LOCAL PROVISION SCHEDULE AMENDMENT REQUEST

PDPSAMEND-2024-048229

PROPOSAL: Planning Scheme Amendment – Rezone land from Rural Zone to General Residential Zone

LOCATION: 21 Matipo Street, Risdon Vale

RELEVANT PLANNING SCHEME: Tasmanian Planning Scheme - Clarence

ADVERTISING EXPIRY DATE: 18 August 2025

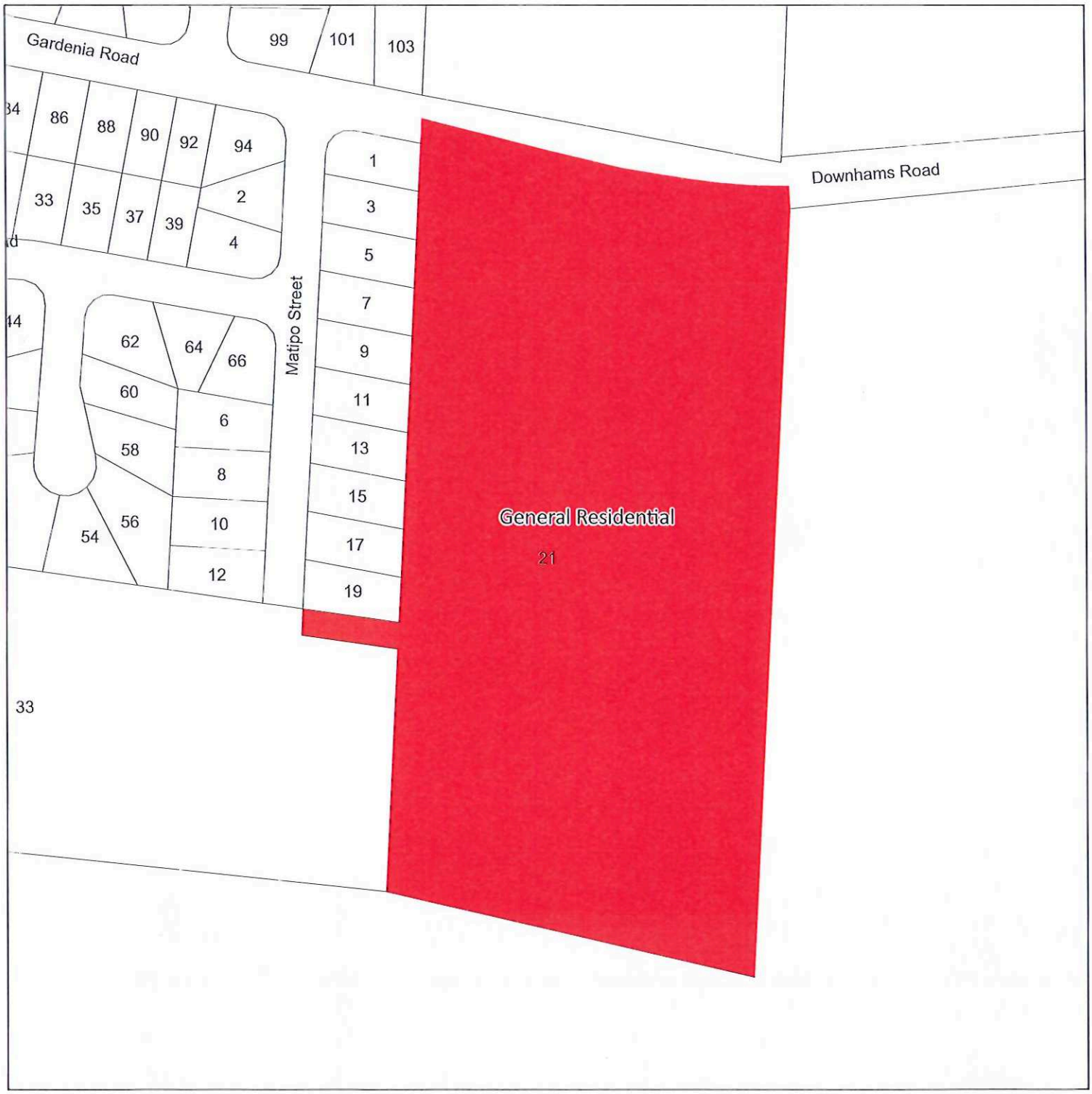
The relevant plans and documents can be inspected at the Council offices, 38 Bligh Street, Rosny Park, during normal office hours until 18 August 2025. In addition plans and documents can also be viewed and downloaded at www.ccc.tas.gov.au.

Any person may make representations about the application to the Chief Executive Officer, by writing to PO Box 96, Rosny Park, 7018 or by electronic mail to clarence@ccc.tas.gov.au. Representations must be received by Council on or before 18 August 2025.

To enable Council to contact you if necessary, would you please also include contact details in any correspondence you may forward.

Any personal information submitted is covered by Council's privacy policy, available at www.ccc.tas.gov.au or at the Council offices.

Tasmanian Planning Scheme - Clarence
Draft Amendment



AMENDMENT TO LOCAL PROVISION SCHEDULE MAPPING PDPSPAMEND-2024/048229

To amend the Tasmanian Planning Scheme - Clarence Local Provision Map by rezoning 21 Matipo Street, Risdon Vale from Rural Zone to General Residential Zone.

THE COMMON SEAL OF THE CLARENCE CITY COUNCIL HAS BEEN HEREUNTO AFFIXED THIS 10th DAY OF JULY 2025, PURSUANT TO A RESOLUTION OF THE COUNCIL PASSED THE 7th DAY OF JULY 2025 IN THE PRESENCE OF:

CHIEF EXECUTIVE OFFICER

Scale 1:2,000 (at A4)

Clarence City Council

APPLICATION FOR PLANNING SCHEME AMENDMENT

Clarence... a brighter place

*The personal information on this form is required by Council for the amendment of a planning scheme under the Land Use Planning and Approvals Act 1993. We will only use your personal information for this and other related purposes. If this information is not provided, we may not be able to deal with this matter. You may access and/or amend your personal information at any time. How we use this information is explained in our **Privacy Policy**, which is available at www.ccc.tas.gov.au or at Council offices.*

Amendment Details:

Type of Amendment: Change to Maps [X] Change to Ordinance [ ]

Description of Amendment: Rezoning outside of the Urban Growth Boundary

Location: *(if applicable)*
Address 21 Matipo Street
Suburb/Town Risdon Vale *Postcode* 7016

Current Owner/s: *(if applicable)*
Name/s (Mr/Mrs/Ms) Matipo Twenty One Pty Ltd

Is a related application for development or subdivision also being submitted in accordance with Section 43A of the Land Use Planning and Approvals Act 1993? Yes: [ ] No: [X]

Applicant:

Personal Information Removed

If you have had pre-application discussions with a Council Officer, please give their name. Indra Boss

Declaration:

- *I have read the Certificate of Title and Schedule of Easements for the land and am satisfied that this application is not prevented by any restrictions, easements or covenants.*
- *I authorise the provision of a copy of any documents relating to this application to any person for the purposes of assessment or public consultation. I agree to arrange for the permission of the copyright owner of any part of this application to be obtained. I have arranged permission for Council's representatives to enter the land to assess this application.*
- *In accordance with Section 33(2A)) of the Land Use Planning and Approvals Act 1993, the written consent of the owners to the making of the request is attached.*
- *I declare that the information in this information is true and correct.*

Applicant's Signature:

Signat

Personal Information Removed

Date 04 November 2024

PLEASE SEE CHECKLIST OVER PAGE /...

Clarence City Council

PLANNING SCHEME AMENDMENT CHECKLIST

Clarence... a brighter place

To ensure that we can process your application as quickly as possible, please read the following checklist carefully and ensure that you have provided all the necessary information. If you are unclear on any aspect of your application, please contact our Development Appraisal Officers on 62179550 to discuss or arrange an appointment concerning your proposal.

All requests for Amendments require the following to be provided at the time of submitting the application. However, upon assessment, it may be necessary for additional information to be further requested.

☒ A completed Application for Planning Scheme Amendment form. Please ensure that this form is completely filled out with the applicant's correct address and contact details, is signed and dated.

☒ 2 copies of a written submission supporting the amendment including:

- *Detailed description of the requested amendment identifying the extent of its application.*
- *Consideration of the Objectives of the Land Use Planning and Approvals Act 1993.*
- *Consideration of the relevant provisions of the Planning Scheme such as the Intents, Development Principles, Objectives and detailed provisions of the zone.*
- *Strategic impact of the proposal such as alternative uses, flow on development and cumulative impacts.*

☒ A current copy of the Certificate of Title of all properties involved (if applicable) containing the:

- *Search Pages.*
- *Plans, Sealed Plans or Diagrams.*
- *Any Schedules of Easements, Covenants, Council Notifications, and Conditions of Transfer.*

☐ Application fees. *(please phone 62179550 to determine what fees apply)*

Planning Report

Rezoning outside of the Urban Growth Boundary
21 Matipo Street

For Matipo 21 Pty Ltd
October 2024

Appendix A - Title information

Appendix B – Revised Zoning Plan

Appendix C – Draft Subdivision Plans

Appendix D – Concept Services Layout

Appendix E – Aboriginal Heritage Assessment Report

Appendix F – Natural Values Assessment

Appendix G – Traffic Impact Assessment

Appendix H – Risdon Vale Land Supply Assessment and Map

Appendix I - TasPopp2024

Appendix J – Owners Consent

VERSION CONTROL					
Version	**Description**	**Author**		**Reviewer**	
1.0	Draft Report	PC	18/10/24	MC	18/10/24
2.0	Planning report for issue to Client	PC	23/10/24	MC	23/10/24
3.0	For Submission to Council	PC	29/10/24	MC	29/10/24

Executive Summary

This report has been prepared in support of a Section 37 application under the *Land Use Planning and Approvals Act 1993* (the Act) for a proposed amendment to the Clarence Local Provisions Schedule for rezoning the land at 21 Matipo Street.

The site is currently zoned Rural, and is subject to a medium landslip hazard band, airport obstacle limitation area, waterway and coastal protection area, priority vegetation area, flood-prone area, and bushfire-prone area. The site is outside the Urban Growth Boundary (UGB) under the Southern Tasmanian Regional Land Use Strategy (STRLUS).

The proposed scheme amendment involves re-zoning the whole site (4.1873ha) from Rural to General Residential. By rezoning this site to General Residential it will allow for a potential of 51-54 residential lots.

The amendment will rely on provision SRD2.12 of the Regional Land Use Strategy which enables rezoning outside the Urban Growth Boundary under certain circumstances. SRD2.12 was amended in May 2023 to increase the supply of residential land outside the existing Urban Growth Boundary, to help address the supply shortfall prior to a full review and update of the STRLUS and UGB, where the rezoning is justifiable with regard to the context of the immediate area.

Based on the ABS census data these was a shortfall of approximately 2,900 dwellings over the 2016-2021 period (excluding caravans, cabins, boats etc). The Greater Hobart Plan forecasts a need for 6,600 greenfield dwellings in Clarence by 2050. The Greater Hobart Plan however used the 2016 Department of Treasury and Finance Growth Projections and since its release the Department of Treasury and Finance Projections (TasPOPP 2024) have been released. Based on these more recent projections, the GHP now underpredicts the growth in Clarence by 0.4% per annum over 30 years, equating to a total of approximately 9000 persons, or 4500 dwellings.

In supplying these dwellings, there should be a focus on logical expansions of existing settlements where those expansions are serviced by existing trunk mains and collector roads. This site has access to road, water, sewer and stormwater and is designated as serviced for water and sewer under the TasWater's LISTmap overlays. However, there are upgrades required to Downhams Road, the water main supply and the local stormwater systems to facilitate development on the site.

This report demonstrates that the rezoning proposal is consistent with the objectives of the *Land Use Planning and Approvals Act 1993* (LUPAA) and the *State Policies and Projects Act* 1993. The report also demonstrates that the proposal is in accordance with the Strategic Directions and Regional Policies identified within the Southern Tasmanian Regional Land Use Strategy

1. Background

The Urban Growth Boundary (UGB) is spatially defined in the Southern Tasmanian Regional Land Use Strategy 2010-2035 (STRLUS) and was primarily established for the purpose of setting a physical extent for the 20-year supply of residential land in the greater metropolitan area. Additionally, the purpose of the UGB is to include land for other urban functions (i.e. commercial and industrial development) as well as pockets of open space and recreational land that assist in providing urban amenity.

The STRLUS is one of three regional land use strategies for Tasmania, providing strategic direction for the southern area of the state which encompasses twelve local government municipalities, including Clarence (the municipal area of the subject site). The purpose of the Strategy is to provide a linkage between the objectives of Tasmania's Resource Management and Planning System as outlined in Schedule 1 of the *Land Use Planning and Approvals Act 1993* (LUPAA); the State Policies established under the *State Policies and Projects Act 1993*; and Tasmanian Planning Policies within the current interim and future Tasmanian planning schemes.

The aim of the STRLUS is to deliver sustainable settlements integrated with services and infrastructure, that are complemented by built and open space environments. The STRLUS and all other regional land use strategies are currently implemented in the land use planning system through statutory zoning and planning provisions in interim planning schemes. The regional land use strategies are given legal effect through Section 5A of LUPAA.

On 17 May 2023, the Minister for Planning declared an amended Southern Tasmania Regional Land Use Strategy (STRLUS) in accordance with section 5A(4) of the Land Use Planning and Approvals Act 1993. The amendments made to the STRLUS included additional sites within the Urban Growth Boundary (UGB) and an amendment to regional policy SRD 2.12.

The amendment to Regional Policy SRD 2.12 enables Councils and the Tasmanian Planning Commission greater flexibility in considering the planning merit of proposals to rezone land for urban purposes which are outside, but immediately adjacent to, the UGB.

2. Site Location and Context

The subject site is located at 21 Matipo Street, Risdon Vale (Figure 1), hereafter referred to as the site. The site is located immediately east of the perimeter of the Urban Growth Boundary which encompasses the existing urban settlement in Risdon Vale. The site has an area of 4.1873ha.

There are two dwellings on the site, as well as a number of outbuildings. The land is partially vegetated with *Eucalyptus amygdalina* forest and woodland on mudstone, and otherwise consists of grassed areas remnant of historic uses. Predominately, the land falls to the north at grades between 8% and 15%. The southernmost part of the block encompasses a part of a ridge, and so also falls to the south and west (Figure 2).

Figure 1: Subject Site (Source: LISTmap, accessed July 2024 - annotated).

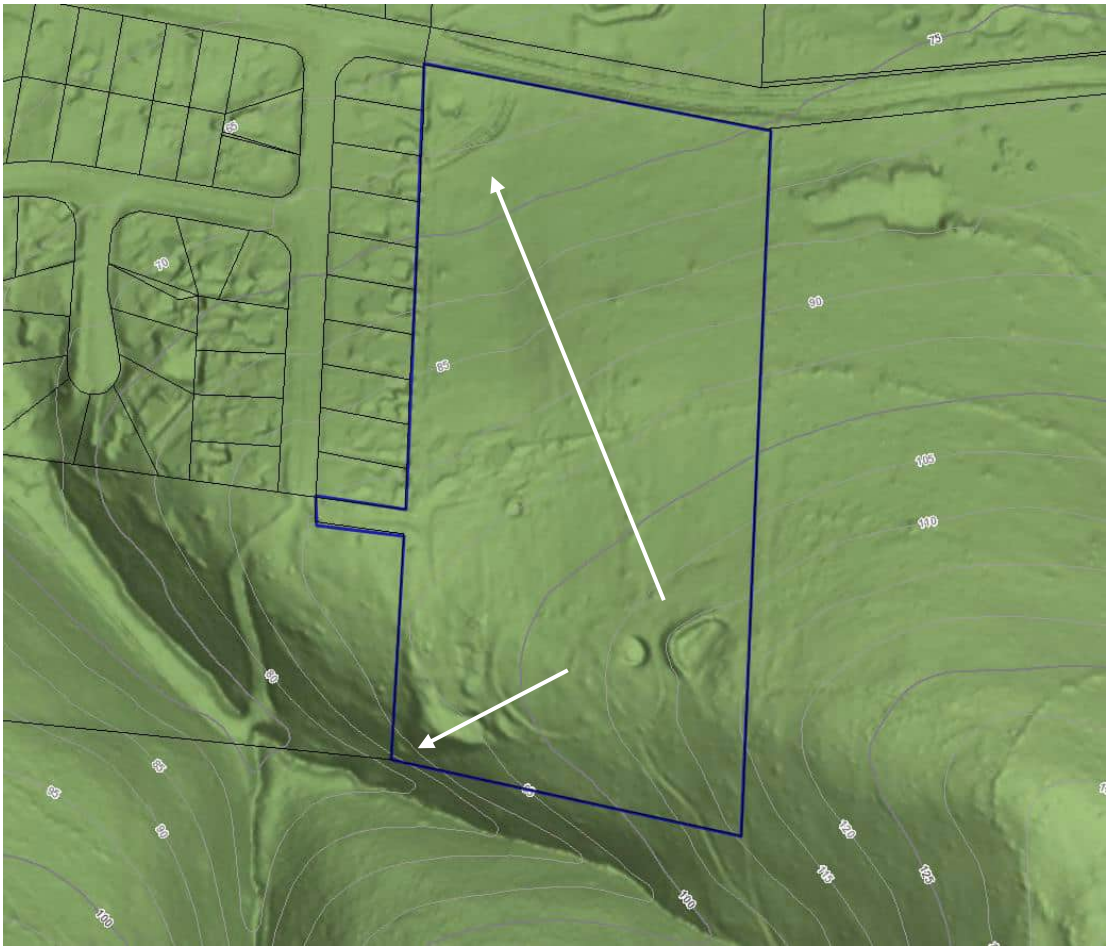


Figure 2: Elevation and contours of the site, showing predominate fall in arrows. (Source: LISTmap, accessed September 2024 - annotated).

The site benefits from proximity to existing services and infrastructure within the locality of Risdon Vale. The site is within a commutable distance to Glenorchy via the Bowen Bridge, Hobart via the Tasman Bridge, and other major employment locations on Hobart's eastern shore.

Title information is included as Appendix A.

2.1. The Local Area

Risdon Vale comprises a mix of urban land uses and development, as well as the foothills of the Meehan range, with tributaries feeding into the Risdon Vale Creek. Risdon Vale can be defined to the north by Scotts Road, to the east by the Meehan Range, to the south by Sugarloaf Road, and to the west by the East Derwent Highway.

In the centre of Risdon Vale, the community is served by parks, a Primary School, oval, and businesses including a fuel station, local grocer, café, and pharmacy. Risdon Vale also includes the Risdon Prison Complex which is a substantial use and development within the locality, though somewhat at the periphery.

The area is well served by public transport which provides linkages across the Principal Activity Centres of Glenorchy and Rosny Park.

Risdon Vale is situated within the Clarence City Council municipal area, and has a population of approximately 3,171 as of the 2021 census. An outline of the site relative to key facilities within the locality can be seen at Figure 3.

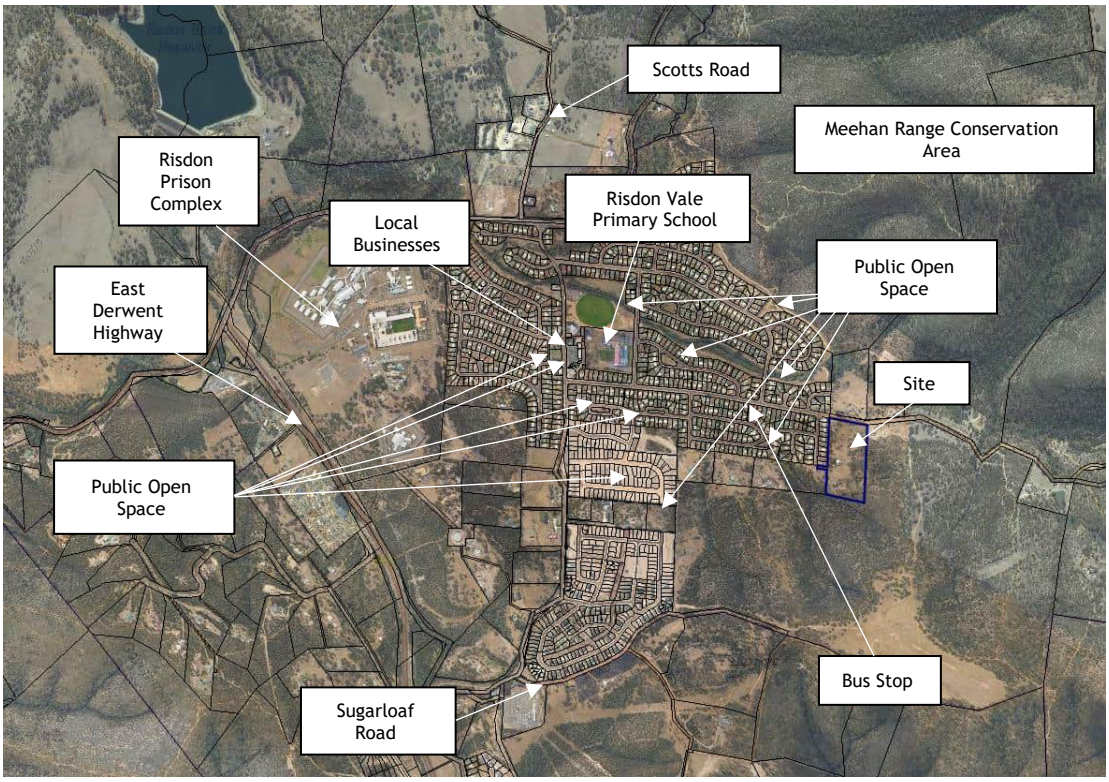


Figure 3: Site relative to the local area and key facilities (Source: LISTmap, accessed September 2024 - annotated).

3. Planning Scheme Amendment

The proposed scheme amendment involves re-zoning the site from the Rural Zone to General Residential. The existing and proposed zoning is shown at Figure 4 below.

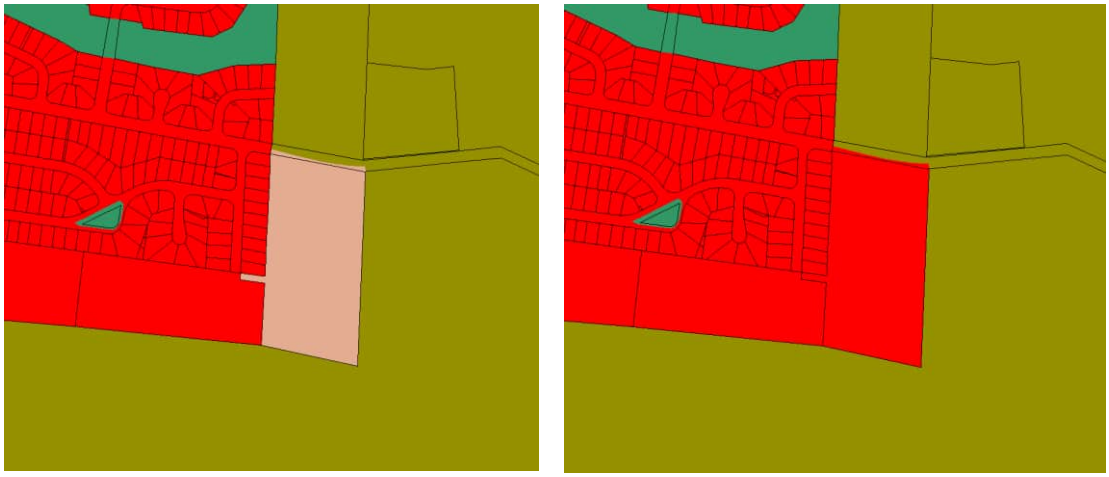


Figure 4: Existing Zoning (left) and proposed (right) (source: MC Planners, compiled from LISTmap September 2024).

The rezoning is outside the Urban Growth Boundary under the Southern Tasmanian Regional Land Use Strategy, and so consideration under SD 2.12 of that strategy is required.

3.1. Alternatives

In preparing the proposed amendment, some consideration has been given to alternatives for the site. Generally the consideration of alternatives are:

- **A zone other than a residential zone:**

  Response: there is presently a high demand for residential land in proximity to existing services. To apply a zone which does not have the purpose of providing for residences would fail to capitalise on the proximity to existing services, and does not address the shortfall in housing supply. Further, a non-residential zone would likely be conducive to land use conflict with the adjoining properties presently zoned General Residential.

  The site is also not considered to possess landscape qualities sufficient to warrant inclusion in the Landscape Conservation Zone.

- **Low Density Residential Zone**:

  Response: The purpose of the Low Density Zone is to provide for residential uses where there are environmental or infrastructure constraints. An analysis of the subdivision potential for the site has resulted in a potential lot yield to a higher density is available and so in the absence of a real limitation, the General Residential Zone is to be preferred over the Low Density Residential Zone.

- **Applying a Specific Area Plan:**

Response: A Specific Area Plan (SAP) was considered but not included, as the requirements to comply with SRD2.12 and S32(4) of LUPAA were diametrically opposed. Inclusion of a SAP is also considered unnecessary given the small scale of the site and the need for flexibility in the final outcome based on Council public open space and stormwater requirements.

3.2. Use Implications

Current versus proposed uses

The proposed rezoning will have implications for the use of the site.

Table 1 compares the current permit requirements with those under the zoning of General Residential.

Table 1: Comparison of uses Rural to General Residential Zone

Status	Rural Zone (current)	General Residential Zone (proposed)
No Permit Required	Natural and cultural values Passive Recreation Resource development Utilities	Natural and Cultural Values Management Passive Recreation Residential If for a single dwelling. Utilities If for minor utilities.
Permitted	Business and Professional Services If for: (a) a veterinary centre; or (b) an agribusiness consultant or agricultural consultant Domestic Animal Breeding, Boarding or Training Educational and Occasional Care If associated with Resource Development or Resource Processing Emergency Services Extractive Industry Food Services If associated with Resource Development or Resource Processing. General Retail and Hire If associated with Resource Development or Resource Processing. Manufacturing and Processing If for the processing of materials from Extractive Industry. Pleasure Boat Facility If for a boat ramp. Research and Development If associated with Resource Development or Resource Processing. Residential If for: (a) a home-based business in an existing dwelling; or (b) alterations or extensions to an existing dwelling. Resource Processing	Residential (if not listed as no permit required) Visitor accommodation

	Storage If for: (a) a contractors yard; (b) freezing and cooling storage; (c) grain storage; (d) a liquid, solid or gas fuel depot; or (e) a woodyard. Utilities If not listed as No Permit Required. Visitor Accommodation If for guests accommodated within an existing building	
Discretionary	Bulky Goods Sales If for: (a) a supplier for Extractive Industry, Resource Development or Resource Processing; (b) a garden and landscaping materials supplier; (c) a timber yard; or (d) rural supplies. Business and Professional Services If not listed as Permitted. Community Meeting and Entertainment Crematoria and Cemeteries Custodial Facility Educational and Occasional Care If not listed as Permitted. Food Services If not listed as Permitted. General Retail and Hire If not listed as Permitted. Manufacturing and Processing If not listed as Permitted. Motor Racing Facility Pleasure Boat Facility If not listed as Permitted. Recycling and Waste Disposal Research and Development If not listed as Permitted. Residential If for a single dwelling and not restricted by an existing agreement under section 71 of the Act. Service Industry If associated with Extractive Industry, Resource Development or Resource Processing. Sports and Recreation Storage If not listed as Permitted. Tourist Operation Transport Depot and Distribution	Business and Professional Services If for a consulting room, medical centre, veterinary centre, child health clinic, or for the provision of residential support services. Community Meeting and Entertainment If for a place of worship, art and craft centre, public hall, community centre or neighbourhood centre. Educational and Occasional Care If not for a tertiary institution. Emergency Services Food Services If not for a take away food premises with a drive through facility. General Retail and Hire If for a local shop. Sports and Recreation If for a fitness centre, gymnasium, public swimming pool or sports ground. Utilities If not listed as No Permit Required.

	Visitor Accommodation If not listed as Permitted	
Prohibited	All other uses.	All other uses.

An analysis of uses in the Rural zone demonstrates that the proposed rezoning from Rural to General Residential will facilitate uses more likely to be undertaken in harmony with the immediately adjacent General Residential Zone area, and which can benefit from and support social infrastructure.

The current Rural Zone affords uses more likely to cause land use conflict with those dwellings in the adjoining General Residential zone. With respect to a future rezoning creating an interface between the Landscape Conservation Zone and General Residential Zone, these zones are largely complementary in that landscape values can provide a backdrop to urban development, provided bushfire risks are managed.

Relevant Use & Development Standards – General Residential Zone

All use and development will be subject to the provisions of the underlying zone.

4. Legislative Implications

4.1. Land Use Planning and Approvals Act 1993

Section 32

Section 32 of the *Land Use Planning and Approvals Act 1993* (LUPAA) outlines the requirements for amending a Local Provisions Schedule.

Table 2: Division 2 Section 32 - Contents of LPSs Contents of LPSs

Requirement	Amendment Response
(1) An LPS is to consist of provisions that apply only to a single municipal area specified in the LPS.	*The proposal is to apply only to the municipal area of Clarence.*
(2) An LPS *(a) Must specify the municipal area to which its provision apply and* *(b) must contain a provision that the SPPs require to be included in an LPS; and* *(c) must contain a map, an overlay, a list, or another provision, that provides for the spatial application of the SPPs to land, if required to do so by the SPPs; and* *(d) may, subject to this Act, contain any provision in relation to the municipal area that may, under section 11 or 12 , be included in the Tasmanian Planning Scheme; and* *(e) may contain a map, an overlay, a list, or another provision, that provides for the spatial application of the SPPs to particular land; and*	*(2)-* *(a) Municipality of Clarence specified in* CLA-1.1. *(b) The required clauses are under CLA1.1 and CLA 1.2.* *(c) Spatial maps of the rezoning and overlay changes are provided.* *(d) No provision is proposed.* *(e) Spatial maps of the rezoning and are provided.* *(f) No provisions are proposed which affect the Contents of Planning Schemes or Existing Use Rights or the provisions.* *(g) The proposal is for an amendment to the Zone only.*

(f) must not contain a provision that is inconsistent with a provision of section 11 or 12 ; and *(g) may designate land as being reserved for public purposes; and* *(h) may, if permitted to do so by the SPPs, provide for the detail of the SPPs in respect of, or the application of the SPPs to, a particular place or matter; and* *(i) may, if permitted to do so by the SPPs, override a provision of the SPPs; and* *(j) may, if permitted to do so by the SPPs, modify, in relation to a part of the municipal area, the application of a provision of the SPPs; and* *(i) may, subject to this Act, include any other provision that –* *(ii) is not a provision of the SPPs or inconsistent with a provision of the SPPs; and* *(k) is permitted by the SPPs to be included in an LPS; and* *(l) must not contain a provision that the SPPs specify must not be contained in an LPS.*	*(h) No specific provisions are proposed.* *(i) No provisions overriding SPP provisions are proposed.* *(j) No provisions overriding SPP provisions are proposed.* *(k) Rezoning and overlays are permitted for inclusion in the LPS.* *(l) No provisions of the sort are proposed.*
(3) Without limiting subsection (2) but subject to subsection (4) , an LPS may, if permitted to do so by the SPPs, include – *(a) a particular purpose zone, being a group of provisions consisting of –* *(i) a zone that is particular to an area of land; and* *(ii) the provisions that are to apply in relation to that zone; or* *(b) a specific area plan, being a plan consisting of –* *(i) a map or overlay that delineates a particular area of land; and* *(ii) the provisions that are to apply to that land in addition to, in modification of, or in substitution for, a provision, or provisions, of the SPPs; or* *(c) a site-specific qualification, being a provision, or provisions, in relation to a particular area of land, that modify, are in substitution for, or are in addition to, a provision, or provisions, of the SPPs.*	*(3)* *(a) No Particular Purpose Zone is proposed,* *(b) No Specific Area Plan is proposed* *(c) No Site-Specific Qualification is proposed.*

(4) An LPS may only include a provision referred to in subsection (3) in relation to an area of land if – *(a) a use or development to which the provision relates is of significant social, economic or environmental benefit to the State, a region or a municipal area; or* *(b) the area of land has particular environmental, economic, social or spatial qualities that require provisions, that are unique to the area of land, to apply to the land in substitution for, or in addition to, or modification of, the provisions of the SPPs.*	*(4) No PPZ, SAP or SSQ is proposed.*
(5) An LPS must be in accordance with the structure, if any, that is indicated, or specified, in the SPPs to be the structure to which an LPS is to conform.	*(5) The revised zoning is in accordance with spatial guidelines; where the zoning accords to the cadastre (with the exception of road centrelines).*
(6) A provision of an LPS must be in the form, if any, that the SPPs indicate a provision of an LPS is to take.	*(6) No provisions are proposed.*
(7) A provision of an LPS in relation to a municipal area is not to be taken to have failed to comply with this section, or to be inconsistent with a provision of the SPPs, by reason only that it is inconsistent with a provision of the SPPs that has not come into effect in relation to the municipal area.	*(7) Not applicable.*

Objectives of LUPAA.

Schedule 1 of LUPAA outlines the objectives of the Resource Management and Planning System of Tasmania, as well as the Objectives of the Planning Process established by that Act. Section 5 requires that the objectives of the Act are to be furthered in any decision making under that Act. Table 4.1 provides an assessment of the proposed amendment against the objectives of the RMPS, and the planning process established by the Act.

Table 3: Schedule 1, Part 1 Objectives of LUPAA.

Part 1	Amendment Response
(a) *To promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity; and*	The proposal is considered to constitute sustainable development. Converting an underutilised rural parcel at the edge of the urban growth boundary is a conservative means of providing new houses for existing settlements at suburban densities. The site is serviceable. The proposal (by virtue of the natural values assessment) would minimise impacts upon high biodiversity values through a subdivision design which integrates bushfire hazard management into the proposed road and lot layout.

(b) *To provide for the fair, orderly and sustainable use and development of air, land and water; and*	The proposal is considered to be an orderly extension of an existing residential area into land which has been zoned for a purpose unlikely to be fulfilled. Though it is acknowledged that a large portion of Risdon Vale is set aside as Future Urban, this land is constrained by virtue of slope, natural hazards and natural values present. 21 Matipo Street however is subject to consideration of the feasibility of residential development prior to seeking an amended zone and this understanding of the site prior to the rezoning constitutes orderly development.
(c) *to encourage public involvement in resource management and planning; and*	The public will be involved in this process at various stages, including when the proposed planning scheme amendment is placed upon public exhibition. Owners of the adjoining properties at 1 and 18 Downhams and 33 Matipo have been contacted regarding provision of services or bushfire maintenance over that land.
(d) *both to facilitate economic development in accordance with the objectives set out in paragraphs (a), (b) and (c); and*	The proposal would facilitate short-term economic development in the local and surrounding area, by setting land aside for the construction of housing (subject to a subdivision). The construction of the proposed subdivision would provide employment and generate revenue for associated suppliers. The presence of a workforce on the site would have positive benefits for nearby businesses. A subdivision involving the creation of an indicative 51-54 residential lots and associated infrastructure such as roads and services would also generate activity in the local civil construction and design industries. In the medium term, additional residents into Risdon Vale will create economic activity within the Local activity centre.
(e) *to promote the sharing of responsibility for resource management and planning between the different spheres of Government, the community and industry in the State.*	The proponent has consulted extensively with Clarence City Council, undertaken survey work in response to community values and state legislation relating to Aboriginal Heritage. As noted above, the proponent has also consulted with the local community and is active member within the local development industry.

Table 4: Schedule 1, Part 2 Objectives of LUPAA.

Part 2	**Amendment Response**
(a) *to require sound strategic planning and coordinated action by State and local government; and*	The proposal has been considered against the *Southern Tasmanian Regional Land Use Strategy 2010-2035* as well as relevant ABS data sets and analysis of supply and demand in the Clarence municipality. The approach undertaken is in accordance with the intent of this objective.
(b) *to establish a system of planning instruments to be the principal way of setting objectives, policies and controls for the use, development and protection of land; and*	The amendment will modify the Local Provisions Schedule, which is the principal control for the application of Zones within a municipality. The way in which the proposed amendment accords with overall directions of the STRLUS is addressed below and the rezoning beyond the Urban Growth Boundary on the subject site is addressed in further detail in Section 6.

(c) *to ensure that the effects on the environment are considered and provide for explicit consideration of social and economic effects when decisions are made about the use and development of land; and*	The site has been subject to a Natural Values Assessment (Appendix G) which found that the proposal would have only a minor impact upon any threatened native vegetation communities subject to the observance of recommendations. The proposal will provide social benefits by supporting the viability of local businesses and community functions. The site is walkable to public transport and other social services in Risdon Vale. In the short term the development of the site will create jobs and will stimulate the local economy. In the long term, the increase in the immediate area's population is expected to have a positive economic effect on local service providers and businesses. The proposal is considered likely to have positive economic and social impacts balanced against minimal environmental impacts.
(d) *to require land use and development planning and policy to be easily integrated with environmental, social, economic, conservation and resource management policies at State, regional and municipal levels; and*	The proposed amendment is consistent with the relevant State Policies, the directions of the STRLUS (see below), local by-laws and management of natural values across the three tiers of government.
(e) *to provide for the consolidation of approvals for land use or development and related matters, and to co-ordinate planning approvals with related approvals; and*	The proposed rezoning will facilitate a future application of 51-54 lots to occur on the subject site. The approach taken for the amendment to precede a development application will afford some surety of project delivery prior to undertaking detailed design in a coordinated fashion.
(f) *to promote the health and wellbeing of all Tasmanians and visitors to Tasmania by ensuring a pleasant, efficient and safe environment for working, living and recreation; and*	The development of the site will contribute to the viability and expansion of community facilities, open space, and more diverse housing options within Risdon Vale. The site is walkable to the activity centre, and in proximity to recreation grounds, walking trails and well connected to principal activity centres in Glenorchy, Hobart and the Eastern Shore.
(g) *to conserve those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value; and*	The site is not listed as having any historic value and a detailed Aboriginal Heritage Assessment has been carried out which confirms that the site does not contain Aboriginal Heritage sites.
(h) *to protect public infrastructure and other assets and enable the orderly provision and co-ordination of public utilities and other facilities for the benefit of the community; and*	Consultation with TasWater has confirmed that the proposed development can be provided with appropriate public utilities subject to an upgrade and sealing of the section of Downhams Road along the site frontage, expansion of reticulated water mains, formalisation of the local stormwater system. The road Network is sufficient for the anticipated increase in traffic volumes, and stormwater management inclusive of detention to protect downstream assets is feasible.

(i) *to provide a planning framework which fully considers land capability.*	The site's agricultural potential has been considered as part of the agricultural mapping project, and identification of class under in the Land Capability Classification System.

4.2. Ministerial Guideline No.1 - Zone and Code Application

Ministerial Guideline No.1, issued under section 8A of LUPAA, provides a reference guide for the application of all zones and codes for the preparation of LPS and amendments to the LPS.

Table 5 provides an assessment of the site against the Zone application guidelines.

Table 5: Consideration of the Zone Application Guidelines General Residential

Criteria	Assessment
GRZ 1 - The General Residential Zone should be applied to the main urban residential areas within each municipal area which: *(a) are not targeted for higher densities (see Inner Residential Zone); and* *(b) are connected, or intended to be connected, to a reticulated water supply service and a reticulated sewerage system*	General Residential is an appropriate zone, given it will be an extension of the existing zone in the area, which is not designated for higher densities. The site is capable of being connected to a reticulated water supply service and a reticulated sewerage system through existing mains in the immediate area.
GRZ 2 - The General Residential Zone may be applied to green-field, brown-field or grey-field areas that have been identified for future urban residential use and development if: *(a) within the General Residential Zone in an interim planning scheme;* *(b) within an equivalent zone under a section 29 planning scheme; or* *(c) justified in accordance with the relevant regional land use strategy, or supported by more detailed local strategic analysis consistent with the relevant regional land use strategy and endorsed by the relevant council; and* *(d) is currently connected, or the intention is for the future lots to be connected, to a reticulated*	The site is in effect a greenfield site, and is considered in the Regional Land Use Strategy by virtue of the SRD 2.12 provision. A detailed analysis of both the RLUS and the current demand/supply of residential land is included in this report. The site is capable of being connected to a reticulated water supply service and a reticulated sewerage system through existing mains in the immediate area. Council has indicated structure planning for Risdon Vale is underway, though no timeframes have been proposed for the release of this plan. A submission has been prepared for the consideration of the site in anticipation of the progression of this plan.

water supply service and a reticulated sewerage system, *Note: The Future Urban Zone may be used for future urban land for residential use and development where the intention is to prepare detailed structure/precinct plans to guide future development*	
GRZ 3 - The General Residential Zone should not be applied to land that is highly constrained by hazards, natural values (i.e. threatened vegetation communities) or other impediments to developing the land consistent with the zone purpose of the General Residential Zone, except where those issues have been taken into account and appropriate management put into place during the rezoning process.	The land has bushfire hazards which will be managed through development of the site and regulated by the existing overlays on the site. There are no significant vegetation communities on the site.

5. State Policies

5.1. State Policy on the Protection of Agricultural Land 2009

The purpose of the above policy is:

> *To conserve and protect agricultural land so that it remains available for the sustainable development of agriculture, recognising the particular importance of prime agricultural land.*
>
> The policy is intended to achieve its purpose through the following objectives:
>
> *To enable the sustainable development of agriculture by minimising:*
>
> *(a) conflict with or interference from other land uses; and*
>
> *(b) non-agricultural use or development on agricultural land that precludes the return of*
>
> *that land to agricultural use.*

Of the eleven principles contained within the above policy, the following are considered relevant to the proposal:

Table 6. State Policy on the Protection of Agricultural Land 2009.

Principle	Response
1. Agricultural land is a valuable resource and its use for the sustainable development of agriculture should not be unreasonably confined or restrained by non-agricultural use or development.	The site has limited agricultural potential given its land classification, size, location relevant to urban areas, and being disconnected from any other Rural or Agriculture zoned land.
2. Use or development of prime agricultural land should not result in unnecessary conversion to non-agricultural use or	The site is not prime agricultural land. The proposal does not involve the conversion of such land to non-agricultural use.

agricultural use not dependent on the soil as the growth medium.	
5. Residential use of agricultural land is consistent with this Policy where it is required as part of an agricultural use or where it does not unreasonably convert agricultural land and does not confine or restrain agricultural use on or in the vicinity of that land.	The land is not agricultural land.
7. The protection of non-prime agricultural land from conversion to non-agricultural use will be determined through consideration of the local and regional significance of that land for agricultural use.	The site is not considered to contain prime agricultural land, nor is the land of local or regional significance. The site does not occupy a strategic position within the local or regional context. The site is at the periphery of an Urban area.

The site is not considered agricultural land. The current Rural Zone denotes its status as non-urban land with limited or no potential for agriculture, and which has not been identified for other values, such as would warrant the Environmental Management Zone, or the Landscape Conservation Zone.

The site is encumbered by surrounding residential development which would limit agricultural uses in any event. The site is not within an irrigation district, nor is it likely to be included in such a district given the limited suitable land available for agriculture in the surrounding area.

The site was not excluded from the study of land potentially suitable for Agriculture Zone, though was given no categorisation of its constraint status, owed to having no potential as part of the initial analysis. (refer to Figure 5).

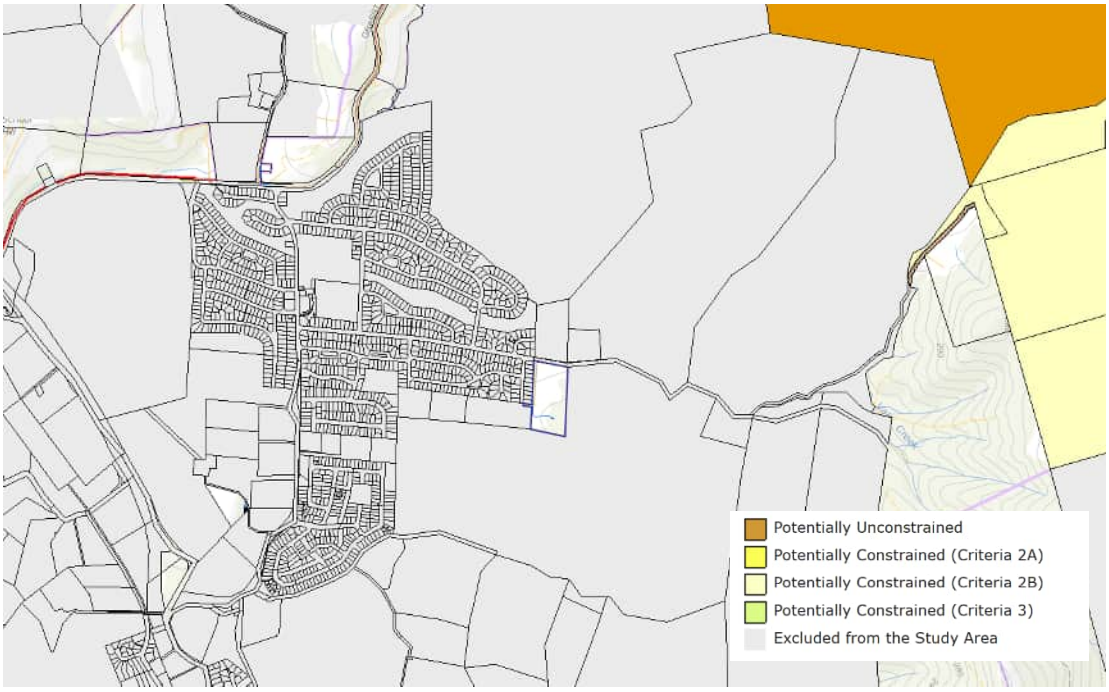


Figure 5: Land Potentially Suitable for Agriculture (Source – LISTmap 03 October 2024)

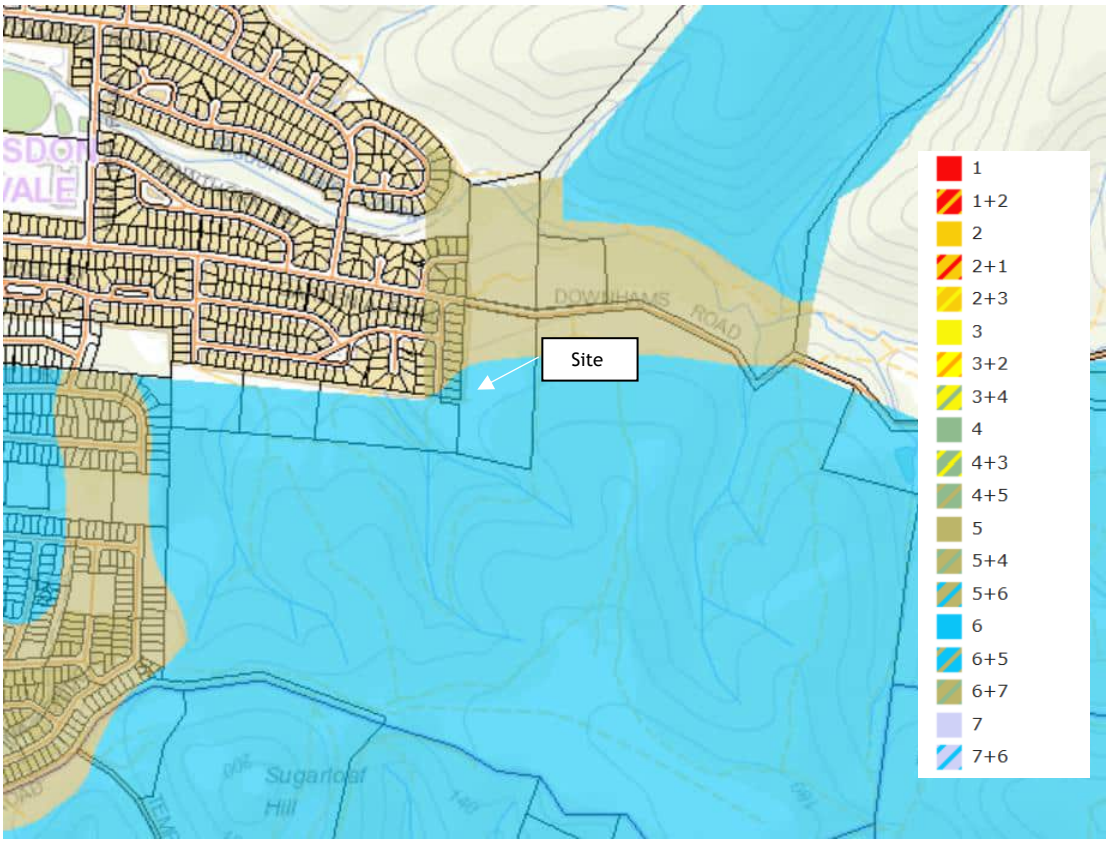


Figure 6: Land Capability Classification (Source: LISTmap, accessed September 2024 - annotated).

The area proposed to be rezoned from Rural to General Residential will not be a significant loss to the potential of agricultural land in the area due to adjoining General Residential lots and being of a relatively poor soil type and isolated from larger parcels of rural land or agricultural land.

The proposal is considered to be consistent with the State Policy on the Protection of Agricultural Land.

5.2. Tasmanian State Coastal Policy 1996

The site is 3km from the coastal zone. The Tasmanian State Coastal Policy does not apply to the site, as defined by the policy.

5.3. Water Quality Management 1997

The area of the Site proposed to be zoned General Residential is likely to be capable of being fully connected to reticulated services from TasWater (Water and Sewer Main), which will ensure water issues are adequately dealt with on-site. As serviced lots, sewer runoff to waterways is unlikely.

No new point source discharges which give rise to pollution into waterways are proposed, therefore the application is consistent with the State policy for Water Quality Management 1997.

5.4. Natural Environment Protection Measures (NEPM)

The *Commonwealth National Environment Protection Council Act 1994* allows the National Environment Protection Council to make National Environment Protection Measures (NEPMs). The NEPM are taken to be State Policies in Tasmania, NEPMs can be made in relation to a variety of environmental matters including "ambient air quality, ambient marine, estuarine and freshwater quality, the protection of amenity in relation to noise (but only if differences in markets for goods and services), general guidelines for the assessment of site contamination, environmental impacts associated with hazardous wastes, the re-use and recycling of used materials".

The proposed amendment will not significantly impact any of these identified matters.

6. Regional Land Use Strategy

The Southern Tasmanian Regional Land Use Strategy 2010-2035

The Tasmanian Planning System includes within its framework, regional land use strategies which inform and provide direction for the preparation of Local Provisions Schedules. For the Southern region, the relevant regional land use strategy is the *Southern Tasmanian Regional Land Use Strategy 2010-2035* (STRLUS).

The STRLUS has a number of components relevant to the proposed amendment, including a number of directions within the Strategic Framework (chapter 4). Of the fifteen regional policy directives, the regional policy areas of 'Land Use and Transport Integration' and 'Settlement and Residential Development' are particularly relevant. Each of these areas have been addressed below.

Regional Policies

There are nine regional policy directives of the STRLUS of particular relevance to the proposal, namely; 'Biodiversity and Geodiversity', 'Cultural Values', 'Recreation and Open Space', 'Social Infrastructure', 'Physical Infrastructure', 'Land Use and Transport Integration', 'Productive Resources', and 'Settlement and Residential Development'.

Biodiversity and Geodiversity

Biodiversity and Geodiversity policy directive highlights the need for a pro-active approach to the recognition and protection of biodiversity, which should be undertaken when planning urban growth. This objective is achieved through a broad range of sub-clauses which include:

a) BNV 1.1 *Manage and protect significant native vegetation at the earliest possible stage of the land use planning process. Where possible, ensure zones that provide for intensive use or development are not applied to areas that retain biodiversity values that are to be recognised and protected by Planning Schemes.*

b) BNV 1.2 *Recognise and protect biodiversity values deemed significant at the local level and ensure that planning schemes: a. specify the spatial area in which biodiversity values are to be recognised and protected (either by textural description or map overlay); and b. implement an 'avoid, minimise, mitigate' hierarchy of actions with respect to development that may impact on recognised and protected biodiversity values.*

c) BNV 2.1 *Avoid the clearance of threatened vegetation communities except:*

a. *where the long-term social and economic benefit arising from the use and development facilitated by the clearance outweigh the environmental benefit of retention; and*
b. *where the clearance will not significantly detract from the conservation of that native vegetation community.*

d) *BNV 2.2 Minimise clearance of native vegetation communities that provide habitat for threatened species.*

The amendment will retain the priority vegetation area overlay, and consideration has been given to the ability to retain significant trees within the site in examining the feasibility of any future subdivision. The amendment is supported by a natural values assessment which establishes The values on site, and provides recommendations for their retention.

Cultural Values

The Cultural Values policy directive highlights continued engagement with the Aboriginal community is necessary to improve our knowledge of heritage places and values. The policy also recognises the existing statutory processes for management of historic values, though acknowledges the depth of information related to the management of historic heritage values requires more work. The objective is achieved through a broad range of clauses which include:

a) CV 1 *Recognise, retain and protect Aboriginal heritage values within the region for their character, culture, sense of place, contribution to our understanding history and contribution to the region's competitive advantage.*

b) CV 2 *Recognise, retain and protect historic cultural heritage values within the region for their character, culture, sense of place, contribution to our understanding history and contribution to the region's competitive advantage.*

Preparation for the proposed amendment has included a field survey for Aboriginal heritage, (see Appendix E). Further, and with respect to historic heritage, the site is not currently listed at either a local or state level, which is considered appropriate.

Recreation and Open Space

The Recreation and Open Space policy directive recognises the contribution that open space and recreation facilities make to the community, and highlights the multiple inputs to open spaces across the public and private sector. The objective is achieved through clauses and sub-clauses which include:

a) ROS 1 *Plan for an integrated open space and recreation system that responds to existing and emerging needs in the community and contributes to social inclusion, community connectivity, community health and well being, amenity, environmental sustainability and the economy*

b) ROS 1.5 *Ensure residential areas, open spaces and other community destinations are well connected with a network of high quality walking and cycling routes.*

The proposal is located at the periphery of an existing urban area which includes connections to existing facilities and public open space networks. Any future subdivision can contribute to the arrangement of ways and public open space, and these are shown on the preliminary subdivision plans (see Appendix C).

Social Infrastructure

The STRLUS defines 'social infrastructure' as …*all services, facilities and structures that are intended to support the well-being and amenity of the community. This includes not only educational and health facilities, but social housing and other community facilities (such*

as online access centres). The social infrastructure of Risdon Vale complements nearby, higher order activity centres and networks in Rosny, Glenorchy and Hobart.

The *Southern Tasmania Regional Land Use Strategy* defines different activity centres based on their size and function. Risdon Vale is considered to fall within the definition of a 'Local Centre' (see Figure 22 below).

LOCAL CENTRE		
Role	To provide a focus for day-to-day life within an urban community.	
Commercial including retail	Offer at least one grocery/convenience store and a range of small specialty shops (i.e. newsagents, pharmacy, gift store) or small-scale easting establishments.	
Government Services & Community infrastructure	Local community services, including Child Health Centre.	
Residential	Some residential may be interspersed.	To be determined at the local level
Entertainment	May have some dining in the evening or local bar, but residential amenity should be preserved.	
Access	Should be highly accessible by cycling or walking from surrounding area to enhance local access. In an urban context should be serviced by existing public transport.	
Catchment	Locality.	

Figure 7: Definition of a Local Centre (source: Page 78, *Southern Tasmania Regional Land Use Strategy 2010-2035,* accessed on 25 May 2020).

As a part of Risdon Vale, albeit outside of the Urban Growth Boundary, the site is within close proximity to the local centre, ensuring good support for the future residents.

The site is within 800m of the local school, and 1km from local shops, local beaches and 1km from recreational areas and local businesses, including cafes and grocers; and 3km from Lauderdale Primary School and an early learning centre. A little further away is Rokeby Primary School, Bayview Secondary College, and Emmanuel Christian School, 7km north west of the site. These facilities are a maximum of 10 minutes' drive and are accessible via the public transport route along South Arm Road. Principal employment areas are located within a 30-minute commute from the subject site, including Rosny Park, Cambridge, and the Hobart CBD.

The infrastructure and services north of the site are able to support any additional population accommodated on the subject site should it be included within the Urban Growth Boundary. Any additional population accommodated on the subject site would also provide further support and value to the broader locality.

Physical Infrastructure

The physical infrastructure policy directive highlights the need to strategically locate development and infrastructure as opposed to an ad hoc manner. In addition to infrastructure programs, this objective is achieved through sub-clauses related to relying on existing infrastructure, including:

a) P1 1.1 *Preference growth that utilises under-capacity of existing infrastructure through the regional settlement strategy and Urban Growth Boundary for metropolitan area of Greater Hobart.*

Though the site sits outside the Urban Growth Boundary, the ability to rely on existing physical infrastructure within Risdon Vale achieves this objective when considered in addition to the objective of SRD2.12.

Land Use and Transport Integration,

The 'Land Use and Transport Integration' policy directive highlights the relative location of different land uses (for example where people live in relationship to places for employment

and shopping) as a significant determinant of transport demand, cost and modal choice. It seeks to improve integration of transport and land use planning to enable the development of urban areas that are efficient, liveable, and environmentally sustainable in the face of a changing climate. There are a number of goals identified in sub-clauses, though for 21 Matipo, the relevant goal is considered as follows:

a) LUTI 1.11 *Encourage walking and cycling as alternative modes of transport through the provision of suitable infrastructure and developing safe, attractive and convenient walking and cycling environments*.

21 Matipo is located within walking distance to public transport stops and any future subdivision will offer connectivity to pedestrian networks.

Productive Resources

The productive resources policy emphasises the importance of agriculture, forestry, minerals and aquaculture to the region. For 21 Matipo, as land which is not identified as significant agricultural land, and which does not support forestry or mining, there are few relevant goals, with the exception of:

a) PR 2.3 *Utilise the settlement strategy to assess conversion of rural land to residential land through rezoning, rather than the potential viability or otherwise of the land for particular agricultural enterprises.*

As conversion of rural land, which is not significant agricultural land, the proposal is to be considered against the clauses of the settlement strategy.

Settlement and Residential Development

The 'Settlement and Residential Development' policy directive highlights that the location, form, type, and density of residential development is a significant land use planning issue. Further, in recognising climate change, changing demographics, rising infrastructure costs and environmental management; the policy promotes consolidation of existing settlements.

There are a number of goals identified in clauses of the policy that are particularly relevant, and must be balanced against each other, namely:

a) SRD2.2 *Manage greenfield growth through an Urban Growth Boundary, which sets a 20 year supply limit with associated growth limits on dormitory suburbs.*

b) SRD2.4 *Recognise that the Urban Growth Boundary includes vacant land suitable for land release as greenfield development through residential rezoning as well as land suitable for other urban purposes including commercial, industrial, public parks, sporting and recreational facilities, hospitals, schools, major infrastructure, etc;*

c) SRD 2.8 *Aim for the residential zone in planning schemes to encompass a 10 to 15-year supply of greenfield residential land when calculated on a whole of settlement basis for Greater Hobart;*

d) SRD 2.9 *Encourage a greater mix of residential dwelling types across the area with a particular focus on dwelling types that will provide for demographic change including an ageing population;*

e) SRD 2.11 *Increase the supply of affordable housing, and*

f) SRD 2.12 *Notwithstanding SRD 2.2 and SRD 2.8, and having regard to the strategic intent of the Urban Growth Boundary under SRD 2 to manage and contain growth across greater Hobart, land outside the Urban Growth Boundary shown in Map 10 may be considered for urban development if it:*

(a) shares a common boundary with land zoned for urban development within the Urban Growth Boundary and:

i. *only provides for a small and logical extension, in the context of the immediate area, to land zoned for urban development beyond the Urban Growth Boundary; or*
ii. *does not constitute a significant increase in land zoned for urban development in the context of the suburb, or the major or minor satellite as identified in Table 3, and is identified in a contemporary settlement strategy or structure plan produced or endorsed by the relevant planning authority; and*

(b) *can be supplied with reticulated water, sewerage and stormwater services; and*
(c) *can be accommodated by the existing transport system, does not reduce the level of service of the existing road network, and would provide for an efficient and connected extension of existing passenger and active transport services and networks; and*
(d) *results in minimal potential for land use conflicts with adjoining uses.*

The regional policies at SRD2.2, 2.4 and 2.8 should be specifically balanced against SRD 2.12 which has been adopted in response to the need to review the Urban Growth Boundary. Those polices preceding SRD2.12 were based on a forecast demand of 26,500 dwellings being required for Greater Hobart, and so an Urban Growth Boundary was implemented as encompassing the land which can meet that demand, in addition to seeking to focus residential development at higher densities along Principal and Primary Activity Centres, and Public Transport Corridors.

It is acknowledged that the Urban Growth Boundary implemented by the STRLUS sought to prevent untoward expansion, but in doing so was justified as including a projected 20 year supply. What has become apparent however is that in estimating supply, the figures based on the ABS data available at the time, and the projections based on more contemporary figures distribute growth within Greater Hobart as significantly higher for Clarence. Therefore the supply within the Urban Growth Boundary is being exhausted faster.

Further, it is generally accepted that the Urban Growth Boundary overestimates the capacity of vacant land within it to be relied upon to meet demand under current projections. SRD2.12 has been adopted to afford logical extensions or insignificant increases where not causing for land use conflicts, or exceeding the capacity of infrastructure. And it is this policy, balanced against the others which is primarily relied upon when considering 21 Matipo Street.

Specifically, SRD2.12 is considered below:

The title shares a common boundary with the existing Urban Growth Boundary (a)

Under (a)(i) the extension is logical in that it is serviced by an existing road (Downhams Road) terminating at the edge of the site, and is shaped to avoid impact on existing natural values. The 'immediate area' is undefined but a reasonable assumption of this is shown in Figure 8 below, being areas within 1km walking distance of the site.

Under (a)(ii) the proposal is a not a significant extension to the suburb of Risdon Vale, though as there is no contemporary structure plan (a)(ii) is not be relied upon.

Under (b) the site can be serviced by water, sewer and stormwater as discussed in the Civil Report (Appendix E).

For (c), the Traffic Impact Assessment (Appendix G) modelling demonstrates the existing road network has capacity to accommodate the proposed number of future lots. Additional traffic on Downhams Road has been modelled and assessed by the Traffic Impact Assessment and found to be acceptable (Appendix G).

Under (d), the proposed rezoning area shares a boundary with some 11 residential lots on its western boundary and one dwelling to the south east on land zoned Landscape Conservation. The proposal will reduce the likelihood for land use conflicts by taking land out of the Rural Zone, which is conducive to uses with a likelihood of impact, and introducing

sensitive uses which can be undertaken without impact to landscape values on the adjoining property.

On this basis, the proposal is considered compliant with the SRD2.12 provision, and thus the Urban Growth Boundary is not an obstacle to the amendment.

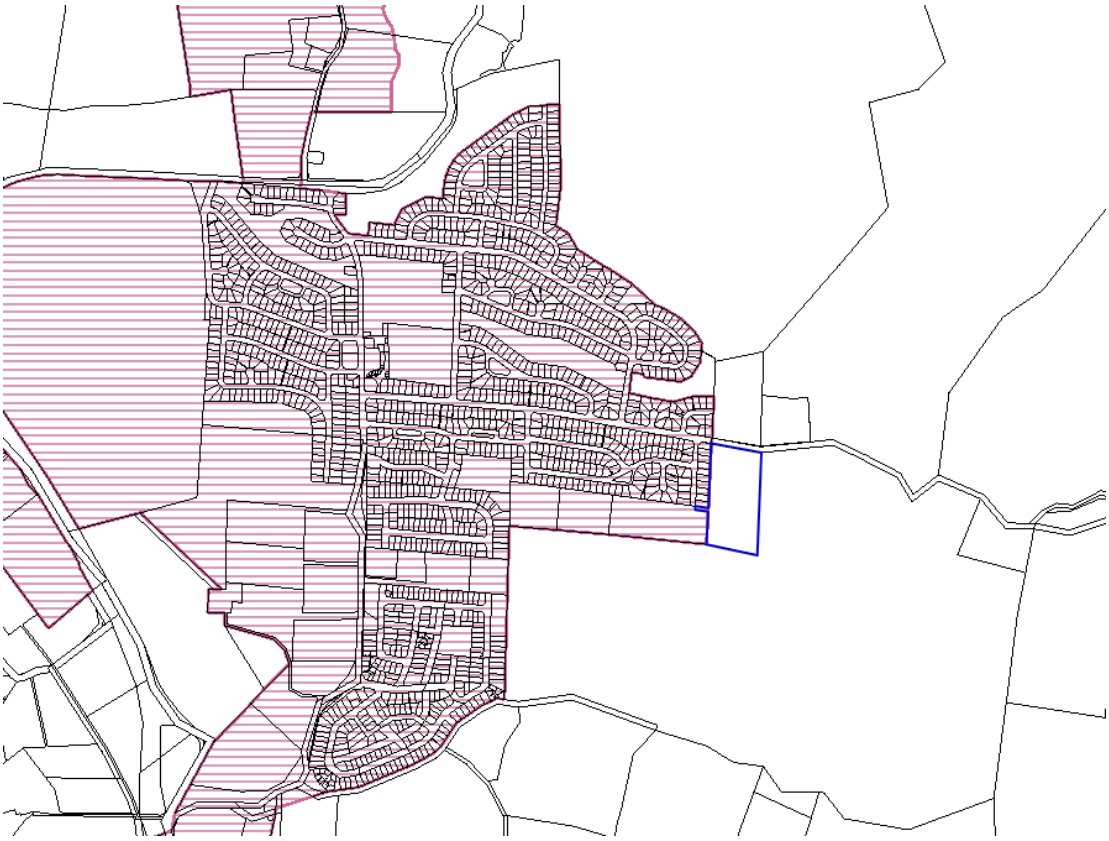


Figure 8: Site relative to the Existing Urban Growth Boundary within the STRLUS (Data sourced from LISTmap – annotated by MC Planners).

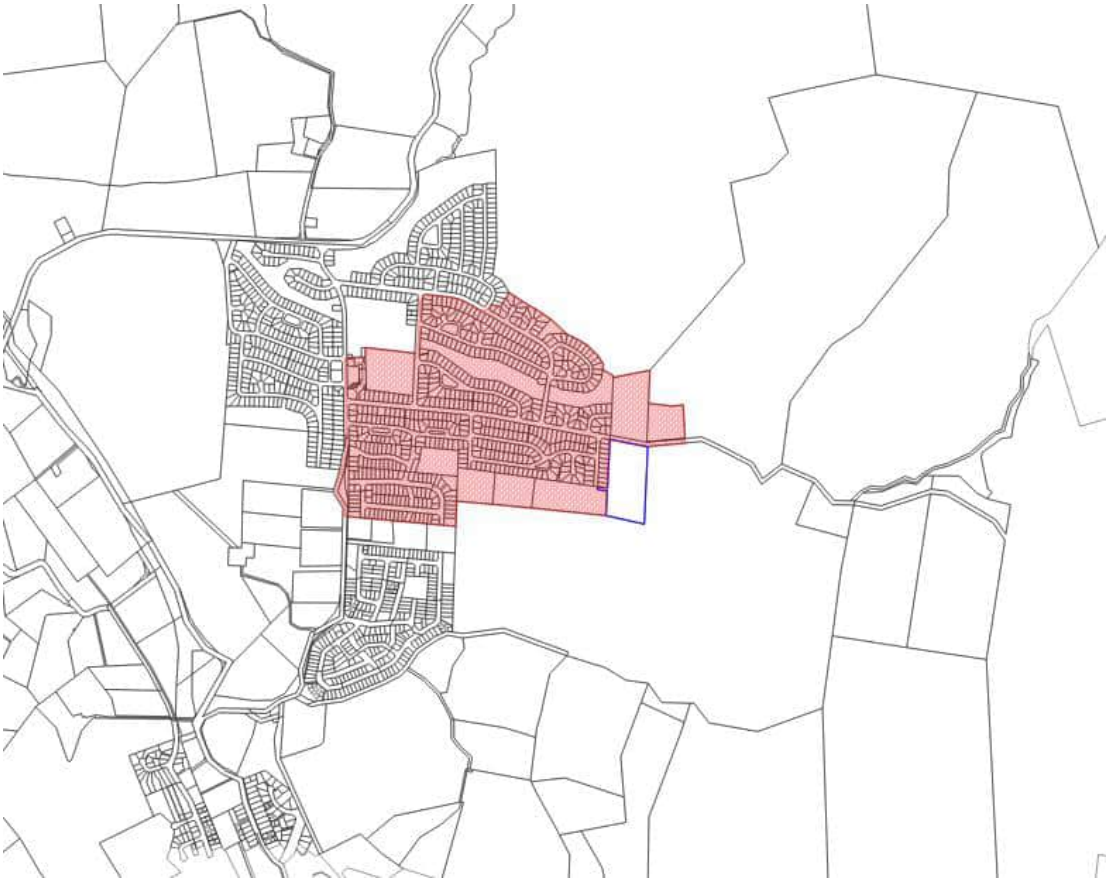


Figure 9: The site (blue) relative to the Immediate area (Red) (Data sourced from LISTmap – annotated by MC Planners).

7. Greater Hobart Plan 2022

The Greater Hobart Committee, established through the *Greater Hobart Act 2019*, collaborated to create a 'whole-of-city' Vision for Greater Hobart to 2050.

The Greater Hobart Plan (GHP) in describing the *"Where and how to grow"* states:

> *To deliver our focus on infill development we will require concerted effort and collaboration between governments and industry if future development is to be directed into identified areas with capacity to absorb expected growth. Our analysis of land supply data has identified the following opportunities for future residential development over the next 30 years:*

The plan identifies projections for the ability of existing land to yield future dwellings to meet demand as predicted by utilisation of TasPopp17 figures:

- *Low density greenfield housing on existing residentially zoned land – 9,450 additional dwellings.*
- *Medium density infill housing*
    - *within existing inner suburban areas across Greater Hobart – 12,380 additional dwellings.*
    - *within existing business zoned land close to primary and principal business districts – 9,000 additional dwellings.*

- *on rezoned land to enable residential use (e.g. Hobart Showgrounds) – 3,700 additional dwellings.*

• *Higher density infill housing in appropriate locations.*

In short the GHP finds:

> *This analysis indicates that the total available land supply within the current Greater Hobart Urban Growth Boundary could potentially cater for over 34 000 additional dwellings, which is more than our anticipated demand of 30 000 dwellings by 2050.*

The Greater Hobart Plan is acknowledged, and an analysis of the land supply aspects of this plan are discussed in more detail in Section 11 below.

8. Council's Strategic Plan

Part 3A S34 (LUPAA) requires that a draft amendment of an LPS must be consistent with a Council's strategic plan. Clarence City Council Strategic Plan 2021-2031 has a number of policies relating to planning of housing:

2.12 Undertaking best practice land use policy development and active participation in regional planning processes.

2.13 Enhancing natural and built amenities to create vibrant, accessible activity centres and community hubs through quality urban design.

2.14 Planning for a diverse range of housing to meet the needs of a wide demographic.

2.15 Ensuring neighbourhoods have pleasant streetscapes and access to recreational spaces and appropriate neighbourhood facilities.

The proposed rezoning is consistent with STRLUS which is the policy document for the regional planning process. The proposal will facilitate a greater participation in the local activity centre by providing dwellings at a walkable distance, and in a local connected to higher order activity centres through public transport and an adequate road network. The proposal will provide a continued supply of urban residential housing, suitable for its location. The proposal will facilitate high quality streetscapes and public open space.

9. Adjoining Local Provisions Schedules

Part 3A S34(2) (LUPAA) requires that a draft amendment of an LPS must be, as far as practicable, consistent with and coordinated with any LPSs that apply to municipal areas that are adjacent to the municipal area. As the site is not adjacent to another municipal area, the proposed amendments are considered to not negatively affect adjoining LPSs.

10. Gas Pipelines Act 2000

Part 3A S34(2) (LUPAA) requires that a draft amendment of an LPS must have regard to the safety requirements of the Act. The proposed amendment relates to land outside of the declared pipeline corridor, and as such will not impact the safety requirements of the Act.

11. Clarence Local Provisions Schedule

The Tasmanian Planning Scheme – Clarence Local Provisions Schedule ('the Planning Scheme') is the relevant planning instrument.

The subject site is located within the Rural Zone. It is subject to Low landslip hazard band, Airport obstacle limitation area, Priority vegetation area, Flood-prone areas, and Bushfire-prone areas.

11.1. Planning Scheme Purpose and Objective

Planning Scheme Purpose [2.1]

The Tasmanian Planning Scheme – Clarence ('the Scheme') is the relevant planning instrument. The 'Planning Scheme Purpose and Objectives' under Part A of the Scheme are addressed in the next subsection of this report.

The proposed amendment is consistent with the 'Planning Scheme Purpose' as it furthers the objectives of the Planning System and Planning Processes as set out in Parts 1 and 2 of Schedule 1 of the Act, and makes provisions for the regulation of use and development.

Zoning Objectives

The relevant zoning aspects associated with the proposed rezoning of the subject site from Rural to General Residential are considered below:

The purpose of the General Residential Zone as per clause 8.1 of the Planning Scheme, is stated as follows:

> *8.1.1 To provide for residential use or development that accommodates a range of dwelling types where full infrastructure services are available or can be provided.*
>
> *8.1.2 To provide for the efficient utilisation of available social, transport and other service infrastructure.*
>
> *8.1.3 To provide for non-residential use that:*
>
> *(a) primarily serves the local community; and*
>
> *(b) does not cause an unreasonable loss of amenity through scale, intensity, noise, activity outside of business hours, traffic generation and movement, or other off site impacts.*
>
> *8.1.4 To provide for Visitor Accommodation that is compatible with residential character*

In considering the Zone Purpose Statements above, the proposed zoning is consistent with the intended development of the site to deliver housing on serviced land.

11.2. Code Implications

C2.0 Parking and Sustainable Transport Code;

C3.0 Road and Railway Assets Code;

C7.0 Natural Assets Code;

C12.0 Flood-Prone Areas Hazard Code;

C13.0 Bushfire-Prone Areas Code;

C15.0 Landslip Hazard Code; and

C16.0 Safeguarding of Airports Code.

11.3. Current Zone and Overlays

The subject site is zoned as Rural under the Tasmanian Planning Scheme – Clarence (see Figure 10), and adjoins the General Residential Zone to the west, and the Landscape Conservation Zone to the south and east. The site is at the periphery of the urban zones which have been applied over Risdon Vale.

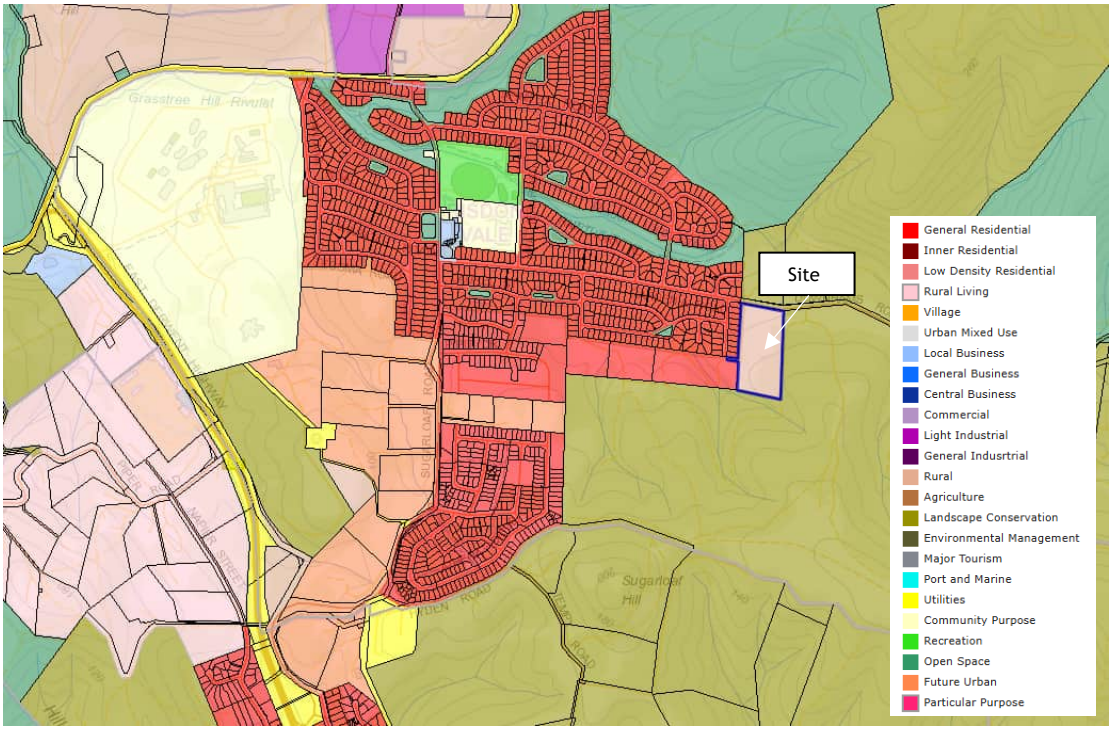


Figure 10: Application of zones within the locality relative to the site (Source: LISTmap, accessed September 2024 - annotated).

The site is subject to 5 overlays:

- Priority vegetation area
- Bushfire-Prone areas,
- Landslip hazard areas
- Flood-Prone hazard area, and the
- Obstacle Limitation Area of the Safeguarding of Airports Code.

For the Bushfire Prone Areas code and the Obstacle Limitation Area, these overlays apply to the whole site.

Natural Assets Code [C7.0]

The site is subject to a priority vegetation area overlay, at the south east section of the lot (see Figure 11). A natural values assessment has been undertaken to inform any potential subdivision, with an intention to retain significant trees both subject to the overlay, and which have been surveyed on site.

Figure 11: Priority Vegetation Area Overlay (Source: LISTmap, accessed October 2024).

Flood-Prone Areas Hazard Code [C12.0]

The site is subject to a flood prone areas overlay at a limited section at the north west (see Figure 12). The extent is limited on site, and it is considered that with the provision of road infrastructure, any flood risk to the site or adjoining properties will be ameliorated.

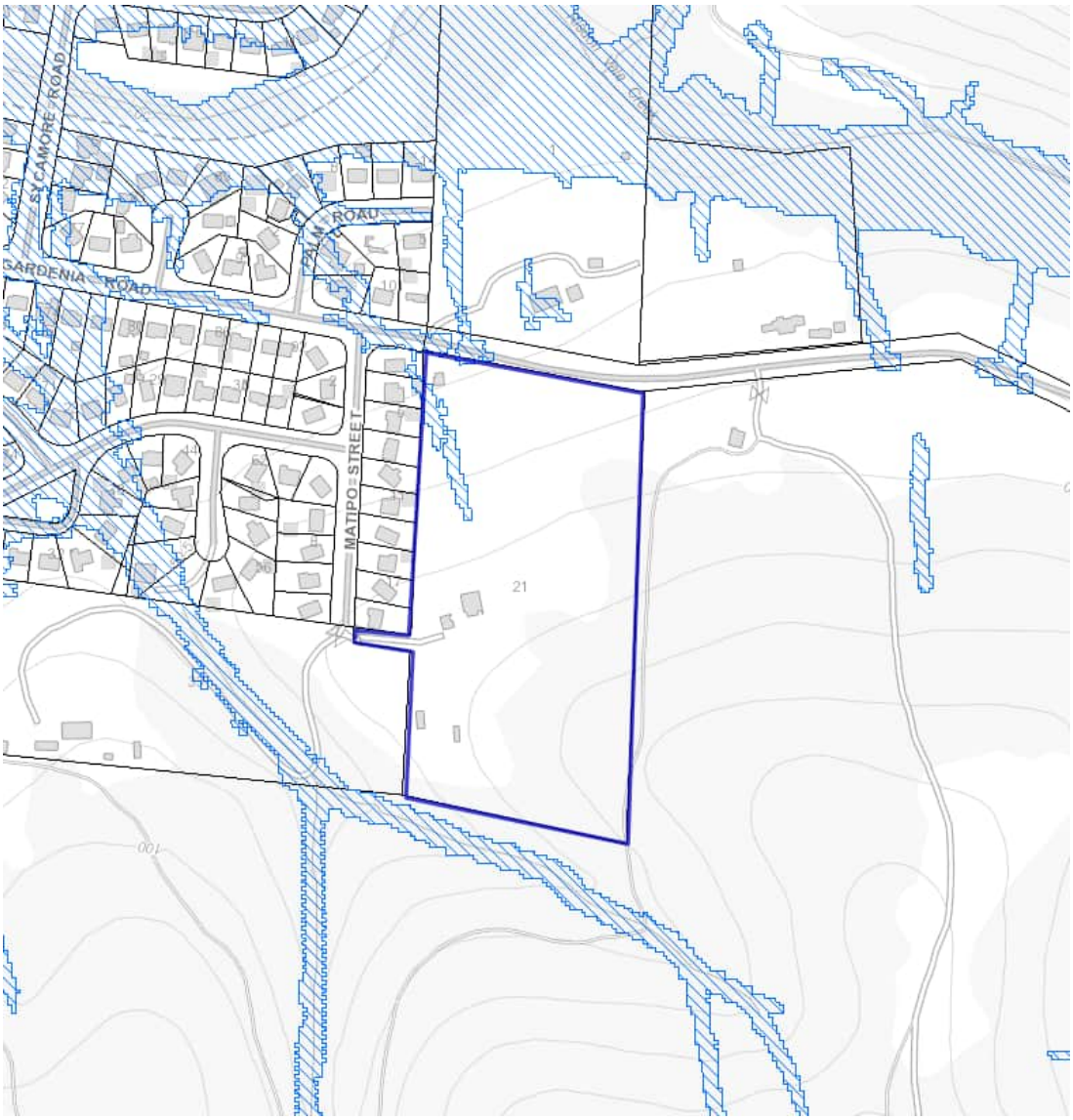


Figure 12: Flood-prone Areas Overlay (Source: LISTmap, accessed July 2024).

Bushfire-Prone Areas Code [C13.0]

The site is subject to a Bushfire Prone Areas overlay. Consideration of the bushfire threat can be undertaken relative to the site to understand management requirements for a potential subdivision (see Figures 13 and 14).

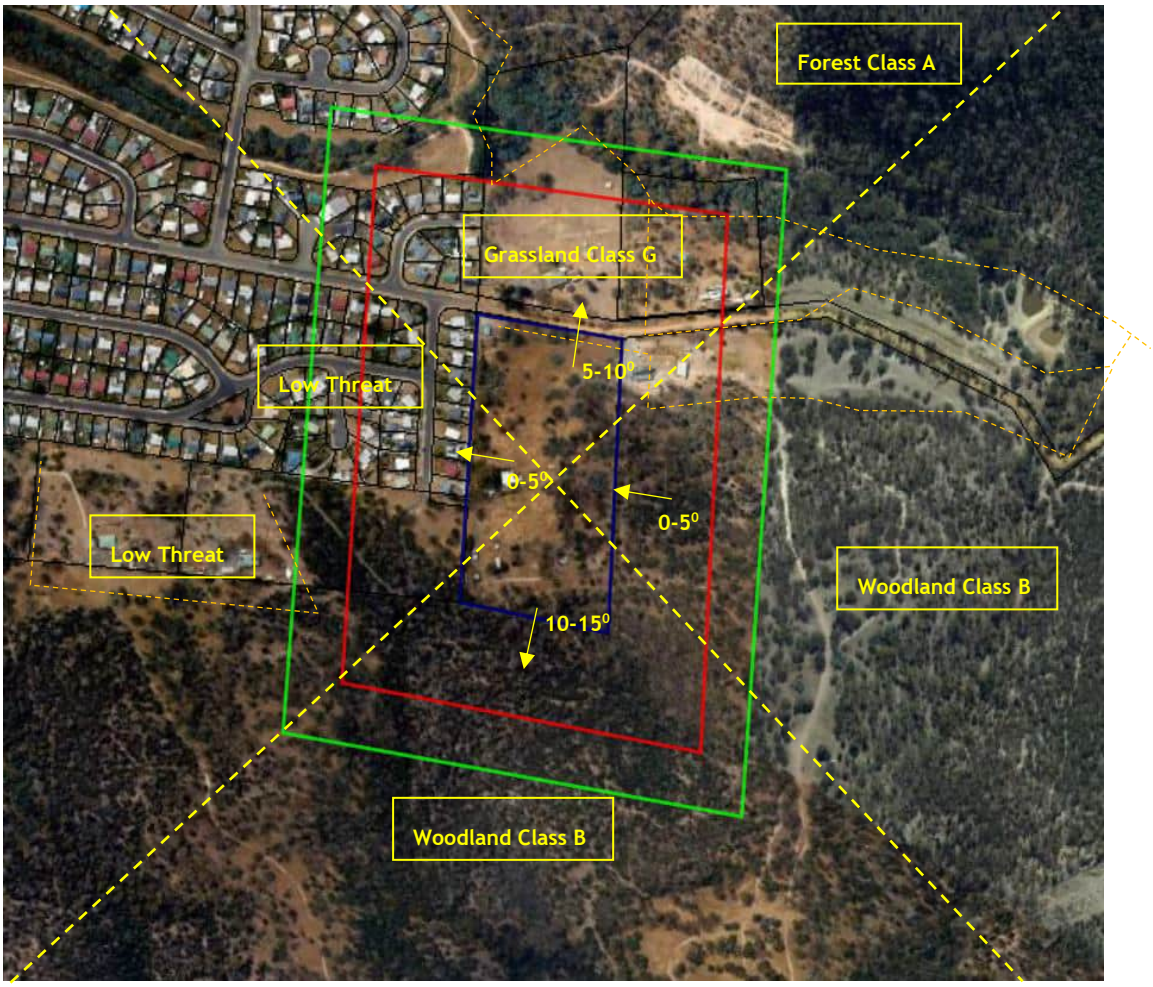


Figure 13 shows land within 100m of the proposed development as this is the minimum area for consideration under AS 3959-2018 – 150m included for context.

Figure 14 shows the likely Bushfire Hazard Management Areas under an assessment under AS 3959-2018 for BAL19.

A bushfire management plan would require a 10m x 15m building envelope to be clear of these BAL19 Hazard Management areas and this may require additional depth to lots on this side of the site (approximately 42.5m).

Lots adjacent to 33 Matipo would need a lot depth of approximately 37.5m but this is typical of a 450m^2 lot, thus would be of little impact. It is anticpated a Part 5 agreement can be entered into with the adjoinig property owner to accommodate hazard mamnagement areas in the General Residential Zone land on that side. There would be no impact on lots on the eastern side.

Potentially Contaminated Land Code [C14.0]

The site is not considered to be potentially contaminated.

Landslip Hazard Code [C15.0]

The landslip hazard overlay has been applied to a small section of the site at the south west corner (see Figure 15). This section falls to the south west, whereas the majority of the site falls to the north. It is likely that lots responsive to this constraint can be provided with building areas outside of the hazard area and are serviced by infrastructure falling to the north.

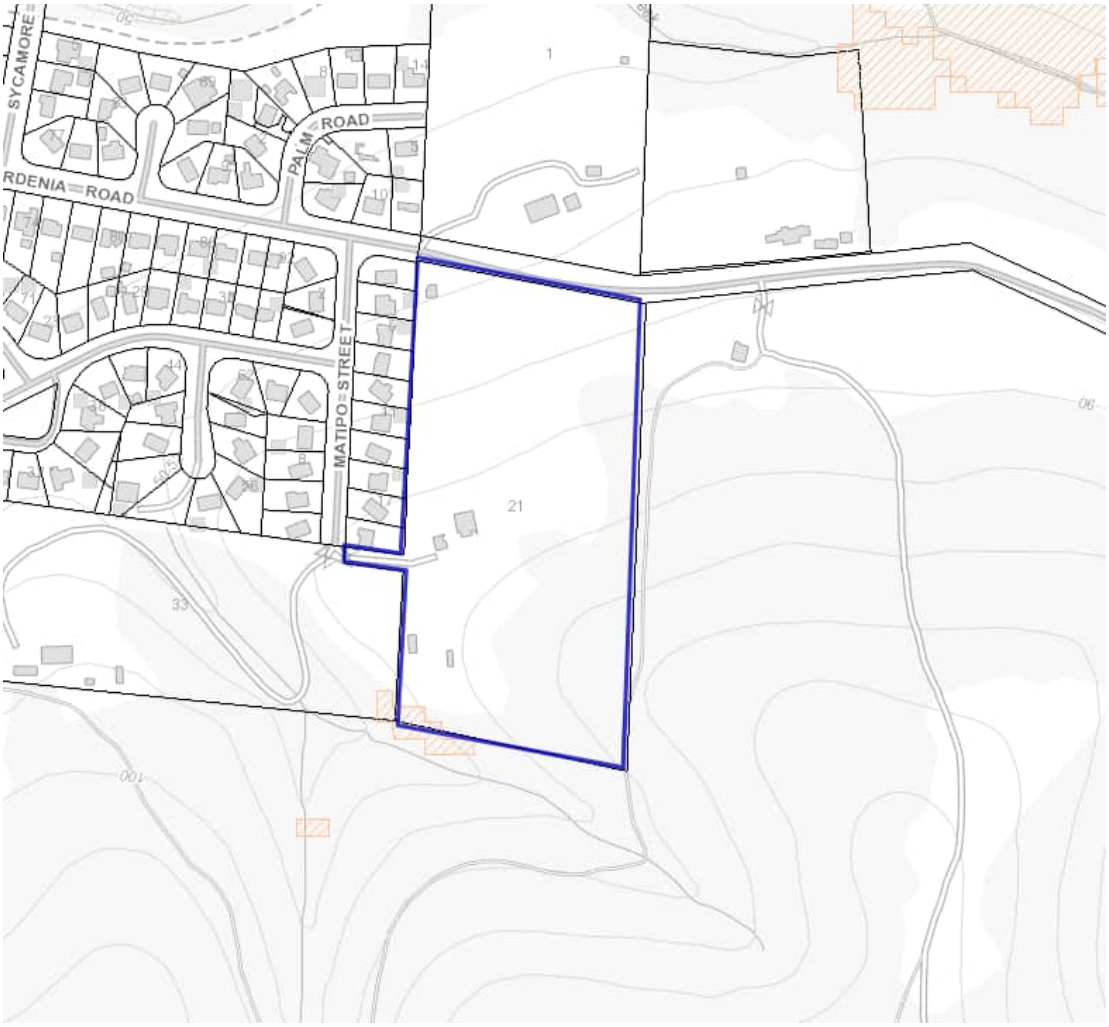


Figure 15: Application of the Landslip Hazard Area (medium hazard band) on the site (source: LISTmap, accessed September 2024).

Safeguarding of Airports Code [C16.0]

The site is subject to an Airport obstacle limitation area. This area has a lower limit of 147m AHD, though the site is at its highest point 115m AHD. It is considered unlikely that any residential development will exceed 32m to warrant consideration against the Safeguarding of Airports Code.

12. Land Supply and Demand

Population growth – Greater Hobart

Data collated from the 2016 census estimated Tasmania's resident population at 541,315. By the time of the 2021 Census, this population estimate had increased to 567,909. Of this increase of 26,594 people, 10,000 were based in the four Local Government areas of Greater Hobart.

Using population figures from the ABS, as well as the Estimated Resident Population (ERP) figures, the Department of Treasury and Finance as part of a 5 year cycle produces official population projections for Tasmania, referred to as TasPOPP (refer Appendix I for TASPOPP24). This most recent projection by the Department anticipates a medium series population of 641,045,by the year 2053, which is an increase of 68,045 people on the 2023 population. A high series population is projected as 714,020, which is an increase of 140,864 for the State.

The Greater Hobart Plan was prepared in 2022, and so undertook an analysis of population projections based on TASPOPP17 figures relative to the 2021 population of the state. These figures informed an anticipated requirement for an additional 30,000 dwellings within Greater Hobart, to accommodate the projected additional 60,000 residents.

Though the TASPopp17 figures are relatively consistent with predicting high series population growth within Greater Hobart at around 60,000, and so conservatively require an additional 30,000 dwellings; the revised figures redistribute the growth across local government areas, significantly affecting the location of demand.

Table 8. Population projections for Greater Hobart

LGA	Population 2021	High series TasPopp17 -Year 2050	Increase on 2021	High Series TasPopp24 - Year 2053	Increase on 2021	Variation between 2050 and 2053 figures
Hobart	56,084	77,173	21,089	67,556	11,472	- 9616
Glenorchy	51,233	65,607	14,374	60,693	9,460	- 4914
Clarence	62,396	75,335	12,939	84,519	22,123	+ 9184
Kingborough	40,815	49,916	9,101	57,617	16,802	+ 7701
Greater Hobart	21,0528	26,8031	57,503	27,0385	59,857	+ 2354

Assumed Population Trends - Clarence

The Greater Hobart Plan identified the projections from TASPopp17, and revised these numbers to an *'assumed population for planning purposes'* forecast. This forecast then informed a dwelling requirement for the year 2050, based on a 2 persons per dwelling rate. Table x below is relative to Clarence, and shows the various relevant population forecasts, as well as resultant dwelling demand based off those figures.

It is noted that the two TasPopp projections relate to 2050 and 2053 respectively, and so the varied numbers are not a direct comparison where the later includes an additional three years of growth. Nevertheless, the annual dwelling construction rate anticipated by the Greater Hobart Plan would still be dramatically short of supplying the number of dwellings required to house the revised population numbers in Clarence.

Table 9 Population forecasts compiled from TasPopp2024 and the Greater Hobart Plan

	TasPopp2017 (High) 2050	TasPopp2024 (High) 2053	Greater Hobart Plan Population Projections (High) 2050	Greater Hobart Plan - additional Population 2050
Population increase from 2021	12,939	22,123	16,606	15,300
Dwellings required from 2021	6,470	11,061	8,303	7,600 (per greater Hobart plan)[1]
Years to complete (at rate of 253 dwellings p.a)	25.5 years	43 years	32 years	30 years

In terms of required new housing, the revised TasPOPP24 population growth forecasts have significant implications for the anticipated requirements for dwellings in Clarence, and the rate of dwelling construction required to meet that demand within 30 years.

Land Supply – Clarence

Though the Greater Hobart Plans' target of 70/30 infill to greenfield ratio applies across the entire Greater Hobart area. In Clarence, Appendix 1 to the Greater Hobart Plan indicates 6,600 of the 7,600 new dwellings required to house 15,300 people by 2050 will be satisfied by greenfield development (refer to Figure 16 below).

Though some greenfield development will include multiple dwellings, the highest probability is that greenfield lots will be set aside for single dwellings. To achieve the greenfield dwelling target for Clarence stipulated within the plan, this would require 220 greenfield lots to become available every year in Clarence for the next 30 years.

Should high growth projections provided in TasPopp2024 materialise; a 30% higher population accommodated in Clarence along the lines of the distributions shown in Figure 16 would mean 286 greenfield lots are required every year to house the projected population.

[1] This number of dwellings does not accord to a 2 person to one dwelling split as identified in the Greater Hobart Plan as the model.

	CLARENCE		
12#	Rosny Park CBD surrounds including Warrane, Rosny, Bellerive etc. (infill)	**1,150**	**650**
13	Tranmere Rokeby peninsula – including Droughty Point (greenfield)	**6,100**	**3,000**
14	Risdon Vale area – particularly both sides of Sugarloaf Road (greenfield)	**900**	**450**
15	Glebe Hill, Rokeby and Oakdowns area (greenfield)	**1,300**	**650**
16	ParanVille east of Pass Road (greenfield)	**2,550**	**1,250**
17	Clarendon Vale – north & east extensions (greenfield)	**1,850**	**900**
18	Lindisfarne and Geilston Bay fringe development (greenfield)	**750**	**350**
19	Scattered infill in Lindisfarne area (infill)	**300**	**150**
20	Scattered infill in Howrah and Shoreline area (infill)	**400**	**200**
	TOTAL CLARENCE (Metro)	**15,300**	**7,600**

Figure 16: Appendix 1 of the Greater Hobart Plan Expected Urban Growth – distribution of additional population and dwellings by 2050 – Clarence

Current Risdon Vale Land Supply

An analysis of land supply in Risdon Vale, provided at Appendix H shows that the theoretical lot yield for General Residential and Future Urban vacant or underutilised sites is significantly lower than a yield conducive to 10 dwellings per hectare; being a 'normal suburban density'. The likelihood of densities closer to 25 dwellings per hectare or 1 dwelling per 325m^2 (accounting for roads) across Risdon Vale is highly improbable.

The total theoretical lot yield of the identified vacant and underutilised land in Risdon Vale is 371, equating to 341 additional lots, not including the subject site (see Figure 17 and Appendix H). This number also does not consider the limitations on supply and delivery such as existing approvals, contingency on 'first movers' for roads and other infrastructure, or the identification of land within the General Residential Zone identified for public open space. This 371 total lot figure is significantly lower than what would be required to provide an additional 450 dwellings within Risdon Vale, even accepting some probability for multiple dwellings. Considering the under-projection of the population of Clarence on review of the TasPopp2024 population distribution across Greater Hobart, even if the Greater Hobart Plan dwelling targets were realised, these numbers would not satisfy demand.

Therefore, as the Greater Hobart Plan both under-projects the population of Clarence by year 2053, and over predicts the ability of existing underutilised and vacant land to supply dwellings; without additional supply of land, the dwellings required for the population of Clarence will be unlikely to be delivered where it is needed, and so the strategies outlined within the Greater Hobart Plan will not achieve this principal objective.

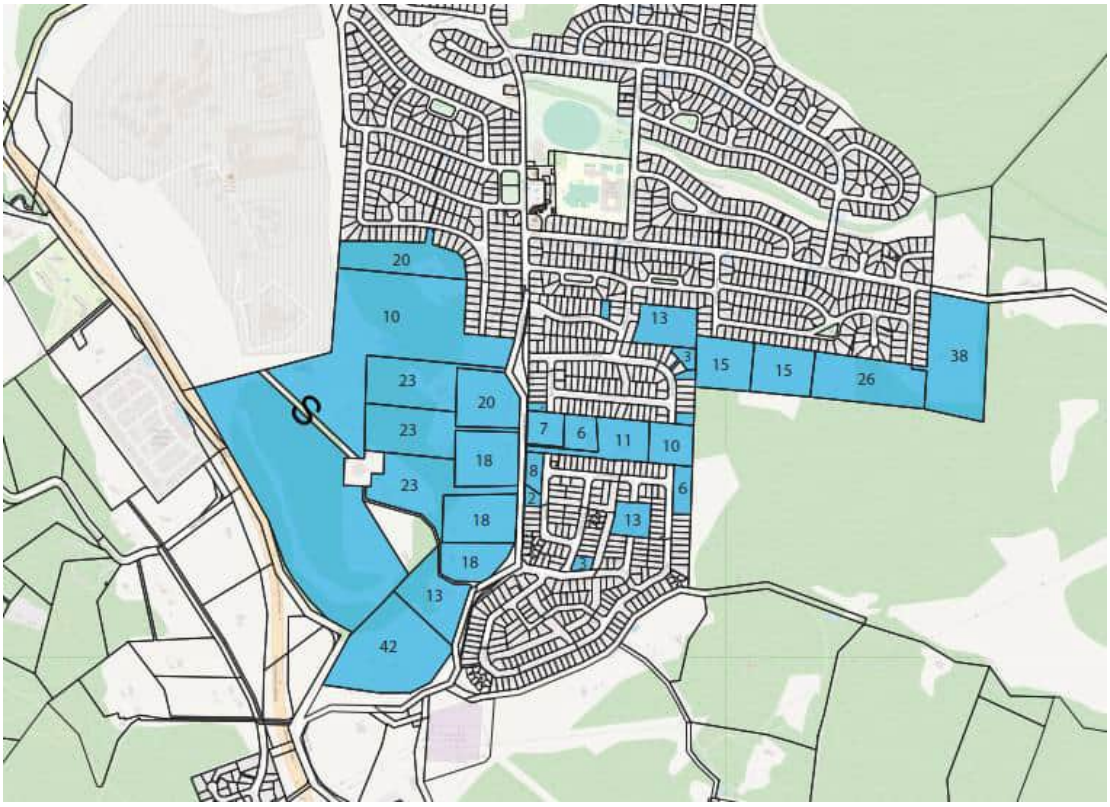


Figure 17: extract of Risdon Vale Land Supply Assessment (Appendix H), denoting total theoretical lot yield for vacant and underutilised land.

The role of 21 Matipo Street.

An analysis of 21 Matipo finds that a yield of 51-54 lots is probable over the theoretical yield of 38, in that through an understanding of the natural values on site, there is no overriding reason to prevent higher lot yield. Further, it is assumed stormwater may be detained on site, and that a Part 5 agreement can be obtained for the bushfire hazard management areas.

Delivering 51-54 lots equates to 12% of the expected urban growth requirement of dwellings (at 1 dwelling per lot) for Risdon Vale, as provided within the Greater Hobart Plan. For Clarence this equates to 0.8% of greenfield dwellings required for the projected population growth in that plan.

Importantly, accepting revised population growth figures from TasPopp2024, the additional 9184 persons at a 87/13 greenfield/infill split would require an additional 4308 greenfield dwellings by 2053, and so the percentage of the proposed maximum 54 dwellings at 21 Matipo would therefore equate to 0.4% of the total greenfield dwellings required across Clarence to house the projected population.

13. Infrastructure Assessment

13.1. Servicing

13.1.1 Roads

The proposed development will have an internal ring road with a road reservation width of 18m, complying with the requirements of Council's By-Law No. 2 table 1. The site generally grades from the south at a maximum grade of 15% towards the north. The internal road will run both parallel and perpendicular to the contours and will conform to the general requirements of Clause 31(5) of Council's By-Law No.2.

The property has a single road frontage at Downhams Road, and also has an access via a right of way over 33 Matipo Street. The latter is only to be perpetuated for a future single lot (as shown on the title). Downhams Road otherwise will serve as the access for the site, with the inclusion of a new Junction. Downhams Road is unsealed, with an approximate 15m wide road reserve. It is likely this would be widened to the 18m wide road reserve as part of the subdivision of the site. It is also likely there would be a requirement to seal, curb and provide a footpath to the section of Matipo Street adjacent to the property frontage. The Bushfire Hazard Code would require fire truck to enter and exit the site in a forward direction which is possible given the width of the site can accommodate a loop access.

13.1.2 Stormwater

Stormwater from the site currently discharges into a roadside swale and into a pit in the road reserve in front of 1 Downhams road before running overland through 1 Downhams Road towards Risdon Vale Creek. The paved section of Downhams Road runs to a sag point at the junction with Palm Road, through Palm Road and through 10 Palm Road to Risdon Vale Creek.

Council engineers have advised Risdon Vale Creek already causes significant flooding and cannot accommodate any further peak stormwater load.

The most appropriate solution is to locate a detention area on 1 Downhams Road to accommodate the stormwater from both Downhams Road and Palm Road. In the absence of this, the 18 Downhams Road site would need to have an on site detention system to detain stormwater flow up to the 1% AEP event, which is likely to require approximately 900m^2. This would ensure no increase in flows from the pre-development scenario, as required by Council. Refer concept services plan drawing C01 for proposed layout and details Attachment 4.

13.1.3 Water

TasWater have advised that there is insufficient pressure to service the 51-54 lots possible on the site with the current water main connection. To remedy this, a connection to the DN150 high pressure water main in Pipit Drive is required – a distance of approximately 620m. This will require a 4m wide easement. The owner of 18 Downhams Road (Aran Property Pty Ltd) have indicated they would be willing to accommodate the easement on their northern boundary. Negotiations are occurring with the owners of 45-55 Pupit to acquire an easement across one of these lots. Alternatively, an easement can be made through 60 Elaia Drive (Pharos Custodians PTY LTD). Council may also considering access through 150A Athena Drive (a Council park). Refer concept services plans C01 and C02 at Attachment 4 for detail.

Properties on the upper parts of Matipo street are serviced via pump station in Matipo Street to reservoir within the subject site which is fed back down to the properties. With the proposed new connection to the DN150 high pressure water main, the existing pump station, reservoir and connected water mains can be decommissioned and fed directly to the new pipe as per the concept services plan drawing C01, at Attachment 4.

13.1.4 Sewer

The immediate area is served with a 150mm Sewer main, and TasWater have indicated this is suitable for a 50 lot yield once the main is extended along Downhams Road and into the site. Lots in the southern part of the site may need to connect to the main in 19 Matipo Street (via the easement in 33 Matipo Street) given the fall in this part of the site. The Risdon Sewerage Plan has recently been upgraded to provide additional storage. Refer concept services plan drawing C01 for proposed layout, at Attachment 4.

13.1.5 TasNetworks

An early engagement meeting was held with TasNetworks on 16th April, 2024. It was established that a HV upgrade would be required to be completed to the network & extend to the entrance of the subdivision and that the Subdivision will aim to be provided by an Overhead transformer pole along the frontage of the site.

13.2. Traffic and Transport Networks

The attached Traffic Impact Assessment (Appendix F) considers the impact of the proposal upon State and local road networks. The assessment concludes that the local road network is lightly trafficked, there is sufficient spare traffic capacity to accommodate predicted traffic increase from the proposal, without causing a deterioration in level of service.

The intensification of traffic generated by the development is expected to be accommodated without the need for road infrastructure improvements.

The site is within 300m of bus stop 29, which services route 694. This bus route services Rosny Park, Glenorchy, Cove Hill and Hobart City daily. It is considered the site has good connectivity to public transport.

14. Conclusion

Section 37 of the *Land Use Planning and Assessment Act 1993* allows for a request to be made to a planning authority to amend a planning scheme administered by it.

This report has been drafted in support of the above requests under s37, to consider a proposed rezoning, and subdivision of land at 21 Matipo Street, Risdon Vale.

The report demonstrates that the proposal is consistent with the objectives of the *Land Use Planning and Approvals Act 1993 a*nd the Strategic Directions and Regional Policies identified within the STRLUS. It has also been demonstrated, via a detailed consideration of the supply and demand of housing in the region, that the proposal is consistent with the Regional Settlement Strategy identified in the STRLUS. Based on more recent growth data from the Department of Treasury and Finance (TasPOPP24) and the assumptions in the Greater Hobart Plan, given a typical two stage delivery of the future 50 lot proposal the proposed rezoning area would only be 11% of the annual required number of greenfield dwellings in Risdon Vale identified within the Greater Hobart Plan.

The proposal will have a minor impact upon natural values and would ensure the ongoing protection of threatened vegetation communities. The development envisaged for the site has been planned in an integrated way to ensure that natural values would be protected to the greatest extent possible.

Residential development facilitated by the rezoning will be serviced by extensions to existing reticulated networks. Similarly, access to the development will be provided by a logical extension of the road network, supportable on traffic grounds. The proposal therefore makes efficient use of existing infrastructure and services.

The proposed development will provide a significant opportunity for the local construction industry and supporting businesses. In addition to assisting the general economy the supply of a future proposed 51-54 new residential lots would contribute to addressing the existing critical housing shortfall within the Greater Hobart area

APPENDIX A

Title Information

RESULT OF SEARCH

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980

SEARCH OF TORRENS TITLE

VOLUME	FOLIO
120636	3
EDITION	DATE OF ISSUE
4	06-Sep-2022

SEARCH DATE : 12-Jan-2024
SEARCH TIME : 08.20 AM

DESCRIPTION OF LAND

City of CLARENCE
Lot 3 on Sealed Plan 120636
Derivation : Part of 2560 Acres Gtd. to T.G. Gregson.
Prior CTs 37906/2 and 227984/1

SCHEDULE 1

M887237 TRANSFER to MATIPO TWENTY ONE PTY LTD Registered 10-May-2021 at 12.02 PM

SCHEDULE 2

Reservations and conditions in the Crown Grant if any
SP 120636 EASEMENTS in Schedule of Easements
SP 37906 & SP 120636 FENCING COVENANT in Schedule of Easements
SP 120636 WATER SUPPLY RESTRICTION
E316472 MORTGAGE to Bank of Queensland Limited Registered 06-Sep-2022 at noon

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

OWNER 1) David Gordon Bowker and Christine Elizabeth Bowker; 2) Gregory Allan Knight and Susan Joan Knight.

FOLIO REFERENCE

1) C.T. 227984/1 2) C.T. 37906/2

GRANTEE

Part of 2560 acres Granted to Thomas George Gregson.

PLAN OF SURVEY

BY SURVEYOR Neville Charles McGuire

LOCATION

CITY OF CLARENCE

SCALE 1: 2000 LENGTHS IN METRES

REGISTERED NUMBER

SP 120636

APPROVED

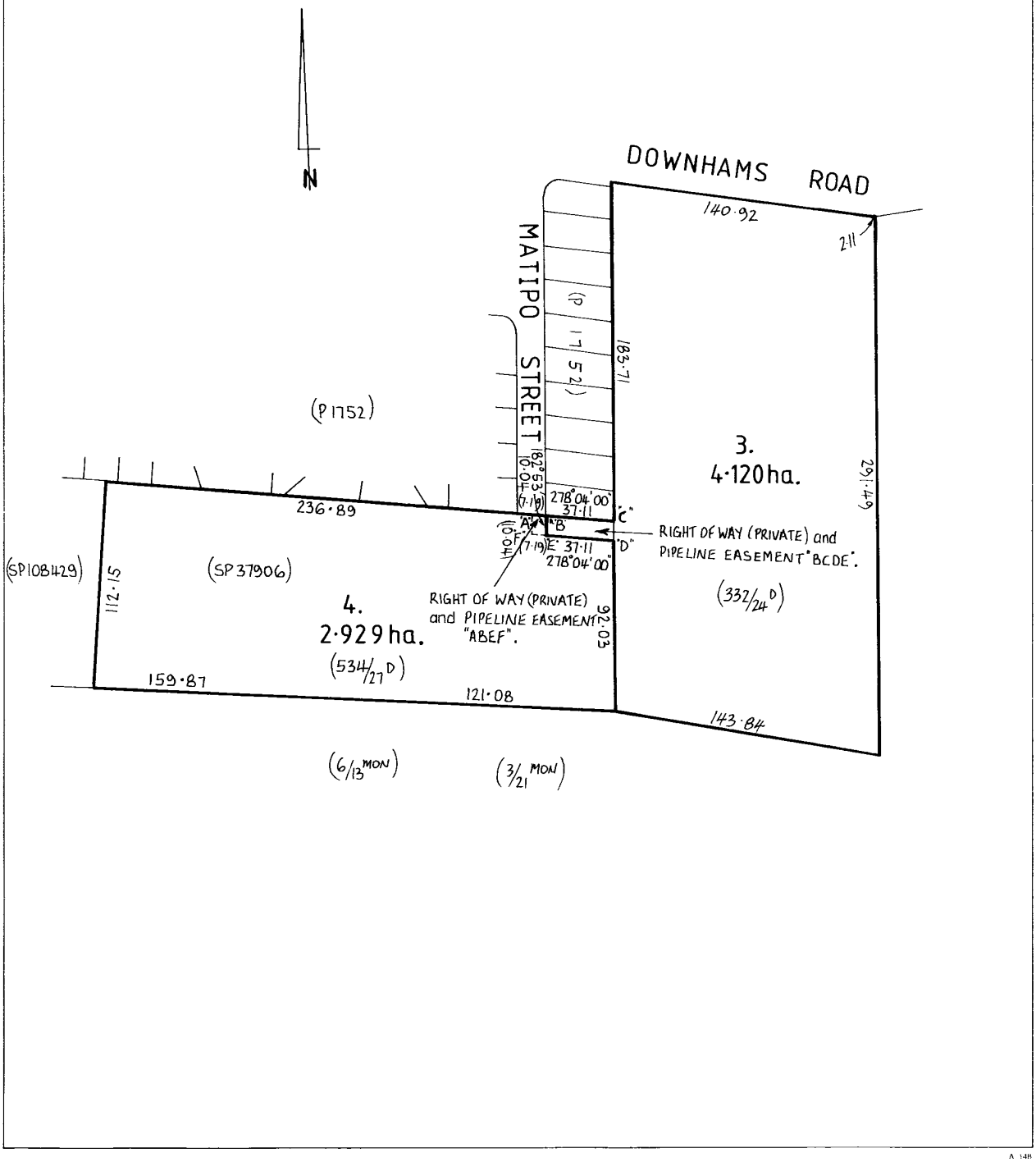
EFFECTIVE FROM 9 NOV 1995

Recorder of Titles

MAPSHEET MUNICIPAL CODE No. 107	LAST UPI No. 1416310,1416243	LAST PLAN No. S.P. 37906 332/24 D	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN

LOT 3 COMPILED FROM CT 227984/1 AND THIS SURVEY.

LOT 4 COMPILED FROM CT 37906/2 AND THIS SURVEY.



RESULT OF SEARCH

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980

Tasmanian Government

SEARCH OF TORRENS TITLE

VOLUME	FOLIO
120636	4
EDITION	DATE OF ISSUE
2	17-Sep-1998

SEARCH DATE : 12-Jan-2024
SEARCH TIME : 08.20 AM

DESCRIPTION OF LAND

City of CLARENCE
Lot 4 on Sealed Plan 120636
Derivation : Part of 2560 Acres Gtd. to T.G. Gregson.
Prior CT 37906/2

SCHEDULE 1

C98044 TRANSFER to SEFEDIN SARACI and NERILEE KAYE SARACI
Registered 17-Sep-1998 at 12.01 PM

SCHEDULE 2

Reservations and conditions in the Crown Grant if any
SP 120636 EASEMENTS in Schedule of Easements
SP 37906 FENCING COVENANT in Schedule of Easements
SP 120636 WATER SUPPLY RESTRICTION
C98045 MORTGAGE to Commonwealth Bank of Australia
Registered 17-Sep-1998 at 12.02 PM

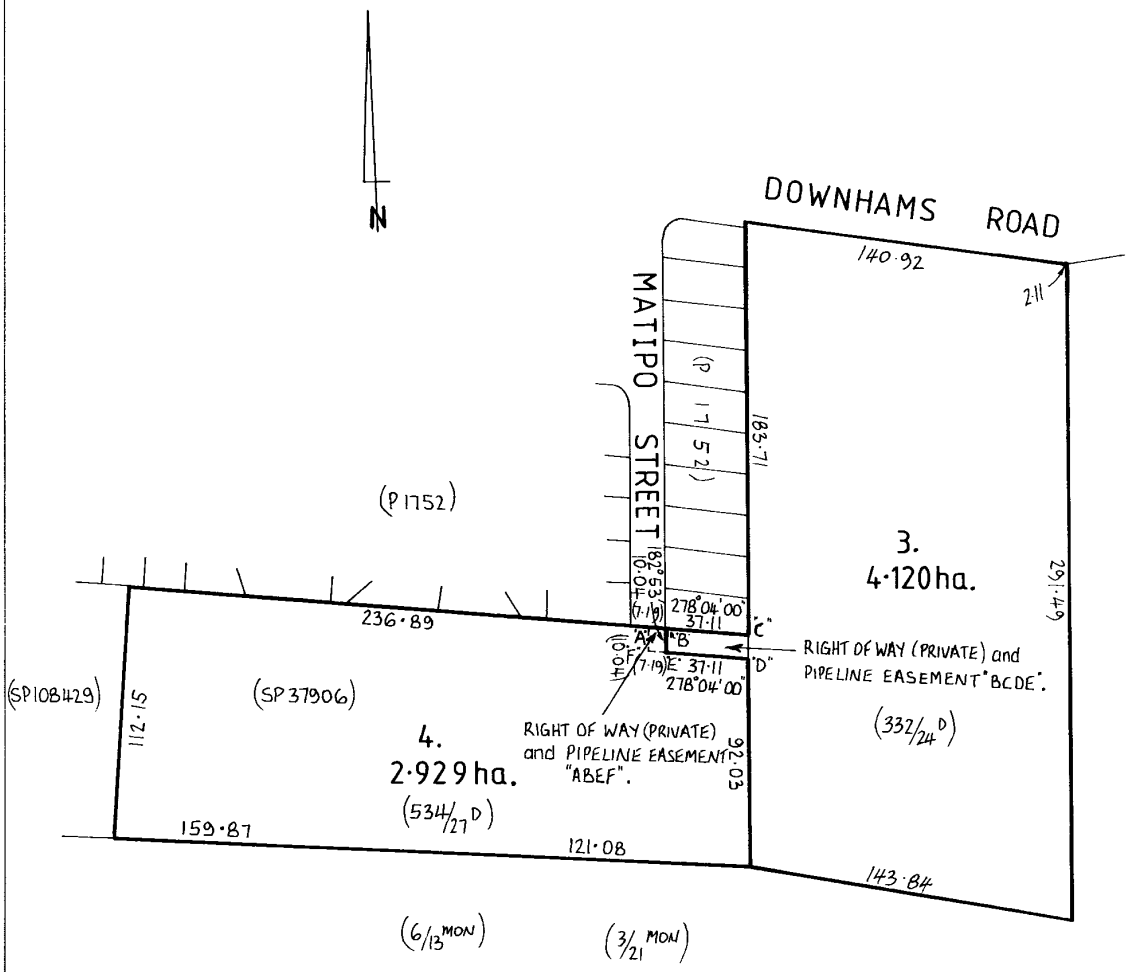
UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

OWNER 1) David Gordon Bowker and Christine Elizabeth Bowker; 2) Gregory Allan Knight and Susan Joan Knight. FOLIO REFERENCE 1) C.T. 227984/1 2) C.T. 37906/2 GRANTEE Part of 2560 acres Granted to Thomas George Gregson.	**PLAN OF SURVEY** BY SURVEYOR Neville Charles McGuire LOCATION CITY OF CLARENCE SCALE 1: 2000 LENGTHS IN METRES	REGISTERED NUMBER **SP 120636** APPROVED EFFECTIVE FROM 9 NOV 1995 Recorder of Titles

MAPSHEET MUNICIPAL CODE No. 107	LAST UPI No. 1416310,1416243	LAST PLAN No. S.P. 37906 332/24 D	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN

LOT 3 COMPILED FROM CT 227984/1 AND THIS SURVEY.
LOT 4 COMPILED FROM CT 37906/2 AND THIS SURVEY.



REGISTERED NUMBER

SP 120636

SCHEDULE OF EASEMENTS

NOTE:—The Town Clerk or Council Clerk must sign the certificate on the back page for the purpose of identification.

The Schedule must be signed by the owners and mortgagees of the land affected. Signatures should be attested.

EASEMENTS AND PROFITS

Each lot on the plan is together with:—

(1) such rights of drainage over the drainage easements shewn on the plan (if any) as may be necessary to drain the stormwater and other surplus water from such lot; and

(2) any easements or profits à prendre described hereunder.

Each lot on the plan is subject to:—

(1) such rights of drainage over the drainage easements shewn on the plan (if any) as passing through such lot as may be necessary to drain the stormwater and other surplus water from any other lot on the plan; and

(2) any easements or profits à prendre described hereunder.

The direction of the flow of water through the drainage easements shewn on the plan is indicated by arrows.

EASEMENTS

LOT 3 is together with a right of carriageway over the land marked ABEF.

LOT 3 is subject to a right of carriageway over the land marked BCDE in favour of the Clarence City Council.

LOT 3 is subject to a Pipeline Easement as hereinafter defined over the land marked BCDE in favour of the Clarence City Council.

LOT 4 is subject to a right of carriageway over the land marked ABEF in favour of the owners from time to time of Lot 3 AND in favour o the Clarence City Council.

LOT 4 is subject to a Pipeline Easement as hereinafter defined over the land marked ABEF in favour of the Clarence City Council.

DEFINITION

Pipeline Easement means the full and free right of every person who is entitled to an estate or interest in possession of the land herein indicated as the dominant tenement or any part thereof with which such rights shall be capable of enjoyment in common with the owner of the servient tenement to lay use and maintain for ever water mains and pipes of such size and number as shall from time to time be required over the said Rights of Way (Private) and Pipeline Easements shown on the Plan and the right for their surveyors and workmen from time to time and all other times hereafter to enter into and upon the said Rights of Way (Private) and Pipeline Easements or any part thereof bringing upon the said Rights of Way (Private) and Pipeline Easements

such materials machinery and other things as it shall think fit and proper to inspect the condition of the said water mains and pipes and to repair alter and mend and cleanse provided however that any damage occasioned thereby shall be made good.

COVENANT

The owners of Lot 3 on the plan hereby covenant with Gregory Allan Knight and Susan Joan Knight ("the Vendors") that the Vendors shall not be required to fence.

SIGNED by GREGORY ALLAN KNIGHT)
and SUSAN JOAN KNIGHT as the)
registered proprietors of the)
land in Folio of the Register)
Volume 37906 Folio 2 in the)
presence of:)

Certified correct for the purposes of the Real Property Act 1862, as amended.

.....
Subdivider/Solicitor for the Subdivider

This is the schedule of easements attached to the plan of Gregory Allan Knight
(*Insert Subdivider's Full Name*)
and Susan Joan Knight affecting land in

Certificate of Title Volume 37906 Folio 2
(*Insert Title Reference*)

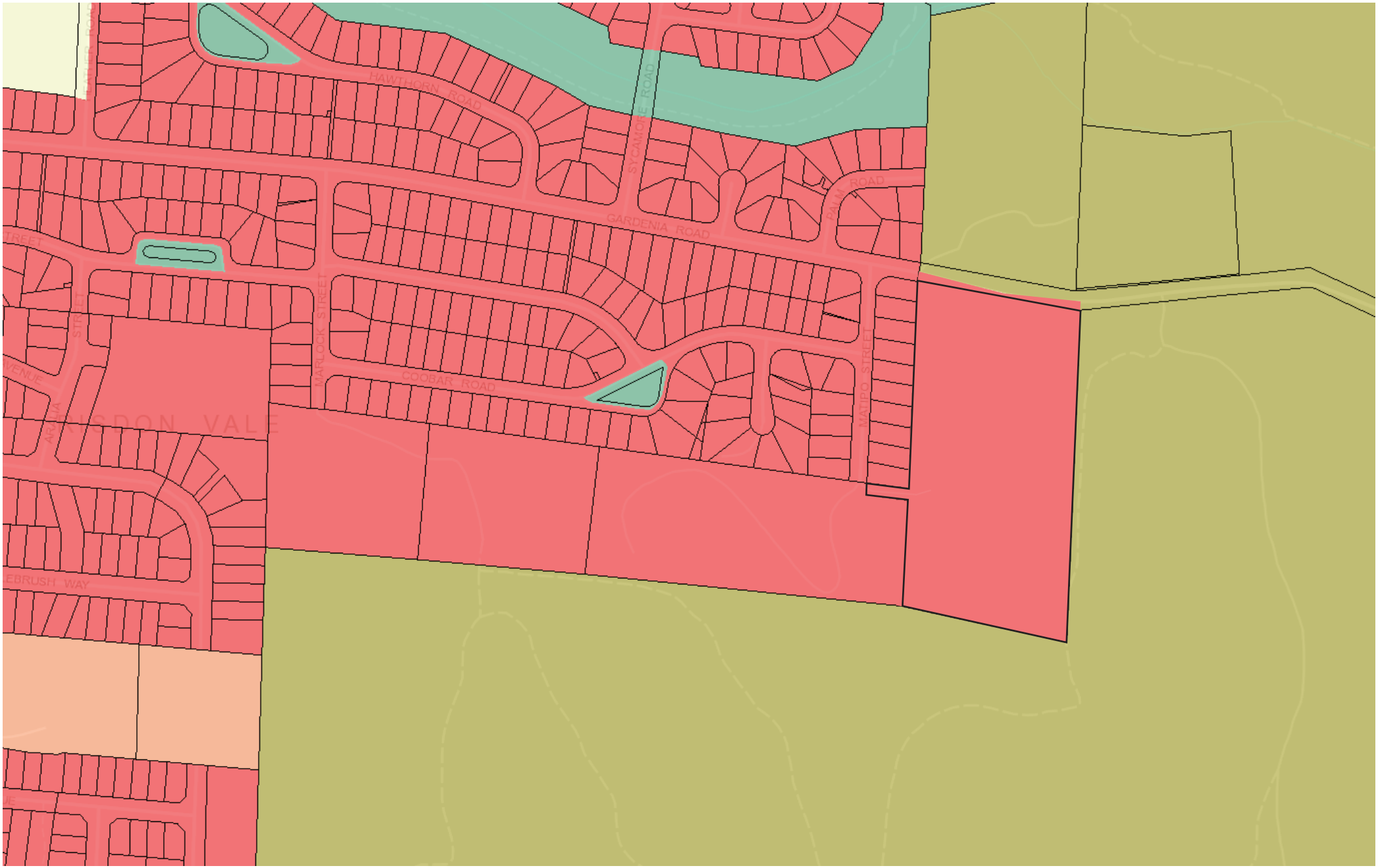
Sealed by Clarence City Council on 19

.....
~~Council Clerk/Town Clerk~~
CORPORATE SECRETARY

10365 Solicitors: Lewis, Driscoll& Bull

APPENDIX B

Revised Zoning Plan



MC PLANNERS
PTY LTD
ACN 667 411 234 ABN 52 667 411 234
0404 803 772 mat@mcplanners.com.au
www.mcplanners.com.au
2/129 Bathurst St Hobart Tasmania

PROJECT
21 MATIPO STREET, RISDON VALE

CLIENT
MATIPO TWENTY-ONE PTY LTD

PROJECT NO
23013

DRAWING NO
23013-RZ01

REVISED ZONING PLAN

SCALES @
NTS

DATE
10/10/2024

APPENDIX C

Draft Subdivision Plans

ROGERSON & BIRCH SURVEYORS

UNIT 1, 2 KENNEDY DRIVE
CAMBRIDGE 7170
PHONE: (03)6248 5898
EMAIL: admin@rbsurveyors.com
WEB: www.rbsurveyors.com

This plan has been prepared only for the purpose of obtaining preliminary subdivsional approval from the local authority and is subject to that approval.

All measurements and areas are subject to the final survey.

GARDENIA ROAD

DOWNHAMS ROAD

COOBAR ROAD

MATIPO STREET

101 1,411m²

41 543m² | 40 497m² | 39 466m² | 38 466m² | 37 466m² | 36 466m² | 35 466m² | 34 466m² | 33 485m² | 32 497m² | 31 498m² | 30 498m² | 29 509m² | 28 1,101m²

5 564m² | 6 461m² | 7 461m² | 8 515m² | 4 573m² | 3 573m² | 2 573m² | 1 586m² | 9 564m² | 10 583m² | 11 896m² | 12 651m² | 13 544m² | 14 544m² | 15 544m² | 16 544m² | 17 544m² | 18 544m² | 19 544m² | 20 544m² | 21 544m² | 22 845m² | 23 1,177m² | 24 608m² | 25 608m² | 26 608m² | 27 684m² | 43 453m² | 44 481m² | 45 473m² | 42 477m² | 46 477m² | 51 477m² | 47 477m² | 50 486m² | 49 501m² | 48 486m²

Public Open Space 102 570m²

Public Open Space 100 1,772m²

Existing Right of Way (private) and pipeline easement (benefitting)

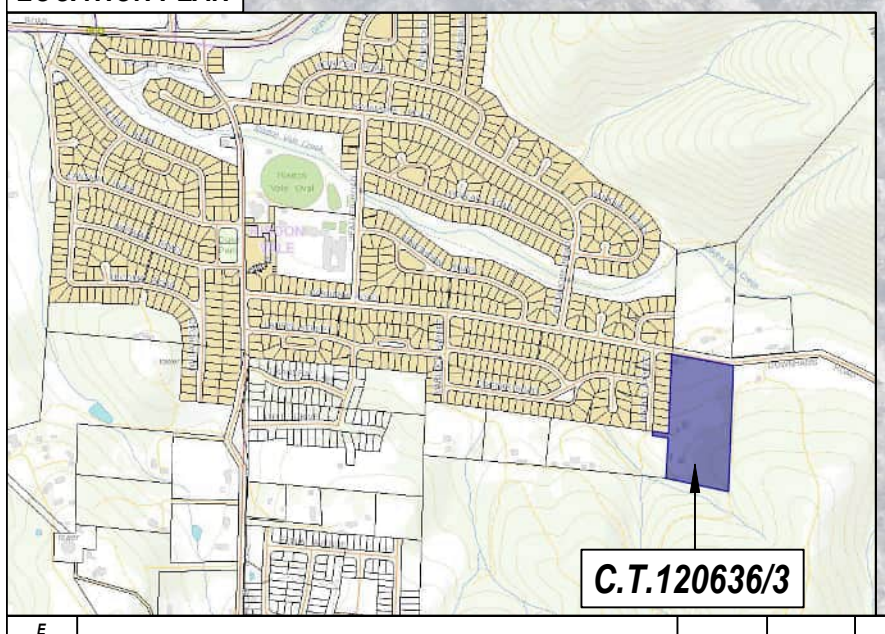
Existing Right of Way (private) and pipeline easement (burdening)

part 5 agreement for bushfire protection over 18m wide strip of land

Min. Bushfire Setbacks:

Min. Front Boundary Setbacks:

LOCATION PLAN



REV	AMENDMENTS	DRAWN	DATE	APPR.
E				
D	major changes-vegetation & bushfire	AB	8/10-24	AB
C	new layout (vegetation changes)	AB	18/09/24	AB
B	Add POS to North Eastern corner of subdivision	LH	27/02/24	LH
A	second version - straight road - through house	AB	23/02/24	AB

OWNER: MATIPO TWENTY ONE PTY LTD
TITLE REFERENCE: C.T.120636/3
LOCATION: 21 MATIPO STREET, **RISDON VALE**

Proposed Subdivision

Date:	Reference:
23/02/2024	HOUNJ01 15366-01
Scale: 1:1250 (A3)	**Municipality:** CLARENCE

APPENDIX D

Concept Services Layout

SAFETY IN DESIGN REPORT PER WHS REGULATIONS

The following risks which are unique to this design have been identified:	NIL
This report does not relieve contractors from their responsibilities under the Act to identify, report, mitigate and manage all aspects of risk and safety.	

N

0 10 20 30 40 50m

SCALE 1:1,000

LEGEND: PROPOSED SERVICES

- PROPOSED WATER MAIN
- PROPOSED WATER VALVE
- PROPOSED SEWER MAIN
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER PROPERTY CONNECTION
- PROPOSED STORMWATER MAIN
- PROPOSED STORMWATER MANHOLE
- PROPOSED STORMWATER PROPERTY CONNECTION

LEGEND: EXISTING SERVICES

- REDUNDANT EXISTING WATER MAIN
- EXISTING WATER MAIN
- EXISTING WATER HYDRANT
- EXISTING SEWER MAIN
- EXISTING SEWER MANHOLE
- EXISTING STORMWATER MAIN
- EXISTING STORMWATER MANHOLE

DOWNHAMS ROAD

GARDENIA ROAD

MATIPO STREET

POS

PROPOSED 900m² STORMWATER DETENTION BASIN FOR 1% AEP EVENT

CONNECTION NEW STORMWATER TO EXISTING MAIN

CONNECT NEW SEWER TO EXISTING SEWER MANHOLE (A564658) TOP: UNKNOWN IL: UNKNOWN

EXISTING DN150 RCP SEWER (A565530)

UPGRADE EXISTING OD40 PE80b WATERMAIN (A241802) TO DN100

EXISTING DN150 AC WATER MAIN (A248279)

EXISTING ZONE VALVE TO BE RETAINED (A241807)

EXISTING WATER PUMP STATION TO BE DECOMMISSIONED

10m EXISTING SERVICES EASEMENT AND PRIVATE ROW

PROPOSED WATER TO RECONNECT MATIPO STREET PROPERTIES ONTO HIGH PRESSURE MAIN

EXISTING RESERVOIR TO BE DECOMMISSIONED

EXISTING WATER TO BE MADE REDUNDANT.

PROPOSED WATER TO CONNECT TO EXISTING OD63 PE100 WATER MAIN (A3516344) ON PIPIT DRIVE. REFER DETAIL A DRAWING C02

REV	DATE	REMARK
P1	13.09.2024	CONCEPT SERVICES

Accepted CJM (Discipline Head)	Date
Accepted SFL (Team Leader)	Date
Approved CJM (Principal)	Date

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SCALES @ A3	DESIGNED BY	DRAWN BY
1:1000	SHL	CEF
	PLOT DATE	13/09/2024

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PROJECT
21 MATIPO STREET
RISDON VALE
SUBDIVISION

TITLE
CONCEPT SERVICES PLAN

PROJECT NO. 240129CS

DWG NO. C01

REVISION P1

PLOT DETAILS 240129CS - 3D BASE.DWG

SAFETY IN DESIGN REPORT PER WHS REGULATIONS

The following risks which are unique to this design have been identified:	NIL
This report does not relieve contractors from their responsibilities under the Act to identify, report, mitigate and manage all aspects of risk and safety.	

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PROPOSED WATER CONNECTION
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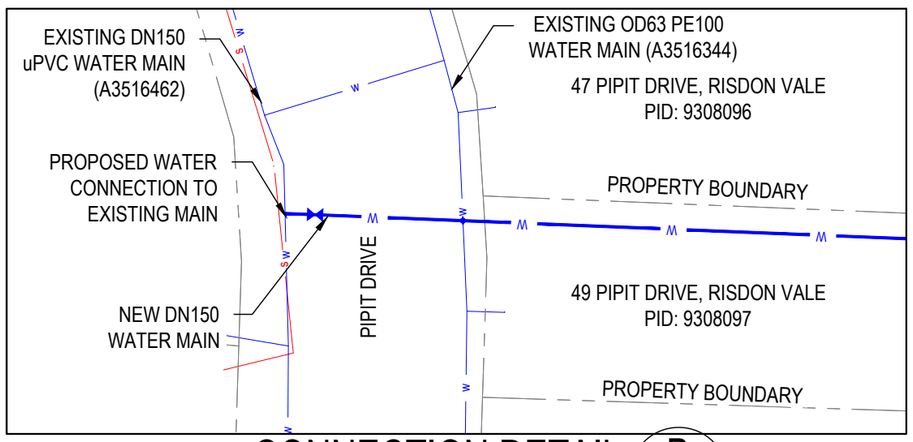

CONNECTION DETAIL B
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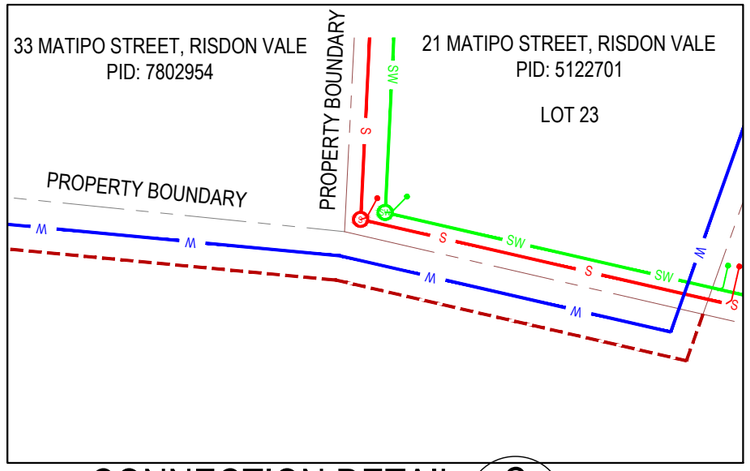

CONNECTION DETAIL C
SCALE: 1:500

REV	DATE	REMARK
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PROJECT
21 MATIPO STREET
RISDON VALE
SUBDIVISION

TITLE
CONCEPT SERVICES
WATER CONNECTION TO
PIPIT DRIVE

PROJECT NO. 240129CS
DWG NO. C02
REVISION P1
PLOT DETAILS 240129CS - 3D BASE.DWG

APPENDIX E

Aboriginal Heritage Assessment Report – May 2024

Proposed Land Rezoning
21 Matipo Street, Risdon Vale

Aboriginal Heritage Assessment Report
Final Draft Version 1

AUTHOR: Stuart Huys and Rocky Sainty
27 Apsley St South Hobart, TAS 7004

CLIENT: MC Planners

16.5.2024

CULTURAL
HERITAGE
MANAGEMENT
AUSTRALIA

Report Version Control

Report version	Report distribution	Date of Distribution
Draft Report V1	Zoe Smith (CHMA for Internal Review)	15.5.2024
Draft Report V1	MC Planners for Internal Review	15.5.2024
Final Draft Report V1	Aboriginal Heritage Tasmania	
Final Report V2	Aboriginal Heritage Tasmania	

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Executive Summary

Project Details

MC Planners are assisting in the planning and approvals for the rezoning of a property at 21 Matipo Street Risdon Vale (Title Reference 120636/3) from Rural to General Residential. The property encompasses approximately 4.18ha (the study area). Figures 1 and 2 shows the general location of the property, with Figure 3 showing the spatial boundaries of the property.

As part of the planning process, CHMA Pty Ltd and Aboriginal Heritage Officer (AHO) Rocky Sainty have been engaged by MC planners to undertake an Aboriginal heritage assessment of this property, in order to identify any potential Aboriginal heritage constraints. This report presents the findings of the Aboriginal heritage assessment.

Registered Aboriginal Sites in the Vicinity of the Study Area

As part of Stage 1 of the assessment process, a search was undertaken of the Aboriginal Heritage Register (AHR) to determine whether any registered Aboriginal heritage sites are located within or in the general vicinity of the 21 Matipo Street study area. The search shows that there are a total of 14 registered Aboriginal sites that are located within an approximate 2km radius of the study area (search results provided by Paul Parker from AHT on the 4.4.2024).

Based on the information provided on the AHR, it appears that none of these 14 registered sites are located within, the bounds of the study area. The closest registered site to the study area is AH13624 (an isolated artefact), which is situated around 750m to the south-east of the study area. The detailed AHR search results are provided in section 4.3 of this report.

Summary of Results

No Aboriginal heritage sites, suspected features, or specific areas of elevated archaeological potential were identified during the field survey assessment of the 21 Matipo Street study area. The field survey was able to confirm that there are no stone resources within the study area that would be suitable for stone artefact manufacturing. There are also no potential rock shelter features present in the study area. As noted in section 4.3 of this report, the search of the AHR undertaken for this project shows that there are no registered Aboriginal sites that are located within or in the immediate vicinity of the study area. This assessment has therefore confirmed that there are no known Aboriginal heritage values present in the study area.

As described in section 6 of the report, surface visibility across the study area was variable, with the estimated average ranging between 40% and 60%. Given some constraints in surface visibility, it can't be stated with absolute certainty that there are no undetected Aboriginal heritage sites present in the study area. With this acknowledged, the survey assessment still did achieve effective coverage of 4 640m². This level of effective coverage is deemed to be sufficient for the purposes of generating a reasonable impression as to the extent, nature and distribution of

Aboriginal heritage sites across the study area. The negative survey results can therefore be taken as a reasonably accurate indication that either there are no Aboriginal sites located in the study area, or site and artefact densities across the study area are likely very low, reflecting sporadic activity. The most likely site type to be present would be small artefact scatters or isolated artefacts.

As noted in section 2 of this report, the native vegetation across the entire study area has been cleared as part of past farming practices. Any sites located within cleared agricultural areas will necessarily have been adversely impacted by agricultural and development activities, unavoidably compromising the integrity of any cultural sites retained within these areas. As such, there is very little potential for in situ sites to occur within the study area. Soil depth across the study area is also shallow to skeletal, which means there is a very reduced potential for sub-surface artefact deposits to be present.

On the basis of the negative survey findings, the absence of registered Aboriginal sites, and the low potential for undetected Aboriginal sites to be present, the study area is assessed as being of low archaeological sensitivity. The detailed survey results and discussions are presented in section 7 of this report.

Management Recommendations

Heritage management options and recommendations provided in this report are made on the basis of the following criteria.

- Consultation with AHO Rocky Sainty.
- Background research into the extant archaeological and ethno-historic record for the study area and the surrounding region (see sections 3 and 4).
- The results of the investigation as documented in this report (see section 7); and
- The legal and procedural requirements as specified in the *Aboriginal Heritage Act 1975* (see section 9).

Recommendation 1

No Aboriginal sites or suspected features were identified during the field survey of the study area at 21 Matipo Street, Risdon Vale. A search of the AHR shows that there are no registered Aboriginal sites that are located within the study area, and it is assessed that there is a low to very low potential for undetected Aboriginal heritage sites to be present. It is therefore advised there are no Aboriginal heritage constraints that apply to the property.

Recommendation 2

If, during the course of any future development works within the property, previously undetected archaeological sites or objects are located, the processes outlined in the Unanticipated Discovery Plan should be followed (see Appendix 1). A copy of the Unanticipated Discovery Plan (UDP) should be kept on site during all ground disturbance and construction work. All construction personnel should be made aware of the Unanticipated Discovery Plan and their obligations under the *Aboriginal Heritage Act 1975* (the Act).

Recommendation 3

Copies of this report should be submitted to Aboriginal Heritage Tasmania (AHT) for review and comment.

1.0 Project Outline

1.1 Project Details

MC Planners are assisting in the planning and approvals for the rezoning of a property at 21 Matipo Street Risdon Vale (Title Reference 120636/3) from Rural to General Residential. The property encompasses approximately 4.18ha (the study area). Figures 1 and 2 shows the general location of the property, with Figure 3 showing the spatial boundaries of the property.

As part of the planning process, CHMA Pty Ltd and Aboriginal Heritage Officer (AHO) Rocky Sainty have been engaged by MC planners to undertake an Aboriginal heritage assessment of this property, in order to identify any potential Aboriginal heritage constraints. This report presents the findings of the Aboriginal heritage assessment.

1.2 Aims of the Investigation

The principal aims of the current Aboriginal Heritage assessment are as follows.

- To undertake an Aboriginal cultural heritage assessment of the property at 21 Matipo Street Risdon Vale (the study area as shown in Figures 1-3) The assessment is to be compliant with both State and Commonwealth legislative regimes, in particular the intent of the *Aboriginal Heritage Act 1975* and the associated *Aboriginal Heritage Standards and Procedures (2023).*
- Search the Aboriginal Heritage Register (AHR) to identify previously registered Aboriginal heritage sites within and in the general vicinity of the study area.
- Undertake relevant archaeological, environmental and ethno-historical background research to develop and understanding of site patterning within the study area.
- To locate, document and assess any Aboriginal heritage sites located within the study area.
- To assess the archaeological and cultural sensitivity of the study area.
- To assess the scientific and Aboriginal cultural values of any identified Aboriginal cultural heritage sites located within the study area.
- Consult with (or ensure the Aboriginal community representative consults with) Aboriginal organisation(s) and/or people(s) with an interest in the study area in order to obtain their views regarding the cultural heritage of the area.
- To develop a set of management recommendations aimed at minimising the impact of the proposed rezoning of the land on any identified Aboriginal heritage values.
- Prepare a report which documents the findings of the Aboriginal heritage assessment and meets the standards and requirements of the current *Aboriginal Heritage Standards and Procedures* prepared by AHT.

1.3 Project Methodology

A three stage project methodology was implemented for this assessment.

Stage 1 (Pre-Fieldwork Background Work)

Prior to field work being undertaken, the following tasks were completed by CHMA staff.

Consultation with Aboriginal Heritage Tasmania

AHT was contacted and informed that a field survey was to be undertaken for the property at 21 Matipo Street Risdon Vale. As part of this initial contact a search request of the Aboriginal Heritage Register (AHR) was submitted to AHT in order to ascertain the presence of any previously registered sites in the vicinity of the study area (search request dated 22-3-2024).

The collation of relevant documentation for the project

As part of Stage 1 the following research was carried out and background information was collated for this project.

- A review of the relevant heritage registers (AHR register) and the collation of information pertaining to any registered heritage sites located within the general vicinity of the study area.
- Maps of the study area.
- Relevant reports documenting the outcomes of previous Aboriginal heritage studies in the vicinity of the study area.
- Ethno-historic literature for the region.
- References to the land use history of the study area.
- Geotechnical information for the study area, including soil and geology data.

Consultation with Aboriginal Heritage Officer (AHO)

Rocky Sainty is the AHO for this project. As part of Stage 1 works Stuart Huys (CHMA archaeologist) was in regular contact with Rocky Sainty. The main purpose of this contact was to discuss the scope of the present investigations, to ratify the proposed methodology for the investigations and to co-ordinate the timeframes for implementing field work.

Stage 2 (Field Work)

Stage 2 entailed the field work component of the assessment. The field survey was undertaken over a period of one day (24.4.2024) by Stuart Huys (CHMA archaeologist) and Rocky Sainty (Aboriginal Heritage Officer). In total, the field team walked an estimated 1.85km of survey transects across the study area, with each transects averaging 5m in width. Section 6 provides further details as to the survey coverage achieved by the field assessment.

1.4 Project Limitations

All archaeological investigations are subject to limitations that may affect the reliability of the results. The main constraint to the present investigation was restricted surface visibility due primarily to vegetation cover, and the presence of introduced fill material. Surface visibility across the study area ranged between 20%-

80%, with the estimated average visibility being 50%. Vegetation cover was the primary restriction to surface visibility, together with built surfaces and introduced gravels in some areas. There were numerous erosion scalds present within the study area which provided locales of improved surface visibility. The issue of surface visibility is further discussed in Section 6 of this report.

The results of the field investigation were discussed by Rocky Sainty and Stuart Huys. This included the potential cultural and archaeological sensitivity of the study area, and any management strategies.

Stage 3 (Report Writing)

Stage three of the project involves the production of a Draft and Final Report that includes an analysis of the data obtained from the field survey, an assessment of archaeological sensitivity and management recommendations. The report has been prepared by Stuart Huys in consultation with Rocky Sainty. The report has been structured to comply with the standards and requirements of the current *Aboriginal Heritage Standards and Procedures* prepared by AHT. One electronic copy (PDF version) of the final draft report has been provided Aboriginal Heritage Tasmania (AHT) and the Proponent for review. A draft version of the report has also been provided to key Aboriginal stakeholders for information purposes.

Plate 1: Rocky Sainty, the designated AHO for the Project

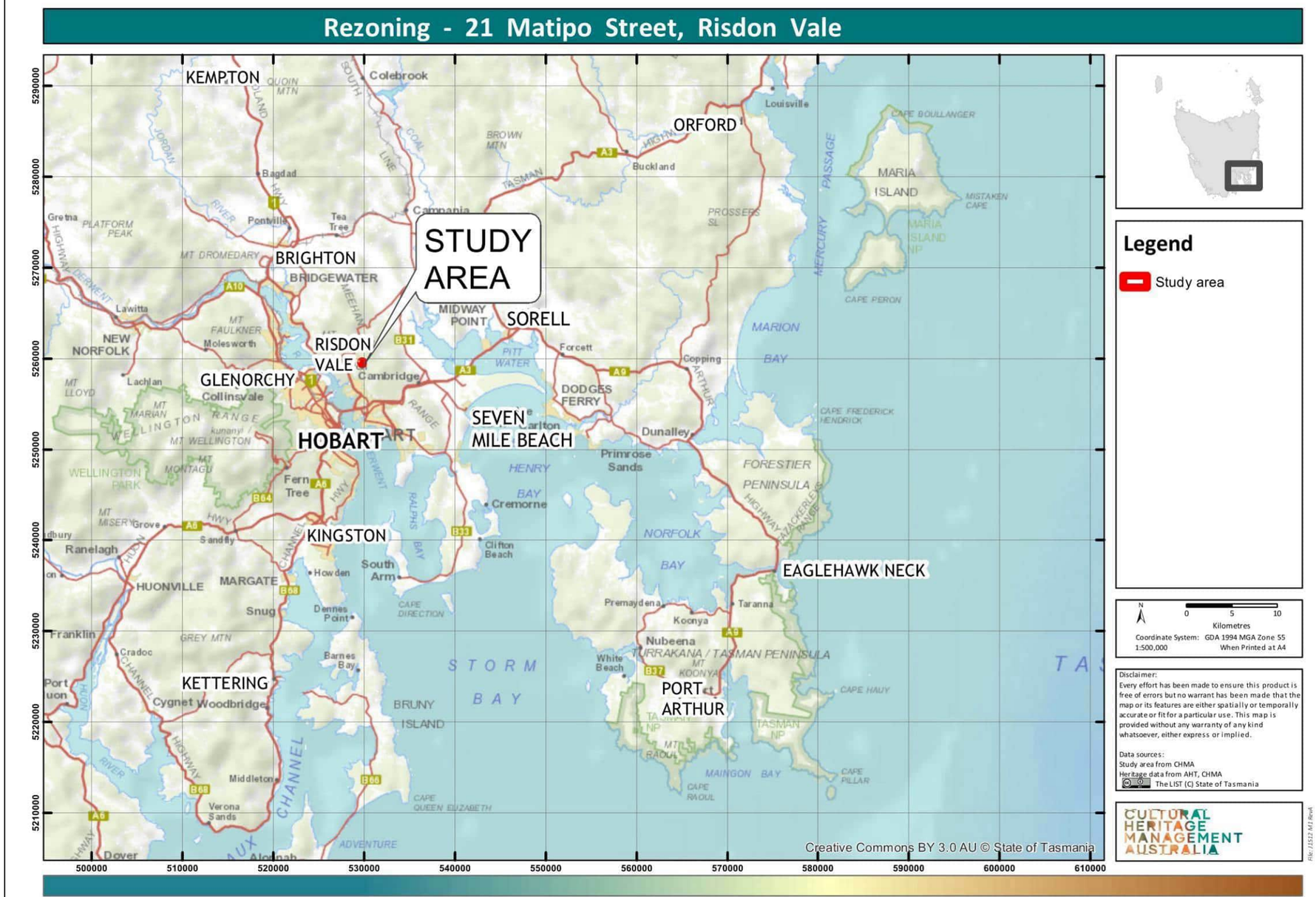


Figure 1: Topographic map showing the general location of the study area at Risdon Vale in South East Tasmania

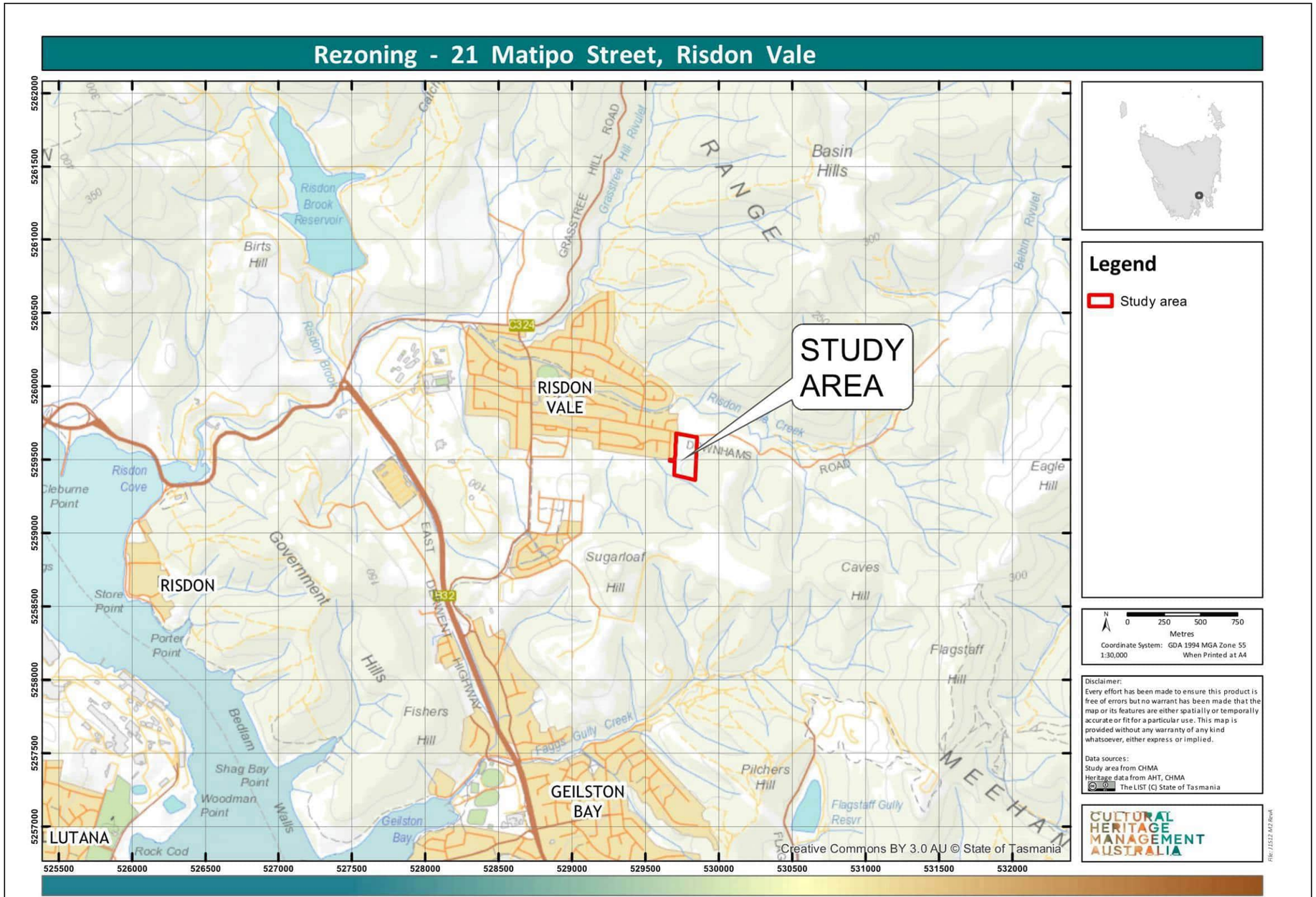


Figure 2: Topographic map showing the boundaries and landscape setting of the study area at 21 Matipo Street, Risdon Vale

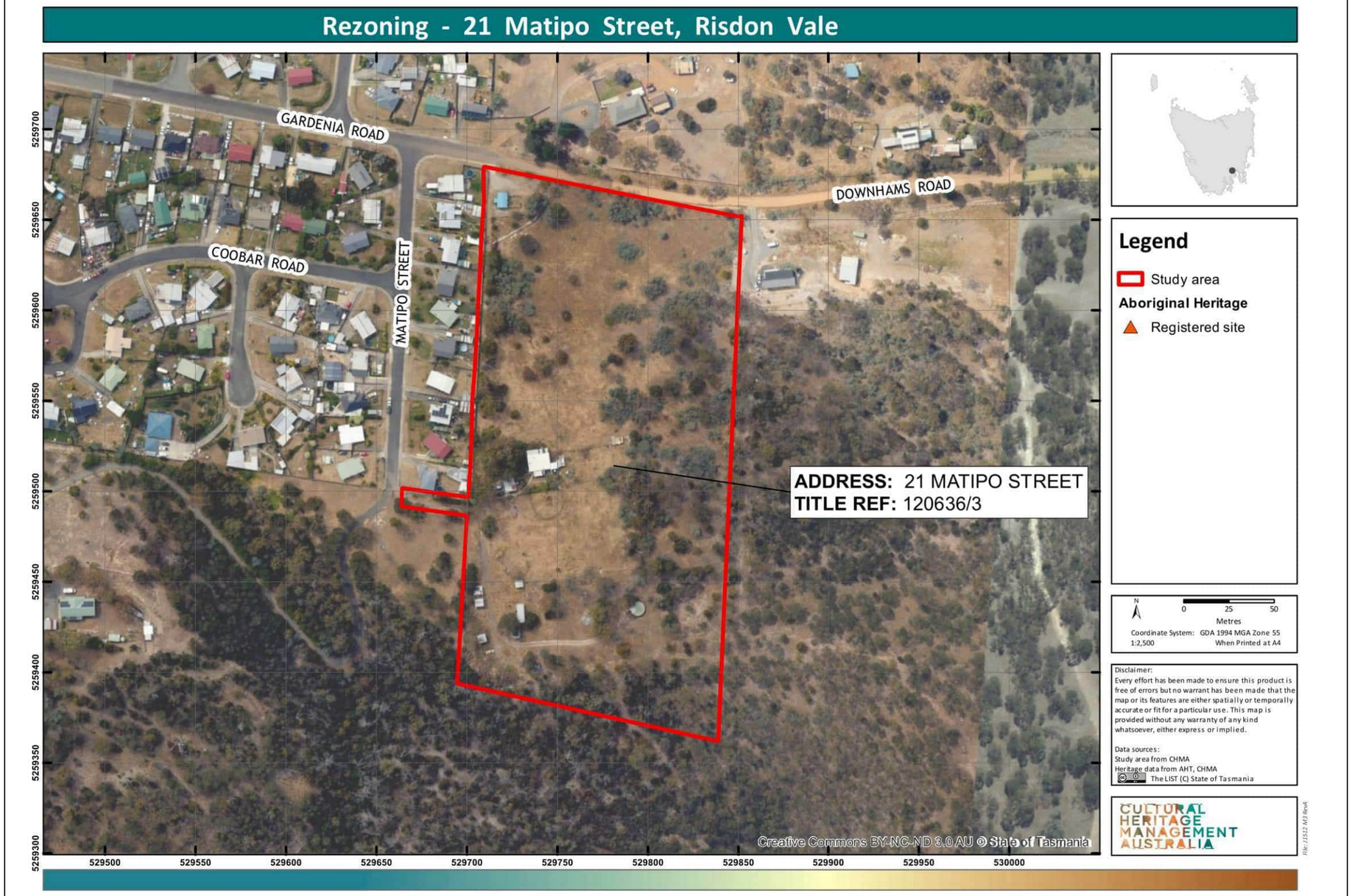


Figure 3: Aerial image showing the boundaries of the study area the study area at 21 Matipo Street, Risdon Vale

2.0 Environmental Setting of the Study Area

2.1 Introduction

Prior to undertaking archaeological survey of the study area, it is necessary to characterise the landscape. This includes considering environmental factors such as topography, geology, climate, vegetation and past and current landscape use. An assessment of the environmental setting helps to develop an understanding of the nature of Aboriginal occupation and site patterning that might be expected to occur across the study area. In addition, it must be remembered that in Aboriginal society, the landscape extends beyond economic and technological behaviour to incorporate social geography and the embodiment of Ancestral Beings.

The archaeological context is generally only able to record the most basic aspects of Aboriginal behaviour as they relate to artefact manufacture and use and other subsistence related activities undertaken across the landscape such as raw material procurement and resource exploitation. The distribution of these natural resources occurs intermittently across the landscape and as such, Aboriginal occupation and associated archaeological manifestations occur intermittently across space. However, the dependence of Aboriginal populations on specific resources means that an understanding of the environmental resources of an area accordingly provides valuable information for predicting the type and nature of archaeological sites that might be expected to occur within an area.

The primary environmental factors known to affect archaeological patterning include the presence or absence of water, both permanent and ephemeral, animal and plant resources, stone artefact resources and terrain.

Additionally, the effects of post-depositional processes of both natural and human agencies must also be taken into consideration. These processes have a dramatic effect on archaeological site visibility and conservation. Geomorphological processes such as soil deposition and erosion can result in the movement of archaeological sites as well as their burial or exposure. Heavily vegetated areas can restrict or prevent the detection of sites, while areas subject to high levels of disturbance may no longer retain artefacts or stratified deposits.

The following sections provide information regarding the landscape context of the study area including topography, geology, soils and vegetation. Much of this information is derived from The LIST – the Tasmanian Government Land Information System.

2.2 Landscape Setting of the Study Area

The study area is located at 21 Matipo Street, Risdon Vale, in South East Tasmania. The site encompasses approximately 4.18ha and is situated around 3.5km inland (east) of Risdon Cove of the River Derwent Estuary. The River Derwent estuary is a ‘ria’ or drowned river valley formed by coastal submergence about 6,000 years ago. The shoreline of the estuary in the surrounds of Risdon Cove Cove is low-energy, with mudflats and shoals exposed at low tide. The River is estuarine at this point, and

subject to tidal influences. The other major water course in the vicinity of the study area is the Jordan River. The Jordan River has its' headwaters at Lake Tiberias, around 40km to the north-east of the study area. From here the river flows in a north-west direction through a broad open valley system, cutting across the Midland Highway near Jericho. It then enters more steeply incised hills just south of Melton Mowbray, where the river then loops around to the south-east, eventually emptying into the Derwent River at Herdsmans Cove. The river is also estuarine at this point, and subject to tidal influences.

The closest named water course to the study area is Risdon Vale Creek, which is situated around 200m to the north of the northern boundary of the study area. The creek has its headwaters around Eagle Hill, which is part of the Meehan Range. It flows in a westerly direction, through a narrowly incised valley, joining with Grasstree Hill Rivulet, around 1.6km to the north-west of the study area. Grasstree Hill Rivulet in turn merges with Risdon Brook, which empties into the River Derwent at Rison Cove.

The study area is situated on the lower north-west side slopes of a low relief hill, which is part of the Sugarloaf Hill complex. The terrain across the study area is characteristically gently to moderately sloping, with slope gradients generally in the range of between 1º and 15º (see Plates 2 and 3). The underlying geology across the vast majority of the study area and general surrounds comprises unfossiliferous glaciomarine interbedded non-fissile and fissile siltstone and silty sandstone associated with the Lower Parmeener Supergroup. Along the northern edge of the study area there is a small patch of dolerite and subordinate Lower Parmeener rocks (TheList 2024). From an Aboriginal heritage perspective, the rock types present in the study area are typically unsuited for stone artefact manufacturing, being to soft or brittle. The possible exception is if small patches of silicified or metamorphosed material occur within the study area.

Soils across the study area are poor to imperfectly drained grey brown texture contrast soils developed on Permian siltstone bedrock and colluvium on undulating to rolling (3-32%) land (TheList 2024). Soil depth is typically shallow to skeletal with the bedrock exposed to the surface across many parts of the study area (see Plate 4).

The native vegetation structure across the hills surrounding the study area is classified as *Eucalyptus amygdalina* forest on mudstone (TheList 2024). Across the study area itself the native vegetation has been largely cleared as part of past rural practices. The current vegetation structure comprises introduced grasses with patches of wattle and Eucalypt regrowth (see Plate 5) (classified as Agricultural, urban and exotic vegetation on TheList 2024). In addition to the land clearing noted above, there are a range of built structures on the property, including a house and garage, numerous sheds, yards and landscaped grounds surrounding the house and a water tank (see Plates 6 and 7). From an Aboriginal heritage perspective, any sites located within this cleared agricultural land will have been impacted to some extent. Impacts are likely to have been mainly confined to the upper soil horizons (top 40cm) and will have involved the horizontal and vertical displacement of cultural deposits. Any Aboriginal sites that may have been located within the developed parts of the

property where there are built structures, will have been either destroyed or very heavily disturbed.

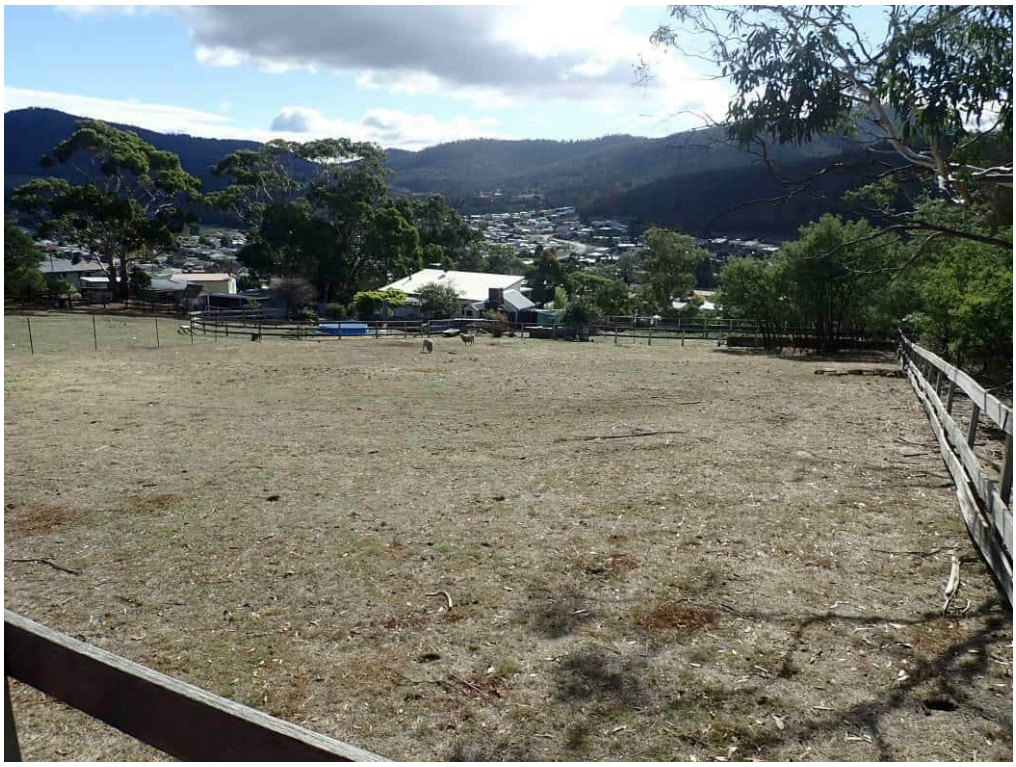


Plate 2: View north across the study area showing typical topography

Plate 3: View south across the study area showing typical slope gradients

Plate 4: View north-west showing bedrock exposed to the surface across the south-east part of the study area

Plate 5: View north across the study area showing typical vegetation structure

Plate 6: View east at the existing house and garage on the property

Plate 7: View north-east showing sheds and yards on the property

3.0 Ethno-historic Background

3.1 Aboriginal Social Organisation in Tasmania

Ryan (2012) explains that the terms 'nation' and 'clan' are the preferred terms used by the Tasmanian Aboriginal community in place of 'tribe' and 'band' respectively. This terminology has been adopted in the following discussion. According to Jones (1974), the social organisation of Tasmanian Aboriginal society appears to have consisted of three social units, these being the hearth group, the band (clan) and the tribe (nation). The hearth group was the basic family unit and would generally have consisted of a man and woman, their children, aged relatives and sometimes friends and other relatives. The size of hearth groups would generally range from between 2-8 individuals (Jones 1974: Plomley 1983). Plomley (1983) provides a description made by Peron of a hearth group he encountered at Port Cygnet:

> *There were nine individuals in this family, and clearly they represented a hearth group, because Peron visited their campsite with its single hut. The group comprised an older man and wife, a younger man and wife, and five children, one a daughter (Oure-Oure) of the older man and wife, and the other four the children of the younger man and wife. (Plomley 1983:168).*

The clan appears to have been the basic social unit and was comprised of a number of hearth groups (Jones 1974). Jones (1974:324-325) suggests that the clan owned a territory and that the boundaries of this territory would coincide with well-marked geographic features such as rivers and lagoons. Whilst the clan often resided within its territory, it also foraged widely within the territories of other clans. Brown (1986:21) states that the band was led by a man, usually older that the others and who had a reputation as a formidable hunter and fighter. Brown also suggests that the clan (as well as the hearth group) was ideally exogamous, with the wife usually moving to her husband's band and hearth group.

Each clan was associated with a wider political unit, the nation. Jones (1974:328-329) defines the tribe (or nation) as being:

> *…that agglomeration of bands which lived in contiguous regions, spoke the same language or dialect, shared the same cultural traits, usually intermarried, had a similar pattern of seasonal movement, habitually met together for economic and other reasons, the pattern of whose peaceful relations were within the agglomeration and of whose enmities and military adventures were directed outside it. Such a tribe had a territory, consisting of the sum of the land owned by its constituent bands…The borders of a territory ranged from a sharp well defined line associated with a prominent geographic feature to a broad transition zone.* Jones (1974:328-329)

According to Ryan (2012:11), the Aboriginal population of Tasmania was aligned within a broad framework of nine nations, with each nation comprising between six to fifteen clans (Ryan 2012:14). The mean population of each nation is estimated to have been between 350 and 470 people, with overall population estimates being in the order of between seven to ten thousand people prior to European occupation (Ryan 2012:14).

Ryan (2012:15) presents a map showing the approximate boundaries for the nine Tasmanian Aboriginal Nations. This map shows that the Jordan River, from its mouth through to around St Peters Pass, formed the boundary between two nations, the Oyster Bay Nation and the Big River Nation (see Figure 4).

The Oyster Bay Nation occupied the area to the east of the Jordan River, with their territory encompassing around 7800 square km. The Nation consisted of ten bands with an estimated total population of between 700-800 people, making it the largest Nation in Tasmania (Ryan 2012:17). Of the ten clans that comprised the Oyster Bay Nation, it is the Moomairremener that probably occupied the land in the vicinity of Risdon Cove.

The area to the west of the Jordan River was believed to have been the Territory of the Big River Nation (Ryan 2012:15 and 26). The territory of the Big River Nation is described by Ryan as extending from around New Norfolk on the Derwent River, south-west through to the rugged Mountains beyond the source of the Derwent River, north to Surrey Hills, then east through the mountains to Quamby Bluff (encompassing all the lake country) and finally south along the Western Tiers and the Jordan River (Ryan 2012:26).

The study area is on the boundary of these two nations, but probably sits within the land of the Oyster Bay Nation, being to the south-east of the Jordan River.

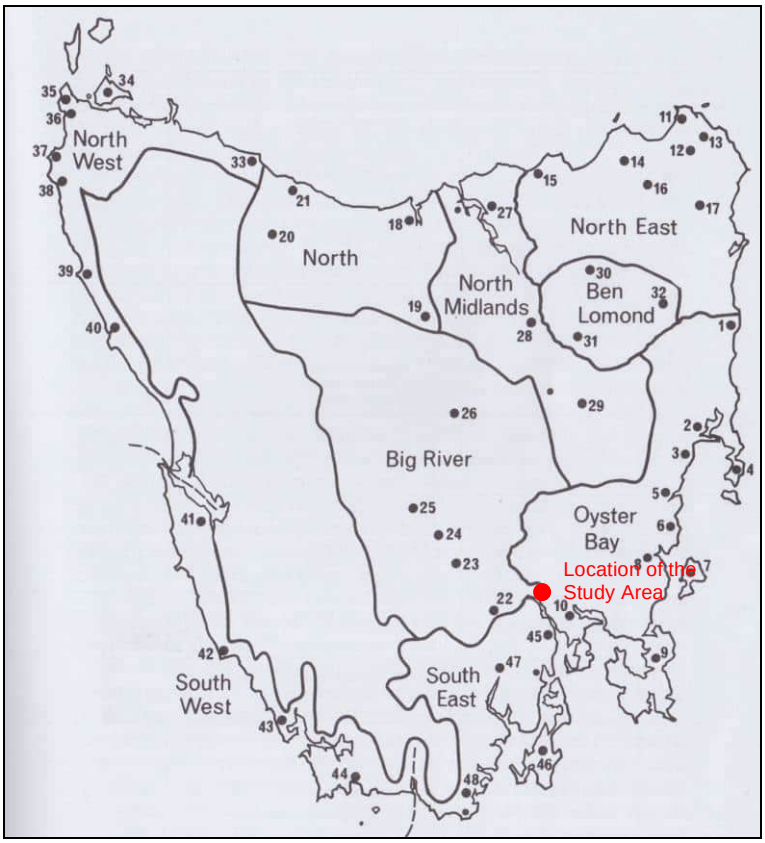


Figure 4: The location of the study area in relation to Aboriginal Nations of Tasmania (based on map from Ryan 2012:15)

The Oyster Bay Nation

The movement of the Oyster Bay Nation through the landscape is thought to have been largely based on the seasonal availability of food resources. In this sense, the Oyster Bay Nation could be divided into two distinct groups: the northern group (from North Oyster Bay through to St Patricks Head) and the southern group (from Little Swanport through to the Tasman Peninsula) (Ryan 2012:18).

According to ethnographic material, of the ten bands that comprised the Oyster Bay Nation, it is the Moomairremener band from the southern group which probably occupied the land closest to the present study area. The southern Oyster Bay people started to move inland in early spring to hunt and fish. The Moomairremener generally commenced moving inland around September/October, travelling up the Derwent River towards New Norfolk, and across to Abysinia, and from there they would travel along the Clyde and Ouse Rivers. Travel was along well-defined routes, generally along the edges of the Band's territory. The two big attractions of the Big River country were the kangaroo hunting grounds around Great Lake and the Clyde and Ouse Rivers, and the availability of a potentially intoxicating gum procured from the *Eucalyptus gunii* tree. The Moomairremener would begin moving back through the Midlands in late February, early March, eventually returning to the coastal areas around June (Ryan 2012:17-20). These routes are shown in Figure 5.

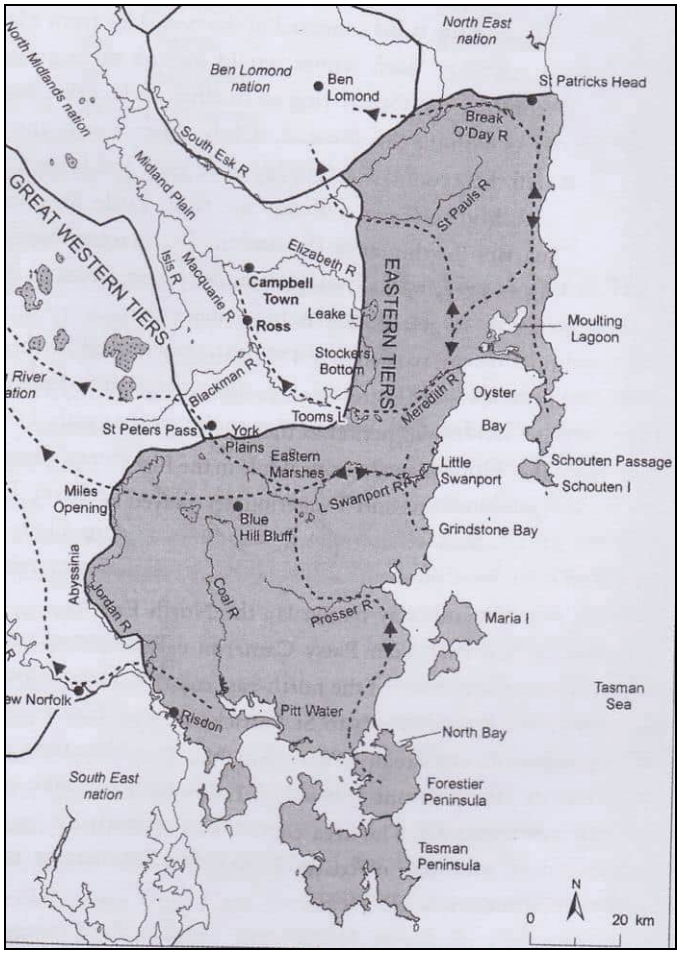


Figure 5: Seasonal movement of the Oyster Bay Nation clans (Ryan 2012:19)

Material Culture, Social Customs and Ethnographic Sources

The ethnographic observations of early European explorers provide a valuable snapshot into aspects of the material cultural and social customs of the Aboriginal Nations inhabiting southeastern Tasmania. Primary among the ethnographic sources are the diaries of George Augustus Robinson, appointed as government Protector of Aborigines who followed a policy of conciliation with the ultimate aim of removing Aboriginal people to offshore islands (Plomley 2008:515). These observations are especially valuable where they describe to those items and practices that do not survive in the archaeological record.

While the early European explorers generally recorded the people of south east Tasmania as being mostly naked, there are references to kangaroo skin being used for capes, slings and binding for wounds. Both William Anderson (Cook's surgeon in 1777 when he anchored briefly in Adventure Bay) and Labillardiere (the 1793 expedition anchored in Recherche Bay) recorded seeing kangaroo skin used to bind injured feet (Dyer 2005:25). This was very effective it would seem as the people were able to keep up with their companions (Dyer 2005:26). Cook also recorded women using kangaroo skin slings to carry children, and there are several illustrations of this in the paintings by Petit and Lasueur from the Baudin expedition (Bonnemains *et al* 1988). The only other type of protective clothing that appears to have been worn on occasion was a sandal type covering worn on the soles of the feet, which was made from kangaroo skin or possibly a piece of bull kelp (Plomley 1983:123)

Ethnographic sources document a range of shelters used in Tasmania. The most common in the southeast were simple windbreaks of thick strips of bark woven together and supported on vertical wooden poles, as in the artwork from the Baudin expedition (Bonnemains *et al* 1988). Robinson reported seeing huts that were decorated with symbols he recognised as similar to those observed in rock engraving sites at Cape Grim (Plomley 2008:17). In June 1804 Lieutenant Governor Collins made contact with Aboriginal people living on the Huon River (Plomley 2008:18). He recorded an 'Aboriginal village' with about twenty families congregated at the site.

Burial customs were also observed by the ethnographers. Cremation was the usual form of disposing of a deceased person (Plomley 2008:17). Illustrations from the Baudin expedition show 'tombs' at Maria Island (Bonnemains *et al* 1988:131). These were bark tepee-like constructions built over remains that have been covered in fibres or leaves weighted down by rocks (Bonnemains *et al* 1988:131). Robinson also recorded that bones of the deceased, or ash from the cremation, was sometimes carried by relatives as an amulet (Plomley 2008:17).

Robinson recorded that Aboriginal people in the south east would travel along 'well beaten paths' and leave abalone shells at drinking places along rivers (Plomley 2008:59). He also recorded an instance of trying to convince his Aboriginal companions to eat fish, and the strong reluctance they demonstrated (Plomley 2008:59).

Plomley (1983:185-194) provides a comprehensive account of the weapons and implements used by the Tasmanian Aborigines, based on the ethnographic accounts. It appears that the two main weapons used by the local inhabitants were the spear and the club. The spear was a simple flexible rod with a point at one end, the length of which appears to have varied significantly from between 6-12 feet. The club is described as a piece of wood about 60cm long, 2.5cm in diameter and slightly tapered toward the gripping end. This item is reported to have been used as a throwing stick as well as a club.

Plomley (1983:22) also makes reference to the use of a wooden spatula which was used primarily for removing shellfish from rocks.

In many of the early ethnographic accounts for the Southeast region, there is reference to the baskets carried by the Aboriginal people, however often there is very little detail regards their construction. One of the more detailed descriptions comes from Robinson (in Plomley 1966:58), while he was on Bruny Island.

> *"The native basket is made of rushes of a species of grass called iris. In preparing them for use they place the same on a slow fire which gives them a tenacity that enables the manufacturer to twist them into threads. These are plaited together and then formed into a basket which in shape is somewhat semiglobular."*

There also a number of reports of water vessels constructed from the fronds of giant kelp which could hold up to five to ten litres of water (see Labillardiere 1800:190).

There are numerous ethnographic accounts for the Southeast region describing the watercraft used by the local inhabitants. One of the most detailed descriptions comes from Louis Freycinet, an officer on the Naturalist in 1802 (in Plomley 1983:119-120).

> *We have seen them and have measured several. They had the same dimensions and were constructed in exactly the same way. Three roles of the bark of the eucalypt made up its whole structure…These bundles when taken separately, resemble in a way the yard of a vessel, were joined at their ends, and this caused them to stick up in a point and make up the whole of the canoe. The assemblage was made quite firm with a sort of grass or sedge. In this state, the craft had the following dimensions-*
>
> *Length inside 2.95m*
> *Breadth outside 0.89m*
> *Total height 0.65m*
> *Depth inside 0.22m*
> *Size at the ends 0.27m*
>
> *The [group] can put five or six peoples in these canoes; but more commonly only three or four are taken at a time. Their paddles are plain pieces of wood…Usually they sit down to manoeuvre their canoes; in that case they place bundles of grass to serve as seats. At other times they stand up. We have seen them cross the Channel only in fine weather. One can imagine that such a fragile and imperfect craft would never be able to make their way, let alone keep afloat, in a rough sea…It is to be noted that they always put a fire*

> *at one end of their canoes, and to prevent the fire from spreading they place under it a bed of earth or ashes of sufficient thickness.*

Interestingly, although stone artefacts dominate the archaeological record for Tasmania (and Australia generally), there are few ethnographic accounts in Tasmania documenting their use. Those observations that are made, primarily relate to the finding of stone implements at campsites. Frustratingly, there are virtually no accounts regarding the form of the implements, how they were made, and what they were used for.

Robinson (in Plomley 1966:113) reports that he

> *"Obtained a stone from one of the Bruny natives with which they sharpen their waddies…It has the resemblance of flint and is found at the Isthmus of Brune.."*

One of the very few descriptions of Aboriginal people carrying out quarrying activity comes from Raynor (in Roth 1899:151) who recounted that his father had come across about 20-30 Aboriginal people, men, women and children, at a quarry near Plenty on the southern side of the middle Derwent Valley.

> *Noisily chatting, they were breaking the stone into fragments, either by dashing them on the rocks or by striking them with other stones, and picking up the sharp edged ones for use…*

This quarry was subsequently visited by Rhys Jones, who noted that the quarried material was an indurated cherty hornfels and that the quarry extended over an area of about 2 ½ hectares (Jones 1971:456).

Ethnographic observations of the Oyster Bay Nation specifically are quite common. Large gatherings of Aboriginal people assumed to be of the Oyster Bay Nation have been recorded in the ethnographic records. McGowan (1985:92) reports that in May 1804 a large group of Aborigines, variously estimated to be up to 500 individuals, including men women and children were observed hunting kangaroo near the first European settlement at Risdon Cove.

Robinson noted that a Mr Earl related *'…that he had seen as many as 500 in one mob together, i.e. the Coal River mob.'* (Robinson in Plomley 1966:595).

One of the earliest and more comprehensive descriptions of the Oyster Bay people comes from Lieutenant Le Dez who was a member of the Marion du Fresne expedition of 1772. The following account was written after he encountered Aboriginal people from the Oyster Bay Nation at Forestier Peninsula at North Bay.

> *Their usual height is 5 ½ feet, their colour very much approaches rust, but they rub themselves with black and make patterns in the form of a crescent on their bodies with this colour: their hair is cottony; they have very little beard, very white teeth, large, harsh features and a wild appearance. In general they are badly built with thin bodies and slender legs and thighs. They speak with a singular vivacity and we were unable to distinguish any*

sounds other than these: la-ga – la-ga. I compared them with the inhabitants of New Holland of whom Dampier speaks. They appear to me widely dispersed or wandering like them in bands or in families and the fires we have often seen along the coast are probably the places where each band stops. They must naturally prefer places near the sea and in coves because of the ease with which they can find their sustenance there. I think they are seafood eaters because we found many places in the woods where they had stopped. One notices easily the place where they slept around a mound of ash and one sees, nearby, fish bones and many burnt shells. It appears that they are always naked and among those that we saw there was one that had a skin belt with long hairs and another had a white feather in his hair: was that a mark of distinction or an ornament. The women we saw only from a distance; they always stayed on the edge of the woods ready to run away (and) seemed to have as their only clothing a piece of skin which covered their breasts and reached to their thighs. I think they must suffer very much during the winter, which must be long and hard, because I do not think they have other ways of fending off the cold than by lighting fires. Thus they appreciate fire very much and when I saw them come to meet our sailors and offer them fire it occurred to me this element was the one they held most useful; it was a sign of friendship to offer it to us. Perhaps they behave in this way among themselves when they meet. We noticed that most of them, besides their spears and a few stones, carry a firebrand as well and each time they stop, and it is often only for a moment, they make a fire and gather round it. It is astonishing how many places we have found where they have lit a fire and how much the woods are devastated by it. We have seen few trees that were not injured at the foot and it was the same throughout the whole bay. We have covered almost all of it without encountering inhabitants or any of their retreats. It was only on the island in the NNE that we found a few pieces of bark, badly arranged with one end resting on a piece of wood set crosswise and the other on the ground; that formed, if you wish, a kind of hut. It seems that they had not long left it; one can conjecture from that that they make similar ones and we did not penetrate sufficiently into the woods to encounter them and that it is for that purpose or to make ropes (because we found a piece that was quite well twisted) that there are numerous trees that we saw stripped of their bark to a height of five or six feet…We have found nothing that could make us suspect that they have canoes or rafts…Their spears are nothing other than sticks about six feet long, pointed at the thick end. They are not poisoned at all… (Le Dez in Cox 2010:18-19).

Subsistence and Economy

There are a number of other ethno-historic accounts that comment on the prevalence of shellfish and crustaceans in the diet of the local inhabitants (see Plomley 1966 and 1983), and the archaeological evidence (in the form of midden sites) provides tangible testimony to this. However, the ethnographic and archaeological evidence for the consumption of fish is comparatively very sparse. This has led to some suggestions that fish was not a component of the diet of the Tasmanian Aborigines (see Jones 1974).

Robinson provides an account of the 'chief' Mannalargennana of the Oyster Bay Nation cooking wallaby.

> *"…The animal is first thrown on the fire whole as is their custom with all animals, and when the hair is singed they take the carcase off the fire and rub off the scorched hair with their hands. This practice is tenaciously observed with all animals except the possum; the fur of this animal is first pulled off previous to its being placed on the fire. After the chief has rubbed the hair off the wallaby, he broke the fore leg by twisting it with his hands…He then cut the hind legs, after which he made a hole in the belly with his fingers and pulled out the entrails and then thrust in some hot ashes, the animal being previously roasted outside…* (Robinson in Plomley 1966:548-549).

Possum also seems to have been frequently hunted. Plomley (1966:533) describes possums being knocked down out of trees with waddies, or trees were climbed to reach possum holes.

Unfortunately, there are very few accounts available for the hunting of other terrestrial fauna, however, it is likely that a much wider range of species were targeted, including echidna and smaller marsupials.
Certainly within the midlands region, birds and eggs appear to have also formed a major component of the diet of the local inhabitants, with swans, ducks and red bills being some of the main species targeted (Plomley 1966:217). However, there are very few accounts available for the south-east Tasmanian region, for the hunting of birds and the gathering of eggs. Nonetheless, it would be reasonable to assume that this also was carried out at certain times of the year.

Only a few plant foods are documented in the ethohistoric accounts as having been eaten. This includes a bulbous plant known as 'native bread' and a plant that has the appearance of asparagus which was found by the roots of peppermint trees (Plomley 1966). It is very likely that many more plant foods were eaten by the local Aboriginal population. Jones (1971:91-95) for example lists 70 edible plant species that are available in Tasmania and are likely to have been consumed at times of seasonal availability. This would include pig face, tree ferns, fern roots and a variety of seaweeds.

3.2 Cultural Contact and Frontier Violence

In the first years of the settlement at Hobart the surrounding areas became vital hunting grounds supplying kangaroo meat to the struggling colony on the brink of starvation (Alexander 2006:5). Hunting parties could be away from Hobart for months at a time, and would have needed to learn how to survive in the Tasmanian bush.

The economic importance of the kangaroo hunters to the success of the colony cannot be over emphasised. Without the supply of kangaroo meat the government would have been unable to meet the rations and maintain the settlement (Boyce 2009:52). However, the reliance of the colonisers on kangaroo brought them into direct conflict with the Aboriginal people. Access to seasonal kangaroo hunting grounds was central to the economies of both the Big River and Oyster Bay Nations.

At first, the Europeans were at an advantage as they had hunting dogs that greatly increased the numbers of kangaroo that a hunter could kill (Boyce 2009:52). The Aboriginal people quickly adapted to the use of dogs, an example of rapid cultural and economic adaptation. This brought the two groups onto a more even par (Boyce 2009:66). This period of parity only lasted while the European population was small; as early as 1806 the kangaroo populations around Hobart had been decimated and the hunters were being forced to move further north, towards the Brighton district (Boyce 2009:54). The settlement was literally starving, and there was a strong economic imperative for hunters to extend to the north in search of fresh sources of game. As the settlement continued to expand, both the colonists need for a meat supply, and their transformation of the hunting grounds into cleared, pastoral farms set the scene for an escalation in conflict (Boyce 2009).

Clashes with Aboriginal communities became more frequent and more violent as European settlement expanded. Lieutenant-Governor George Arthur proclaimed Martial Law in November 1828, leading to the active pursuit, capture and death of many Aboriginal people. A bounty was introduced in February 1830 of five pounds for every adult captured and two pounds for each child. In the two years between November 1828 and November 1830 some twenty Aboriginal people were captured and a further sixty lost their lives (Ryan 2012:102).

A series of six 'roving parties' were established for the purposes hunting and capturing the remaining Aboriginal occupants of the settled areas. This military action resulted in a general increase in the scale of violent conflict between Europeans and Aboriginal people, and by 1830 it was decided that a full-scale military offensive was required in order to quell the Aboriginal uprising. This operation, termed the 'Black Line,' involved the assembly of 2000 men in October 1830, who formed a human chain that swept through the settled districts over a period of three weeks, with the aim of driving the remnant Aboriginal populations from these areas. At the time the military campaign was widely believed to have achieved its objectives, with virtually the entire Aboriginal population having been either killed, or driven out of the settled areas. In 1832 the proclamation of Martial Law was revoked (Ryan 2012:112-113).

The Black Line was Governor Arthur's response to repeated insistence from settlers that Aboriginal people should be removed from the midlands (Alexander 2006:15). This reflects the level to which conflict had reached by 1830. Over three weeks two thousand settlers formed a line across the midlands, attempting to drive Aboriginal people south onto the Tasman peninsula (Alexander 2006:15). The line passed through Brighton in October 1830; no Aboriginal people were captured in the district (Alexander 2006:16).

Whilst the Black Line itself proved to be a dismal failure, with the total capture of two Aborigines and death of another three, it was sufficiently distressing to the general Aboriginal community that more than two hundred people subsequently allowed themselves to be persuaded by George Augustus Robinson (the 'Protector of Aborigines') to relocate to Flinders Island in exchange for food, shelter and safety

(Lines 1991:47). They were further promised that they would be returned to their former homes on the Tasmanian mainland as soon as possible.

By 1835, the majority of the 220 Aborigines who arrived with Robinson at the Wybalenna Aboriginal establishment on Flinders Island had died from inadequate shelter, insufficient provisions and introduced disease. Birth rates were extremely low and few children survived infancy. In 1847 six Aborigines at Wybalenna made a petition to Queen Victoria asking that the promises made to them be honoured. In October 1847, the surviving 47 Aborigines were transferred to their final settlement at Oyster Cove (only 44 people survived the trip).

Conditions at Oyster Cove were only marginally better than at Wybalenna and the Aboriginal population continued to experience high mortality rates. However, throughout the 1850s and 1860s the European settlers recorded numerous anecdotes of Aboriginal people at Oyster Cove maintaining elements of their pre-contact lifestyle (AT 2010:26). They hunted, performed ceremonies and continued making traditional cultural items. The best known example is Fanny Cochrane who married ex-convict William Sawyer. She is reputed to have practiced traditional shellfish gathering, basket making, medicine and religious practices (AT 2010:27).

The Oyster Cove station closed in 1862. For most of the next 100 years, parts of the former station land were sold, while some remained as Crown land. In 1981, the majority of the former station area was proclaimed as a Historic Site. Despite strong opposition, the Aboriginal community reoccupied the site on 16 January 1984. Each year since occupying the putalina site, the Tasmanian Aboriginal Corporation has held an annual music and cultural festival (AHT fact sheet accessed 2021).

In 1995, the State Government formally handed the title of Oyster Cove putalina to the Aboriginal Land Council of Tasmania. The site continues to be managed by the Tasmanian Aboriginal Corporation. Today, the putalina festival attracts hundreds of people each January to enjoy local and interstate musicians, cultural activities and interactions with extended family and community (AHT fact sheet accessed 2021).

4.0 Background Archaeology

4.1 Regional Studies

The study area is within the South-East region of Tasmania. There have been a number of Aboriginal archaeological studies undertaken within the south-east region over the past two decades. The majority of these have been in the form of survey assessments associated with proposed development activities, and have focused on discreet areas (these are summarised in section 4.2) However, there has also been some broader research based investigations undertaken in the region. Probably the most comprehensive of these and the one most pertinent to the present investigations are that of Officer (1980) and Brown (1986).

Officer (1980)

Iain Officer (1980) carried out an extensive survey of the Derwent Estuary region, as part of his thesis works. The areas covered by the survey investigations extended from Blinking Billy Point (west bank of River) and Trywork (east bank of River), upstream to New Norfolk. The survey assessment in this area involved walking a series of survey transects along the shoreline of the River, with transects in some areas extending up to 1km inland from the River.

In the course of his investigations, Officer recorded a total of 416 midden sites. Of these, 298 were located on the east bank of the River and 118 on the west bank (Officer 1980).

The shell midden sites identified by Officer were predominantly comprised of mussel (*Mytilus planulatus, Xenostrobus secures* or *Brachidontes rostratus*) and oyster (*Ostrea angasi*). A wide range of other shell fish species were represented in low numbers at a number of these sites (Officer 1980).

Stone artefacts were observed at 33 of the recorded midden sites (28 artefacts on the east bank and 5 artefacts on the west bank). A wide range of stone material types were represented in these artefact assemblages, including cherty hornfels, silicified breccia, mudstone, chalcedony, quartz, basalt and dolerite (Officer 1980).

Bone material was observed at only four midden site locations, indicating that for whatever reason, bone material in middens on the Derwent River is a rare occurrence (Officer 1980).

One of the areas intensively surveyed by Officer (1980) was Bedlam Walls, which lies on the east side of the Derwent River, between Geilston Bay and Risdon Cove and extends up to 1.2km inland from the shore of the River. Officer (1980) recorded a total of 74 sites in this area (sites AH 1184-1257). The vast majority of sites are classified as middens, however, three stone quarries and one rock shelter was also identified. A large number of the midden sites (28%) are described as being extensive, covering in excess of 1000m², with the largest site being over 8000m² (Officer 1980). The midden sites range from being located immediately on the shore line through to up to 530m inland from the shore. The dominant shell material

represented in these midden sites was the black mussel (*Mytilus planulatus*) and oyster (*Ostrea angasi*).

Officer (1980) notes that a local resident (Dr Jacklyn) also recorded a large number of Aboriginal sites in the Bedlam Walls area, in the period between 1965-1973. The sites recorded by Officer (1980) included those site identified by Dr Jacklyn. Officer identified an additional 19 midden sites to those identified by Jacklyn. As part of his recording efforts, Dr Jacklyn carried out an extensive salvage of stone artefacts in the Bedlam Walls area. Jennings (1983) subsequently undertook an analysis of this collection. Jennings (1983) reports that of the 1016 pieces of stone material collected by Dr Jacklyn, 991 pieces are determined as being stone artefacts, giving an average artefact density for the area of 381 artefacts/km². The majority of artefacts were collected from the shoreline area between Shag Bay and Geilston Bay (641 artefacts). Of the 991 artefacts, 633 were un-worked and 358 are worked. Stone material types represented in the assemblage include hornfels, quartzites, chalcedony and sub-basaltic hornfels (Jennings 1983).

Brown (1986)

Steve Brown (1986) was engaged to carry out the South East Tasmanian Archaeology Project. This was one of nine regional overview studies, funded through National Estate grants, which were directed at examining the Aboriginal archaeological resources of Tasmania. The aims or duty statement for the South East Tasmanian Archaeology Project was to define the prehistory of the region and to define present and potential future impacts on the Aboriginal heritage resources in the region.

As part of his research design, Brown (1986:49-50) divided the landscape of the south-east region into landform unit types. Five major landform unit divisions were identified. These were;

- small offshore islands,
- Bruny Island,
- coastal and estuarine environments (consisting of coastal margins, coastal plains, river estuaries, lagoons and swamps),
- inland hills, plains and river valleys, and
- inland mountains (alpine plateau).

Brown (1986:49-50) then collated available archaeological data for these landscape units, including the range of site types present, the site components and the distribution and frequency of sites. The data was generated from previous archaeological investigations undertaken in the region, as well as the findings from the field work carried out by Brown.

The field survey investigations implemented by Brown (1986:50-52) involved a selective sampling procedure, where block surveys were undertaken at three designated areas, these being Bruny Island, the Coal River, and Bothwell. In addition, more general survey assessments were carried out at a variety of locations. Of the five landscape units identified by Brown (1986), the most pertinent to the present investigations are the coastal and estuarine environments and the Inland

Hills, Plains and River Valleys zone. The following provides an overview of the findings, as presented by Brown (1986) for these two landform units.

Inland Hills, Plains and River Valleys

This landscape unit was the largest of the five unit divisions established by Brown (1986) for the South-east Tasmanian region. It is also the most pertinent landscape unit in relation to the present investigation, as the study area lies within a River valley system.

Brown (1986:93-97) reports that open artefact scatters are the most common site type identified in the Inland Hills, Plains and River Valley zone. The greatest number of these sites is reported as occurring on the valley and creek floors and the foot slopes adjoining these areas. It appears that site and artefact densities appear to be comparatively much lower on mid and upper hill slopes and on ridges and crests. The largest artefact scatters (those comprising over 50 artefacts) have a number of site location factors in common. They are all situated on well drained sandy soils. They are in slightly elevated positions above river and creek floodplains. They usually have a northerly aspect, and finally the sites are generally situated in close proximity to a fresh water source. For medium and small sized artefact scatters there appears to be no distinct pattern of distribution (Brown 1986:93-97).

The range of stone artefacts identified at sites in this zone includes the debris of stone artefact manufacturing and maintenance (fragments, flakes, flake fragments, flaked pieces and cores). Retouched stone artefacts include a large variety of scrapers. Unmodified cobbles have also been identified at a range of sites. The reduction of stone material appears to have occurred mainly at the source location. Backed artefacts appear to absent from the site assemblages in this zone, and in South-east Tasmania in general, and pebble choppers appear to be rare (Brown 1986:94).

Numerous stone quarry/procurement sites have been identified in the Inland Hills and Plains zone. These sites range in size from areas where a few boulders of cobbles have been flaked through to extensive sites such as the Oyster Cover quarry site. The quarried stone material types include silcrete, quartzites, cherty hornfels, chalcedony and silicified breccia (Brown 1986:95).

Sandstone rock shelters and overhangs are common in the Inland hills and Plains zone. In the majority of instances artefacts are not found on the shelter floor surfaces. Brown (1985:94) postulates that this may be due to accelerated depositional rates in sandstone shelters. Paintings have been recorded at two sandstone rock shelters, with both occurring near Ellendale in the upper Derwent Valley (Brown 1985:97).

Interestingly, Brown (1986:96) reported that no ochre sources, ochre quarries, or stone arrangements had been identified in this zone.

Coastal and Estuarine Regions

The Coastal and Estuarine Regions consists of coastal margins, coastal plains, river estuaries, lagoons and swamps. It encompasses the Derwent River.

Brown (1986:79) notes that shell middens are by far the most common site type occurring within the coastal and estuarine environmental zone. A number of trends were observed in relation to the distribution of this site type within the coastal and estuarine environmental zone, and the composition of materials at these sites. These are summarised as follows.

- Middens are generally not present in areas with steep shore profiles.
- The greatest number of middens was identified on coast lines which contain a mixture of rocky headlands and short sandy beaches (mixed coast areas).
- On long sandy beaches the volume of midden material was found to decline with distance from a rocky coast.
- Middens are essentially comprised of two types; rocky coastal and bay estuarine, reflecting different landscape settings. However, middens with shell species common to both these types occur in intermediate zones such as estuary and lagoon mouths.
- The largest rocky coastal shell middens occur on rocky headlands and points, with associated rock platforms, where abalone, turbo, mussels and limpets occur.
- The bay estuarine type middens are generally composed predominantly of mussel and oyster shellfish species. The largest middens are found immediately adjacent to the shoreline, near to the shell fish resources. A few sizeable middens have been noted up to 500m inland, with smaller middens having been identified up to 1km inland.
- Shell middens in South-east Tasmania are comprised almost entirely of shell, and rarely contain large numbers of stone artefacts or faunal remains (Brown 1986:79-82).

Overview for the South-East Tasmanian Region

In summary, Brown (1986:99-102) has identified the following broad patterns of site type distribution in South-East Tasmania.

- Aboriginal archaeological sites occur in all parts of the landscape.
- The coastal margins (including off shore islands), coastal plains and river estuaries are very rich in archaeological resources and contain a high density of sites with large quantities of archaeological remains. The Derwent Estuary in particular was an area of rich archaeological resources.
- Inland sites are dominated by open artefact scatters and isolated artefacts. Artefact densities are highest along the river, rivulet and creek valley floors and adjacent to lower hill slopes, particularly where the hill slopes are gently inclined, with a north aspect, and have sandy well drained soils.
- Shell middens most frequently occur in close proximity to shellfish resources, particularly on cliff tops or headlands where there is easy access to these resources.
- Stone artefact quarries most frequently occur where there is a surface expression of geological contact zones, in particular between Jurassic dolerite and Triassic or Permian strata.

As a general statement, Brown (1986:102) summarises that site numbers and densities in South-east Tasmania are greatest within 300m of the present coastline and in the immediate vicinity of coastal lagoons.

In terms of environmental factors determining site location, Brown (1986:103) is of the opinion that topography is perhaps the most consistent and important factor. Sites in general, but particularly the larger ones (in terms of artefact numbers) are very seldom found on steep gradient slopes.

In terms of duration of Aboriginal occupation, Brown (1986:99-100) believes that the South-eastern Tasmanian region has probably been occupied by Aboriginal people for the past 20 000 years. However, he acknowledges that there are no conclusive dates for sites beyond 6000 years old for the region. Pleistocene dates have however been obtained for sites in close proximity to the region (Beginners Luck Cave and a cave on the Weld River).

4.2 Previous Aboriginal Heritage Assessments Undertaken in the Vicinity of the Study Area

There have been a number of Aboriginal heritage assessments undertaken within the general vicinity of the study area. The following provides a summary review for those assessments that are most relevant and in closest proximity to the study area. These are mainly around the Risdon Prison Complex and a large rural property to the east of the study area.

The Risdon Prison complex

The Risdon Prison complex, which is located around 1.6km to the north-west of the 21 Matipo Street study area, has been the focus of a number of Aboriginal heritage investigations, extending back to 2001. The investigations have resulted in a large number of artefacts within the bounds of the boundaries of the Risdon Prison complex. A brief summary overview of these investigations is presented below. A more detailed overview that was prepared by Aboriginal Heritage Tasmania (AHT) is presented in Appendix 2 of this report.

Sub-surface archaeological investigations undertaken by CHMA (2009) along the proposed alignment of a new outer perimeter fence of the prison, confirmed the presence of moderate to high densities of artefact deposits extending across the entire length of the perimeter fence alignment. CHMA (2009) were of the opinion that the surface artefact scatters that had been previously identified along the proposed perimeter fence alignment (sites AH9711, AH10843, AH10844 and AH10845), together with the sub-surface artefact deposits identified through the test pitting program were part of the one large and extensive artefact scatter (site AH9711). Although the AHR still shows that a number of these sites have been allocated separate AH numbers (see section 4.3).

SKM (2013) were subsequently engaged to prepare a Cultural Heritage Management Plan (CHMP) for the Risdon Prison Complex (RPC). The CHMP was focused towards establishing long term management options for the cultural heritage located in the RPC. As part of this CHMP, SKM (2013) divided the RPC in to a series of

zones. SKM (2013) recommended that future management of Aboriginal heritage within the RPC should be conducted in line with the zone specific recommendations.

Aran Eco-Tourism Proposal (CHMA (2018)

CHMA (2018) was engaged to undertake an Aboriginal heritage assessment for the proposed Aran Eco Tourism venture at 18 Downhams Road, Risdon Vale. The property encompassed approximately 103ha and is situated immediately to the east of the 21 Matipo Street study area.

The field survey assessment resulted in the identification of one Aboriginal heritage site (AH13624) which was classified as an isolated artefact. The site was identified on the gently sloping spine of a prominent ridge line that ran through the southern portion of the Aran study area. Besides site AH13624, CHMA (2018:54) reported that no other Aboriginal heritage sites, suspected features, or specific areas of elevated archaeological potential were identified within the Aran study area. CHMA (2018:55) noted that surface visibility across the surveyed areas was generally good and the effective survey coverage across the study area was comparatively high. Therefore the survey results were assessed as being an accurate indication that site and artefact densities across the Aran study area were likely to be very low. If undetected sites are present they are most likely to be isolated artefacts or small artefact scatters, representing sporadic Aboriginal activity.

4.3 Registered Aboriginal Sites in the Vicinity of the Study Area

As part of Stage 1 of the assessment process, a search was undertaken of the Aboriginal Heritage Register (AHR) to determine whether any registered Aboriginal heritage sites are located within or in the general vicinity of the 21 Matipo Street study area.

The search shows that there are a total of 14 registered Aboriginal sites that are located within an approximate 2km radius of the study area (search results provided by Paul Parker from AHT on the 4.4.2024). Table 1 provides the summary details for these 14 sites, with Figure 6 showing the reported location of these 14 sites in relation to the study area. The vast majority of these sites are classified as either Isolated artefacts (7 sites) or Artefact scatters (6 sites). There is also one recorded Unoccupied rockshelter. Virtually all of these sites were recorded as part of the studies summarised in section 4.2 of this report.

Based on the information provided on the AHR, it appears that none of these 14 registered sites are located within, the bounds of the study area. The closest registered site to the study area is AH13624 (an isolated artefact), which is situated around 750m to the south-east of the study area (see Figure 7). The site was recorded by CHMA (2018) as part of the assessment of the Aran Eco Tourism venture at 18 Downhams Road, Risdon Vale.

Table 1: Summary details for registered Aboriginal sites in the general vicinity of the 21 Matipo Street study area (Based on the results of the AHR search dated 4.4.2024)

AH Number	Site Type	Locality
10845	Artefact Scatter	Risdon Vale
10846	Artefact Scatter	Risdon Vale
10847	Isolated Artefact	Risdon Vale
10848	Isolated Artefact	Risdon Vale
11811	Isolated Artefact	Risdon Vale
11812	Isolated Artefact	Risdon Vale
7862	Unoccupied Rockshelter	
8909	Artefact Scatter	Risdon Vale
8910	Isolated Artefact	Risdon Vale
8911	Artefact Scatter	Risdon Vale
8912	Isolated Artefact	Risdon Vale
9711	Artefact Scatter	
9712	Artefact Scatter	Risdon Vale
13624	Isolated Artefact	Risdon Vale

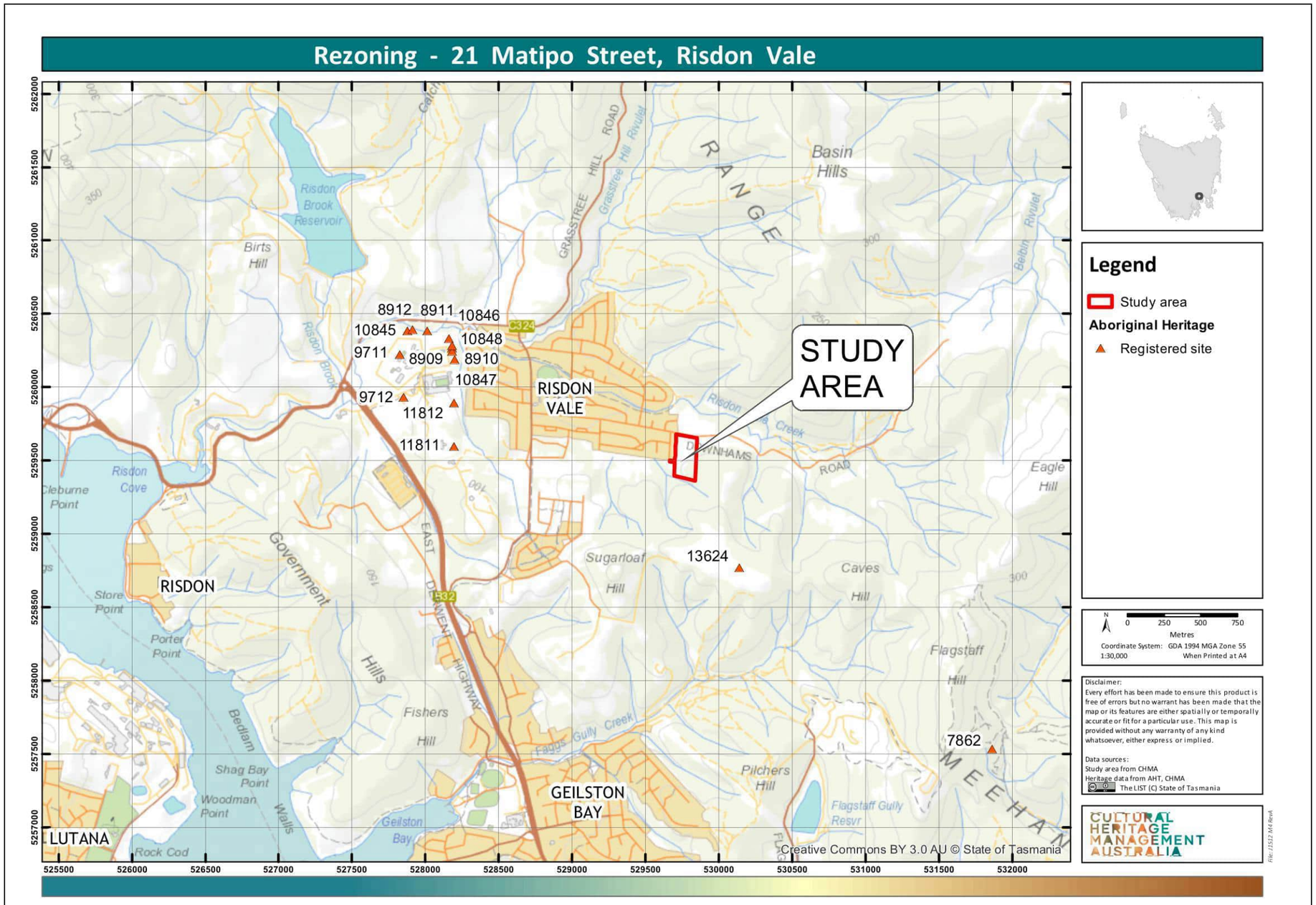


Figure 6: Topographic map showing the location of registered Aboriginal sites within a 2km radius of the study area (Based on the results of the AHR search dated 4.4.2024)

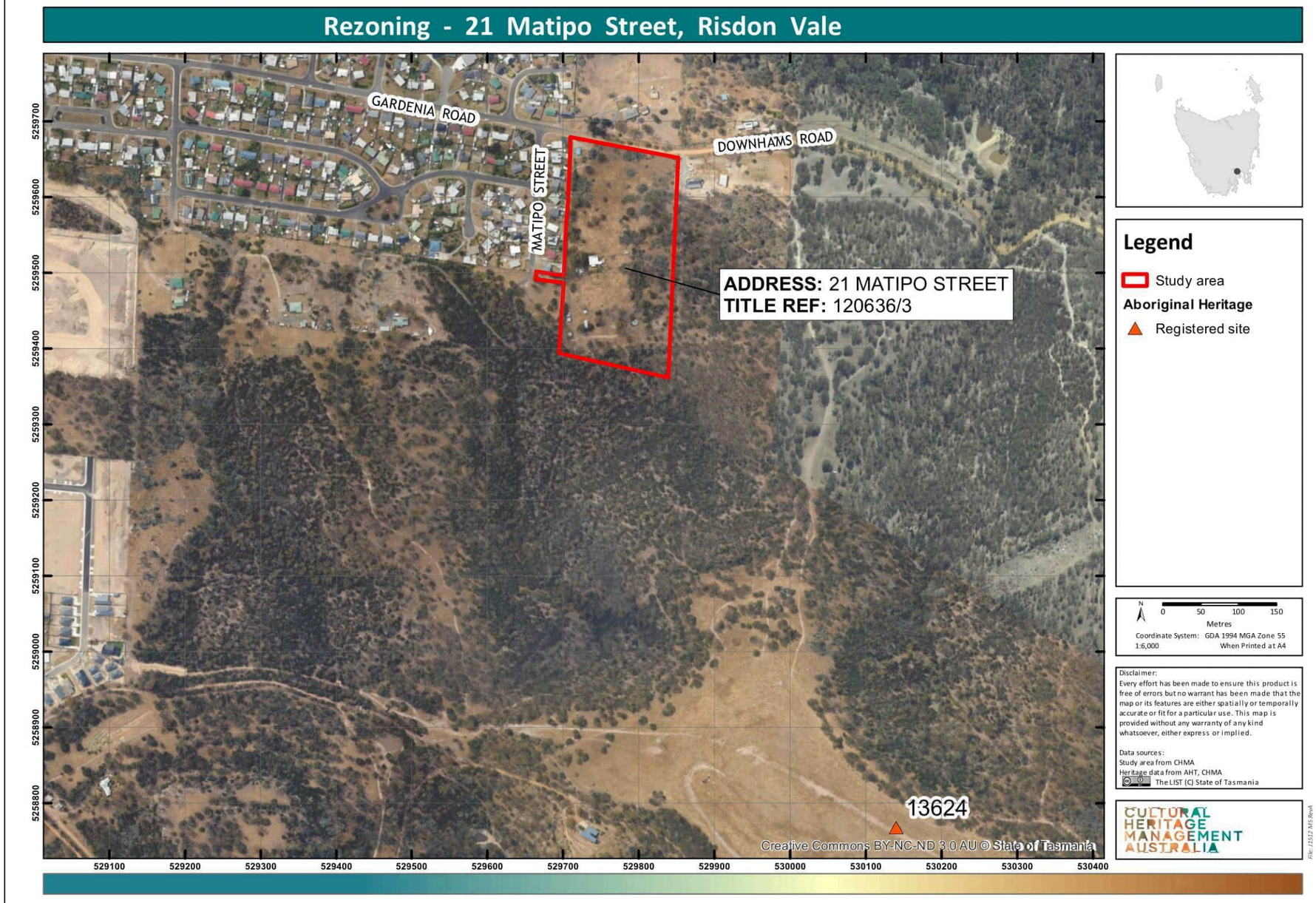


Figure 7: Aerial image showing the location of registered Aboriginal sites located in closest proximity to the study area (Based on the results of the AHR search dated 4.4.2024)

5.0 Predictive Modelling

5.1 Introduction to Predictive Modelling

Predictive modelling, in an archaeological context, is a fairly straightforward concept and has been utilised by archaeologists in Australia for a number of years as a tool for undertaking research into Aboriginal heritage sites. In summary, predictive modelling involves the collation of information generated from previous archaeological research in a given region, and using this information to establish patterns of Aboriginal site distributions within the landscape of that particular region. On the basis of perceived patterns of site distribution, archaeologists can then make predictive statements regarding the potential for various Aboriginal site types to occur within certain landscape settings, and can make preliminary assessments regarding the potential archaeological sensitivity of landscape types within a given region.

5.2 Predictive Models; Strengths and Weaknesses

It should be acknowledged that most, if not all predictive models have a number of potential inherit weaknesses, which may serve to limit their value. These include, but may not be limited to the following:

1) The accuracy of a predictive model is directly influenced by the quality and quantity of available site data and information for a given region. The more data available and the greater the quality of that data, the more likely it is that an accurate predictive model can be developed.
2) Predictive modelling works very well for certain types, most particularly isolated artefacts and artefact scatters, and to a lesser extent scarred trees. For other site types it is far more difficult to accurately establish distribution patterns and therefore make predictive modelling statements. Unfortunately, these site types are generally the rarer site types (in terms of frequency of occurrence) and are therefore generally the most significant sites.
3) Predictive modelling (unless it is very sophisticated and detailed) will generally not take into account micro-landscape features within a given area. These micro features may include (but is certainly not limited to) slight elevations in the landscape (such as small terraces) or small soaks or drainage depressions that may have held water. These micro features have been previously demonstrated to occasionally be focal points for Aboriginal activity.
4) Predictive modelling to a large extent is often predicated on the presence of watercourses. However, in some instances the alignment of these watercourses has changed considerably over time. As a consequence, the present alignment of a given watercourse may be substantially different to its alignment in the past. The consequence of this for predictive modelling (if these ancient water courses are not taken into account) is that predicted patterns of site distributions may be greatly skewed.

5.3 A Predictive Model of Site Type Distribution for the Study Area

The findings of previous archaeological investigations undertaken within and in the general vicinity of the study area (see Section 4 of this report for details) indicates that the most likely site types that will be encountered within the study area will be artefact scatters and isolated artefacts. It is also possible, although far less likely, that shell middens and Aboriginal stone quarry/procurement sites may be present. The following provides a definition of these site types and a general predictive statement for their distribution within the study area. It is noted that Aboriginal rock shelters have been identified in the broader surrounds of Risdon Vale. However, there is virtually no potential for these shelters to occur in the study area given the absence of rock outcrops.

Artefact Scatters and Isolated artefacts

Definition

Isolated artefacts are defined as single stone artefacts. Where isolated finds are closer than 50 linear metres to each other they should generally be recorded as an Artefact Scatter. Artefact scatters are usually identified as a scatter of stone artefacts lying on the ground surface. For the purposes of this project, artefact scatters are defined as at least 2 artefacts within 50 linear metres of each other. Artefacts spread beyond this can be best defined as isolated finds. It is recognised that this definition, while useful in most instances, should not be strictly prescriptive. On some large landscape features for example, sites may be defined more broadly. In other instances, only a single artefact may be visible, but there is a strong indication that others may be present in the nearby sediments. In such cases it is best to define the site as an Isolated Find/Potential Archaeological Deposit (PAD).

Artefact scatters can vary in size from two artefacts to several thousand, and may be representative of a range of activities, from sporadic foraging through to intensive camping activity. In rare instances, camp sites which were used over a long period of time may contain stratified deposits, where several layers of occupation are buried one on top of another.

Predictive Statement:

Previous archaeological research in the region has identified the following pattern of distribution for this site type.

- Stone artefact scatters are numerous within the larger river valley systems.
- The largest open artefact scatters tend to be situated on well drained sandy soils, in slightly elevated positions above river and creek floodplains, with a north aspect.
- Site and artefact densities on the lower lying flood plains of water courses tend to be comparatively lower. This may be reflective of the fact these low lying areas were less favoured as camp locations, due to such factors as rising damp and vulnerability to flooding; and
- Site and artefact densities also tend to be comparatively lower in areas away from water courses, and on moderate to steeply sloping terrain.

Applying this broad pattern of site distribution outlined above, to the study area, it would be anticipated that the density of sites (artefact scatters), and the density of

artefacts associated with these sites would generally be low to very low across the study area. This is based on the absence of any permanent or semi-permanent water courses in the study area, and the general steepness of the terrain across most areas. There may be a slight increase along the northern boundary of the study area, on the lower north side slopes of the hill, approaching Risdon Vale Creek.

Midden Sites

Definition

Middens range in thickness from thin scatters to stratified deposits of shell and sediment up to 2m thick. In addition to shell which has accumulated as food refuse, shell middens usually contain other food remains such as bone from fish, birds and terrestrial animals and humus from the decay of plant and animal remains. They also commonly contain charcoal and artefacts made from stone, shell and bone.

Predictive Statement

In the Southern Tasmanian Region, the bay estuarine type middens are generally composed predominantly of mussel and oyster shellfish species. The largest middens are found immediately adjacent to the shoreline, near to the shell fish resources, and are on elevated, generally gently sloping or level terrain. A few sizeable middens have been noted up to 500m inland, with smaller middens having been identified up to 1km inland. These shell middens are comprised almost entirely of shell, and rarely contain large numbers of stone artefacts or faunal remains.

The study area is situated around 3.5km inland from the River Derwent Estuary. Shell midden sites are seldom found this far inland from the coastal margins, and as such it is unlikely that shell middens will be encountered within the study area. If they are present, they would most likely be small, discrete deposits.

Stone Procurement/Quarry Sites

Definition

A stone procurement site is a place where stone materials were obtained by Aboriginal people for the purpose of manufacturing stone artefacts. Quarry sites on the other hand have some evidence of the stone being actively extracted using knapping and/or digging. Stone procurement sites are often pebble beds in water courses (where there may be little or no evidence of human activity) or naturally occurring lag deposits exposed on the surface. Quarry sites are usually stone outcrops, with evidence of knapping and pits dug to expose the rock. Concentrations of hammer stones and a thick layer of knapping debris are often present.

Predictive Statement

Previous archaeological research in the South East Tasmanian region has shown that the most common source of raw materials for making stone artefacts are outcrops of stone materials such as silcrete, cherty hornfels, quartzites, quartz, and fined grained volcanics. These tend to occur along prominent landscape features, such as the spines of ridges or on hills.

As noted in section 2.2 of this report, the bedrock geology of the study area is dominated by siltstone and silty sandstone associated with the Lower Parmeener

Supergroup. These stone material types are generally too brittle and not durable enough for artefact manufacturing. However, in geological contact zones, where these stone materials interface with igneous rocks, there is the potentially for metamorphosed and indurated mudstones to occur. If this is the case, then stone materials that are more suited to artefact manufacturing may be present. Along the northern edge of the study area there is a small patch of dolerite. Dolerite is also generally not targeted for artefact manufacturing, being too coarse. However, the presence of the dolerite may indicate a contact zone in this area.

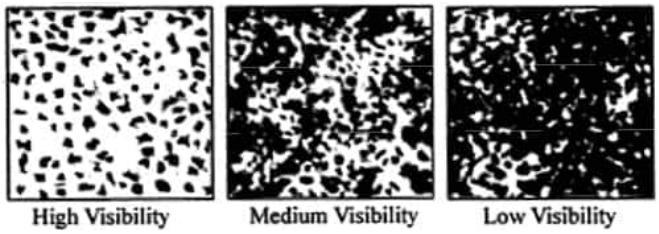
6.0 Survey Coverage of the Study Area

Survey Coverage and Surface Visibility
Survey coverage refers to the estimated portion of a study area that has actually been visually inspected during a field survey. Surface Visibility refers to the extent to which the actual soils of the ground surface are available for inspection. There are a number of factors that can affect surface visibility, including vegetation cover, surface water, built structures and the presence introduced gravels or materials. Figure 8 provides a useful guide for estimating surface visibility across a given area.

The field survey was undertaken over a period of one day (24.4.2024) by Stuart Huys (CHMA archaeologist) and Rocky Sainty (Aboriginal Heritage Officer). In total, the field team walked an estimated 1.85km of survey transects across the study area, with each transects averaging 5m in width. This equates to a survey coverage of an estimated 9 250m². The survey transects were aligned to cover all parts of the study area (see Figure 9).

Surface visibility across the study area was variable and ranged between 20% to 90%, with an estimated average of between 40% and 60%. This is in the medium range (see Figure 8 for visibility guidelines) and in the context of Tasmania, where thick vegetation cover is often an issue, is comparatively good. As a general observation, surface visibility was higher in the eastern and southern parts of the study area, compared to the western and northern areas where grass cover was slightly thicker. There were numerous large erosion scald areas, as well as graded vehicle tracks that provided extensive areas of improved surface visibility (see Plates 8-12).

Visibility



☐Full (100%) ☒High (75%) ☒Medium (50%) ☒Low (24%) ☐None (0%)

Figure 8: Guidelines for the estimation of surface visibility

Effective coverage
Variations in both survey coverage and surface visibility have a direct bearing on the ability of a field team to detect Aboriginal heritage sites, particularly site types such as isolated artefacts and artefact scatters, which are the two site types most likely to be encountered in the study area. The combination of survey coverage and surface visibility is referred to as effective survey coverage. Table 2 presents the estimated effective survey coverage achieved during the course of the survey assessment of the study area. The table shows that while the team covered an area of 9 250m², the effective coverage was reduced to 4 640m². This level of effective coverage is

deemed to be sufficient for the purposes of generating a reasonable impression as to the extent, nature and distribution of Aboriginal heritage sites across the study area.

Table 2: Effective Survey Coverage achieved within the study area

Area Surveyed	Transects Walked	Estimated Surface Visibility	Effective Survey Coverage
South portion of study area	420m x 5m = 2 100m²	50%	1 050m²
East portion of study area	730m x 5m = 3 650m²	60%	2 190m²
North portion of study area	400m x 5m = 2 000m²	40%	800m²
West portion of study area	300m x 5m = 1 500m²	40%	600m²
Total	**1 850m x 5m = 9 250m²**		**4 640m²**

Plate 8: View north across the east portion of the study area showing typical levels of surface visibility at around 60%

Plate 9: View north across the south portion of the study area showing typical levels of surface visibility at around 50%

Plate 10: View south across the north portion of the study area showing typical surface visibility at around 40%

Plate 11: View east at a vehicle track in the western portion of the study area providing improved visibility

Plate 12: View east at large erosion scalds in the central, southern part of the study area

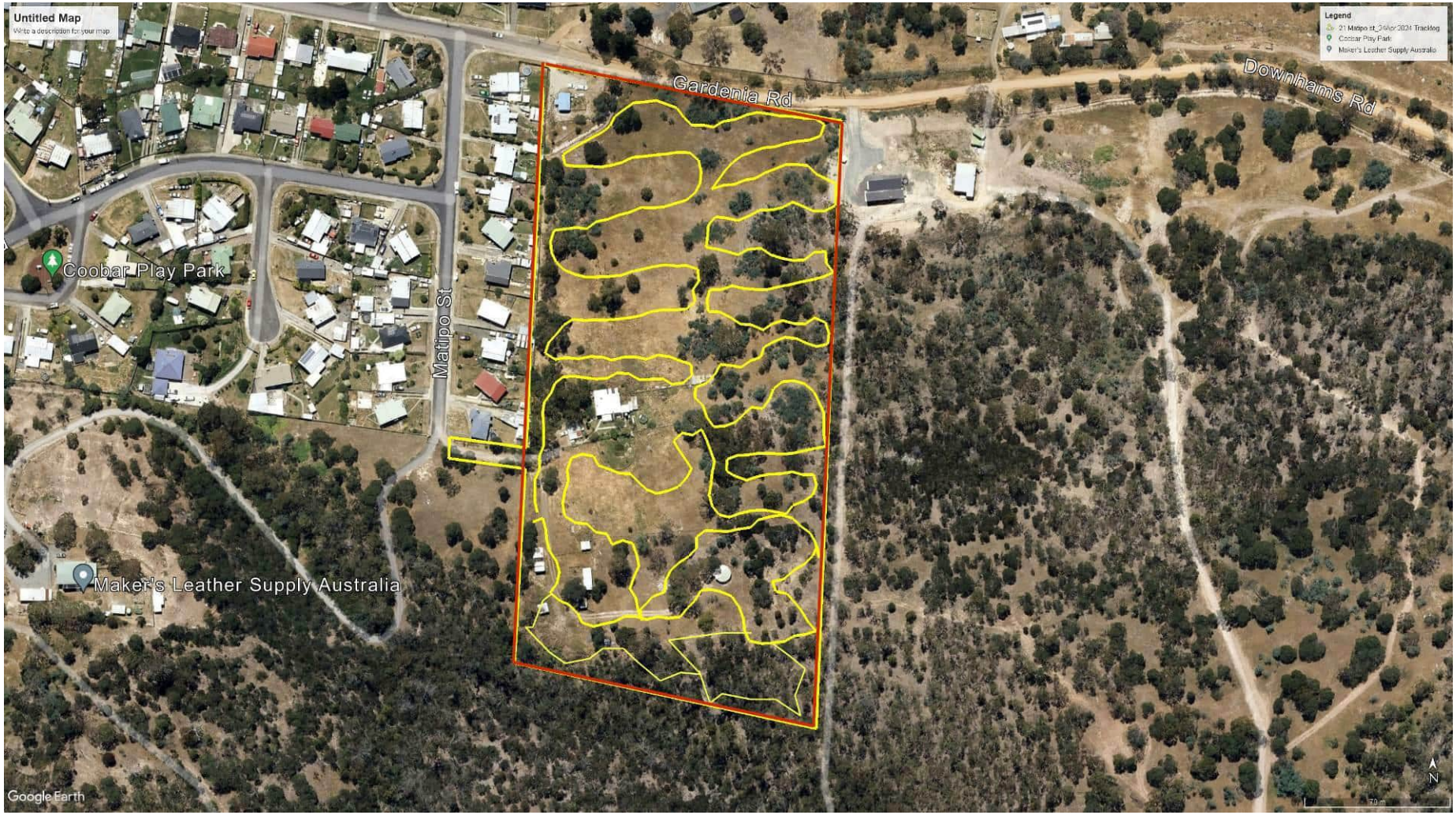


Figure 9: Survey transects walked within and in the surrounds of the boundaries of the study area

7.0 Survey Results and Discussion

No Aboriginal heritage sites, suspected features, or specific areas of elevated archaeological potential were identified during the field survey assessment of the 21 Matipo Street study area. The field survey was able to confirm that there are no stone resources within the study area that would be suitable for stone artefact manufacturing. There are also no potential rock shelter features present in the study area. As noted in section 4.3 of this report, the search of the AHR undertaken for this project shows that there are no registered Aboriginal sites that are located within or in the immediate vicinity of the study area. This assessment has therefore confirmed that there are no known Aboriginal heritage values present in the study area.

As described in section 6 of the report, surface visibility across the study area was variable, with the estimated average ranging between 40% and 60%. Given some constraints in surface visibility, it can't be stated with absolute certainty that there are no undetected Aboriginal heritage sites present in the study area. With this acknowledged, the survey assessment still did achieve effective coverage of 4 640m². This level of effective coverage is deemed to be sufficient for the purposes of generating a reasonable impression as to the extent, nature and distribution of Aboriginal heritage sites across the study area. The negative survey results can therefore be taken as a reasonably accurate indication that either there are no Aboriginal sites located in the study area, or site and artefact densities across the study area are likely very low, reflecting sporadic activity. The most likely site type to be present would be small artefact scatters or isolated artefacts.

As noted in section 2 of this report, the native vegetation across the entire study area has been cleared as part of past farming practices. Any sites located within cleared agricultural areas will necessarily have been adversely impacted by agricultural and development activities, unavoidably compromising the integrity of any cultural sites retained within these areas. As such, there is very little potential for in situ sites to occur within the study area. Soil depth across the study area is also shallow to skeletal, which means there is a very reduced potential for sub-surface artefact deposits to be present.

On the basis of the negative survey findings, the absence of registered Aboriginal sites, and the low potential for undetected Aboriginal sites to be present, the study area is assessed as being of low archaeological sensitivity.

Further Discussions

The negative findings of the survey assessment, and the interpretation of these findings, are generally consistent with the broader patterning of site distribution observed for the general surrounds of the study area. The regional findings show that site and artefact densities across the South East Region are elevated in areas close to major resource zones, such as major river valleys, along coastal and estuarine margins. Away from these major resource zones, site densities tend to decrease significantly. The findings are also consistent with the investigations undertaken by CHMA (2018) for the Aran Eco Development, which is a much larger

property, located immediately to the east of 21 Matipo Street. The CHMA (2018) investigations resulted in the recording of just one isolated artefact across the 103ha property, indicating that site and artefact densities within these hills areas were very low.

The explanation as to why Aboriginal activity within the study area was likely to be sporadic is most probably linked directly to terrain and resource availability. The study area is situated with moderate to steeply undulating terrain, over 4km inland from the resource rich River Derwent estuary. There are no permanent or semi-permanent water courses within the study area, and no major resource zones such as swamps or lagoons. Moreover, there are no stone materials suitable for artefact manufacturing, or rock features suited for shelter.

Given the limited availability of food, water and stone resources, there would have no great incentive for Aboriginal people to have focused their activities specifically in this area. It is likely that Aboriginal people accessed these hills on a sporadic basis, as part of seasonal hunting and foraging activity, but are unlikely to have stayed for any length of time.

Aboriginal activity is most likely to have been focused along the larger river valley systems such as the Derwent River Valley, where resources were more abundant. The observed pattern of Aboriginal site distribution noted for the general surrounds of the study region supports this contention, with the vast majority of recorded Aboriginal sites being clustered along the margins of the River Derwent, and along the Risdon Brook (see section 4).

8.0 Consultation with Aboriginal Communities and Statement of Aboriginal Significance

The designated Aboriginal Heritage Officer (AHO) for this project is Rocky Sainty. One of the primary roles of the Aboriginal Heritage Officer is to consult with Aboriginal community groups. The main purpose of this consultation process is:

- to advise Aboriginal community groups of the details of the project,
- to convey the findings of the Aboriginal heritage assessment,
- to document the Aboriginal social values attributed to Aboriginal heritage resources in the study area,
- to discuss potential management strategies for Aboriginal heritage sites, and
- to document the views and concerns expressed by the Aboriginal community representatives.

No Aboriginal heritage sites or suspected features were identified during the field survey of the 21 Matipo Street study area. A search of the AHR shows that there are no registered Aboriginal sites that are located within the study area boundaries. This assessment has therefore confirmed that there are no known Aboriginal heritage values present in the study area, and it is assessed that there is a low potential for undetected Aboriginal sites to be present. Despite these negative results, the decision has been made to send the report out to a select range of Aboriginal community groups in the Southern Region of Tasmania for information purposes. The report has also been provided to AHT for review.

Rocky Sainty has provided a statement of the Aboriginal cultural values attributed to the study area as a whole. This statement is presented below.

Statement of Cultural/Social Significance by Rocky Sainty

Aboriginal heritage provides a direct link to the past, however is not limited to the physical evidence of the past. It includes both tangible and intangible aspects of culture. Physical and spiritual connection to land and all things within the landscape has been, and continues to be, an important feature of cultural expression for Aboriginal people since creation. Physical evidence of past occupation of a specific place may include artefacts, living places (middens), rock shelters, markings in rock or on the walls of caves and/or rock shelters, burials and ceremonial places. Non-physical aspects of culture may include the knowledge (i.e. stories, song, dance, weather patterns, animal, plant and marine resources for food, medicines and technology) connected to the people and the place.

While so much of the cultural landscape that was ***lutruwita*** *(Tasmania) before invasion and subsequent colonization either no longer exists, or has been heavily impacted on, these values continue to be important to the Tasmanian Aboriginal community, and are relevant to the region of the project proposal.*

We did not identify any Aboriginal heritage sites during the survey of the study area at 21 Matipo Street, and our AHR search shows that there are no registered sites located within the study area. Surface visibility across our surveyed areas was

generally good, and it is my impression that there is a low to very potential for Aboriginal sites to be present in the study area. The study area is situated within the hills of the Meehan Range and is well away from the River Derwent Estuary and Risdon Brook areas, which were major resource zones for our people. Our ancestors are likely to have focused their activity in these concentrated resource areas, and the high concentration of recorded Aboriginal sites around the margins of the River Derwent and the area around Rison Brook (around the prison complex), provide physical evidence of this concentrated activity. Our ancestors would have occasionally travelled through the hills areas in search of resources, but would not have camped for any length of time in these areas.

Even if the site of the project proposal contains no evidence of Aboriginal heritage there is always the cultural resources (flora, fauna, aquaculture or any other resource values that the earth may offer) and the living landscape, which highlight the high significance to the Aboriginal cultural heritage values to the country. The vast majority of the study area incorporates land that has been subject to high levels of landscape modification from land clearing, farming and development. Through this, much of the traditional resources of the area are now gone.

9.0 Statutory Controls and Legislative Requirements

The following provides an overview of the relevant State and Federal legislation that applies for Aboriginal heritage within the state of Tasmania.

9.1 State Legislation

In Tasmania, the *Aboriginal Heritage Act 1975* (the Act) is the primary Act for the treatment of Aboriginal cultural heritage. The Act is administered by the Minister for Aboriginal Affairs, through Aboriginal Heritage Tasmania (AHT) in the Department of Premier and Cabinet (DPAC). AHT is the regulating body for Aboriginal heritage in Tasmania and '[n]o fees apply for any application to AHT for advice, guidance, lodgement or permit application'.

The Act applies to 'relics' which are any object, place and/or site that is of significance to the Aboriginal people of Tasmania (as defined in section 2(3) of the Act). The Act defines what legally constitutes unacceptable impacts on relics and a process to approve impacts when there is no better option. Aboriginal relics are protected under the Act and it is illegal to destroy, damage, deface, conceal or otherwise interfere with a relic, unless in accordance with the terms of a permit granted by the Minister. It is illegal to sell or offer for sale a relic, or to cause or permit a relic to be taken out of Tasmania without a permit (section 2(4) qualifies and excludes 'objects made, or likely to have been made, for purposes of sale').

Section 10 of the Act sets out the duties and obligations for persons owning of finding an Aboriginal relic. Under section 10(3) of the Act, a person shall, as soon as practicable after finding a relic, inform the Director or an authorised officer of the find.

It should be noted that with regard to the discovery of suspected human skeletal remains, the *Coroners Act 1995* takes precedence. The *Coroners Act 1995* comes into effect initially upon the discovery of human remains, however once determined to be Aboriginal the *Aboriginal Heritage Act* overrides the *Coroners Act.*

In August 2017, the Act was substantively amended and the title changed from the *Aboriginal Relics Act 1975*. As a result, the AHT *Guidelines to the Aboriginal Heritage Assessment Process* were replaced by the *Aboriginal Heritage Standards and Procedures*. The Standards and Procedures are named in the statutory *Guidelines* of the Act issued by the Minister under section 21A of the Act. Other amendments include:

- An obligation to fully review the Act within three years.
- Increases in maximum penalties for unlawful interference or damage to an Aboriginal relic. For example, maximum penalties (for deliberate acts) are 10,000 penalty unites (currently $1.57 million) for bodies corporate other than small business entities and 5,000 penalty units (currently $785,000) for individuals or small business entities; for reckless or negligent offences, the maximum penalties are 2,000 and 1,000 penalty units respectively (currently $314,000 and $157,000). Lesser offences are also defined in sections 10, 12, 17 and 18.

- Prosecution timeframes have been extended from six months to two years.
- The establishment of a statutory Aboriginal Heritage Council to advise the Minister.

Section 21(1) specifies the relevant defence as follows: “It is a defence to a prosecution for an offence under section 9 or 14 if, in relation to the section of the Act which the defendant is alleged to have contravened, it is proved … that, in so far as is practicable … the defendant complied with the guidelines”.

9.2 Commonwealth Legislation

There are also a number of Federal Legislative Acts that pertain to cultural heritage. The main Acts being; *The Australian Heritage Council Act 2003*, *The Aboriginal and Torres Strait Islander Heritage Protection Act 1987* and the *Environment Protection and Biodiversity Conservation Act 1999*

Australian Heritage Council Act 2003 (Comm)

The *Australian Heritage Council Act 2003* defines the heritage advisory boards and relevant lists, with the Act’s Consequential and Transitional Provisions repealing the Australian Heritage Commission Act 1975. The Australian Heritage Council Act, like the Australian Heritage Commission Act, does not provide legislative protection regarding the conservation of heritage items in Australia, but has compiled a list of items recognised as possessing heritage significance to the Australian community.

***The Aboriginal and Torres Strait Islander Heritage Protection Act 1984*.**

This Federal Act was passed to provide protection for the Aboriginal heritage, in circumstances where it could be demonstrated that such protection was not available at a state level. In certain instances, the Act overrides relevant state and territory provisions.

The major purpose of the Act is to preserve and protect from injury and desecration, areas and objects of significance to Aborigines and Islanders. The Act enables immediate and direct action for protection of threatened areas and objects by a declaration from the Commonwealth minister or authorised officers. The Act must be invoked by, or on behalf of an Aboriginal or Torres Strait Islander or organisation.

Any Aboriginal or Torres Strait Islander person or organization may apply to the Commonwealth Minister for a temporary or permanent 'Stop Order' for protection of threatened areas or objects of significant indigenous cultural heritage.

The Commonwealth Act 'overrides' State legislation if the Commonwealth Minister is of the opinion that the State legislation (or undertaken process) is insufficient to protect the threatened areas or objects. Thus, in the event that an application is made to the Commonwealth Minister for a Stop Order, the Commonwealth Minister will, as a matter of course, contact the relevant State Agency to ascertain what protection is being imposed by the State and/or what mitigation procedures have been proposed by the landuser/developer.

In addition to the threat of a 'Stop Order' being imposed, the Act also provides for the following:

- If the Federal Court, on application from the Commonwealth Minister, is satisfied that a person has engaged or is proposing to engage in conduct that breaches the 'Stop Order', it may grant an injunction preventing or stopping such a breach (s.26). Penalties for breach of a Court Order can be substantial and may include a term of imprisonment;
- If a person contravenes a declaration in relation to a significant Aboriginal area, penalties for an individual are a fine up to $10,000.00 and/or 5 years gaol and for a Corporation a fine up to $50,000.00 (s.22);
- If the contravention is in relation to a significant Aboriginal object, the penalties are $5,000.00 and/or 2 years gaol and $25,000.00 respectively (s.22);
- In addition, offences under s.22 are considered 'indictable' offences that also attract an individual fine of $2,000 and/or 12 months gaol or, for a Corporation, a fine of $10,000.00 (s.23). Section 23 also includes attempts, inciting, urging and/or being an accessory after the fact within the definition of 'indictable' offences in this regard.

The Commonwealth Act is presently under review by Parliament and it is generally accepted that any new Commonwealth Act will be even more restrictive than the current legislation.

Environment Protection and Biodiversity Conservation Act 1999 (Comm)

This Act was amended, through the Environment and Heritage Legislation Amendment Act (No1) 2003 to provide protection for cultural heritage sites, in addition to the existing aim of protecting environmental areas and sites of national significance. The Act also promotes the ecologically sustainable use of natural resources, biodiversity and the incorporation of community consultation and knowledge.

The 2003 amendments to the *Environment Protection and Biodiversity Conservation Act 1999* have resulted in the inclusion of indigenous and non-Indigenous heritage sites and areas. These heritage items are defined as:
'indigenous heritage value of a place means a heritage value of the place that is of significance to indigenous persons in accordance with their practices, observances, customs, traditions, beliefs or history;

Items identified under this legislation are given the same penalty as actions taken against environmentally sensitive sites. Specific to cultural heritage sites are §324A-324ZB.

Environment and Heritage Legislation Amendment Act (No1) 2003 (Comm)

In addition to the above amendments to the *Environment Protection and Biodiversity Conservation Act 1999* to include provisions for the protection and conservation of heritage, the Act also enables the identification and subsequent listing of items for the Commonwealth and National Heritage Lists. The Act establishes the *National Heritage List*, which enables the inclusion of all heritage, natural, Indigenous and

non-Indigenous, and the *Commonwealth Heritage List*, which enables listing of sites nationally and internationally that are significant and governed by Australia.

In addition to the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*, amendments made to the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* enables the identification and subsequent listing of indigenous heritage values on the Commonwealth and/or National Heritage Lists (ss. 341D & 324D respectively). Substantial penalties (and, in some instances, gaol sentences) can be imposed on any person who damages items on the National or Commonwealth Heritage Lists (ss. 495 & 497) or provides false or misleading information in relation to certain matters under the Act (ss.488-490). In addition, the wrongdoer may be required to make good any loss or damage suffered due to their actions or omissions (s.500).

10.0 Aboriginal Cultural Heritage Management Plan

Heritage management options and recommendations provided in this report are made on the basis of the following criteria.

- Consultation with AHO Rocky Sainty.
- Background research into the extant archaeological and ethno-historic record for the study area and the surrounding region (see sections 3 and 4).
- The results of the investigation as documented in this report (see section 7); and
- The legal and procedural requirements as specified in the *Aboriginal Heritage Act 1975* (see section 9).

Recommendation 1

No Aboriginal sites or suspected features were identified during the field survey of the study area at 21 Matipo Street, Risdon Vale. A search of the AHR shows that there are no registered Aboriginal sites that are located within the study area, and it is assessed that there is a low to very low potential for undetected Aboriginal heritage sites to be present. It is therefore advised there are no Aboriginal heritage constraints that apply to the property.

Recommendation 2

If, during the course of any future development works within the property, previously undetected archaeological sites or objects are located, the processes outlined in the Unanticipated Discovery Plan should be followed (see Appendix 1). A copy of the Unanticipated Discovery Plan (UDP) should be kept on site during all ground disturbance and construction work. All construction personnel should be made aware of the Unanticipated Discovery Plan and their obligations under the *Aboriginal Heritage Act 1975* (the Act).

Recommendation 3

Copies of this report should be submitted to Aboriginal Heritage Tasmania (AHT) for review and comment.

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Glossary of Terms

Aboriginal Archaeological Site
A site is defined as any evidence (archaeological features and/or artefacts) indicating past Aboriginal activity, and occurring within a context or place relating to that activity. The criteria for formally identifying a site in Australia vary between States and Territories.

Artefact
A portable object that has been humanly made or modified (see also stone artefact).

Assemblage (lithic)
A collection of complete and fragmentary stone artefacts and manuports obtained from an archaeological site, either by collecting artefacts scattered on the ground surface, or by controlled excavation.

Broken Flake
A flake with two or more breakages, but retaining its area of break initiation.

Chert
A highly siliceous rock type that is formed biogenically from the compaction and precipitation of the silica skeletons of diatoms. Normally there is a high percentage of cryptocrystalline quartz. Like chalcedony, chert was valued by Aboriginal people as a stone material for manufacturing stone tools. The rock type often breaks by conchoidal (shell like) fracture, providing flakes that have hard, durable edges.

Cobble
Water worn stones that have a diameter greater than 64mm (about the size of a tennis ball) and less than 256mm (size of a basketball).

Core
A piece of stone, often a pebble or cobble, but also quarried stone, from which flakes have been struck for the purpose of making stone tools.

Core Fragments
A piece of core, without obvious evidence of being a chunky primary flake.

Cortex
The surface of a piece of stone that has been weathered by chemical and/or physical means.

Debitage
The commonly used term referring to the stone refuse discarded from knapping. The manufacturing of a single implement may result in the generation of a large number of pieces of debitage in an archaeological deposit.

Flake (general definition)
A piece of stone detached from a nucleus such as a core. A complete or substantially complete flake of lithic material usually shows evidence of hard indenter initiation, or occasional bending initiation. The most common type of flake is the 'conchoidal flake'. The flake's primary fracture surface (the ventral or inside surface) exhibits features such as fracture initiation, bulb of force, and undulations and lances that indicate the direction of the fracture front.

Flake fragment
An artefact that does not have areas of fracture initiation, but which displays sufficient fracture surface attributes to allow identification as a stone artefact fragment.

Flake portion (broken flake)
The proximal portion of a flake retaining the area of flake initiation, or a distal portion of a flake that retains the flake termination point.

Flake scraper
A flake with retouch along at least one margin. The character of the retouch strongly suggests shaping or rejuvenation of a cutting edge.

Nodules
Regular or irregular cemented masses or nodules within the soil. Also referred to as concretions and buckshot gravel. Cementing agents may be iron and/or manganese oxides, calcium carbonate, gypsum etc. Normally formed in situ and commonly indicative of seasonal waterlogging or a fluctuating chemical environment in the soil such as; oxidation and reduction, or saturation and evaporation. Nodules can be redistributed by erosion. (See also 'concretion').

Pebble
By geological definition, a waterworn stone less than 64 mm in diameter (about the size of a tennis ball). Archaeologists often refer to waterworn stones larger than this as pebbles though technically they are cobbles.

Quartz
A mineral composed of crystalline silica. Quartz is a very stable mineral that does not alter chemically during weathering or metamorphism. Quartz is abundantly common and was used by Aboriginal people throughout Australia to make light-duty cutting tools. Despite the often unpredictable nature of fracture in quartz, the flakes often have sharp cutting edges.

Quartzite
A hard silica rich stone formed in sandstone that has been recrystallised by heat (metaquartzite) or strengthened by slow infilling of silica in the voids between the sand grains (Orthoquartzite).

Retouch (on stone tools)
An area of flake scars on an artefact resulting from intentional shaping, resharpening, or rejuvenation after breakage or blunting of a cutting edge. In resharpening a cutting edge the retouch is invariably found only on one side (see also 'indeterminate retouched piece', retouch flake' etc).

Scraper
A general group of stone artefacts, usually flakes but also cores, with one or more retouched edges thought to have been used in a range of different cutting and scraping activities. A flake scraper is a flake with retouch along at least one margin, but not qualifying for attribution to a more specific implement category. Flake scrapers sometimes also exhibit use-wear on the retouched or another edge.

Silcrete
A hard, fine grained siliceous stone with flaking properties similar to quartzite and chert. It is formed by the cementing and/or replacement of bedrock, weathering deposits, unconsolidated sediments, soil or other material, by a low temperature physico-chemical process. Silcrete is essentially composed of quartz grains cemented by microcrystalline silica. The clasts in silcrete bare most often quartz grains but may be chert or chalcedony or some other hard mineral particle. The mechanical properties and texture of silcrete are equivalent to the range exhibited by chert at the fine-grained end of the scale and with quartzite at the coarse-grained end of the scale. Silcrete was used by Aboriginal people throughout Australia for making stone tools.

Site Integrity
The degree to which post-depositional disturbance of cultural material has occurred at a site.

Stone Artefact
A piece (or fragment) of stone showing evidence of intentional human modification.

Stone procurement site
A place where stone materials is obtained by Aboriginal people for the purpose of manufacturing stone artefacts. In Australia, stone procurement sites range on a continuum from pebble beds in water courses (where there may be little or no evidence of human activity) to extensively quarried stone outcrops, with evidence of pits and concentrations of hammerstones and a thick layer of knapping debris.

Stone tool
A piece of flaked or ground stone used in an activity, or fashioned for use as a tool. A synonym of stone tool is ‘implement’. This term is often used by archaeologists to describe a flake tool fashioned by delicate flaking (retouch).

Use wear
Macroscopic and microscopic damage to the surfaces of stone tools, resulting from its use. Major use-wear forms are edge fractures, use-polish and smoothing, abrasion, and edge rounding bevelling.

Appendix 1

Unanticipated Discovery Plan

Unanticipated Discovery Plan

Procedure for the management of unanticipated discoveries of Aboriginal relics in Tasmania

For the management of unanticipated discoveries of Aboriginal relics in accordance with the *Aboriginal Heritage Act 1975* and the *Coroners Act 1995*. The Unanticipated Discovery Plan is in two sections.

Discovery of Aboriginal Relics other than Skeletal Material

Step 1:

Any person who believes they have uncovered Aboriginal relics should notify all employees or contractors working in the immediate area that all earth disturbance works must cease immediately.

Step 2:

A temporary 'no-go' or buffer zone of at least 10m x 10m should be implemented to protect the suspected Aboriginal relics, where practicable. No unauthorised entry or works will be allowed within this 'no-go' zone until the suspected Aboriginal relics have been assessed by a consulting archaeologist, Aboriginal Heritage Officer or Aboriginal Heritage Tasmania staff member.

Step 3:

Contact Aboriginal Heritage Tasmania on **1300 487 045** as soon as possible and inform them of the discovery. Documentation of the find should be emailed to **aboriginalheritage@dpac.tas.gov.au** as soon as possible. Aboriginal Heritage Tasmania will then provide further advice in accordance with the *Aboriginal Heritage Act 1975*.

Discovery of Skeletal Material

Step 1:

Call the Police immediately. Under no circumstances should the suspected skeletal material be touched or disturbed. The area should be managed as a crime scene. It is a criminal offence to interfere with a crime scene.

Step 2:

Any person who believes they have uncovered skeletal material should notify all employees or contractors working in the immediate area that all earth disturbance works cease immediately.

Step 3:

A temporary 'no-go' or buffer zone of at least 50m x 50m should be implemented to protect the suspected skeletal material, where practicable. No unauthorised entry or works will be allowed within this 'no-go' zone until the suspected skeletal remains have been assessed by the Police and/or Coroner.

Step 4:

If it is suspected that the skeletal material is Aboriginal, Aboriginal Heritage Tasmania should be notified.

Step 5:

Should the skeletal material be determined to be Aboriginal, the Coroner will contact the Aboriginal organisation approved by the Attorney-General, as per the *Coroners Act 1995*.

Aboriginal Heritage Tasmania
Department of Premier and Cabinet

Tasmanian Government

Guide to Aboriginal site types

Stone Artefact Scatters

A stone artefact is any stone or rock fractured or modified by Aboriginal people to produce cutting, scraping or grinding implements. Stone artefacts are indicative of past Aboriginal living spaces, trade and movement throughout Tasmania. Aboriginal people used hornfels, chalcedony, spongelite, quartzite, chert and silcrete depending on stone quality and availability. Stone artefacts are typically recorded as being 'isolated' (single stone artefact) or as an 'artefact scatter' (multiple stone artefacts).

Shell Middens

Middens are distinct concentrations of discarded shell that have accumulated as a result of past Aboriginal camping and food processing activities. These sites are usually found near waterways and coastal areas, and range in size from large mounds to small scatters. Tasmanian Aboriginal middens commonly contain fragments of mature edible shellfish such as abalone, oyster, mussel, warrener and limpet, however they can also contain stone tools, animal bone and charcoal.

Rockshelters

An occupied rockshelter is a cave or overhang that contains evidence of past Aboriginal use and occupation, such as stone tools, middens and hearths, and in some cases, rock markings. Rockshelters are usually found in geological formations that are naturally prone to weathering, such as limestone, dolerite and sandstone

Quarries

An Aboriginal quarry is a place where stone or ochre has been extracted from a natural source by Aboriginal people. Quarries can be recognised by evidence of human manipulation such as battering of an outcrop, stone fracturing debris or ochre pits left behind from processing the raw material. Stone and ochre quarries can vary in terms of size, quality and the frequency of use.

Rock Marking

Rock marking is the term used in Tasmania to define markings on rocks which are the result of Aboriginal practices. Rock markings come in two forms; engraving and painting. Engravings are made by removing the surface of a rock through pecking, abrading or grinding, whilst paintings are made by adding pigment or ochre to the surface of a rock.

Burials

Aboriginal burial sites are highly sensitive and may be found in a variety of places, including sand dunes, shell middens and rock shelters. Despite few records of pre-contact practices, cremation appears to have been more common than burial. Family members carried bones or ashes of recently deceased relatives. The Aboriginal community has fought long campaigns for the return of the remains of ancestral Aboriginal people.

Further information on Aboriginal Heritage is available from:

Aboriginal Heritage Tasmania
Community Partnerships and Priorities
Department of Premier and Cabinet
GPO Box 123 Hobart TAS 7001

Telephone: **1300 487 045**
Email: **aboriginalheritage@dpac.tas.gov.au**
Web: **www.aboriginalheritage.tas.gov.au**

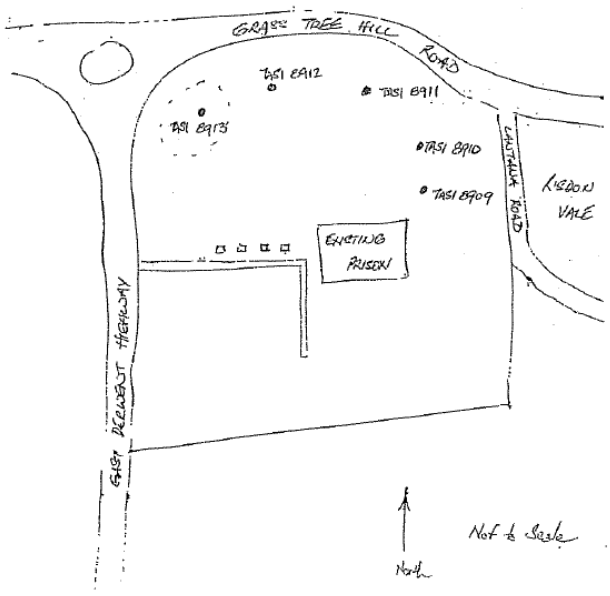
Appendix 2

Summary Overview of Archaeological Investigations Undertaken at the Risdon Prison Complex (Provided by AHT)

History of Aboriginal Heritage Investigations at Risdon Prison

Scotney 2001 'Survey Report for Aboriginal Sites Proposed: Risdon Prison Infrastructure Re-Development Program Stage C'

- Identified five sites: AH8909; AH8910; AH8911; AH8912; AH8913
    - 3 isolated artefacts and 2 artefact scatters
- Exact extent of survey/transects not specified
- Recommended that the sites be avoided and that an AHO monitor any excavations as there is a high possibility of sub-surface deposits



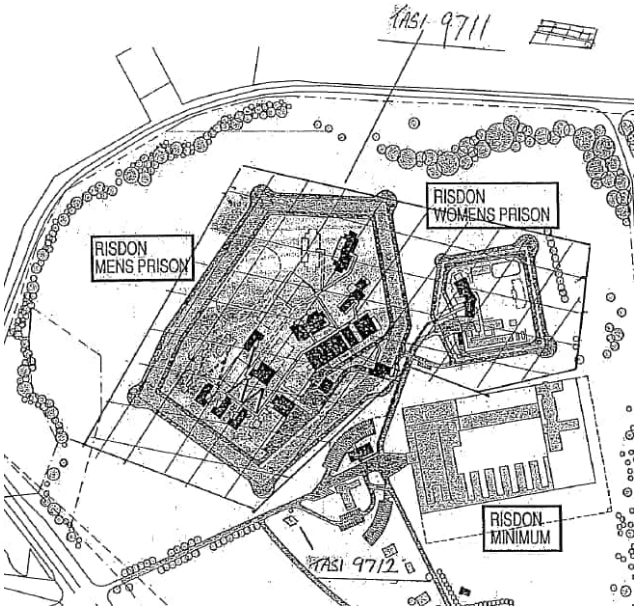
The development was able to avoid the five identified sites and once construction began (May 2004) Scotney was engaged for monitoring. Works included removing vegetation and top soil within the construction area.

Scotney July 2004 'Works Report' (report is not able to be located)

Scotney August 2004 'Works Report' (report is not able to be located)

Scotney Sept 2004 'Prison Infrastructure Redevelopment Program: Aboriginal Cultural Heritage Works Monitoring Progress Report Stage C Project'

- Report covers the monitoring period of 5 July – 7 Sept 2004
- Identified a new site (AH9711). Subsequently applied for and were granted a Permit to Remove (P 04/14; for the men's prison compound area) in August 2004
    - Large artefact scatter (300+ artefacts)
    - 146 artefacts identified during initial ground works with the rest identified during subsequent monitoring
    - More artefacts were being identified as the permitted works progressed
    - Site extends over the men's and women's prison site and is ~500m x 150m.
    - Recovered AH9711 artefacts were collected and will be returned to TALC



Scotney Oct onwards 2004 ' Works Reports' (report/s no able to be located)

- Around this time AH9712 was also identified (this is not covered in

Scotney's report, however). The site is a scatter of four artefacts south of the main prison area. The development was able to avoid AH9712.

- AH8909 through AH8912, AH9711 and AH9712 are now considered to likely be are all part of a single, large site
- All top soil removed from the construction area should not be removed from site, but stockpiled until it can be inspected for further Aboriginal heritage (stockpiled on western side of prison)

Scotney Oct 2004 Prison Infrastructure Redevelopment Program: Aboriginal Cultural Heritage Works Monitoring Progress Report (Men's Compound) Stage C Project

- Report covers the monitoring and artefact collection from 7 Sept – 11 Oct 2004
- An additional 170 artefacts were identified as part of AH9711 due to ground disturbance and weather exposure
    - AH9711 therefore now consists of 536 artefacts

Scotney was meant to write a final comprehensive report for the monitoring works; however, this report cannot be located.

Hughes 2009 'Aboriginal Heritage Survey: Risdon Prison Perimeter Fence'

- AHT conducted a survey for a new prison fence
- Six new sites were identified: AH10843; AH10844; AH10845; AH10846; AH10847; AH10848
- Recommendations:
    - The fence be moved inland to avoid AH10845 (the largest site identified; 20+ artefacts)
    - A permit application lodged for AH10846, AH10847 and AH10848 to interfere, relocate or destroy
    - AH10483 would not be impacted by the proposed works

Works commenced on the new perimeter fence with the suggested alterations to avoid the sites, but works were halted when further Aboriginal heritage was suspected. AHT visited the site on 29 Sept 2009 and determined Aboriginal heritage was present and advised sub-surface investigations should

be undertaken along a 600m section of the fence line. Subsequent conversations identified that AH10843, AH10844, AH10845 and the previously identified AH9711 would be impacted by the sub-surface program. A permit was obtained for CHMA to undertake 80 test pits along the proposed fence line (Permit 09/26). The permit was to interfere with AH9711, AH10843, AH10844 and AH10845 for the purposes of undertaking archaeological excavations to determine the composition and distribution of the sites.

CHMA 2009 'Risdon Prison Perimeter Fence: Sub-Surface Archaeological Investigations Summary Report'

- Identified an additional 148 artefacts within 80 50cm x 50cm test pits along a 600m x 5m section of the proposed fence line.
- CHMA determined that AH9711, AH10843, AH10844, AH10845, and the newly identified 148 artefacts are all extensions of the same site, to be subsequently known as AH9711.
- CHMA recommended additional test pitting; however, this was not supported by AHT and instead they recommended a permit application should be lodged to interfere with AH9711.

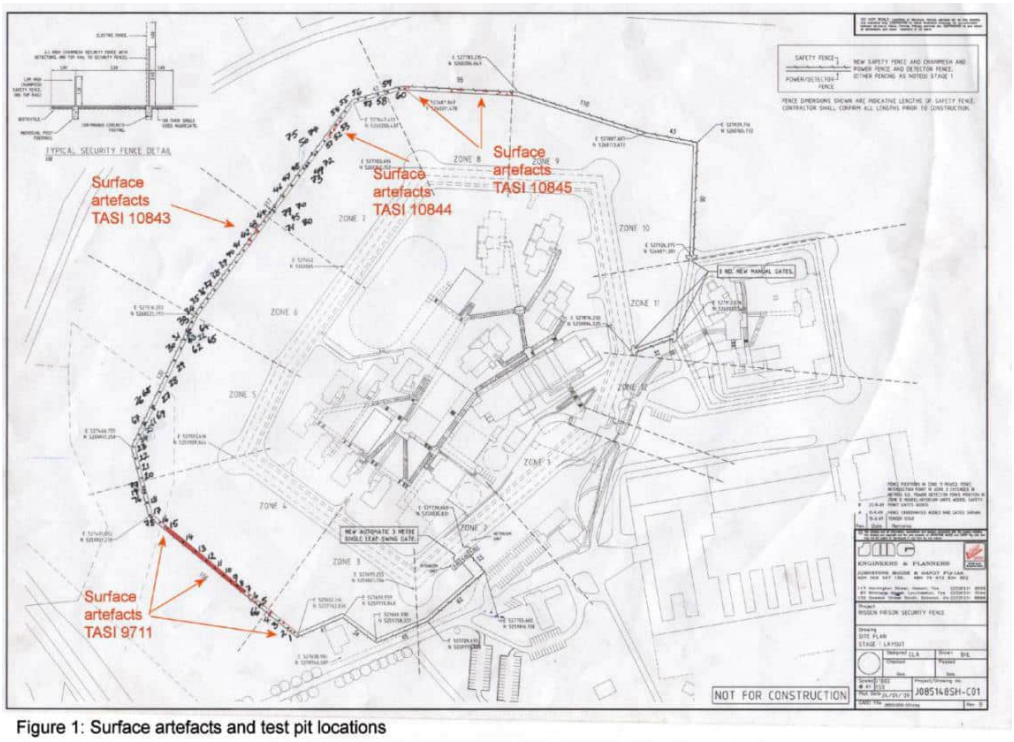


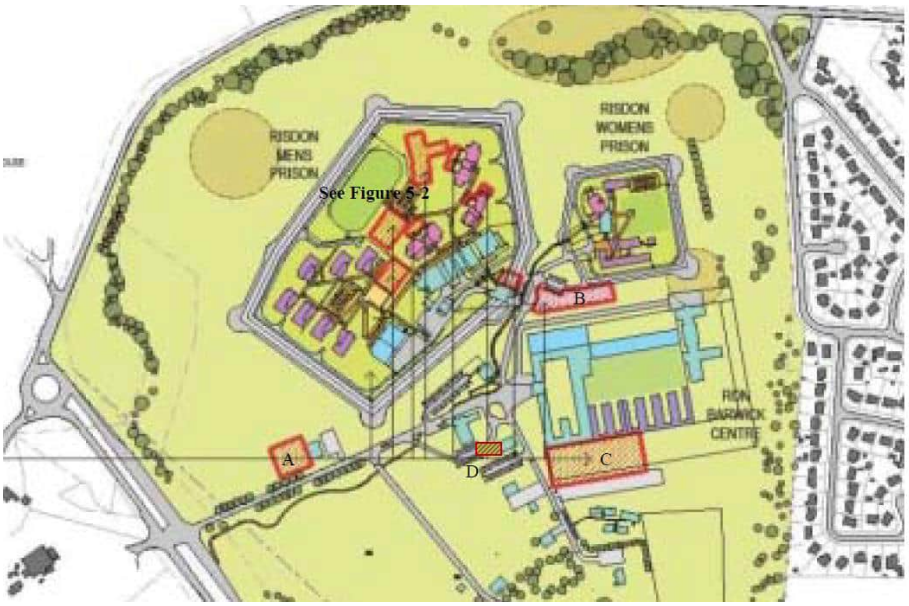
Figure 1: Surface artefacts and test pit locations

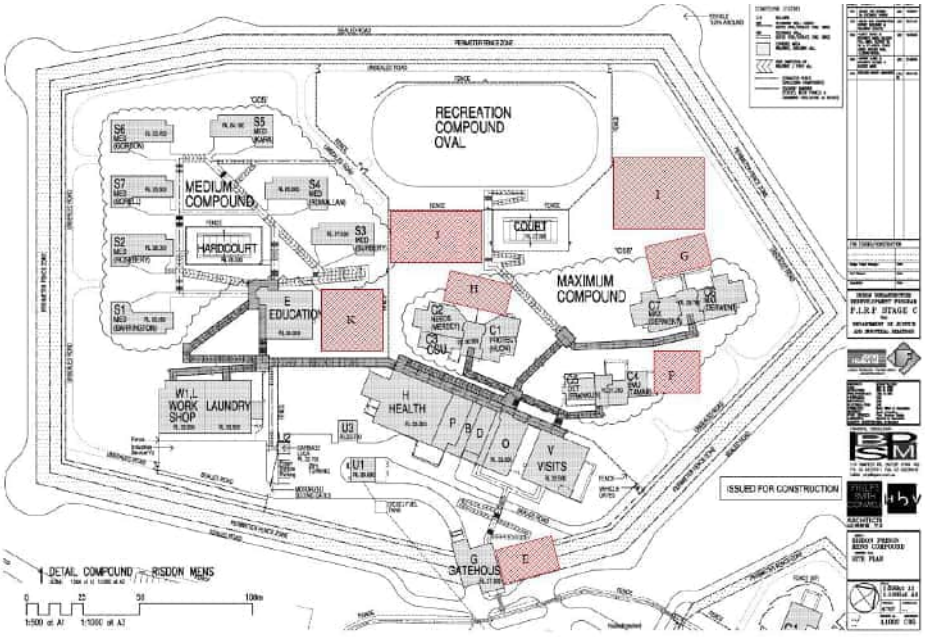
Permit 10/12 to interfere with AH9711 to construct the perimeter fence was granted. Director of National Parks and Wildlife determined that AH9711 was the redefined site at the prison.

Jones 2012 'Cultural Heritage Background Study: Preliminary Report'

- Desktop assessment a surface inspection to determine:
    - Which areas were clear of cultural heritage issues and therefore require no additional archaeological investigation
    - Which areas were likely to contain cultural heritage issues and therefore require further archaeological investigations prior to construction works occurring and
    - Which areas require an *Aboriginal Relics Act* 1975 permit to undertake the planned works.
- No in-situ artefacts identified

- Proposed a limited test pitting program





- Figure 5-2: Plan of RMP grounds showing areas initially to be assessed for cultural heritage values.

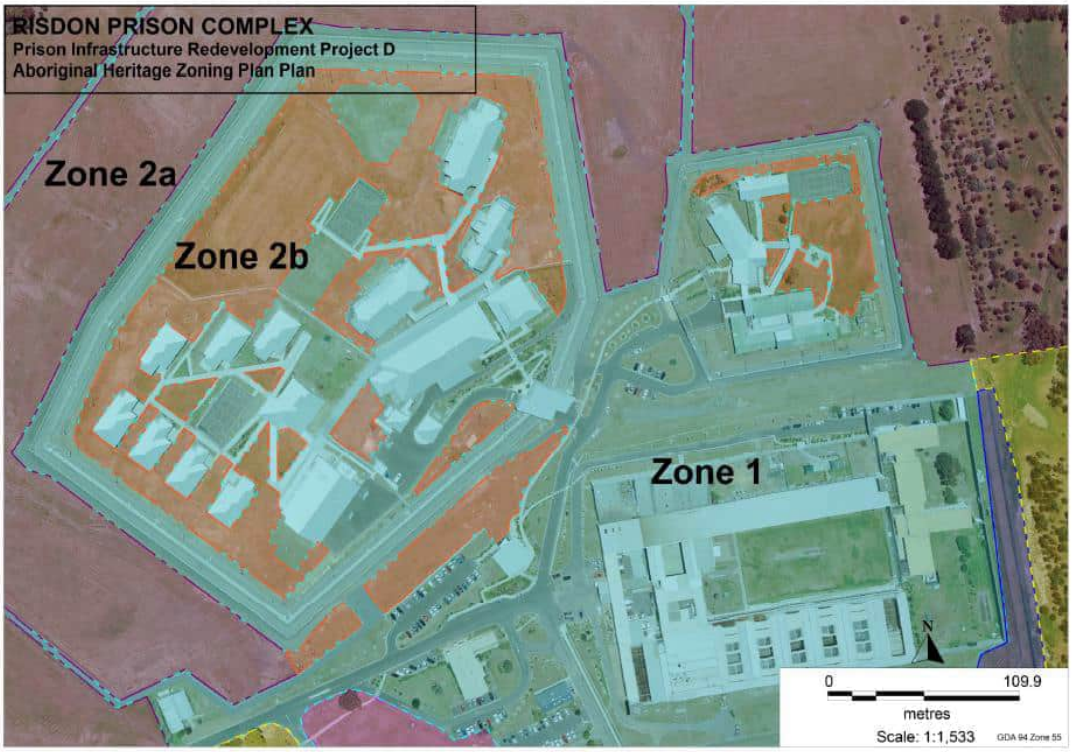
In 2012, SKM was engaged to create a cultural heritage management plan for the prison.

SKM 2013 'Prisons Infrastructure Redevelopment Program Stage D, Risdon, Tasmania: Cultural Heritage Management Plan'

- Specific heritage management recommendations for Stage D development:

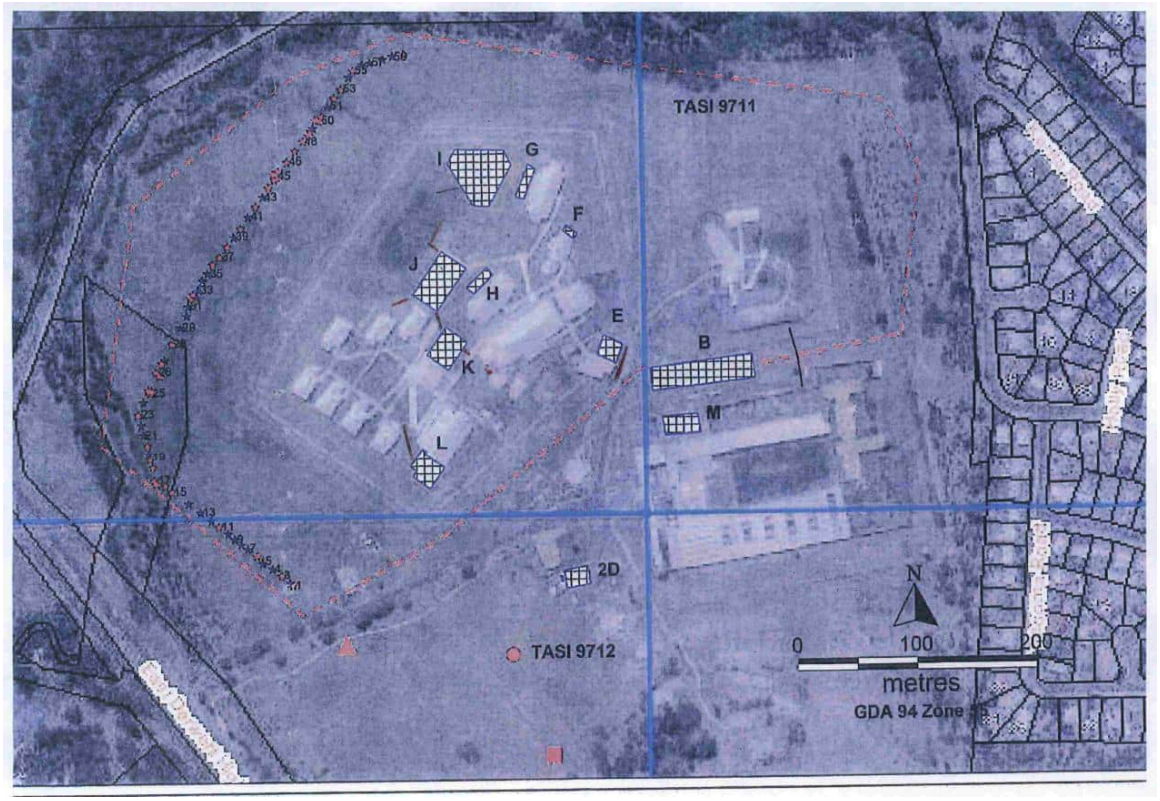
- A sub-surface program be implemented for zones D, F, G, H, I, J and K. If this is not possible, then when the top 400m of soil is removed, it should be kept within zone 5 and grassed over.
- Material below 400m can be removed and disposed of as wanted, as can any material from zones B and E.

- Management recommendations for future construction
  - Zone 1: Area where the presence of Aboriginal cultural heritage is improbable due to past construction activities and other recent land modification.
    - In zone 1 areas no future assessment of Aboriginal heritage will be required when ground disturbing works are undertaken
    - Any soils excavated in zone 1 can be disposed of in a manner as seen fit by the DOJ as long as it is not placed in zones 2, 3, and 5.
  - Zone 2b: Areas of TASI 9711 which are likely to contain Aboriginal artefacts in a significantly disturbed context due to past prison development activities.
    - Ground maintenance works which do not result the disturbance of the soil beyond the turning over of the top soil through ploughing or hoeing can continue in this zone.
    - Any planned ground disturbing works in zone 2b beyond that described in the above dot point should be first referred to AHT. Note that while the *Aboriginal Relics Act* 1975 remains in force, only the Minister for Aboriginal Heritage can provide approval for these deposits to be removed. In the event of new legislation being adopted, it should be possible to acknowledge that these deposits which have been previously disturbed can be managed without the need of a permit for each future action.
    - When approved ground disturbing works are undertaken in zone 2b if topsoil must be removed, the topsoil deposits to a depth of 400 mm must be spread in zone 5. Once this material is spread over zone 5, this soil should be grassed over so as to stabilize these artefact laden soils.



Permit summary

- P04/14 – permit to remove AH9971 for Stage C development (2004)
- P09/26 – permit to interfere with AH9711, 10843, 1844, 10845 for fence test-pitting (2009)
- P12/12 – permit to interfere with AH9711 to construct the perimeter fence (2010)
- P1112-17 – permit for AH9711 to construct Stage D (2012)
    - Amended permit (for service trenches; 2013)



APPENDIX F

Natural Values Assessment – August 2024

enviro-dynamics

environmental solutions for a changing world

Natural Values Assessment

21 Matipo Street, Risdon Vale

Client: Matthew Clark
Prepared by: Fiona Walsh

V2 August 2024

Contents

1 Introduction

This natural values report has been prepared as a requirement of a re-zoning application under the Tasmanian Planning Scheme – Clarence Local Provisions Schedule (2021).

Enviro-dynamics has been contracted to undertake this natural values assessment on behalf of the proponents. The assessment identifies the natural values of the site including the type and extent of vegetation communities, presence of threatened species and threatened fauna habitat. It also maps weed infestations and identifies any other threats present. Any potential impacts to natural values posed by the development are then analysed against the requirements of the relevant legislation.

2 Background

2.1 Site Description

The site (PID 5122701) covers 4.2 ha with a single dwelling in the west of the lot. Much of the site has been divided into various paddocks. The northern boundary is adjoining Downhams Road, with access off Matipo Street in the west. The southern and eastern boundaries are bordered by private land which is predominantly vegetated. The western boundary adjoins developed residential land zoned General Residential. The land has a gentle, north facing slope and an elevation of 70 – 110 m a.s.l. The geology is Upper glaciomarine sequences of pebbly mudstone, pebbly sandstone and limestone within the south and Undifferentiated Quaternary sediments in the north.

The site is zoned Rural under the Tasmanian Planning Scheme – Clarence LPS (2021), and has the following overlays relating to natural values covering all or part of the site:

- Bushfire Prone Area (entire site)
- Natural Assets Code - Priority Vegetation Area (south-eastern corner)

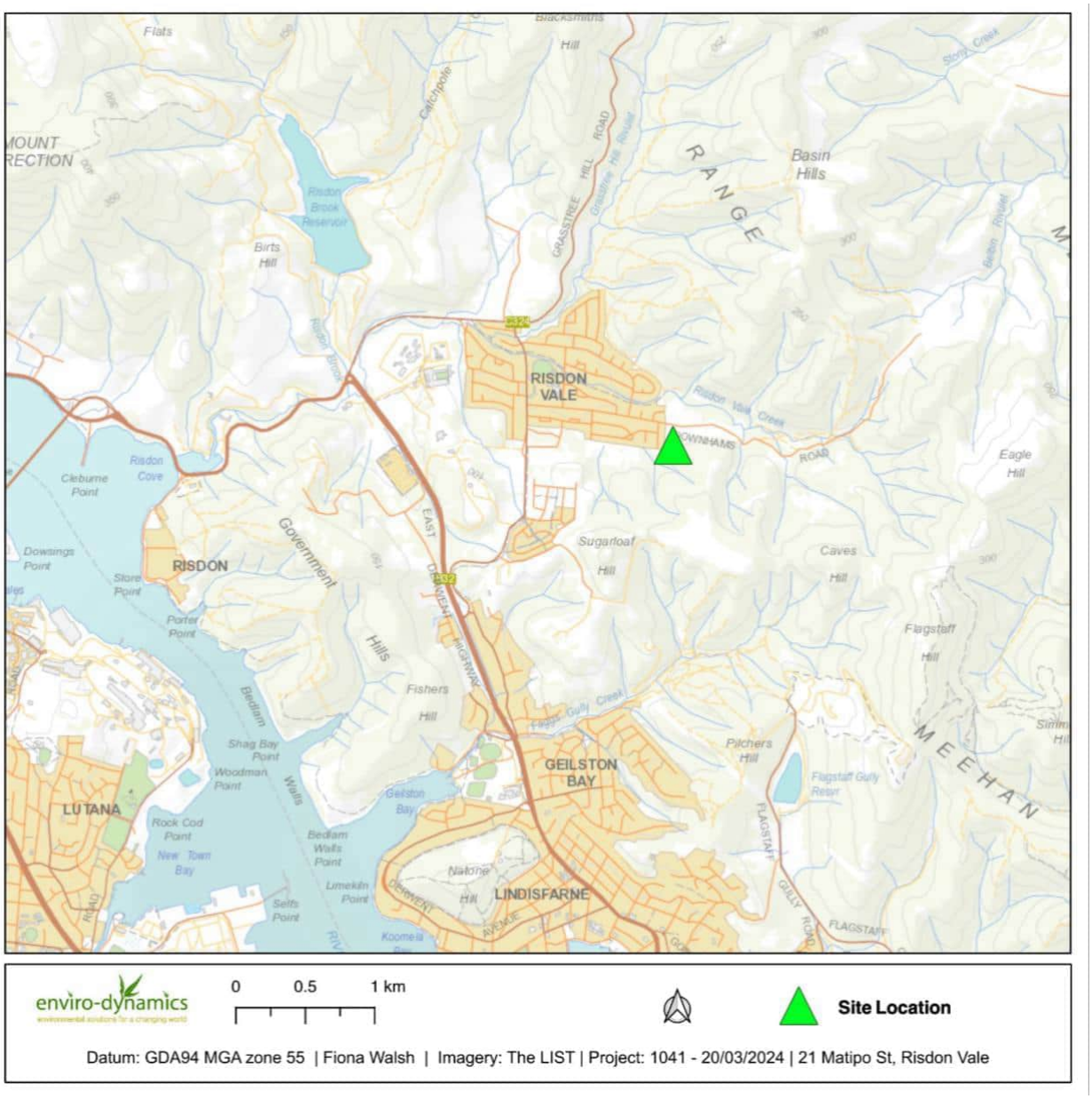


Figure 1: Site Location

2.2 Proposal

The proposal is for rezoning the site from Rural to General Residential to provide for additional residential development, consistent with the adjoining land to the west of the property.

3 Methods

The natural values assessment was undertaken in two stages; desktop analysis and field survey.

3.1 Desktop analysis

The desktop analysis involved extracting data from the following sources:

- Natural Values Atlas report, generated 20th March 2024 (NRE 2023)
- LIST map

3.2 Field survey

The initial field survey was undertaken on the 7th of March 2024, with an additional visit on the 29th August to do a targeted survey for the chaostola skipper (TSPA – e, EPBCA – EN). Vegetation communities on the site were assessed and classified according to TASVEG 4.0. All vascular plant species encountered were recorded, with an emphasis on detecting rare and threatened species. Searches for potential threatened fauna habitat e.g. tree hollows and den sites, and other evidence e.g. scats, diggings and tracks were also undertaken.

The targeted survey for the chaostola skipper was undertaken on the site. All potential habitat for the skipper (*Gahnia radula* patches) on the site was searched for evidence of presence. Evidence includes larval shelters and feeding marks on the leaves.

Locations of threatened flora, fauna habitat and significant weeds were mapped using Mergin Maps (merginmaps.com) on an iPhone handheld device with built in GPS at an accuracy of between 3.5 and 5 m and population data was captured e.g. numbers of individuals, area occupied etc. Geographic datum used was GDA94 Zone 55.

Taxonomic nomenclature for flora follows the latest Census of Vascular Plants of Tasmania (Baker & de Salas 2023). Classification of vegetation communities is in accordance with Kitchener and Harris (2013) and TASVEG 4.0.

3.3 Limitations of the survey

Whilst every effort was made to compile a complete list of vascular plants, a winter survey is unlikely to detect all species present due to seasonal/temporal variations. Some plants could not be identified to a species level and some species may have been overlooked due to a lack of fertile material. It is also possible that additional species are present but were dormant at the time of survey e.g. annuals, ephemerals.

4 Natural Values Assessment

This section outlines the findings of the desktop analysis and field survey, including a description of the vegetation communities, threatened flora, fauna habitat values and weeds (Figure 2).

4.1 Vegetation Communities

One native and one modified vegetation community were identified during the field survey, as per the TASVEG 4.0 classification system:

- *Eucalyptus amygdalina* forest on mudstone (DAM)
- Extra-urban miscellaneous (FUM)

The distribution of the two communities is illustrated on Figure 3 below.

***Eucalyptus amygdalina* forest on mudstone (DAM)**

> *Description from Harris and Kitchener, 2005:*
>
> *The community is typically dominated by E. amygdalina. E. viminalis is a widespread co-occurring species and has a dry sclerophyll understorey, which is generally species-poor. DAM is strongly associated with relatively dry sites on Permian mudstone (mainly in south-east Tasmania) or mudstone-derived sediments and metasediments of the Mathinna series (Devonian origin) in the north-east of the State. DAM has a distinctive understorey that, along with the substrate, can distinguish it from most other vegetation types. However, it can grade into several other dry sclerophyll and damp sclerophyll forest communities.*

The *Eucalyptus* forest is confined to the eastern and southern edges of the property (Figure 2), and connects with a larger tract of privately owned forest. The southern part of the forest is in relatively good condition as it appears to have been subject to less disturbance than that in the eastern portion. The canopy is a mix of *Eucalyptus amygdalina* with *E. viminalis* and *E. globulus* trees also present. The understory is comprised of a shrub layer of *Acacia dealbata, Exocarpos cupressiformis* and *Olearia obcordata.* The ground layer is predominately made up of grasses including *Austrostipa* and *Rytidosperma* species. *Gahnia radula* is found around some of the larger trees on the site. There was a distinct lack of herbaceous species across the site, which is likely to due to browsing pressure, recent dry conditions and the timing of the survey in early autumn.

Plate 1: *Eucalyptus amygdalina* woodland (DAM) in the east of the site

Plate 2: *Eucalyptus amygdalina* woodland (DAM) in the south of the site

Extra-urban miscellaneous (FUM)

> *Description from Harris and Kitchener, 2005:*
>
> *Extra-urban miscellaneous (FUM) represents areas where native vegetation has been replaced with human infrastructure in rural and remote areas. FUM is used to map infrastructure such as highways, air- strips, open-cut mines, quarries and dam developments and some large timber-loading bays associated with native forest harvesting. It also incorporates the typically non-native vegetation associated with such infrastructure as well as more extensive exotic parklands, cemeteries, and sports- fields in rural or remote areas.*

Much of the site has been divided into a series of smaller paddocks for domestic animals such as sheep and horses. Within the south there are numerous outbuildings, and the existing dwelling is located within the centre of the site but towards the western boundary (Figure 1). Although heavily modified, this area contains remnant large trees and areas of regenerating *Acacia dealbata* scrub.

Full species list for the site can be found in Appendix 1.

Plate 3: Looking south from the northern boundary toward the existing dwelling

Plate 4: South of the existing dwelling is a series of sheds and fences previously used for horses

Plate 5: Large habitat trees such as this in the south are present on site.

Figure 2: Natural Values on the site

4.2 Flora

A total of 15 vascular plants were recorded during the survey, of which 3 are introduced species. Additional flora species are likely to occur within the site and some plants could have been overlooked due to the inherent limitations of the survey e.g. seasonal timing, timed meander method. For the full list of flora species recorded during the survey see Appendix 1.

4.2.1 Threatened Flora

No threatened flora species listed under the *Threatened Species Protection Act 1995* (TSPA) or the *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) were recorded during the survey.

A search of the Natural Values Atlas (NRE database) indicated that several threatened flora species have been recorded within 5 km of the site. Those recorded within 500 m or within 5 km and have suitable habitat on site are addressed in the table below. Those with no suitable habitat and no conceivable chance of occurring (such as marine species) are listed in Appendix 2.

Table 1: Threatened flora species recorded on the Natural Values Atlas within 5 km of the site

Species	Status TSPA / EPBCA	Records within 500m / 5km	Comments
Austrostipa bigeniculata double-jointed speargrass	r / -	0 / 1	*Austrostipa bigeniculata* is found mainly in the south-east and Midlands in open woodlands and grasslands, where it is often associated with *Austrostipa nodosa.* Not recorded during survey
Austrostipa blackii crested spear grass	r / -	0 / 2	The habitat of *Austrostipa blackii* is poorly understood because of confusion with other species. In its "pure" form (i.e., long coma), *A. blackii* is a species of very near-coastal sites such as the margins of saline lagoons, creek outfalls and vegetated dunes. Further inland, where it seems to grade into other species, it occurs in open grassy woodlands. Not recorded during survey.
Eucalyptus risdonii Risdon peppermint (including hybrids)	r / -	6 / 564	*Eucalyptus risdonii* is restricted to the greater Hobart area (particularly the Meehan Range), with an outlying population at Mangalore and on South Arm. It occurs on mudstone, with an

Species	Status TSPA / EPBCA	Records within 500m / 5km	Comments
			altitudinal range from near sea level to 150 m above sea level. It can occur as a dominant in low open forest with a sparse understorey on dry, insolated ridgelines and slopes (e.g. with a north-west aspect), and individuals can extend into other forest types typically dominated by *E. tenuiramis* or *E. amygdalina* (but occasionally by other species) on less exposed sites. Not recorded on site. Suitable habitat present although due to the distinctiveness of the species it is unlikely to have been overlooked.
Lepidium hyssopifolium soft peppercress	e/ EN	0 / 3	The native habitat of *Lepidium hyssopifolium* is the growth suppression zone beneath large trees in grassy woodlands and grasslands (e.g. over-mature black wattles and isolated eucalypts in rough pasture). *Lepidium hyssopifolium* is now found primarily under large exotic trees on roadsides and home yards on farms. It occurs in the eastern part of Tasmania between sea-level to 500 metres above sea level in dry, warm and fertile areas on flat ground on weakly acid to alkaline soils derived from a range of rock types. It can also occur on frequently slashed grassy/weedy roadside verges where shade trees are absent. Suitable habitat present although was not recorded during the survey which was conducted at the ideal survey time.
Olearia hookeri crimsontip daisybush	r / -	0 / 28	*Olearia hookeri* is found on dry hills around Hobart in the State's south and also along the central east coast. It grows within eucalypt woodlands with a mixed grassy-shrubby understorey, favouring north-north-westerly slopes on mudstone (except for an atypical occurrence on

Species	Status TSPA / EPBCA	Records within 500m / 5km	Comments
			dolerite at Templestowe flats near Seymour). In the south of the State the habitat is dominated by *Eucalyptus amygdalina*, *Eucalyptus risdonii* or *Eucalyptus tenuiramis*; in the central east near Mt Peter the habitat is dominated by *Eucalyptus sieberi* over a very sparse understorey. Not recorded. Suitable habitat present although due to the distinctiveness of the species it is unlikely to have been overlooked.
Pomaderris pilifera subsp. *talpicutica* moleskin dogwood	e/ VU	0 / 25	*Pomaderris pilifera* subsp. *talpicutica* is known with certainty from two small subpopulations, one in the Government Hills east of Risdon in the south of Tasmania, and one close to the East Tamar Highway in the north. A third location east of Mathinna consists of a single plant in poor condition that has only been tentatively ascribed to the taxon. At East Risdon, *Pomaderris pilifera* subsp. *talpicutica* is found on the western slope of a hill within 60-80 m of the River Derwent and between 30-35 m above sea level. It occurs on mudstone on very well drained skeletal soils with much broken and weathered shell debris scattered about. Elsewhere, the taxon occurs in open shrubby woodland dominated by *Eucalyptus amygdalina*, usually on dolerite. Not recorded. Suitable habitat present although due to the distinctiveness of the species it is unlikely to have been overlooked.
Scleranthus fasciculatus spreading knawel	v / -	0 / 1	*Scleranthus fasciculatus* is only recorded from a few locations in the Midlands and south-east. The vegetation at most of the sites is *Poa* grassland/grassy woodland. *Scleranthus fasciculatus* appears to need gaps between the tussock spaces for its survival and

Species	Status TSPA / EPBCA	Records within 500m / 5km	Comments
			both fire and stock grazing maintain the openness it requires. Often found in areas protected from grazing such as fallen trees and branches. Suitable habitat present although not recorded during the survey.
Spyridium eriocephalum var. *eriocephalum* heath dustymiller	e / -	0 / 42	In Tasmania, *Spyridium eriocephalum* var. *eriocephalum is* known to be extant at a single subpopulation within East Risdon State Reserve. At East Risdon the species grows on mudstones in open shrublands or low open eucalypt woodlands, the two main patches being closely associated with Aboriginal middens, with abundant crushed and burnt shell. The dominant eucalypt is *Eucalyptus amygdalina*, with *Eucalyptus risdonii* occurring at the small inland site. *Allocasuarina verticillata* (drooping she oak) is also prominent at one site. The aspect of the East Risdon sites ranges from west to north-west, the slope from 2-25 degrees, elevation above sea level from 5-30 m above sea level, while the majority of plants are within 150 m of the river Derwent. Not recorded. Suitable habitat present although due to the distinctiveness of the species it is unlikely to have been overlooked.
Spyridium vexilliferum var. *vexilliferum* helicopter bush	r / -	0 / 1	*Spyridium vexilliferum* occurs in a range of vegetation types, including sandy heaths, rock plates and dry sclerophyll forest and woodland (mainly dominated by *Eucalyptus amygdalina*). It is found on a range of substrates (e.g. mudstone, granite, laterite gravels) from near-coastal areas in the east, north and west of the State, to the Midlands and lower Derwent Valley. It is most abundant in open or disturbed areas, as it can proliferate from

Species	Status TSPA / EPBCA	Records within 500m / 5km	Comments
			soil-stored seed after disturbance. Not recorded. Suitable habitat present although due to the distinctiveness of the species it is unlikely to have been overlooked.
Stenopetalum lineare narrow threadpetal	e / -	0 / 1	The prime habitat for *Stenopetalum lineare* appears to be grass-covered low dunes but it also extends to scrub-covered dunes (coast wattle) and there is one inland site on a rocky outcrop in dry sclerophyll forest. Not recorded. No suitable habitat on site.
Teucrium corymbosum forest germander	r / -	0 / 40	*Teucrium corymbosum* occurs in a wide range of habitats from rocky steep slopes in dry sclerophyll forest and *Allocasuarina* (sheoak) woodland, riparian flats and forest. Not recorded. Suitable habitat present although due to the distinctiveness of the species it is unlikely to have been overlooked.
Vittadinia burbidgeae smooth new-holland-daisy	r / -	0 / 1	*Vittadinia burbidgeae* occurs in native grassland and grassy woodland. Suitable habitat present although not recorded during the survey.
Vittadinia gracilis woolly new-holland-daisy	r / -	0 / 3	*Vittadinia gracilis* occurs in native grassland and grassy woodland. Suitable habitat present although not recorded during the survey.
Vittadinia muelleri narrowleaf new-holland-daisy	r / -	0 / 17	*Vittadinia muelleri* occurs in native grassland and grassy woodland. Suitable habitat present although not recorded during the survey.

(EPBCA) CR = Critically Endangered, EN = Endangered, VU = Vulnerable (TSPA) e = endangered, v = vulnerable, r= rare

4.2.2 Weeds

Boneseed and horehound were recorded on the site (Table 2, Figure 2), and are listed as declared pests under the *Biosecurity Act 2019 (*BA). Boneseed is also a Weed of National Significance (WoNS).

Boneseed and horehound are classed as Zone B species within municipality of Clarence, which includes those Tasmanian municipalities for which containment of the declared weed is the principal management objective. Such municipalities host large, widespread infestations of the declared weed that are not deemed eradicable because the feasibility of effective management is low at this time.

These species will need to be managed in accordance with the act following the best practice prescriptions as laid out in the *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE, Stewart and Askey-Doran, 2015)

Table 2: Declared weeds present on site

Species	Comment	BA Zone	WoNs
boneseed *Chrysanthemoides monilifera subsp. monilifera*	One isolated plant within the west of the site near the boundary.	Zone B Containment	YES
horehound *Marrubium vulgare*	Concentrated within the south of the site around the outbuildings.	Zone B Containment	-

4.3 Fauna

4.3.1 Threatened fauna

No threatened fauna species listed under the *Threatened Species Protection Act 1995* (TSPA) or under the *Environment Protection and Biodiversity Act 1999* (EPBCA) were recorded during the survey.

4.3.2 Threatened fauna habitat

Habitat for four species listed under the TSPA and/or the EPBCA were recorded during the survey:

Blue-winged parrot (Neophema chrysostoma)

EPBCA – Vulnerable

Blue-winged parrots inhabit a range of habitats from coastal, sub-coastal and inland areas, through to semi-arid zones. They tend to favour grasslands and grassy woodlands and are often found near wetlands both near the coast and in semi-arid zones. They breed in Tasmania, coastal south-eastern South Australia and southern Victoria. During the breeding season (spring and summer), birds occupy

eucalypt forests and woodlands. Nests are made in hollows, preferably with a vertical opening, in living or dead trees or stumps.

There are numerous large eucalypt trees on the site (Figure 2, Plate 5) which are of sufficient age to have developed hollows that could be used by this species.

Chaostola Skipper *(Antipodia chaostola subsp. leucophaea)*

TSPA endangered, EPBCA Endangered

The chaostola skipper is a medium sized brown butterfly, endemic to Tasmania. It has a two-year life cycle and adults fly for a few weeks between October and December. It is restricted to dry forests which contain their favoured food plants - *Gahnia radula* and/or *G. microstachya.*

Chaostola skipper shelters are distinctive as they have their entrances located at the bottom, rather than the top which most other similar species do. The larvae also feed on the leaves above their shelters, leaving small chewing patterns.

There are approximately four large patches of *Gahnia radula* present on site which provide potential habitat for this species. These are mainly located amongst the larger remnant eucalypt trees within the east of the site.

Eastern barred bandicoot (*Perameles gunnii*)

EPBCA – Vulnerable

The eastern barred bandicoot originally occurred in native grasslands and grassy woodlands in Tasmania's Midlands. However, it is now rare in the Midlands where most of its habitat has been cleared. Since European settlement the eastern barred bandicoot has spread into (originally heavily forested) agricultural areas in the state's south-east, north-east and north-west. In these areas, the eastern barred bandicoot occurs in mosaic habitats of pasture and remnant native forest, often with a significant amount of cover provided by weeds such as gorse and blackberry (Threatened Species Section, 2023).

This species may utilise the site for foraging or nesting, and adapts well to modified landscapes within the vicinity of agricultural or native landscapes.

Tasmanian masked owl (*Tyto novaehollandiae castanops*)

TSPA – endangered, EPBCA - Vulnerable

The Tasmanian Masked Owl (*Tyto novaehollandiae castanops*) is a subspecies of Masked Owl which occurs only in Tasmania. Its population has been estimated to comprise approximately 500 breeding pairs. It is a large bird with a mask-like facial disc and distinctive husky, screeching call. The Tasmanian

masked owl hunts at night for small mammals and birds in a range of habitats which contain some mature forest, usually below 600 m altitude. These habitats include native forests and woodlands as well as agricultural areas with a mosaic of native vegetation and pasture (Threatened Species Section, 2023).

There are numerous large eucalypt trees on the site (Figure 2, Plate 5) which are of sufficient age to have developed hollows however no hollows of suitable size for use by a masked owl (entrance 15-30cm wide) were present.

Swift parrot *(Lathamus discolor)*

TSPA – endangered, EPBCA – Critically Endangered

During the breeding season, nectar from Tasmanian blue gum (*Eucalyptus globulus*) and black gum (*Eucalyptus ovata*) flowers are the primary food source for the species. These eucalypts are patchily distributed, and their flowering patterns are erratic and unpredictable, often leading to only a small proportion of swift parrot habitat being available for breeding in any one year. Swift parrots breed in tree hollows in mature eucalypts within foraging range of a flower source.

Foraging habitat in the form of *Eucalyptus globulus* trees are present on site (Figure 2). There are numerous large eucalypt trees on the site (Figure 2, Plate 5) which are of sufficient age to have developed hollows that could be used by this species.

Additional species

A search of the Natural Values Atlas (NRE database) indicated that several threatened fauna species had been recorded within 5 km of the site. None were recorded within 500 m, however those recorded within 5 km and have suitable habitat on site are addressed in Table 3 below. Those with no suitable habitat and no conceivable chance of occurring (such as marine species) are listed in Appendix 2.

Table 3: Threatened fauna species recorded on the Natural Values Atlas within 5 km of the site

Species	Status TSPA / EPBCA	Records 500m / 5 km	Comment
Accipiter novaehollandiae Grey goshawk	e / -	0 / 4	Inhabits large tracts of wet forest and swamp forest, particularly patches with closed canopies above an open understorey, but with dense stands of prey habitat nearby. Mature trees provide the best nesting sites. Most nests have been recorded from blackwoods and occasional myrtle beech. No suitable nesting habitat. May utilise the site for foraging.

Species	Status TSPA / EPBCA	Records 500m / 5 km	Comment
Antipodia chaostola subsp. *leucophaea* chaostola skipper	e / EN	0 / 2	This species is restricted to dry forest and woodland supporting the sedge *Gahnia radula*, and occurs in isolated populations in south-eastern and eastern Tasmania **Habitat present on site in the form of *Gahnia radula.* Dedicated survey found no evidence in the way of larval shelters or feeding marks. Likelihood of species being present is low.**
Aquila audax subsp. *fleayi* Wedge-tailed eagle	e / EN	0 / 34	Nests in a range of old growth native forests and is dependent on forest for nesting. Territories can contain up to five alternate nests usually close to each other but may be up to 1 km apart where habitat is locally restricted. This eagle preys and scavenges on a wide variety of fauna including fish, reptiles, birds, and mammals. No suitable nesting habitat. May utilise the site for foraging.
Dasyurus maculatus subsp. *maculatus* Spotted-tailed quoll	r / VU	0 / 5	Habitat for the spotted-tailed quoll is coastal scrub, riparian areas, rainforest, wet forest, damp forest, dry forest and blackwood swamp forest (mature and regrowth), particularly where structurally complex areas are present, and includes remnant patches in cleared agricultural and or plantation areas. No suitable denning habitat. May utilise the site for foraging.
Dasyurus viverrinus Eastern quoll	e / EN	0 / 43	Habitat for the eastern quoll includes rainforest, heathland, alpine areas, and scrub. However, it seems to prefer dry forest and native grassland mosaics which are bounded by agricultural land. No suitable denning habitat. May utilise the site for foraging.
Haliaeetus leucogaster White-belled sea-eagle	v / -	0 / 9	Found in coastal habitats (especially those close to the seashore) and around terrestrial wetlands in tropical and temperate regions of mainland Australia and its offshore islands. The habitats occupied by the sea-eagle are characterised by the presence of large areas of open water (larger rivers, swamps, lakes, the sea).The species is mostly recorded in coastal lowlands, but can occupy habitats up to 800 m above sea level in Tasmania. No suitable nesting habitat. May utilise the site for foraging.

Species	Status TSPA / EPBCA	Records 500m / 5 km	Comment
Hirundapus caudacutus White-throated needletail	- / VU	0 / 3	Aerial species which rarely alights. No suitable habitat.
Lathamus discolor Swift parrot	e / CE	0 / 105	During the breeding season, nectar from Tasmanian blue gum (*Eucalyptus globulus*) and black gum (*Eucalyptus ovata*) flowers are the primary food source for the species. These eucalypts are patchily distributed, and their flowering patterns are erratic and unpredictable, often leading to only a small proportion of swift parrot habitat being available for breeding in any one year. Swift parrots breed in tree hollows in mature eucalypts within foraging range of a flower source. **Suitable foraging habitat present on site in the form of *Eucalyptus globulus*. Although many trees within the site are large enough to form hollows, tree inspections (from the ground) did not identify any suitable hollows. There is a low likelihood of nesting hollows for this species occurring on the site.**
Neophema chrysostoma *blue-winged parrot*	- / VU	0 / 49	The Blue-winged Parrot inhabits a range of habitats from coastal, sub-coastal and inland areas, right through to semi-arid zones. Throughout their range they favour grasslands and grassy woodlands. They are often found near wetlands both near the coast and in semi-arid zones. Blue-winged Parrots can also be seen in altered environments such as airfields, golf-courses, and paddocks. **Suitable foraging habitat. Although many trees within the site are large enough to form hollows, tree inspections (from the ground) did not identify any suitable hollows. There is a low likelihood of nesting hollows for this species occurring on the site.**
Perameles gunnii Eastern barred bandicoot	- / VU	0 / 26	Potential habitat for the eastern barred bandicoot is forests with a grassy understorey, native and exotic open vegetation types including woodlands and open grasslands, particularly in landscapes with a mosaic of agricultural land and remnant bushland. **Species may utilise the site, adapts well to modified landscapes within the vicinity of agricultural or native landscapes. Only marginal nesting habitat on site.**

Species	Status TSPA / EPBCA	Records 500m / 5 km	Comment
Sarcophilus harrisii Tasmanian devil	e / EN	0 / 50	This species lives in a wide range of habitats across Tasmania, especially in landscapes with a mosaic of pasture and woodland. No suitable denning habitat. May utilise the site for foraging.
Tyto novaehollandiae castanops Tasmanian masked owl	e / VU	0 / 5	This species occupies a range of habitats which contain some mature forest, usually below 600 m altitude - these include native forests and woodlands as well as agricultural areas with a mosaic of native vegetation and pasture. **Suitable foraging habitat. Although many trees within the site are large enough to form hollows, no hollows of suitable size for use by a masked owl (entrance 15-30cm wide) were observed.** **Species may roost in trees on site.**

5 Development Impacts and Legislation

The following section outlines the impacts of the proposed rezoning and subsequent proposed subdivision on natural values and provides an assessment of the proposal against the relevant legislation.

Impacts on natural values

The proposed rezoning itself will not result in disturbance of the site. However, future residential development will likely result in the removal of most or all of the native vegetation and threatened species habitat.

5.1 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

> *A person must not take an action that has, will have or is likely to have a significant impact on any of the matters of national environmental significance without approval from the Australian Government Minister for the Environment (the Minister).*

There is potential habitat for five species listed under the EPBCA present on the site:

Blue-winged parrots (Vulnerable), chaostola skipper (Endangered), eastern barred bandicoots (Vulnerable), swift parrots (Critically Endangered) and masked owls (Vulnerable).

Eastern barred bandicoots, if present, may move through the site from time-to-time foraging, however habitat suitable for nesting was not observed. The proposal will have no significant impact to this species and its long-term survival.

Dedicated surveys were conducted for the chaostola skipper, and for hollows within mature trees which could provide nesting habitat for the blue-winged parrot, swift parrot and masked owl.

No evidence in the way of shelters or feeding marks of the chaostola skipper were found within the *Gahnia radula* plants. The likelihood of the species being present is very low.

The trees within the site were also assessed for hollows which could provide suitable nesting habitat for swift parrots, blue-winged parrots and masked owls. Although many of these trees are large enough to form hollows, none were observed which indicated they would be suitable for nesting.

Referral to the Commonwealth will not be required.

5.2 Tasmanian Threatened Species Protection Act 1995

> *In Tasmania, threatened species (flora and fauna) are protected under the Tasmanian Threatened Species Protection Act 1995. Under this Act, a permit is required to knowingly "take" (which*

includes kill, injure, catch, damage, destroy and collect), keep, trade in or process any specimen of a listed species.

There is potential habitat for three species listed under the TSPA present on the site:

Chaostola skipper (endangered), swift parrots (endangered) and masked owls (endangered).

No evidence in the way of shelters or feeding marks of the chaostola skipper were found within the *Gahnia radula* plants. The likelihood of the species being present is very low.

The trees within the site were also assessed for hollows which could provide suitable nesting habitat for swift parrots and masked owls. Although many of these trees are large enough to form hollows, none were observed which indicated they would be suitable for nesting.

No permits will be required if rezoning of the site leads to the removal of the vegetation based on current surveys.

5.3 Tasmanian Nature Conservation Act 2005

There are no vegetation communities listed as threatened under the NCA present on site. No known hollows or dens

5.4 Tasmanian Biosecurity Act 2019

Two declared weeds were recorded on site - boneseed and horehound which are Zone B species with the municipality of Clarence. Zone B classifications are those which have infestations that are not deemed eradicable, and the objective for these species is to contain them and prevent the spread neighbouring properties.

These will need to be managed in accordance with the relevant Statutory Weed Management Plans following the best practise prescriptions as laid out in the *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE, Stewart and Askey-Doran, 2015).

5.5 Forest Practices Regulations 2017

The extent of future development and therefore vegetation clearance on the site is currently not known. However, given that the *Eucalyptus amygdalina* forest on mudstone community appears to cover approximately 1.7 ha, a Forest Practices Plan may be required (Clause 4 (a) (ii) - a Forest Practices Plan is required if clearance is greater than 1 ha).

5.6 Tasmanian Planning Scheme - Clarence

The south-eastern section of the site is subject to the Natural Assets Code (C7.0) due to the priority vegetation overlay covering a section of the native vegetation communities on the site. Note that the overlay is not apply to the entirety of native vegetation on the site.

Although this report is for a re-zoning application, the subdivision requirements under the Natural Assets Code are addressed below:

C7.7.2 - Subdivision within a priority vegetation area

Response: Acceptable solutions cannot be met; therefore, performance criteria must be addressed.

P1.1 - Each lot, or a lot proposed in a plan of subdivision, within a priority vegetation area must be for:

> (a) subdivision for an existing use on the site, provided any clearance is contained within the minimum area necessary to be cleared to provide adequate bushfire protection, as recommended by the Tasmanian Fire Service or an accredited person;

Response: Not applicable given the proposed rezoning will likely result in a residential subdivision to provide for many new residential lots.

> (b) subdivision for the construction of a single dwelling or an associated outbuilding;

Response: Not applicable. The future subdivision intent (i.e. lot density and arrangement) for the site is currently not known. However, it is assumed that it will result in a significant number of residential lots rather than a single dwelling, consistent with the proposed General Residential zoning.

> (c) subdivision in the General Residential Zone or Low Density Residential Zone;

Response: The current application is for re-zoning to the site from Rural to General Residential. This clause will apply.

> (d) use or development that will result in significant long term social and economic benefits and there is no feasible alternative location or design;

Response: The site adjoins land zoned General Residential and developed as such. The continuation of General Residential zoning may contribute social and economic benefits to the local community. The site also appears to be one of the remaining sites suitable for such development in the Risdon Vale area. Future subdivision layout and residential designs should take into account threatened species habitats and be designed to have the least amount of impact. The proposal has the potential to comply with this clause.

(e) subdivision involving clearance of native vegetation where it is demonstrated that on-going pre-existing management cannot ensure the survival of the priority vegetation and there is little potential for long-term persistence; or

Response: The future subdivision intent (i.e. lot density and arrangement) for the site is currently not known. However, it is assumed that it will result in a significant number of residential lots, consistent with the proposed General Residential zoning. The extent of required clearing is not yet known.

(f) subdivision involving clearance of native vegetation that is of limited scale relative to the extent of priority vegetation on the site.

Response: The future subdivision intent (i.e. lot density and arrangement) for the site is currently not known. However, it is assumed that it will result in a significant number of residential lots, consistent with the proposed General Residential zoning. The extent of required clearing relative to the extent of the priority vegetation is not yet known.

P1.2 - Works association with subdivision within a priority vegetation area must minimise adverse impacts on priority vegetation, having regard to:

(a) the design and location of any works, future development likely to be facilitated by the subdivision, and any constraints such as topography or land hazards;

Response: Future subdivision layout and residential design should take into account threatened species habitats including large hollow bearing trees and be designed to have the least amount of impact. The proposal has the potential to comply with this clause.

(b) any particular requirements for the works and future development likely to be facilitated by the subdivision;

Response: Future subdivision layout and residential designs should take into account threatened species habitats and be designed to have the least amount of impact. The proposal has the potential to comply with this clause.

(c) the need to minimise impacts resulting from bushfire hazard management measures through siting and fire-resistant design of any future habitable buildings;

Response: A bushfire hazard management plan will be required, which would identify the size of the hazard management area based on lot density and design. It is recommended to retain as many large trees as possible within this area. The proposal has the potential to comply with this clause.

(d) any mitigation measures implemented to minimise the residual impacts on priority vegetation;

Response: Although the priority vegetation overlay does not contain threatened vegetation communities, there is suitable habitat for threatened species on site. Future designs should consider these habitats and be designed to have the least amount of impact. The proposal has the potential to comply with this clause.

(e) any on-site biodiversity offsets; and

Response: The extent of required clearing relative to the extent of the priority vegetation and potential threatened species habitat is not yet known.

(f) any existing cleared areas on the site.

Response: Future development should prioritise usage of the cleared areas, and retain as many large trees as possible. The proposal has the potential to comply with this clause.

6 Conclusion and Recommendations

The natural values of land at 21 Matipo Street, Risdon Vale were assessed as part of a re-zoning application.

Threatened species and communities observed:

- No threatened species or threatened vegetation communities occur on the site.

Threatened species habitat observed:

- Numerous large habitat trees were identified which may be suitable for nesting or foraging of the swift parrot, masked owl and blue-winged parrot. A dedicated survey was conducted which found that although many of these trees are large enough to form hollows, none were observed which indicated they would be suitable for nesting.
- *Eucalyptus globulus* trees present on site provide some foraging habitat for the swift parrot (TSPA – e, EPBCA – CR). Removal of these trees will not trigger an EPBC referral.
- Chaostola skipper habitat present in the form of patches of *Gahnia radula.* However, no evidence in the way of shelters or feeding marks were found within the plants. The likelihood of the species being present is very low.
- Eastern barred bandicoots, if present, may move through the site from time-to-time foraging, however significant habitat suitable for nesting was not observed. The proposal will have no significant impact to this species and its long-term survival.

The site was not found to contain any threatened flora species or significant threatened fauna habitat. Future subdivision and development on the site may require additional assessments of threatened species during the planning and design stage, as conditions on the site can change over time. The following recommendations are relevant to both subdivision layout design and future residential development on the site. It is noted that re-zoning itself will not have a physical impact.

Future development Recommendations:

- Retain large habitat trees as identified in Figure 2 where possible.
- All declared weeds must be controlled in accordance with the Statutory Weed Management Plan and the *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and diseases in Tasmania* (DPIPWE, Stewart and Askey-Doran, 2015). Weed management should be undertaken prior to the commencement of works.
- Any soil or gravel imported to the site for construction or landscaping purposes should be from a weed free source to prevent the establishment of further introduced species on the site.

- This natural values assessment is valid for a period of 2 years. If the site is developed after this period natural values will need to be verified and additional assessments of threatened species may be required (as per Guidelines for Natural Values Surveys, NRE, 2015).

References

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NRE *Threatened Species Note Sheets, Listing Statements and Recovery Plans*
Available at https://www.threatenedspecieslink.tas.gov.au/

Nature Conservation Act 2002.
Available at https://www.legislation.tas.gov.au/view/html/inforce/current/act-2002-063

Threatened Species Protection Act 1995.
Available at https://www.legislation.tas.gov.au/view/html/inforce/current/act-1995-083

Appendix 1 – Vascular Plant Species List

Recorder: Fiona Walsh **Date:** Thursday, 7 March 2024

Dicotyledons

ASTERACEAE			
Cirsium vulgare	spear thistle	i	
Olearia obcordata	heartleaf daisybush	end	
Chrysanthemoides monilifera	boneseed	i	d
DILLENIACEAE			
Hibbertia sp.			
ERICACEAE			
Styphelia humifusa	native cranberry		
FABACEAE			
Acacia dealbata subsp. dealbata	silver wattle		
LAMIACEAE			
Marrubium vulgare	white horehound	i	d
MYRTACEAE			
Eucalyptus amygdalina	black peppermint	end	
Eucalyptus globulus subsp. globulus	tasmanian blue gum		
Eucalyptus viminalis subsp. viminalis	white gum		
SANTALACEAE			
Exocarpos cupressiformis	common native-cherry		

Monocotyledons

CYPERACEAE			
Gahnia radula	thatch sawsedge		
JUNCACEAE			
Juncus sp.			
POACEAE			
Austrostipa sp.			

Rytidosperma sp.

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end = Tasmanian endemic i = introduced

d = declared weed ~ *(Weed Management Act 1999)*

CR = Critically Endangered, EN = Endangered, VU = Vulnerable ~ *(Environment Protection and Biodiversity Conservation Act 1999)*

e = endangered v = vulnerable r= rare ~ *(Tasmanian Threatened Species Protection Act 1995)*

Appendix 2 – Natural Values Atlas Records within 5 km

Verified threatened flora records within 5 km of the project area; SS = Tasmanian Threatened Species Protection Act 1995, NS = Commonwealth Environment Protection and Biodiversity Conservation Act 1999

Threatened flora within 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Asperula scoparia subsp. scoparia	prickly woodruff	r		n	11	04-Oct-2013
Asperula subsimplex	water woodruff	r		n	1	11-Oct-1840
Austrostipa bigeniculata	doublejointed speargrass	r		n	1	24-Aug-2005
Austrostipa blackii	crested speargrass	r		n	2	21-Dec-2011
Bolboschoenus caldwellii	sea clubsedge	r		n	3	04-Apr-2023
Brachyscome rigidula	cutleaf daisy	v		n	1	20-Dec-1981
Caladenia filamentosa	daddy longlegs	r		n	5	12-Oct-1946
Caladenia patersonii	patersons spider-orchid	v		n	1	28-Oct-1992
Calocephalus lacteus	milky beautyheads	r		n	1	31-Jan-1804
Eryngium ovinum	blue devil	v		n	9	01-Mar-2006
Eucalyptus amygdalina x risdonii		ph		e	66	14-Sep-2021
Eucalyptus morrisbyi	morrisbys gum	e	CR	e	365	28-Sep-2020
Eucalyptus morrisbyi x viminalis subsp. viminalis		ph	PH	e	2	01-Sep-1942
Eucalyptus obliqua x risdonii		ph		e	1	01-Oct-1940
Eucalyptus risdonii	risdon peppermint	r		e	557	24-Jan-2024
Eucalyptus risdonii - tenuiramis		ph		e	4	01-Sep-1937
Eucalyptus risdonii x		ph		n	1	31-Oct-1934
Eucalyptus risdonii x tenuiramis		ph		e	1	01-Sep-1937
Euphrasia collina subsp. deflexifolia	eastern eyebright	r		e	1	29-Aug-1840
Hibbertia basaltica	basalt guineaflower	e	EN	e	2	30-Oct-2018
Hyalosperma demissum	moss sunray	e		n	9	14-Sep-2018
Isoetopsis graminifolia	grass cushion	v		n	11	30-Sep-2017
Lepidium hyssopifolium	soft peppercress	e	EN	n	3	17-Jan-2002
Leucopogon virgatus var. brevifolius	shortleaf beardheath	r		n	1	10-Oct-1948
Olearia hookeri	crimsontip daisybush	r		e	28	14-Jun-2017
Poa mollis	soft tussockgrass	r		e	15	06-Apr-2021
Pomaderris pilifera subsp. talpicutica	moleskin dogwood	v	VU	e	25	01-Oct-2015
Pterostylis squamata	ruddy greenhood	v		n	2	15-Jan-1952
Ranunculus pumilio var. pumilio	ferny buttercup	r		n	1	01-Oct-1914
Ruppia megacarpa	largefruit seatassel	r		n	1	26-Jun-1997
Scleranthus fasciculatus	spreading knawel	v		n	1	19-Jan-2023
Senecio georgianus	grey fireweed	x	EX	n	2	01-Jan-1805
Senecio squarrosus	leafy fireweed	r		n	7	21-Dec-2011
Spyridium eriocephalum var. eriocephalum	heath dustymiller	e		n	42	15-Nov-2018
Spyridium vexilliferum var. vexilliferum	helicopter bush	r		n	1	01-Nov-1928
Stenopetalum lineare	narrow threadpetal	e		n	1	01-Dec-1905
Teucrium corymbosum	forest germander	r		n	40	02-May-2019
Velleia paradoxa	spur velleia	v		n	4	21-Dec-2011
Vittadinia burbidgeae	smooth new-holland-daisy	r		e	1	22-Nov-2019
Vittadinia gracilis	woolly new-holland-daisy	r		n	3	10-Nov-1901
Vittadinia muelleri	narrowleaf new-holland-daisy	r		n	10	28-Feb-2018
Vittadinia muelleri (broad sense)	narrow leaf new holland daisy	p		n	7	09-Nov-2005
Xanthoparmelia jarmaniae		v		e	1	23-Apr-1997
Xanthoparmelia oleosa		r		n	1	27-Nov-1965
Xanthorrhoea arenaria	sand grasstree	v	VU	e	1	31-Dec-1918

Verified threatened fauna records within 5 km of the project area; SS = Tasmanian Threatened Species Protection Act 1995, NS = Commonwealth Environment Protection and Biodiversity Conservation Act 1999

Threatened fauna within 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
Accipiter novaehollandiae	grey goshawk	e		n	4	16-Oct-2017
Ammoniropa vigens	Ammonite Pinwheel Snail	e	CR	e	4	05-Aug-2023
Antipodia chaostola subsp. leucophaea	chaostola skipper	e	EN	e	2	27-Sep-2013
Aquila audax	wedge-tailed eagle	pe	PEN	n	22	04-Nov-2022
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	12	20-Feb-2024
Arctocephalus tropicalis	sub-antarctic fur seal	e	VU	n	2	16-Jun-2021
Botaurus poiciloptilus	australasian bittern		EN	n	2	05-Apr-2001
Calidris acuminata	sharp-tailed sandpiper		VU	n	1	01-Feb-2014
Dasyurus maculatus	spotted-tailed quoll	r	VU	n	4	29-Jan-2024
Dasyurus maculatus subsp. maculatus	spotted-tailed quoll	r	VU	n	1	06-Mar-2022
Dasyurus viverrinus	eastern quoll		EN	n	43	22-Jan-2024
Diomedea exulans	wandering albatross	e	VU	n	2	22-Nov-1996
Eubalaena australis	southern right whale	e	EN	m	1	06-Jul-2003
Haliaeetus leucogaster	white-bellied sea-eagle	v		n	9	11-Aug-2021
Hirundapus caudacutus	white-throated needletail		VU	n	3	24-Mar-2018
Lathamus discolor	swift parrot	e	CR	mbe	105	16-Sep-2022
Litoria raniformis	green and gold frog	v	VU	n	1	01-Jan-1900
Marginaster littoralis	Derwent River Seastar	e	CR	e!x	3	30-Jun-2004
Neophema chrysostoma	blue-winged parrot		VU	n	49	06-Mar-2023
Perameles gunnii	eastern barred bandicoot		VU	n	26	01-Sep-2021
Procellaria cinerea	grey petrel	e		n	1	01-May-1976
Sarcophilus harrisii	tasmanian devil	e	EN	e	50	29-Jan-2024
Tyto novaehollandiae	masked owl	pe	PVU	n	5	21-Apr-2014

Unverified Records

Species	Common Name	SS	NS	Bio	Observation Count
Sarcophilus harrisii	tasmanian devil	e	EN	e	1

Threatened fauna within 5000 metres

(based on Range Boundaries)

Species	Common Name	SS	NS	BO	Potential	Known	Core
Litoria raniformis	green and gold frog	v	VU	n	1	0	1
Lathamus discolor	swift parrot	e	CR	mbe	1	0	1
Discocharopa vigens	Ammonite Pinwheel Snail	e	CR		2	0	0
Prototroctes maraena	australian grayling	v	VU	ae	1	0	0
Antipodia chaostola	chaostola skipper	e	EN	ae	2	0	1
Pseudemoia pagenstecheri	tussock skink	v		n	1	0	0
Tyto novaehollandiae subsp. castanops	masked owl (Tasmanian)	e	VU	e	1	0	1
Haliaeetus leucogaster	white-bellied sea-eagle	v		n	2	0	0
Dasyurus maculatus subsp. maculatus	spotted-tailed quoll	r	VU	n	1	0	0
Sarcophilus harrisii	tasmanian devil	e	EN	e	1	0	0
Accipiter novaehollandiae	grey goshawk	e		n	1	0	0
Pardalotus quadragintus	forty-spotted pardalote	e	EN	e	1	0	0
Perameles gunnii	eastern barred bandicoot		VU	n	1	0	1
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	e	1	0	0
Brachionichthys hirsutus	spotted handfish	e	CR	e	1	0	0
Dasyurus viverrinus	eastern quoll		EN	n	0	0	1

APPENDIX G

Traffic Impact Assessment

CELEBRATING
15 YEARS
2008 - 2023

MIDSON
traffic
pty ltd

Keith Midson
Midson Traffic Pty Ltd
28 Seaview Avenue
Taroona TAS 7053
0437 366 040

16 September 2024

Matthew Clark
MC Planners
Level 1, 129 Bathurst Street
Hobart TAS 7000

Dear Matthew,

21 MATIPO STREET – PRELIMINARY TRAFFIC ASSESSMENT

Further to our recent discussions, this letter provides a high-level traffic assessment associated with a 49-lot residential subdivision at the abovementioned address. The proposed subdivision layout is shown in Figure 1.

Figure 1 Proposed Subdivision Layout

1. Transport Network

The transport network relevant to the proposed subdivision consists of Downhams Road, Gardenia Road and Matipo Street.

Gardenia Road is a minor collector road that services a predominantly residential catchment area. Near its connection with Matipo Street, Gardenia Road is a low volume road, with estimated traffic volumes of less than 200 vehicles per day near the subject site, with volumes increasing towards its western end. Gardenia Road extends to the east of the Matipo Street junction to become Downhams Road, which is an unsealed low volume rural access road.

Downhams Road has an unsealed pavement width of approximately 5.2 metres. Downhams Road carries a very low traffic volume estimated to be in the order of 20 to 50 vehicles per day. Downhams Road adjacent to the subject site is shown in Figure 2.

Figure 2 Downhams Road

Matipo Street is approximately 185 metres long and has a sealed pavement width of 6 metres. The general urban speed limit of 50-km/h is applicable to Matipo Street. Matipo Street connects to Gardenia Road at a T-junction, with Gardenia Road having priority. Based on the residential properties along its frontage, Matipo Street has a very low traffic volume of approximately 150 vehicles per day.

A review of available crash data was conducted for Downhams Road, Gardenia Road and Matipo Street near the subject site for the most recent five-year period. One crash was reported in Downhams Road and one crash was reported at the intersection of Gardenia Road and Sycamore Road. Both crashes involved a single vehicle losing control on the carriageway resulting in property damage only. The crash history does not indicate that there are any pre-existing road safety deficiencies in the network that may be exacerbated by traffic generated by the proposed subdivision.

2. Traffic Generation

Based on a potential subdivision layout of 49-lots, the traffic generation is likely to be 363 vehicles per day, with a peak of 38 vehicles per hour.

3. Traffic Impacts

The proposed subdivision will connect to Downhams Road at a T-junction. It is recommended that Downhams Road be sealed between the new road junction and Gardenia Road. The road width of Downhams Road should be consistent with the existing width of Gardenia Road (approximately 8 metres). A footpath should also be constructed in Downhams Road to connect with the existing footpath on the southern side of Gardenia Road.

The proposed subdivision junction with Downhams Road will operate at a high level of efficiency based on the traffic generation of the proposed subdivision (noting peak generation of 38 vehicles per hour split between entering and exiting traffic) and the low opposing flow currently utilising Downhams Road.

The available sight distance at the junction location was assessed against the requirements of Austroads Guide to Road Design, Part 4A, 'Unsignalised and Signalised Intersections', 2023. The minimum Safe Intersection Sight Distance (SISD) required for a 50-km/h frontage road is 97 metres. The available sight distance exceeds this value in both directions along Downhams Road (unrestricted to the west towards Gardenia Road and approximately 120 metres to the east).

4. Subdivision Layout

The subdivision layout consists of a main access road and a circulation loop road within the middle of the site. The layout will provide efficient access to each of the lots within the subdivision. The road will provide a safe, low-speed transport environment with only one internal road junction.

The internal road reservation widths comply with the requirements of LGAT Standard Drawings. The road design should include a minimum sealed pavement width of 6 metres for compatibility with the surrounding road network. A footpath should be constructed on at least one side of the internal road network.

Please contact me on 0437 366 040 if you require any further information.

Yours sincerely,

Keith Midson BE MTraffic MTransport FIEAust CPEng EngExec NER

DIRECTOR
Midson Traffic Pty Ltd

APPENDIX H

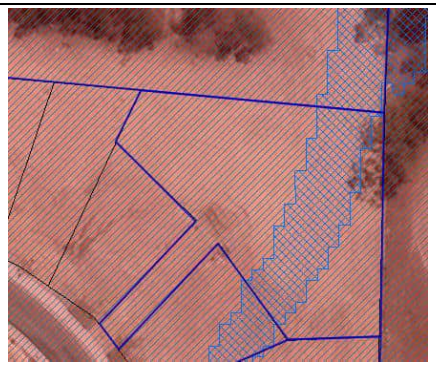
Risdon Vale Land Supply Assessment and Map

Risdon Vale Land Supply Assessment

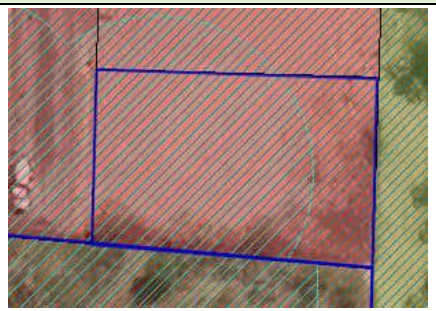
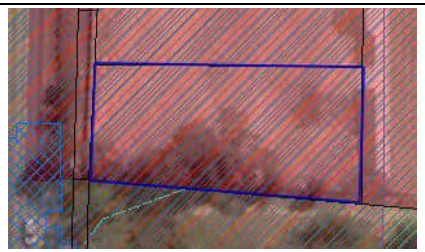
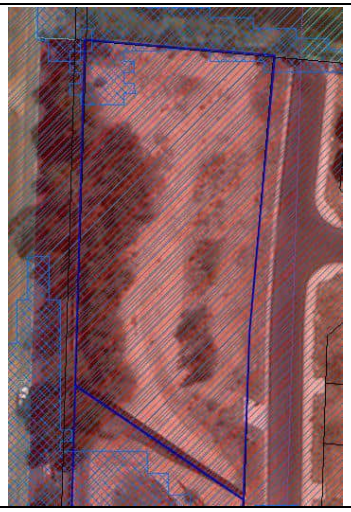
Address	Title	Zone	Area	Constraint[1]	Aerial	Theoretical Yield[2]	Note
150A Athena Drive	185932/1	Future Urban	1.09ha	[C13.0], [C7.0 (Priority Vegetation PVA)],		(10,900m² / 450) x .8 = 19.3 x .5 = 9.6 10 lots	Road would be required . Proposed for a public reserve.
21 Triandra Avenue	184792/4	General Residential	999.2m²	[C13.0], [C12.0].		(999m² / 450) = 2.2 x.5 = 1 lot 1 Lot (No additional lots)	No road would be required.

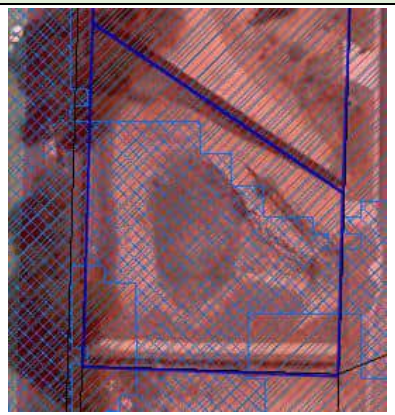
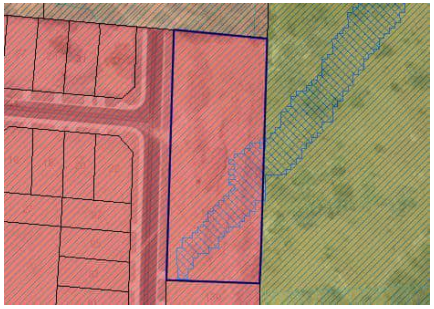
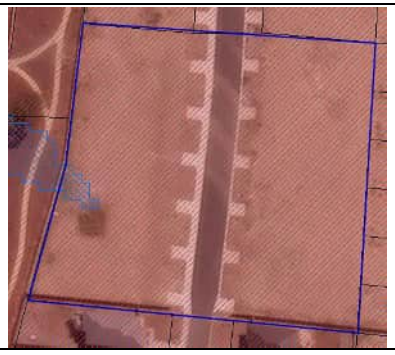
[1] Though the Obstacle limitation area and Road or railway attenuation area are shown, these are not considered unmanageable to the point of precluding theoretical yield.

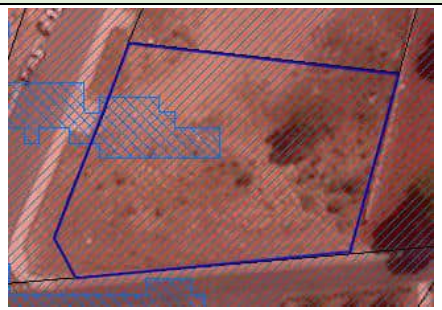
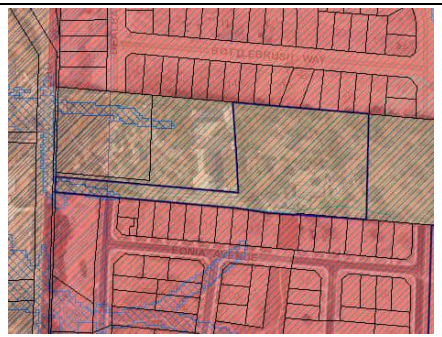
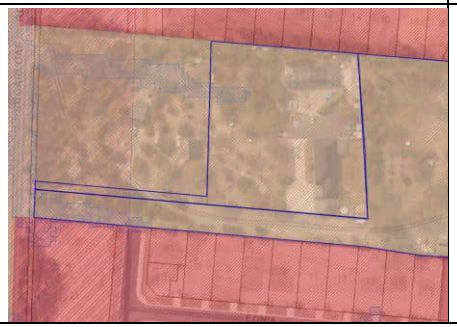
[2]Theoretical yield is the full yield multiplied by factors, which reduce the full yield to what is likely based off constraints.
Blocks likely to require a road calculated as: *Area less any access strip, divided by 450 and multiplied by .8 (ie 20% for roads)*
Sites with frontage to existing road, or no more than 3 internal lots calculated as: *Area divided by 450*.
Where lots are constrained, the yield is multiplied by a factor of .5. All fractions of lots rounded to the nearest whole number.
Formula expressed as : (Area/minimum lot size) = full yield, x roads factor (.8) and or x constraint factor (.5) = Theoretical yield.

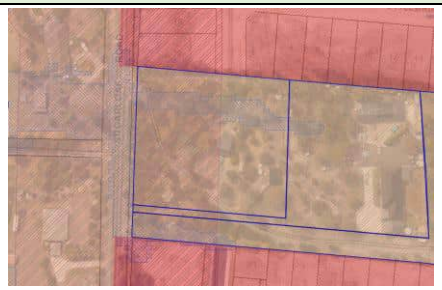
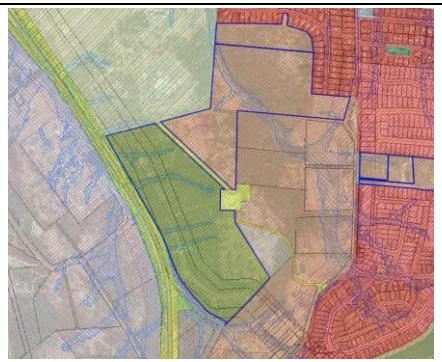
Address	Title	Zone	Area	Constraint[1]	Aerial	Theoretical Yield[2]	Note
8 Aralia Street	184792/101	General Residential	1.428ha	Slope, [C13.0], [C12.0].		(14,280m² / 450) x .8 = 25.3 x .5 = 12.6 13 lots	Constraint localised to eastern portion though substantial at north east.
39 Pipit Drive	187066/29	General Residential	2588m²	Slope, [C13.0], [C12.0].		(2588m² / 450) = 5.75 x .5 = 2.87 3 lots	Internal nature of lot is substantial constraint of itself. No Road would be required
33 Matipo	120636/4	General Residential	2.951ha	Slope/Ravine [C7.0 Waterway Coastal Protection Area] [C12.0] [C13.0]		(29,510m² / 450) x.8 = 52.46 .x.5 = 26.23 26 lots	Topography makes construction of road for full yield unlikely.

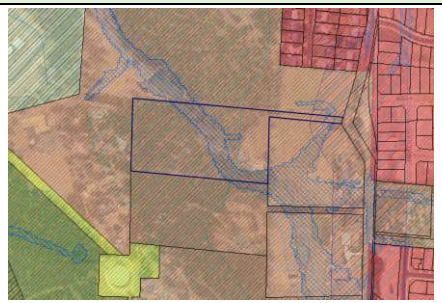
Address	Title	Zone	Area	Constraint[1]	Aerial	Theoretical Yield[2]	Note
18 Marlock	108429/2	General Resisdential	1.726ha	Slope [C12.0] [C13.0]		(17,260m² / 450) x.8 = 30.68 x.5 = 15.34 15 lots	Topography makes construction of road for full yield unlikely.
16 Marlock Street	108429/1	Generall Residential	1.703ha	Slope [C7.0 Waterway Coastal Protection Area] [C12.0] [C13.0]		(17,030m² / 450) x.8 = 30.2 x.5 = 15.3 15 Lots	Topography makes construction of road for full yield unlikely.
43 Pipit Drive	187066/33	General Residential	1005m²	[C12.0], [C13.0].		(1005m² / 450) = 2.2 x.5 = 1.1 1 lot	No road would be required. Lot shape and constraint not conducive to further subdivision.

Address	Title	Zone	Area	Constraint[1]	Aerial	Theoretical Yield[2]	Note
55 Pipit Drive	187066/39	General Residential	1298m^2	[C13.0], [C7.0 (PVA)],		(1298m² / 450) = 2.88 x .5 = 1.44 1 lots	Bushfire Hazard constraint considered to limit potential. No road would be required
12 Dealbata Street	187066/1	General Residential	969m^2	[C13.0].		(969m² / 450) = 2.15 2 lots	Constraint not preclusive to full theoretical yield
21 Meraki Way	183637/32	General Residential	3789m^2	[C12.0], [C13.0].		(3789m² / 450) = 8.42 8 lots	Constraint not preclusive to full theoretical yield

Address	Title	Zone	Area	Constraint[1]	Aerial	Theoretical Yield[2]	Note
17A Meraki Way	183637/400	General Residential	1627m^2	[C12.0], [C13.0].		(1627m² / 450) = 3.6 x .5 = 1.8 2 lots	Heavily constrained and land set aside for Utility.
60 Elaia Drive	185311/602	General Residential	5344m^2	[C12.0], [C13.0].		(5344m² / 450) = 11.8 x .5 = 5.9 6 lots	Bushfire Hazard constraint preclusive to full theoretical yield No road would be required.
24 Petra Drive	185311/601	General Residential	7556m^2	[C12.0], [C13.0].		(7556m² / 450) x.8 = 13.4 13 Lots	Constraint not considered preclusive to full lot yield. – note appears to have approval for 12 lots and Road.

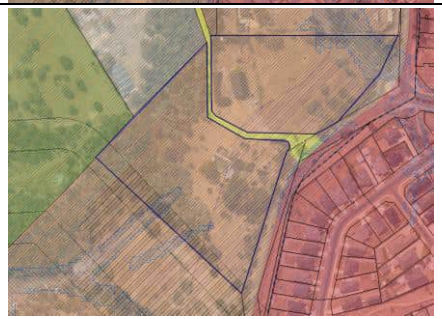
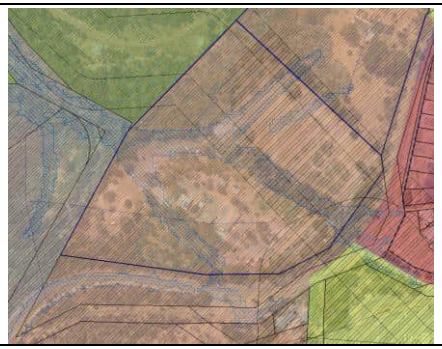
Address	Title	Zone	Area	Constraint[1]	Aerial	Theoretical Yield[2]	Note
2 Elpida Street	182657/31	General Residential	1642m^2	[C12.0], [C13.0].		(1642m² /450) = 3.6 3 lots	Constraint not considered preclusive to full lot yield.
96 Sugarloaf Road	185933/3	Future Urban	1.54ha (1.27ha less access strip)	[C7.0 (PVA)] [C12.0], and [C13.0].		(12700m² / 450) x .8 = 22.5 x .5 = 11.2 11 Lots	Access handle contributes to total area, though is unuseable for lot yield. Development likely contingent on development of 150A Athena Drive.
92 Sugar Loaf Road	152135/2	Future Urban	7363m² (7000m² less access strip)	[C7.0 (PVA)], [C12.0], [C13.0].		(7000m² / 450) x .8 = 12.44 x.5 = 6.22 6 lots	Internal lot. Developmet contingent on road access over 150A and 96 Athena.

Address	Title	Zone	Area	Constraint[1]	Aerial	Theoretical Yield[2]	Note
88 Sugar Loaf Road	152135/1	Future Urban	7337m²	[C7.0 (PVA)], [C12.0], [C13.0].		(7337m² / 450) x .8 = 13.04 x .5 = 6.52 7 lots	Constraints preclusive to full theoretical yield
46 Tecoma	8967/1	Future Urban	2.31ha	Slope [C7.0 (PVA and Waterway Coastal Protection Area WCPA)], [C12.0], [C13.0].		(23100m² / 450) x .8 = 41 x .5 = 20.5 20 lots	Vegetation and Bushfire hazard likely to preclude full theoretical yield.
550 East Derwent Highway	198511/1	Future Urban and Landscape Conservation	25.3ha	Slope, Creek, [C7.0 (PVA and WWCPA)], [C13.0], [C12.0].		(10800m² /450) x .8 = 19.2 x .5 = 9.6 10 lots	Parcel split zoned. Future Urban Zone portion 10.8ha Vegetation, Creek and Bushfire hazard likely to preclude full theoretical yield.

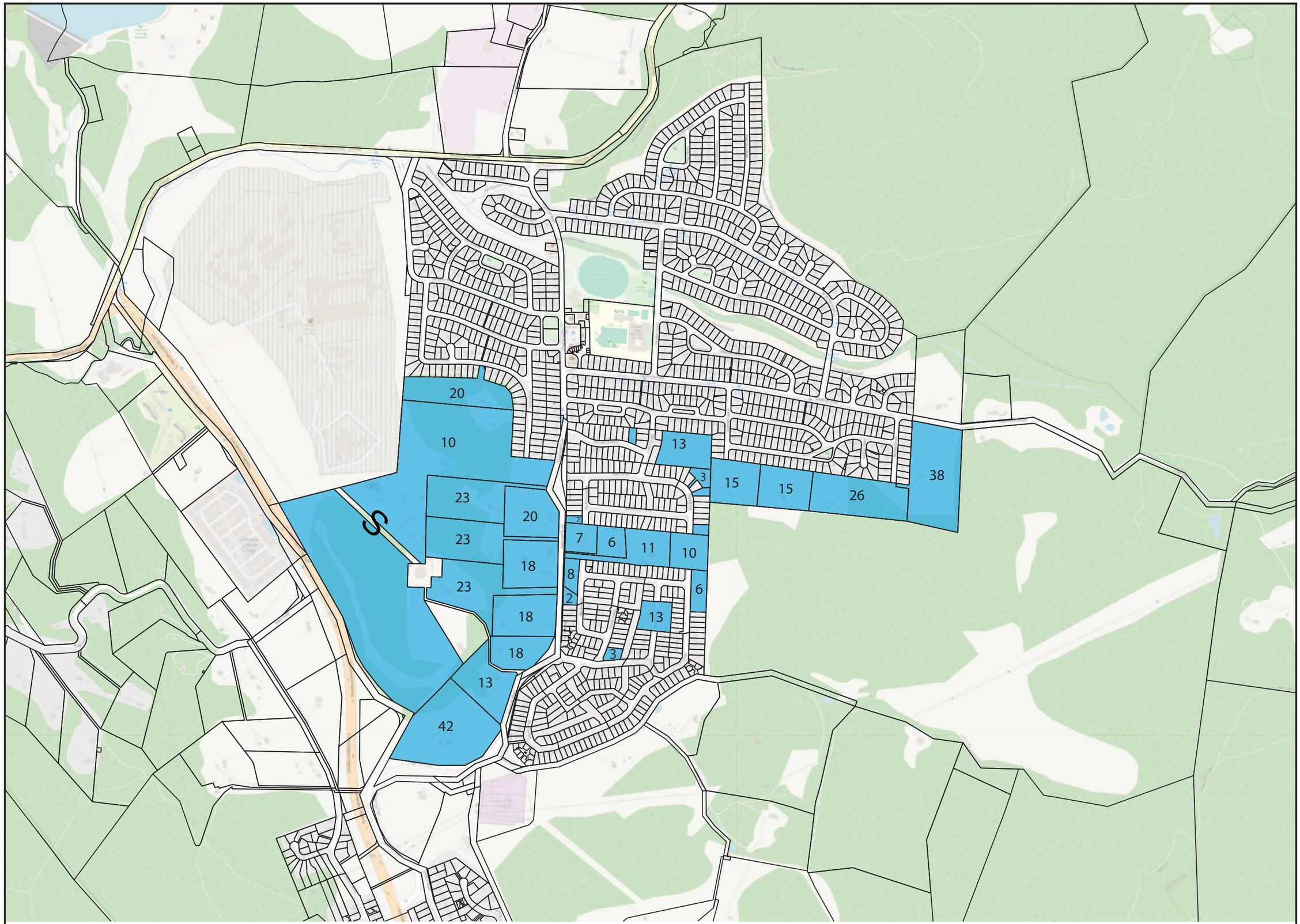
Address	Title	Zone	Area	Constraint[1]	Aerial	Theoretical Yield[2]	Note
87 Sugarloaf Road	63802/9	Future Urban	2.72ha (2.6ha less access strip)	Slope, Creek, Internal lot, [C7.0 (PVA and WWCPA)], [C12.0], [C13.0].		(26010m² / 450) x .8 = 46.24 x .5 = 23.12 23 Lots	Rear portion of lot heavily sloped. Internal lot status not condicive to road, would be reliant on 550 East Derwent Highway Creek vegetation and bushfire hazard liekly preclusive to full theoretical lot yield.
101 Sugarloaf Road	63444/8	Future Urban	2.2ha	[C7.0 (WWCPA)], [C12.0], [C13.0].		(22000m² / 450) x .8 = 39.1 x .5 = 19.5 20 lots	Flood prone area extensive.

Address	Title	Zone	Area	Constraint[1]	Aerial	Theoretical Yield[2]	Note
109 Sugarloaf Road	63802/10	Future Urban	2.7ha	Internal Lot, Slope, [C7.0 (PVA and WWCPA)], [C12.0], [C13.0].		(25450m² / 450) x.8 = 45.2 x.5 = 22.6 23 Lots	Rear portion of lot heavily sloped. Internal lot status not condicive to road, would be reliant on a neighbouring lot to provide a junction. Lot heavily vegetated and bushfire hazard liekly to reduce lot yield significantly.
117 Sugarloaf Road	63444/7	Future Urban	2.08ha	[C7.0 Waterway Coastal Protection Area (WWCPA)], [C12.0], [C13.0].		(20800m² / 450) x. 8 = 36.9 x.5 = 18.48 18 Lots	Location of creek, dam and WWCPA makes theoretical yield improbable.

Address	Title	Zone	Area	Constraint[1]	Aerial	Theoretical Yield[2]	Note
127 Sugar Loaf Road	149872/2	Future Urban	2.95ha	Internal Lot, Slope, [C12.0], [C7.0 PVA & WWCPA], [C12.0], [C13.0].		(26400m² / 450) x .8 = 46.9 x .5 = 23.4 23 Lots	Access Strip accounts for significant area with no yield. 20m access width conducive to road, though slope exceeds 15 degrees at throat of access handle. Site heavily vegetated.
139 Sugarloaf Road	239658/1	Future Urban	2.11ha	[C3.0], [C7.0 PVA and WWCPA], [C12.0], [C13.0] .		(21100m² / 450) x .8 = 37.5 x .5 = 18.7 18 Lots	Creek and overland flow path preclusive to full theoretical lot yield.

Address	Title	Zone	Area	Constraint[1]	Aerial	Theoretical Yield[2]	Note
155 Sugarloaf Road	250269/1	Future Urban	1.41ha	[C12.0], [C13.0].		(14100m² /450) x.8 = 25.06 x .5 = 12.53 13 Lots	Flood prone areas localised to north east portion.
171 Sugarloaf Road	64278/4	Future Urban	2.01ha	Slope, [C4 (Electricity Transmission Infrastructure Protection Area EITPA)], [C7.0 (PVA)], [C12.0], [C13.0].		(20100m² / 450) x .8 = 37.5 x .5 = 17.8 18 Lots	Slope will hinder theoretical yield further as 13-21 degrees over western portion.
201 Sugar Loaf	19691/1	Future Urban	4.683ha	[C4.0 (EITPA, Sub-station Buffer Area, and Inner Protection Area)], [C12.0], [C13.0].		(46830m² / 450) x .8 = 83.25 x.5 = 41.6 42 Lots	Slope will hinder yield 13-21 degrees over northern portion. Electricity codes will significantly reduce yield.

Address	Title	Zone	Area	Constraint[1]	Aerial	Theoretical Yield[2]	Note
21 Matipo	120636/3	Rural	4.21ha	[C7.0 (PVA)], [C12.0], [C15.0].		(42100 / 450) x .8 = 74 x .5 = 37.4 38 Lots	Management of constraint through careful lot location, servicing and a agreement over the adjoining property for bushfire hazard management make for a higher yield over the theoretical.



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APPENDIX I

TasPopp 2024 – May 2024

TasPOPP 2024

Tasmanian and Local Government Area Population Projections – 2023 to 2053

Final Report and Results

May 2024

Department of Treasury and Finance

Tasmanian Government

Tasmanian Government

TasPOPP 2024 Tasmanian and Local Government Area Population Projections - 2023 to 2053

An electronic copy of this report is available at www.treasury.tas.gov.au

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Contents

Executive summary

Every five years the Department of Treasury and Finance prepares official population projections for Tasmania and each of its local government areas. The projections indicate what Tasmania's future population would look like if certain trends were to hold true. They also provide an indication of how the population might be distributed among different regions of the State, and among different age groups for males and females.

In late November 2023, Treasury released draft projections for a 30-year horizon, to 2052, and invited comment on our methods, our assumptions and our results. We received generally positive feedback but also suggestions about how the projections could be improved. We have considered, and incorporated this feedback, where appropriate, along with new data and developments that have since become available, into a revised set of projection results covering the period 2023 to 2053.

We have released our final projections as a medium, high and low series. The medium series reflects the continued evolution of past and present trends in fertility, mortality and migration, with judgement applied as to how these trends will develop in the long term. The high and low series represent the outcome of the upper (high series) and lower (low series) boundaries of assumptions that are still considered plausible.

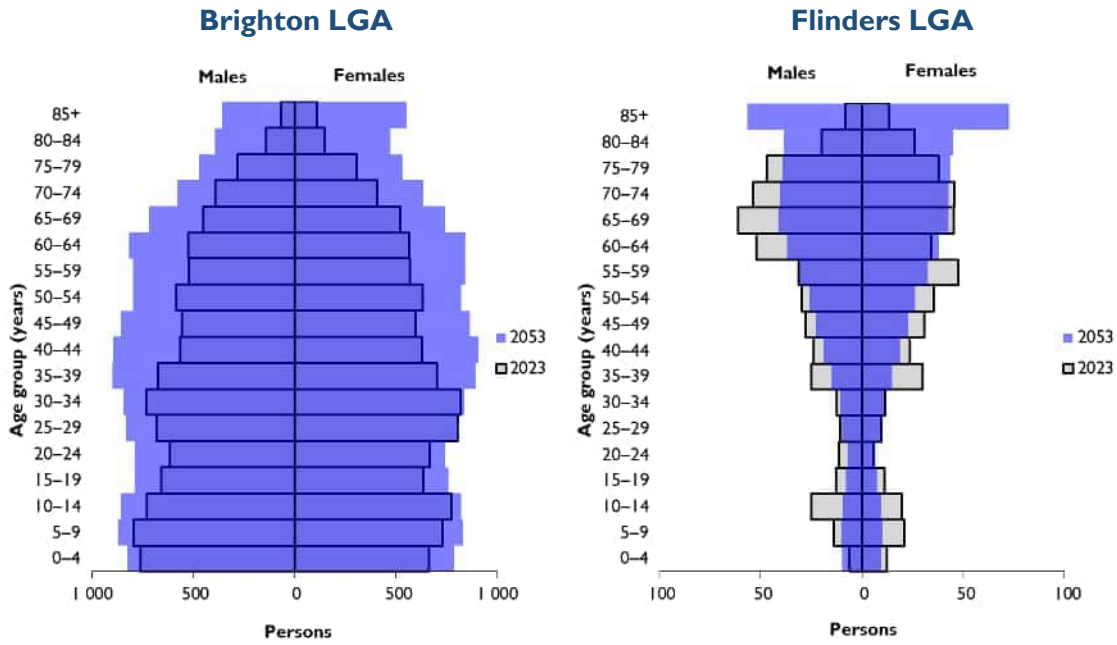
Our final medium series projections indicate that Tasmania's population will reach 641 045 people by 2053 if our assumptions hold true. Under this scenario:

- Tasmania would surpass the milestone of 600 000 people by 2032;
- our population would continue to grow for the next 30 years, but at a slowly declining rate;
- deaths would exceed births by 2032, meaning that migration would be the sole source of positive population growth from this point;
- our population would continue to age, as large cohorts grow older and people continue to live longer, with the State's median age increasing from 41.9 years in 2023 to 48.8 years by 2053;
- our workforce dependency ratio - the number of children (0 to 14 years old) and older persons (65 years or over) per hundred of the working-age population (15 to 64 years) - would increase from 61 in 2023 to 75 in 2053;
- the number of people of prime working age (15 to 64 years) to every person aged 65 and over would drop from three per older Tasmanian in 2023 to just two by 2053; and
- the number of Tasmanians aged 85 years and over would increase from one for every 41 people in 2023 to one in 15 people by 2053.

Like much of the developed world, this will mean that the number of workers and waged taxpayers in Tasmania will shrink as a share of the total population, placing additional pressure on the supply of goods and services to older and younger Tasmanians, and greater demand for some of these services (such as healthcare and aged care). Migration of people into Tasmania, and particularly migration of young and skilled people, in addition to building the skills and productivity of our locally-born workforce, will be increasingly important for ensuring that Tasmania maintains and continues to improve its living standards.

While Tasmania will continue to age overall, demographic change will impact different regions at different rates. The George Town local government area (LGA) is projected to age the most over the 30-year period, though the oldest LGA in 2053 is projected to be the Flinders LGA. In contrast, Glamorgan-Spring Bay LGA is projected to age the least over the next 30 years, but the Brighton LGA will be the youngest in 2053 (Chart 1).

Chart 1 - Age and sex population structure, medium series, comparing 30 June 2023 and 30 June 2053



Source: Regional population and Regional population by age and sex, ABS; Advanced Demographic Modelling and Treasury calculations; TasPOPP projections

The pace of growth in different local government areas is also projected to be uneven. Under the medium series, Sorell, Latrobe and Brighton LGAs are all projected to grow by an annual average rate of over one per cent for the 30-year period, well above the projected State rate of 0.4 per cent. In contrast, a small number of LGAs are projected to decline slightly over the period.

Population projections come with inevitable uncertainty and are very dependent on the assumptions made. They are also impacted by the accuracy of the data used. We have tried to convey some of this uncertainty through the introduction of uncertainty ranges for each local government area for the medium series. Despite this, population projections can be extremely useful for planning, provided the user keeps their limitations in mind.

Even where they are fully consistent with emerging trends, projection results are not inevitable. One of the important purposes of a projections exercise is to highlight the results of "what if" scenarios; if the results of those scenarios are undesirable, policy makers and planners often have the opportunity to identify ways in which these impacts can be mitigated or avoided.

Although our new projections model allows us to assess the impact of known dwelling developments in specific regions, we have not made any housing-related adjustments for this round of the projections, usually because our analysis suggested that the developments we examined would not materially impact the projections, or would not improve the projections without introducing unacceptable levels of uncertainty. We remain open to considering housing development information for future updates, but will look to collect this information in a more systematic way.

We are grateful to the many stakeholders and interested parties who provided input into the projections at various stages of our consultation. Together these people and organisations helped us shape the product we have produced, informed and improved our assumptions, and raised issues that we may have been unaware of or might have overlooked. Developing projections involves managing many competing tensions and constraints, so while we have not incorporated all feedback, we have tried to document our reasons for this in the case of major decisions taken.

Background

About population data

Australia's official population data are produced by the Australian Bureau of Statistics (ABS), and these data form the basis of these projections. Major sources of data on population and on its demographic composition (age, sex, location etc) are provided in the following ABS series:

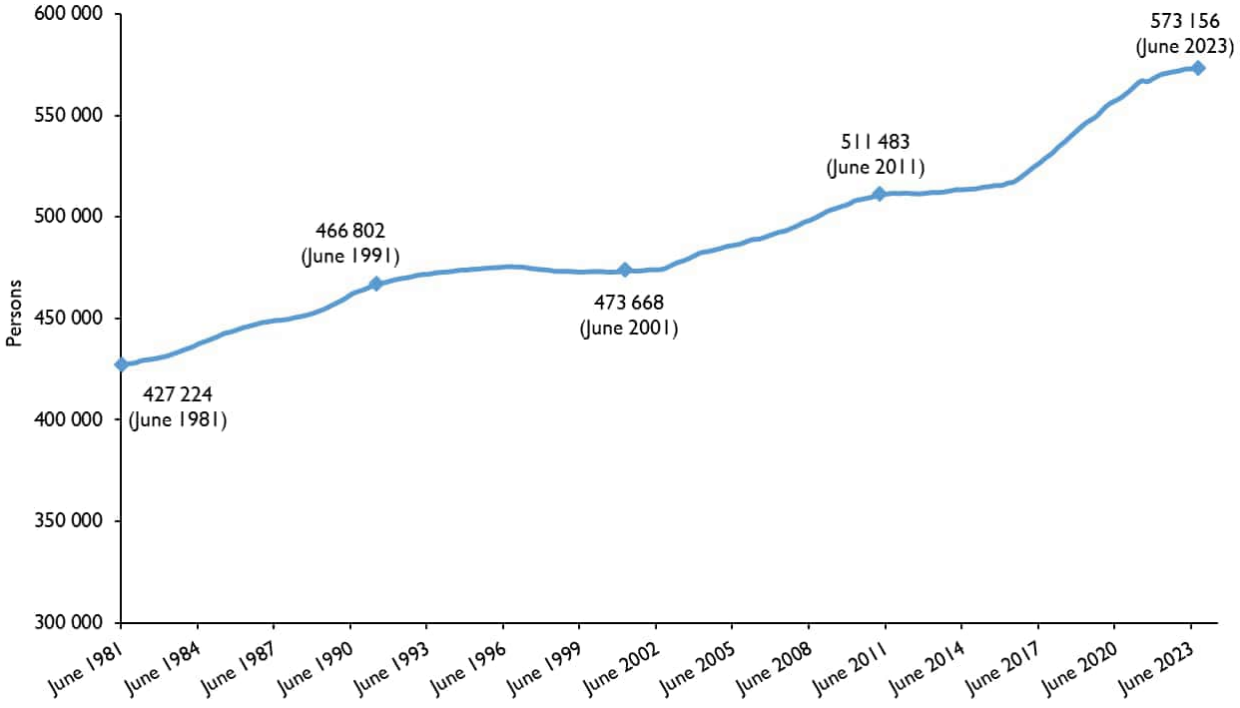
2021 Census of Population and Housing (the Census): a five-yearly count of the Australian population, in which the ABS also collects detailed information from Australians on their households and how and where they live, work, and come from.

National, state and territory population: released on a quarterly basis, this series produces the Estimated Resident Population (ERP) figures that represent official population estimates for Australia and the states and territories. Though much less detailed than the Census, ERP figures usually provide a more accurate starting estimate of the population than raw Census counts, as they also include estimated counts of people who are not captured in the Census. ERP provides the "jump-off" point for the Treasury State-level projections.

Regional population and Regional population by age and sex: this is an annual series in which ERP estimates are produced for smaller regional areas, including all LGAs in Australia. The regional population series provides the jump-off point for the Treasury LGA projections. They are generally consistent with the ERP figures produced for the National, state and territory population (for example, the sum of all LGA populations in a State will usually equal that State's total population, though there can be small differences arising due to the timing of releases and revisions).

For a definition of common population and demographic terms, refer to Appendix A: Glossary.

Chart 2 - Estimated resident population, Tasmania



Source: National, state and territory population, ABS

What are the projections?

The population projections provide an indication of what Tasmania's population would look like if particular demographic trends and patterns held true into the future. These trends and patterns reflect a set of assumptions about what could happen in the long term - how many children are born (fertility), how long people live (mortality), how many people move into and out of an area and the age and sex of these people (migration).

As a general comment, these assumptions are based on a continuation of long-run historical trends observed in Tasmania and its regions together with potential future developments.

Projection outputs

The Treasury population projections provide an indication of the size and composition of the population of Tasmania and its 29 LGAs for a 30-year period, from 2023 to 2053.

Tasmanian State-level projections have been prepared by single year of age and by sex. Sub-state (LGA) projections have been prepared by 5-year age groups, and by sex.

In disaggregating and modelling our projections by sex, readers will note that our projections make a binary distinction between males and females only. This is due to the population source data, which are predominantly from the ABS, distinguishing only between males and females at present. We also note that the binary distinction of sex into males and females is still a standard convention in demographic modelling in Australia, again due to the limitations of source data.

We have also prepared detailed information on the projected births, deaths and migration flows (together known as "the components") that underpin the overall projections. While summary information is included in this report, more detailed information on the components can be found in the associated spreadsheets.

We have prepared medium, high and low series for each region (State and each LGA) using different assumptions about the population growth components (fertility, mortality and migration).

Medium series: Reflects the outcome of a continuation of broadly average trends in the region for all assumptions, with judgement applied as to how these trends will develop in the long term. On balance, the medium series is considered the most likely outcome at the time that the projections were developed.

High and low series: Reflects the outcome of the upper (high series) and lower (low series) boundaries of assumptions that are still considered plausible. Where applicable, high and low series assumptions are grounded in historical precedent - for example, high and low migration assumptions are based on the highest and lowest past average migration flows that have been sustained for a length of time in the past two decades.

Why do we need them?

Population projections provide an indication of how many people will live in Tasmania and its regions, the age and sex of these people, and how this may change over time. Projections therefore have an important role in planning for services and infrastructure, and in shaping public policy, urban planning, and resource distribution.

By projecting shifts in population size, age demographics, geographical dispersion, and components of population change, users of the projections can better tailor their services and infrastructure development to meet the evolving needs of their customers or residents. Population projections allow users, such as educators to make more informed decisions to plan for future school enrolments or healthcare providers to better anticipate healthcare demands, than would usually be possible with simple growth assumptions or extrapolations.

Projections also provide an important indication of what will happen if the assumptions hold true. If the results are undesirable, this gives policy makers the opportunity to identify ways in which these impacts can be mitigated or avoided.

By preparing projections for the State and all LGAs, Treasury intends that Tasmanian Government agencies and other users are able to plan based on a common and consistent set of information and avoid the need to individually estimate or model their own future populations. Nevertheless, users should always note the limitations of small area projections and, where appropriate, consider them in conjunction with other available information on an area, such as local area knowledge, land supply data, planning intentions and strategies, or expert sources. At times, population projections will vary considerably from the predictions of other sources. This does not negate their value, provided that the user can identify what is driving the differences between the projections and the other sources of information and interpret them accordingly.

How to interpret the projections

The projections represent Treasury's best estimate of the trajectory of the population for Tasmania and its LGAs. However, it is important to note that projections simply reflect what the population would look like if certain assumptions held true. We know that the actual outcomes in coming years are unlikely to match these assumptions, and that there is an inevitable degree of uncertainty around long-term projections, which increases over time (see Chart 3 as an example of the level of uncertainty around a typical projection for a mid-sized LGA).

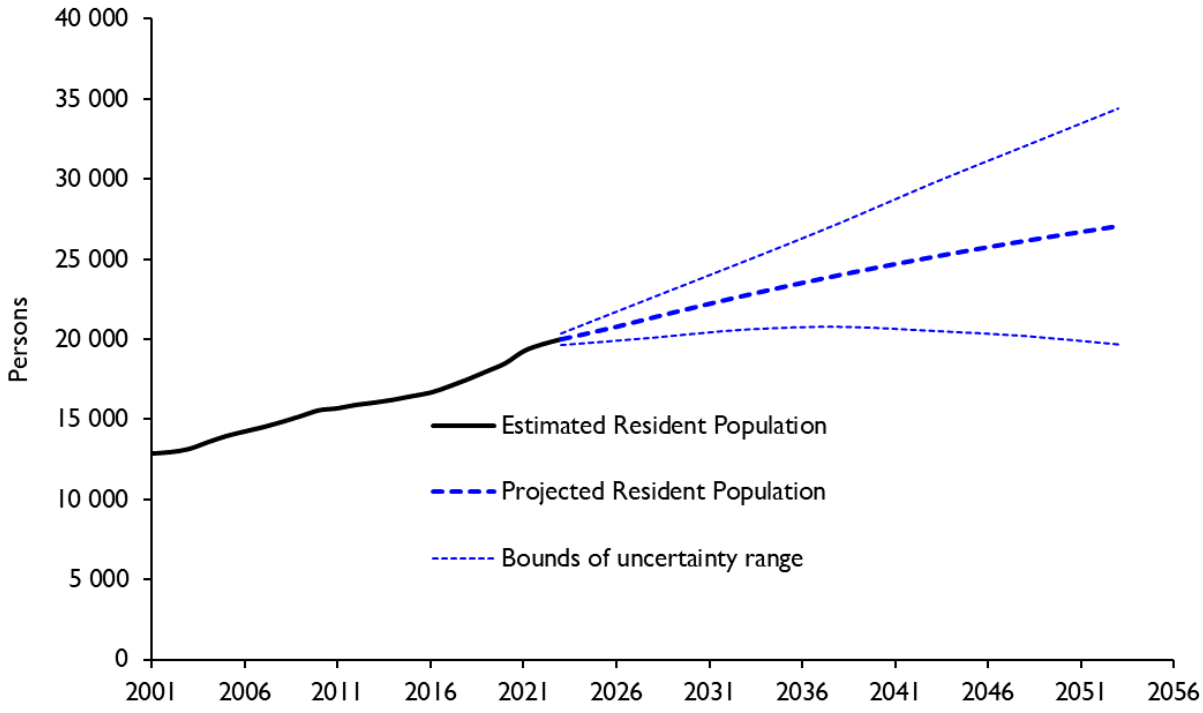
Note that while projections can indicate possible demographic change over time, they will never be perfect forecasts - it is not possible in a long-term projections exercise, for example, to predict economic cycles, the demographic impact of assorted government policies or targets, or the development of new major industries. While important for planning, they should not be used as a standalone decision-making tool.

As time goes on, the projections will inevitably vary to some extent from the actual populations recorded by the ABS. In interpreting the projections for planning or policy, particularly in later years, we recommend focusing on the direction and general magnitude of change (for example, the general strength of growth or decline over time), and broad trends (such as increases or decreases in certain age groups) rather than making decisions that rely on a precise estimate of population at a given time. Users are strongly encouraged to consider the range of possible future populations within the uncertainty range (Chart 3) when making decisions.

Finally, it is emphasised that projections are not targets. They reflect what we assess would happen under certain assumptions, but not necessarily what is desirable or undesirable from a policy point of view. Projections are nevertheless useful for policy makers, in that they reflect the outcomes that are likely to arise if current circumstances continue and can, therefore, provide an indication of what may need to change to achieve particular population targets or policies.

Information on the Tasmanian Government's population policy is available from the Population Strategy web page.

Chart 3 - Total projected population (medium series) and uncertainty range*, Brighton local government area



* The uncertainty range covers approximately 80% of possible future outcomes and is estimated from past forecast errors. Note that it is **not** the same as the high and low series.

Source: Regional population by age and sex, ABS; TasPOPP projections; Advanced Demographic Modelling

Supporting materials

In addition to this report, we have provided spreadsheets and other documents containing further information or more detailed projection data on Treasury's population projections page, including:

TasPOPP 2024 quick guide - a short summary of what the projections are and how to use them;

Summary profiles - a concise two-page workbook containing medium series projection tables and charts for Tasmania and each LGA;

Main output file - contains historical population and projections and components of change for the State and each LGA, including by age group, and for each series (medium, high, low); and

State population pyramid - an interactive and animated chart that allows you to compare the distribution of the Tasmanian population in different age groups across time for each series.

Further resources may be added to Treasury's population projections page over time.

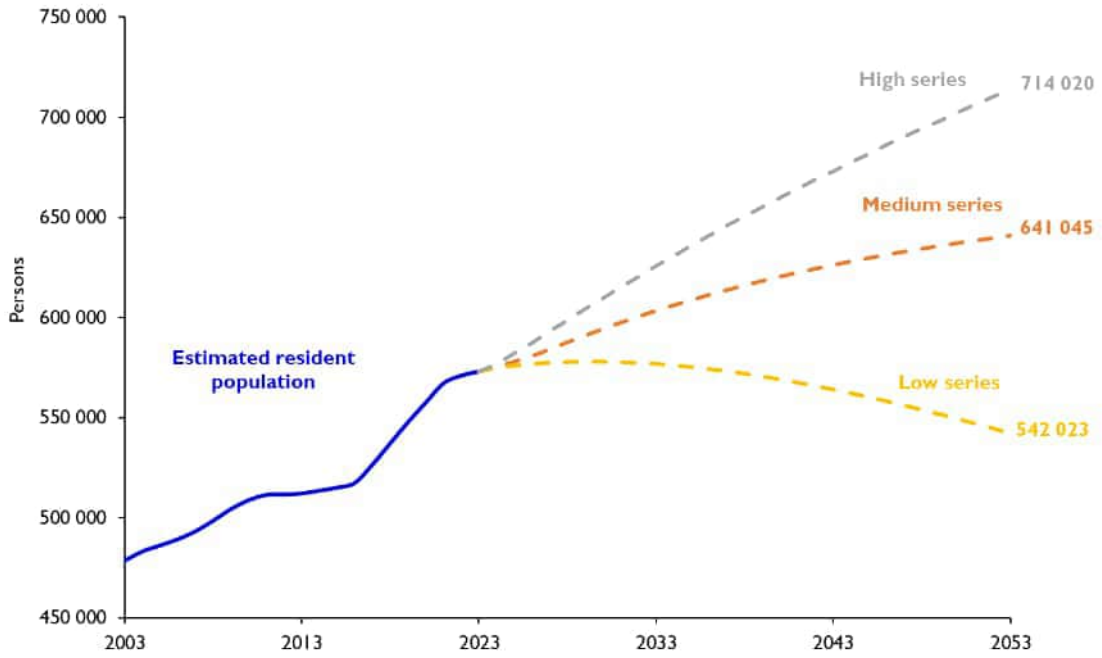
Projection Results

State projection results

Tasmania's estimated population, as at 30 June 2023, was just over 573 000 persons (the base year for the projections and the latest available disaggregated data). By 30 June 2053, Tasmania's population is projected to reach 641 045 persons under the medium series. This equates to an average annual growth rate of 0.37 per cent per year over the projection period. This compares to an average annual growth rate of 0.65 per cent over the past 30 years. Under the medium series, Tasmania's population increases each year, but the rate of growth slows towards the end of the 30-year projection period.

Under the high series, the State's population is projected to grow relatively strongly over the projection period, with an annual average growth rate of 0.74 per cent. Under the low series, the State's population is projected to grow until 2028-29, after which time it is projected to start declining, and at an increasing rate. Over the 30-year projection period, the average annual growth rate for the low series is -0.19 per cent.

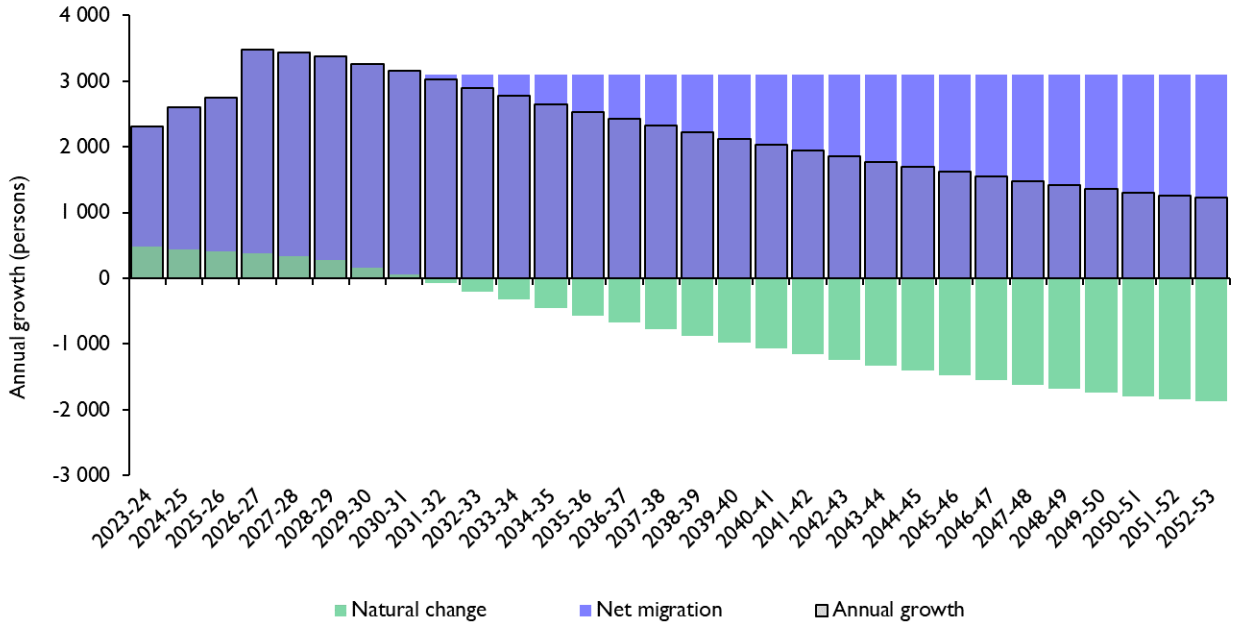
Chart 4 - Total population, Tasmania, Estimated (ABS) and Projected, 2003 to 2053



Source: National, state and territory population, ABS; TasPOPP projections

In each successive year, under each series, Tasmania is projected to be increasingly dependent on net migration for its growth, with a corresponding decline in natural change. In the case of the medium series, natural change is projected to become negative from 2031-32 onwards, with the number of people dying exceeding the number of people born in Tasmania from this point, and migration being the sole source of growth (Chart 5).

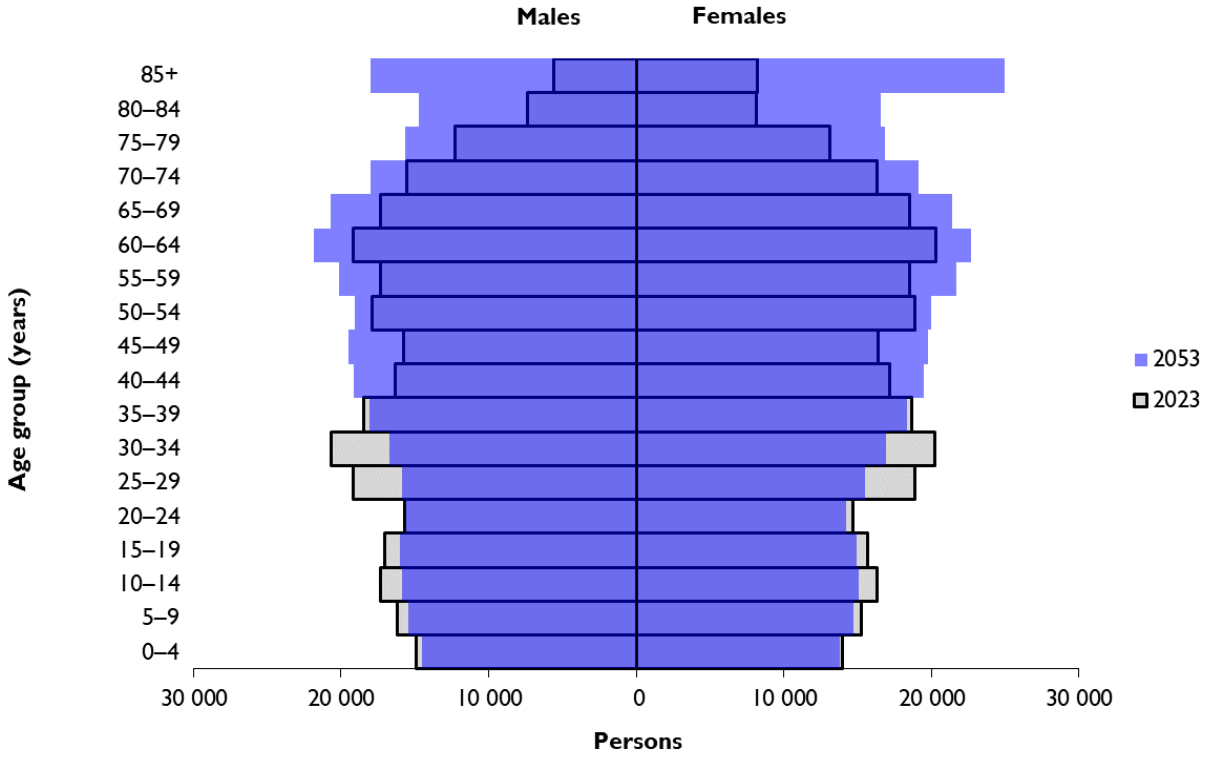
Chart 5 - Projected annual growth, medium series, Tasmania



Source: TasPOPP projections

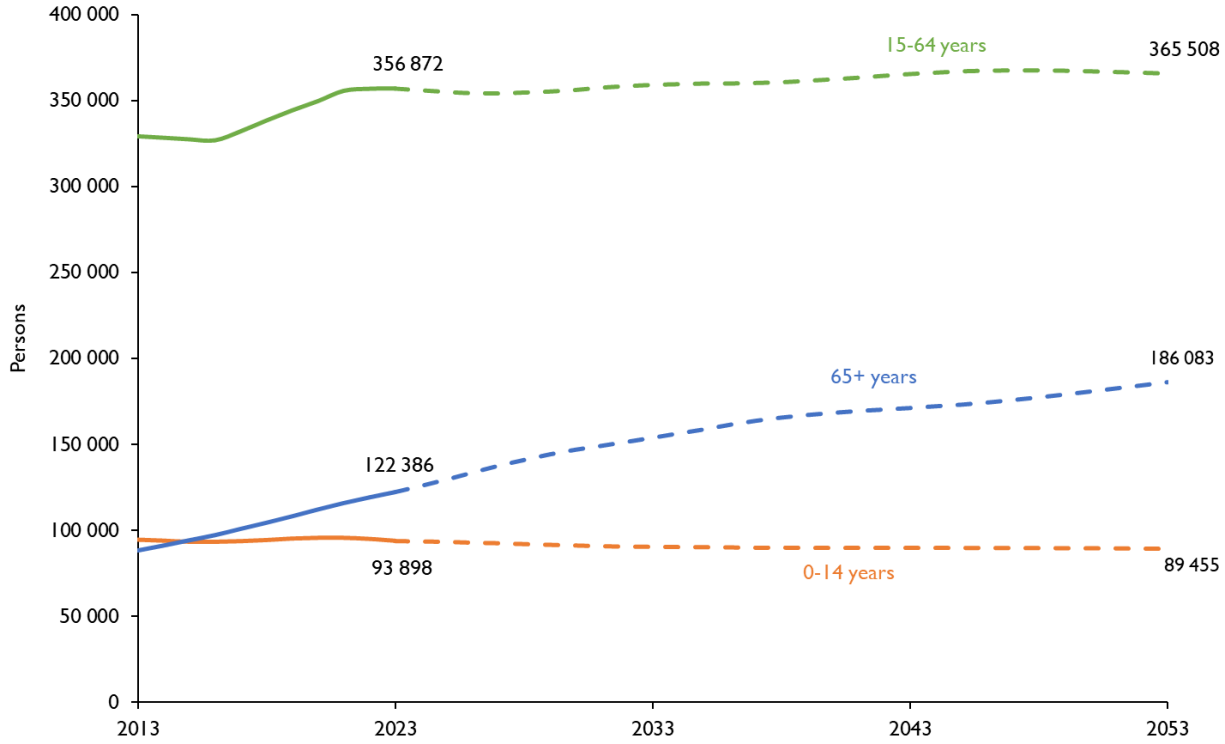
The population is projected to continue to age in Tasmania; under the medium series, the number of people in every age group from 40 years and above is expected to increase, with the biggest proportionate increases in those aged 75 and above (Chart 6).

Chart 6 - Age and sex population structure, state level, medium series, Tasmania, comparing 30 June 2023 to 30 June 2053



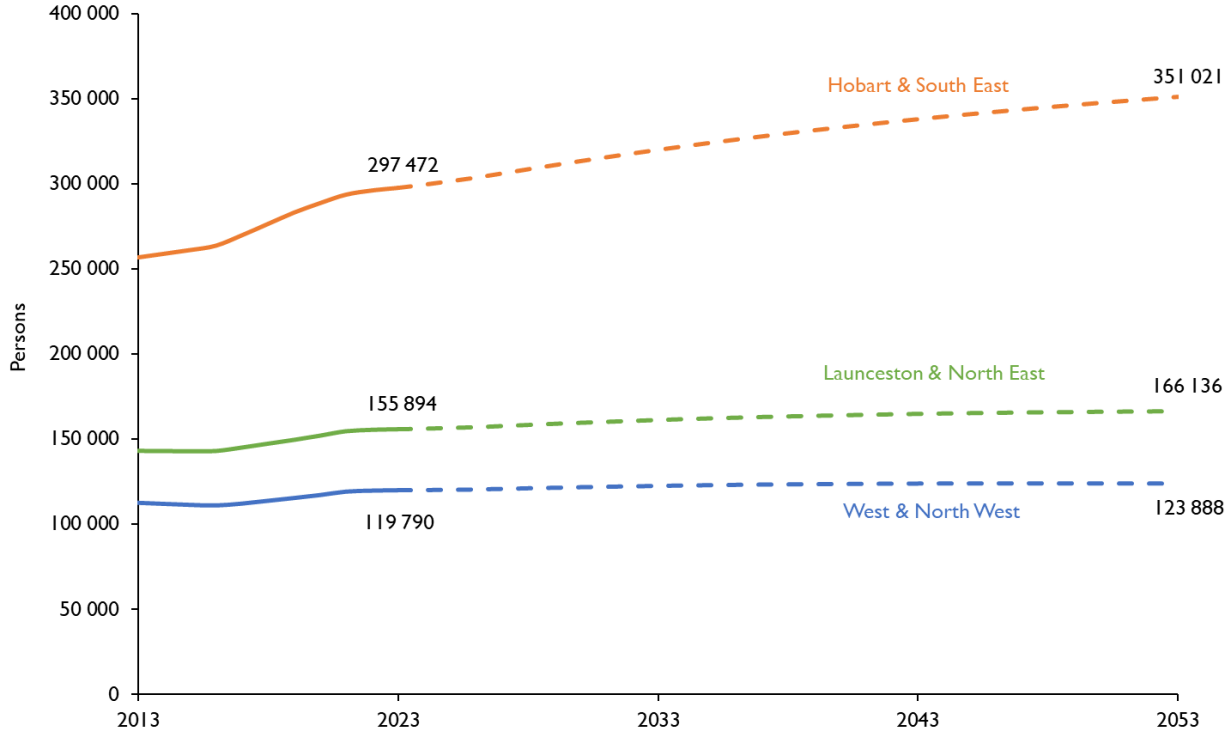
Source: National, state and territory population, ABS; TasPOPP projections

Chart 7 - Core age group population structure, medium series, Tasmania, Estimated (ABS) and Projected, 2013 to 2053



Source: National, state and territory population, ABS; TasPOPP projections

Chart 8 - Regional population growth, medium series, Tasmania, Estimated (ABS) and Projected, 2013 to 2053



Source: Regional population, ABS; TasPOPP projections

Chart 8 illustrates how the population of each of Tasmania's regions is projected to change over the projection period under the medium series. The Hobart and South East region is projected to steadily grow over the projection period, averaging 0.6 per cent per year, while population levels in Launceston & North East and West & North West regions are relatively steady over the projection period, growing at an average annual rate of 0.2 per cent and 0.1 per cent per year respectively. Projection results for individual LGAs are discussed in more detail in the following section.

Local government area projection results

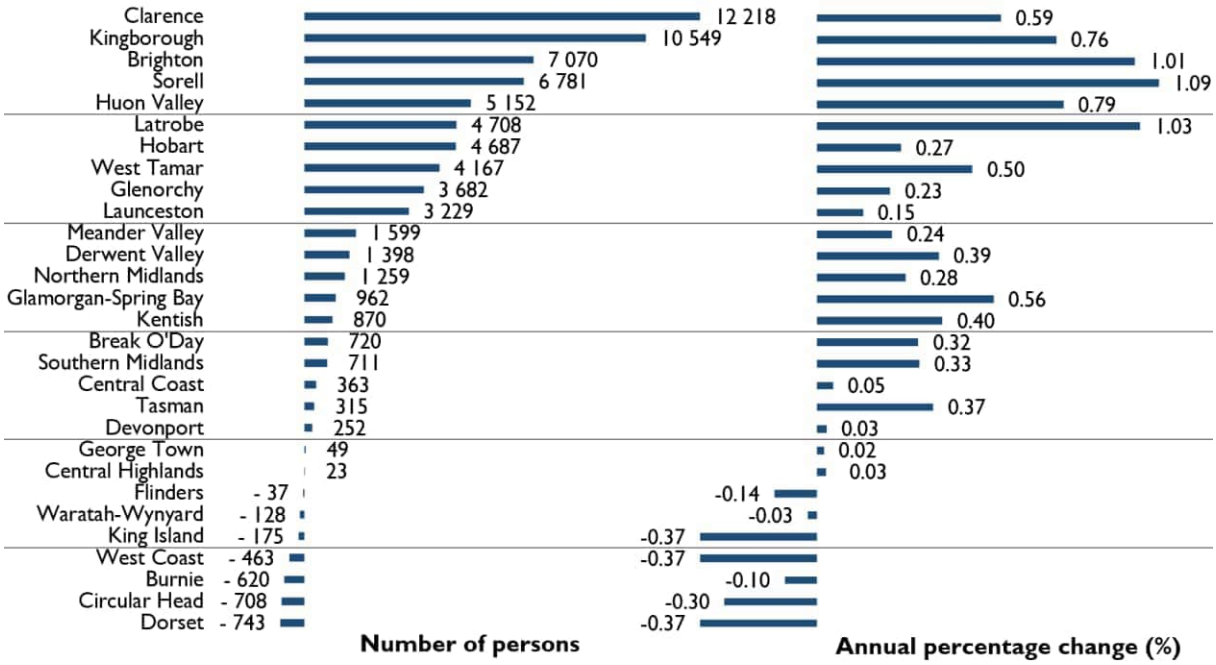
Projected population changes from 30 June 2023 to 30 June 2053 for each LGA under the medium series are shown in Chart 9 and Table 1. The high and low series are presented in Tables 2 and 3.

The populations of 22 LGAs are projected to grow overall under the medium series from 2023 to 2053, while the remaining seven LGAs are projected to experience population decline. However, over the projection period, nine LGAs are projected to experience total population change of under 500 persons.

Clarence is projected to experience the largest increase in absolute numbers of persons, with a projected population increase of 12 218 persons over the period to 2053. This projection result is driven by the high level of internal in-migration.

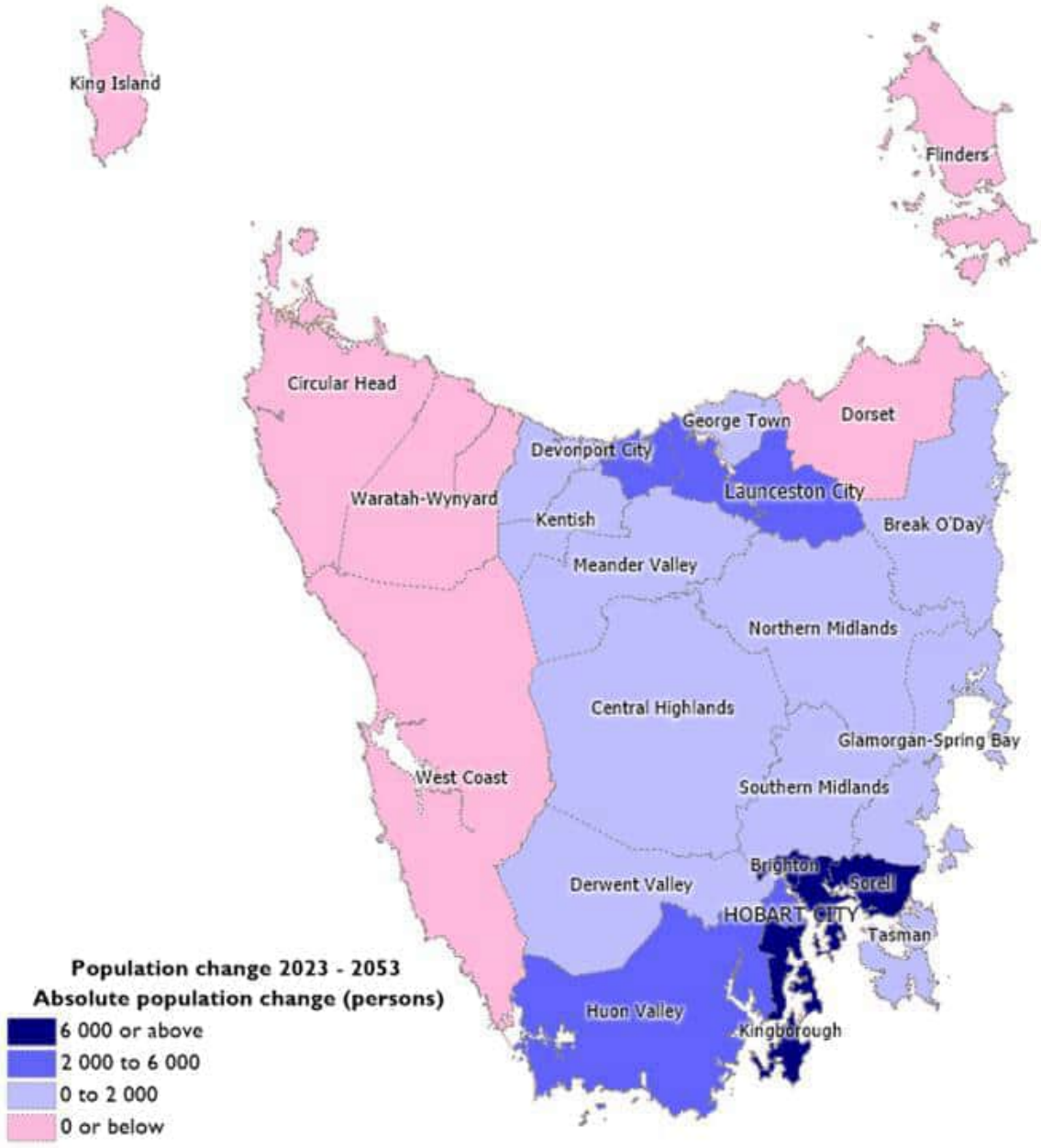
Sorell is projected to be the fastest-growing LGA in percentage terms from 2023 to 2053, with a projected average growth rate of 1.09 per cent per year under the medium series. The average growth projected in Sorell is driven by the assumption that its net migration inflow will continue to be strong.

Chart 9 - Projected LGA population growth, medium series, 30 June 2023 to 30 June 2053



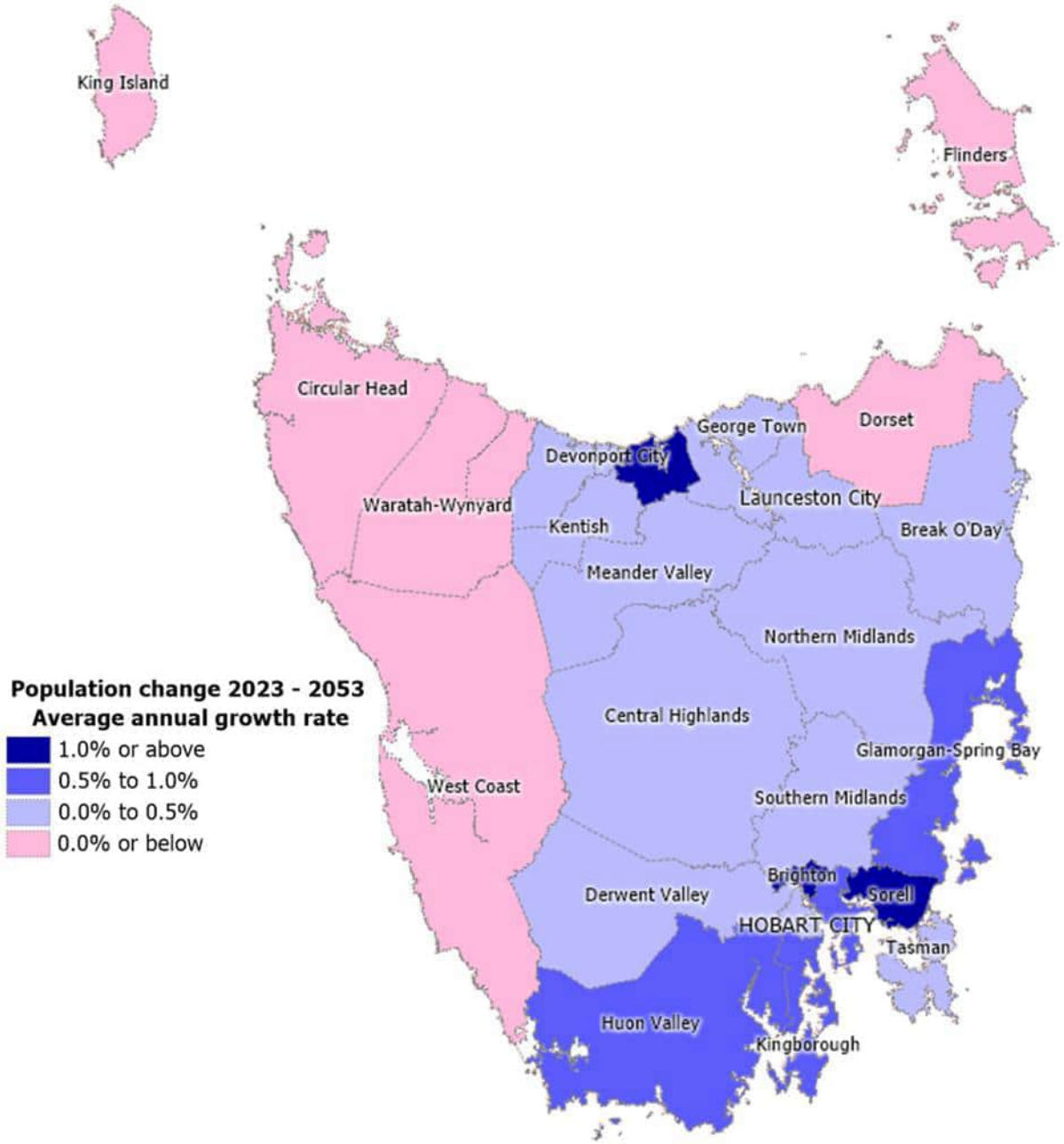
Source: Regional population and Regional population by age and sex, ABS; TasPOPP projections

Map 1 - Projected growth in number of persons by LGA, medium series, 30 June 2023 to 30 June 2053



Source: TasPOPP projections

Map 2 - Projected average annual population growth by LGA, medium series, 30 June 2023 to 30 June 2053



Source: TasPOPP projections

Table 1 - Projected LGA population change and components of change, medium series, 30 June 2023 to 30 June 2053

LGA	Estimated 30 June 2023	Projected 30 June 2053	Change (persons)	Natural change (persons)	Net migration (persons)
Break O'Day	7 075	7 795	720	-2 362	3 081
Brighton	19 998	27 068	7 070	2 992	4 078
Burnie	20 463	19 843	- 620	- 178	- 442
Central Coast	23 331	23 694	363	-3 824	4 187
Central Highlands	2 595	2 618	23	- 202	225
Circular Head	8 352	7 644	- 708	- 166	- 542
Clarence	63 663	75 881	12 218	- 891	13 109
Derwent Valley	11 341	12 739	1 398	- 381	1 779
Devonport	26 977	27 229	252	-2 402	2 653
Dorset	7 001	6 258	- 743	-1 008	265
Flinders	933	896	- 37	- 423	385
George Town	7 330	7 379	49	-1 491	1 540
Glamorgan-Spring Bay	5 237	6 199	962	-1 649	2 610
Glenorchy	50 808	54 490	3 682	3 238	444
Hobart	55 964	60 651	4 687	-1 428	6 115
Huon Valley	19 454	24 606	5 152	- 698	5 850
Kentish	6 831	7 701	870	- 730	1 601
King Island	1 648	1 473	- 175	- 58	- 117
Kingborough	41 179	51 728	10 549	261	10 288
Latrobe	13 062	17 770	4 708	-2 150	6 858
Launceston	71 788	75 017	3 229	-1 167	4 396
Meander Valley	21 449	23 048	1 599	-1 660	3 259
Northern Midlands	14 279	15 538	1 259	- 828	2 087
Sorell	17 635	24 416	6 781	467	6 313
Southern Midlands	6 912	7 623	711	- 41	752
Tasman	2 686	3 001	315	- 989	1 305
Waratah-Wynyard	14 767	14 639	- 128	-2 946	2 818
West Coast	4 359	3 896	- 463	- 425	- 38
West Tamar	26 039	30 206	4 167	-1 004	5 171
Tasmania	573 156	641 045	67 889	-22 141	90 030

Source: Regional population and Regional population by age and sex, ABS; TasPOPP projections

Table 2 - Projected LGA population change and components of change, high series, 30 June 2023 to 30 June 2053

LGA	Estimated 30 June 2023	Projected 30 June 2053	Change (persons)	Natural change (persons)	Net migration (persons)
Break O'Day	7 075	8 682	1 607	-2 113	3 720
Brighton	19 998	30 150	10 152	4 461	5 691
Burnie	20 463	22 102	1 639	828	811
Central Coast	23 331	26 391	3 060	-2 866	5 926
Central Highlands	2 595	2 917	322	- 79	400
Circular Head	8 352	8 514	162	257	- 95
Clarence	63 663	84 519	20 856	2 714	18 142
Derwent Valley	11 341	14 189	2 848	195	2 653
Devonport	26 977	30 328	3 351	-1 138	4 489
Dorset	7 001	6 970	- 31	- 739	708
Flinders	933	998	65	- 396	460
George Town	7 330	8 219	889	-1 211	2 100
Glamorgan-Spring Bay	5 237	6 904	1 667	-1 453	3 120
Glenorchy	50 808	60 693	9 885	6 150	3 735
Hobart	55 964	67 556	11 592	1 200	10 392
Huon Valley	19 454	27 407	7 953	306	7 647
Kentish	6 831	8 578	1 747	- 440	2 187
King Island	1 648	1 641	- 7	28	- 35
Kingborough	41 179	57 617	16 438	2 613	13 825
Latrobe	13 062	19 793	6 731	-1 506	8 237
Launceston	71 788	83 556	11 768	2 551	9 217
Meander Valley	21 449	25 671	4 222	- 683	4 906
Northern Midlands	14 279	17 307	3 028	- 115	3 144
Sorell	17 635	27 195	9 560	1 549	8 011
Southern Midlands	6 912	8 491	1 579	305	1 275
Tasman	2 686	3 343	657	- 906	1 563
Waratah-Wynyard	14 767	16 306	1 539	-2 314	3 853
West Coast	4 359	4 340	- 19	- 225	206
West Tamar	26 039	33 645	7 606	243	7 363
Tasmania	573 156	714 020	140 864	7 214	133 650

Source: Regional population and Regional population by age and sex, ABS; TasPOPP projections

Table 3 - Projected LGA population change and components of change, low series, 30 June 2023 to 30 June 2053

LGA	Estimated 30 June 2023	Projected 30 June 2053	Change (persons)	Natural change (persons)	Net migration (persons)
Break O'Day	7 075	6 591	- 484	-2 621	2 136
Brighton	19 998	22 887	2 889	841	2 048
Burnie	20 463	16 778	-3 685	-1 607	-2 078
Central Coast	23 331	20 034	-3 297	-5 118	1 820
Central Highlands	2 595	2 214	- 381	- 368	- 13
Circular Head	8 352	6 463	-1 889	- 762	-1 127
Clarence	63 663	64 159	496	-5 936	6 432
Derwent Valley	11 341	10 771	- 570	-1 195	625
Devonport	26 977	23 023	-3 954	-4 149	194
Dorset	7 001	5 291	-1 710	-1 376	- 333
Flinders	933	757	- 176	- 448	272
George Town	7 330	6 239	-1 091	-1 865	774
Glamorgan-Spring Bay	5 237	5 241	4	-1 896	1 900
Glenorchy	50 808	46 073	-4 735	- 929	-3 806
Hobart	55 964	51 283	-4 681	-5 029	348
Huon Valley	19 454	20 805	1 351	-2 096	3 447
Kentish	6 831	6 512	- 319	-1 117	798
King Island	1 648	1 245	- 403	- 178	- 225
Kingborough	41 179	43 738	2 559	-3 020	5 578
Latrobe	13 062	15 025	1 963	-3 013	4 976
Launceston	71 788	63 429	-8 359	-6 400	-1 960
Meander Valley	21 449	19 488	-1 961	-3 003	1 041
Northern Midlands	14 279	13 138	-1 141	-1 820	679
Sorell	17 635	20 644	3 009	-1 062	4 071
Southern Midlands	6 912	6 446	- 466	- 527	60
Tasman	2 686	2 538	- 148	-1 081	933
Waratah-Wynyard	14 767	12 378	-2 389	-3 804	1 414
West Coast	4 359	3 294	-1 065	- 701	- 363
West Tamar	26 039	25 540	- 499	-2 733	2 234
Tasmania	573 156	542 023	-31 133	-63 013	31 880

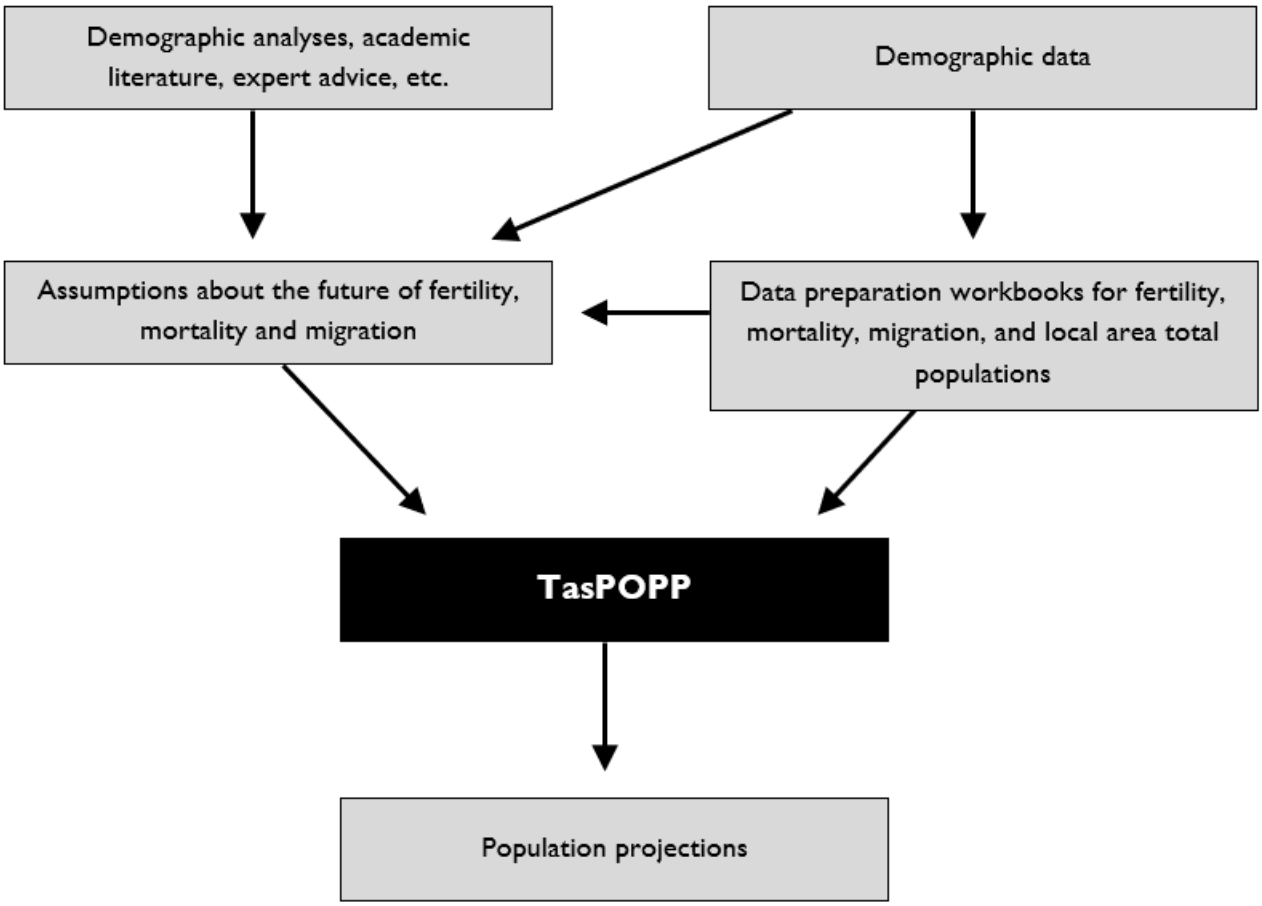
Source: Regional population and Regional population by age and sex, ABS; TasPOPP projections

Methodology

How the projections have been prepared

The projections were developed using a bespoke population projection model, TasPOPP, developed for Tasmania by Dr Tom Wilson (Advanced Demographic Modelling). The TasPOPP model uses a cohort-component method in which the populations, as at 30 June 2023 for Tasmania and each Tasmanian local government area and for each age group by sex, are projected forward year by year by applying assumptions about future trends in fertility, mortality and migration. The model and assumptions are informed by a variety of sources (Figure 1).

Figure 1 - Summary of the population projections process



Source: Advanced Demographic Modelling

The State-level projections and assumptions are fully consistent with the LGA projections; while each LGA is modelled separately using specific fertility, mortality, and migration assumptions, the totals and components of change are dynamically constrained to ensure that LGA populations sum to the State projections.

Assumptions

In developing assumptions about future fertility, mortality and migration for the three State population projection series, we took into account:

- analysis of births, deaths, migration and other related data produced by the ABS;
- expert demographic advice on the components of growth and their likely future direction from Dr Wilson;
- consultation with relevant government agencies on specific matters of their areas of expertise;
- research undertaken by Treasury; and
- feedback from stakeholders as part of our stakeholder consultation process on the draft projections.

Our State assumptions have been developed over a period of time based on analysis and expert input, and were initially tested with the Population Projections Advisory Group (a group of State Government agencies that rely heavily on the projections). While our projections have been independently developed, we have taken into consideration the recent assumptions and projections of other government organisations including those of some state and territory governments as well as the two Australian Government agencies that produce projections (the ABS and the Centre for Population).

Where possible we have attempted to anchor assumptions in historical or recent averages, and in the case of high and low series assumptions these have generally been based on high and low averages in the recent past. This approach still requires judgement but minimises purely arbitrary assumptions and is an important check to ensure the plausibility of the assumptions.

The assumptions are unable to predict future cycles or shocks, but instead represent long-run trends and developments. This approach still allows for a transition period, in which assumptions are phased in for the first few years of the projections to avoid sudden changes.

In the case of regional assumptions, TasPOPP automatically derives fertility rates for each LGA based on recent historical data and, where sufficient data exist, estimates life expectancy assumptions for each LGA. The model applies State life expectancy assumptions for smaller LGAs where insufficient data exist to estimate life expectancy separately. Migration assumptions are estimated separately for each LGA but migration is then dynamically constrained to fit State population changes and migration rates.

Table 4 - Summary of State-level Population Projection Assumptions

Assumption	2022-23 estimate	High series	Medium series	Low series
Mortality (Life expectancy at birth)	80.0 years (males)* 83.5 years (females)*	Increases from current levels to reach 86.9 years for males and 89.6 years for females by 2053.	Increases from current levels to reach 85.9 years for males and 88.6 years for females by 2053.	Increases from current levels to reach 84.9 years for males and 87.6 years for females by 2053.
Fertility+ (Total Fertility Rate (TFR))	1.52+	Increases from current level to 1.78 by 2032, then remains constant.	Increases to 1.62 by 2032, then remains constant.	Decreases from current level to 1.31 by 2032, then remains constant.
Net Overseas Migration (per year)	+4 408 persons (net inflow)	Decreases from current level to +2 800 from 2024-25, then remains constant.	Decreases from current level to +2 300 from 2026-27, then remains constant.	Decreases from current level to +1 650 from 2024-25, then remains constant.
Net Interstate Migration (per year)	-2 597 persons (net outflow)	Increases from current level to +1 700 from 2024-25, then remains constant.	Increases from current level to +800 from 2026-27, then remains constant.	Increases from current level to -600 from 2024-25, then remains constant.

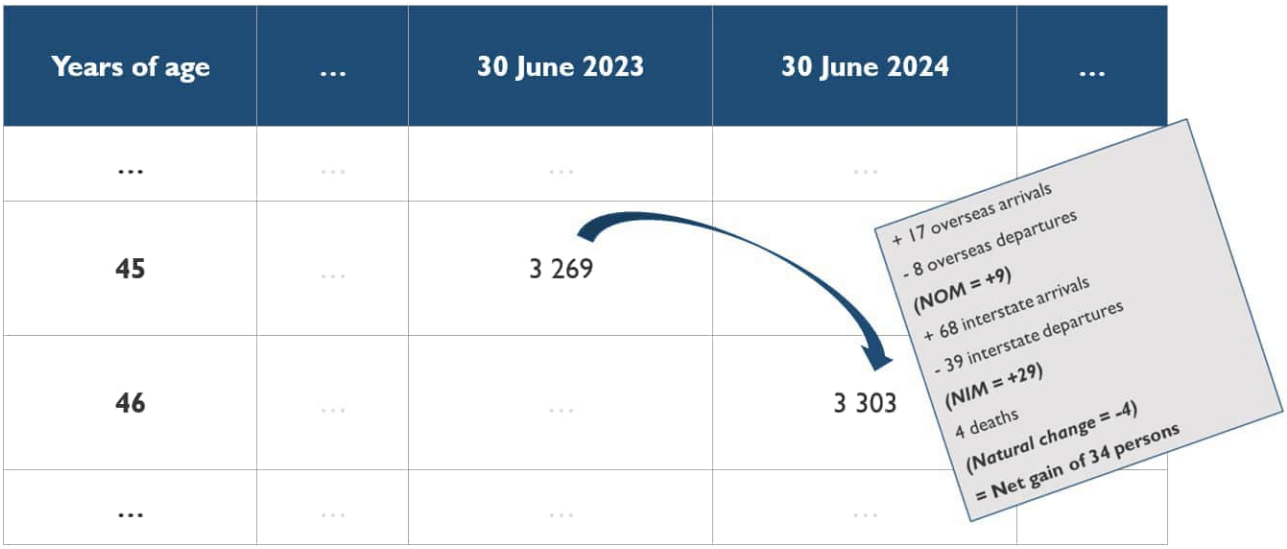
* 2022 calendar-year estimates, based on life tables prepared by Advanced Demographic Modelling.

+ 2023 calendar-year estimate, derived based on data from the Registrar of Births, Deaths and Marriages.

Cohort-component method

The projection models in TasPOPP for the State and LGA projections are cohort-component models in which the population is divided into *cohorts* and projected forward by adding and subtracting demographic *components* of change. For example, the female cohort of Tasmania aged 45 in mid-2023 is projected to mid-2024 when the cohort will be aged 46. The projection calculations start with the population aged 45 in mid-2023, then subtract deaths, interstate out-migration and emigration to overseas, and then add in interstate in-migration and immigration from overseas. The result is the projected population of females aged 46 in mid-2024 (Figure 2).

Figure 2 - Illustrative example of cohort-component method, females, Tasmania, medium series



Source: TasPOPP projections

LGA projections

LGA projections are projected in a similar manner to the State projections but with some modifications to ensure that they are constrained to, and fully consistent with, the State totals. Research shows that constraining small area age-sex projections to independent totals often improves their accuracy.

LGAs are initially projected using a simple extrapolative model and based on past growth before any individual assumptions are considered. Following this, the sum of LGA totals is constrained to the State population projections. Natural change is then modelled through the standard cohort-component approach, and migration is dynamically adjusted until it reconciles with LGA population totals and State projections by age and sex.

Input data

Data from the ABS were the primary source used to inform the projections. Most of the data utilised are from published ABS collections, but some customised or unpublished ABS data extracts were also obtained to provide the level of detail needed for the projections.

The other main quantitative data source used was birth notifications data provided to Treasury by the Tasmanian Registrar of Births, Deaths and Marriages, along with recently published updates on the Registrar's website, which augmented the official ABS births series and allowed us to analyse more recent trends in fertility.

We also took into account a variety of quantitative and qualitative data and other information for the purpose of applying judgement and adjustments to some of the projections and assumptions. These include recent research on the impact of the COVID-19 pandemic on mortality; data from the Greater Hobart Plan and associated documents; State Government visa nomination data; other reports and research published by government agencies; and some unpublished data provided by State Government agencies.

Expert demographic advice on the components of growth and their likely future direction was provided by Dr Wilson, and consultation was undertaken with key government agencies and other subject matter experts to seek additional information and insights to inform the projections.

Managing data limitations

With a relatively small population, Tasmania and its LGAs are prone to data limitations when it comes to population estimates and other demographic data, such as data quality issues, random noise (large random fluctuations in trends when populations are small), and ABS perturbation (intentional small adjustments to data to protect privacy). This issue becomes particularly acute when dealing with highly disaggregated data - for example, the number of males aged 71 in a small LGA is likely to be very low, meaning that Census and ERP counts may suppress or randomise these small numbers, and sample surveys are unlikely to be able to capture or represent such small cohorts accurately. Moreover, if projections are not done carefully, implausible outcomes can quickly emerge. The TasPOPP model is specifically designed to deal with these data limitations and to avoid implausible scenarios, through:

- restricting the Treasury projections to five-year age groups for LGAs;
- deriving LGA assumptions and past trends from data over longer periods of time, and from changes between population censuses, to reduce the noise created by random fluctuations from year to year;
- applying extrapolation methods to produce headline LGA projections, and constraining these to State results; and
- allowing the user to adjust age specific-migration rates to avoid implausible results.

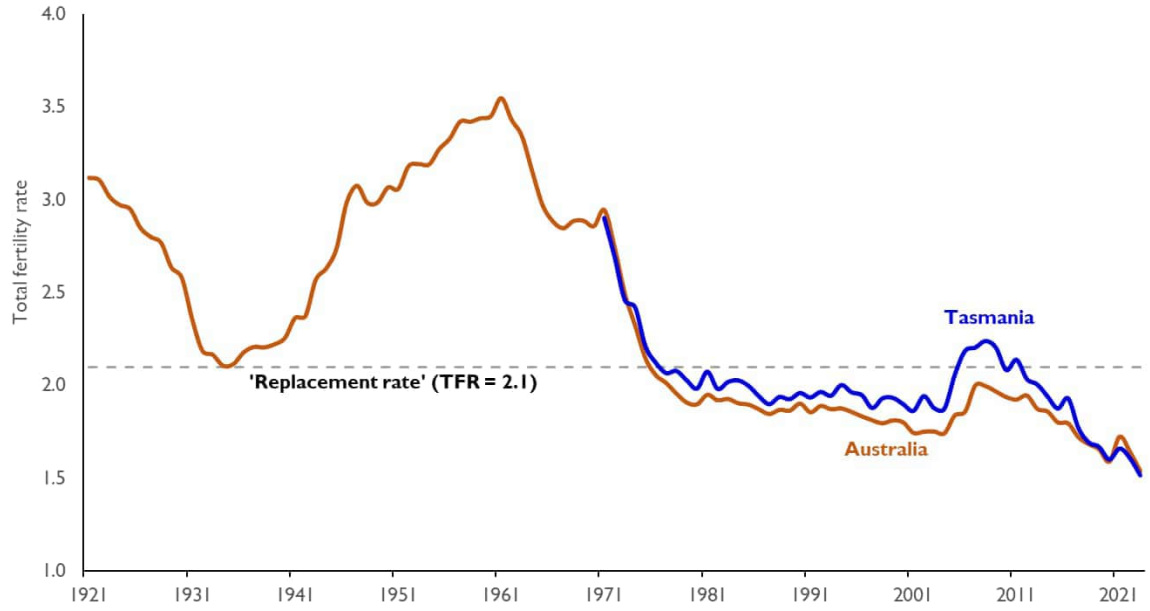
Treasury has also had to manage known problems with other datasets. The most significant of these was the underestimation of migration into Tasmania that occurred from the period from 2016 to 2021. This matter is addressed in the section on net internal migration and in Appendix B.

State assumptions

Fertility

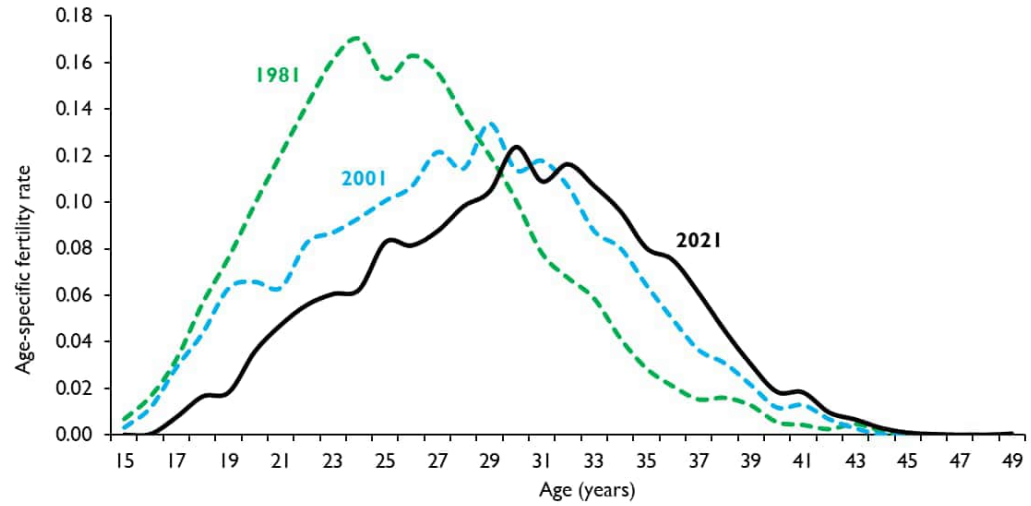
Fertility is typically measured by the Total Fertility Rate (TFR), which represents the total number of children a female would bear during her lifetime if she experienced current age-specific fertility rates at each age of her life. The TFR in Australia has been generally declining since the end of the Baby Boom period (Chart 10). Tasmania has followed a broadly similar trend to the rest of the country, although its total fertility rate has typically been higher than nationally until very recently.

Chart 10 - Historical Total Fertility Rate, Tasmania and Australia



Source: Australian Historical Population Statistics, ABS; Advanced Demographic Modelling and Treasury calculations

Chart 11 - Age-specific Fertility Rate snapshots, Tasmania



Source: National, state and territory population, ABS; Births, Australia, ABS; Advanced Demographic Modelling calculations

Chart 11 shows age-specific fertility for Tasmania and illustrates the shift in the fertility age profile over time. In 1981, peak fertility was around 24 years, whereas by 2021 it had shifted to 30 years.

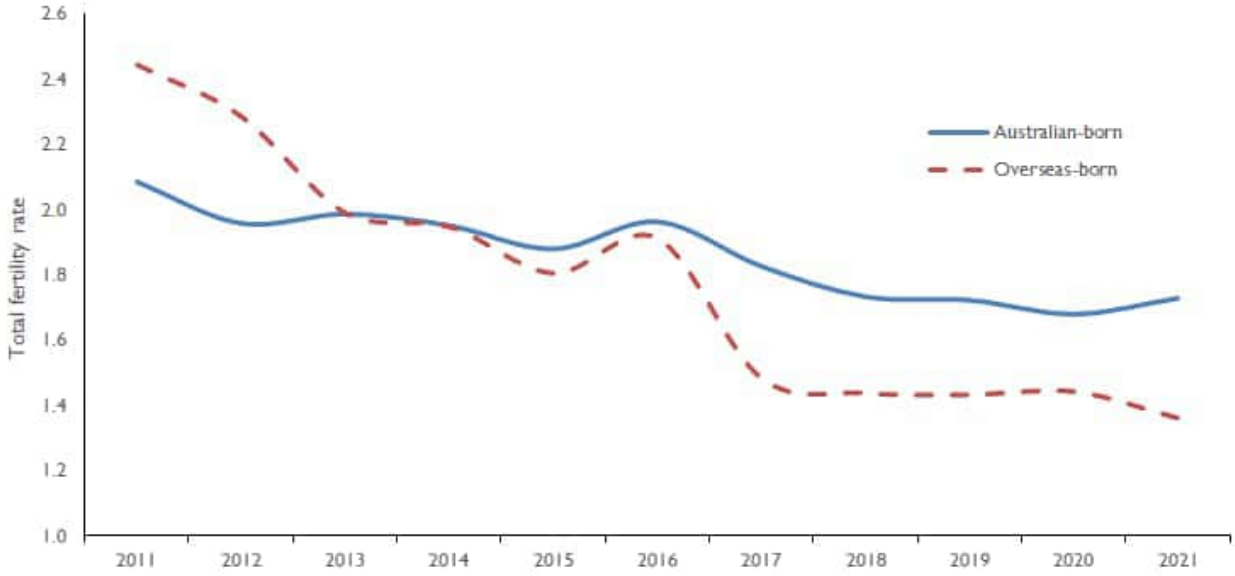
Understanding the recent fertility decline in Tasmania

While it was always possible that the fertility outcomes of Tasmanians had simply dropped at a faster rate than nationally in the most recent years due to social changes or economic factors, it is notable that the decline coincided with an increase, since around 2016, in Tasmania's overseas-born migrant population.

As noted by one stakeholder, it has been observed nationally that migrants tend to have fertility outcomes that are a little lower than the Australian-born population while temporary migrants, in particular, tend to have very low fertility rates in Australia.[1]

We found this to be the case for Tasmania as well, with fertility outcomes for the overseas born population in Tasmania declining at a greater rate than the Australian born population (Chart 12).

Chart 12 - Estimated Total Fertility Rate by place of birth of mother, Tasmania



Source: ABS (custom data tables); Treasury calculations

We have received advice from stakeholders and some experts that Tasmania's high rates of migration of temporary visa holders are unlikely to be sustained at the same levels in the future. On this basis we have allowed for a small recovery in the total fertility rate in the medium series compared to its current levels.

Final assumptions

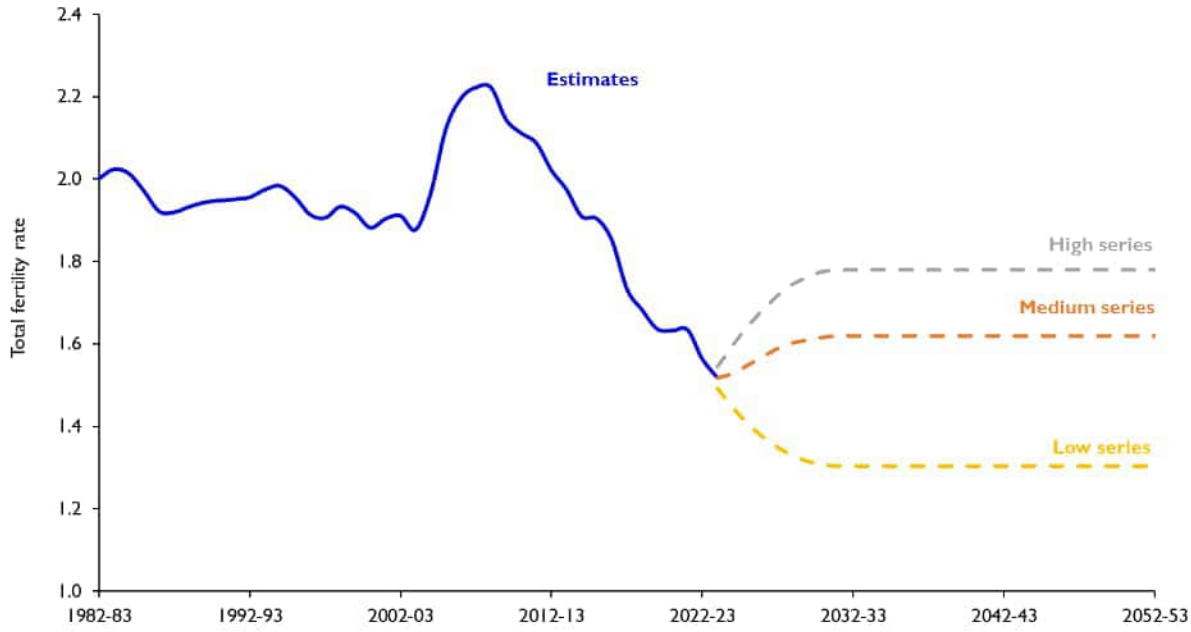
Aside from the adjustment noted above, fertility assumptions for each series have predominantly been based on analysis of past Tasmanian TFR observations, with the medium series being anchored in the approximate past five-year average, and high and low series being anchored to relatively recent high and low rates of change in fertility.

[1] See McDonald, P. (2020). *A Projection of Australia's Future Fertility Rates: Analysis for the Centre for Population.* https://population.gov.au/research/research-fertility

The following fertility assumptions have been adopted in the draft projections:

- **High series** - the current fertility rate increases to reach 1.78 by 2031-32 and then remains constant.
- **Medium series** - the current fertility rate increases gradually to reach 1.62 by 2031-32 and then remains constant.
- **Low series** - the current fertility rate decreases to 1.31 by 2031-32 and then remains constant.

Chart 13 - Estimated and Projected TFR, Tasmania



Source: National, state and territory population, ABS; Births, Australia, ABS; Registrar of Births, Deaths and Marriages; Advanced Demographic Modelling; Treasury calculations

Mortality

Life expectancy at birth estimates represent the average number of years that a newborn baby could expect to live, assuming current age-specific death rates are experienced through their lifetime. In 2022, life expectancy at birth for Tasmania was 80.0 years for males and 83.5 years for females.

In forming mortality assumptions, we have focused on:

- the possible ongoing impact of COVID-19 on mortality;
- the underlying age-specific trends in life expectancy in Tasmania and Australia; and
- the extent to which life expectancy will continue to improve.

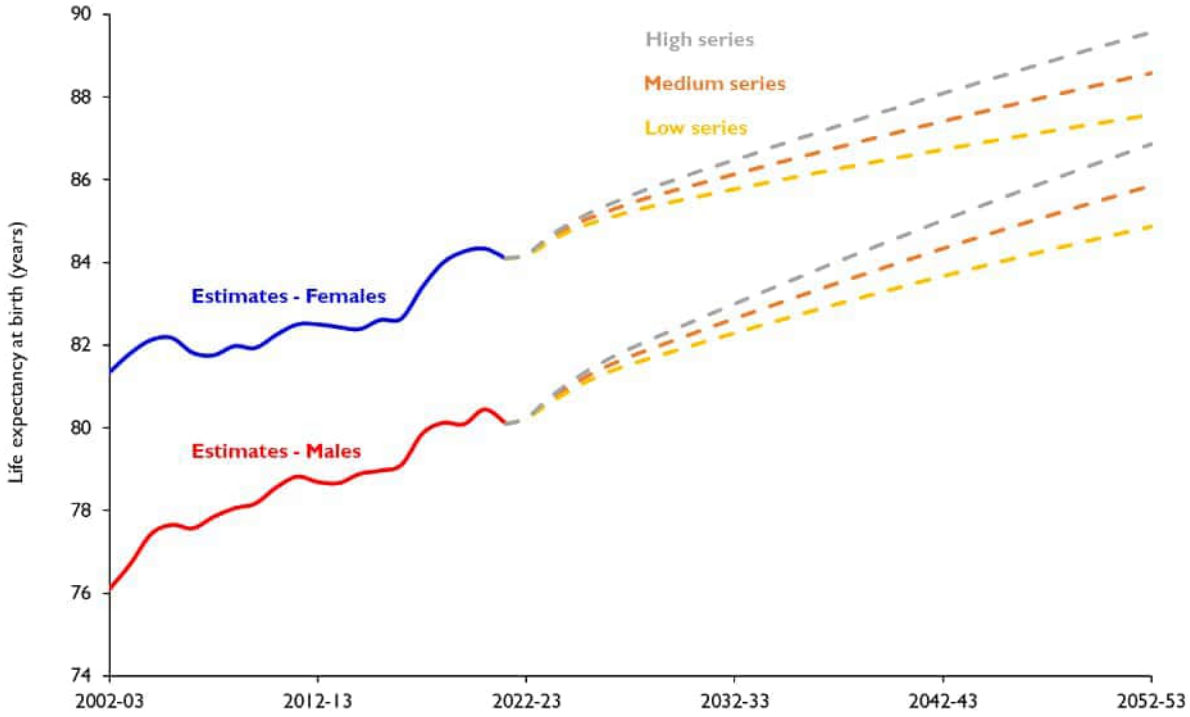
To project life expectancy, we have utilised the results of a simple extrapolative model prepared by Dr Wilson based on methods described by demographer Dalkhat Ediev.[2] The model produces Australian life expectancies, which we then convert to Tasmanian life expectancies based on the average differences between national and State life expectancies.

[2] See Ediev, D. M. (2008). *Extrapolative Projections of Mortality: Towards a More Consistent Method Part I: The Central Scenario*. Vienna Institute of Demography Working Paper 3 / 2008. https://epub.oeaw.ac.at/0xc1aa5576%200x003d0a57.pdf

The following life expectancy at birth assumptions have been adopted in the draft projections for Tasmania (Chart 14):

- **High series** - Increases from current levels to reach 86.9 years for males and 89.6 years for females by 2052-53.
- **Medium series** - Increases from current levels to reach 85.9 years for males and 88.6 years for females by 2052-53.
- **Low series** - Increases from current levels to reach 84.9 years for males and 87.6 years for females by 2052-53.

Chart 14 - Estimated (ABS) and Projected Life Expectancy, Tasmania



Source: National, state and territory population, ABS; Deaths, Australia, ABS; Advanced Demographic Modelling; Treasury calculations

TasPOPP models deaths in the Tasmanian population by converting life expectancies to age-specific death rates, allowing it to calculate the likelihood of people at given ages dying or surviving each year. The age-specific death rates are determined using a mortality surface, which is a collection of past and projected life tables. Life tables are data tables that measure mortality, survivorship and life expectancy by depicting the mortality experience of a hypothetical group of newborn babies throughout their entire lifetime.

The projection program searches for the values within the mortality surface which match each assumed life expectancy assumption for a particular year or place, and then calculates age-specific death rates from them. TasPOPP assumes that all geographical areas follow Australian mortality patterns, just from different starting points and at different rates of mortality improvement.

Migration

Net Overseas Migration (NOM)

In Tasmania, an assumption with a significant influence on the projected population is the future level of net overseas migration (NOM), which accounts for the net difference between overseas arrivals and departures. Predicting the future levels and distribution of NOM is a challenging task with NOM being influenced by a multitude of national and local factors, including:

- the size of the annual national migration program (this is subject to significant fluctuations, and ABS estimates of NOM results typically do not precisely match with the planning level);
- the proportion and types of visas issued, such as temporary working and student visas;
- regional residency requirements of some visa types;
- State visa nomination programs;
- the need for temporary workers to address skill gaps; and
- the resilience or vulnerability of the economic cycle and the relative appeal of various regions in Australia in terms of employment opportunities, lifestyle, study options, and connections to existing migrant communities, among other factors.

The long-term NOM assumption for the medium series has been updated for the final projections and is now more closely linked to the Australian Government's new migration strategy, particularly its desire to return national migration levels closer to pre-COVID-19 levels. While the Australian Government has not yet determined migration target levels beyond 2023-24, the Centre for Population's 2023 Population Statement has forecast longer-term national NOM of around 235 000 persons per year by 2026-27[3] (this includes migrants on both permanent and temporary visas). Tasmania's historical share of Commonwealth NOM (pre-COVID-19) has been around one per cent over the past ten years. On this basis, we have assumed net overseas migration of 2 300 per year for Tasmania for the medium series.

The medium series allows for an extended phase-in period to the long run, compared to the high and low series, to allow for the assumed greater outflow of temporary migrants from Tasmania, both students and workers with temporary visas, over the first three projection years. More information on the outflow of temporary migrants from Tasmania over the first three projection years can be found in Appendix C.

In deriving the high and low series assumptions, we focused on long-term moving averages of NOM to "see through" the short-term volatility and fluctuations that are a feature of this series. From these moving averages we examined previous historical peaks and troughs in NOM to inform our assumptions for the high and low series respectively.

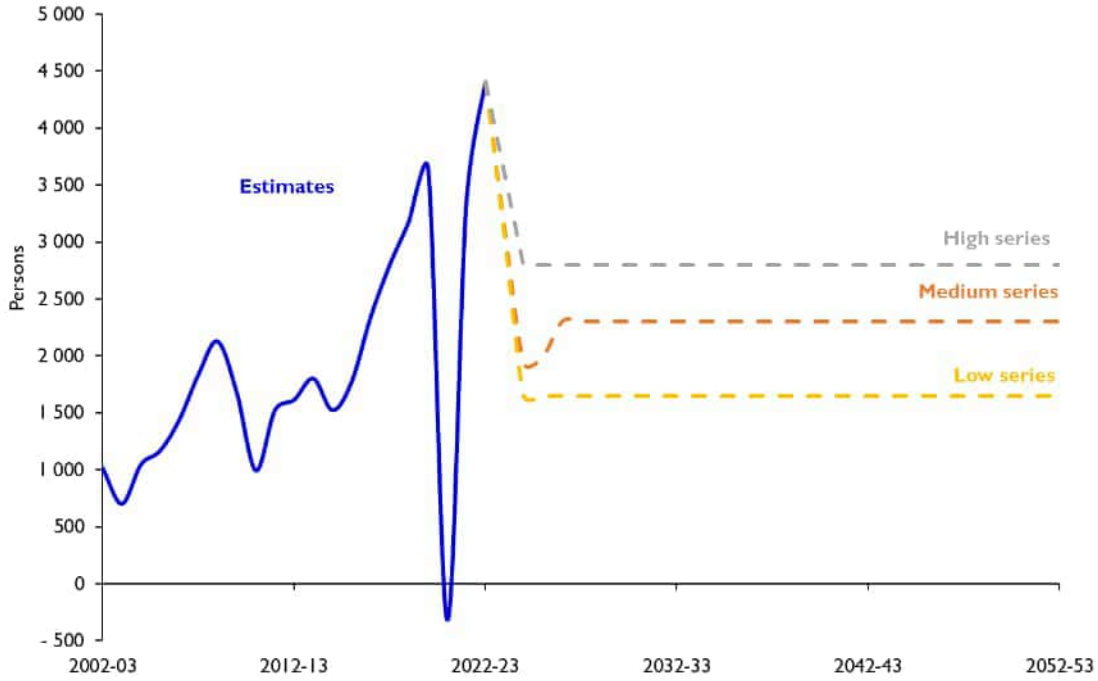
Chart 15 shows the published NOM for Tasmania from 2002-03 to 2022-23, and the projected NOM levels from 2023-24 to 2052-53. The impact of the international border closure during COVID-19 can be clearly seen with a recorded NOM of -320 persons (a net outflow) in 2020-21. As at the time of writing, the ABS has published one quarter of 2023-24 NOM data, which is supporting a lower level of NOM compared to the series high seen in 2022-23.

The following NOM assumptions have been used for these projections:

[3] See *2023 Population Statement*. Centre for Population. https://population.gov.au/publications/statements/2023-population-statement

- **High series** - NOM settles at 2 800 persons per year from 2024-25 and then remains constant.
- **Medium series** - NOM transitions to 2 300 persons per year from 2026-27 and then remains constant.
- **Low series** - NOM settles at 1 650 persons per year from 2024-25 and then remains constant.

Chart 15 - Estimated (ABS) and Projected Annual Net Overseas Migration, Tasmania



Source: National, state and territory population, ABS; Treasury calculations.

Net Internal Migration / Net Interstate Migration

Internal Migration is the movement of people across a specified boundary within Australia involving a change in their place of usual residence. This can be within a state or territory, or even within a city. Internal migration includes both intrastate migration, where people migrate within the same state or territory, and interstate migration, where people move to and from other states and territories in Australia. As it relates to Tasmania's population projections, net internal migration (NIM) is equal to net interstate migration, and this is the relevant measure used for the State level assumptions and projections. In the case of the LGA projections, NIM comprises arrivals and departures into and out of the LGA from both interstate migrants and intrastate migrants moving between LGAs in the State.

State NIM can undergo sudden and significant fluctuations, with the net figure reflecting the balance of larger interstate migration flows. For instance, in the year ending June 2022, Tasmania saw 16 518 arrivals and nearly 16 897 departures, resulting in a relatively small net result: an interstate outflow of 379 persons. State NIM is the most uncertain demographic component of change due to its responsiveness to economic and social conditions, and due to it not being directly measured by the ABS, which mostly relies on Medicare change of address data to detect interstate movements, an important source but subject to some coverage and timeliness issues.

In setting NIM assumptions, Treasury has taken into account that historical State NIM for the period 2016 to 2021 is likely to be underestimated in official ABS statistics. The reasons for this are set out in more detail in Appendix B, and relate to the fact that the ABS made large revisions to Tasmania's total population for the period 2016 to 2021, but did not update the individual components of change.

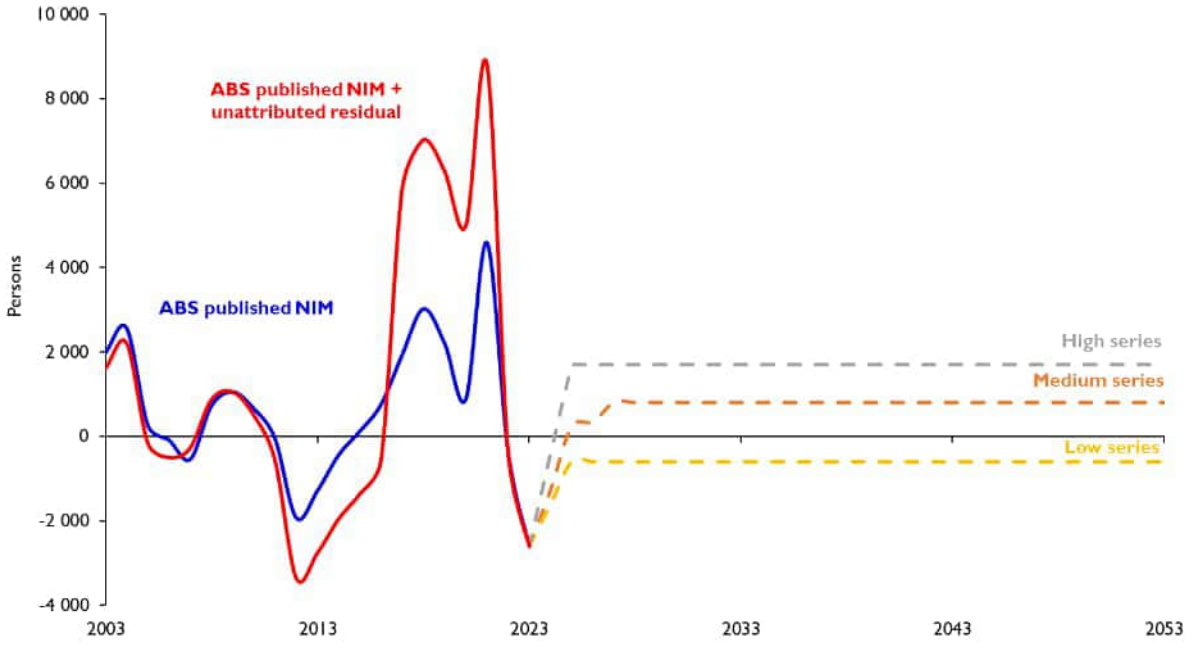
For various reasons outlined in the appendix, Treasury considers it defensible and appropriate to treat the "unattributed" changes to total population as additional NIM. This is captured in the red line in Chart 16.

We have prepared the medium State NIM assumption on the basis of the historical NIM data published by the ABS and analysis of the unattributed residual. Analysis of the peaks and troughs of short and long-term moving averages of NIM informed the high and low series assumptions.

Chart 16 shows the published NIM for Tasmania from 2002-03 to 2022-23, and the projected NIM for the period 2023-24 to 2052-53. The key assumptions are:

- For each series NIM will be at its lowest in 2022-23, before recovering to more normal flows.
- Similar to the NOM medium series, the NIM medium series has an extended phase-in period to the long-run, compared to the high and low series, to allow for the assumed greater outflow of temporary migrants from Tasmania, both students and workers with temporary visas, over the first three projection years (see Appendix C). As at the time of writing, the ABS has published one quarter of 2023-24 NIM data, with results that support the need to make a phase-in adjustment to NIM.
- **High series** - NIM recovers to a positive inflow of 1 700 persons per year from 2024-25 and then remains constant.
- **Medium series** - NIM reaches a positive inflow of 800 persons per year from 2026-27 and then remains constant.
- **Low series** - NIM partially recovers, to an outflow of 600 persons per year from 2024-25 and then remains constant.

Chart 16 - Estimated (ABS) and Projected Net Interstate Migration, Tasmania



Source: National, state and territory population, ABS; Advanced Demographic Modelling; Treasury calculations

Consultation feedback

Treasury released the draft projections via its website in late November 2023, and also directly contacted key stakeholders.

We received written feedback from 16 organisations or individuals, including demographic experts, several councils and government agencies. We have not attributed feedback to specific stakeholders.

The feedback can be broadly grouped into comments on our approach and methods; our State-level assumptions; and our local government area assumptions.

Feedback on approach and methodology

There is broad support for the cohort-component approach and a bespoke model

Stakeholders generally appeared to support our approach to preparing projections, with some noting that the cohort-component approach appeared sound; that the use of historical data to analyse trends and develop assumptions seemed reasonable; and that the use of five-year age groups and other more aggregated data for some local government area modelling was justified given the limitations of highly disaggregated data for small regions. There was general support for the adoption of the new, bespoke model built by a specialist demographer to manage the challenges of working with data for small areas in Tasmania.

A small number of stakeholders expressed concerns about the "backward-looking", data-driven nature of this approach to preparing projections, noting:

- the lack of local area knowledge and nuance in a consolidated projections exercise;
- the more meaningful interpretations that can be produced by employing land supply, planning and other "bottom-up" information;
- the problems with using past trends to inform future trends given the uncertainty that exists at any given point of time; and
- the risk of unfavourable projections becoming a self-fulfilling prophecy.

While acknowledging these concerns, Treasury has not made any fundamental changes to the model and method used for the final projections.

The cohort-component approach to projections is used for official projections throughout Australian jurisdictions and most of the world. It has several advantages over other projection methods; critically, the cohort-component method allows us to project potential changes in the age and sex of the population, and it is considered the gold standard for preparing age-specific population projections. This is important in planning the type and volume of services and infrastructure that residents need at different life stages.

While our approach is primarily data-driven, we consulted academic literature and experts to inform assumptions about potential future population trends. Though it does not hold true in all circumstances, past trends are in fact one of the more reliable indicators of future developments in many demographic contexts, though we note the importance of applying judgement to chosen assumptions.

Our projections incorporate a wide variety of data for each LGA (including some ABS data not published), and the model incorporates local trends and patterns. We acknowledge that there are still some limitations in a data-driven approach for small areas and have sought local knowledge through the stakeholder consultation process.

We emphasise that projections are reflections of what would happen if particular trends were to eventuate - that is, they are best understood as "what if" scenarios, where the scenarios presented are considered plausible. As noted below, it is not our intention that users and planners discard other sources of information when using the projections.

The role of the projections in the broader planning information field

Some stakeholders highlighted that the production of "official" projections for LGAs has caused problems for councils and other local authorities in the past. One stakeholder pointed out that several influential organisations have utilised the projections in statutory and strategic documents and taken the projections, effectively, as a de facto source of truth. They considered that this has impeded local authorities where the official Treasury projections have diverged from real-time population data, and that this has limited the flexibility of some authorities to respond to emerging population pressures. They argued that the explanations and caveats provided in the draft projections and the 2019 projections have been inadequate for conveying the limitations and appropriate role of the Treasury projections.

In response we have sought to emphasise these matters more in this final report, and to stress the importance of considering the uncertainty levels (presented in the LGA summary profiles) that are inherent in the projections. For major decisions in particular, we recommend that decision-makers consider these uncertainty ranges by asking, for example: *would the same decision be made if population was at the lower or upper bounds of the uncertainty range?*

We consider that the production of a consolidated set of State and local government area projections is still important in ensuring that government agencies, councils and other organisations can access quality, consistently prepared long-term projections without having to prepare them separately or do without them.

Level of detail, output files and the presentation of data

There appeared to be general satisfaction with the projections output, including the basic tables and charts included in the report, and the Excel files containing detailed data for the State and for each LGA. Some respondents requested additional information, commentary or alternative presentations of data. We have included some of the requested material in this final paper where possible, and will continue to investigate other information and analysis in the future. We have also prepared a quick guide to using the projections which has been published on the website alongside the report.

One stakeholder noted the importance of the "so what?" implications of the projections, such as the impacts on future skills and workforce needs. The "so what" implications are not within the scope of this projections exercise and were not feasible to examine in the time available, but are an important consideration and one that could be examined at a future time (though potentially by, or with, other State Government agencies).

Another stakeholder noted a number of important points about recent trends in population data in Tasmania that were not mentioned in the draft projections report, such as:

- the unusually high inflows of temporary visa holders to Tasmania, many via interstate migration, which contributed to the undercount in ABS population estimates (prior to 2021 rebasing) and which may have important impacts on future migration and fertility trends; and

- the importance of distinguishing, within the model, the age groups of migrants moving into the State or into a region versus those leaving.

While Treasury had taken the above issues into account in the draft projections, this level of detail was not outlined in the draft paper. There were also issues raised by other stakeholders that we considered in forming our assumptions but did not document or elaborate on. We have expanded on a number of these issues in this final report.

Divergent views on the Housing Unit Model

A number of stakeholders were pleased that the new TasPOPP model included the potential to use a Housing Unit Model (HUM), providing the capacity to include the impact of dwelling developments. However, this support was not universal. One stakeholder noted that the inclusion of potential dwelling supply pushes the projections into forecasting territory to an extent that is at odds with the projections' agnosticism in respect of other types of developments (such as economic cycles or the development of new industries). The stakeholder considered that the impact is likely to be skewed by Tasmania's high rate of unoccupied dwellings and projections should inform dwelling supply rather than the other way around. Another stakeholder highlighted the highly unpredictable nature of housing developments and their timing and the futility of trying to capture these impacts from ad hoc information.

Although we received some information on dwelling developments, Treasury has not applied the HUM in this release of the projections. This was because our analysis suggested that the developments would not materially impact the projections for the LGAs in question, or would not improve the projections without introducing unacceptable levels of uncertainty (in the case of more speculative developments). However, we believe the incorporation of HUM adjustments should be left open as a possibility for future projection rounds. We note from discussions with our consultant-demographer Dr Tom Wilson that, provided there is good information on future dwelling numbers available, incorporating dwellings is often justified in urban areas because local population trends are closely correlated with dwelling numbers. The HUM-based method is common practice in Australia and overseas and utilising it in high housing demand urban areas can be expected to produce good quality projections. The HUM also takes into account the dwelling occupancy of an area and therefore would not be limited by any differences specific to Tasmania.

Please also note that we have made an adjustment to the high series total population for one LGA (George Town LGA), but this was incorporated through a custom population adjustment and not through the HUM. For more details on the George Town LGA adjustment please refer to the section on LGA-level assumptions.

Consider incorporating or aligning the projections with other regional or third-party analysis

Several stakeholders drew Treasury's attention to other comprehensive analysis exercises currently underway in Tasmania, the most commonly cited being the residential land demand and supply analysis being undertaken by a private consulting firm on behalf of local government and other organisations.

Treasury investigated this matter but found that it would not be practical to incorporate these information sources for this round of the projections. The cited study was not publicly available at the time of writing and we understand that some of the analysis was not finalised at that point. We will continue to monitor the availability of this and other analysis that could inform our projections for future updates. It should be noted that, while these sources could be useful in sanity checking our results, such studies are usually prepared for a different purpose to our projections and we would not necessarily seek to align them under these circumstances.

Including a climate change scenario

One respondent suggested the inclusion of an additional climate change scenario, noting that climate change could increasingly impact internal and overseas migration patterns, and the types of agricultural activities that could be undertaken in different regions.

At present we do not have enough information on how climate change would tangibly impact on demographic trends in Tasmania, other than how it is impacting the movement of people currently. To the extent that people are moving in or out of Tasmania or its regions already due to climate change impacts, this trend would be picked up in the existing data and assumptions. For example, it is plausible that current overseas and interstate migration data already include a proportion of people who have made the decision to move to Tasmania due to current or expected climate change related impacts (such as extreme weather, droughts, floods or bushfires).

It is also possible that climate change could impact future fertility and mortality trends, given the complexity of what drives these. Again, to the extent that any factors (such as health, social-economic or environmental) are impacting mortality in Tasmania, or the decisions around having children, these trends should be picked up in some of the existing data and assumptions in the projections.

Feedback on State-level assumptions

Fertility

One stakeholder noted the high levels of temporary migrants into Tasmania in recent years and recommended that Treasury consider the impact of migration share on fertility rates. They noted that relatively high levels of temporary overseas migrants can result in lower fertility rates for an area.

As noted above, we did take this impact into consideration but did not document it previously. In forming migration assumptions for the draft projections, we obtained customised ABS data that confirmed that there was a lower fertility rate among overseas-born women in Tasmania when compared to Australian-born women, and that fertility among overseas-born women had fallen at a greater rate over time (which is in line with the increasing in-migration of temporary migrants into Tasmania over the same period). On this basis, we allowed for a small recovery in the fertility rate for the medium series in the short- to medium- term, in line with our assumption that the share of temporary migrants may fall slightly in the next few years. Refer to the sections on migration and fertility for further details.

One respondent noted the extended and inconsistent lengths of time over which each of our fertility rates were "phased in" before stabilising to the long-term assumption. We agree with this assessment and have revised each fertility assumption to phase in over a consistent ten-year period.

Mortality

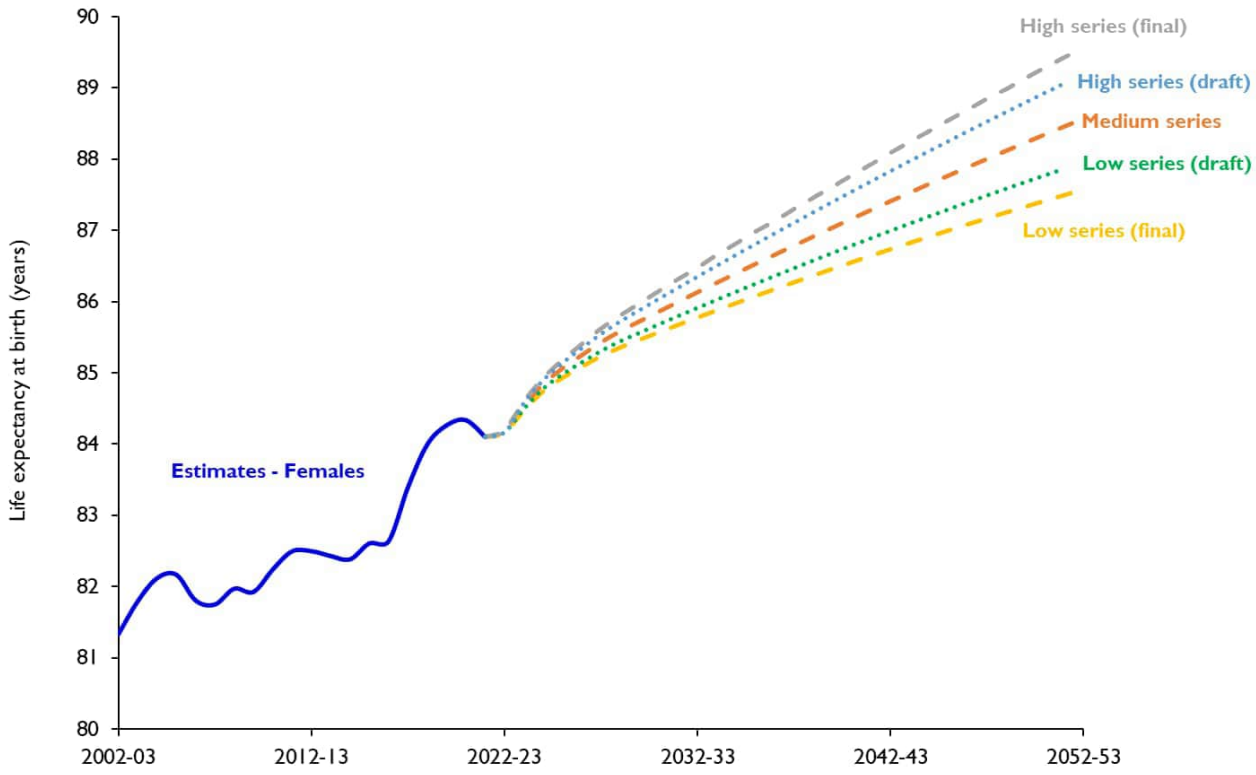
Some stakeholders raised queries about the life expectancy assumptions and requested further detail about the process used to derive this. One stakeholder recommended that Treasury consider the use of life tables in assessing mortality. They also considered that the life expectancy projections appeared somewhat optimistic and that the range between the high and low series life expectancies appeared narrow, noting that it is possible for life expectancy to plateau or decline, as has recently been observed in the United States.

The TasPOPP model does, in fact, utilise life tables in calculating mortality. While TasPOPP requires us to set our assumptions in terms of life expectancy, it projects deaths through the use of a mortality surface, which is used to calculate the age-specific death rates required in the projection calculations. The mortality surface is based on several past and projected life tables, which together act as a set of model life tables. We did not include these details in the draft projections paper and have expanded on the matter in this final report. For more details refer to the explanation under mortality in the assumptions section.

We acknowledge that the life expectancy projections assumed are reasonably optimistic in that they continue very long run trends of mortality improvement observed in Australia for many decades. Given that Australia has quite a different social and economic environment to the United States, Dr Wilson has suggested that life expectancy comparisons be made with countries like Canada or New Zealand. It should be noted that, according to the latest available ABS data, Australia itself recorded its first decline in life expectancy since the 1990s for the period 2020 to 2022, but the ABS attributed this in large degree to COVID-19 deaths. Our assumptions for mortality do allow for an impact on life expectancy in the near term as a result of the pandemic, but assume that Australia (and Tasmania) return to longer-term trends of increased life expectancy after this period.

Regarding the range between the high and low series being relatively narrow, we have now expanded the range of possibilities (see Chart 17 as an example of this change). We caution that the high and low assumptions are intended to provide higher and lower alternative scenarios that we consider remain in the bounds of plausibility, but they cannot strictly be interpreted as covering most of the range of uncertainty for mortality, fertility and migration.

Chart 17 - Life expectancy assumptions, draft and final (females only)



Source: National, state and territory population, ABS; Deaths, Australia, ABS; Advanced Demographic Modelling; Treasury calculations

Migration

We received only limited feedback on our migration assumptions. However, two stakeholders urged us to reconsider our migration assumptions in light of the Australian Government's new migration policy, released shortly after the draft projections were published.

The Australian Government announced its new migration strategy for Australia on 11 December 2023. The new policy is complex, with many moving parts and many details still to be determined. From a projections perspective, some expected implications are:

- a near-term reduction in net overseas migration into Australia when compared to the very high levels seen during 2022-23;
- a return to "normal" levels of net overseas migration nationally in the longer term; and
- reduced reliance on, and a tightening of requirements for, temporary migrants to Australia, including international students.

We also received advice from agencies and local experts that the very high levels of migration into Tasmania in recent years are unlikely to be sustained into the future.

We have therefore modified our migration assumptions slightly to allow for a slight decrease in overall migration in the nearer term when compared to the draft projections. We have also set a level of net overseas migration that is more closely linked to "normal" (that is, pre-COVID-19) national levels in the longer term. We note that the Australian Government had not set overall long-term migration targets at the time we finalised these projections; we have therefore set our assumptions around the longer-term national migration projections produced by the Australian Government's Centre for Population. Refer to the migration assumptions section for further details.

Feedback on LGA-level assumptions

Some councils considered the projections for their municipality to be too low, and noted various rezoning, planning and other developments taking place that they expected would boost growth beyond that suggested by the projections. However, in many cases they were not able to provide evidence or enough specific details for Treasury to model these scenarios. We have therefore not made any specific adjustments to LGA projections (other than updates to data), except for a very small adjustment to the high series for George Town LGA (see below).

Tasmania, and many local government areas, have recorded very high rates of growth over most of the past seven years. The State medium series projections assume a softening in this growth, and this softening trickles down to the growth projections at the LGA level. As a result, the medium series projections reflect a situation in which LGAs (including strongly growing LGAs) do not experience a continuation of their very recent, often historically high, growth rates. Many LGAs are projected to experience increasing natural decrease in coming years, so it will be harder to maintain the levels of growth seen in past decades.

In the case of the George Town LGA, Treasury considered the impact of two major projects proposed for the Bell Bay Industrial Precinct. At the time of finalising our projections, final investment decisions had not been announced for either project and so we have not adjusted the medium series for the George Town LGA. However, partly because of the LGA's relatively small population, we have seen enough evidence to demonstrate that the projects would have a material impact on migration into the municipality during their construction phase if they were to proceed. We have therefore made a conservative adjustment to the high series for the George Town LGA during the suggested construction phase for the projects. Please note that this is not a statement about whether the projects will or should proceed. This adjustment temporarily increases the high series projection for the LGA in the near-term only and does not affect its long-term projection count or growth rate.

Other changes and new issues since the draft projections

Updated data

Since the publication of the draft projections in November 2023, new and updated data used to inform the projections have been released from various sources, most notably from the ABS. These updated data have been incorporated into the final projections. The most notable new and updated data released since the publication of the draft projections are detailed below.

New 2023 State-level and LGA ERPs: Since the release of the draft projections, the ABS has released national, state, and territory population estimates for 30 June 2023 and 30 September 2023, as well as LGA estimates for 30 June 2023. This has allowed Treasury to update our projections, "jumping off" from 30 June 2023, as opposed to 30 June 2022, which was the jump-off period for the draft projections. The 30 June 2023 LGA ERPs released were total populations for each LGA, and were not broken down by age or sex, which consequently affects the handling of incomplete LGA data, as explained further in the section below on managing incomplete LGA data.

Updated 2022 State-level and LGA ERPs: With the release of new ABS population data, the ABS will often revise past population estimates for recent periods. The 30 June 2022 estimates for Tasmania and for LGAs used in the draft projections have since been revised by the ABS.

For example, as at the latest ABS national, state and territory population release, being for the September quarter 2023, the 30 June 2022 ERP for Tasmania was revised to 571 051 persons. This is slightly above the 30 June 2022 ERP for Tasmanian used in the draft projections, of 571 013 persons. The revisions to the 30 June 2022 LGA estimates applied to headline LGA figures and did not include age or sex breakdowns of the revisions. This therefore affects the handling of incomplete LGA data, as explained further in the managing incomplete LGA data section below.

New migration estimates: As part of the release of new ABS national, state and territory population data the ABS publishes new overseas and interstate migration data for Australia and each state and territory. As at the time of writing, the latest ABS national, state and territory release is for the September quarter 2023, meaning that Treasury now has migration estimates for 30 June 2023 and the September quarter 2023, which we did not have for the draft projections. These new migration data have been used to update our migration assumptions for these projections.

Availability of 2023 birth registrations: The Registrar of Births, Deaths and Marriages previously provided Treasury with monthly birth notice and registration counts to 30 June 2023. Since then the Registrar has also published total birth registrations for the 2023 calendar year online. While more limited than the data previously provided to Treasury, we were able to estimate new fertility rates for the 2023 calendar year from this data and revise our assumptions accordingly.

Managing incomplete LGA data

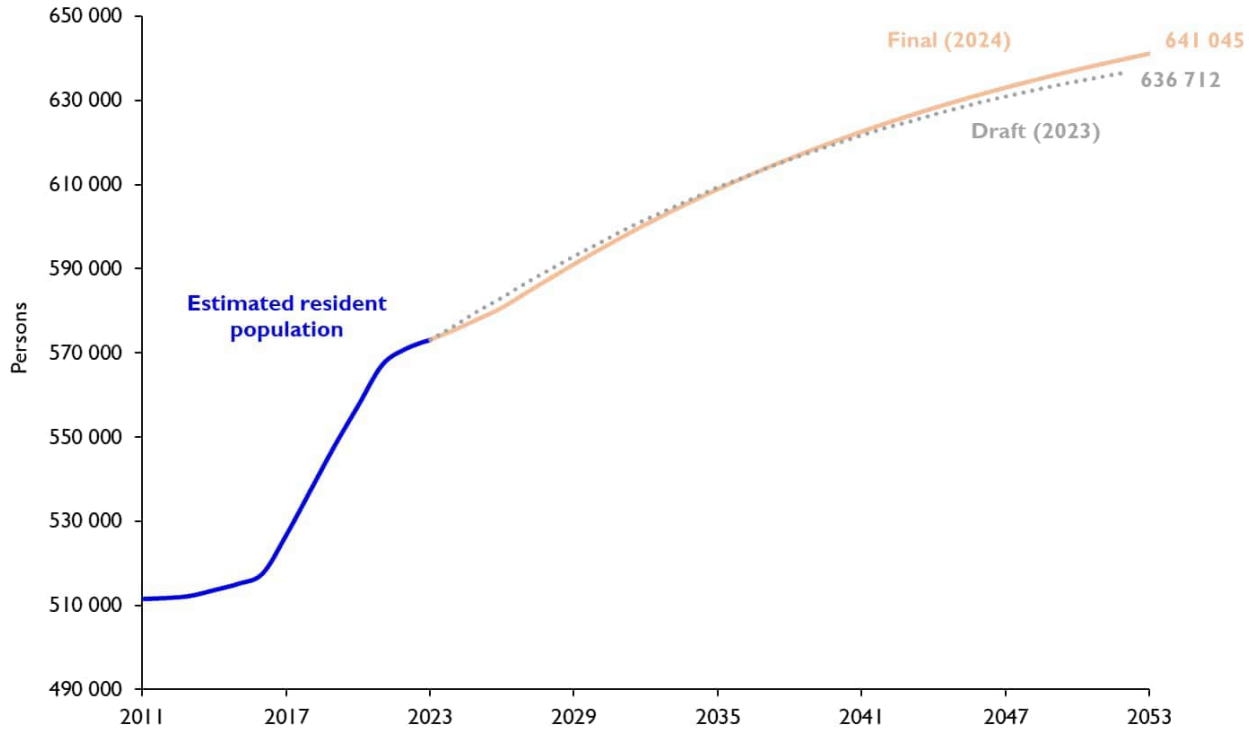
With revisions to LGA ERP totals for 30 June 2022, and the release of new LGA ERP totals for 30 June 2023, but the absence of new age and sex breakdowns for both, we have had to estimate these new age and sex LGA ERPs for 30 June 2022 and 30 June 2023. This means that the 2022 and 2023 LGA age and sex breakdowns in our results and output files are Treasury estimates rather than ABS estimates and should be interpreted with caution.

In order to deal with this estimation, iterative proportional fitting (IPF) was used. IPF is a procedure for adjusting a table of data cells such that they add up to selected totals for both the columns and rows of the table. IPF allows for the LGA data to be 'fitted' to the state-level totals of age and sex estimates and also to the headline ERP totals for LGAs, so that they are consistent. This method should provide good approximations of the age and sex breakdowns for LGAs for 2022 and 2023.

Combined impact of all assumption changes and data revisions

Chart 18 illustrates the impact on the final projections of all changes to assumptions and data updates and revisions made since the draft projections published in November 2023 for the medium series.

Chart 18 - Total population, Tasmania, estimated (ABS) and draft and final projections, medium series



Source: National, state and territory population, ABS; TasPOPP projections

Appendix A

Glossary

Age-specific rate

The rate at which a demographic event occurs. Rates are calculated as the number of demographic events divided by the person-years at risk of that event.

Cohort-component model

The standard demographic projection model in which the population is divided into birth cohorts and projected into the future by adding and subtracting the demographic components of change (births, deaths and migration).

Emigration

Migration out of a country to another (defined by the ABS as for a minimum of 12 months over a 16-month period)

Estimated Resident Population (ERP)

The best estimate of the usually resident population of a region or country.

Immigration

Migration into a country from another (defined by the ABS as for a minimum of 12 months over a 16-month period)

In-migration

Migration into a region from elsewhere within the country.

Jump-off populations

The starting populations for a set of projections.

Jump-off year

The starting year of the projections, from which the projections "jump-off" into the future.

Life expectancy at birth

The average number of years of life a newly-born baby would live if a particular set of age-specific death rates remained constant.

Life tables

Data tables that measure mortality, survivorship and life expectancy by depicting the mortality experience of a hypothetical group of newborn babies throughout their lifetime.

Mortality surface

A collection of past and/or model life tables that allow a user to convert a given life expectancy into age-specific death rates for projection or forecasting purposes.

Net Interstate Migration (NIM)

Interstate in-migration minus interstate out-migration.

Net internal migration

In-migration to a local area from the rest of the country minus out-migration from the local area to the rest of the country.

Net Overseas Migration (NOM)

Immigration minus emigration (or in ABS terminology, overseas migrant arrivals and overseas migrant departures).

Net Total Migration

All forms of inward migration to a geographical area minus all forms of outward migration. For example, Net Total Migration for Tasmania is NIM and NOM combined.

Out-migration

Migration out of a region to elsewhere within the country.

Projection horizon

The period between the jump-off year and the final year of the projections.

Projection interval

The length of individual time periods between projected populations (usually one year or five years) over the projection horizon.

Total Fertility Rate

The average number of children born to women according to a particular set of age-specific fertility rates.

Appendix B

Underestimation of net migration from 2016 to 2021

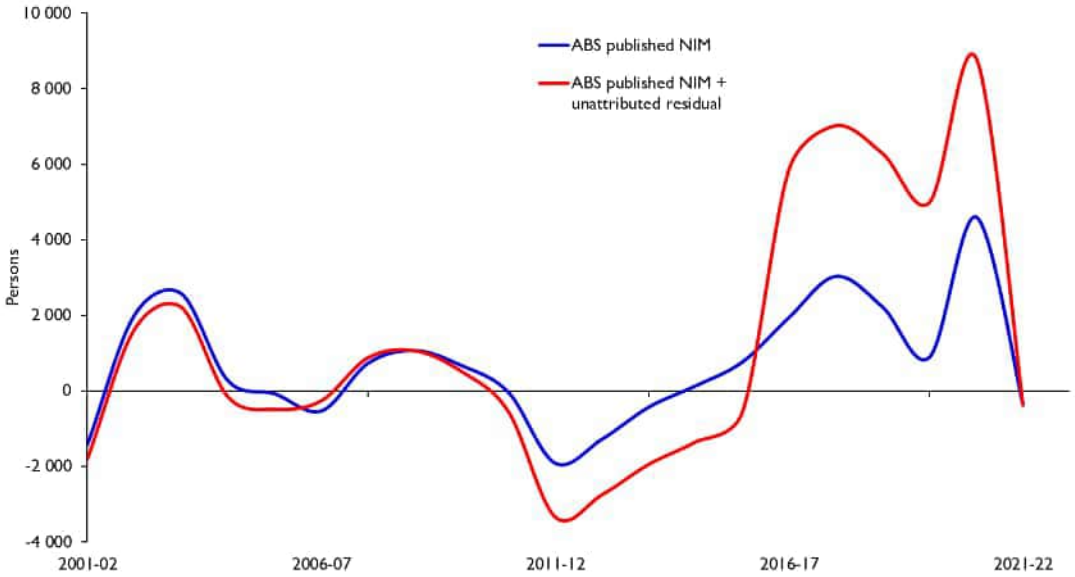
In the period leading up to the release of the 2021 Census of Population and Housing data, there was accumulating evidence that the official ABS estimated resident population (ERP) counts were underestimating net migration into the State. This was evident, for example, through very tight housing supply (which official population growth at that time did not appear to fully explain) and Tasmanian COVID-19 vaccination numbers that exceeded ERP estimates for some age groups.

The 2021 Census confirmed that ERP estimates had undercounted actual population in Tasmania, and analysis suggests that nearly all of the discrepancy was due to net interstate migration to Tasmania that was not adequately captured. Analysis by Treasury and other experts suggested that this was likely due to the high rates of migration of temporary visa holders into Tasmania via interstate migration; temporary migrants do not usually have Medicare coverage, which is the usual dataset that the ABS uses to track interstate migration.

While the ABS revised total population estimates for the previous five years in light of the new data (a regular process known as "rebasing"), it did not update individual ERP components, being births, deaths, NIM, and NOM, for most of this period.

Given that the ABS directly and reliably measures births, deaths, and overseas arrivals and departures, typically substantial revisions would not apply to these figures. It is therefore likely that nearly all of the revisions to Tasmania's population were due to an undercount of NIM. On this basis, in preparing our assumptions we have treated the differences arising from the revisions as unattributed residual NIM (that is, the additional interstate migration necessary to account for the annual ERP change) (Chart B1).

Chart B1 - Annual net interstate migration, recorded and residual, Tasmania



Source: National, state and territory population, ABS; Advanced Demographic Modelling

Appendix C

Adjusting migration phase-in for temporary visa holder departures

Rather than jumping straight to our long-run assumption in a short period, the medium series for migration has an extended phase-in period to the long-run levels, compared to the high and low series, to allow for a greater outflow of temporary migrants from Tasmania, both students and workers with temporary visas, over the next three years until 2026-27.

In recent years, net migration into Tasmania has been unusually high due to strong national immigration levels and to some extent the incentives provided through regional visa schemes. As international migrants can move directly to Tasmania, or can move here after spending a period in other jurisdictions, the movement of recent international migrants in Tasmania has contributed to strong growth in both the net overseas migration and net interstate migration experienced recently.

On the day of the Census of Population and Housing (10 August 2021), the ABS estimated that there were nearly 26 000 temporary residents in Tasmania, based on 2021 Census data linked to temporary visa holder data from the Department of Home Affairs (Table C1).

Table C1 - Temporary residents in Tasmania by major visa type, 10 August 2021

Temporary skilled	Student	Special Category (New Zealand Citizen)	Working Holiday Maker	Other Temporary	Total temporary residents
623	8 026	4 998	439	11 914	25 996

Source: Temporary visa holders in Australia, ABS

These exceptionally high levels of migration are not expected to be sustained, at least in the near future, with the Australian Government's new migration strategy expected to target generally lower, pre-COVID-19, migration flows in coming years. This issue was raised multiple times by experts and stakeholders, even before the Australian Government announced its new migration strategy.

In our medium series migration assumptions, we have allowed for a small increased outflow of temporary migrants over the first three projection years for both NOM and NIM, after which both series are phased into their long-run assumptions by 2026-27.

GPO Box 147, Hobart TAS 7001
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Email: economic.analysis@treasury.tas.gov.au Visit: www.treasury.tas.gov.au

APPENDIX J

Owners Consent

Form No. 1

Owners' consent

Requests for amendments of a planning scheme or Local Provisions Schedule and applications for combined permits require owners' consent. This form must be completed if the person making the request is not the owner, or the sole owner.

The person making the request must clearly demonstrate that all owners have consented.

Please read the notes below to assist with filling in this form.

1. Request made by:

Name(s):	MC Planners 2/129 Bathurst Street, Hobart 7000
Email address	planning@mcplanners.com.au
Contact number:	0422505146

2. Site address:

Address:

21 Matipo Street, Risdon Vale 7016

Property identifier (folio of the Register for all lots, PIDs, or affected lot numbers on a strata plan):

CT 120636/3

3. Consent of registered land owner(s):

Every owner, joint or part owner of the land to which the application relates must sign this form (or a separate letter signed by each owner is to be attached).

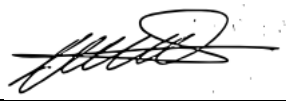
Consent to this request for a draft amendment/and combined permit application is given by:

Registered owner :	Matipo Twenty One Pty Ltd

Property identifier (folio of the Register for all lots, PIDs, or affected lot numbers on a strata plan):

120636/3

Position (if applicable):	Director

Signature:		Date:	30 October 2024

Registered owner (please print):	John Houndalas

Property identifier (folio of the Register for all lots, PIDs, or affected lot numbers on a strata plan):

Position (if applicable):	

Signature:		Date:	

Registered owner (please print):	

Property identifier (folio of the Register for all lots, PIDs, or affected lot numbers on a strata plan):

Position (if applicable):	

Signature:		Date:	

NOTES:

a. When is owners' consent required?

Owners' consent is required for:

- amendments to an interim planning scheme or to a Local Provisions Schedule[1]; or
- combined permits and amendments[2].

Owners' consent must be provided before the planning authority determines to initiate, certify or prepare the amendment.

b. Who can sign as owner?

Where an owner is a natural person they must generally sign the owner's consent form personally.

Where an owner is not a natural person then the signatory must be a person with legal authority to sign, for example company director or company secretary.

If the person is acting on behalf of the owner under a legal authority, then they must identify their position, for example trustee or under a power of attorney. Documentary evidence of that authority must also be given, such as a full copy of the relevant Trust Deed, Power of Attorney, Grant of Probate; Grant of Letters of Administration; Delegation etc.

Please attach additional pages or separate written authority as required.

c. Strata title lots

Permission must be provided for any affected lot owner and for common property for land under a strata title under the *Strata Titles Act 1998*. For common property, permission can be provided in one of the following ways:

i. a letter affixed with the body corporate's common seal, witnessed by at least two members of the body corporate (unless there is only one member, in which case the seal must be witnessed by that member) and which cites the date on which the body corporate or its committee of management met and resolved to give its consent to the application; or,

ii. the consent of each owner of each lot on the strata plan.

d. Companies

If the land is owned by a company the form is to be signed by a person with authority in accordance with the *Corporations Act 2001 (Cwt*h).

e. Associations

If the land is owned by an incorporated association the form is to be signed by a person with authority in accordance with the rules of the association.

f. Council or the Crown

If the land is owned by a council or the Crown then form is to be signed by a person authorised by the relevant council or, for Crown land, by the Minister responsible for the Crown land, or a duly authorised delegate.

The name and positions of those signing must be provided.

Effective Date: September 2021

[1] under section 33(1) of the former provisions of the *Land Use Planning and Approvals Act 1993* or section 37 of the current provisions.

[2] under section 43A of the former provisions or section 40T of the current provisions of the Act

7.3 LOCAL PROVISION SCHEDULE AMENDMENT REQUEST PDPSPAMEND-2024/048229 – 21 MATIPO STREET, RISDON VALE

EXECUTIVE SUMMARY

PURPOSE

The purpose of this report is for Council, acting as a Planning Authority, to consider the request made for an amendment to the Clarence Local Provisions Schedule (LPS) under section 37 of the *Land Use Planning and Approvals Act 1993* (LUPAA).

The draft amendment seeks to change the zoning of 21 Matipo Street, Risdon Vale from Rural Zone to General Residential Zone.

RELATION TO PLANNING PROVISIONS

The property is within the Rural Zone. It is also subject to the Parking and Sustainable Transport, Natural Assets, Bushfire-Prone Areas, Flood-prone Areas Hazard, Landslip Hazard and Safeguarding of Airports Codes.

LEGISLATIVE REQUIREMENTS

The report on this item details the basis and reasons for the recommendation. Any alternative decision will require a full statement of reasons in order to maintain the integrity of the Planning approval process and to comply with the requirements of the *Judicial Review Act 2000* and the Local Government (Meeting Procedures) Regulations 2015.

Section 37 of LUPAA provides for the Planning Authority to consider a request to amend the Clarence Local Provision Schedule (LPS).

In determining this matter, the Planning Authority must consider whether it is satisfied that the draft amendment meets the LPS criteria under Section 34 of LUPAA. The Planning Authority is required to make a decision in relation to this matter within the statutory period, which expires on 14 July 2025.

CONSULTATION

Unless directed otherwise by the Tasmanian Planning Commission, if Council agrees to a request to prepare a draft amendment to the LPS, it will then be subject to public exhibition and open for public comment for a period of 28 days, in accordance with statutory requirements.

FINANCIAL IMPLICATIONS

No significant implications.

RECOMMENDATION:

A. That, pursuant to Section 38(1) of the *Land Use Planning and Approvals Act 1993*, the Planning Authority is satisfied that the requested amendment of the Clarence Local Provisions Schedule (PDPSPAMEND-2024/048229) meets the LPS criteria under Section 34 and, pursuant to Section 38(2) of the Act, agrees to prepare a draft amendment to rezone the entire lot Volume 120636 Folio 3, known as 21 Matipo Street, Risdon Vale to General Residential Zone.

B. That, pursuant to Section 40F(2) of the *Land Use Planning and Approvals Act 1993,* the Planning Authority certifies that the draft amendment meets the requirements of the Act including the LPS criteria.

C. That pursuant to Section 40G of the *Land Use Planning and Approvals Act 1993*, the Planning Authority will publish an exhibition notice of the draft amendment and give the required notification and, pursuant to Section 40H of the Act place the draft amendment on public exhibition for a period of 28 days.

D. That the details and conclusions included in the Associated Report be recorded as the reasons for the Planning Authority's decision in respect of this matter.

Decision: **MOVED** Cr James **SECONDED** Cr Warren

"That the Recommendation be adopted".

Cr Mulder returned to the meeting at this stage (6.59pm).

The **MOTION** was **put** and **CARRIED**

FOR	**AGAINST**
Cr Blomeley	Cr Mulder (abstained)
Cr Chong	
Cr Darko	
Cr Goyne	
Cr Hulme	
Cr James	
Cr Kennedy	
Cr Ritchie	
Cr Walker	
Cr Warren	

Council now concludes its deliberations as a Planning Authority under the Land Use Planning and Approvals Act, 1993.