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9 September 2020

Our Ref:-43-2019/2-1
Your Ref:
Enquiries to: John Molnar

The Executive Commissioner
Tasmanian Planning Commission
GPO Box 1691
HOBART TAS 7000

Dear Sir/Madam

AMENDMENT 43.2019.3 5 ARTHUR HIGHWAY & LOT 1 ARTHUR HIGHWAY (CT 8740/1), SORELL – SORELL COUNCIL

I refer to the above application and advise that at its meeting on 1st September 2020 Council certified that Draft Amendment 43.2019.3.1 meets the requirements specified in Section s35(4) & s32 of the Act.

The proposed amendment will be advertised 09/09/2020 & 12/09/2020 for a period 14 Days

We have attached: Copy of the certified draft amendment in PDF format

Copy of supporting documents

Planner's Report to Council Meeting of 1st September 2020

Council Minutes of Meeting of 1st September 2020

Copy of Advertisement for 9th September 2020 & 12th September 2020

Copy of referrals to relevant agencies inc TasWater

The lodgement fee of \$324.00 for this application will be forwarded as soon as possible.

Should you wish to discuss the matter, or require any additional information please contact John Molnar or Jenny Richmond on ☎6269 0000 who will be happy to assist.

Yours sincerely

JOHN MOLNAR
SENIOR TOWN PLANNER



**DEVELOPMENT
ASSESSMENT
SPECIAL
COMMITTEE
(DASC)
AGENDA**

**COMMUNITY
ADMINISTRATION CENTRE
(CAC)**

1 SEPTEMBER 2020

NOTICE OF MEETING

Notice is hereby given that the next meeting of the Development Assessment Special Committee (DASC) will be held at the Community Administration Centre (CAC), 47 Cole Street, Sorell on Tuesday, 1 September 2020 commencing at 4:30 pm.

CERTIFICATION

I, Robert Higgins, General Manager of the Sorell Council, hereby certify that in accordance with Section 65 of the *Local Government Act 1993*, the reports in this Agenda have been prepared by persons who have the qualifications and experience necessary to give such advice. Information and recommendations or such advice was obtained and taken into account in providing general advice contained within the Agenda.

ROBERT HIGGINS
GENERAL MANAGER
27 August 2020



AGENDA

**FOR THE DEVELOPMENT ASSESSMENT SPECIAL COMMITTEE (DASC)
MEETING TO BE HELD AT THE COMMUNITY ADMINISTRATION CENTRE
(CAC), 47 COLE STREET, SORELL ON TUESDAY 1 SEPTEMBER 2020**

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1.0 ATTENDANCE

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Chairperson Mayor Vincent
Deputy Mayor N Reynolds
Councillor K Degrassi
Councillor V Gala
Councillor G Jackson
Councillor C Torenus
Councillor M Reed
Councillor D De Williams
Councillor B Nichols
Robert Higgins, General Manager

2.0 CONFIRMATION OF THE MINUTES OF 14 JULY 2020

RECOMMENDATION

“That the Minutes of the Development Assessment Special Committee (DASC) Meeting held on 14 July 2020 be confirmed.”

3.0 DECLARATIONS OF PECUNIARY INTEREST



In considering the following land use planning matters the Development Assessment Special Committee intends to act as a planning authority under the *Land Use Planning and Approvals Act 1993*.

4.0 LAND USE PLANNING

4.1 SCHEME AMENDMENT APPLICATION NO. 43.2019.3

APPLICANT: SORELL COUNCIL

PROPOSAL: PLANNING SCHEME AMENDMENT APPLICATION TO REZONE FROM PARTICULAR PURPOSE ZONE 1 - URBAN GROWTH ZONE TO GENERAL RESIDENTIAL

ADDRESS: 5 ARTHUR HIGHWAY (CT 16027/1) & LOT 1 ARTHUR HIGHWAY (CT 8740/1), SORELL

RECOMMENDATION

That in accordance with the provisions of the *Land Use Planning and Approvals Act 1993* Draft Amendment No. 43.2019.3 of the *Sorell Interim Planning Scheme 2015*, relating to 5 Arthur Highway and Lot 1 Arthur Highway, Sorell, Council resolves that the report of the Senior Planner be received and that:

1. In accordance with 34(1) (b) of the former provisions of the Land Use Planning and Approvals Act 1993, Council initiates draft Amendment 43.2019.3.
2. In accordance with section 35 of the former provisions of the Land Use Planning and Approvals Act 1993, Council certifies draft Amendment 43.2019.3. as meeting the requirements of section 32 of the Act.
3. In accordance with section 35(4) of the former provisions of the Land Use Planning and Approvals Act 1993, Council forwards a copy of the sealed Instrument of Certification and the draft amendment to the Tasmanian Planning Commission.
4. In accordance with section 56S of the Water and Sewer Industry Act 2008, Council refers draft Amendment 43.2019.3.to TasWater.
5. In accordance with section 38 of the former provisions of the Land Use Planning and Approvals Act 1993, Council place draft Amendment 43.2019.3 on public exhibition for a period of 28 days following certification.



AGENDA

DEVELOPMENT ASSESSMENT SPECIAL COMMITTEE (DASC) MEETING
1 SEPTEMBER 2020

INTRODUCTION

This report considers Council's proposal to amend the Sorell Interim Planning Scheme 2015 (SIPS 2015) pursuant to Section 34 of the former provisions of the Land Use Planning and Approvals Act 1993 (LUPAA).

It is Council's intention to rezone that portion of the subject properties from the current Particular Purpose Zone 1 – Urban Growth Zone to General Residential whilst retaining the current Open Space Zone and Particular Purpose Zone 2 – Future Road Corridor. The application involves the rezoning of approximately 16.89ha of the currently zoned PPZ 1 to General Residential.

The owner of the properties has provided consent and provided supporting documentation to assist Council's application to the Tasmanian Planning Commission.

The properties includes 5 Arthur Highway and Lot 101 Arthur Highway (CT 8740/1).



Figure 1 - aerial image highlighting the properties.

It is considered that the following assessment of the relevant strategic matters provides sufficient evidence on which to base a decision on whether to initiate and certify the amendment as suitable for public exhibition.

If Council endorses this application, the initiated / certified draft amendment will then be forwarded to the Tasmanian Planning Commission (TPC) and will also be recommended to be publicly exhibited for a period of 28 days. A report on any representations received within this period of time will be tabled at a future Council meeting under section 39 of LUPAA and any recommendations in relation to the representations forwarded to the TPC for their further assessment and decision.

The purpose of this report is to consider the initiation and subsequent certification of the proposed amendment pursuant to sections 32 and 35 of the former provisions of LUPAA. It is considered that this amendment provides benefits to the community by ensuring that land which is zoned Future Urban is development ready to maximise the land supply available given the present development pressure and the lag time between subdivision approval and titles being issued.

Strategic Plan

It is considered that this proposed planning scheme amendment will assist in achieving the appropriate strategic objectives of the Sorell Community Strategic Plan 2019 -2029 particularly Objective 1 “ – *To Facilitate Regional Growth and aiming to attract people with its affordable housing and close proximity to services and the City.*”

Community Implications

Such an application must take into account all relevant issues and demonstrate consistency with the *Sorell Interim Planning Scheme 2015*, the requirements of the *Land Use Planning and Approvals Act 1993* and the relevant State Policies.

It must also be consistent with the objectives of the RMPS and the planning principles, strategic directions and *as far as practicable be consistent* with regional policies including the *Southern Tasmania Regional Land Use Strategy 2010-2035 (STRLUS)*.

It is considered that this amendment provides compliance with the abovementioned and in particular with the LUPAA & associated objectives which include the promotion of sustainable development and provision for the fair, orderly and sustainable use and development of air, land and water.

The amendment approval process will provide for formal consultation through public exhibition and provision for public hearings, if deemed necessary, by the TPC.



Representations

This is not applicable at this stage as the scheme amendment process allows for receipt of public submissions, during the public exhibition period, if Council certifies this draft amendment. Such submissions would then be subject to further assessment and the provision of a s.39 report to Council for consideration which will subsequently be forwarded to the TPC.

Referrals

In accordance with section 56S of the Water and Sewer Industry Act 2008, Council as the planning authority, must refer to the relevant regulated entity, being TasWater, this application under section 34 if it initiates and certifies the planning scheme amendment.

The Department of State Growth will also be notified, as the property adjoins / accesses the Arthur Highway, for any comments that they may have concerning the application.

The abovementioned agencies, if they lodge formal responses / representations, may then decide to be heard at any subsequent Commission hearing.

The application was also considered at an internal development officer meeting of the 12 August 2020 and the following response were received.

The Manager of Regulatory Services advised;

“The application is to re-zone land at 5 Arthur Hwy Sorell to residential.

The land has previously been used for agriculture (grazing) however a more detailed site history will be required to ensure that there hasn't been any previous activities conducted on the property which may have contaminated the land.

The Northern boundary of the property adjoins Quinn's transport depot and residential development close to the depot will create potential land-use conflicts. Residents near the depot will be subject to dust and noise from vehicles and machinery. A future subdivision will likely need to incorporate suitable buffers distances and/or noise and dust barriers to reduce the impacts to an acceptable level.

Residential lots located close to the future Sorell by-pass will be subject to traffic noise, a future subdivision application will need to assess the noise levels against the Tasmanian State Road Traffic Noise Management Guidelines October 2015.

The land adjoins the Sorell Rivulet, the below map indicates the inundation risk, most of the land is well above the flood level.





Response; The owner of the land was contacted concerning the abovementioned issue raised *"The land has previously been used for agriculture (grazing) however a more detailed site history will be required to ensure that there hasn't been any previous activities conducted on the property which may have contaminated the land."* A subsequent response was provided from the previous owner who stated by email dated 17 August 2020;

"I Perry McGinniss am the previous owner of the land located at Arthur Hwy Sorell, I wish to advise you that the land was only ever Cropped and used for Grazing Stock."

The Manager of Regulatory Services has confirmed that he is satisfied with this response.

The Engineering Manager – Projects and Development, has provided his referral on 18 August 2020 stating;

"This application is for a Scheme Amendment for the property located at 5 Arthur Highway, Sorell. The original proposal plan showed a residential development of the land with 166 lots. However, the TIA, produced by Milan Prodanovic, claimed a maximum yield of 250 lots. Further potential proposals have shown a future school site plus residential lots."

The application was forwarded to the Department of State Growth (DSG) for their comments as the property fronts the Arthur Highway where access is to be gained. In summary, DSG has stated that they have no objection in principle to the development as long as the junctions to the State Road can operate safely and without adversely affecting the Arthur Highway.

The junction with Pawleena Road will be required to be upgraded to provide a minimum Level of Service (LoS) as identified in the Traffic Impact Assessment (TIA). The design of any upgrade must be to the satisfaction of DSG and no works would be allowed in the State Road reservation without first obtaining a Permit from the Minister for Infrastructure.

DSG also stated that any new access road off the Arthur Highway must be opposite Pawleena Road and this is supported by Council's engineering team. This allows for a round-a-bout to be constructed at this location which will extend the efficient operation of traffic at the intersection for a number of years. The TIA offered the choice of a CHR right turn lane to gain access off the highway and into the subdivision but this would only work for a shorter time and would require the access to be a minimum of 45m west of the Pawleena Road intersection. This is not acceptable to both DSG and Council as stated above. The TIA also stated that the installation of a CHR and AUL turn treatments are not recommended if a round-a-bout is to be installed at the junction.

A round-a-bout also allows greater ease of access for the two subdivisions off eastern side of Pawleena Road where Council have conditioned their planning permits to receive contributions from the developer toward the construction of the round-a-bout. If this rezoning is successful, and becomes a subdivision application, Council would issue a similar condition for a contribution toward a traffic calming device (round-a-bout) on the highway.

The construction of the Sorell (Arthur Highway) Bypass will only benefit the intersection by reducing the number of vehicles using this section of road. The construction of the round-a-bout will need to be organised and paid for by Council with some reimbursement coming from the developer's contributions as titles are created.

There has also been discussions regarding connectivity from the proposed subdivision to the Sorell CBD via a bridge over Sorell Rivulet to Fitzroy Street. This proposal will require access through the existing Sorell Tennis Club courts. The TIA suggests that Council, instead, look at a connection off the 90 degree corner in Parsonage Place near Perry McGinness' workshop. This would give connectivity to existing roads at the northern and southern extremes of the land.

Any proposed subdivision design must allow road connectivity to the land on the eastern side of the future bypass with enough road reserve to allow for an overpass over this bypass."



Date of Receipt of Application

Not applicable

REPORT

The proposal seeks to amend the SIPS 2015 in accordance with section 34 (1) (b) of the LUPAA.

The area for the purpose of the rezoning is shown in figure 1 relating to 5 & lot 1 Arthur Highway, Sorell which are currently zoned PPZ 1 – Urban Growth Zone (yellow coloured below)

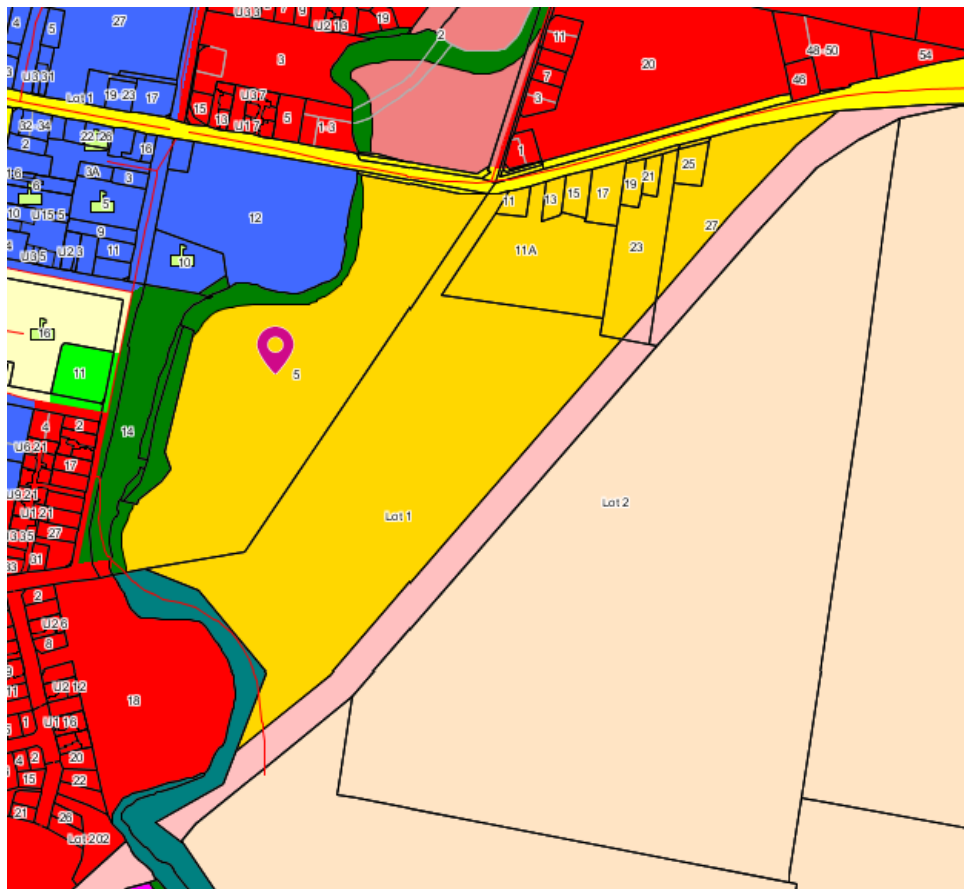


Figure 2 - Current land use zoning – dark green as Open Space Zone, yellow as Particular Purposes Zone 1 – Urban Growth Zone and pink as Particular Purposes Zone 2 – Future Road Corridor

Council is initiating this planning scheme amendment, however, to support this proposal the owner of the properties has assisted by providing supporting documentation from Ireneinc & Smith Street Studio, Planning and Urban Design.

A full copy of the supporting documents is provided on the Councillor's F: Drive, which should be read in conjunction with this agenda item and includes;

- Planning Scheme Amendment Planning Report by Ireneinc consultants updated 22/04/2020 including Natural Values Assessment together with an Ecological Assessment Report undertaken by Environmental Consulting Options Tasmania (ECOtas), owner's consent and title information;
- Traffic Impact Assessment report by Milan Prodanovic dated February 2020;
- Sorell to Hobart Planning Study – Land Use Planning Report dated 20/02/2019; and
- Land Supply and Demand assessment report by ERA Planning Environment, Caroline Lindus dated 20/07/2020.

THE SITE

The site is located on the eastern edge of the Sorell Township (see figure 1). The property is improved by an existing dwelling and associated outbuildings whilst used for farming purposes.

There are 2 properties subject to this planning scheme application, identified as:

<i>Property Address</i>	<i>Title Reference Number</i>	<i>Area of land (approximate)</i>
5 Arthur Highway, Sorell	CT 16027/1	7.522ha
Lot 1 Arthur Highway, Sorell	CT 8740/1	12.58ha



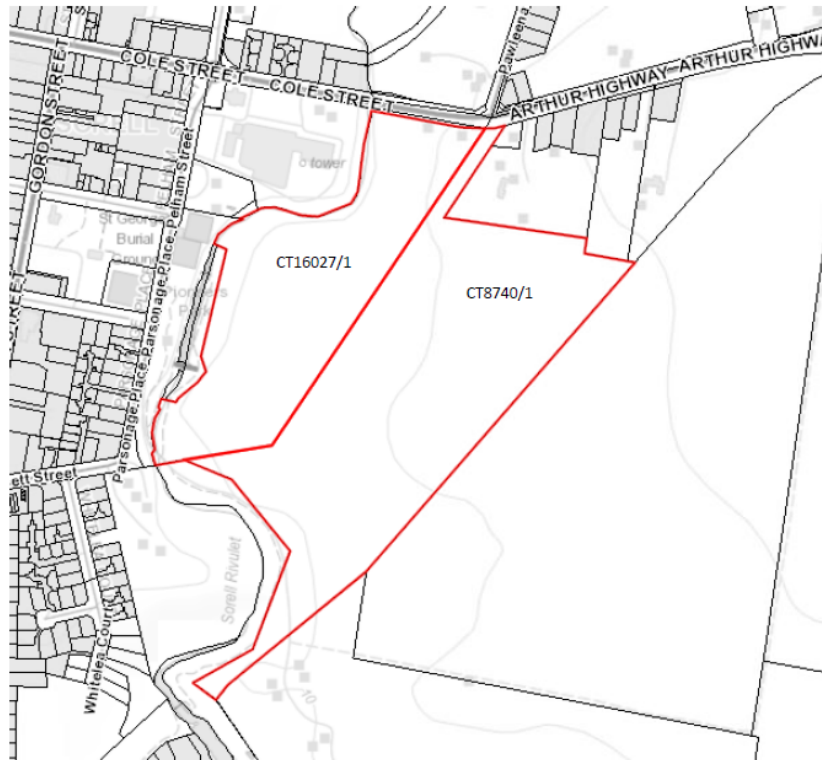


Figure 2: Titles (source: www.theLIST.tas.com.au © State of Tasmania)

Figure 3 – Land titles

The site is bordered on its western edge by the Sorell Rivulet and the adjacent built up area of the Sorell Township. To the north is the main road into Sorell being the Arthur Highway and further north land approved for residential subdivision on Greenfield land off Pawleena Road. To the east the land is together with an approximately 35m width strip along the eastern edge designated for a future Highway Bypass of the Sorell Township ie. future road corridor. Further east are properties used for agricultural purposes but which have been identified for future urban growth by Council's local strategic report by Echelon consultants (Sorell Land Supply Strategy). To the south are the coastal waters designated as a RAMSAR site associated with the Pitt Water - Orielson Lagoon

Land Use Planning and Approvals Act 1993

In accordance with s.33(1) of the Act, a person may request a planning authority to amend a planning scheme administered by it. In accordance with s.33(2B), *before making a decision as to whether or not to initiate an amendment of the planning scheme, the planning authority must consider –*

- (a) *whether the requested amendment is consistent with the requirements of section 32; and*
- (b) *any advice referred to in section 65 of the Local Government Act 1993 received by it.*

Under s.32 *an amendment of a planning scheme –*

- (a)
- (b)
- (c)
- (d)
- (e) *must, as far as practicable, avoid the potential for land use conflicts with use and development permissible under the planning scheme applying to the adjacent area; and*
- (ea) *must not conflict with the requirements of section 300; and*
- (f) *must have regard to the impact the use and development permissible under the amendment will have on the use and development of the region as an entity in environmental, economic and social terms.*

In accordance with s.65 of the *Local Government Act 1993*, the Council must take into account the advice provided by a person with the necessary qualifications and experience necessary to give such advice. This report is prepared by such a person and provides the appropriate advice and recommendations.

STRATEGIC DISCUSSION & JUSTIFICATION:

Southern Tasmania Regional Land Use Strategy

The STRLUS has been implemented to provide guidance and direction for future development and use in the Southern Region. Section 300 of the former provisions of LUPAA requires that a proposed amendment must be consistent with the STRLUS.

The supporting document from Ireneinc has provided a specific response to the STRLUS, see pages 17 -25 including;

Section 5 Biodiversity and Geodiversity.

This section considers that ecological matters should be “taken into account in the planning of urban growth and land use zoning”. Accompanying the supporting documentation are Natural Value & Ecological studies undertaken which have confirmed that no threatened flora or fauna species exist on the property. RAMSAR site and have listed declared weeds. It is considered that appropriate consideration has been made to this section of STRLUS and that matters concerning weed control can be addressed at the time that a development application (subdivision) is being considered and incorporated as a permit condition.



Section 6 Water Resources

This section considers high value priority wetlands such as RAMSAR listed areas eg. Pittwater – Orielton Lagoon which extends up the Sorell Rivulet. It is considered that sufficient safeguards would be in place for appropriate assessments under the SIPS concerning such matters as storm water quality and quantity as evident in the current Stormwater Management Code and Waterways and Coastal Protection Code. It is however noted that the land is presently under agricultural use with limited native vegetation as confirmed by the ecological report.

These matters would be considered at the time that a development / subdivision application is under consideration by Council acting as the Planning Authority.

Section 8 Managing Risks and Hazards

This section deals with risk to loss of life and property. Bushfires are considered and as such it is noted that the property is within a bushfire prone area however such land to the east is under agricultural use with an additional buffer provided by the proposed eastern Sorell Highway By-pass. Consequently it is considered that the properties may be able to maintain a Bushfire Hazard Management Area within its boundaries. This can often also be mitigated by other means such as colourbond perimeter fencing. This matter would be appropriately considered at the time that a development / subdivision application is under consideration by Council acting as the Planning Authority.

Section 19 Settlement and Residential Development

Sorell is identified as a Major Satellite of Greater Hobart and the subject properties as being within the Urban Growth Boundary and as “Greenfield Development Precinct” in STRLUS.

This proposed planning scheme amendment is considered to be consistent with the intended means of managing Greenfield growth and as a “Greenfield Development Precinct” identified as “Sorell Township East” in STRLUS.

It is considered that this planning scheme amendment is appropriate and logical release of residential land and is strategically aligned with STRLUS.

Strategic Reports including Sorell Land Supply Strategy – updated 2019 and Sorell to Hobart Planning Study - Land Use Planning Report

The local strategic plan Sorell Land Supply Strategy by Echelon updated 2019 has provided a detailed strategic assessment supporting the rezoning of these properties as Stage 1 stating that it “... should be zoned General Residential immediately”. This is based on their supply and demand assessment.



Stage 3 Masterplans has provided strategic master planning which included the subject properties stating;

“Staging

The masterplan will be implemented over a number of stages (refer to Figure 7), with rezonings occurring when Sorell’s greenfield residential land supply falls below a 15 year supply (i.e. 1,012 lots, being 70% of the dwellings required from 2019 to 2033 as per Table 14 of the Stage 1 report). Additional stages have been identified in case the rate of growth increases, or in case a school is constructed, and to ensure a good ongoing supply of land so that the supply is not restricted.

The areas for each stage are provided in Table 2.

The rate of growth and the development densities should be monitored regularly to ascertain whether these staging assumptions need to be revised and whether the net density of 15 dwellings per hectare is being achieved. The timing of the Stages is likely to be as follows (having regard to 70% of the annual totals as per Table 14 of the Stage 1 report):

- *Stage 1 – Rezone to General Residential now – This land is already in the Particular Purpose (Urban Growth) Zone and should be zoned General Residential immediately. The Sorell Land Use Strategy identifies it as part of the existing Greenfield land supply (i.e. the 9.5 years of existing supply identified in the Stage 2 report). By developing this at increased residential densities, the Stage 1 land will be able to provide a greater number of dwellings than if the standard 15 dwellings per net developable hectare density is applied. Table 2 assumes that if an average lot size of 300sqm is applied to this land, it could yield 434 dwellings. However, as it may take some time for the demand for higher density housing to increase in Sorell, the current shortfall in dwellings should continue to be provided with conventional density land that complements this higher density offering.*

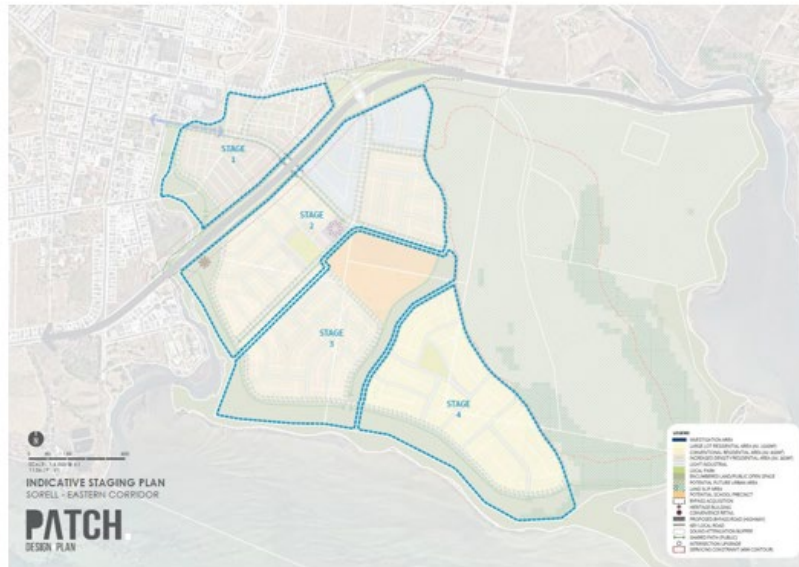


Figure 7. Sorell Township Growth Area Staging Plan

This agenda report should also be read in conjunction with the Sorell to Hobart Planning Study - Land Use Planning Report dated 20/02/2019. It is noted that this report considered both the Clarence City Council and Sorell Council. Under recommendations on page 25 this report states *“Support Sorell Council to implement their strategic plan for the township of Sorell in particular, recognising the LGA is not providing adequate residential land to accommodate future growth.”*

The author of this report was requested by Council to consider further demographic and other spatial changes since the abovementioned report was finalised in February 2019. As a result a Land Supply and Demand assessment report by ERA Planning Environment, Caroline Lindus dated 20/07/2020 was provided. This report states under “Analysis”;

“That in considering the 947 potential lots existing under the current supply scenario, and the current annual growth rate of 3% currently experienced in the Sorell municipality, there is adequate land to meet housing needs until 2023, inclusive of holiday home housing development, subject to the majority of available General Residential and Low Density Residential lots being developed. This represents land supply of 3 years. If the conservative annual growth rate of 1.5% - for which there is no evidence of that level of slowing – is adopted, there would be adequate residential land supply until 2028. As you are aware, best practice across jurisdictions in Australia is to maintain a rolling supply of land identified for residential purposes of between 10 to 15 years. This is in recognition of the relatively long lead time to bring land to market as lots suitable for development (the planning

pipeline is generally around 4 to 5 years) and to ensure that the land supply is not unreasonable restricted or controlled by a limited number of landowners for affordability reasons⁴. It is therefore clear that even at a conservative growth rate estimate of 1.5% per annum, the current supply of residential land is inadequate.”

The proposal provides for more efficient use of existing road, telecommunication and electricity infrastructure and services and is unlikely to create new demand for unplanned infrastructure provision. The proposed rezoning will particularly provide opportunities for affordable housing options which accords with the fair use and development of land. Overall the proposed amendment provides an important opportunity to increase residential land supply in response to the future housing demands and needs for Sorell and more broadly Greater Hobart.”

STATUTORY ASSESSMENT

The draft amendment is assessed against the provisions of s32 of the Act. However, it should be noted that these sections of the Act refer to the former provisions of the Act as defined in Schedule 6 – Savings and transitional provisions of the Land Use Planning and Approvals Amendment (Tasmanian Planning Scheme Act) 2015. These former provisions apply to an interim planning scheme that was in force prior to the commencement day of the Land Use Planning and Approvals Amendment (Tasmanian Planning Scheme Act) which was 17 December 2015 which is the case for SIPS 2015.

Potential Land Use Conflicts

Section 32(e) of the former provisions of LUPAA requires that planning scheme amendments must avoid the potential for land use conflicts in adjacent planning scheme areas. The additional residential land will provide a logical continuation of that which exists in the Sorell Township. The proposed rezoning presents a positive regional impact as it is consistent with the finding for demand and the recommended area for expansion described in the structure plan (Echelon) and offers a logical extension of existing residential land. Indeed the demand for additional affordable housing goes beyond the immediate area as it will assist with the demand from the region as a whole.

Tasmanian Planning Scheme

This rezoning to General Residential under the SIPS will be a simple like for like translation into the new statewide scheme. There are no perceived inconsistencies or issues arising from this draft amendment relative to the new scheme.



Pursuant to section 34 (1) (b) of the former provision of LUPAA, a planning authority, on its own motion, initiate and amendment of a planning scheme administered by it.

It is noted that the draft Local Provisions Schedule was endorsed by Council on the 25 June 2019 and these properties were likewise proposed to be amended to General Residential from the current Particular Purpose Zone 1 – Urban Growth Zone. The draft LPS is currently before the Tasmanian Planning Scheme in the initial review stage following two post lodgement meetings.

Conflict with the requirements of section 300

Section 32(ea) of the former provisions of LUPAA require that planning scheme amendments must not conflict with the requirements of section 300 of the former provisions of LUPAA.

Section 300 of the former provisions of LUPAA requires that an amendment to an interim planning scheme is as far as practicable, consistent with the regional land use strategy (i.e. STRLUS). The proposed amendment is in relation to the current SIPS 2015. As discussed in this report the proposal is considered to be consistent with STRLUS. No conflict with common provisions or other local provisions of the Scheme is evident. In consideration with the issues discussed under the STRLUS the proposal is considered to meet the requirements of s300 of LUPAA.

Impact on the Use and Development of the Region – Section 32(1) (f)

Section 32(f) of the former provisions of LUPAA require that planning scheme amendments must have regard to the impact that the use and development permissible under the amendment will have on the use and development of the region as an entity in environmental, economic and social terms.

This proposal is also considered to be consistent with the STRLUS noting that the land is within the Urban Growth Boundary and the conclusions of the local strategic report from Echelon and updated supply and demand report from ERA consulting.

OBJECTIVES OF SCHEDULE 1 OF THE LAND USE PLANNING AND APPROVALS ACT 1993

The following table assesses the draft amendment against the objectives of Schedule 1 of the LUPAA.

Objectives of Schedule 1 of the Land Use Planning and Approvals Act 1993	
Part 1 Objectives	
Objective	Response
(a) <i>to promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity.</i>	<p>This application furthers this objective through providing sound and reasonable greenfield residential development as the property does not contain natural values and there are no apparent development constraints.</p> <p>A Natural Values Assessment together with an Ecological Assessment Report undertaken by Environmental Consulting Options Tasmania (ECOtas) dated 22 October 2019. This report found no significant natural values on the subject properties ie. no listed threatened flora or fauna species but identified declared weeds. The report also identified an adjoining area within the Sorell Rivulet that forms part of the RAMSAR site ie. adjoining Lot 1 and a small portion of the southern edge of 5 Arthur Highway. The author of this report has not raised any identified issues but rather has identified this fact and potential requirements concerning any future use or development (in particular subdivision). The application is considered to have met this objective.</p>

<p><i>(b) to provide for the fair, orderly and sustainable use and development of air, land and water</i></p>	<p>Land Supply and Demand assessment report by ERA Planning Environment, Caroline Lindus dated 20/07/2020 stated “Analysis In considering the 947 potential lots existing under the current supply scenario, and the current annual growth rate of 3% currently experienced in the Sorell municipality, there is adequate land to meet housing needs until 2023, inclusive of holiday home housing development, subject to the majority of available General Residential and Low Density Residential lots being developed. This represents land supply of 3 years. If the conservative annual growth rate of 1.5% - for which there is no evidence of that level of slowing – is adopted, there would be adequate residential land supply until 2028. As you are aware, best practice across jurisdictions in Australia is to maintain a rolling supply of land identified for residential purposes of between 10 to 15 years. This is in recognition of the relatively long lead time to bring land to market as lots suitable for development (the planning pipeline is generally around 4 to 5 years) and to ensure that the land supply is not unreasonable restricted or controlled by a limited number of landowners for affordability reasons⁴. It is therefore clear that even at a conservative growth rate estimate of 1.5% per annum, the current supply of residential land is inadequate.”</p> <p>The proposal provides for more efficient use of existing road, telecommunication and electricity infrastructure and services and is unlikely to create new demand for unplanned infrastructure provision. The proposed rezoning will particularly provide opportunities for affordable housing options which accords with the fair use and development of land. Overall the proposed amendment provides an important opportunity to increase residential land supply in response to the future housing demands and needs for Sorell and more broadly Greater Hobart.</p>
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<p>(c) <i>To encourage public involvement in resource management and planning</i></p>	<p>The proposal is subject to ordinary statutory requirements for public consultation which in this case will comprise the minimum 28 day public exhibition period. This process allows Council and the Commission to consider any public submissions provided during this period of time including any from infrastructure providers such as TasWater and the Department of State Growth.</p> <p>Future applications for use or development (such as subdivision) on land subject to the proposed amendment may involve public processes as required by the SIPS or subsequent planning scheme documents.</p>
<p>(d) To facilitate economic development in accordance with the objectives set out in paragraphs (a), (b) and (c)</p>	<p>The proposal is considered to facilitate economic development through the future development of the land for residential purposes and consequently strengthen the economic viability of the adjacent Sorell Township by increasing the local population, consistent <i>with the objectives set out in paragraphs (a), (b) and (c)</i>.</p> <p>The application is considered to have met this objective.</p>
<p>(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</p>	<p>The proposal is subject to ordinary statutory requirements for the rezoning of land at local and state levels and includes the involvement of the local community, industry and infrastructure providers.</p> <p>The application is considered to have met this objective.</p>

Part 2 Objectives	
Objective	Response
(a) <i>To require sound strategic planning and coordinated action by State and Local Government</i>	<p>The subject lands are located within the Sorell Township which is considered in the local strategic report “Sorell Land Supply Strategy – updated 2019” and the urban growth boundary as determined by STRLUS. The proposal is deemed to be consistent with the regional land use strategy, STRLUS and as such represents sound strategic planning.</p> <p>The application is considered to have met this objective.</p>
(b) <i>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</i>	<p>The proposed amendment is considered to be consistent with the established framework for Tasmania’s planning system and associated instruments as set out in the LUPAA. It will allow for the future development of the land to be considered against the provisions of the planning scheme.</p>
(c) <i>to ensure that the effects on the environment are considered and provide for explicit consideration of social & economic effects when decisions are made about the use and development of land</i>	<p>All matters related to the future use and development will be considered through the provisions of the planning scheme as part of any future development / use applications.</p> <p>The planning scheme includes a number of development / use standards and codes to manage development including subdivision standards, bushfire management, vehicular access and storm water management.</p>
(d) <i>to require land use & development planning & policy to be easily integrated with environmental, social, economic, conservation and resource management policies at State, regional and municipal levels;</i>	<p>It is considered that the proposal allows for the required integration of land use and development planning with environmental, social, economic and resource management policies. This is demonstrated through the supporting documents which respond to various requirements including the relevant State Policies, the STRLUS and the Sorell Land Supply Strategy – updated 2019.</p>

(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;	Not directly applicable.
(f) to secure a pleasant, efficient and safe working, living and recreational environment for all Tasmanians and visitors to Tasmania;	<p>The proposal is considered to contribute to addressing this objective by facilitating residential greenfield development adjoining the established Sorell Township which provides many commercial, recreational opportunities.</p> <p>The application is considered to have met this objective.</p>
(g) to conserve those buildings, areas or other places which are scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value	<p>There are no listed buildings or other place with scientific, aesthetic, architectural or historical interest affected by this proposed planning scheme amendment.</p> <p>An Aboriginal assessment was undertaken by Cultural Heritage Management Australia which identified that there is one Aboriginal Heritage site present on the subject site and recommends that “proposed subdivision should be designed to avoid impact on the Aboriginal Heritage site”. The application is considered to have met this objective.</p>
(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;	<p>The proposal is not considered to impact upon public infrastructure but rather will enable the orderly provision and coordination of public utilities and other facilities for the benefit of the community.</p> <p>Service providers were consulted and provided input into the local strategic document Sorell Land Supply Strategy updated 2019 by Echelon consultants and it is understood that they considered this to be a logical urban progression.</p> <p>TasWater will be contacted for their input if Council initiates this application, in accordance with section 56S of the Water and Sewer Industry Act 2008. The Department of State Growth will likewise be notified.</p> <p>The application is considered to have met this objective.</p>

(i) To provide a planning framework which fully considers land capability;	<p>Assessment of this proposal throughout this Council planning report is considered to provide justification for the subject lands to be rezoned to General Residential.</p> <p>It is considered that the property is best suited to General Residential in order to provide for the sustainable residential growth for the Sorell Township and the municipality in general. Such residential growth is both sustainable and affordable.</p>
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STATE POLICIES

State Policies are made under the *State Policies and Projects Act 1993*. As specified by section 13C of this Act, the Council is bound by State Policies and under section 13(1), if a Planning Scheme is inconsistent with a State Policy; the Planning Scheme is void to the extent of that inconsistency. The proposed draft amendment is assessed against the provisions of the relevant State Policies.

State Coastal Policy 1996

All the properties are within the 1km Coastal Zone defined by the State Coastal Policy 1996. However, the proposed zoning and future likely development of the land/waters are not considered to have any significant impact on the coastal environment. The three main principles of this policy are;

1. *Natural and cultural values of the coast shall be protected.*
2. *The coast shall be used and developed in a sustainable manner.*
3. *Integrated management and protection of the coastal zone is a shared responsibility.*

Furthermore in Section 2.4 under the title "Urban and Residential Development the following requirements are stated;

2.4.1 Care will be taken to minimise, or where possible totally avoid, any impact on environmentally sensitive areas from the expansion of urban and residential areas, including the provision of infrastructure for urban and residential areas.

2.4.2 Urban and residential development in the coastal zone will be based on existing towns and townships. Compact and contained planned urban and residential development will be encouraged in order to avoid ribbon development and unrelated cluster developments along the coast.



2.4.3 Any urban and residential development in the coastal zone, future and existing, will be identified through designation of areas in planning schemes consistent with the objectives, principles and outcomes of this Policy.

The proposed amendment relates to land already identified for urban purposes in both the STRLUS and the Sorell Land Supply Strategy updated 2019 both of which had regard to the State Coastal Policy 1996. As stated below in the next state policy there is provision for storm water management in the planning scheme to appropriately address off site issues.

The planning scheme standards and existing codes are seen to provide the necessary future assessment tools in order to accommodate the protection of the natural and cultural values of the coast. It is considered that the amendment would comply with the intent of the coastal policy.

The draft amendment is therefore considered to be consistent with this policy.

State Policy on Water Quality Management 1997

It is considered there are sufficient provisions eg. development standards application to the respective zone and to associated codes contained within the SIPS 2015 to manage any offsite impacts on water quality and accordingly the draft amendment is considered to be consistent with the State Policy on Water Quality Management 1997.

It is considered that the risk of sediments being transported into surface waters such that environmental harm might be caused during development will be dealt with by future subdivision and development conditions in accordance with regional guidelines for best practice and with compliance with the Storm water Management Code under the SIPS.

The draft amendment is therefore considered to be consistent with this policy.

State Policy on the Protection of Agricultural Land 2009

The subject lands are within the built up area of the Sorell Township State Policy on the Protection of Agricultural Land 2009. It is also in the designated Urban Growth Boundary under STRLUS.

The recent Statewide Tasmanian Agricultural Estate mapping project designated these properties as “Excluded from the Study Area” and therefore deemed them not suitable for agricultural use nor intended to be incorporated into either of the impending agricultural zones in the state wide planning scheme (Tasmanian Planning Scheme).

Consequently the subject properties are not “Agricultural Land” for the purposes



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

National Environmental Protection Measures (NEPMs)

The National Environmental Protection Measures relate to:

- Ambient air quality;
- Ambient marine, estuarine and fresh water quality;
- The protection of amenity in relation to noise;
- General guidelines for assessment of site contamination;
- Environmental impacts associated with hazardous wastes; and
- The re-use and recycling of used materials.

The abovementioned listed NEPMs are not considered applicable to this amendment.

Zones

The application intends to amend that portion of the subject properties which are currently zoned PPZ 1 – Urban Growth Zone under which the relevant section 32.1 of the Scheme describes Zone Purpose Statements as;

32.1.1 Zone Purpose Statements

32.1.1.1

To identify non-urban land intended to be largely converted to urban use and development in the future.

32.1.1.2

To ensure that the development of the identified non-urban land does not compromise its potential for future urban use and development.

32.1.1.3

To support a land release program of rezoning of non-urban land into urban land in accordance with the Greater Hobart Settlement Strategy (Southern Tasmania Regional Land Use Strategy 2010–2035).

The present zoning has effectively maintained the properties so that there have been no development impediments since the present planning scheme came into effect in May 2015. It is clear that these properties have been designated for future “urban use and development”. Council’s local strategic plan by Echelon updated in 2019 together with the supporting report by Ireneinc and supply and demand analysis by ERA planning consultants give clear support for this amendment.



In comparison the intended General Residential zone under clause 10.1 has the following relevant section 10.1.1 Zone Purpose Statements as follows;

10.1.1.1

To provide for residential use or development that accommodates a range of dwelling types at suburban densities, where full infrastructure services are available or can be provided.

10.1.1.2

To provide for compatible non-residential uses that primarily serve the local community.

10.1.1.3

To provide for the efficient utilisation of services.

10.1.1.4

To manage new development within the Southern Beaches in a manner consistent with its established character and density while preventing further subdivision until the provision of planned reticulated water and sewerage infrastructure occurs.

It is considered that the subject properties have reached a time in which a general residential zone better reflects the intended and required urban use of the land as shown by the current diminished supply and high demand for residential land. Council's local strategic plan by Echelon, together with the supporting report by Ireneinc and supply and demand analysis by ERA give clear support for this amendment. The consensus is that its time has come to be rezoned to allow for urban development.

Codes

It is considered that the following Codes, including the last two adjacent the Sorell Rivulet, are more appropriately considered at any future development / subdivision application stage.

- E1.0 Bushfire Prone Areas Code
- E5.0 Road and Railway Assets Code
- E6.0 Parking and Access Code
- E7.0 Stormwater Management Code
- E11.0 Waterway and Coastal Protection Code
- E15.0 Inundation Prone Code





Figure 4 - Current hazard mapping associated with Codes – light blue as being Waterways and Coastal Protection Code, dark blue for Inundation Code

Potential for Land Use Conflict

The subject property adjoins the Sorell Rivulet and the Sorell Township to the west, the Arthur Highway and further residential development to the north. The Sorell east Bypass is part of Lot 1 Arthur Highway and will remain as PPZ 2 – Future Road Corridor and as such provides a buffer between rural lands to the east.

Any future subdivision would be required to consider existing land uses including the future highway bypass of the Sorell Township in the design of lots to mitigate potential concerns such as traffic noise etc.

It is considered that the potential for land use conflict has been duly assessed in the context of the application for a planning scheme amendment.

CONCLUSION

The proposed scheme amendment seeks to convert land currently zoned PPZ Zone 1 – Urban Growth Zone to General Residential to allow for the orderly strategic extension of the Sorell Township and to provide for future suitable lots for housing options. The land has qualities that make it highly suitable for residential development such as accessibility, aspect and proximity to services.

The scheme amendment is considered to be supported by relevant local and

regional strategies and plans and is consistent with all relevant policies and legislation. The scheme amendment will also assist to satisfy a proven demand for additional residential land in appropriate locations ie within the designated urban growth boundary as determined in STRLUS.

The application has been assessed taking all relevant issues into account and as a result of assessment of the draft amendment the proposal is considered to demonstrate consistency with the Sorell Interim Planning Scheme 2015, Sorell Community Strategic Plan 2019 -2029, the requirements of the Land Use Planning and Approvals Act 1993 and the relevant State Policies. The proposal is considered to be consistent with the objectives of the RMPS and the planning principles, strategic directions and regional policies of the Southern Tasmania Regional Land Use Strategy 2010-2035.

Should Council resolve to amend the planning scheme a copy of the draft amendment must be sent to the Commission and the amendment must be publicly displayed for a period of at least 3 weeks and no more than 2 months. In this instance it is considered that a 28 day period is appropriate. During this exhibition time the public may make representations which, at its conclusion, Council would then consider prior to notifying the Commission who may then hold a hearing to consider such representations and make its final decision.

It is recommended that Council endorse this amendment.

JOHN MOLNAR
SENIOR PLANNER

26 August 2020

Attachments (2)

- Instrument of Certification
- Planning Report from Ireneinc & smithstreetstudio Planning and Urban Design dated 22 April 2020 v3



AGENDA

DEVELOPMENT ASSESSMENT SPECIAL COMMITTEE (DASC) MEETING
1 SEPTEMBER 2020

SORELL INTERIM PLANNING SCHEME 2015

AMENDMENT NO. 3/2019

To amend the Sorell Interim Planning Scheme 2015 as follows:

Land affected by this amendment: 5 (CT 16027/1) & Lot 1 Arthur Highway (CT 8740/1, Sorell as identified below is to be zoned General Residential.



In accordance with the provisions of Section 35 of the Land Use Planning and Approvals Act 1993 the Sorell Council, at its meeting on 1 September 2020 certified that draft amendment No.43.2019.3 of the Sorell Interim Planning Scheme 2015 meets the requirements specified in Section 32 of the Land Use Planning & Approvals Act 1993.

Date:.....

The Common Seal of the Sorell Council has been hereunto Duly affixed in the presence of:)	
)
)	Mayor
)	
)
)	Councillor
)	
)
)	General Manager



AGENDA

**DEVELOPMENT ASSESSMENT SPECIAL COMMITTEE (DASC) MEETING
1 SEPTEMBER 2020**

5 ARTHUR HWY, SORELL

Planning Scheme Amendment Request

Sorell Interim Planning Scheme 2015

Last Updated - 22 April 2020 v3

Author - Laura Ashelford

Review - Irene Duckett

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ireneinc PLANNING & URBAN DESIGN



AGENDA

**DEVELOPMENT ASSESSMENT SPECIAL COMMITTEE (DASC) MEETING
1 SEPTEMBER 2020**

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EXECUTIVE SUMMARY

This report forms part of a request for an amendment to the *Sorell Interim Planning Scheme 2015*, pursuant to the former provisions of Section 533 of the *Land Use Planning and Approval Act 1993* (LUPAA). This application has been prepared in consultation with Council Officers.



Figure 1: Site location (Source: www.theLIST.tas.com.au © State of Tasmania).

The subject land is located at 5 Arthur Highway and Lot 1 Arthur Highway, Sorell. The sites contain a 35m wide strip along the far eastern boundary that is designated for the future Sorell Bypass.

The purpose of this amendment is to allow for a future application to be made for subdivision that is consistent with the intent of the Sorell Land Supply Strategy. The site is recognised within the strategy as being part of the existing greenfield stock for the Sorell municipality.

This application involves the rezoning of approximately 16.89 hectares of Particular Purpose - Urban Growth Zone to General Residential. The application proposes that the land within the site that is currently zoned Open Space and Particular Purpose - Future Road Corridor remain unchanged.

An application for the subdivision will be submitted at a later stage and is not included in this application. This report assesses the strategic elements supporting an amendment to the Scheme and the statutory controls within the *Sorell Interim Planning Scheme 2015* (SIPS). The amendment has been prepared in response to the requirements of the Act and the State policies.



INTRODUCTION

Ireneinc Planning and Urban Design has been engaged by Frank Morgan to prepare an amendment to the planning provisions for the land at 5 Arthur Hwy, Sorell. This report forms part of the request for an amendment to the *Sorell Interim Planning Scheme 2015*. In accordance with S8C and the Savings and Transitional Provisions of Schedule 6 of the *Land Use Planning Approvals Act 1993* (the Act), requests for amendment to the Scheme are to be made in accordance with the former provisions Section 33 of the Act. This report includes the strategic background and consideration of the proposed amendment against the requirements of LUPAA and the State policies.

The proposed amendment is for that portion of the site which is currently zoned Particular Purpose Zone 1 - Urban Growth Zone to General Residential to allow for the subsequent subdivision of the land into residential lots. The proposal does not include any change the part of the site currently zoned Open Space or Particular Purpose Zone 2 - Future Road Corridor.

There is an existing house, large shed, and smaller associated outbuilding on the site.

The Waterway and Coastal Protection Code applies to part of the site. Changes from PPZ1 - Urban Growth Zone to General Residential Zone will not result in changes to the way that the Code applies to the site. The Coastal Erosion Hazard Code (Investigation Area) applies to a small section of the site, and the proposed rezoning will not result in changes to the way that the Code applies to the site.

1.1 BACKGROUND

The site consists of two cadastral parcels on the edge of the Sorell town centre. The site is bordered on its western boundary by the Sorell Rivulet, and has a 35m wide strip along its eastern edge that zoned for the purpose of future road corridor. This portion of the site has long been identified as the location for the Sorell Bypass, this section of the site has been earmarked for this purpose since the 1970s. The subject site is identified in the *Sorell Land Supply Strategy*, commissioned by Sorell Council and written by échelon planning, as a site to be rezoned for the purpose of greenfield residential development.



2. SITE DESCRIPTION

2.1.1 LAND TITLES

The site includes 5 Arthur Highway and Lot 1 Arthur Hwy, Sorell.

REF	LAND TITLE	ADDRESS	AREA
1	CT 16027/1	5 Arthur Highway	7.522ha
2	CT 8740/1	Arthur Highway	12.58ha

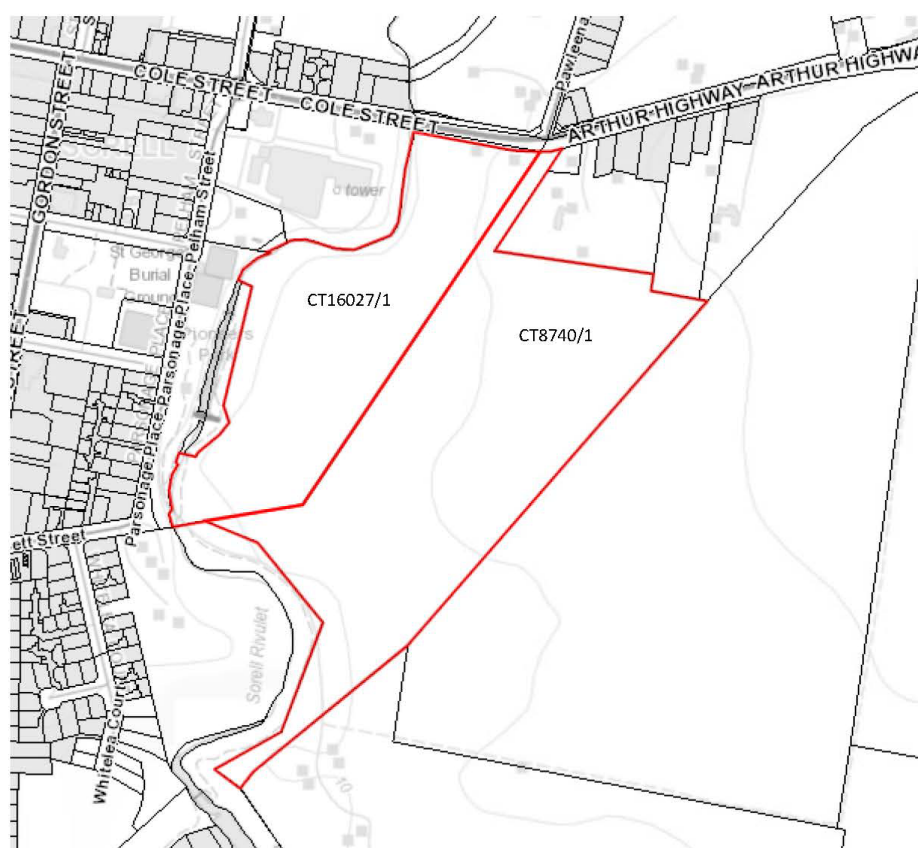


Figure 2: Titles (source: www.theLIST.tas.com.au © State of Tasmania)

2.2 EXISTING USE AND DEVELOPMENT

2.2.1 Subject Site

The site is located at 5 Arthur Highway and is known as 5 Arthur Hwy (CT 16027/1) and Lot 1 Arthur Hwy (CT 8740/1). The site is cleared agricultural land with little in the way of vegetation on the site. There is an existing house and associated outbuildings on the northern boundary of CT 8740/1, the extent of which is shown in Figure 3.



Figure 3: Existing structures located at 5 Arthur Highway (Source: www.theLIST.tas.com.au © State of Tasmania).

2.2.2 Surrounding Land

The subject site is on the eastern edge of the existing township and is surrounded by a wide range of other land uses.

There is a local shopping centre to the north west of the site, Pioneers Park and the Sorell Rivulet are to the west. The Sorell Rivulet runs perpendicular to the western boundary of the site and flows into the Pitt Water-Orielton Lagoon beyond.

The site is bordered by the Arthur Highway to the north and beyond this there are residential lots, zoned General Residential and Low Density Residential. To the east is Rural Resource zoned

agricultural land which has been identified as a future residential growth area as part of the *Sorell Land Supply Strategy* undertaken by Echelon Planning.

2.3 ABORIGINAL HERITAGE

An Aboriginal Heritage Assessment was undertaken by Cultural Heritage Management Australia (CHMA) which identified that there is one Aboriginal Heritage site present on the subject site, which is an artefact scatter comprising two stone artefacts.

It is recommended by CHMA that proposed subdivision should be designed to avoid impact the Aboriginal Heritage site.

2.4 EUROPEAN HERITAGE

The site is not listed on the Tasmanian Heritage Register and is not subject to the local Historic Heritage Code.

2.5 BUSHFIRE RISK MANAGEMENT

The site within 100m of 1 hectare of bushfire prone vegetation, being grassland, and therefore the Bushfire-Prone Areas Code applies. The proposed rezoning from Particular Purpose - Urban Growth Zone to General Residential will not result in changes to the way that the Code applies to the site. Given that the surrounding land is pasture, the site is considered capable of maintaining a Bushfire Hazard Management Area within its boundaries and that risk can adequately be addressed through a bushfire assessment at the time of a development application for subdivision being submitted.

2.6 TRAFFIC

A Traffic Impact Assessment (TIA) for the proposed rezoning has been undertaken by Milan Prodanovic, dated February 2020. The TIA was prepared on the assumption that the rezoning of the subject site may result in the subsequent subdivision of up to 250 residential lots.

Based on this it was found that future subdivision of the site would be expected to generate 2,000 vehicle movement per day, and around 200 vehicle movements per hour during peak hour periods. It has assumed that all traffic generated by any such development would access the road network via a subdivision road that junctions with the Arthur Highway.

It found that the future construction of the eastern Arthur Hwy bypass will have the greatest impact on the long-term efficient operation of the Arthur Highway between Nugent Road and the town centre.

Without the completed Arthur Hwy bypass the TIA found that a future Pawleena Road/subdivisional road junction including the installation of a channelised right turn lane to the highway would allow for the efficient operation of the junction beyond the next five years. This junction would however not be operational in ten years' time without the construction of the bypass.

The TIA recommends that the installation of a roundabout control at the Pawleena Road/subdivision road intersection will extend the efficient operation for a number of years. Milan Prodanovic has commenced discussion with the Department of State Growth to determine the support for the future installation of such a roundabout control.

2.7 NATURAL VALUES

TasVeg 3.0 mapping indicates that there are two vegetation communities mapped on the site; FUR urban areas which covers the whole of 5 Arthur Hwy, and FAG agricultural land which covers the whole of Lot 1 Arthur Hwy.

In addition to the TasVeg 3.0 an additional vegetation community, weed infestation (FWU), was identified as part of the Ecological Assessment undertaken by ECOTas. The site has been rural pasture for many years. The subject site is in proximity to the Pitt Water-Orielton Lagoon Ramsar wetland site. The scope of the listed Ramsar site extends up Sorell Rivulet, bounding some of Lot 1 Arthur Highway and as far as the southern limit of 5 Arthur Highway. In considering the requirements of the EPBCA and the Commonwealth *Significant Impact Guidelines* policy statement, ECOTas considered that the rezoning and potential development of the site did not pose a substantial risk to the integrity of the Ramsar wetland. It was noted that to ensure appropriate protection is maintained for the wetland that at the development stage, the development of a soil and water management plan (including stormwater, sewerage, and surface run-off) would be important in ensuring the ongoing protection of the wetlands natural values. This is suggested for any proposed development on the site, not a measure that would be unique to residential development. Until a final land use is determined, it will be difficult for the ecologist to precisely assess the potential impact of future use on the adjacent Pitt Water - Orielton Lagoon Ramsar site.

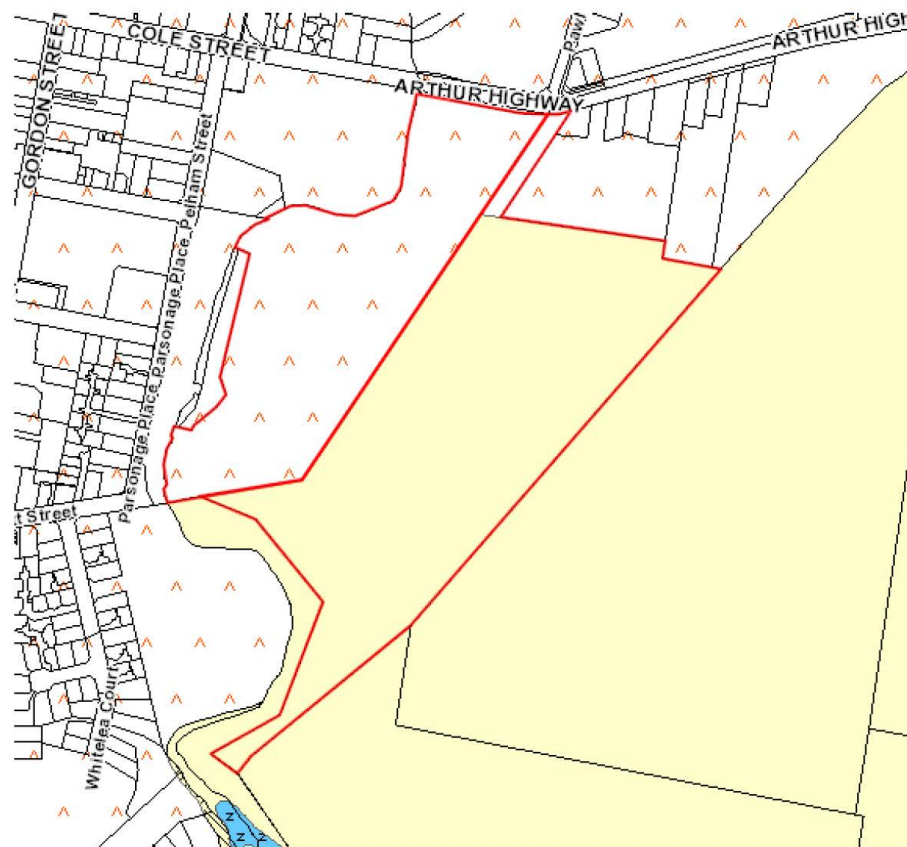


Figure 4: TasVeg 3.0 mapping (Source: www.theLIST.tas.com.au © State of Tasmania).

3. CURRENT PLANNING SCHEME PROVISIONS

The subject land is within the area of the *Sorell Interim Planning Scheme 2015* (the Scheme). The following provisions of the Scheme relevant to the site and use and development proposed for the land apply.

3.1 EXISTING ZONES

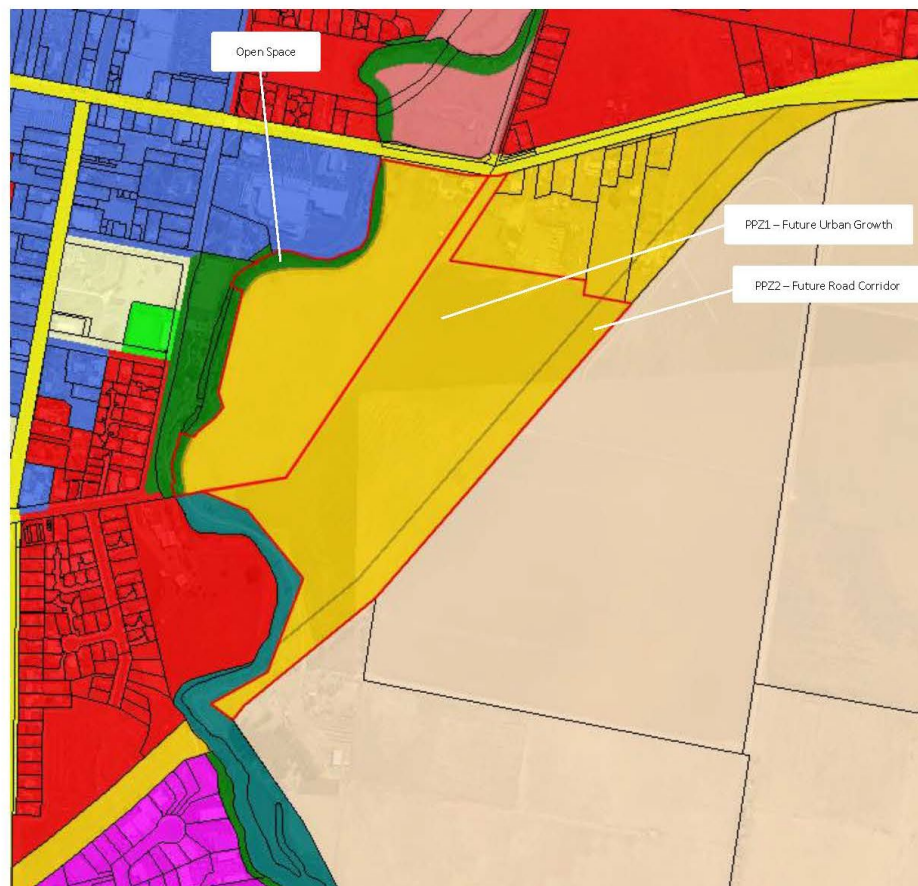


Figure 5: Existing zoning (Source: www.theLIST.tas.com.au © State of Tasmania)

The subject site is zoned PPZ1 - Urban Growth Zone (gold) and PPZ2 - Future Road Corridor (along the eastern edge of subject site, as well as a small section to the west and north west zoned Open Space (green).

The surrounding land is subject to several different zonings including, the shopping centre to the north west which is zoned General Business (royal blue), Pioneers Park to the west which is zoned

Open Space (green), Sorell Rivulet which is zoned Environmental Management (teal). To the east the agricultural land is zoned Rural Resource (bisque) and land to the north is likewise zoned PPZ1 and PPZ2, as well as being adjacent to the Arthur Highway which is zoned Utilities (yellow). Land to the north of the Arthur Highway is zoned General Residential (red) and Low Density Residential (light coral).

3.2 PARTICULAR PURPOSE ZONE 1 - URBAN GROWTH ZONE

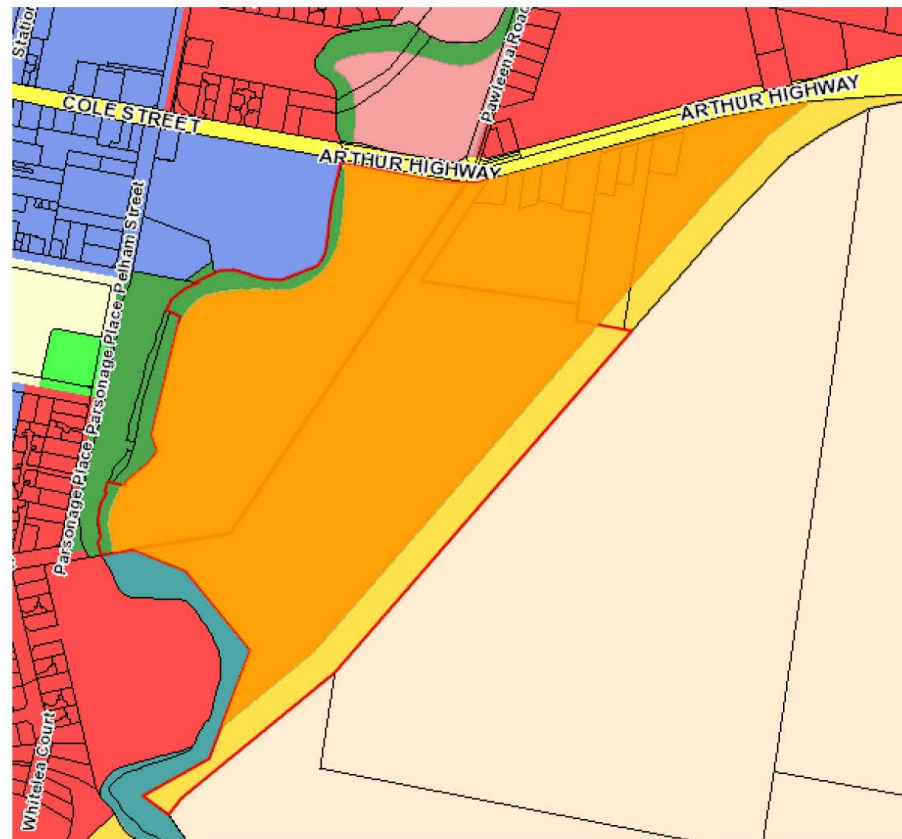


Figure 6: Area of the site zoned Particular Purpose Zone 1 - Urban Growth Zone shown in orange (Source: www.theLIST.tas.com.au © State of Tasmania)

3.2.1 Zone Purpose

32.1.1 Zone Purpose Statements

- 32.1.1.1 To identify non-urban land intended to be largely converted to urban use and development in the future.
- 32.1.1.2 To ensure that the development of the identified non-urban land does not compromise its potential for future urban use and development.
- 32.1.1.3 To support a land release program of rezoning of non-urban land into urban land in accordance with the Greater Hobart Settlement Strategy (Southern Tasmania Regional Land Use Strategy 2010-2035).

There are no Local Area Objectives or Desired Future Character Statements for this zone.

3.3 PARTICULAR PURPOSE ZONE 2 - FUTURE ROAD CORRIDOR

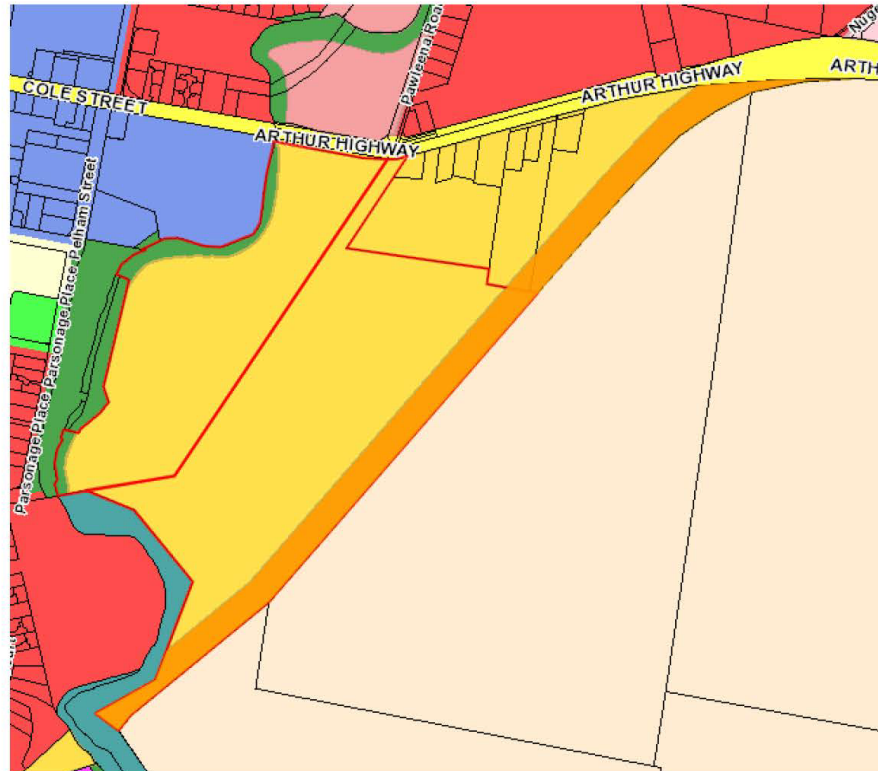


Figure 7: Area of the site zoned Particular Purpose Zone 2 - Future Road Corridor shown in orange (Source: www.theLIST.tas.com.au © State of Tasmania)

3.3.1 Zone Purpose

33.1.1 Zone Purpose Statements

- 33.1.1.1 To identify land that may be required for a road corridor in the future.
- 33.1.1.2 To protect the corridor from use or development, including on adjacent land, which may affect the future safety, efficiency and amenity of the road corridor or the use or development on adjoining land.
- 33.1.1.3 To ensure that a future corridor is not compromised by use or development that prevents the road being constructed through its chosen route as a result of an increase in social or economic costs.

There are no Local Area Objectives or Desired Future Character Statements for this zone.

3.4 OTHER RELEVANT PROVISIONS

3.4.1 Waterway and Coastal Protection Code

The Waterway and Coastal Protection Code applies to a large portion of the subject site as described in the figure below.

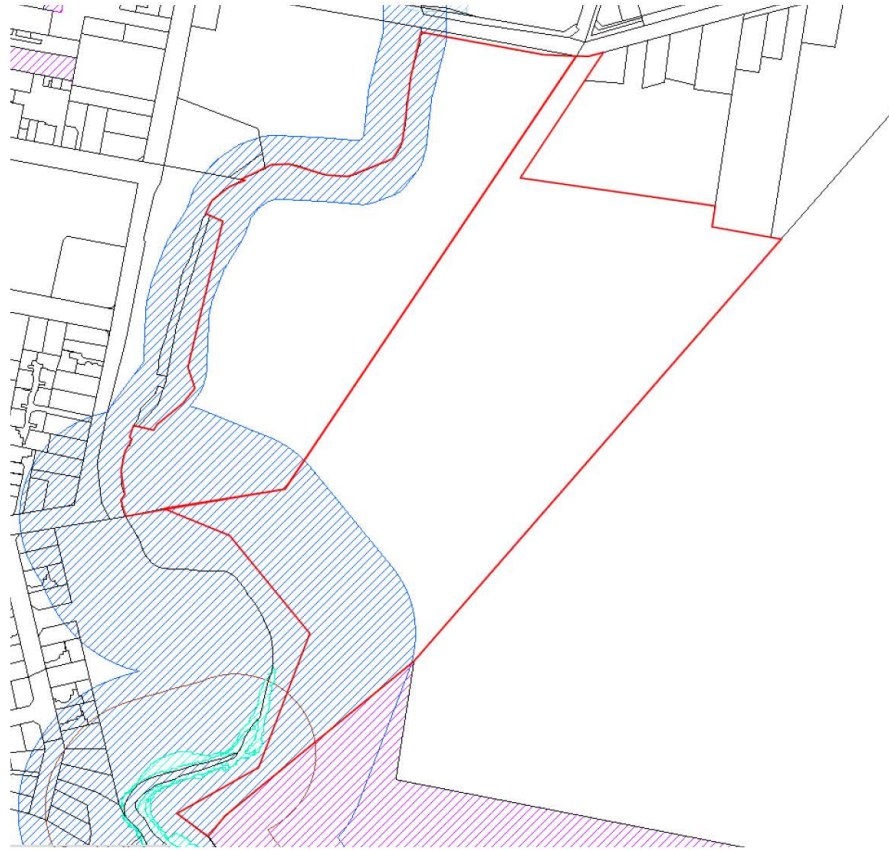


Figure 8: Waterway and Coastal Protection Code (blue) and Subject land (red) (source: www.theLIST.tas.com.au © State of Tasmania)

Development within the Waterway and Coastal Protection area would be subject to the Code unless the development does not involve the clearing of vegetation or soil disturbance.

Any application for proposed buildings or works requiring clearance of native vegetation would likely be required to submit a Coastal Impact Assessment and/or a Natural Values Assessment by a suitably qualified person to ensure compliance with the Code provisions.

Issues arising from buildings or works within this area can be addressed during subsequent Development Application stages. Under the SPPs, standards for the Waterway and Coastal Protection overlays are contained within the Natural Assets Code. The Code does not apply to use. Alterations, extensions or new buildings within the Waterway and Coastal Protection area must comply with the use and development standards, which can be assessed during the Development Application process.

3.4.2 Road and Railway Assets Code

The standards of the Road and Railway Assets Code provide requirements for the continued safety and efficiency of the road and railway networks based on the uses being undertaken on the site. These standards also require compliance with Australian Standards in regard to the design of junctions, accesses, maintaining sight lines and level crossings. The provisions of the Code are

addressed as part of the Development Application process once specific uses and/or development is confirmed.

3.4.3 Land capability

The subject land classification for agricultural capability is class 4. Class 4 is defined as:

Land well suited to grazing but which is limited to occasional cropping or a very restricted range of crops.

This land is not considered to be prime agricultural land, suited only to grazing and very limited cropping. The subject site is not currently zoned for agricultural purposes, as it is identified as future urban area in the form of greenfield development. The rezoning of the land does not increase the risk of use or development fettering surrounding agricultural uses.



Figure 9: Land Capability, class 4 shown shaded green (Source: www.theLIST.tas.com.au © State of Tasmania)

4. STRATEGIC ANALYSIS

The following is an assessment of the strategic documents that are relevant to the future use and development of the subject land and site. The *Southern Tasmanian Regional Land Use Strategy 2010-2035*, amended 9th May 2018 (STRLUS), is the key strategic document, and consideration is given to the *Sorell Land Supply Strategy 2019 Update*.

4.1 SOUTHERN TASMANIAN REGIONAL LAND USE STRATEGY

4.2 NATURAL VALUES

A Natural Values Assessment was undertaken by ECOtas, dated October 2019, which concluded that the site does not include any significant flora or fauna values. It is however in proximity of a Ramsar Wetland site. The survey also identified several weed species on the site.

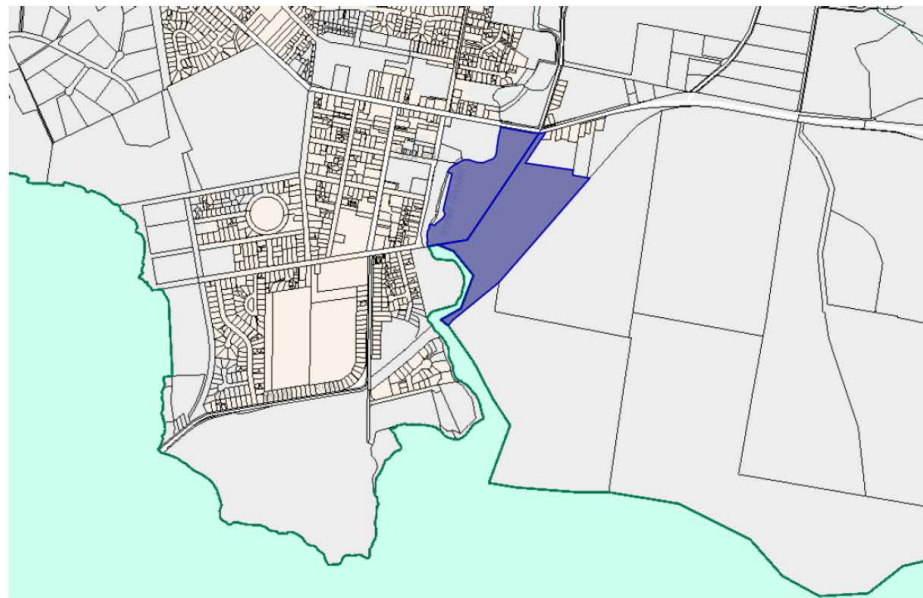


Figure 10: Site (Dark Blue) and Ramsar Wetland (Spearmint) with Cadastre Parcels (The List 2019)

Works and any substantial disturbance would be subject to an application under the *Sorell Interim Planning Scheme 2015*, as consistent with the STRLUS.

4.2.1 5.5 Regional Policies

BNV 5 Restrict the spread of declared weeds under the *Weed Management Act 1999* and assist in their removal.

BNV 5.1 Provide for construction management plans where vegetation clearance or soil disturbance is undertaken that include weed management actions where the site is known, or suspected, to contain declared weeds.

The site survey identified the following declared weed species on the site; Hairy fiddleneck, boneseed, fennel, canary broom, hoary cress, African boxthorn, white horehound, blackberry, crack willow, and gorse.

The spread of declared weeds could be satisfactorily controlled through conditions on a permit for development when an application is made. Measures such as vehicle hygiene and a weed control plan can be implemented for development if required. However, at this stage it is not conclusive as to whether a stand-alone weed and hygiene management plan will be required. The Natural Values Assessment recommended that the weed population be handled in accordance with the *Tasmanian Weed Management Act 1999* and any relevant council policies.

4.2.2 6.5 Water Resources Regional Policies

WR 1 Protect and manage the ecological health, environmental values and water quality of surface and groundwater, including waterways, wetlands and estuaries

WR 1.4 Ensure development that includes vegetation clearance and/or soil disturbance is undertaken in accordance with construction management plans to minimise soil loss and associated sedimentation of waterways and wetlands.

WR 2 Manage wetlands and waterways for their water quality, scenic, biodiversity, tourism and recreational values

WR 2.2 Provide public access along waterways via tracks and trails where land tenure allows, where there is management capacity and where impacts on biodiversity, native vegetation and geology can be kept to acceptable levels

The subject site is in proximity to the Pitt Water-Orielton Lagoon Ramsar wetland site. The scope of the listed Ramsar site extends up Sorell Rivulet, bounding some of Lot 1 Arthur Highway as far as the southern limit of 5 Arthur Highway. In considering the requirements of the EPBCA and Commonwealths *Significant Impact Guidelines* policy statement, it was not considered that the rezoning and potential development of the site posed a substantial risk to the integrity of the Ramsar wetland. It was noted that to ensure appropriate protection is maintained for the wetland that at the development stage, the development of a soil and water management plan (including stormwater, sewerage, and surface run-off) would be important in ensuring the ongoing protection of the wetlands natural values. This is suggested for any proposed development on the site, and not a measure that would be unique to residential development. Until a final land use is determined, it will be difficult for the ecologist to precisely assess the potential impact of future use on the adjacent Pitt Water - Orielton Lagoon Ramsar site.

The proposed rezoning is not considered to significantly impact on biodiversity values on or nearby the site. It is considered that appropriate measures can be put in place during the LUPAA assessment and construction phases to ensure the ongoing use of the site protects the Ramsar Wetland, Pitt Water-Orielton Lagoon.

4.3 HAZARD MANAGEMENT

The site is contained within the Bushfire-Prone Areas Code under the *Sorell Interim Planning Scheme 2015* given it is within 100m of 1ha of bushfire-prone vegetation. Given the nature of the surrounding vegetation being agricultural pasture, it is considered that the site is capable of maintaining a Bushfire Hazard Management Area within its boundaries. The neighbouring pasture

to the north east is also designated as future urban area within the Sorell Land Supply Strategy. With the intended change to urban/suburban environment the bushfire risk will likely be reduced in the future. Considering the current and future use of the subject land and surrounds it is believed that bushfire risk and mitigation measures can be adequately addressed at the stage of a future Development Application for subdivision being made. In addition, the land identified for the Sorell Bypass will remain undeveloped, this portion of land can be managed to allow for the 35m wide strip to act as a buffer, in addition to any further requirements specific to the plan of subdivision.

The proposal is therefore consistent with MRH1 and 1.1.

MRH 1 Minimise the risk of loss of life and property from bushfires.

MRH 1.1 Provide for the management and mitigation of bushfire risk at the earliest possible stage of the land use planning process (rezoning or if no rezoning required; subdivision) by the identification and protection (in perpetuity) of buffer distances or through the design and layout of lots.

4.4 SETTLEMENT AND RESIDENTIAL DEVELOPMENT

Sorell is considered a Major Satellite of Greater Hobart. The site falls within the Urban Growth Boundary (UGB) and has been identified in the STRLUS as a Greenfield Development Precinct. This is further supported by investigations and analysis provided in the Sorell Land Supply Strategy 2017 & 2019.

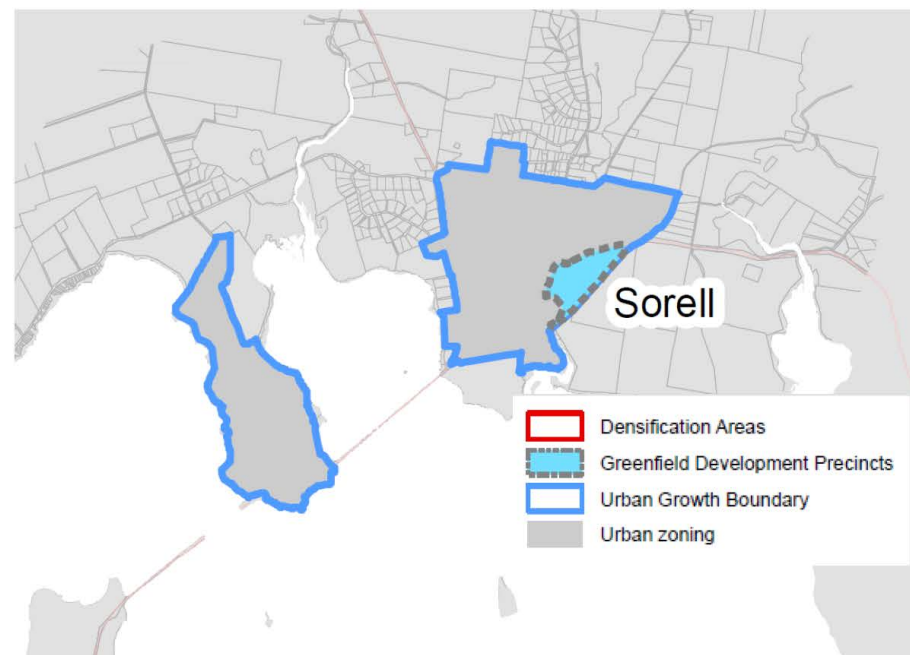


Figure 11: Extract from the Urban Growth Boundary map showing the subject site mapped as a Greenfield Development Precinct (Source: SRLUS 2018)

4.5 SORELL LAND SUPPLY STRATEGY

Sorell is a major satellite in the Greater Hobart region. The strategy suggests that Sorell is one of the fastest growing municipalities in the southern area, experiencing 3% population growth

annually. This influx requires a tailored approach of 70% greenfield/30% infill for new development. This is considerably influenced by the topographical restraints of the area.

In the assessment of the currently planned greenfield sites the strategy indicates that these will only satisfy an 8-year demand. The strategy identifies Lot 1 and 5 Arthur Highway as within 'Stage 1', a medium density residential area, proposing that this site should be developed under the General Residential Zone. The strategy goes further to say:

This land is already in the Particular Purpose (Urban Growth) Zone and should be zoned General Residential Immediately. The Sorell Land Use Strategy identifies it as part of the existing greenfield land supply.

This amendment proposal is directly in accordance with the Sorell Land Supply Strategy in rezoning the land to general residential to facilitate the development of residential parcels.

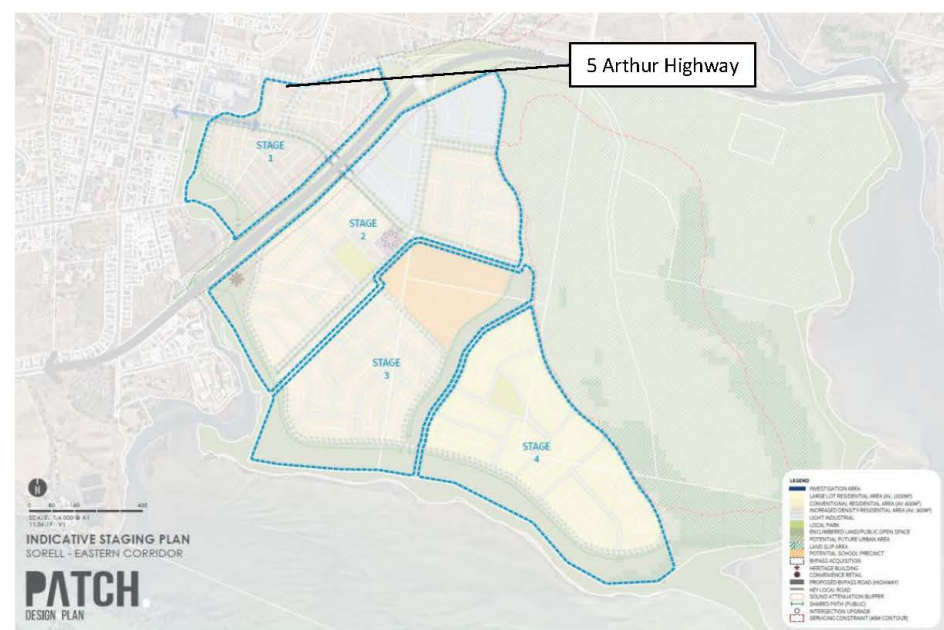


Figure 12 Staging Plan (source: Sorell Land Supply Strategy - Stage 3 © Sorell Council)

4.5.1 UPDATED LAND SUPPLY ANALYSIS

While the Sorell Land Supply Strategy provides an overview of the land supply status in the township, data provided by Sorell Council shows that the actual growth rate is significantly higher than the Strategy anticipated.

The total number of dwelling approvals grew from 137 dwellings in the 2015-16 financial year to 370 dwellings, including multiple dwellings, in the 2018-19 year. As shown in Table 1 this represents a rapid growth in dwelling demand, growing from a 6% growth rate between 2015-16 to 2016-17, up to 72% growth between 2017-18 and 2018-19.

The approval of 280 single dwellings and 90 multiple dwellings in the 2018-19 year is considerably more than projected in the Sorell Land Supply Strategy 2019 Stage 1 (p.24), which estimated demand of 113 dwellings required in 2019, using 2019 population growth statistics.

This demand has been met by the approved subdivision of approximately 624 lots within the Sorell LGA since 2016, and another 500-550 potential lots which are in processes of being subdivided.

The Land Supply strategy estimates that there is currently only 9.5 years of greenfield land supply, and that 572 additional lots are required by 2038 (Echelon Planning p. 26). Assuming a modest doubling of demand from what is estimated in the Land Supply Strategy it can be assumed that the current land supply will not meet the demand beyond the next 4-5 years.

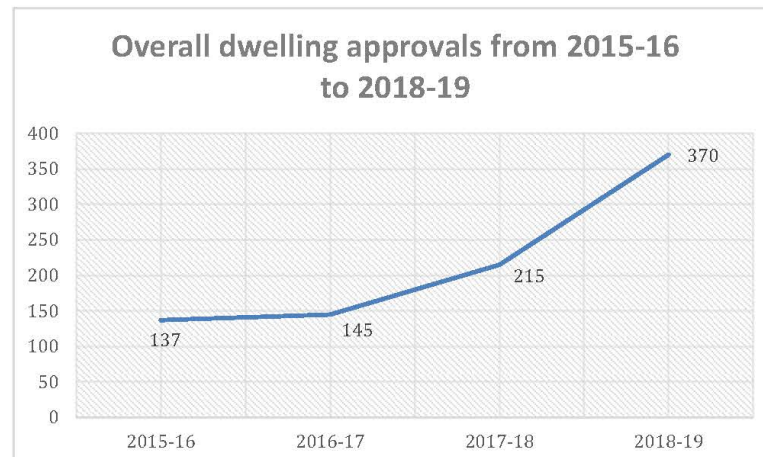


Table 1 Overall dwelling approvals from 2015-16 to 2018-19 in Sorell LGA (Data source: Sorell Council)

4.5.2 2019 POPULATION PROJECTIONS

2019 population projections from the Department of Treasury and Cabinet show that the Sorell municipality is projected to experience the second highest growth rate of any LGA in Tasmania in percentage terms from 2017 to 2042, with a projected average growth rate of 1.15 per cent per annum (Department of Treasury and Finance, 2019, p. 10). This equates to an estimated growth of an additional 4895 persons over this period. During the 2017-18 year Sorell exceeded the yearly average with a 3% growth in population (Department of Treasury and Finance, 2019).

Sorell Projections – Medium Series

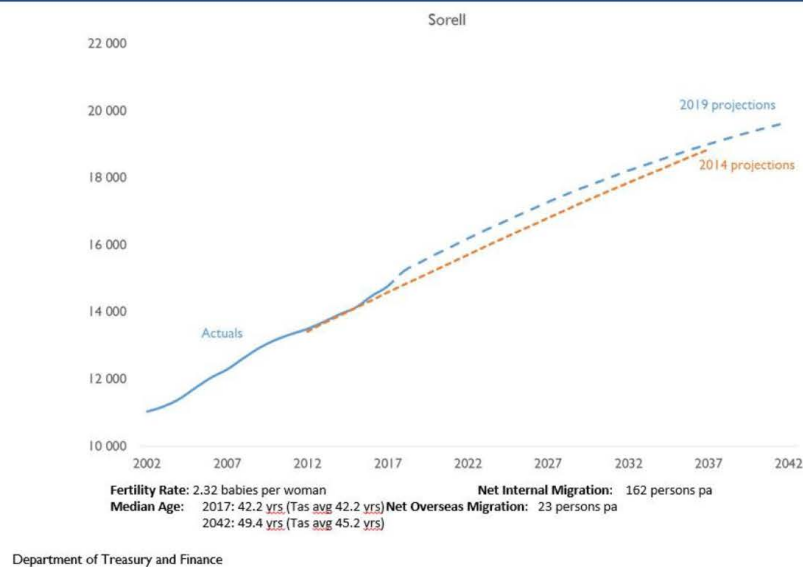


Figure 13 Sorell population projections data (Department of Treasury and Finance 2019)

Strong population growth in 2018-19 and the increase in overall dwelling approvals in the same year suggest a strong upward trend in growth in the Municipality, and continued growth would likely see an increased population growth beyond the official medium series projections, (as shown in Figure 13).

The *Sorell to Hobart Planning Study* is a report prepared for State Growth which analyses land use patterns and development opportunities in the Sorell and Clarence LGAs.

The report which was prepared for State Growth in 2018 by ERA Planning estimates an average annual growth rate of 1.8%, more than the 1.2% projected in the official Department of Treasury and Finance figures and that reflected in the Echelon Land Supply Report. The report identifies the Sorell township as having strong strategic growth despite limited employment opportunities and access to transport links.

The report identifies the Tasmanian Government's commitment to establish the South East Region Emergency Services hub, as well as other opportunities for the establishment of an independent school and other social infrastructure to support jobs in the area.

The average residential density within the General Residential zoned land in Sorell is 10 dwellings per hectare. The subdivision of lots which encourage higher density development will provide many benefits such as better use of serviced land and access to public transport, as recommended by the ERA report.

4.5.3 REGIONAL POLICIES

The proposed rezoning is situated within the Greenfield Development Precinct for Sorell (Sorell Township East) in the STRLUS. The rezoning would result in the land being able to be developed

in accordance with the intent of STRLUS, given the site is specifically designated for future residential subdivision.

The following policies relate future residential development of the site:

SRD 1.1 *Implement the Regional Settlement Strategy and associated growth management strategies through planning schemes.*

The site was identified as an urban growth area through the particular purpose zone (PPZ1 Urban Growth Zone) in the *Sorell Interim Planning Scheme 2015* in response the land being identified for Greenfield development in the STRLUS. This proposal is for an amendment to the *Sorell Interim Planning Scheme 2015* to facilitate the residential development of the greenfield land in accordance with the STRLUS.

SRD 2 *Manage residential growth for Greater Hobart on a whole of settlement basis and in a manner that balances the needs for greater sustainability, housing choice and affordability.*

SRD 2.1 *Ensure residential growth for Greater Hobart occurs through 50% infill development and 50% greenfield development.*

SRD 2.2 *Manage greenfield growth through an Urban Growth Boundary, which sets a 20 year supply limit with associated growth limits on dormitory suburbs.*

SRD 2.3 *Provide greenfield land for residential purposes across the following Greenfield Development Precincts:*

- Bridgewater North
- Brighton South
- Droughty Point Corridor
- Gagebrook / Old Beach
- Granton (Upper Hilton Road up to and including Black Snake Village)
- Midway Point North
- Risdon Vale to Geilston Bay
- Sorell Township East
- Spring Farm / Huntingfield South

Residential growth is managed at a whole settlement basis through the urban growth boundary, land use controls and through the use and development application process. The site is within the Sorell Township East, an identified greenfield development precinct within the STRLUS and therefore will contribute to the 50 percent greenfield development target. The proposal is for rezoning this land from Particular Purpose Zone (PPPZ1 Urban Growth Zone) to General Residential is consistent with the findings and intent of the STRLUS.

SRD 2.4 *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*

The proposed rezoning would be for greenfield development for residential purposes.

SRD 2.5 *Implement a Residential Land Release Program that follows a land release hierarchy planning processes as follows:*

1. Strategy (greenfield targets within urban growth boundary);
2. Conceptual Sequencing Plan;
3. Precinct Structure Plans (for each Greenfield Development Precinct);
4. Subdivision Permit; and

5. Use and Development Permit

No Land Release Programs have been established regionally, however, Sorell Council have commissioned the 2017 Land Supply Strategy for their municipality which has since been updated in 2019 to reflect the changes which have occurred since 2017. The proposal is consistent with the 2017 Land Supply Strategy, which identified the land in the Sorell Township Growth Area (R7) and demonstrated through a concept masterplan the future urban structure. This rezoning will facilitate the future use and development which aligns with the land release hierarchy planning processes.

SRD 2.6 Increase densities to an average of at least 25 dwellings per hectare (net density)(i) within a distance of 400 to 800 metres of Integrated transit corridors and Principal and Primary Activity Centres, subject to heritage constraints.

The proposal is not in proximity to principle or primary activity centre, nor an integrated transit corridor. Density can be managed in the planning application stage.

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.

The existing greenfield land supply in the Sorell currently only provides an 8-year supply of greenfield land (Sorell Land Supply Strategy, Stage 3-Masterplans 2019, p. 7). The 8-year supply includes the parcel of land subject to this amendment, and therefore without the rezoning the proportion the greenfield land supply in the residential zones is closer to 5.7 years.

Sorell has also experience some of the strongest regional population growth, a trend which is predicted to continue over the next 20 years (Sorell Land Supply Strategy 2019, p.7). It is also considered a Major Satellite of Greater Hobart, and services much of south-eastern Tasmania. Sorell has regional significance.

The Sorell Land Supply Strategy has noted that opportunities for infill development in Sorell is limited as there are few underutilised or vacant sites within the residential zones. The township is therefore dependent on greenfield land supply to accommodate growth within the municipality. The Sorell Land Supply Strategy also states from a regional perspective, Greater Metropolitan Hobart has barriers to where it can grow so potential for greenfield development areas are somewhat limited. This reinforces the importance and opportunity of greenfield land release in areas where it available in order to be consistent with the policies of the STRLUS. By rezoning the site to General Residential, the land will contribute to the regional greenfield land supply, as well as the land supply within Sorell.

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.

The rezoning will allow residential land uses on land currently underutilised. The proposed rezoning is to General Residential Zone and the zone purpose is to “to provide for residential use or development that accommodates a range of dwelling types at suburban densities, where full infrastructure services are available or can be provided.” Therefore, the proposed rezoning to the General Residential Zone is consistent with the STRLUS.

SRD 2.10 Investigate the redevelopment to higher densities potential of rural residential areas close to the main urban extent of Greater Hobart.

This land is characterised as rural residential and currently there is only one dwelling located at 5 Arthur Highway, and none at lot 1 Arthur Highway. The land directly adjoins the urban area of the Sorell Township. Investigation have been carried out for higher densities at this location and found this to be a suitable location for residential development (STRLUS and Sorell Land Supply Strategy 2017). The proposed rezoning is the fruition of these investigations.

SRD 2.11 Increase the supply of affordable housing.

The proposed zone change can facilitate the development the increase in supply of affordable housing.



5. AMENDMENT FORMAT

5.1 INTENT OF THE PROPOSED AMENDMENT

The intent of the amendment request is to allow for the future subdivision of the land into residential lots consistent with the Subdivision Standards of the General Residential Zone, to meet the strong demand for residential land in the Sorell area.

The requested amendment also aligns with the strategies for urban growth as set out in regional and local government residential land supply strategies.

5.2 SPECIFIC AMENDMENT

The amendment proposed is for the rezoning from Particular Purpose Zone 1 - Urban Growth Zone to General Residential Zone for the following land:

- Folio of the register 16027/1, 5 Arthur Highway Sorell; and
- Folio of the register 8740/1, Arthur Highway Sorell;

with the exception of:

- The portion of CT8740/1 zoned Particular Purpose Zone 2 - Future Road Corridor; and
 - The portion of CT16027/1 zoned Open Space;
- both of which are to remain unchanged.

The proposed amendment to the zoning is demonstrated in Figure 14 below.

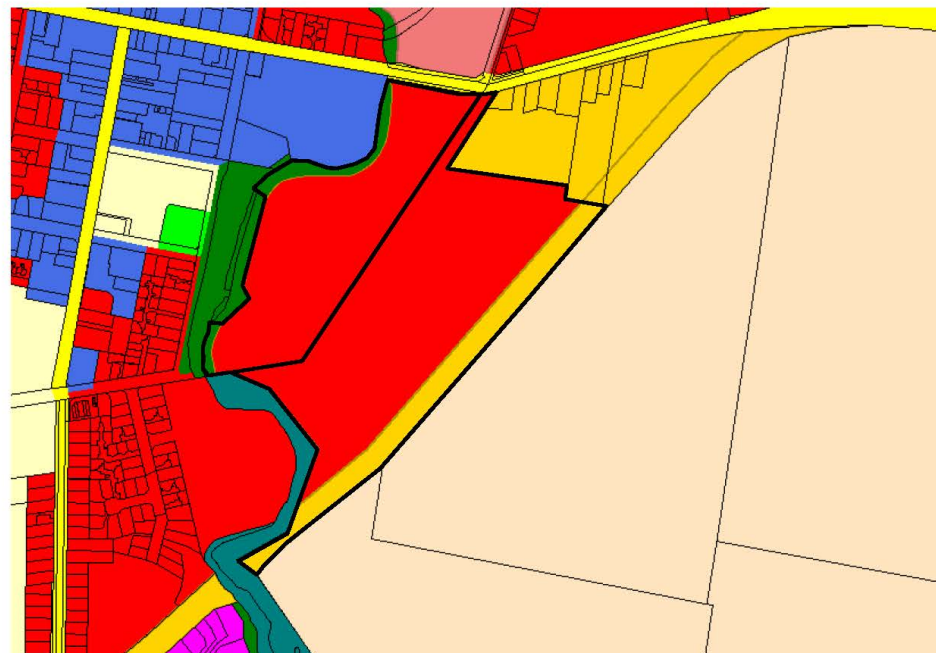


Figure 14: Proposed zones - adapted from www.theLIST.tas.com.au © State of Tasmania

6. ASSESSMENT UNDER LUPAA

In accordance with S8C and the Savings and Transitional Provisions of Schedule 6 request for amendment to the Scheme is made under the former *Land Use Planning and Approval Act 1993* in accordance, the former Section 32 which requires that amendments to planning scheme be considered against the following:

- (1) *A draft amendment of a planning scheme, and an amendment of a planning scheme, in the opinion of the relevant decision-maker within the meaning of section 20(2A)-*
 - (a)
 - (b)
 - (c)
 - (d)
 - (e) *must, as far as practicable, avoid the potential for land use conflicts with use and development permissible under the planning scheme applying to the adjacent area; and*
 - (ea) *must not conflict with the requirements of section 300; and*
 - (f) *must have regard to the impact that the use and development permissible under the amendment will have on the use and development of the region as an entity in environmental, economic and social terms.*
- (2) *The provisions of section 20(2), (3), (4), (5), (6), (7), (8) and (9) apply to the amendment of a planning scheme in the same manner as they apply to planning schemes.*

Section 20 also includes the following:

- 20.(1) (a) *seek to further the objectives set out in Schedule 1 within the area covered by the scheme; and*
- (b) *prepare the scheme in accordance with State Policies made under section 11 of the State Policies and Projects Act 1993; and*
- (c)

The above provisions are considered in the following sections.

6.1 LAND USE CONFLICTS

The land has been earmarked as future residential land under the Particular Purpose Zoning. Whilst the rezoning of the land will result in the addition of General Residential land within proximity of the Rural Resource zone, it will be separated by the PPZ2 - Future Road Corridor which has been designated to become the Sorell bypass into the future.

There are other examples within proximity of the Sorell centre of land zoned General Residential which is separated from Rural Resource land by a road. It is not considered that the rezoning will result in significant fettering of this land as it is already on the urban fringe.

The proposed amendment will not result in any adverse land use conflicts.

6.2 REQUIREMENTS OF SECTION 300

Section 300 provides as follows:

300. Amendments under Divisions 2 and 2A of interim planning schemes

- (1) *An amendment may only be made under Division 2 or 2A to a local provision of a planning scheme, or to insert a local provision into, or remove a local provision from, such a scheme, if the amendment is, as far as is, in the opinion of the relevant decision-maker within the meaning of section 20(2A), practicable, consistent with the regional land use strategy, if any, for the regional area in which is situated the land to which the scheme applies.*
- (2) *An amendment, of a planning scheme, that would amend a local provision of the scheme or insert a new provision into the scheme may only be made under Division 2 or 2A if -*
 - (a) *the amendment is not such that the local provision as amended or inserted would be directly or indirectly inconsistent with the common provisions, except in accordance with section 30EA, or an overriding local provision; and*
 - (b) *the amendment does not revoke or amend an overriding local provision; and*
 - (c) *the amendment is not to the effect that a conflicting local provision would, after the amendment, be contained in the scheme.*
- (3) *Subject to section 30EA, an amendment may be made to a local provision if -*
 - (a) *the amendment is to the effect that a common provision is not to apply to an area of land; and*
 - (b) *a planning directive allows the planning scheme to specify that some or all of the common provisions are not to apply to such an area of land.*
- (4) *An amendment may not be made under Division 2 or 2A to a common provision of a planning scheme unless the common provision, as so amended, would not be inconsistent with a planning directive that requires or permits the provision to be contained in the planning scheme.*
- (5) *Subject to section 30EA, an amendment of a planning scheme may be made under Division 2 or 2A if the amendment consists of -*
 - (a) *taking an optional common provision out of the scheme; or*
 - (b) *taking the provision out of the scheme and replacing it with another optional common provision.*

The amendment proposed is a rezoning of an area of land and as such is a local provision which can be amended under Division 2 or 2A. The amendment will not conflict with any common or overriding local provision.

6.3 REGIONAL IMPACT

As detailed previously the proposed amendment is consistent with the *Southern Tasmanian Regional Land Use Strategy* which provides strategic direction of the Region given that it is within the Urban Growth Boundary. The subject land is identified as part of the current greenfield supply.

6.4 SCHEDULE 1 OBJECTIVES OF LUPAA

The objectives are considered in the following tables:

6.4.1 Part 1- Objectives of the Resource Management and Planning System Tasmania

PROVISION	RESPONSE
<i>(a) to promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity; and</i>	The proposed amendment is the rezoning of existing cleared land which has been designated for future urban growth. Any potential impacts from future development can be appropriately managed at the development stage as a part of the development process. A Natural Values Assessment has concluded that the rezoning of the land will not result in the potential for a significant impact upon the surrounding Ramsar wetlands due to impacts on natural physical resources or ecological processes.
<i>(b) to provide for the fair, orderly and sustainable use and development of air, land and water; and</i>	The proposed amendment will allow for the use of the land as designated in the STRLUS, which identifies it as being a future urban greenfield site, and within the urban growth boundary. The rezoning to general residential allows for the orderly future use of the land, with specific use or development still requiring full assessment as per the requirements of LUPAA.
<i>(c) to encourage public involvement in resources management and planning; and</i>	The process required for the assessment of amendments to planning schemes provides interested parties with an opportunity to make representations during public exhibition as well as attending subsequent hearings. This process additionally provides Council and subsequently the TPC to consider issues raised during the assessment.
<i>(d) to facilitate economic development in accordance with the objectives set out in paragraphs (a), (b) and (c); and</i>	The amendment will assist in meeting immediate demand for residential land near the Sorell centre.
<i>(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.</i>	Assessment of the amendment will occur at local and state level and will include the opportunity for involvement of the community. Furthermore, in future subdivision applications there is the ability for a portion of the subject land to be gifted to the local government to facilitate the management of a natural values area.

6.4.2 Part 2 - Objectives of the Planning Process Established by this Act

PROVISION	RESPONSE
<i>(a) to require sound strategic planning and co-ordinated action by State and local government; and</i>	The proposal is consistent with the strategic directions for the municipality described through the STRLUS.
<i>(b) to establish a system of planning instruments to be the principle way of setting objectives, policies and controls for the use, development and protection of land;</i>	The system as per LUPAA provides the instruments to achieve these objectives.
<i>(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;</i>	The existing planning scheme has been written giving effect to this objective and consequently relating to use and development of the subject land will need to comply with the relevant codes which protect natural and environmental values.
<i>(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;</i>	Not directly applicable to the proposed amendment.
<i>(e) to provide for the consolidation of approvals for land use and development and related matters, and to co-ordinate planning approvals with related approvals;</i>	Not directly applicable to the proposed amendment.
<i>(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;</i>	This amendment seeks to ensure the zoning is consistent with the designated use of the residential property and therefore ensure a pleasant and efficient living environment; and to ensure the access to open space is efficient and safe working environment.
<i>(g) to conserve those buildings and areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value;</i>	The proposed rezoning does not alter any matter related to any area of historic or cultural significance.
<i>(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</i>	This amendment will not alter public infrastructure. The subject land has proximity to recognised natural values and no alterations to such values is proposed and they will be protected by provisions of the planning scheme.
<i>(i) to provide a planning framework which fully considers land capability.</i>	Not directly applicable to the proposed amendment.

6.5 STATE POLICIES

The following are the state policies and have been considered as part of this application.

6.5.1 The State Coastal Policy 1996

As the site is within 1 km inland from the high-water mark, consideration of the State Coastal Policy is required. The following is an assessment with regard to the three main principles that guide Tasmania's State Coastal Policy:

POLICY	RESPONSE
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<i>Natural and cultural values of the coast shall be protected.</i>	The proposed amendment will not result in changes to planning provisions that protect the natural and cultural values of the coast.
<i>The coast shall be used and developed in a sustainable manner.</i>	<p>The existing Crown reserve to the south east and Biodiversity controls will minimise impacts from any future development adjacent to the coastal edge.</p> <p>There is appropriate scope to control any potential biodiversity or water quality impacts at the development assessment stage. No changes are proposed to planning provisions that are in place to protect the coastal zone.</p>
<i>Integrated management and protection of the coastal zone is a shared responsibility.</i>	Development or use on the coastal edge would require consent from the Crown as the Landowner. No changes are proposed to provisions that are in place that would protect the coastal zone as managed by the state and local government.

6.5.2 The State Policy on Water Quality Management 1997

The purpose of this Policy is:

To achieve the sustainable management of Tasmania's surface water and groundwater resources by protecting or enhancing their qualities while allowing for sustainable development in accordance with the objectives of Tasmania's Resource Management and Planning System.

The amendment proposed does not alter any provision which relates to, or will have any direct impact on water quality. The proposed rezoning of the subject land will not directly impact on any issues related to water quality given the existing zone provides a range of use and development opportunities. Any future subdivision or development applications for the land regardless of the zoning would be required to detail appropriate water management, through connection to services and appropriate stormwater management practices, consistent with this Policy.

6.5.3 The State Policy on the Protection of Agricultural Land 2009

The subject land classification for agricultural capability is class 4. Class 4 is defined as:

Land well suited to grazing but which is limited to occasional cropping or a very restricted range of crops.

The purpose of this 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 Principles of the Policy are:

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 proposed rezoning will not result in fettering or constraint of any nearby agricultural use. The land is already zoned for the purpose of urban expansion, indicating that there was not potential for an unreasonable

	impact on nearby agricultural land.
<i>2. Use or development of prime agricultural land should not result in unnecessary conversion to non-agricultural use or agricultural use not dependent on the soil as the growth medium.</i>	The subject land is not prime agricultural land.
<i>3. Use or development, other than residential, of prime agricultural land that is directly associated with, and a subservient part of, an agricultural use of that land is consistent with this Policy.</i>	The subject land is not prime agricultural land.
<i>4. The development of utilities, extractive industries and controlled environment agriculture on prime agricultural land may be allowed, having regard to criteria, ...</i>	The subject land is not prime agricultural land.
<i>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.</i>	While the subject land does have a land capability of class 4 it is not zoned for agricultural purposes and has previously been identified a suitable strategic location for residential development and therefore will not convert agricultural land or restrain an agricultural use.
<i>6. Proposals of significant benefit to a region that may cause prime agricultural land to be converted to non-agricultural use or agricultural use not dependent on the soil as a growth medium, and which are not covered by Principles 3, 4 or 5, will need to demonstrate significant benefits to the region based on an assessment of the social, environmental and economic costs and benefits.</i>	The subject land is not prime agricultural land.
<i>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.</i>	The existing zoning of the land is for the purpose of an urban growth area; therefore, this is not applicable to the proposed amendment.
<i>8. Provision must be made for the appropriate protection of agricultural land within irrigation districts proclaimed under Part 9 of the Water Management Act 1999 and may be made for the protection of other areas that may benefit from broad-scale irrigation development.</i>	Not applicable to the proposed amendment.
<i>9. Planning schemes must not prohibit or require a discretionary permit for an agricultural use on land zoned for rural purposes where that use depends on the soil as the growth medium, except as prescribed in Principles 10 and 11.</i>	Not relevant to proposed amendment.
<i>10. New plantation forestry must not be established on prime agricultural land unless a planning scheme ...</i>	Not relevant to proposed amendment.
<i>11. Planning schemes may require a discretionary permit for plantation forestry where it is necessary to protect, maintain and develop existing agricultural uses that are the recognised fundamental and critical components of the economy of the entire municipal area, and are essential to maintaining the sustainability of that economy.</i>	Not relevant to proposed amendment.

6.5.4 National Environment Protection Measures (NEPMs)

NEPMs are taken to be State Policies in Tasmania. NEPMs are made under Commonwealth legislation and given effect in Tasmania through the State Policies and Projects Act.

The current NEPMs are:

- Air Toxics
- Ambient Air Quality
- Assessment of Site Contamination
- Diesel Vehicle Emissions
- Movement of Controlled Waste
- National Pollutant Inventory
- Used Packaging

The Codes within the Scheme deal in detail with the relevant matters (noise and air quality) and the assessment of an application can be undertaken against the appropriate Use and Development Standards. The proposed amendment is not considered affected by the other NEPMs.

5 ARTHUR HWY, SORELL



5 ARTHUR HWY, SORELL

Planning Scheme Amendment Request

Sorell Interim Planning Scheme 2015

Last Updated - 22 April 2020 v3

Author - Laura Ashelford

Review - Irene Duckett

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EXECUTIVE SUMMARY

This reports forms part of a request for an amendment to *the Sorell Interim Planning Scheme 2015*, pursuant to the former provisions of Section S33 of the *Land Use Planning and Approval Act 1993* (LUPAA). This application has been prepared in consultation with Council Officers.

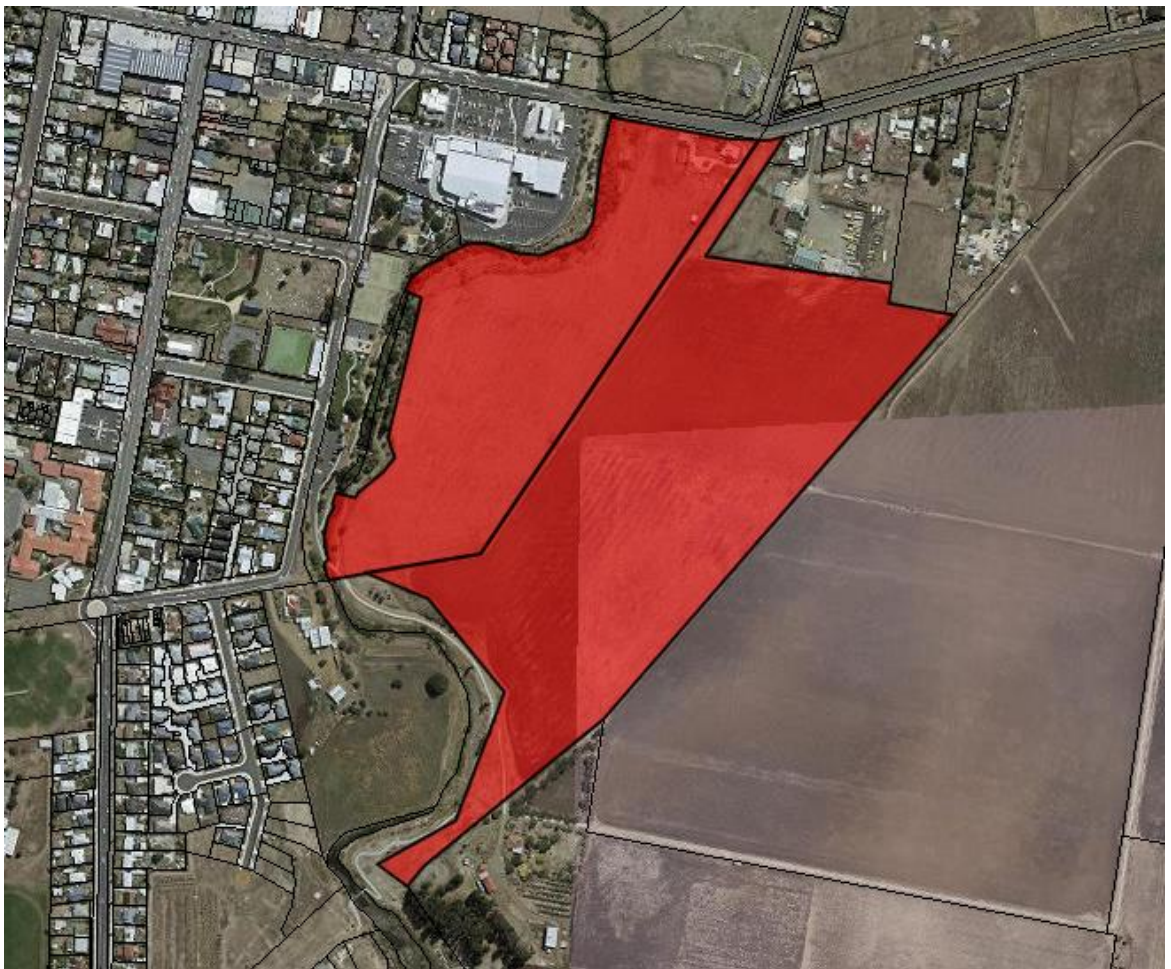


Figure 1: Site location (Source: www.theLIST.tas.com.au © State of Tasmania).

The subject land is located at 5 Arthur Highway and Lot 1 Arthur Highway, Sorell. The sites contain a 35m wide strip along the far eastern boundary that is designated for the future Sorell Bypass.

The purpose of this amendment is to allow for a future application to be made for subdivision that is consistent with the intent of the Sorell Land Supply Strategy. The site is recognised within the strategy as being part of the existing greenfield stock for the Sorell municipality.

This application involves the rezoning of approximately 16.89 hectares of Particular Purpose - Urban Growth Zone to General Residential. The application proposes that the land within the site that is currently zoned Open Space and Particular Purpose - Future Road Corridor remain unchanged.

An application for the subdivision will be submitted at a later stage and is not included in this application. This report assesses the strategic elements supporting an amendment to the Scheme and the statutory controls within the *Sorell Interim Planning Scheme 2015* (SIPS). The amendment has been prepared in response to the requirements of the Act and the State policies.

INTRODUCTION

Ireneinc Planning and Urban Design has been engaged by Frank Morgan to prepare an amendment to the planning provisions for the land at 5 Arthur Hwy, Sorell. This report forms part of the request for an amendment to the *Sorell Interim Planning Scheme 2015*. In accordance with S8C and the Savings and Transitional Provisions of Schedule 6 of the *Land Use Planning Approvals Act 1993* (the Act), requests for amendment to the Scheme are to be made in accordance with the former provisions Section 33 of the Act. This report includes the strategic background and consideration of the proposed amendment against the requirements of LUPAA and the State policies.

The proposed amendment is for that portion of the site which is currently zoned Particular Purpose Zone 1 - Urban Growth Zone to General Residential to allow for the subsequent subdivision of the land into residential lots. The proposal does not include any change the part of the site currently zoned Open Space or Particular Purpose Zone 2 - Future Road Corridor.

There is an existing house, large shed, and smaller associated outbuilding on the site.

The Waterway and Coastal Protection Code applies to part of the site. Changes from PPZ1 - Urban Growth Zone to General Residential Zone will not result in changes to the way that the Code applies to the site. The Coastal Erosion Hazard Code (Investigation Area) applies to a small section of the site, and the proposed rezoning will not result in changes to the way that the Code applies to the site.

1.1 BACKGROUND

The site consists of two cadastral parcels on the edge of the Sorell town centre. The site is bordered on its western boundary by the Sorell Rivulet, and has a 35m wide strip along its eastern edge that zoned for the purpose of future road corridor. This portion of the site has long been identified as the location for the Sorell Bypass, this section of the site has been earmarked for this purpose since the 1970s. The subject site is identified in the *Sorell Land Supply Strategy*, commissioned by Sorell Council and written by échelon planning, as a site to be rezoned for the purpose of greenfield residential development.

2. SITE DESCRIPTION

2.1.1 LAND TITLES

The site includes 5 Arthur Highway and Lot 1 Arthur Hwy, Sorell.

REF	LAND TITLE	ADDRESS	AREA
1	CT 16027/1	5 Arthur Highway	7.522ha
2	CT 8740/1	Arthur Highway	12.58ha

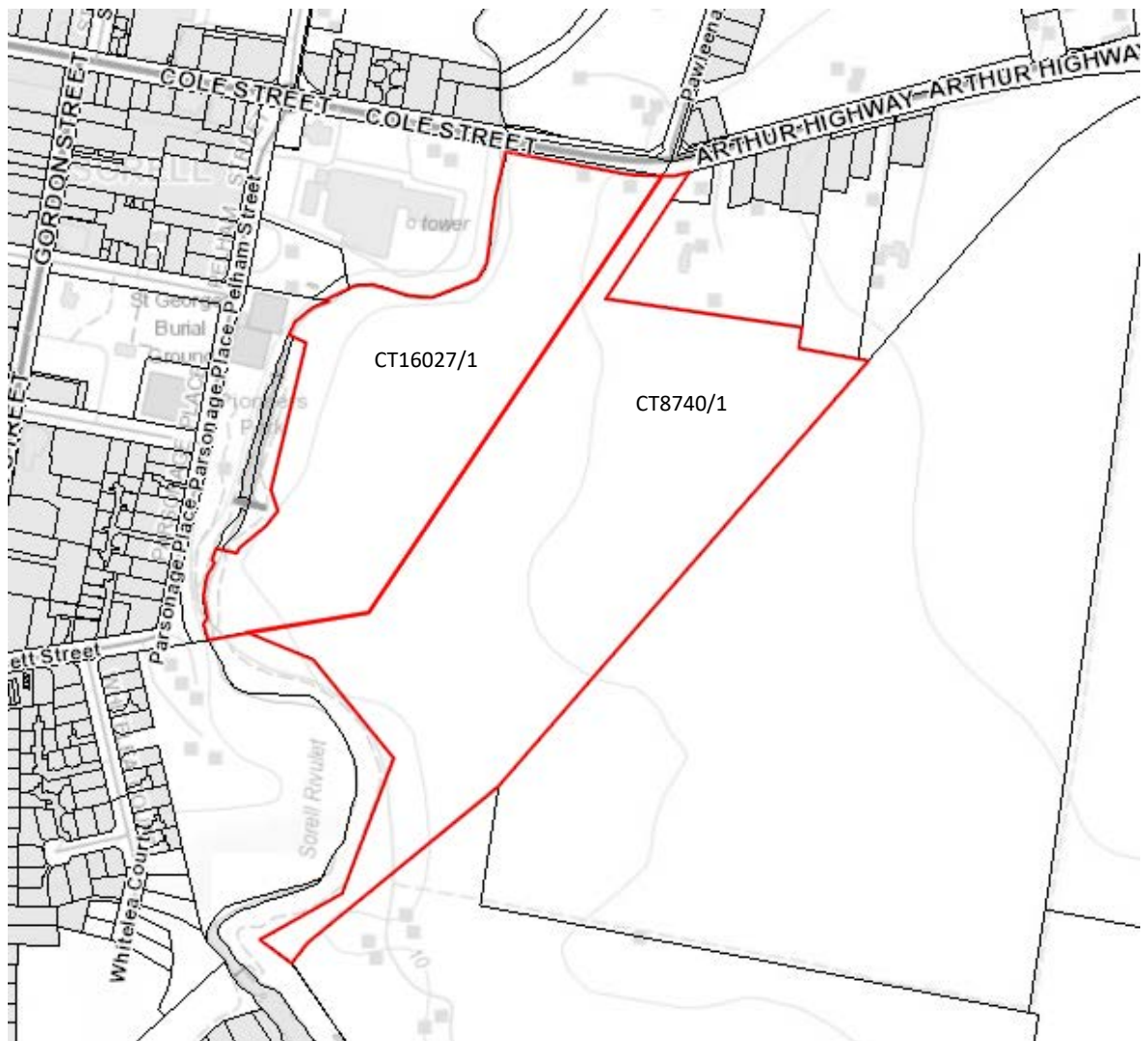


Figure 2: Titles (source: www.theLIST.tas.com.au © State of Tasmania)

2.2 EXISTING USE AND DEVELOPMENT

2.2.1 Subject Site

The site is located at 5 Arthur Highway and is known as 5 Arthur Hwy (CT 16027/1) and Lot 1 Arthur Hwy (CT 8740/1). The site is cleared agricultural land with little in the way of vegetation on the site. There is an existing house and associated outbuildings on the northern boundary of CT 8740/1, the extent of which is shown in Figure 3.



Figure 3: Existing structures located at 5 Arthur Highway (Source: www.theLIST.tas.com.au © State of Tasmania).

2.2.2 Surrounding Land

The subject site is on the eastern edge of the existing township and is surrounded by a wide range of other land uses.

There is a local shopping centre to the north west of the site, Pioneers Park and the Sorell Rivulet are to the west. The Sorell Rivulet runs perpendicular to the western boundary of the site and flows into the Pitt Water-Orielton Lagoon beyond.

The site is bordered by the Arthur Highway to the north and beyond this there are residential lots, zoned General Residential and Low Density Residential. To the east is Rural Resource zoned

agricultural land which has been identified as a future residential growth area as part of the *Sorell Land Supply Strategy* undertaken by Echelon Planning.

2.3 ABORIGINAL HERITAGE

An Aboriginal Heritage Assessment was undertaken by Cultural Heritage Management Australia (CHMA) which identified that there is one Aboriginal Heritage site present on the subject site, which is an artefact scatter comprising two stone artefacts.

It is recommended by CHMA that proposed subdivision should be designed to avoid impact the Aboriginal Heritage site.

2.4 EUROPEAN HERITAGE

The site is not listed on the Tasmanian Heritage Register and is not subject to the local Historic Heritage Code.

2.5 BUSHFIRE RISK MANAGEMENT

The site within 100m of 1 hectare of bushfire prone vegetation, being grassland, and therefore the Bushfire-Prone Areas Code applies. The proposed rezoning from Particular Purpose - Urban Growth Zone to General Residential will not result in changes to the way that the Code applies to the site. Given that the surrounding land is pasture, the site is considered capable of maintaining a Bushfire Hazard Management Area within its boundaries and that risk can adequately be addressed through a bushfire assessment at the time of a development application for subdivision being submitted.

2.6 TRAFFIC

A Traffic Impact Assessment (TIA) for the proposed rezoning has been undertaken by Milan Prodanovic, dated February 2020. The TIA was prepared on the assumption that the rezoning of the subject site may result in the subsequent subdivision of up to 250 residential lots.

Based on this it was found that future subdivision of the site would be expected to generate 2,000 vehicle movement per day, and around 200 vehicle movements per hour during peak hour periods. It has assumed that all traffic generated by any such development would access the road network via a subdivision road that junctions with the Arthur Highway.

It found that the future construction of the eastern Arthur Hwy bypass will have the greatest impact on the long-term efficient operation of the Arthur Highway between Nugent Road and the town centre.

Without the completed Arthur Hwy bypass the TIA found that a future Pawleena Road/subdivisional road junction including the installation of a channelised right turn lane to the highway would allow for the efficient operation of the junction beyond the next five years. This junction would however not be operational **in ten years' time without the construction of the bypass.**

The TIA recommends that the installation of a roundabout control at the Pawleena Road/subdivision road intersection will extend the efficient operation for a number of years. Milan Prodanovic has commenced discussion with the Department of State Growth to determine the support for the future installation of such a roundabout control.

2.7 NATURAL VALUES

TasVeg 3.0 mapping indicates that there are two vegetation communities mapped on the site; FUR urban areas which covers the whole of 5 Arthur Hwy, and FAG agricultural land which covers the whole of Lot 1 Arthur Hwy.

In addition to the TasVeg 3.0 an additional vegetation community, weed infestation (FWU), was identified as part of the Ecological Assessment undertaken by ECOtas. The site has been rural pasture for many years. The subject site is in proximity to the Pitt Water-Orielton Lagoon Ramsar wetland site. The scope of the listed Ramsar site extends up Sorell Rivulet, bounding some of Lot 1 Arthur Highway and as far as the southern limit of 5 Arthur Highway. In considering the requirements of the EPBCA and the Commonwealth *Significant Impact Guidelines* policy statement, ECOtas considered that the rezoning and potential development of the site did not pose a substantial risk to the integrity of the Ramsar wetland. It was noted that to ensure appropriate protection is maintained for the wetland that at the development stage, the development of a soil and water management plan (including stormwater, sewerage, and surface run-off) would be important in ensuring the ongoing protection of the wetlands natural values. This is suggested for any proposed development on the site, not a measure that would be unique to residential development. Until a final land use is determined, it will be difficult for the ecologist to precisely assess the potential impact of future use on the adjacent Pitt Water - Orielton Lagoon Ramsar site.

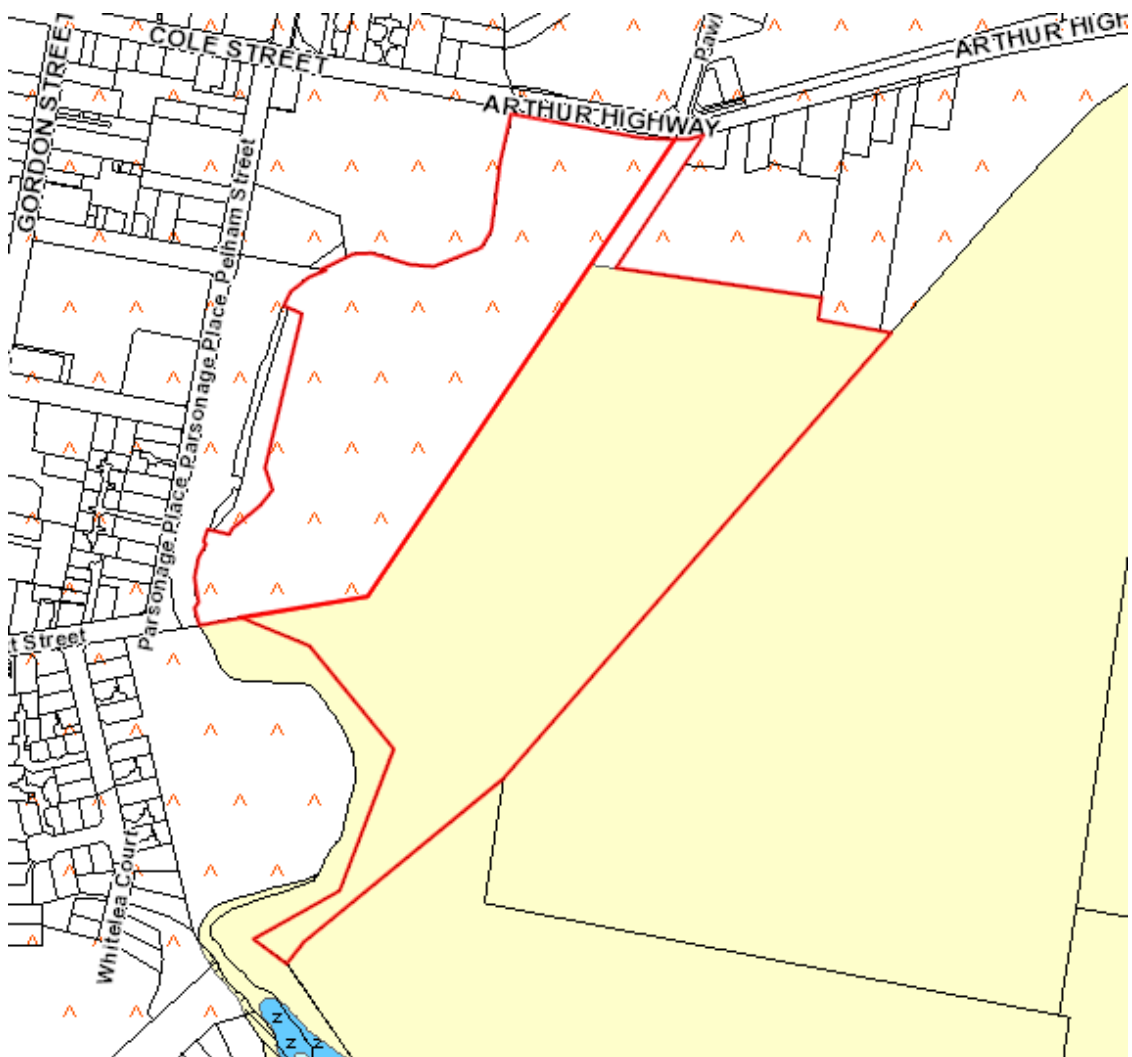


Figure 4: TasVeg 3.0 mapping (Source: www.theLIST.tas.com.au © State of Tasmania).

3. CURRENT PLANNING SCHEME PROVISIONS

The subject land is within the area of the *Sorell Interim Planning Scheme 2015* (the Scheme). The following provisions of the Scheme relevant to the site and use and development proposed for the land apply.

3.1 EXISITING ZONES

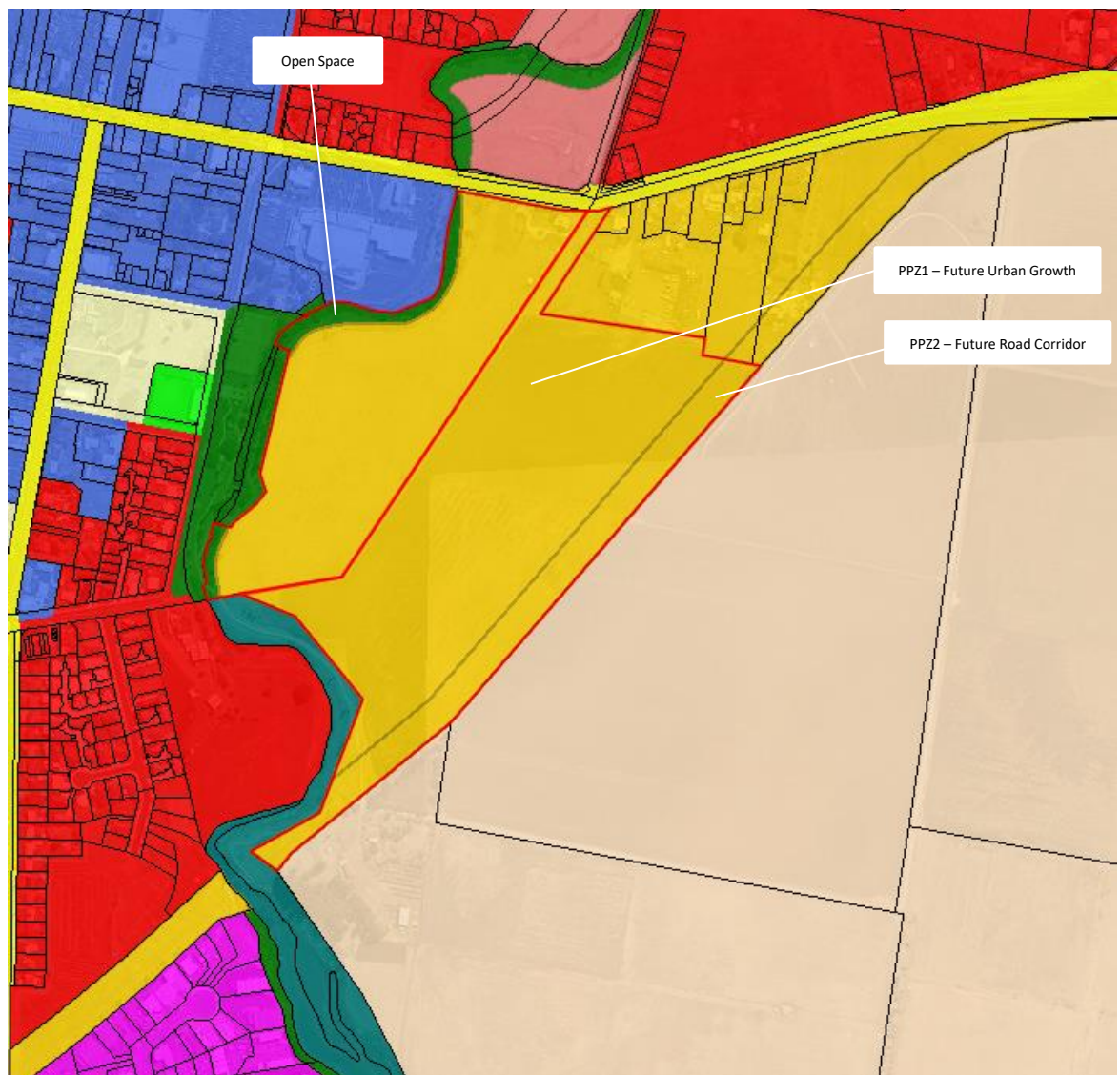


Figure 5: Existing zoning (Source: www.theLIST.tas.com.au © State of Tasmania)

The subject site is zoned PPZ1 - Urban Growth Zone (gold) and PPZ2 - Future Road Corridor (along the eastern edge of subject site, as well as a small section to the west and north west zoned Open Space (green).

The surrounding land is subject to several different zonings including, the shopping centre to the north west which is zoned General Business (royal blue), Pioneers Park to the west which is zoned

Open Space (green), Sorell Rivulet which is zoned Environmental Management (teal). To the east the agricultural land is zoned Rural Resource (bisque) and land to the north is likewise zoned PPZ1 and PPZ2, as well as being adjacent to the Arthur Highway which is zoned Utilities (yellow). Land to the north of the Arthur Highway is zoned General Residential (red) and Low Density Residential (light coral).

3.2 PARTICULAR PURPOSE ZONE 1 - URBAN GROWTH ZONE

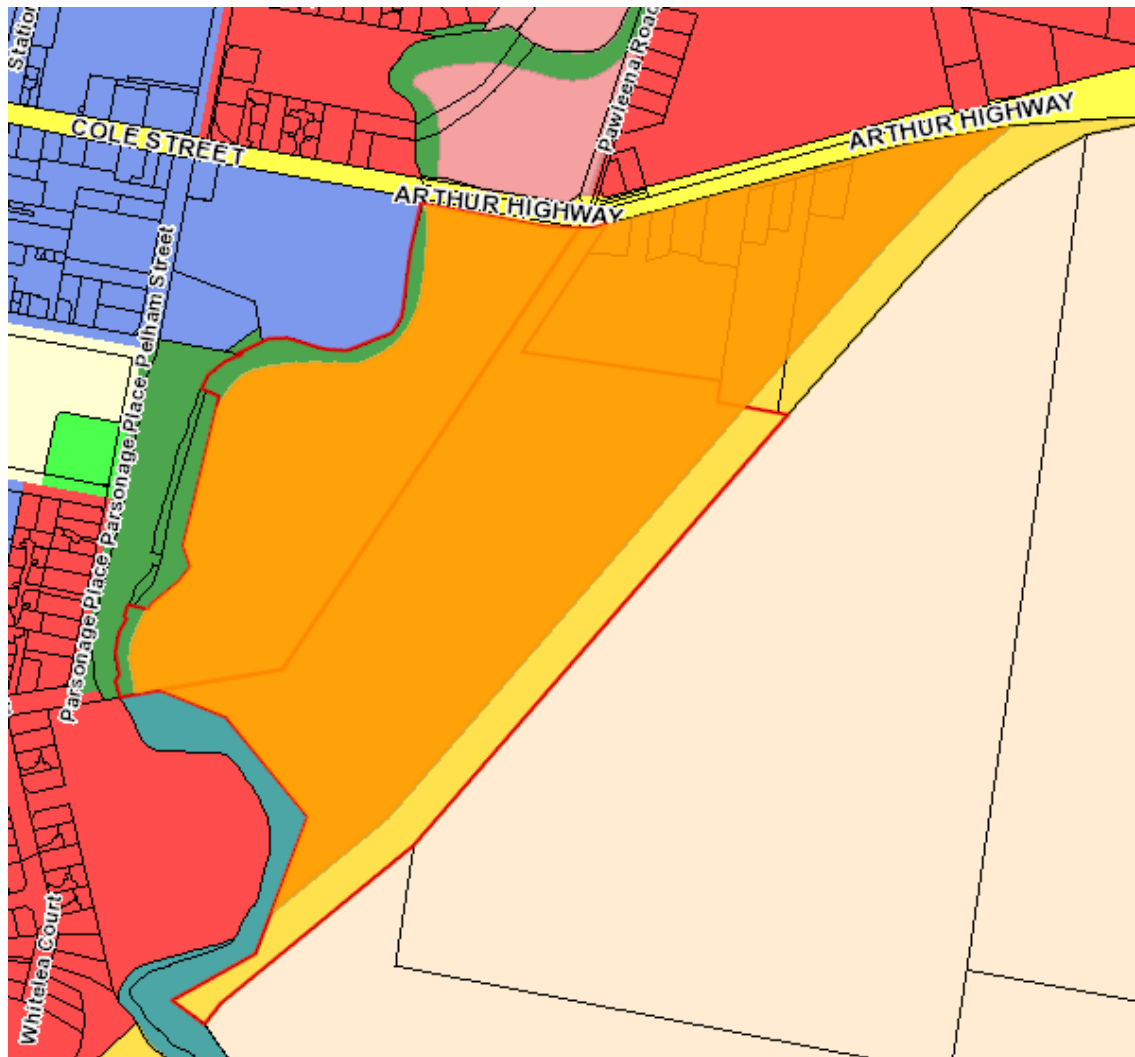


Figure 6: Area of the site zoned Particular Purpose Zone 1 - Urban Growth Zone shown in orange (Source: www.theLIST.tas.com.au © State of Tasmania)

3.2.1 Zone Purpose

32.1.1 Zone Purpose Statements

- 32.1.1.1 To identify non-urban land intended to be largely converted to urban use and development in the future.
- 32.1.1.2 To ensure that the development of the identified non-urban land does not compromise its potential for future urban use and development.
- 32.1.1.3 To support a land release program of rezoning of non-urban land into urban land in accordance with the Greater Hobart Settlement Strategy (Southern Tasmania Regional Land Use Strategy 2010-2035).

There are no Local Area Objectives or Desired Future Character Statements for this zone.

3.3 PARTICULAR PURPOSE ZONE 2 - FUTURE ROAD CORRIDOR

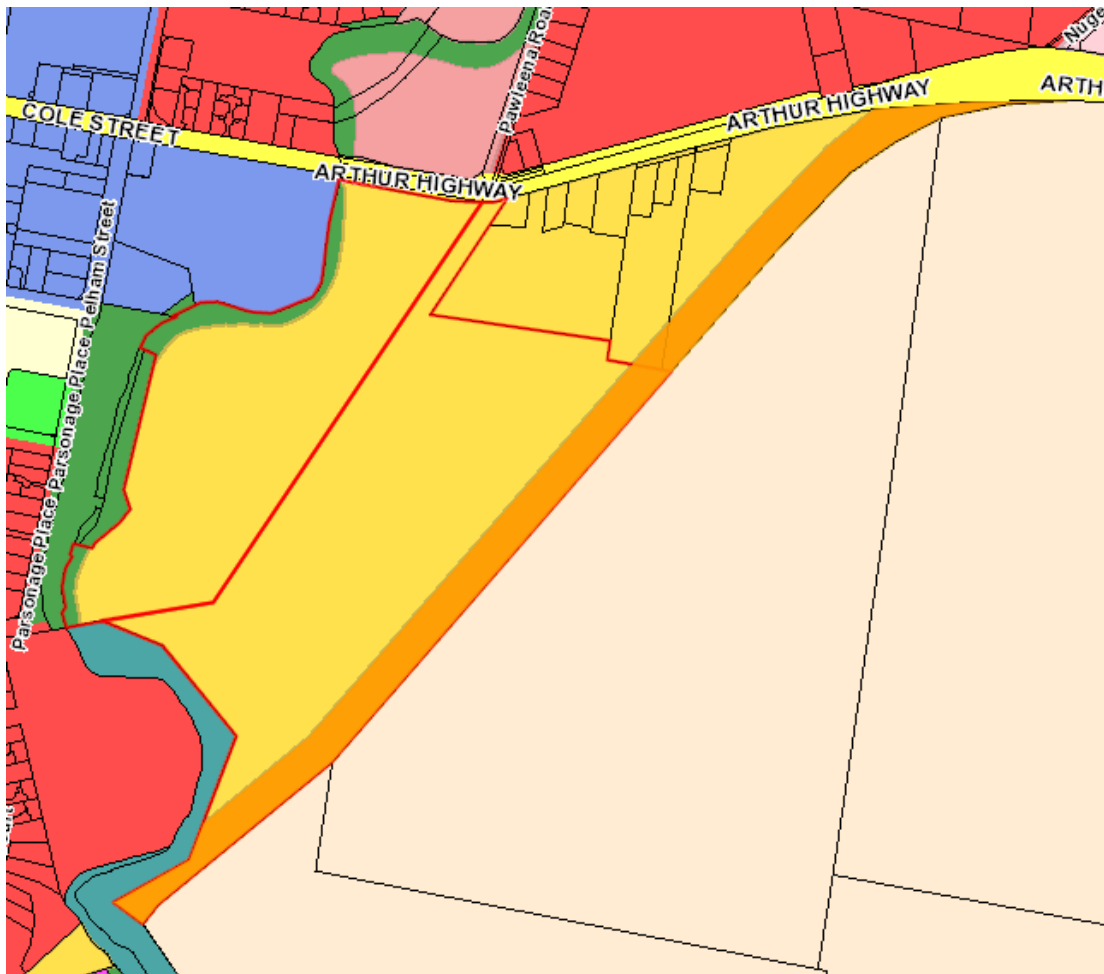


Figure 7: Area of the site zoned Particular Purpose Zone 2 - Future Road Corridor shown in orange (Source: www.theLIST.tas.com.au © State of Tasmania)

3.3.1 Zone Purpose

33.1.1 Zone Purpose Statements

33.1.1.1 To identify land that may be required for a road corridor in the future.

33.1.1.2 To protect the corridor from use or development, including on adjacent land, which may affect the future safety, efficiency and amenity of the road corridor or the use or development on adjoining land.

33.1.1.3 To ensure that a future corridor is not compromised by use or development that prevents the road being constructed through its chosen route as a result of an increase in social or economic costs.

There are no Local Area Objectives or Desired Future Character Statements for this zone.

3.4 OTHER RELEVANT PROVISIONS

3.4.1 Waterway and Coastal Protection Code

The Waterway and Coastal Protection Code applies to a large portion of the subject site as described in the figure below.

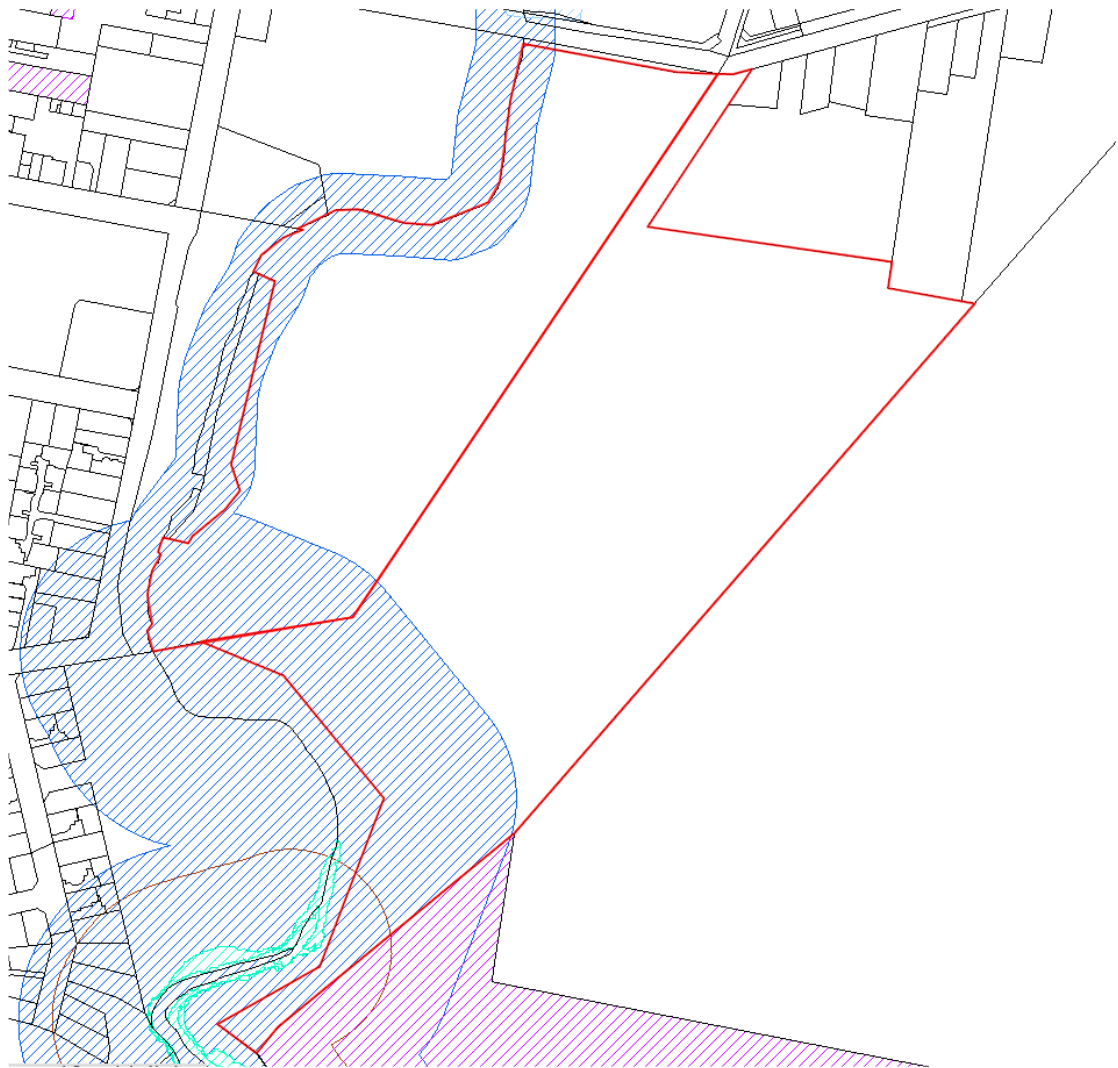


Figure 8: Waterway and Coastal Protection Code (blue) and Subject land (red) (source: www.theLIST.tas.com.au © State of Tasmania)

Development within the Waterway and Coastal Protection area would be subject to the Code unless the development does not involve the clearing of vegetation or soil disturbance.

Any application for proposed buildings or works requiring clearance of native vegetation would likely be required to submit a Coastal Impact Assessment and/or a Natural Values Assessment by a suitably qualified person to ensure compliance with the Code provisions.

Issues arising from buildings or works within this area can be addressed during subsequent Development Application stages. Under the SPPs, standards for the Waterway and Coastal Protection overlays are contained within the Natural Assets Code. The Code does not apply to use. Alterations, extensions or new buildings within the Waterway and Coastal Protection area must comply with the use and development standards, which can be assessed during the Development Application process.

3.4.2 Road and Railway Assets Code

The standards of the Road and Railway Assets Code provide requirements for the continued safety and efficiency of the road and railway networks based on the uses being undertaken on the site. These standards also require compliance with Australian Standards in regard to the design of junctions, accesses, maintaining sight lines and level crossings. The provisions of the Code are

addressed as part of the Development Application process once specific uses and/or development is confirmed.

3.4.3 Land capability

The subject land classification for agricultural capability is class 4. Class 4 is defined as:

Land well suited to grazing but which is limited to occasional cropping or a very restricted range of crops.

This land is not considered to be prime agricultural land, suited only to grazing and very limited cropping. The subject site is not currently zoned for agricultural purposes, as it is identified as future urban area in the form of greenfield development. The rezoning of the land does not increase the risk of use or development fettering surrounding agricultural uses.



Figure 9: Land Capability, class 4 shown shaded green (Source: www.theLIST.tas.com.au © State of Tasmania)

4. STRATEGIC ANALYSIS

The following is an assessment of the strategic documents that are relevant to the future use and development of the subject land and site. The *Southern Tasmanian Regional Land Use Strategy 2010-2035*, amended 9th May 2018 (STRLUS), is the key strategic document, and consideration is given to the *Sorell Land Supply Strategy 2019 Update*.

4.1 SOUTHERN TASMANIAN REGIONAL LAND USE STRATEGY

4.2 NATURAL VALUES

A Natural Values Assessment was undertaken by ECOtas, dated October 2019, which concluded that the site does not include any significant flora or fauna values. It is however in proximity of a Ramsar Wetland site. The survey also identified several weed species on the site.

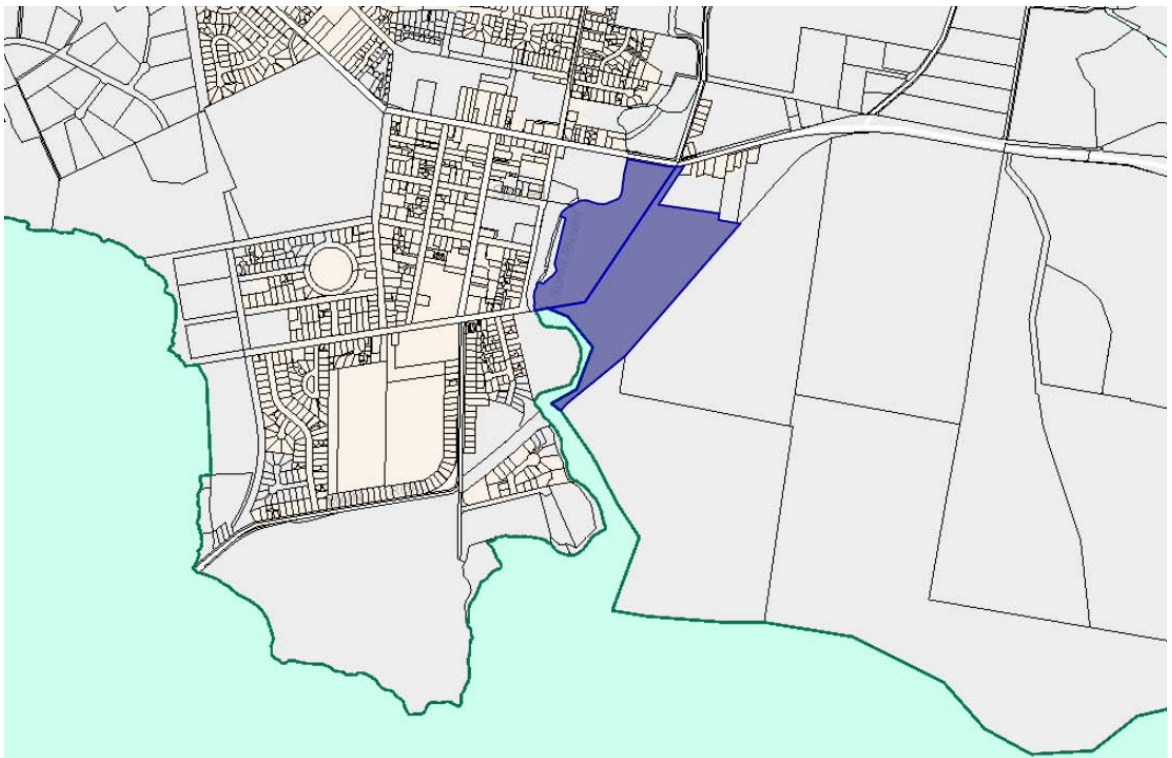


Figure 10: Site (Dark Blue) and Ramsar Wetland (Spearment) with Cadastre Parcels (The List 2019)

Works and any substantial disturbance would be subject to an application under the *Sorell Interim Planning Scheme 2015*, as consistent with the STRLUS.

4.2.1 5.5 Regional Policies

BNV 5 Restrict the spread of declared weeds under the Weed Management Act 1999 and assist in their removal.

BNV 5.1 Provide for construction management plans where vegetation clearance or soil disturbance is undertaken that include weed management actions where the site is known, or suspected, to contain declared weeds.

The site survey identified the following declared weed species on the site; Hairy fiddleneck, boneseed, fennel, canary broom, hoary cress, African boxthorn, white horehound, blackberry, crack willow, and gorse.

The spread of declared weeds could be satisfactorily controlled through conditions on a permit for development when an application is made. Measures such as vehicle hygiene and a weed control plan can be implemented for development if required. However, at this stage it is not conclusive as to whether a stand-alone weed and hygiene management plan will be required. The Natural Values Assessment recommended that the weed population be handled in accordance with the *Tasmanian Weed Management Act 1999* and any relevant council policies.

4.2.2 6.5 Water Resources Regional Policies

WR 1 Protect and manage the ecological health, environmental values and water quality of surface and groundwater, including waterways, wetlands and estuaries

WR 1.4 Ensure development that includes vegetation clearance and/or soil disturbance is undertaken in accordance with construction management plans to minimise soil loss and associated sedimentation of waterways and wetlands.

WR 2 Manage wetlands and waterways for their water quality, scenic, biodiversity, tourism and recreational values

WR 2.2 Provide public access along waterways via tracks and trails where land tenure allows, where there is management capacity and where impacts on biodiversity, native vegetation and geology can be kept to acceptable levels

The subject site is in proximity to the Pitt Water-Orielton Lagoon Ramsar wetland site. The scope of the listed Ramsar site extends up Sorell Rivulet, bounding some of Lot 1 Arthur Highway as far as the southern limit of 5 Arthur Highway. In considering the requirements of the EPBCA and Commonwealths *Significant Impact Guidelines* policy statement, it was not considered that the rezoning and potential development of the site posed a substantial risk to the integrity of the Ramsar wetland. It was noted that to ensure appropriate protection is maintained for the wetland that at the development stage, the development of a soil and water management plan (including stormwater, sewerage, and surface run-off) would be important in ensuring the ongoing protection of the wetlands natural values. This is suggested for any proposed development on the site, and not a measure that would be unique to residential development. Until a final land use is determined, it will be difficult for the ecologist to precisely assess the potential impact of future use on the adjacent Pitt Water - Orielton Lagoon Ramsar site.

The proposed rezoning is not considered to significantly impact on biodiversity values on or nearby the site. It is considered that appropriate measures can be put in place during the LUPAA assessment and construction phases to ensure the ongoing use of the site protects the Ramsar Wetland, Pitt Water-Orielton Lagoon.

4.3 HAZARD MANAGEMENT

The site is contained within the Bushfire-Prone Areas Code under the *Sorell Interim Planning Scheme 2015* given it is within 100m of 1ha of bushfire-prone vegetation. Given the nature of the surrounding vegetation being agricultural pasture, it is considered that the site is capable of maintaining a Bushfire Hazard Management Area within its boundaries. The neighbouring pasture

to the north east is also designated as future urban area within the Sorell Land Supply Strategy. With the intended change to urban/suburban environment the bushfire risk will likely be reduced in the future. Considering the current and future use of the subject land and surrounds it is believed that bushfire risk and mitigation measures can be adequately addressed at the stage of a future Development Application for subdivision being made. In addition, the land identified for the Sorell Bypass will remain undeveloped, this portion of land can be managed to allow for the 35m wide strip to act as a buffer, in addition to any further requirements specific to the plan of subdivision.

The proposal is therefore consistent with MRH1 and 1.1.

MRH 1 Minimise the risk of loss of life and property from bushfires.

MRH 1.1 Provide for the management and mitigation of bushfire risk at the earliest possible stage of the land use planning process (rezoning or if no rezoning required; subdivision) by the identification and protection (in perpetuity) of buffer distances or through the design and layout of lots.

4.4 SETTLEMENT AND RESIDENTIAL DEVELOPMENT

Sorell is considered a Major Satellite of Greater Hobart. The site falls within the Urban Growth Boundary (UGB) and has been identified in the STRLUS as a Greenfield Development Precinct. This is further supported by investigations and analysis provided in the Sorell Land Supply Strategy 2017 & 2019.

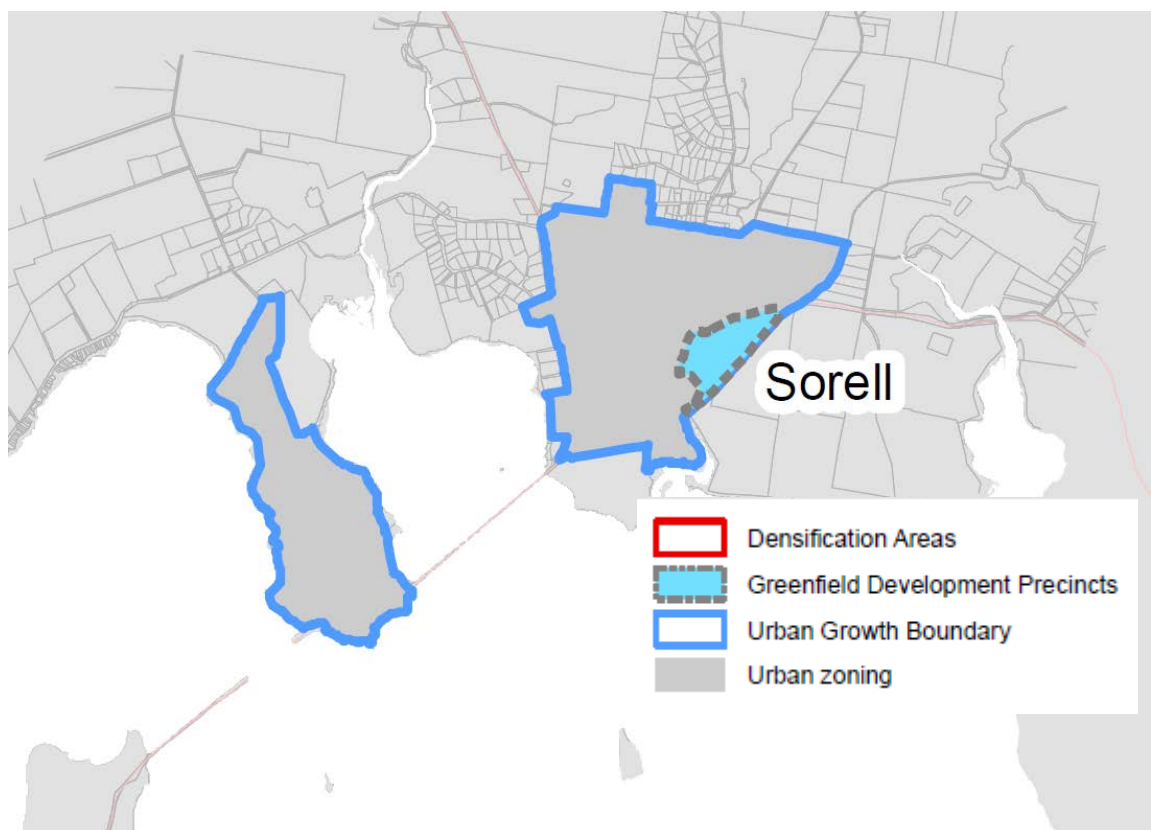


Figure 11: Extract from the Urban Growth Boundary map showing the subject site mapped as a Greenfield Development Precinct (Source: SRLUS 2018)

4.5 SORELL LAND SUPPLY STRATEGY

Sorell is a major satellite in the Greater Hobart region. The strategy suggests that Sorell is one of the fastest growing municipalities in the southern area, experiencing 3% population growth

annually. This influx requires a tailored approach of 70% greenfield/30% infill for new development. This is considerably influenced by the topographical restraints of the area.

In the assessment of the currently planned greenfield sites the strategy indicates that these will only satisfy an 8-year demand. The strategy identifies Lot 1 and 5 Arthur Highway as within 'Stage 1', a medium density residential area, proposing that this site should be developed under the General Residential Zone. The strategy goes further to say:

This land is already in the Particular Purpose (Urban Growth) Zone and should be zoned General Residential Immediately. The Sorell Land Use Strategy identifies it as part of the existing greenfield land supply.

This amendment proposal is directly in accordance with the Sorell Land Supply Strategy in rezoning the land to general residential to facilitate the development of residential parcels.

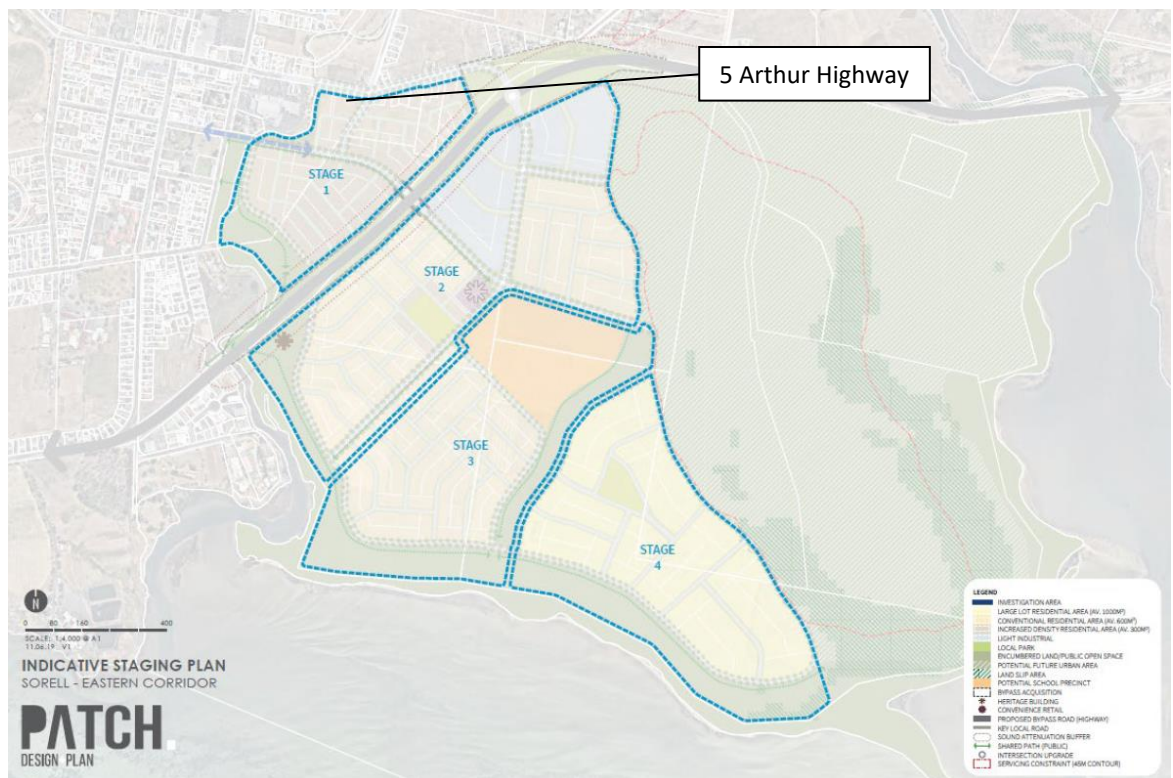


Figure 12 Staging Plan (source: Sorell Land Supply Strategy - Stage 3 © Sorell Council)

4.5.1 UPDATED LAND SUPPLY ANALYSIS

While the Sorell Land Supply Strategy provides an overview of the land supply status in the township, data provided by Sorell Council shows that the actual growth rate is significantly higher than the Strategy anticipated.

The total number of dwelling approvals grew from 137 dwellings in the 2015-16 financial year to 370 dwellings, including multiple dwellings, in the 2018-19 year. As shown in Table 1 this represents a rapid growth in dwelling demand, growing from a 6% growth rate between 2015-16 to 2016-17, up to 72% growth between 2017-18 and 2018-19.

The approval of 280 single dwellings and 90 multiple dwellings in the 2018-19 year is considerably more than projected in the Sorell Land Supply Strategy 2019 Stage 1 (p.24), which estimated demand of 113 dwellings required in 2019, using 2019 population growth statistics.

This demand has been met by the approved subdivision of approximately 624 lots within the Sorell LGA since 2016, and another 500-550 potential lots which are in processes of being subdivided.

The Land Supply strategy estimates that there is currently only 9.5 years of greenfield land supply, and that 572 additional lots are required by 2038 (Echelon Planning p. 26). Assuming a modest doubling of demand from what is estimated in the Land Supply Strategy it can be assumed that the current land supply will not meet the demand beyond the next 4-5 years.

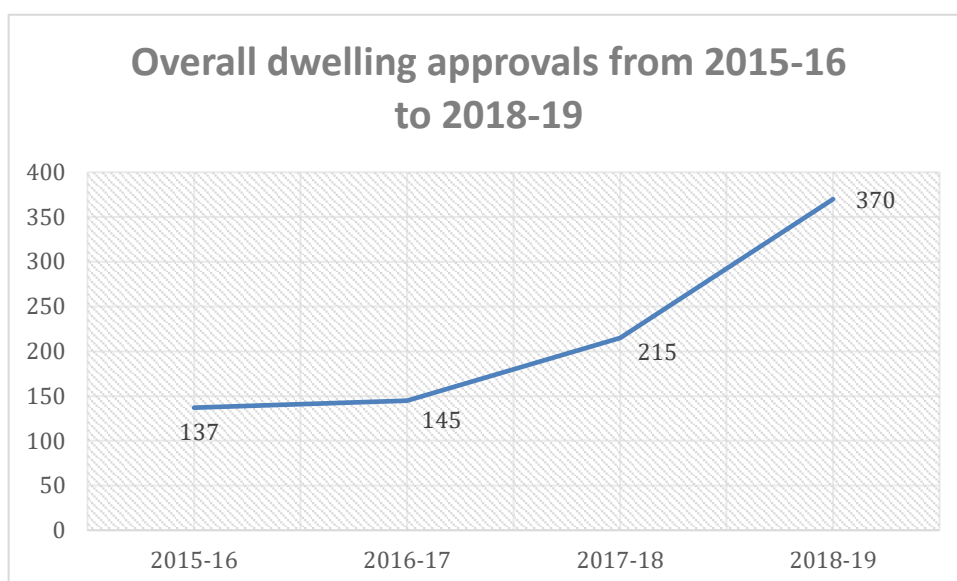


Table 1 Overall dwelling approvals from 2015-16 to 2018-19 in Sorell LGA (Data source: Sorell Council)

4.5.2 2019 POPULATION PROJECTIONS

2019 population projections from the Department of Treasury and Cabinet show that the Sorell municipality is projected to experience the second highest growth rate of any LGA in Tasmania in percentage terms from 2017 to 2042, with a projected average growth rate of 1.15 per cent per annum (Department of Treasury and Finance, 2019, p. 10). This equates to an estimated growth of an additional 4895 persons over this period. During the 2017-18 year Sorell exceeded the yearly average with a 3% growth in population (Department of Treasury and Finance, 2019).

Sorell Projections – Medium Series

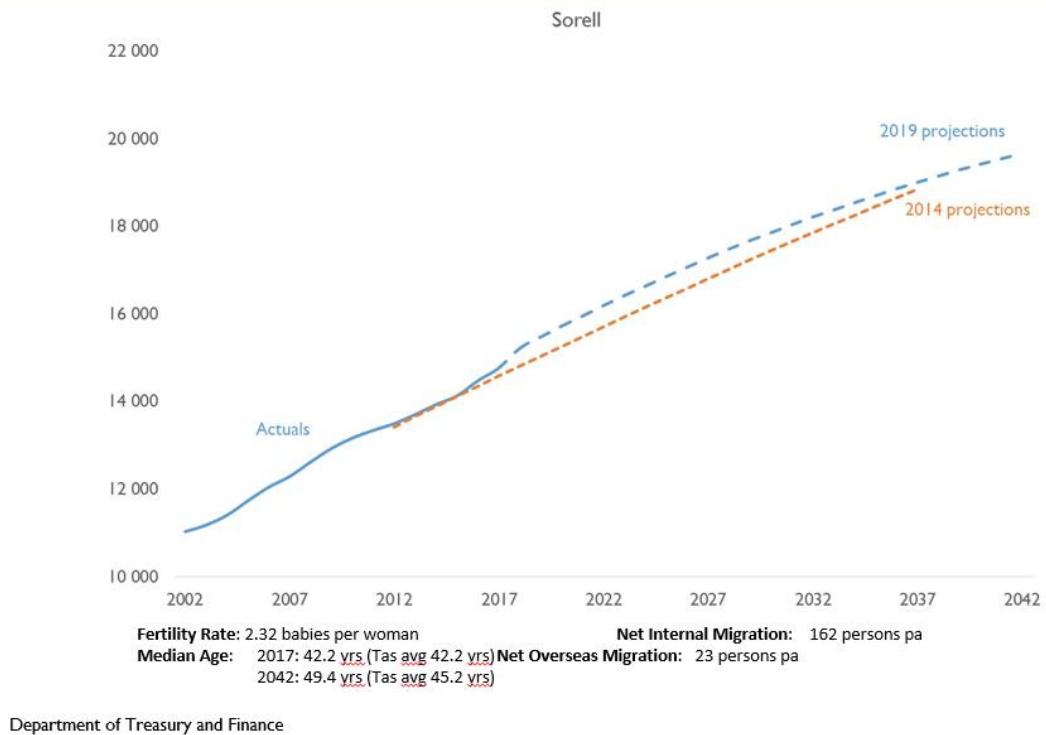


Figure 13 Sorell population projections data (Department of Treasury and Finance 2019)

Strong population growth in 2018-19 and the increase in overall dwelling approvals in the same year suggest a strong upward trend in growth in the Municipality, and continued growth would likely see an increased population growth beyond the official medium series projections, (as shown in Figure 13).

The *Sorell to Hobart Planning Study* is a report prepared for State Growth which analyses land use patterns and development opportunities in the Sorell and Clarence LGAs.

The report which was prepared for State Growth in 2018 by ERA Planning estimates an average annual growth rate of 1.8%, more than the 1.2% projected in the official Department of Treasury and Finance figures and that reflected in the Echelon Land Supply Report. The report identifies the Sorell township as having strong strategic growth despite limited employment opportunities and access to transport links.

The report identifies the Tasmanian Government's commitment to establish the South East Region Emergency Services hub, as well as other opportunities for the establishment of an independent school and other social infrastructure to support jobs in the area.

The average residential density within the General Residential zoned land in Sorell is 10 dwellings per hectare. The subdivision of lots which encourage higher density development will provide many benefits such as better use of serviced land and access to public transport, as recommended by the ERA report.

4.5.3 REGIONAL POLICIES

The proposed rezoning is situated within the Greenfield Development Precinct for Sorell (Sorell Township East) in the STRLUS. The rezoning would result in the land being able to be developed

in accordance with the intent of STRLUS, given the site is specifically designated for future residential subdivision.

The following policies relate future residential development of the site:

SRD 1.1 Implement the Regional Settlement Strategy and associated growth management strategies through planning schemes.

The site was identified as an urban growth area through the particular purpose zone (PPZ1 Urban Growth Zone) in the *Sorell Interim Planning Scheme 2015* in response the land being identified for Greenfield development in the STRLUS. This proposal is for an amendment to the *Sorell Interim Planning Scheme 2015* to facilitate the residential development of the greenfield land in accordance with the STRLUS.

SRD 2 Manage residential growth for Greater Hobart on a whole of settlement basis and in a manner that balances the needs for greater sustainability, housing choice and affordability.

SRD 2.1 Ensure residential growth for Greater Hobart occurs through 50% infill development and 50% greenfield development.

SRD 2.2 Manage greenfield growth through an Urban Growth Boundary, which sets a 20 year supply limit with associated growth limits on dormitory suburbs.

SRD 2.3 Provide greenfield land for residential purposes across the following Greenfield Development Precincts:

- **Bridgewater North**
- **Brighton South**
- **Droughty Point Corridor**
- **Gagebrook/Old Beach**
- **Granton (Upper Hilton Road up to and including Black Snake Village)**
- **Midway Point North**
- **Risdon Vale to Geilston Bay**
- **Sorell Township East**
- **Spring Farm/Huntingfield South**

Residential growth is managed at a whole settlement basis through the urban growth boundary, land use controls and through the use and development application process. The site is within the Sorell Township East, an identified greenfield development precinct within the STRLUS and therefore will contribute to the 50 percent greenfield development target. The proposal is for rezoning this land from Particular Purpose Zone (PPPZ1 Urban Growth Zone) to General Residential is consistent with the findings and intent of the STRLUS.

SRD 2.4 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

The proposed rezoning would be for greenfield development for residential purposes.

SRD 2.5 Implement a Residential Land Release Program that follows a land release hierarchy planning processes as follows:

1. *Strategy (greenfield targets within urban growth boundary);*
2. *Conceptual Sequencing Plan;*
3. *Precinct Structure Plans (for each Greenfield Development Precinct);*
4. *Subdivision Permit; and*

5. Use and Development Permit

No Land Release Programs have been established regionally, however, Sorell Council have commissioned the 2017 Land Supply Strategy for their municipality which has since been updated in 2019 to reflect the changes which have occurred since 2017. The proposal is consistent with the 2017 Land Supply Strategy, which identified the land in the Sorell Township Growth Area (R7) and demonstrated through a concept masterplan the future urban structure. This rezoning will facilitate the future use and development which aligns with the land release hierarchy planning processes.

SRD 2.6 Increase densities to an average of at least 25 dwellings per hectare (net density)(i) within a distance of 400 to 800 metres of Integrated transit corridors and Principal and Primary Activity Centres, subject to heritage constraints.

The proposal is not in proximity to principle or primary activity centre, nor an integrated transit corridor. Density can be managed in the planning application stage.

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.

The existing greenfield land supply in the Sorell currently only provides an 8-year supply of greenfield land (Sorell Land Supply Strategy, Stage 3-Masterplans 2019, p. 7). The 8-year supply includes the parcel of land subject to this amendment, and therefore without the rezoning the proportion the greenfield land supply in the residential zones is closer to 5.7 years.

Sorell has also experience some of the strongest regional population growth, a trend which is predicted to continue over the next 20 years (Sorell Land Supply Strategy 2019, p.7). It is also considered a Major Satellite of Greater Hobart, and services much of south-eastern Tasmania. Sorell has regional significance.

The Sorell Land Supply Strategy has noted that opportunities for infill development in Sorell is limited as there are few underutilised or vacant sites within the residential zones. The township is therefore dependent on greenfield land supply to accommodate growth within the municipality. The Sorell Land Supply Strategy also states from a regional perspective, Greater Metropolitan Hobart has barriers to where it can grow so potential for greenfield development areas are somewhat limited. This reinforces the importance and opportunity of greenfield land release in areas where it available in order to be consistent with the policies of the STRLUS. By rezoning the site to General Residential, the land will contribute to the regional greenfield land supply, as well as the land supply within Sorell.

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.

The rezoning will allow residential land uses on land currently underutilised. The proposed rezoning is to General Residential Zone **and the zone purpose is to** “to provide for residential use or development that accommodates a range of dwelling types at suburban densities, where full infrastructure services are available or can be provided.” Therefore, the proposed rezoning to the General Residential Zone is consistent with the STRLUS.

SRD 2.10 Investigate the redevelopment to higher densities potential of rural residential areas close to the main urban extent of Greater Hobart.

This land is characterised as rural residential and currently there is only one dwelling located at 5 Arthur Highway, and none at lot 1 Arthur Highway. The land directly adjoins the urban area of the Sorell Township. Investigation have been carried out for higher densities at this location and found this to be a suitable location for residential development (STRLUS and Sorell Land Supply Strategy 2017). The proposed rezoning is the fruition of these investigations.

SRD 2.11 Increase the supply of affordable housing.

The proposed zone change can facilitate the development the increase in supply of affordable housing.

5. AMENDMENT FORMAT

5.1 INTENT OF THE PROPOSED AMENDMENT

The intent of the amendment request is to allow for the future subdivision of the land into residential lots consistent with the Subdivision Standards of the General Residential Zone, to meet the strong demand for residential land in the Sorell area.

The requested amendment also aligns with the strategies for urban growth as set out in regional and local government residential land supply strategies.

5.2 SPECIFIC AMENDMENT

The amendment proposed is for the rezoning from Particular Purpose Zone 1 - Urban Growth Zone to General Residential Zone for the following land:

- Folio of the register 16027/1, 5 Arthur Highway Sorell; and
- Folio of the register 8740/1, Arthur Highway Sorell;

with the exception of:

- The portion of CT8740/1 zoned Particular Purpose Zone 2 - Future Road Corridor; and
- The portion of CT16027/1 zoned Open Space;
both of which are to remain unchanged.

The proposed amendment to the zoning is demonstrated in Figure 14 below.

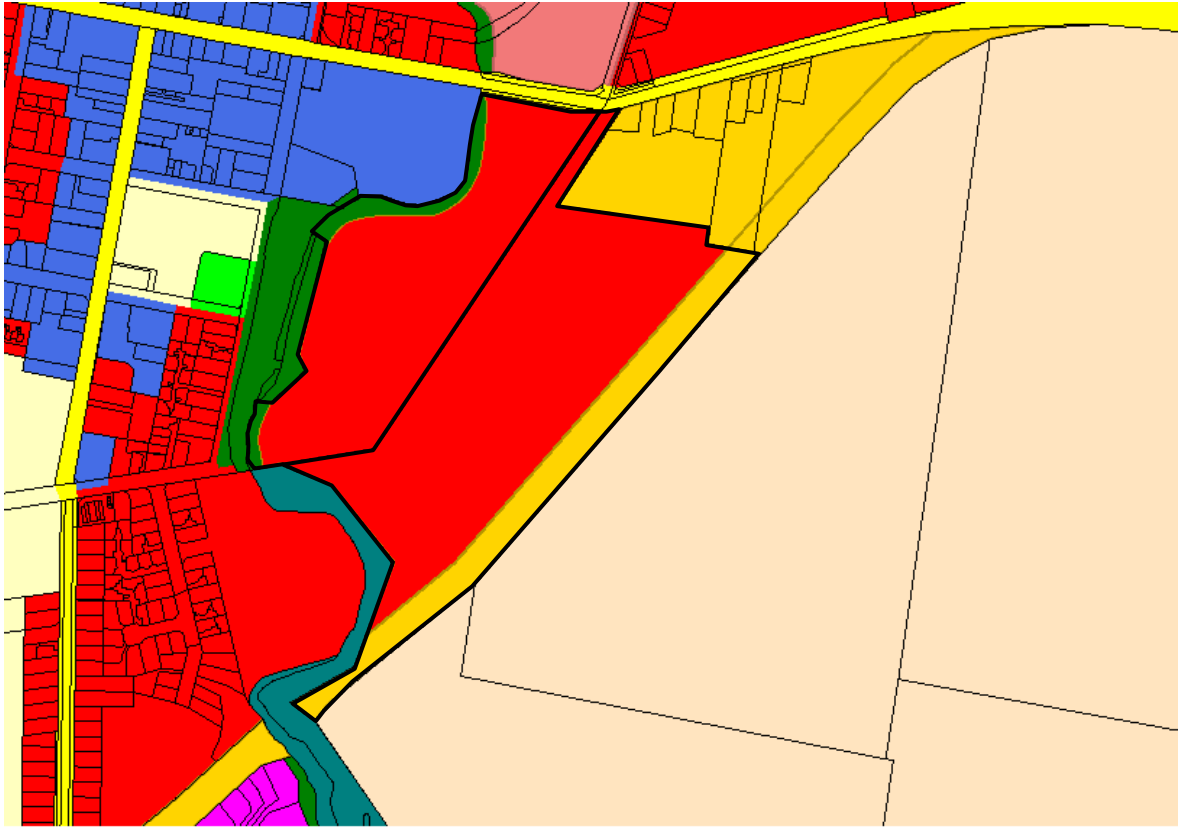


Figure 14: Proposed zones - adapted from www.theLIST.tas.com.au © State of Tasmania

6. ASSESSMENT UNDER LUPAA

In accordance with S8C and the Savings and Transitional Provisions of Schedule 6 request for amendment to the Scheme is made under the former *Land Use Planning and Approval Act 1993* in accordance, the former Section 32 which requires that amendments to planning scheme be considered against the following:

- (1) *A draft amendment of a planning scheme, and an amendment of a planning scheme, in the opinion of the relevant decision-maker within the meaning of section 20(2A)-*
 - (a)
 - (b)
 - (c)
 - (d)
 - (e) *must, as far as practicable, avoid the potential for land use conflicts with use and development permissible under the planning scheme applying to the adjacent area; and*
 - (ea) *must not conflict with the requirements of section 300; and*
 - (f) *must have regard to the impact that the use and development permissible under the amendment will have on the use and development of the region as an entity in environmental, economic and social terms.*
- (2) *The provisions of section 20(2), (3), (4), (5), (6), (7), (8) and (9) apply to the amendment of a planning scheme in the same manner as they apply to planning schemes.*

Section 20 also includes the following:

- 20.(1) (a) *seek to further the objectives set out in Schedule 1 within the area covered by the scheme; and*
- (b) *prepare the scheme in accordance with State Policies made under section 11 of the State Policies and Projects Act 1993; and*
- (c)

The above provisions are considered in the following sections.

6.1 LAND USE CONFLICTS

The land has been earmarked as future residential land under the Particular Purpose Zoning. Whilst the rezoning of the land will result in the addition of General Residential land within proximity of the Rural Resource zone, it will be separated by the PPZ2 - Future Road Corridor which has been designated to become the Sorell bypass into the future.

There are other examples within proximity of the Sorell centre of land zoned General Residential which is separated from Rural Resource land by a road. It is not considered that the rezoning will result in significant fettering of this land as it is already on the urban fringe.

The proposed amendment will not result in any adverse land use conflicts.

6.2 REQUIREMENTS OF SECTION 300

Section 300 provides as follows:

300. Amendments under Divisions 2 and 2A of interim planning schemes

- (1) *An amendment may only be made under Division 2 or 2A to a local provision of a planning scheme, or to insert a local provision into, or remove a local provision from, such a scheme, if the amendment is, as far as is, in the opinion of the relevant decision-maker within the meaning of section 20(2A), practicable, consistent with the regional land use strategy, if any, for the regional area in which is situated the land to which the scheme applies.*
- (2) *An amendment, of a planning scheme, that would amend a local provision of the scheme or insert a new provision into the scheme may only be made under Division 2 or 2A if -*
 - (a) *the amendment is not such that the local provision as amended or inserted would be directly or indirectly inconsistent with the common provisions, except in accordance with section 30EA, or an overriding local provision; and*
 - (b) *the amendment does not revoke or amend an overriding local provision; and*
 - (c) *the amendment is not to the effect that a conflicting local provision would, after the amendment, be contained in the scheme.*
- (3) *Subject to section 30EA, an amendment may be made to a local provision if -*
 - (a) *the amendment is to the effect that a common provision is not to apply to an area of land; and*
 - (b) *a planning directive allows the planning scheme to specify that some or all of the common provisions are not to apply to such an area of land.*
- (4) *An amendment may not be made under Division 2 or 2A to a common provision of a planning scheme unless the common provision, as so amended, would not be inconsistent with a planning directive that requires or permits the provision to be contained in the planning scheme.*
- (5) *Subject to section 30EA, an amendment of a planning scheme may be made under Division 2 or 2A if the amendment consists of -*
 - (a) *taking an optional common provision out of the scheme; or*
 - (b) *taking the provision out of the scheme and replacing it with another optional common provision.*

The amendment proposed is a rezoning of an area of land and as such is a local provision which can be amended under Division 2 or 2A. The amendment will not conflict with any common or overriding local provision.

6.3 REGIONAL IMPACT

As detailed previously the proposed amendment is consistent with the *Southern Tasmanian Regional Land Use Strategy* which provides strategic direction of the Region given that it is within the Urban Growth Boundary. The subject land is identified as part of the current greenfield supply.

6.4 SCHEDULE 1 OBJECTIVES OF LUPAA

The objectives are considered in the following tables:

6.4.1 Part 1- Objectives of the Resource Management and Planning System Tasmania

PROVISION	RESPONSE
<i>(a) to promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity; and</i>	The proposed amendment is the rezoning of existing cleared land which has been designated for future urban growth. Any potential impacts from future development can be appropriately managed at the development stage as a part of the development process. A Natural Values Assessment has concluded that the rezoning of the land will not result in the potential for a significant impact upon the surrounding Ramsar wetlands due to impacts on natural physical resources or ecological processes.
<i>(b) to provide for the fair, orderly and sustainable use and development of air, land and water; and</i>	The proposed amendment will allow for the use of the land as designated in the STRLUS, which identifies it as being a future urban greenfield site, and within the urban growth boundary. The rezoning to general residential allows for the orderly future use of the land, with specific use or development still requiring full assessment as per the requirements of LUPAA.
<i>(c) to encourage public involvement in resources management and planning; and</i>	The process required for the assessment of amendments to planning schemes provides interested parties with an opportunity to make representations during public exhibition as well as attending subsequent hearings. This process additionally provides Council and subsequently the TPC to consider issues raised during the assessment.
<i>(d) to facilitate economic development in accordance with the objectives set out in paragraphs (a), (b) and (c); and</i>	The amendment will assist in meeting immediate demand for residential land near the Sorell centre.
<i>(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.</i>	Assessment of the amendment will occur at local and state level and will include the opportunity for involvement of the community. Furthermore, in future subdivision applications there is the ability for a portion of the subject land to be gifted to the local government to facilitate the management of a natural values area.

6.4.2 Part 2 - Objectives of the Planning Process Established by this Act

PROVISION	RESPONSE
<i>(a) to require sound strategic planning and co-ordinated action by State and local government; and</i>	The proposal is consistent with the strategic directions for the municipality described through the STRLUS.
<i>(b) to establish a system of planning instruments to be the principle way of setting objectives, policies and controls for the use, development and protection of land;</i>	The system as per LUPAA provides the instruments to achieve these objectives.
<i>(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;</i>	The existing planning scheme has been written giving effect to this objective and consequently relating to use and development of the subject land will need to comply with the relevant codes which protect natural and environmental values.
<i>(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;</i>	Not directly applicable to the proposed amendment.
<i>(e) to provide for the consolidation of approvals for land use and development and related matters, and to co-ordinate planning approvals with related approvals;</i>	Not directly applicable to the proposed amendment.
<i>(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;</i>	This amendment seeks to ensure the zoning is consistent with the designated use of the residential property and therefore ensure a pleasant and efficient living environment; and to ensure the access to open space is efficient and safe working environment.
<i>(g) to conserve those buildings and areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value;</i>	The proposed rezoning does not alter any matter related to any area of historic or cultural significance.
<i>(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</i>	This amendment will not alter public infrastructure. The subject land has proximity to recognised natural values and no alterations to such values is proposed and they will be protected by provisions of the planning scheme.
<i>(i) to provide a planning framework which fully considers land capability.</i>	Not directly applicable to the proposed amendment.

6.5 STATE POLICIES

The following are the state policies and have been considered as part of this application.

6.5.1 The State Coastal Policy 1996

As the site is within 1 km inland from the high-water mark, consideration of the State Coastal Policy is required. The following is an assessment with regard to the three main principles that **guide Tasmania's State Coastal Policy:**

POLICY	RESPONSE
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<i>Natural and cultural values of the coast shall be protected.</i>	The proposed amendment will not result in changes to planning provisions that protect the natural and cultural values of the coast.
<i>The coast shall be used and developed in a sustainable manner.</i>	<p>The existing Crown reserve to the south east and Biodiversity controls will minimise impacts from any future development adjacent to the coastal edge.</p> <p>There is appropriate scope to control any potential biodiversity or water quality impacts at the development assessment stage. No changes are proposed to planning provisions that are in place to protect the coastal zone.</p>
<i>Integrated management and protection of the coastal zone is a shared responsibility.</i>	Development or use on the coastal edge would require consent from the Crown as the Landowner. No changes are proposed to provisions that are in place that would protect the coastal zone as managed by the state and local government.

6.5.2 The State Policy on Water Quality Management 1997

The purpose of this Policy is:

*To achieve the sustainable management of Tasmania's surface water and groundwater resources by protecting or enhancing their qualities while allowing for sustainable **development in accordance with the objectives of Tasmania's Resource Management and Planning System.***

The amendment proposed does not alter any provision which relates to, or will have any direct impact on water quality. The proposed rezoning of the subject land will not directly impact on any issues related to water quality given the existing zone provides a range of use and development opportunities. Any future subdivision or development applications for the land regardless of the zoning would be required to detail appropriate water management, through connection to services and appropriate stormwater management practices, consistent with this Policy.

6.5.3 The State Policy on the Protection of Agricultural Land 2009

The subject land classification for agricultural capability is class 4. Class 4 is defined as:

Land well suited to grazing but which is limited to occasional cropping or a very restricted range of crops.

The purpose of this 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 Principles of the Policy are:

<i>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.</i>	The proposed rezoning will not result in fettering or constraint of any nearby agricultural use. The land is already zoned for the purpose of urban expansion, indicating that there was not potential for an unreasonable
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	impact on nearby agricultural land.
<i>2. Use or development of prime agricultural land should not result in unnecessary conversion to non-agricultural use or agricultural use not dependent on the soil as the growth medium.</i>	The subject land is not prime agricultural land.
<i>3. Use or development, other than residential, of prime agricultural land that is directly associated with, and a subservient part of, an agricultural use of that land is consistent with this Policy.</i>	The subject land is not prime agricultural land.
<i>4. The development of utilities, extractive industries and controlled environment agriculture on prime agricultural land may be allowed, having regard to criteria, ...</i>	The subject land is not prime agricultural land.
<i>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.</i>	While the subject land does have a land capability of class 4 it is not zoned for agricultural purposes and has previously been identified a suitable strategic location for residential development and therefore will not convert agricultural land or restrain an agricultural use.
<i>6. Proposals of significant benefit to a region that may cause prime agricultural land to be converted to non-agricultural use or agricultural use not dependent on the soil as a growth medium, and which are not covered by Principles 3, 4 or 5, will need to demonstrate significant benefits to the region based on an assessment of the social, environmental and economic costs and benefits.</i>	The subject land is not prime agricultural land.
<i>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.</i>	The existing zoning of the land is for the purpose of an urban growth area; therefore, this is not applicable to the proposed amendment.
<i>8. Provision must be made for the appropriate protection of agricultural land within irrigation districts proclaimed under Part 9 of the Water Management Act 1999 and may be made for the protection of other areas that may benefit from broad-scale irrigation development.</i>	Not applicable to the proposed amendment.
<i>9. Planning schemes must not prohibit or require a discretionary permit for an agricultural use on land zoned for rural purposes where that use depends on the soil as the growth medium, except as prescribed in Principles 10 and 11.</i>	Not relevant to proposed amendment.
<i>10. New plantation forestry must not be established on prime agricultural land unless a planning scheme ...</i>	Not relevant to proposed amendment.
<i>11. Planning schemes may require a discretionary permit for plantation forestry where it is necessary to protect, maintain and develop existing agricultural uses that are the recognised fundamental and critical components of the economy of the entire municipal area, and are essential to maintaining the sustainability of that economy.</i>	Not relevant to proposed amendment.

6.5.4 National Environment Protection Measures (NEPMs)

NEPMs are taken to be State Policies in Tasmania. NEPMs are made under Commonwealth legislation and given effect in Tasmania through the State Policies and Projects Act.

The current NEPMs are:

- Air Toxics
- Ambient Air Quality
- Assessment of Site Contamination
- Diesel Vehicle Emissions
- Movement of Controlled Waste
- National Pollutant Inventory
- Used Packaging

The Codes within the Scheme deal in detail with the relevant matters (noise and air quality) and the assessment of an application can be undertaken against the appropriate Use and Development Standards. The proposed amendment is not considered affected by the other NEPMs.

Form No. 1

Owners' consent

Accompanying draft planning scheme amendment requests under section 33(1), including combined permit applications under section 43A of the *Land Use Planning and Approvals Act 1993*.

Requests for draft amendments or combined permit applications 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): Sorell Council

Address: 47 Cole Street

Email address: sorell.council@sorell.tas.gov.au

Contact number: 03 6269 0014

2. Site address:

Address:

5 Arthur Hwy, Sorell

Property identifier (folio of the register for all lots, PIDs, or affected lot numbers on a strata plan):

CT 16027/1 and CT 8740/1

NOTES:

a. 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.

b. 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.

c. Companies

If the land is owned by a company then consent must be signed in accordance with the *Corporations Act 2001 (Cwth)* as follows:

- i. one company director and company secretary; or
- ii. two company directors; or
- iii. if a sole director/sole shareholder who is also the sole secretary, the sole director; or,
- iv. a company with a common seal may execute a document if the seal is fixed to the document and witnessed by two directors; or one director and a company secretary, or for a proprietary company that has a sole director who is also the sole company secretary, that director.

The ABN or ACN, the names and positions of those signing the consent, and a current ASIC company extract (www.asic.gov.au) must be provided.

d. Associations

If the land is owned by an incorporated association then the document must be signed in accordance with the rules of the association by, for example being:

- i. sealed and witnessed in accordance with the association's rules; or,
- ii. signed by a person authorised in accordance with the association's rules.

The ABN, the names and positions of those signing the consent, and copy of the association's rules must be provided.

e. Council or the Crown

If the land is owned by a council or the Crown then consent must 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: 30 March 2020

ⁱ References to provisions of the *Land Use Planning and Approvals Act 1993* (the Act) are references to the former provisions of the Act as defined in Schedule 6 – Savings and transitional provisions of the *Land Use Planning and Approvals Amendment (Tasmanian Planning Scheme Act) 2015*. The former provisions apply to an interim planning scheme that was in force prior to the commencement day of the *Land Use Planning and Approvals Amendment (Tasmanian Planning Scheme Act) 2015*. The commencement day was 17 December 2015.

SEARCH OF TORRENS TITLE

VOLUME 8740	FOLIO 1
EDITION 2	DATE OF ISSUE 12-Nov-2019

SEARCH DATE : 06-Dec-2019

SEARCH TIME : 04.23 PM

DESCRIPTION OF LAND

Parish of SORELL, Land District of PEMBROKE
Town of SORELL
Lot 1 on Sealed Plan 8740
Derivation : Part of 980 Acres - Gtd. to Thomas Villeneuve
Jean & Cornelius Driscoll.
Prior CT 3587/27

SCHEDULE 1

M787120 TRANSFER to JULFRAN PTY LTD Registered 12-Nov-2019
at noon

SCHEDULE 2

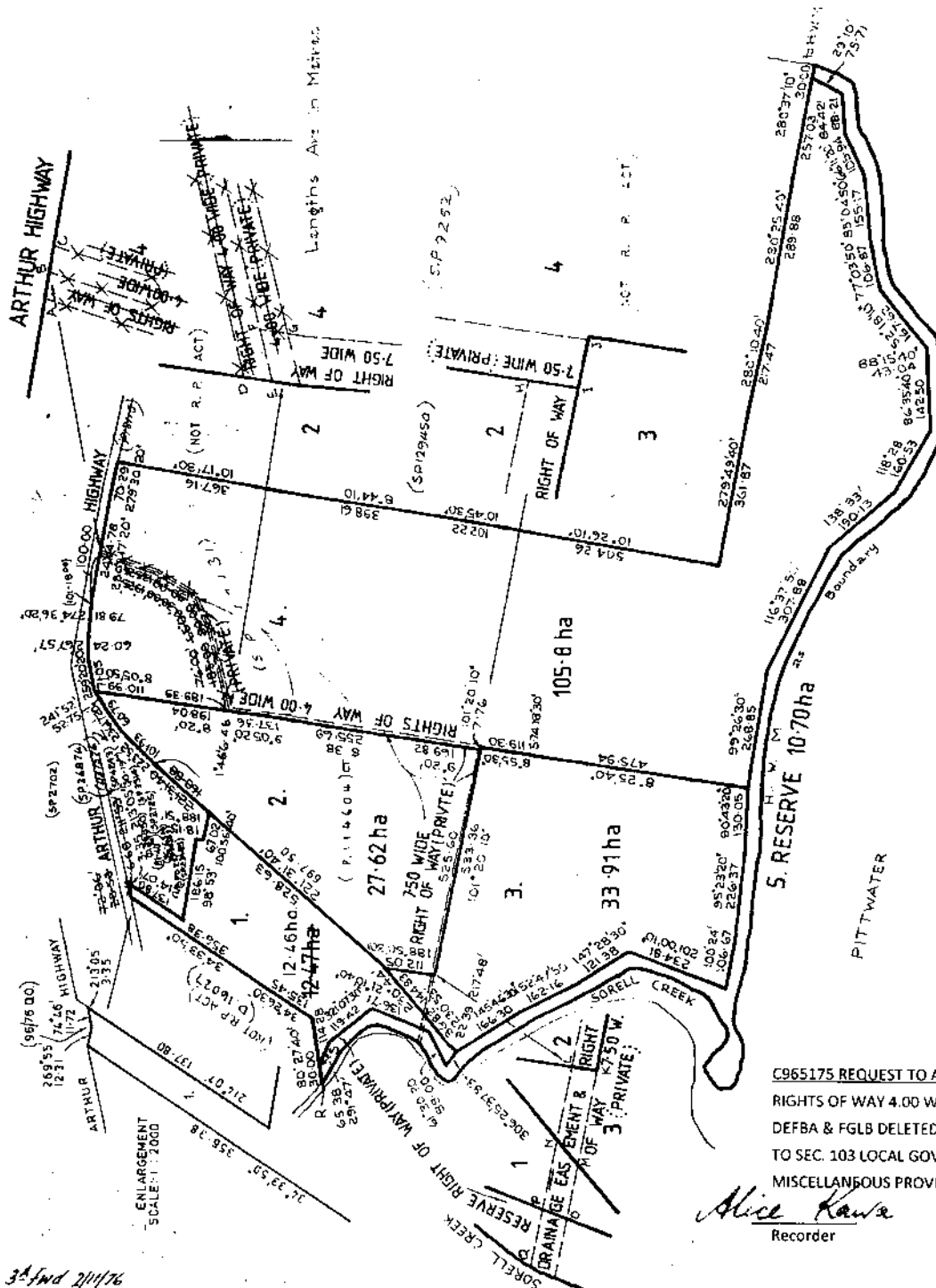
Reservations and conditions in the Crown Grant if any
SP 8740 EASEMENTS in Schedule of Easements
SP 8740 COUNCIL NOTIFICATION under Section 468(12) of the
Local Government Act 1962
SP 8740 FENCING COVENANT in Schedule of Easements
A586751 PROCLAMATION under Section 9A and 52A of the Roads
and Jetties Act 1935 Registered 14-Dec-1977 at noon
M789905 MORTGAGE to Murdoch Clarke Mortgage Management
Limited Registered 12-Nov-2019 at 12.01 PM

UNREGISTERED DEALINGS AND NOTATIONS

NOTICE: This folio is affected as to amended easements
pursuant to Request to Amend No. C965175 made under
Section 103 of the Local Government (Building and
Miscellaneous Provisions) Act 1993. Search Sealed
Plan No. 17131 & 8740 Lodged by OGILVIE JENNINGS on
29-Nov-2010 BP: C965175

Owner: N.S. Kirby	PLAN OF SURVEY By Surveyor: M. C. GIBSON of land situated in the	Registered Number: S.P8740 Effective from 16 FEB 1977
Title Reference: Cons 29-5180 & 35-9142	LAND DISTRICT OF PEMBROKE PARISH OF SORELL & TOWN OF SORELL Scale 1:7500	P/I <i>[Signature]</i> Recorder of Titles
Grantee: Portion OF 980 acres Gtd to Thomas Villeneuve Jeari & Cornelius Driscoll		

UPA 13/12/76
MEMO 13/12/76



C965175 REQUEST TO AMEND SP
RIGHTS OF WAY 4.00 WIDE LABELLED
DEFBA & FGLB DELETED BY ME PURSUANT
TO SEC. 103 LOCAL GOVT. (BUILDING &
MISCELLANEOUS PROVISIONS) ACT 1993

Alice Kawa
Recorder

18 APR 2011
Date



SCHEDULE OF EASEMENTS

PLAN NO. **S.P.8740**

S.P.8740

Notes:—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 shown 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 easement shown 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 easement shown on the plan is indicated by arrows.

EASEMENTS:

Each Lot in Column 'A' is :-

1. TOGETHER WITH a Right of Carriageway over the Right of Way (Private) 7.50 metres wide shown hereon passing through the Lots specified opposite thereto in Clause 'B' and
2. SUBJECT TO a Right of Carriageway over the Right of Way (Private) 7.50 metres wide passing through that Lot as appurtenant to the Lots shown hereon specified opposite thereto in Column 'C'

Column 'A'	Column 'B'	Column 'C'
1.	2,3,4 and 5	2,3 and 4
2.	⁴ 1,3 and 5	1,3 and 4
3.	1,2, 4 and 5	1, 2 and 4
4.	1, 2, 3 and 5	² 1 and 3
5.	NIL	1, 2, 3 and 4

Lots 1-4 inclusive are TOGETHER WITH a Right of Carriageway over that part of Lot 5 marked 'Right of Way' (Private P.Q.R.S.

Lot 5 is SUBJECT TO a Right of Carriageway (appurtenant to Lots 1-4 inclusive) over the Right of Way (Private) marked P.Q.R.S.

~~Lot 4 is SUBJECT TO a Right of ^{Carriage} Way (appurtenant to Lots 2 and 3) over the Rights of way (Private) Four metres wide marked D.E.F.B.A. and F.G.C.B. respectively~~

Right of Way 4.00 wide marked DEFBA hereon deleted by me pursuant to Request to Amend No. C965175 made under Section 103 of the Local Government (Building & Miscellaneous Provisions) Act 1993

18 / 4 / 2011

Alice Kawa
Recorder of Titles

Right of Way 4.00 wide marked FBCG & DEFBA hereon deleted by me pursuant to Request to Amend No. C965175 made under Section 103 of the Local Government (Building & Miscellaneous Provisions) Act 1993

18/4/2011

Recorder of Titles

8740

~~Lot 2 is TOGETHER WITH a Right of Carriageway over the Right of Way (Private) Four metres wide marked F.B.G.G.~~

~~Lot 2 is TOGETHER WITH a Right of Carriageway over the Right of Way (Private) Four metres wide marked D.E.F.B.A.~~

COVENANTS: The Owner of each Lot covenants with the Vendor Noel Spencer Kirby ~~Subdivider~~ that the ~~Subdivider~~ as Owner shall not be required to fence.

SIGNED by NOEL SPENCER KIRBY

as Beneficial Owner of the lands comprised in Indenture of Conveyance 28/5180 and Indenture of Conveyance 35/9142 in the presence of:

Noel Kirby
Hobart

SIGNED by LIONEL HERBERT ABBOTT

and ROSS MAXWELL MIDDLETON

as Attorneys for AUSTRALIA MUTUAL

PROVIDENT SOCIETY the Mortgagee

under Indentures of Mortgage and

Further Charge 38/3247 and 39/2814

respectively under Power No. 21763

(and they severally declare that they have had no notice of Revocation of the said power)

Lionel Herbert Abbott
Hobart

Corporate Services Manager

Sales Manager

8740

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

BUTLER MCINTYRE & BUTLER

Subdivided by the Subdivider

NOEL SPENCER KIRBY

This is the schedule of easements attached to the plan of

(Insert Subdivider's Full Name)

FIVE LOTS

affecting land in

CONS 29-5180 & 35-9142

(Insert Title Reference)

Scaled by

Municipality of Newell

on

15 APRIL

1976

Ms. Stewart

Council Clerk/Town Clerk

SEARCH OF TORRENS TITLE

VOLUME 16027	FOLIO 1
EDITION 3	DATE OF ISSUE 21-Mar-2006

SEARCH DATE : 06-Dec-2019

SEARCH TIME : 04.23 PM

DESCRIPTION OF LAND

Town of SORELL

Lot 1 on Diagram 16027

Being the land described in Mortgage No. 23/1638

Excepting thereout Conveyance No. 45/3290 (Lot 2 on Deeds

Office Diagram No. 96/76)

Derivation : Part of 980 Acres Gtd. to T.V. Jean & Anor.

Prior CT 3887/9

SCHEDULE 1

C631099 TRANSFER to JULFRAN PTY LTD Registered 21-Mar-2006
at noon

SCHEDULE 2

Reservations and conditions in the Crown Grant if any

C697802 MORTGAGE to Commonwealth Bank of Australia

Registered 21-Mar-2006 at 12.01 PM

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

APPROVED FROM <i>J. Srouder</i> ACTING DEPUTY RECORDER OF TITLES	5 MAY 2006	CONVERSION PLAN	REGISTERED NUMBER D.16027
FILE NUMBER Z. 1088	GRANTEE PART OF 980-0-0 GTD. TO THOMAS VILLENEURE JEAN & CORNELIUS DRISCOLL		<i>100</i> <i>24/4/07</i>

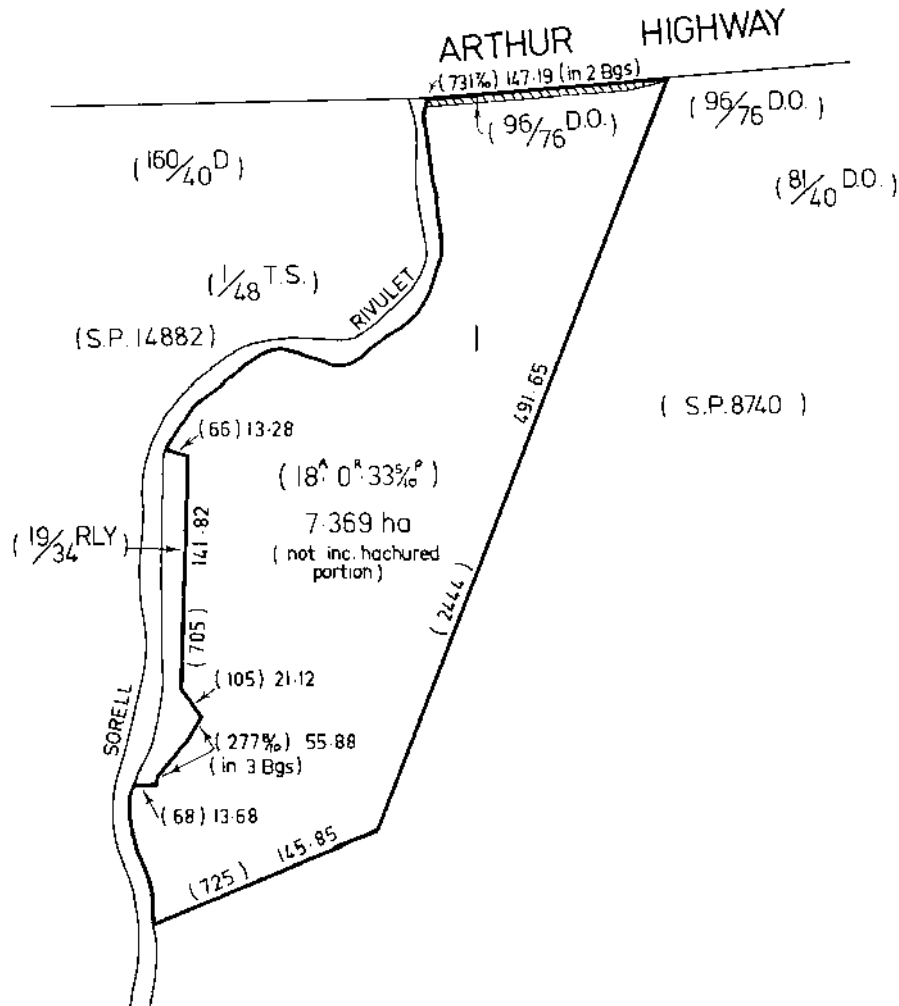
SKETCH BY WAY OF ILLUSTRATION ONLY

~~CITY/TOWN OF SORELL~~

~~LAND DISTRICT OF~~

~~PARISH OF~~

LENGTHS ARE IN METRES, NOT TO SCALE
LENGTHS IN BRACKETS IN LINKS ~~FEET & INCHES~~



ECOLOGICAL ASSESSMENT OF 5 ARTHUR HIGHWAY (PID 5935200; C.T. 16027/1) & LOT 1 ARTHUR HIGHWAY (PID 5935219; C.T. 8740/1), SORELL, TASMANIA



Environmental Consulting Options Tasmania (ECOtas) for
Julfran Pty Ltd
22 October 2019

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Lenah Valley, TAS 7008

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CITATION

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AUTHORSHIP

Field assessment: Mark Wapstra

Report production: Mark Wapstra

Habitat and vegetation mapping: Mark Wapstra

Base data for mapping: TheList

Digital and aerial photography: Mark Wapstra, GoogleEarth, TheList

ACKNOWLEDGEMENTS

Frank Morgan (owner) provided an information on parts of the titles. James Wapstra (ECOtas) provided field assistance.

COVER ILLUSTRATION

View south across the subject titles from near the northern entrance.

Please note: the blank pages in this document are deliberate to facilitate double-sided printing.

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SUMMARY

General

Julfran Pty Ltd engaged Environmental Consulting Options Tasmania (ECOtas) to undertake an ecological assessment of 5 Arthur Highway (PID 5935200; C.T. 16027/1) & Lot 1 Arthur Highway (PID 5935219; C.T. 8740/1), Sorell, Tasmania, primarily to ensure that the requirements of the identified ecological values are appropriately considered during any further project planning under local, State and Commonwealth government approval protocols, and specifically to inform a rezoning application and future subdivision under the provisions of the *Sorell Interim Planning Scheme 2015* (or future planning schemes).

An ecological assessment of the study area was undertaken by Mark Wapstra (ECOtas) on 15 October 2019.

Summary of key findings

Threatened flora

- No flora species listed as threatened on the Tasmanian *Threatened Species Protection Act 1995* (TSPA) and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA), were detected, or are known from database information, from the study area or immediate surrounds.

Threatened fauna

- No fauna species listed as threatened on the Tasmanian *Threatened Species Protection Act 1995* (TSPA) and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA), were detected, or are known from database information, from the study area or immediate surrounds.
- The study area provides limited potential habitat for threatened fauna.

Vegetation types

- The study area supports the following TASVEG mapping units:
 - urban areas (TASVEG code: FUR);
 - weed infestation (TASVEG code: FWU); and
 - agricultural land (TASVEG code: FAG).
- None of the vegetation mapping units recorded are listed as threatened on Schedule 3A of the Tasmanian *Nature Conservation Act 2002* or equate to a threatened ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

Weeds

- Ten plant species classified as declared weeds within the meaning of the Tasmanian *Weed Management Act 1999* were detected from the study area, as follows:
 - *Amsinckia calycina* (hairy fiddleneck);
 - *Chrysanthemoides monilifera* subsp. *monilifera* (boneseed);
 - *Foeniculum vulgare* (fennel);

- *Genista monspessulana* (canary broom);
- *Lepidium draba* [syn. *Cardaria draba*] (hoary cress, whiteweed);
- *Lycium ferocissimum* (african boxthorn);
- *Marrubium vulgare* (white horehound);
- *Rubus* spp. (blackberry);
- *Salix x fragilis* nothovar. *fragilis* (crack willow); and
- *Ulex europaeus* (gorse).

Plant disease

- No evidence of *Phytophthora cinnamomi* (PC, rootrot) was recorded from within the study area.
- No evidence of myrtle wilt was recorded from within the study area.
- No evidence of myrtle rust was recorded from within the study area.

Animal disease (chytrid)

- The study area is not known to support frog chytrid disease and there is only marginal potential habitat for amphibian species on the margins of the site.

Ramsar wetland

- The study area is in the catchment of/adjacent to the Pitt Water – Orielton Lagoon Ramsar wetland.

Adjacent informal reserve

- Part of the study area is adjacent to an informal reserve on public land under the jurisdiction of DPIPW (part of Sorell Rivulet).

PURPOSE, SCOPE, LIMITATIONS AND QUALIFICATIONS OF THE SURVEY

Purpose

Julfran Pty Ltd engaged Environmental Consulting Options Tasmania (ECOtas) to undertake an ecological assessment of 5 Arthur Highway (PID 5935200; C.T. 16027/1) & Lot 1 Arthur Highway (PID 5935219; C.T. 8740/1), Sorell, Tasmania, primarily to ensure that the requirements of the identified ecological values are appropriately considered during any further project planning under local, State and Commonwealth government approval protocols, and specifically to inform a rezoning application and future subdivision under the provisions of the *Sorell Interim Planning Scheme 2015* (or future planning schemes).

Scope

This report relates to:

- flora and fauna species of conservation significance, including a discussion of listed threatened species (under the Tasmanian *Threatened Species Protection Act 1995* and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*) potentially present, and other species of conservation significance/interest;
- vegetation types (forest and non-forest, native and exotic) present, including a discussion of the distribution, condition, extent, composition and conservation significance of each community;
- plant and animal disease management issues;
- weed management issues; and
- a discussion of some of the policy and legislative implications of the identified ecological values.

This report follows the government-produced *Guidelines for Natural Values Surveys – Terrestrial Development Proposals* (DPIPWE 2015) in anticipation that the report (or extracts of it) will be used as part of various approval processes that will be required.

The report format should also be applicable to other assessment protocols as required by the Commonwealth Department of the Environment & Energy (for any referral/approval that may be required under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*), and under the local planning scheme (*Sorell Interim Planning Scheme 2015*).

Limitations

The ecological assessment was undertaken on 15 October 2019. Many plant species have ephemeral or seasonal growth or flowering habits, or patchy distributions (at varying scales), and it is possible that some species were not recorded for this reason. However, every effort was made to sample the range of habitats present in the survey area to maximise the opportunity of recording most species present (particularly those of conservation significance). Late spring and into summer are usually regarded as the most suitable period to undertake most botanical assessments. While some species have more restricted flowering periods, a discussion of the potential for the site to support these is presented. In this case, mid-October is considered the most ideal sampling period for target threatened flora.

The survey was also limited to vascular species: species of mosses, lichens and liverworts were not recorded. However, a consideration is made of threatened species (vascular and non-vascular) likely to be present (based on habitat information and database records) and reasons presented for their apparent absence.

Surveys for threatened fauna were largely limited to an examination of “potential habitat” (i.e. comparison of on-site habitat features to habitat descriptions for threatened fauna), and detection of tracks, scats and other signs.

The survey was not limited by access due to the well-defined (fenced) boundaries, accessible from all sides and across open pasture.

Qualifications

Except where otherwise stated, the opinions and interpretations of legislation and policy expressed in this report are made by the author and do not necessarily reflect those of the relevant agency. The client should confirm management prescriptions with the relevant agency before acting on the content of this report. This report and associated documents do not constitute legal advice.

Permit

Any plant material was collected under DPIPWE permit TFL 19120 (in the name of Mark Wapstra). Relevant data (weed point locations) **will be entered into DPIPWE’s *Natural Values Atlas* database** by the author. Some plant material (vouchers of the infrequently-encountered weeds *Atriplex semibaccata*, *Papaver hybridum* and *Nemisia* sp. from the site) will be lodged at the Tasmanian Herbarium by the author.

No vertebrate or invertebrate material was collected.

STUDY AREA

The study area comprises two private titles, as follows (Figures 1-3:

- 5 Arthur Highway (PID 5935200; C.T. 16027/1); and
- Lot 1 Arthur Highway (PID 5935219; C.T. 8740/1).

Virtually the whole study area comprises long-established and intensively managed primary production land, with small areas dedicated to an existing residential dwelling, and the riparian area along Sorell Rivulet (western boundary) fenced off and subject to some level of weed management and native vegetation restoration by Sorell Council.

The topography of the study area is gently undulating to generally flat terrain with occasional steeper sections towards Sorell Rivulet. Apart from Sorell Rivulet, the study area does not include any drainage features, including farm dams. Elevation varies from ca. 25 m a.s.l. (northeast corner) to ca. 5 m a.s.l. (Sorell Rivulet margins).

The geology of the study area is uniformly mapped as Tertiary-age “basalt (tholeiitic to alkalic) and related pyroclastic rocks” (geocode: Tb), which was confirmed by site assessment by recognition of black cracking soils and rock outcrops. The geology is mentioned as it influences vegetation classification and characterisations and the potential for threatened species (especially threatened flora, and to a lesser extent, threatened fauna).

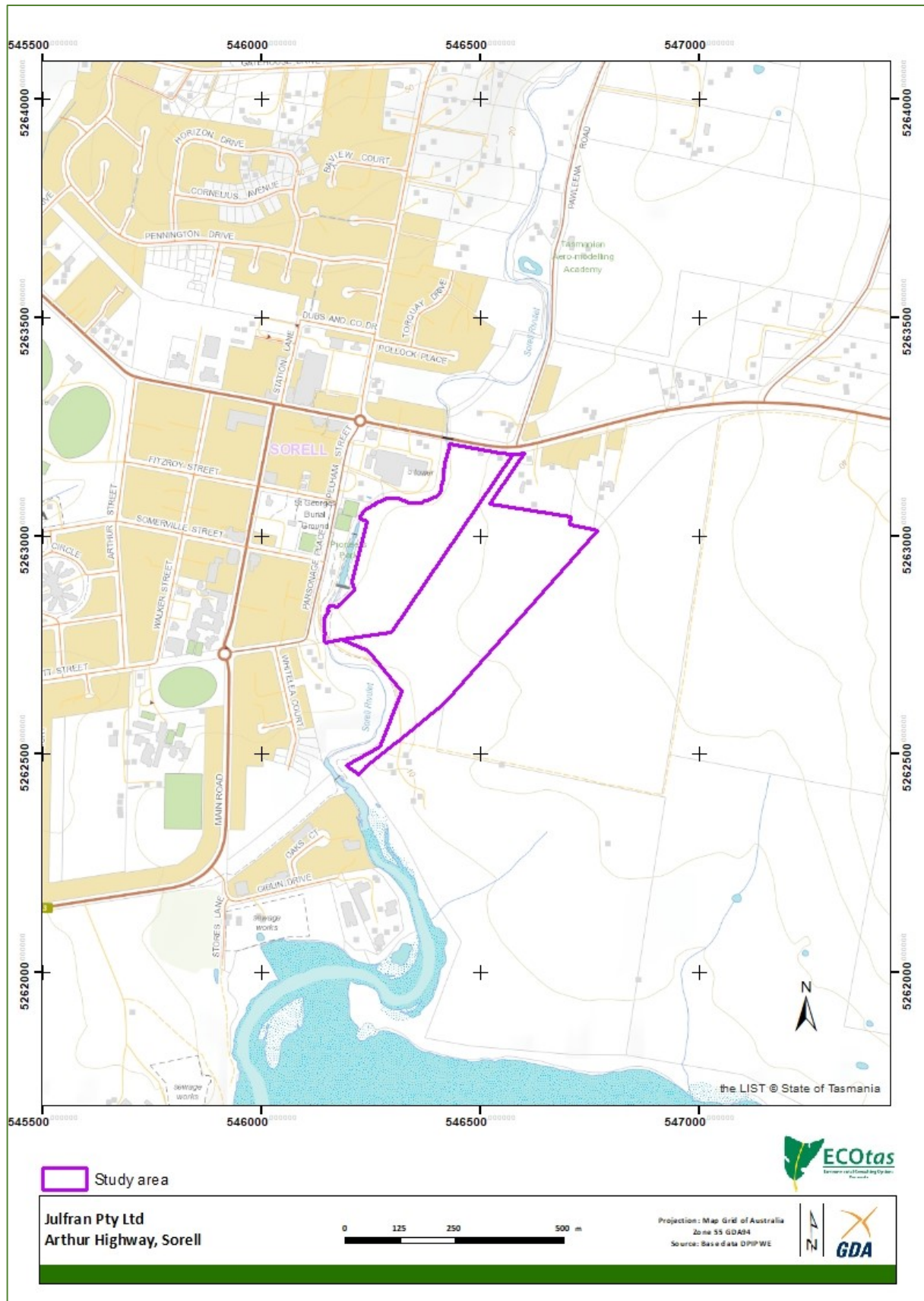


Figure 1. General location of the study area

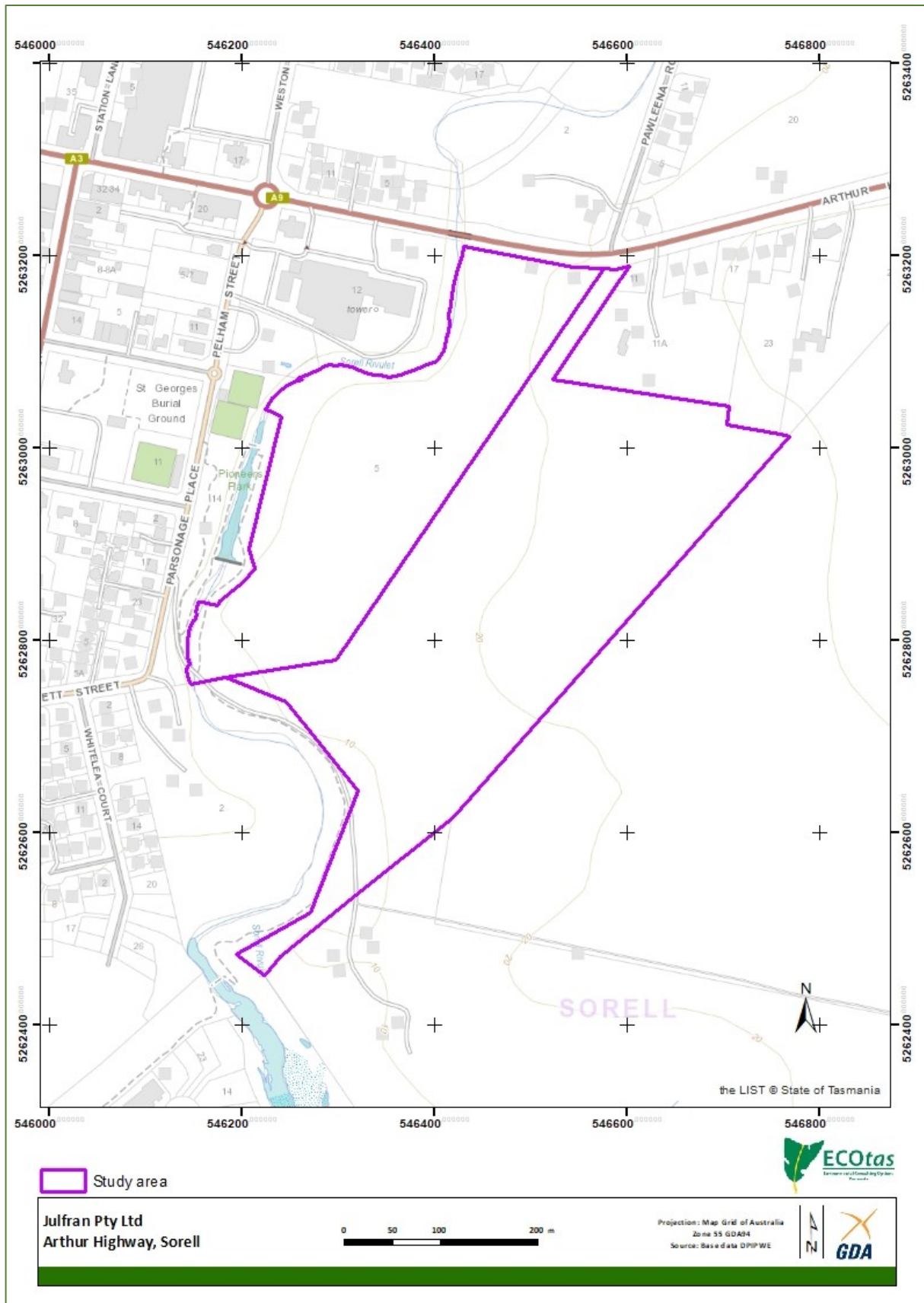


Figure 2. Detailed location of the study area showing topography



Figure 3. Detailed location of the study area, showing recent aerial imagery

PROPOSAL

The present report is intended as an overview assessment of the natural values of the whole of both titles, primarily to facilitate informing specific development applications under the *Sorell Interim Planning Scheme 2015*. At the time of site assessment and reporting, specific land use proposal were not available.

METHODS

Nomenclature

All grid references in this report are in GDA94, except where otherwise stated.

Vascular species nomenclature follows de Salas & Baker (2019) for scientific names and Wapstra et al. (2005+) for common names. Fauna species scientific and common names follow the listings in the cited *Natural Values Atlas* report (DPIPWE 2019).

Vegetation classification follows TASVEG 3.0, as described in *From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation* (Kitchener & Harris 2013+).

Preliminary investigation

Available sources of previous reports, threatened flora records, vegetation mapping and other potential environmental values were interrogated. These sources include:

- Tasmanian Department of Primary Industries, Parks, Water & Environment's *Natural Values Atlas* report ECOtas_Sorell15ArthurHighway for a polygon feature (centred on 546422mE 5262888mN) defining the subject titles, buffered by 5 km, dated 21 October 2019 (DPIPWE 2019) – Appendix C;
- Forest Practices Authority's *Biodiversity Values Database* report, specifically the species' information for grid reference centroid 546422mE 5262888mN (i.e. the centroid of the *Natural Values Atlas* report), buffered by 2 km, hyperlinked species' profiles and predicted range boundary maps, dated 21 October 2019 (FPA 2019) – Appendix D;
- Commonwealth Department of the Environment & Energy's *Protected Matters Report* for a for a polygon feature defining the subject title, buffered by 5 km, dated 21 October 2019 (CofA 2019) – Appendix E;
- the TASVEG 3.0 and TASVEG Live vegetation coverage (as available through GIS coverage and via TheList);
- GoogleEarth and TheList aerial orthoimagery; and
- other sources listed in tables and text as indicated.

Field assessment

The assessment was undertaken by Mark Wapstra (ECOtas) on 15 October 2019. The area was assessed by meandering transects through the study area to map vegetation transitions,

populations of threatened flora, potential habitat of threatened fauna and other management issues such as invasive weed species. The precise footprint of the survey was defined in the field by use of the iGIS application with the cadastral boundaries uploaded prior to site assessment.

Vegetation classification

Vegetation was classified by waypointing vegetation transitions (using hand-held GPS – Garmin Oregon 600) for later comparison to aerial imagery. The structure and composition of the vegetation types was described using nominal 30 m radius plots at a representative site within the **vegetation types, and compiling “running” species lists between plots and vegetation types.**

Threatened flora

With reference to the threatened flora, the survey included consideration of the most likely habitats for such species, and where detected, their location would be marked using hand-held GPS (Garmin Oregon 600). No threatened flora were recorded so more detailed methods are not provided.

Threatened fauna

Surveys for threatened fauna were largely limited to **an examination of “potential habitat”** (i.e. comparison of on-site habitat features to habitat descriptions for threatened fauna), and detection of tracks, scats and other signs.

Weed and hygiene issues

The site was also assessed with respect to plant species classified as declared weeds under the Tasmanian *Weed Management Act 1999*, **Weeds of National Significance (WoNS) or “environmental weeds” (author opinion and as included in *A Guide to Environmental and Agricultural Weeds of Southern Tasmania*, NRM South 2017).** Hand-held GPS (Garmin Oregon 600) was used to waypoint the location of individuals and patches of declared weeds.

The site was also assessed with respect to potential impacts of plant and animal pathogens, by reference to habitat types and field symptoms.

FINDINGS

Vegetation types

Comments on TASVEG mapping

This section, which comments on the existing TASVEG 3.0 and TASVEG Live mapping for the study area, is included to highlight the differences between existing mapping and the more recent mapping from the present study to ensure that any parties assessing land use proposals (via this report) do not rely on existing mapping. Note that TASVEG mapping, which was mainly a desktop mapping exercise based on aerial photography, is often substantially different to ground-truthed

vegetation mapping, especially at a local scale. An examination of existing vegetation mapping is usually a useful pre-assessment exercise to gain an understanding of the range of habitat types likely to be present and the level of previous botanical surveys.

TASVEG 3.0 and TASVEG Live identically map the subject titles as (Figure 4):


- urban areas (TASVEG code: FUR): whole of 5 Arthur Highway title; and
- agricultural land (TASVEG code: FAG): whole of Lot 1 Arthur Highway title.

Vegetation types recorded as part of the present study




Vegetation types have been classified according to TASVEG 3.0, as described in *From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation* (Kitchener & Harris 2013+). Table 1 provides information on the vegetation types identified with notes on composition, condition and conservation status. Figure 5 show the revised vegetation mapping of the study area.

Table 1. Vegetation mapping units present in the study area

[conservation status: NCA – as per Schedule 3A of the Tasmanian *Nature Conservation Act 2002*, using units described by Kitchener & Harris (2013+), relating to TASVEG mapping units (DPIPWE 2019); table headings are as per modules in Kitchener & Harris (2013+); EPBCA – as per the listing of ecological communities on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, relating to communities as described under that Act, but with equivalencies to TASVEG units]

TASVEG mapping unit (Kitchener & Harris 2013+)	Conservation priority NCA EPBCA	Comments
<i>Modified land</i>		
urban areas (FUR)	not threatened <i>not threatened</i>	<p>The southwestern section of 5 Arthur Highway is actually part of the Sorell Rivulet walking trail and a section of the private title has been fenced off, separating the pasture from the now Council-managed riparian strip. The latter area includes the access to 3 Kidbrook Road and part of the sealed shared use trail.</p> <p>The existing residence near the Arthur Highway is also mapped as FUR. Whether this small area is mapped as FUR or another form of modified land such as extra-urban miscellaneous (TASVEG code: FUM) is somewhat moot. The area supports almost all introduced plant species including declared weeds but the cover of weeds is probably insufficient to map as a weed infestation (TASVEG code: FWU).</p>  <p>Example of the southern end of 5 Arthur Highway title</p>

TASVEG mapping unit (Kitchener & Harris 2013+)	Conservation priority NCA EPBCA	Comments
		 <p>Existing residence</p>
weed infestation (FWU)	not threatened <i>not threatened</i>	<p>Most of the fenced off riparian zone of Sorell Rivulet is very weedy, to such an extent that despite efforts at vegetation restoration, the area is still best classified as a weed infestation. The area is dominated by woody weeds such as crack willow, gorse, broom and boxthorn and shrubby/herbaceous species such as fennel and blackberry, with much of the remaining plant species non-native.</p> <p>Some small pockets of the fenced pasture areas (slightly steeper areas) could be marginally mapped out as FWU but these areas are small and dominated by dense pasture grass (simply uncultivated) so have been subsumed into FAG.</p>   <p>Examples of FWU along Sorell Rivulet</p>
agricultural land (FAG)	not threatened <i>not threatened</i>	<p>Most of the study area is mapped as pasture/cropping land, currently dominated by ubiquitous pasture grasses and herbs (and locally dominated by a Brassicaceae crop). Horses are the only stock currently on the site.</p> <p>All pasture areas are fully fenced. A small shed is in the northern part of the study area. Some stock troughs are also present.</p>

TASVEG mapping unit (Kitchener & Harris 2013+)	Conservation priority NCA EPBCA	Comments
		<div>  </div> <p>Example of small steeper area with weeds (gorse and fennel) with open pasture behind</p> <div>  </div> <p>Horses grazing in paddock dominated by herbaceous weeds and Brassicaceae</p> <div>  </div> <p>Open pasture</p>

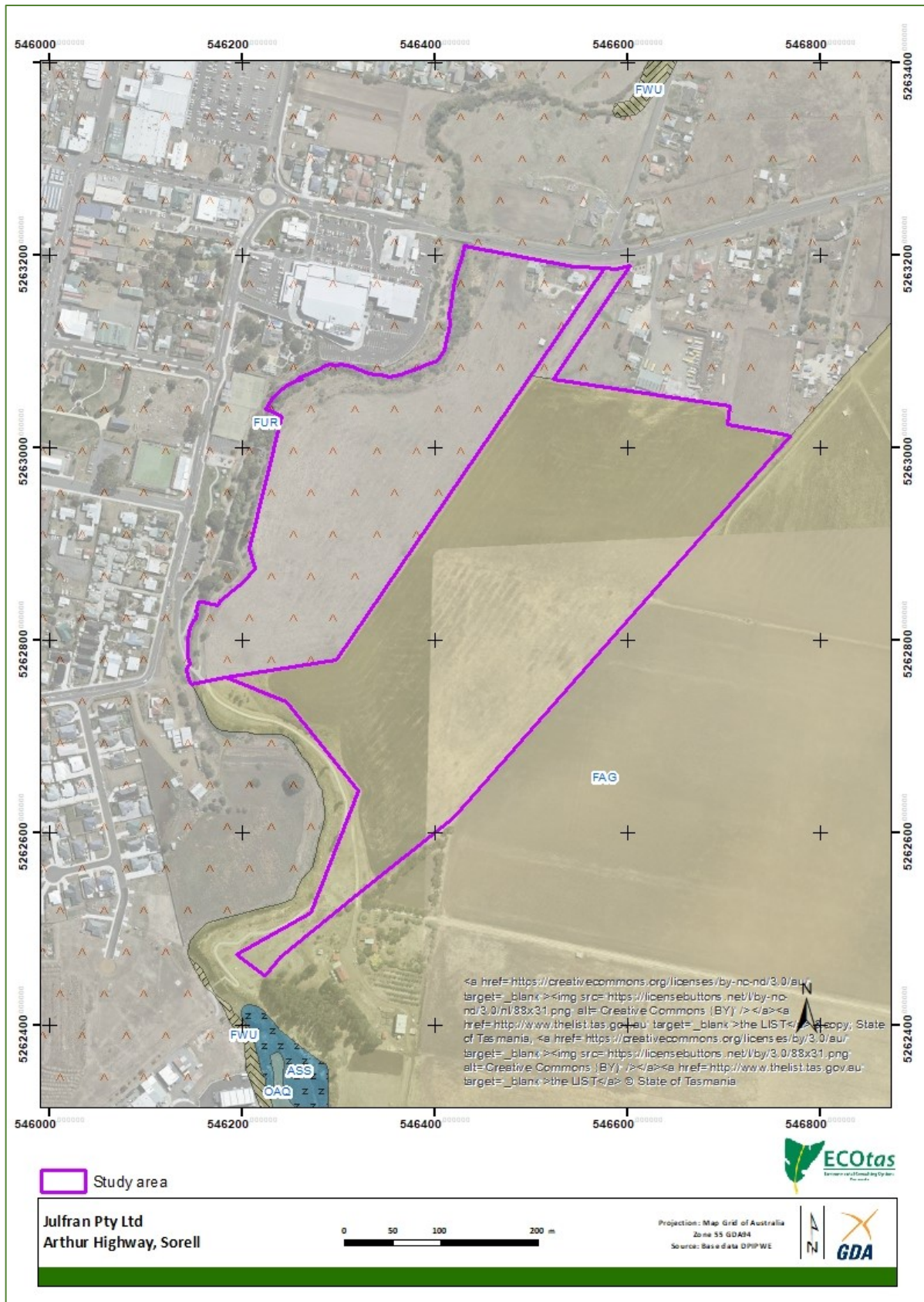


Figure 4. Study area and surrounds showing existing TASVEG 3.0 and TASVEG Live vegetation mapping (see text for codes)



Figure 5. Study area showing revised vegetation mapping (see text for codes)

Of the vegetation mapping units recorded, none are listed as threatened on Schedule 3A of the Tasmanian *Nature Conservation Act 2002* or equate to a threatened ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

Threatened flora

No plant species listed as threatened on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA) and/or the Tasmanian *Threatened Species Protection Act 1995* were detected, or are known from database information, from the study area or surrounds. There is limited potential habitat for such species.

Table A1 (Appendix A) provides a listing of threatened flora from within 5,000 m of the study area (nominal buffer width usually used to discuss the potential of a particular study area to support various species listed in databases), with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded.

Threatened fauna

No fauna species listed as threatened on the Tasmanian *Threatened Species Protection Act 1995* and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* were detected, or are known from database information, from the study area or immediate surrounds.

Table B1 (Appendix B) provides a listing of threatened fauna from within 5,000 m of the study area (nominal buffer width usually used to discuss the potential of a particular study area to support various species listed in databases), with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded.

The study area provides limited potential habitat for threatened fauna species – refer to comments in Table B1 for more information.

Other ecological values

Additional “Matters of National Environmental Significance” – Threatened Ecological Communities

The EPBCA *Protected Matters Area* report (CofA 2019) indicates that the Threatened Ecological Communities Lowland Native Grasslands of Tasmania (listed as Critically Endangered) and Tasmanian Forests and Woodlands dominated by Black Gum or Brookers Gum (listed as Critically Endangered) are likely to occur within the area. Neither of these communities is present.

Additional “Matters of National Environmental Significance” – Wetlands of International Importance

The EPBCA *Protected Matters Area* report (CofA 2019) indicates that the study area is within a Ramsar site, namely Pitt Water – Orielson Lagoon. In this case, the extent of the listed Ramsar site extends up Sorell Rivulet, bounding some of Lot 1 Arthur Highway as far as the southern limit of 5 Arthur Highway (Figure 6).



Figure 6. Extent of Ramsar site

The Information Sheet on Ramsar Wetlands (RIS) – 2009-2014 version (CofA 2014 – appended) provides extensive background on the Pitt Water – Orielton Lagoon Ramsar site. Under Section 26 (Factors (past, present or **potential**) **adversely affecting the site's ecological character, including changes in land (including water) use and development projects**) and **specifically under "(b) – factors in the surrounding area", the following information is provided:**

"Increasing numbers of subdivisions on the shores of Orielton Lagoon and Midway Point may contribute to increased run-off and sediments. Subdivisions can result in additional stormwater outlets, potential for dumping and spread of weed species, and general disturbance from noise, pets, and human activity. Some of the stormwater is partially treated. Some treatments allow only for the removal of solid pollutants such as litter, while others also reduce sediment and nutrient loads. Stormwater remains an increasing source of nutrients and a significant threat to the environmental quality of Orielton Lagoon.

During 2013/14 leakage from old or damaged sewage infrastructure caused the temporary closure of Oyster farms in Pitt Water area to limit potential public health risk.

Irrigation practices, stock management and ground water manipulation on adjacent agricultural land impact on saltmarshes, seagrass, hydrology, sediment and water quality. Gully erosion, prevalent around Orielton Lagoon, can contribute sediment straight into the wetland. In addition to sedimentation, runoff from planted croplands, pastures and other agricultural areas with high fertiliser use may also contribute to increased nutrient loads in wetland. Nutrient (nitrogen, nitrate and phosphorus) levels in the Coal River are generally at low levels, however, a few high flow events can carry the majority of annual nutrient load (Gallagher 1998).

New developments such as the construction of the South East Irrigation Scheme will increase the amount and type of agricultural cropping in the catchment.

The modification of the runways at Cambridge Airport in 2013 has the potential for increased storm water and industrial runoff to the site.

There are a number of proposed developments near the site (e.g. runway extension for Hobart International Airport; new golf course and large residential development at Seven Mile Beach, industrial complex at Barilla Bay) have the potential for increased storm water, industrial runoff, nutrient load and disturbance to bird values of site.

One of the biggest threats to the Pitt Water estuary is likely to be climate change through rising sea level and altered water balance in the catchment area. Inundation of low-lying areas may occur, with erosion and recession of sandy beaches (causing narrowing of the spit), and landward growth and translation of the marine tidal delta".

Until a final land use is determined, it will be difficult to assess the potential impact of future use on the immediately adjacent Pitt Water – Orielton Lagoon Ramsar site. Refer to *DISCUSSION Legislative and policy implications* for a more detailed preliminary analysis of the *Significant Impact Guidelines* related to Ramsar sites (CofA 2013).




Weed species




The study area is essentially existing primary production land and as such is dominated by introduced plant species including ubiquitous pasture grasses and herbs but also several herbaceous and woody weeds. Even the riparian zone of Sorell Rivulet, understood to have been subject to active weed management and habitat restoration by Sorell Council, is essentially still mappable as a modified form of weed infestation (TASVEG code: FWU) or some other form of modified land within the intent of TASVEG (Kitchener & Harris 2013+).



The study area supports several species of plant species classified as declared weeds under the Tasmanian *Weed Management Act 1999* (Table 2), as well as several additional species often considered as “environmental weeds” (author opinion and as included in *A Guide to Environmental and Agricultural Weeds of Southern Tasmania*, NRM South 2017). Refer to Figure 7.

Table 2. Details of declared weeds recorded from study area

Species	Status on WMA ¹	Comments
<i>Amsinckia calycina</i> hairy fiddleneck	A (io)	<p>Apparently confined to a small patch just south of the existing residence, growing in disused pasture. The species may be more widespread but is presently not flowering so is not obvious.</p>  <p>Old fruiting head of hairy fiddleneck</p>
<i>Chrysanthemoides monilifera</i> subsp. <i>monilifera</i> boneseed	B (li)	<p>Restricted to a single fertile plant on the southern fenceline of the existing residence.</p>  <p>Fertile boneseed (arrowed) on fenceline</p>
<i>Foeniculum vulgare</i> fennel	B (wi)	<p>Widespread in pasture areas, especially along fencelines (boundary and internal), in corners of paddocks (undeveloped parts of the larger paddock area) but also in the middle of paddock areas, as well as within the fenced off Sorell Rivulet riparian zone.</p>

Species	Status on WMA ¹	Comments
		 <p>Young fennel plant growing in pasture</p>
<i>Genista monspessulana</i> canary broom	B (wi)	<p>Widespread but rarely abundant, generally restricted to a few fertile plants, present on the southern fenceline of the existing residence. And scattered through the fenced off Sorell Rivulet riparian zone.</p>  <p>Flowering broom in front of gorse and boneseed</p>
<i>Lepidium draba</i> [syn. <i>Cardaria draba</i>] hoary cress, whiteweed	B (li)	<p>Widespread along boundary and internal fencelines and scattered elsewhere.</p>  <p>Whiteweed along the eastern fenceline</p>

Species	Status on WMA ¹	Comments
<i>Lycium ferocissimum</i> african boxthorn	B (wi)	<p>Widespread and sometimes locally dense, mainly along fencelines (internal and boundary), as well as scattered through the fenced off Sorell Rivulet riparian zone.</p>  <p>Boxthorn along the internal fenceline</p>
<i>Marrubium vulgare</i> white horehound	B (wi)	<p>Localised to one small patch in the far south of the study area, along the fenceline.</p>  <p>Patch of horehound along fence (arrowed) – other white-flowered plant behind is whiteweed</p>
* <i>Rubus</i> spp. ² blackberry	B (li)	<p>Blackberry is restricted to the fenced off Sorell Rivulet, where it is scattered to locally dense.</p>  <p>Dense patch of blackberry on riparian flat</p>

Species	Status on WMA ¹	Comments
<i>Salix x fragilis</i> nothovar. <i>fragilis</i> crack willow	B (wi)	<p>Restricted to locally dense copses of mature trees along Sorell Rivulet.</p>  <p>Crack willow growing in Sorell Rivulet</p>
<i>Ulex europaeus</i> gorse	A(li)	<p>Gorse is locally dense on some steeper paddock edges/corners and also scattered along some fencelines, as well as through the fenced off riparian zone of Sorell Rivulet.</p>  <p>Locally dense patch of gorse (and fennel) in paddock corner</p>

¹ WMA = status on Tasmanian *Weed Management Act 1999* as per Statutory Weed Management Plans available at www.dpipwe.tas.gov.au; wi = widespread infestations reported from municipality; li = localised infestations; io = isolated occurrences

² the genus *Rubus* has recently undergone a review within Australia (Evans et al. 2007) but the *Weed Management Act* still lists all species under the aggregate *Rubus fruticosus*; *Rubus anglocandicans* and *R. leucostachys* were probably the only species identified from the study area (but fertile material was lacking from many sites to confirm this)

Several planning manuals provide guidance on appropriate management actions, which can be referred to develop site-specific prescriptions for any proposed works in the study area. These manuals include:

- Allan, K. & Gartenstein, S. (2010). *Keeping It Clean: A Tasmanian Field Hygiene Manual to Prevent the Spread of Freshwater Pests and Pathogens*. NRM South, Hobart;
- Rudman T. (2005). *Interim Phytophthora cinnamomi Management Guidelines*. Nature Conservation Report 05/7, Biodiversity Conservation Branch, Department of Primary Industries, Water & Environment, Hobart;
- Rudman, T., Tucker, D. & French, D. (2004). *Washdown Procedures for Weed and Disease Control*. Edition 1. Department of Primary Industries, Water & Environment, Hobart; and
- DPIWE (2015). *Weed and Disease Planning and Hygiene Guidelines - Preventing the Spread of Weeds and Diseases in Tasmania*. Department of Primary Industries, Parks, Water & Environment, Hobart.

Any management actions should aim to minimise the risk of introducing novel weeds to the study area. The key to this will be hygiene protocols for machinery, vehicles and personnel entering the area during works, particularly if they have come from a potentially weed-affected site, although the highly weedy nature of the site is noted. In theory, the main concern with respect to introduction of novel weeds is to the already fenced-off Sorell Rivulet riparian zone. However, this area, despite active management by Sorell Council, is heavily weed-infested and it is more likely this strip of modified vegetation will act as a continuing source of propagules to establishment (and re-establishment) of weeds on adjacent private property.

The greatest concern with respect to the management of weeds is that any vegetation debris and spoil (soil) that is produced as a consequence of works should be considered contaminated with weed propagules, which includes several species with long-lived soil-stored seed (e.g. *Ulex europaeus*, gorse). Any such material will need to be managed in accordance with the provisions of the *Tasmanian Weed Management Act 1999*, as well as any relevant municipal policies and regulations, especially with respect to transport and disposal. Whether any future development will require a stand-alone weed and hygiene management plan is not known at this stage.

Rootrot pathogen, *Phytophthora cinnamomi*

Phytophthora cinnamomi (PC) is widespread in lowland areas of Tasmania, across all land tenures. However, disease will not develop when soils are too cold or too dry. For these reasons, PC is not a threat to susceptible plant species that grow at altitudes higher than about 700 metres or where annual rainfall is less than about 600 mm (e.g. Midlands and Derwent Valley). Furthermore, disease is unlikely to develop beneath a dense canopy of vegetation because shading cools the soils to below the optimum temperature for the pathogen. A continuous canopy of vegetation taller than about 2 metres is sufficient to suppress disease. Hence PC is not considered a threat to susceptible plant species growing in wet sclerophyll forests, rainforests (except disturbed rainforests on infertile soils) and scrub e.g. teatree scrub (Rudman 2005; FPA 2009).

The vegetation types identified from the study area are not recognised as being potentially susceptible to PC. No evidence of the pathogen was observed. Special management with respect to this plant disease should not be required.

Myrtle wilt

Myrtle wilt, caused by a wind-borne fungus (*Chalara australis*), occurs naturally in rainforest where myrtle beech (*Nothofagus cunninghamii*) is present. The fungus enters wounds in the tree, usually caused by damage from wood-boring insects, wind damage and forest clearing. The incidence of myrtle wilt often increases forest clearing events such as windthrow and wildfire.

The study area does not support *Nothofagus cunninghamii*. No special management is required.

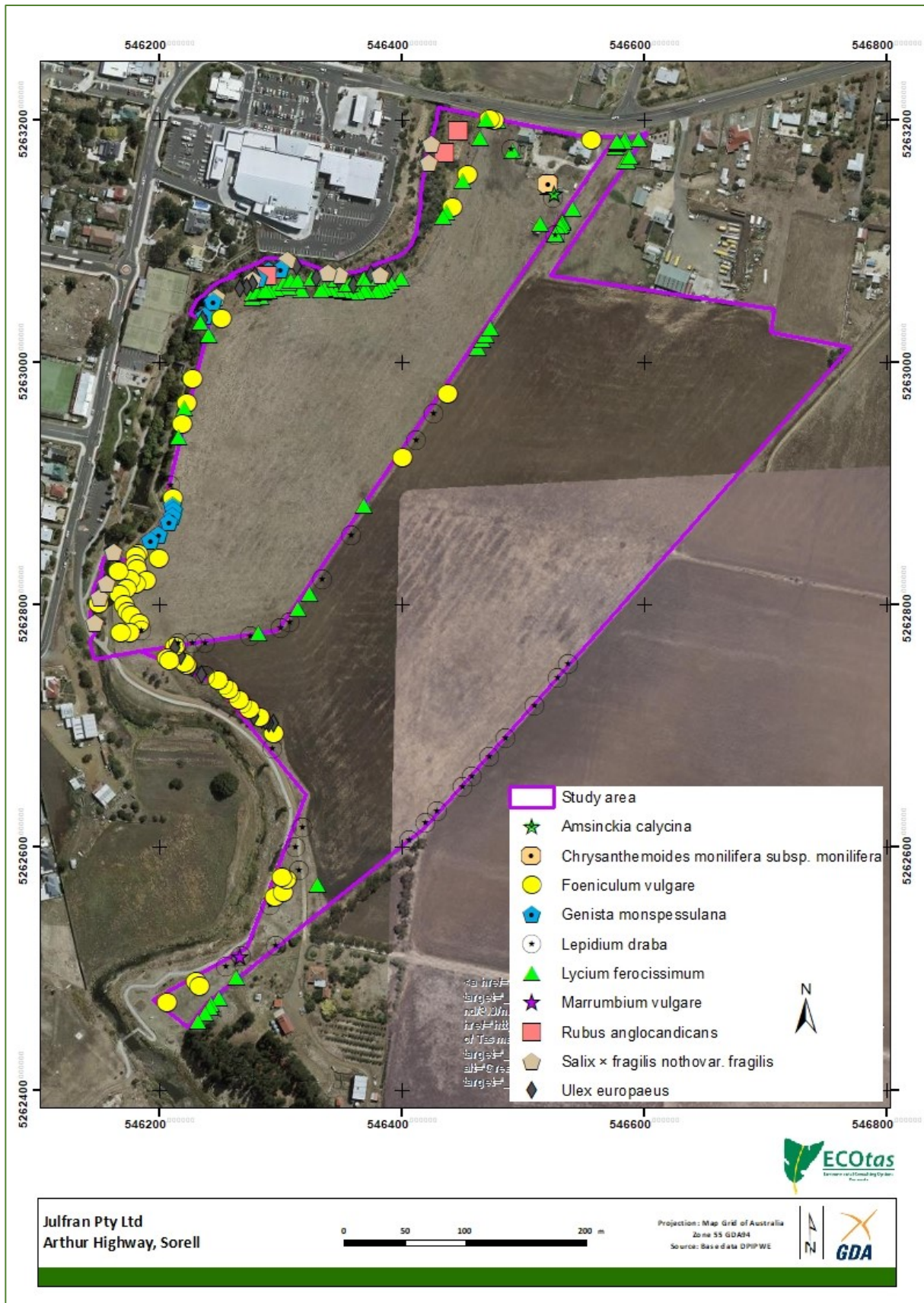


Figure 7. Indicative distribution of declared weeds within study area

Myrtle rust

Myrtle rust is a disease limited to plants in the Myrtaceae family. This plant disease is a member of the guava rust complex caused by *Austropuccinia psidii*, a known significant pathogen of Myrtaceae plants outside Australia. Infestations are currently limited to NSW, Victoria, Queensland and Tasmania (DPIPWE 2015).

No evidence of myrtle rust was noted (limited Myrtaceae species present, mainly in the riparian zone). The longer-term management issue for the site is to ensure that any ornamental and/or rehabilitation plantings undertaken source plants from a reputable nursery free from the pathogen (such facilities are already subject to strict biosecurity legislation, policies and protocols).

Chytrid fungus and other freshwater pathogens

Native freshwater species and habitat are under threat from freshwater pests and pathogens including *Phytophthora cinnamomi* (root rot), *Batrachochytrium dendrobatidis* (chytrid frog disease), *Mucor amphibiorum* (platypus Mucor disease) and the freshwater algal pest *Didymosphenia geminata* (Didymo) (Allan & Gartenstein 2010). Freshwater pests and pathogens are spread to new areas when contaminated water, mud, gravel, soil and plant material or infected animals are moved between sites. Contaminated materials and animals are commonly transported on boots, equipment, vehicles tyres and during road construction and maintenance activities. Once a pest pathogen is present in a water system it is usually impossible to eradicate. The manual *Keeping it Clean - A Tasmanian Field Hygiene Manual to Prevent the Spread of Freshwater Pests and Pathogens* (Allan & Gartenstein 2010) provides information on how to prevent the spread of freshwater pests and pathogens in Tasmanian waterways wetlands, swamps and boggy areas.

While the study area is within only a few kilometres of known records of chytrid in the Seven Mile Beach area, the study area itself presents as limited potential habitat for amphibian species due to the absence of drainage features within most of the study area. Sorell Rivulet forms the western boundary of the study area, and the existing fence between the primary production paddocks and the revegetation/weedy areas of the riparian zone is likely to form the practical limit of any future development, such that poorly-drained habitats are highly unlikely to be affected. As such, special management should not be required but the general guidelines and principles in *Keeping it Clean - A Tasmanian Field Hygiene Manual to Prevent the Spread of Freshwater Pests and Pathogens* (Allan & Gartenstein 2010) may have some application.

Adjacent reserve

An “informal reserve on other public land” under the jurisdiction of DPIPWE forms the western boundary of Lot 1 Arthur Highway, extending as far as the southern boundary of 5 Arthur Highway (Figure 8). It is noted that the boundary between the informal reserve and private property is already wholly fenced and the private property long-developed for primary production to the property boundary.

The natural values of Sorell Rivulet downstream of the upper limit of the informal reserve with 5 Arthur Street is already highly modified including a sealed road/walkway on the eastern side of the rivulet, a gravel vehicular driveway (to access 3 Kidbrook Road) and essentially weed-infested grassy banks throughout. That is, it is difficult to anticipate that development within the confines of the private property will materially deleteriously impact on the natural values of the adjacent informal reserve.

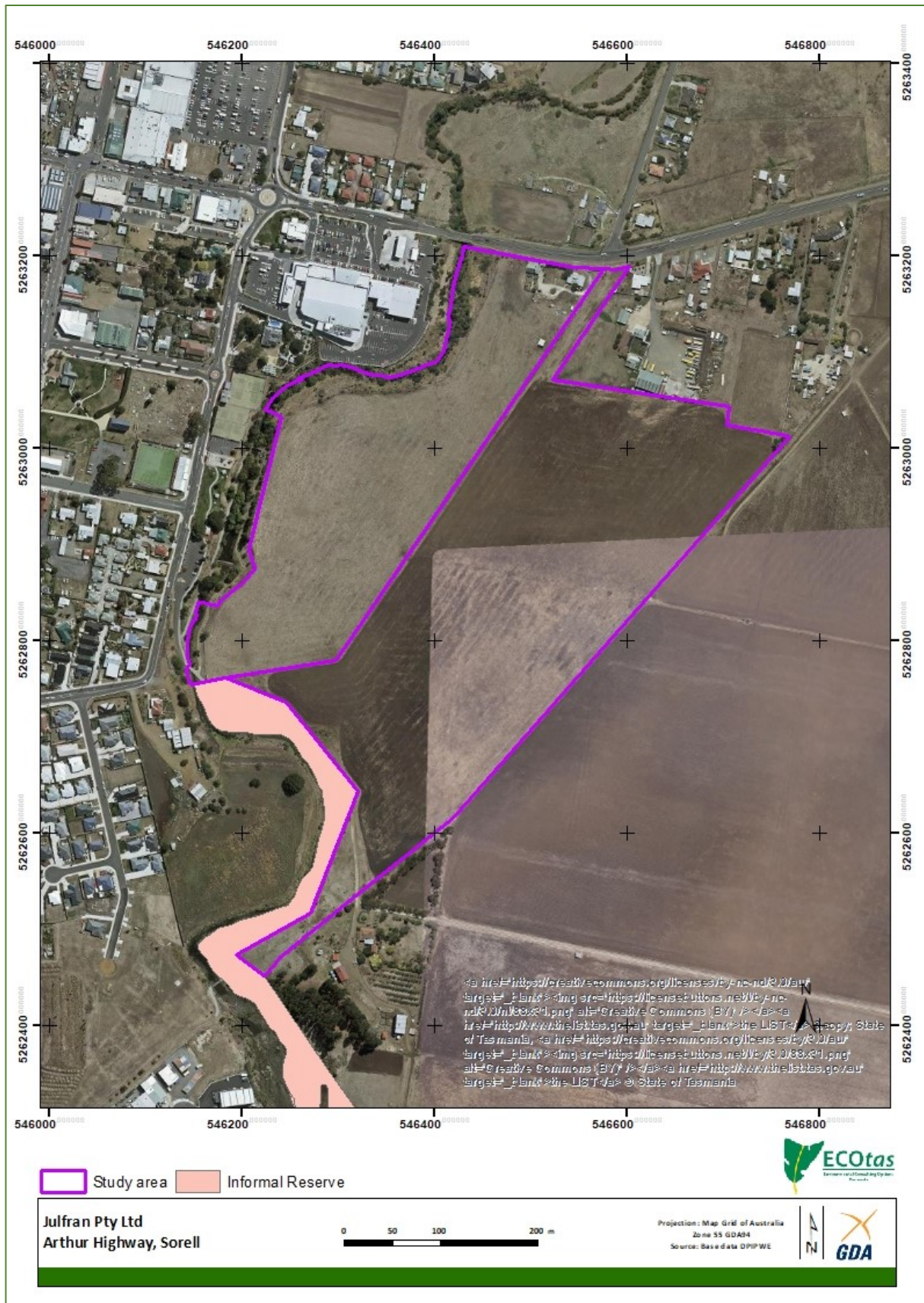


Figure 8. Extent of informal reserve

DISCUSSION

Summary of key findings

Threatened flora

- No flora species listed as threatened on the Tasmanian *Threatened Species Protection Act 1995* (TSPA) and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA), were detected, or are known from database information, from the study area or immediate surrounds.

Threatened fauna

- No fauna species listed as threatened on the Tasmanian *Threatened Species Protection Act 1995* (TSPA) and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA), were detected, or are known from database information, from the study area or immediate surrounds.
- The study area provides limited potential habitat for threatened fauna.

Vegetation types

- The study area supports the following TASVEG mapping units:
 - urban areas (TASVEG code: FUR);
 - weed infestation (TASVEG code: FWU); and
 - agricultural land (TASVEG code: FAG).
- None of the vegetation mapping units recorded are listed as threatened on Schedule 3A of the Tasmanian *Nature Conservation Act 2002* or equate to a threatened ecological community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

Weeds

- Ten plant species classified as declared weeds within the meaning of the Tasmanian *Weed Management Act 1999* were detected from the study area, as follows:
 - *Amsinckia calycina* (hairy fiddleneck);
 - *Chrysanthemoides monilifera* subsp. *monilifera* (boneseed);
 - *Foeniculum vulgare* (fennel);
 - *Genista monspessulana* (canary broom);
 - *Lepidium draba* [syn. *Cardaria draba*] (hoary cress, whiteweed);
 - *Lycium ferocissimum* (african boxthorn);
 - *Marrubium vulgare* (white horehound);
 - *Rubus* spp. (blackberry);
 - *Salix x fragilis* nothovar. *fragilis* (crack willow); and
 - *Ulex europaeus* (gorse).

Plant disease

- No evidence of *Phytophthora cinnamomi* (PC, rootrot) was recorded from within the study area.

- No evidence of myrtle wilt was recorded from within the study area.
- No evidence of myrtle rust was recorded from within the study area.

Animal disease (chytrid)

- The study area is not known to support frog chytrid disease and there is only marginal potential habitat for amphibian species on the margins of the site.

Ramsar wetland

- The study area is in the catchment of/adjacent to the Pitt Water – Orielton Lagoon Ramsar wetland.

Adjacent informal reserve

- Part of the study area is adjacent to an informal reserve on public land under the jurisdiction of DPIPW (part of Sorell Rivulet).

Legislative and policy implications

Note that the information provided below is my interpretation of legislation and policy only. It does not constitute legal advice. Advice should be sought from the relevant agency.

Commonwealth Environment Protection and Biodiversity Conservation Act 1999

Under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* an action will require approval from the minister if the action has, will have, or is likely to have, a significant impact on a matter of national environmental significance.

Matters of national environmental significance considered under the EPBCA include:

- listed threatened species and communities
- listed migratory species;
- Ramsar wetlands of international importance;
- Commonwealth marine environment;
- world heritage properties;
- national heritage places;
- the Great Barrier Reef Marine Park;
- nuclear actions; and
- a water resource, in relation to coal seam gas development and large coal mining development.

The Commonwealth Department of the Environment & Energy provides a policy statement titled *Matters of National Environmental Significance: Significant Impact Guidelines 1.1* (CofA 2013, herein the *Guidelines*), which provides overarching guidance on determining whether an action is likely to have a significant impact on a matter protected under the EPBCA.

The *Guidelines* define a significant impact as:

"...an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact

depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts"

and note that:

"...all of these factors [need to be considered] when determining whether an action is likely to have a significant impact on matters of national environmental significance".

The *Guidelines* provide advice on when a significant impact may be likely:

"To be 'likely', it is not necessary for a significant impact to have a greater than 50% chance of happening; it is sufficient if a significant impact on the environment is a real or not remote chance or possibility.

If there is scientific uncertainty about the impacts of your action and potential impacts are serious or irreversible, the precautionary principle is applicable. Accordingly, a lack of scientific certainty about the potential impacts of an action will not itself justify a decision that the action is not likely to have a significant impact on the environment".

The *Guidelines* provide a set of Significant Impact Criteria, which are "intended to assist...in determining whether the impacts of [the] proposed action on any matter of national environmental significance are likely to be significant impacts". It is noted that the criteria are "intended to provide general guidance on the types of actions that will require approval and the types of actions that will not require approval...[and]...not intended to be exhaustive or definitive".

It may be prudent for the project proponent to produce a more detailed "significant impact analysis statement" on each possible Matter of National Environmental Significance (MNES) as a stand-alone document to facilitate consultation and approvals. However, the sections below provide an initial summary of the potential significant impact of the project on MNES.

Listed ecological communities

The project area does not support any communities listed as threatened under the Act.

Threatened flora

The project area does not support known sites or potential habitat of flora species listed on the Act.

Threatened fauna

The Commonwealth Department of the Environment & Energy provides a *Significant Impact Guidelines* policy statement (CofA 2013) to determine if referral to the department is required. In my opinion, any proposed disturbance within the study area will not constitute a "significant impact" because while there may be a loss/modification of (marginal) potential habitat, the loss is not such that it is likely to lead to a long-term decrease in the size of an important population of a species, reduce the area of occupancy of an important population, fragment an existing important population into two or more populations, adversely affect habitat critical to the survival of a species, disrupt the breeding cycle of an important population, modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline, result in invasive species that are harmful to a threatened species becoming established in the threatened species' habitat, introduce disease that may cause the species to decline, or interfere substantially with the recovery of the species

Ramsar wetland

The EPBCA *Protected Matters Area* report (CofA 2019) indicates that the study area is within a Ramsar site, namely Pitt Water – Orielton Lagoon. In this case, the extent of the listed Ramsar site extends up Sorell Rivulet, bounding some of Lot 1 Arthur Highway as far as the southern limit of 5 Arthur Highway (Figure 6). While the highly modified nature of the study area, as well as much of the catchment of Sorell Rivulet, is acknowledged, probably meaning that future land use within the study area will have a limited impact on the adjacent Ramsar wetland, it is important to note that the *Guidelines* provide the following statements regarding “indirect and offsite impacts”:

Indirect and offsite impacts

When considering whether or not an action is likely to have a significant impact on a matter of national environmental significance it is relevant to consider all adverse impacts which result from the action, including indirect and offsite impacts.

Indirect and offsite impacts include:

- a. ‘downstream’ or ‘downwind’ impacts, such as impacts on wetlands or ocean reefs from sediment, fertilisers or chemicals which are washed or discharged into river systems;
- b. ‘upstream impacts’ such as impacts associated with the extraction of raw materials and other inputs which are used to undertake the action; and
- c. ‘facilitated impacts’ which result from further actions (including actions by third parties) which are made possible or facilitated by the action. For example, the construction of a dam for irrigation water facilitates the use of that water by irrigators with associated impacts. Likewise, the construction of basic infrastructure in a previously undeveloped area may, in certain circumstances, facilitate the urban or commercial development of that area.

Consideration should be given to all adverse impacts that could reasonably be predicted to follow from the action, whether these impacts are within the control of the person proposing to take the action or not. Indirect impacts will be relevant where they are sufficiently close to the proposed action to be said to be a consequence of the action, and they can reasonably be imputed to be within the contemplation of the person proposing to take the action.

It may be helpful to consider the following:

- ‘But for’ the proposed action would the indirect impacts occur?
- Is the proposed action a ‘material and substantial’ cause of the indirect impacts?
- Are the potential impacts of any subsequent or third party actions known, or would they be expected to be known, by the person proposing to take the action (particularly where the subsequent or third party actions are an intended outcome of the proposed action)?

If the answer to these questions is ‘yes’, then it is necessary to consider whether these impacts are likely to occur, and whether they are likely to have a significant impact on a matter of national environmental significance. If so, as much information as possible should be provided to assist the minister in determining whether the impacts are relevant, and whether approval under the EPBC Act is required.

In specific respect to wetlands of internal importance (Ramsar), the *Guidelines* state:

Approval is required for an action occurring within or outside a declared Ramsar wetland if the action has, will have, or is likely to have a significant impact on the ecological character of the Ramsar wetland.

An action is likely to have a significant impact on the ecological character of a declared Ramsar wetland if there is a real chance or possibility that it will result in:

- **areas of the wetland being destroyed or substantially modified**

[this does not seem a likely scenario for any development within the study area]

- **a substantial and measurable change in the hydrological regime of the wetland, for example, a substantial change to the volume, timing, duration and frequency of ground and surface water flows to and within the wetland**

[this may require further consideration and demonstration through development of a soil and water management plan (stormwater, sewerage, surface runoff, etc.) that any development will not have a manifest deleterious impact on the adjacent Ramsar site]

- **the habitat or lifecycle of native species, including invertebrate fauna and fish species, dependant upon the wetland being seriously affected**

[this does not seem a likely scenario for any development within the study area]

- **a substantial and measurable change in the water quality of the wetland – for example, a substantial change in the level of salinity, pollutants, or nutrients in the wetland, or water temperature which may adversely impact on biodiversity, ecological integrity, social amenity or human health, or**

[this may require further consideration and demonstration through development of a soil and water management plan (stormwater, sewerage, surface runoff, etc.) that any development will not have a manifest deleterious impact on the adjacent Ramsar site]

- **an invasive species that is harmful to the ecological character of the wetland being established (or an existing invasive species being spread) in the wetland.**

[this does not seem a likely scenario for any development within the study area]

Tasmanian Threatened Species Protection Act 1995

Threatened flora and fauna on this Act are managed under Section 51, where 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.** No such species are reported from the study area, such that this Act should not be triggered.

Tasmanian Nature Conservation Act 2002

Schedule 3A of the Act lists vegetation types classified as threatened within Tasmania. The project area does not support any such vegetation types such that this Act should not be triggered.

Tasmanian Wildlife (General) Regulations 2010

While the assessment of the study area indicated the presence of species listed on schedules of the **Regulations (i.e. “specially protected wildlife”, “protected wildlife”, “partly protected wildlife”), no individuals of these species (or products of these species) are likely to be directly physically affected by future works, such that these Regulations should not be triggered.**

Tasmanian Weed Management Act 1999

Ten plant species classified as declared weeds within the meaning of the Act, with the species all subject to Statutory Weed Management Plans under the Act. The study area falls within the Sorell municipality, which for the management of species is classified as both **"Zone A"** and **"Zone B"**. In relation to **"Zone A"**, **"eradication"** within the meaning of the Weed Management Act 1999 is the most appropriate management objective those Tasmanian municipalities that are either free of the declared weed, host only small, isolated infestations, or host larger infestations which are deemed eradicable because a strategic management plan exists and the resources required to implement it have been or are likely to be secured. In relation to **"Zone B" species**, **"containment"** within the meaning of the Weed Management Act 1999 is the most appropriate management objective for municipalities who have problematic infestations but no plan and/or resources to undertake control actions at a level required for eradication. The management outcome for these municipalities is ongoing prevention of the spread of declared weeds from existing infestations to areas free or in the process of becoming free of these weeds.

The greatest concern with respect to the management of weeds is that any vegetation debris and spoil (soil) that is produced as a consequence of works should be considered contaminated with weed propagules, which includes several species with long-lived soil-stored seed (e.g. *Ulex europaeus*, gorse). Any such material will need to be managed in accordance with the provisions of the *Tasmanian Weed Management Act 1999*, as well as any relevant municipal policies and regulations, especially with respect to transport and disposal. Whether any future development will require a stand-alone weed and hygiene management plan is not known at this stage.

Tasmanian Land Use Planning and Approvals Act 1993

The primary purpose of this assessment and report is to inform a rezoning application under the *Sorell Interim Planning Scheme 2015*. It is indicated that there are limited natural values that may need to be taken into account for future land use, the main issues being weed management and appropriate management of on-site activities to ensure no deleterious impact on the adjacent informal reserve on public land (which is also part of the Ramsar wetland of international importance).

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APPENDIX A. Analysis of database records of threatened flora

Table A1 provides a listing of threatened flora from within 5,000 m of the study area (nominal buffer width usually used to discuss the potential of a particular study area to support various species listed in databases), with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded.

Table A1. Threatened flora records from within 5,000 m of boundary of the study area

Species listed below are listed as rare (r), vulnerable (v), endangered (e), or extinct (x) on the Tasmanian *Threatened Species Protection Act 1995* (TSPA); vulnerable (VU), endangered (EN), critically endangered (CR) or extinct (EX) on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA). Information below is sourced from DPIPWE's *Natural Values Atlas* (DPIPWE 2019) and other sources where indicated. Habitat descriptions are taken from FPA (2016) and TSS (2003+), except where otherwise indicated. Species marked with # are listed in CofA (2019).

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on project area and database records
<i>Asperula scoparia</i> subsp. <i>scoparia</i> prickly woodruff	r -	<i>Asperula scoparia</i> subsp. <i>scoparia</i> is widespread in Tasmania, and is mainly found in native grasslands and grassy forests, often on fertile substrates such as dolerite-derived soils. Forested sites are usually dominated by <i>Eucalyptus globulus</i> and <i>E. viminalis</i> (lower elevations) and <i>E. delegatensis</i> (higher elevations).	Potential habitat extremely limited to a few banks of old pasture with a marginally higher proportion of native species present. This highly distinctive perennial herb was not detected (no seasonal constraint on detection and/or identification).
<i>Caladenia caudata</i> tailed spider-orchid	v VU # only	<i>Caladenia caudata</i> has highly variable habitat, which includes the central north: <i>Eucalyptus obliqua</i> heathy forest on low undulating hills; the northeast: <i>E. globulus</i> grassy/heathy coastal forest, <i>E. amygdalina</i> heathy woodland and forest, <i>Allocasuarina</i> woodland; and the southeast: <i>E. amygdalina</i> forest and woodland on sandstone, coastal <i>E. viminalis</i> forest on deep sands. Substrates vary from dolerite to sandstone to granite, with soils ranging from deep windblown sands, sands derived from sandstone and well-developed clay loams developed from dolerite. A high degree of insolation is typical of many sites.	Potential habitat absent.
<i>Calocephalus citreus</i> lemon beautyheads	r -	<i>Calocephalus citreus</i> inhabits disturbed dry grasslands, and is found from a few locations in the southeast of the State.	Potential habitat extremely limited to a few banks of old pasture with a marginally higher proportion of native species present. It is noted that the species can occasionally extent into and persist in pockets of suitable habitat amongst otherwise intensively-managed pasture. This highly distinctive perennial herb/sub-shrub was not detected (no seasonal constraint on detection and/or identification).
<i>Carex gunniana</i> mountain sedge	r -	The habitat of <i>Carex gunniana</i> is poorly understood and highly variable. It includes wet eucalypt forest, sandy heathlands, margins of streams, littoral	Potential habitat restricted to the margins of Sorell Rivulet. This highly distinctive perennial sedge was not detected (no seasonal

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on project area and database records
		sands, shingle with seepage, damp grasslands within dry forest and rough pasture.	constraint on detection and/or identification).
<i>Damasonium minus</i> starfruit	r -	<i>Damasonium minus</i> occupies swampy habitat and farm dams and prefers slow-flowing or stationary water.	Potential habitat restricted to Sorell Rivulet. This highly distinctive perennial herb was not detected (no significant seasonal constraint on detection and/or identification).
<i>Dianella amoena</i> grassland flaxlily	r EN #	<i>Dianella amoena</i> occurs mainly in the northern and southern Midlands, where it grows in native grasslands and grassy woodlands.	Potential habitat extremely limited to a few banks of old pasture with a marginally higher proportion of native species present. This highly distinctive perennial graminoid was not detected (no significant seasonal constraint on detection and/or identification).
<i>Glycine latrobeana</i> clover glycine	v VU # only	<i>Glycine latrobeana</i> occurs in a range of habitats, geologies and vegetation types. Soils are usually fertile but can be sandy when adjacent to or overlaying fertile soils. The species mainly occurs on flats and undulating terrain over a wide geographical range, including near-coastal environments, the Midlands, and the Central Plateau. It mainly occurs in grassy/heathy forests and woodlands and native grasslands.	Potential habitat absent. The species is not known from southeastern Tasmania.
<i>Haloragis heterophylla</i> variable raspwort	r -	<i>Haloragis heterophylla</i> occurs in poorly-drained sites (sometimes only marginally so), which are often associated with grasslands and grassy woodlands with a high component of <i>Themeda triandra</i> (kangaroo grass). It also occurs in grassy/sedgy <i>Eucalyptus ovata</i> forest and woodland, shrubby creek lines, and broad sedgy/grassy flats, wet pasture and margins of farm dams.	Potential habitat restricted to the margins of Sorell Rivulet. This highly distinctive perennial herb was not detected (no seasonal constraint on detection and/or identification).
<i>Isoetopsis graminifolia</i> grass cushion	v -	<i>Isoetopsis graminifolia</i> grows in native grasslands, usually dominated by <i>Themeda triandra</i> (kangaroo grass), or on rockplates, the underlying substrate being mostly basalt or dolerite. The elevation range of recorded sites is 20-360 m a.s.l. in areas of low rainfall.	Potential habitat extremely limited to a few banks of old pasture with a marginally higher proportion of native species present. This highly distinctive annual herb was not detected (strong seasonal constraint on detection and/or identification but survey coincided with peak flowering period).
<i>Juncus amabilis</i> gentle rush	r -	<i>Juncus amabilis</i> occurs in a variety of habitats, usually poorly-drained sites such as damp grasslands and grassy woodlands, wet pastures, roadside ditches and edges of still and slow-flowing waterbodies. As presently understood, the species is mainly confined to lowland areas in the eastern half of the State but there are potential	Potential habitat largely restricted to the margins of Sorell Rivulet but also possibly low-lying parts of some pasture areas. This highly distinctive perennial rush was not detected (no seasonal constraint on detection and/or identification).

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on project area and database records
		higher elevation and more western records that require confirmation.	Note that the species is in the process of being removed from schedules of the TSPA (awaiting gazettal).
<i>Lepidium hyssopifolium</i> soft peppergrass	e EN # only	The native habitat of <i>Lepidium hyssopifolium</i> 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). <i>Lepidium hyssopifolium</i> 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 a.s.l. 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.	Potential habitat marginally present (e.g. along fencelines and around the residence). This highly distinctive perennial herb was not detected (no significant seasonal constraint on detection and/or identification).
<i>Leucochrysum albicans</i> var. <i>tricolor</i> grassland paperdaisy	e EN # only	<i>Leucochrysum albicans</i> var. <i>tricolor</i> occurs in the west and on the Central Plateau and the Midlands, mostly on basalt soils in open grassland. This species would have originally occupied <i>Eucalyptus pauciflora</i> woodland and tussock grassland, though most of this habitat is now converted to improved pasture or cropland.	Potential habitat absent.
<i>Prasophyllum apoxychilum</i> tapered leek-orchid	v EN # only	<i>Prasophyllum apoxychilum</i> is restricted to eastern and northeastern Tasmania where it occurs in coastal heathland or grassy and scrubby open eucalypt forest on sandy and clay loams, often among rocks. It occurs at a range of elevations and seems to be strongly associated with dolerite in the east and southeast of its range.	Potential habitat absent.
<i>Pterostylis ziegeleri</i> grassland greenhood	v VU #	<i>Pterostylis ziegeleri</i> occurs in the State's south, east and north, with an outlying occurrence in the northwest. In coastal areas, the species occurs on the slopes of low stabilised sand dunes and in grassy dune swales, while in the Midlands it grows in native grassland or grassy woodland on well-drained clay loams derived from basalt.	Potential habitat absent.
<i>Stuckenia pectinata</i> fennel pondweed	r -	<i>Stuckenia pectinata</i> is found in fresh to brackish/saline waters in rivers, estuaries and inland lakes. It forms dense stands or mats, particularly in slow-flowing or static water. The species grows in water of various depth.	Potential habitat restricted to Sorell Rivulet. This highly distinctive perennial aquatic herb was not detected (no significant seasonal constraint on detection and/or identification).
<i>Vittadinia cuneata</i> var. <i>cuneata</i> fuzzy new-holland-daisy	r -	<i>Vittadinia cuneata</i> var. <i>cuneata</i> occurs in native grassland and grassy woodland.	Potential habitat extremely limited to a few banks of old pasture with a marginally higher proportion of native species present. This highly distinctive perennial herb was not detected (no seasonal

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on project area and database records
			constraint on detection and/or identification).
<i>Vittadinia gracilis</i> woolly new-holland-daisy	r -	<i>Vittadinia gracilis</i> occurs in native grassland and grassy woodland.	As above.
<i>Vittadinia muelleri</i> narrowleaf new-holland-daisy	r -	<i>Vittadinia muelleri</i> occurs in native grassland and grassy woodland.	As above.
<i>Wilsonia humilis</i> silky wilsonia	r -	<i>Wilsonia humilis</i> is found in coastal and inland saltmarshes in the south and eastern parts of the State, and also Flinders Island.	Potential habitat absent.
<i>Wilsonia rotundifolia</i> roundleaf wilsonia	r -	<i>Wilsonia rotundifolia</i> is found in coastal and inland saltmarshes in the eastern part of the State.	Potential habitat absent.
<i>Xerochrysum palustre</i> swamp everlasting	v VU # only	<i>Xerochrysum palustre</i> has a scattered distribution with populations in the northeast, east coast, Central Highlands and Midlands, all below about 700 m elevation. It occurs in wetlands, grassy to sedgy wet heathlands and extends to associated heathy <i>Eucalyptus ovata</i> woodlands. Sites are usually inundated for part of the year.	Potential habitat absent.

APPENDIX B. Analysis of database records of threatened fauna

Table B1 provides a listing of threatened fauna from within 5,000 m of the study area (nominal buffer width usually used to discuss the potential of a particular study area to support various species listed in databases), with comments on whether potential habitat is present for the species, and possible reasons why a species was not recorded.

Table B1. Threatened fauna records from 5,000 m of boundary of the study area

Species listed below are listed as rare (r), vulnerable (v), endangered (e), or extinct (x) on the Tasmanian *Threatened Species Protection Act 1995* (TSPA); vulnerable (VU), endangered (EN), critically endangered (CR) or extinct (EX) on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA). Information below is sourced from the **DPIPWE's Natural Values Atlas** (DPIPWE 2019), Bryant & Jackson (1999) and FPA (2019); marine, wholly pelagic and littoral species such as marine mammals, fish and offshore seabirds are excluded. Species marked with # are listed in CofA (2019).

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on project area and database records
<i>Accipiter novaehollandiae</i> grey goshawk	e -	Potential habitat is native forest with mature elements below 600 m altitude, particularly along watercourses. Significant habitat may be summarised as areas of wet forest, rainforest and damp forest patches in dry forest, with a relatively closed mature canopy, low stem density, and open understorey in close proximity to foraging habitat and a freshwater body (i.e. stream, river, lake, swamp, etc.).	Potential habitat absent. The species may utilise the greater study area as part of a home range and for foraging but development should not have a significant impact on this aspect of the life history of the species.
<i>Antipodia chaostola</i> tax. <i>leucophaea</i> chaostola skipper	e EN	Potential habitat is dry forest and woodland supporting <i>Gahnia radula</i> (usually on sandstone and other sedimentary rock types) or <i>Gahnia microstachya</i> (usually on granite-based substrates).	Potential habitat absent (neither <i>Gahnia</i> species is present).
<i>Aquila audax</i> subsp. <i>fleayi</i> Tasmanian wedge-tailed eagle	e EN #	Potential habitat comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is a wide variety of forest (including areas subject to native forest silviculture) and non-forest habitats. Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10 ha) of eucalypt or mixed forest. Nest trees are usually amongst the largest in a locality. They are generally in sheltered positions on leeward slopes, between the lower and mid sections of a slope and with the top of the tree usually lower than the ground level of the top of the ridge, although in some parts of the State topographic shelter is not always a significant factor (e.g. parts of the northwest and Central Highlands). Nests are usually not constructed close to sources of disturbance and nests close to disturbance are less productive.	Potential nesting habitat absent. No known nests within 1,000 m of subject area; all surrounding forest of similar regrowth form as within subject area (also high levels of disturbance). The species may utilise the greater study area as part of a home range and for foraging but development should not have a significant impact on this aspect of the life history of the species.

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on project area and database records
<i>Botaurus poiciloptilus</i> Australasian bittern	- EN # only	Potential habitat is comprised of wetlands with tall dense vegetation, where it forages in still, shallow water up to 0.3 m deep, often at the edges of pools or waterways, or from platforms or mats of vegetation over deep water. It favours permanent and seasonal freshwater habitats, particularly those dominated by sedges, rushes and reeds (e.g. <i>Phragmites</i> , <i>Cyperus</i> , <i>Eleocharis</i> , <i>Juncus</i> , <i>Typha</i> , <i>Baumea</i> , <i>Bolboschoenus</i>) or cutting grass (<i>Gahnia</i>) growing over a muddy or peaty substrate (TSSC 2011).	Potential habitat absent (wetlands are not present within or adjacent to the study area).
<i>Ceyx azureus</i> subsp. <i>diemenensis</i> Tasmanian azure kingfisher	e EN # only	Potential foraging habitat is primarily freshwater (occasionally estuarine) waterbodies such as large rivers and streams with well-developed overhanging vegetation suitable for perching and water deep enough for dive-feeding. Potential breeding habitat is usually steep banks of large rivers (a breeding site is a hole (burrow) drilled in the bank).	Potential habitat absent (Sorell Rivulet is not suitable).
<i>Dasyurus maculatus</i> subsp. <i>maculatus</i> spotted-tailed quoll	r VU #	Potential habitat is coastal scrub, riparian areas, rainforest, wet forest, damp forest, dry forest and blackwood swamp forest (mature and regrowth), particularly where structurally complex and steep rocky areas are present, and includes remnant patches in cleared agricultural land.	Potential habitat, except in a very general sense, absent. No evidence (e.g. scats) of the species was observed. The study area is unlikely to support permanent dens of the species because of the very open understorey lacking large coarse woody debris, rock piles, and wombat burrows. The species may utilise the greater study area as part of a home range and for foraging but development within the context of existing and surrounding land uses should not have a significant impact on potential habitat of the species.
<i>Dasyurus viverrinus</i> eastern quoll	- EN #	Potential habitat is a variety of habitats including rainforest, heathland, alpine areas and scrub. However, it seems to prefer dry forest and native grassland mosaics which are bounded by agricultural land.	See under spotted-tailed quoll.
<i>Haliaeetus leucogaster</i> white-bellied sea-eagle	v -	Potential habitat comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is any large waterbody (including sea coasts, estuaries, wide rivers, lakes, impoundments and even large farm dams) supporting prey items (fish). Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10 ha) of eucalypt or mixed forest within 5 km of the coast (nearest coast including shores, bays, inlets and peninsulas), large rivers (Class 1), lakes or complexes of large farm dams.	See under wedge-tailed eagle.

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on project area and database records
<i>Hirundapus caudacutus</i> white-throated needletail	- VU #	Occasional non-breeding migrant to Tasmania only.	Potential habitat widespread but this is an aerially-foraging bird that rarely lands. The species may utilise the greater study area as part of a foraging range but development within the context of existing and surrounding land uses should not have a significant impact on potential habitat of the species.
<i>Lathamus discolor</i> swift parrot	e CR #	Potential habitat comprises potential foraging habitat and potential nesting habitat. Potential foraging habitat comprises <i>Eucalyptus globulus</i> (blue gum) or <i>Eucalyptus ovata</i> (black gum) trees that are old enough to flower. For management purposes, potential nesting habitat is considered to comprise eucalypt forests that contain hollow-bearing trees.	Potential habitat absent (<i>Eucalyptus globulus</i> , <i>Eucalyptus ovata</i> and hollow-bearing trees are not present).
<i>Litoria raniformis</i> green and golden frog	v VU #	Potential habitat is permanent and temporary waterbodies, usually with vegetation in or around them, including features such as natural lagoons, permanently or seasonally inundated swamps and wetlands, farm dams, irrigation channels, artificial water-holding sites such as old quarries, slow-flowing stretches of streams and rivers and drainage features.	Potential habitat marginally present along Sorell Rivulet, although there are no recent sightings of the species from the Sorell area. Development that excludes the riparian habitat should not have a deleterious impact on the species.
<i>Pardalotus quadragintus</i> forty-spotted pardalote	e EN #	Potential habitat is any forest and woodland supporting <i>Eucalyptus viminalis</i> (white gum) where the canopy cover of <i>E. viminalis</i> is greater than or equal to 10% or where <i>E. viminalis</i> occurs as a localised canopy dominant or co-dominant in patches exceeding 0.25 ha.	Potential habitat absent (<i>Eucalyptus viminalis</i> and any form of hollow-bearing tree not present).
<i>Perameles gunnii</i> subsp. <i>gunnii</i> eastern barred bandicoot	- VU #	Potential habitat is open vegetation types including woodlands and open forests with a grassy understorey, native and exotic grasslands, particularly in landscapes with a mosaic of agricultural land and remnant bushland.	Potential habitat widespread. Future development of what are now virtually totally open and close-cropped pasture/crops grazed by horses should not have a deleterious impact on the species.
<i>Prototroctes maraena</i> Australian grayling	v VU #	Potential habitat is all streams and rivers in their lower to middle reaches. Areas above permanent barriers (e.g. Prosser River dam, weirs) that prevent fish migration, are not potential habitat.	Potential habitat effectively absent. It is possible that the species may intermittently utilise the tidal part of Sorell Rivulet but passage any significant distance up the rivulet is impaired by impoundments. Development that excludes the riparian habitat should not have a deleterious impact on the species.
<i>Pseudemoia pagenstecheri</i> tussock skink	v -	Potential habitat is grassland and grassy woodland (including rough pasture with paddock trees), generally with a greater than 20% cover of native grass species, especially where medium to tall tussocks are present.	Potential habitat absent (tussock grasslands are not present).

Scientific name Common name	Status TSPA EPBCA	Tasmanian habitat description (and distribution)	Comments on project area and database records
<i>Sarcophilus harrisii</i> Tasmanian devil	e EN #	Potential habitat is all terrestrial native habitats, forestry plantations and pasture. Devils require shelter (e.g. dense vegetation, hollow logs, burrows or caves) and hunting habitat (open understorey mixed with patches of dense vegetation) within their home range (427 km ²). Significant habitat is a patch of potential denning habitat where three or more entrances (large enough for a devil to pass through) may be found within 100 m of one another, and where no other potential denning habitat with three or more entrances may be found within a 1 km radius, being the approximate area of the smallest recorded devil home range. Potential denning habitat is areas of burrowable, well-drained soil, log piles or sheltered overhangs such as cliffs, rocky outcrops, knolls, caves and earth banks, free from risk of inundation and with at least one entrance through which a devil could pass.	See under spotted-tailed quoll.
<i>Tyto novaehollandiae</i> subsp. <i>castanops</i> Tasmanian masked owl	e VU #	Potential habitat is all areas with trees with large hollows (≥15 cm entrance diameter) . In terms of using mapping layers, potential habitat is considered to be all areas with at least 20% mature eucalypt crown cover (PI type mature density class 'a', 'b', or 'c'). Remnants and paddock trees (in any dry or wet forest type) in agricultural areas may constitute potential habitat. Significant habitat for the masked owl is any areas within the core range of native dry forest with trees over 100 cm dbh with large hollows (≥15 cm entrance diameter) .	Potential nesting habitat absent. Large trees with large hollows are absent from the study area. The species may utilise the greater study area as part of a home range and for foraging but but development within the context of existing and surrounding land uses should not have a significant impact on potential habitat of the species.

APPENDIX C. **DPIPWE's** *Natural Values Atlas* report for the study area

Appended as pdf file.

APPENDIX D. **Forest Practices Authority's** *Biodiversity Values Atlas* report for the study area

Appended as pdf file.

APPENDIX E. **CofA's** *Protected Matters* report for the study area

Appended as pdf file.

ATTACHMENTS

- .shp file of revised vegetation mapping
- .shp file of weed locations

Threatened Fauna Range Boundaries Boundaries



Search Point 546422E,5262888N is within the following fauna range boundaries as at Mon Oct 21 2019 14:35:16 GMT+1100 (Australian Eastern Daylight Time)



Common name	Species name	Range Class	Habitat Description
grey goshawk	Accipiter novaehollandiae	Potential Range	<p>Potential habitat for the grey goshawk is native forest with mature elements below 600 m altitude, particularly along watercourses. FPA's Fauna Technical Note 12 can be used as a guide in the identification of grey goshawk habitat.</p> <p>Significant habitat for the grey goshawk may be summarised as areas of wet forest, rainforest and damp forest patches in dry forest, with relatively closed mature canopy, low stem density, and open understorey in close proximity to foraging habitat and a freshwater body (i.e. stream, river, lake, swamp, etc.). FPA's Fauna Technical Note 12 can be used as a guide in the identification of grey goshawk habitat.</p>
chaostola skipper	Antipodia chaostola	Potential Range	<p>Potential habitat for the Chaostola Skipper is dry forest and woodland supporting Gahnia radula (usually on sandstone and other sedimentary rock types) or Gahnia microstachya (usually on granite-based substrates).</p>
wedge-tailed eagle	Aquila audax subsp. fleayi	Potential Range	<p>Potential habitat for the wedge-tailed eagle comprises potential nesting habitat and potential foraging habitat. Potential nesting habitat is wide variety of forest (including areas subject to native forest silviculture) and non-forest habitats. Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10 ha) of eucalypt or mixed forest. Nest trees are usually amongst the largest in a locality. They are generally in sheltered positions on leeward slopes, between the lower and mid sections of a slope and with the top of the tree usually lower than the ground level of the top of the ridge, although in some parts of the State topographic shelter is not always a significant factor (e.g. of the northwest and Central Highlands). Nests are usually not constructed close to sources of disturbance and nests close to disturbance are less productive. More than one nest may occur within a territory but only one is used for breeding in any one year. Breeding failure often promotes a change of nest in the next year. [see FPA's Fauna Technical Note 1 and FPA's Fauna Technical Note 6 for more information]</p> <p>Significant habitat for the wedge-tailed eagle is all native forest and native non-forest vegetation within 500 m or 1 km line-of-sight of known nest sites (where the nest tree is still present).</p>
spotted-tailed quoll	Dasyurus maculatus	Core Range	<p>Potential 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 land or plantation areas.</p> <p>Significant habitat for the spotted-tailed quoll is all potential denning habitat within the core range of the species.</p> <p>Potential denning habitat for the spotted-tailed quoll includes 1) any forest remnant (>0.5ha) in a cleared or plantation landscape that is structurally complex (high canopy, with dense understorey and ground vegetation cover), free from the risk of inundation, or 2) a rock outcrop, crevice, rock pile, burrow with a small entrance, hollow logs, large piles of coarse woody debris and caves. FPA's Fauna Technical Note 12 can be used as a guide in the identification of potential denning habitat.</p>
eastern quoll	Dasyurus viverrinus	Core Range	<p>Potential 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.</p> <p>Potential range for the Eastern Quoll is the whole of mainland Tasmania and Bruny Island.</p> <p>Core range for the Eastern Quoll is a specialist-defined area based primarily on modelling work published in Fancourt et al 2015 and additional expert advice.</p>
white-bellied sea-eagle	Haliaeetus leucogaster	Potential Range	<p>Potential habitat for the White-Bellied Sea-eagle species comprises potential nesting habitat and potential foraging habitat. Potential foraging habitat is any large waterbody (including sea coasts, estuaries, wide rivers, lakes, impoundments and even large farm dams) supporting prey items (fish). Potential nesting habitat is tall eucalypt trees in large tracts (usually more than 10 ha) of eucalypt or mixed forest within 5 km of the coast (nearest coast including shores, bays, inlets and peninsulas), large rivers (Class 1), lakes or complexes of large farm dams. Scattered trees along river banks or pasture land may also be used.</p> <p>Significant habitat for the white-bellied sea-eagle is all native forest and native non-forest vegetation within 500 m or 1 km line-of-sight of known nest sites (where nest tree still present).</p>
swift parrot	Lathamus discolor	Core Breeding Range	<p>Potential breeding habitat for the Swift Parrot comprises potential foraging habitat and potential nesting habitat, and is based on definitions of foraging and nesting trees (see Table A in swift parrot habitat assessment Technical Note). Potential foraging habitat comprises E. globulus and E. ovata trees that are old enough to flower. The occurrence of foraging-habitat can be remotely assessed, although only to a limited extent using mapping layers such as GlobMap (DPIPW 2010). Due to the scale and inadequacies in current foraging-habitat mapping, potential foraging-habitat density within operational areas may need to be largely identified by ground-based surveys as per Table B in the swift parrot habitat assessment Technical Note. For management purposes potential nesting habitat is considered to comprise eucalypt forests that contain hollow-bearing trees. The FPA mature habitat availability map (see Technical Note 2) predicts the availability of hollow-bearing trees using the relevant definitions of habitat provided in Table C of the swift parrot habitat assessment Technical Note. The mature habitat availability map is designed to be used to make landscape-scale assessments and may not be reliable for stand-level assessments required during the development of a Forest Practices Plan. At the stand-level the availability and distribution of hollow-bearing trees across a coup operation area is best determined from a ground-based assessment (see Table C in the swift parrot habitat assessment Technical Note).</p> <p>Significant habitat is all potential breeding habitat within the SE potential breeding range and the NW breeding areas.</p>
green and golden frog	Litoria raniformis	Potential Range	<p>Potential habitat for the green and gold frog is permanent and temporary waterbodies, usually with vegetation in or around them. Potential habitat includes features such as natural lagoons, permanently or seasonally inundated swamps and wetlands, farm dams, irrigation channels, artificial water-holding sites such as old quarries, slow-flowing stretches of streams and rivers and drainage features. Significant habitat for the green and gold frog is high quality potential habitat. See FPA Fauna Technical Note 18 for guidance on assessing significant habitat for the green and gold frog.</p>
forty-spotted pardalote	Pardalotus quadragintus	Potential Range	<p>Potential habitat for the 40-spotted pardalote is any forest and woodland supporting Eucalyptus viminalis (white gum) where the canopy cover of E. viminalis is greater than or equal to 10% or where E. viminalis occurs as a localised canopy dominant or codominant in patches exceeding 0.25 ha.</p> <p>Significant habitat for the 40-spotted Pardalote is all potential habitat associated with known colonies and such habitat within 500 m of known colonies.</p>
eastern barred bandicoot	Perameles gunnii	Core Range	<p>Potential habitat for the eastern barred bandicoot is open vegetation types including woodlands and open forests with a grassy understorey of native and exotic grasslands, particularly in landscapes with a mosaic of agricultural land and remnant bushland. Significant habitat for the Eastern Barred Bandicoot is dense tussock grass-sedge-sward swards, piles of coarse woody debris and denser patches of low shrubs (especially those that are densely branched close to the ground providing shelter) within the core range of the species.</p>
australian grayling	Prototroctes maraena	Potential Range	<p>Potential habitat for the Australian Grayling is all streams and rivers in their lower to middle reaches. Areas above permanent barriers (e.g. Prosser River dam, weirs) that prevent fish migration, are not potential habitat.</p>
tasmanian devil	Sarcophilus harrisii	Potential Range	<p>Potential habitat for the Tasmanian devil is all terrestrial native habitats, forestry plantations and pasture. Devils require shelter (e.g. dense vegetation, hollow logs, burrows or caves) and hunting habitat (open understorey mixed with patches of dense vegetation) within their home range (4-27 km²).</p> <p>Significant habitat for the Tasmanian devil is a patch of potential denning habitat where three or more entrances (large enough for a devil to pass through) may be found within 100 m of one another, and where no other potential denning habitat with three or more entrances may be found within a 1 km radius, being the approximate area of the smallest recorded devil home range (Pemberton 1990).</p> <p>Potential denning habitat for the Tasmanian devil is areas of burrowable, well-drained soil, log piles or sheltered overhangs such as cliffs, rock outcrops, knolls, caves and earth banks, free from risk of inundation and with at least one entrance through which a devil could pass. FPA's Fauna Technical Note 10 can be used as a guide in the identification of potential denning habitat</p>



Common name	Species name	Range Class	Habitat Description
			Potential habitat for the masked owl is all areas with trees with large hollows (≥15 cm entrance diameter). Remnants and paddock trees (in any dry or wet forest type) in agricultural areas may also constitute potential habitat.
masked owl	Tyto novaehollandiae	Core Range	Signicant habitat for the mask ed owl is any area of native dry forest, within the core range, with trees with large hollows (≥15 cm entrance diameter). Remnants and paddock trees (in any dry or wet forest type) in agricultural areas may also constitute significant habitat.
			See FPA Fauna Technical Note 17 for guidance on assessing masked owl habitat using 'on-ground' and remote methods.

Showing 1 to 13 of 13 entries

Threatened Fauna Records

Fauna Records within 5000m of 546422E,5262888N at Mon Oct 21 2019 14:35:16 GMT+1100 (Australian Eastern Daylight Time)

Species name	Common name	Reported Position accuracy (m)	X	Y	Distance (m)	Obs. type	Obs. date	Date accuracy	Obs. state	Project code + Foreign id	NVA id
Litoria raniformis	green and gold frog	1000	547412	5265383	2684	Sighting	1993-11-14	Unknown	Present	anuran anuran:anuran:4500/1	NVA
Litoria raniformis	green and gold frog	1000	544412	5263983	2289	Sighting	1993-12-14	Unknown	Present	anuran anuran:anuran:4490/3	NVA
Tyto novaehollandiae	masked owl	2000	543612	5260933	3423	Sighting	1974-06-11	Unknown	Present	fos cra-rfa:fos:13581/1	NVA
Dasyurus viverrinus	eastern quoll	200	549512	5264984	3734	Sighting	1994-01-01	Unknown	Present	qs-mj cra-rfa:qs-mj:12142/1	NVA

Showing 1 to 4 of 4 entries

Threatened Flora Records

Flora Records within 2000m of 546422E, 5262888N at Mon Oct 21 2019 14:35:16 GMT+1100 (Australian Eastern Daylight Time)

Species name	Common name	Reported Position accuracy (m)	X	Y	Distance (m)	Obs. type	Obs. date	Date accuracy	Obs. state	NVA id
Calocephalus citreus	lemon beautyheads	100	545012	5262883	1410	Sighting	1992-01-19	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	50	545037	5263900	1715	Sighting	2004-07-23	Day	Present	NVA
Juncus amabilis	gentle rush	50	545037	5263900	1715	Sighting	2004-07-23	Day	Present	NVA
Vittadinia gracilis	woolly new-holland-daisy	50	545037	5263900	1715	Sighting	2004-07-23	Day	Present	NVA
Vittadinia muelleri (broad sense)	narrow leaf new holland daisy	50	545037	5263900	1715	Sighting	2004-07-23	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	50	545112	5262683	1326	Sighting	2005-02-18	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	50	545112	5261983	1592	Sighting	2005-02-18	Day	Present	NVA
Vittadinia muelleri (broad sense)	narrow leaf new holland daisy	10	545050	5263897	1703	Sighting	2004-08-31	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	10	545042	5263897	1710	Sighting	2004-08-31	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	10	544998	5263906	1750	Sighting	2004-08-31	Day	Present	NVA
Juncus amabilis	gentle rush	10	544945	5263917	1800	Sighting	2004-08-31	Day	Present	NVA
Vittadinia gracilis	woolly new-holland-daisy	10	545037	5263900	1715	Sighting	2004-08-31	Day	Present	NVA
Vittadinia gracilis	woolly new-holland-daisy	10	544992	5263907	1756	Sighting	2004-08-31	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	20	544712	5263070	1720	Sighting	2007-05-15	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	20	545050	5263897	1703	Sighting	2004-08-31	Day	Present	NVA
Haloragis heterophylla	variable raspwort	50	545100	5262900	1322	Sighting	2005-02-03	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	547608	5261384	1915	Sighting	2008-03-24	Day	Present	NVA
Juncus amabilis	gentle rush	10	545087	5263345	1411	Sighting	2010-05-17	Day	Present	NVA
Juncus amabilis	gentle rush	10	545183	5263384	1335	Sighting	2010-05-17	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545557	5263066	883	Sighting	2012-07-20	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545490	5263113	959	Sighting	2012-07-20	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545483	5263108	964	Sighting	2012-07-20	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545470	5263106	977	Sighting	2012-07-20	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545435	5263087	1007	Sighting	2012-07-20	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545425	5263082	1016	Sighting	2012-07-20	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545383	5263096	1060	Sighting	2012-07-20	Day	Present	NVA
Vittadinia gracilis	woolly new-holland-daisy	5	545367	5263054	1068	Sighting	2012-07-20	Day	Present	NVA
Vittadinia gracilis	woolly new-holland-daisy	5	545329	5263036	1103	Sighting	2012-07-20	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545353	5263243	1126	Sighting	2012-07-20	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545360	5263261	1126	Sighting	2012-07-20	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545426	5263294	1076	Sighting	2012-07-20	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545443	5263203	1028	Sighting	2012-07-20	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545484	5263183	983	Sighting	2012-07-20	Day	Present	NVA
Vittadinia muelleri	narroleaf new-holland-daisy	5	545554	5263117	898	Sighting	2012-07-20	Day	Present	NVA

Species name	Common name	Reported Position accuracy (m)	X	Y	Distance (m)	Obs. type	Obs. date	Date accuracy	Obs. state	NVA id
Damasonium minus	starfruit	10000	547713	5263081	1305	Sighting	1970-06-01	Month	Present	NVA
Haloragis heterophylla	variable raspwort	100	545100	5262901	1322	Sighting	2009-02-04	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	5	545128	5262630	1319	Sighting	2013-02-05	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	5	545108	5262713	1326	Sighting	2013-02-05	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	5	545129	5262727	1303	Sighting	2013-02-05	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	5	545087	5262708	1347	Sighting	2013-02-05	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	5	545244	5262623	1207	Sighting	2013-02-05	Day	Present	NVA
Vittadinia muelleri	narrowleaf new-holland-daisy	5	545170	5262717	1264	Sighting	2013-02-05	Day	Present	NVA
Vittadinia muelleri	narrowleaf new-holland-daisy	5	545156	5262637	1291	Sighting	2013-02-05	Day	Present	NVA
Vittadinia muelleri	narrowleaf new-holland-daisy	5	545128	5262630	1319	Sighting	2013-02-05	Day	Present	NVA
Vittadinia muelleri	narrowleaf new-holland-daisy	5	545119	5262631	1328	Sighting	2013-02-05	Day	Present	NVA
Vittadinia muelleri	narrowleaf new-holland-daisy	5	545111	5262632	1336	Sighting	2013-02-05	Day	Present	NVA
Vittadinia muelleri	narrowleaf new-holland-daisy	25	547608	5261384	1915	Sighting	2008-03-24	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	10	544718	5263034	1710	Sighting	2011-10-21	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	10	544858	5262979	1567	Sighting	2011-10-21	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	10	546210	5261917	994	Sighting	2011-10-21	Day	Present	NVA
Calocephalus citreus	lemon beautyheads	5	545087	5262708	1347	Sighting	2012-02-05	Day	Present	NVA

Showing 1 to 51 of 51 entries

Threatened Flora Survey Notes

SURVEY SKILL LEVEL

Refer to [Threatened Flora Species Survey Notes \(FPA 2016\)](#) for more information.

Survey skill level:

1: highly distinctive species – an FPO or forest planner can undertake surveys

2: distinctive species – a flora-competent forest planner can undertake surveys

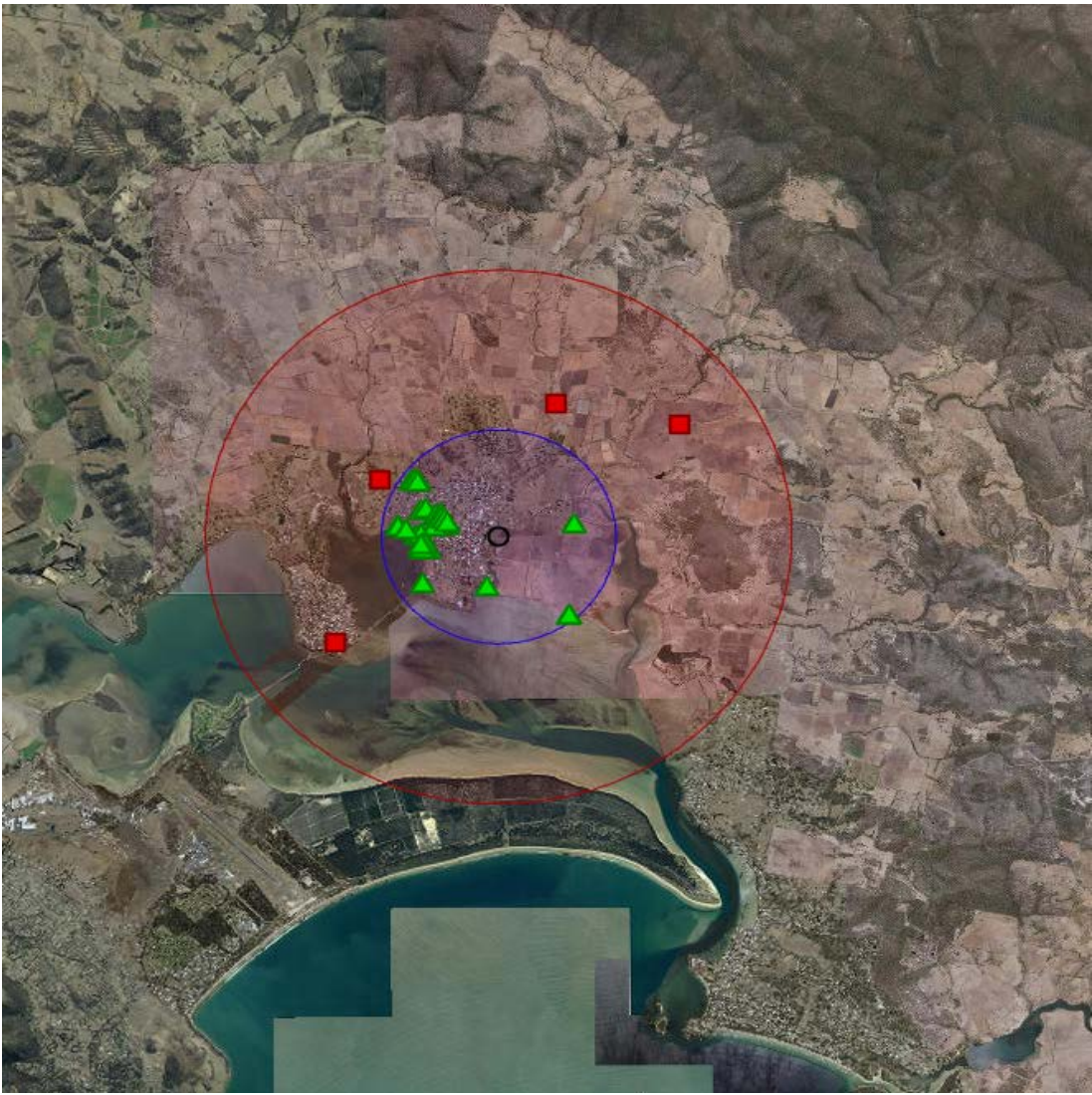
3: non-distinctive species and species occupying specialised niches – only experienced field botanists can undertake surveys

HABITAT DESCRIPTION

Refer to [Habitat Descriptions of Threatened Flora in Tasmania \(FPA 2016\)](#) for more information.

Species name	Common name	Life form	Status TSPA, EPBCA	Habitat description	Survey guidelines	Survey skill level
<i>Calocephalus citreus</i>	lemon beautyheads	herb	r, -	<i>Calocephalus citreus</i> inhabits disturbed dry grasslands, and is found from a few locations in the southeast of the State.	Flowers are required for the identification of this herb, though its distinctive silvery-blue foliage allows the species to be detected throughout most the year (plants may die back somewhat over winter). Flowering is between September and March.	2
<i>Damasonium minus</i>	starfruit	annual herb	r, -	<i>Damasonium minus</i> occupies swampy habitat and farm dams and prefers slow-flowing or stationary water.	A highly variable herb that may be a very small annual on water edges or within ephemeral flooded depressions, or a short-lived perennial with floating and/or emergent leaves within more permanent water bodies, particularly farm dams. Flowering can occur all year but particularly from October to February, which is also when annual examples may be present. The species can be identified using leaf shape and the highly distinctive fruit.	3
<i>Haloragis heterophylla</i>	variable raspwort	herb	r, -	<i>Haloragis heterophylla</i> occurs in poorly-drained sites (sometimes only marginally so), which are often associated with grasslands and grassy woodlands with a high component of <i>Themeda triandra</i> (kangaroo grass). It also occurs in grassy/sedgy <i>Eucalyptus ovata</i> forest and woodland, shrubby creek lines, and broad sedgy/grassy flats, wet pasture and margins of farm dams.	Flowering of this herb is from September to February. Vegetative features can be used to distinguish <i>Haloragis heterophylla</i> from other members of the genus at any time of the year, although seasonal conditions can induce dieback and dormancy.	3
<i>Juncus amabilis</i>	gentle rush	rush	r, -	<i>Juncus amabilis</i> occurs in a variety of habitats, usually poorly-drained sites such as damp grasslands and grassy woodlands, wet pastures, roadside ditches and edges of still and slow-flowing waterbodies. As presently understood, the species is mainly confined to lowland areas in the eastern half of the State but there are potential higher elevation and more western records that require confirmation.	This rhizomatous rush grows in dense clumps. Flowering is predominantly from November to December, and inflorescences are required to identify the species. There is considerable confusion between the identity of <i>Juncus amabilis</i> and closely related taxa such as <i>J. australis</i> , and the species can hybridise with several taxa, making identification problematic. No one key completely provides the diagnostic features needed for identification (cataphylls, stem striations, stem colour, tepal and capsule length and shape) but the presence/absence of stomatal pits (detectable by allowing blobs of PVA glue to dry on the culms and peeling off to reveal the depth of pits) is a useful trait for laboratory identification.	3
<i>Vittadinia gracilis</i>	woolly new-holland-daisy	herb	r, -	<i>Vittadinia gracilis</i> occurs in native grassland and grassy woodland.	This herb can be detected at any time of the year although the flush of spring growth and purple flowers in spring aid detection considerably. The species can be identified on vegetative characters alone.	3
<i>Vittadinia muelleri</i>	narrowleaf new-holland-daisy	herb	r, -	<i>Vittadinia muelleri</i> occurs in native grassland and grassy woodland.	This herb can be detected at any time of the year although the flush of spring growth and purple flowers in spring aid detection considerably. The species can be identified on vegetative characters alone.	3

Showing 1 to 6 of 6 entries



Natural Values Atlas Report

Authoritative, comprehensive information on Tasmania's natural values.

Reference: ECOtas_Sorell5ArthurHighway

Requested For: Mwapstra

Report Type: Summary Report

Timestamp: 02:33:39 PM Monday 21 October 2019

Threatened Flora: buffers Min: 500m Max: 5000m

Threatened Fauna: buffers Min: 500m Max: 5000m

Raptors: buffers Min: 500m Max: 5000m

Tasmanian Weed Management Act Weeds: buffers Min: 500m Max: 5000m

Priority Weeds: buffers Min: 500m Max: 5000m

Geoconservation: buffer 1000m

Acid Sulfate Soils: buffer 1000m

TASVEG: buffer 1000m

Threatened Communities: buffer 1000m

Fire History: buffer 1000m

Tasmanian Reserve Estate: buffer 1000m

Biosecurity Risks: buffer 1000m



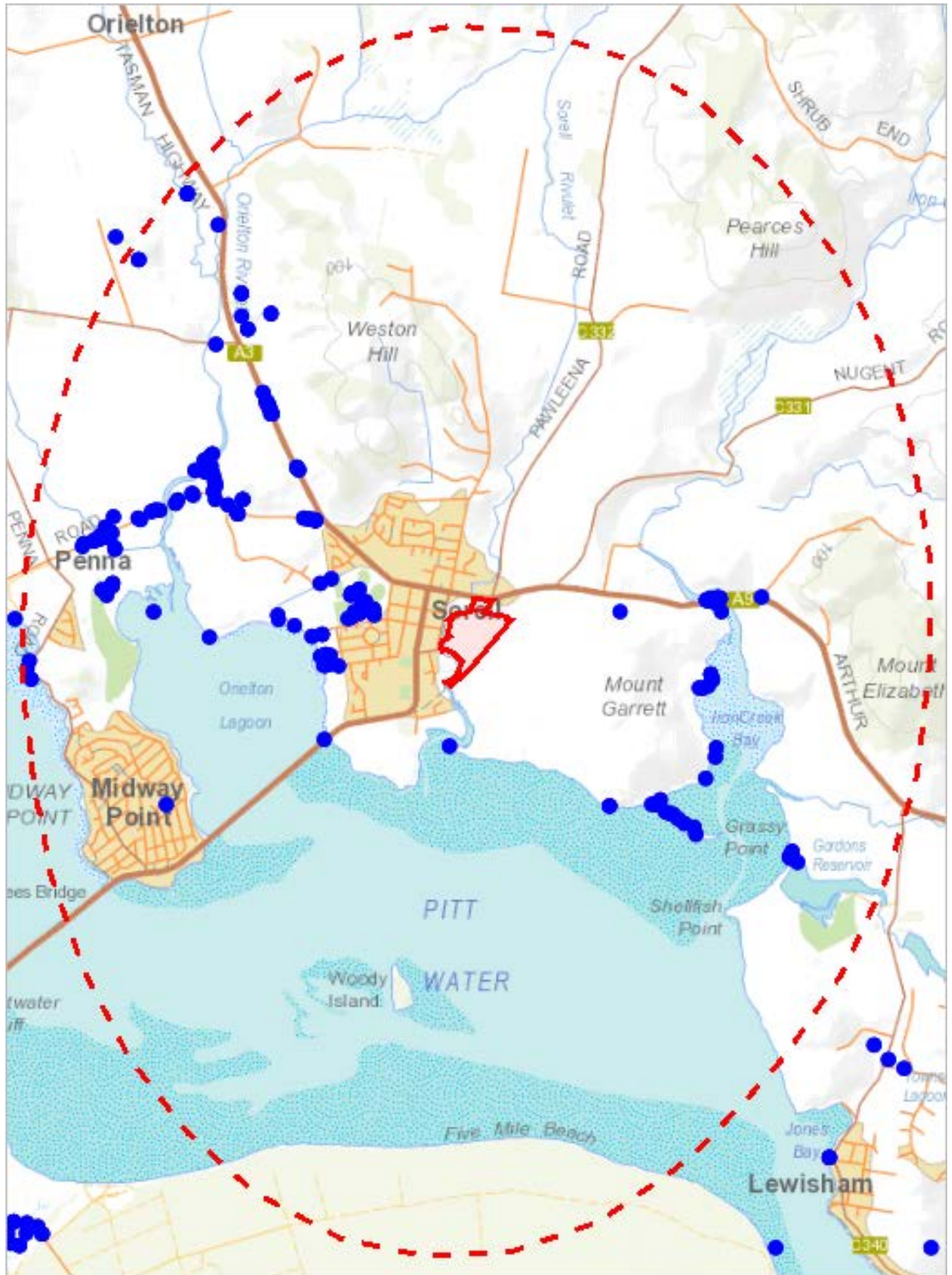
The centroid for this query GDA94: 546422.0, 5262888.0 falls within:

Property: 5935219

*** No threatened flora found within 500 metres ***

Threatened flora within 5000 metres

550620, 5268430



542289, 5257229

Please note that some layers may not display at all requested map scales

Threatened flora within 5000 metres

Legend: Verified and Unverified observations

● Point Verified

● Point Unverified

Line Verified

Line Unverified

■ Polygon Verified

■ Polygon Unverified

Legend: Cadastral Parcels



Threatened flora within 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
<i>Asperula scoparia</i> subsp. <i>scoparia</i>	prickly woodruff	r		n	1	31-Aug-2004
<i>Calocephalus citreus</i>	lemon beautyheads	r		n	61	05-Feb-2013
<i>Carex longibrachiata</i>	drooping sedge	r		n	1	01-Sep-1995
<i>Damasonium minus</i>	starfruit	r		n	1	01-Jun-1970
<i>Dianella amoena</i>	grassland flaxlily	r	EN	n	7	22-Oct-2015
<i>Haloragis heterophylla</i>	variable raspwort	r		n	2	04-Feb-2009
<i>Isoetopsis graminifolia</i>	grass cushion	v		n	2	01-Jan-1993
<i>Juncus amabilis</i>	gentle rush	r?		n	9	22-Oct-2015
<i>Stuckenia pectinata</i>	fennel pondweed	r		n	2	06-Apr-1970
<i>Vittadinia cuneata</i> var. <i>cuneata</i>	fuzzy new-holland-daisy	r		n	14	16-Nov-2010
<i>Vittadinia gracilis</i>	woolly new-holland-daisy	r		n	31	16-May-2014
<i>Vittadinia muelleri</i>	narrowleaf new-holland-daisy	r		n	39	22-Oct-2015
<i>Vittadinia muelleri</i> (broad sense)	narrow leaf new holland daisy	p		n	11	31-Aug-2004
<i>Wilsonia humilis</i>	silky wilsonia	r		n	14	21-Oct-2011
<i>Wilsonia rotundifolia</i>	roundleaf wilsonia	r		n	3	14-Oct-2011

Unverified Records

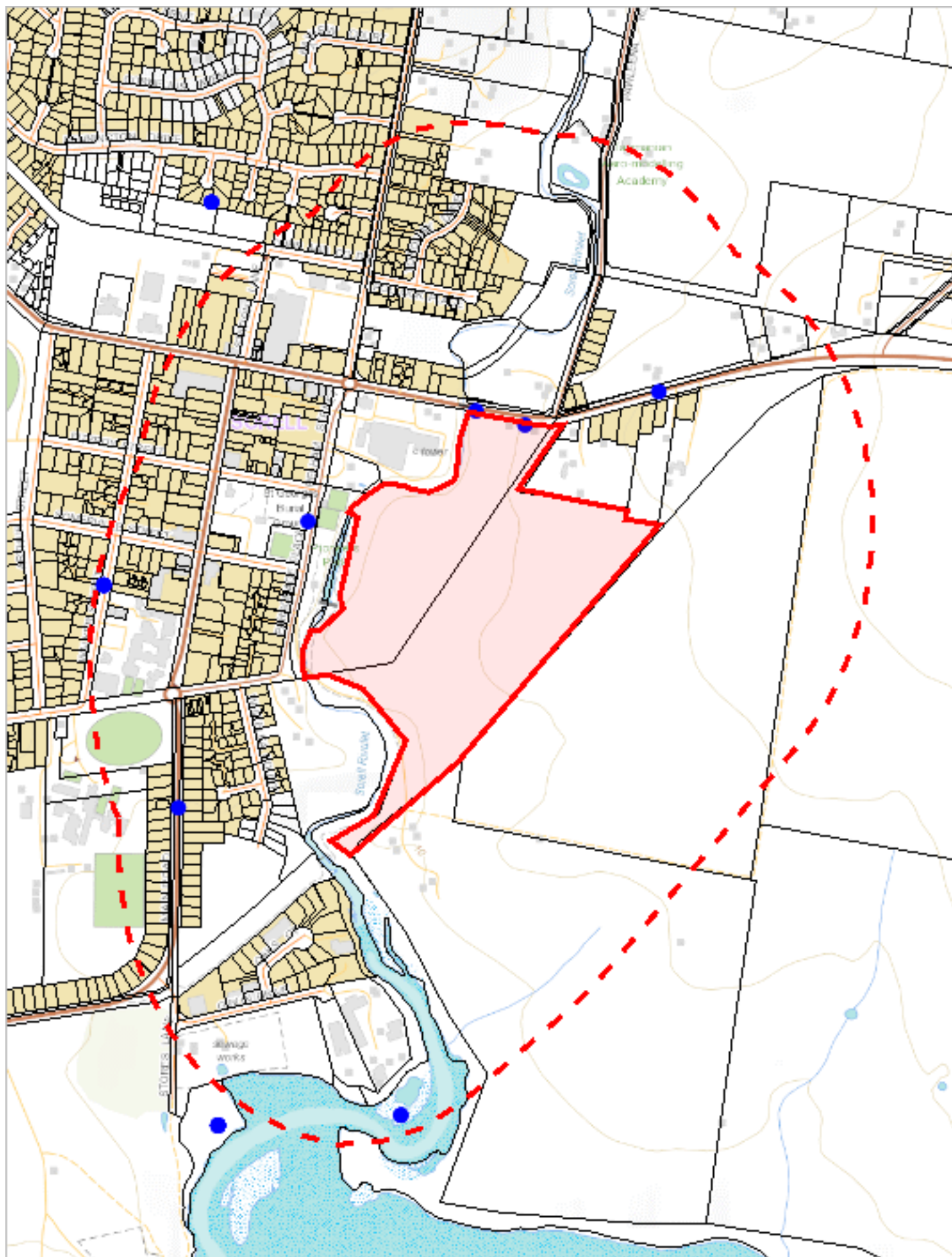
No unverified records were found!

For more information about threatened species, please contact Threatened Species Enquiries.

Telephone: 1300 368 550

Email: ThreatenedSpecies.Enquiries@dpiwve.tas.gov.au

Address: GPO Box 44, Hobart, Tasmania, Australia, 7000



545622, 5261743

Please note that some layers may not display at all requested map scales

Threatened fauna within 500 metres

Legend: Verified and Unverified observations

● Point Verified

● Point Unverified

Line Verified

Line Unverified

■ Polygon Verified

■ Polygon Unverified

Legend: Cadastral Parcels



Threatened fauna within 500 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
<i>Calidris ferruginea</i>	curlew sandpiper		CR	n	2	25-Oct-1998
<i>Dasyurus maculatus</i>	spotted-tail quoll	r	VU	n	2	17-Dec-2018
<i>Lathamus discolor</i>	swift parrot	e	CR	mbe	1	16-Nov-2014
<i>Numenius madagascariensis</i>	eastern curlew	e	CR	n	4	22-Nov-1998
<i>Perameles gunnii</i>	eastern barred bandicoot		VU	n	1	05-Dec-1986
<i>Sarcophilus harrisii</i>	tasmanian devil	e	EN	e	1	14-May-1991

Unverified Records

No unverified records were found!

Threatened fauna within 500 metres (based on Range Boundaries)

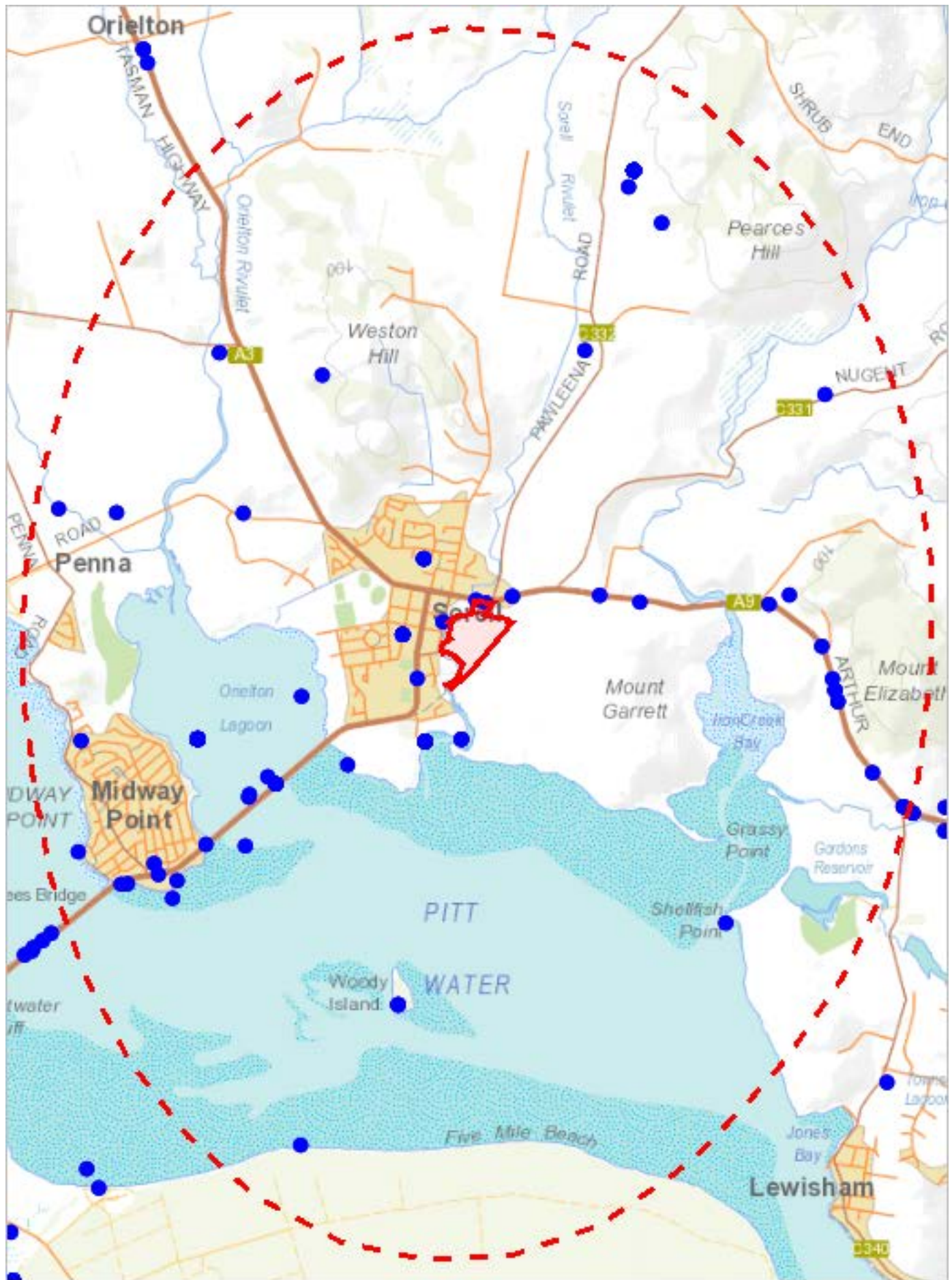
Species	Common Name	SS	NS	BO	Potential	Known	Core
<i>Lathamus discolor</i>	swift parrot	e	CR	mbe	1	0	1
<i>Antipodia chaostola</i>	chaostola skipper	e	EN		1	0	0
<i>Dasyurus maculatus</i> subsp. <i>maculatus</i>	spotted-tail quoll	r	VU	n	1	0	0
<i>Litoria raniformis</i>	green and gold frog	v	VU	n	1	0	1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

For more information about threatened species, please contact Threatened Species Enquiries.

Telephone: 1300 368 550

Email: ThreatenedSpecies.Enquiries@dpiwve.tas.gov.au

Address: GPO Box 44, Hobart, Tasmania, Australia, 7000



542289, 5257229

Please note that some layers may not display at all requested map scales

Threatened fauna within 5000 metres

Legend: Verified and Unverified observations

● Point Verified

● Point Unverified

Line Verified

Line Unverified

■ Polygon Verified

■ Polygon Unverified

Legend: Cadastral Parcels



Threatened fauna within 5000 metres

Verified Records

Species	Common Name	SS	NS	Bio	Observation Count	Last Recorded
<i>Aquila audax</i>	wedge-tailed eagle	pe	PEN	n	1	18-Sep-2009
<i>Aquila audax</i> subsp. <i>fleayi</i>	tasmanian wedge-tailed eagle	e	EN	e	10	05-Mar-2019
<i>Arctocephalus tropicalis</i>	sub-antarctic fur seal	e	VU	n	1	25-May-2011
<i>Calidris canutus</i>	red knot		EN	n	1	20-Feb-1999
<i>Calidris canutus</i> subsp. <i>canutus</i>	red knot		PEN	n	5	16-Oct-1981
<i>Calidris ferruginea</i>	curlew sandpiper		CR	n	39	26-Jun-1999
<i>Charadrius leschenaultii</i>	greater sand plover		VU	n	3	20-Feb-1981
<i>Charadrius mongolus</i> subsp. <i>mongolus</i>	mongolian plover		PEN	n	5	31-Mar-1981
<i>Dasybela achroa</i>	saltmarsh looper moth	v		e	1	22-Feb-2007
<i>Dasyurus maculatus</i>	spotted-tail quoll	r	VU	n	3	17-Dec-2018
<i>Dasyurus maculatus</i> subsp. <i>maculatus</i>	spotted-tail quoll	r	VU	n	1	14-Mar-2008
<i>Dasyurus viverrinus</i>	eastern quoll		EN	n	2	12-Jan-1994
<i>Haliaeetus leucogaster</i>	white-bellied sea-eagle	v		n	6	03-Jun-2017
<i>Hirundapus caudacutus</i>	white-throated needletail		VU	n	8	31-Mar-1981
<i>Lathamus discolor</i>	swift parrot	e	CR	mbe	6	16-Nov-2014
<i>Limosa lapponica</i> subsp. <i>baueri</i>	western alaskan bar-tailed godwit		VU	n	20	30-Nov-1981
<i>Litoria raniformis</i>	green and gold frog	v	VU	n	5	14-Dec-1993
<i>Macronectes giganteus</i>	southern giant-petrel	v	EN	n	1	11-Jun-1915
<i>Numenius madagascariensis</i>	eastern curlew	e	CR	n	50	26-Jun-1999
<i>Pachyptila turtur</i> subantarctica	southern fairy prion	e	VU		3	31-Dec-1980
<i>Parvulastra vivipara</i>	live-bearing seastar	v	VU	e	8	27-Feb-2014
<i>Patiriella vivipara</i>	live-bearing seastar	pv	PVU	e	3	15-Nov-1993
<i>Perameles gunnii</i>	eastern barred bandicoot		VU	n	19	19-Jul-2013
<i>Podiceps cristatus</i>	great crested grebe	v		n	3	23-Oct-2011
<i>Poliocephalus cristatus</i> subsp. <i>australis</i>	great crested grebe	pv			24	31-Mar-1981
<i>Sarcophilus harrisii</i>	tasmanian devil	e	EN	e	7	08-Sep-2018
<i>Sterna nereis</i> subsp. <i>nereis</i>	fairy tern	pv	PVU		9	30-Nov-1981
<i>Thinornis rubricollis</i>	hooded plover		VU	n	5	06-Feb-1999
<i>Tyto novaehollandiae</i>	masked owl	pe	PVU	n	1	11-Jun-1974

Unverified Records

No unverified records were found!

Threatened fauna within 5000 metres (based on Range Boundaries)

Species	Common Name	SS	NS	BO	Potential	Known	Core
<i>Lathamus discolor</i>	swift parrot	e	CR	mbe	1	0	1
<i>Antipodia chaostola</i>	chaostola skipper	e	EN		4	0	0
<i>Dasyurus maculatus</i> subsp. <i>maculatus</i>	spotted-tail quoll	r	VU	n	1	0	1
<i>Litoria raniformis</i>	green and gold frog	v	VU	n	1	0	1
<i>Prototroctes maraena</i>	australian grayling	v	VU	ae	10	0	0
<i>Theclinesthes serpentata</i> subsp. <i>lavara</i>	Chequered Blue	r		e	1	0	0
<i>Pseudemoia pagenstecheri</i>	tussock skink	v		n	1	0	0
<i>Haliaeetus leucogaster</i>	white-bellied sea-eagle	v		n	2	0	0
<i>Amelora acontistica</i>	chevron looper moth	v			2	0	2
<i>Tyto novaehollandiae</i> subsp. <i>castanops</i>	masked owl (tasmanian)	e	VU	e	1	0	1
<i>Pardalotus quadragintus</i>	forty-spotted pardalote	e	EN	e	1	0	0
<i>Sarcophilus harrisii</i>	tasmanian devil	e	EN	e	1	0	0
<i>Accipiter novaehollandiae</i>	grey goshawk	e		n	1	0	0
<i>Thymichthys politus</i>	red handfish	e	CR	e	1	0	0
<i>Dasybela achroa</i>	saltmarsh looper moth	v		e	1	2	0
<i>Perameles gunnii</i>	eastern barred bandicoot		VU	n	1	0	1
<i>Aquila audax</i> subsp. <i>fleayi</i>	tasmanian wedge-tailed eagle	e	EN	e	1	0	0
<i>Brachionichthys hirsutus</i>	spotted handfish	e	CR	e	1	0	0
<i>Dasyurus viverrinus</i>	eastern quoll		EN	n	0	0	1

For more information about threatened species, please contact Threatened Species Enquiries.

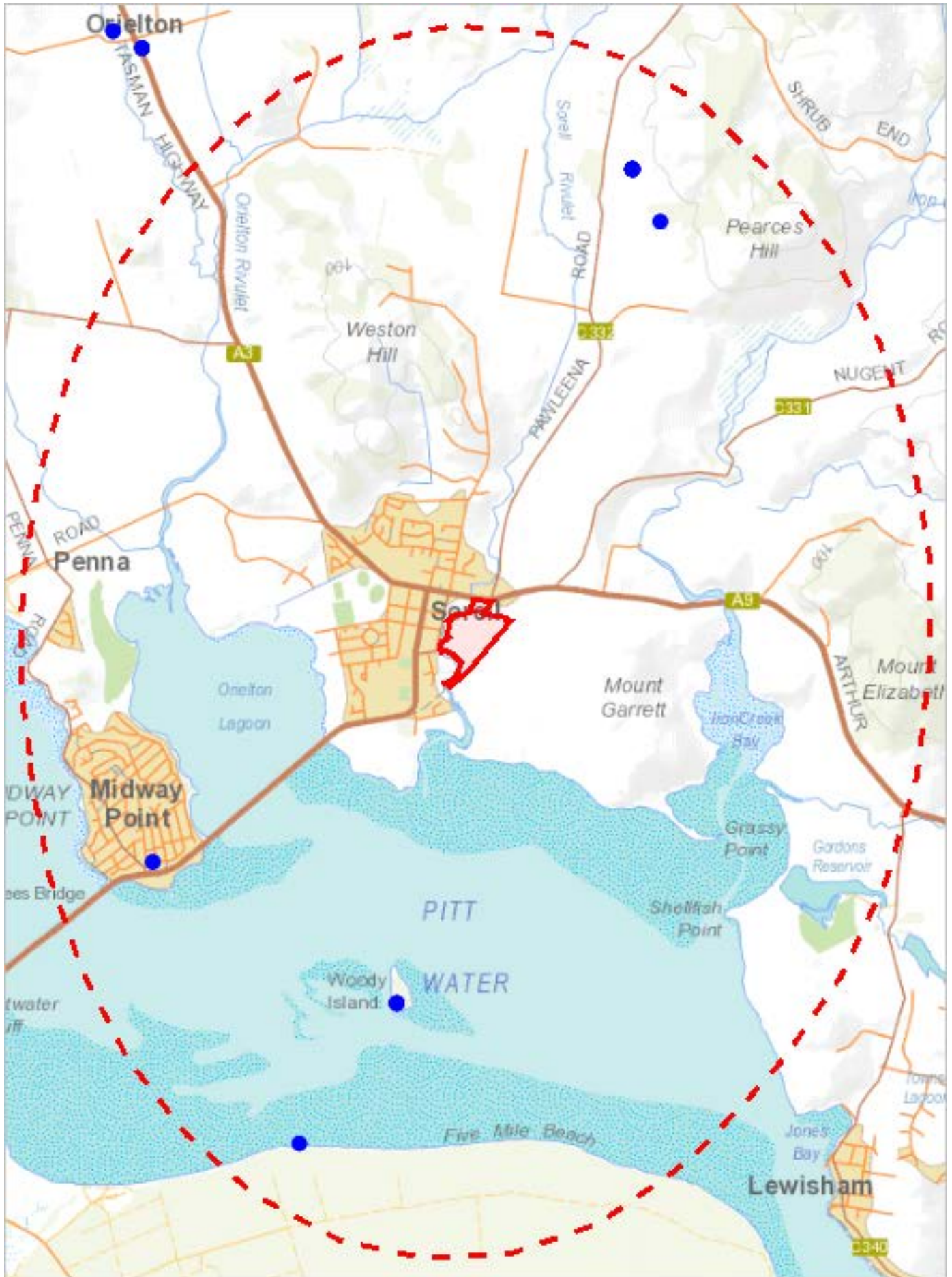
Telephone: 1300 368 550

Email: ThreatenedSpecies.Enquiries@dpiw.tas.gov.au

Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

Threatened fauna within 5000 metres

*** No Raptor nests or sightings found within 500 metres. ***



542289, 5257229

Please note that some layers may not display at all requested map scales

Raptor nests and sightings within 5000 metres

Legend: Verified and Unverified observations

● Point Verified

● Point Unverified

▬ Line Verified

▬ Line Unverified

▭ Polygon Verified

▭ Polygon Unverified

Legend: Cadastral Parcels



Raptor nests and sightings within 5000 metres

Verified Records

Nest Id/Location Foreign Id	Species	Common Name	Obs Type	Observation Count	Last Recorded
1554	Aquila audax	wedge-tailed eagle	Nest	1	18-Sep-2009
1554	Haliaeetus leucogaster	white-bellied sea-eagle	Nest	2	20-May-2017
	Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	Sighting	10	05-Mar-2019
	Falco cenchroides	nankeen kestrel	Sighting	3	11-Sep-1980
	Falco peregrinus	peregrine falcon	Sighting	1	02-Feb-1979
	Haliaeetus leucogaster	white-bellied sea-eagle	Sighting	4	03-Jun-2017
	Tyto novaehollandiae	masked owl	Sighting	1	11-Jun-1974

Unverified Records

No unverified records were found!

Raptor nests and sightings within 5000 metres (based on Range Boundaries)

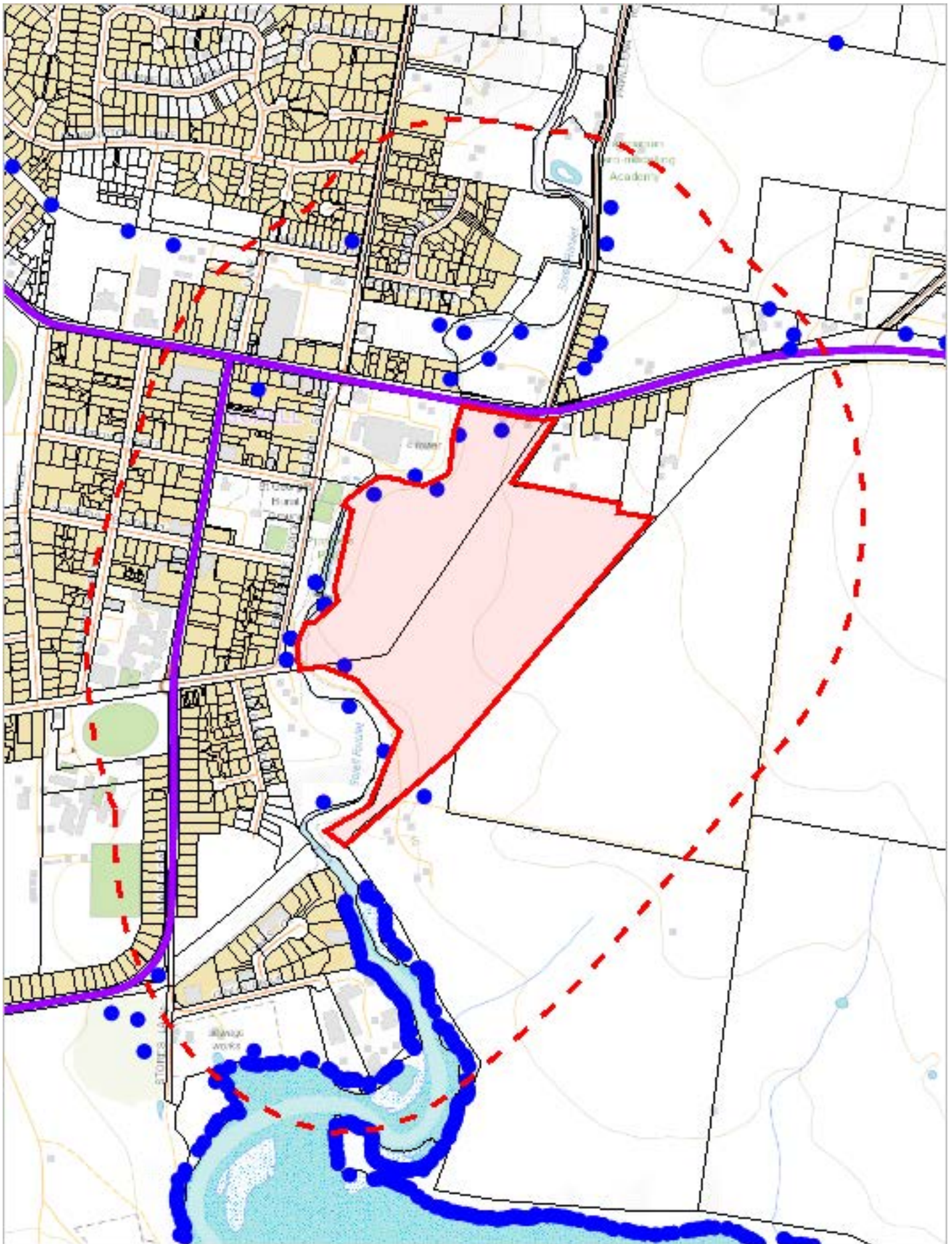
Species	Common Name	SS	NS	Potential	Known	Core
Aquila audax subsp. fleayi	tasmanian wedge-tailed eagle	e	EN	1	0	0
Accipiter novaehollandiae	grey goshawk	e		1	0	0
Haliaeetus leucogaster	white-bellied sea-eagle	v		2	0	0

For more information about raptor nests, please contact Threatened Species Enquiries.

Telephone: 1300 368 550

Email: ThreatenedSpecies.Enquiries@dpiwve.tas.gov.au

Address: GPO Box 44, Hobart, Tasmania, Australia, 7000



545622, 5261743

Please note that some layers may not display at all requested map scales

Tas Management Act Weeds within 500 m

Legend: Verified and Unverified observations

● Point Verified

● Point Unverified

Line Verified

Line Unverified

■ Polygon Verified

■ Polygon Unverified

Legend: Cadastral Parcels



Tas Management Act Weeds within 500 m

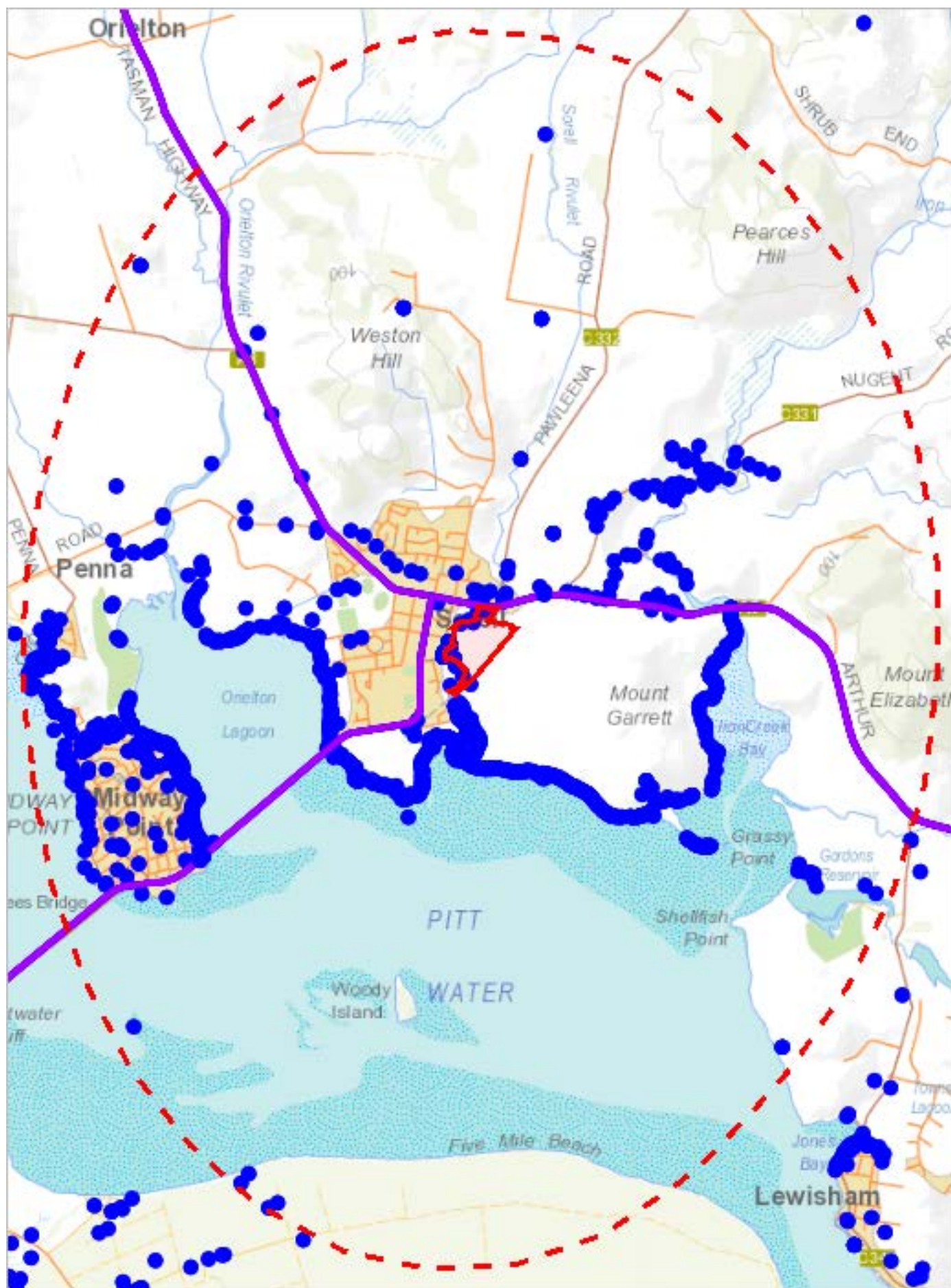
Verified Records

Species	Common Name	Observation Count	Last Recorded
<i>Asparagus asparagoides</i>	bridal creeper	20	01-Aug-2009
<i>Asphodelus fistulosus</i>	onion weed	1	09-Oct-2011
<i>Eragrostis curvula</i>	african lovegrass	1	15-Mar-2018
<i>Foeniculum vulgare</i>	fennel	3	08-Jan-1995
<i>Lycium ferocissimum</i>	african boxthorn	149	01-Sep-2008
<i>Rubus fruticosus</i>	blackberry	2	08-Jan-1995
<i>Rubus polyanthemus</i>	blackberry	1	20-Dec-1984
<i>Ulex europaeus</i>	gorse	3	01-Jan-2001

Unverified Records

For more information about introduced weed species, please visit the following URL for contact details in your area:

<http://dpiwpe.tas.gov.au/invasive-species/weeds>



542289, 5257229

Please note that some layers may not display at all requested map scales

Tas Management Act Weeds within 5000 m

Legend: Verified and Unverified observations

● Point Verified

● Point Unverified

Line Verified

Line Unverified

■ Polygon Verified

■ Polygon Unverified

Legend: Cadastral Parcels



Tas Management Act Weeds within 5000 m

Verified Records

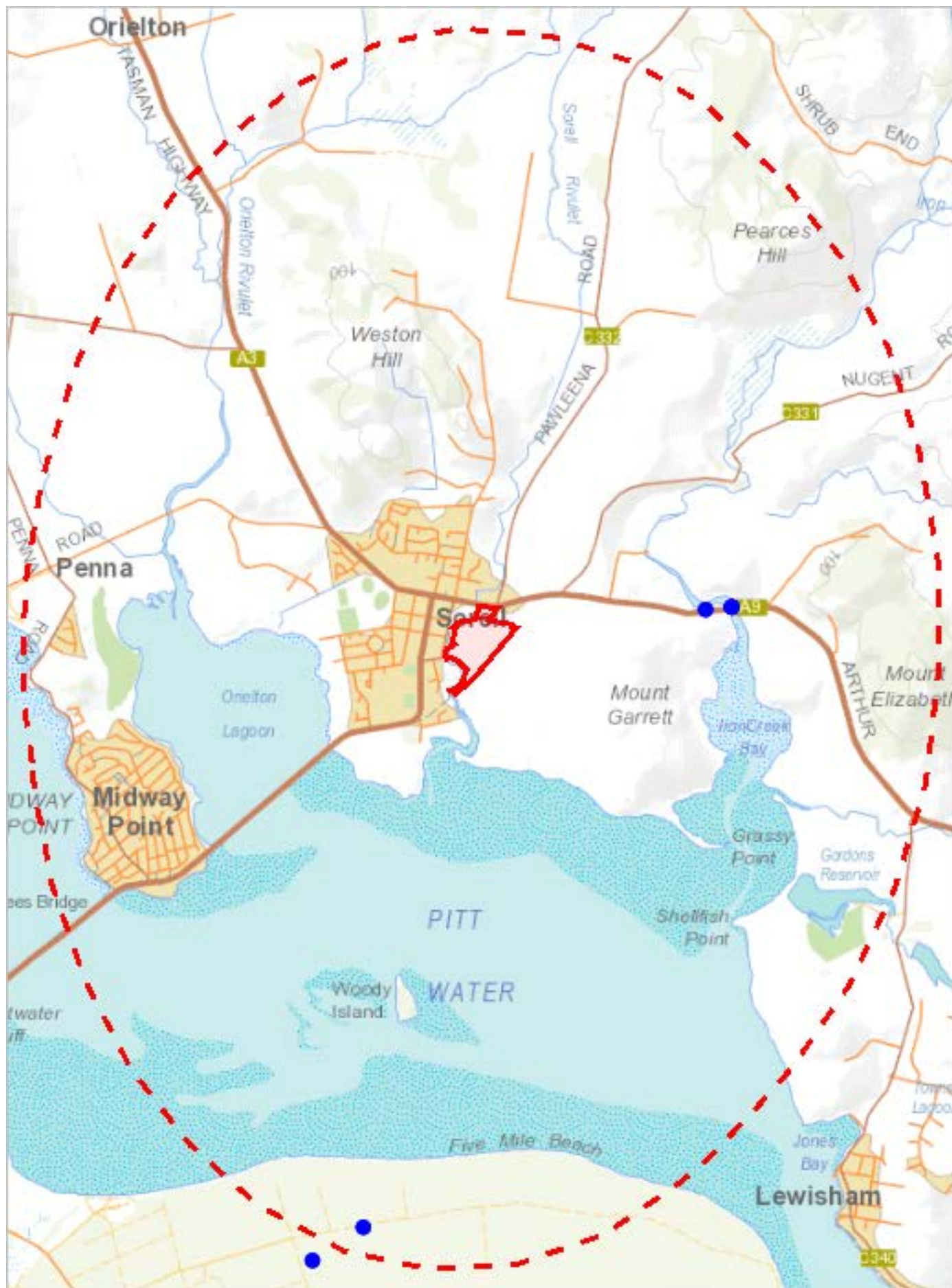
Species	Common Name	Observation Count	Last Recorded
<i>Asparagus asparagoides</i>	bridal creeper	25	14-Aug-2009
<i>Asphodelus fistulosus</i>	onion weed	1	09-Oct-2011
<i>Carduus nutans</i>	nodding thistle	1	01-Jan-1993
<i>Carduus pycnocephalus</i>	slender thistle	2	09-Dec-2005
<i>Carduus tenuiflorus</i>	winged thistle	2	23-Jul-2004
<i>Carthamus lanatus</i>	saffron thistle	1	01-Jan-1929
<i>Cenchrus longisetus</i>	feathertop	10	06-Apr-2018
<i>Chrysanthemoides monilifera</i> subsp. <i>monilifera</i>	boneseed	410	20-Sep-2012
<i>Cirsium arvense</i> var. <i>arvense</i>	creeping thistle	2	04-Jul-2019
<i>Cortaderia</i> sp.	pampas grass	1	01-Jan-0001
<i>Eragrostis curvula</i>	african lovegrass	4	19-Apr-2018
<i>Erica arborea</i>	tree heath	1	18-Jul-2002
<i>Foeniculum vulgare</i>	fennel	9	22-Oct-2015
<i>Genista monspessulana</i>	montpellier broom	1	01-Nov-2000
<i>Lepidium draba</i>	hoary cress	1	16-Nov-2010
<i>Lycium ferocissimum</i>	african boxthorn	1006	04-Jul-2019
<i>Marrubium vulgare</i>	white horehound	4	04-Jul-2019
<i>Nassella trichotoma</i>	serrated tussock	6	02-Jun-2009
<i>Rubus fruticosus</i>	blackberry	3	08-Jan-1995
<i>Rubus polyanthemus</i>	blackberry	1	20-Dec-1984
<i>Salix x fragilis</i> nothovar. <i>fragilis</i>	crack willow	1	17-Mar-1993
<i>Solanum triflorum</i>	cutleaf nightshade	5	09-Dec-2008
<i>Ulex europaeus</i>	gorse	13	25-Sep-2002

Unverified Records

For more information about introduced weed species, please visit the following URL for contact details in your area:

<http://dpiwwe.tas.gov.au/invasive-species/weeds>

*** No Priority Weeds found within 500 metres ***



542289, 5257229

Please note that some layers may not display at all requested map scales

Priority Weeds within 5000 m

Legend: Verified and Unverified observations

- Point Verified

● Point Unverified

▮ Polygon Verified

▮ Polygon Unverified
- ▮ Line Verified

▮ Line Unverified

Legend: Cadastral Parcels



Priority Weeds within 5000 m

Verified Records

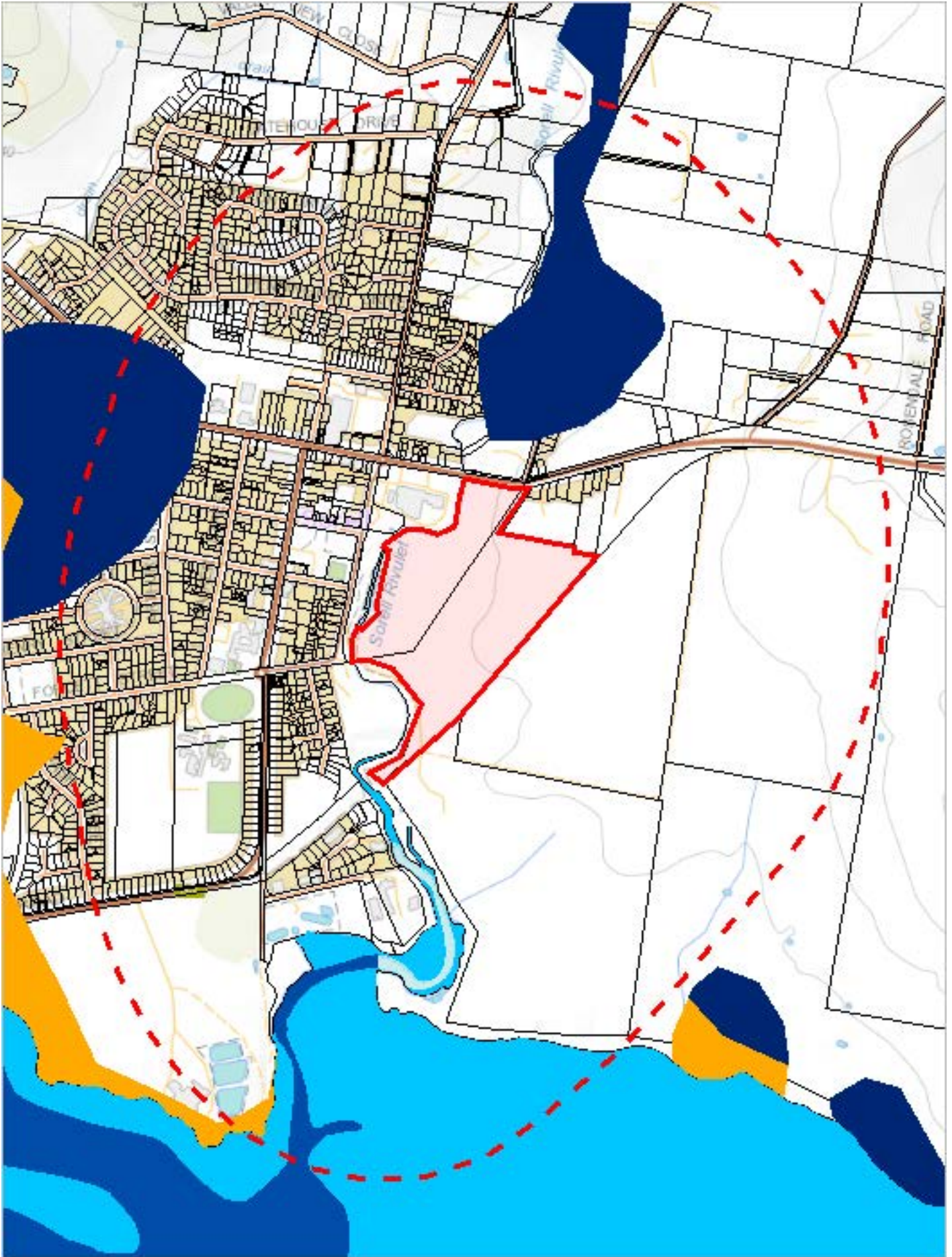
Species	Common Name	Observation Count	Last Recorded
Acacia baileyana	cootamundra wattle	1	16-Nov-2010
Achillea millefolium	yarrow	1	16-Nov-2010
Echium candicans	pride-of-madeira	2	16-Nov-2010
Gomphocarpus fruticosus subsp. fruticosus	swanplant	1	19-Feb-2009
Reseda luteola	weld	1	16-Nov-2010

Unverified Records

For more information about introduced weed species, please visit the following URL for contact details in your area:

<http://dpiwpe.tas.gov.au/invasive-species/weeds>

*** No Geoconservation sites found within 1000 metres. ***






545251, 5261241




Please note that some layers may not display at all requested map scales

Acid Sulfate Soils within 1000 metres


Legend: Coastal Acid Sulfate Soils (0 - 20m AHD)

 High  Low  Extremely Low

Legend: Inland Acid Sulfate Soils (>20m AHD)

 High  Low  Extremely Low

Legend: Marine Subaqueous/Intertidal Acid Sulfate Soil

 High (Intertidal)  High (Subtidal)

Legend: Cadastral Parcels



Acid Sulfate Soils within 1000 metres

Dataset Name	Acid Sulfate Soil Probability	Acid Sulfate Soil Atlas	Description
Coastal Acid Sulfate Soils	Extremely Low	Ci(p3)	Extremely low probability of occurrence (1-5% of mapping unit). with occurrences in small areas. Sandplains and dunes 2-10m AHD, ASS generally below 1m from the surface. Heath, forests. Holocene or Pleistocene. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). No necessary analytical data are available but confidence is fair, based on a knowledge of similar soils in similar environments.
Coastal Acid Sulfate Soils	Extremely Low	Cj(p3)	Extremely low probability of occurrence (1-5% of mapping unit). with occurrences in small areas. Sandplains and dunes >10m AHD, ASS generally below 1m from the surface. Heath, forests. Mainly Pleistocene. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). No necessary analytical data are available but confidence is fair, based on a knowledge of similar soils in similar environments.
Coastal Acid Sulfate Soils	Low	Bu(p3)	Low probability of occurrence (6-70% chance of occurrence in mapping unit). Unclassified - Insufficient landscape information available to classify map unit. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). No necessary analytical data are available but confidence is fair, based on a knowledge of similar soils in similar environments.
Marine Subaqueous and Intertidal Acid Sulfate Soils	High	Aa(p2)	High probability of occurrence (>70% chance of occurrence in mapping unit). Subaqueous material in subtidal wetland, PASS material and/or MBO. Often seagrasses. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). Analytical data are incomplete but are sufficient to classify the soil with a reasonable degree of confidence.
Marine Subaqueous and Intertidal Acid Sulfate Soils	High	Aa(p3)	High probability of occurrence (>70% chance of occurrence in mapping unit). Subaqueous material in subtidal wetland, PASS material and/or MBO. Often seagrasses. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). No necessary analytical data are available but confidence is fair, based on a knowledge of similar soils in similar environments.
Marine Subaqueous and Intertidal Acid Sulfate Soils	High	Ab(p2)	High probability of occurrence (>70% chance of occurrence in mapping unit). Intertidal flats, PASS generally within upper 1m. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). Analytical data are incomplete but are sufficient to classify the soil with a reasonable degree of confidence.
Marine Subaqueous and Intertidal Acid Sulfate Soils	High	Ab(p3)	High probability of occurrence (>70% chance of occurrence in mapping unit). Intertidal flats, PASS generally within upper 1m. Potential acid sulfate soil (PASS) = sulfidic material (Isbell 1996 p.122). No necessary analytical data are available but confidence is fair, based on a knowledge of similar soils in similar environments.

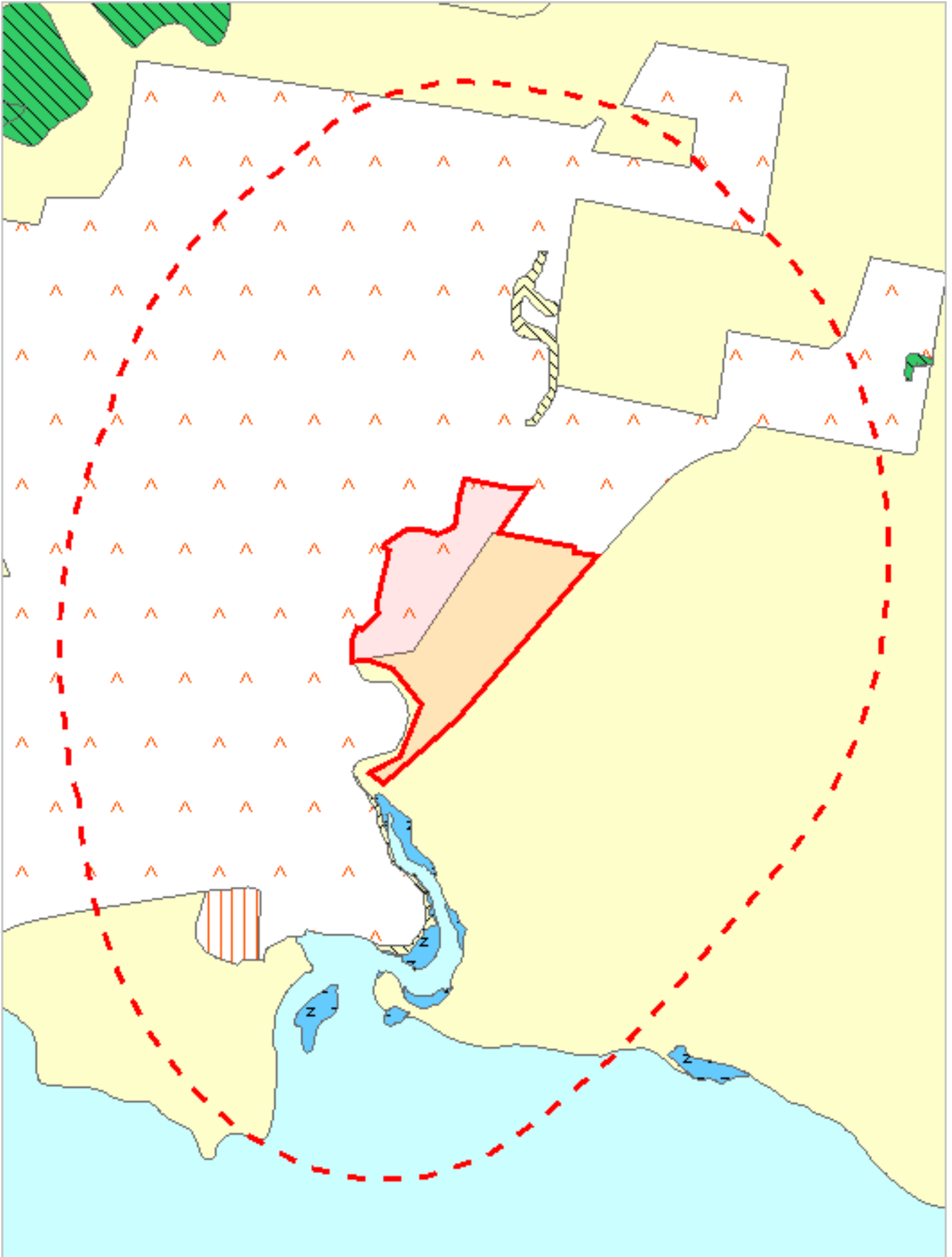
For more information about Acid Sulfate Soils, please contact Land Management Enquiries.

Telephone: (03) 6777 2227

Fax: (03) 6336 5111

Email: LandManagement.Enquiries@dpiw.tas.gov.au

Address: 171 Westbury Road, Prospect, Tasmania, Australia, 7250
































































545251, 5261241

Please note that some layers may not display at all requested map scales







































Legend: TASVEG 3.0

	DAC - Eucalyptus amygdalina coastal forest and woodland
	DAD - Eucalyptus amygdalina forest and woodland on dolerite
	DAS - Eucalyptus amygdalina forest and woodland on sandstone
	DAM - Eucalyptus amygdalina forest on mudstone
	DAZ - Eucalyptus amygdalina inland forest and woodland on Cainozoic deposits
	DSC - Eucalyptus amygdalina - Eucalyptus obliqua damp sclerophyll forest
	DBA - Eucalyptus barberi forest and woodland
	DCO - Eucalyptus coccifera forest and woodland
	DCR - Eucalyptus cordata forest
	DDP - Eucalyptus dalrympleana - Eucalyptus pauciflora forest and woodland
	DDE - Eucalyptus delegatensis dry forest and woodland
	DGL - Eucalyptus globulus dry forest and woodland
	DGW - Eucalyptus gunnii woodland
	DMO - Eucalyptus morrisbyi forest and woodland
	DNI - Eucalyptus nitida dry forest and woodland
	DNF - Eucalyptus nitida Furneaux forest
	DOB - Eucalyptus obliqua dry forest
	DOV - Eucalyptus ovata forest and woodland
	DOW - Eucalyptus ovata heathy woodland
	DPO - Eucalyptus pauciflora forest and woodland not on dolerite
	DPD - Eucalyptus pauciflora forest and woodland on dolerite
	DPE - Eucalyptus perriniana forest and woodland
	DPU - Eucalyptus pulchella forest and woodland
	DRI - Eucalyptus risdonii forest and woodland
	DRO - Eucalyptus rodwayi forest and woodland
	DSO - Eucalyptus sieberi forest and woodland not on granite
	DSG - Eucalyptus sieberi forest and woodland on granite
	DTD - Eucalyptus tenuiramis forest and woodland on dolerite
	DTG - Eucalyptus tenuiramis forest and woodland on granite
	DTO - Eucalyptus tenuiramis forest and woodland on sediments
	DVF - Eucalyptus viminalis Furneaux forest and woodland
	DVG - Eucalyptus viminalis grassy forest and woodland
	DVC - Eucalyptus viminalis - Eucalyptus globulus coastal forest and woodland
	DKW - King Island Eucalypt woodland
	DMW - Midlands woodland complex
	WBR - Eucalyptus brookeriana wet forest
	WDA - Eucalyptus dalrympleana forest
	WDL - Eucalyptus delegatensis forest over Leptospermum
	WDR - Eucalyptus delegatensis forest over rainforest
	WDB - Eucalyptus delegatensis forest with broad-leaf shrubs
	WDU - Eucalyptus delegatensis wet forest (undifferentiated)
	WGK - Eucalyptus globulus King Island forest
	WGL - Eucalyptus globulus wet forest
	WNL - Eucalyptus nitida forest over Leptospermum
	WNR - Eucalyptus nitida forest over rainforest
	WNU - Eucalyptus nitida wet forest (undifferentiated)
	WOL - Eucalyptus obliqua forest over Leptospermum
	WOR - Eucalyptus obliqua forest over rainforest
	WOB - Eucalyptus obliqua forest with broad-leaf shrubs
	WOU - Eucalyptus obliqua wet forest (undifferentiated)
	WRE - Eucalyptus regnans forest
	WSU - Eucalyptus subcrenulata forest and woodland
	WVI - Eucalyptus viminalis wet forest
	RPF - Athrotaxis cupressoides - Nothofagus gunnii short rainforest
	RPW - Athrotaxis cupressoides open woodland
	RPP - Athrotaxis cupressoides rainforest
	RKF - Athrotaxis selaginoides - Nothofagus gunnii short rainforest
	RKP - Athrotaxis selaginoides rainforest
	RKS - Athrotaxis selaginoides subalpine scrub

TASVEG 3.0 Communities within 1000 metres

	RCO - Coastal rainforest
	RSH - Highland low rainforest and scrub
	RKX - Highland rainforest scrub with dead <i>Athrotaxis selaginoides</i>
	RHP - <i>Lagarostrobos franklinii</i> rainforest and scrub
	RMT - <i>Nothofagus</i> - <i>Atherosperma</i> rainforest
	RML - <i>Nothofagus</i> - <i>Leptospermum</i> short rainforest
	RMS - <i>Nothofagus</i> - <i>Phyllocladus</i> short rainforest
	RFS - <i>Nothofagus gunnii</i> rainforest and scrub
	RMU - <i>Nothofagus</i> rainforest (undifferentiated)
	RFE - Rainforest fernland
	NAD - <i>Acacia dealbata</i> forest
	NAR - <i>Acacia melanoxylon</i> forest on rises
	NAF - <i>Acacia melanoxylon</i> swamp forest
	NAL - <i>Allocasuarina littoralis</i> forest
	NAV - <i>Allocasuarina verticillata</i> forest
	NBS - <i>Banksia serrata</i> woodland
	NBA - <i>Bursaria</i> - <i>Acacia</i> woodland and scrub
	NCR - <i>Callitris rhomboidea</i> forest
	NLE - <i>Leptospermum</i> forest
	NLM - <i>Leptospermum lanigerum</i> - <i>Melaleuca squarrosa</i> swamp forest
	NLA - <i>Leptospermum scoparium</i> - <i>Acacia mucronata</i> forest
	NME - <i>Melaleuca ericifolia</i> swamp forest
	NLN - Subalpine <i>Leptospermum nitidum</i> woodland
	AHF - Fresh water aquatic herbland
	ASF - Freshwater aquatic sedgeland and rushland
	AHL - Lacustrine herbland
	AHS - Saline aquatic herbland
	ARS - Saline sedgeland/rushland
	AUS - Saltmarsh (undifferentiated)
	ASS - Succulent saline herbland
	AWU - Wetland (undifferentiated)
	SAL - <i>Acacia longifolia</i> coastal scrub
	SBM - <i>Banksia marginata</i> wet scrub
	SBR - Broad-leaf scrub
	SCH - Coastal heathland
	SSC - Coastal scrub
	SCA - Coastal scrub on alkaline sands
	SRE - Eastern riparian scrub
	SED - Eastern scrub on dolerite
	SCL - Heathland on calcareous substrates
	SKA - <i>Kunzea ambigua</i> regrowth scrub
	SLG - <i>Leptospermum glaucescens</i> heathland and scrub
	SLL - <i>Leptospermum lanigerum</i> scrub
	SLS - <i>Leptospermum scoparium</i> heathland and scrub
	SLW - <i>Leptospermum</i> scrub
	SRF - <i>Leptospermum</i> with rainforest scrub
	SMP - <i>Melaleuca pustulata</i> scrub
	SMM - <i>Melaleuca squamea</i> heathland
	SMR - <i>Melaleuca squarrosa</i> scrub
	SRH - Rookery halophytic herbland
	SSK - Scrub complex on King Island
	SSZ - Spray zone coastal complex
	SHS - Subalpine heathland
	SWR - Western regrowth complex
	SSW - Western subalpine scrub
	SWW - Western wet scrub
	SHW - Wet heathland
	HCH - Alpine coniferous heathland
	HCM - Cushion moorland
	HHE - Eastern alpine heathland
	HSE - Eastern alpine sedgeland

TASVEG 3.0 Communities within 1000 metres

	HUE - Eastern alpine vegetation (undifferentiated)
	HHW - Western alpine heathland
	HSW - Western alpine sedgeland/herbland
	MAP - Alkaline pans
	MBU - Buttongrass moorland (undifferentiated)
	MBS - Buttongrass moorland with emergent shrubs
	MBE - Eastern buttongrass moorland
	MGH - Highland grassy sedgeland
	MBP - Pure buttongrass moorland
	MRR - Restionaceae rushland
	MBR - Sparse buttongrass moorland on slopes
	MSP - Sphagnum peatland
	MDS - Subalpine Diplarrena latifolia rushland
	MBW - Western buttongrass moorland
	MSW - Western lowland sedgeland
	GHC - Coastal grass and herbfield
	GPH - Highland Poa grassland
	GCL - Lowland grassland complex
	GSL - Lowland grassy sedgeland
	GPL - Lowland Poa labillardierei grassland
	GTL - Lowland Themeda triandra grassland
	GRP - Rockplate grassland
	FAG - Agricultural land
	FUM - Extra-urban miscellaneous
	FMG - Marram grassland
	FPE - Permanent easements
	FPL - Plantations for silviculture
	FPF - Pteridium esculentum fernland
	FRG - Regenerating cleared land
	FSM - Spartina marshland
	FPU - Unverified plantations for silviculture
	FUR - Urban areas
	FWU - Weed infestation
	QCS - Coastal slope complex
	QCT - Coastal terrace mosaic
	QKB - Kelp beds
	QAM - Macquarie alpine mosaic
	QMI - Mire
	QST - Short tussock grassland/rushland with herbs
	QTT - Tall tussock grassland with megaherbs
	ORO - Lichen lithosere
	OSM - Sand, mud
	OAQ - Water, sea

Legend: Cadastral Parcels



TASVEG 3.0 Communities within 1000 metres

Code	Community	Emergent Species
ASS	(ASS) Succulent saline herbland	
FAG	(FAG) Agricultural land	EV
FPU	(FPU) Unverified plantations for silviculture	
FUR	(FUR) Urban areas	EV
FWU	(FWU) Weed infestation	EV
OAQ	(OAQ) Water, sea	

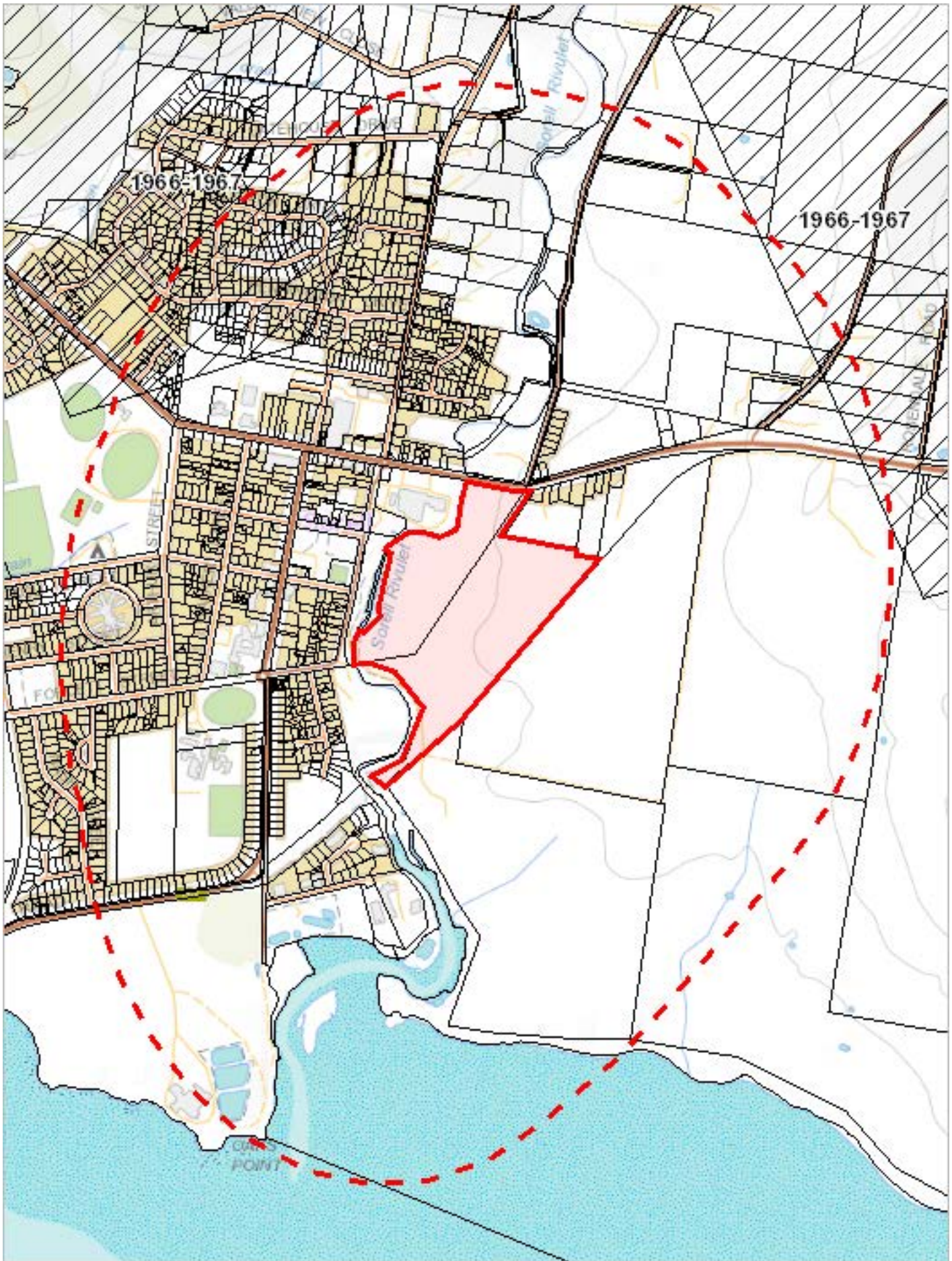
For more information contact: Coordinator, Tasmanian Vegetation Monitoring and Mapping Program.

Telephone: (03) 6165 4320

Email: TVMMPsupport@dpiwve.tas.gov.au

Address: GPO Box 44, Hobart, Tasmania, Australia, 7000

*** No threatened Communities (TNVC 2014) found within 1000 metres ***






545251, 5261241

Please note that some layers may not display at all requested map scales

Fire History (All) within 1000 metres

Legend: Fire History All

-  Bushfire-Unknown Category
-  Completed Planned Burn

-  Bushfire

Legend: Cadastral Parcels



Fire History (All) within 1000 metres

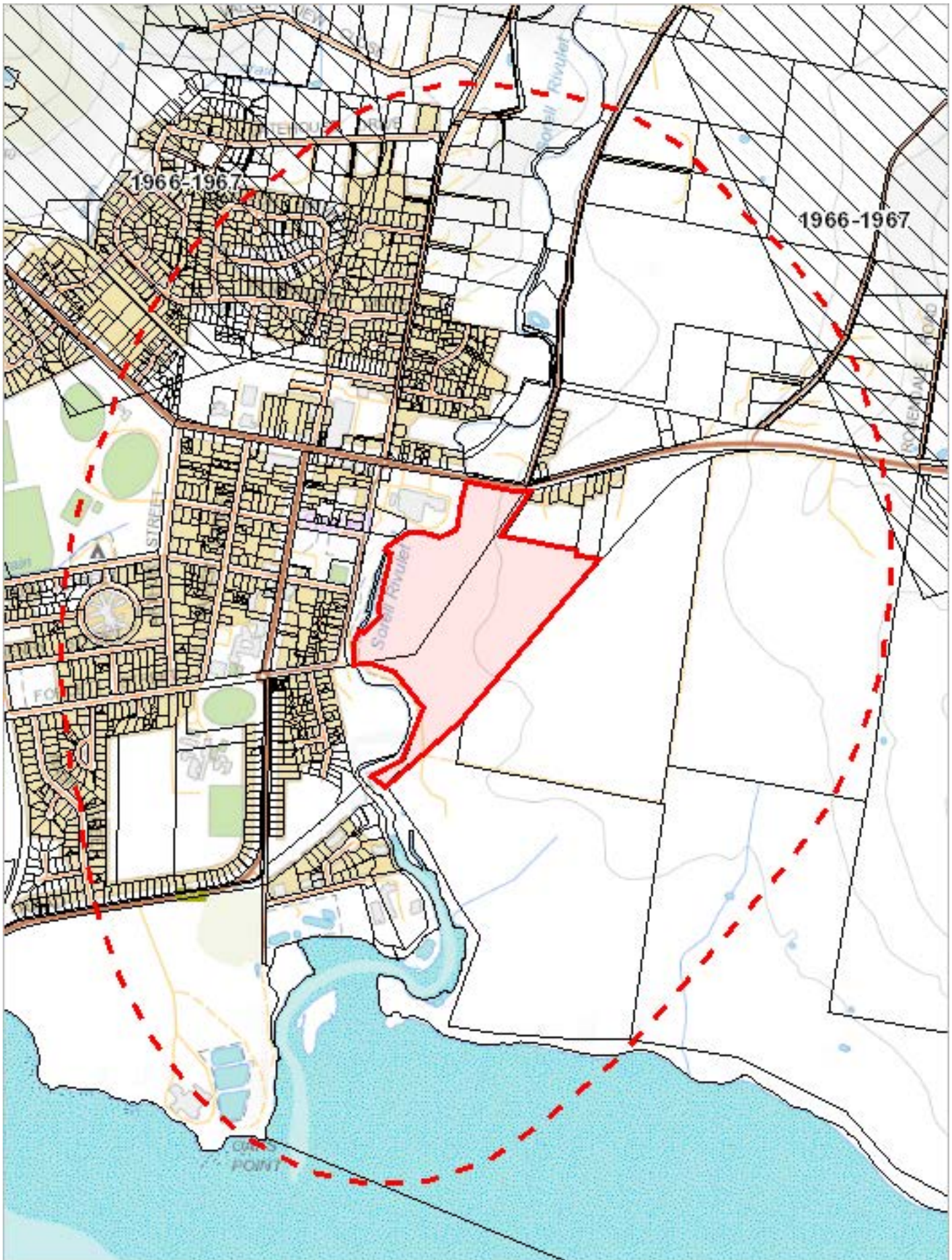
Incident Number	Fire Name	Ignition Date	Fire Type	Ignition Cause	Fire Area (HA)
	1967 Fire	22-Feb-1967	Bushfire	Undetermined	198780.41788592

For more information about Fire History, please contact the Manager Community Protection Planning, Tasmania Fire Service.

Telephone: 1800 000 699

Email: planning@fire.tas.gov.au

Address: cnr Argyle and Melville Streets, Hobart, Tasmania, Australia, 7000






545251, 5261241

Please note that some layers may not display at all requested map scales

Fire History (Last Burnt) within 1000 metres

Legend: Fire History Last

-  Bushfire-Unknown category
-  Completed Planned Burn

 Bushfire

Legend: Cadastral Parcels



Fire History (Last Burnt) within 1000 metres

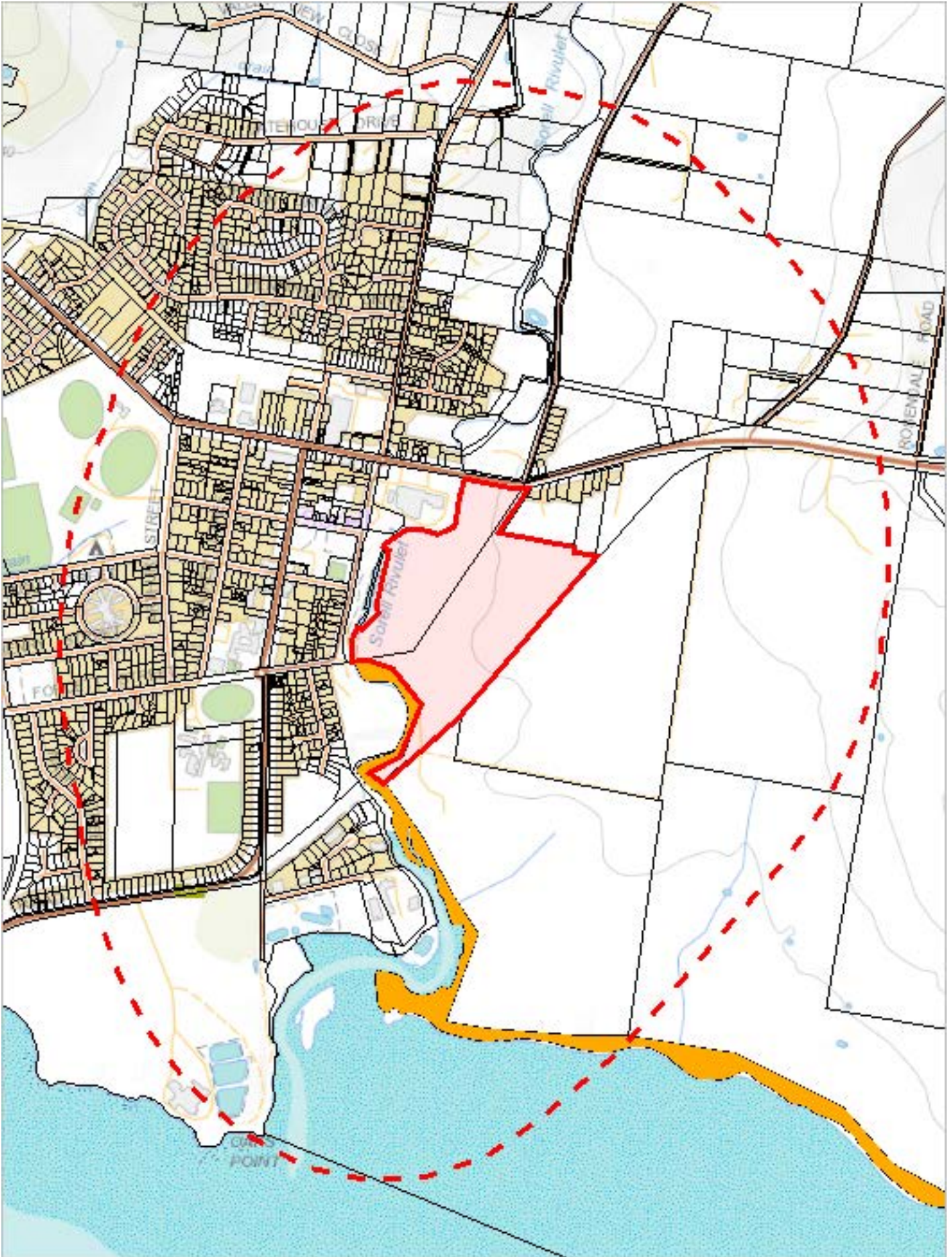
Incident Number	Fire Name	Ignition Date	Fire Type	Ignition Cause	Fire Area (HA)
	1967 Fire	22-Feb-1967	Bushfire	Undetermined	198780.41788592

For more information about Fire History, please contact the Manager Community Protection Planning, Tasmania Fire Service.

Telephone: 1800 000 699

Email: planning@fire.tas.gov.au

Address: cnr Argyle and Melville Streets, Hobart, Tasmania, Australia, 7000




























545251, 5261241

Please note that some layers may not display at all requested map scales

Reserves within 1000 metres

Legend: Tasmanian Reserve Estate

-  Conservation Area
-  Conservation Area and Conservation Covenant (NCA)
-  Game Reserve
-  Historic Site
-  Indigenous Protected Area
-  National Park
-  Nature Reserve
-  Nature Recreation Area
-  Regional Reserve
-  State Reserve
-  Wellington Park
-  Public authority land within WHA
-  Future Potential Production Forest
-  Informal Reserve on Permanent Timber Production Zone Land or STT managed land
-  Informal Reserve on other public land
-  Conservation Covenant (NCA)
-  Private Nature Reserve and Conservation Covenant (NCA)
-  Private Sanctuary and Conservation Covenant (NCA)
-  Private Sanctuary
-  Private land within WHA
-  Management Agreement
-  Management Agreement and Stewardship Agreement
-  Stewardship Agreement
-  Part 5 Agreement (Meander Dam Offset)
-  Other Private Reserve

Legend: Cadastral Parcels



Reserves within 1000 metres

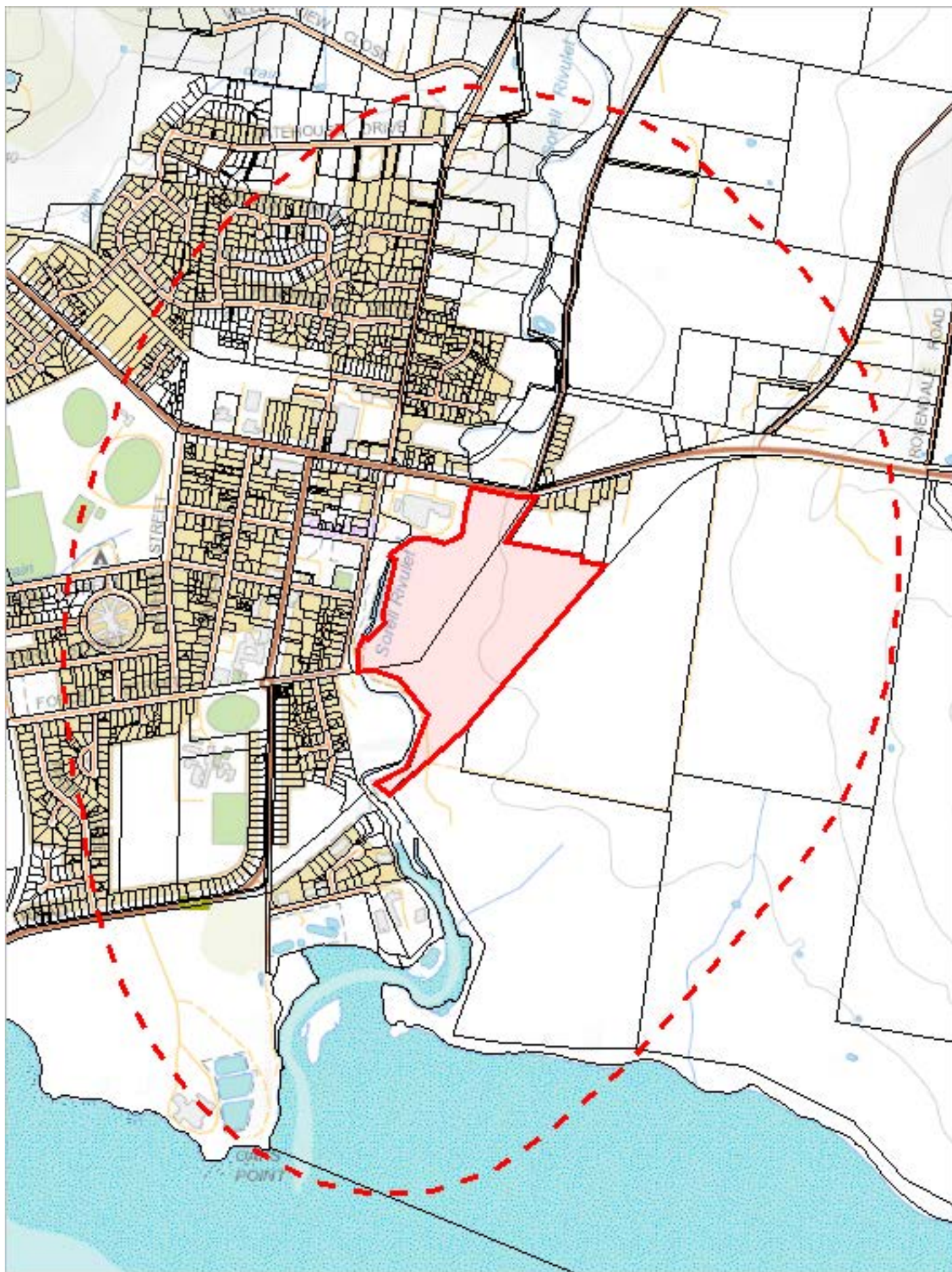
Name	Classification	Status	Area (HA)
	Informal Reserve on other public land	Informal Reserve	0.0215843
	Informal Reserve on other public land	Informal Reserve	0.0319811
	Informal Reserve on other public land	Informal Reserve	0.128608
	Informal Reserve on other public land	Informal Reserve	23.6707

For more information about the Tasmanian Reserve Estate, please contact the Sustainable Land Use and Information Management Branch.

Telephone: (03) 6777 2224

Email: LandManagement.Enquiries@dpiwve.tas.gov.au

Address: GPO Box 44, Hobart, Tasmania, Australia, 7000



Please note that some layers may not display at all requested map scales

Known biosecurity risks within 1000 meters

Legend: Biosecurity Risk Species

- Point Verified
- Point Unverified
- Line Verified
- Line Unverified
- Polygon Verified
- Polygon Unverified

Legend: Hygiene infrastructure

- Location Point Verified
- Location Point Unverified
- Location Line Verified
- Location Line Unverified
- Location Polygon Verified
- Location Polygon Unverified

Legend: Cadastral Parcels



Known biosecurity risks within 1000 meters

Verified Species of biosecurity risk

No verified species of biosecurity risk found within 1000 metres

Unverified Species of biosecurity risk

No unverified species of biosecurity risk found within 1000 metres

Generic Biosecurity Guidelines

The level and type of hygiene protocols required will vary depending on the tenure, activity and land use of the area. In all cases adhere to the land manager's biosecurity (hygiene) protocols. As a minimum always Check / Clean / Dry (Disinfect) clothing and equipment before trips and between sites within a trip as needed <http://dpi.pwe.tas.gov.au/invasive-species/weeds/weed-hygiene/keeping-it-clean-a-tasmanian-field-hygiene-manual>

On Reserved land, the more remote, infrequently visited and undisturbed areas require tighter biosecurity measures.

In addition, where susceptible species and communities are known to occur, tighter biosecurity measures are required.

Apply controls relevant to the area / activity:

- Don't access sites infested with pathogen or weed species unless absolutely necessary. If it is necessary to visit, adopt high level hygiene protocols.
- Consider not accessing non-infested sites containing known susceptible species / communities. If it is necessary to visit, adopt high level hygiene protocols.
- Don't undertake activities that might spread pest / pathogen / weed species such as deliberately moving soil or water between areas.
- Modify / restrict activities to reduce the chance of spreading pest / pathogen / weed species e.g. avoid periods when weeds are seeding, avoid clothing/equipment that excessively collects soil and plant material e.g. Velcro, excessive tread on boots.
- Plan routes to visit clean (uninfested) sites prior to dirty (infested) sites. Do not travel through infested areas when moving between sites.
- Minimise the movement of soil, water, plant material and hitchhiking wildlife between areas by using the Check / Clean / Dry (Disinfect when drying is not possible) procedure for all clothing, footwear, equipment, hand tools and vehicles <http://dpi.pwe.tas.gov.au/invasive-species/weeds/weed-hygiene>
- Neoprene and netting can take 48 hours to dry, use non-porous gear wherever possible.
- Use walking track boot wash stations where available.
- Keep a hygiene kit in the vehicle that includes a scrubbing brush, boot pick, and disinfectant <http://dpi.pwe.tas.gov.au/invasive-species/weeds/weed-hygiene/keeping-it-clean-a-tasmanian-field-hygiene-manual>
- Dispose of all freshwater away from natural water bodies e.g. do not empty water into streams or ponds.
- Dispose of used disinfectant ideally in town through a treatment or septic system. Always keep disinfectant well away from natural water systems.
- Securely contain any high risk pest / pathogen / weed species that must be collected and moved e.g. biological samples.

Hygiene Infrastructure

No known hygiene infrastructure found within 1000 metres



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 21/10/19 14:35:08

[Summary](#)

[Details](#)

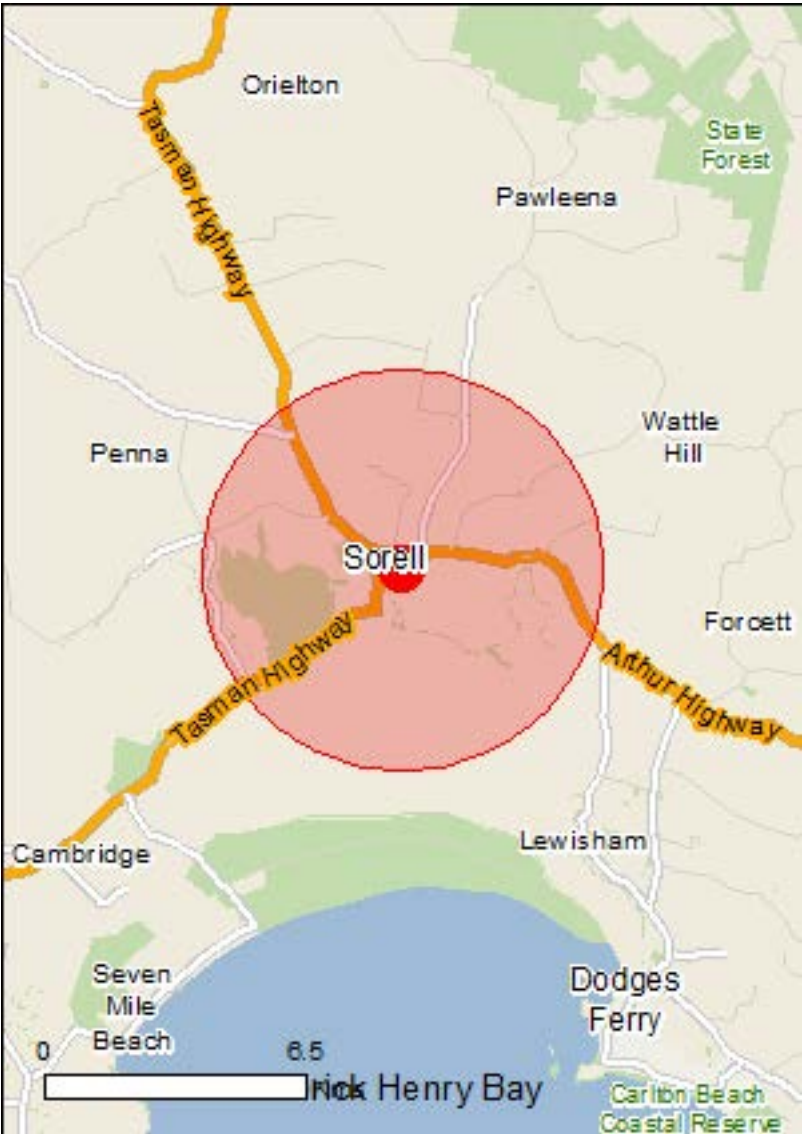
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

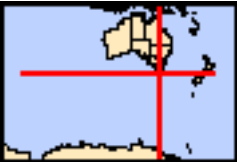
[Acknowledgements](#)



This map may contain data which are
©Commonwealth of Australia
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[Coordinates](#)

Buffer: 5.0Km



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	54
Listed Migratory Species:	48

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	69
Whales and Other Cetaceans:	8
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	1
Regional Forest Agreements:	1
Invasive Species:	33
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)		[Resource Information]
Name		Proximity
Pitt water-orielton lagoon		Within Ramsar site

Listed Threatened Ecological Communities		[Resource Information]
For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.		

Name	Status	Type of Presence
Lowland Native Grasslands of Tasmania	Critically Endangered	Community likely to occur within area
Tasmanian Forests and Woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)	Critically Endangered	Community likely to occur within area

Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Aquila audax fleayi Tasmanian Wedge-tailed Eagle, Wedge-tailed Eagle (Tasmanian) [64435]	Endangered	Species or species habitat likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Ceyx azureus diemenensis Tasmanian Azure Kingfisher [25977]	Endangered	Species or species habitat may occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area

Name	Status	Type of Presence
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding known to occur within area
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area
Pterodroma leucoptera leucoptera Gould's Petrel, Australian Gould's Petrel [26033]	Endangered	Species or species habitat may occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Breeding likely to occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta cauta Shy Albatross, Tasmanian Shy Albatross [82345]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta steadi White-capped Albatross [82344]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within

Name	Status	Type of Presence
area		
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thinornis rubricollis rubricollis Hooded Plover (eastern) [66726]	Vulnerable	Species or species habitat known to occur within area
Tyto novaehollandiae castanops (Tasmanian population) Masked Owl (Tasmanian) [67051]	Vulnerable	Breeding known to occur within area
Fish		
Brachionichthys hirsutus Spotted Handfish [64418]	Critically Endangered	Species or species habitat may occur within area
Prototroctes maraena Australian Grayling [26179]	Vulnerable	Species or species habitat likely to occur within area
Thymichthys politus Red Handfish [83756]	Critically Endangered	Species or species habitat likely to occur within area
Frogs		
Litoria raniformis Growling Grass Frog, Southern Bell Frog, Green and Golden Frog, Warty Swamp Frog [1828]	Vulnerable	Species or species habitat known to occur within area
Insects		
Antipodia chaostola leucophaea Tasmanian Chaostola Skipper, Heath-sand Skipper [77672]	Endangered	Species or species habitat may occur within area
Mammals		
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Dasyurus maculatus maculatus (Tasmanian population) Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (Tasmanian population) [75183]	Vulnerable	Species or species habitat known to occur within area
Dasyurus viverrinus Eastern Quoll, Luaner [333]	Endangered	Species or species habitat likely to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Perameles gunnii gunnii Eastern Barred Bandicoot (Tasmania) [66651]	Vulnerable	Species or species habitat known to occur within area
Sarcophilus harrisii Tasmanian Devil [299]	Endangered	Species or species habitat likely to occur within area
Other		
Parvulastra vivipara Tasmanian Live-bearing Seastar [85451]	Vulnerable	Species or species habitat likely to occur

Name	Status	Type of Presence
within area		
Plants		
Caladenia caudata Tailed Spider-orchid [17067]	Vulnerable	Species or species habitat likely to occur within area
Dianella amoena Matted Flax-lily [64886]	Endangered	Species or species habitat known to occur within area
Glycine latrobeana Clover Glycine, Purple Clover [13910]	Vulnerable	Species or species habitat likely to occur within area
Lepidium hyssopifolium Basalt Pepper-cress, Peppercress, Rubble Pepper-cress, Pepperweed [16542]	Endangered	Species or species habitat likely to occur within area
Leucochrysum albicans var. tricolor Hoary Sunray, Grassland Paper-daisy [56204]	Endangered	Species or species habitat may occur within area
Prasophyllum apoxychilum Tapered Leek-orchid [64947]	Endangered	Species or species habitat may occur within area
Pterostylis ziegeleri Grassland Greenhood, Cape Portland Greenhood [64971]	Vulnerable	Species or species habitat may occur within area
Xerochrysum palustre Swamp Everlasting, Swamp Paper Daisy [76215]	Vulnerable	Species or species habitat likely to occur within area
Sharks		
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Listed Migratory Species [Resource Information]		
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Ardenna grisea Sooty Shearwater [82651]		Species or species habitat likely to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area

Name	Threatened	Type of Presence
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta Tasmanian Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Migratory Marine Species		
Balaena glacialis australis Southern Right Whale [75529]	Endangered*	Species or species habitat known to occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur

Name	Threatened	Type of Presence within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius bicinctus Double-banded Plover [895]		Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Species or species habitat known to occur

Name	Threatened	Type of Presence
Pluvialis fulva Pacific Golden Plover [25545]		within area Species or species habitat known to occur within area
Pluvialis squatarola Grey Plover [865]		Species or species habitat known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Species or species habitat known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Xenus cinereus Terek Sandpiper [59300]		Species or species habitat known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land	[Resource Information]
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The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name
Commonwealth Land -

Listed Marine Species	[Resource Information]
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* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		

Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat known to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Arenaria interpres Ruddy Turnstone [872]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius bicinctus Double-banded Plover [895]		Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Charadrius ruficapillus Red-capped Plover [881]		Species or species habitat known to occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea gibsoni Gibson's Albatross [64466]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Heteroscelus brevipes Grey-tailed Tattler [59311]		Species or species habitat known to occur within area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Lathamus discolor Swift Parrot [744]	Critically Endangered	Breeding known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area
Philomachus pugnax Ruff (Reeve) [850]		Species or species habitat known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area
Pluvialis squatarola Grey Plover [865]		Species or species habitat known to occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [1043]		Foraging, feeding or related behaviour likely to occur within area
Puffinus griseus Sooty Shearwater [1024]		Species or species habitat likely to occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Species or species habitat known to occur within area
Sterna albifrons Little Tern [813]		Species or species habitat may occur within area
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta Tasmanian Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thalassarche chrysostoma Grey-headed Albatross [66491]	Endangered	Species or species

Name	Threatened	Type of Presence
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	habitat may occur within area Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche sp. nov. Pacific Albatross [66511]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thinornis rubricollis Hooded Plover [59510]		Species or species habitat known to occur within area
Thinornis rubricollis rubricollis Hooded Plover (eastern) [66726]	Vulnerable	Species or species habitat known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Xenus cinereus Terek Sandpiper [59300]		Species or species habitat known to occur within area
Fish		
Hippocampus abdominalis Big-belly Seahorse, Eastern Potbelly Seahorse, New Zealand Potbelly Seahorse [66233]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Histiogamphelus briggsii Crested Pipefish, Briggs' Crested Pipefish, Briggs' Pipefish [66242]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys mollisoni Mollison's Pipefish [66260]		Species or species habitat may occur within area
Mitotichthys semistriatus Halfbanded Pipefish [66261]		Species or species habitat may occur within area
Mitotichthys tuckeri Tucker's Pipefish [66262]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Solegnathus spinosissimus Spiny Pipehorse, Australian Spiny Pipehorse		Species or species

Name	Threatened	Type of Presence
[66275] Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		habitat may occur within area Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area

Mammals		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Arctocephalus pusillus Australian Fur-seal, Australo-African Fur-seal [21]		Species or species habitat may occur within area

Whales and other Cetaceans		[Resource Information]
Name	Status	Type of Presence
Mammals		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Foraging, feeding or related behaviour may occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

State and Territory Reserves		[Resource Information]	
Name		State	
Pitt Water Nature Reserve		TAS	
Regional Forest Agreements		[Resource Information]	
Note that all areas with completed RFAs have been included.			
Name		State	
Tasmania RFA		Tasmania	
Invasive Species		[Resource Information]	
Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.			
Name		Status	Type of Presence
Birds			
Acridotheres tristis Common Myna, Indian Myna [387]			Species or species habitat likely to occur within area
Alauda arvensis Skylark [656]			Species or species habitat likely to occur within area
Anas platyrhynchos Mallard [974]			Species or species habitat likely to occur within area
Carduelis carduelis European Goldfinch [403]			Species or species habitat likely to occur within area
Carduelis chloris European Greenfinch [404]			Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]			Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]			Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]			Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]			Species or species habitat likely to occur within area
Turdus merula Common Blackbird, Eurasian Blackbird [596]			Species or species habitat likely to occur within area
Mammals			
Canis lupus familiaris Domestic Dog [82654]			Species or species habitat likely to occur within area
Capra hircus Goat [2]			Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]			Species or species habitat likely to occur

Name	Status	Type of Presence
		within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]		Species or species habitat likely to occur within area
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Asparagus scandens Asparagus Fern, Climbing Asparagus Fern [23255]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera subsp. monilifera Boneseed [16905]		Species or species habitat likely to occur within area
Cytisus scoparius Broom, English Broom, Scotch Broom, Common Broom, Scottish Broom, Spanish Broom [5934]		Species or species habitat likely to occur within area
Genista monspessulana Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]		Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Nassella neesiana Chilean Needle grass [67699]		Species or species habitat likely to occur within area
Nassella trichotoma Serrated Tussock, Yass River Tussock, Yass Tussock, Nassella Tussock (NZ) [18884]		Species or species habitat likely to occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur

Name	Status	Type of Presence
		within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii		Species or species habitat likely to occur within area
Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		
Ulex europaeus		
Gorse, Furze [7693]		Species or species habitat likely to occur within area

Nationally Important Wetlands		[Resource Information]
Name		State
Orielton Lagoon		TAS

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

-42.78482 147.56728

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [Office of Environment and Heritage, New South Wales](#)
- [Department of Environment and Primary Industries, Victoria](#)
- [Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [Department of Environment, Water and Natural Resources, South Australia](#)
- [Department of Land and Resource Management, Northern Territory](#)
- [Department of Environmental and Heritage Protection, Queensland](#)
- [Department of Parks and Wildlife, Western Australia](#)
- [Environment and Planning Directorate, ACT](#)
- [Birdlife Australia](#)
- [Australian Bird and Bat Banding Scheme](#)
- [Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [Museum Victoria](#)
- [Australian Museum](#)
- [South Australian Museum](#)
- [Queensland Museum](#)
- [Online Zoological Collections of Australian Museums](#)
- [Queensland Herbarium](#)
- [National Herbarium of NSW](#)
- [Royal Botanic Gardens and National Herbarium of Victoria](#)
- [Tasmanian Herbarium](#)
- [State Herbarium of South Australia](#)
- [Northern Territory Herbarium](#)
- [Western Australian Herbarium](#)
- [Australian National Herbarium, Canberra](#)
- [University of New England](#)
- [Ocean Biogeographic Information System](#)
- [Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [Geoscience Australia](#)
- [CSIRO](#)
- [Australian Tropical Herbarium, Cairns](#)
- [eBird Australia](#)
- [Australian Government – Australian Antarctic Data Centre](#)
- [Museum and Art Gallery of the Northern Territory](#)
- [Australian Government National Environmental Science Program](#)
- [Australian Institute of Marine Science](#)
- [Reef Life Survey Australia](#)
- [American Museum of Natural History](#)
- [Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact Us](#) page.



Sorell to Hobart Planning Study

Land Use Planning Analysis

20 February 2019

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1. Introduction

1.1 Purpose of the Report

As part of the Sorell to Hobart Planning Study, ERA Planning Pty Ltd (ERA) has been engaged to undertake an analysis of land use planning patterns and development opportunities in the Sorell and Clarence Local Government Areas (LGAs).

The purpose of this report is to highlight land use planning specific issues that may influence the successful implementation of an efficient transport solution for this area. This includes consideration of the existing patterns of development, zoning application, opportunities for further development, and opportunities for changes in land use approaches to reduce congestion along the corridor.

Enquiries relating to this planning report should be directed to:

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ERA Planning
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Phone: 03 6105 0443

1.2 Background

During the 2018 state election, the Hodgman Liberal Government announced a package of commitments known as the South East Traffic Solution, which includes the following elements:

- Improvements to the roundabout at Holyman Avenue;
- Planning for duplication of both causeways;
- Duplication of the road between Holyman Avenue and Causeway 1 as well as upgrades to the intersections into various properties along this section of road (including the golf course);
- Duplication of the road corridor through Midway Point and the installation of traffic signals to replace the roundabout;
- Constructing the Sorell Bypass to the south of Sorell; and
- Constructing an eastbound overtaking lane on the Arthur Highway east of Sorell.

In addition, the Department of State Growth undertook a Sorell to Hobart Planning Study, the purpose of which is to investigate options to reduce congestion along the road corridor in totality. Options canvassed have included implementing better public transport and active transport options as well as looking at road upgrades from Holyman Avenue to Hobart.

This planning study is the focus for this analysis. However, information contained in this report may be of assistance for all of the South East Traffic Solution (SETS) projects that are underway.

2. Context

2.1 Southern Tasmanian Regional Land Use Strategy

In early 2011, the first regional strategic planning document for the Southern Tasmanian region for over 25 years was endorsed by the Tasmanian Government as the Southern Tasmanian Regional Land Use Strategy (STRLUS). It was the culmination of many months of work by a small team based at the Southern Tasmanian Councils Authority, with the assistance of the Southern Councils.

As part of developing the STRLUS, there was an analysis of the existing land use development pattern in the Southern Tasmania region and the identification of key economic, social and environmental strengths and weaknesses. A series of background reports was developed on issues as varied as climate change, housing policy, protection of environmental and cultural values, as well as economic development opportunities. These reports provide the supporting justification for the objectives and policies in the STRLUS.

The STRLUS is structured around Strategic Objectives that are to be achieved through a suite of specific regional policies. The regional policies were agreed on and, in turn, formed the basis of strategic directions that were intended to guide well-planned development of our residential areas, areas for commercial and industrial development, and areas significant for their environmental or agricultural value. The regional policies did not necessarily apply to every LGA in the Southern Region; however, in the instance of Clarence and Sorell, many of them are applicable. These include:

- Biodiversity and Geodiversity;
- Water Resources (particularly relevant in terms of the RAMSAR wetland of Pittwater Lagoon);
- The Coast (particularly relevant for both LGAs given the extent of the coastal area);
- Managing Risks and Hazards (this included consideration of issues such as sea level rise, bushfire protection, land instability and erosion and dispersive soils);
- Cultural Values (including both Aboriginal and European cultural values of which both LGAs have many sites of significance);
- Recreation and Open Space (which recommended an approach to regional open space planning with a hierarchy for significant sporting venues);
- Social Infrastructure (including medical facilities, schools, community centres and so forth);
- Physical Infrastructure (a critical issue for both LGAs with the focus on sewerage, water and stormwater infrastructure);
- Land Use and Transport Integration (critical for both LGAs not only for residential use but also industry and commercial transport corridors);
- Tourism (arguably a more critical concern for Sorell LGA than Clarence);
- Strategic Economic Opportunities;

- Productive Resources (including agricultural land and marine farming industries);
- Industrial Activity;
- Activity Centres; and
- Settlement and Residential Development.

The benefit of the STRLUS was that it guided local government planners about the approach to strategic planning in the region, and it guided the Tasmanian Planning Commission when deciding on Scheme amendments. The *Land Use Planning and Approvals Act 1993* requires all planning schemes, including some amendments and the future Local Provisions Schedules under the Tasmanian Planning Scheme, to be consistent as far as practicable with the STRLUS.

At the time of its preparation, population growth in the region was 0.9 per cent and the average number of people per dwelling 2.4.

Figure 1 over page shows the Residential Development Areas as they were identified in the Strategy with identified Activity Centres.

Rosny Park was identified as one of three Principal Activity Centres, the others being Central Glenorchy and Kingston. Principal Activity Centres are the second tier to the Activity Centre Network behind the Hobart CBD. Their identified role is to provide for a wide range of services and facilities (including offices for business and government) to serve the surrounding sub-region, with a strong focus on the retail and commercial sector. Principal Activity Centres are intended to provide sub-regional employment opportunities, a range of state government services and offices, entertainment facilities, inner residential development and a bus interchange with high-frequency links to other major activity centres and key residential catchments.

It is considered that Rosny Park maintains its function and role as a Principal Activity Centre and is likely to continue fulfilling this role into the future.

Sorell was identified as a Rural Services Centre in the Activity Centre Network under the STRLUS, providing non-urban communities with a range of goods and services to meet daily and weekly needs. Under the STRLUS, a Rural Services Centre is intended to have a mix of retail and office-based employment with at least one supermarket and a range of specialty shops. There would be basic services such as district health, Service Tasmania and community centres, and local bus facilities with a low-frequency service.

Since the STRLUS was first declared in 2011, the role of the Sorell Activity Centre has changed. It not now only supports a town with surrounding non-urban community, but a growing residential suburban area around Sorell, Midway Point and the Southern Beaches. It has multiple supermarkets and shops, with a number of health services and community services.

Sorell is now more akin to a Major Activity Centre that serves a surrounding district and provides a range of goods and services. A Major Activity Centre is the focus of employment at the local government level, in retail and a range of offices. It supports high-frequency public transport into Principal and Primary Activity Centres and accommodates a range of residential development immediately surrounding the commercial nodes.

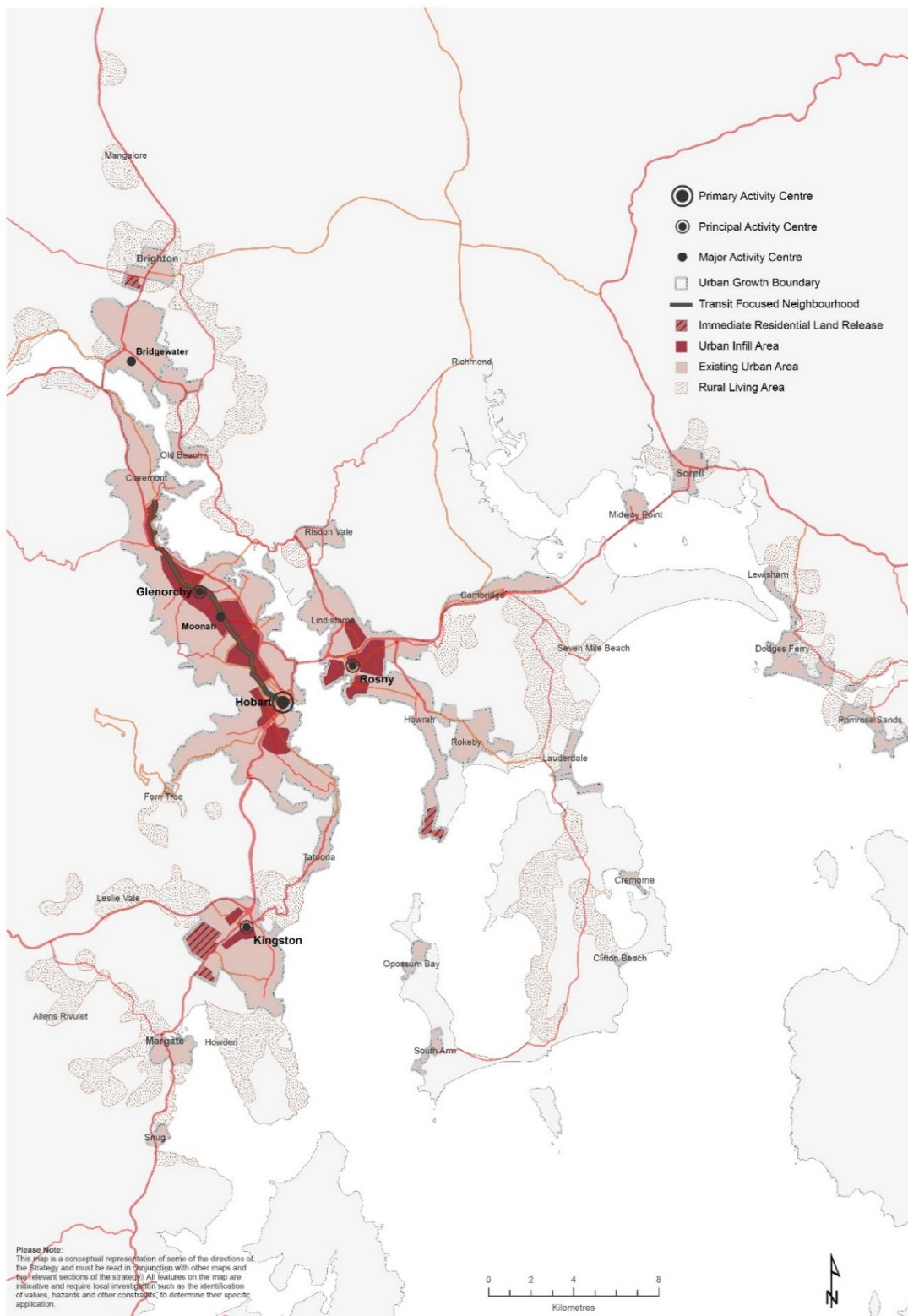


Figure 1: Residential Development Areas, Southern Tasmanian Regional Land Use Strategy (Source: Southern Tasmanian Councils Authority, 2011)

While Sorell is demonstrating a number of characteristics consistent with a Major Activity Centre, the lack of public transport and limited employment opportunities limit the settlement from properly fulfilling this role.

The STRLUS does not recognise any activity centres in Southern Beaches, which is consistent with other neighbourhood or local centres (these are intended to be recognised at the local level only). These areas are growing in population despite limitations on the expansion of zoning land, because of the infill potential in the area. As a result, there is merit in specifically identifying nodes for local centres at various locations in the Southern Beaches that will provide for the daily needs of the surrounding community, thereby over time lessening the need to travel into Sorell.

One of the key aspects of the STRLUS is the Urban Growth Boundary (UGB) for Greater Hobart. The UGB was put in place as part of a suite of residential policies aimed at achieving an infill-to-greenfield¹ ratio of 50:50 (growth had been tracking at about 85 per cent greenfield). As part of the UGB, areas were identified for higher density housing where the Inner Residential Zone should apply. These areas were centrally located in Hobart, around the Principal and Primary Activity Centres, and along the Hobart to Glenorchy transit corridor.

The effectiveness of the UGB, however, relied on other policies limiting the growth of Low Density, Rural Living and Environmental Living subdivisions and development, as well as encouraging the desired higher-density housing through implementation mechanisms such as economic incentives and facilitation.

Since the STRLUS was declared, the anecdotal evidence indicates that the infill development targets have not been achieved, while greenfield growth continues to be high. A key factor in this has been the heavily reliance on planning schemes to implement the STRLUS without support from other implementation mechanisms, particularly in overcoming some of the known barriers to infill development. For example, infill development is more costly than greenfield development as shown in a number of studies that have been undertaken by State Government, including the *Infill Development within Greater Hobart* study prepared by Hill PDA on behalf of the Department of State Growth across 2013 and 2014.

It may also be the case that the full extent of lower density land that was available was underestimated and we are still seeing a take-up of land that was already zoned for residential development, which has reduced the effectiveness of encouraging people into our inner areas of the metropolitan Councils.

As part of the residential policies in the STRLUS, much of the urban area in Clarence was identified as part of the main urban extent of Greater Hobart. Sorell was identified as a major satellite of Greater Hobart, with Midway and Seven Mile Beach identified as a minor satellite of Greater Hobart. Sorell and Midway Point were both identified for further growth of residential areas, much of which has occurred since the strategy was endorsed. All these areas were included in the UGB.

Carlton, Lewisham, Primrose Sands, Clifton Beach, Cremorne, Opossum Bay and South Arm were identified as dormitory suburbs with a policy of very low consolidated growth. Areas such as Dodges Ferry were identified as a dormitory suburb with low consolidated growth. Current statistics on the

¹ Infill development is a term to refer to the redevelopment of land that exists within an existing urban environment. Greenfield development is a term to refer to the development of undeveloped land, often on the city fringe that has been previously used for rural purposes, or as natural bushland.

increase of dwellings and population suggests that in the Sorell LGA, at the very least, actual growth-levels exceed what was anticipated at the time of drafting the STRLUS.

In addition, when the STRLUS was endorsed, there was not substantial tourism pressure. Growth in visitor numbers and the tourism industry has been significant since that time, and there are now over 1.3 million tourists annually; this figure is continuing to grow and is a major economic driver for the State. The two most visited locations in the State – Port Arthur and Freycinet National Park – are accessed from Hobart through Sorell due to major transport routes from the south.

2.2 Demographic changes and affordable housing in Greater Hobart

Over the past few years, Tasmania has experienced unprecedented economic growth, with a significant driving factor being the tourism industry. Tourist numbers are up, both internationally and domestically.

In addition, with the rise of the sharing economy, people are now making available residential dwellings on platforms such as Airbnb and HomeAway Stayz to cash in on the growing tourist market. Tasmania is now seen as an attractive destination for interstate people wanting a change of lifestyle. This not only includes retirees, but also working families who can either work remotely using the breakthroughs in digital technology, or who are taking advantage of the increased economic activity or the comparative affordability of Greater Hobart in comparison to mainland cities.

Housing stock that previously was available for owner occupiers and at an affordable price, in a location close to the Primary and Principal Activity Centres, is now much more expensive to buy. This in turn has pushed demand for affordable housing further to the urban outskirts. While this is not the only explanation for the rising house demand, it does go some way to explaining the increase in demand in outlying areas. For an area like Sorell, this is coupled with its attractiveness and lifestyle factors, particular its proximity to coastal areas.

Separate to the changes in the housing market, there have been further changes in the economic drivers of the State.² The Tasmanian economy is forecast to expand by 2.5 per cent in 2018-2019 which is stronger than the long-term average rate of growth. The forest industry, which was in political turmoil in 2010-2011, is now not a significant a player in the economic make-up of Tasmania. On the other hand, aquaculture and tourism have become significant economic drivers for the State, with the two major tourism drawcards being Port Arthur and the Freycinet Peninsula. The investment in irrigation, through which both the Clarence and Sorell LGAs have benefitted, has seen the establishment of horticulture in areas that previously were not considered for such high value crops. In particular, viticulture and fruit orchards in the South East region are now considerably more economically viable than previously, and there is more and more investment in these areas, including in rural processing facilities.

² <https://www.treasury.tas.gov.au/BudgetPapersHTML/Budget2017/BP1/2017-18-BP1-2-Tasmanian-Economy.htm>

3. Current Conditions

3.1 Clarence City Council LGA

Clarence City Council had a population of 54,819 in 2016, as recorded in the Department of Treasury and Finances population statistics³. It has historically been one of the fastest growing LGAs at 1.0 per cent population growth and 10.7 per cent of the State's population live in it. The LGA is considered part of the Greater Hobart area⁴ with the main commercial district based around Rosny Park.

European settlement in the Clarence area was established in the 1820s and grew from its small village base around Bellerive. In 1943, a floating-pontoon-style Hobart Bridge was opened but was unreliable and treacherous to cross in stormy weather⁵. Notwithstanding this, in the post-war period, the area of Clarence boomed with the government establishing a public housing programme for returned servicemen and many of the eastern shore suburbs expanding dramatically during this time. With the increase in population, the first growing pains were experienced, particularly in relation to accessing the Hobart Bridge, and congestion became a significant concern for the community. In 1964, the new Tasman Bridge was opened, which greatly increased the volume of traffic capable of crossing the river. This led to the population passing the 40,000 mark in the mid 1970s, reflecting incredible post-war growth.

Further challenges were experienced when the *Lake Illawarra* collided with the Tasman Bridge in 1975, which ironically led to Clarence to become more self-sustaining; the LGA was declared as a city in 1988.

The area extends from Campania in the north, Seven Mile Beach in the east, down to South Arm. It incorporates the suburbs of Clarendon Vale, Rokeby, Howrah, Bellerive, Montagu Bay, Rosny, Lindisfarne, Geilston Bay, Risdon Vale and Otago Bay among others, as shown in Figure 2 below. It is one of the largest urban-based LGAs in Tasmania with over 386 square kilometres and over 191 km of coastline⁶.

Land use in Clarence varies from urban areas, which extend radially out from Rosny Park and along the edge of the River Derwent, to coastal, rural residential and agricultural areas.

The main urban extent includes large areas of General Residential land, with some small sections of Inner Residential near the main commercial area of Rosny Park and Bellerive. There are extensive areas of Low Density and Rural Living areas around the urban fringe, extending towards Old Beach and on the South Arm peninsula including some isolated coastal settlements. Some of the more critical Light Industrial and Commercial areas in Southern Tasmania are located at Mornington and Cambridge Park.

³ <https://www.treasury.tas.gov.au/Documents/Regional-Population-Growth.pdf>

⁴ The Greater Hobart area is defined in the STRLUS and comprises six (6) council areas.

⁵ www.wikipedia.org/wiki/City_of_Clarence

⁶ www.wikipedia.org/wiki/City_of_Clarence

The urban area extending from Risdon Vale through to Howrah and Rokeby is fully serviced with water, sewerage and stormwater. However, outlying areas that are zoned Rural Living and Low Density Residential have varying levels of servicing. For example, Seven Mile Beach and Lauderdale are serviced for water, but not sewerage or stormwater. This results in constraints to further development as higher density is not a feasible option, and most of these areas are already developed. In addition, in some instances where there is a lack of stormwater, there are also flooding risks through coastal inundation.

In addition, the LGA includes various areas of viable agricultural land, focused in the area to the north of Cambridge extending out towards Orielton. Agriculture in this region is dominated by vineyards, fruit and vegetables but also small-scale hobby farms producing limited quantities of meat, fruit and vegetables, and other niche industries. This area is also an important area for tourists who wish to visit the agricultural regions and historic towns such as Richmond.

As of the 2016 Census, there were 23,850 dwellings in the Clarence LGA of which 21,053 or 91.3 per cent were occupied⁷. Assuming each occupied dwelling generates an average of nine traffic movements per day, this represents nearly 190,000 traffic movements within and to and from the Clarence LGA alone. Not all of these traffic movements travel the Tasman Highway corridor, however, with some being more localised or relying on lower order road connections.

3.1.1 Future Growth

The Clarence LGA will continue to expand its residential areas given the ample available land, desirable lifestyle choices, and the lack of physical limitations compared with those that exist elsewhere in the Greater Hobart area. Some identified pockets for further residential development follow:

- The area to the west of Risdon Vale has the potential for up to 1,000 houses, although some of this land is constrained, which may reduce the numbers.
- Pass Road area between Glebe Hill Estate and Mornington has the potential for up to 2,000 lots with many of these already approved through previous staged subdivision approvals, so they are capable of being developed reasonably quickly.
- Paraville – currently this development opportunity is constrained by a development plan; however, it is likely that this area could get rezoned to General Residential and a subdivision could then occur thereafter. This could result in a further 1,000 lots.
- The Tranmere and Rokeby corridors through to Droughty Point has potential for up to 2,000 houses. This area will be the subject of future structure planning and strategic planning to analyse the best approach to developing this land.

⁷ Unoccupied dwellings can include second dwellings (shacks) as well as households where a response was not received on census night and ABS Field Officers followed up.

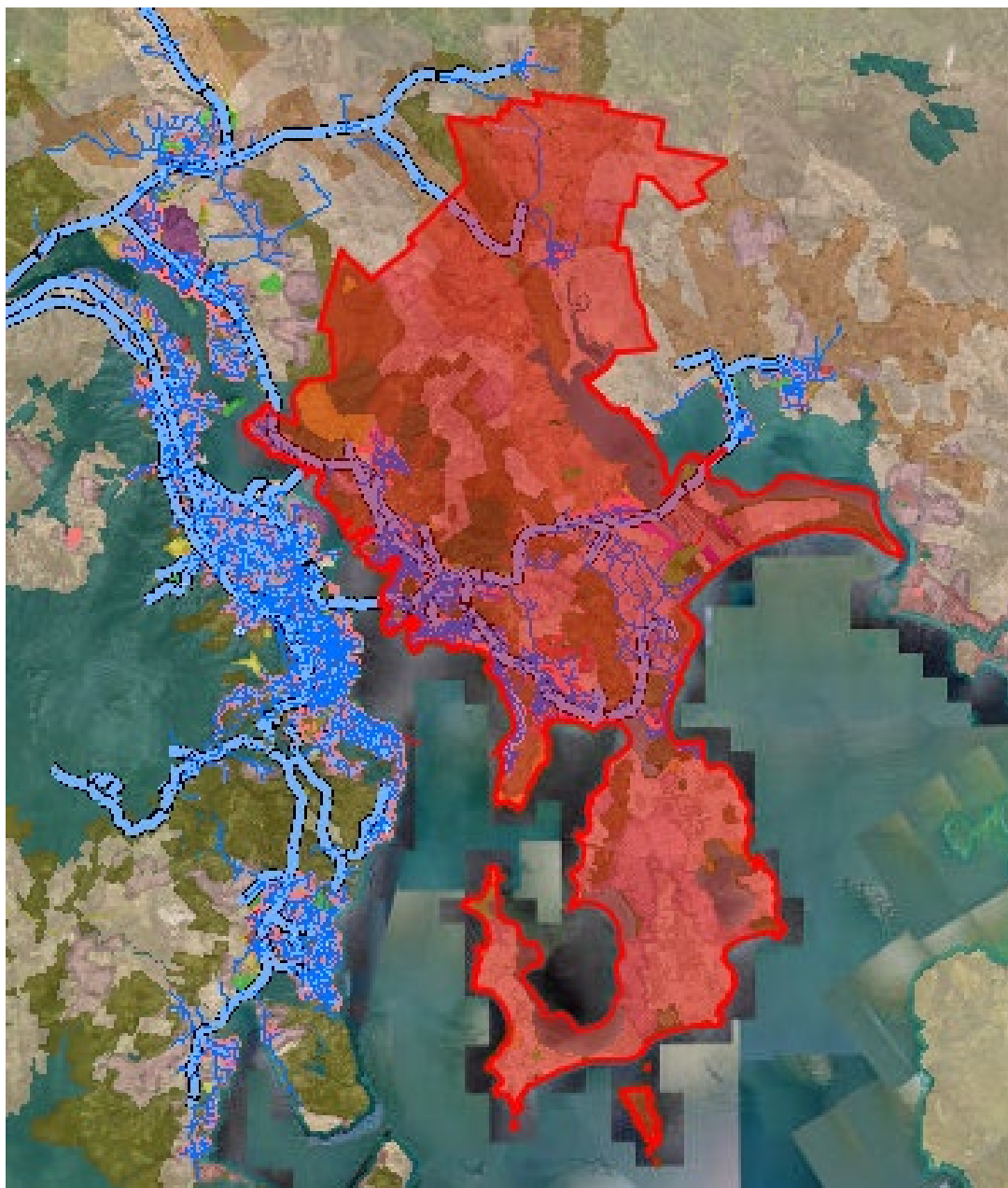


Figure 2: Spatial extent of the Clarence LGA (Source: www.maps.thelist.tas.gov.au)

- The rural living area of Acton has potential for further subdivision of existing individual lots. This area is zoned Rural Living with a 2ha minimum lot size. There has been considerable pressure to reduce the minimum lot size to 1ha to enable better utilisation of land. It is not out of the question that this could occur in the future.

Areas such as Seven Mile Beach and Lauderdale are constrained due to the limited stormwater and sewerage services available.

There is limited opportunity for further infill development in the established suburbs by virtue of the development pattern that exists; however, it is not out of the question that higher densities could be achieved in some of these areas subject to further rezoning to Inner Residential, particularly as the value of the land increases.

Aside from the area around Risdon Vale, all areas identified for future residential development will use either Clarence Street, or the South Arm Highway and Mornington Roundabout to access Hobart, or further east. This will increase pressures on the road network if the population continues to be reliant on work and school opportunities elsewhere.

3.1.2 Travel Patterns

Current data on travel patterns for the LGA of Clarence show that:

- 56 per cent of the travellers coming from the East Derwent Highway area go over the Tasman Bridge to Hobart and its southern areas, or to the Domain Highway and on to the northern suburbs.
- 89 per cent of travellers coming from Rosny go over the Tasman Bridge to Hobart and its southern areas, or to the Domain Highway and on to the northern suburbs.
- 51 per cent of travellers coming from Mornington and South Arm go over the Tasman Bridge to Hobart and its southern areas, or to the Domain Highway and on to the northern suburbs.
- A total of 8,069 vehicle movements across the Tasman Bridge during the morning peak originate from the Clarence LGA.

This is because many residents in Clarence rely on work opportunities outside the LGA. In Clarence, there are 22,900 residents but only 14,438 jobs. Of those 14,438 jobs, 8,260 are filled by residents of Clarence, while 10,333 workers travel to the Hobart LGA daily for their employment. There are a further 4,307 workers travelling to other LGAs, such as Sorell, Glenorchy and Brighton⁸.

In comparison, the Hobart LGA has a high level of employment self-sufficiency. There are 22,985 residents in paid employment, with 46,875 jobs in the Hobart LGA and over 18,000 people working and living in the LGA.

⁸ Community Travel Patterns on the Tasman Highway between Sorell and Hobart and Domain Highway, Department of State Growth, August 2017

3.1.3 Implications of Growth

Given the potential constraints on land, a conservative estimate of future dwelling yield is approximately 6,000 dwellings; this figure considers known opportunities and assumes limited infill opportunities. Currently it is accepted there are approximately 2.4 persons per household, and that each household generates an average of nine traffic movements per day. This could result in an additional 54,000 traffic movements per day generated from Clarence in the future.

It is acknowledged that not all of these traffic movements will necessarily travel the Tasman Highway road corridor. Currently, approximately 4 per cent of traffic movements from the Clarence area travel the Tasman Highway corridor during the morning peak. Extrapolating this out, from the potential additional 54,000 traffic movements per day that may be generated in the future, this could result in a further 2,160 traffic movements per day on the corridor over the next 50 years. This would be a 26 per cent increase on current traffic volumes generated from the Clarence LGA during the morning peak.

3.1.4 Land Use Planning Implications

Given the current limitations of the corridor, as well as the costs of infrastructure improvements and spatial constraints of the existing corridor, consideration must be given to the extent to which the LGA is self-sustaining and capable of accommodating the majority of its needs within the LGA.

Interestingly, Clarence as an LGA is well serviced. The area of Clarence includes:

- Thirteen public primary schools, three public high schools and one public year 11/12 college;
- Six religious-based primary schools and two religious-based high schools;
- Over 20 childcare centres catering for babies through to after school and school holiday care programs;
- Multiple shopping districts including Lindisfarne Village Shopping Centre, Shoreline Shopping Centre, Bellerive shopping centre, Lauderdale shopping area, Rokeby shopping area, as well as the main business district of Eastlands which includes a wide range of shops, offices, support services including government offices, and medical professionals;
- Recreational facilities such as Clarence Pool, Oceana Health and Fitness, Wentworth Park recreation grounds and Bellerive Oval, as well as extensive beaches and areas of open space, foreshore, bush trails and areas such as the Meehan Range where people can mountain bike;
- Industrial and “Big Box” developments including Mornington and Cambridge Park; and
- Agricultural areas north of Cambridge through the Coal Valley to Richmond.

This highlights a city that is not necessarily lacking in services. However, only 36 per cent of the population remains in the LGA for work, with 45 per cent travelling to Hobart. In other words, the area provides all the necessary requirements for a community to enable them to remain in the LGA, except for the type and number of working opportunities available.

Generating additional employment opportunities in an area is complex. Businesses and employers decide to locate in an area based on a wide range of considerations, depending on the type and scale of activity.

Over the past 10 years in the Greater Hobart area, there is evidence of recentralisation of retail activity, following a couple of decades of expansion out to shopping centres at Rosny Park, Glenorchy and Kingston.

The CBD of Hobart also continues to provide some of the more substantial entertainment and hotels, which support a significant workforce. Linked to this are the established tourist facilities and food and beverage opportunities in greater numbers in the Hobart LGA, as opposed to the outlying areas of Greater Hobart. Market demand is likely to continue to dictate that the CBD of Hobart will remain the visitor accommodation and restaurant focus for the southern region, with outlying nodes (including the Coal Valley region) being day trips from the City.

While there are government offices located across the Hobart region, including in Rosny and outlying areas such as Seven Mile Beach, benefits of co-location of government and private businesses in one centralised location remain. This will most likely continue to result in a substantial percentage of the Hobart regional workforce working in the Hobart LGA.

However, Clarence has established itself from a commercial and industrial perspective with the establishment of the Cambridge Park development, which provides for a range of large format bulky goods stores, a substantial area of offices for Hydro Tasmania, and tracts of light industrial land. In addition, there is considerable light industrial land around Mornington, which provides an important industrial node for the region. Increasing industrial activity depends on efficiency in accessing key freight transport routes from Southern Tasmania to the north of the State.

To provide for further work opportunities, there would be benefits in Clarence enhancing its established position in terms of existing employment patterns, meaning further expansion of commercial and light industrial land. It is not considered tenable to promote the relocation of the office district of the greater Hobart region elsewhere.

This suggests that to reduce the reliance on the Tasman Highway corridor, a focus on increasing work opportunities in the LGA may assist but is unlikely to produce a quantum shift in traffic movements and reliability through the corridor.

3.1.5 Zoning

Clarence City Council has a longstanding approach to spatial zoning of its LGA. However, opportunities exist to encourage greater infill development around key transport corridors and nodes, such as along Clarence Street and in areas of Bellerive, Rosny, Montagu Bay and Lindisfarne. In addition, the Council currently does not use the Urban Mixed Use zoning. This zoning may provide an opportunity to provide for a mix of shops, services, food service outlets with residential development above, introducing vibrancy to certain localities in the LGA, which could in turn provide for more housing and greater densities to support residential development.

Clarence, as the largest council by population in the State, is at a critical juncture in its urban growth phase. It has moved beyond an expansive suburban settlement and is now moving towards a self-sufficient urban settlement node. Recognition of this should be further enhanced by providing greater diversity in housing types in urban areas, and in the services that are being offered.

3.1.6 Non-Infrastructure or Land Use Planning Solutions

The most obvious alternative solution to the existing congestion through the traffic network remains better utilisation of public transport.

Currently Metro Tasmania services the Clarence LGA from South Arm, through to Risdon Vale, with more frequent services around the suburbs of Howrah, Bellerive, Rosny and Lindisfarne. Rosny at Eastlands provides a bus interchange reflecting the important role that locality provides as Clarence's central business district.

Community feedback has, however, highlighted the limitations of the service, in terms of frequency and bus routes, the further you extend beyond Rosny. It is accepted that in the lower density suburbs, providing a frequency of service that is consistent with higher density areas is untenable financially. Notwithstanding this, some of these routes have buses only on the hour and finish quite early in the evening. This can result in social disadvantage for those that rely on public transport, who are more commonly living in outlying suburbs because of the more affordable housing. Limitations on bus services can result in limiting access to work opportunities, health services and other activities, or people being left with no alternative but to drive to the city and pay for parking, reducing their take-home wage.

Mechanisms to assist in the take-up of public transport could be considered. These include the provision of park and ride services, where people could drive to key nodes and then catch a regular and frequent bus into the city from there. Obvious locations include:

- Cambridge, which could cover a catchment area including Cambridge itself, Acton, Seven Mile Beach, Richmond, Midway Point and Sorell beyond;
- Howrah, which could cover a catchment area of South Arm, Lauderdale, Rokeby, Glebe Hill, Tranmere and Howrah;
- Lindisfarne, which could cover a catchment of Risdon Vale, Geilston Bay and Lindisfarne itself;
- Mornington, which could cover the growing catchment of Mornington, parts of Howrah, Warrane and the future catchment of Pass Road; and
- Bellerive, which could cover the catchment of Bellerive, Rosny and Montagu Bay. If a fast ferry service from Bellerive to Hobart is established, an important element of the success of that ferry service will be if people can park their cars nearby.

Park-and-ride facilities need to provide a carparking area that can support free and secure all-day parking. It should incorporate bicycle parking also and ideally should be well located to provide links to an existing cycle path network when that is available. It should also be co-located with other services such as shopping areas, or if this is not feasible, then rezoning could be considered to encourage the establishment of shopping nodes in these locations in the future. This further encourages use of these facilities as people can get off the bus, buy their essentials and then easily get into their car to travel home. Design of these areas needs to be well considered, taking into account passive surveillance, lighting, and attractive spaces so people feel safe and comfortable using them.

3.1.7 Improving density to support public transport

Public transport as a financially viable service generally relies on a catchment area of 25 dwellings per hectare. This cannot be achieved in the General Residential Zone at the allowable minimum lot size as it currently stands.

This was recognised in the STRLUS, which indicated an aim of 15 dwellings per hectare for the General Residential Zone. This reduces the financial viability of any public transport service but provides a greater opportunity of it being provided in the first instance.

With Clarence's identified growth areas around the Rokeby/Droughty Point, and Pass Road, this may support the argument for greater frequency of public transport and more varied routes. At the moment in some of these areas, there are inadequate numbers of houses to justify an expansion. However, future residential expansion in these areas may see up to an additional 15,000 people.

In the existing urban footprint of Clarence, consideration could be given to increasing density to have a more immediate effect on improving the viability of public transport. The urban area of Clarence is currently dominated by General Residential zoning. This is not an uncommon pattern across Greater Hobart; however, it does highlight the limited variety in residential development patterns, as well as the relatively low density.

There is a very small section of Inner Residential land focused around Bellerive Quay. The Urban Mixed Use Zone, which provides for a mix of residential and business uses, is not used at all. Both zonings would allow for increased densities. This would assist in providing pockets of land that are of higher density to support a viable public transport network.

In master planning for areas such as Droughty Point or Pass Road, consideration must also be given to providing spaces for park-and-ride facilities, for continuing their links with cycling and walking paths, and for providing well-located supporting infrastructure such as local shops or small businesses.

3.2 Sorell Council LGA

Sorell LGA has a population of approximately 14,648 people according to Department of Treasury and Finance statistics from June 2017⁹. However, the area is experiencing the strongest growth of all councils across Tasmania, increasing by 1.8 per cent per year. The township of Sorell is a major satellite area as identified through the STRLUS, with Midway Point being a minor satellite area. However, in subsequent planning documents, such as the Hobart City Deal, Sorell has not been considered as part of Greater Hobart. Not being considered part of Greater Hobart limits Sorell's involvement in decision-making about the broader Hobart region. The LGA is located to the north of the Tasman LGA, south of Glamorgan Spring Bay Council area, and east of the Clarence LGA.

Sorell as a township has grown from a small farming settlement in 1808, becoming an official township in 1821. It became the granary that fed the fledgling colonial Hobart, and after 40 years of growth a Council was established in 1862. Construction on the Sorell Causeway was finished in 1872, opening up the district even further to the broader region.

It was well positioned on the transport route from Hobart down the Tasman, and up the East Coast (see Figure 3 below), and its positioning even today is still critical for access to those areas. While not

⁹ <https://www.treasury.tas.gov.au/Documents/Regional-Population-Growth.pdf>

completely reliant on tourist traffic, the impact of the increasing tourism numbers is being felt in the LGA with an increase in short-stay accommodation, tourism ventures, and more businesses such as eateries and galleries to service this market.



Figure 3: Spatial extent of the Sorell LGA (Source: www.maps.thelist.tas.gov.au)

Sorell as a township is relatively compact. As a broader area along with Midway Point, which is a well-established residential area, and the Southern Beaches settlements of Dodges Ferry, Primrose Sands, Lewisham and Carlton Beach, the population is growing year on year. More distant areas such as Dunalley, Copping, Boomer Bay and Bream Creek are also seeing growth, but this is less pronounced.

The spatial pattern of land use includes residential settlements such as Sorell and Midway Point, with low density residential areas located around the outskirts of Sorell itself and on the Southern Beaches. Rural living areas are also located on the outskirts of Sorell and the Southern Beaches as well as at Penna and Orielton.

Between settlement areas are extensive areas of rural and agricultural land, with these industries increasing in their economic importance to the LGA and region due to South-East Irrigation Scheme. In addition, there is the continual development of aquaculture industries recognising the excellent

access to the coastline, with numerous oyster farms and abalone farms established and settlements such as Dunalley becoming well known for its excellent seafood.

Parts of the LGA are fully serviced with reticulated infrastructure in the settlements of Sorell itself and Midway Point. Beyond these areas, there are no or limited reticulated services. The area of the Southern Beaches, which was historically considered a shack settlement, has a greater permanent population today, but continues without reticulated sewerage or stormwater. During times of heavy rainfall, this can result in significant environmental issues, as stormwater can flood old septic tanks resulting in sewage leaching into the waterways.

Historically, this has meant that Council has tried to limit development in this area by limiting subdivisions and multiple dwelling development, not only as a response to the environmental risks associated with the lack of reticulated services, but also as a response to the already under-pressure road infrastructure.

However, with the Southern Beaches area offering an appealing lifestyle and affordable housing, otherwise vacant lots are now being developed for permanent dwellings.

3.2.1 Sorell Strategic Planning

In 2016, the Sorell Council engaged Echelon Planning to undertake a strategic analysis of the Sorell LGA, particularly in relation to land supply and appropriate areas for growth. This analysis came some six years after the STRLUS. While it refers to this strategy, it also highlights some inadequacies of the strategy in relation to Sorell's changing circumstance.

Specifically, Echelon identifies that the STRLUS does not anticipate the rate of growth that has occurred in the LGA, nor does it anticipate the lack of uptake of higher density infill areas in other parts of the Greater Hobart area. In the case of Sorell and other outlying LGAs such as Brighton and Huon Valley, this has resulted in more housing in these outskirts with more people travelling into the city for work.

Echelon based their analysis on 1.2 per cent yearly growth, with forward projections to 2036 of 1.32 per cent taking the total population in 2036 to approximately 18,653 people.

Their analysis of residential land supply found that density in Sorell is lower than elsewhere, resulting in 10 dwellings per hectare for General Residential Zone¹⁰, six dwellings per hectare for the Low Density Residential Zone, and one dwelling per hectare for the Rural Living Zone. Considering there is an average of 2.4 people per dwelling, then it was considered that for the next 20 years a further 1,800 dwellings would be required, equating to 90 dwellings per year. In addition, because of the number of holiday homes that are located in Sorell, they have allowed for an additional 10 per cent of dwellings to be built each year to accommodate those that visit only sporadically. This takes the total housing requirement to 99 new dwellings per year.

From there, consideration was given to the amount of land that was available for residential subdivision, and at the rate of growth predicted, for greenfield development (which is the predominant development type in the LGA). There was only adequate supply for eight years, or a shortfall of some

¹⁰ This density pattern has emerged historically however it is necessary to consider a higher density for the General Residential areas more akin to 15-20 dwellings per hectare to better support public transport and the provision of infrastructure.

833 lots. For infill development, there was more supply – out to 32 years; however, this could be constrained by multiple ownership, by location of buildings and access to land.

For industrial land, it was acknowledged that there were only 4,500m² of light industrial land where lots are 1,000m² or larger. There remain four other smaller industrial land lots but no large expanses of area that could be developed. This amounts to industrial land supply of less than one year.

Commercial land has greater supply, with adequate commercial land in Sorell for the next 20 years. However, in the smaller settlements there was very limited commercial land available, limiting the ability of those settlements to be able to provide basic level services such as local shops, basic medical services or other requirements.

This analysis went on to further identify areas that are suitable for rezoning to allow for:

- Greater General Residential land, both in terms of land to be rezoned to General Residential, and land to be rezoned to Particular Purpose Future Urban, to be set aside for future growth;
- Areas identified for Light Industrial land;
- Providing for facilitative provisions within the existing planning scheme for industries located in agricultural areas, to support the increased establishment of agricultural, horticultural and viticulture industries; and
- Providing for commercial expansion, not necessarily in the Sorell area given the adequate supply, but more in the Southern Beaches area to provide for nodes of local business activity.

These reports were endorsed by Council in early 2017. Since then, one parcel of residential land has been successfully rezoned through the Tasmanian Planning Commission (Forcett Street, Option R13 referred to in the Echelon report) due to an amendment to the STRLUS being declared; however, no further changes have occurred.

3.2.2 Future Growth

While the Echelon report identifies a rate of growth of 1.2 per cent, current figures suggest higher than this at 1.8 per cent. In the year 2015-2016, 137 dwellings were approved by Sorell Council, with only 11 multiple dwellings. In comparison, in 2017-2018, 215 dwellings were approved with 63 multiple dwellings. The LGA is experiencing a strong rate of growth, despite infrastructure constraints, lack of employment opportunities, and distance from key commercial centres. A key factor is likely to be affordability.

Most of the land supply is in the Sorell township area, consistent with the STRLUS. Sorell has a number of subdivisions that are at various stages of implementation. At 37 Pawleena Road, 254 lots have been approved and are being constructed. At 20 Arthur Highway Sorell there is the potential for a further 70 lots, and 2582 Tasman Highway Sorell a further 70 lots, although neither of these have been applied for at this stage. The property at 2 Forcett Street that has recently been rezoned to General Residential could accommodate a further 50 lots, although again this has not been applied for. Some General Residential lots are now being developed for units, which will result in a higher density than has traditionally been seen and a better utilisation of land. There may also be some opportunities to provide for infill developments on individual lots in the area.

However, beyond this, there is land to the north, and north west and east which provides further greenfield opportunities, as well as some rural living land in relatively close proximity that offers further infill opportunities.

Midway Point still has some 122 lots approved at 166 Penna Road; 195-227 Penna Road, with almost 15ha of residential land, has the potential for 250 lots (not yet applied for); and 310 Penna Road has potentially 100 lots (not yet applied for). However, after these are developed it is not expected any more greenfield land will become available in this area. There is limited opportunity for infill development, which is further restricted to the General Residential zoned land and likely to attract unit development or similar on larger lots. These types of developments are becoming more common. While they are a type of development not ordinarily seen in the LGA, there are many benefits in terms of better use of serviced land, as well as providing a higher density of development for services such as public transport.

Southern Beaches remains the hot spot further residential development, through the development of existing freehold lots. Many lots in the area are not developed or are under developed (with perhaps a shed on the site and an area for a caravan). Without in-depth analysis, the exact number of lots available is difficult to quantify.

3.2.3 Travel Patterns

The current travel patterns of residents of the Sorell LGA strongly indicate reliance on Clarence and Hobart to meet their employment and social infrastructure needs.

The data demonstrates that in Sorell there are 5,735 employed residents¹¹ but only 2,378 jobs. Of these jobs, 1,734 are filled by residents of the LGA, leaving 1,359 residents accessing jobs in Clarence and 1,710 residents accessing jobs in Hobart. This paints an interesting picture. Firstly, of the jobs provided in Sorell, 72 per cent are filled by local residents. Anecdotally there is a strong sense of community and a desire for people to work where they live. However, with inadequate employment opportunities, potentially in type as well as number, 52 per cent of workers work in Clarence or Hobart, using the Tasman Highway corridor to do so.

In addition to traffic generated by accessing employment, community engagement has indicated that during the school holiday period, congestion issues on the Tasman Highway corridor are almost non-existent and reliable travel times prevail. Anecdotal evidence suggests that 55 per cent of local school children travel beyond Sorell for their education. The vast majority of these students are driven to and from their school by a parent or guardian, increasing pressure on the transport corridor, particularly during term time, and during the peak periods when workers are trying to get to jobs elsewhere.

3.2.4 Implications of Future Growth

For the Sorell LGA, numerous impacts could arise from future growth particularly without significant investment in infrastructure.

It is widely accepted that the transport corridor currently experiences unacceptable levels of congestion and poor travel time reliability. The area also has significant limitations in the provision of

¹¹ Community Travel Patterns on the Tasman Highway between Sorell and Hobart and Domain Highway, Department of State Growth, August 2017.

reticulated infrastructure such as water, sewerage and stormwater. Whilst this is most obvious in areas such as the Southern Beaches, there are also capacity limitations at Sorell and Midway Point. The Midway Point wastewater treatment plant, in particular, sits between two water courses, Pittwater Lagoon and Orielton Lagoon, both of which are in a RAMSAR wetland. For disposal of treated effluent into these areas, any outflow by TasWater must be of an acceptable quality to not only protect the significant environmental values, but also the oyster industry that exists in these areas.

Conversely, however, is the argument that this area offers affordable housing and a lifestyle desired by many.

3.2.5 Land Use Planning Implications

The Echelon report has highlighted a number of recommendations and locations to be master planned to address some of the land use planning deficiencies that are hampering the LGA from becoming more self-sustaining. While the provision of more residential land is one issue, the more pressing concern is the ability to provide for greater work opportunities in the region through the provision of additional employment lands.

The Council should continue to push with the Tasmanian Planning Commission for the implementation of these recommendations, particularly for an increase in industrial land through planning scheme amendments. This process will test the degree to which any updates to the STRLUS to achieve additional industrial land are required.

The Council has received enquiries over the last 12 months for the establishment of storage units, as an example, but identified that there was no land available that was appropriately zoned. More industrial land in this area could see the establishment of marine industrial businesses to support the aquaculture businesses in the area, as well as local service and processing industries to support the surrounding agricultural lands.

There is ample General Business land available in Sorell, but to date this has not been used to its greatest extent. The Council remains pro-development and encouraging of proposals; however, there has not been an adequate quantum shift in the establishment of businesses to see a change. The Tasmanian Government has announced the establishment of the South East Region Emergency Services hub, to house Ambulance Tasmania, Tasmania Fire Service, Tasmania Police and the State Emergency Service close to the Council chambers. Apart from recognising Sorell's critical location between the east coast and the Tasman Peninsula, this will provide a substantial boost for the local economy.

As has been identified in the Echelon report, the communities in the Southern Beaches have limited opportunities for commercial and business development. Land should be rezoned in these areas to allow for further local business opportunities, not only as a way of people working in their community, but also to improve the service provision to the community, so that people can walk to their local shop or hairdresser, instead of being forced to drive to Sorell or beyond.

Access to social infrastructure such as good schools, sporting facilities such as pools, tennis courts and sporting ovals, childcare facilities, medical facilities and a range of shops also assists people to remain in their community and LGA.

Sorell in many respects is poorly serviced in this regard. Sorell has Pembroke Park, which includes netball courts and two sporting ovals. There is, however, no public pool in the LGA, and while there are a number of private gyms, there are no facilities such as tennis courts, squash courts or similar.

There are fewer than 10 childcare facilities in the LGA (although there may be more family day care centres) and given that almost 25 per cent of the population is under 18, this appears to be grossly inadequate. Similarly, there are two primary schools in the area, Dunalley and Dodges Ferry, and a third combined primary through to grade 12 school at Sorell itself. There is also a kindergarten at Midway Point. The Sorell School has recently received over \$20 million in funding to undertake a substantial redevelopment, recognising its importance in the region. Currently, the school is not necessarily well supported by the broader community, with 55 per cent of students travelling outside the LGA for education.

Identification of a site for a Catholic or other independent school in the LGA is considered important. Council has had initial discussions with one Catholic school provider, but these negotiations did not result in them establishing in the area. For any future strategic planning, such an area of land needs to be identified and set aside for that opportunity in the future. Likewise, close consideration of changing demographics and rates of growth must continue, so that areas that are growing quickly have the services they need. While schools can often be approved in a range of zonings, including residential zonings, the issue becomes more about setting aside that land for future use. If land is not identified early and set aside accordingly, it is likely to be used for residential development or similar, leaving no alternatives for good strategic planning.

3.2.6 Zoning

The recommendations in the Echelon report provide a sound zoning approach specific to Sorell for encouraging a more sustainable community into the future. However, this particular report does not consider the region more broadly and may be superseded once a full and proper review and update of the STRLUS is undertaken. That said, the Particular Purpose Zone, Future Urban should be used further to set aside land for redevelopment. Future industrial land should be zoned as such, even if currently there exist limitations on capacity of services. This signals to the market an intention for the future use of this land, which may in turn encourage greater investment through development contributions to establish a viable business on the site.

Other subtler issues exist with the application of zones and the allowable uses. There has been much discussion through the community feedback process about providing park-and-ride facilities as a way to facilitate more people using public transport. Park-and-ride facilities can be either classified as Vehicle Parking or Transport Depot and Distribution if co-located with a bus terminal, under the Use classification. Both of these uses are discretionary (subject to Council approval but could be approved) in the General Business Zone, as an example, but prohibited in the General Residential, Low Density and Rural Living zones. While park-and-ride facilities should always be co-located with basic services such as local shops, they may need to be located in General Residential areas, as their purpose is to provide a safe place to park for the local residents to then use public transport. This needs to be re-considered, and if concerns are held regarding the unintended consequences of a change, the use could be qualified in the use table to restrict it to park-and-ride facilities (such as restricting it to being located adjacent to a public transport node).

Currently the Sorell Council does not utilise the Inner Residential Zone. This is in part due to the policies in the STRLUS. However, with the changing nature of the area, and the increasing number of unit applications being considered by the Council (68 approved in the year 2017-2018 compared to 16 approved in the year 2016-2017), consideration should be given to allowing a higher density in restricted areas immediately surrounding the business area of Sorell. The benefits of this are not only in relation to providing for more housing but also better use of land and potentially greater support of things like public transport.

3.2.7 Other Solutions

Similarly to Clarence, public transport as a solution must be considered. Currently Sorell suffers from a very poor bus service, with buses running hourly during peak periods, and with the last bus leaving the city to get to Sorell at 5.20 pm. In addition, the bus service, run by a private company which is not subsidised by the Government, charges over \$7 each way for a bus ride from Midway Point, and over \$12 each way for a bus ride from Dodges Ferry. This of itself is a significant disincentive for people to use public transport, quite apart from the limitations of the timetable.

In addition, community feedback has indicated that the buses that do run are often full, and in the instance of school buses (bearing in mind that over half of the students in Sorell travel beyond their LGA for education), many of these buses get caught in the congestion through the transport corridor, resulting in students arriving at their schools late.

The Government has committed to doubling the number of buses in peak periods. It is unclear what the final pricing structure will be. This initiative is to be commended and is a critical element in solving the transport congestion through the corridor. It does, however, require the support of other initiatives, such as priority bus lanes if achievable, and marketing of the park-and-ride facilities that are available (for example, there is a park-and-ride facility in Sorell that is rarely used) as well as considering where more facilities can be provided.

Given the dispersed nature of residential areas in the Sorell LGA, providing for park-and-ride facilities will be critical as it enables a bus service to widen its catchment without changing its bus route. While it is unlikely to be feasible to run regular bus services to areas such as Orielton or Pawleena due simply to the lower number of dwellings, people who live there could still use public transport if they had somewhere safe to leave their car, a reliable service from Sorell and then an opportunity to use local shopping facilities before their journey home.

Significant infrastructure upgrades on the transport corridor are unlikely to be in place for some years. However, the congestion and poor travel time reliability is occurring now. A solution to this problem is required as a matter of urgency, which suggests better public transport as a starting point is a sound approach.

Public transport at this stage is the most cost-effective and efficient solution to reducing the impacts of this congestion. Specifically, if more school students could catch a bus, this could result in a noticeable improvement on the roads. The implementation of the improved bus timetable must continue to be monitored and as a system should remain agile enough to change to meet the market demand.

3.2.8 Improving Density to Support Public Transport

Sorell LGA is dispersed with very low densities. While Midway Point and Sorell township are fairly standard residential areas, they still have a lower density than similar areas in other parts of Greater Hobart. This may reflect market demand; however, it may also reflect the lack of demand historically for housing in this area. The changing real estate market is seeing higher density units being constructed and with good take-up, particularly in the over-55 market. Providing for pockets of well-located inner residential areas, as well as zoning areas for Particular Purpose – Future Urban may start to see a higher density of development over the long term. On the outskirts of Sorell at the moment, there are large tracts of low density and rural living land, which is poor use of land. If these areas could be set aside for future urban, they could be strategically planned for a density of housing that is more capable of supporting public transport.

Further, if there was an ability to resolve the environmental concerns in relation to the provision of reticulated services to the Southern Beaches area, this is also an area that would benefit from higher density to support public transport. While this area is growing with more permanent residents, at the moment there are simply not enough people to warrant a more regular bus service.

3.3 How do buses become attractive?

For a bus service to be supported and viable, there are a number of key considerations:

- The service must be regular and frequent enough to enable the community to go about their daily lives without structuring their activities around a bus timetable.
- It has to be cost effective for the user, so that there is a financial benefit in catching the bus as opposed to driving and paying for parking.
- It should be more time efficient than other modes through the provision of express buses, of bus priority lanes where possible, and also IT systems such as lights that stay green when they detect a bus approaching them. This enables buses to have priority over cars.
- It should have good amenity through clean and comfortable buses, but also a sense of safety through the provision of adequate support infrastructure such as park-and-ride facilities and robust bus shelters coupled with good lighting around these areas.

Fundamentally, for a bus to be an attractive proposition there must be a clear benefit to the individual using the bus over a private vehicle. Some of these factors can be provided for now, such as an improved service in terms of regularity, being more cost effective, with good supporting infrastructure. However, the provision of a bus priority lane, for example, is not a quick or easy solution.

4. Recommendations

4.1 Overview

The relationship between land use and the provision of infrastructure is a critical one. When one is planned without the other, we often see scenarios where the infrastructure provided does not match population growth, or on rare occasions, where considerable investment occurs in infrastructure without the commitment from the community to support it.

The Sorell LGA in particular has grown at a rate that exceeds the provision all types of infrastructure, from reticulated services and road infrastructure to social infrastructure. In addition, the strategic planning system has not been dynamic enough to keep pace with the rate of change.

There has been a position of government that due to the cost implications, providing further road and reticulated services infrastructure to these areas is not viable, and encouraging a higher density living model for the inner urban areas is a more sustainable and viable approach.

This is not disputed. However, to date there has been a slow uptake of infill housing in inner urban areas and it is often the subject of community opposition. In addition, for lifestyle reasons such as proximity to beaches and rural areas, there has continued to be a push to live in outlying areas of Greater Hobart. Without any changes to land use zonings, this has resulted in continual development pressure in both LGAs, highlighting the infrastructure deficiencies.

The following land use planning recommendations should be considered for implementation to assist in reducing congestion on the road network. These have been informed through research, and in response to some of the community input during the consultation process.

While Clarence is a community much less reliant on other areas, Sorell must become more self-sustaining to reduce its reliance on other LGAs more broadly. It is acknowledged that some of these recommendations will require changes to the Southern Tasmanian Regional Land Use Strategy. However, it is well accepted that the strategy is overdue for review, and it can be clearly shown that there are discrepancies between how the Strategy refers to Sorell and the actual pattern of development in this area.

4.2 Clarence City Council

Recommendations for land use planning relevant to Clarence are as follows:

1. Work with Clarence City Council to identify possible park-and-ride sites in the LGA. An appropriate funding model will need to be considered to facilitate the implementation of this recommendation. These sites should be co-located with shops and other facilities, and in close proximity to major public transport trunk routes. Parking should be free for commuters and well designed for security and safety.

2. The State Government should take leadership in implementing park-and-ride facilities by acquiring land and establishing these facilities. While this involves an initial funding commitment, it is likely this will remain a more affordable option than undertaking the level of infrastructure upgrades that may be necessary to resolve the traffic congestion; it is also a more sustainable, long-term solution to continual growth in the South East region.
3. Work with Clarence City Council to encourage more Inner Residential and Urban Mixed Use zoned land to provide for greater residential densities around transport routes.
4. Work with Clarence City Council and Metro Tasmania to investigate further the implementation of a ferry service across the Derwent River. While a ferry service is currently being considered through a separate study, Clarence City Council and the State Government should take the opportunity to provide for secure bike parking near any proposed ferry terminal to encourage cycling to the ferry terminal as an alternative means of transport. It is also recommended that any ferry solution include the ability for the transport of bikes to ensure its attractiveness to that sector of the market.
5. Prior to the release of any more residential land, Metro Tasmania is encouraged to continue dialogue with Clarence City Council and vice versa to ensure any new residential areas can be appropriately serviced with public transport.

4.3 Sorell Council

Recommendations for land use planning relevant to Sorell are as follows:

1. Support the Sorell Council in its applications to rezone sections of land in appropriate proximity to Sorell township to Light Industrial to provide greater work opportunities in the LGA.
2. Consider Inner Residential or Urban Mixed Use living in close proximity to the shopping district of Sorell to increase the densities of this area to support efficient public transport.
3. Work with the Sorell Council to identify park and-ride facilities in key nodes in the LGA. One facility exists in Sorell and should be better promoted by Council, so the community is aware of it; this should coincide with the new bus timetable commencing in January 2019. Extra facilities are required in Midway Point and are likely to be required in areas such as Dodges Ferry or even Forcett. Given the zoning of these areas, a rezoning to allow for vehicle parking may be necessary.
4. The State Government should take leadership in implementing park and ride facilities by acquiring land and establishing these facilities. While this involves an initial funding commitment, it is likely this will remain a more affordable option than undertaking the level of infrastructure upgrades that may be necessary to resolve the traffic congestion. It is also a more sustainable, long-term solution to continual growth in the South East region. In Sorell, in particular, this is time critical, so it should be progressed as an immediate priority given the time it takes to rezone land.

5. Support Sorell Council to implement their strategic plan for the township of Sorell, in particular, recognising that the LGA is not providing adequate residential land to accommodate future growth. If the land identified is not considered appropriate for expansion (for example because it is split in two by the Sorell Bypass), then work with Council to identify alternative sites or attempt to accommodate good links between residential areas despite the location of a major trunk route.
6. Encourage Sorell Council to identify an appropriate site to be rezoned to Community Purpose for the establishment of a second independent or Catholic school in the area. This site should be of adequate size to provide a school with all its built infrastructure and recreation requirements in one place, but also provide room to co-locate a childcare facility on site.
7. Consider the funding of improved recreation facilities co-located at Pembroke Park, where funding has already been committed for a redevelopment plan. It is understood the redevelopment is already considering an RV park, along with improved sporting facilities beyond the netball courts and football oval. Possible facilities could include a 25m indoor pool, which could be jointly funded and run by the Council, the local school and the State Government. This would provide a facility for people to have swimming lessons, enabling them to stay in the area, and be an additional selling point for the school.
8. Consider rezoning small parcels of land in Carlton, Lewisham and Primrose Sands, to Local Business or Village to provide for more local shopping nodes to support the growing community.
9. Continue the dialogue with TasWater about implementing reticulated services in the Southern Beaches area, as well as upgrading infrastructure in Sorell and Midway Point.
10. Provide funding to Sorell Council to develop an open space and recreation strategic plan to identify where open space should be provided, but also areas where cycle paths could be implemented to encourage active transport. This should build on the work Sorell Council has already done on cycle paths around Sorell and Midway Point but should focus on safe and well-considered links, as well as opportunities for Public Open Space contributions that can be taken when subdivisions are occurring.

More generally, State Growth should support the ongoing recognition of Sorell and Midway Point as part of Greater Hobart area to enable the infrastructure challenges and patterns in Sorell to be responded to and considered at a Greater Hobart regional level. This should be reflected in any subsequent Regional Land Use Strategy as well as with any other planning opportunities such as the City Deal.

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TRAFFIC IMPACT ASSESSMENT

PROPOSED LAND USE REZONING FOR RESIDENTIAL DEVELOPMENT

**5 ARTHUR HIGHWAY
SORELL**

FEBRUARY 2020

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REFERENCES:

- Australian Standard AS 1742.2-2009 – Manual of uniform traffic control devices Part 2: Traffic control devices for general use
- AUSTROADS – Guide to Road Safety Part 6: Road Safety Audit (2009)
- Road Traffic Authority NSW – Guide to Traffic Generating Developments, 2002
- Road and Maritime Services (Transport) - Guide to Traffic Generating Developments; Updated traffic surveys (August 2013)
- AUSTROADS – Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings (2019)
- AUSTROADS – Guide to Traffic Management Part 9: Traffic Operations (2019)
- AUSTROADS – Guide to Traffic Management Part 12: Traffic Impacts of Developments (2019)
- AUSTROADS – Guide to Road Design Part 3: Geometric Design
- AUSTROADS – Guide to Road Design Part 4A: Unsignalised and Signalised Intersections
- AUSTROADS – Guide to Road Design Part 4B: Roundabouts
- Department of State Growth publication: *A Framework for Undertaking Traffic Impact Assessments (2007)*
- Sorell Interim Planning Scheme 2015

1. INTRODUCTION

A planning scheme amendment is proposed for the land at 5 Arthur Highway plus an adjacent lot in Sorell to rezone the land to general residential.

This Traffic Impact Assessment (TIA) has been prepared in support of the proposed rezoning application and to address the traffic implications and impact of the land being developed with residential lots.

The TIA report describes the existing road and traffic characteristics along the Arthur Highway, in the area adjacent to the land.

An assessment is made of the traffic activity that the rezoning of the land could be expected to generate and the effect that this traffic will have on the Arthur Highway and other affected roads as well as their intersections.

This report is based on the Department of State Growth publication: *A Framework for Undertaking Traffic Impact Assessments*, with regard also given to Austroads – Guide to Traffic Management Part 12.

The techniques used in the investigation and assessment incorporate best practice road safety and traffic management principles.

2. SITE DESCRIPTION

The site of the land to be rezoned is bounded by the Arthur Highway on the northern side, the Sorell Rivulet on the western side and southern side, and the Arthur Highway by-pass corridor along the eastern side.

The land use immediately to the west of the Sorell Rivulet is zoned general residential/open space/general business. To the east, on the other side of the Arthur Highway by-pass corridor, it is zoned rural resource.

The two parcels of land under consideration in this report (**the development site**), to be rezoned to general residential is currently zoned 'particular purpose'.

The location of the development site has been highlighted on the extract from the street atlas for this area, seen in Figure 2.1.

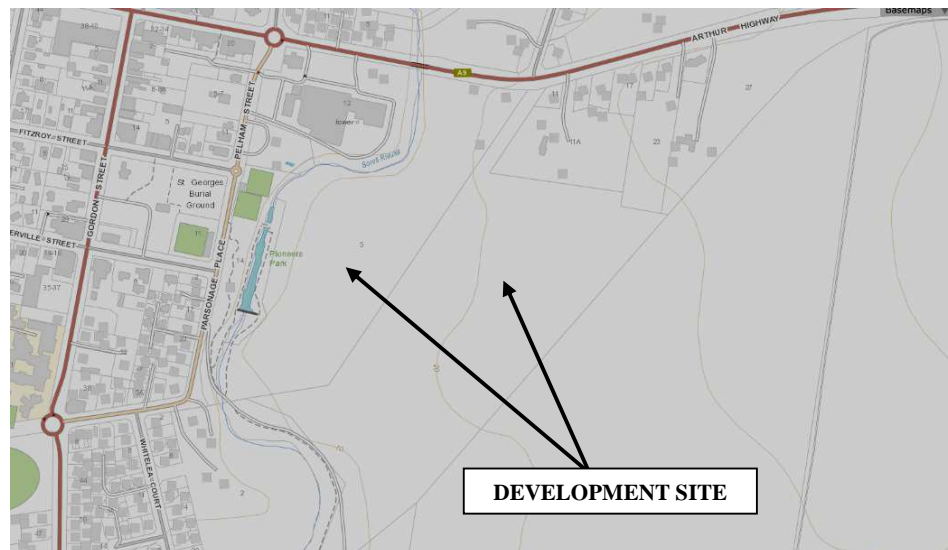


Figure 2.1: Extract of street atlas showing location of land to be rezoned

3. POTENTIAL DEVELOPMENT OF REZONED LAND

The planning scheme amendment for the development site will result in it being rezoned to general residential, allowing the land to be subdivided into residential lots.

The title of the two parcels of land in the development site are CT 16027/1 and CT 8740/1. The area of each parcel of land is 7.522ha and 12.58ha, a total area of 20.102ha, with 4.14ha not available for development.

The area of the development site that could be subdivided into residential lots is 15.962ha.

The Sorell Planning Scheme allows a minimum lot size of 450m², or 400m² for lots:

- *Lots adjoining or opposite public open space, or*
- *Lots within 400m of a public transport corridor, or*
- *Lots within 200m walking distance of a business zone, local shop or school.*

If the 15.962ha area of the development site was subdivided into as 450m² residential lots and with 30% of the area of the development site allowed for roads, the maximum potential lot yield would be 248 lots.

The Arthur Highway is a public transport corridor and it is around 500m (as a straight line) from the furthest possible lot on the development site. This could allow for possibly half the lots to be 400m² in area, which would result in the maximum potential lot yield of 263 lots.

Experience with assessments of subdivision developments has found the area of many lots in any subdivision design are regularly larger than the minimum permitted area. A previous subdivision design for the two parcels of land in the development site proposed 166 lots.

Having regard to the above, it considered reasonable to assume a maximum lot yield of 250 lots for the purpose of this traffic assessment.

The development site currently has road frontage access to the Arthur Highway. The masterplan in the *Sorell Land Supply Strategy 2019 Update* recommends additional road connections to the west, across the Sorell Rivulet, which will be subject to the Sorell Council procuring future funding for the construction of such road/bridge links.

For the purpose of this assessment, all future traffic generated by the development site will be assumed to have access only to the Arthur Highway.

4. EXISTING ROAD AND TRAFFIC ENVIRONMENT

4.1 Road Characteristics

The Arthur Highway, which passes along the northern boundary of the development site, has an east-west alignment with a slightly curved alignment to the left on an upgrade of around 6% to the east.

The Arthur Highway is a two lane two way road with each traffic lane having a width of 3.0m to 3.2m between the barrier line markings and edge line markings.

There is a sealed shoulder along the northern side of the highway, each side of the Pawleena Road junction, which is around 1.0m to 2.0m wide. Along the southern side of the highway through the Pawleena Road junction, the sealed shoulder (or parking lane) is up to 4.7m wide to the face of the kerb.

The speed limit along this section of the Arthur Highway is 60km/h.

Views along the Arthur Highway are seen in Photographs 4.1 and 4.2.



Photograph 4.1: View to west along Arthur Highway with Pawleena Road junction on right and development site on left



Photograph 4.5: View to east along Arthur Highway with Pawleena Road junction on left and development site on right

4.2 Traffic Activity

Arthur Highway

Enquiries with DSG into the availability of traffic data for the Arthur Highway found that there is record of an automatic counter survey that was undertaken on the highway in June 2019 at a point around 280m west of Nugent Road, which is between the Nugent Road and Pawleena Road junctions.

The data recorded at the survey station in early June 2019 show the following:

Average Weekday Traffic	-	13,894 vehicles/day
Morning Peak Hour Traffic (7-8am)	-	264 vehicles to east
	-	870 vehicles to west
Afternoon Peak Hour Traffic (4-5pm)	-	894 vehicles to east
	-	401 vehicles to west

The hourly traffic distribution for the Average Week Day during June 2019 for each direction of travel and total two way traffic is shown graphically in Figure 4.1. The graphs display clear commuter traffic peaks for both the morning and afternoon period for each direction of travel. Around 7.1% of the traffic was commercial traffic.

On Saturdays and Sundays during the survey period, the two way peak hour traffic volume, which occurred between 11:00am-12:00noon and 12:00noon-1:00pm, was similar to the weekday afternoon peak hour but with traffic volumes more equal in both directions.

The hourly traffic distribution on the Saturday and Sunday during June 2019 for each direction of travel and total two way traffic is shown graphically in Figures 4.2 and 4.3.

The seasonal variations in the traffic volumes on the Arthur Highway have been identified as fitting Seasonal Group G04. The traffic volume on the Arthur Highway to the west of Pawleena Road has increased at a compound rate of around 2.8% p.a. over the last 20 years.

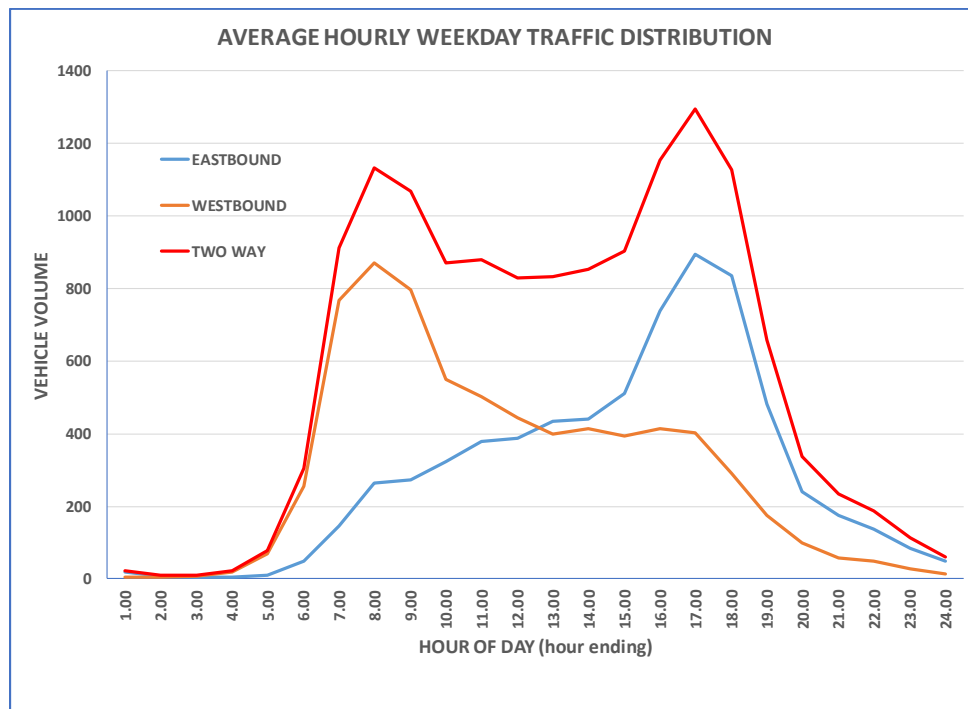


Figure 4.1: Average hourly weekday traffic volumes along Arthur Highway between Pawleena Road and Nugent Road

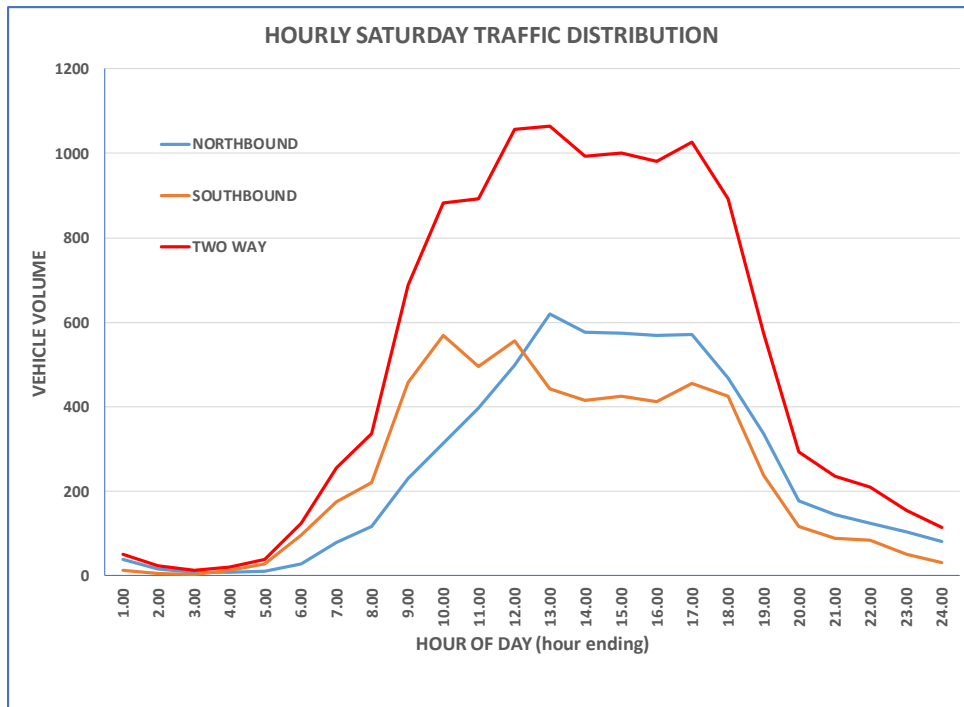


Figure 4.2: Average hourly Saturday traffic volumes along Arthur Highway between Pawleena Road and Nugent Road

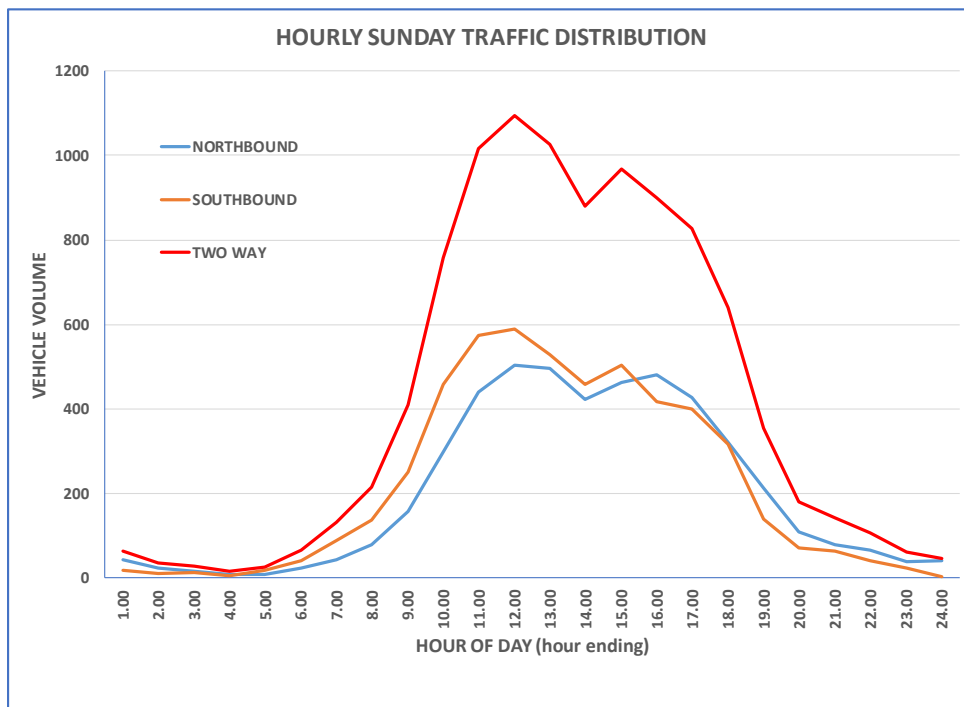


Figure 4.3: Average hourly Sunday traffic volumes along Arthur Highway between Pawleena Road and Nugent Road

Turning Traffic Volumes at Arthur Highway/Pawleena Road

While the above traffic data provides detail of the traffic volumes using the Arthur Highway in the area of the development site, in order to have knowledge of turning traffic activity at the junction of Pawleena Road with the Arthur Highway, reference is also made to peak hour turning movement surveys, which were undertaken at the junction by this consultant on 3 July and 4 July 2019.

The surveys were undertaken during the 7:30am - 8:30am period and during the 4:30pm - 5:30pm period and the results from the surveys have been summarised in Figures 4.4 to 4.5.

The Arthur Highway traffic volumes recorded during the turning movement surveys were around 150 vehicles/hour less than the DSG automatic counter volumes for the morning peak hour but the same for the afternoon peak hour.

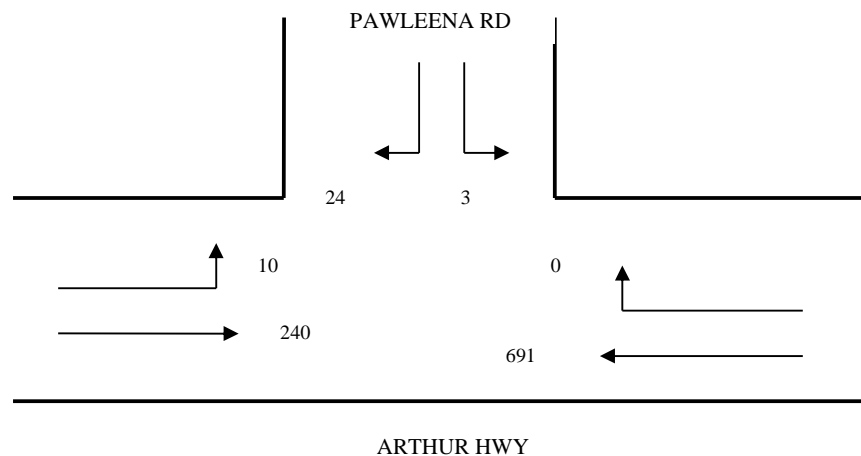


Figure 4.4: Turning traffic volumes at junction of Arthur Highway/Pawleena Road - 7:30am to 8:30am July 2019

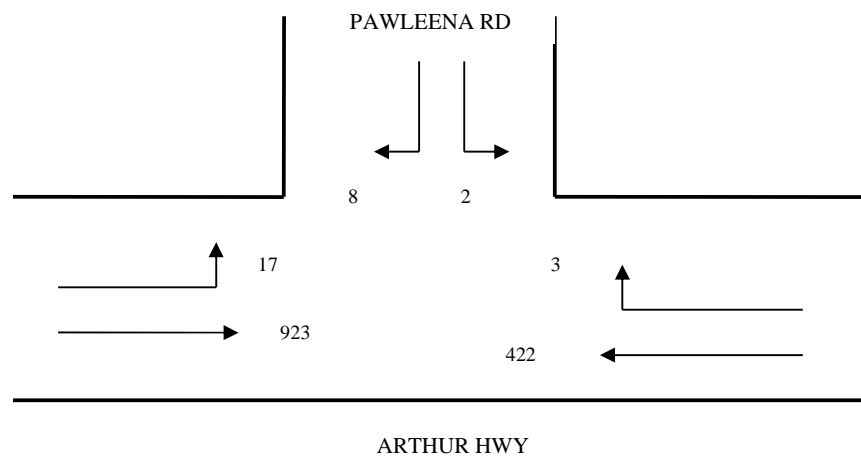


Figure 4.5: Turning traffic volumes at junction of Arthur Highway/Pawleena Road - 4:30pm to 5:30pm July 2019

4.3 Crash Record

All crashes that result in personal injury are required to be reported to Tasmania Police. Tasmania Police record all crashes that they attend. Any crashes that result in property damage only, which are reported to Tasmania Police, are also recorded even though they may not visit the site.

Details of reported crashes are collated and recorded on a computerised database that is maintained by DSG.

Information was requested from DSG about any reported crashes over the last five and a half years, since January 2014, along the Arthur Highway between Nugent Road junction and Pawleena Road junction.

Along the Arthur Highway there have been two reported crashes between the junctions over the above period. Both were property damage only incidents.

At the Pawleena Road junction, there have been three crashes; two angle collisions in 2015 resulting in property damage only, and one angle collision in 2018 which resulted in minor injury.

There is no concern with the crash record from the viewpoint of the future traffic impact of the proposed rezoning application.

5. TRAFFIC GENERATION BY THE DEVELOPMENT

As outlined in Section 3 of this report, with the rezoning of development site, the future subdivision of the land could result in the construction of up to 250 residential lots.

In considering the traffic activity that each lot will generate when occupied, guidance is normally sought from the New South Wales, Road Traffic Authority document – Guide to Traffic Generating Developments. The RTA guide is a nationally well accepted document that provides advice on trip generation rates and vehicle parking requirements for new developments.

The updated 'Technical Direction' to the Guide dated August 2013 advises that the trip generation for residential dwellings in regional areas of New South Wales is 7.4 trips/dwelling/day.

This is consistent with findings by this consultant for dwellings in Tasmania. Surveys in the built-up areas of Tasmania over a number of years have found that typically the trip generation rate for residential dwellings is 8.0 trips/dwelling/day.

Residential units will typically generate less traffic, depending on the size of the unit. Larger residential units will generate around 6 trip/unit/day and smaller unit will generate around 4 trips/unit/day.

Based on these trip generation rates, it will be assumed the single dwelling lots will generate 8 vehicles/day.

Morning peak hour traffic survey findings in Sorell a few years ago suggested that, based on a 10% peak hour to daily traffic volume ratio, traffic generation rate for dwellings in Weston Hill Road was 6.7 trips/dwelling/day, for Devenish Drive it was around 5.0 trips/dwelling/day. These figures suggest that the traffic generation rate is somewhat lower in Sorell than the 8 trips/dwelling/day measured for the Hobart metropolitan area.

Notwithstanding this, it has been assumed that a trip generation rate of 8.0 vehicles/lot/day will apply to the proposed development.

On this basis a 250 lot residential subdivision, when fully developed and occupied, can be expected to generate 2,000 vehicles/day and around 200 vehicles/hour during peak hour periods, based on the peak hour traffic being 10% of the daily traffic volume.

6. TRAFFIC ASSESSMENT AND IMPACT

This section of the report considers the impact of traffic which is expected to be generated by the proposed rezoning application on the existing road network.

Discussion is also provided on the required intersection arrangements and intersection designs at the subdivision access road connections with existing roads.

6.1 Road Network Considerations

In recent times, DSG announced that concept layout designs have been prepared for the eastern Arthur Highway by-pass of Sorell along with other highway improvements through Midway Point and towards the Hobart Airport intersection with the designs available for public comment.

Discussions with DSG over the last few months revealed the construction of the highway by-pass would proceed in the next few years. This advice was subsequently changed to there being no set commitment to the construction of the by-pass.

Another consideration for this TIA report is that there are currently two active planning permits to subdivide the land along Pawleena Road to create some 340 residential lots. Construction works are expected to commence very shortly on Stage 1 of one of the subdivision developments which will include 25 residential lots off Pawleena Road.

Based on the same traffic generation rate as applied to this subdivision (see Section 5 of this report) those subdivision developments are likely to generate some 272 vehicles/hour during peak hour periods via both Pawleena Road and Nugent Road.

In view of the above uncertainty about the construction of the Arthur Highway by-pass, DSG has requested for previous TIA assessments (in last six months), the TIA report provide advice about the expected future traffic generation and junction treatments which assume the subdivision under consideration proceeds and with the following scenario:

- a) the Arthur Highway by-pass is not completed, and the 340 lot residential development (referred to above) does not proceed;
- b) the Arthur Highway by-pass is not completed, and the 340 lot residential development does proceed;
- c) the Arthur Highway by-pass is completed, but the 340 lot residential development does not proceed; and
- d) the Arthur Highway by-pass is completed, and the 340 lot residential development does proceed.

The development site currently has frontage access only to the Arthur Highway. Therefore, it has been assumed that all traffic generated by a 250 lot subdivision of the land will access the road network via a subdivisional road that junctions with the Arthur Highway.

6.2 Operational Impact of Increased Traffic Activity

This operational impact assessment has been undertaken of the traffic that the 250 lot subdivision will generate at the subdivisional road junction with the Arthur Highway.

The assessment addresses the future impact of the subdivision developments with some regard to the DSG request. It is not appropriate to include scenario (a) and (c) in the assessment because, as outlined above, works on the first stage of the larger subdivision along Pawleena road is about to commence and further staged development is expected to continue.

The junction 'operational and capacity' traffic assessments that have been undertaken for the Arthur Highway are discussed below.

While the full completion and occupancy of the subdivisions referred to in this report are likely to take more than 10 years, the assessment and operational analysis has assumed all lots will be occupied by February 2030.

The expected future junction turning traffic volumes and traffic assignments have been based on the following:

- a directional split in the traffic exiting and entering the subdivisions will be 70/30 in the morning peak hour and 35/65 in the afternoon peak hour respectively;
- the Arthur Highway peak hour traffic volumes are based on DSG surveyed data from June 2019, as detailed in Section 4.2 of this report, with an increase of 53% to allow for the seasonal variation and the highest traffic month of the year (February) plus a 2.8% annual compound growth for the next 10 years; and
- a 1% p.a. compound growth in traffic volume along Pawleena Road from other development further to the north of the above two approved subdivisions along this road.

The conflicting traffic volume at the Arthur Highway/subdivisional road junction will be quite high in February 2030 for any scenario. Intersections and junctions reach capacity when the total conflicting approach traffic volumes are around 1,500 vehicles/hour.

In order to assess the future operational efficiency of the Arthur Highway/Pawleena Road junction, a SIDRA analysis of the junction performance was undertaken.

SIDRA is a nationally recognised intersection computer modelling tool that is known as Traffic **S**ignalised and Unsignalised **I**ntersection **D**esign and **R**esearch **A**id.

In using the SIDRA program and interpreting the output results there is a need to understand the package in terms of the analysis process and the basis of reporting the outputs which can vary depending on the chosen parameters. Of particular relevance is the presentation of the Level of Service outputs that range from Level of Service A to F and the basis on which the Level of Service is determined.

For the purpose of this assessment the Level of Service based on the **Delay** and **Degree of Saturation** performance measures has been applied in the SIDRA analysis. A Level of Service (LoS) up to Level D is generally regarded as quite acceptable.

Level of Service for $v/c \leq 1.0$	Average delay per vehicle in seconds (d)			Level of Service for $v/c > 1.0$
	Signals	"SIDRA Roundabout LOS" method (1)	Sign Control (Default for roundabouts) (1)	All Intersection Types
A	$d \leq 10$	$d \leq 10$	$d \leq 10$	F
B	$10 < d \leq 20$	$10 < d \leq 20$	$10 < d \leq 15$	F
C	$20 < d \leq 35$	$20 < d \leq 35$	$15 < d \leq 25$	F
D	$35 < d \leq 55$	$35 < d \leq 50$	$25 < d \leq 35$	F
E	$55 < d \leq 80$	$50 < d \leq 70$	$35 < d \leq 50$	F
F	$80 < d$	$70 < d$	$50 < d$	F

v/c (demand volume / capacity) ratio, or degree of saturation: $v/c > 1.0$ represents oversaturated conditions. Level of Service Target = LOS D is indicated by the table.

Table 6.1: Extract from SIDRA User Guide

1. Arthur Highway/subdivisional road junction with full completion of 250 lot subdivision, 55 lots along Pawleena Road and no by-pass - February 2030 with Sign Control

The peak hour turning traffic volumes at the Arthur Highway/subdivisional road junction in February 2030 are expected to be as shown in Figures 6.1 and 6.2.

The junction layout in the SIDRA analysis has allowed for a one lane approach on subdivisional road (two stand up lane not supported by Austroads as they create safety issues) and a channelised right turn lane on the Arthur Highway.

The analysis has found the junction will operate at:

- an unacceptable LoS F in the morning peak hour;
- an unacceptable LoS F in the afternoon peak hour;

- average delays of up to 74 – 90 seconds for right turn traffic from the subdivisional road.

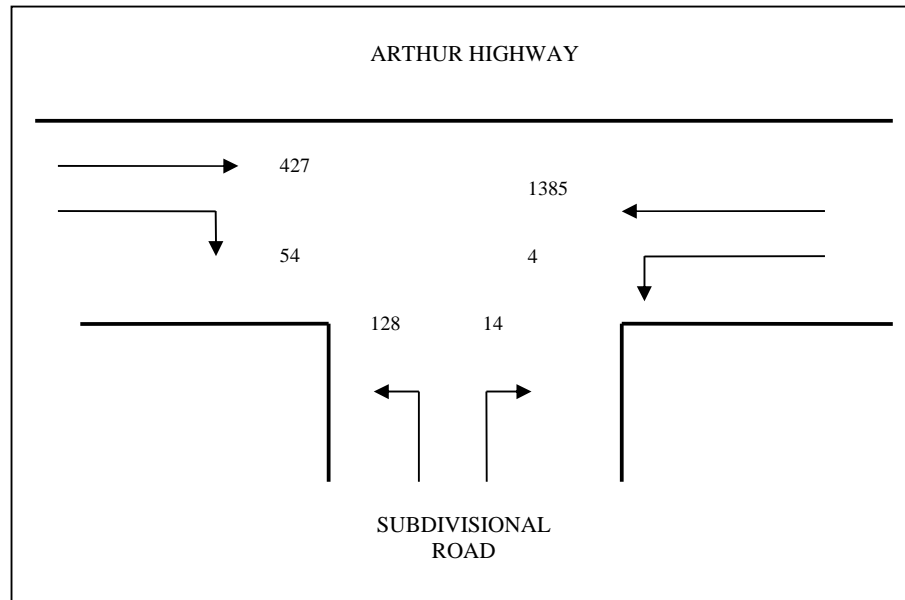


Figure 6.1: Expected morning peak hour traffic at Arthur Highway/subdivisional road junction - February 2030 including traffic from 55 lots in Pawleena Road subdivisions and no by-pass

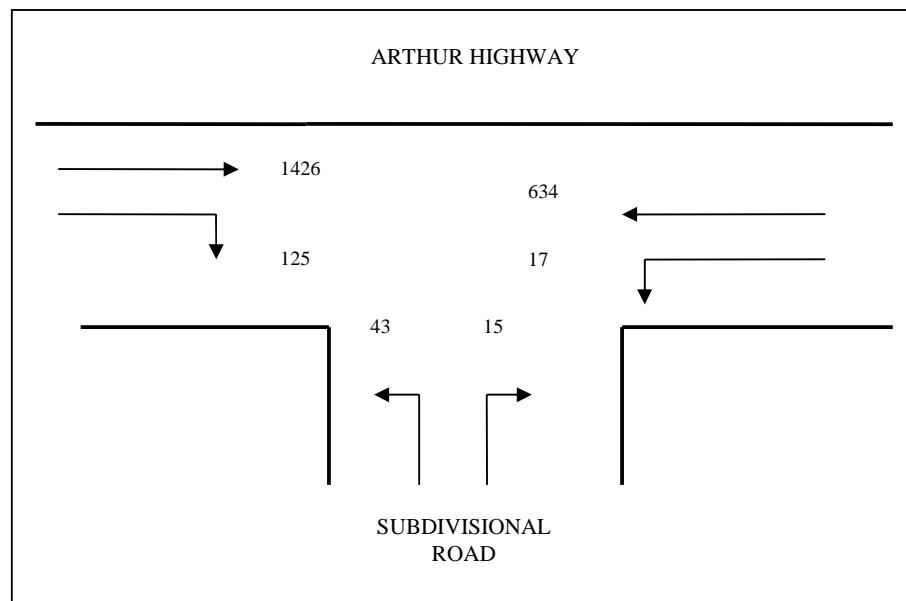


Figure 6.2: Expected afternoon peak hour traffic at Arthur Highway/subdivisional road junction - February 2030 including traffic from 55 lots in Pawleena Road subdivisions and no by-pass

2. Arthur Highway/subdivisional road junction with full completion of HALF of 250 lot subdivision, 55 lots along Pawleena Road and no by-pass - February 2025 with Sign Control

The same junction layout and management as above has been applied to the SIDRA analysis.

The analysis has found the junction will operate at:

- an acceptable LoS C in the morning peak hour;
- an acceptable LoS D in the afternoon peak hour;
- average delays of around 25 -34 seconds for right turn traffic from the subdivisional road.

3. Arthur Highway/subdivisional road junction with full completion of HALF of 250 lot subdivision, 55 lots along Pawleena Road and no by-pass - February 2030 with Sign Control

The same junction layout and management as above has been applied to the SIDRA analysis.

The analysis has found the junction will operate at:

- an acceptable LoS E in the morning peak hour;
- an acceptable LoS F in the afternoon peak hour;
- average delays of around 47 -72 seconds for right turn traffic from the subdivisional road.

4. Arthur Highway/subdivisional road junction with full completion of 250 lot subdivision, 340 lots along Pawleena Road and with by-pass - February 2030 with Sign Control

The peak hour traffic volumes at the Arthur Highway/subdivisional road junction in February 2030 for this scenario are expected to be as shown in Figures 6.3 and 6.4.

These traffic volumes are based on the above dot points on Page 15 plus the following:

- allowance for 62% of westbound traffic on the Arthur Highway during the morning peak hour, 45% of eastbound traffic on the Arthur Highway during the morning peak hour and 45% traffic in both directions on the Arthur Highway during the afternoon peak hour to use the Arthur Highway by-pass;
- these percentage splits in the highway traffic are based on findings from peak hour surveys of the traffic volume turning in each direction

between Cole Street and Pelham Street (expected to give a reasonable estimate of through traffic that will by-pass the Sorell town centre).

The junction layout for the SIDRA analysis has again allowed for a one lane approach in Pawleena Road (two stand up lane not supported by Austroads as they create safety issues), and a channelised right turn lane on the Arthur Highway.

The analysis of the morning and afternoon peak hour has found the junction will operate efficiently in 2030 with:

- an acceptable LoS A in the morning peak hour;
- an acceptable LoS C in the afternoon peak hour;
- average delays of around 9 -18 seconds for right turn traffic from the subdivisional road.

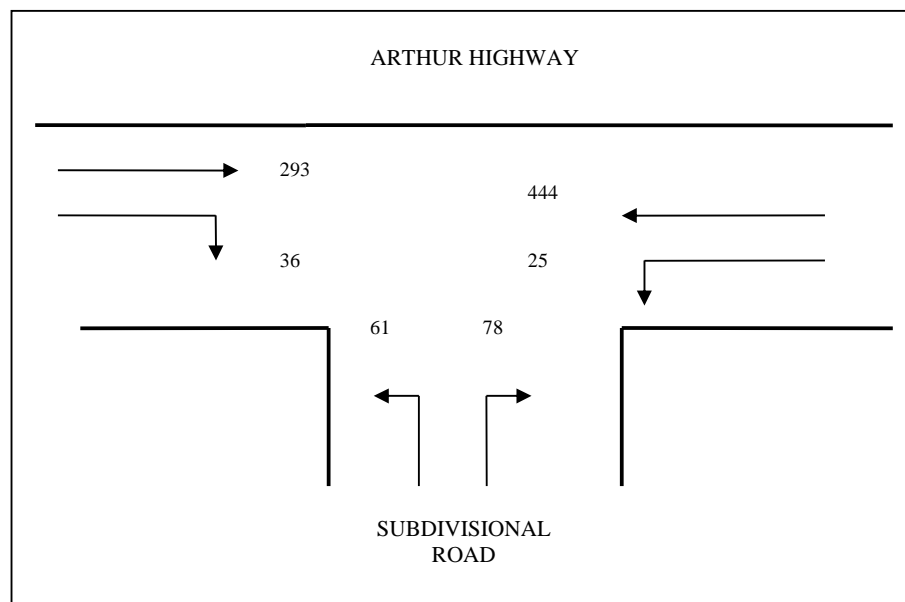


Figure 6.3: Expected morning peak hour traffic at Arthur Highway/subdivisional road junction - February 2030 including traffic from 340 lots in Pawleena Road subdivisions with by-pass

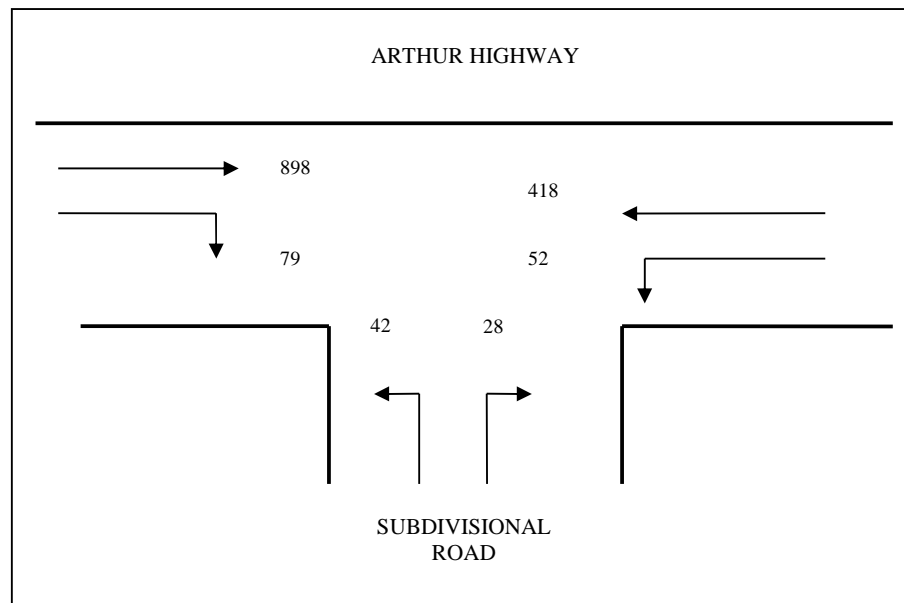


Figure 6.4: Expected afternoon peak hour traffic at Arthur Highway/subdivisional road junction - February 2030 including traffic from 340 lots in Pawleena Road subdivisions with by-pass

Overview of Analysis

It is clear the Arthur Highway/subdivisional road junction with the installation of a channelised right turn lane on the highway will operate efficiently to just beyond the next five years with 125 lots on the development site with dwellings. However, with the same 125 lot development, it will not operate efficiently in ten years' time without the Arthur Highway by-pass.

The construction of the Arthur Highway by-pass will have the biggest impact on ensuring the long term efficient operation of road junctions on the Arthur Highway between Nugent Road and the town centre.

A do nothing option or the simple installation of channelised turn lanes on the highway will result in the Arthur Highway/subdivisional road junction operating well for the next 5-6 years, but the analysis of the impact of the Pawleena Road subdivisions (as detailed in the TIA reports for the two subdivisions) found the Pawleena Road/Arthur Highway junction will be operating at LoS E to F within three years if there are 50 occupied dwellings in either of the two subdivisions, which have been discussed above.

The installation of the roundabout control at the Pawleena Road/Arthur Highway/subdivisional road intersection will extend the efficient operation of the junction for a number of years, allowing for some 100-120 occupied dwellings in the subdivisions off Pawleena Road and 125 lots on the development site (opposite Pawleena Road). It will result in some queueing on the highway - around 200m queue for the peak directional movements.

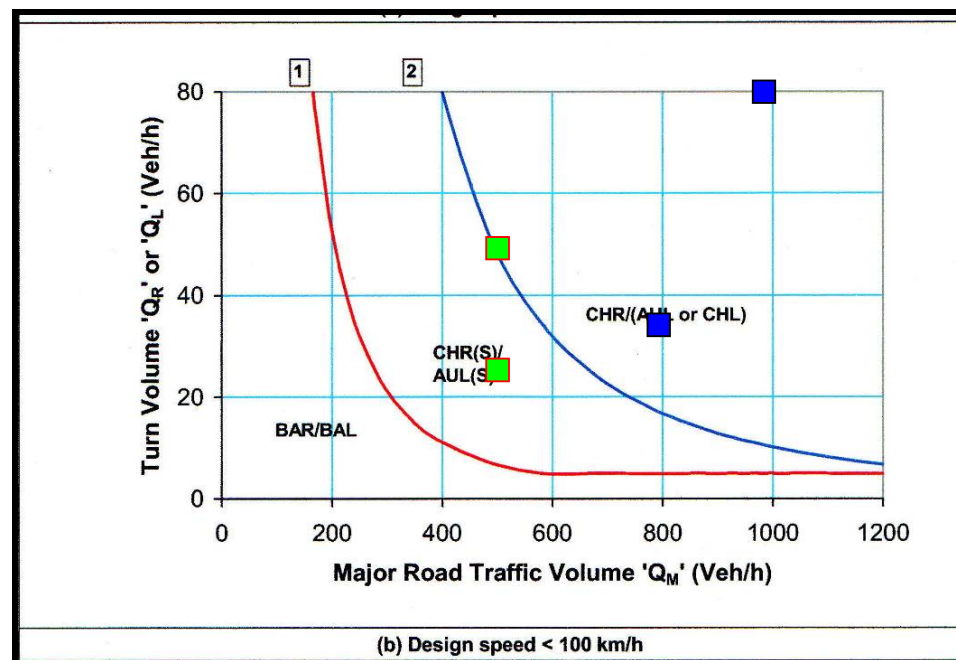
More than this number of dwellings will result in the roundabout operation moving into LoS E to F.

Without a commitment to the construction of the Arthur Highway by-pass in the next 2-3 years, it was recommended in the 2019 TIA report that the state government commit to the construction of a roundabout control at the Pawleena Road/Arthur Highway junction.

6.3 Traffic management of Junction of Subdivisional Road with Arthur Highway

As well as the consideration of the adequacy of the operational efficiency and available sight distances, the other safety assessment is the required junction layout and in particular the need to provide passing or auxiliary lanes.

In order to determine whether there may be a need for such treatment with the expected future level of traffic activity, consideration has been given to the advice in the Austroads Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections. Reference is made to Figure 6.5 below which is an extract from the guide that gives advice on the turn lane requirements at road intersections and junctions.



■ RIGHT TURN FROM ARTHUR HWY ■ LEFT TURN FROM ARTHUR HWY

Figure 6.5: Warrant for turn treatment at sign controlled junction of Arthur Highway/subdivisional road - traffic from all three subdivisions

Based on Figure 6.5, it can be seen that there is a need to construct a CHR right turn lane as well as an AUL left turn lane on the Arthur Highway based on expected traffic volumes with traffic from the development site, both subdivisions and with the by-pass.

The AUL left turn lane is not required without the Arthur Highway by-pass.

Closeness of Arthur Highway/Pawleena Road and Arthur Highway/Subdivisional Road junctions

The development site has a frontage to the Arthur Highway, which is around 130m in length, between the bridge over the Sorell Rivulet at the western end and the Pawleena Road junction at the eastern end.

The required management for the Arthur Highway/subdivisional road junction with the full development and occupancy of the development site has been considered in the previous subsection of this report.

As a standard T-junction, the Arthur Highway/subdivisional road junction will require a CHR right turn lane on the Arthur Highway. The junction will also need to be clear of the influence of turning traffic at the Arthur Highway/Pawleena Road junction.

To provide for these requirements within the available length of the Arthur Highway, the subdivisional road junction with the Arthur Highway should be located around 45m to the west of Pawleena Road – measured between centreline to centreline of the two side roads.

The subdivisional road junction could also be installed directly opposite Pawleena Road, but such a cross intersection will need to be controlled by a roundabout.

A roundabout control at this intersection will extend the efficient operation of traffic at the intersection for a number of years (to around 2027) with up to 110 lots developed along Pawleena road and 125 lots in the development site (opposite Pawleena Road), beyond what the current highway traffic management would otherwise allow. However, it will not operate efficiently with the same subdivision development to the end of the decade.

The creation of the four leg intersection with roundabout control is also the preferred form of management for this area into the future, beyond the construction of Arthur Highway by-pass, as it would better manage the resultant traffic conflict and function as the entry control point to the town centre.

The installation of the above CHR and AUL turn lane measures is not recommended at either junction in the short term, if a roundabout will be installed at the junction; the cost is not justifiable.

6.4 Sight Distances at Arthur Highway/Subdivisional Road Junction

Consideration has been given to the adequacy of the sight distances along the Arthur Highway at the subdivisional road junction as a conventional T-junction.

Views to the east and west along the Arthur Highway for motorists exiting Pawleena Road are seen in Photographs 6.1 and 6.2 while the view to the east and the west from a vehicle turning right into the subdivisional road (views from current through lane) is seen in Photographs 6.3 and 6.4.

The available sight distances for a vehicle exiting the subdivisional road are over 200m to the west and nearly 200m to the east if there is no obstructing vehicle in the eastbound lane, otherwise around 130m clear view. For a vehicle turning right into the subdivisional road (positioned in a right turning lane located in the current westbound through lane) the available sight distances are around the same to the west and at least around 128m to the east clear of the front of the vehicle in Pawleena Road waiting to enter the Arthur Highway.

With the 60km/h speed limit applying through this area, the sight distances to and from the west are more than adequate. In order to establish that the available sight distances to the east are adequate for the speed environment, a survey of approach vehicle speeds from the east was undertaken last year using a radar speed gun.

This survey has found the 85th percentile speed of traffic to be around 60km/h. The required minimum safe intersection sight distances for this speed is 128m to the east allowing for grade correction. The available sight distances in both directions will therefore be quite sufficient.



Photograph 6.1: View to east along Arthur Highway from subdivisional road junction



**Photograph 6.2: View to west along Arthur Highway
from subdivisinal road junction**



**Photograph 6.3: View to east along Arthur Highway from through
lane at vehicle turning right into subdivisinal road**



Photograph 6.4: View to west along Arthur Highway from rear of vehicle turning right into subdivisional road

6.5 Road Network Considerations

The masterplan in the *Sorell Land Supply Strategy 2019 Update* (the Strategy) recommends a network of roads to service the development of land in the Sorell area around the ‘eastern corridor (Arthur Highway by-pass) which includes the development site under consideration.

It identifies the subdivisional road link to the Arthur Highway, opposite Pawleena Road as well as a link across the Sorell Rivulet to link with Fitzroy Street.

The connection of the subdivisional road through development site to the Arthur Highway/Pawleena Road intersection is suggested as an ‘opportunity to create a new roundabout access at Pawleena Road’.

In regard to the Fitzroy Street link, the Strategy suggests a road connection via an underpass of the Arthur Highway by-pass will provide local traffic within the development site and to the east of the Arthur Highway by-pass corridor to travel with an important route to the town centre. The road link would preferably connect to Fitzroy Street via a new bridge across the Sorell Rivulet, but if this cannot be achieved in the short term, a new roundabout at the Arthur Road/Pawleena Road intersection will provide access to the town centre.

One of the big failures with subdivision planning in Tasmania has been the lack of road hierarchy planning and in most cases collector and arterial roads develop by default from local roads as traffic volumes increase.

An approach taken in considering the appropriate location and form of the collector road structure is:

- One major collector road for a study area should be adequate for future traffic needs;
- The collector roads should provide good connectivity to the network of local resident streets in the precincts;
- The alignment should be such that it provides a fairly direct and attractive route for residents travelling between the arterial, collector roads and the local streets;
- Where possible the collector road should utilise existing roads;
- Changes to residential amenity should be kept to a minimum.

It is considered inevitable that the subdivisional road for the development site will be constructed to connect to the Arthur Highway before any road connection across the Sorell Rivulet.

Once the Arthur Highway by-pass is constructed, it is expected State Government will be seeking to hand over responsibility of the section of controlled Arthur Highway between the roundabout at the eastern end of the bypass and Gordon Street to the Sorell Council.

The Tasman Highway will continue through Sorell via Gordon Street and Cole Street as a major collector road.

Cole Street and its eastward connection to Nugent Road intersection and the Arthur Highway (by-pass) will also function as a major collector road for the town.

The construction of a new road between the development site and Fitzroy Street is proposed by the Strategy as an important route to the town centre. However, this road will be only one street block to the south of Cole Street connecting to Fitzroy Street which has a minor local access and circulation street function.

It is considered Cole Street should provide the direct collector connection to the town centre but for regional and local traffic as it passes through the main commercial area of the town, rather than a Fitzroy Street connection.

Forcett Street and Parsonage Place - Pelham Street currently function as a collector road, by-passing the main commercial areas of the town. With the construction of the Arthur highway by-pass, the traffic volumes along this route will reduce.

However, with the current collector road function of Forcett Street and the existing major roundabout control at the Forcett Street/Gordon Street intersection, it is proposed that Forcett Street be extended eastward across the Sorell Rivulet to pass through the development site and beyond under the Arthur Highway by-pass. Such a road connection across the rivulet would be a council responsibility.

This would result in the two east-west arterial road some 500m apart, with the roads between able to function as local streets.

Such a road network, with the additional road connection to the land that is east of the Arthur Highway by-pass from the eastern roundabout on the by-pass, is considered sufficient to provide for any traffic demand which likely to be generated by rezoning and development of this land in the future

7. SUMMARY AND CONCLUSIONS

This Traffic Impact Assessment has been prepared to detail the traffic effects from planning scheme amendment to rezone the land that would allow residential development on the land at 5 Arthur Highway plus an adjacent lot in Sorell.

An assessment of the current road and traffic environment in the area has not identified any major concerns with the traffic operation or safety with the affected roads or road junctions including the Arthur Highway and junctions of Pawleena Road and Nugent Road with the highway.

The Arthur Highway in 2019 June carried 13,894 vehicles/day. Around 7.1% of the Arthur Highway traffic was commercial traffic and the highway traffic has increased at a compound rate of around 2.8% p.a. over the last 20 years.

Over the last five and a half years since January 2014 there have been two reported crashes along the Arthur Highway between Nugent Road junction and Pawleena Road junction. There have also been the three crashes at the Pawleena Road junction.

There is no concern with this crash record from the viewpoint of the future traffic impact from the proposed development.

It has been estimated that the rezoning of the development site could result in the construction of up to 250 residential lots which, when fully developed and occupied, can be expected to generate 2,000 vehicles/day and around 200 vehicles/hour during peak hour periods,

The development site currently has frontage access only to the Arthur Highway. Therefore, it has been assumed that all traffic generated by the development will access the road network via a subdivisional road that junctions with the Arthur Highway.

The construction of the eastern Arthur Highway by-pass will have the biggest impact on ensuring the long term efficient operation of road junctions on the Arthur Highway between Nugent Road and the town centre

After initial indication the Arthur Highway by-pass would be constructed in the next three years, there now is no set commitment to this road link.

In addition, there is currently are approved developments to subdivide land along Pawleena Road to create some 340 residential lots. This developments when fully completed is expected to generate some 280 vehicles/hour during peak hour periods via both Pawleena Road and Nugent Road. Works on a first stage of one subdivision are expected to commence very shortly.

This report has therefore assessed the future operational traffic impacts of traffic generated by the 250 lot subdivision at 5 Arthur Highway and adjacent land with allowance for traffic generated by some or all of the 340 lots from

the Pawleena Road subdivisions on the immediate road network without and with the completed Arthur Highway by-pass.

Although all of the subdivisions likely to take up to 20 years to be fully completed, the assessment and operational analysis has assumed the lots will be occupied by February 2030.

Capacity analysis of the Pawleena Road/subdivisional road junction Allowing for development of 125 lots, with the installation of a channelised right turn lane on the highway will operate efficiently beyond the next five years. However, it will not operate efficiently in ten years' time with the 125 lots and without the Arthur Highway by-pass.

Analysis of the impact of traffic from the Pawleena Road subdivisions found the Pawleena Road/Arthur Highway junction will be operating at LoS E to F within three years if there are just 50 occupied dwelling in either of the two subdivisions.

The installation of the roundabout control at the Pawleena Road/Arthur Highway/subdivisional road intersection will extend the efficient operation of the junction for a number of years, allowing for some 100-120 occupied dwellings in the subdivisions off Pawleena Road and 125 lots on the development site (opposite Pawleena Road). It will result in some queueing on the highway - around 200m queue for the peak directional movements.

Additional development of the residential lots will result in the roundabout operation moving into LoS E-F.

Without a commitment to the construction of the by-pass in the next 2-3 years, it is recommended the state government commit to the construction of a roundabout control at this junction.

The roundabout control at this junction will also operate efficiently with the by-pass and assist in the management of traffic well into the future.

Consideration has been given to the adequacy of the sight distances along the Arthur Highway at the subdivisional road junction. All sight distances will be quite sufficient.

MEMO

To: John Molnar, Senior Planner, Sorell Council
From: Caroline Lindus, Principal Planner
Date: 20 July 2020
Re: Land Supply and Demand

1. BACKGROUND

There have been a number of land supply and demand studies for the Sorell municipal area over the last five years. This includes the Sorell Land Supply Strategy prepared by Echelon (which has been updated once), the Sorell to Hobart Planning Study, as well as internal assessments based on subdivision and development figures. What these studies have shown is that the municipality of Sorell is experiencing a population growth rate greater than previous expectations.

In 2017 Echelon based their strategic land supply analysis on a 1.2% yearly growth rate with forward projections to 2036 of 1.32%, resulting in a total population of 18,653 by 2036. taking the total population in 2036 to approximately 18,653 people. The Department of Treasury and Finance's 2019 population projections found however that Sorell grew at 3% in the growth period June 2017 – June 2018, taking the total population in June 2018 to 15,218: a mere 3,435 below the Echelon estimated population for 2036 (18 years into the future). At 3% growth rates, the population for the Sorell municipal area in 2036 would be 25,908. At a more conservative growth rate of 1.5% in the year 2036 the projected population is 20,563.

2. Demand

Based on 3% growth rate - which currently represents the most up-to-date growth data available - and in using the average dwelling occupancy of 2.4%¹, a further 1692 dwelling will be required by the year 2025. By year 2036, a further 4,778 dwellings will be required. In the financial year 2018-2019 a total of 372 dwellings were constructed. By year 2025 that still represents 1,320 dwellings requiring construction (i.e. within the next 5 years).

Taking the more conservative growth rate of 1.5% - being half the growth rate that currently exists - this represents 846 dwellings by 2025, which still represents a further 474 dwellings in addition to the 372 built during the 2018-2019 financial year.

In addition, parts of the Sorell municipal area are used for holiday home purposes. This requires a percentage of additional dwellings to be built for seasonal use. Taking a conservative estimate of 10%² of total dwellings being used as holiday houses, 222 dwellings are required in the year 2019 – 2020 at the 3% growth rate (bearing in mind 202 dwellings are required to be built in that year to meet the demand requirement of 3% growth). This will increase year on year.

¹ At the 2016 Census, the ABS recorded on average 2.4 people per household.

² At the 2016 Census, the ABS recorded 18.8% of dwellings are unoccupied.

3. Land Supply

To determine the available supply of land, consideration is given to the amount of vacant and undeveloped General Residential zoned land, and Low Density Residential zoned land. It is acknowledged that there are tracts of Rural Living zoned land that is not developed to capacity as well as Rural Resource land, some of which is used for residential purposes. These are often in different ownership and are often already subdivided in a manner that does not necessarily allow for efficient re-subdivision. In addition, in smaller settlements such as Dunally and Copping the amount of housing and development opportunity in these areas is limited and not considered significant enough to warrant inclusion within the analysis.

Subdivisions within the townships of Sorell and Midway Point that are still being developed with housing include Tarbook Court, Whitelea Court, and 166 Penna Road. Many of these parcels of land have had titles issued and have already been sold with plans lodged for housing development. To that end, those parcels have not been included in this analysis, in part as in some instances those lots may be under construction for dwellings, or dwellings may have been approved which have been included in previous dwelling number calculations used as part of this analysis.

In addition, there is no land zoned Inner Residential that can result in a higher dwelling density. There are many older lots which could accommodate additional multiple dwellings and in some instances, these are being developed. However, they are generally in different ownerships, and may be constrained by the location of an existing dwelling.

Table 1 shows the anticipated lot yield of the remaining large parcels of General Residential zoned land. The lot yield has been determined as being 12 lots per 1ha, which is consistent with recently approved subdivisions in the area.

Table 1 *General Residential Zone available land*

Property Address	Land Area	Approved lots	Potential lots	Total Lots
37 Pawleena Rd, Sorell	26.850ha	254	69	323
20 Arthur Highway	4.041ha	55	0	55
2582 Tasman Hwy	4.081ha	0	50 (@ 12 lots/ha)	50
56-62 Forcett Street	4.947ha	0	59 (@ 12 lots/ha)	59
18 Parsonage Place	3.366ha	0	40 (@ 12 lots/ha)	40
Wolstenholme Drive	3.0ha	0	36 (@ 12 lots/ha)	36
195-227 Penna Road	16.104ha	0	198 lots (Current application)	198
310 Penna Rd	5.839ha	0	70 (@ 12 lots/ha)	70
Lot 200 Penna Rd	1.679ha	0	20	20
Total Lot numbers (including approved and potential)				831

Table 2 shows the Low Density Residential lots that could be available for subdivision in the southern beaches area. These lots are constrained by fragmented ownerships, lot dimensions including lack of access and limited servicing meaning that a lot size of 2000m² must be adhered to in the area.

Table 2 Low Density Residential Zoned available land

Property Address	Land Area	Approved lots	Potential lots ³	Total Lots
Nicholas Avenue, Dodges Ferry	2.026ha	0	9	9
1 Tenth Avenue	2.039ha	0	9	9
7 Neagarra Street	0.9334ha	0	8	8
14 Signal Hill Rd		24	0	24
17 Cootamundra Crt	1.37ha	0	3	3
116a Bally Park Rd	1.25ha	0	6	6
223 Carlton River Rd	3.35ha	0	14	14
26 Gate Five Rd	3.067ha	0	13	13
2d Doges Hill Rd	1.595ha	0	6	6
Ridge Rd, Dodges Ferry	0.8300ha	0	3	3
204 Carlton River Rd	2.069ha	0	9	9
176 Carlton River Rd	2.09ha	0	9	9
40 Erle Street	0.8703 ha	0	3	3
Total Lot numbers (including approved and potential)				116

This analysis shows a conservative lot yield of 947 lots. It is acknowledged that there could be additional lots that could be subdivided as single lot subdivisions, and in the General Residential zone in particular, there are opportunities for multiple dwelling developments. However, likewise, given the different ownerships of the titles, it is likely that many of these lots may not be developed further.

4. Analysis

In considering the 947 potential lots existing under the current supply scenario, and the current annual growth rate of 3% currently experienced in the Sorell municipality, there is adequate land to meet housing needs until 2023, inclusive of holiday home housing development, subject to the majority of available General Residential and Low Density Residential lots being developed. This represents land supply of 3 years.

If the conservative annual growth rate of 1.5% - for which there is no evidence of that level of slowing – is adopted, there would be adequate residential land supply until 2028.

As you are aware, best practice across jurisdictions in Australia is to maintain a rolling supply of land identified for residential purposes of between 10 to 15 years. This is in recognition of the relatively long lead time to bring land to market as lots suitable for development (the planning pipeline is generally around 4 to 5 years) and to ensure that the land

³ Given the limitations on servicing, for both potential and realised lots the minimum lot size used for this assessment 2000m².

supply is not unreasonable restricted or controlled by a limited number of landowners for affordability reasons⁴. It is therefore clear that even at a conservative growth rate estimate of 1.5% per annum, the current supply of residential land is inadequate.

5. Future Urban Zoned Land

The parcels of land to the east of Sorell zoned Future Urban are of various sizes with the two larger parcels in the one ownership. The owner is keen to subdivide and anticipates a lot yield of 210 lots. This may provide an additional year of development opportunity; however it is of note that some of that land may be developed for a Catholic school, reducing the number of lots to 170.

There is no other Future Urban Zoned land and there is not any other land which is within the Urban Growth Boundary under the Southern Tasmania Regional Land Use Strategy that can be rezoned. To that end, it is not only becoming increasingly critical to see a review of the Regional Land Use Strategy, but in the short term ensuring all Future Urban zoned land is development ready to maximise the land supply available given the development pressure.

⁴ This is a potential risk for the Greater Hobart area where the two remaining large scale greenfield precincts yet to come into the rezoning process (being the Tranmere corridor and the Granton corridor) are controlled by two land owners: the Carr family and the JAC Group (who are in the process of purchasing parcels in fragmented land ownership), noting that the JAC group are also responsible for the current roll out of residential land in the Kingston greenfield precinct around Whitewater Farm and Spring Farm.

Form No. 1

Owners' consent

Accompanying draft planning scheme amendment requests under section 33(1), including combined permit applications under section 43A of the *Land Use Planning and Approvals Act 1993*.

Requests for draft amendments or combined permit applications 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): Sorell Council

Address: 47 Cole Street

Email address: sorell.council@sorell.tas.gov.au

Contact number: 03 6269 0014

2. Site address:

Address:

5 Arthur Hwy, Sorell

Property identifier (folio of the register for all lots, PIDs, or affected lot numbers on a strata plan):

CT 16027/1 and CT 8740/1

NOTES:

a. 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.

b. 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.

c. Companies

If the land is owned by a company then consent must be signed in accordance with the *Corporations Act 2001 (Cwth)* as follows:

- i. one company director and company secretary; or
- ii. two company directors; or
- iii. if a sole director/sole shareholder who is also the sole secretary, the sole director; or,
- iv. a company with a common seal may execute a document if the seal is fixed to the document and witnessed by two directors; or one director and a company secretary, or for a proprietary company that has a sole director who is also the sole company secretary, that director.

The ABN or ACN, the names and positions of those signing the consent, and a current ASIC company extract (www.asic.gov.au) must be provided.

d. Associations

If the land is owned by an incorporated association then the document must be signed in accordance with the rules of the association by, for example being:

- i. sealed and witnessed in accordance with the association's rules; or,
- ii. signed by a person authorised in accordance with the association's rules.

The ABN, the names and positions of those signing the consent, and copy of the association's rules must be provided.

e. Council or the Crown

If the land is owned by a council or the Crown then consent must 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: 30 March 2020

ⁱ References to provisions of the *Land Use Planning and Approvals Act 1993* (the Act) are references to the former provisions of the Act as defined in Schedule 6 – Savings and transitional provisions of the *Land Use Planning and Approvals Amendment (Tasmanian Planning Scheme Act) 2015*. The former provisions apply to an interim planning scheme that was in force prior to the commencement day of the *Land Use Planning and Approvals Amendment (Tasmanian Planning Scheme Act) 2015*. The commencement day was 17 December 2015.

SEARCH OF TORRENS TITLE

VOLUME 8740	FOLIO 1
EDITION 2	DATE OF ISSUE 12-Nov-2019

SEARCH DATE : 06-Dec-2019

SEARCH TIME : 04.23 PM

DESCRIPTION OF LAND

Parish of SORELL, Land District of PEMBROKE
 Town of SORELL
 Lot 1 on Sealed Plan 8740
 Derivation : Part of 980 Acres - Gtd. to Thomas Villeneuve
 Jean & Cornelius Driscoll.
 Prior CT 3587/27

SCHEDULE 1

M787120 TRANSFER to JULFRAN PTY LTD Registered 12-Nov-2019
 at noon

SCHEDULE 2

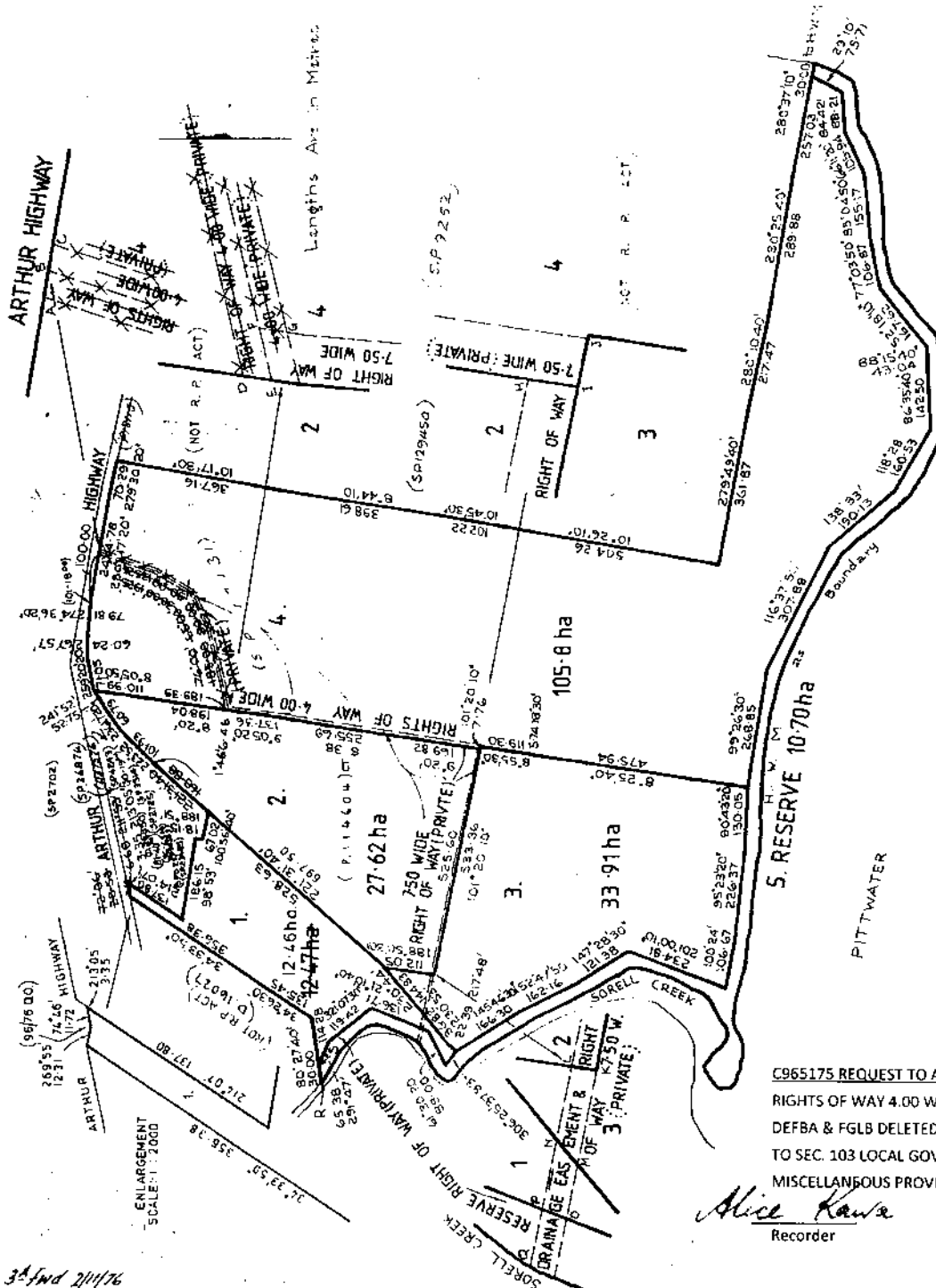
Reservations and conditions in the Crown Grant if any
 SP 8740 EASEMENTS in Schedule of Easements
 SP 8740 COUNCIL NOTIFICATION under Section 468(12) of the
 Local Government Act 1962
 SP 8740 FENCING COVENANT in Schedule of Easements
 A586751 PROCLAMATION under Section 9A and 52A of the Roads
 and Jetties Act 1935 Registered 14-Dec-1977 at noon
 M789905 MORTGAGE to Murdoch Clarke Mortgage Management
 Limited Registered 12-Nov-2019 at 12.01 PM

UNREGISTERED DEALINGS AND NOTATIONS

NOTICE: This folio is affected as to amended easements
 pursuant to Request to Amend No. C965175 made under
 Section 103 of the Local Government (Building and
 Miscellaneous Provisions) Act 1993. Search Sealed
 Plan No. 17131 & 8740 Lodged by OGILVIE JENNINGS on
 29-Nov-2010 BP: C965175

Owner: N.S. Kirby	PLAN OF SURVEY By Surveyor: M. C. GREGG of land situated in the LAND DISTRICT OF PEMBROKE PARISH OF SORELL & TOWN OF SORELL Scale 1:7500	Registered Number: S.P8740 Effective from 16 FEB 1977 P/I Recorder of Titles
Title Reference: Cons 29-5180 & 35-9142		
Grantee: Portion OF 980 acres Gtd to Thomas Villeneuve Jeari & Cornelius Driscoll		

UPA 13/12/76
MEMO 13/12/76



C965175 REQUEST TO AMEND SP
RIGHTS OF WAY 4.00 WIDE LABELLED
DEFBA & FGLB DELETED BY ME PURSUANT
TO SEC. 103 LOCAL GOVT. (BUILDING &
MISCELLANEOUS PROVISIONS) ACT 1993

Alice Kawa
Recorder

18 APR 2011
Date

30/11/76 PMF



SCHEDULE OF EASEMENTS

S.P. 8740
PLAN NO. X1877
S.P.8740

Notes:—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 shown 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 easement shown 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 easement shown on the plan is indicated by arrows.

EASEMENTS:

Each Lot in Column 'A' is :-

1. TOGETHER WITH a Right of Carriageway over the Right of Way (Private) 7.50 metres wide shown hereon passing through the Lots specified opposite thereto in Clause 'B' and
2. SUBJECT TO a Right of Carriageway over the Right of Way (Private) 7.50 metres wide passing through that Lot as appurtenant to the Lots shown hereon specified opposite thereto in Column 'C'

Column 'A'	Column 'B'	Column 'C'
1.	2,3,4 and 5	2,3 and 4
2.	⁴ 1,3/and 5	1,3 and 4
3.	1,2, 4 and 5	1, 2 and 4
4.	1, 2, 3 and 5	² 1/and 3
5.	NIL	1, 2, 3 and 4

Lots 1-4 inclusive are TOGETHER WITH a Right of Carriageway over that part of Lot 5 marked 'Right of Way' (Private P.Q.R.S.

Lot 5 is SUBJECT TO a Right of Carriageway (appurtenant to Lots 1-4 inclusive) over the Right of Way (Private) marked P.Q.R.S.

~~Lot 4 is SUBJECT TO a Right of ^{Carriage} Way (appurtenant to Lots 2 and 3) over the Rights of way (Private) Four metres wide marked D.E.F.B.A. and F.G.C.B. respectively~~

Right of Way 4.00 wide marked DEFBA hereon deleted by me pursuant to Request to Amend No. C965175 made under Section 103 of the Local Government (Building & Miscellaneous Provisions) Act 1993

18 / 4 / 2011

Alice Kawa
Recorder of Titles

Right of Way 4.00 wide marked FBCG & DEFBA hereon deleted by me pursuant to Request to Amend No. C965175 made under Section 103 of the Local Government (Building & Miscellaneous Provisions) Act 1993

18/4/ 2011

Recorder of Titles

8740

~~Lot 2 is TOGETHER WITH a Right of Carriageway over the Right of Way (Private) Four metres wide marked F.B.C.G.~~

~~Lot 2 is TOGETHER WITH a Right of Carriageway over the Right of Way (Private) Four metres wide marked D.E.F.B.A.~~

COVENANTS: The Owner of each Lot covenants with the Vendor Noel Spencer Kirby ~~Subdivider~~ that the ~~Subdivider~~ as Owner shall not be required to fence.

SIGNED by NOEL SPENCER KIRBY)
as Beneficial Owner of the)
lands comprised in Indenture)
of Conveyance 28/5180 and)
Indenture of Conveyance 35/9142)
in the presence of:

Noel Kirby
Hobart

SIGNED by LIONEL HERBERT ABBOTT)
and BOSS MAXWELL MIDDLETON)
as Attorneys for AUSTRALIA MUTUAL)
PROVIDENT SOCIETY the Mortgagee)
under Indentures of Mortgage and)
Further Charge 38/3247 and 39/2814)
respectively under Power No. 21763)
(and they severally declare that)
they have had no notice of Revocation)
of the said power)

Lionel Herbert Abbott
Hobart

Sacred
Corporate Services Manager
Middleton
Sales Manager

8740

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

BUTLER MCINTYRE & BUTLER

Subdivided for the Subdivider

NOEL SPENCER KIRBY

This is the schedule of easements attached to the plan of

(Insert Subdivider's Full Name)

FIVE LOTS

affecting land in

CONS 29-5180 & 35-9142

(Insert Title Reference)

Scaled by

Municipality of Newell

on

15 APRIL

1976

Ms. Stewart
Council Clerk/Town Clerk

SEARCH OF TORRENS TITLE

VOLUME 16027	FOLIO 1
EDITION 3	DATE OF ISSUE 21-Mar-2006

SEARCH DATE : 06-Dec-2019

SEARCH TIME : 04.23 PM

DESCRIPTION OF LAND

Town of SORELL

Lot 1 on Diagram 16027

Being the land described in Mortgage No. 23/1638

Excepting thereout Conveyance No. 45/3290 (Lot 2 on Deeds

Office Diagram No. 96/76)

Derivation : Part of 980 Acres Gtd. to T.V. Jean & Anor.

Prior CT 3887/9

SCHEDULE 1

C631099 TRANSFER to JULFRAN PTY LTD Registered 21-Mar-2006
at noon

SCHEDULE 2

Reservations and conditions in the Crown Grant if any

C697802 MORTGAGE to Commonwealth Bank of Australia

Registered 21-Mar-2006 at 12.01 PM

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

APPROVED FROM 5 MAY 2006 <i>J. Srouder</i> ACTING DEPUTY RECORDER OF TITLES	CONVERSION PLAN	REGISTERED NUMBER D.16027
FILE NUMBER Z. 1088	GRANTEE PART OF 980-0-0 GTD. TO THOMAS VILLENEURE JEAN & CORNELIUS DRISCOLL	100 24/11/17

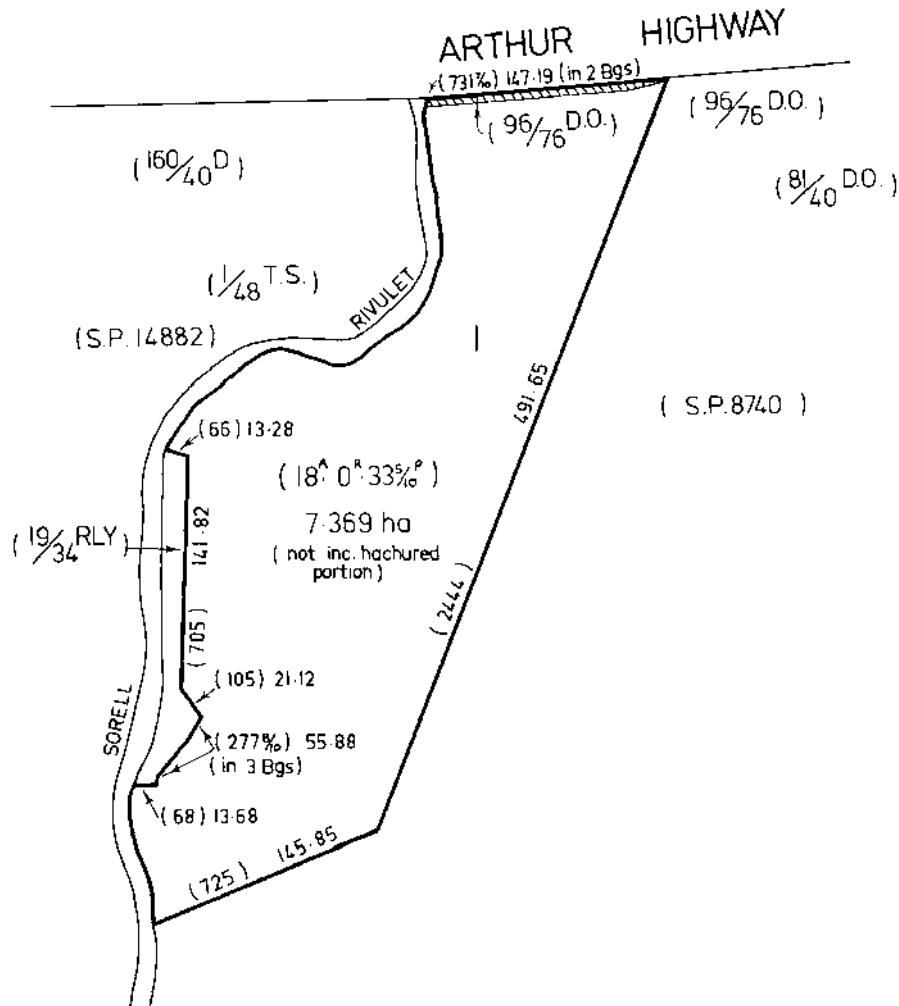
SKETCH BY WAY OF ILLUSTRATION ONLY

~~CITY/TOWN OF SORELL~~

~~LAND DISTRICT OF~~

~~PARISH OF~~

LENGTHS ARE IN METRES, NOT TO SCALE
LENGTHS IN BRACKETS IN LINKS ~~1:62.5~~ 8:00





MINUTES

**FOR THE DEVELOPMENT ASSESSMENT SPECIAL COMMITTEE (DASC)
MEETING HELD AT THE COMMUNITY ADMINISTRATION CENTRE (CAC), 47
COLE STREET, SORELL ON TUESDAY 1 SEPTEMBER 2020**

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2.0	CONFIRMATION OF THE MINUTES OF 14 JULY 2020	1
3.0	DECLARATIONS OF PECUNIARY INTEREST	2
4.0	LAND USE PLANNING	2
4.1	SCHEME AMENDMENT APPLICATION NO. 43.2019.3	2

1.0 ATTENDANCE

^

Chairperson Mayor Vincent
Deputy Mayor N Reynolds
Councillor K Degrassi
Councillor V Gala
Councillor G Jackson
Councillor C Torenus
Councillor M Reed
Councillor B Nichols
Robert Higgins, General Manager

APOLOGIES

Councillor D De Williams – Leave of absence

STAFF IN ATTENDANCE

Rhiannon Woods, TL Customer & Business Support
John Molnar, Senior Planner
Leon Ashlin, Engineering Manager – Projects and Development

2.0 CONFIRMATION OF THE MINUTES OF 14 JULY 2020

RECOMMENDATION

“That the Minutes of the Development Assessment Special Committee (DASC) Meeting held on 14 July 2020 be confirmed.”

31/2020 NICHOLS/REYNOLDS

“That the recommendation be accepted.”

The motion was put.

For: Vincent, Reynolds, Degrassi, Jackson, Torenus, Reed, Gala and Nichols

Against: None.

The Motion was **CARRIED**.



MINUTES

DEVELOPMENT ASSESSMENT SPECIAL COMMITTEE (DASC) MEETING
1 SEPTEMBER 2020

3.0 DECLARATIONS OF PECUNIARY INTEREST

The Mayor requested any Councillors to indicate whether they had, or were likely to have, a pecuniary interest in any item on the agenda.

No committee member indicated that they had, or were likely to have, a pecuniary interest in any item on the agenda.

In considering the following land use planning matters the Development Assessment Special Committee intends to act as a planning authority under the *Land Use Planning and Approvals Act 1993*.

4.0 LAND USE PLANNING

^

4.1 SCHEME AMENDMENT APPLICATION NO. 43.2019.3

APPLICANT: SORELL COUNCIL

PROPOSAL: PLANNING SCHEME AMENDMENT APPLICATION TO REZONE FROM PARTICULAR PURPOSE ZONE 1 - URBAN GROWTH ZONE TO GENERAL RESIDENTIAL

ADDRESS: 5 ARTHUR HIGHWAY (CT 16027/1) & LOT 1 ARTHUR HIGHWAY (CT 8740/1), SORELL

RECOMMENDATION

That in accordance with the provisions of the *Land Use Planning and Approvals Act 1993* Draft Amendment No. 43.2019.3 of the *Sorell Interim Planning Scheme 2015*, relating to 5 Arthur Highway and Lot 1 Arthur Highway, Sorell, Council resolves that the report of the Senior Planner be received and that:

1. In accordance with 34(1) (b) of the former provisions of the Land Use Planning and Approvals Act 1993, Council initiates draft Amendment 43.2019.3.
2. In accordance with section 35 of the former provisions of the Land Use Planning and Approvals Act 1993, Council certifies draft Amendment 43.2019.3. as meeting the requirements of section 32 of the Act.
3. In accordance with section 35(4) of the former provisions of the Land Use Planning and Approvals Act 1993, Council forwards a copy of the sealed Instrument of Certification and the draft amendment to the Tasmanian Planning Commission.



MINUTES

**DEVELOPMENT ASSESSMENT SPECIAL COMMITTEE (DASC) MEETING
1 SEPTEMBER 2020**

4. In accordance with section 56S of the Water and Sewer Industry Act 2008, Council refers draft Amendment 43.2019.3.to TasWater.
5. In accordance with section 38 of the former provisions of the Land Use Planning and Approvals Act 1993, Council place draft Amendment 43.2019.3 on public exhibition for a period of 28 days following certification.

32/2020 NICHOLAS/GALA

“That the recommendation be accepted.”

The motion was put.

For: Vincent, Reynolds, Degrassi, Jackson, Torenus, Reed, Gala and Nichols

Against: None.

The Motion was **CARRIED**.

Meeting closed at 5:07pm

**MAYOR VINCENT
CHAIRPERSON
1 SEPTEMBER 2020**

