ANNEXURE 4

The following Council records were received on 7 May 2024:

Lot 137 DP 753751

- DA63/05 (2005) by applicant PJ & LE Bowen on behalf of owner MS Shearer for a new dwelling and garage.
- License for the approval to operate an on-site sewage management system. Ref CC: JW A:10063204. OSMS No. 1244 (2021) Morven Enterprises Pty Ltd – As a result of an inspection Council has classified your septic tanks and absorption trench system as low risk to the environment and public health, defined by Councils On-site Sewage Management Plan (OSMS). This licence to operate is valid until 29th September 2029 subject to the attached conditions.

EPA records

There are no records on the Contaminated Land Record Database for the site or adjacent properties pertaining to Preliminary Investigation Orders, Declaration of Significantly Contaminated Land, Approved Voluntary Management Plans, Management Orders, Ongoing Maintenance Orders, Repeal Revocation or Variation Notice, Site Audit Statement, or Notice of Completion or Withdrawal of Approved VMP. The site or adjacent properties have not been "notified" to the EPA on the list of NSW Contaminated sites as of April 2024.

Internet search

- Government Gazette of the State of NSW (Sydney) May 1912 Issue 70. Notification Setting Apart Crown lands for Suburban Holdings. The areas will be available for Suburban Holdings on and after 10th June 1912. Portion comprised in Suburban Holding […]: 136, 137. Character of Land, Soil Timber & Water Supply: Level, open, green box and gum forest, the soil being good clayey loam, well grassed; present grazing capacity, 3 acres to one sheep, fully improved grazing capacity, about ¾ acres to one sheep. Water- no permanent supply; good sites for tanks.
- Border Morning Mail (Albury) April 1942. Culcairn. To Live at Morven. The wedding of Jean […] to Kingsley Taylor, youngest son of Mr T. Shearer of Morven and the late Mrs. Shearer, was celebrated at Orange. […] Mr. Vic Shearer, of Bungowannah, brother of the bridegroom was the best man. […] They will live at Morven.
- Government Gazette of the State of NSW (Sydney) September 1970 Issue 124. Notification of Proposed Closing of Roads. Kingsley Tayler Shearer, 4 acres 1 rood 36 perches. Road separating portions 136 and 138 from portion 11, Parish and Town Morven, County Hume. Rds 70-1163.
- greaterhume.nsw.gov.au/GHTownVill/Villages-of-Greater-Hume/Morven - Morven sits beside Billabong Creek. The creek provides a vegetated wildlife corridor and pleasant outlook from the historic Round Hill Hotel, dating back to the 1850's as a Cobb & Co Station (before the crossing of Billabong Creek). The decline of Cobb & Co came with the arrival of the railway line through Culcairn.
- domain.com.au – 2028 Culcairn Holbrook Road Morven. Sold 2005, 2006 and 2021.
- realstate.com.au – 2028 Culcairn Holbrook Road Morven has a land size of 72,841m^2. It is a house with 3 bedrooms, 1 bathroom and 2 parking spaces. It was sold in 2021.

Previous reports

Habitat Planning (2023) Scoping Report. Amendment to Greater Hume Local Environmental Plan 2012. 2028 Culcairn-Holbrook Road & Morven-Cookardinia Road, Morven. Ref: 23148.

- This Planning Proposal Scoping Report is submitted to Greater Hume Shire Council in support of a Planning Proposal to amend the Greater Hume Local Environmental Plan 2012 (LEP).
- Specifically, the Planning Proposal seeks to amend the zone and minimum lot size of the Greater Hume Local Environmental Plan 2012 in relation to land described as Lots 136, 137 and 138 in DP753751 and Lot 1 in DP 240321 and addressed as 2028 Culcairn-Holbrook Road, Morven and Morven-Cookardinia Road, Morven. The purpose of the amendment is to enable development of the land for a larger lot residential character, consistent with the urban fringe of Morven.
- The subject land is well placed to integrate with the core urban area of the Morven township and represents a transition from the higher density lots to rural land beyond.
- Proposed amendment:
    - Amend the Land Zoning Map of the Greater Hume Local Environmental Plan 2012 in relation Lots 136, 137 and 138 in DP753751 to change the zoning from RU4 Primary Production Small Lots to R5 Large Lot Residential.
    - Amend the Lot Size Map of the Greater Hume Local Environmental Plan 2012 in relation Lots 136, 137 and 138 in DP753751 to change the minimum lot area from 8 hectares to 2 hectares.
    - Amend the Land Zoning Map of the Greater Hume Local Environmental Plan 2012 in relation Lot 1 in DP 240321 to change the zoning from RU4 Primary Production Small Lots to R5 Large Lot Residential.
    - Amend the Lot Size Map of the Greater Hume Local Environmental Plan 2012 in relation Lot 1 in DP 240321 to change the minimum lot area from 100 hectares to 2 hectares.
- The subject land is a grouping of four (4) lots at the northern extent of the Morven township, described as Lot 136 in DP753751, Lot 137 in DP753751, Lot 138 in DP753751 and Lot 1 in DP240321. The land is bounded by Culcairn-Holbrook Road to the south and Morven-Cookardinia Road to the east. Privately owned properties adjoin the west and northern boundaries of the site, comprise RU4 zoned and RU1 zoned land respectively.
- Morven was founded as a coach stop, though it was gradually overtaken as a strategic transport stop by the town of Culcairn and the north-south railway line. Now it is better categorised as a commuter suburb, being accessible from Culcairn and within commuting distance of Albury-Wodonga.
- There is demand for larger lot residential properties within Morven, given its close proximity to Culcairn and ease of access to major transport corridors to larger regional centres.
- It is considered that Morven provides an ‘rural living’ extension to the Culcairn village area, in that it is offers lifestyle opportunities in close proximity to a main village area.
- Culcairn has a lack of housing diversity, particularly a lack of larger lifestyle lots, which can be catered for in Morven. It is considered that Morven is well positioned to serve the role of providing lifestyle lots for the Culcairn village context.
- The next higher order towns are Holbrook (20km east), Albury (56km south) and Wagga Wagga (73km north). It is considered that the Morven would appeal to persons

seeking a reasonable commuting distance of regional centres where land and housing would be more diverse and relatively affordable.

- There is an opportunity for the land to utilised in a form that is expected to better represent the long-term requirements for the Morven township.
- The subject land is located within an area surrounded by large lot village areas and rural residential properties. The village area is serviced by sealed roads and reticulated services, but largely contain a high proportion of on-site sewer services and wastewater disposal. The subject land can be serviced by some of these existing services, subject to upgrade and extension, however, will rely on provision of new on-site services.
- Electricity services are provided to the village area by Essential Energy and connected to all residential and rural properties in the village and peripheral areas. Further consultation will be undertaken with Essential Energy to confirm servicing capabilities of the network.
- The subject land is not known to be contaminated based in preliminary understanding of the land and details provided by the landowners. There are no structures or storage areas considered likely to be potentially contaminating. A more detailed assessment of the requirements of State Environmental Planning Policy (Resilience and Hazards) 2021 will be undertaken in the Planning Proposal to satisfy the provisions an LEP amendment and subsequent development application.
- The subject land is not identified as being subject to bushfire or flooding as per the relevant maps and studies carried out by Greater Hume Shire.
- The proposal is not expected to result in any disturbance of habitat areas or natural features of the area because it relates to the rezoning of a land that is largely devoid of any significant habitat. Further, the larger area of the lots being proposed means that areas of sensitivity (if identified) can be contained within future lots.

  The land to be rezoned has been subject to ongoing agricultural activity for a significant period of time and has been heavily modified from its original state. There are no mapped areas of environmental land, there are no significant areas of native vegetation within the land and there are no areas of watercourses or other potentially sensitive landscapes. An area of biodiversity values is noted further south along the Billabong Creek, however, is well removed from the site.

ANNEXURE 4

Aerial photographs and satellite images

McMahon observed the following from a review of the available aerial photography and satellite imagery.

Aerial photographs and satellite images

McMahon observed the following from a review of the available aerial photography.

1959 – The original house can be seen on Lot 137. Access is via Culcairn Holbrook Road. A small circular dam can be seen in the south east corner of the site. Scattered paddock trees can be seen across the site. Surrounding land use is agricultural with some residential houses and community tennis courts built to the south across Culcairn Holbrook Road.

1966 – A small shed can be seen to the west of the house.

1972 – No change to the site from 1966. The Morven general store has been built to the east of the tennis courts (south of the site).

1980 – The house and shed have been demolished. The site has been divided into north and south paddocks by a fence running east-west. Some of the paddock trees have been removed.

1991 – A small stockpile can be seen to the west of the location of the demolished house. The dam in the south east corner has been enlarged into a rectangular shape. Further residential development has occurred to the south of the site, across Culcairn Holbrook Road.

1998 – No change to the site from 1991.

2007 – A house and shed have been built around the approximate location of the demolished house. Some fill has been placed in front of the site, assumed to be gravel for a parking area. Yards can be seen to the north of the house. The site has been divided into four paddocks with the original north-south paddocks now divided by a fencing running north-south.

2010 – The paddock of Lot 137 appears to be worked with the rest of the site appearing undeveloped.

2013 – The paddock of Lot 137 has been divided into approximately five fenced areas. Animals can be seen across Lot 137 although it is not clear what animals they are. Multiple cars can be seen around the house and shed. The image is not clear but scattered items can be seen around the house and shed.

2014 – Most of the scattered items has been removed.

2015 – The image is clearer, and it appears like the scattered items are for horsing events. Horse floats can be seen around the house and horses can be seen in the paddocks of Lot 137. A round arena has been built to the north west of the house. Horse shelters can be seen to the west and south of the house. Another horse shelter can be seen to the north of the shed.

2016 – No change to the site from 2015.

2017 – Horse shelters have been built in two of the fenced areas of Lot 137. The northern half of Lot 138 has been fenced into five areas, with horse shelters built in four of the areas. A square pad has been outlined in the north of Lot 138. A track runs through Lot 138 from the access gates in the north east and south east corners of the lot. Two trees have been felled, one on Lot 136 and one of Lot 138 to the east of the square pad.

2018 – No change to the site from 2017.

ANNEXURE 4

2019 – A round arena has been built on the square pad on Lot 138. Horses can be seen across the whole site.

2020 – No change to the site from 2019.

2021 – The driveway to the house and shed on Lot 137 has been gravelled. The fenced areas in the paddock of Lot 137 have been removed. The fence dividing Lot 136 and 137 has also been removed and the paddocks have been worked as one large paddock. Hay bales can be seen along the southern boundary in the south west corner of Lot 137. A shed has been built to the east of the round yard on Lot 138.

2022 – The yards have been removed to the north of the house. Hay bales can be seen across Lot 136 and Lot 137 and can also been seen stacked to the north of the horse arena on Lot 138.

The aerial photographs and satellite images can be seen in **Attachment B**.

ANNEXURE 4

6.0 Site condition and surrounding environment

McMahon notes the following observations of the site condition as part of this PSI.

- The site is located in the north of the village of Morven at the corner of Culcairn Holbrook Road and Morven-Cookardinia Road. The town of Culcairn lies approximately 7km to the west of Morven.
- Surrounding land use is agricultural to the north, east, and west. Residential lies to the south, across Culcairn Holbrook Road. The former Morven general store is to the south of the site, opposite the entrance from Culcairn Holbrook Road.
- The site is made up of 4 lots – Lot 136 and Lot 137 form the western half of the site. Lot 136 is undeveloped. Lot 137 includes a house, slab on grade shed, horse arena and horse/cattle yards. The paddocks have been cultivated for oats. Lot 138 forms the eastern half of the site and has been divided into paddocks for horses with horse shelters in each paddock. Improvements include a shed, and horse arena. A dam and two wells lie in the south east of the lot. Lot 1 is a strip of land along the northern boundary of the site which was formerly a road reserve. The land was incorporated into the site in 1971.
- A small rubbish pile exists in centre of the southern boundary of Lot 136. The pile consists of soil, cinder bricks, concrete, timber, lead flashing, an old oven, and asbestos pipes. The pipes are in good condition and no asbestos fragments were observed, however thick grass hampered a thorough visual inspection of the area.
- The entrance to Lot 137 is via a gravelled driveway from Culcairn Holbrook Road. The gravelled driveway leads to the house and veers left towards the shed, north of the house. A small stockpile of remaining gravel was seen to the south west of the house. The gravel was visually assessed to be commercially available quarried material.
- The house is a slab on grade tin building with a small firepit in the front yard. The house is serviced by a septic system, with the tank and pump to the north of the house and the disposal area to the north east. A standpipe was visible in the disposal area.
- To the north east of the house is remnants of the demolished house, as identified in the aerial photographs. Small pieces of glass were observed along with ten pieces of asbestos containing material (ACM). There is likely to be more however thick grass hampered a thorough visual inspection of the area.
- To the north of the house lies a slab on grade shed. The shed is in tidy condition with no chemical or fuel storage observed. No staining was observed on the concrete surface.
- To the west of the shed is a small concrete slab and the remnants of a small bonfire consisting of building materials. Nails were observed in the ash. No ACM was observed. In this area, an old well has been covered with a steel plate which has been bolted to concrete. It is assumed the well was hand dug as the top was brick lined.
- Further west of the concrete slab and bonfire remnants is a round horse arena and horse/cattle yards. Some rubbish was observed around the arena and yards, consisting off wooden pallets, tin, concrete, pine logs and old bathtubs. A site won soil loading ramp is to the south of the yards.
- There are two entrances to Lot 138 – one in the north east corner of the site, off Morven-Cookardinia Road and one in the south east corner of the site, opposite Coach Road (Brownrigg Street). Both entrances have been gravelled with the same commercially available quarried material as the entrance at Lot 137.

ANNEXURE 4

- In the north of Lot 138 stands a shed and horse arena. The shed is of tin construction with a dirt floor. An old Massey tractor with a mower attachment stands in the shed. No oil or fuel staining is visible around the tractor. A small diesel fuel tank is stored on a wooden pallet nearby. Some minor fuel spills have occurred. Agricultural chemicals have been stored in the shed including oil, herbicides, and insecticides. A small homemade spray rig is also stored in the shed but looks infrequently used. A small area has been used for filling chemicals and spills and leaks may have occurred.
- A small laydown area lies to the west of the shed consisting of old bathtubs, wire, steel fencing panels, tyres, a tractor bucket attachment, and a soil stockpile. The laydown area is assumed to be used to store items for horse eventing. A shipping container can also be seen in this area.
- A round horse arena lies further west of the laydown area. The arena is covered with sand, overlying road base which is underlain by clay soil. A rubbish pile lies outside the arena consisting of old mattresses, a bulk plastic container, a felled tree, wooden pallets, a gravel stockpile (assumed to be from the driveways) and tyres. Round hay bales covered in plastic and weighted down with tyres can be seen to the north of the rubbish pile.
- Two old wells exist to the south of the shed and horse arena, in the approximate centre of Lot 138. One has been covered with a steel plate which has been bolted to concrete. The other well has been covered with timber sleepers and has been fenced off with wire fencing. The wells are assumed to be hand dug and their depths are unknown.
- An unlined dam is in the south east of Lot 138, near the entrance gate from Coach Road. The dam appears to be filled by runoff from the surrounding agricultural land and from Morven-Cookardinia Road. No slicks or sheens were observed on the surface of the water and yabbies were seen at the water's edge.

Maps of the site features can be seen in **Attachment C**. Site photographs can be seen in **Attachment D**.

A summary of the site environmental setting is as follows.

Topography

The site lies on extensive level alluvial plains of Billabong Creek at an elevation range of approximately 225m to 230m AHD.

Vegetation

The site is covered with broadleaf weeds and annual and perennial grasses. Sedge grass was observed in the Lot 137. Lot 137 has been worked ready for oats and Lot 138 has been left fallow for horse adjustment. The driveway to the house and shed is gravelled with commercially available quarried material.

Natural Resources Sensitivity

A search of the Greater Hume Local Environment Plan (2012) found the site is not mapped as being in a natural resource sensitivity area for riparian lands and watercourses, or terrestrial biodiversity. No other maps were available.

Weather
The average rainfall for Morven is around 650mm per annum, with the wettest months being June, July, and August. Morven is characterised by cold wet winters and hot dry summers.

Hydrology
The nearest named waterway is Billabong Creek located around 1.2km to the south of the site. Billabong Creek flows west towards the Edward River. Flood studies have not been undertaken for Morven.

Soil
Soils are typically brown to grey silty loam topsoils overlying a bleached silty loam to silty clay loam which is underlain by brown alluvial clay. Hardpans may occur under the bleached silty soil. Soils encountered on Lot 137 were poorly drained in the low-lying areas. Ferromanganiferous accretions and bleached soil were observed around sample location 6.

Geology
The local geology is unconsolidated riverine deposits of clay, silt, sand, and gravel.

Hydrogeology
There are no registered groundwater bores on site however nearby groundwater bores suggest groundwater is >10m below ground level. Aquifers are unconfined to semi-confined, with groundwater flow occurring primarily through unconsolidated alluvial sediments. Hydraulic conductivity is high, and transmissivity is moderate to high. Groundwater recharge rates are estimated to be high. Groundwater systems are typically intermediate to regional with intermediate to long flow lengths and are loosely defined by topographic catchments. Water quality within these systems is brackish to saline. Groundwater depths are intermediate to deep. Localised perching occurs above clay lenses during wetter periods.

7.0 Sampling and analysis quality plan and sampling methodology

The Data Quality Objectives (DQOs) of the site assessment have been developed to define the type and quality of data to meet the project objectives. The DQOs have been developed generally in accordance with the seven step DQO process as outlined in AS 4482.1 (2005) and the USA EPA Guidance on Systematic Planning Using the Data Quality Objectives Process (2006a). These DQOs are as follows:

1. **The problem**
2. **The goal of the study**
3. **Information inputs**
4. **Study boundaries**
5. **The analytical approach**
6. **Performance and acceptance criteria**
7. **Obtaining data**

These objectives have been further outlined in the following sections.

DQO 1 - The problem

Potential gross contamination from agricultural land use may be present across the site and insufficient data relating to this source is available to determine land use suitability and the need for further investigation with the necessary level of confidence.

DQO 2 - The goal of the study

Goals of the study include:

- Undertake limited investigations, based on the data gaps to determine if there is contamination within the soil associated with the identified contamination sources.
- Determine if any contamination, should it be identified, poses a risk to current and/or future receptors at the site or within potential exposure pathways from the site, and if further investigation is required.
- Determining whether the site is currently, or can be made, suitable for the proposed development regarding contamination.

DQO 3 - Information inputs

- Desktop data including site inspections, site condition, history, geology, hydrogeology, and laboratory analysis to characterise the site.
- Observational data including visual and olfactory conditions obtained from the sampling.
- Analytical data relative to the assessment criteria.

DQO 4 - Study boundaries

- Intrusive investigation across the site.
- Temporal boundaries are limited to the proposed fieldwork timeframes in the second quarter of the year 2024.

DQO 5 - The analytical approach

Samples will be tested for heavy metals, organochlorine and organophosphate pesticides, hydrocarbons and solvents which may be persistent in the soil from the sites agricultural land use.

DQO 6 - Performance and acceptance criteria

Specific limits for the investigation are in accordance with the appropriate guidance made or endorsed by state and national regulations, appropriate data quality indicators, and industry standard procedures for field sampling and handling. To assess the validity of data for decision making, the data is assessed against a set of data quality indicators, the following predetermined data quality indicators have been adopted.

The key decision rules for the investigation are:

1) Has the analytical data been collected as part of the testing and met the data quality indicators? If they have then the data can be used to answer the decision rule/s and the decision statements developed in Step 2 of the DQOs. If not, then the need to collect additional data may be required.
2) Do contaminant concentrations exceed the investigation and screening criteria? If not, then the potential contamination does not pose an above low level of risk. Where results exceed the investigation and screening criteria, this may indicate an unacceptable level of risk. Further risk assessment and investigations may be warranted to determine the potential for impacts.

The key decision errors for the investigation are:

i. deciding that the site is contaminated when it truly is not.
ii. deciding that the site is not contaminated when it truly is.

The true state of nature for decision error (i) is that the site is not contaminated.
The true state of nature for decision error (ii) is that the site is contaminated.

The site assessment criteria were specifically derived and incorporate the following:

- The samples are not composited so the direct reading of contaminant levels will be found from each sample point on which an appropriate decision can be based off.
- The duplicate sample should have a Relative Percentage Difference (RPD) of <30%.
- The rinsate sample should return negligible concentrations for all parameters tested to ensure an appropriate sampling and decontamination procedure.
- If contaminant levels exceed the Tier 1 and statistical assessment criteria further investigation, assessment and management may be required.

Specific Tier 1 assessment criteria can be seen below, **Table 1**.

Table 1: *Assessment criteria*

Material	Analytes	Criteria
Soil	Heavy metals Pesticides Hydrocarbons Solvents	**Health Investigation Levels (HILs)** -Residential A NEPM (2013) -Table 1A(1) Heavy metals and pesticides -Soils within 3m of surface **Health Screening Levels (HSLs)** -Residential A NEPM (2013) and CRC Care (2011) -Table B4 Hydrocarbons and solvents (direct contact) -Clay soils within 2m of the surface **Added Contaminants Limits (ACLs)** -Residential A NEPM (2013) -Table 1B(1-4) Heavy metals -Soils within 2m of surface -pH of 6.0 ($CaCl_2$) and CEC of 10 assumed from local knowledge **Environmental Investigation Levels (EILs)** -Residential A NEPM (2013) -Table 1B(5) Arsenic, DDT, and naphthalene -Soils within 2m of surface **Ecological Screening Levels (ESLs)** -Residential A NEPM (2013) -Table 1B(6) Hydrocarbons, solvents, and benzo(a)pyrene -Clay soils within 2m of surface

The Tier 1 assessment criteria are used as an initial screening of the data to determine whether further assessment is required. Where above criteria exceedance indicates a risk to human health or the environment, site specific risk assessment, statistical analysis, management, or remediation will be undertaken or recommended as appropriate.

DQO 7 - Obtaining data

The sampling pattern and strategy identifies the occurrence of potential contamination for suitable site characterisation. The sampling pattern and strategy has been devised based on site history, land uses, aerial imagery, site inspections, previous investigations and the NEPM (2013). The sampling pattern has been described in more detail below.

Sampling strategy and pattern

A systematic and judgemental sampling pattern has been chosen based on potential contamination sources, previous land use, and requirements to delineate potential contamination. The adopted sampling pattern is suitable to make a quantitative statement about the level of confidence regarding the quality and accuracy of results. McMahon assesses that the sampling pattern is suitable to be used for decision making and site characterisation.

Key features of the sampling pattern include:

- Six systematic soil sample locations taken across the paddocks and in the horse arenas. Samples analysed for heavy metals and pesticides (organochlorines and organophosphates).
- Two judgemental soil sample locations taken in and around the sheds. Samples analysed for heavy metals, pesticides (organochlorines and organophosphates), hydrocarbons and solvents.
- One soil duplicate sample.
- One soil rinsate sample.

By reference to the DQOs, a sampling map can be seen in **Attachment E**.

Sampling design justification

- Samples 1, 2, 6 and 7: to assess the near surface soil contamination from potential persistent agricultural chemicals diffuse application in the paddocks across the site.
- Sample 3: to assess the near surface soil contamination from potential persistent agricultural chemicals from application in the horse arena on Lot 138.
- Sample 4: to assess the near surface soil contamination from potential persistent agricultural chemicals around the filling area in the shed on Lot 138.
- Sample 5: to assess the near surface soil contamination from potential persistent agricultural chemicals and from fuel and oil leaks and spills in the shed on Lot 138.
- Sample 8: to assess the near surface soil contamination from potential persistent agricultural chemicals from application in the horse arena on Lot 137.
- Sample 9: to assess the near surface soil contamination from potential persistent agricultural chemicals around the shed on Lot 137.
- Sample 10: to assess the near surface soil contamination from potential persistent agricultural chemicals and from fuel and oil leaks and spills in the shed on Lot 137.

Failure to meet objectives procedure

If the procedures undertaken do not satisfy the expected data quality objectives, a review of the sampling plan will be conducted prior to any further works.

Sampling and analysis methodology

The sampling officer wore unused disposable nitrile gloves to extract samples directly from the excavated pit to place into appropriately preserved sample receptacles. Collected sample containers were placed into a chilled esky for preservation prior to analysis. All in-field observations and any relevant comments are detailed in the field sheets and a Chain of Custody form was produced to accompany the samples to the laboratory.

Sampling standards

Sampling was undertaken by reference to:

- AS 4482.1:2005 - Guide to the investigation and sampling of sites with potentially contaminated soil Part 1: Non-volatile and semi-volatile compounds (Withdrawn).

- AS 4482.2:1999 - Guide to the sampling and investigation of potentially contaminated soil Part 2: Volatile substances (Withdrawn).

Although these guidelines have recently been withdrawn, they have been used in the absence of other relevant Australian publications.

ANNEXURE 4

8.0 Results

The site inspection and sampling for this PSI was conducted over one day on 30 April 2024. The weather was mostly sunny with cool winds. A summary of the field observations and sample analytical results are as follows.

Soil and site surface

- Soils are brown to grey silty loam topsoils brown to grey silty loam topsoils overlying a pale silty loam to silty clay loam A2 horizon which is underlain by brown alluvial clay. Soils in the low-lying area around sample location 6 showed ferromanganiferous excretions and bleached soil.
- There were no visual or olfactory indicators of gross chemical contamination on site.

Soil analysis

- Heavy metals are below the Limits of Reporting (LORs) and/or the adopted criteria.
- Pesticides are below LORs and the adopted criteria.
- Hydrocarbons are below LORs and/or the adopted criteria.
- Solvents are below LORs and the adopted criteria.

Quality control and quality assurance results

- The duplicate sample (10) returned relative percent differences of <30% for all analytes except for arsenic (52%). This is considered to be of low significance as the results are well below the adopted criteria for sample location 10 and the duplicate.
- The rinsate sample returned results below the laboratory limit of reporting.
- There are no laboratory outliers.
- Based on the above, the laboratory quality control and quality assurance is of a suitable quality to rely on the results.

Tabulated results can be seen in **Attachment F**.

Laboratory reports can be seen in **Attachment G**.

ANNEXURE 4

9.0 Conceptual site model

A conceptual site model (CSM) is a representation of site-related information regarding contamination sources, receptors and exposure pathways between those sources and receptors and is presented and follows.

Summary

The site has been used for agriculture as far as records can ascertain. Chemicals associated with agricultural pesticide use from diffuse application across the site may have accumulated in the soil. Potential sources of contamination on Lot 137 include asbestos containing material (ACM) from the demolished house; agricultural chemicals used in the shed and horse arena; remnants from the small bonfire and fire pit; the septic system; and contamination from the rubbish pile. A rubbish pile also exists on Lot 136 and contains asbestos pipes. Potential sources of contamination on Lot 138 include chemicals associated with fuel and oil leaks and spills from machinery maintenance and storage in the shed; agricultural chemical storage and leaks and spills in the shed; agricultural chemicals used in the horse arena; the laydown area; and the rubbish pile. Offsite sources of contamination include potential fuel storage at the old general store to the south of the site, across Culcairn Holbrook Road. Pathways are primarily from soil disturbance and the potential release of asbestos fibres during development and occupation. Short to medium-term soil contact is likely for future construction workers, and long-term soil contact is possible for future occupants.

Potential and known sources of contamination

- Agricultural chemicals that may have been used across the paddocks and in the horse arenas and yards.
- Asbestos containing material from the demolished house and in the rubbish pile.
- Fuel and oil leaks and spills in the sheds.
- Chemical storage in the sheds.
- Septic system.
- Bonfires.
- Rubbish.
- Off-site sources including potential fuel storage to the south of the site.

List of chemicals of potential concern

From the potential contamination sources, the Chemicals of Potential Concern (COPCs) most likely to impact the site are as follows:

- Pesticides.
- Heavy metals.
- Hydrocarbons.
- Polycyclic aromatic hydrocarbons.
- Solvents.
- Asbestos.

Mechanism of contamination

The mechanism of contamination is predominantly top-down vertical and lateral migration into soil. The mechanism of asbestos contamination is from the release of fibres from asbestos containing material during disturbance.

Potentially affected environmental media

- Soil.
- Air.
- Surface water.
- Groundwater.

Consideration of spatial and temporal variations

Spatial and temporal variation of persistent pesticides and heavy metals in the soil is likely. Temporal variation of asbestos is unlikely unless the asbestos is disturbed, and fibres are released.

Actual or potential exposure pathways

- Direct skin contact with soil for future construction workers, and future on-site occupants.
- Inhalation and/or ingestion of soil, fibres, vapour, and dust.
- Direct surface water contact.
- Groundwater ingestion.

Human and ecological receptors

- Future on-site users.
- Construction workers.
- Domestic groundwater users.
- Down gradient ecological receptors.
- Future landscaping and ecological receptors.

Frequency of exposure

- Construction workers are assessed to be a short-term exposure risk.
- Future on-site users are assessed to have a long-term exposure risk.
- Future groundwater users are a medium to long-term exposure risk.
- Ecological receptors are assessed to be a medium to long-term exposure risk.

Source pathway receptor linkage assessment

- There is low risk of pesticide and heavy metal contamination as the sampling returned low results.
- There is a risk of inhalation of asbestos fibres and contact with potentially contaminated soil from ACM around the location of the demolished house and from the asbestos pipes in the rubbish pile on Lot 136. It is possible that more asbestos pipes are underground, and care should be taken during development.

- There is low risk of gross contamination from fuel and oil leaks and spills as these are considered to be surficial and localised. The sampling returned results below the adopted criteria.
- There is low risk of contamination from the bonfire and fire pit areas as they are small and considered surficial and localised.
- There is low risk of contamination from the rubbish pile on Lots 137 and 138 and from the laydown area on Lot 138. These are an aesthetic issue which can be managed during development.
- There is low risk of contamination from the septic system as it was assessed by Council in 2021 to be low risk to the environment and public health. The system is regulated by Council and presents low health and environmental risk when regularly inspected and serviced. Any problems that arise with the existing septic system will require remediation.
- There is low risk of contamination from surface water. No slicks or sheens were observed on the dam in the south east of the site.
- There is low risk of contamination from the groundwater as exposure pathways are limited. Groundwater is likely to be at deep depths and domestic groundwater bores do not exist in the area. The site is connected to town water making groundwater ingestion unlikely. The three wells on site are generally inaccessible and are recommended to be decommissioned during development.
- There is a risk of contamination from the old general store to the south of the site if underground fuel storage exists. More information is required to assess the risk of contamination from this source.

Discussion of multiple lines of evidence

A multiple lines of evidence approach is the process for evaluating and integrating information from different sources of data and uses best professional judgement to assess the consistency and plausibility of the conclusions which can be drawn, NEPM (2013).

Definitive information concerning the sources of potential contamination on site is satisfactory therefore the risk assessment relies heavily on the information provided by this PSI and is supplemented by data collected during sampling.

10.0 Conclusions and recommendations

This investigation met the objective of investigating and assessing potential contamination and providing a statement of site suitability for the proposed land use and an appropriate risk assessment framework for the management of the site during development.

Based on the findings of the PSI, it is concluded that contamination is potentially present and the information available is insufficient to enable an appropriate level of site-specific risk assessment for future development. As such further investigation and assessment is required.

The following is recommended:

- Targeted localised assessment for potential asbestos in soil is recommended to be conducted around the location of the demolished house. The asbestos pipes in the rubbish pile on Lot 136 are to be removed in line with standard industry practice with clearance issued by an appropriately trained and experienced person who is independent of the removal work. It is possible that more asbestos pipes are underground, and care should be taken during development.
- The bonfire remnants, the laydown area, and the rubbish piles on Lot 137 and 138 are an aesthetic issue and the soil in these areas is recommended to be excavated and disposed of at an appropriately licenced landfill.
- Further information is required to assess the risk of contamination from potential underground fuel tanks at the old general store.
- Data gaps exists around the suitability of the site for future development however the identified potential contamination sources do not preclude the proposed rezoning.
- In conclusion based on the findings of this report, a Detailed Site Investigation (DSI) is required as soil contamination is potentially present and the information available is insufficient to enable an appropriate level of risk assessment for future development. The DSI should identify the nature of the potential contamination and delineate its lateral and vertical extent to a sufficient degree that appropriate site management strategies can be devised, if required.

Although no filled gullies and dams were identified as part of this PSI, it is not uncommon to find these on agricultural land. Care must be taken to identify and evaluate unexpected finds such as these during development under the unexpected finds protocol in **Section 12.0**.

This executive summary and the findings of this PSI are subject to the limitations as stated in **Section 11.0**.

ANNEXURE 4

11.0 Limitations and disclaimer

DM McMahon Pty Ltd has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of Habitat Planning, Steven Pinnuck and Pinnuck Family Superannuation Fund and only those third parties who have been authorised by DM McMahon Pty Ltd to rely on this report.

The information contained in this report has been extracted from field and laboratory sources believed to be reliable and accurate. DM McMahon Pty Ltd does not assume any responsibility for the misinterpretation of information supplied in this report. The accuracy and reliability of recommendations identified in this report need to be evaluated with due care according to individual circumstances. It should be noted that the recommendations and findings in this report are based solely upon the said site location and conditions at the time of assessment. The results of the said investigations undertaken are an overall representation of the conditions encountered. The properties of the soil, vapour and groundwater within the location may change due to variations in ground conditions outside of the assessed area. The author has no control or liability over site variability that may warrant further investigation that may lead to significant design and land use changes.

12.0 Unexpected findings

If any unconsolidated, odorous, stained, or deleterious soils, or suspect bonded/friable/fibrous asbestos containing material, fuel tanks, or septic systems are encountered during any further excavation, suspected historical contaminating activities are encountered, or conditions that are not alike the above descriptions, the site supervisor should be informed, the work stopped, and this office be contacted immediately for further evaluation by an appropriately qualified environmental consultant. The unexpected findings may trigger the need for more investigation and assessment dependant on the scope and context of the unexpected finding.

13.0 Notice of Copyright

14.0 Attachments

A. Site maps and current zoning map	3 pages
B. Aerial photographs and satellite imagery	18 pages
C. Site features	3 pages
D. Site photographs	17 pages
E. Sampling map	1 page
F. Tabulated results	1 page
G. Laboratory reports	15 pages

Attachment A : *Site map and current zoning map*

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2022

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2022

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn
Browrigg St
Richmond

Google Earth
Image © 2024 Airbus

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300 m

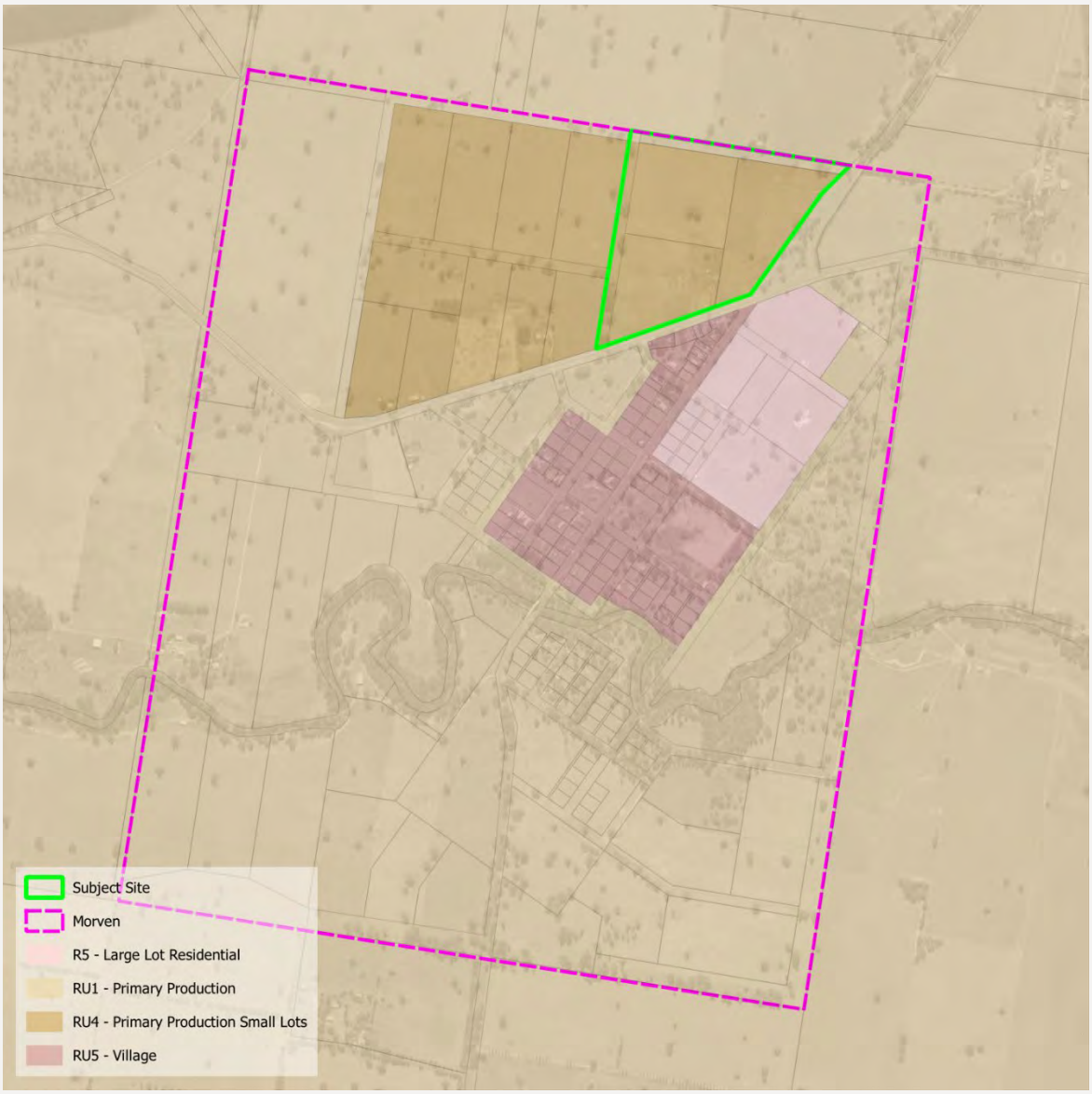

Figure 4 - Subject Site and Morven

Attachment B : *Aerial photographs and satellite images*

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
NSW Spatial Services image 1959

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
NSW Spatial Services image 1966

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Brownrigg St
Richmond

Google Earth
Image © 2024 Airbus

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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
NSW Spatial Services image 1972

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Brownrigg St
Culcairn
Google Earth
Image © 2024 Airbus
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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
NSW Spatial Services image 1980

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Brownrigg St
Richmond

Google Earth
Image © 2024 Airbus

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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
NSW Spatial Services image 1991

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Brownrigg St
Culcairn

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Google Earth
Image © 2024 Airbus

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
NSW Spatial Services image 1998

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn
Brownrigg St
Richmon

Google Earth
Image © 2024 Airbus

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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2007

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn
Browning St
Richmon

Google Earth
Image © 2024 Maxar Technologies

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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2010

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Brownrigg St
Culcairn

Google Earth
Image © 2024 Maxar Technologies

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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2013

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn
Culcairn Holbrook Rd
Browrigg St
Richmon

Google Earth
Image © 2024 Maxar Technologies

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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2014

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn
Browrigg St
Richmon

Google Earth
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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2015

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn
Browrigg St
Richmond
Google Earth
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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2016

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn
Browrigg St
Richmond

Google Earth
Image © 2024 CNES / Airbus

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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2017

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2018

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn
Brownrigg St
Richmon

Google Earth
Image © 2024 Maxar Technologies

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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2019

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2020

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn
Brownrigg St
Richmon

Google Earth
Image © 2024 Maxar Technologies

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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2021

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn
Brownrigg St
Google Earth
Image © 2024 Airbus
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2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2022

Legend
Boundary

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn
Browngg St
Richmon

Google Earth
Image © 2024 Airbus

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300 m

Attachment C : *Site features*

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2022

Legend

- Boundary
- Demolished house (approx.)
- Existing house
- Horse arena
- Horse yard
- Septic disposal area (approx.)
- Shed

Morven-Cookardinia Rd

Culcairn Holbrook Rd

Culcairn Holbrook Rd

Culcairn Holbrook Rd

Culcairn

Browrigg St

Google Earth

Image © 2024 Airbus

N

300 m

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2022

Legend

- Boundary
- Demolished house (approx.)
- Existing house
- Horse arena
- Horse yard
- Septic disposal area (approx.)
- Shed

Rubbish pile

Well

Well

Well

Bonfire

Small concrete slab

Septic tank and pump

Gravel fill

Small firepit

Google Earth

Image © 2024 Airbus

N

80 m

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2022

Legend
- Boundary
- Horse arena
- Shed

Laydown area
Rubbish pile
Tractor
Diesel tank

Google Earth
Image © 2024 Airbus

N

70 m

Attachment D : *Site photographs*

ANNEXURE 4

Photograph 1: The site. Photograph taken facing north east from Lot 137.

Photograph 2: The site. Photograph taken facing south from Lot 137.

Photograph 3: The old Morven general store to the south of the site. Photograph taken facing south.

Photograph 4: Rubbish pile at Lot 136. Photograph taken facing west.

ANNEXURE 4

Photograph 5: The entrance to Lot 137. Photograph taken facing north from Culcairn Holbrook Road.

Photograph 6: Stockpile of remaining gravel south west of the house. Photograph taken facing east.

Photograph 7: Septic tank and pump to the north of the house. Photograph taken facing south west.

Photograph 8: Septic disposal area to the north east of the house. Photograph taken facing north.

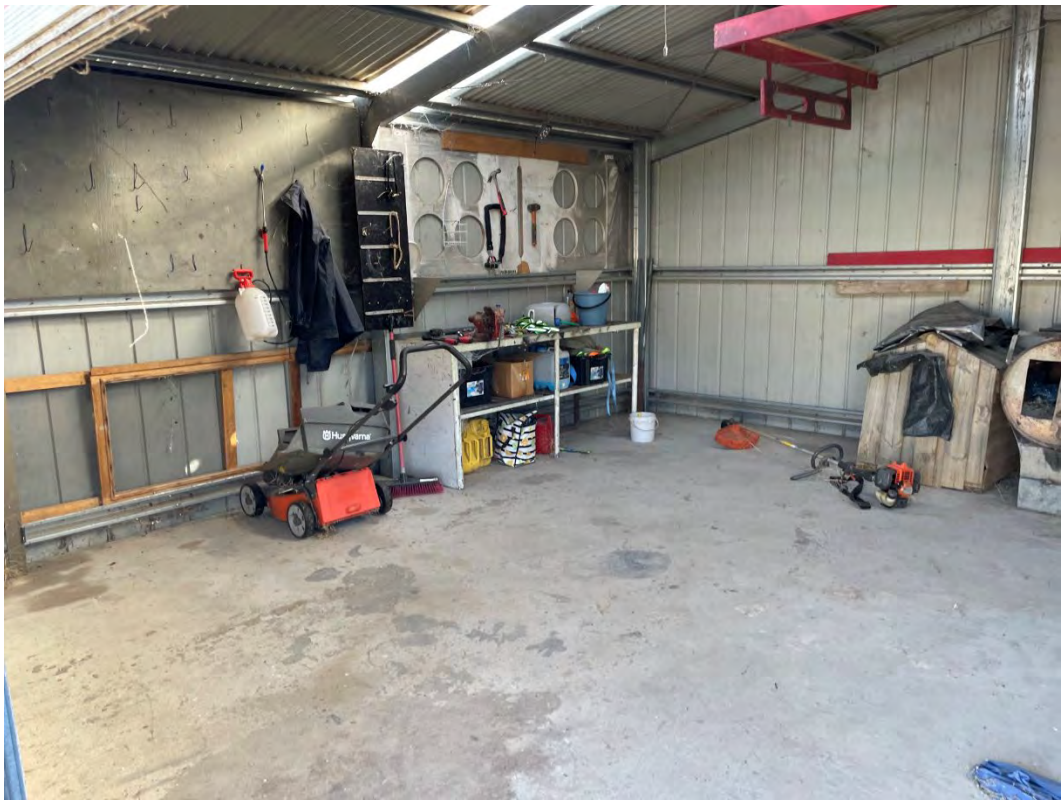
Photograph 9: Pieces of glass at the location of the demolished house.

Photograph 10: Asbestos fragment at the location of the demolished house.

Photograph 11: Asbestos fragment at the location of the demolished house.

Photograph 12: Slab on grade shed to the north of the house. Photograph taken facing north west.

ANNEXURE 4



Photograph 13: Inside the slab on grade shed. Photograph taken facing north west.

Photograph 14: Small concrete slab to the west of the shed. Photograph taken facing south east.

Photograph 15: Remnants of the small bonfire to the west of the shed. Photograph taken facing east.

Photograph 16: The old well to the west of the shed. Photograph taken facing east.

Photograph 17: Horse/cattle yards further west of the shed. Photograph taken facing north west.

Photograph 18: Rubbish around the yards. Photograph taken facing west.

Photograph 19: The loading ramp to the south of the yards. Photograph taken facing west.

Photograph 20: The entrance to Lot 138. Photograph taken facing south west from Morven-Cookardinia Road.

Photograph 21: The shed on Lot 138. Photograph taken facing south.

Photograph 22: Small diesel fuel tank inside the shed. Photograph taken facing south.

Photograph 23: Chemical storage and filling area inside the shed. Photograph taken facing east.

Photograph 24: Chemical storage inside the shed. Photograph taken facing west.

Photograph 25: Oil storage inside the shed. Photograph taken facing south.

Photograph 26: Laydown area to the west of the shed. Photograph taken facing west.

Photograph 27: The round horse arena west of the laydown area. Photograph taken facing north.

Photograph 28: Rubbish pile outside the arena. Photograph taken facing south west.

Photograph 29: Gravel stockpile outside the arena. Photograph taken facing north.

Photograph 30: Hay bales. Photograph taken facing south.

Photograph 31: horse paddocks on Lot 138. Photograph taken facing north.

Photograph 32: Two old wells. Photograph taken facing south west.

Photograph 33: The dam in the south east corner of the site. Photograph taken facing north from the entrance from Coach Road (Brownrigg Street).

Attachment E : *Sampling map*

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Preliminary Site Investigation
Report No. 9990
Google Earth image 2022

Legend
- Boundary
- Sampling locations

1 2 3 4 5 6 7 8 9 10

Morven-Cookardinia Rd
Morven-Cookardinia Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn Holbrook Rd
Culcairn
Browrigg St
Richmond

Google Earth
Image © 2024 Airbus

N
300 m

Attachment F : *Tabulated results*

Page: 1 of 1
Job number: 9990
Project: 2028 Culcairn Holbrook Road and Morven-Cookardinia Raod Morven NSW

																Residential A Criteria			
Sample date			30/4/24	30/4/24	30/4/24	30/4/24	30/4/24	30/4/24	30/4/24	30/4/24	30/4/24	30/4/24	-	-					
Sample location			Paddock	Paddock	Arena	Shed	Shed	Paddock	Yard	Arena	Shed	Shed	-	-					
Sample ID			1	2	3	4	5	6	7	8	9	10	-	-					
Sample depth (m)			0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	-	-					
Compound	**LOR**	**Unit**	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	**HILs**	**HSLs**	**ACLs**	**EILs**	**ESLs**
Arsenic	5	mg/kg	12	7	10	11	88	14	8	10	12	12	-	-	100	-	-	100	-
Cadmium	1	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	-	20	-	-	-	-
Chromium	2	mg/kg	17	14	18	23	13	21	17	18	18	16	-	-	-	-	400	-	-
Copper	5	mg/kg	10	7	11	13	14	13	12	16	24	14	-	-	6000	-	190	-	-
Lead	5	mg/kg	16	13	15	16	16	17	14	19	41	34	-	-	300	-	1100	-	-
Nickel	2	mg/kg	7	5	9	10	11	8	7	8	7	6	-	-	400	-	170	-	-
Zinc	5	mg/kg	17	14	24	32	39	23	35	86	387	121	-	-	7400	-	400	-	-
Mercury	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	40	-	-	-	-
PCBs	0.1	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
HCB	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	10	-	-	-	-
Heptachlor	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	6	-	-	-	-
Chlordane	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	50	-	-	-	-
Endrin	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	10	-	-	-	-
Endosulfan	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	270	-	-	-	-
Aldrin+dieldrin	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	6	-	-	-	-
DDT+DDE+DDD	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	-	240	-	-	-	-
Chlorpyrifos	0.05	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	160	-	-	-	-
Phenols	0.5	mg/kg	-	-	-	-	<0.5	-	-	-	-	<0.5	-	-	3000	-	-	-	-
PAHs	0.5	mg/kg	-	-	-	-	<0.5	-	-	-	-	1.1	-	-	300	-	-	-	-
Benzo(a)pyrene	0.5	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-				0.7
Benzo(a)pyrene TEQ (half LOR)	0.5	mg/kg	-	-	-	-	0.6	-	-	-	-	0.6	-	-	-	-	-	-	-
TRH C6-C10 minux BTEX (F1)	10	mg/kg	-	-	-	-	<10	-	-	-	-	<10	-	-	-	50/4400	-	-	180
TRH C10-C16 minus napthalene (F2)	50	mg/kg	-	-	-	-	<50	-	-	-	-	<50	-	-	-	280/3300	-	-	120
TRH C16-C34 (F3)	100	mg/kg	-	-	-	-	170	-	-	-	-	<100	-	-	-	-/4500	-	-	1300
TRH C34-C40 (F4)	100	mg/kg	-	-	-	-	<100	-	-	-	-	<100	-	-	-	-/6300	-	-	5600
Benzene	0.2	mg/kg	-	-	-	-	<0.2	-	-	-	-	<0.2	-	-	-	0.7	-	-	65
Toluene	0.5	mg/kg	-	-	-	-	<0.5	-	-	-	-	<0.5	-	-	-	480	-	-	105
Ethylbenzene	0.5	mg/kg	-	-	-	-	<0.5	-	-	-	-	<0.5	-	-	-	-	-	-	125
Xylenes	0.5	mg/kg	-	-	-	-	<0.5	-	-	-	-	<0.5	-	-	-	110	-	-	45
Napthalene	1	mg/kg	-	-	-	-	<1	-	-	-	-	<1	-	-	-	5	-	170	-

Attachment G : *Laboratory reports*

CERTIFICATE OF ANALYSIS

Work Order	: **ES2414136**	Page	: 1 of 14
Client	: **DM MCMAHON PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: ADMIN	Contact	: Danae Hambly
Address	: 6 JONES ST Wagga Wagga NSW, AUSTRALIA 2650	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: +61 02 6931 0510	Telephone	: +61-2-8784 8555
Project	: Morven	Date Samples Received	: 01-May-2024 10:25
Order number	: 9990	Date Analysis Commenced	: 03-May-2024
C-O-C number	: ----	Issue Date	: 08-May-2024 18:14
Sampler	: DAVID MCMAHON		
Site	: ----		
Quote number	: EN/111		
No. of samples received	: 12		
No. of samples analysed	: 12		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Sanjeshni Jyoti	Senior Chemist Volatiles	Sydney Organics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP068: Where reported, Total OCP is the sum of the reported concentrations of all Organochlorine Pesticides at or above LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	1	2	3	4	6
				Sampling date / time	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00
Compound	CAS Number	LOR	Unit		ES2414136-001	ES2414136-002	ES2414136-003	ES2414136-004	ES2414136-005
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		20.6	11.6	12.9	13.4	17.0
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		12	7	10	11	14
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		17	14	18	23	21
Copper	7440-50-8	5	mg/kg		10	7	11	13	13
Lead	7439-92-1	5	mg/kg		16	13	15	16	17
Nickel	7440-02-0	2	mg/kg		7	5	9	10	8
Zinc	7440-66-6	5	mg/kg		17	14	24	32	23
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	1	2	3	4	6
				Sampling date / time	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00
Compound	CAS Number	LOR	Unit		ES2414136-001	ES2414136-002	ES2414136-003	ES2414136-004	ES2414136-005
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Sample ID	1	2	3	4	6
			Sampling date / time	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00
Compound	CAS Number	LOR	Unit	ES2414136-001	ES2414136-002	ES2414136-003	ES2414136-004	ES2414136-005
				Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued								
Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.05	%	**108**	**75.3**	**77.1**	**88.8**	**97.6**
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.05	%	**108**	**72.5**	**74.2**	**90.4**	**101**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	7	8	9	5	10
				Sampling date / time	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00
Compound	CAS Number	LOR	Unit		ES2414136-006	ES2414136-007	ES2414136-008	ES2414136-009	ES2414136-010
					Result	Result	Result	Result	Result
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		18.1	25.8	18.9	9.7	14.1
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		8	10	12	88	12
Cadmium	7440-43-9	1	mg/kg		<1	<1	<1	<1	<1
Chromium	7440-47-3	2	mg/kg		17	18	18	13	16
Copper	7440-50-8	5	mg/kg		12	16	24	14	14
Lead	7439-92-1	5	mg/kg		14	19	41	16	34
Nickel	7440-02-0	2	mg/kg		7	8	7	11	6
Zinc	7440-66-6	5	mg/kg		35	86	387	39	121
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	----	----	<0.1	<0.1
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
beta-BHC	319-85-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
delta-BHC	319-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor	76-44-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Aldrin	309-00-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Dieldrin	60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	7	8	9	5	10
				Sampling date / time	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00
Compound	CAS Number	LOR	Unit		ES2414136-006	ES2414136-007	ES2414136-008	ES2414136-009	ES2414136-010
					Result	Result	Result	Result	Result
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin	72-20-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ **Endosulfan (sum)**	115-29-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Dimethoate	60-51-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Diazinon	333-41-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	121-75-5	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenthion	55-38-9	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Parathion	56-38-2	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	7	8	9	5	10
				Sampling date / time	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00
Compound	CAS Number	LOR	Unit		ES2414136-006	ES2414136-007	ES2414136-008	ES2414136-009	ES2414136-010
					Result	Result	Result	Result	Result
EP068B: Organophosphorus Pesticides (OP) - Continued									
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Ethion	563-12-2	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05
EP075(SIM)A: Phenolic Compounds									
Phenol	108-95-2	0.5	mg/kg		----	----	----	<0.5	<0.5
2-Chlorophenol	95-57-8	0.5	mg/kg		----	----	----	<0.5	<0.5
2-Methylphenol	95-48-7	0.5	mg/kg		----	----	----	<0.5	<0.5
3- & 4-Methylphenol	1319-77-3	1	mg/kg		----	----	----	<1	<1
2-Nitrophenol	88-75-5	0.5	mg/kg		----	----	----	<0.5	<0.5
2.4-Dimethylphenol	105-67-9	0.5	mg/kg		----	----	----	<0.5	<0.5
2.4-Dichlorophenol	120-83-2	0.5	mg/kg		----	----	----	<0.5	<0.5
2.6-Dichlorophenol	87-65-0	0.5	mg/kg		----	----	----	<0.5	<0.5
4-Chloro-3-methylphenol	59-50-7	0.5	mg/kg		----	----	----	<0.5	<0.5
2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg		----	----	----	<0.5	<0.5
2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg		----	----	----	<0.5	<0.5
Pentachlorophenol	87-86-5	2	mg/kg		----	----	----	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		----	----	----	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		----	----	----	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		----	----	----	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		----	----	----	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		----	----	----	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		----	----	----	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		----	----	----	<0.5	**0.5**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	7	8	9	5	10
				Sampling date / time	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00
Compound	CAS Number	LOR	Unit		ES2414136-006	ES2414136-007	ES2414136-008	ES2414136-009	ES2414136-010
					Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Pyrene	129-00-0	0.5	mg/kg		----	----	----	<0.5	**0.6**
Benz(a)anthracene	56-55-3	0.5	mg/kg		----	----	----	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		----	----	----	<0.5	<0.5
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		----	----	----	<0.5	<0.5
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		----	----	----	<0.5	<0.5
Benzo(a)pyrene	50-32-8	0.5	mg/kg		----	----	----	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		----	----	----	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		----	----	----	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		----	----	----	<0.5	<0.5
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		----	----	----	<0.5	**1.1**
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		----	----	----	<0.5	<0.5
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		----	----	----	**0.6**	**0.6**
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg		----	----	----	**1.2**	**1.2**
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		----	----	----	<10	<10
C10 - C14 Fraction	----	50	mg/kg		----	----	----	<50	<50
C15 - C28 Fraction	----	100	mg/kg		----	----	----	<100	<100
C29 - C36 Fraction	----	100	mg/kg		----	----	----	<100	<100
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg		----	----	----	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		----	----	----	<10	<10
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		----	----	----	<10	<10
>C10 - C16 Fraction	----	50	mg/kg		----	----	----	<50	<50
>C16 - C34 Fraction	----	100	mg/kg		----	----	----	**170**	<100
>C34 - C40 Fraction	----	100	mg/kg		----	----	----	<100	<100
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		----	----	----	**170**	<50

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	7	8	9	5	10
				Sampling date / time	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00
Compound	CAS Number	LOR	Unit		ES2414136-006	ES2414136-007	ES2414136-008	ES2414136-009	ES2414136-010
					Result	Result	Result	Result	Result
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions - Continued									
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	50	mg/kg		----	----	----	<50	<50
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		----	----	----	<0.2	<0.2
Toluene	108-88-3	0.5	mg/kg		----	----	----	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg		----	----	----	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		----	----	----	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg		----	----	----	<0.5	<0.5
^ Sum of BTEX	----	0.2	mg/kg		----	----	----	<0.2	<0.2
^ Total Xylenes	----	0.5	mg/kg		----	----	----	<0.5	<0.5
Naphthalene	91-20-3	1	mg/kg		----	----	----	<1	<1
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		----	----	----	**108**	**102**
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**76.8**	**101**	**81.3**	**105**	**86.0**
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**75.7**	**103**	**78.2**	**107**	**82.9**
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		----	----	----	**92.6**	**87.2**
2-Chlorophenol-D4	93951-73-6	0.5	%		----	----	----	**86.6**	**80.4**
2.4.6-Tribromophenol	118-79-6	0.5	%		----	----	----	**50.8**	**43.6**
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		----	----	----	**82.7**	**82.3**
Anthracene-d10	1719-06-8	0.5	%		----	----	----	**94.5**	**93.4**
4-Terphenyl-d14	1718-51-0	0.5	%		----	----	----	**87.0**	**85.8**
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		----	----	----	**100**	**99.8**
Toluene-D8	2037-26-5	0.2	%		----	----	----	**92.4**	**92.3**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	7	8	9	5	10
				Sampling date / time	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00	30-Apr-2024 00:00
Compound	CAS Number	LOR	Unit		ES2414136-006	ES2414136-007	ES2414136-008	ES2414136-009	ES2414136-010
					Result	Result	Result	Result	Result
EP080S: TPH(V)/BTEX Surrogates - Continued									
4-Bromofluorobenzene	460-00-4	0.2	%		**----**	**----**	**----**	**88.5**	**87.7**

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	Duplicate	----	----	----	----
				Sampling date / time	30-Apr-2024 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2414136-011	--------	--------	--------	--------
					Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		**13.5**	----	----	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		**7**	----	----	----	----
Cadmium	7440-43-9	1	mg/kg		<1	----	----	----	----
Chromium	7440-47-3	2	mg/kg		**15**	----	----	----	----
Copper	7440-50-8	5	mg/kg		**14**	----	----	----	----
Lead	7439-92-1	5	mg/kg		**31**	----	----	----	----
Nickel	7440-02-0	2	mg/kg		**6**	----	----	----	----
Zinc	7440-66-6	5	mg/kg		**106**	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	----	----	----	----

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	Rinsate	----	----	----	----
				Sampling date / time	30-Apr-2024 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2414136-012	--------	--------	--------	--------
					Result	----	----	----	----
EG020T: Total Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		<0.001	----	----	----	----
Cadmium	7440-43-9	0.0001	mg/L		<0.0001	----	----	----	----
Chromium	7440-47-3	0.001	mg/L		<0.001	----	----	----	----
Copper	7440-50-8	0.001	mg/L		<0.001	----	----	----	----
Nickel	7440-02-0	0.001	mg/L		<0.001	----	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	----	----	----	----
Zinc	7440-66-6	0.005	mg/L		<0.005	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	----	----	----	----

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	39	149
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2.4.6-Tribromophenol	118-79-6	40	138
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	63	125
Toluene-D8	2037-26-5	67	124
4-Bromofluorobenzene	460-00-4	66	131

Chain of Custody

McMahon EARTH SCIENCE

DM McMahon Pty Ltd
6 Jones Street
PO Box 6118, Wagga Wagga NSW 2650
Ph: (02) 69 310 510

Turnaround Requirements: ☑ Standard TAT ☐ Non Standard or Urgent TAT (List Due Date):

Analysing Laboratory: ALS Environmental - Sydney
Project: Morven
Order No.: 9990
Project Manager: David McMahon
Contact Ph: (02) 69 310 510
Sampling Officer: D.McMahon
Report Format: Default
Email Reports to: admin@dmmcmahon.com.au
Email Invoice to: admin@dmmcmahon.com.au

For Laboratory Use Only (Circle)
Custody Seal Intact? Yes No N/A
Free ice/ Frozen ice bricks present upon sample Yes No N/A
Random sample temp on receipt: °C
Other comments:

QUOTE NO.: EN/111/23

COC SEQUENCE NUMBER
COC: 1 2 3 4 5 6 7 8
OF: 1 2 3 4 5 6 7 8

Relinquished by: D McMahon
Date: 30/04/2024
Signature: DM

Received by:
Date: 1/5/24 10:25
Signature:

Relinquished by:
Date:
Signature:

Received by:
Date:
Signature:

Lab Comments:

LAB USE	SAMPLE DETAILS			CONTAINER INFORMATION		ANALYSIS REQUIRED including suites (where metals are required, specify Total or Dissolved)										Additional Information
LAB ID	SAMPLE ID	DATE/TIME	MATRIX (ref below)	TYPE & PRESERVATIVE (see codes below)	TOTAL CONTAINERS	S-2 (metals)	S-12 (OCP/OPP)	S-19	W-2 (metals)							Comments on likely contaminant levels, dilutions, or samples requiring specific QC analysis etc.
1-4 5-8	1 to 4 & 6 to 9	30/04/2024	S	Jar	8	✓	✓									
9-10	5 and 10	30/04/2024	S	Jar	2			✓								
11	Duplicate	30/04/2024	S	Jar	1	✓										
12	Rinsate	30/04/2024	W	NP	1				✓							
				TOTAL	12											

Environmental Division
Sydney
Work Order Reference
ES2414136

Telephone - 61-2-8784 8555

Matrix	Container Codes:
W- Water; S - Soil; Sed - Sediment; Sl - Sludge; A - Air; D - Dust.	P = Unpreserved Plastic; N = Nitric Preserved Plastic; ORC = Nitric Preserved ORC; SH = Sodium Hydroxide/Cd Preserved; S = Sodium Hydroxide Preserved Plastic; AG = Amber Glass Unpreserved; AP - Airfreight Unpreserved Plastic; V = VOA Vial HCl Preserved; VB = VOA Vial Sodium Bisulphate Preserved; VS = VOA Vial Sulfuric Preserved; AV = Airfreight Unpreserved Vial SG = Sulfuric Preserved Amber Glass; H = HCl preserved Plastic; HS = HCl preserved Speciation bottle; SP = Sulfuric Preserved Plastic; F = Formaldehyde Preserved Glass; Z = Zinc Acetate Preserved Bottle; E = EDTA Preserved Bottles; ST = Sterile Bottle; ASS = Plastic Bag for Acid Sulphate Soils; B = Unpreserved Bag.

ES2414136

DM McMahon Pty Ltd
6 Jones St (PO Box 6118)
Wagga Wagga NSW 2650
t (02) 6931 0510
www.dmmcmahon.com.au

ANNEXURE 4

30 April 2025

Attention: Steven Pinnuck
Pinnuck Family Superannuation Fund
15-19 Atkins Street
Morven NSW 2660
stevenpinnuck@bigpond.com
BY EMAIL

Dear Steven

Re: Detailed Site Investigation – 2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

I refer to the written request from yourself to prepare a Detailed Site Investigation (DSI) report for the proposed rezoning of land at 2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660. The intended recipient of this report is yourself and Greater Hume Shire Council in the case of a planning proposal being submitted to develop the site.

1. Executive summary

The 24.1ha rezoning area (the site) is currently agricultural land, used for cropping and horse agistment.

A Preliminary Site Investigation (PSI) conducted by this office in May 2024 (Report 9990) found no evidence of gross contamination on site however some isolated asbestos containing material fragments were found on the surface in the location of a demolished house on 2028 Culcairn Holbrook Road. This 400m^2 demolished house footprint is called the investigation area. The PSI recommended further assessment within the investigation area to identify the nature of the potential asbestos contamination and delineate its lateral and vertical extent to a sufficient degree that appropriate site management strategies can be devised, if required. A map of the site and the investigation area can be seen in **Attachment A**.

The further assessment consisted of a site walkover for the presence of asbestos on the site surface and sampling 10 locations within the investigation area for bonded and friable asbestos by sieving and trace analysis. The sampling density satisfies the guidelines recommended by the NSW EPA.

The investigation area walkover found six small pieces of bonded asbestos containing material on the surface that ranged in size from 15 to 50mm diameter. The bonded asbestos pieces were in good condition with no evidence of breakdown of fibre release. The pieces of asbestos were removed from the investigation area and disposed of as asbestos waste.

The sieving and trace analysis returned nil detects and the results are below the adopted criteria for Residential A land use.

Therefore, it is assessed the investigation area is suitable for the continued and future residential land use given the recommendations of this report are implemented during any development.

2. Objectives

To determine whether potential asbestos contamination within the investigation area poses a risk to human health under a residential land use scenario.

3. Scope of work

To conduct a desktop study and detailed site inspection with sampling, analyse the data reliability, and undertake a risk assessment to human health based on the results.

4. Site identification

Site area – 24.1ha (approximately).

Investigation area – 400m^2 within and around the demolished house footprint.

Address – 2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660.

Real property description - Lots 136, 137 & 138 DP 753751, and Lot 1 DP 240321.

Centre coordinates of the investigation area– 511100E 6054375N (MGA Zone 55)

A map of the site and the investigation area can be seen in **Attachment A**.

5. Site history

The investigation area lies within a site that has a history of agricultural land use. The house that occupied the investigation area was demolished by 1980, and the existing house in front of the investigation area was built sometime between 1998 and 2007. The historical aerial photographs that capture the house demolition can be seen in **Attachment B**.

A Preliminary Site Investigation (PSI) was completed by this office in May 2024 (ref: 9990) and a summary of the report is presented below:

- The report found the following sources of potential contamination on site that may materially affect the proposed rezoning of land:
    - Agricultural chemicals that may have been used across the paddocks and in the horse arenas and yards.
    - Fuel and oil leaks and spills in the sheds.
    - Asbestos containing material from the demolished house.
- Soil sampling was conducted to assess contamination from agricultural chemicals across the paddocks, in the horse arenas and in the sheds, with samples from the sheds also assessed for contamination from fuel and oil leaks and spills. Samples from the sheds were analysed for heavy metals, organochlorine and organophosphate pesticides, hydrocarbons, and solvents. The sampling returned chemical results that were below the criteria for residential

land use and the report suggests that gross contamination from agricultural chemicals and from fuel and oil leaks and spills is not present at the site.

- Isolated bonded asbestos containing material fragments were found on the surface in the location of the demolished house (the investigation area). The PSI recommended further investigation and assessment as asbestos contamination is present and the information available is insufficient to enable an appropriate level of risk assessment for future development.

6. Site condition and surrounding environment

The condition of the investigation area is a gravelled hardstand and grassed area behind the existing house. The investigation area walkover found six small pieces of bonded asbestos containing material on the surface that ranged in size from 15 to 50mm diameter all within the gravelled area. Photographs of the investigation area can be seen in **Attachment C**.

The site lies on extensive level alluvial plains of Billabong Creek at an elevation range of approximately 225m to 230m AHD.

The local geology is unconsolidated riverine deposits of clay, silt, sand, and gravel.

The nearest named waterway is Billabong Creek located around 1.2km to the south of the site. Billabong Creek flows west towards the Edward River. Flood studies have not been undertaken for Morven.

There are no registered groundwater bores on site however nearby groundwater bores suggest groundwater is >10m below ground level. Aquifers are unconfined to semi-confined, with groundwater flow occurring primarily through unconsolidated alluvial sediments. Hydraulic conductivity is high, and transmissivity is moderate to high. Groundwater recharge rates are estimated to be high. Groundwater systems are typically intermediate to regional with intermediate to long flow lengths and are loosely defined by topographic catchments. Water quality within these systems is brackish to saline. Groundwater depths are intermediate to deep. Localised perching occurs above clay lenses during wetter periods.

There are no records on the Contaminated Land Record Database for the site or adjacent properties pertaining to Preliminary Investigation Orders, Declaration of Significantly Contaminated Land, Approved Voluntary Management Plans, Management Orders, Ongoing Maintenance Orders, Repeal Revocation or Variation Notice, Site Audit Statement, or Notice of Completion or Withdrawal of Approved VMP. The site or adjacent properties have not been “notified” to the EPA on the list of NSW Contaminated sites as of March 2025.

A search of the Greater Hume Local Environment Plan (2012) found the site is not mapped as being in a natural resource sensitivity area for riparian lands and watercourses, or terrestrial biodiversity. No other maps were available.

7. Sampling and Analysis Quality Plan and sampling methodology

The sampling plan includes an analysis of the Data Quality Objectives (DQOs) which have been developed to define the type and quality of data to meet the project objectives. The DQOs have been developed generally in accordance with the seven step DQO process as outlined in AS 4482.1:2005 and the USA EPA: Guidance on Systematic Planning Using the Data Quality Objectives Process (2006a) with the information inputs provided in this DSI. The DQOs can be provided upon request.

The following sampling plan was executed for the assessment of in situ material for site suitability. The sampling method and analytical approach are associated with the demolished house and potential asbestos contamination source.

- A surface site inspection looking for bonded asbestos fragments.
- Judgmental graduated targeted sampling for linear extent and depth of potential asbestos contamination within and around the 400m^2 demolished building footprint (the investigation area). This methodology was employed as some isolated bonded asbestos fragments have been identified on the surface within and around the demolished building footprint.
- Ten systematic grid soil sample locations within and around the demolished building footprint. This sampling density satisfies the requirements of the NSW EPA endorsed WA DoH guidelines (2021) where double the sampling points is required where some isolated asbestos have been found.
- At each sampling location, the investigation depth will be 0-0.3m in natural soil or to the bottom level of any fill encountered. The tests pits will delineate the level of fill.
- At each sample location, a 10 litre sample will be taken and screened manually through a ≤ 7 mm sieve and any identified bonded ACM and FA will be weighed to calculate asbestos soil concentration.
- Before sieving, a wetted 500ml sample will be taken at each location for asbestos identification and quantification in soil.
- A plan of the investigation locations can be seen in **Attachment D**.
- One soil duplicate was taken for the sampling event to assess sampling quality assurance and quality control with relative percent differences of <30% expected for the duplicate.

The following will be used for assessment of the data to determine whether further remediation or further site management is required:

- Residential A assessment criteria from Schedule B1 of the National Environment Protection (Assessment of Site Contamination) Measure 2013: Table 7 Health screening levels for asbestos contamination in soil, namely:
    - No visible asbestos on the site surface.
    - Bonded ACM <0.01% w/w).
    - FA and AF (friable asbestos) <0.001% (w/w).

Where exceedances of this criteria indicate a risk to human health, further investigation, assessment, and remediation if required, will be carried out as appropriate. The Residential A assessment criteria was chosen as it presents the most sensitive land use.

8. Results

The sampling was conducted over one day on 17 April 2025. The weather was warm and sunny with light winds. Soils were shallow gravely fill overlying silty clay soil in the gravelled area and loamy topsoil overlying silty clay in the grassed area. A grab sample was taken at each of the ten grid sampling locations to 0.3m depth which satisfies the Sampling and Analysis Quality Plan.

A summary of the results are as follows:

- After removal of the six bonded ACM pieces, there was no asbestos visible on the site surface.
- Bonded ACM <0.01%.
- FA and AF (friable asbestos) <0.001%.

The tabulated results with a comparison to the adopted criteria can be seen in **Attachment E**. Laboratory reports can be seen in **Attachment F**.

9. Quality assurance/quality control data evaluation

The testing laboratory is accredited for compliance with ISO/IEC 17025 – Testing and is NATA accredited 2562(4354). The trace analysis technique is covered under this accreditation and the analysis was undertaken by an approved identifier.

In consideration of the adopted QA/QC procedures and the results from their subsequent analysis, McMahon assesses the QA/QC results are suitable for the investigation undertaken and reflect the analytical data is of a suitable quality to determine contamination risk with an appropriate level of confidence.

10. Conceptual site model

The investigation area lies within a farm with a house present from at least 1959 before it was demolished in 1980. Some isolated fragments of bonded (non-friable) asbestos were identified on the surface in this area. Pathways are mainly from soil disturbance during development and occupation. Inhalation of asbestos fibres is likely if the asbestos containing material is disturbed during development. Receptors include future construction workers and future residential site users.

The surface inspection removed the visible asbestos from the surface and the sampling returned nil detects which is below the adopted residential criteria. Therefore, potential asbestos contamination with the investigation areas does not pose an unacceptable health risk given the management strategies around any unexpected asbestos finds is implemented.

11. Site characterisation

Based on the findings of the DSI, it is assessed that widespread asbestos contamination is not present within the investigation area. There are aesthetic issues associated with any more asbestos finds on the site surface but this can be managed through removal if found. The potential effects on human health are through asbestos disturbance and the fibres being released and inhaled but the trace analysis returned nil detects. Based on such, there is a low risk of migration of asbestos from the investigation area.

12. Conclusions and recommendations

This investigation met the objective of investigating and assessing potential asbestos contamination to determine whether it poses a risk to human health for residential land use.

The results of the investigation conclude that gross asbestos contamination is not present within the investigation area, and it is suitable for the proposed rezoning and residential occupation given the following management strategies are adopted:

- Any further finds of bonded asbestos containing material on the site surface should be picked and removed in line with the SafeWork NSW Code of Practice: How to safely remove asbestos 2019.
- Any asbestos or fill material generated from the investigation area should be managed in accordance with the NSW EPA Waste Classification Guidelines. This is normally a standard development consent condition.
- Unexpected finds are possible during development and care must be taken to identify and evaluate these under the unexpected finds protocol.

If you have any queries about the contents of this report, please contact the undersigned.

Yours sincerely

David McMahon

Certified Professional Soil Scientist

Certified Environmental Practitioner (Site Contamination Specialist)

BAppSc (Ag) GradDip (Water) MEnvMgmt

MALGA MEIANZ MSSA

List of attachments

A. Site maps

B. Aerial photographs and satellite images

C. Investigation area photographs

D. Investigation locations

E. Tabulated results

F. Laboratory reports

Limitations and disclaimer

DM McMahon Pty Ltd has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of Steven Pinnuck, the Pinnuck Family Superannuation Fund, Greater Hume Shire Council and only those third parties who have been authorised by DM McMahon Pty Ltd to rely on this report.

The information contained in this report has been extracted from field and laboratory sources believed to be reliable and accurate. DM McMahon Pty Ltd does not assume any responsibility for the misinterpretation of information supplied in this report. The accuracy and reliability of recommendations identified in this report need to be evaluated with due care according to individual circumstances. It should be noted that the recommendations and findings in this report are based solely upon the said site location and conditions at the time of assessment. The results of the said investigations undertaken are an overall representation of the conditions encountered. The properties of the soil, vapour and groundwater within the location may change due to variations in ground conditions outside of the assessed area. The author has no control or liability over site variability that may warrant further investigation that may lead to significant design and land use changes.

Unexpected findings

If any unconsolidated, odorous, stained, or deleterious soils, or suspect bonded/friable/fibrous asbestos containing material, fuel tanks, or septic systems are encountered during any further excavation, suspected historical contaminating activities are encountered, or conditions that are not alike the above descriptions, the site supervisor should be informed, the work stopped, and this office be contacted immediately for further evaluation by an appropriately qualified environmental consultant. The unexpected findings may trigger the need for more investigation and assessment dependant on the scope and context of the unexpected finding.

Notice of Copyright

Attachment A : *Site maps*

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Detailed Site Investigation
Report No. 10303
Google Earth image 2024

Legend

- Investigation area (demolished house)
- Site boundary

Morven-Cookardinia Rd

Culcairn Holbrook Rd

Morven

Culcairn Holbrook Rd

Culcairn Holbrook Rd

Browrigg St

Coach Rd

Billabong Creek

Google Earth

Image © 2025 Airbus

N

1 km

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Detailed Site Investigation
Report No. 10303
Google Earth image 2024

Legend

- Investigation area (demolished house)
- Site boundary

Morven-Cookardinia Rd

Morven-Cookardinia Rd

Culcairn Holbrook Rd

Google Earth

Image © 2025 Airbus

N

200 m

Attachment B : *Aerial photographs and satellite images*

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Detailed Site Investigation
Report No. 10303
Aerial photograph 1959

ANNEXURE 4

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Detailed Site Investigation
Report No. 10303
Aerial photograph 1966

ANNEXURE 4

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Detailed Site Investigation
Report No. 10303
Aerial photograph 1972

ANNEXURE 4

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Detailed Site Investigation
Report No. 10303
Aerial photograph 1980

ANNEXURE 4

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Detailed Site Investigation
Report No. 10303
Aerial photograph 1991

ANNEXURE 4

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Detailed Site Investigation
Report No. 10303
Aerial photograph 1998

ANNEXURE 4

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Detailed Site Investigation
Report No. 10303
Google earth image 2007

ANNEXURE 4


2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660
Detailed Site Investigation
Report No. 10303
Google earth image 2017
ANNEXURE 4
Legend
Demolished house (approx.)
Site boundary
Culcairn Holbrook Rd
Culcairn Holbrook R
Morven-Cookardi
Google Earth
N
100 m

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Detailed Site Investigation
Report No. 10303
Google earth image 2022

ANNEXURE 4

Attachment C : *Site photographs*

ANNEXURE 4

Photograph 1: The gravelled part of the investigation area.

Photograph 2: The grassed part of the investigation area.

Photograph 3: The investigation area showing both the gravelled and grassed parts.

Photograph 4: The typical fill and soil in the gravelled part of the investigation area.

Photograph 5: The typical soil in the grassed part of the investigation area.

Photograph 6: The surface bonded ACM fragments found.

Attachment D : *Investigation locations*

2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

Detailed Site Investigation
Report No. 10303
Google Earth image 2024

Legend

- Boundary
- Investigation area (demolished house)
- Investigation location

Attachment E : *Tabulated results*

Page: 1 of 1
Job number: 10303
Project: Detailed Site Investigation - 2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660

			Sample date	17/4/25	17/4/25	17/4/25	17/4/25	17/4/25	17/4/25	17/4/25	17/4/25	17/4/25	17/4/25					
			Sample location	1	2	3	4	5	6	7	8	9	10					
			Sample ID	1	2	3	4	5	6	7	8	9	10					
			Sample depth (m)	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3	0-0.3					
Compound	**LOR**	**Unit**		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	**HILs**	**HSLs**	**ACLs**	**EILs**	**ESLs**
Arsenic	1	mg/kg		-	-	-	-	-	-	-	-	-	-	100	-	-	100	-
Cadmium	0.3	mg/kg		-	-	-	-	-	-	-	-	-	-	20	-	-	-	-
Chromium	0.5	mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	130	-	-
Copper	0.5	mg/kg		-	-	-	-	-	-	-	-	-	-	6000	-	190	-	-
Lead	1	mg/kg		-	-	-	-	-	-	-	-	-	-	300	-	1100	-	-
Nickel	0.5	mg/kg		-	-	-	-	-	-	-	-	-	-	400	-	170	-	-
Zinc	2	mg/kg		-	-	-	-	-	-	-	-	-	-	7400	-	400	-	-
Mercury	0.05	mg/kg		-	-	-	-	-	-	-	-	-	-	40	-	-	-	-
Chromium (VI)	0.5	mg/kg		-	-	-	-	-	-	-	-	-	-	100	-	-	-	-
PCBs	1	mg/kg		-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
HCB	0.1	mg/kg		-	-	-	-	-	-	-	-	-	-	10	-	-	-	-
Heptachlor	0.1	mg/kg		-	-	-	-	-	-	-	-	-	-	6	-	-	-	-
Chlordane	0.1	mg/kg		-	-	-	-	-	-	-	-	-	-	50	-	-	-	-
Endrin	0.2	mg/kg		-	-	-	-	-	-	-	-	-	-	10	-	-	-	-
Endosulfan	0.1	mg/kg		-	-	-	-	-	-	-	-	-	-	270	-	-	-	-
Mirex	0.1	mg/kg		-	-	-	-	-	-	-	-	-	-	10	-	-	-	-
Aldrin+dieldrin	0.3	mg/kg		-	-	-	-	-	-	-	-	-	-	6	-	-	-	-
DDT+DDE+DDD	0.3	mg/kg		-	-	-	-	-	-	-	-	-	-	240	-	-	-	-
Chlorpyrifos	0.2	mg/kg		-	-	-	-	-	-	-	-	-	-	160	-	-	-	-
Atrazine	0.05	mg/kg		-	-	-	-	-	-	-	-	-	-	320	-	-	-	-
Bifenthrin	0.05	mg/kg		-	-	-	-	-	-	-	-	-	-	600	-	-	-	-
Phenols	0.5	mg/kg		-	-	-	-	-	-	-	-	-	-	3000	-	-	-	-
PAHs	0.8	mg/kg		-	-	-	-	-	-	-	-	-	-	300	-	-	-	-
Benzo(a)pyrene TEQ (half LOR)	0.2	mg/kg		-	-	-	-	-	-	-	-	-	-	3	-	-	-	0.7
TRH C6-C10 minux BTEX (F1)	25	mg/kg		-	-	-	-	-	-	-	-	-	-	-	45	-	-	180
TRH C10-C16 minus napthalene (F2)	25	mg/kg		-	-	-	-	-	-	-	-	-	-	-	110	-	-	120
TRH C16-C34 (F3)	90	mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	300
TRH C34-C40 (F4)	120	mg/kg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	2800
Benzene	0.1	mg/kg		-	-	-	-	-	-	-	-	-	-	-	0.5	-	-	50
Toluene	0.1	mg/kg		-	-	-	-	-	-	-	-	-	-	-	160	-	-	85
Ethylbenzene	0.1	mg/kg		-	-	-	-	-	-	-	-	-	-	-	55	-	-	70
Xylenes	0.3	mg/kg		-	-	-	-	-	-	-	-	-	-	-	40	-	-	105
Napthalene	0.1	mg/kg		-	-	-	-	-	-	-	-	-	-	-	3	-	-	-
Bonded ACM	0.001	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	0.01	-	-	-
FA+AF (Friable asbestos)	0.0001	%		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	-	0.001	-	-	-

Residential A Criteria

Page: 1 of 1
Job No: 10303
Project: Detailed Site Investigation - 2028 Culcairn Holbrook Road and Morven-Cookardinia Road Morven NSW 2660
Tested by: DM
Date: 17/04/2025

10L sampling for bonded ACM quantification

Sample location	Sample ID	Sampled volume (L)	Asbestos detected	Soil weight (g)	Asbestos weight (g)	Asbestos concentration (%)
1	1	10	0	13254	0	0
2	2	10	0	12998	0	0
3	3	10	0	13056	0	0
4	4	10	0	13886	0	0
5	5	10	0	13987	0	0
6	6	10	0	13555	0	0
7	7	10	0	12051	0	0
8	8	10	0	12249	0	0
9	9	10	0	13085	0	0
10	10	10	0	12564	0	0

Attachment F : *Laboratory reports*

SGS

CHAIN OF CUSTODY & ANALYSIS REQUEST

SGS Environmental Services Sydney
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Telephone No: (02) 85940400
Facsimile No: (02) 85940499
Email: au.samplereceipt.sydney@sgs.com

Company Name:	McMahon Earth Science	**Project Name/No:**	2028 Culcairn Holbrook Road Morven
Address:	6 Jones Street	**Purchase Order No:**	10303
	East Wagga Wagga NSW 2650	**Results Required By:**	Standard turn around time
		Telephone:	(02) 6931 0510
Contact Name:	David McMahon	**Facsimile:**	
		Email Results:	admin@dmmcmahon.com.au

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	AN601 - Asbestos ID and quantitation in soil (500ml)
1 to 10	17/04/2025	1-10		X		10	X

SGS EHS Sydney COC
SE281725

Relinquished By:	D McMahon	**Date/Time:**	17/04/2025	**Received By:**	**Date/Time:** 22/04/25 @ 11:25
Relinquished By:		**Date/Time:**		**Received By:**	**Date/Time:**
Samples Intact: (Yes) No		**Temperature:** Ambient / Chilled		**Sample Cooler Sealed:** Yes/ No	**Laboratory Quotation No:** 1391588

Comments:

SAMPLE RECEIPT ADVICE

ANNEXURE 4
SE281725

CLIENT DETAILS

Contact	Admin
Client	DM MCMAHON
Address	6 Jones Street Wagga Wagga PO Box 6118 WAGGA WAGGA NSW 2650
Telephone	61 2 69310510
Facsimile	(Not specified)
Email	admin@dmmcmahon.com.au
Project	**2028 Culcairn Holbrook Road Morven**
Order Number	**10303**
Samples	10

LABORATORY DETAILS

Manager	Shane McDermott
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Tue 22/4/2025
Report Due	Wed 30/4/2025
SGS Reference	**SE281725**

SUBMISSION DETAILS

This is to confirm that 10 samples were received on Tuesday 22/4/2025. Results are expected to be ready by COB Wednesday 30/4/2025.
Please quote SGS reference SE281725 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Sample counts by matrix	10 Soil	Type of documentation received	COC
Date documentation received	22/4/2025	Samples received in good order	Yes
Samples received without headspace	N/A	Sample temperature upon receipt	23.5°C
Sample container provider	Client	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	None	Samples clearly labelled	Yes
Complete documentation received	Yes	Number of eskies/boxes received	

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

SAMPLE RECEIPT ADVICE

ANNEXURE 4
SE281725

CLIENT DETAILS

Client DM MCMAHON

Project 2028 Culcairn Holbrook Road Morven

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Gravimetric Determination of Asbestos in Soil
001	1	3	10
002	2	3	10
003	3	3	10
004	4	3	10
005	5	3	10
006	6	3	10
007	7	3	10
008	8	3	10
009	9	3	10
010	10	3	10

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

ANALYTICAL REPORT

ANNEXURE 4
Accreditation No. 2562

CLIENT DETAILS

Contact	Admin
Client	DM MCMAHON
Address	6 Jones Street Wagga Wagga PO Box 6118 WAGGA WAGGA NSW 2650
Telephone	61 2 69310510
Facsimile	(Not specified)
Email	admin@dmmcmahon.com.au
Project	**2028 Culcairn Holbrook Road Morven**
Order Number	**10303**
Samples	10

LABORATORY DETAILS

Manager	Shane McDermott
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE281725 R0**
Date Received	22 Apr 2025
Date Reported	30 Apr 2025

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.
Asbestos analysed by Approved Identifier Yusuf Kuthpudin.

SIGNATORIES

S. Ravensdale

Ravee SIVASUBRAMANIAM
Hygiene Team Leader

RESULTS

Fibre Identification in soil — Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Date Analysed	Fibre Identification	Est.%w/w*
SE281725.001	1	Soil	449g Clay, Sand, Rocks	17 Apr 2025	29 Apr 2025	No Asbestos Found at RL of 0.1g/kg	<0.01
SE281725.002	2	Soil	478g Clay, Sand, Rocks	17 Apr 2025	29 Apr 2025	No Asbestos Found at RL of 0.1g/kg Synthetic Mineral Fibres Detected Organic Fibres Detected	<0.01
SE281725.003	3	Soil	520g Clay, Sand, Rocks	17 Apr 2025	29 Apr 2025	No Asbestos Found at RL of 0.1g/kg	<0.01
SE281725.004	4	Soil	404g Clay, Sand, Rocks	17 Apr 2025	29 Apr 2025	No Asbestos Found at RL of 0.1g/kg Organic Fibres Detected	<0.01
SE281725.005	5	Soil	450g Clay, Sand, Rocks	17 Apr 2025	29 Apr 2025	No Asbestos Found at RL of 0.1g/kg	<0.01
SE281725.006	6	Soil	422g Clay, Sand, Rocks	17 Apr 2025	29 Apr 2025	No Asbestos Found at RL of 0.1g/kg	<0.01
SE281725.007	7	Soil	409g Clay, Sand, Rocks	17 Apr 2025	29 Apr 2025	No Asbestos Found at RL of 0.1g/kg	<0.01
SE281725.008	8	Soil	445g Clay, Sand, Rocks	17 Apr 2025	29 Apr 2025	No Asbestos Found at RL of 0.1g/kg Organic Fibres Detected	<0.01
SE281725.009	9	Soil	476g Clay, Sand, Rocks	17 Apr 2025	29 Apr 2025	No Asbestos Found at RL of 0.1g/kg Organic Fibres Detected	<0.01
SE281725.010	10	Soil	533g Clay, Sand, Rocks	17 Apr 2025	29 Apr 2025	No Asbestos Found at RL of 0.1g/kg	<0.01

Gravimetric Determination of Asbestos in Soil [AN605] Tested: 28/4/2025

PARAMETER	UOM	LOR	1 SOIL - 17/4/2025 SE281725.001	2 SOIL - 17/4/2025 SE281725.002	3 SOIL - 17/4/2025 SE281725.003	4 SOIL - 17/4/2025 SE281725.004	5 SOIL - 17/4/2025 SE281725.005
Date Analysed*	No unit	-	29/04/2025 00:00	29/04/2025 00:00	29/04/2025 00:00	29/04/2025 00:00	29/04/2025 00:00
Total Sample Weight*	g	1	**449**	**478**	**520**	**404**	**450**
Bonded ACM in >7mm Sample*	g	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AF/FA in >2mm to <7mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
AF/FA in <2mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fibre Type*	No unit	-	NAD	NAD	NAD	NAD	NAD

PARAMETER	UOM	LOR	6 SOIL - 17/4/2025 SE281725.006	7 SOIL - 17/4/2025 SE281725.007	8 SOIL - 17/4/2025 SE281725.008	9 SOIL - 17/4/2025 SE281725.009	10 SOIL - 17/4/2025 SE281725.010
Date Analysed*	No unit	-	29/04/2025 00:00	29/04/2025 00:00	29/04/2025 00:00	29/04/2025 00:00	29/04/2025 00:00
Total Sample Weight*	g	1	**422**	**409**	**445**	**476**	**533**
Bonded ACM in >7mm Sample*	g	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AF/FA in >2mm to <7mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
AF/FA in <2mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fibre Type*	No unit	-	NAD	NAD	NAD	NAD	NAD

METHOD SUMMARY

METHOD	METHODOLOGY SUMMARY
AN602/AS4964	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602/AS4964	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602/AS4964	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples , Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection/reporting limit (RL) of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602/AS4964	The sample can be reported “no asbestos found at the reporting limit (RL) of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable ’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.
AN605	This technique gravimetrically determines the mass of Bonded Asbestos Containing Material retained on a 7mm Sieve and assumes that 15% of this ACM is asbestos. This calculated asbestos weight is then calculated as a percentage of the total sample weight. Any fibrous asbestos (FA) found in this fraction will be added to the 2-7mm fraction and its mass recorded there.
AN605	This technique also gravimetrically determines the mass of Fibrous Asbestos (FA) and Asbestos Fines (AF) Containing Material retained on and passing a 2mm sieve post 7mm sieving. Assumes that FA and AF are 100% asbestos containing. This calculated asbestos weight is then calculated as a percentage of the total sample weight. This does not include free/respirable fibres which are only observed by standard trace analysis as per AN602.
AN605	Bonded asbestos containing material (Bonded ACM) comprises asbestos-containing-material which is sound in condition. Fibrous asbestos (FA) comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. Asbestos fines (AF) includes free fibres, small fibre bundles and also small fragments of bonded ACM that passes through a 7mm sieve - which implies that the bonded ACM fragments have a substantial degree of damage which increases the potential for fibre release.
AN-605	Insofar as is technically feasible, this report is consistent with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment Remediation and Management of Asbestos - Contaminated Sites in Western Australia - May 2009 and NEPM 1999 (2013) schedule B1 section 4..

FOOTNOTES

Amosite	-	Brown Asbestos	NA	-	Not Analysed
Chrysotile	-	White Asbestos	LNR	-	Listed, Not Required
Crocidolite	-	Blue Asbestos	*	-	NATA accreditation does not cover the performance of this service.
Amphiboles	-	Amosite and/or Crocidolite	**	-	Indicative data, theoretical holding time exceeded.
			***	-	Indicates that both * and ** apply.

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.
Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy, including dispersion staining.
Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos-containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

4. AMENDMENT TO GREATER HUME LOCAL ENVIRONMENTAL PLAN 2012 - ZONING & MINIMUM LOT SIZE CHANGES FOR 2028 CULCAIRN-HOLBROOK ROAD AND MORVEN-COOKADINIA ROAD MORVEN

Report prepared by Director Environment and Planning – Colin Kane

REASON FOR REPORT

The purpose of the report is for Council to resolve to seek from the Department of Planning Housing Infrastructure (DPHI) a Gateway Determination relating to a planning proposal looking to make a change to the Greater Hume Local Environmental Plan 2012 ("the LEP") for the zoning and minimum lot size (MLS) to facilitate Large Lot Residential land at 2028 Culcairn-Holbrook Road and Morven-Cookardinia Road, Morven.

DISCUSSION

Council has received a planning proposal **(ANNEXURE 5)** from Habitat Planning on behalf a number of affiliated landholders seeking to amend the land zoning map of the LEP from RU4 Primary Production Small Lots and RU1 Primary Production to R5 Large Lot Residential. The planning proposal also seeks to change the minimum lot size map applicable to the land by reducing the minimum lot size from 8 hectares and 100 hectares to 2 hectares

The following extract from the planning proposal describes the subject land.

> 2.2. Site Description
> The subject land is a grouping of four (4) lots at the northern extent of the Morven township, described as Lot 136 in DP753751, Lot 137 in DP753751, Lot 138 in DP753751 and Lot 1 in DP240321. The land is bounded by Culcairn-Holbrook Road to the south and Morven-Cookardinia Road to the east. Privately owned properties adjoin the west and northern boundaries of the site, comprise RU4 zoned and RU1 zoned land respectively. The position of the subject land relative to Morven is shown below:

AMENDMENT TO GREATER HUME LOCAL ENVIRONMENTAL PLAN 2012 - ZONING & MINIMUM LOT SIZE CHANGES FOR 2028 CULCAIRN-HOLBROOK ROAD AND MORVEN-COOKADINIA ROAD MORVEN [CONTD]

The site can be described as being flat cleared agricultural land which has been used for cropping, grazing and the agistment of horses. There is a dwelling on the property, a number of sheds and infrastructure associated with the keeping of horses. The land is adjacent to the residential area of Morven. There are rural residential properties located to the West and the South East.
The Planning Proposal indicates that the land should be considered for the change of zoning to R5 Large Lot Residential and change the minimum lot size to 2 hectares for the following reasons:

- The proposal is generally consistent with the strategic planning framework including State, Regional and local planning strategies for Greater Hume Shire.
- It is considered that Morven provides a 'rural living' extension to the Culcairn village area, in that it offers lifestyle opportunities in close proximity to a main village area.
- There is demand for larger lot residential properties within Morven, given its close proximity to Culcairn and ease of access to major transport corridors to larger regional centres.
- There is an opportunity for the land to utilised in a form that is expected to better represent the long-term requirements for the Morven township.

AMENDMENT TO GREATER HUME LOCAL ENVIRONMENTAL PLAN 2012 - ZONING & MINIMUM LOT SIZE CHANGES FOR 2028 CULCAIRN-HOLBROOK ROAD AND MORVEN-COOKADINIA ROAD MORVEN [CONTD]

• The subject land is well placed to integrate with the core urban area of the Morven township, and represents a transition from the higher density lots to rural land beyond.

The following is an analysis of the constraints associated with the proposed planning proposal which is seeking the land to be rezoned from RU4 Primary Production Small Lots and RU1 Primary Production to R5 Large Lot Residential with a change in the minimum lot size from either 100 hectares or 8 hectares to 2 hectares. The constraints that will be discussed include the presence of bushfire prone land, native vegetation, flooding, land contamination, servicing infrastructure, use of roadways and aboriginal heritage.

The land that is subject to this planning proposal is not mapped as bushfire prone land however Council has not yet mapped Vegetation Category 3 (Grasslands).

With respects to biodiversity the land has been used intensively for primary production. There are some scattered trees present however the land is significantly cleared of native vegetation. The indicative lot layout reveals that it will be possible to avoid the need to clear existing vegetation.

The planning proposal contains a Flood Impact Assessment Report which is acceptable to Council. That flood impact assessment has demonstrated that:

- The flood depths and hazards are generally low across the site, and it is concluded that the proposed low density residential development is appropriate from a floodplain management perspective, provided that the recommended flood mitigation measures such as minimum floor levels are implemented.

- A freeboard of 500 mm above the applicable 1% AEP flood level is recommended for the proposed dwellings. Specific levels can be provided once building footprint locations are known.

- A sensitivity analysis on Billabong Creek has been conducted and shows that the site is not impacted in the 1% AEP by Billabong Creek.

Council engineering staff have indicated that the construction of dwellings on this flood plain in an R5 Low Density Residential setting will not have detrimental effects to adjacent land.

A Preliminary Site Investigation (PSI) for land contamination was submitted with the planning proposal material. This investigation concluded that contamination is potentially present and the information available is insufficient to enable an appropriate level of site-specific risk assessment for future development. The following are the recommendations from the PSI:

- Targeted localised assessment for potential asbestos in soil is recommended to be conducted around the location of the demolished house. The asbestos pipes in the rubbish pile on Lot 136 are to be removed in line with standard industry practice with clearance issued by an appropriately trained and experienced person who is independent of the removal work. It is possible that more asbestos pipes are underground, and care should be taken during development.

- The bonfire remnants, the laydown area, and the rubbish piles on Lot 137 and 138 are an aesthetic issue and the soil in these areas is recommended to be excavated and disposed of at an appropriately licenced landfill.

- Further information is required to assess the risk of contamination from potential underground fuel tanks at the old general store.

- Data gaps exists around the suitability of the site for future development however the identified potential contamination sources do not preclude the proposed rezoning.

- In conclusion based on the findings of this report, a Detailed Site Investigation (DSI) is required as soil contamination is potentially present and the information available is insufficient to enable an appropriate level of risk assessment for future development. The DSI should identify the nature of the potential contamination and delineate its lateral and vertical extent to a sufficient degree that appropriate site management strategies can be devised, if required.

It is indicated above that the possible contamination should not preclude the proposed rezoning. It is considered should a gateway determination be issued by DPHI then the proponent be required to provide a DSI concurrently whilst Council is advertising the Gateway Determination.

The land is able to be provided with reticulated water and onsite sewerage management systems will be able to effectively manage waste water generated from the dwellings. The small number of lots created will have a negligible impact on the local road network.

An Aboriginal Due Diligence assessment report has been submitted with the Planning Proposal which considers that it is unlikely that the proposal will adversely affect any potential sites of Aboriginal Cultural Heritage. The land is considered highly disturbed and devoid of features where typically items of Aboriginal Cultural Heritage are located.

It is not envisaged that a site specific contribution plan will need to be developed for the development area. The proponent can be required through development consent conditions to improve public infrastructure that is impacted upon by the development proposal. Councils section 7.12 contribution plan would apply to all future development.

Part 4 of the planning proposal outlines the community consultation that is proposed to be undertaken as the public exhibition process. The consultation will include providing written notification to landowners directly affected by proposed land use zone and minimum lot size changes.

AMENDMENT TO GREATER HUME LOCAL ENVIRONMENTAL PLAN 2012 - ZONING & MINIMUM LOT SIZE CHANGES FOR 2028 CULCAIRN-HOLBROOK ROAD AND MORVEN-COOKADINIA ROAD MORVEN [CONTD]

BUDGET IMPLICATION

There will be a cost in processing the Planning Proposal documents that is covered by the application fees.

CONCLUSION

The Planning Proposal is seeking to amend the Greater Hume Local Environment Plan 2012 and rezone the land from RU4 Primary Production Small Lots and RU1 Primary Production to R5 Large Lot Residential. The planning proposal also seeks to change the minimum lot size map applicable to the land by reducing the minimum lot size from 100 hectares and 8 hectares to 2 hectares.

The above assessment has discussed that there is the constraint of potentially contaminated land affecting the development area within the planning proposal. It should be noted that there is large portions of this land area that will be relatively unconstrained. The author considers that the proponent should be required to provide the required Detailed Site Investigation concurrently with Council advertising a Gateway Determination.

RECOMMENDATION

That:

1. In accordance with Section 3.34 of the Environmental Planning and Assessment Act 1979 Council resolve to submit to the Department of Planning Housing Infrastructure the planning proposal for changes to the zoning and minimum lot size at 2028 Culcairn-Holbrook Road and Morven-Cookardinia Road, Morven and seek a conditional Gateway Determination.
2. Council resolve to exhibit the planning proposal in accordance with the Gateway Determination.
3. Concurrently with Council advertising a Gateway Determination the proponent is to undertake the Detailed Site Investigation for Council consideration.

ANNEXURE 4

4. AMENDMENT TO GREATER HUME LOCAL ENVIRONMENTAL PLAN 2012 - ZONING & MINIMUM LOT SIZE CHANGES FOR 2028 CULCAIRN-HOLBROOK ROAD AND MORVEN-COOKADINIA ROAD MORVEN

6777 RESOLVED [Cr. Schilg / Cr. Morton]

That:

1. In accordance with Section 3.34 of the Environmental Planning and Assessment Act 1979 Council resolve to submit to the Department of Planning Housing Infrastructure the planning proposal for changes to the zoning and minimum lot size at 2028 Culcairn-Holbrook Road and Morven-Cookardinia Road, Morven and seek a conditional Gateway Determination.
2. Council resolve to exhibit the planning proposal in accordance with the Gateway Determination.
3. Concurrently with Council advertising a Gateway Determination the proponent is to undertake the Detailed Site Investigation for Council consideration.

COUNCILLORS FOR	COUNCILLORS AGAINST	COUNCILLORS ABSENT	COUNCILLORS DECLARING INTEREST
Hooper Hicks Lindner Morton O'Neill Parker Quinn Schilg		Liston	

ANNEXURE 4

Department of Planning, Housing and Infrastructure

Gateway Determination

***Planning proposal (Department Ref: PP-2024-1832)**:* rezone and reduce minimum lot size provisions at Culcairn-Holbrook Road, Morven

I, the Acting Director, Southern, Western and Macarthur Region, at the Department of Planning, Housing and Infrastructure, as delegate of the Minister for Planning and Public Spaces, have determined under section 3.34(2) of the *Environmental Planning and Assessment Act 1979* (the Act) that an amendment to the Greater Hume Local Environmental Plan 2012 to rezone and reduce minimum lot size provisions at Culcairn-Holbrook Road, Morven should proceed subject to the following conditions.

The Council as planning proposal authority is authorised to exercise the functions of the local plan-making authority under section 3.36(2) of the Act subject to the following:

(a) the planning proposal authority has satisfied all the conditions of the Gsateway determination;

(b) the planning proposal is consistent with applicable directions of the Minister under section 9.1 of the Act or the Secretary has agreed that any inconsistencies are justified; and

(c) there are no outstanding written objections from public authorities.

The LEP should be completed on or before 24 November 2025.

Gateway Conditions

1. Prior to public exhibition, consultation is required with Department of Climate Change, Energy, the Environment and Water (DCCEEW) under section 3.34(2)(d) of the Act and/or to comply with the requirements of applicable directions of the Minister under section 9 of the Act. DCCEEW is to be provided with a copy of the planning proposal and any relevant supporting material and given at least 30 working days to comment on the proposal.

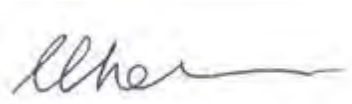
2. Public exhibition is required under section 3.34(2)(c) and clause 4 of Schedule 1 to the Act as follows:

   (a) the planning proposal is categorised as standard as described in the *Local Environmental Plan Making Guideline* (Department of Planning and Environment, August 2023) and must be made publicly available for a minimum of 20 working days; and

   (b) the planning proposal authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in *Local Environmental Plan Making Guideline* (Department of Planning and Environment, August 2023).

3. A public hearing is not required to be held into the matter by any person or body under section 3.34(2)(e) of the Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).

Dated 10 February 2025



Chantelle Chow
Acting Director, Southern, Western and Macarthur Region
Local Planning and Council Support
Department of Planning, Housing and Infrastructure

Delegate of the Minister for Planning and Public Spaces

ANNEXURE 4

Your ref: PP-2024-1832
Our ref: DOC25-181408

Gayan Wickramasinghe
Director Environment & Planning
Greater Hume Council

Via Planning Portal PP-2024-1832 Ref-3499

Dear Gayan

Subject: **Planning Proposal PP-2024-1832 rezoning and minimum lot size amendment Morven**

Thank you for your referral received 28 February 2025 seeking advice from the Regional Delivery Division (RD) of the NSW Department of Climate Change, Energy, the Environment and Water.

RD has statutory responsibilities relating to biodiversity and flood risk management. We have reviewed the documents supplied and provide the following advice, further detailed in **Attachment A**.

The Gateway Determination requires Council to consult with RD on flood risk management. We have taken this opportunity to provide advice on biodiversity aspects for Council's consideration at the development application stage.

Flood Risk Management

The proponent has prepared a flood impact and risk assessment (FIRA) to support the planning proposal. The FIRA indicates that the subject site is susceptible to local flooding, however the flood risks posed to the subject site are of minor significance and can be managed by adopting minimum floor levels. RD generally agrees with the findings and recommendations provided in the FIRA provided that future development:

- is commensurate with the flood constraints (flood hazard and function) on each lot
- does not increase the flood levels at any existing off-site dwellings.

Biodiversity

Biodiversity values may be present on the subject site, including in areas without trees or outside of the areas mapped for native vegetation. We recommend that any future development application includes a ground-truthed biodiversity assessment to determine the extent of native vegetation on and around the subject site. Any future development should be designed to avoid and minimise potential clearing and impacts to threatened species and communities.

If you have any questions about this advice, please contact Claire Coulson, Senior Conservation Planning Officer, via planning.southwest@environment.nsw.gov.au or 02 6022 0636.

Yours sincerely

Andrew Fisher
20 March 2025

Senior Team Leader – Planning, South West
Regional Delivery Division
Conservation Programs, Heritage and Regulation Group
NSW Department of Climate Change, Energy, the Environment and Water

ATTACHMENT A – Detailed advice on PP-2024-1832 rezoning and minimum lot size amendment Morven

ATTACHMENT A Detailed advice on PP-2024-1832 rezoning and minimum lot size amendment Morven

In preparing this advice RD has reviewed the following documents:

- *Flood Impact Assessment*, Cumulus Engineering June 2024 (FIRA)
- *Amendment to Greater Hume Local Environmental Plan 2012 – 2028 Culcairn-Morven Road & Morven-Cookardinia Road, Morven*. Habitat Planning, 16 August 2024.

RD has reviewed the supplied information against the Local Environmental Plan Making Guideline which provides guidance for determining the appropriate level of assessment for a planning proposal.

Flood Risk Management

The NSW Local Planning Direction – 4.1 Flooding (Direction 4.1) is applicable to any planning proposal that alters a zone or provision that affects flood prone land. Direction 4.1 requires planning proposals that concern flood prone land to be consistent with:

- the *NSW Flood Prone Land Policy*
- the principles of the *Flood Risk Management Manual (2023)*
- the *Considering flooding in land use planning guideline (2021)*
- any floodplain risk management study or plan (FRMS&P) that has been developed and adopted by Council for that land.

Furthermore, Direction 4.1 states that a planning proposal must not rezone land within the flood planning area from rural to residential, nor should the proposal contain provisions that:

- permit development in floodway areas; or
- permit development that will result in significant flood impacts to other properties; or
- permit development for the purposes of residential accommodation in high hazard areas.

A planning proposal may be inconsistent with Direction 4.1 if it is supported by a FIRA and/or the inconsistencies of the planning proposal are of minor significance.

Greater Hume Council has not commissioned or adopted a FRMS&P, or flood study, for the village of Morven. Therefore, the proponent has appropriately prepared a FIRA (Cumulus Engineering, 2024) to support the planning proposal. RD considers the FIRA to be largely consistent with the policy, manual and guideline listed above, where practical.

The FIRA provides a basic quantitative assessment of flooding for the subject site. The FIRA indicates that the subject site is impacted by local flooding in events as frequent as a 5% annual exceedance probability (AEP). The subject site is therefore considered flood prone. In a 1% AEP flood event the subject site is largely inundated by floodwaters categorised as low hazard flood fringe.

The FIRA indicates that the flood risks posed to the subject site are of minor significance and can be managed by adopting minimum floor levels. However, the FIRA fails to determine the impact that future development (post-condition) may have on flood behaviour both on-site and off. RD acknowledges that this may not be feasible as the details of future development are not known at this planning proposal stage. However, the flood risks associated with future development must be considered to ensure that infrastructure is appropriately located on each lot.

RD considers that the flood risks identified at the subject site can be managed by adopting the recommendations in the FIRA and ensuring that future development:

- is commensurate with the flood constraints (flood hazard and function) on each lot
- does not increase the flood levels at any existing off-site dwellings.

To effectively define the flood risks and inform the appropriateness of future planning proposals RD recommends Council develop a Flood Study and subsequent FRMS&P for the village of Morven and

surrounds. RD encourages Council to seek further advice our South West flood risk management officers.

Biodiversity

The proposal relies on a limited desktop assessment, using vegetation or terrestrial biodiversity mapping. Mapping products alone are not reliable indicators of the presence or absence of biodiversity values at the individual site scale.

Biodiversity values may be present on parts of the subject site. Roadside areas are likely to contain native vegetation. The Plant Community Type (PCT) mapped on and around the site, PCT 277, is associated with the 'box-gum grassy woodland' Critically Endangered Ecological Community[1]. This community can be present in the absence of tree cover, that is, as a grassy understory. It may be present on the subject site, including in areas without trees or outside of the mapped areas.

As the extent of biodiversity values has not been reliably established, any future development application should be supported by an on-ground biodiversity assessment. This should map and describe the native vegetation present on the site or provide evidence that native vegetation is absent from the site.

A subdivision development application must consider the clearing of native vegetation that, in the opinion of the consent authority, is required or likely to be required for the future land use - as established by Clause 7.1(3) of the *Biodiversity Conservation Regulation 2017*.

The proposed subdivision layout and ancillary works, such as access and service connections, may need to be revised in response to the biodiversity assessment, to avoid potential clearing. The use of building envelopes, or building exclusion zones, may be warranted.

Any likely clearing must be considered against the Biodiversity Offset Scheme thresholds. For clearing below the thresholds, a test of significance is required to determine if the proposal is likely to have a significant impact on threatened species or communities. Refer to the When the Biodiversity Offsets Scheme applies page for further guidance.

Clearing considered during a subdivision will not require further consideration during the subsequent development of the land.

[1] White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands, NSW South Western Slopes, South East Corner and Riverina Bioregions

Gayan Wickramasinghe **ANNEXURE 4**

From: Claire Coulson <claire.coulson@environment.nsw.gov.au> on behalf of South West Planning Mailbox <planning.southwest@environment.nsw.gov.au>
Sent: Wednesday, 9 April 2025 12:10 PM
To: Gayan Wickramasinghe
Cc: Claire Coulson; Colin Kane; Kade Small
Subject: RE: Planning Proposal Referral Response - PP-2024-1832

Hi Gayan
Thanks for following up directly to clarify.
Your reading is correct, we consider the FIRA included in the proposal provides you with sufficient information about flood risk to proceed without further assessment or amendment. We have no objection to the proposal going on public exhibition or proceeding to finalisation.

The advice you have highlighted below is broader and more strategic – we are suggesting Council do some assessment for the village as a whole to inform any future planning or development proposals. This would avoid the need for individual proponents to prepare smaller studies. As discussed previously, Kade is ready to assist with grant applications and project scoping.

I hope that assists.

Regards
Claire

Claire Coulson (she/her)
Senior Conservation Planning Officer

South West Planning – Regional Delivery Division
NSW Department of Climate Change, Energy, the Environment and Water
T 02 6022 0636 **M** 0400 503 965 **E** claire.coulson@environment.nsw.gov.au
5/620 Macauley Street, Albury, NSW 2640 Wiradjuri Country
environment.nsw.gov.au

Contact the South West Planning Team about biodiversity and flood management planning matters by emailing planning.southwest@environment.nsw.gov.au

NSW GOVERNMENT

I acknowledge the traditional custodians of the land and pay respects to Elders past and present. I also acknowledge all the Aboriginal and Torres Strait Islander staff working with NSW Government at this time.

From: Gayan Wickramasinghe <GWickramasinghe@greaterhume.nsw.gov.au>
Sent: Tuesday, 8 April 2025 4:07 PM
To: South West Planning Mailbox <planning.southwest@environment.nsw.gov.au>
Cc: Claire Coulson <claire.coulson@environment.nsw.gov.au>; Colin Kane <CKane@greaterhume.nsw.gov.au>
Subject: Planning Proposal Referral Response - PP-2024-1832

Hi Claire,

I hope you are well.

We have received the attached response for the PP-2024-1832, land rezoning proposal in Morvan.

From my reading of the letter, it appears that RD does not have any further comments or objections to the proposal. However, I have noted the following wording in the response:

ANNEXURE 4

'To effectively define the flood risks and inform the appropriateness of future planning proposals RD recommends Council develop a Flood Study and subsequent FRMS&P for the village of Morven and surrounds. RD encourages Council to seek further advice our South West flood risk management officers.'

I hope that the above does not have any bearing on the public consultation for this proposal, as the next step for us is to exhibit this planning proposal.

Thank you!

Gayan Wickramasinghe
Town Planner
Greater Hume Council
39 Young St
PO Box 99
Holbrook NSW 2644
T 02 60360 100 **M** 0459 355 236

Greater Hume Council

www.greaterhume.nsw.gov.au