



Kiama West Masterplan: Historical Heritage Constraints Assessment

FINAL REPORT

Prepared for Traders in Purple

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Glossary

Biosis	Biosis Pty Ltd
c.	Circa
CHL	Commonwealth Heritage List
DA	Development Application
DCCEEW	Australian Government Department of Climate Change, Energy, the Environment and Water
DP	Deposited Plan
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
Heritage NSW	Heritage NSW, Department of Planning and Environment
Heritage Act	<i>Heritage Act 1977</i>
HHCA	Historical Heritage Constraints Assessment
LEP	Local Environmental Plan
KDCP	Kiama Development Control Plan 2020
NHL	National Heritage List
NSW	New South Wales
SHR	State Heritage Register
SoHI	Statement of Heritage Impact
study area	The area of impact for the proposed works

Summary

Biosis Pty Ltd (Biosis) was commissioned by Traders in Purple to undertake a Historical Heritage Constraints Assessment (HHCA) of an area of land proposed for rezoning and development as a new residential area west of Kiama, New South Wales (NSW) (Figure 1 and Figure 2). The masterplan presented in *Kiama Longbrush Road. Initial Urban Design Concepts* proposes the rezoning of the study area for the purposes of a mixture of high, standard and medium density residences along with large residential lots, and spaces for educational, eco (low impact) tourism and other uses/activation.¹ The proposed development will be assessed in accordance with Part 3 of the *Environmental Planning and Assessment Act 1979 NSW* (EP&A Act).

The study area is located within the Kiama Local Government Area (LGA), within the suburbs of Kiama and Jerrara comprising: 103 Jamberoo Road; 33 Greyleigh Drive; and 177 Long Brush Road. It is currently zoned RU2 Rural Landscape and encompasses approximately 114 hectares of private land.

This assessment approach has been undertaken to allow for assessment of both the study area as well as any additional areas in the broader study area which are likely to be affected by the proposal, either directly or indirectly. Constraints and opportunities will be developed to help guide the development of the masterplan.

Heritage values

Significant heritage values identified within the study area include:

- 1 heritage item of local significance:
 - Dry stone walls (Kiama Local Development Plan 2011 (Kiama LEP 2011), Item no. 164).
- 1 area of archaeological potential located across the entire study area.

The study area has been assessed (preliminary assessment only) as holding heritage significance at a local level for its associative, aesthetic and research values.

Heritage constraints and opportunities

There are 15 heritage constraints to the proposed masterplan in its current form. These relate to the potential for archaeological remains to be present across the study area, and the presence of heritage listed and unlisted dry stone walls in areas identified for development.

However, there are also a range of opportunities which would result in increased positive outcomes for heritage. These fall under the following categories:

- Conservation and enhancement of heritage elements and items.
- Community spaces.
- Roads, paths and drainage.
- Plantings and vegetation.
- Stakeholder consultation.

¹ (e8urban & Sprout Studio 2022)

Legislation and policy

An assessment of the project against key heritage legislation and policy is provided and summarised below.

Legislation	Relevant heritage feature on site
Kiama LEP 2011	Dry stone walls (Kiama LEP 2011, Item no. I64)
Heritage Act 1977	Potential archaeological remains of heritage significance (relics)

Under the Kiama Development Control Plan, any proposal to demolish, damage, alter (including making breaks), dismantle or destroy listed dry stone walls requires consent from Kiama Municipal Council via a DA.

Heritage strategies

The following strategies have been developed based on the heritage items and elements contained within the study area, heritage constraints and opportunities for the masterplan.

- Strategy 1: Conserve, incorporate and promote the heritage elements of the study area into the masterplan design as part of a holistic approach to the proposed development.
- Strategy 2: Include places, spaces, information and facilities for the purpose of community use which are reflective of and in-keeping with the rural character of the natural and cultural landscape of the study area and vicinity.
- Strategy 3: Develop infrastructure which is accessible, environmentally friendly and sustainable, and visually appropriate for the rural character setting of the study and vicinity.
- Strategy 4: Utilise the natural elements and plantings to create an environment for residents and visitors which enhances wellbeing and health while paying respect to the pre- and post-1788 landscape of the study area and vicinity.
- Strategy 5: Provide opportunity for the local community to contribute to the development of these new neighbourhoods to ensure that the needs of local people can be met by the masterplan.

1 Introduction

1.1 Project background

Biosis was commissioned by Traders in Purple to undertake a HHCA of the proposed development at West Kiama, NSW (Figure 1 and Figure 2), referred to as the study area herein. The project is at Planning Proposal stage involves the rezoning of the study area, currently RU2 Rural Landscape, for the purposes of development of residential and commercial properties. The proposed development will be assessed in accordance with Part 3 of the EP&A Act.

1.2 Location of the study area

The study area is located within the suburbs of Kiama and Jerrara, in the Kiama LGA (Figure 1). It encompasses approximately 114 hectares of private land, comprising: 103 Jamberoo Road; 33 Greyleigh Drive; and 177 Long Brush Road. It is currently zoned RU2 Rural Landscape.

1.3 Scope of assessment

This report was prepared in accordance with current heritage guidelines including *Assessing Heritage Significance, Assessing Significance for Historical Archaeological Sites and 'Relics'* and the *Burra Charter*.² This report provides a heritage assessment to identify if any heritage items or relics exist within or in the vicinity of the study area. The heritage significance of these heritage items has been investigated and assessed in order to determine the most appropriate management strategy.

The following is a summary of the major objectives of the assessment:

- Identify and assess the heritage values associated with the study area. The assessment aims to achieve this objective through providing a brief summary of the principle historical influences that have contributed to creating the present-day built environment of the study area using resources already available and some limited new research.
- Identifying sites and features within the study area which are already recognised for their heritage value through statutory and non – statutory heritage listings.
- Recommend series of historical archaeological constraints for the proposed works and a series of recommendations outlining Traders in Purple's legal responsibilities.

1.4 Limitations

This report is based on historical research and field inspections. It is possible that further historical research or the emergence of new historical sources may support different interpretations of the evidence in this report.

There were some limitations with regards to the historical research undertaken for this assessment. The ownership records for the study area appear to have remained under the Old Title System until the 1980s.

² (Heritage Office 2001, NSW Heritage Branch, Department of Planning 2009, Australia ICOMOS 2013)

The process of searching these records is outside of the scope of this report. Information contained within these records may provide more information regarding the history and use of the study area.

Recent works have occurred at Greyleigh as part of its partial functioning as a guest house. Greyleigh was established in the 1890s and there are likely archaeological remains associated with this period. However, no archaeological assessment for the development works could be located through Kiama Municipal Council's development application tracker. Further research, potentially using private family records, would be required to provide a thorough archaeological assessment of Greyleigh.

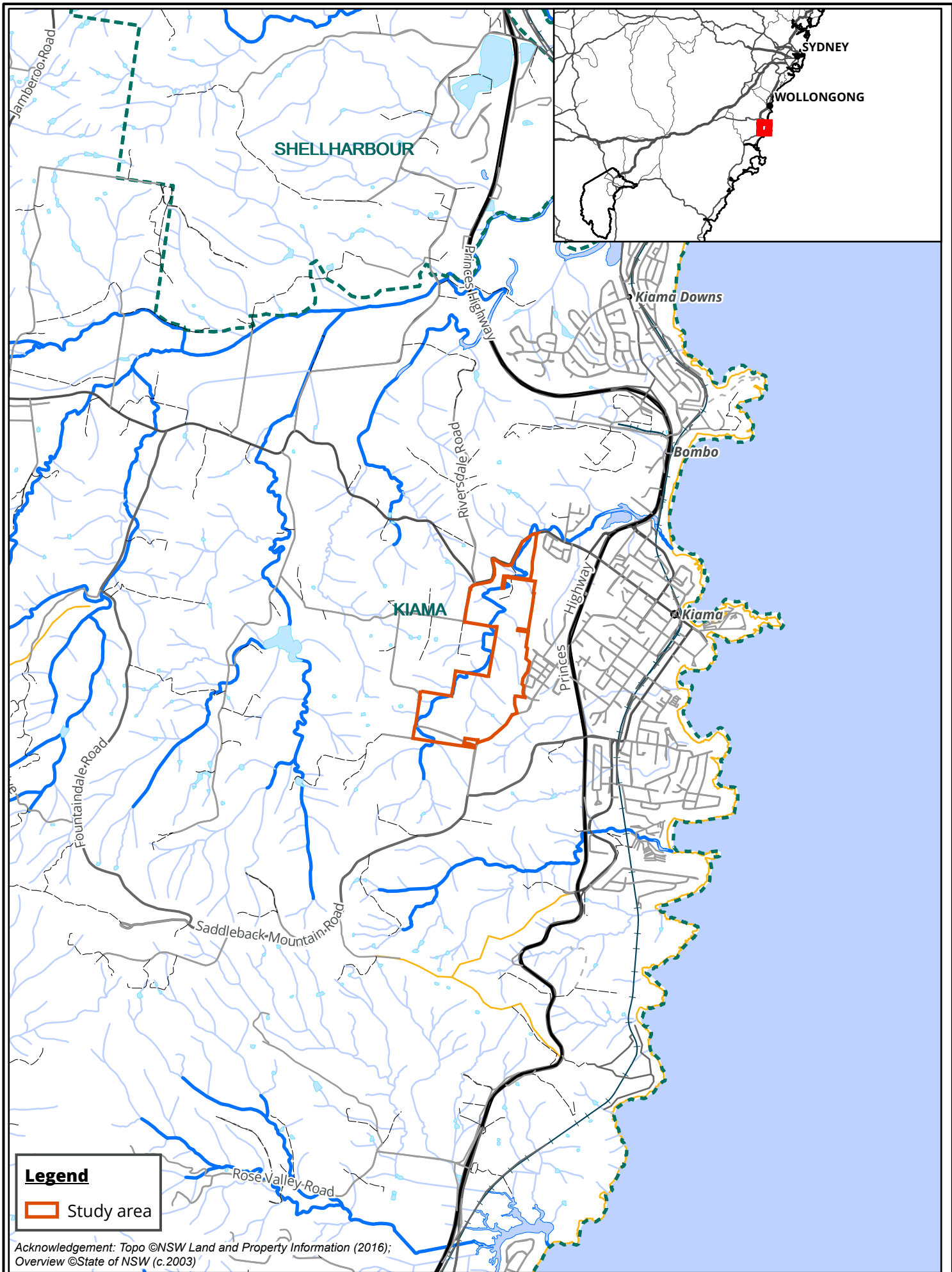
Information on the dry stone walls assessed by Kiama Municipal Council, including mapping and inventory sheets, were requested for this assessment. However, these were not provided in time to be incorporated into this report. Therefore, information on the dry stone walls is based on data collected for other past assessments that Biosis has undertaken within the local area, and such not all dry stone walls assessed by Kiama Municipal Council have been included in this report.

There were also limitations associated with the physical inspection of the study area. These included limited access to parts of the study area due to livestock and electrical fencing, low visibility of dry stone walls and areas due to vegetation, and also the topography of areas near creek lines which were not safe to access.


This report does not assess the significance of potential archaeological remains or new dry stone walls identified as part of primary research or through the field investigation. This report also does not include a reassessment of the dry stone walls identified by Kiama Municipal Council.

Although this report was undertaken to best archaeological practice and its conclusions are based on professional opinion, it does not warrant that there is no possibility that additional archaeological material will be located in subsequent works on the site. This is because limitations in historical documentation and archaeological methods make it difficult to accurately predict what is under the ground.

The significance assessment made in this report is a combination of both facts and interpretation of those facts in accordance with a standard set of assessment criteria. It is possible that another professional may interpret the historical facts and physical evidence in a different way.



Legend

 Study area

Acknowledgement: Topo ©NSW Land and Property Information (2016);
 Overview ©State of NSW (c.2003)



Figure 1 Location of the study area

Matter: 37550
 Date: 25 August 2022,
 Drawn by: JB, Checked by: JM, Last edited by: jbeckius
 Location: P:\37500s\37550\Mapping\
 37550_ADDA_KiamaWest_Masterplan, Layout: 37550_ADDA_F1_Locality

0 400 800 1,200 1,600 2,000
 Metres
 Scale 1:50,000@A4, GDA 1994 MGA Zone 56





Legend
 [Orange outline] Study area
 [White outline] Lot

Figure 2 Study area detail

0 50 100 150 200
 Metres
 Scale: 1:8,000@ A3
 Coordinate System:
 GDA 1994 MGA Zone 56



Matter: 37550, Date: 25 August 2022,
 Drawn by: JB, Checked by: JM, Last edited by: jbeckius
 Location: P:\37500s\37550\Mapping\
 37550_ADDA_KiamaWest_Masterplan, Layout: 37550_ADDA_F2_StudyArea

2 Statutory framework

This assessment will support a planning proposal under Part 3 of the EP&A Act. In NSW cultural heritage is managed in a three-tiered system: national, state and local. Certain sites and items may require management under all three systems or only under one or two. The following discussion aims to outline the various levels of protection and approvals required to make changes to cultural heritage in the state.

2.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Act 1999* (EPBC Act) is the national Act protecting the natural and cultural environment. The EPBC Act is administered by the Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW). The EPBC Act establishes two heritage lists for the management of the natural and cultural environment:

- The National Heritage List (NHL) contains items that have been assessed to be of outstanding significance and define ‘critical moments in our development as a nation’.³
- The Commonwealth Heritage List (CHL) contains items that are natural and cultural heritage places that are on Commonwealth land, in Commonwealth waters or are owned or managed by the Commonwealth. A place or item on the CHL has been assessed as possessing ‘significant’ heritage value.⁴

A search of the NHL and CHL did not yield any results associated with the study area.

2.2 NSW Heritage Act 1977

Heritage in NSW is principally protected by the *Heritage Act 1977* (Heritage Act) (as amended) which was passed for the purpose of conserving items of environmental heritage of NSW. Environmental heritage is broadly defined under Section 4 of the Heritage Act as consisting of the following items: ‘those places, buildings, works, relics, moveable objects, and precincts, of State or Local heritage significance’. The Heritage Act is administered by the Heritage Council, under delegation by the Heritage NSW, Environment and Heritage Group, Department of Planning and Environment (Heritage NSW). The Heritage Act is designed to protect both known heritage items (such as standing structures) and items that may not be immediately obvious (such as potential archaeological remains or ‘relics’). Different parts of the Heritage Act deal with different situations and types of heritage and the Heritage Act provides a number of mechanisms by which items and places of heritage significance may be protected.

2.2.1 State Heritage Register

Protection of items of State significance is by nomination and listing on the State Heritage Register (SHR) created under Part 3A of the Heritage Act. The Register came into effect on 2 April 1999. The Register was established under the *Heritage Amendment Act 1998*. It replaces the earlier system of Permanent Conservation Orders as a means for protecting items with State significance.

³ ‘About National Heritage’ <http://www.environment.gov.au/heritage/about/national/index.html>

⁴ ‘Commonwealth Heritage List Criteria’

<http://www.environment.gov.au/heritage/about/commonwealth/criteria.html>

A permit under Section 60 of the Heritage Act is required for works on a site listed on the SHR, except for that work which complies with the conditions for exemptions to the requirement for obtaining a permit. Details of which minor works are exempted from the requirements to submit a Section 60 Application can be found in the Guideline 'Standard Exemptions for Works requiring Heritage Council Approval'. These exemptions came into force on 1 December 2020 and replace all previous exemptions.

There are no items or conservation areas listed on the SHR within or adjacent to the study area.

2.2.2 Section 170 Heritage and Conservation Registers

Section 170 of the Heritage Act requires that culturally significant items or places managed or owned by Government agencies are listed on departmental Heritage and Conservation Register. Information on these registers has been prepared in accordance with Heritage Division guidelines.

Statutory obligations for archaeological sites that are listed on a Section 170 Register include notification to the Heritage Council in addition to relic's provision obligations. There are no items within or adjacent to the study area that are entered on a State government instrumentality Section 170 Register.

2.2.3 Archaeological relics

The NSW Heritage Act 1977 includes provisions for archaeological relics. Section 4(1) of the Act (as amended 2009) defines a relic as:

...any deposit, artefact, object or material evidence that

(a) related to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and

(b) is of State or local significance.

Section 139 of the Act prevents the excavation or disturbance of land known or with the potential to contain archaeological relics, except in accordance with a permit issued by the NSW Heritage Council (in accordance with Section 141 of the Act) (or in accordance with the standard Exceptions to Section 139 of the Act). The relics provision applies to all archaeological relics not included on the SHR or subject to an Interim Heritage Order.

2.3 Environmental Planning and Assessment Act 1979

2.3.1 Local Environmental Plan

The *Kiama Local Environmental Plan 2011* (Kiama LEP 2011) contains schedules of heritage items that are managed by the controls in the instrument. As the project is being undertaken under Part 3 of the EP&A Act, council is responsible for approving controlled work via the development application system. Heritage items in the vicinity of the study area are identified in Figure 3.

There is one item listed on the Kiama LEP 2011 which is located within the study area:

- Dry stone walls (Item No. I64), Kiama (various locations). Item of local heritage significance.

There are 3 items listed on the Kiama LEP 2011 in the vicinity of the study area:

- Dairy Co Op Monument Jamberoo (Item No. I106), Jamberoo Road, Kiama. Item of local heritage significance, approximately 18 metres north-west of the study area.
- Silver Hill (Item no. I80), 115 Bland Street, Kiama, Lot 101, DP 1076509. Item of local heritage significance, approximately 20 metres east of the study area.

- The Pines Homestead (Item No. I135), Saddleback Mountain Road, Kiama, Lot 33 DP 709582. Item of local heritage significance, approximately 24 metres south-east of the study area.

2.3.2 Kiama Development Control Plan 2020

The Kiama Development Control Plan 2020 (KDCP) outlines built form controls to guide development. The KDCP supplements the provisions of the Kiama LEP 2011.

2.3.2.1 European cultural heritage

The KDCP has the following objectives for the management of European cultural heritage:

- To provide clear and detailed controls and guidelines that will ensure that new development on the site of a heritage item, retains the heritage values of the item for the benefit of Kiama LGA's citizens, the community generally and for future generations
- To provide detailed controls and guidelines intended to ensure that alterations and additions to heritage items are carried out in a manner which conserves and enhances the heritage values of the item for the benefit of Kiama LGA's citizens, the community generally and for future generations
- To ensure that public domain heritage items which includes, but is not limited to trees, parks, monuments and cemeteries are adequately maintained and conserved for the benefit of Kiama LGA's citizens, the community generally and for future generations
- To ensure that the development of the heritage significance of a heritage item is the starting point for the design of any development relating to a heritage item.
- To ensure the ongoing care, maintenance and use of heritage items, and encourage heritage items to be used for purposes appropriate to their heritage significance.
- To ensure that alterations and additions do not adversely impact the significance of a heritage item.

2.3.2.2 Dry stone walls

The KDCP has a specific section relating to dry stone walls within the Kiama LGA. There are over 360 dry stone walls within the LGA, which have been mapped and assessed for their heritage value. Any proposal to demolish, damage, alter (including making breaks), dismantle or destroy these dry stone walls requires consent from Kiama Municipal Council via a Development Application (DA).

All DAs must show the location of dry stone walls accurately plotted on site analysis, engineering, layout and concept landscape plans, including any walls on adjoining land, including within the road reserve. The condition of the dry stone wall and any proposed works to the dry stone wall should be addressed in a Statement of Environmental Effects to be submitted with the DA. A Heritage Impact Statement may also be required if there is potential adverse impacts to dry stone walls as part of proposed works. Rebuilding of deteriorated walls is encouraged and may be required as a consent condition of the DA, to be undertaken by competent and experienced dry stone wall builders.

Tecomaria hedges or other historic plantings are often found alongside dry stone walls; these plantings were traditionally used as windbreaks or shelter for cattle. In some cases these plantings have overgrown over entire dry stone walls. These plantings may have heritage value in some instances if they are assessed to have been established by early farmers in the area. Conversely, where a traditional planting of heritage value has overtaken a dry stone wall, preference is given to retaining the hedge with the stone wall within it rather than cutting or poisoning the hedge to reveal or repair the dry stone wall.

Dry stone walls may also be habitat for *Zieria granulata*, which is protected under the *Threatened Species Conservation Act 1995*. Reasonable effort must be made to identify any instances of *Z. granulata* prior to any vegetation removal works commencing to ensure that this species is not harmed.

The objectives of the KDCP with regards to dry stone walls are as follows:

- To conserve, protect and enhance Kiama LGA's unique historic dry stone walls for the benefit of its citizens, the community generally and for future generations.
- To ensure new development in the vicinity of a dry stone and any alterations to a dry stone is carried out in a manner which minimises adverse impacts.

2.3.2.3 Development in the vicinity of a heritage item

The objectives of the KDCP with regards to development in the vicinity of a heritage item are as follows:

- To provide clear and detailed controls and guidelines that will ensure that new development on the site of a heritage item, in a heritage conservation area, or in the vicinity of a heritage item or heritage conservation area, maintains and enhances the heritage values of the item for the benefit of Kiama LGA's citizens, the community generally and for future generations
- To provide detailed controls and guidelines intended to ensure that alterations and additions to heritage items or properties within heritage conservation areas are carried out in a manner which maintains and enhances the heritage values of the item for the benefit of Kiama LGA's citizens, the community generally and for future generations.
- To ensure that public domain heritage items, which include but are not limited to trees, parks, monuments and cemeteries, are adequately maintained and conserved for the benefit of Kiama LGA's citizens, the community generally and for future generations.

2.3.2.4 Controls relevant to the study area

There are a number of controls which are relevant to the study area. These are summarised in Table 1.

Table 1 Summary of KDCP development controls relevant to the study area

Controls	Details
Setting [of a heritage item]	<ul style="list-style-type: none"> • Maintain an appropriate visual setting for heritage items. • Adequate open space must be provided around the heritage item in order to maintain significant or historic public domain views to and from the heritage item. • Original or significant landscape features that are associated with the heritage item and/or contribute to the setting must be retained.
Dry stone walls	<ul style="list-style-type: none"> • Dry Stone Walls shall not be altered, demolished or rebuilt without Council's consent. Non-compliance with this requirement constitutes an offence under the EP&A Act. • The replacement of dislodged or occasional missing stones and the removal of invasive vegetation by hand is regarded as routine maintenance. However, actions such as burning of vegetation alongside or protruding into walls, or blasting it off by water hoses or the like is not permitted, since it can crack the stones, destabilise the walls and destroy the surface lichen. • Development applications which require the alteration, demolition or rebuilding of dry stone walls will have regard to the heritage significance of the wall and general amenity benefits to the community in retaining walls intact especially where they form site boundaries or are located within roads. • Council may restrict openings in walls to locations where existing breaks or past damage provides a natural or opportunistic break in otherwise generally intact walls.

Controls	Details
	<ul style="list-style-type: none"> • Council may place restrictions on the Section 88B Instrument at Subdivision Certificate approval stage to assist the conservation of dry stone walls. • Where a dry stone wall is located on the front or rear lot boundary that is adjacent to a road, all buildings and domestic structures (e.g. sheds, pergolas, clothes hoists and the like) must be located at least six (6) metres away from the wall. Screening must also be provided to obscure clothes drying areas from view from the adjacent road. • Where a dry stone wall is located on a side boundary that is adjacent to a road, all buildings and domestic structures (e.g. sheds, pergolas, clothes hoists and the like) must be located at least 3.5 metres away from the wall. Screening must also be provided to obscure clothes drying areas from view from the adjacent road. • Council may consider some breaks or the relocation of stone walls or parts of stone walls which are of relatively minor significance, and where this is considered justifiable in the circumstances of the case. As a general principle, if other means of access and egress can be achieved without having to make a new break in an existing wall, then that course should be adopted. A succession of breaks in walls of heritage significance to provide access to driveways for each dwelling in a proposed subdivision would substantially reduce heritage value and generally will not be permitted. Alternative means of achieving such access, e.g. by having an internal collector road within a subdivision should be considered, as has been implemented previously in the municipality. • The non-disclosure of the existence of a dry stone wall, or the non-detection and therefore non-recording and assessment by Council, does not constitute a legal reason for undertaking its alteration, demolition or rebuilding without Council consent. Council may commence compliance cats and enforcement of illegal works to dry stone walls.
Development in the vicinity of a heritage item	<ul style="list-style-type: none"> • New development in the vicinity of a heritage item or on the site of a heritage item should harmonise with its surroundings. Through careful analysis and evaluation of the historic context of the heritage item, new development must be appropriate in its scale, form, siting, materials and colour and detailing. • Where new development directly adjoins a listed heritage building, the appropriate building setback and height will be determined on a case-by-case basis having regard to the views, vistas and context of the heritage item. • New development in the vicinity of a heritage item or on the site of a heritage item need not replicate exactly that of the heritage item, but rather, through careful analysis of significant design characteristics, sympathetically interpret and design new works which are in harmony with the character of the heritage item. • New development in the vicinity of a heritage item or on the site of a heritage item should recognise the predominate scale (height, bulk, density, grain) of existing development and respond sympathetically in the design of new works. • The form of new development in the vicinity of a heritage item or on the site of a heritage item need not replicate exactly that of adjacent historic properties, but should visually respect and relate to them in a positive way. • The form of new development in the vicinity of a heritage item or on the site of a heritage item should respond to adjacent historic properties with respect to treatment of facades and side elevations visible from the street or prominent locations. • The design of roof forms for new development in the vicinity of a heritage item or on the site of a heritage item should respect the scale, form, detail and pitch of adjacent historic properties. • New development in the vicinity of a heritage item should be sited to reflect the prevailing rhythm, spacing, orientation, and front and side setbacks of buildings within a streetscape or landscape which includes a heritage item. • New development within the site of a heritage item should be sited to minimise adverse impacts on the setting and significant views to and from the place.

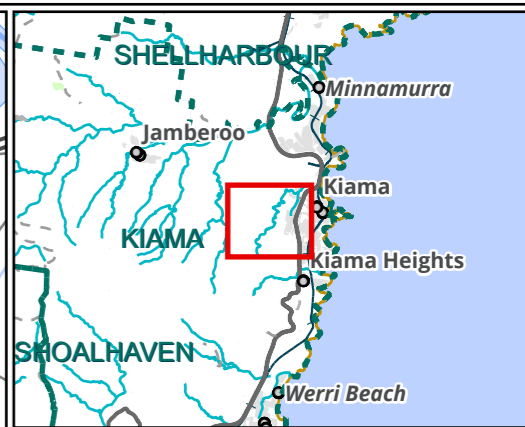
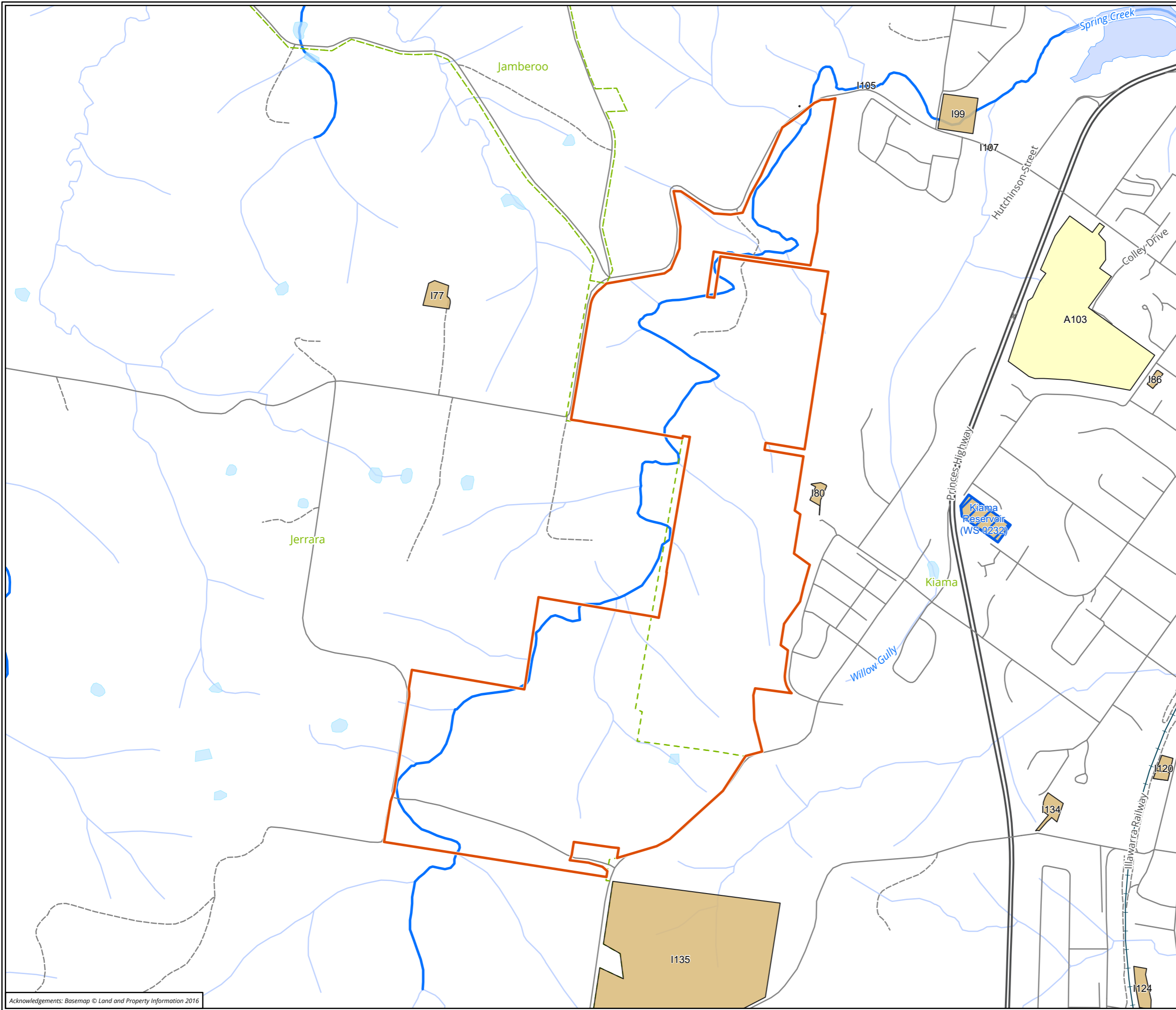
Controls	Details
	<ul style="list-style-type: none"> • The design of facades/walls in development located in the vicinity of a heritage item or on the site of a heritage item that are visible from the street or prominent location should use materials and colours which are characteristic of the area, such as brickwork, render or timber etc. Other materials may be used but must be harmonious and sympathetic with the character of the area and should be chosen for their complimentary qualities in relation to colour, texture and tonal contrast. • New buildings in the vicinity or within the site of a heritage item should use colours which harmonise with traditional colour schemes. • The principal elevation of new buildings located in the vicinity of a heritage item or on the site of a heritage item should provide a level of detail and design of openings that is in proportion with and similar to that of the adjacent heritage item. • New development in the vicinity of a heritage item should include landscape details, such as fences, garden walls and planting treatments, which respond to and are sympathetic with the character of the item.

2.4 Summary of heritage listings

A summary of heritage listings within and in the vicinity of the study area is presented in Table 2 and Figure 3.

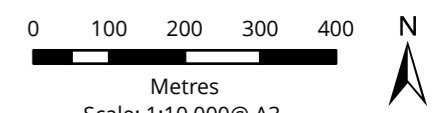
Table 2 Summary of heritage listings within and adjacent to the study area

Site number	Site name	Address / Property description	Listings		Significance
			Individual item	As a Conservation Area	
Within the study area					
I64	Dry stone walls	Kiama (various locations)	Kiama LEP 2011	-	Local
Adjacent to the study area					
I106	Dairy Co Op Monument Jamberoo	Jamberoo Road, Kiama	Kiama LEP 2011	-	Local
I80	Silver Hill	115 Bland Street, Kiama, Lot 101, DP 1076509	Kiama LEP 2011	-	Local
I135	The Pines Homestead	Saddleback Mountain Road, Kiama, Lot 33 DP 709582	Kiama LEP 2011	-	Local



- Legend**
- Study area
 - State heritage item
 - Local Environmental Plan**
 - Item - Archaeological
 - Item - General

Figure 3 Heritage items in the vicinity of the study area



Scale: 1:10,000@ A3
 Coordinate System:
 GDA 1994 MGA Zone 56



Matter: 37550, Date: 26 August 2022,
 Drawn by: JB, Checked by: CA, Last edited by: jbeckius
 Location: P:\37500s\37550\mapping\
 37550_ADDA_KiamaWest_Masterplan Layout: 37550_HHA_F3_Heritageltems

3 Historical context

Historical research has been undertaken to identify the land use history of the study area, to isolate key phases in its history and to identify the location of any built heritage or archaeological resources which may be associated with the study area. The historical research places the history of the study area into the broader context of Kiama and Jerrara.

3.1 Topography and resources

The study area lies within the Coastal Plain physiographic region that is located between the Illawarra Escarpment and the ocean (Hazelton 1992, pp. 2). It consists of the gentle rises of the Illawarra Coal Measures, rolling to steep low hills of volcanic materials, moderate to steep slopes of Berry Siltstone and undulating Budgong Sandstone and Quaternary alluvium. The Coastal Plain is characterised as a mosaic of foothills, ridges, spurs, hillocks and floodplains with slopes varying from very gently inclined to steep with the occasional low cliff. It is dissected by easterly flowing streams at intervals that become more frequent towards the north (Fuller 1982, pp. 18). There are a number of water sources within the study area. Spring Creek, a third-order perennial watercourse, transects the study area from north to south, with multiple first- and second-order tributaries. The study area is also located approximately 1.6 kilometres west of Kiama Harbour and the South Pacific Ocean.

3.2 Aboriginal homelands

It is generally accepted that Aboriginal peoples have inhabited Australia for the last 65,000 years.⁵ Despite a proliferation of known Indigenous sites there is considerable ongoing debate about the nature, territory and range of pre-contact Indigenous language groups in the Illawarra region. These debates have arisen largely due to the lack of ethnographic and linguistic information recorded at the time of European contact. By the time colonial diarists, missionaries and proto-anthropologists began making detailed records of Indigenous people in the late 19th Century; pre-European Indigenous groups had been broken up and reconfigured by European settlement activity. The following information relating to Indigenous people on the Illawarra is based on such early detailed records.

The Illawarra region is the traditional land of the Wodi Wodi, a group of people who spoke a variant of the Dharawal language.⁶ The area of this group extended from Botany Bay down the coast to around Nowra. To the north of the Wodi Wodi, the Darug are identified, to the west are the Gundanguura, and in the south the Thoorga are identified.⁷ The areas inhabited by each of the groups are considered to be indicative only and would have changed through time and possibly also depending on circumstances (i.e. availability and distribution of resources).

Traditional stories tell of the arrival of the Wodi Wodi to Lake Illawarra, bringing with them the Dharawal or Cabbage Tree Palm from which their language is named.⁸ Analysis of middens in the region has provided

⁵ (Clarkson et al. 2017)

⁶ Wesson 2005

⁷ (Tindale 1974)

⁸ Wesson 2005

dates of occupation dating back 6000 to 7000 years on the coast and at Lake Illawarra, and it is accepted that Aboriginal occupation of the south coast dates to around 20,000 years ago.⁹

Interactions between the first recorded contact between Aboriginal and European peoples occurred in 1770, when Captain Cook sailed down the east coast of Australia in the Endeavour and observed cook fires and Aboriginal people carrying canoes along the coast.¹⁰ The next recorded contact occurred in 1796, when Flinders and Bass travelled along the coast in the *Tom Thumb*.¹¹ Organ also notes an expedition from Jervis Bay by George William Evans, in which the expedition met several groups of Aboriginal people on the way through the Wollongong area in 1812.¹²

3.3 Kiama and Jerrara – historical development

3.3.1 European exploration and early settlement of the Illawarra

The earliest settlements in the colony were generally located in areas near rivers and coastal regions which could be easily accessed by boat. Transport by water was vital for the development of the colony as passengers and goods could be moved with little requirement for capital works. The south coast of NSW was settled following this pattern with coastal or riverine locations chosen for the earliest settlements.

The Illawarra district was first noted by James Cook in 1770 when he located the headland of Port Kembla, naming it 'Red Point'.¹³ He also identified Mount Kembla, initially known as Hat Hill in the early days of settlement due to its similarity to that of the crown of a hat.¹⁴ The next recorded Europeans to visit the Illawarra district were Bass and Flinders in 1796, which sailed along the south coast from Sydney in their small boat, the *Tom Thumb*.¹⁵ Following their landing near Tom Thumb Lagoon, they entered Lake Illawarra and made the first recorded contact with the Aboriginal people in the Illawarra.¹⁶ Upon this voyage of coastal exploration, Bass also discovered the Blow Hole at Kiama on 6 December 1797, after anchoring his whaleboat in the sheltered bay which became Kiama Harbour.¹⁷

In 1797 the *Sydney Cove* was wrecked in Bass Strait and survivors made their way through the area to find help, losing several members of their party to 'hostile natives' as they went.¹⁸ Camping overnight at Coal Cliff, the survivors used coal found in a seam to keep warm. The survivors were eventually rescued and taken to Sydney, where their report of the coal led Bass to be sent back to the area to investigate.¹⁹ Bass located a coal seam 6 feet thick; however, this resource was not utilised for a further 80 years. During this visit Bass also located and named the Shoalhaven and the Shoalhaven River.²⁰

The first settlement in the Illawarra region was established by Charles Throsby Smith (C.T. Smith), who cut a cattle track from Glenfield to just behind South Beach, Wollongong, where he constructed a stockman's hut and cattle yard in 1815.²¹ The following year, Surveyor-General John Oxley was sent to the Illawarra region to

⁹(AMBS 2008, pp. 33)

¹⁰ Organ 1990, pp. 2

¹¹ (Organ 1990, pp. 8)

¹² (Organ 1993, pp. 49)

¹³ Lindsay 1994, 1; McDonald 1966, 5

¹⁴ McDonald 1966, 5

¹⁵ Lindsay 1994, 1

¹⁶ McDonald 1966, 10

¹⁷ McDonald 1966, 10

¹⁸ McDonald 1966, 17; Hagen et al. 1997, 20

¹⁹ Lindsay 1994, 2

²⁰ Lindsay 1994, 2

²¹ Osbourne 2000, 1

make a general survey of the area and to connect it to the known parts of the colony, as well as identify specific lands for prospective grantees.²² Both Smith and Oxley were the first Europeans to settle in the Illawarra, doing so by illegally squatting and pasturing cattle on Crown land.²³ In October of 1819, further exploration of the Kiama coast (within which the study area is situated) was conducted by Oxley who travelled by sea and Deputy Surveyor-General James Meehan travelled by land.²⁴

Following these surveys, the first five grants in the area were made in 1821 to absentee landlords, who ran cattle on their lands with a few stockmen present.²⁵ The first five grants of land made in the Illawarra region were:

- Richard Brooks, Exmouth, 1300 acres.
- George Johnston, Macquarie Gift, 1500 acres.
- Andrew Allen, Waterloo, 700 acres.
- Robert Jenkins, Berkeley, 1000 acres.
- David Allen, Illawarra Farm, 2200 acres.

The Illawarra region was attractive not only for its rich pasture, but also for its red cedar, which was exploited by the early timber cutters. Between the cattlemen and the cedar cutters, passage into the Illawarra region was found.²⁶ From 1817 to 1831 a total of 22 free land grants were issued by Governor Macquarie in the area. Control of these grants was largely dictated by four families: the Wentworths, Johnsons, Terry/Hughes and Osbournes.²⁷ Grants continued to be made in the Illawarra region, comprising essentially free grants with easy terms, until August 1831, when land could only be purchased at auction.²⁸

3.3.2 Early settlement of Kiama town

The site for the town of Kiama was first reserved in 1826 and in 1829 Surveyor Knapp was instructed to make a plan showing hills and natural features in preparation for laying out a township.²⁹ Kiama, together with Five Islands, Gerringong, Coolangatta and Shoalhaven, was proclaimed a township on 1 June 1829.³⁰ The Kiama area was surveyed by Hoddle in 1830 and Jacques in 1831.³¹ A deployment of military troops arrived in 1831 to maintain law and order with the cedar cutters, and military barracks were erected where the Methodist Church now stands.³² A map of the Illawarra in 1834 identifies Kiama Harbour and the township reserve (Photo 1).

²² Osbourne 2000, 1

²³ Dowd 1977, 2

²⁴ Dowd 1977, 2

²⁵ McDonald McPhee Pty Ltd 1991, 21

²⁶ Lindsay 1994, 4

²⁷ Kaul 1995, 5; Derbyshire et al. 1984, 31

²⁸ Kaul 1995, 5; Derbyshire et al. 1984, 31

²⁹ (Bailey 1976, pp. 22)

³⁰ (Cousins 1948, pp. 227, Johnston 1973, pp. 3)

³¹ (Bailey 1976, pp. 17, 22)

³² (Johnston 1973, pp. 3, Latona Masterman & Associates 1987, pp. 12)



Photo 1 Map of the Illawarra 1834 showing Kiama harbour and the Kiama township reserve (orange arrows) (Source: State Library of NSW)

In 1832 David Smith, a cedar getter who had been living in Kiama since 1821, applied for and received half an acre of land on which he built the first permanent house in Kiama, located to the south of Bong Bong St,

facing Manning Street.³³ In 1837 his house became the first hotel in town and was called the Gum Tree Inn.³⁴ In 1839 the streets were surveyed and several lots in the section bounded by Collins, Shoalhaven, Berney and Noorinan Streets were sold privately. Outside the town centre, the first land grants were 500 acres (202 hectares) to Revered Thomas Kendall in 1831 and 1000 acres (405 hectares) granted to William Montague Manning in 1839. On 12 March 1840 at the peak of the land fever period, Kiama's first land sale was held.³⁵ An early residents' meeting elected a committee to take charge of clearing the streets of vegetation and erecting a jetty for the town's use.³⁶ The following year, residents extended the Jamberoo Parish Road to Gerringong in accordance with the provisions of the Parish Roads Act, and a toll bar in 1844 located between Kiama and Jamberoo, 94 metres north-west of the study area on Jamberoo Road.³⁷

The first post office opened in 1841 and the first magistrate court in 1842.³⁸ In 1849 a visitor from Jamberoo described Kiama as he last saw it in 1839 as having "seventeen or eighteen houses, two inns, two stores, a wooden church and a small jetty or wharf".³⁹

3.3.3 Cedar-getting, farming and dairying

Due to the thick rainforest terrain and lack of safe harbours, European settlement of the area was slow with only explorers and cedar getters visiting.⁴⁰ In 1826, Surveyor-General John Oxley visited the Kiama region to inspect unlocated Crown land which had been sited as a source by cedar getters. Oxley noted that the majority of the main cedar grounds was situated 3 miles from the boat harbour of 'Kiarmi', and that nine-tenths of the cedar brought to Sydney for trade was harvested from this location. A large tract of cedar spanned from Kendall's Point to Jamberoo Mountain, which includes the study area. Saw pits were established in places where it was easy to cut a road within easy reach of Kiama harbour. Cattle grazing also took place as land was being cleared. However, the soils were found to be extremely fertile, and in the 1830s and 1840s agriculture became the dominant industry, with main crops including wheat, potatoes and maize. As part of preparing land for cultivation, the fields were cleared of the volcanic stones scattered on or just under the surface and piled together on the edges of paddocks. Dairying was also a secondary industry alongside cropping.⁴¹

The colonial government encouraged settlers to clear and cultivate land, and from the 1840s to 1860s provided incentives to grantees by providing them with 30 acre (12 hectares) lots of uncleared land, rent free, under a five to seven year lease, under the condition that it be cleared and developed.⁴² By the 1860s the use of the scheme had declined, at which point much of the region had undergone extensive clearing.

Wheat remained the main crop within the region into the 1860s, with agriculture functioning alongside dairying and beef cattle breeding. However, in 1864, wheat rust effectively wiped out this resource, resulting in the growth of dairying and cattle breeding.⁴³ Arthur McGill was the first to establish a focused breeding program to produce dairying cattle, by breeding Durham Devon Shorthorns' crosses with Ayrshires. The offspring of these pairings resulted in what was to be known as the Illawarra Red Shorthorn.⁴⁴ The Illawarra

³³ (Cousins 1948, pp. 227, Bailey 1976, pp. 17)

³⁴ (Johnston 1973, pp. 3)

³⁵ (Cousins 1948, pp. 227)

³⁶ (Bailey 1976, pp. 27)

³⁷ (Latona Masterman & Associates 1987, pp. 13, Heritage NSW n.d.)

³⁸ (Johnston 1973, pp. 6)

³⁹ (Cousins 1948, pp. 228)

⁴⁰ (Department of Public Works and Services Heritage Group 1998, pp. 20)

⁴¹ (Latona Masterman & Associates 1987, pp. 11, 23, 24, Mayne-Wilson & Associates 1998, pp. 1)

⁴² Latona Masterman & Associates 1987, 13

⁴³ (Latona Masterman & Associates 1987, pp. 24, 25)

⁴⁴ Humphreys et al. 2005, 29

Red Shorthorn became renowned within the dairying industry and is considered Albion Park's most significant contribution to the dairy industry.⁴⁵

Prior to refrigeration, dairying was a local industry that operated closely to townships, to ensure products would reach the market before deteriorating. Advancements in technology opened up the industry to a wider market, and reduced time labouring in production. By 1860 the population of the NSW colony had expanded to 364,000 people, and dairy products were in high demand. However, this demand could not be met by the local dairying industry of the time, and dairy farms were overtaken by growing urbanisation.⁴⁶ By the 1870s butter supplies had exceeded demand due to more smaller dairy farms being established under new laws, and as a result prices dropped. This impacted farmers who were already paying high prices for agent's commission and freight. Subsequently, this prompted the development of co-operations for dairy farmers in the 1880s, based on the model of 'associated dairying' in the USA; this model aimed to allow for more control by producers.⁴⁷ On 15 October 1880, the South Coast and West Camden Co-operative was formed at the Kiama Courthouse, made up of a group of dairy farmers, but not all in the district had joined.⁴⁸

Technological development in the late-1870s and 1880s resulted in significant changes to the dairy industry in the form of machinery, refrigeration and the railway.⁴⁹ The combination of the 1878 separator patented by De Laval and refrigeration enabled the dairying industry to evolve and establish a commercial industry that would continue to develop throughout the 1880s and the 1900s. De Laval's separator decrease the time spent labouring in the production of dairy products, and refrigeration allowed for the opportunity for Illawarra dairy farmers to supply milk and dairy products to Sydney and a wider region.⁵⁰ The Pioneer Co-Operative Dairy Produce Factory Co Ltd was established in June 1884; their Kiama Pioneer Butter Factory opened in the same year on Jamberoo Road adjacent to the northern portion of the study area. The use of mechanical separators would separate the cream from milk to create butter, and the remaining skim milk sold for domestic use or to pig farmers.⁵¹ The extension of the Illawarra Railway Line to Kiama in 1887 led to the establishment of a milk train service from Kiama to Sydney in 1889. The Pioneer Co-Operative Dairy Produce Factory Co Ltd was one of the suppliers to use the milk train. This prompted yet another change to the industry of the area, with fresh milk overtaking butter as the main dairy product in the region.⁵² The Pioneer Butter Factory continued to play an important role in the Kiama dairy farming community until the 1910s when demand for fresh milk by Sydney increased, reducing the amount being supplied to the factory for butter production. The factory closed and was demolished in 1936.⁵³

3.3.4 Dry stone walls of Kiama

As is noted in Section 3.3.3 above, once the landscape had been cleared of timber farmers grazed cattle and established crops. In order to plough the fields for crops and introduced grasses for cattle feed, the scattered stones were removed from above and just below the ground surface and piled at the edges of paddocks. From at least the 1850s and 1860s these stones were used to create fences and property or allotment boundaries.⁵⁴

⁴⁵ Humphreys et al. 2005, 31

⁴⁶ Havilah 2002, 13

⁴⁷ (Latona Masterman & Associates 1987, pp. 58, Donaldson & Southall 2014, pp. 5)

⁴⁸ (Donaldson & Southall 2014, pp. 6)

⁴⁹ (Latona Masterman & Associates 1987, pp. 58)

⁵⁰ Havilah 2002, 19

⁵¹ (Kiama Library n.d.)

⁵² (Latona Masterman & Associates 1987, pp. 61, Donaldson & Southall 2014, pp. 8-11, Heritage NSW n.d.)

⁵³ (Kiama Library n.d.)

⁵⁴ (Mayne-Wilson & Associates 1998, pp. 1)

In 1856, Thomas Newing of Kent arrived in NSW on the *Ann Maria*, relocating to the Illawarra region in the same year. Newing's 1927 obituary and other newspaper articles from 1936 read that he gained employment with W. Cooke of Longbrush in Kiama, for whom he worked for approximately 18 months. Following this, Newing took up various jobs around the district clearing land for farming. Newing was undertaking such work at Joseph's Pike's property at Foxground, piling the stones removed from the soils. It is said that Newing learnt dry stone wall building techniques as part of his time at Foxground, but the name and origin of his teacher is not specified. Newing embraced dry stone wall building as a trade and subsequently built a reputation in Kiama and beyond as a master of dry stone wall building, also training his son.⁵⁵ Newing's son claimed that Newing and he built 95% of the dry stone walls in the Kiama district.⁵⁶

Dry stone walls can be built as a 'single' wall, of one stone in thickness, or two stone walls (double stone wall) built parallel to each other. In the Illawarra and south coast area, the most common type of dry stone wall are double stone walls, also known as double-dyke walls, the name for which comes from southern Scotland. A double stone wall consists of two stone walls built from 'facing stones' built parallel to each other with the core in-filled with smaller 'hearting or packing' stones. Cover (top) stones span the full width of the dyke (wall) and are used to hold the two facing walls together (Photo 2).⁵⁷ This style of building produces a thick and substantial wall. Dry stone walls within the south coast can be divided into three separate functions paddock fences, roadside walls and yard walls.⁵⁸ Dry stone walls were generally used up until the 1880s when wooden and wire fencing became cheaper and more cost effective to implement.⁵⁹

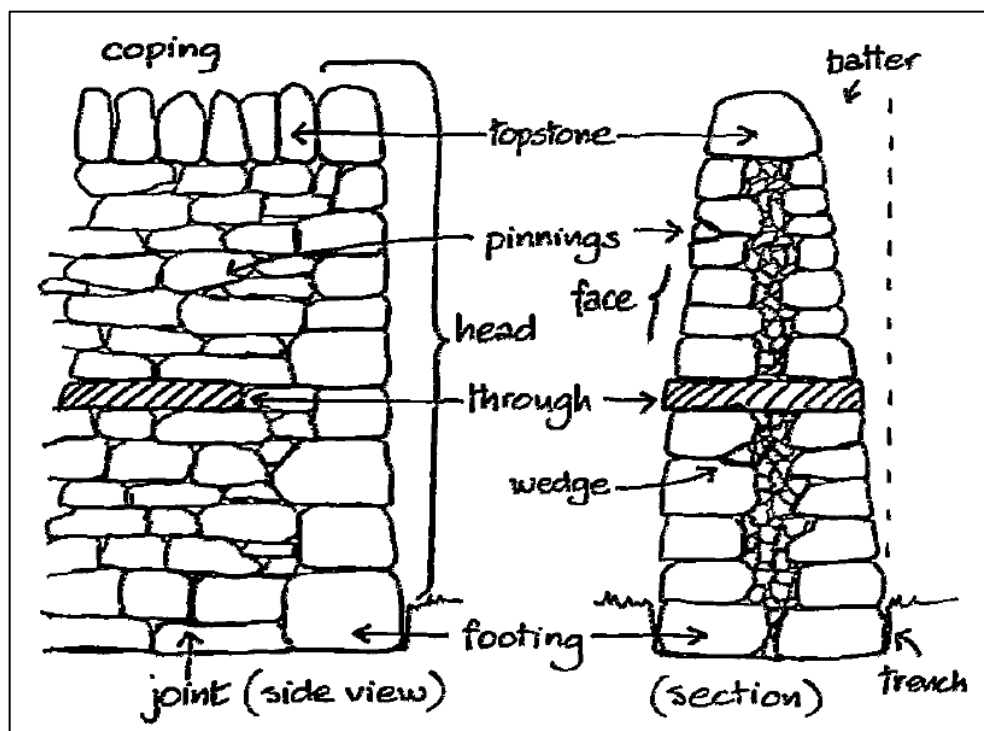


Photo 2 Terminology and features of a dry stone wall (Source: Brook 1994, 7)

Kiama Council have identified and assessed the majority of walls within the study area. Table 3 provides a summary of the assessed walls, where the data was available.

⁵⁵ ('A Veteran Passes. Thomas Newing - 93 years.', 1927, Newing 1936)

⁵⁶ (Newing 1936)

⁵⁷ Abraham 1991, 101

⁵⁸ Abraham 1991, 10

⁵⁹ (Newing 1936); Warwick Mayne-Wilson Associates 2000; Mayne-Wilson & Associates 1998, 2

Table 3 Summary of dry stone walls within the study area that have been assessed by Kiama Municipal Council (where data available) (Note: KMC DSW = Kiama Municipal Council dry stone wall)

Wall no.	Likely date of construction	Builder	Land use	Purpose of wall	Commissioning owner(s)
KMC DSW 12	c.1860-1880	Possibly Newing or E.King	Dairying	Property boundary	King Family
KMC DSW 18	c.1870-1880	Unknown, possibly Newing or E.King	Dairying	Property boundary	King Family
KMC DSW 19	Data not available				
KMC DSW 54	c.1985	Ian Downes	Dairying	Eastern arm of entry driveway	Grey Family
KMC DSW 55	Data not available				
KMC DSW 57	Data not available				
KMC DSW 58	Data not available				
KMC DSW 59	Data not available				
KMC DSW 60	Data not available				
KMC DSW 61	Data not available				
KMC DSW 67	Data not available				
KMC DSW 69	Data not available				
KMC DSW 70	Data not available				
KMC DSW 71	c.1850-1860	Probably land owner	Dairying	These series of deteriorated walls would have once formed three separate pend enclosures	De la Vega, F. Herbert, Grey Family
KMC DSW 72	Data not available				
KMC DSW 73	c.1860	Possibly Newing	Dairying	Paddock boundary	Grey Family
KMC DSW 149	Late 1800s	Unknown	Dairying – hobby farm	Property boundary	King Family
KMC DSW 153	c.1870-1880	Unknown	Dairying	Property boundary	Partially by Milne family since 1908
KMC DSW 156	No information	No information	No information	No information	No information
KMC DSW 205	Data not available				
KMC DSW 206	Data not available				
KMC DSW 207	c.1880	Unknown	Dairying	Paddock boundary	Milne Family

Wall no.	Likely date of construction	Builder	Land use	Purpose of wall	Commissioning owner(s)
					Since 1908
KMC DSW 208	Data not available				
KMC DSW 210	Data not available				
KMC DSW 212	Data not available				
KMC DSW 218	Data not available				
KMC DSW 220	c.1860-1870	Unknown	Dairying	Property boundary/semi-retaining	Grey Family
KMC DSW 221	1860-80	Unknown – presumed land owner	Dairying	Paddock/holding pen boundary	Grey Family
KMC DSW 222	c.1880	Unknown	Dairying	Holding pen/Paddock boundary	Grey Family
KMC DSW 223	c.1880	Unknown	Dairying	Holding pen/paddock boundary	Grey Family
KMC DSW 224	c.1860	Unknown	Dairying	Western edge of former holding pen	Grey Family
KMC DSW 225	c.1860-70	Unknown	Dairying	Property boundary/semi retaining for original old road up to Silver Hill	Milne Family Since 1908



Photo 3 Dry stone walls mapped by Kiama Council within part of the study area, which is outlined in yellow (Source: Kiama Council, 2018)

Surveyor data has also mapped out a series of dry stone walls within the study area. These are presented below in Photo 4, Photo 5 and Photo 6.

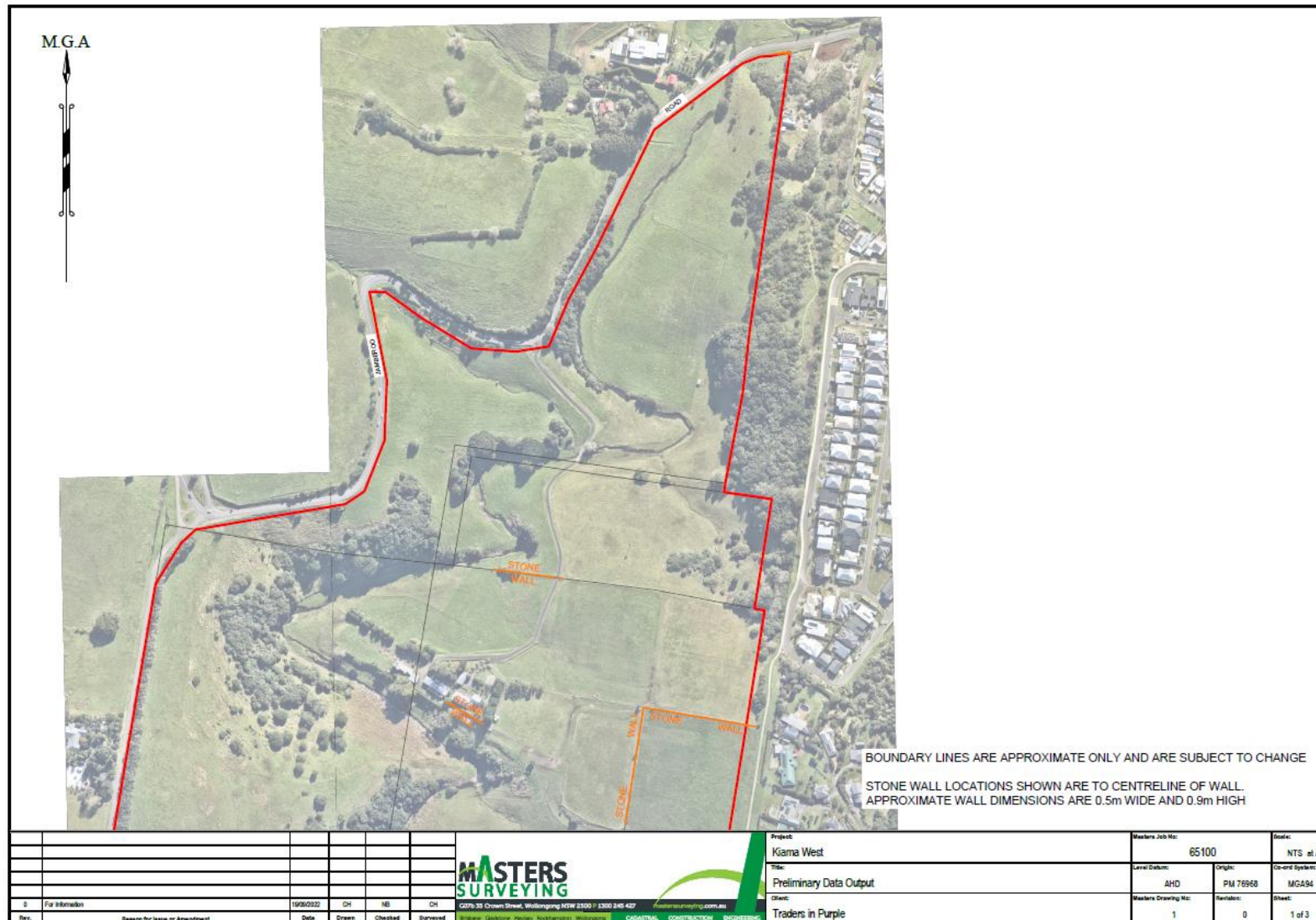


Photo 4 Dry stone walls recorded by Masters Surveying in the northern part of the study area (Source: Provided by Traders in Purple, 21 September 2022)

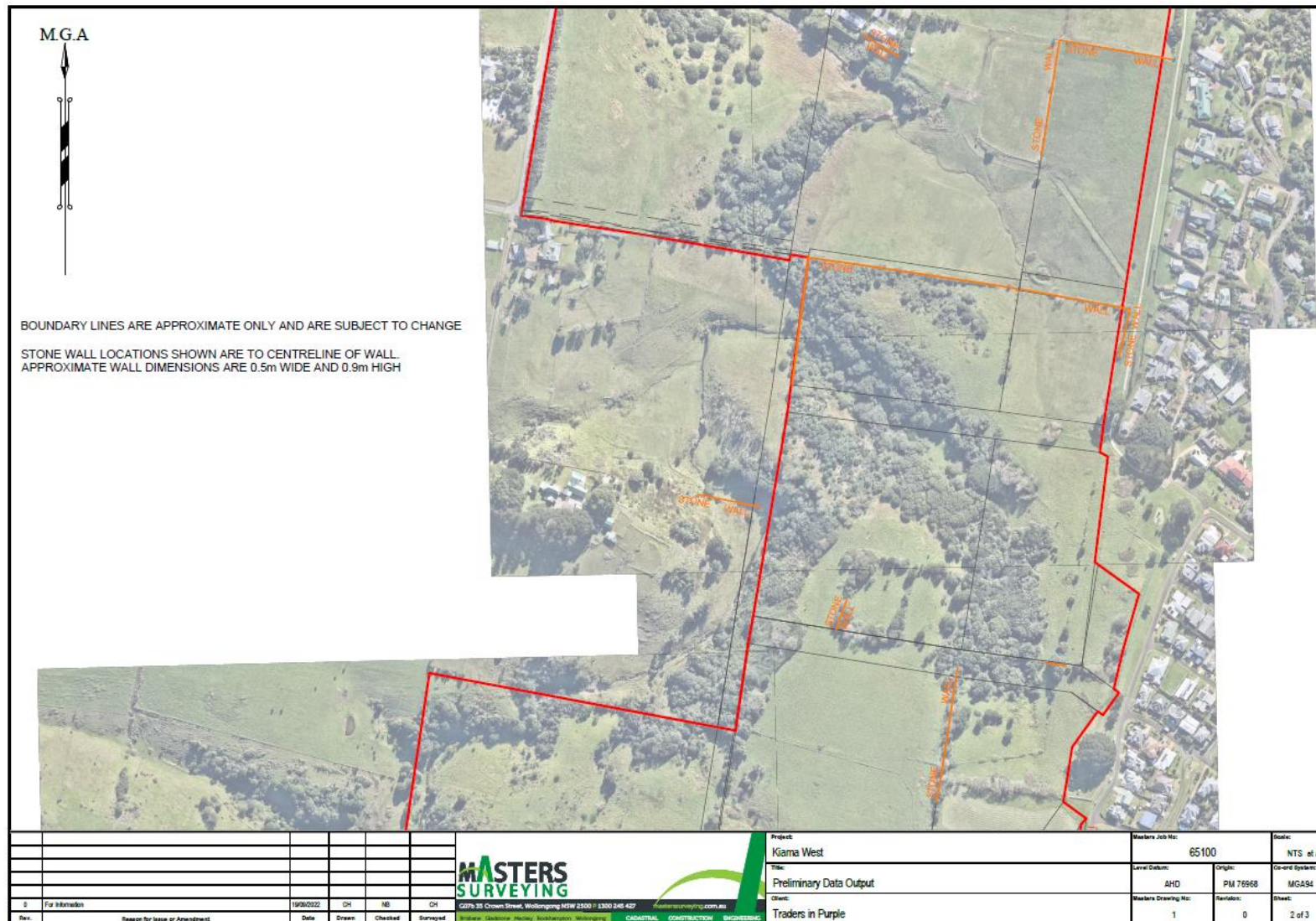


Photo 5 Dry stone walls recorded by Masters Surveying in the central part of the study area (Source: Provided by Traders in Purple, 21 September 2022)

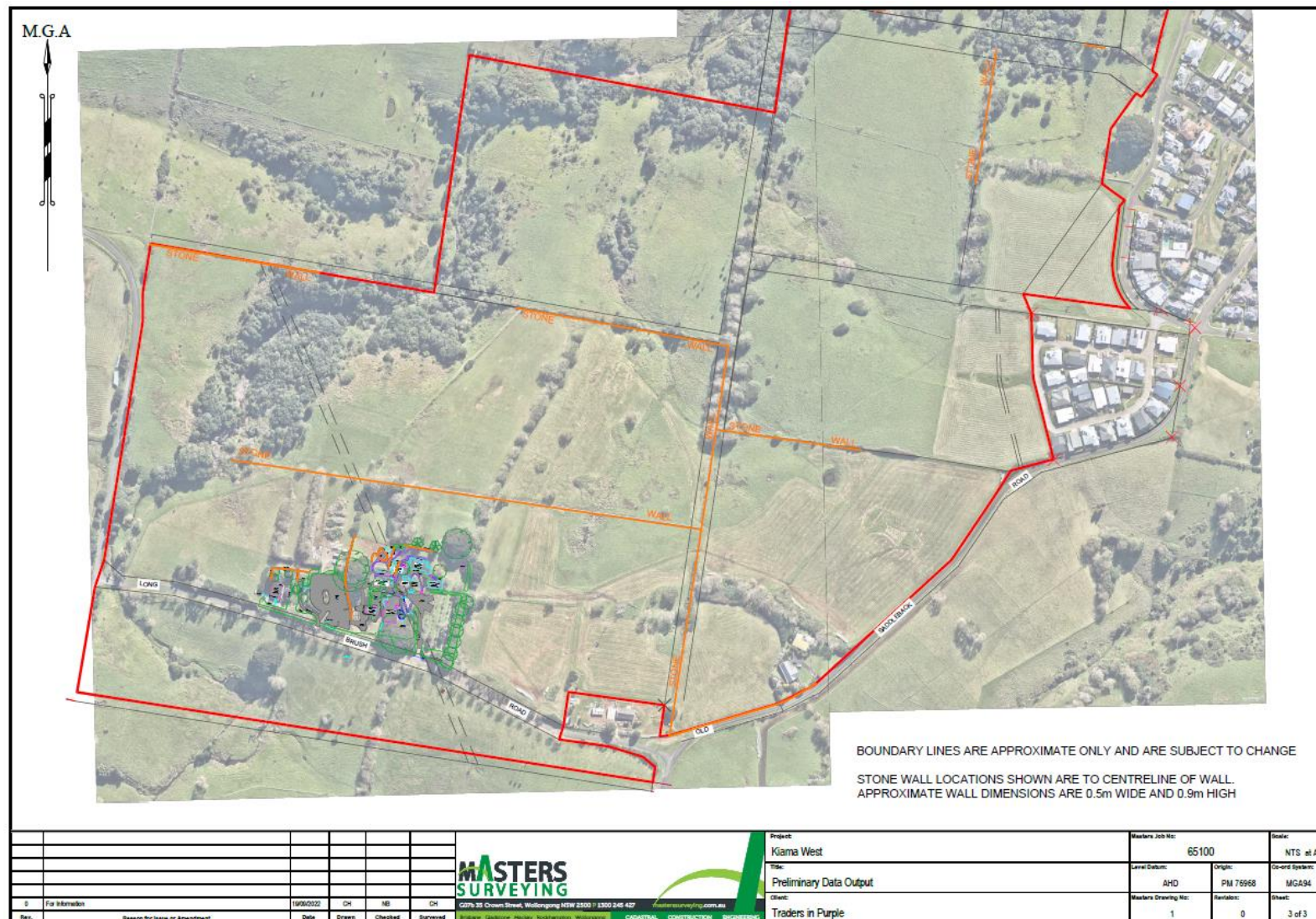


Photo 6 Dry stone walls recorded by Masters Surveying in the southern part of the study area (Source: Provided by Traders in Purple, 21 September 2022)

3.3.5 Development of the study area

3.3.5.1 Land grants and European farmers

The study area is contained within a large number of portions of Kiama parish. These are summarised in Table 4. A c.1892 map of Kiama Parish shows the arrangement of these portions and town sections (Photo 7). The earliest of these portions was granted to J Collis, but was awarded by the Court of Claims in 1830 to by James Robb.⁶⁰ In 1851, John Millar acquired portions 70, 73 and 74,⁶¹ Portion 76 was purchased by Launcelot Nethery (?), Portion 75 by John Gray and portions 74 and 73 by Robert Owen.⁶² In 1854, the remainder of the study area was sold by the Crown to multiple individuals (Photo 8, Photo 9, Photo 55, Photo 9, Photo 56, Photo 57, Photo 58).⁶³

Table 4 Summary of Parish portions and grantees

Portion of land	Crown plan	Grantee	Date	Other information
Portion 16	Could not be located	Originally granted to J. Collis, award to James Robb by Court of Claims ⁶⁴	1830	
Portion 58	I193.672	James Colley	1854	Suburban allotment 86
Portion 59	I193.672	Thomas Black	1854	Suburban allotment 87
Portion 68	I193.672	Thomas Black	1854	Suburban allotment 88
Portion 69	I193.672	Joseph Pike	1854	Suburban allotment 85
Portion 70	K23.1249	John Millar	1851	Suburban allotment 37
Portion 73	K18.1249	John Millar	1851	Suburban allotment 38
Portion 74	K18.1249	John Millar	1851	Suburban allotment 39
Portion 75	K18.1249	John Gray	1854	Suburban allotment 8
Portion 76	K18.1249	Launcelot Nethery	1854	Suburban allotment 9
Portion 81	I193.672	Joseph Vance	1854	Suburban allotment 105
Portion 82	I193.672	Joseph Vance	1854	Suburban allotment 108
Portion 83	I193.672	Moses King	1854	Suburban allotment 84
Portion 84	I193.672	Moses King	1854	Suburban allotment 109(?)
Portion 85	I193.672	Joseph Vance	1854	Suburban allotment 107
Portion 156	K33.1249	Joseph Pike	1854-6	Suburban allotment 83
Portion 178	K36.1249	Launcelot Nethery	1854	Suburban allotment 72
Portion 179	K36.1249	Launcelot Nethery	1854	Suburban allotment 71

⁶⁰ NSW Land Registry Services, Crown plans I19.672, R1245c.1603, (Dunn 2007)

⁶¹ NSW Land Registry Services, Crown plan K23.1249

⁶² NSW Land Registry Services, Crown plan K18.1249

⁶³ NSW Land Registry Services, Crown plans I193.672, I193.672, K33.1249, K36.1249, K35.1249, K34.1249, K32.1249

⁶⁴ NSW Land Registry Services, Crown plan R1245c.1603, (Dunn 2007)

Portion of land	Crown plan	Grantee	Date	Other information
Portion 180	K36.1249	John Gray	1854	Suburban allotment 73
Portion 181	K36.1249	James Armstrong	1854	Suburban allotment 70
Portion 182	K36.1249	John Gray	1854	Suburban allotment 76
Portion 183	K36.1249	J King	1854	Suburban allotment 75
Portion 184	K35.1249	James Emery	1854	Suburban allotment 77
Portion 185	K35.1249	J. King	1854	Suburban allotment 78
Portion 186	K35.1249	James Robinson	1854	Suburban allotment 80
Portion 187	K35.1249	James Emery	1854	Suburban allotment 79
Portion 188	K34.1249	William Marks	1854	Suburban allotment 81
Portion 189	K34.1249	J. Colley	1854	Suburban allotment 82
Town Section 45, allotment 1 and 2	K32.1249	Moses King	1854	-
Town Section 44, allotment 1 and 2	W27.1249 (not available)	M. King	Unknown, likely c.1854	-

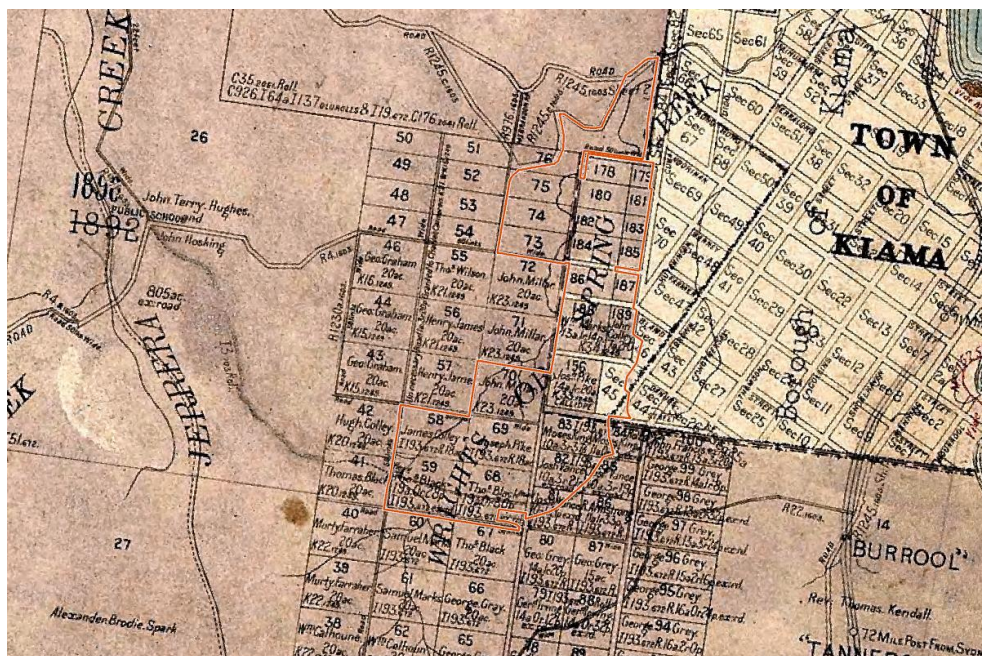


Photo 7 1892 map of Kiama Parish, with the study area outlined in orange (Source: NSW Land Registry Services, Historical Land Records Viewer)

The Crown plans for the study area record descriptions of the land within the study area, with notes such as thick bushland, stony ground, good soils suitable for agriculture and good supplies of water either from creeklines or sinking wells (Photo 8, Photo 55, Photo 9, Photo 56, Photo 57, Photo 58). An old saw pit [1] and an associated track through portions 188, 189, 156, 178 Town Section 45 is recorded on several of the 1854

Crown plans (Photo 8, Photo 55, Photo 56, Photo 58).⁶⁵ The alignment [2] for what would become Old Saddleback Road/Long Brush Road is also recorded (Photo 9).⁶⁶

⁶⁵ NSW Land Registry Services, Crown plans K34.1249, K33.1249, K32.1249, CP K36.1249

⁶⁶ NSW Land Registry Services, Crown plan I193.672

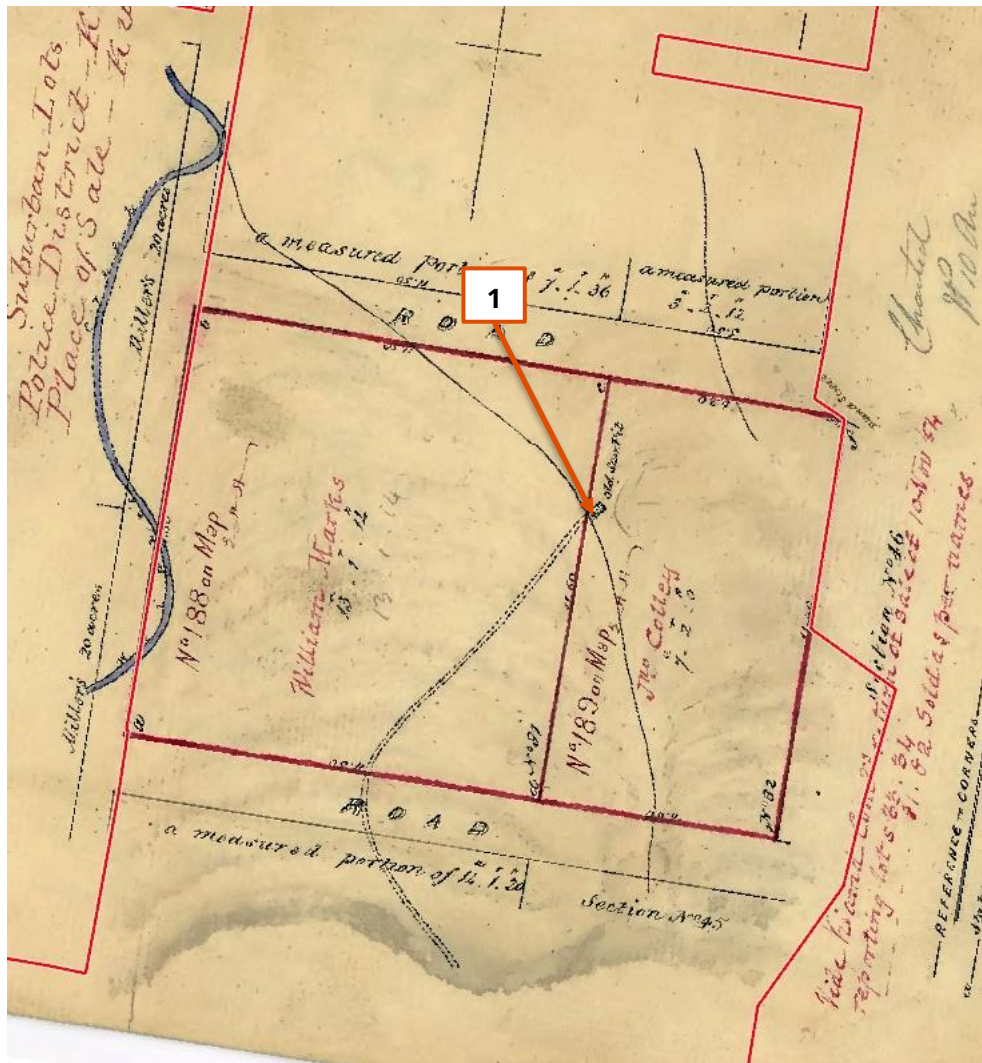


Photo 8 1854 Crown plan of two suburban allotments, featuring portions 188 and 189 with the study area outlined in red, showing the old saw pit [1] and associated track (Source: NSW Land Registry Services, Crown plan K34.1249)

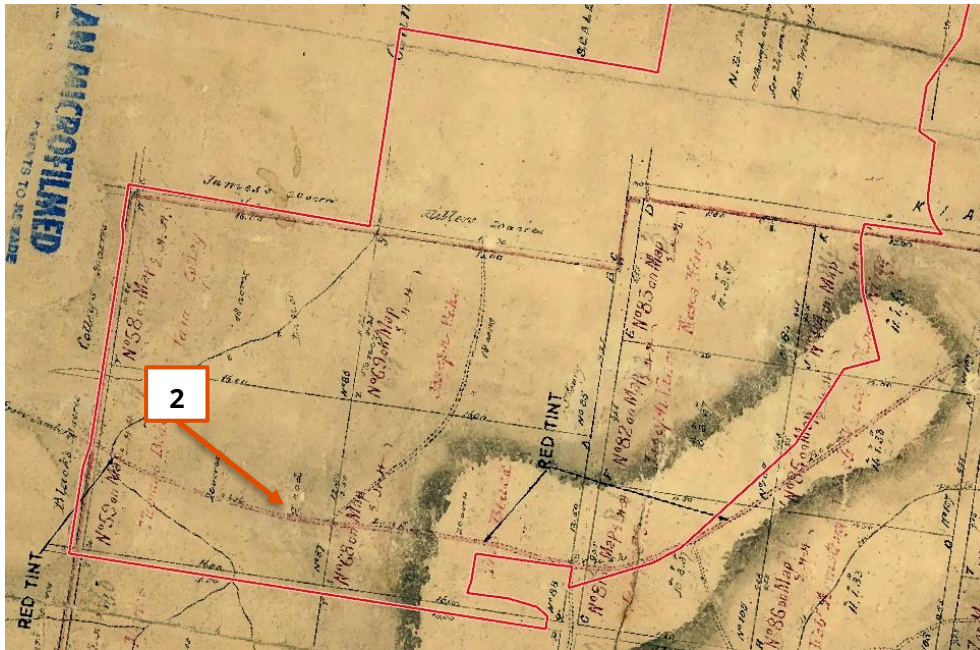


Photo 9 1854 Crown plan of 36 suburban allotments, featuring portions 58-59, 68-69 and 81-85, with the study area outlined in orange and showing the alignment of Old Saddleback Road/Long Brush Road [2] (Source: NSW Land Registry Services, Crown plan I193.672)

James Robb, owner of Portion 16 and an architect, called his 1,280 acre (518 hectares) property Riverdale (also written as Riversdale in a number of sources). Robb also sponsored Scottish immigrants as tenants and farm labourers at Riverdale through the immigration assistance scheme, and by 1841 there were 43 people living on the Riverdale estate.⁶⁷ George Gray leased 1,000 acres (405 hectares) of the Riverdale estate in 1843 and coordinated the clearing of the land, which was likely associated with Robb's cedar business interests. As part of Gray's lease, he also settled immigrants from County Fermanagh, Ulster (Ireland).⁶⁸

Joseph Pike, owner of portions 69 and 156 and emancipated convict, arrived in the Kiama region in 1846 with his wife Mary Talbot. Pike purchased land in the township at what became known as Pike's Hill, and opened the first general store in 1847. Pike also acquired property around the Kiama area for farming and dairying, and was elected as an Alderman and then Mayor of Kiama Municipal Council following its creation in 1859. Pike was also a Director of the Pioneer Dairy Company.⁶⁹

James Colley and J Colley, owners of portions 58 and 189 respectively, may have been part of the Colley family, originally from Loughquile, County Antrim in Ireland, who arrived in the Kiama area in stages during the 1840s. Members of the Colley family, John, James and William, found employment of the larger estates to gather experience and funds to acquire their own properties. William Colley acquire Park Mount around 1845, a larger property now reduced to a curtilage around the homestead.⁷⁰

John Gray, owner of portions 75, 180 and 182, emigrated from northern Ireland with his wife Mary in the mid-19th century. In the same year as his land grant acquisitions in the study area, Gray (later changed to Grey) purchased a property known as Mount Salem on Saddleback Mountain Road, now known as The Pines and located south of the study area. Gray and his sons worked at Riversdale. The Gray/Grey family continued to own Mount Salem (The Pines) into the late-19th century, and George Grey went on to purchase an adjoining

⁶⁷ (Latona Masterman & Associates 1987, pp. 23)

⁶⁸ (Dunn 2007, pp. 152, Latona Masterman & Associates 1987, pp. 23)

⁶⁹ (Dunn 2007, pp. 152, Kiama Library n.d.)

⁷⁰ (Australian Heritage Database n.d.)

property in 1891 which he called Greyleigh, located within the study area. Arthur Gray/Grey acquired sole ownership of The Pines. A 1933 newspaper article written by George Gray-Grey himself notes that upon his acquisition of the property it was in bad state, with much work undertaken to improve it. The same article notes that further adjoining land was acquired or rented and improved over time, and at its largest totaled at 500 acres (202 hectares). However, the property shrunk again due to Grey/Gray children moving away; the rented land was released and in 1933 Greyleigh consisted of 320 acres (129 hectares). At this time about 12 acres (5 hectares) of maize was also cultivated. Greyleigh stud stock for won numerous prizes at various agricultural shows in NSW, Queensland and Victoria. The Grey family were and continue to be dairy farmers in the Illawarra, with The Pines still functioning as a micro-dairy in 2022.⁷¹

Thomas Black, owner of portions 59 and 68, was originally from County Fermanagh in Ireland and emigrated to NSW, settling in Omega in Gerringong in 1840. Black married Charlotte Alice Hindmarsh around 1848. Black became a dairy farmer and bred cattle, and resided at Gerringong House.⁷²

John Millar, owner of portions 70, 73 and 74, is known to have resided at Ayr Park, in Jerrara.⁷³ Little further substantial information could be obtained regarding Millar, but it is assumed that he would have also been a dairy farmer, acquiring additional parcels of land to graze his cattle.

Launcelot Nethery, initial owner of portions 76, 178 and 179, appears to have sold land in 1857 to John Henery.⁷⁴ It is unknown if this included his property within the study area. Launcelot Nethery died in 1865, but a John Nethery appears in a number of 1870s and 1880s newspaper articles regarding agricultural shows and as testimony in an 1877 dispute about the quality of dry stone walls constructed by P. Deitz.⁷⁵ These suggest that the Nethery family potentially retained some of their property within the area and were farmers.

Joseph Vance, who owned portions 81, 82 and 85, is noted in a number of articles regarding his children as being of 'Bonara' and 'Wesley Park'. Little further information could be obtained regarding Vance.⁷⁶

Moses King, who owned portions 83 and 84 and allotments 1 and 2 of town sections 44 and 45, was originally from County Tyrone in northern Ireland, arriving in NSW along with his three brothers and sisters in 1841. One of his brothers was John King, who is likely to be the J King who owned portions 183 and 185. Prior to their arrival in Kiama, the King siblings had worked at the Omega Estate in Gerringong. One 1903 obituary for Moses King states that the property purchased remained in the King family at that time.⁷⁷

James Armstrong, owner of Portion 181, was originally from County Ulster in Ireland and migrated to NSW with his wife and family, arriving in Wollongong in 1836. Armstrong was a tailor by trade but took a clearing lease. Armstrong is also described as a dairy farmer. The Armstrong family lived on their farm which became known as Armstrong's Gully where the Munna Munnorah Creek runs.⁷⁸

James Emery, owner of portions 184 and 187, appears to have left the Kiama district for the Shoalhaven area around 1865. Prior to this, Emery lived at a property called Nethervale.⁷⁹

Little meaningful information could be found of James Robinson, owner of Portion 186.

⁷¹ (Kiama Library n.d., Grey 1933)

⁷² ('John Black - 86 Years.', 1938, Carruthers 1920, McCaffrey 1931, J. E. C. 1915)

⁷³ ('Births, Marriages, & Deaths.', 1873)

⁷⁴ ('The Illawarra District. Kiama.', 1857)

⁷⁵ ('Ecclesiastical Jurisdiction', 1865, 'Kiama Show.', 1883, 'Kiama District Court.', 1877)

⁷⁶ ('Marriages.', 1872, 'Marriages.', 1861)

⁷⁷ ('Mr. Moses King, Sen.', 1903, 'The Late Mr. Moses King.', 1903)

⁷⁸ (McCaffrey 1927, 'Reminiscences of Old Kiama.', 1938)

⁷⁹ ('Passing of the Pioneers - John James Emery', 1930, 'Nethervale.', 1918)

William Marks, owner of Portion 188, is noted as a property owner in the writings of a traveler on his way from Kiama to Jamberoo. It is not clear whether the writer is referring to Marks' property within the study area.⁸⁰

A number of the early landholders in the study area were elected to Kiama Municipal Council in 1859. This included: James Colley; Joseph Pike; and James Robinson.⁸¹

3.3.5.2 Evidence of land use

Two plans from the 1870s provide some detail on the development that has occurred in the northern portion of the study area. An 1871 Crown plan for the resurvey of three large estates including Robb's Portion 16 shows a series of fence lines within Portion 16 and along Jamberoo Road (Photo 10). It is not specified whether these fence lines are stone walls. A potential structure [3] is also present in Portion 178.⁸² In 1879, the South Coast Road was deviated south; this deviation forms the boundary of the most northern portion of the study area (now Jamberoo Road).⁸³ The Crown plan for this deviation is annotated with notes recording that the northern portion of the study area is part of G. Woods' property, which is separated from James Robb's Portion 16 by the original alignment of the South Coast Road. The name Pike is also noted above Woods' name, suggesting that Pike, already an owner of several portions in the study area, may have owned the property and was leasing to Woods. A stone wall [4] is recorded along an unnamed road which runs along the northern boundary of Portion 179 and 178 and along the part of the northern boundary of Portion 76. This plan also recorded a second stone wall [5] running along the western boundaries of Portion 76, 75 and extending into Portion 74, adjacent to which is the current Jerrara Road.

⁸⁰ ('A Tour to the South. No. 3. - The Kiama District', 1871)

⁸¹ (Kiama Library n.d.)

⁸² NSW Land Registry Services, Crown plan C176.2041

⁸³ NSW Land Registry Services, Crown plan R1245c.1603



Photo 10 1871 Crown plan for the resurvey of three large properties including Portion 16, showing a possible structure [3], roads and fence lines (does not state whether they are stone walls), with the study area outlined in orange (Source: NSW Land Registry Services, Crown plan C176.2041)



Photo 11 1879 Crown plan for the deviation of the South Coast Road, showing property owners or occupants and two stone walls [4] [5], with the study area outlined in orange (Source: NSW Land Registry Services, Crown plan R1245c.1603)

The land ownership records for the study area were maintained within the Old Title System into the 1980s. While these records would provide details of ownership, plans were often not included in these documents. As such, this research would not necessarily provide details of the development of any structures, homesteads or infrastructure within the study area. Based on the current use of the study area, it can be confidently assumed that the land was continuously utilised for grazing livestock, most likely dairy cattle from around the mid-19th century.

Photographs and DP plans from the early- to mid-20th century onwards allow for an examination and development of the study area. Two photographs dating to the early 20th century and c.1935 indicate that the study area featured cleared paddocks divided by dry stone walls, hedges and lines of trees, with some scattered buildings. Unfortunately it is difficult to be certain as to these buildings' precise locations (Photo 12, Photo 13).



Photo 12 Early 20th century photograph of Kiama from Mt Salem and Saddleback Mountain Road; the possible location of the southern portion of the study area is indicated by the orange arrow (Source: (Cocks n.d.)



Photo 13 c.1935 photograph of Kiama town looking west, with the study area in the distance, as indicated by the orange arrow (Source: (Bayley 1935)



Photo 14 1952 photograph of herding dairy cattle in part of Greyleigh, potentially in the southern portion of the study area (Source: (Tanner 1952))

Aerial imagery dating to 1963 shows a number of developments and features within the study area (Photo 15, Photo 16, Photo 17). In the northern portion there is a homestead complex [6] with potentially nine structures adjacent to Spring Creek with a track leading to Jamberoo Road. A bridge [7] associated with this track cross Spring Creek. In the southern portion of the study area is a second homestead complex [8] north of Old Saddleback Road/Long Brush Road [9] with potentially 15 structures. A high number of dry stone walls are also visible [10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20] [21] [22] [23] [24] [25] [26] [27] [28] [29] [30] [31] [32] [33] [34] [35] [36] [37] [38] [39] [40] [41] [42] [43] [44] [45] [46] [47] [48]. It should be noted that due to the quality of aerial imagery there may be dry stone walls or other structures which are not visible. This may also be compounded by the presence of seasonal or dry vegetation.



Photo 15 1963 aerial photograph of the northern portion of the study area, which is outlined in orange, showing dry stone walls [10] [11] [12] [13] [14] [15] [16] [17], the homestead complex [6] and the bridge spanning Spring Creek [7] (Source: NSW Spatial Services 2022)



Photo 16 1963 aerial photograph of the central portion of the study area, outlined in orange, showing paddocks separated by dry stone walls [18] [19] [20] [21] [22] [23] [24] [25] [26] [27] [28] [29] [30] [31] [32] [33] [34] [35] [36] [37] (Source: NSW Spatial Services 2022)

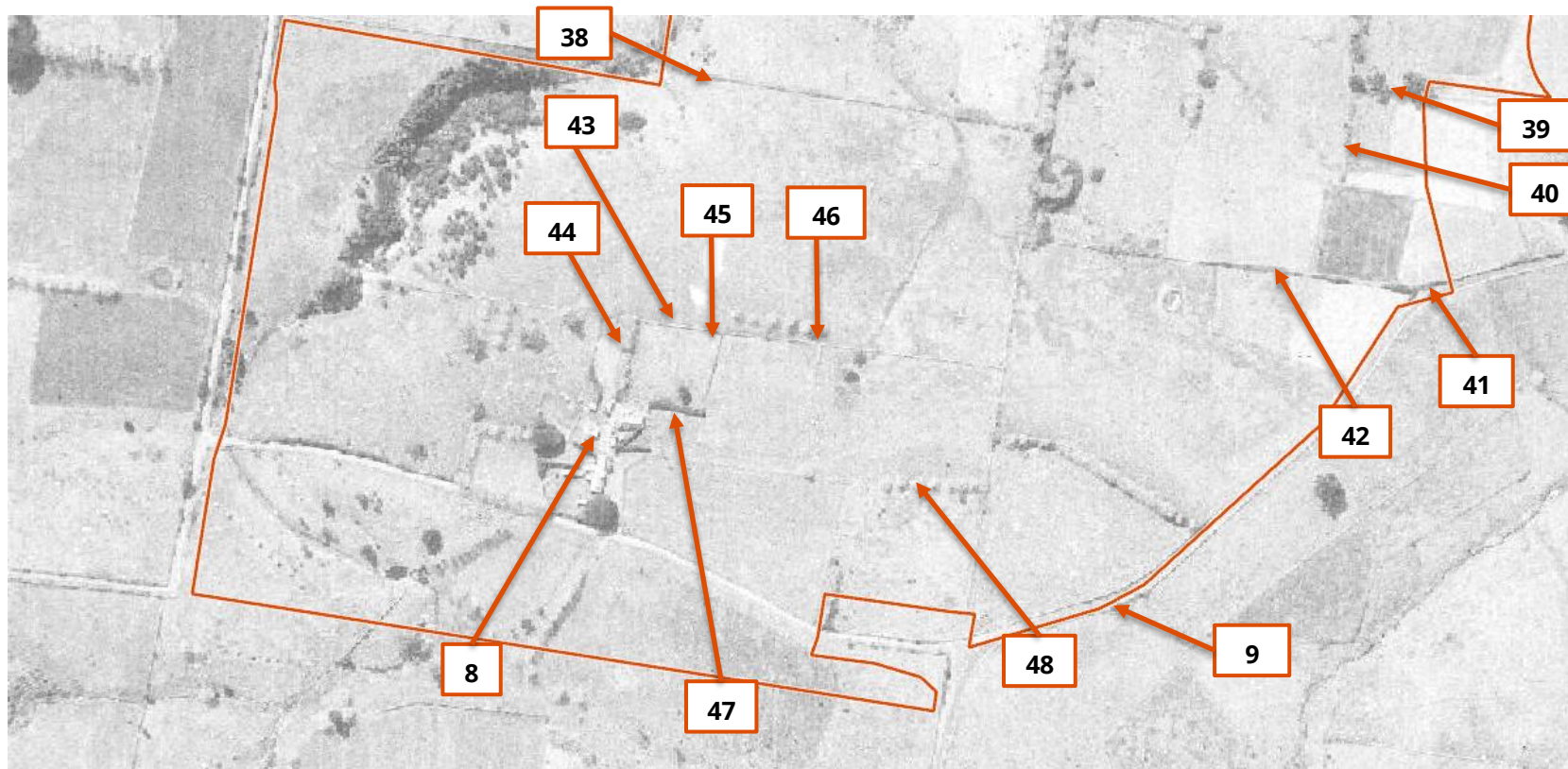


Photo 17 1963 aerial photograph of the central portion of the study area, outlined in orange, showing the Greyleigh homestead complex [8] north of Old Saddleback/Long Brush Road [9] and a collection of dry stone walls [38] [39] [40] [41] [42] [43] [44] [45] [46] [47] [48] (Source: NSW Spatial Services 2022)

In 1967, the alignment for Long Brush Road was established. This new road incorporated part of Old Saddleback Road which runs through the southern portion of the study area. The Crown plan for the road records that Frank West Herbert was in possession of portions 58, 59 and 68 at the time, still under the Old Title system.⁸⁴ Two sections of stone walls [50] [52] are recorded along the northern boundary of Long Brush Road/Old Saddleback Road, and more recorded along the western boundary of Portion 59 [53] and 58 [49] and the eastern boundary of Portion 68 [51]. A wall is also recorded along the informal road between Portions 68 and 81 [54].

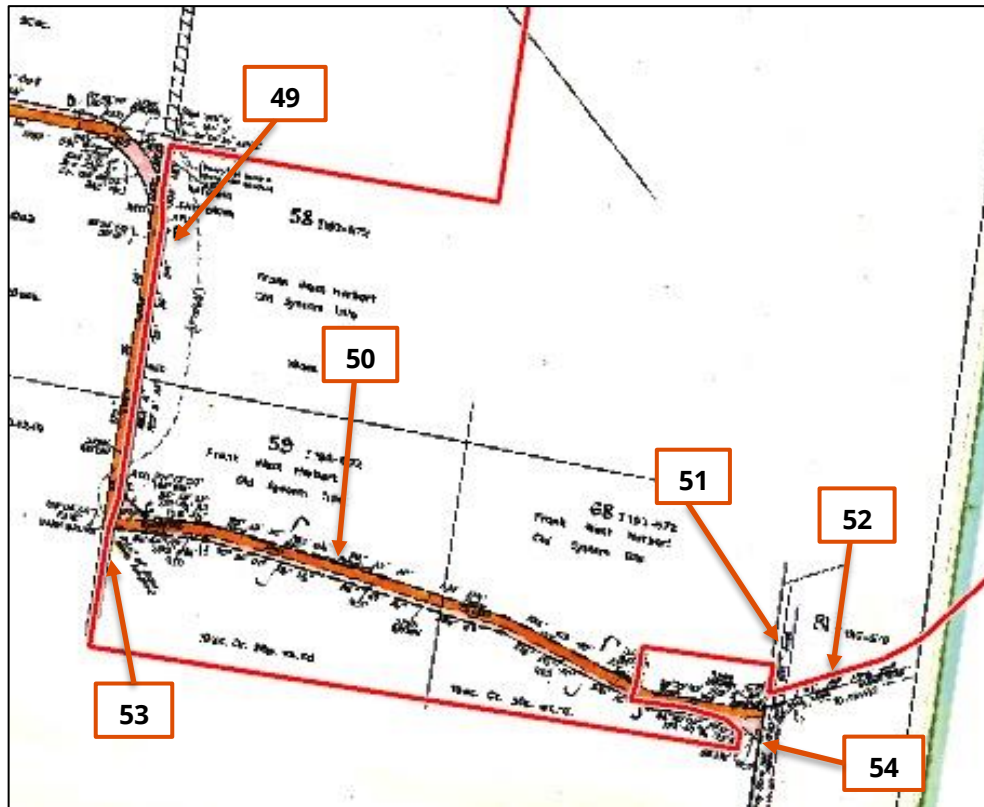


Photo 18 1967 Crown plan for Long Brush Road and Old Saddleback Road, recording a number of stone walls along road and portion boundaries [49] [50] [51] [52] [53] [54], with the study area outlined in orange (Source: NSW Land Registry Services, Crown plan R31905.1603)

Aerial imagery dating to 1979 shows minor changes within the study area (Photo 19, Photo 20, Photo 21) when compared with the imagery from 1963. In the northern portion the homestead complex [6] remains unchanged, with the bridge [7] still in place. In the southern portion there has been some reconfiguration of the homestead complex [8] there, some structures appearing to have been demolished or extended. More dry stone walls [55] [56] [57] [58] [59] are visible in this imagery, potentially due to the season, environmental conditions and the quality of the photograph.

⁸⁴ NSW Land Registry Services, Crown plan R31905.1603

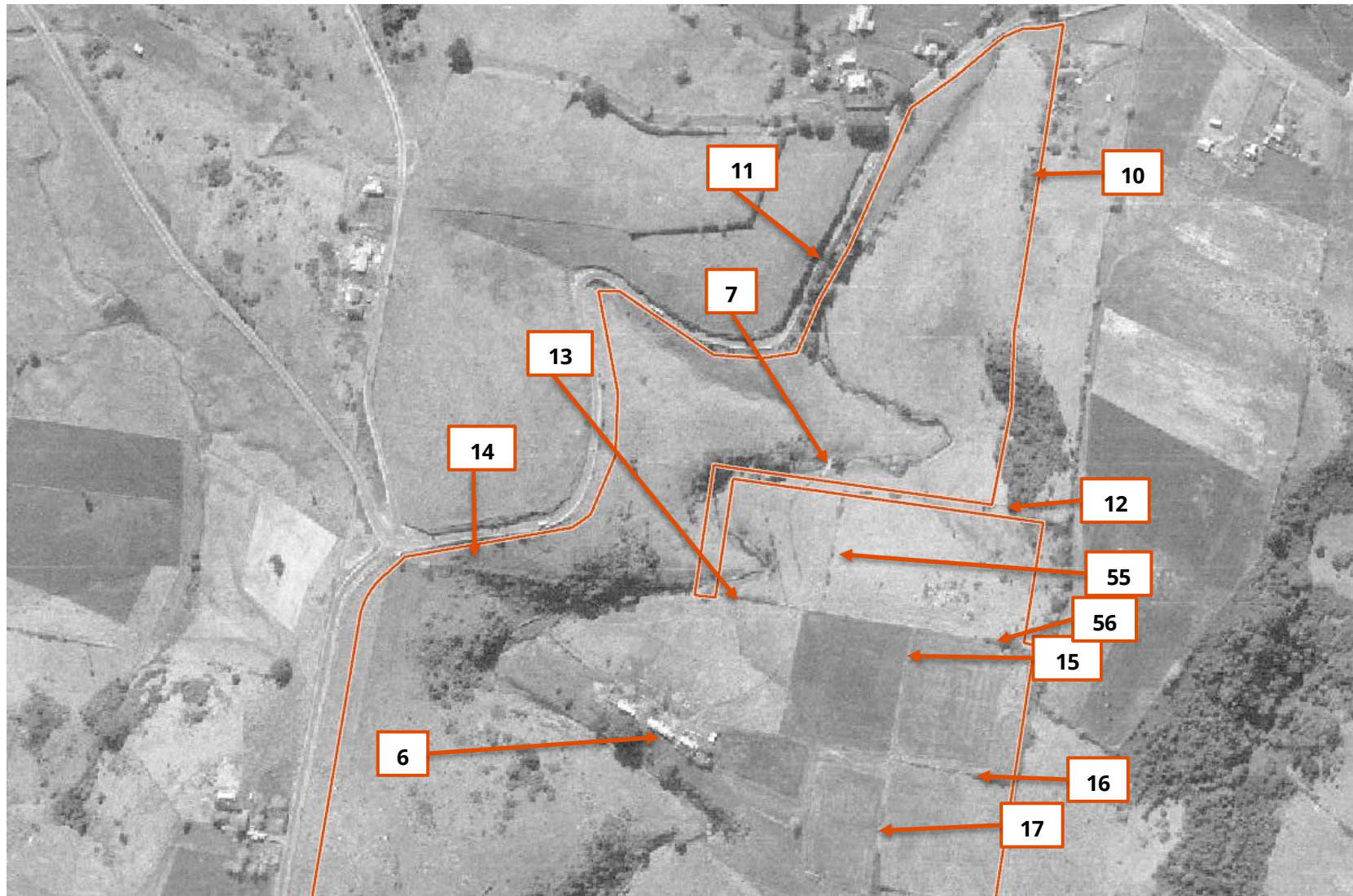


Photo 19 1979 aerial photograph of the northern portion of the study area, outlined in orange, showing two newly visible dry stone walls [55] [56] (Source: NSW Spatial Services 2022)



Photo 20 1979 aerial photograph of the central portion of the study area, outlined in orange, showing one newly visible dry stone wall [57], but with one dry stone wall missing [32] (Source: NSW Spatial Services 2022)

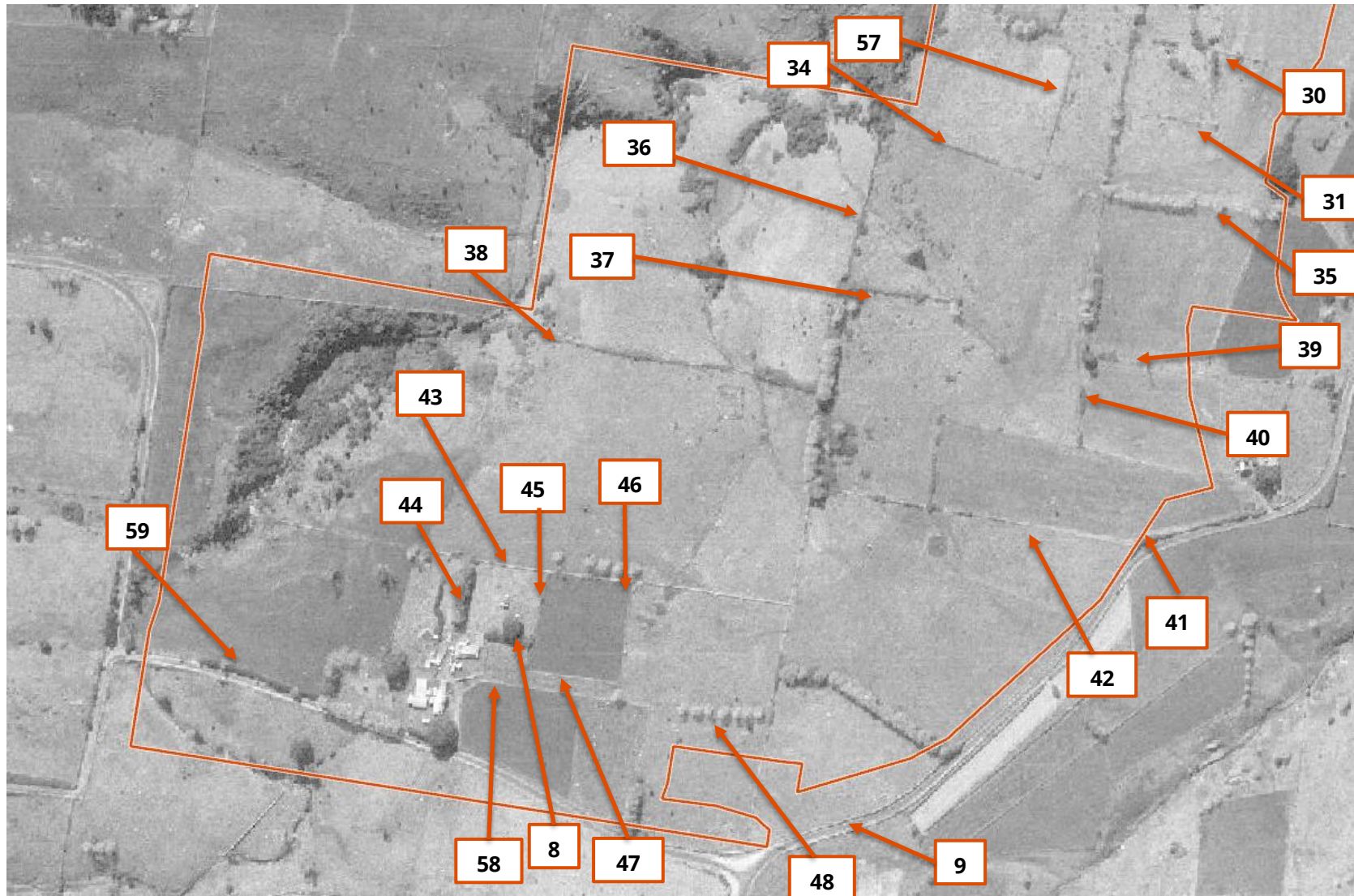


Photo 21 1979 aerial photograph of the southern portion of the study area, outlined in orange, showing two newly visible dry stone walls [58] [59] (Source: NSW Spatial Services 2022)

A number of conversions to the Torrens Title system from the Old Title system took place within the study area from the 1980s onwards, along with subsequent amalgamations and subdivisions of land.⁸⁵ Plans associated with these changes record a number of features. A 1980 plan for conversion of land contained in portions 67, 68 81 and 82 records the stone wall [17] along the northern side of Old Saddleback Road/Long Brush Road and on the unnamed road alignment running north between portions 81 and 68 (Photo 22).⁸⁶

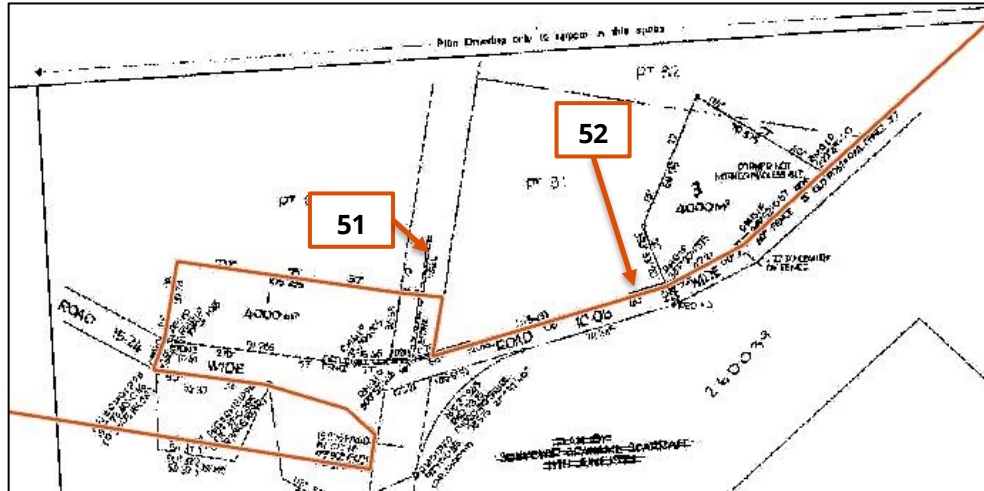


Photo 22 1980 conversion plan showing stone wall [52] along the northern side of Old Saddleback Road/Long Brush Road, and another stone wall [51] north along the unnamed road alignment with the study area outlined in orange (Source: NSW Land Registry Services, DP 611168)

Aerial imagery dating to 1993 shows further minor changes within the study area (Photo 23, Photo 20, Photo 21) when compared with the imagery from 1979. Far fewer dry stone walls are clearly visible. There appears to be some additional buildings within both the northern homestead complex [6] and the southern homestead complex [8], while a new homestead is present in the south-east [60].

⁸⁵ NSW Land Registry Services, DP 611168, DP 995058, DP 1003719, DP 882774, DP 1038973, DP 1042908, DP 1060995, DP 1059841, DP 1135218, DP 1148007, DP 1178500, DP 1176643

⁸⁶ NSW Land Registry Services, DP 611168

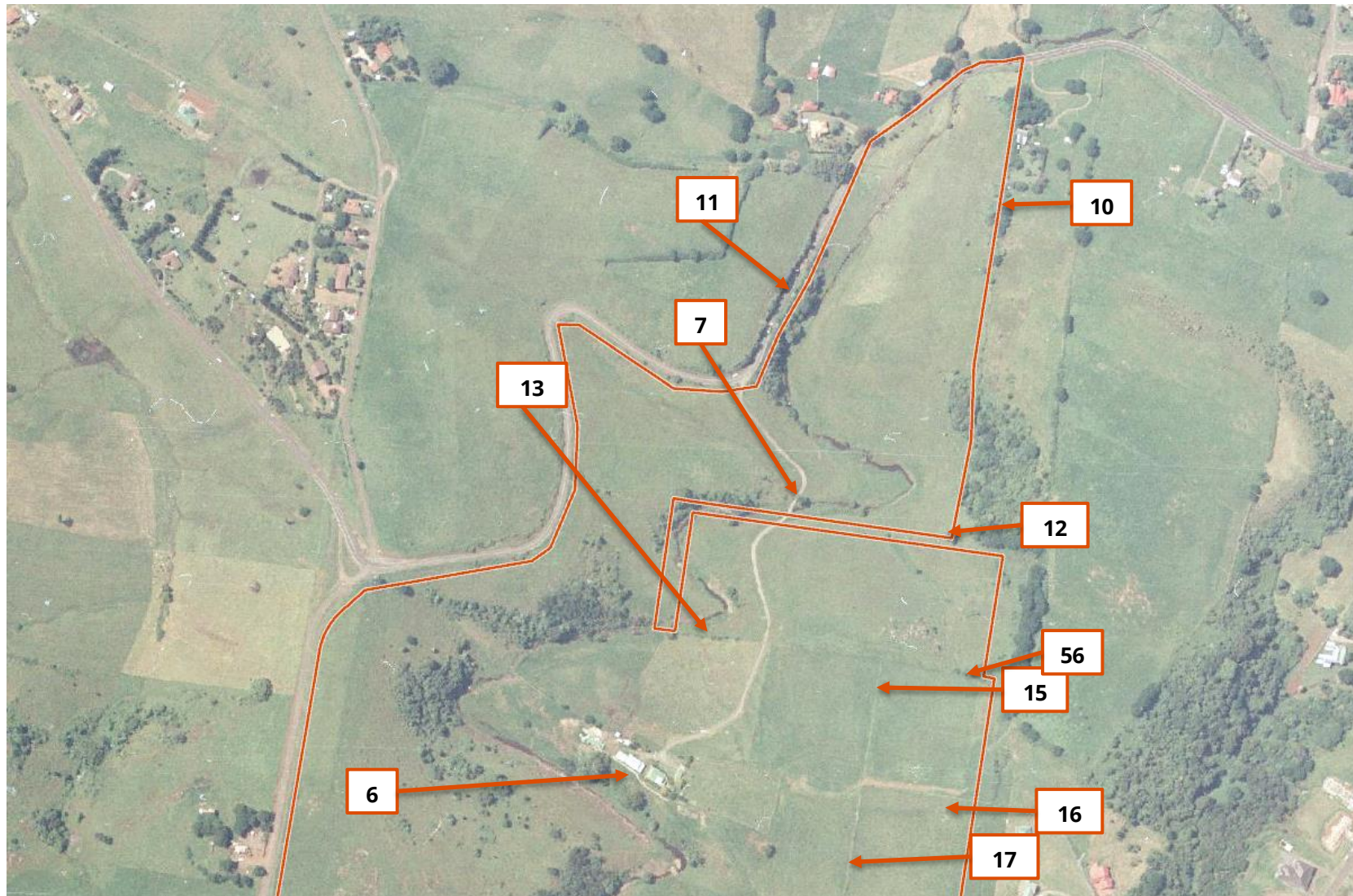


Photo 23 1993 aerial photograph of the northern portion of the study area, outlined in orange, showing previously identified dry stone walls and structures (Source: NSW Spatial Services 2022)



Photo 24 1993 aerial photograph of the central portion of the study area, outlined in orange, showing previously identified dry stone walls (Source: NSW Spatial Services 2022)

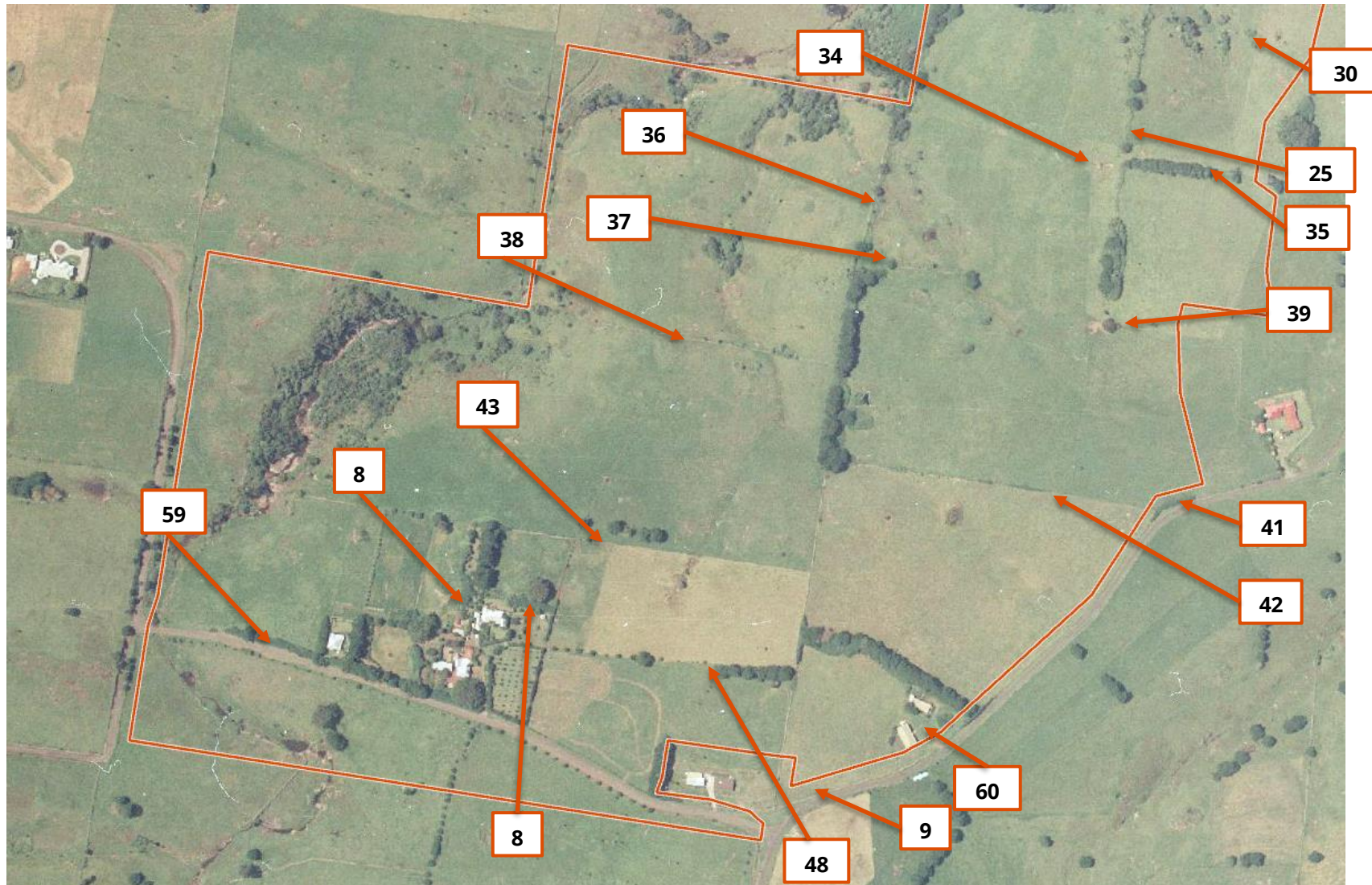


Photo 25 1993 aerial photograph of the southern portion of the study area, outlined in orange, showing a new homestead in the south-east [60] and previously identified dry stone walls and structures (Source: NSW Spatial Services 2022)

A 1999 subdivision plan for land originally part of portions 83 and 84 shows previously identified dry stone walls, along with a newly visible wall [61] on the northern boundary of portion 58 (Photo 26).⁸⁷ Another 1999 subdivision plan for land outside of the study area records stone walls previously identified (Photo 27).⁸⁸ A 2002 subdivision plan for land outside the study area records stone walls also shows dry stone walls identified from previous records and images (Photo 28).⁸⁹

⁸⁷ NSW Land Registry Services, DP 1003719

⁸⁸ NSW Land Registry Services, DP 882774

⁸⁹ NSW Land Registry Services, DP 1042908

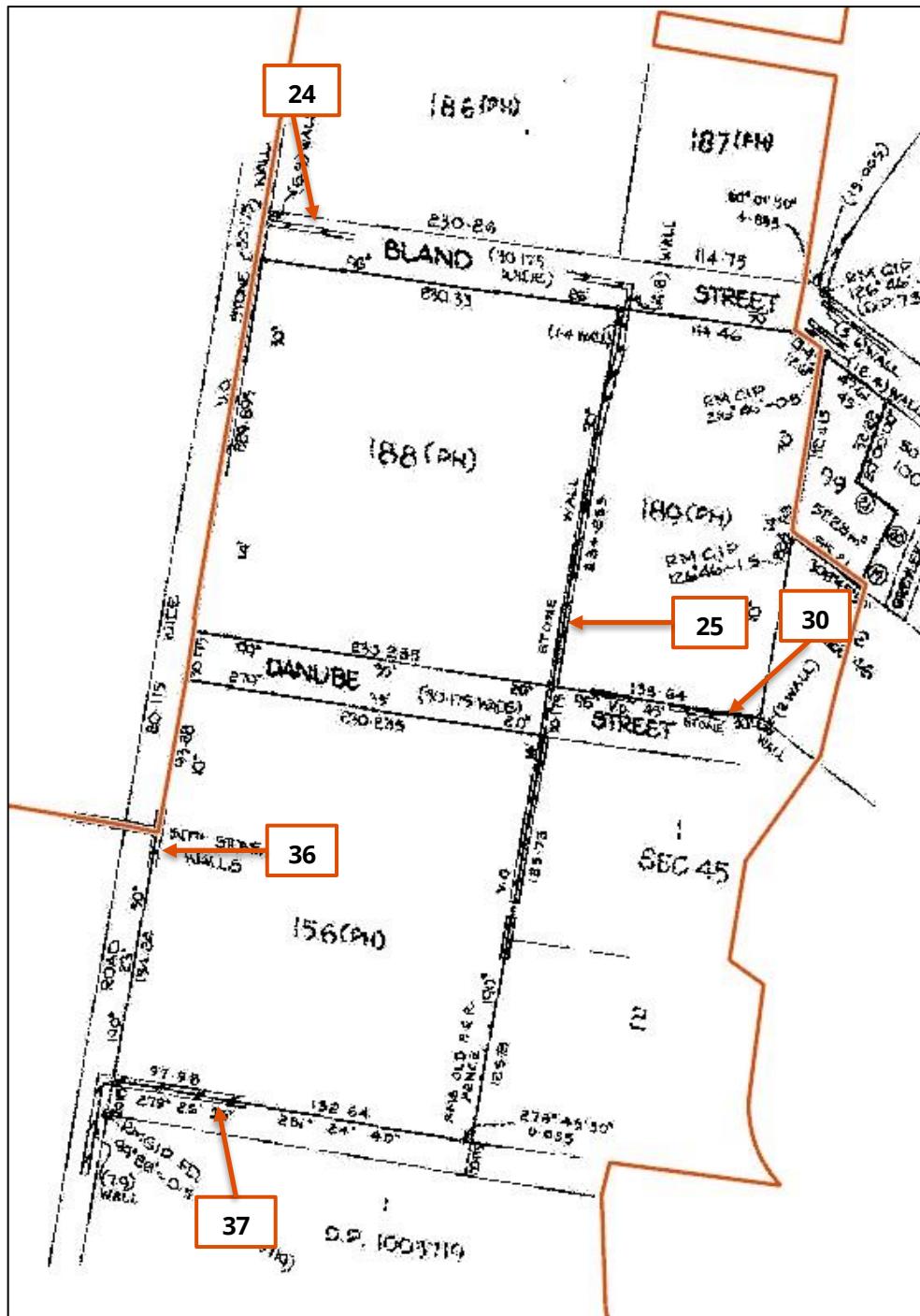


Photo 28 2002 subdivision plan for land outside the study area showing previously identified dry stone walls, with the study area outlined in orange (Source: NSW Land Registry Services, DP 1042908)

Aerial imagery dating to 2006 shows some changes within the study area (Photo 29, Photo 30, Photo 31) when compared with the imagery from 1993. Both the northern and southern homestead complexes [6] [8] have more formalised spaces, with lines of tree plantings having been established in both locations, with further changes to the configuration and number of structures. Fewer dry-stone walls are clearly visible, and a dry stone wall is newly visible on the southern boundary of Jamberoo Road [62].

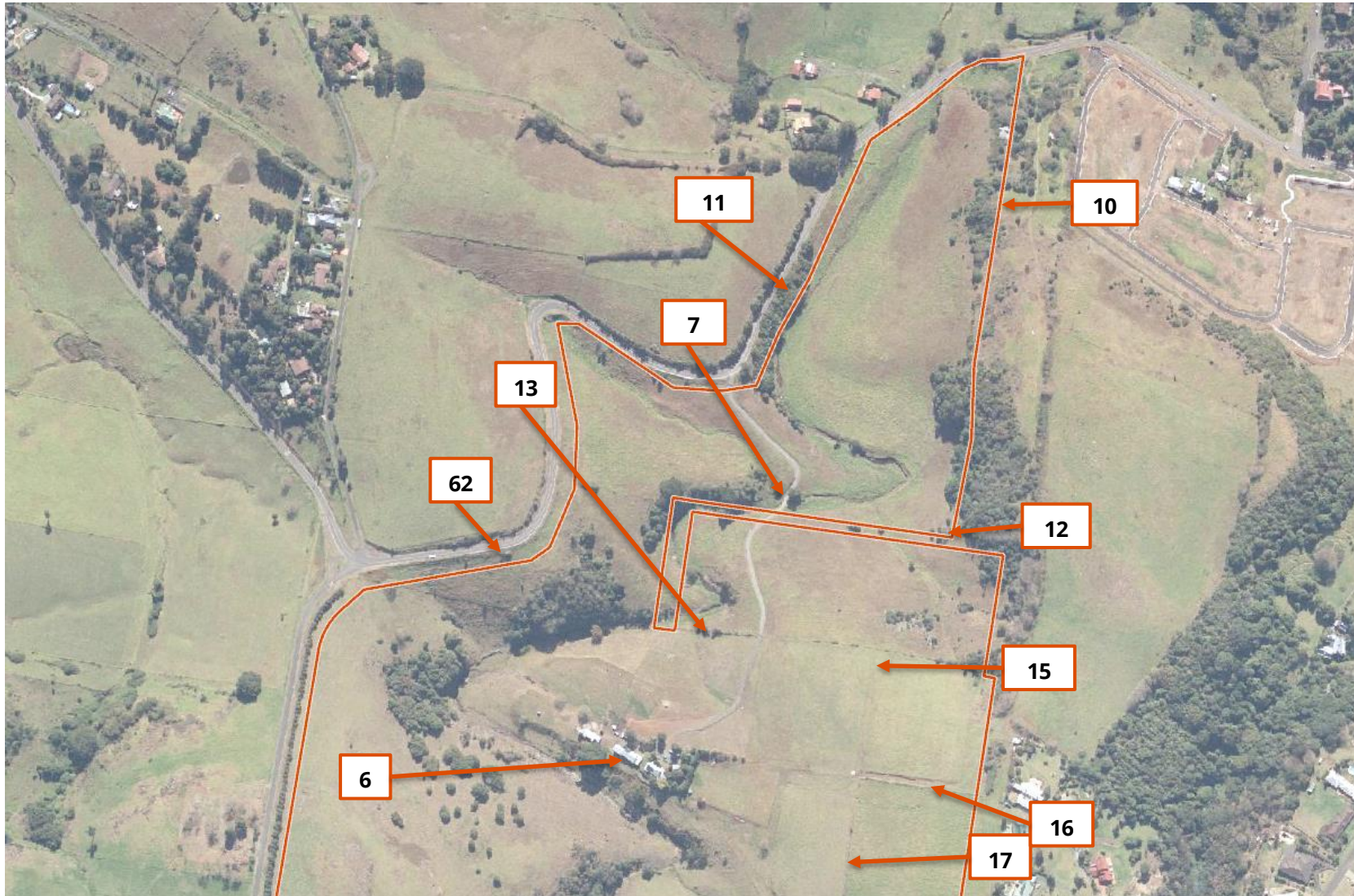


Photo 29 2006 aerial photograph of the northern portion of the study area, outlined in orange, showing a newly visible stone wall [62] on the boundary of Jamberoo Road (Source: NSW Spatial Services 2022)



Photo 30 2006 aerial photograph of the central portion of the study area, outlined in orange, showing previously identified dry stone walls (Source: NSW Spatial Services 2022)

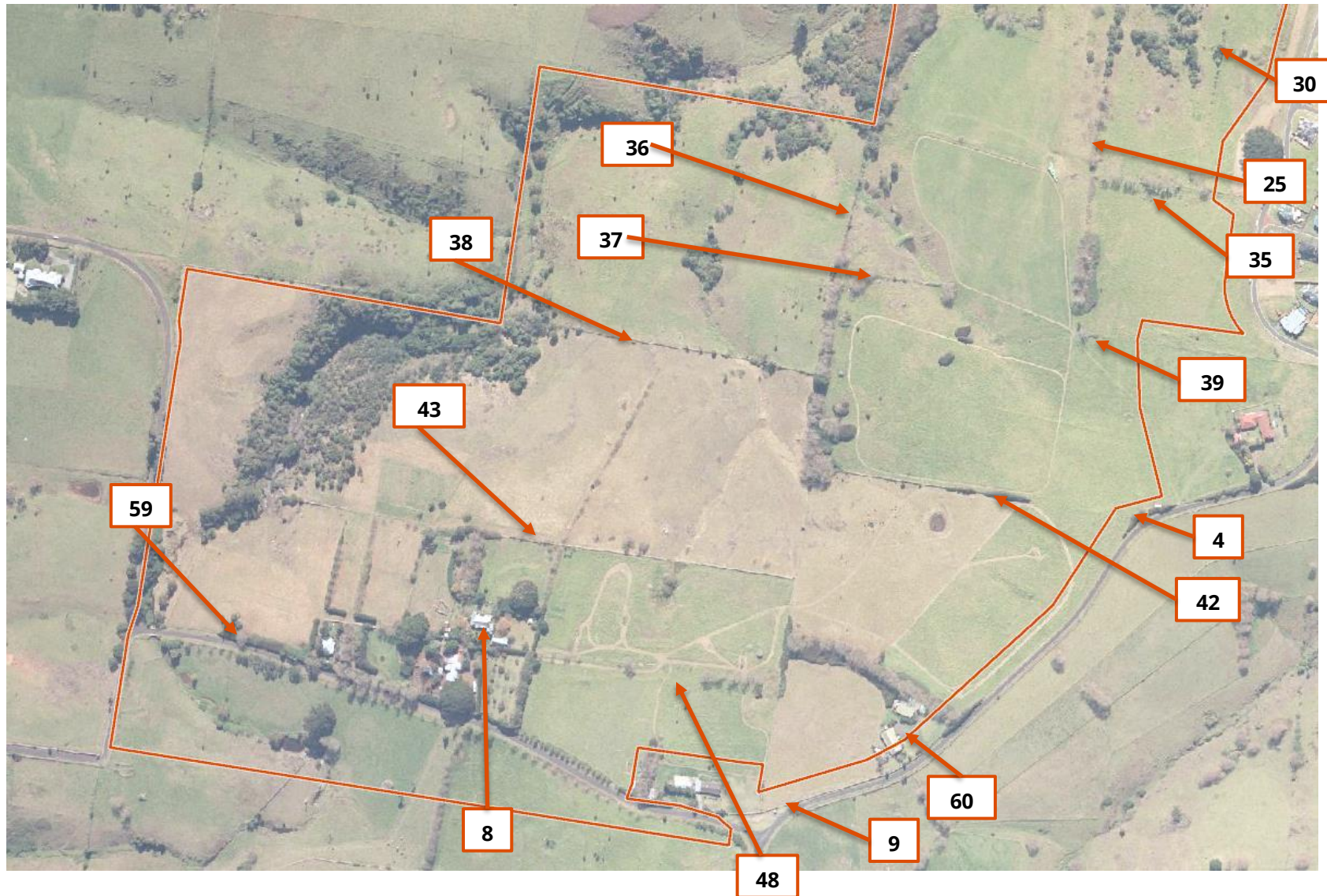


Photo 31 2006 aerial photograph of the southern portion of the study area, outlined in orange showing previously identified dry stone walls and other structures (Source: NSW Spatial Services 2022)

A 2010 subdivision plan which contains land within portions 59 and 68 records a stone wall running east to west from Old Saddleback/Long Brush Road [32] (Photo 32).⁹⁰ A 2014 subdivision plan for land within portions 16, 73-75, 180-182 and 184 records stone walls shows previously recorded dry stone walls throughout. The walls in this plan are noted as 100 years old (Photo 33).⁹¹

⁹⁰ NSW Land Registry Services, DP 1148007

⁹¹ NSW Land Registry Services, DP 1176643

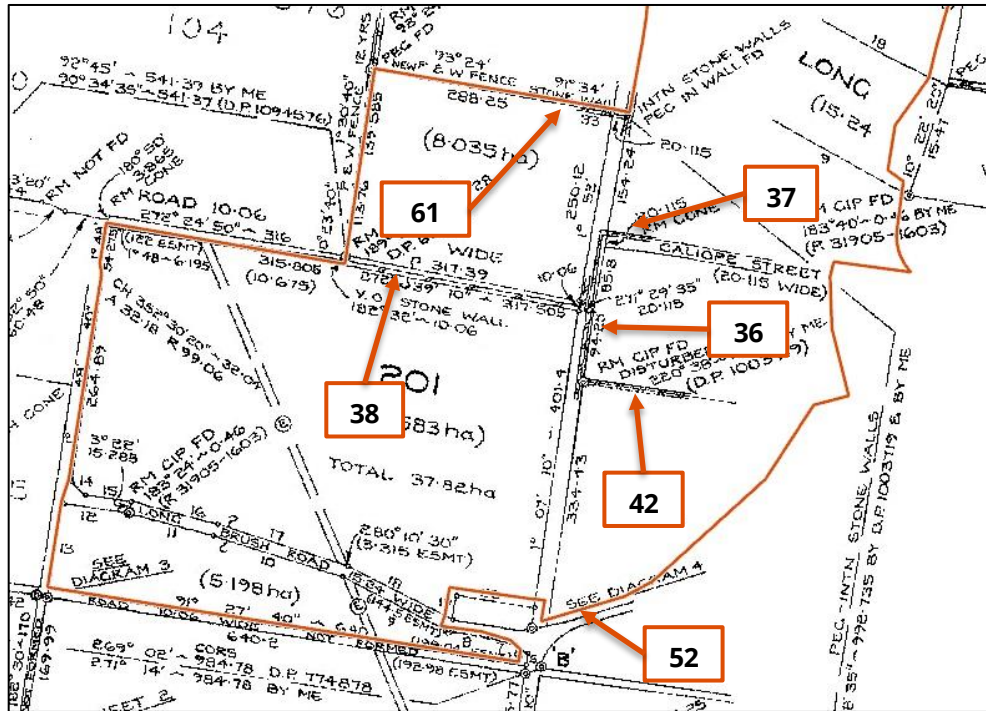


Photo 32 2010 subdivision plan featuring land within portions 59 and 68 shows previously identified dry stone walls, with the study area outlined in orange (Source: NSW Land Registry Services, DP 1148007)

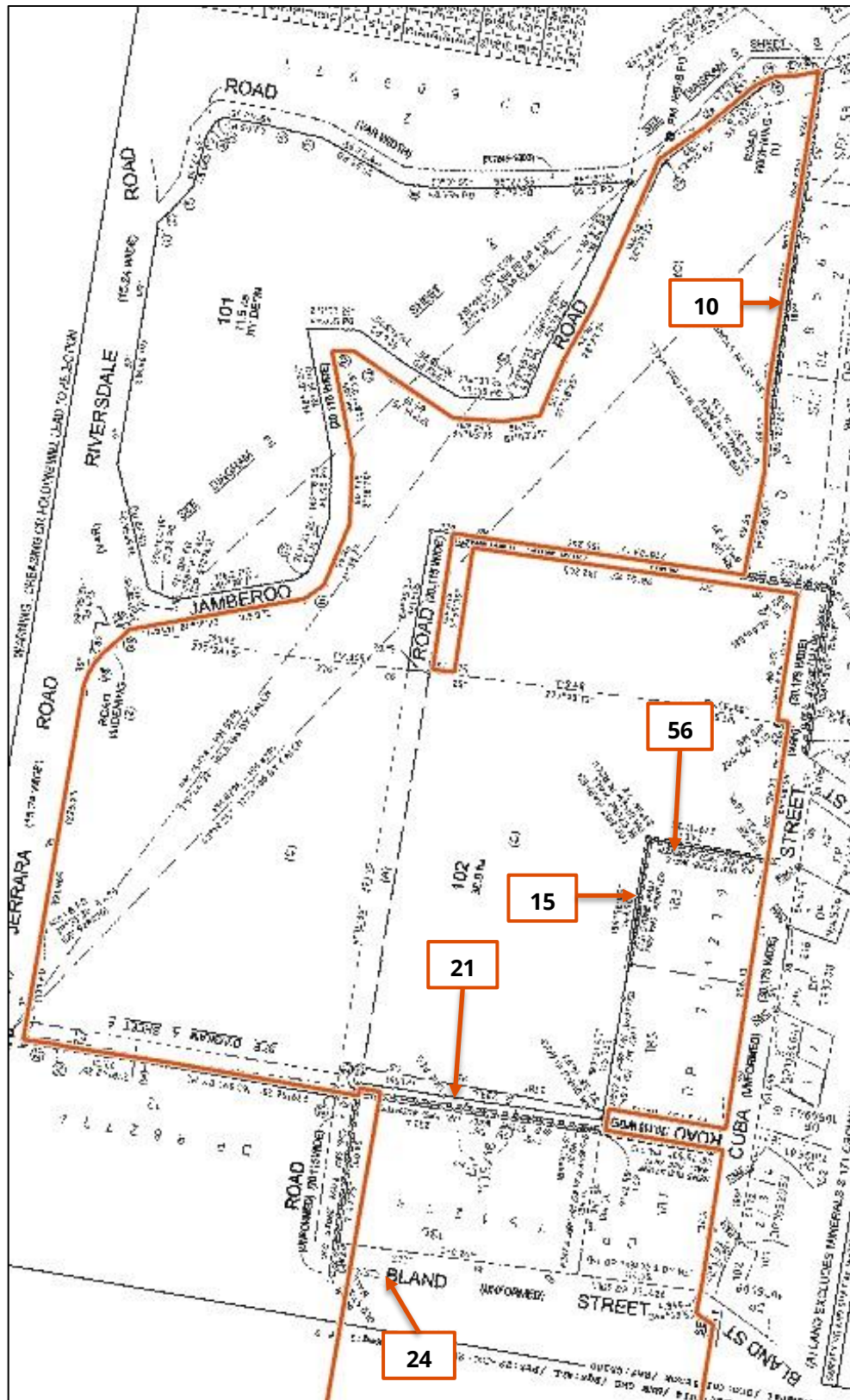


Photo 33 2014 subdivision plan for land within portions 16, 73-75, 180-182 and 184 showing previously identified dry stone walls, with the study area outlined in orange (Source: NSW Land Registry Services, DP 1176643)

In recent years, the Greyleigh homestead has undergone works and is now operating as homestead guest house and wedding venue, while the larger farm itself continues to function as a working dairy.⁹²

3.4 Chronology of the study area

Based upon the historical research presented it is possible to summarise the chronology of the study area, this is presented in Table 5.

Table 5 Chronological development of the study area

Structure no.	Structure	Construction date
1	Old Saw pit and associated track	1854
2	Alignment for Old Saddleback/Long Brush Road	1854
3	Possible structure in portion 178	1871
4	Stone wall along an unnamed road at northern boundary of portion 179, 178 and 76.	1879
5	Second stone wall along western boundary of portion 76, 75 and 74	1879
6	Homestead complex in northern portion containing potentially nine structures	1963
7	Bridge crossing Spring Creek in the northern portion	1963
8	Homestead complex north of old saddleback road/Long Brush Road consisting of potentially 15 structures	1963
9	Old Saddleback Road / Long Brush Road	1963
10	Dry stone wall - eastern boundary, portion 16	1963
11	Dry stone wall - western boundary, portion 16	1963
12	Dry stone wall - east-west wall, northern boundary of portion 179	1963
13	Dry stone wall - east-west wall, northern boundary of portion 180	1963
14	Dry stone wall - east-west wall, northern boundary of portion 75	1963
15	Dry stone wall - north-south wall, western boundary of portion 181	1963
16	Dry stone wall - east-west wall, northern boundary of portion 183	1963
17	Dry stone wall - north-south wall, western boundary of portion 183	1963
18	Dry stone wall - running parallel west of Spring Creek, portion 73	1963
19	Dry stone wall - running parallel east of Spring Creek, portion 184	1963
20	Dry stone wall - east-west wall, southern boundary of portion 73	1963
21	Dry stone wall - east-west wall, southern boundary of portion 184	1963
22	Dry stone wall - running parallel east of Spring Creek and [19], portion 184	1963
23	Dry stone wall - north-south wall, western boundary of portion 187	1963

⁹² (Kiama Library n.d.)

Structure no.	Structure	Construction date
24	Dry stone wall - east-west wall, southern boundary of portion 186	1963
25	Dry stone wall - north-south wall, western boundary of portion 189	1963
26	Dry stone wall - east-west wall, northern boundary of portion 188	1963
27	Dry stone wall - north-south wall, within portion 188 (east)	1963
28	Dry stone wall - north-south wall, within portion 188 (west)	1963
29	Dry stone wall - east-west wall, within portion 188	1963
30	Dry stone wall - east-west wall, southern boundary of portion 189	1963
31	Dry stone wall - east-west wall, within Section 45 (north)	1963
32	Dry stone wall - north-south wall, within portion 156 (west)	1963
33	Dry stone wall - north-south wall, within portion 156 (east)	1963
34	Dry stone wall - east-west wall, within portion 156	1963
35	Dry stone wall - east-west wall, within Section 45 (south)	1963
36	Dry stone wall - north-south wall, eastern boundary of portion 70	1963
37	Dry stone wall - east-west wall, southern boundary of portion 156	1963
38	Dry stone wall - east-west wall, southern boundary of portion 70	1963
39	Dry stone wall - east-west wall, southern boundary of Section 45	1963
40	Dry stone wall - north-south wall, eastern boundary of portion 83	1963
41	Dry stone wall - east-west wall, northern boundary of Saddleback Road (east)	1963
42	Dry stone wall - east-west wall, northern boundary of portion 82 and 85	1963
43	Dry stone wall - east-west wall, southern boundary of portion 58 and 69	1963
44	Dry stone wall - north-south wall, eastern boundary of portion 59	1963
45	Dry stone wall - north-south wall, Greyleigh homestead in portion 68 (west)	1963
46	Dry stone wall - north-south wall, Greyleigh homestead in portion 68 (east)	1963
47	Dry stone wall - east-west wall, Greyleigh homestead in portion 68 (west)	1963
48	Dry stone wall - east-west wall, Greyleigh homestead in portion 68 (east)	1963
49	Dry stone wall - north-south wall, western boundary of portion 58 and 59	1967
50	Dry stone wall - northern boundary of Long Brush Road	1967
51	Dry stone wall - north-south wall, eastern boundary of portion 68	1967
52	Dry stone wall - northern boundary of Old Saddleback Road	1967
53	Dry stone wall - north-south wall, western boundary of portion 59 south of Long Brush Road	1967
54	Dry stone wall - north-south wall, eastern boundary of portion 68 south of Long Brush	1967

Structure no.	Structure	Construction date
	Road	
55	Dry stone wall - north-south wall, centre of portion 178	1979
56	Dry stone wall - east-west wall, southern boundary of portion 179	1979
57	Dry stone wall - north-south wall in portion 156	1979
58	Dry stone wall - east-west wall east of Greyleigh homestead [8]	1979
59	Dry stone wall - northern boundary wall of Long Brush Road west of Greyleigh homestead	1979
60	South-east homestead	1993
61	Dry stone wall - east-west wall, northern boundary of portion 58	1999
62	Dry stone wall - southern boundary of Jamberoo Road	2006

4 Physical inspection

A physical inspection of the study area was undertaken on 15 and 16 September 2022, attended by Joshua Madden (Principal Archaeologist) and Hannah Mills (Archaeologist). The principal aims of the survey were to identify heritage values associated with the study area; this included any heritage items. Heritage items can be buildings, structures, places, relics or other works of historical, aesthetic, social, technical/research or natural heritage significance. 'Places' include conservation areas, sites, precincts, gardens, landscapes and areas of archaeological potential.

4.1 Landscape

The purpose of this section is to provide an analysis and description of the study area as part of a cultural landscape. The cultural landscape concept emphasises the landscape-scale of history and the connectivity between people, places and heritage items. It recognises the present landscape is the product of long-term and complex relationships between people and the environment. For the purposes of this report cultural landscapes are defined as: '... those areas which clearly represent or reflect the patterns of settlement or use of the landscape over a long time, as well as the evolution of cultural values, norms and attitudes toward the land'.⁹³

4.1.1 An overview of cultural landscapes

In order to fully understand the heritage significance of the study area it is necessary to consider the character of the landscape within which it is situated. The heritage value of a landscape may be related to its aesthetic, archaeological, historical, scientific, social, or architectural values, each or all of these values can exist at any one time. The identification of these values is important in discussing the study area and its constituent elements heritage significance.

Three general landscape categories have been developed and applied by heritage organisations to assist in understanding different types of landscapes:⁹⁴

- **Designed landscapes:** Those that are created intentionally such as gardens, parks, garden suburbs, city landscapes, ornamental lakes, water storages and campuses.
- **Evolved landscapes:** Those that display an evolved land use in their form and features. They may be 'relict' such as former mining or rural landscapes. They may be 'continuing' such as modern active farms, vineyards, plantations or mines.
- **Associative cultural landscapes:** These are landscape features that represent religious, artistic, sacred or other cultural associations to individuals or communities.

4.1.2 The study area as a cultural landscape

The study area is located within an evolved landscape which has been cleared and adapted for the purpose of dairying, an activity for which the property was associated for much of its European occupation. The cultural landscape within the study area can be divided into two landscape zones: the pastoral landscape; and homestead sites.

⁹³ (Context Pty Ltd, Urban Initiatives Pty Ltd, & Doyle 2002)

⁹⁴ (UNESCO 2012)

The pastoral landscape associated with the study area dates to the mid-19th century shift from crop agriculture to dairying as the predominant industry within the region. Like many other landscapes in the region, the study area contains both internal and external boundaries. Natural boundaries which characterise the cultural landscape are primarily the result of Spring Creek and its associated tributaries. These dissect a landscape of gentle to steep hills.

The study area retains its character as a partially intact example of the pastoral landscape which developed in the mid-19th century and typifies the exploitation of every suitable portion of land for dairying (Photo 34, Photo 35). The property appears to have remained unchanged for much of its history following its transition from crop farming to dairying in the mid-19th century. Boundary and yard fences constructed from stone, likely by Thomas Newing and / or his son, or others, create imposed barriers and prominent features within the landscape. These dry stone walls form not only property boundaries, but also holding pens which likely date to the earliest use of the property as a dairy during the mid- to late-19th century.



Photo 34 Typical view of the pastoral landscape within the study area, take in the northern portion facing north-west towards Jamberoo Road



Photo 35 Typical view of the pastoral landscape within the study area, take in the southern portion facing north-west

There are three homestead areas within the study area: one in the northern portion east of Spring Creek; a second in the southern portion north of Long Brush Road (Greyleigh); and a third north of Old Saddleback Road. The northern homestead has been in operation since at least the 1960s, but likely earlier; it was not possible to access this location. Greyleigh has been a working dairy farm since its establishment by the Grey family in the second half of the 19th century, is currently also operating as a guest house and works appear to

be underway for preparation of the site as a wedding venue (Photo 36). The third homestead on Old Saddleback Road was also inaccessible.



Photo 36 View of the Greyleigh homestead in the southern portion of the study area, facing east



Photo 37 View of the Greyleigh homestead complex from the main entrance of the property in the southern portion of the study area, facing north

4.2 Built fabric

The study area contains a range of built fabric. This can be summarised as both continuously and recently occupied homestead complexes and landscape features associated with the European management of the landscape for agricultural and pastoral/dairying purposes.

4.2.1 Homestead features

The homestead complex for Greyleigh within the southern portion of the study area was accessible and inspected. The Greyleigh homestead complex contains a range of built fabric, including but not limited to: structures for domestic, commercial (guest house accommodation, events), and agricultural use in a range of fabric including timber, corrugated iron, brick and concrete; driveways, footpaths and parking areas; storage and stockpiling areas; landscaped and garden areas; and dry stone walls and other fence lines of timber and wire (Photo 36, Photo 37, Photo 38, Photo 39, Photo 40, Photo 41, Photo 42). The northern homestead complex was not accessible but was observed from a distance. The northern homestead complex appears to contain residential and agricultural structures, a cleared yard area, sealed and unsealed roads and fence lines (Photo 43). The south-eastern homestead complex could not be accessed and was not inspected. Observations could not be made of the structures within the south-eastern homestead complex due to the presence of vegetation blocking views of this site.



Photo 38 View of the Greyleigh homestead complex showing residential or commercial buildings and landscaped gardens



Photo 39 View of new commercial and recreational structures and landscaped gardens in the Greyleigh homestead complex



Photo 40 View of parking, turning circle and landscaped gardens in the Greyleigh homestead complex



Photo 41 View of storage areas in the Greyleigh homestead complex



Photo 42 View of landscaped areas in the Greyleigh homestead complex



Photo 43 East-facing view of the northern homestead complex

4.2.2 Landscape features

The following features have been identified as landscape features within the study area associated with the functioning of the land as dairy farms under several owners. The study area features dams with earthen banks and concrete walls, timber post and wire fences, metal and timber gates, electrical fences, a concrete tank and a concrete and stone/rubble bridge with a culvert within the study area (Photo 44, Photo 45, Photo 46, Photo 47, Photo 48).

The positioning of dry stone wall and post and wire fencing in the study area is representative of the planning and functioning of the dairy farms within the study area. The fencing has been used to control and direct the cattle, as well as to separate the agricultural and homestead functions, and also to define the use of various areas. Fencing and landscaping have been used to define the entrance, boundaries and landscaping of Greyleigh. Dry stone wall fence lines and associated features are described in detail in the following section.



Photo 44 North-east facing view of an earthen dam located on one of the tributaries of Springs Creek in south-eastern portion of the study area



Photo 45 South-east facing view of a concrete dam contained within Springs Creek in the far southern portion of the study area



Photo 46 South-west facing view of post and wire fences in the southern portion of the study area



Photo 47 North-east facing view of a concrete tank in the far southern portion of the study area



Photo 48 South facing view of a bridge and culvert over Spring Creek on the driveway to the northern homestead complex

Dry stone walls and associated features

A significant component of the cultural landscape and built fabric of the study area are the dry stone walls and associated features. These form part of the property boundary and yard walls.

A total of 20 dry stone walls located and inspected. Three additional walls were also identified, as were some associated features. Three piles of stones were also observed in the southern central portion of the study area, approximately 132 metres apart (Photo 49, Photo 50). These may be associated with the clearing and cultivation of the paddocks for agriculture and grazing, whereby stones were removed from the surface and topsoils and piled on the edges of fields and paddocks. These piles of stones were utilised for the dry stone walls from the mid-19th century onwards. Alternatively they may be the result of a dismantled dry stone wall.



Photo 49 North-west facing view of pile of stones in the central portion of the study area



Photo 50 West facing view of the southern pile of stones in the central portion of the study area



Photo 51 West facing view of the southern pile of stones in the central portion of the study area

The condition of the walls was observed as part of the physical inspection. The condition ratings used are summarised in Table 6. The observed condition of the dry stone walls within the study area are summarised in Table 7 and Table 8, with a more detailed assessment in Table 16 and Table 16 in Appendix 2.

Table 6 Ratings and criterion for the condition observation of the dry stone walls within the study area

Rating	Criterion
Good	More than 75% complete, i.e. form of the wall is distinct
Average	50-75% complete, i.e. partially complete, form is clear
Poor	<50% complete

Table 7 Summary of Biosis condition observations of dry stone walls from the Kiama Dry Stone Wall Inventory

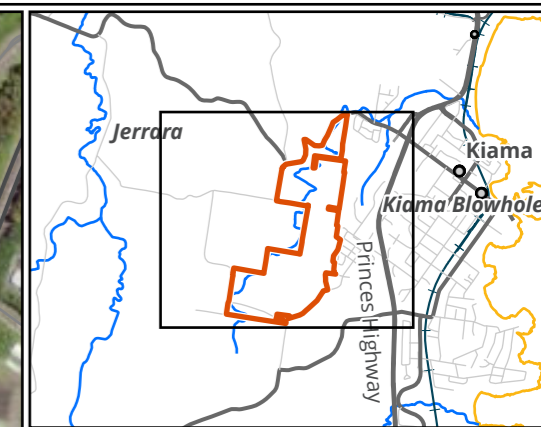
Kiama Dry Stone Walls Inventory No.	Kiama Heritage Inventory sheet – Intactness assessment	Biosis condition observations
KMC DSW 12	Inventory sheet incomplete	Average to poor
KMC DSW 18	75%	Inaccessible due to dense vegetation
KMC DSW 19	Inventory sheet unavailable	Not located during physical inspection
KMC DSW 54	100%	Good
KMC DSW 55	Inventory sheet unavailable	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
KMC DSW 57	Inventory sheet unavailable	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
KMC DSW 58	Inventory sheet unavailable	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
KMC DSW 59	Inventory sheet unavailable	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
KMC DSW 60	Inventory sheet unavailable	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
KMC DSW 61	Inventory sheet unavailable	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
KMC DSW 67	Inventory sheet unavailable	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
KMC DSW 69	Inventory sheet unavailable	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
KMC DSW 70	Inventory sheet unavailable	Good
KMC DSW 71	Inventory sheet unavailable	Not accessible due to livestock and electric fencing
KMC DSW 72	Inventory sheet unavailable	Average to poor
KMC DSW 73	Inventory sheet incomplete	Average to poor
KMC DSW 149	90%	No longer extant at western end, replaced by post and wire fencing
KMC DSW 153	90-30%	Poor

Kiama Dry Stone Walls Inventory No.	Kiama Heritage Inventory sheet – Intactness assessment	Biosis condition observations
KMC DSW 156	Inventory sheet incomplete	Good
KMC DSW 205	Inventory sheet unavailable	Good to average
KMC DSW 206	Inventory sheet unavailable	Poor
KMC DSW 207	30%	Poor
KMC DSW 209	Inventory sheet unavailable	Poor
KMC DSW 212	Inventory sheet unavailable	No longer extant/not visible
KMC DSW 218	Inventory sheet unavailable	No longer extant/not visible
KMC DSW 219	Inventory sheet unavailable	No longer extant/not visible
KMC DSW 220	Average 50% where visible	Not accessible due to dense vegetation
KMC DSW 221	Eastern end is more intact than the western portion. Approximately 10% for total length.	Poor
KMC DSW 222	Approximately 40-45%	Poor
KMC DSW 223	Less than 10% for most of its length	Poor
KMC DSW 224	5% of original length, 10% of original height	Poor
KMC DSW 225	5% of what original length may have been. This portion is 20-30% intact	Not accessible due to deeply incised drainage line

Table 8 Summary of Biosis condition observations of dry stone walls identified in background research or during physical inspection

Biosis reference no.	Identification source	Biosis condition observations
Biosis DSW001	DP 1148007	Poor
Biosis DSW002	DP 1003719	Overgrown with vegetation
Biosis DSW003	DP 1042908	Poor
Biosis DSW003.1	DP 1042908	Not inspected.
Biosis DSW004	DP 1042908	Poor
Biosis DSW005	DP 1042908, DP 882774	Poor
Biosis DSW006	DP 1176643	Poor
Biosis DSW006.1	DP 1176643	Not identified.
Biosis DSW007	During physical inspection	Good to average
Biosis DSW008	During physical inspection	Average

Biosis reference no.	Identification source	Biosis condition observations
Biosis DSW009	R31905.1603	Overgrown with vegetation
Biosis DSW009.1	R31905.1603	Not accessible
Biosis DSW009.2	R31905.1603	Not accessible
Biosis DSW010	DP 1042908	Not accessible
Biosis DSW011	R1245c.1603	Not visible, possibly no longer extant
Biosis DSW011.1	R1245c.1603	Not identified.
Biosis DSW012	During physical inspection	Good to average



- Legend**
- Study area
 - Condition of dry stone walls**
 - Good
 - Good to average
 - Average
 - Average to poor
 - Poor
 - No longer extant
 - Unknown; no longer extant
 - Unknown

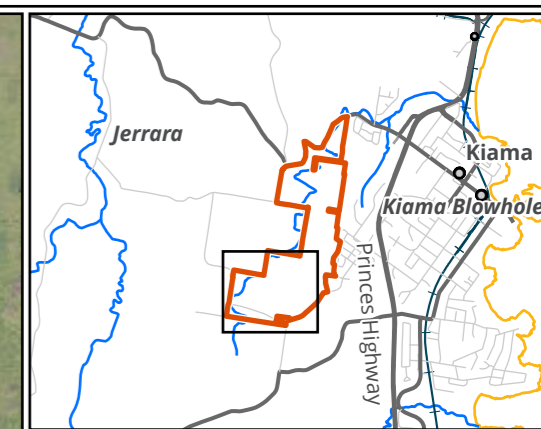
Length of walls are as per Kiama Municipal Council and historical records, except Biosis DSW007, Biosis DSW008 and Biosis DSW012 which were first identified in the field

Figure 4 Overview - Locations of dry stone walls investigated during the physical inspection

0 50 100 150 200
Metres
Scale: 1:8,000@ A3
Coordinate System:
GDA 1994 MGA Zone 56



Matter: 37550, Date: 13 October 2022,
Drawn by: JB, Checked by: JM, Last edited by: jbeckius
Location: P:\37500s\37550\Mapping\
37550_ADDA_KiamaWest_Masterplan, Layout: 37550_HHA_F5_HerBuiltFabric



- Legend**
- Study area
 - Condition of dry stone walls**
 - Good
 - Good to average
 - Average
 - Average to poor
 - Poor
 - Unknown; no longer extant
 - Unknown

Length of walls are as per Kiama Municipal Council and historical records, except Biosis DSW007, Biosis DSW008 and Biosis DSW012 which were first identified in the field

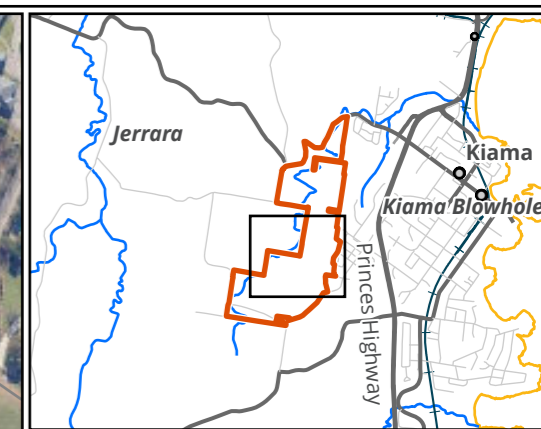
Figure 4.1 Locations of dry stone walls investigated during the physical inspection

0 20 40 60 80
Metres

Scale: 1:3,000@ A3
Coordinate System:
GDA 1994 MGA Zone 56



Matter: 37550, Date: 13 October 2022,
Drawn by: JB, Checked by: JM, Last edited by: jbeckius
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37550_ADDA_KiamaWest_Masterplan, Layout: 37550_HHA_F5_HerBuiltFabric



- Legend**
- Study area
- Condition of dry stone walls**
- Good
 - Average to poor
 - Poor
 - Unknown

Length of walls are as per Kiama Municipal Council and historical records, except Biosis DSW007, Biosis DSW008 and Biosis DSW012 which were first identified in the field

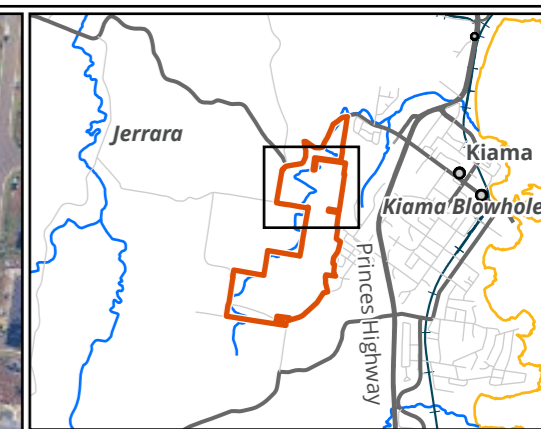
Figure 4.2 Locations of dry stone walls investigated during the physical inspection

0 20 40 60 80
 Metres

Scale: 1:3,000@ A3
 Coordinate System:
 GDA 1994 MGA Zone 56



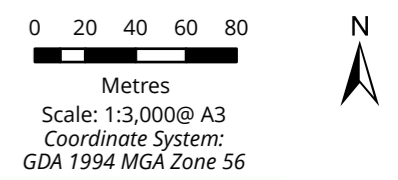
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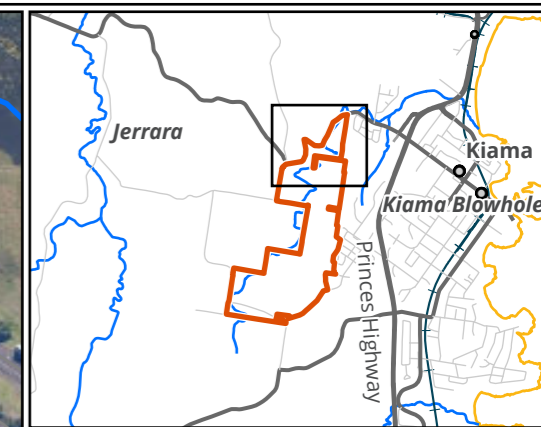
- Legend**
- Study area
- Condition of dry stone walls**
- Good to average
 - Average to poor
 - Poor
 - No longer extant
 - Unknown; no longer extant
 - Unknown

Length of walls are as per Kiama Municipal Council and historical records, except Biosis DSW007, Biosis DSW008 and Biosis DSW012 which were first identified in the field

Figure 4.3 Locations of dry stone walls investigated during the physical inspection



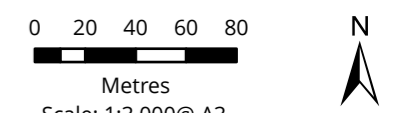
Matter: 37550, Date: 13 October 2022,
Drawn by: JB, Checked by: JM, Last edited by: jbeckius
Location: P:\37500s\37550\Mapping\
37550_ADDA_KiamaWest_Masterplan, Layout: 37550_HHA_F5_HerBuiltFabric



- Legend**
- Study area
- Condition of dry stone walls**
- Good to average
 - Poor
 - Unknown

Length of walls are as per Kiama Municipal Council and historical records, except Biosis DSW007, Biosis DSW008 and Biosis DSW012 which were first identified in the field

Figure 4.4 Locations of dry stone walls investigated during the physical inspection



Scale: 1:3,000@ A3
 Coordinate System:
 GDA 1994 MGA Zone 56



Matter: 37550, Date: 13 October 2022,
 Drawn by: JB, Checked by: JM, Last edited by: jbeckius
 Location: P:\37500s\37550\Mapping\
 37550_ADDA_KiamaWest_Masterplan, Layout: 37550_HHA_F5_HerBuiltFabric

4.3 Archaeology

The potential archaeological resource relates to the predicted level of preservation of archaeological resources within the study area. Archaeological potential is influenced by the geographical and topographical location, the level of development, subsequent impacts, levels of onsite fill and the factors influencing preservation such as soil type. An assessment of archaeological potential has been derived from the historical analysis undertaken during the preparation of this report.

4.3.1 Archaeological resource

This section discusses the archaeological resource within the study area. The purpose of the analysis is to outline what archaeological deposits or structures are likely to be present within the study area and how these relate to the history of land use associated with the study area.

The historical context presented in this report indicates that the study area has largely been used as a series of dairy farms since the original clearing of the red cedar and other vegetation in the 1850s and 1860s. As part of the background research, pre-1854 saw pit [1] and a possible pre-1871 structure [3] were identified. At present, there are three homestead complexes present within the study area. It is likely that the longest occupied of these is Greyleigh in the south-western portion of the study area, having been established around 1891. However, further research is needed to determine the occupation dates associated with the northern homestead complex prior to 1965. The south-eastern homestead complex is relatively new, first appearing in historical aerial photographs in 1993 and the lot in a 1980 subdivision plan.

The majority of the study area is likely to contain low density archaeological evidence associated with the operation of the study area for cultivation or dairying. These archaeological remains are likely to be associated with timber storage buildings, cobble floor or yard surfaces, post holes, and foundations of stone walls which have been dismantled or collapsed and overgrown by vegetation. Evidence of pre-dairying cultivation of the study area may be present in the form of ridge and furrow. These are likely to present as ephemeral features rather than substantial archaeological remains.

The pre-1854 saw pit [1] is likely to be represented by a rectangular cut for a pit which may be lined with stone, brick or timber. Post holes may be present around the saw pit [1]; these posts would have supported a frame on which the timber would be laid for vertical sawing (one person in the pit, one above). There may also be evidence of temporary occupation in the vicinity, which may comprise tent post holes, rubbish pits, hearths and artefact scatters which have been covered by sediment and organic matter over time.

The possible pre-1871 structure [3] may be represented in a number of ways, depending on its form of construction. If the structure was a hut, archaeological remains may comprise structural and fencing postholes, compacted floor and yard surfaces, and rubbish pits, along with their associated cuts and fills. Should the pre-1871 structure [3] have been a slab type hut, there would also be footing trenches cut for the vertical timber slabs to be set into, and possibly a timber or brick floor. Alternatively, if the pre-1871 structure [3] was more substantial, archaeological remains may include stone or brick footings or foundations, underfloor occupation deposits in addition to the above.

Within Greyleigh, there is the potential for archaeological deposits associated with development and use associated with the homestead from the 1890s onwards. These deposits could be in the form of stone, brick or concrete foundations, brick, stone or concrete floor surfaces and structural post holes along with and associated cuts and fill for former homestead and outbuildings, modification of the natural landform to create flat terraces through the use of cuts and introduced fill material, rubbish pits and other secondary deposits associated with decommissioned outhouses, fencing post holes, and drainage and other service infrastructure with associated cuts and fills.

Depending on the date of the northern homestead, archaeological deposits for this complex may comprise stone, brick or concrete foundations, brick, stone or concrete floor surfaces and structural post holes along with and associated cuts and fill for former homestead and outbuildings, modification of the natural landform to create flat terraces through the use of cuts and introduced fill material, rubbish pits and other secondary deposits associated with decommissioned outhouses, fencing post holes, and drainage and other service infrastructure with associated cuts and fills.

The 1980s-1990s homestead in the south-eastern portion of the study area may contain archaeological deposits associated with sub-surface infrastructure and drainage, concrete slabs or brick footings and associated cuts and fills, fencing and structure post holes and their associated cuts and fills.

4.3.2 Integrity of sub-surface deposits

Outside of the Greyleigh and northern homestead complexes, integrity of archaeological deposits is likely to be high due to the continuous use of the study area as a series of dairy farms from the mid-19th century onwards and lack of subsequent changes in land use.

There has been recent upgrade and development works at Greyleigh. It was not possible to locate an archaeological assessment which may have been undertaken as part of the recent development and upgrade works at the Greyleigh homestead complex. However, it is possible that deposits may have been disturbed as part of this recent activity. Similarly, there has been ongoing growth of the northern homestead complex since at least the mid-20th century, and as such it is likely that this will have affected the integrity of archaeological deposits in this location.

4.3.3 Summary of archaeological potential

Through an analysis of the above factors a number of assumptions have been made relating to the archaeological potential of the study area, these are presented in Table 9 and Figure 5. It should be noted that this is not an in-depth historical archaeological assessment and only a preliminary assessment of archaeological potential has been undertaken.

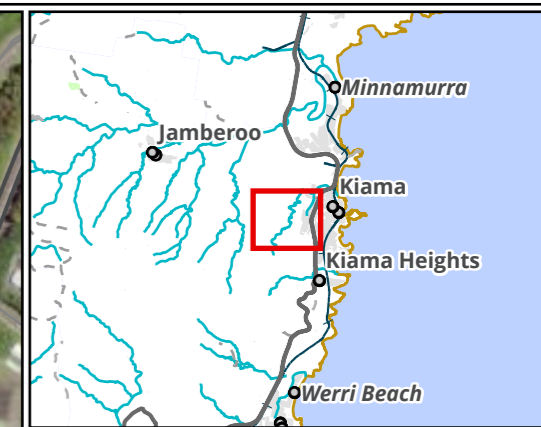
The preliminary archaeological assessment has been divided into two categories:

- **Potential to be present:** Archaeological remains may be present in an intact or disturbed context.
- **Low potential to be present:** Archaeological remains are unlikely to be present, either through no evidence of activities in a location or due to disturbances which may have destroyed them.

Table 9 Assessment of archaeological potential

Designation	Description	Probable feature(s)	Possible construction date	Preliminary archaeological assessment
-	Structures and features associated with farming activities	Structural post holes, stone or brick foundations or footings, cobble or brick surfaces, yard fencing post holes, ephemeral ridge and furrow	1854 onwards	Potential to be present
[1]	Pre-1854 saw pit	Rectangular cut lined with stone, brick or timber, saw frame post holes, tent post holes, rubbish pits, hearths and artefact scatters	Pre-1854	Potential to be present

Designation	Description	Probable feature(s)	Possible construction date	Preliminary archaeological assessment
[3]	Pre-1871 possibly structure	Structural and fencing postholes, compacted floor and yard surfaces, and rubbish pits, along with their associated cuts and fills, potentially footing trenches and a timber or brick floor, stone or brick footings or foundations and underfloor occupation deposits	Pre-1871	Potential to be present
[10] [11] [12] [13] [14] [15] [16] [17] [18] [19] [20] [21] [22] [23] [24] [25] [26] [27] [28] [29] [30] [31] [32] [33] [34] [35] [36] [37] [38] [39] [40] [41] [42] [43] [44] [45] [46] [47] [48] [49] [50] [51] [52] [53] [54] [55] [56] [57] [58] [59] [60] [61] [62]	Landscape features	Dry stone wall foundations or lower courses, fencing post holes, cut and fill deposits for earthworks	1854 onwards	Potential to be present
[8]	Greyleigh and other homesteads	Stone, brick or concrete foundations, brick, stone or concrete floor surfaces and structural post holes along with and associated cuts and fill for former homestead and outbuildings, cuts and introduced fill material for terracing, rubbish pits and other secondary deposits associated with decommissioned outhouses, fencing post holes, and drainage and other service infrastructure with associated cuts and fills.	c.1891 onwards	Potential to be present



- Legend**
- Study area
 - Potential for archaeological remains to be present

Figure 5 Preliminary assessment of archaeological potential

0 50 100 150 200
 Metres
 Scale: 1:8,000@ A3
 Coordinate System:
 GDA 1994 MGA Zone 56



Matter: 37550, Date: 11 October 2022,
 Drawn by: JB, Checked by: JM, Last edited by: jbeckius
 Location: P:\37500s\37550\Mapping\
 37550_ADDA_KiamaWest_Masterplan, Layout: 37550_HHA_F6_PrelAssPot

5 Significance assessment

An assessment of heritage significance encompasses a range of heritage criteria and values. The heritage values of a site or place are broadly defined as the 'aesthetic, historic, scientific or social values for past, present or future generations'.⁹⁵ This means a place can have different levels of heritage value and significance to different groups of people.

The archaeological significance of a site is commonly assessed in terms of historical and scientific values, particularly by what a site can tell us about past lifestyles and people. There is an accepted procedure for determining the level of significance of an archaeological site.

A detailed set of criteria for assessing the State's cultural heritage was published by the (then) NSW Heritage Office. These criteria are divided into two categories: nature of significance, and comparative significance.

Heritage assessment criteria in NSW fall broadly within the four significance values outlined in the Burra Charter. The Burra Charter has been adopted by state and Commonwealth heritage agencies as the recognised document for guiding best practice for heritage practitioners in Australia. The four significance values are:

- Historical significance (evolution and association).
- Aesthetic significance (scenic/architectural qualities and creative accomplishment).
- Scientific significance (archaeological, industrial, educational, research potential and scientific significance values).
- Social significance (contemporary community esteem).

The NSW Heritage Office issued a more detailed set of assessment criteria to provide consistency with heritage agencies in other States and to avoid ambiguity and misinterpretation. These criteria are based on the Burra Charter. The SHR criteria were gazetted following amendments to the *Heritage Act 1977* (Heritage Act) that came into effect in April 1999.

5.1 Levels of heritage significance

Items, places, buildings, works, relics, movable objects or precincts can be of either local or state heritage significance, or have both local and state heritage significance. Places can have different values to different people or groups.

Local heritage items

Local heritage items are those of significance to the local government area. In other words, they contribute to the individuality and streetscape, townscape, landscape or natural character of an area and are irreplaceable parts of its environmental heritage. They may have greater value to members of the local community, who regularly engage with these places and/or consider them to be an important part of their day-to-day life and their identity. Collectively, such items reflect the socio-economic and natural history of a local area. Items of local heritage significance form an integral part of the State's environmental heritage.

⁹⁵ (Heritage Office 2001)

State heritage items

State heritage items, places, buildings, works, relics, movable objects or precincts of state heritage significance include those items of special interest in the state context. They form an irreplaceable part of the environmental heritage of NSW and must have some connection or association with the state in its widest sense.

The following evaluation attempts to identify the cultural significance of the study area. This significance is based on the assumption that the site contains intact or partially intact archaeological deposits.

5.2 Research themes

Contextual analysis is undertaken to place the history of a particular site within relevant historical contexts in order to gauge how typical or unique the history of a particular site actually is. This is usually ascertained by gaining an understanding of the history of a site in relation to the broad historical themes characterising Australia at the time. Such themes have been established by the Australian Heritage Commission (AHC) and the Heritage Office and are outlined in synoptic form in Historical Themes.⁹⁶

There are 38 State historical themes, which have been developed for NSW, as well as nine National historical themes. These broader themes are usually referred to when developing sub-themes for a local area to ensure they complement the overall thematic framework for the broader region.

A review of the contextual history in conjunction with the local historical thematic history has identified one historical theme which relates to the occupational history of the study area.⁹⁷ This is summarised in Table 10.

Table 10 Identified historical themes for the study area

Australian theme	NSW theme	Local theme
Peopling Australia	Migration	The promotion of occupation: land grants, land purchases and town development
Developing local, regional and national economies	Agriculture	Mixed farming and the advent of dairying
	Environment - cultural landscape	Mixed farming and the advent of dairying
	Forestry	The promotion of occupation: land grants, land purchases and town development
	Pastoralism	Mixed farming and the advent of dairying
Building settlements, towns and cities	Land tenure	The promotion of occupation: land grants, land purchases and town development
	Accommodation	Population growth, accommodation and the emergence of social institutions

⁹⁶ (NSW Heritage Council 2001)

⁹⁷ (Latona Masterman & Associates 1987)

5.3 Evaluation of significance

The following evaluation of significance focuses on the study area as a whole and the cultural landscape it contains.

Criterion A: An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).

The cultural landscape of the study area is typical of the region, in that the process of occupation and activities, such as clearing, grazing, mixed agriculture and dairying, are common across the Kiama district and more widely in the Illawarra. There are no events or activities associated with the study area which indicate that it is important in the course, or pattern, of NSW's or Kiama's cultural or natural history.

The does not satisfy this criterion.

Criterion B: An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).

The study area is associated with a number of other early land owners who were also involved in early Kiama politics, including Joseph Pike, James Colley and James Robinson, but also the Gray/Grey family. George Grey acquired and named Greyleigh in the 1890s, gradually taking on more land through purchase or lease for dairying and cattle breeding purposes. While the full size of Greyleigh at its peak has not been confirmed through this assessment, it may have covered a large portion of the study area. The Grey family bred award winning cattle which were dispersed across the Illawarra, and played a significant role in the Kiama dairying industry.

The study area satisfies this criterion at a local level.

Criteria C: An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).

The study area is important in demonstrating aesthetic characteristics of a dairying landscape within close proximity to Kiama town, which is gradually being altered for residential development. The study area contains an evolved landscape which has been cleared and adapted for the purpose of dairying, an activity for which the property was associated for much of its European occupation. The cultural landscape within the study area can be divided into two landscape zones: the pastoral landscape; and homestead sites. The pastoral landscape associated with the study area dates to the mid-19th century shift from crop agriculture to dairying as the predominant industry within the region. The study area retains its character as a partially intact example of the pastoral landscape which developed in the mid-19th century and typifies the exploitation of every suitable portion of land for dairying. The property appears to have remained unchanged for much of its history following its transition from crop farming to dairying in the mid-19th century. Boundary and yard fences constructed from stone, likely by Thomas Newing and / or his son, or others, create imposed barriers and prominent features within the landscape. These dry stone walls form not only property boundaries, but also holding pens which likely date to the earliest use of the property as a dairy during the mid- to late-19th century.

The study area satisfies this criterion at a local level.

Criterion D: An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.

The study area is part of a wider dairying landscape that has been functioning since the second half of the 19th century. The dairying industry has evolved during this time, from small family farms to larger co-operatives. Aside from long established dairy farmers and dry stone wall and local history enthusiasts, the study area does not have a strong or special association with a particular community or cultural group in NSW or the Kiama region.

The study area does not satisfy this criterion.

Criterion E: An item has the potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area).

A preliminary archaeological assessment has been undertaken for the study area based on the background research completed for this report. While further research into land use may identify further locations of potential archaeological remains, there are two locations which could contribute to research questions relevant to the local area. These comprise the pre-1854 saw pit [x] and potential pre-1871 structure [x]. While there are likely to have been many saw pits within the region to support the timber getting industry from the 1820s to 1860s, little documentation regarding excavation and recording of saw pits within the region could be identified. Similarly, there are few freely available examples of archaeological reports investigating 19th century rural homesteads within the Kiama region. The potential archaeological remains may provide information which could contribute to research questions around infrastructure associated with the 19th century timber industry and mid-19th century rural settlement in the Kiama region.

The study area satisfies this criterion at a local level.

Criterion F: An item possesses uncommon, rare or endangered aspects of the area's cultural or natural history (or the cultural or natural history of the local area).

The study area holds a cultural landscape which, at present, is common across the Kiama and wider Illawarra regions. However, residential and industrial development activities are gradually reducing these landscapes. As these developments continue over time, the pastoral landscape of the study area is likely to become more uncommon, with its heritage value increasing as this occurs.

At present, the study area does not satisfy this criterion.

Criterion G: An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places, or cultural or natural environments. (or a class of the local area's cultural or natural places, or cultural or natural environments).

The study area demonstrates the principal characteristics of a pastoral landscape with ongoing dairying activities and extant demarcating dry stone walls within the Kiama region. While this landscape remains relatively common at present, as residential and industrial development increase over time the study area will become more representative of this type of cultural landscape.

The study area satisfies this criterion at a local level.

5.4 Evaluation of elements which comprise the study area

The dry stone walls previously identified by Kiama Municipal Council and are summarised in Table 11 below, along with Kiama Municipal Council's existing assessment of heritage significance. No revision of heritage significance has been undertaken as part of this assessment. The criteria for these levels used by Kiama Municipal Council could not be obtained for this report.

Table 11 Summary of dry stone walls within the study area and associated heritage significance that have been assessed by Kiama Municipal Council (where data available)

KMC dry stone wall no.	Level of heritage significance as per Kiama Municipal Council mapping
12	High
18	High
19	High
54	Unknown
55	High
57	Medium
58	Medium
59	Medium
60	Medium
61	Unknown
67	Low
69	High
70	High
71	Unknown
72	Medium
73	High
149	High
153	High
156	Medium
205	High
206	High
207	Medium
208	Medium
210	Low
212	Low
218	Unknown
220	Medium
221	Low
222	Low
223	Low
224	High

KMC dry stone wall no.	Level of heritage significance as per Kiama Municipal Council mapping
225	High

5.1 Preliminary statement of significance

The following is a preliminary statement of significance developed for the study area, as further detailed historical research and archaeological assessment should be undertaken to ensure that all aspects of the study area's history are understood.

At present, the study area holds heritage significance for its associative, aesthetic and research values. The cultural landscape of the study area is typical of the region, in that the process of occupation and activities, such as clearing, grazing, mixed agriculture and dairying, are common across the Kiama district and more widely in the Illawarra. The study area is associated with a number of other early land owners who were also involved in early Kiama politics, including Joseph Pike, James Colley and James Robinson, but also the Grays/Greys as the establishing family of Greyleigh, a long-running dairy farm which at one point likely encompassed large parts of the study area and contributed to the local and regional cattle and dairy industry. The study area is important in demonstrating aesthetic characteristics of a dairying landscape within close proximity to Kiama town, which is gradually being altered for residential development. The study area contains an evolved landscape which has been cleared and adapted for the purpose of dairying, an activity for which the property was associated for much of its European occupation. The study area retains its character as a partially intact example of the pastoral landscape which developed in the mid-19th century and typifies the exploitation of every suitable portion of land for dairying. The property appears to have remained unchanged for much of its history following its transition from crop farming to dairying in the mid-19th century. Boundary and yard fences constructed from stone, likely by Thomas Newing and / or his son, or others, create imposed barriers and prominent features within the landscape. There are two locations which could contribute to research questions relevant to the local area. These comprise the pre-1854 saw pit [1] and potential pre-1871 structure [3]. The potential archaeological remains may provide information which could contribute to research questions around infrastructure associated with the 19th century timber industry and mid-19th century rural settlement in the Kiama region.

The study area is considered to be significant at a local level.

6 Strategic management planning

6.1 Masterplan details

The masterplan presented in *Kiama Longbrush Road. Initial Urban Design Concepts* proposes the rezoning of the study area for the purposes of a mixture of high, standard and medium density residences along with large residential lots, and spaces for educational, eco (low impact) tourism and other uses/activation.⁹⁸ The masterplan has been developed with the following values in mind:

- Access to open space, local shops and services.
- Connection to country.
- Coastal and rural lifestyle.
- Diverse character, uniqueness and pride in place.
- Promote tourism, visitation and pride in the region.
- Respectful of the heritage that surrounds the study area.
- Healthy natural environment.
- Housing choice, diversity and affordability.
- Respectful of existing natural systems.
- Authentic and honest.
- Transitional – urban to hinterland.

As part of the masterplan, new roads and connections will be created to link into the existing settlement of Kiama, with internal circulation focused along Spring Creek. Development areas have considered the existing green belt vegetation, topography, hydrology and views within the study area, along with the existing rural setting of larger lots and small villages or homesteads scattered throughout the landscape.

Higher intensity uses are located adjacent to Spring Creek, along the valley floor where there is less visual impact to the surrounding landscape. Opportunities for place activation include small scale retail, food and beverage spaces with a focus on local produce, hotel and glamping and the potential for an Agricultural College or School. Due to the topography of the study area, the edges and interface of the study area have a high visual sensitivity. The masterplan proposes to make these areas as open as possible and respond to particular contexts appropriately, for example through the use of large lots, open space or other uses that complement the immediate locality, views and/or vistas. The slopes form the transition between the higher intensity uses along Spring Creek and the interface on the study area boundaries. The form of the transition zones varies according to the local topography, location of key links and the desire to create nodal points at intersections.

An overview of the concept and masterplan is presented in Photo 52. A copy of the masterplan is presented in Appendix 3.

⁹⁸ (e8urban & Sprout Studio 2022)

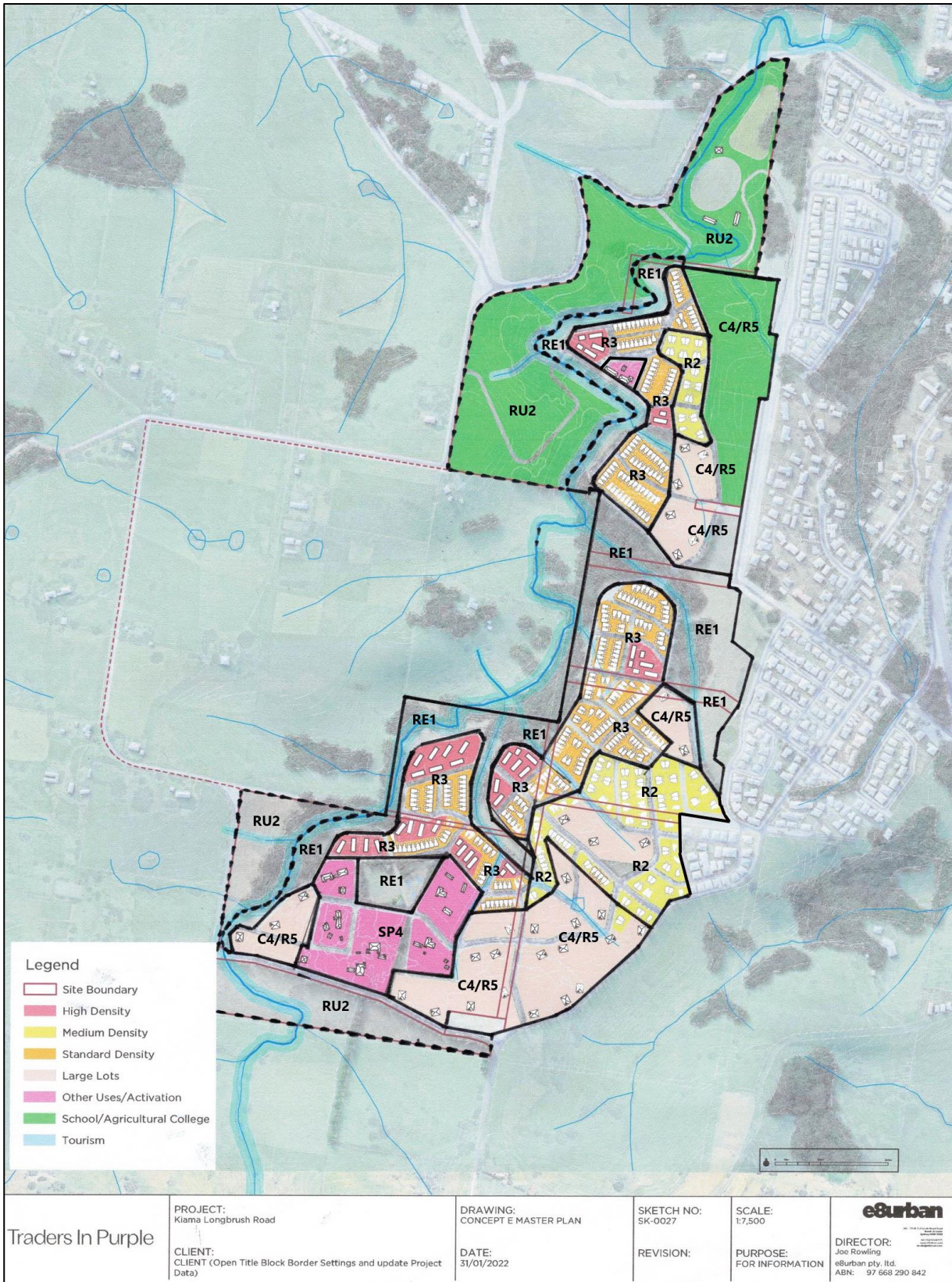


Photo 52 Concept and masterplan for the study area including zoning and function spaces (Source: Traders in Purple, provided 6 June 2022)

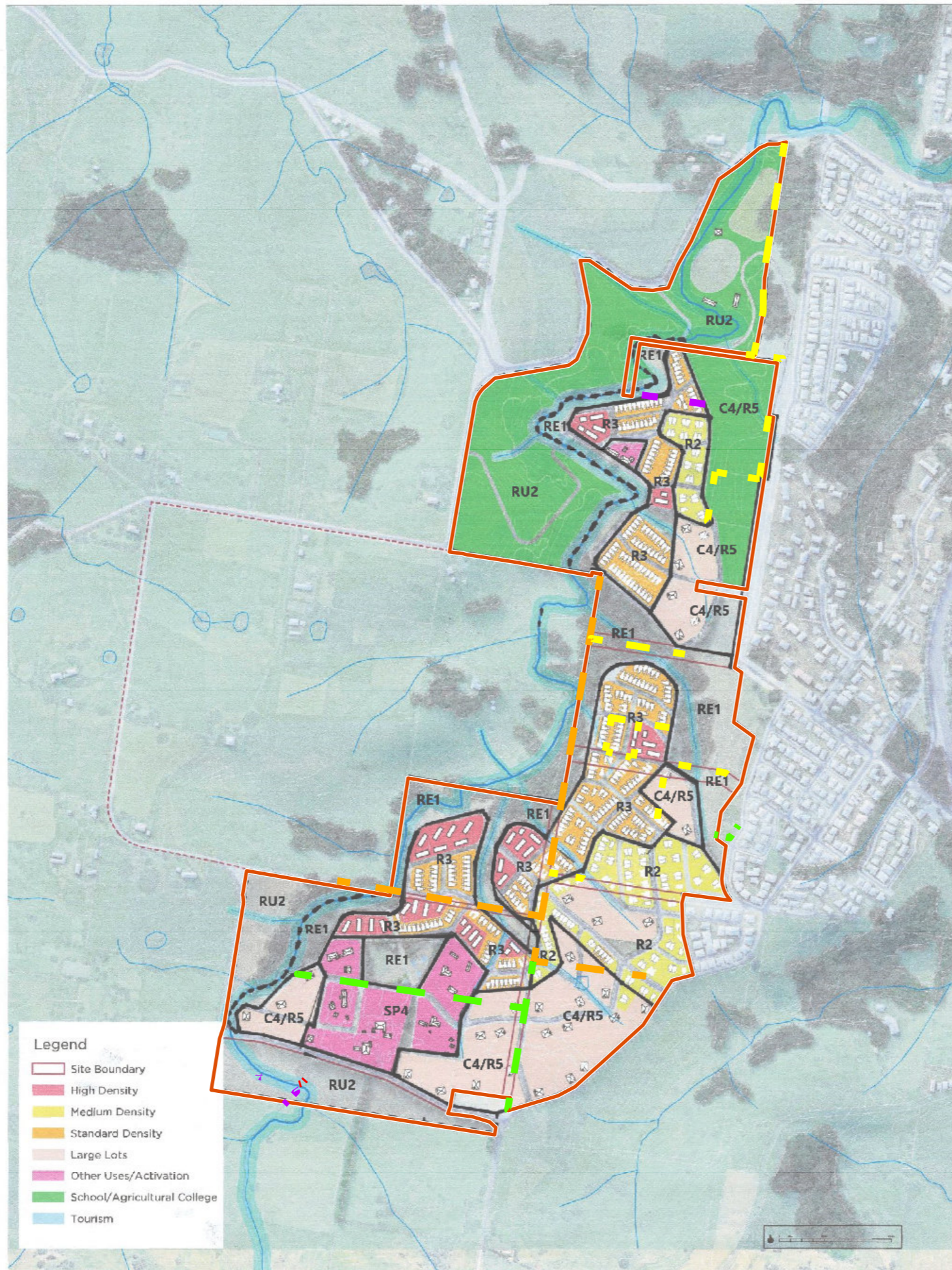
6.2 Heritage constraints

As is presented in Section 4 and 5, there are a range of heritage features within the study area, including a series of dry stone walls in varying conditions, areas of archaeological potential and the wider heritage landscape of the study area. In order to determine the impacts that may occur of as a result of the proposed masterplan, the identified dry stone walls and archaeological potential have been overlaid over the masterplan and presented in Figure 6. The potential impacts of the masterplan on heritage within the study area is summarised in Table 12 and the constraints associated with these impacts.

Table 12 Potential impacts to heritage within the study area and constraint

Element	Potential impact	Constraint
Potential relics	Direct physical impact: Disturbance or destruction of relics, breach of the Heritage Act.	Detailed archaeological assessment.
KMC DSW 12	Direct physical impact from residential development	Redesign to incorporate into masterplan
KMC DSW 18	Unknown – could not inspect during physical inspection	Unknown
KMC DSW 19	Unknown – could not inspect during physical inspection	Unknown
KMC DSW 54	Direct physical impact from residential development	Redesign to incorporate into masterplan
KMC DSW 70	Direct physical impact from residential development	Redesign to incorporate into masterplan
KMC DSW 71	No development proposed in location of wall	None
KMC DSW 72	Direct physical impact from residential development	Redesign to incorporate into masterplan
KMC DSW 73	Direct physical impact from residential development	Redesign to incorporate into masterplan
KMC DSW 149	Unknown – could not inspect at eastern end during physical inspection	Unknown
KMC DSW 153	No development proposed in location of wall	None
KMC DSW 156	No development proposed in location of wall	None
KMC DSW 205	Direct physical impact from residential development	Redesign to incorporate into masterplan
KMC DSW 206	No development proposed in location of wall	None
KMC DSW 207	No development proposed in location of wall	None
KMC DSW 209	Direct physical impact from residential development	Redesign to incorporate into masterplan
KMC DSW 220	Unknown – could not inspect during physical inspection	Unknown

Element	Potential impact	Constraint
KMC DSW 221	Direct physical impact from residential development	Redesign to incorporate into masterplan
KMC DSW 222	Direct physical impact from residential development	Redesign to incorporate into masterplan
KMC DSW 223	Direct physical impact from residential development	Redesign to incorporate into masterplan
KMC DSW 224	Direct physical impact from residential development	Redesign to incorporate into masterplan
KMC DSW 225	Unknown – could not inspect during physical inspection	Unknown
Biosis DSW001	Direct physical impact from residential development	Redesign to incorporate into masterplan
Biosis DSW002	Unknown – could not inspect during physical inspection	Unknown
Biosis DSW003	Direct physical impact from residential development	Redesign to incorporate into masterplan
Biosis DSW003.1	Unknown – could not inspect during physical inspection	Unknown
Biosis DSW004	No development proposed in location of wall	None
Biosis DSW005	No development proposed in location of wall	None
Biosis DSW006	No development proposed in location of wall	None
Biosis DSW006.1	Unknown – could not inspect during physical inspection	Unknown
Biosis DSW007	No development proposed in location of wall	None
Biosis DSW008	No development proposed in location of wall	None
Biosis DSW009	Unknown – could not inspect during physical inspection	Unknown
Biosis DSW009.1	Unknown – could not inspect during physical inspection	Unknown
Biosis DSW009.2	Unknown – could not inspect during physical inspection	Unknown
Biosis DSW010	Unknown – could not inspect during physical inspection	Unknown
Biosis DSW011.1	Unknown – could not inspect during physical inspection	Unknown
Biosis DSW012	No development proposed in location of wall	None



Traders In Purple

PROJECT:
Kiama Longbrush Road

CLIENT:
CLIENT (Open Title Block Border Settings and update Project Data)

DRAWING:
CONCEPT & MASTER PLAN

DATE:
31/01/2022

SKETCH NO:
SK-0027

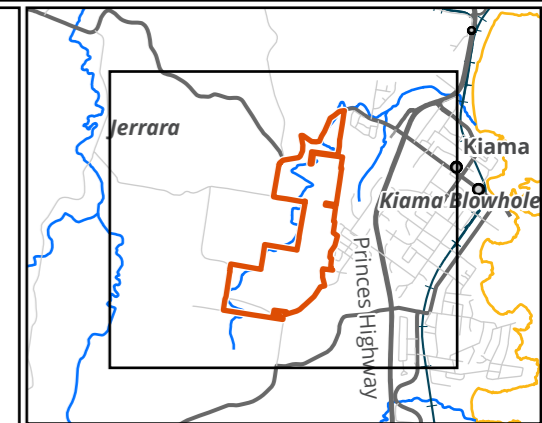
REVISION:

SCALE:
1:7,500

PURPOSE:
FOR INFORMATION

eUrban

DIRECTOR:
Joe Rowling
eUrban Pty Ltd.
ABN: 97 665 290 842



Legend

Study area

Condition of dry stone walls

- Good
- Good to average
- Average
- Average to poor
- Poor

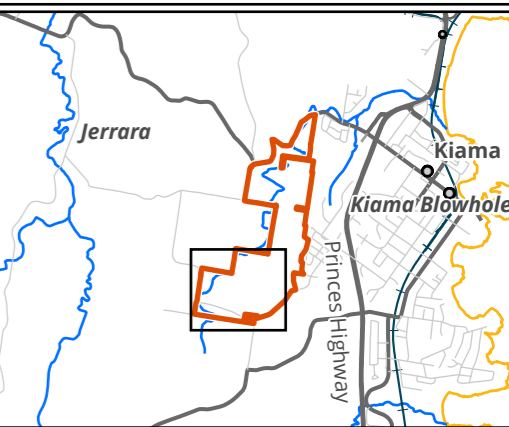
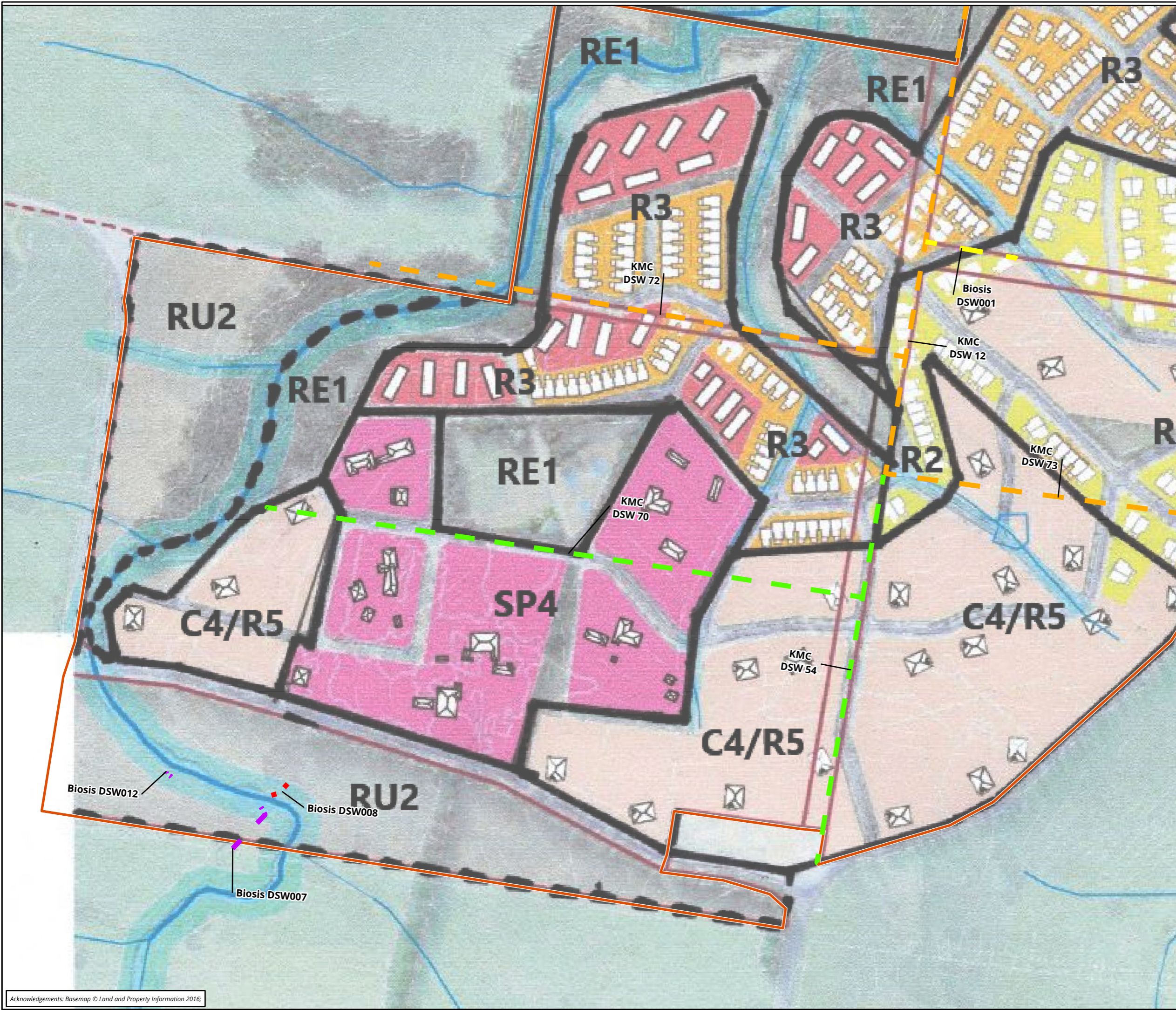
Length of walls are as per Kiama Municipal Council and historical records, except Bosis DSW007, Bosis DSW008 and Bosis DSW012 which were first identified in the field

Figure 6 Overview - Heritage constraints - dry stone walls

0 150 300 450 600

Metres
Scale: 1:11,000@ A3
Coordinate System:
GDA 1994 MGA Zone 56





- Legend**
- Study area
- Condition of dry stone walls**
- Good
 - Good to average
 - Average
 - Average to poor
 - Poor

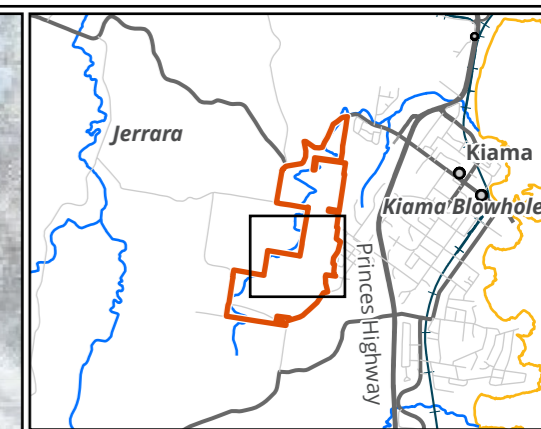
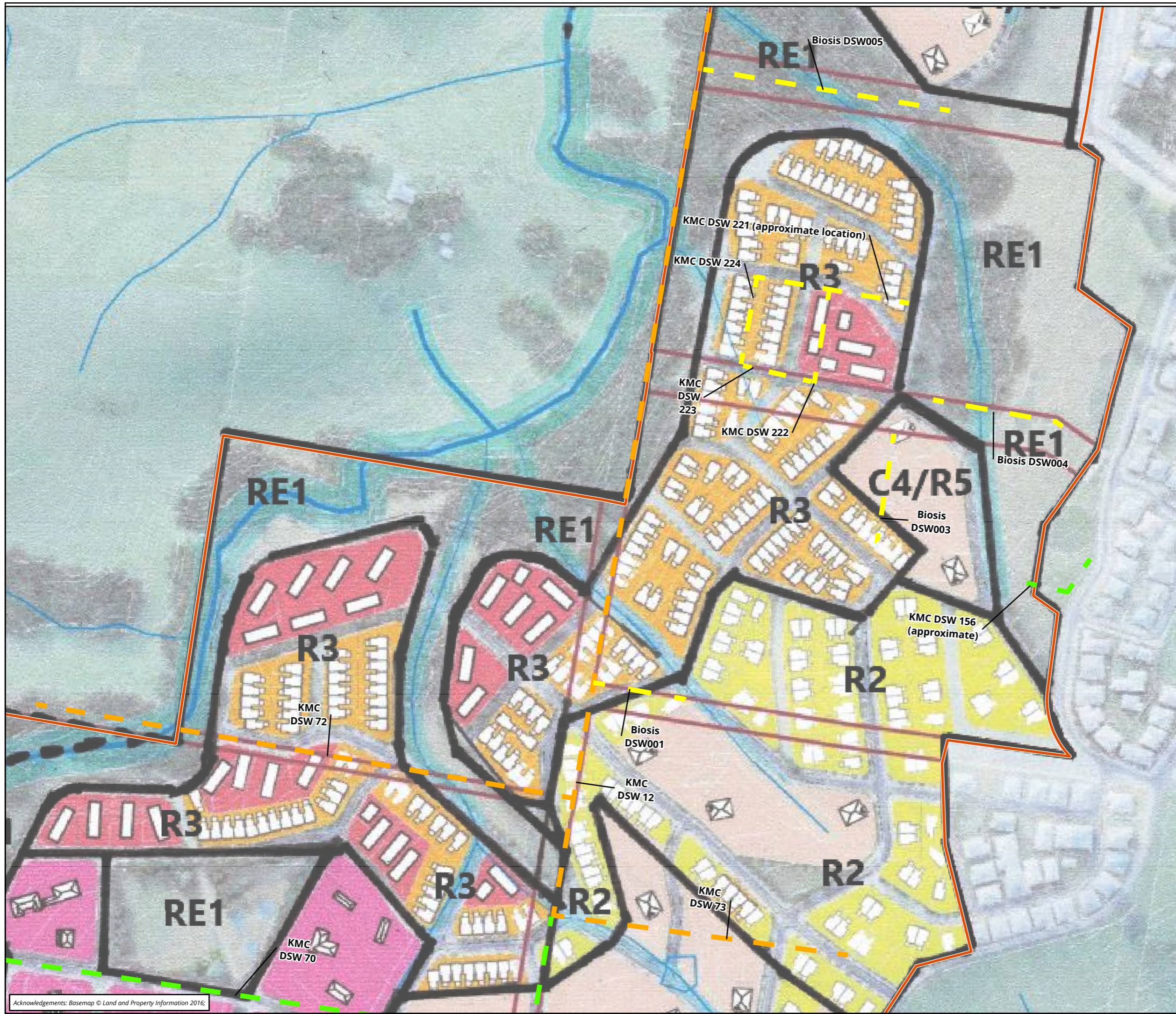
Length of walls are as per Kiamawest Municipal Council and historical records, except Biosis DSW007, Biosis DSW008 and Biosis DSW012 which were first identified in the field

Figure 6.1 Heritage constraints - dry stone walls

0 40 80 120 160
Metres

Scale: 1:3,000@ A3
Coordinate System:
GDA 1994 MGA Zone 56

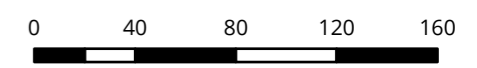
Matter: 37550, Date: 18 November 2022,
Drawn by: JB, Checked by: JM, Last edited by: jbeckius
Location: P:\37500s\37550\Mapping\
37550_ADDA_Kiamawest_Masterplan, Layout: 37550_HHA_F7_HerConstraints



- Legend**
- Study area
- Condition of dry stone walls**
- Good
 - Average to poor
 - Poor

Length of walls are as per Kiama Municipal Council and historical records, except Biosis DSW007, Biosis DSW008 and Biosis DSW012 which were first identified in the field

Figure 6.2 Heritage constraints - dry stone walls

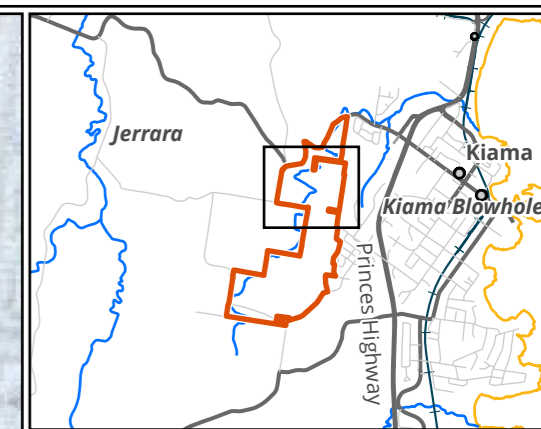
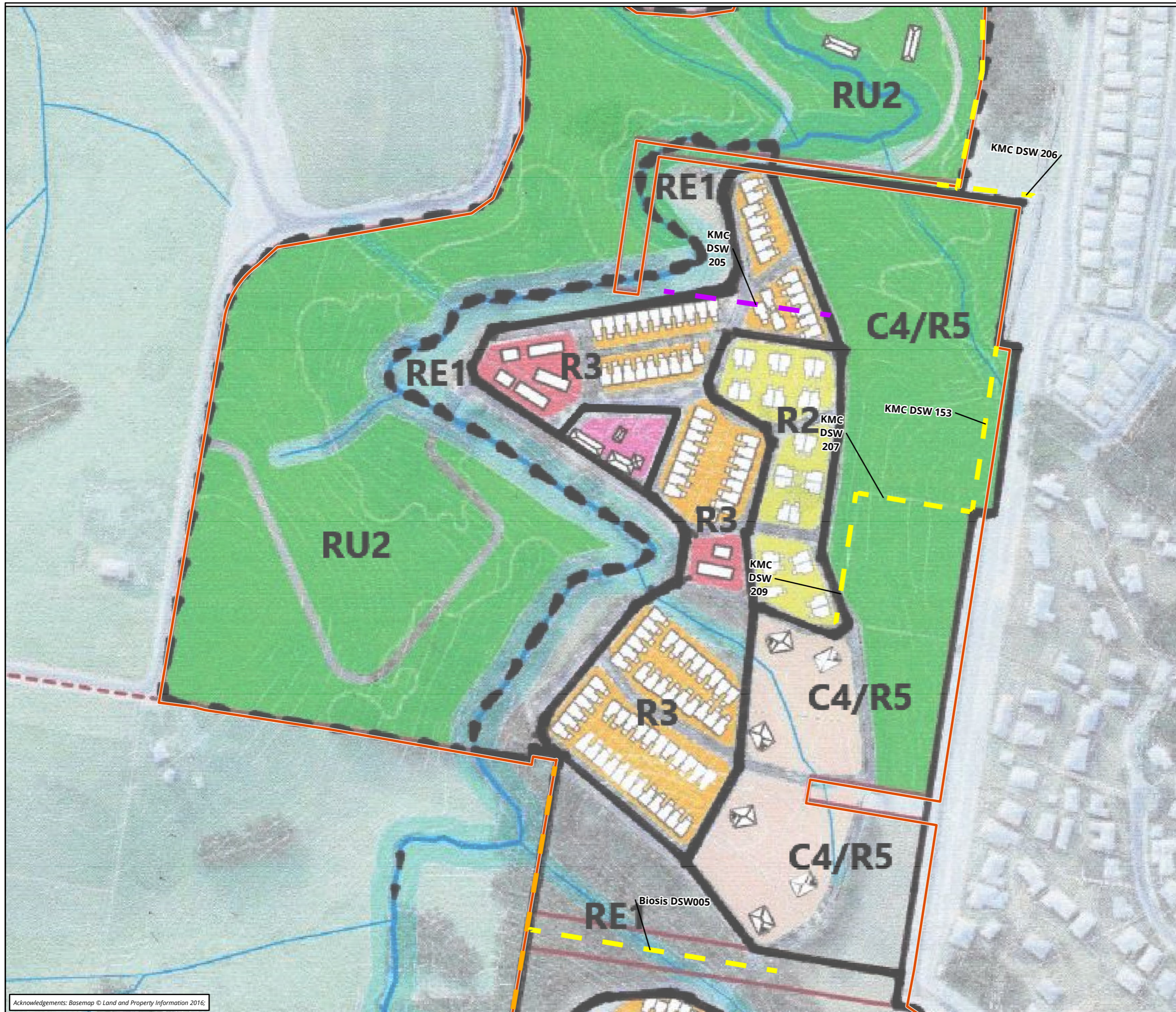


Metres
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 Coordinate System:
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Matter: 37550, Date: 18 November 2022,
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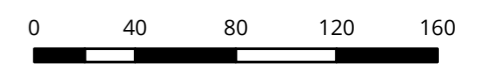
Acknowledgements: Baseimap © Land and Property Information 2016;



- Legend**
- Study area
- Condition of dry stone walls**
- Good to average
 - Average to poor
 - Poor

Length of walls are as per Kiama Municipal Council and historical records, except Biosis DSW007, Biosis DSW008 and Biosis DSW012 which were first identified in the field

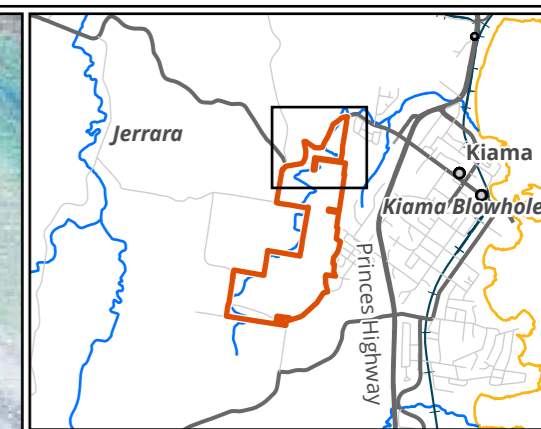
Figure 6.3 Heritage constraints - dry stone walls



Metres
 Scale: 1:3,000@ A3
 Coordinate System:
 GDA 1994 MGA Zone 56



Matter: 37550, Date: 18 November 2022,
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Legend

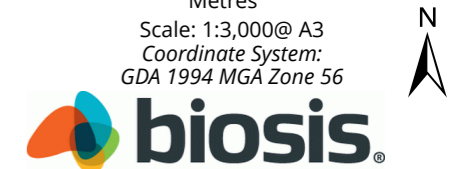
- Study area
- Condition of dry stone walls**
- Good to average
- Poor

Length of walls are as per Kiama Municipal Council and historical records, except Biosis DSW007, Biosis DSW008 and Biosis DSW012 which were first identified in the field

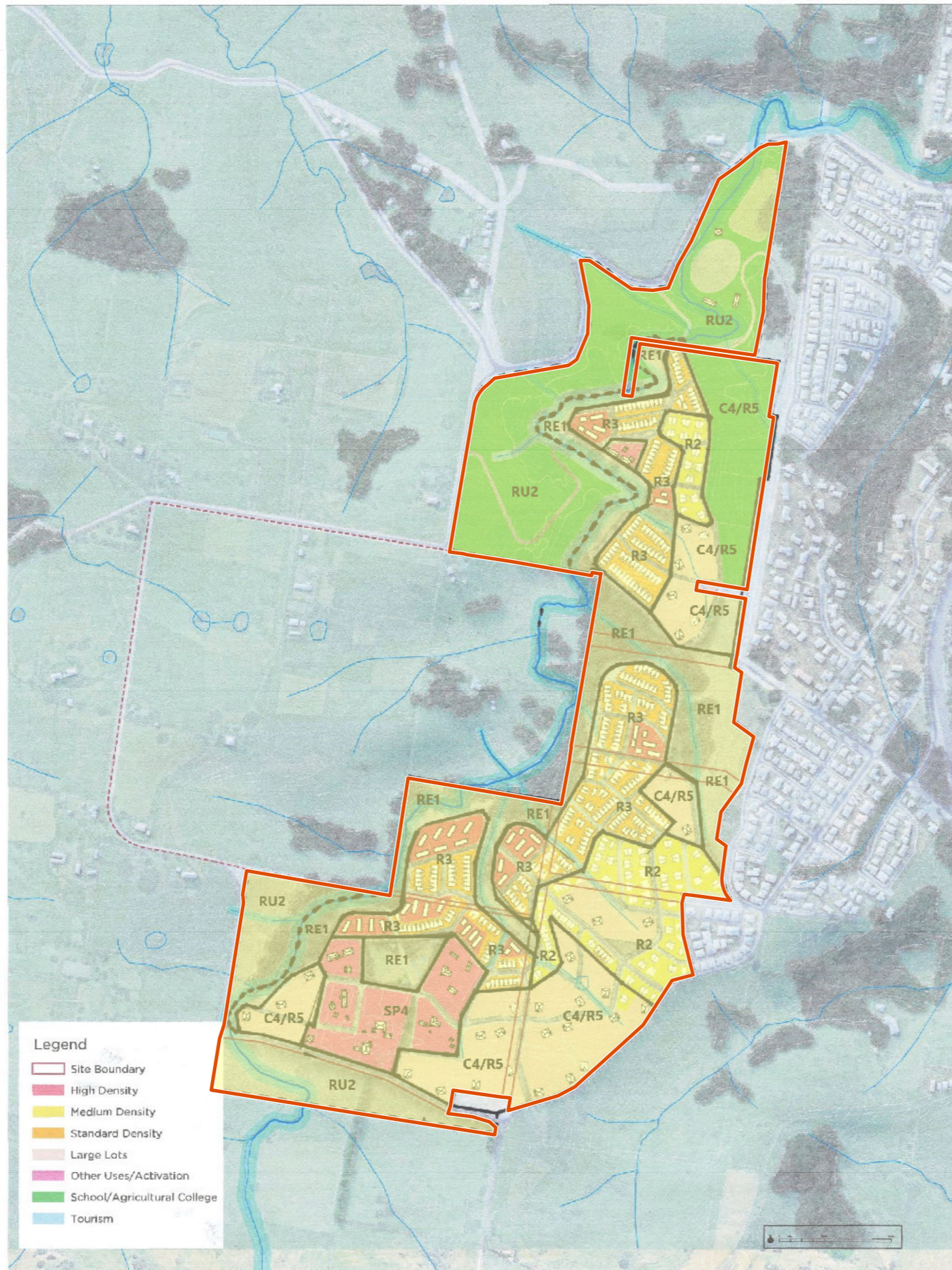
Figure 6.4 Heritage constraints - dry stone walls



Metres
 Scale: 1:3,000@ A3
 Coordinate System:
 GDA 1994 MGA Zone 56

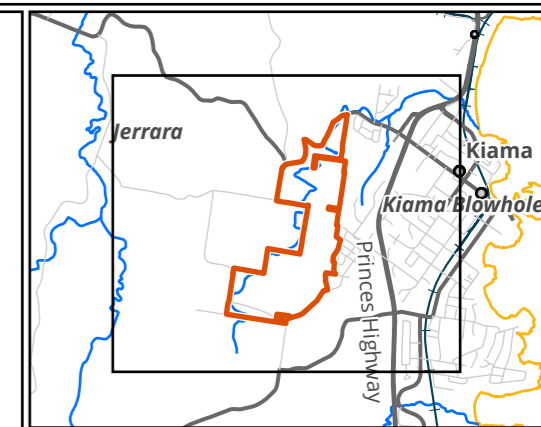


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 Location: P:\37500s\37550\Mapping\
 37550_ADDA_KiamaWest_Masterplan, Layout: 37550_HHA_F7_HerConstraints



Legend

- Site Boundary
- High Density
- Medium Density
- Standard Density
- Large Lots
- Other Uses/Activation
- School/Agricultural College
- Tourism



Legend

- Study area
- Potential for archaeological remains to be present

Length of walls are as per Kiama Municipal Council and historical records, except Bosis DSW007, Bosis DSW008 and Bosis DSW012 which were first identified in the field

Figure 6 Overview - Heritage constraints - preliminary archaeological assessment

0 75 150 225 300
Metres
Scale: 1:11,000@ A3
Coordinate System:
GDA 1994 MGA Zone 56



Matter: 37550, Date: 18 November 2022,
Drawn by: JB, Checked by: JM, Last edited by: jbeckius
Location: P:\37500s\37550\Mapping\
37550_ADDA_KiamaWest_Masterplan, Layout: 37550_HHA_F7_HerConstraints_

PROJECT: Kiama Longbrush Road	DRAWING: CONCEPT & MASTER PLAN	SKETCH NO: SK-0027	SCALE: 1:7,500	eUrban
CLIENT: CLIENT (Open Title Block Border Settings and update Project Data)	DATE: 31/01/2022	REVISION:	PURPOSE: FOR INFORMATION	DIRECTOR: Joe Rowling eUrban Pty Ltd. ABN: 97 668 290 842

Traders In Purple

6.3 Opportunities

The masterplan has been developed with the environmental and landscape context in mind whilst also considering social and community needs. A number of opportunities are available to reduce impacts to heritage, and also to enhance the heritage elements and rural character of the study area. These are summarised in Table 13.

Table 13 Heritage opportunities

Category	Opportunity	Heritage benefit
1	Conservation and enhancement of heritage elements and items	Dry stone walls within the study area are items of local heritage significance and contribute to the wider character of the Kiama hinterland and cultural landscape within the study area. By incorporating their alignments into the masterplan designs, this will enhance the considered and holistic approach that has been taken with the proposed layout outlined in the masterplan.
	Conservation / restoration of remaining dry stone walls.	Very few of the dry stone walls are in good condition. Conservation / restoration would ensure their ongoing integrity and heritage value, to both the study area and wider Kiama LGA. Any conservation works should ensure the retention of form and original intent.
	Use of local stone in civil and community infrastructure, housing and landscaping to compliment but not mimic heritage features.	Dry stone walls are one of the defining heritage and landscape characteristics of the Kiama LGA. By incorporating samples of the local stone similar to that used in the dry stone walls of the study area and vicinity, would support integration of the new development into the existing landscape. It is noted that complimentary design and not replication is considered best practice.
	Heritage interpretation should be incorporated into the masterplan, and should be consistent across the development.	Including heritage interpretation into the masterplan at this early stage will allow for seamless integration of the heritage of the place into the design of the masterplan and enhance the holistic approach that has been taken for the proposed development.
	Further assessment of potential archaeology within the study area.	The study area has potential to contain archaeological remains associated with timber getting, dairying and domestic occupation from the 1850s onwards. A more detailed archaeological assessment would provide further information of areas of moderate and high potential, and their likely heritage value, i.e. the potential presence of relics. This data would then enable the development of mitigation measures to be implemented for the masterplan, such as avoiding areas which may contain relics, or test excavations to confirm the presence or absence of archaeological remains.

Category		Opportunity	Heritage benefit
2	Community spaces	Village greens with community and retail spaces in northern and southern areas should be incorporated into the masterplan.	The Kiama landscape is reflective of parts of the British Isles through the cleared rolling hills with properties, roads and paddocks demarcated by dry stone walls and hedges. The masterplan also echoes the organic growth pattern of many pre-industrial British and European villages. The inclusion of 'village green' spaces within the northern and the southern parts of the masterplan would be sympathetic to this landscape and the proposed development layout. These spaces would also provide focal points for residents and visitors, while also enabling community events and activities to take place within the site. The incorporation of village greens would also be a positive implementation of urban greening in the development and could be used as a focus of the promotion of cultural heritage education and as interpretation spaces.
		Information and directional signage should be simple and accessible.	The presence of signage is important for residents and visitors in terms of places and information. Simple and accessible signage will avoid unnecessary visual clutter and encourage equality and understanding.
		Street furniture should be simple and reflect the materials, colours and forms of heritage and natural features.	The use of simple street furniture will avoid detracting from the heritage elements and wider landscape of the place. The use of sympathetic materials and colours will allow for cohesion with the environment and context of the study area.
		Parks, playgrounds and off-leash dog parks to provide local activity spaces.	These facilities will provide much needed places for residents and visitors to exercise, socialise and interact within their community, and provides local infrastructure which is often left unconsidered in new piecemeal developments. The incorporation of parks, playgrounds and off-leash areas would also be a positive implementation of urban greening infrastructure in the development and could be used as a focus of the promotion of cultural heritage education and as interpretation spaces.
		Walking trails through green belt along Spring Creek and to view location on high ground.	Similar to the previous opportunity, walking trails will enable the exploration and appreciation of the natural environment, and will also contribute to the health and wellbeing of residents and visitors. The incorporation of walking trails and green belts would also be a positive implementation of urban greening infrastructure in the development and could be used as a focus of the promotion of cultural heritage education and as interpretation spaces.
3	Roads, paths and drainage	Single lane one way roads and narrow two-way two-lane roads	As is noted above, the Kiama landscape is reflective of parts of the British Isles. The use of lanes and narrower roads

Category	Opportunity	Heritage benefit
	lined by plantings and designated parking spaces.	lined by plantings enhances this setting, while designated parking spaces would still enable on-street parking for residents and visitors.
	Shared path areas.	Shared paths would improve pedestrian safety and encourage accessible travel between places within the study area. This would reduce use of vehicles within the development, and thereby improve the environmental conditions of the community. It could also improve the sense of community with residents and visitors holding more interaction with one another.
	Flush concrete exposed aggregate kerbing and avoidance of standard extruded kerb and gutter in bright concrete.	The rural character of the study area and Kiama hinterland would be maintained through the avoidance of bright extruded concrete kerbing and gutter which can contrast strongly with surrounding features. Flush kerbing of exposed aggregate material would provide a less obtrusive border to roads within the development.
	Water-sensitive urban design (WSUD) and grass swales to assist with natural drainage using local stone (where practicable) and plantings.	WSUD and grass swales provide an alternative to standard drainage infrastructure, and provides an opportunity for thoughtful landscaping which could reflect the rural character of the study area and vicinity using appropriate materials and plantings. The incorporation of WSUD would also be a positive implementation of urban greening infrastructure in the development.
	Simple and minimal street and pedestrian lighting.	Lighting which does not distract from the landscape, such as bollard lighting along shared pathways, would maintain safety but also remain visually unobtrusive within the design of the development and the wider landscape.
	Minimal traffic signage limited to essential signage for safety and vehicle management.	Similar to the previous opportunity, minimising traffic signage to the essentials would reduce visual interruptions of the development and wider landscape.
	Unit paving and accent paving for pedestrian and shared pathways.	Unit and accent paving is a simple and unobtrusive way to distinguish different trafficable areas and would also be reflective of the rural nature and heritage of the study area and wider landscape.
4	Plantings and vegetation Use of native plantings which complement the existing native and exotic vegetation in the study area and vicinity.	Prior to European arrival in the region, the study area was part of a red cedar rainforest which was cleared by colonial settlers in the mid-19th century. The reintroduction of species native to the Kiama and Illawarra, such as red cedar, would allow for a part of this former native landscape to be represented as part of the masterplan and development. It is noted that any vegetation community planted should be assessed and approved by appropriately qualified

Category	Opportunity	Heritage benefit
	Street trees should provide shade and reflect the current trees within and in vicinity of study area.	ecologists and the traditional owners of the region There are numerous benefits to the planting of street trees. They provide shade, reduce urban heat, contribute to the environment and also soften urban spaces, reducing the visual impacts of housing and infrastructure on the surrounding heritage landscape.
	Planter boxes in suitable materials that is consistent with the rural nature of the site.	Similar to the opportunity for street furniture above, the use of suitable and sympathetic materials and colours for planter boxes will avoid detracting from the heritage elements and wider landscape of the place. This will allow for cohesion with the environment and context of the study area.
5	Stakeholder consultation	<p data-bbox="400 748 794 1028">Connecting and designing with country.</p> <p data-bbox="400 1028 794 1263">Engaging with appropriate / relevant stakeholders and local community</p> <p data-bbox="794 748 1457 1028">While this assessment does not focus on Aboriginal heritage and/or planning and architecture legislation, the incorporation of Connecting With Country and Designing with Country as part of the design process would be invaluable in developing a holistic masterplan for the development, which could enable the idea of placemaking within the local Aboriginal and wider community.</p> <p data-bbox="794 1028 1457 1263">The heritage of Kiama LGA is highly valued by the local community. By engaging early with stakeholders and the community, there is the opportunity to seek feedback and work with the local community and Traditional owners to achieve a positive outcome which would benefit the community and region.</p>

7 Conclusions

The study area is located within the Kiama LGA, within the suburbs of Kiama and Jerrara comprising: 103 Jamberoo Road; 33 Greyleigh Drive; and 177 Long Brush Road. It is currently zoned RU2 Rural Landscape and encompasses approximately 114 hectares of private land.

This assessment has identified a minimum of 32 dry stone walls which are part of a listing of local heritage significance on the Kiama LEP 2011 using limited information previously provided by Kiama Municipal Council for another area of land. Biosis and Masters Surveying identified 17 additional dry stone walls within the study area as part of background research and during the physical inspection of the study area. Under the KDCP, any proposal to demolish, damage, alter (including making breaks), dismantle or destroy listed dry stone walls requires consent from Kiama Municipal Council via a DA. A preliminary look at the study area indicated that there is potential for archaeological remains to be present throughout the study area.

The study area has been assessed (preliminary assessment only) as holding heritage significance at a local level for its associative, aesthetic and research values.

There are 15 heritage constraints to the proposed masterplan in its current form. However, there are also a range of opportunities which would result in increased positive outcomes for heritage.

Table 14 Proposed heritage strategies for the masterplan

Strategy no.	Strategy
1	Conserve, incorporate and promote the heritage elements of the study area into the masterplan design as part of a holistic approach to the proposed development.
2	Include places, spaces, information and facilities for the purpose of community use which are reflective of and in-keeping with the rural character of the natural and cultural landscape of the study area and vicinity.
3	Develop infrastructure which is accessible, environmentally friendly and sustainable, and visually appropriate for the rural character setting of the study and vicinity.
4	Utilise the natural elements and plantings to create an environment for residents and visitors which enhances wellbeing and health while paying respect to the pre- and post-1788 landscape of the study area and vicinity.
5	Provide opportunity for the local community to contribute to the development of these new neighbourhoods to ensure that the needs of local people can be met by the masterplan.

References

- 'A Tour to the South. No. 3. - The Kiama District', 1871., *Australian Town and Country Journal (Sydney, NSW: 1870 - 1919)*: 18.
- 'A Veteran Passes. Thomas Newing - 93 years.', 1927., *Kiama Reporter and Illawarra Journal (NSW: 1899 - 1947)*: 2.
- Abraham WV 1991. *The Dry Stone Walls of Kiama's Hinterland*, W.V. Abraham, Kiama.
- AMBS 2008. *Aboriginal heritage study: Illawarra Escarpment*. Australian Museums Business Services, Report prepared for Wollongong City Council.
- Australia ICOMOS 2013. *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance*, Australia ICOMOS, Burwood, VIC.
- Australian Heritage Database n.d. *Park Mount, 82 Jerrara Rd, Kiama, NSW, Australia, Australian Heritage Database*, accessed 12 September 2022, http://www.environment.gov.au/cgi-bin/ahdb/search.pl?mode=place_detail;search=place_name%3Dpark%2520mount%3Bkeyword_PD%3Don%3Bkeyword_SS%3Don%3Bkeyword_PH%3Don%3Blatitude_1dir%3DS%3Blongitude_1dir%3DE%3Blongitude_2dir%3DE%3Blatitude_2dir%3DS%3Bin_region%3Dpart;place_id=100102.
- Bailey WA 1976. *Blue Haven: History of Kiama Municipality New South Wales*, Weston and Co. Publishers Pty Ltd, Kiama, NSW, Australia.
- Bayley W 1976. *Blue Haven: history of Kiama municipality, New South Wales*, Kiama Municipal Council, Kiama NSW.
- Bayley WA 1935. 'Kiama', accessed 27 September 2022, <https://wollongong.spydus.com/cgi-bin/spydus.exe/FULL/WPAC/BIBENQ/12982584/17544627,1>.
- 'Births, Marriages, & Deaths.', 1873., *Australian Town and Country Journal (Sydney, NSW: 1870 - 1919)*: 28.
- Brook A 1994. *Dry stone walling: a practical handbook*, British Trust for Conservation Volunteers, Doncaster, UK.
- Carruthers JE 1920. 'Some South Coast Records. An Intersting Old Register.', *Methodist (Sydney, NSW: 1892 - 1954)*: 3.
- Clarkson C, Jacobs Z, Marwick B, Fullagar R, Wallis L, Smith M, Roberts RG, Hayes E, Lowe K, Carah X, & Florin SA 2017. 'Human occupation of northern Australia by 65,000 years ago', *Nature*, 547, 7663: 306.
- Cocks S n.d. 'Kiama', accessed 27 September 2022, <https://wollongong.spydus.com/cgi-bin/spydus.exe/FULL/WPAC/BIBENQ/12982066/17554384,1>.
- Context Pty Ltd, Urban Initiatives Pty Ltd, & Doyle H 2002. *Port Arthur Historic Site landscape management plan*, Port Arthur Historic Site Management Authority, Tasmania.
- Cousins A 1948. *The Garden of New South Wales: A History of the Illawarra & Shoalhaven Districts 1770-1900*, Illawarra Historical Society, Wollongong.

Department of Public Works and Services Heritage Group 1998. *Kiama Harbour Conservation Management Plan*, Report for Department of Land and Water Resources (South Coast Region).

Derbyshire J & Allen D 1984. *Land between two rivers*, Shellharbour Municipal Council, Shellharbour.

Donaldson M & Southall N 2014. *Illawarra Co-operatives: The First One Hundred Years*, Flame Tree Community Food Co-op, Thirroul NSW, accessed 20 September 2022, <https://ro.uow.edu.au/cgi/viewcontent.cgi?referer=&httpsredir=1&article=4010&context=lhapapers>.

Dowd BT 1977. *The First Five Land Grantees and their Grants in the Illawarra*, Illawarra Historical Society, Wollongong.

Dunn EM 2007., *Kiama: its region and community 1901 to 1938*, University of Wollongong, Wollongong, accessed 20 September 2022, <https://ro.uow.edu.au/cgi/viewcontent.cgi?referer=&httpsredir=1&filename=0&article=1644&context=theses&type=additional>.

e8urban & Sprout Studio 2022. *Kiama Longbrush Road. Initial Urban Design Concepts*, Prepared for Traders in Purple.

'Ecclesiastical Jurisdiction', 1865., *New South Wales Government Gazette (Sydney, NSW: 1832 - 1900)*: 2125.

Fuller L 1982. *Wollongong's Native Trees*, McPherson's Printing Group, National Library of Australia.

Grey G 1933. "'Greyleigh" History.', *Kiama Independent, and Shoalhaven Advertiser (NSW: 1863 - 1947)*: 3-4.

Hagen J & Wells A 1997. *A History of Wollongong*, Wollongong City Council, Wollongong.

Havilah E 2002. *Dairying History in the Illawarra. A Thematic Study*,.

Hazelton PA 1992. *Soil Landscapes of the Kiama 1:00,000 Sheet*, Department of Conservation and Land Management (incorporating the Soil Conservation Service of NSW), Sydney.

Heritage NSW n.d. *Toll Bar Marker Jamberoo, State Heritage Inventory - Heritage NSW*.

Heritage NSW n.d. *Dairy Co Op Monument Jamberoo, State Heritage Inventory - Heritage NSW*, accessed 12 September 2022b, <https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=1860203>.

Heritage Office 2001. *Assessing Heritage Significance*, accessed 31 January 2018, <https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Heritage/assessing-heritage-significance.pdf>.

Heritage Office & DUAP 1996. *Statements of Heritage Impact*.

Humphreys AL & London A 2005. *Shellharbour City Council Heritage Study: Thematic History*, Shellharbour City Council, Shellharbour.

J. E. C. 1915. 'An Old South Coast Plan. Some Reminiscences', *Methodist (Sydney, NSW: 1892 - 1954)*: 3.

'John Black - 86 Years.', 1938., *Kiama Independent, and Shoalhaven Advertiser (NSW: 1863 - 1947)*: 2.

Johnston D 1973. *Kiama through the years*, Kiama Museum and Craft Centre, Kiama, NSW, Australia.

Kaul J 1995. Shellharbour City Council European Heritage Study.

'Kiama District Court.', 1877., *Kiama Independent, and Shoalhaven Advertiser (NSW: 1863 - 1947)*: 2.

Kiama Library n.d. *Gerringong and Kiama Butter Factories*, *Kiama Library*, accessed 20 September 2022a, <https://library.kiama.nsw.gov.au/History/Explore-Kiamas-Past/Local-history-stories/Gerringong-and-Kiama-Butter-Factories>.

Kiama Library n.d. *The Pioneer Butter Factory*, *Kiama Library*, accessed 20 September 2022b, <https://library.kiama.nsw.gov.au/History/Explore-Kiamas-Past/Local-history-stories/The-Pioneer-Butter-Factory>.

Kiama Library n.d. *Early European Settler Joseph Pike*, *Kiama Library*, accessed 13 September 2022c, <https://library.kiama.nsw.gov.au/History/Explore-Kiamas-Past/Local-history-stories/Early-European-Settler-Joseph-Pike>.

Kiama Library n.d. *Greyleigh*, *Kiama Library*, accessed 27 September 2022d, <https://library.kiama.nsw.gov.au/History/Explore-Kiamas-Past/Local-history-stories/Greyleigh>.

Kiama Library n.d. *Kiama Council History*, *Kiama Library*, accessed 28 September 2022e, <https://library.kiama.nsw.gov.au/History/Explore-Kiamas-Past/Local-history-stories/Kiama-Council-History>.

'Kiama Show.', 1883., *Evening News (Sydney, NSW: 1869 - 1931)*: 2.

Latona Masterman & Associates 1987. *Kiama Heritage Study. Prepared for Kiama Municipal Council*,.

Lindsay B 1994. *Early Land Settlement in Illawarra*, Illawarra Historical Publications, Wollongong.

'Marriages.', 1861., *Sydney Morning Herald (NSW: 1842 - 1954)*: 1.

'Marriages.', 1872., *Sydney Morning Herald (NSW: 1842 - 1954)*: 1.

Mayne-Wilson & Associates 1998. *West Kiama: A Heritage Assessment of its Dry Stone Walls. Prepared for Kiama Municipal Council*,.

McCaffrey 1931. 'The McCaffrey Family of Illawarra.', *Kiama Reporter and Illawarra Journal (NSW: 1899 - 1947)*: 2.

McCaffrey F 1927. 'Pioneers of Illawarra - Mr. James Armstrong', *Land (Sydney, NSW: 1911 - 1954)*: 1.

McDonald McPhee Pty Ltd 1991. *City of Wollongong Heritage Study*, Wollongong City Council, Wollongong.

McDonald WG 1966. *Earliest Illawarra by its explorers and pioneers*, Illawarra Historical Society, Wollongong.

'Mr. Moses King, Sen.', 1903., *Kiama Reporter and Illawarra Journal (NSW: 1899 - 1947)*: 2.

'Nethervale.', 1918., *Kiama Independent, and Shoalhaven Advertiser (NSW: 1863 - 1947)*: 2.

Newing T 1936. 'Stone Walls.', *Sydney Morning Herald (NSW: 1842 - 1954)*: 10.

NSW Heritage Branch, Department of Planning 2009. Assessing Significance for Historical Archaeological Sites and 'Relics', <https://www.environment.nsw.gov.au/resources/heritagebranch/heritage/ArchSignificance.pdf>.

NSW Heritage Council 2001. New South Wales Historical Themes,

<https://www.heritage.nsw.gov.au/assets/Uploads/a-z-publications/g-i/Historical-Themes.pdf>.

Organ M 1990. *A Documentary History of the Illawarra and South Coast Aborigines 1770-1850*, Aboriginal Education Unit, Wollongong University, Wollongong.

Organ M 1993. *Illawarra South Coast Aborigines 1770-1900*, Report to the Australian Institute of Aboriginal and Torres Strait Islander Affairs, Canberra.

Osbourne F 2000. *Surveyors, Settlers and Land Grants*, Illawarra Historical Society, Wollongong.

'Passing of the Pioneers - John James Emery', 1930., *Shoalhaven Telegraph (NSW: 1881 - 1937)*: 6.

'Reminiscences of Old Kiama.', 1938., *Kiama Reporter and Illawarra Journal (NSW: 1899 - 1947)*: 4.

Shellharbour Local History n.d. *Grey Family, Shellharbour Local History - Shellharbour City Museum*, accessed 27 September 2022, <https://museum.shellharbour.nsw.gov.au/grey-family/>.

Tanner J 1952. 'Pastoral Industry - Dairying - Undulating pastures behind the town of Kiama on the south coast of New South Wales. Here at "Greyleigh", one of the pioneer studs of the Australian Illawarra Shorthorn cattle', accessed 28 September 2022, <https://recordsearch.naa.gov.au/SearchNRetrieve/Interface/DetailsReports/PhotoDetail.aspx?Barcode=11864760>.

'The Illawarra District. Kiama.', 1857., *Illawarra Mercury (Wollongong, NSW: 1856 - 1950)*: 2.

'The Late Mr. Moses King.', 1903., *Illawarra Mercury (Wollongong, NSW: 1856 - 1950)*: 2.

Tindale NB 1974. *Aboriginal Tribes of Australia: The Terrain, Environmental Controls, Distribution, Limits and Proper names*, Australian National University, Canberra.

UNESCO 2012. Operational Guidelines for the Implementation of the World Heritage Convention.

Warwick Mayne-Wilson Associates 2000. Conserving the Dry Stone Walls of Kiama.

Wesson S 2005. *A History of Aboriginal People of the Illawarra, 1770-1970*. Department of Environment and Conservation NSW, Sydney.,.

Appendices

Appendix 1 Maps and plans



Photo 53 1851 Crown plan for three portions of land, featuring Portion 70, with the study area outlined in orange (Source: NSW Land Registry Services, Crown plan K23.1249)



Photo 55 1854 Crown plan of suburban allotment 83, featuring Portion 156, with the study area outlined in orange (Source: NSW Land Registry Services, Crown plan K33.1249)

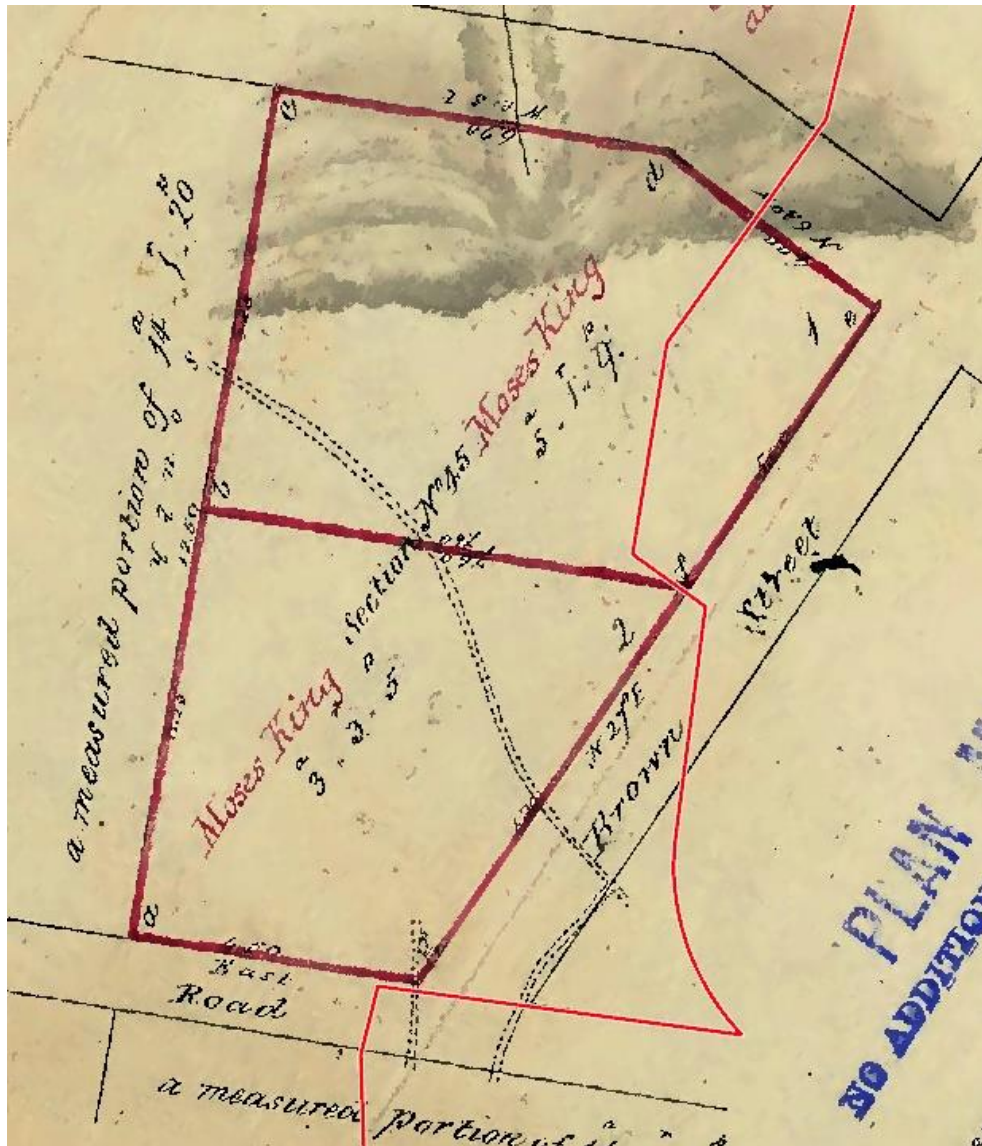


Photo 56 1854 Crown plan of two suburban allotments in Kiama Town Section 45, with the study area outlined in orange (Source: NSW Land Registry Services, Crown plan K32.1249)



Photo 57 1854 Crown plan of four suburban allotments, featuring portions 184-187, with the study area outlined in orange (Source: NSW Land Registry Services, Crown plan K35.1249)

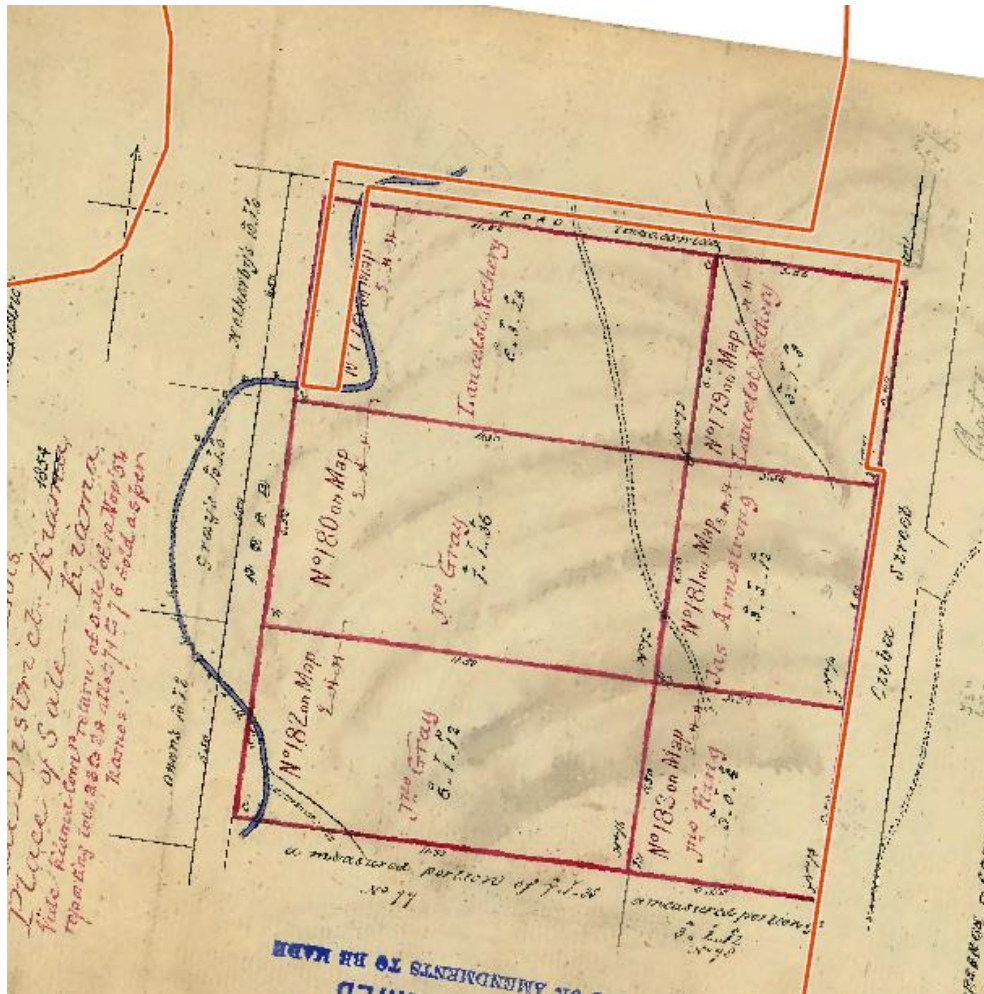





Photo 58 1854 Crown plan of six suburban allotments, featuring portions 178-179 and 180-183, with the study area outlined in orange (Source: NSW Land Registry Services, Crown plan K36.1249)



Appendix 2 Dry stone wall inspections




Table 15 Description of dry stone walls within the study area




Kiama Dry Stone Walls		Description and condition	
Inventory No.	Kiama Heritage Inventory sheet - technical values	Current Biosis observations	
12	Inventory sheet incomplete.	<ul style="list-style-type: none"> • Average to poor. • Partially intact. • Overgrown with vegetation including trees and hedges. • Condition varies along length of wall. • Some sections collapsed, others more intact. 	



Kiama Dry Stone Walls Inventory No.	Description and condition	
	Kiama Heritage Inventory sheet – technical values	Current Biosis observations
18	<ul style="list-style-type: none"> Standard ‘double dyke’ model used. Large blocks standard throughout walls Excellent interlocking on steepest slopes Coping layer has been predominantly removed. Intactness: 75% 	Inaccessible due to dense vegetation.
19	Inventory sheet unavailable.	Not located during physical inspection.
54	<ul style="list-style-type: none"> Very good height to base course relationship. Irregular foundation stones, whatever was present was utilised. Face stones have a high engagement for interlocking, but here is no consistency in the wall. Very large coping stones, regular and well bound. Intactness: 100% 	<ul style="list-style-type: none"> Good condition Largely complete in locations inspected. Likely to be maintained.
		
55	Inventory sheet unavailable.	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
57	Inventory sheet unavailable.	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
58	Inventory sheet unavailable.	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
59	Inventory sheet unavailable.	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
60	Inventory sheet unavailable.	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
61	Inventory sheet unavailable.	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
67	Inventory sheet unavailable.	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.
69	Inventory sheet unavailable.	Not identified in the field; likely dismantled and stone used elsewhere in Greyleigh homestead.




Kiama Dry Stone Walls Inventory No.	Description and condition	
	Kiama Heritage Inventory sheet - technical values	Current Biosis observations
70	Inventory sheet unavailable.	<ul style="list-style-type: none"> • Good condition. • Sighted at northern end of Greyleigh homestead complex, and also further east near junction with wall 54. 
71	<ul style="list-style-type: none"> • Proportions of original unknown. • Some very large foundations stones, incorporating in situ rock. • No facing stones remain in the wall. • No coping layer of stones remains. • Intactness: 10% 	Not accessible due to livestock and electric fencing.

Kiama Dry Stone Walls Inventory No.	Description and condition	
	Kiama Heritage Inventory sheet - technical values	Current Biosis observations
72	Inventory sheet unavailable.	<ul style="list-style-type: none"> • Average to poor condition. • Partial collapse in central part of wall length; timber used to block cattle. • Overgrown with vegetation. • Stones missing from coping. 
73	Inventory sheet incomplete.	<ul style="list-style-type: none"> • Average to poor condition. • Partial collapse near western end. • Stones missing from coping in numerous locations. • Overgrown in places with soil build up adjacent. 

Kiama Dry Stone Walls Inventory No.	Description and condition	
	Kiama Heritage Inventory sheet – technical values	Current Biosis observations
149	<ul style="list-style-type: none"> • Excellent cross section proportions for stability. • Very large foundations steins with use of in situ rock. • Excellent positioning of facing stones, high care. • Generally very high coping stones. • Intactness: Average 90%, continues to east of creek onto next ridge but deteriorates into vegetations. 	<ul style="list-style-type: none"> • Inaccessible except at corner of Jerrara Road. • Potentially no longer extant at western end; small cluster of stones eroding from topsoil and turf. 
153	<ul style="list-style-type: none"> • Correct overall proportions for stability. • Medium-large base course of foundation stones for support. • Tight engagement of facing stones. • Most of coping remains intact at northern end. • Intactness: Varies between 90% and 30% at parts of its southern end. 	<ul style="list-style-type: none"> • Poor condition. • Only lower / foundation courses visible. • Overgrown with vegetation including trees. 
156	Inventory sheet incomplete.	<ul style="list-style-type: none"> • Good condition. • Wall face and coping in situ. • Likely maintained. 

Kiama Dry Stone Walls Inventory No.	Description and condition	
	Kiama Heritage Inventory sheet – technical values	Current Biosis observations
205	Inventory sheet unavailable.	<ul style="list-style-type: none"> • Good to average condition. • Coping course no longer extant. • Some instances of partial collapse. 
206	Inventory sheet unavailable.	<ul style="list-style-type: none"> • Poor condition. • In a dilapidated state. • Appears to be collapsing down the slope. • Only lower and foundation courses extant. 
207	<ul style="list-style-type: none"> • Correct base width proportions cross section for stability. • High base course of foundations stones for support. • High engagement of face stones where intact, good batter. • No identifiable coping layer remains. • Intactness: 30% 	<ul style="list-style-type: none"> • Poor condition • Lower or foundation courses extant. • Overgrown with grasses and some smaller trees. • Some sections partially collapsed. 

Kiama Dry Stone Walls Inventory No.	Description and condition	
	Kiama Heritage Inventory sheet - technical values	Current Biosis observations
209	Inventory sheet unavailable.	<ul style="list-style-type: none"> Poor condition Only lower or foundation courses visible. Overgrown with grasses and some smaller trees. 
212	Inventory sheet unavailable.	<ul style="list-style-type: none"> Appears to be no longer extant. 
218	Inventory sheet unavailable.	No longer extant/not visible
219	Inventory sheet unavailable.	No longer extant/not visible
220	<ul style="list-style-type: none"> Very secure 'A' frame visible on eastern face. Moderate size foundations stones but very deeply set. High interlocking of face stones if not removed or collapsed. Most of the copies stones have fallen due to the severe slope. Intactness: Average 50% where visible. 	Not accessible due to dense vegetation.

Kiama Dry Stone Walls Inventory No.	Description and condition	
	Kiama Heritage Inventory sheet - technical values	Current Biosis observations
221	<ul style="list-style-type: none"> • Base remains appear to be very wide in parts. • No foundation layer visible, presumed small foundations stones. • High engagement of very small facing stones. • No coping stone layer remains to assess. • Intactness: Eastern end is more intact than the western portion. Approximately 10% for total length. 	<ul style="list-style-type: none"> • Poor condition. • Almost completely collapsed. • Overgrown with climbing vegetation and trees. 
222	<ul style="list-style-type: none"> • Small 'double- dyke' proportions. • Moderate sized base course layer support. • High engagement of very small facing stones. • No coping layer stones remain to assess. • Intactness: Approximately 40-45%. 	<ul style="list-style-type: none"> • Poor condition. • Almost completely collapsed. • Overgrown with climbing vegetation and trees. 
223	<ul style="list-style-type: none"> • Predominantly a vestigial form in terms of proportions. • Moderate sized base course layer support. • No significant face portion remains to assess. • No coping layer remains to assess. • Intactness: Less than 10% for most of its length. 	<ul style="list-style-type: none"> • Poor condition. • Almost completely collapsed. • Overgrown with climbing vegetation and trees. 







Kiama Dry Stone Walls Inventory No.	Description and condition	
	Kiama Heritage Inventory sheet - technical values	Current Biosis observations
224	<ul style="list-style-type: none"> • Base appears to have been very wide. • Foundation layers no longer visible. • All of face lengths are broken down. • No coping layer remains to assess. • Intactness: 5% of original length, 10% of original height. 	<ul style="list-style-type: none"> • Poor condition. • Almost completely collapsed. • Overgrown with climbing vegetation and trees. 
225	<ul style="list-style-type: none"> • Wall failure renders proportions hard to assess. • Very large, planar foundation blocks where visible. • Small part remaining of face stones has high engagement. • No coping layer remains to assess. • Intactness: 5% of what original length may have been. This portion is 20-30% intact. 	Not accessible due to deeply incised drainage line.



Table 16 Observed condition of dry stone walls identified through background research or during the physical inspection

Biosis reference number	Identification source	Biosis condition observation
DSW001	DP 1148007	<ul style="list-style-type: none"> • Poor condition. • Small section of recorded wall identified. • Potentially dismantled. • Overgrown with vegetation, tree growing immediately adjacent. 

Biosis reference number	Identification source	Biosis condition observation
DSW002	DP 1003719	<ul style="list-style-type: none"> • Wall is currently overgrown with various species of vegetation including trees and not visible. • Likely to be associated with DSW002. 
DSW003	DP 1042908	<ul style="list-style-type: none"> • Poor condition. • Partial collapse from animal access tracks. • Overgrown by vegetation. • Some potential repairs as evidenced by stones without growth and aging effects. • Likely to be associated with DSW002. 
DSW004	DP 1042908	<ul style="list-style-type: none"> • Poor condition. • Much of stone has been removed. • Only several metres could be identified. 

Biosis reference number	Identification source	Biosis condition observation
DSW005	DP 1042908	<ul style="list-style-type: none"> • Poor condition. • Much of stone has been removed. • Trimmed vegetation has been stacked on top of wall. 
DSW006	DP 1176643	<ul style="list-style-type: none"> • Poor condition. • Overgrown with vegetation including trees and climbing species. 

Biosis reference number	Identification source	Biosis condition observation
DSW007	During physical inspection	<ul style="list-style-type: none"> • Good to average condition. • Coping course largely present. • No collapses observed. 
DSW008	During physical inspection	<ul style="list-style-type: none"> • Average condition. • Could not be closely inspected. • Short section of wall. 
DSW009	R31905.1603	<ul style="list-style-type: none"> • Overgrown by hedge vegetation at western end 
DSW010	DP 1042908	<ul style="list-style-type: none"> • Not accessible, also likely part of 220

Biosis reference number	Identification source	Biosis condition observation	
DSW011	R1245c.1603	<ul style="list-style-type: none"> • Not visible. • Either no long extant or only base course remains but overgrown with vegetation. 	
DSW012	During physical inspection	<ul style="list-style-type: none"> • Good to average condition. • Appears to be new. • Retaining wall for slope. 	

Appendix 3 Masterplan



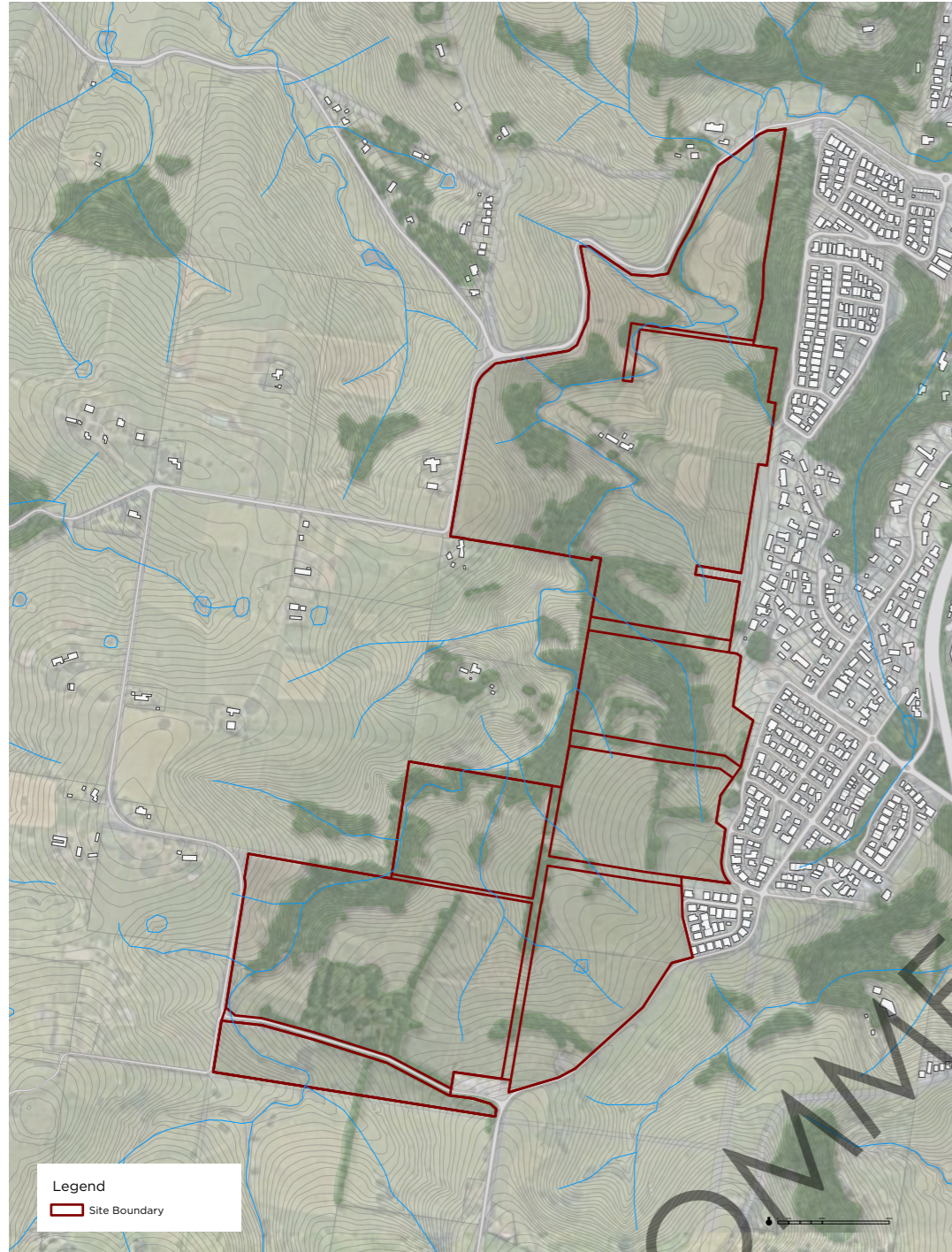
Traders In Purple

KIAMA LONGBRUSH ROAD

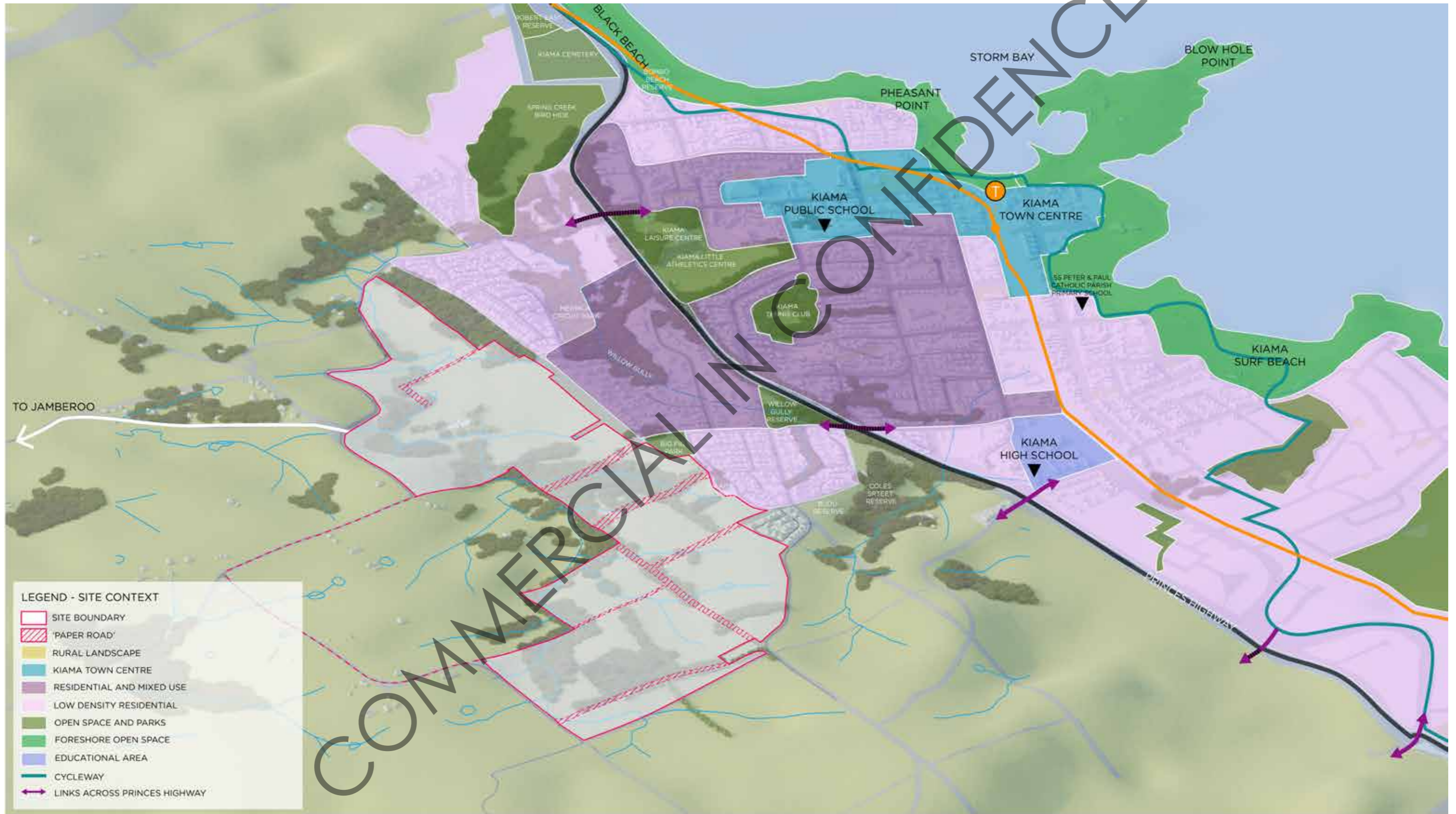
INITIAL URBAN DESIGN CONCEPTS



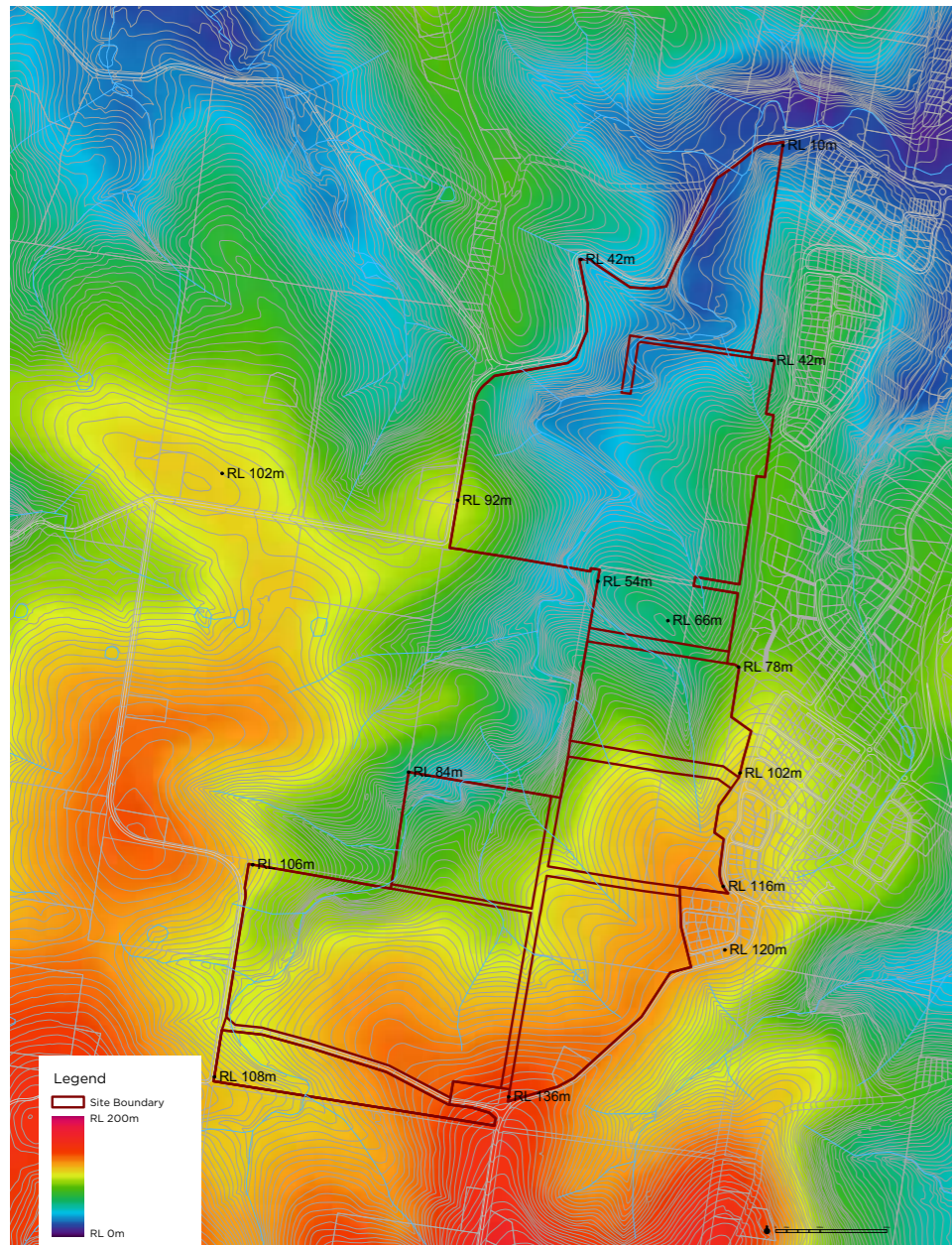
Site + Character



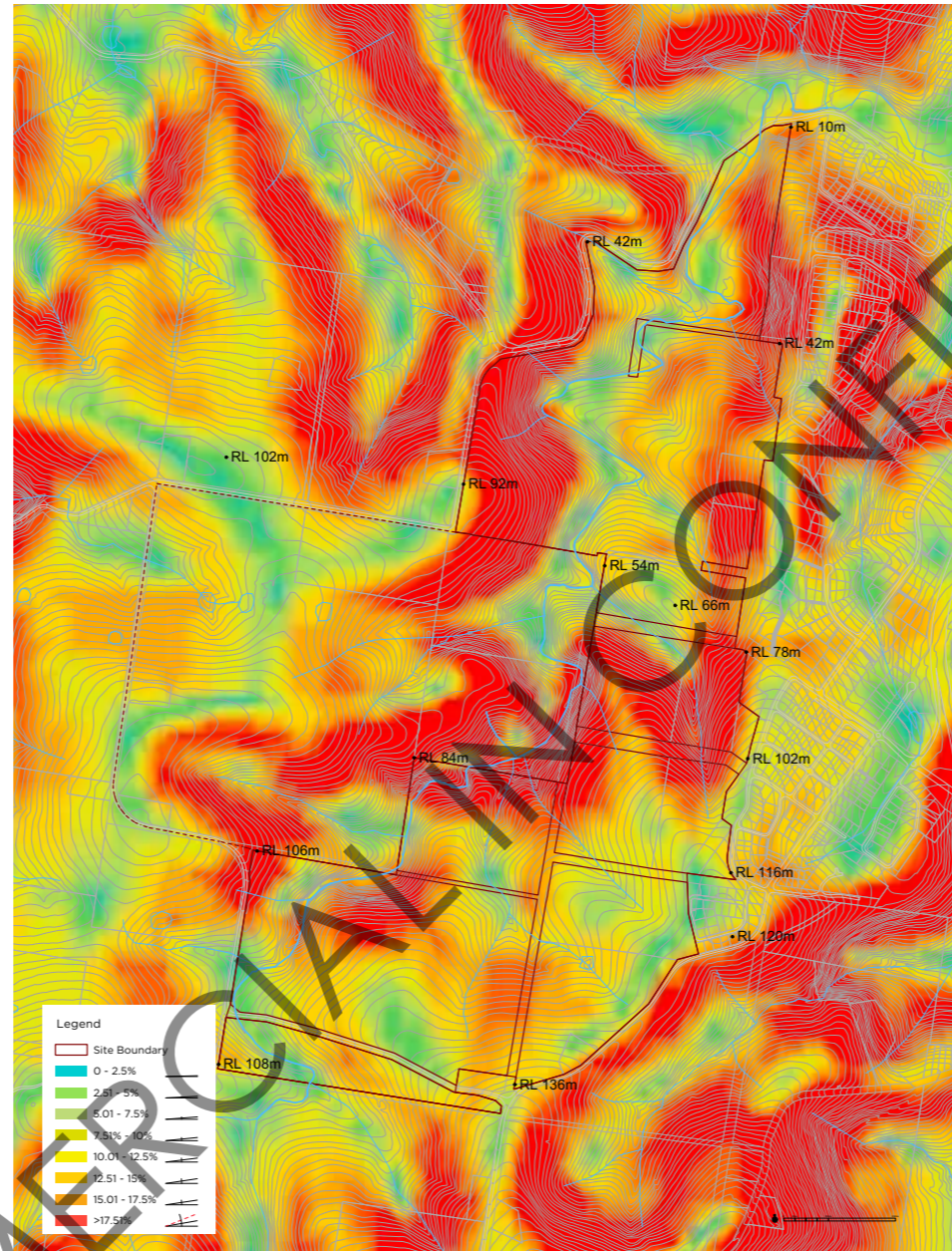
Context



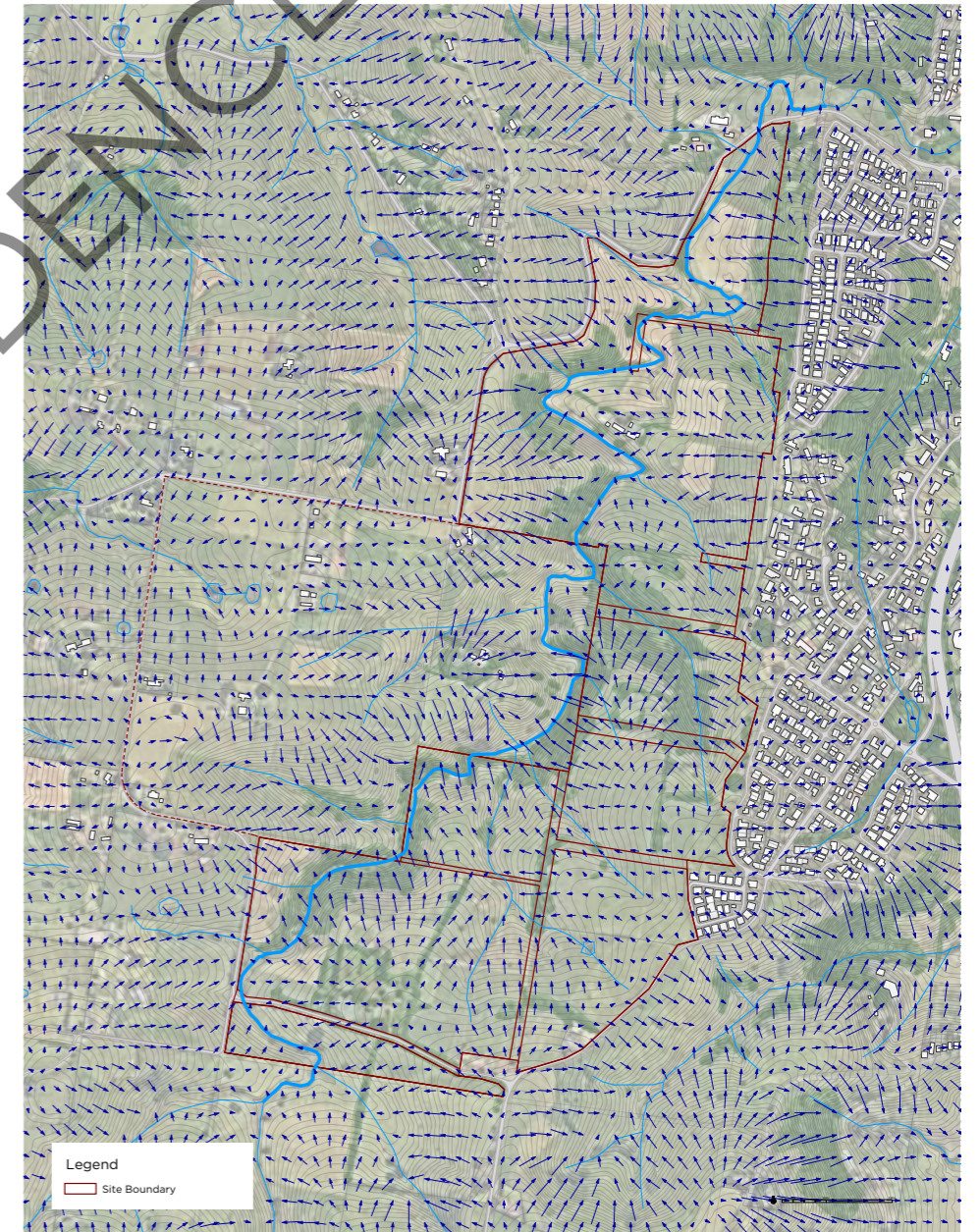
Site + Landscape Analysis



Topography + Elevation

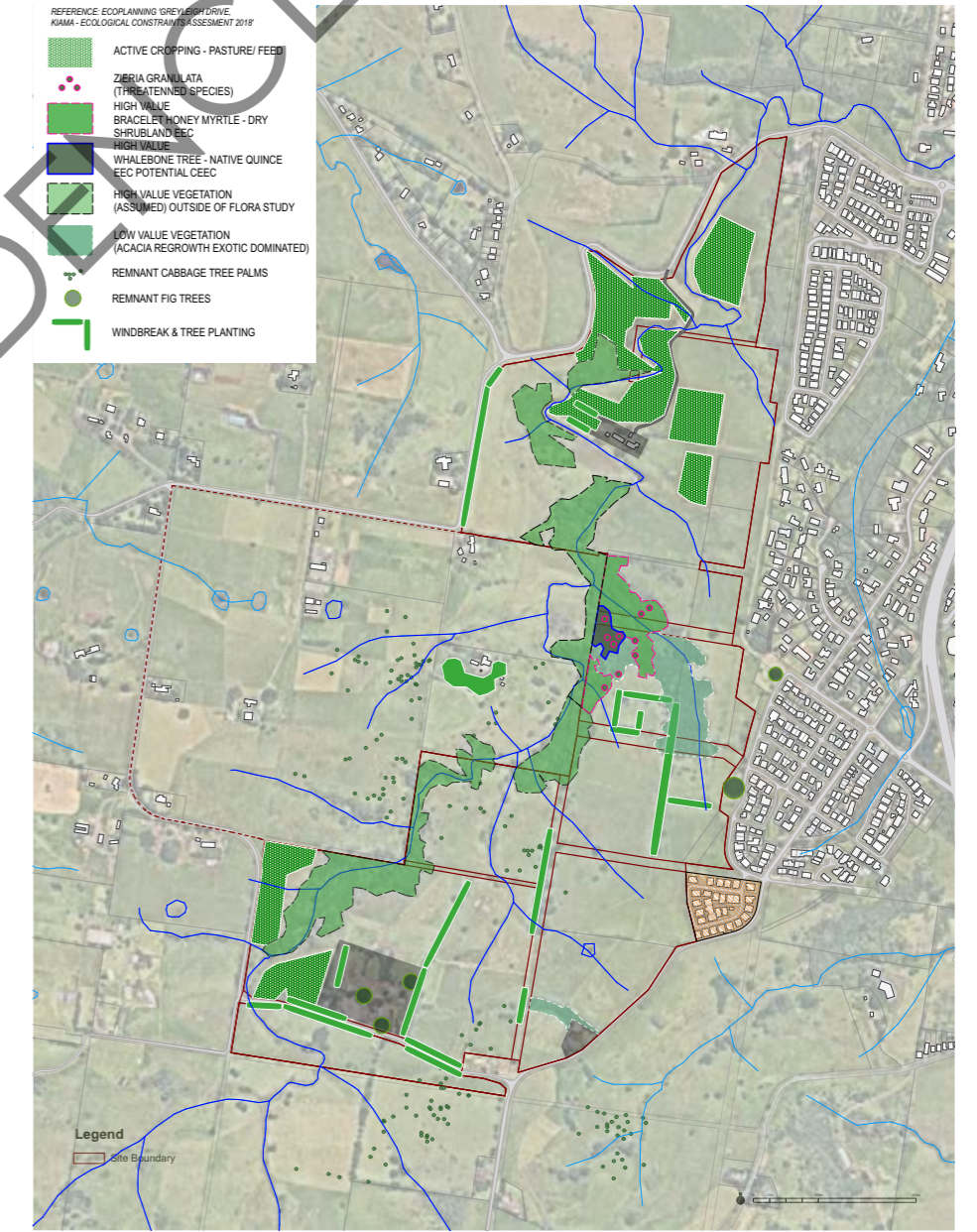
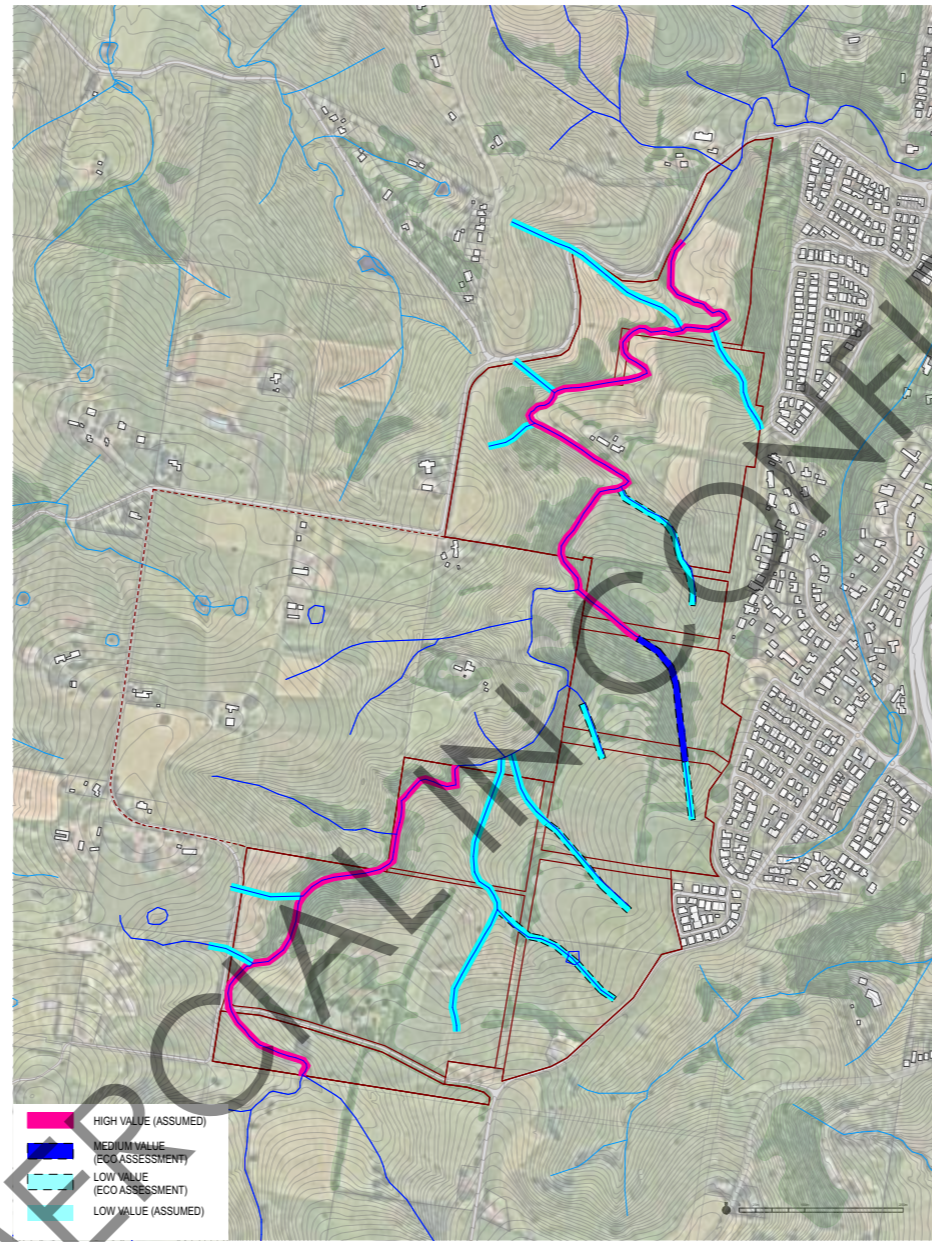
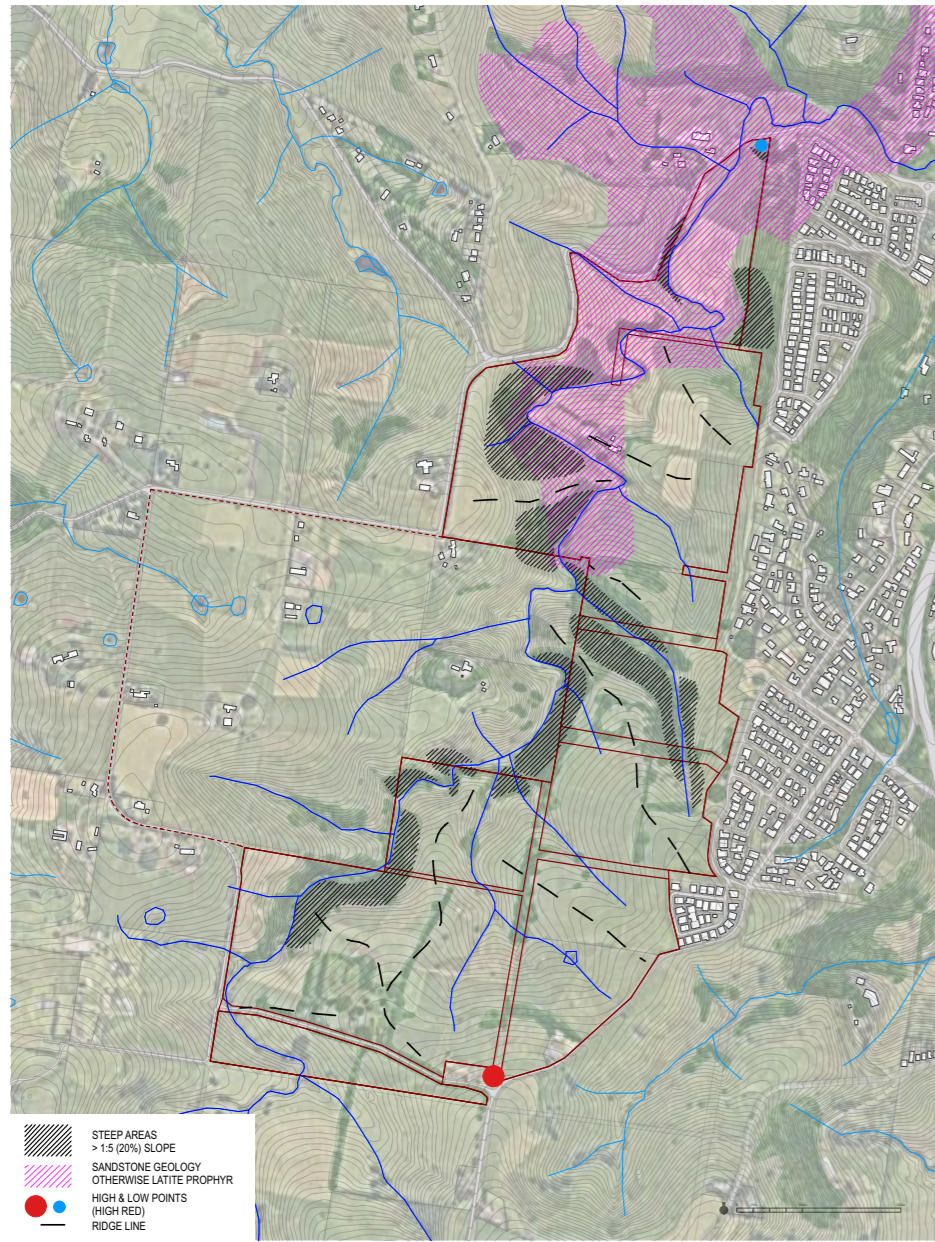


Slope



Landform Direction

Site + Landscape Analysis



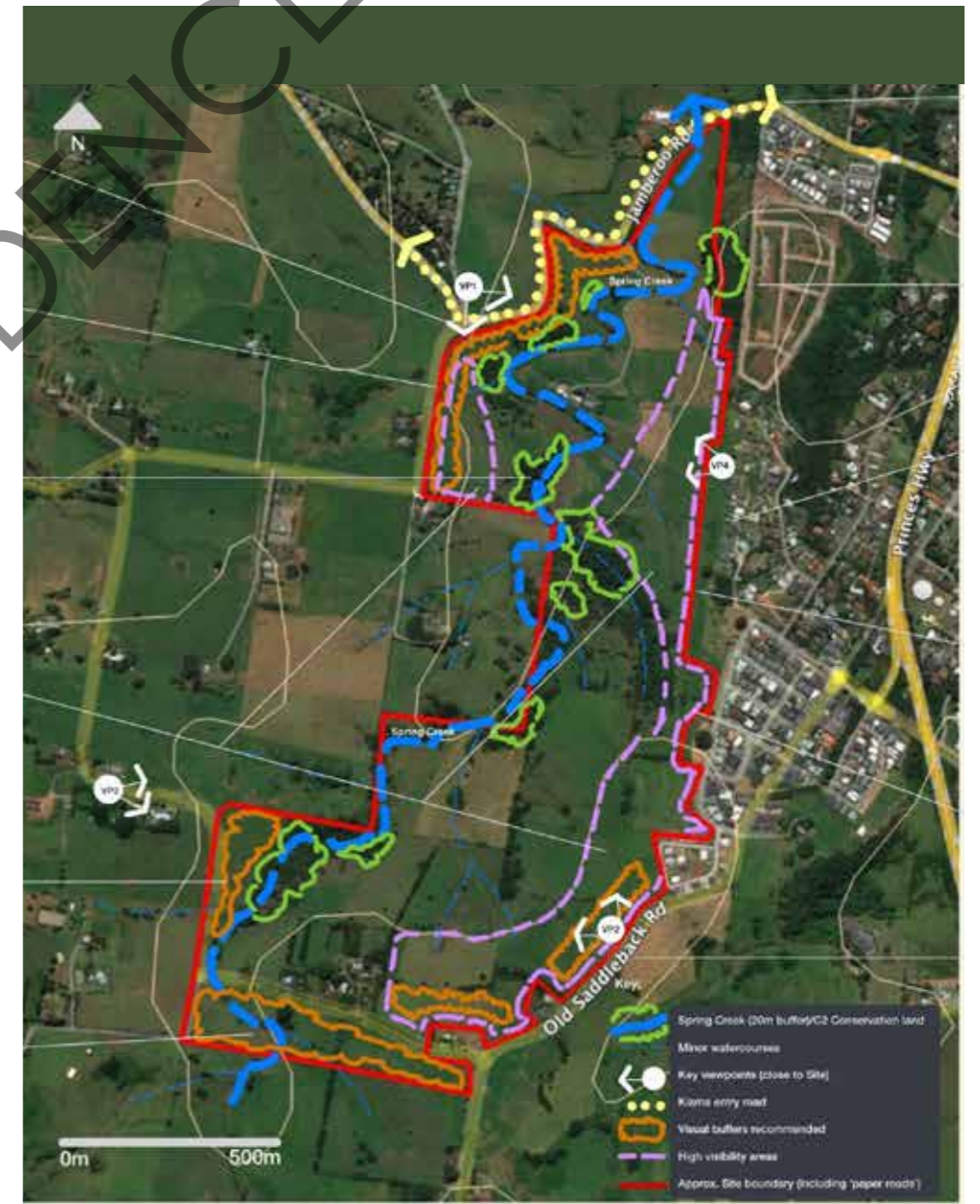
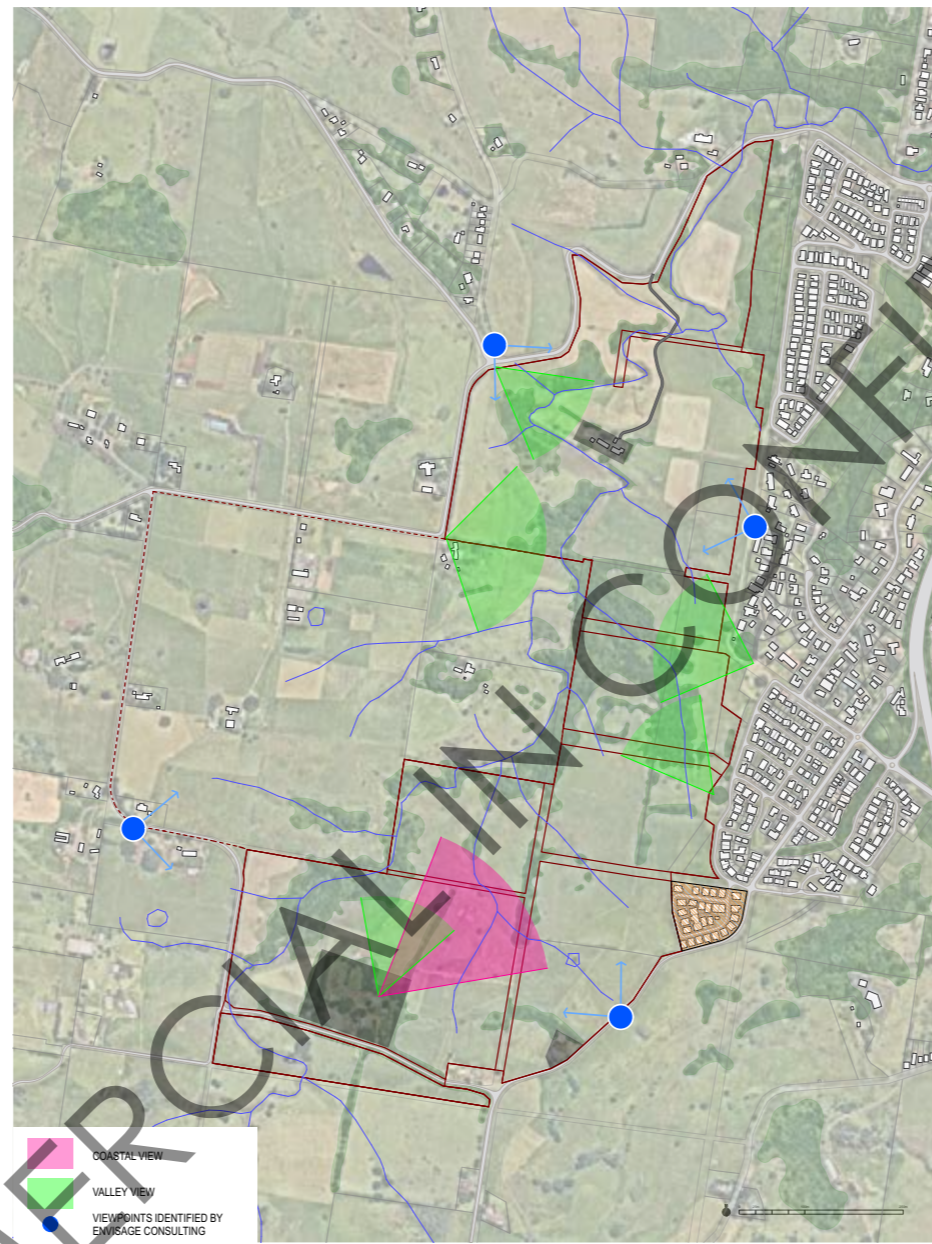
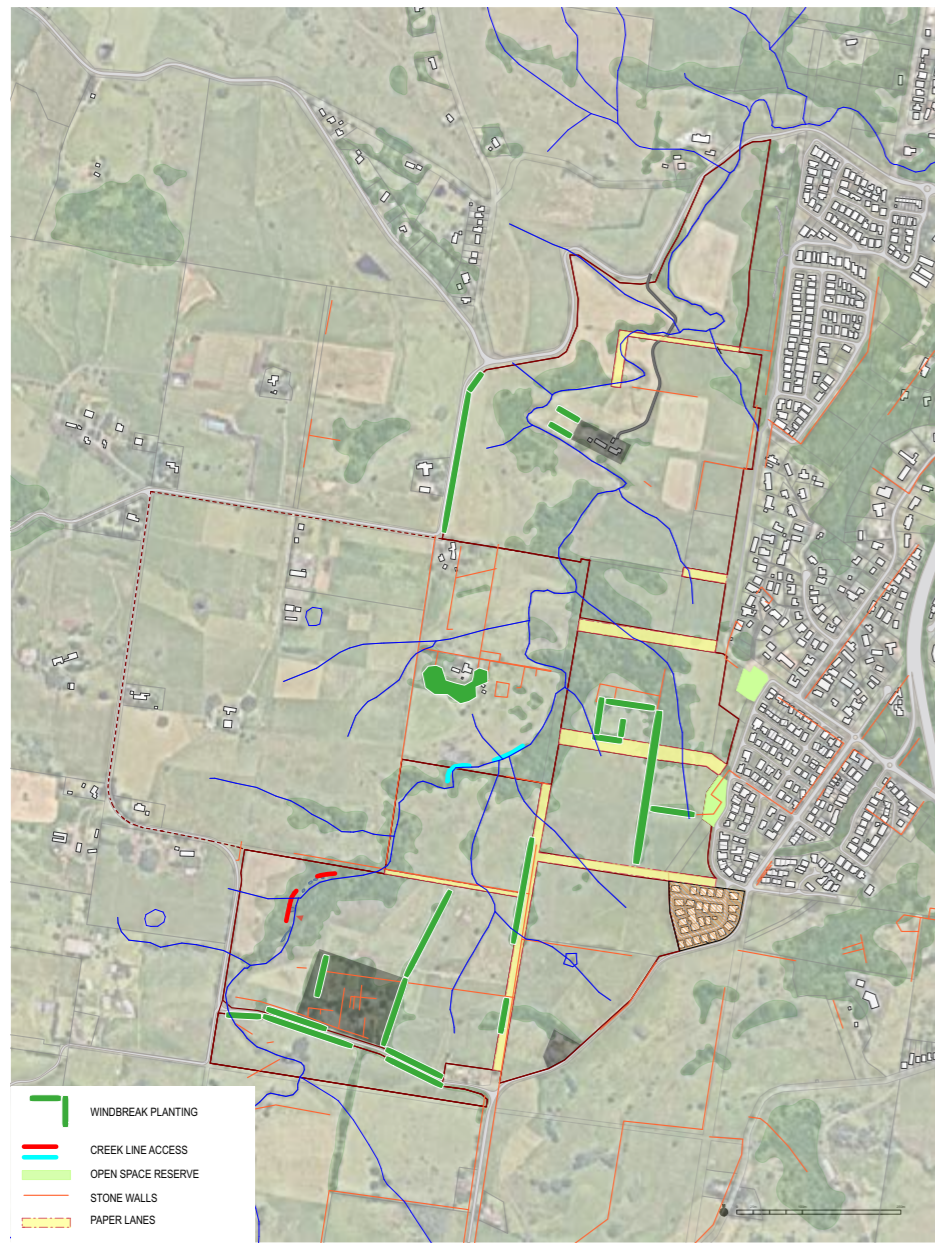
Hydrology

- Quality of Spring Creek
- Hierarchy of water courses
- Relationship with remnant Dry Rain Forest vegetation

Vegetation

- Remnant Dry Rain Forest vegetation
- Hedgerows and windbreaks

Site + Landscape Analysis



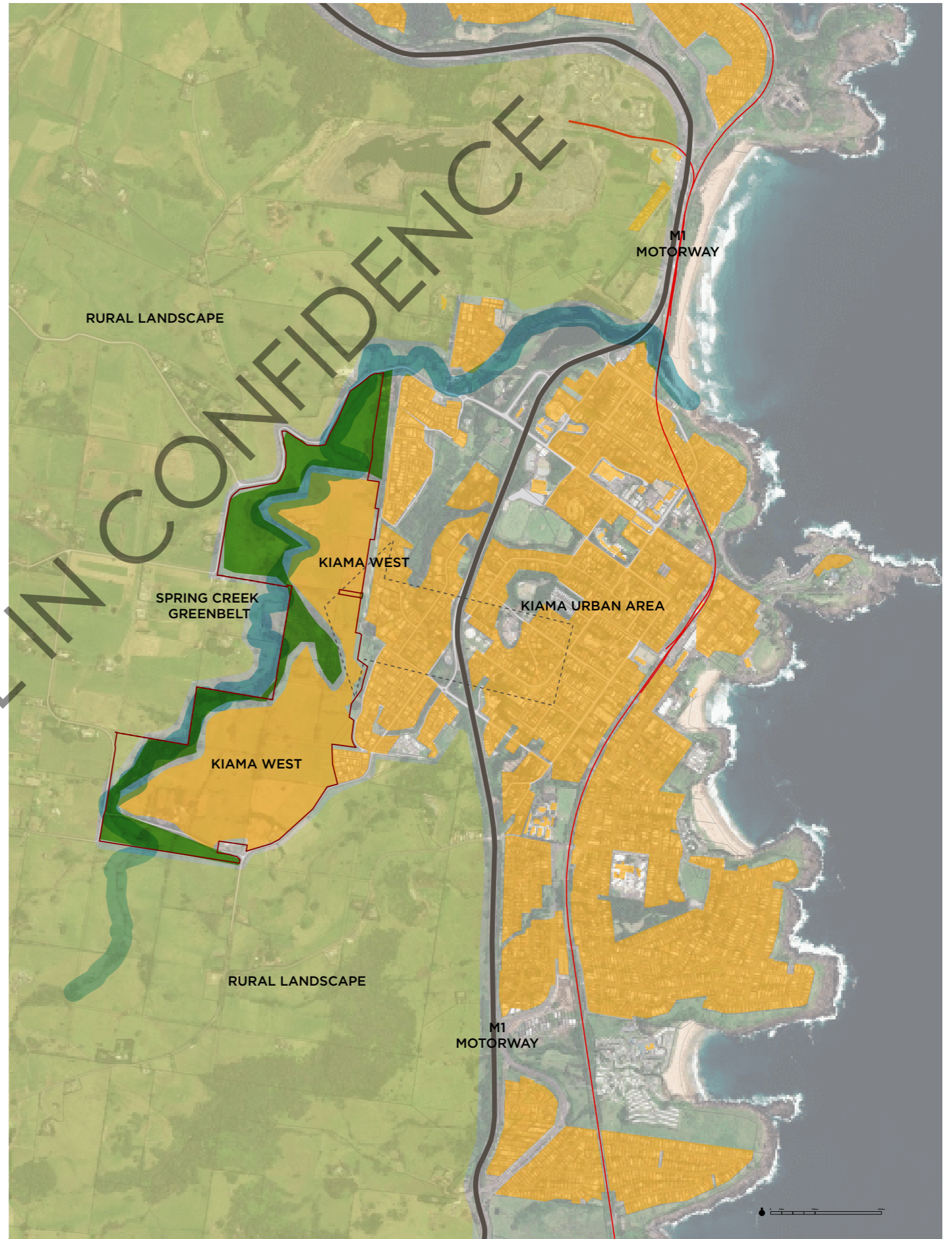
Cultural Landscape (Post 1788)

- Subdivision
- Dry-stone walls
- Creek access

COMMERCIAL IN CONFIDENCE

Strategic Framing of Growth

COMMERCIAL IN CONFIDENCE



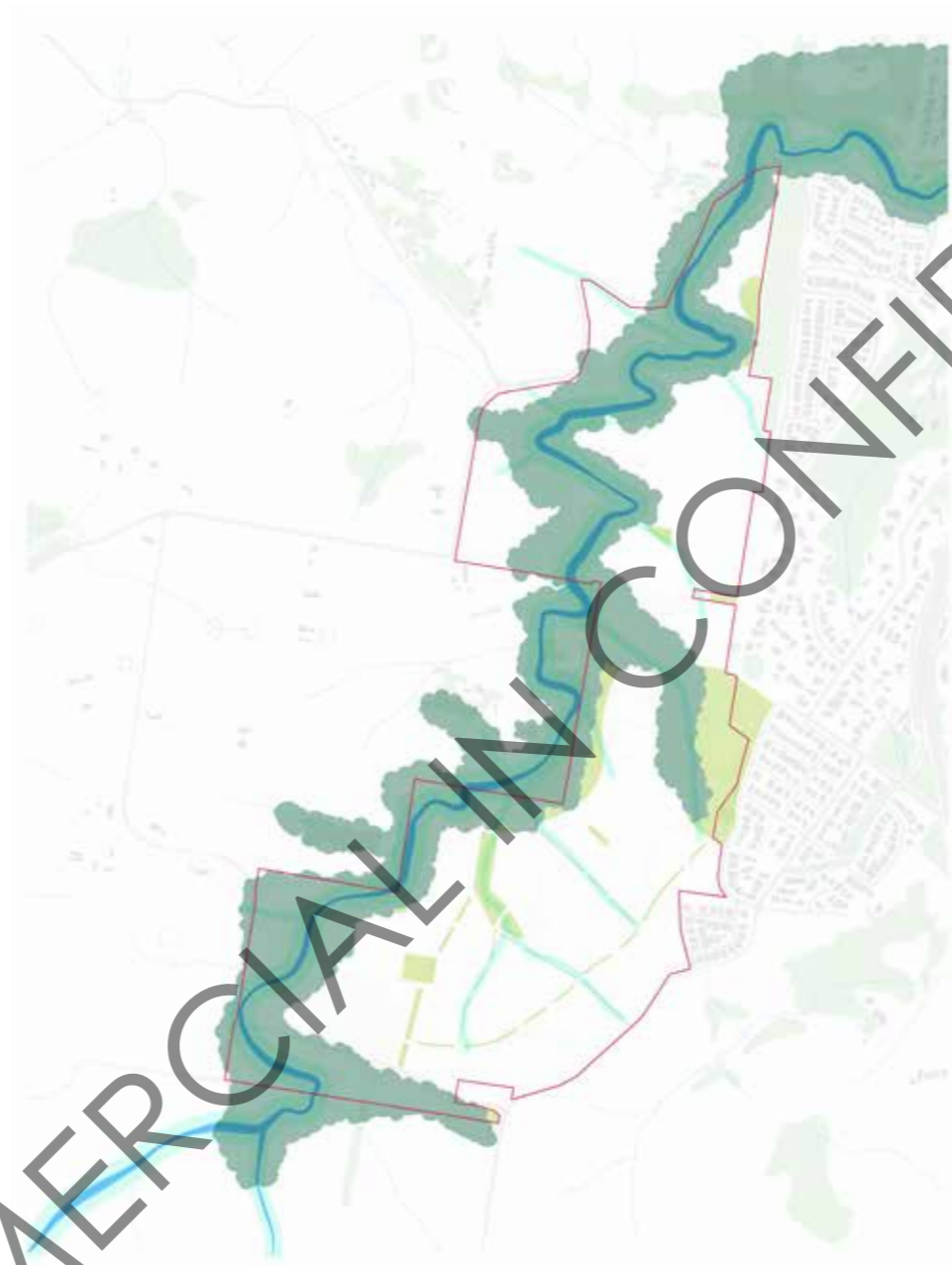
Place Values



Place Structure



Spring Creek



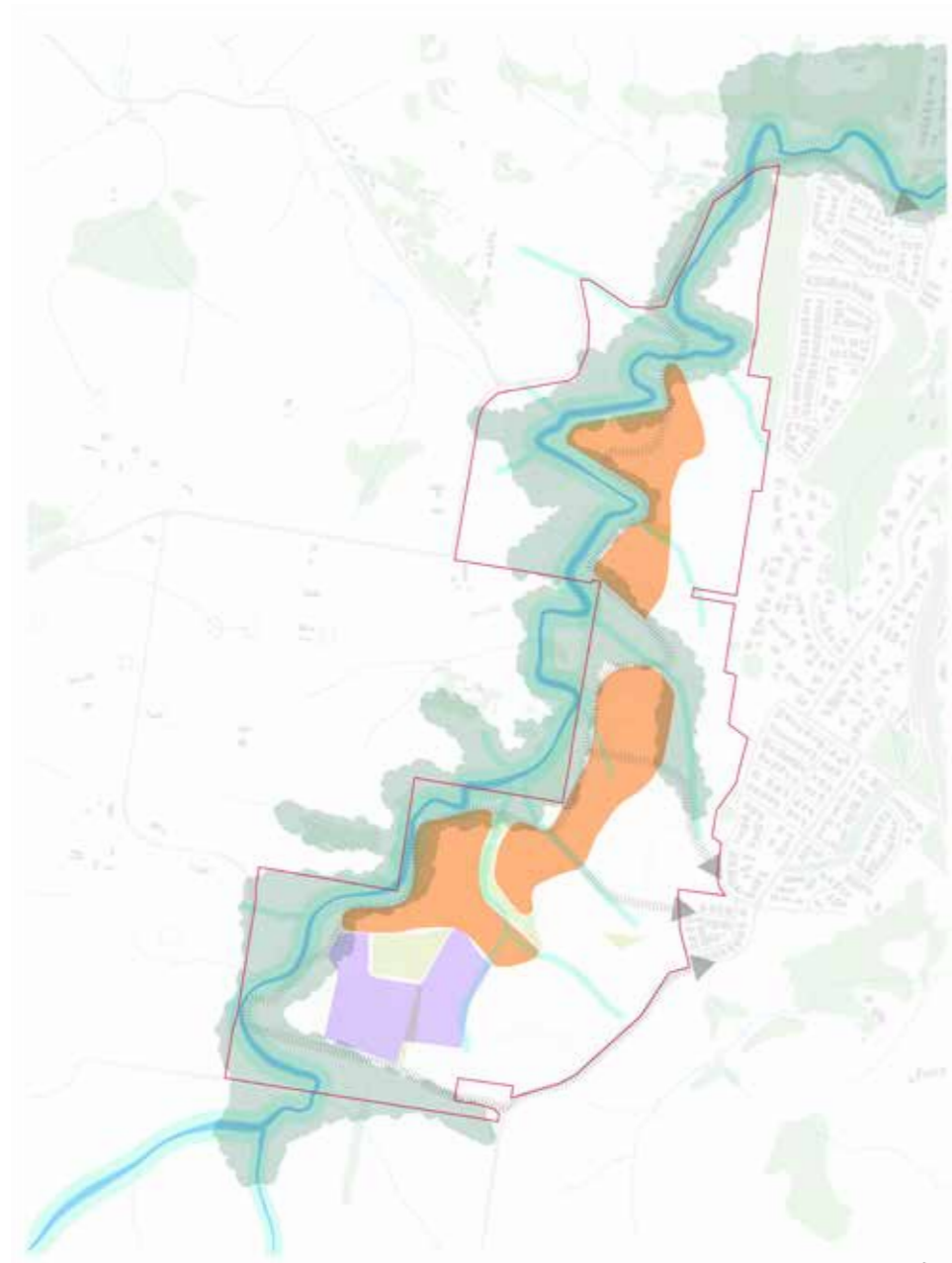
Greenbelt



Structuring Element

New Roads and connections are created to link into the existing settlement of Kiama. Internal circulation is focused along Spring Creek.

COMMERCIAL IN CONFIDENCE



Activation

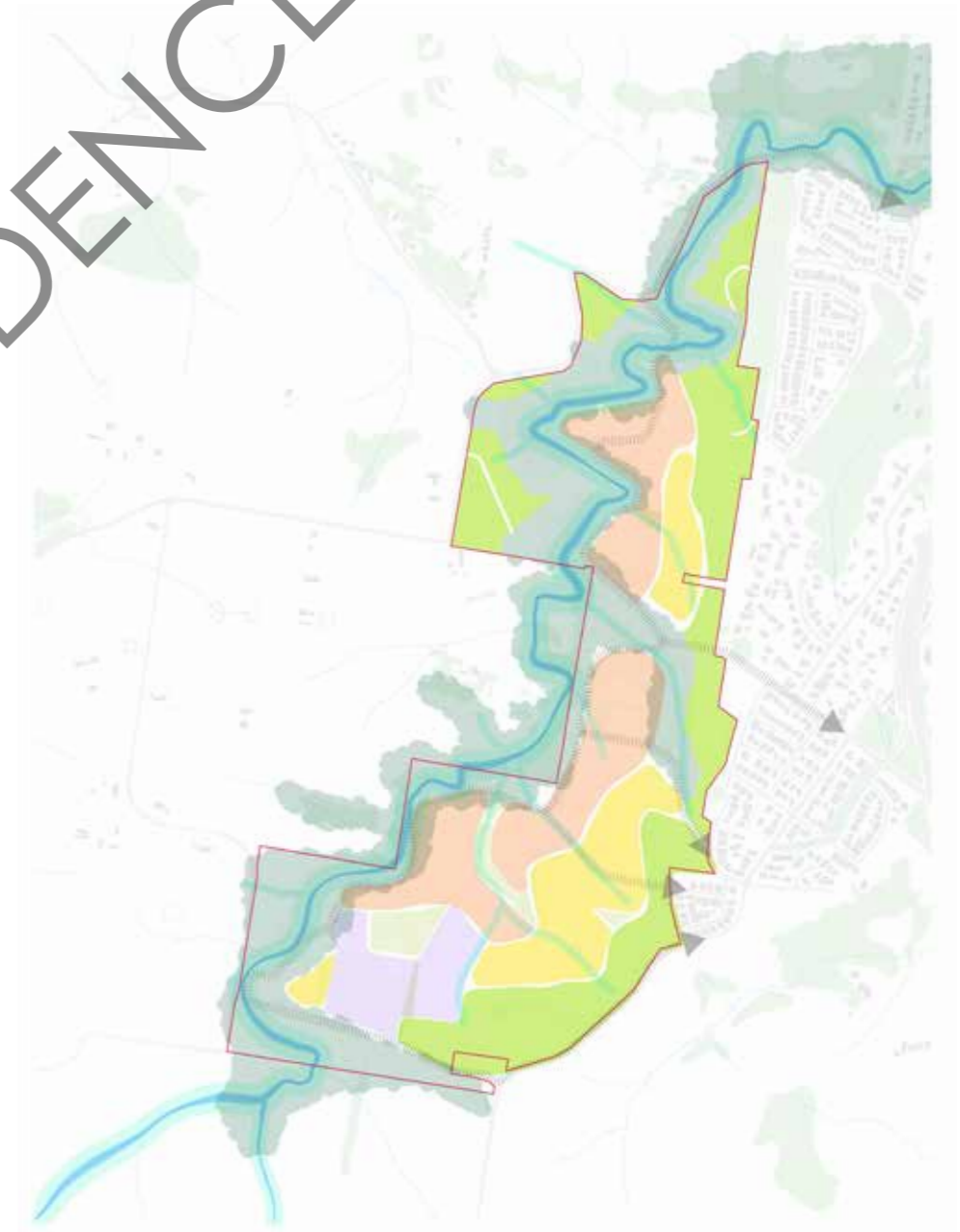
Higher intensity uses are located along Spring Creek, Close to amenity along the valley floor where there is less visual impact.

Opportunities for place activation include, small scale retail, food and beverage with a focus on local produce, hotel and glamping and the potential for a Agricultural College or School.



Edges and Interfaces

Due to the topography of the Site, the edges and interface are visually highly sensitive. Our strategy is to make these areas as open as possible and respond to the particular situation with an appropriate response, be that large lots, open space or other uses that complement the immediate locality, view or vista.



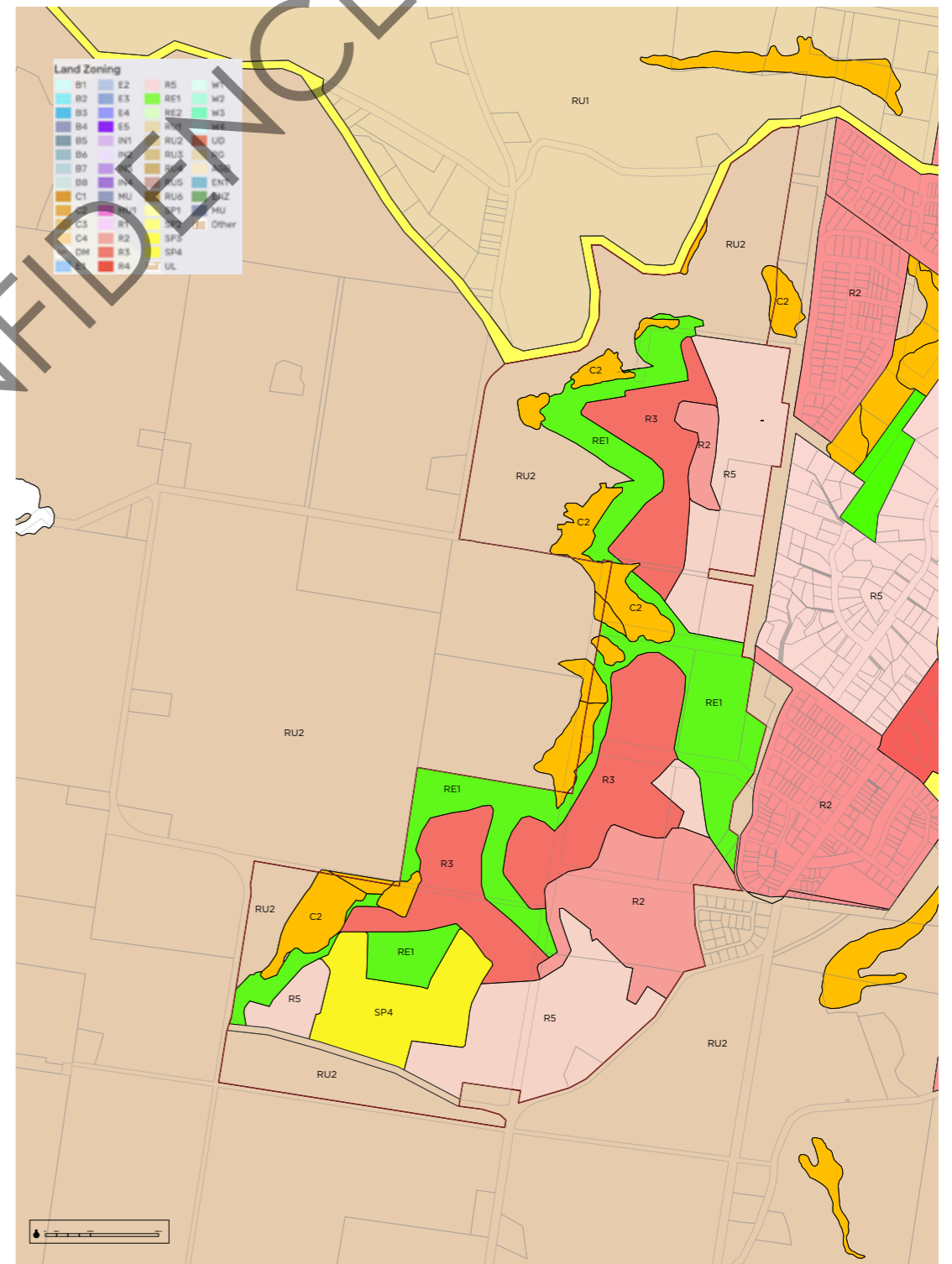
Slopes

The slopes form the transition between the higher intensity uses along Spring Creek and the interface on the Site edges.

The form of the transition zones varies according to the local topography, location of key links and the desire to create nodal points at intersections.

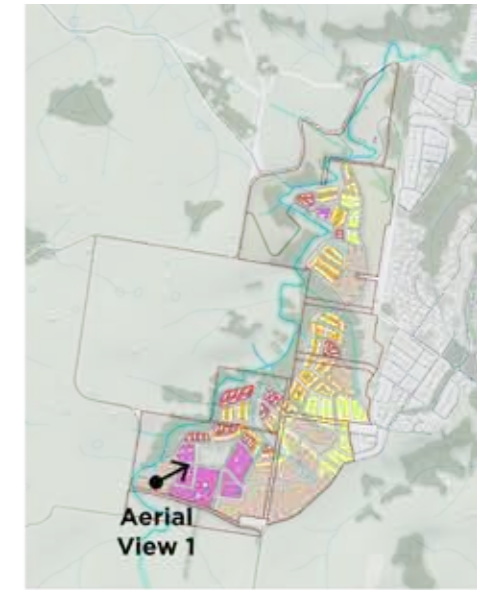
COMMERCIAL IN CONFIDENCE

Preferred Approach



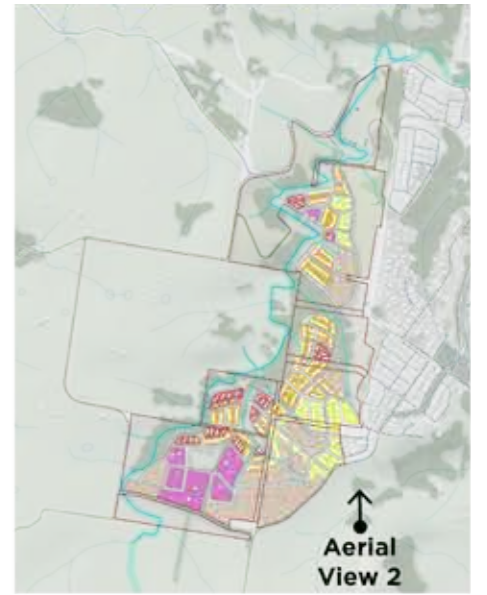
COMMERCIAL IN CONFIDENCE

Preferred Approach

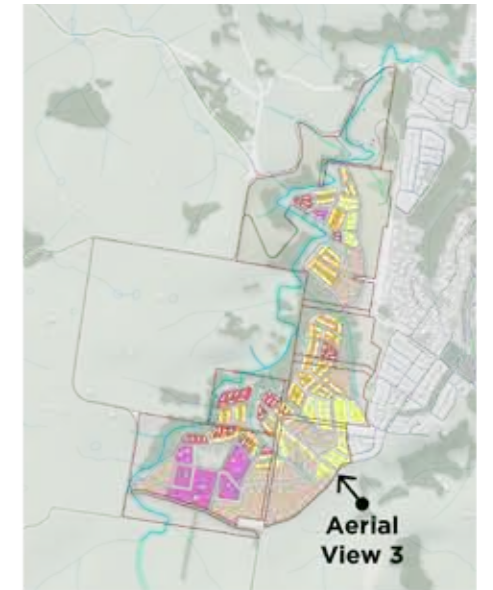


CONFIDENTIAL

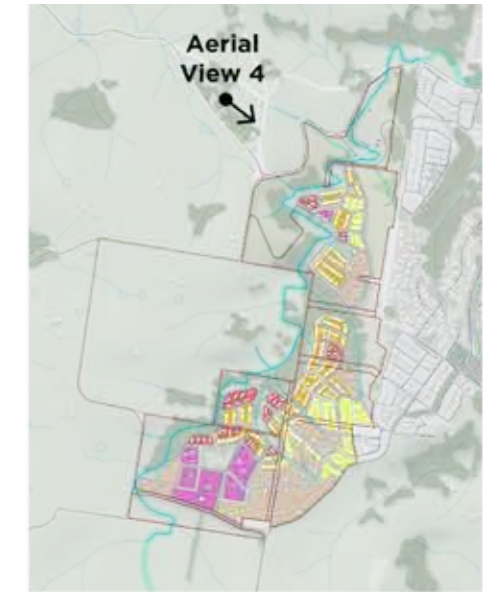
Preferred Approach



Preferred Approach

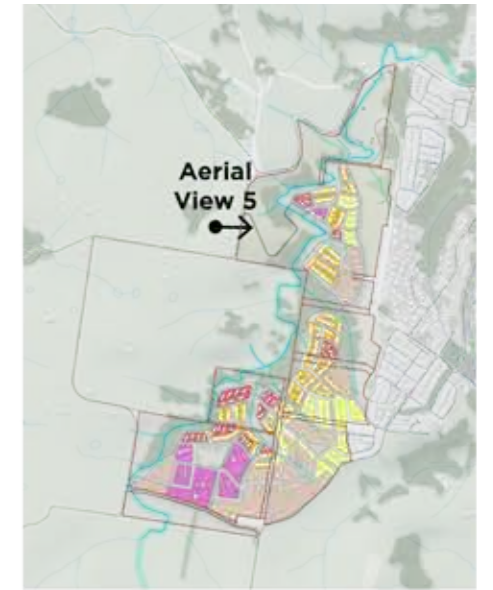


Preferred Approach



COMMERCIAL IN CONFIDENCE

Preferred Approach



COMMERCIAL IN CONFIDENCE

EDUCATION

HORTICULTURE & AGRICULTURE COLLEGE OR INSTITUTE

PROMOTE HORTICULTURE & REGENERATIVE AG INDUSTRIES
ACCOMMODATION ON SITE
RETAIL OUTLETS INCLUDED (PLANT NURSERY, CONFERENCE VENUE & FOOD OUTLETS).



REGENERATIVE AGRICULTURE COLLEGE



HORTICULTURAL COLLEGE & COMMERCIAL FACILITY



COMMERCIAL RETAIL OUTLET



MURESK INSTITUTE WA

TOURISM

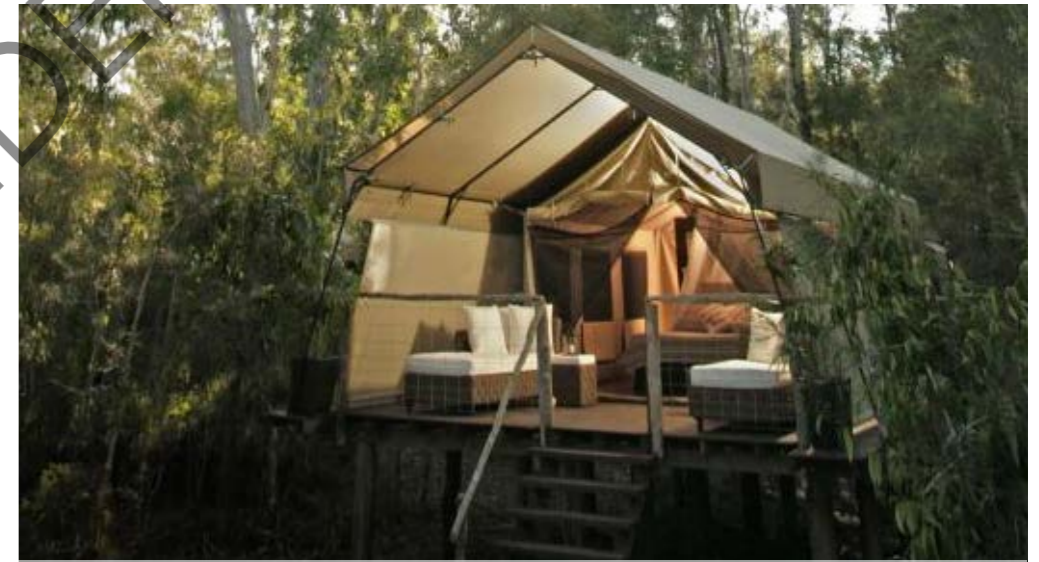
ECO TOURISM (LOW IMPACT)



WOLGAN VALLEY LODGE



FOOD OFFERINGS UTILISE HORTICULTURAL MARKET GARDENS



GLAMPING PAPERBARK CAMP



DAY WALKING



LIGHT WEIGHT & ADAPTIVE TO TERRAIN

RETAIL NODES

LOCAL SERVICES



LOCAL SCALE SHOPS RESPONDING TO VERNACULAR WITH SUPPORTING OPEN SPACE - KANGAROO VALLEY



SMALL SCALE, STRONG ACTIVE TRANSPORT CONNECTIONS (COLLINS ST, KIAMA)



APPROPRIATELY SCALED AND STRONG LOCAL CHARACTER

RESIDENTIAL

LARGE LOTS

LOCATED ALONG TOP OF VALLEY
DESIGNED TO RESPOND TO SLOPING TERRAIN
ORIENTED FOR PRIVACY AND VIEWS
LOW IMPACT WITH AMPLE PRIVATE OPEN SPACE.



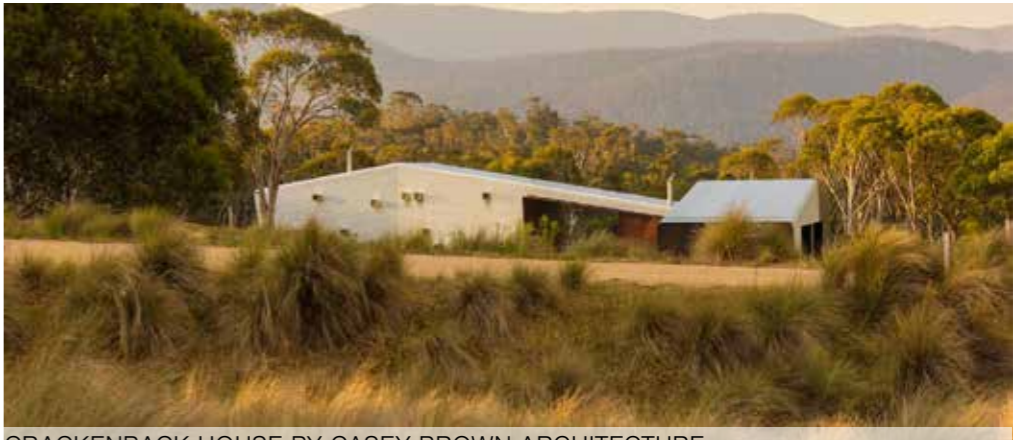
JAMBEROO HOUSE BY CASEY BROWN ARCHITECTURE ARCHITECTURE



HOMESTEAD THEMED HOME ON LARGE RURAL LOT



PROJECT HOME ON LARGE RURAL LOT



CRACKENBACK HOUSE BY CASEY BROWN ARCHITECTURE



RESPOND TO SLOPING TERRAIN

RESIDENTIAL

AFFORDABLE HOUSING ON SMALL LOTS

LOCATED DOWN SLOPE TO PRESERVE VALLEY VIEWS
DESIGNED TO RESPOND TO SLOPING TOPOGRAPHY
ORIENTED FOR PRIVACY AND VIEWS
VISUALLY PERMEABLE OPEN SPACES.



ORIENTED FOR PRIVACY & RESPONDING TO VIEWS



SLOPE HOUSING EXAMPLE



ROSE SEIDLER HOUSE - PARKING UNDER TO REDUCE FOOTPRINT



RESIDENTIAL

LOW DENSITY

LOCATED TO PRESERVE PROMINENT RIDGES AND VIEWS
PLUG ONTO EDGE OF EXISTING DEVELOPMENT
EXTEND ACTIVE TRANSPORT LINKS AND UTILISE EXISTING AND NEW OPEN SPACE RESERVES.



ADJACENT DEVELOPMENT: PROJECT HOMES WITH ROCK WALLS (ASSUMED RELOCATED) - GOOGLE MAPS



ADJACENT DEVELOPMENT: STREET RESPONDS TO TOPOGRAPHY, INCLUDES SHARE PATH - GOOGLE MAPS



ADJACENT DEVELOPMENT: STREET RESPONDS TO ESTABLISHED PALM TREES, INCLUDES SHARE PATH - GOOGLE MAPS