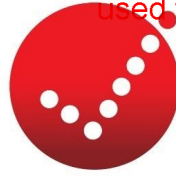


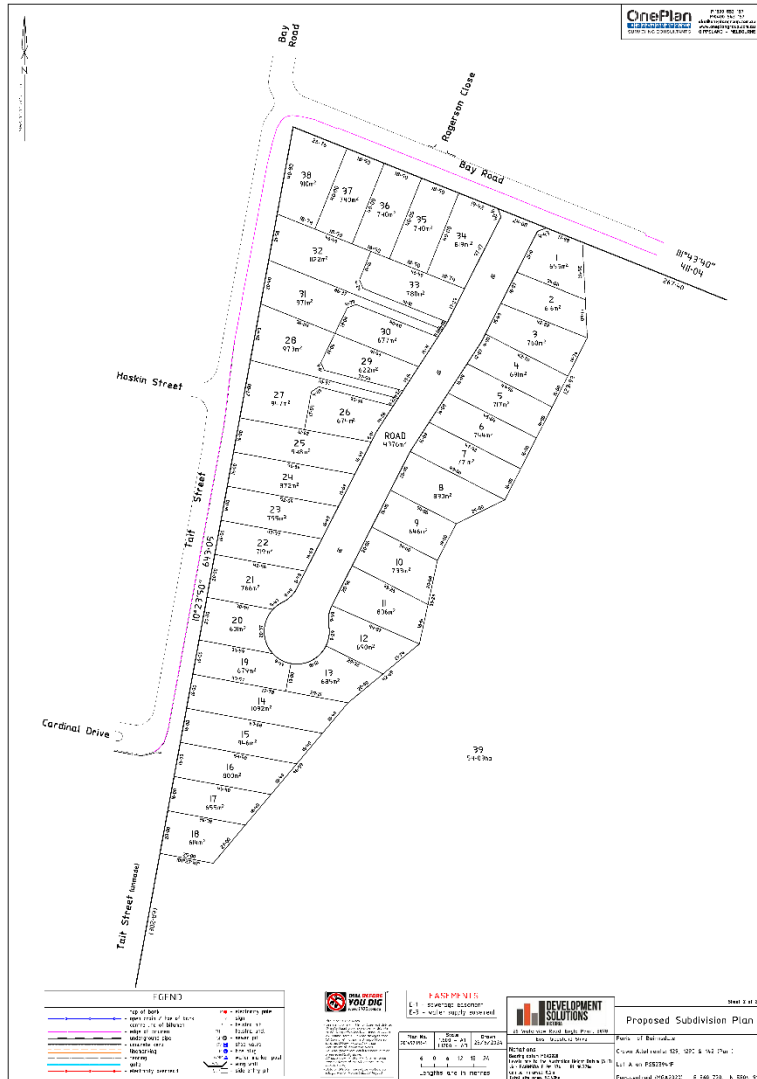
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Level 3



Bushfire Planning Considerations Report

Lot A PS523941

25 Waterview Road, Eagle Point 3878

September 30th, 2024.

Version 1.0

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Acknowledgement of Country

Euca Planning would like to acknowledge the Gurnaikurnai people as the Traditional owners of the unceded land that we conduct our business on. We pay our Respects to their Elders past, present, and future.

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Version Control

	Name	Date Completed	Comments
Field Assessment	Deanne Smith	18 May 2024	
Report - Final	Deanne Smith	30 September 2024	

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1.0 Introduction

This report has been prepared by Deanne Smith (the author), Director of Euca Planning Pty Ltd, to consider the bushfire risk relating to the subdivision at 25 Waterview Road, Eagle Point. The land is Lot A PS523941 (the 'subject land').

The report was prepared on the instruction of the firm Development Solutions Victoria. The instruction was to prepare an assessment of the bushfire risk in response to Clause 13.02-1S of the Planning Scheme and the *Design Guidelines Settlement Planning at the Bushfire Interface*.

While preparing this report, the author has inspected the subject site and its surrounds and has reviewed the proposal with reference to the East Gippsland Planning Scheme, and in relation to the context of the surrounding area.

The report has been presented consistent with the content of the East Gippsland Planning Scheme, in particular Clause 13.02. The report establishes the context by providing information which is important when considering the way bushfire considerations may impact on the future development of the land.

Specifically, the following land is considered:

- The subject area comprising 38 Lots and one balance lot; and
- The existing layout on the adjacent land; and
- Adjacent and nearby land that may influence the risk of bushfire including development.

2.0 Summary of Opinion

In consideration of the report prepared, onsite inspection, discussions and analysis, the author concludes the following:

- The site has a low vulnerability to bushfire events.
- The topography and extent of grassland vegetation near the development presents a low risk of bushfire.
- There is no fire history in the area.
- The proposed subdivision is a sound basis for development consistent with the intent of the East Gippsland Planning Scheme.
- The bushfire mitigation measures can be easily dealt with for all lots by a planning permit condition.
- The proposed development can adequately respond to the bushfire risk of the locality, the riparian green network and does not increase the risk of bushfire to the Eagle Point Township.

3.0 Locality and Site Description

The report relates to a parcel with the 'subject land' being Lot A PS523941. The subject land is bounded by Bay Road to the north, Waterview Road to the east, Paynesville Road to the south and Tait Street to the west. The land is split zoned with the north-western corner being General Residential Zone – Schedule 1 (GRZ1) and the balance being Farming Zone – Schedule 1 (FZ1).

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The area is located at the southeastern extent of the Eagle Point Township as depicted in Figure One. The land is vacant grazing land developed with one dwelling and outbuildings.

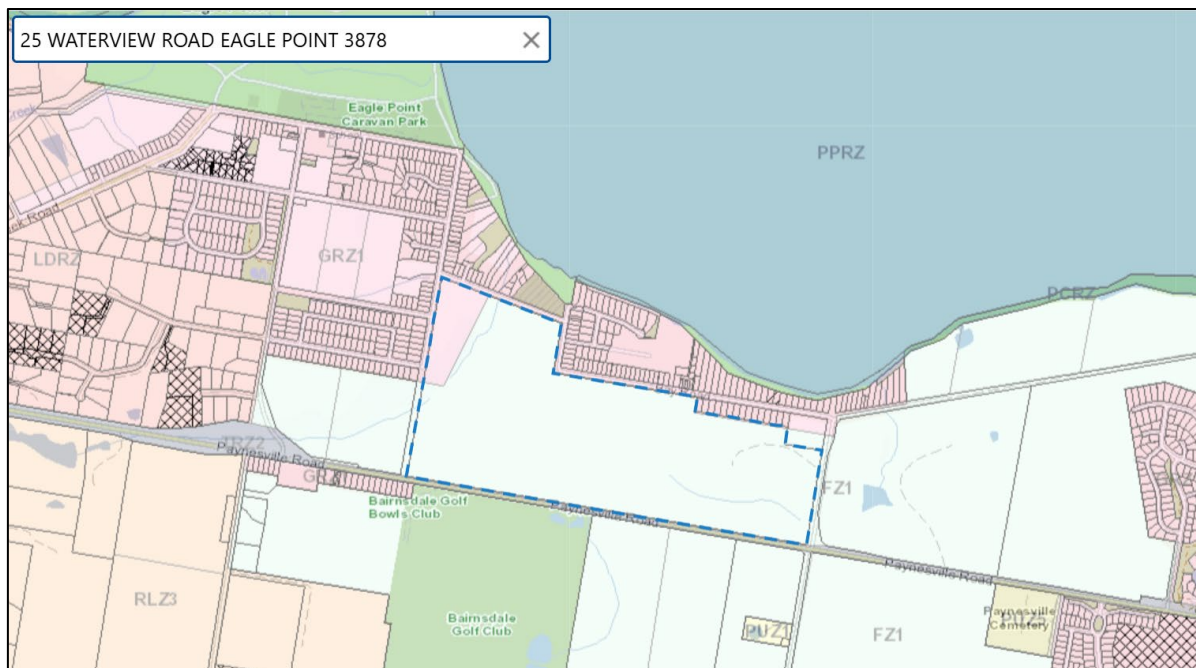


Figure One – Site Context Plan with subject site marked in blue (VicPlan, 2024)

Eagle Point is one of the major towns in the East Gippsland Shire Council, with high demand for residential lots. The township has an interface to extensive reserves and the Gippsland Lakes as shown in Figure Two. The subject land is located on the southeast edge of the developing residential area.



Figure Two – Location of Eagle Point and site context plan with subject site marked in yellow (Nearmaps, 2024)

4.0 Planning Policy

4.1 Planning Policy Framework

Clause 71.02-3 (integrated decision making) of the Planning Scheme has been recently amended and provides that:

Planning authorities and responsible authorities should endeavour to integrate the range of policies relevant to the issues to be determined and balance conflicting objectives in favour of net community benefit and sustainable development for the benefit of present and future generations. However in bushfire affected areas, planning authorities and responsible authorities must prioritise the protection of human life over all other policy considerations.

Clause 13.02-1S (Bushfire) of the Planning Scheme applies to all decision making and seeks to:

*To strengthen the resilience of settlements and communities to bushfire through **risk-based planning** that prioritises the protection of human life.*

[Emphasis added]

Clause 13.02-1S includes a number of strategies to achieve that objective. Broadly these strategies include:

- prioritising the protection of human life;
- requiring a robust assessment of the bushfire hazard and risk assessment before any strategic or statutory decision is made; and
- directing population growth and new settlements to low-risk locations.

Importantly in relation to the protection of human life, clause 13.02-1S includes the following requirements:

Give priority to the protection of human life by:

- *Prioritising the protection of human life over all other policy considerations.*
- *Directing population growth and development to low-risk locations and ensuring the availability of, and safe access to, areas where human life can be better protected from the effects of bushfire.*
- *Reducing the vulnerability of communities to bushfire through the consideration of bushfire risk in decision-making at all stages of the planning process.*

In relation to Bushfire hazard identification and assessment, clause 13.02-1S includes the following relevant requirements:

Identify bushfire hazard and undertake appropriate risk assessment by:

- *Applying the best available science to identify vegetation, topographic and climatic conditions that create a bushfire hazard.*
- *Considering the best available information about bushfire hazard including the map of designated bushfire prone areas prepared under the Building Act 1993 or regulations made under that Act.*

- *Considering and assessing the bushfire hazard on the basis of:*
 - *Landscape conditions - meaning conditions in the landscape within 20 kilometres (and potentially up to 75 kilometres) of a site;*
 - *Local conditions - meaning conditions in the area within approximately 1 kilometre of a site;*
 - *Neighbourhood conditions – meaning conditions in the area within 400 metres of a site; and*
 - *The site for the development.*
- *Consulting with emergency management agencies and the relevant fire authority early in the process to receive their recommendations and implement appropriate bushfire protection measures.*
- *Ensuring that strategic planning documents, planning scheme amendments, planning permit applications and development plan approvals properly assess bushfire risk and include appropriate bushfire protection measures.*
- *Not approving development where a landowner or proponent has not satisfactorily demonstrated that the relevant policies have been addressed, performance measures satisfied or bushfire protection measures can be adequately implemented.*

Importantly in relation to settlement planning, clause 13.02-1S includes the following requirements:

Plan to strengthen the resilience of settlements and communities and prioritise protection of human life by:

- *Directing population growth and development to low risk locations, being those locations assessed as having a radiant heat flux of less than 12.5 kilowatts/square metres under AS 3959-2009 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009).*
- *Ensuring the availability of, and safe access to, areas assessed as a BAL-LOW rating under AS 3959-2009 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009) where human life can be better protected from the effects of bushfire.*
- *Ensuring the bushfire risk to existing and future residents, property and community infrastructure will not increase as a result of future land use and development.*
- *Achieving no net increase in risk to existing and future residents, property and community infrastructure, through the implementation of bushfire protection measures and where possible reduce bushfire risk overall.*
- *Assessing and addressing the bushfire hazard posed to the settlement and the likely bushfire behaviour it will produce at a landscape, settlement, local, neighborhood and site scale, including the potential for neighborhood-scale destruction.*
- *Assessing alternative low risk locations for settlement growth on a regional, municipal, settlement, local and neighborhood basis.*
- *Not approving any strategic planning document, local planning policy, or planning scheme amendment that will result in the introduction or intensification of development in an area that has, or will on completion have, more than a BAL-12.5*

rating under AS 3959-2009.

In relation to use and development control in a Bushfire Prone area, clause 13.02-1S includes the following relevant requirements:

Use and development control in a Bushfire Prone Area In a bushfire prone area designated in accordance with regulations made under the Building Act 1993, bushfire risk should be considered when assessing planning applications for the following uses and development:

... Subdivisions of more than 10 lots

When assessing a planning permit application for the above uses and development:

- *Consider the risk of bushfire to people, property and community infrastructure.*
- *Require the implementation of appropriate bushfire protection measures to address the identified bushfire risk.*
- *Ensure new development can implement bushfire protection measures without unacceptable biodiversity impacts.*

When these strategies are read together it is clear that any future development would be required to provide a considered assessment of the bushfire risk. As such, the Proposed Plan must ensure it responds to bushfire risk. The purpose of this report is to undertake such an assessment for the site including an assessment of the likely fire behaviour and the risk to future residents.

In the context of strategic planning decisions, these strategies need to be read as on balance and consider the 'net increase in risk to existing and future residents'. As it relates to the objectives at Clause 13.02-1S of the Planning Scheme, it is necessary to ensure that the protection of human life is prioritised when decisions are made. However the strategies listed at Clause 13.02-1S in the Planning Scheme are not 'mandatory requirements' and it is not necessary to 'tick every box'. It is more important to ensure that decisions are consistent with the State policy objectives and build resilient communities.

4.2 Planning Policy Framework Assessment

4.2.1 Objective

Clause 13.02-1S seeks to '*strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life*'.

4.2.2 Application

The policy must be applied to all planning and decision making under the Planning and Environment Act 1987 relating to land which is within a designated bushfire prone area; or subject to a Bushfire Management Overlay.

Bushfire Prone Area

The planning proposal area is included in the Bushfire Prone Area (BPA). As described in Planning Advisory Note 46 (2013), the BPA is a building regulation tool that identifies where moderate

bushfire hazard can be expected. It applies to areas subject to the BMO, and to areas that experience a lower head fire intensity modelled to be between 4,000kW/m and 30,000kW/m. This level of hazard informs areas declared as bushfire prone in the building system. Areas at the upper end of the bushfire intensity range (that is 28,000kW/m and above and referred to as BHL1b) are considered, where appropriate, for applying the BMO based on the advice of the relevant fire authority. The land is not contained in the BMO and is not near the BMO (Figure Three). The entire planning proposal site is subject to the BPA. The greater area surrounding Eagle Point is also in the BPA reflecting the moderate bushfire hazard that can be expected from the grasslands connecting to the existing and developing residential interface.

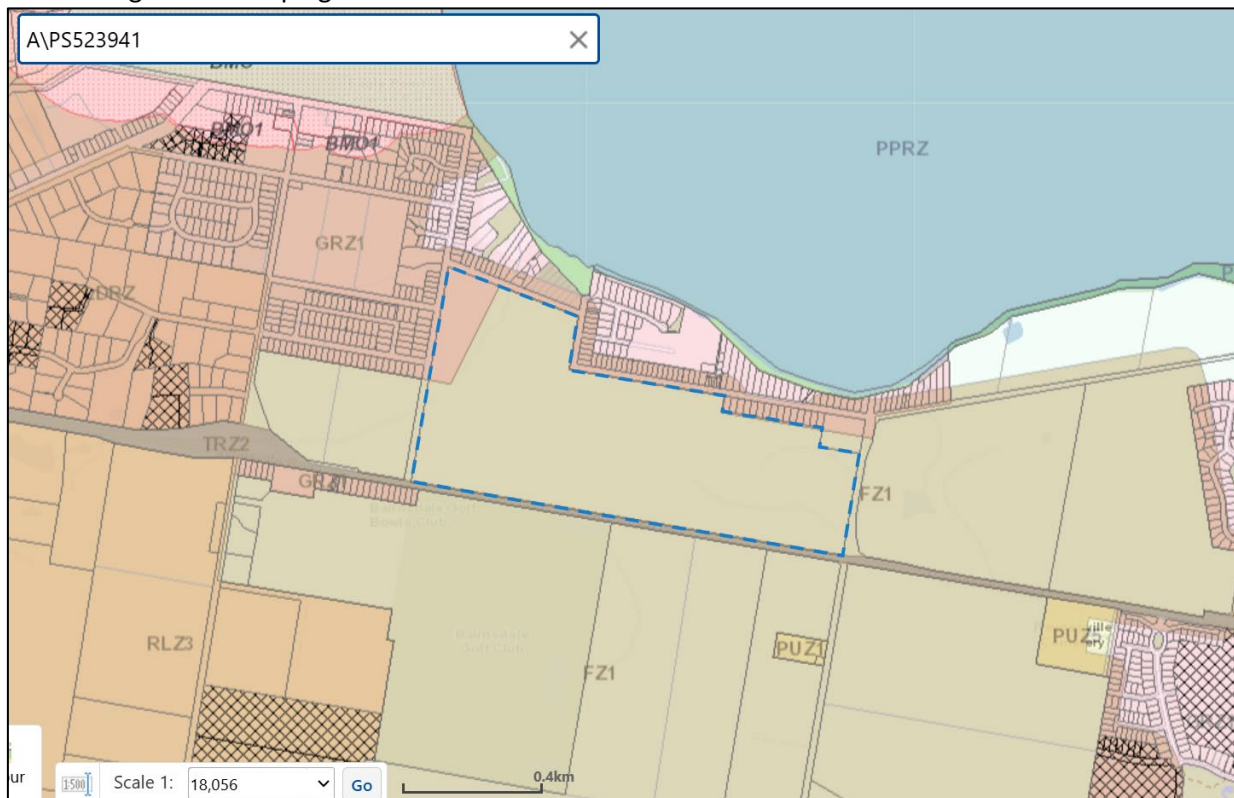


Figure Three – Extent of the Bushfire Prone Area across the site and in the vicinity (shown in beige), Bushfire Management Overlay (shown in red to the north west), and the subject site outline in blue (VicPlan, 2023).

In December 2017, Clause 13.02-1S of the East Gippsland Planning Scheme was amended to specifically refer to Bushfire Prone Areas and to strengthen the consideration of bushfire risk in all planning decisions. As the site is fully contained within the Bushfire Prone Area, the minimum level of construction for all dwellings is BAL 12.5, and this bushfire risk must be considered. It is expected that the Bushfire Prone Area will be retracted as development occurs consistent with the nearby development. However, it is noted that this land will be expected to remain in the Bushfire Prone Area as this land is near the edge of the settlement.

4.2.3 Strategies

Protection of human life

<i>Give priority to the protection of human life by:</i>	<i>Response</i>
Prioritising the protection of human life over all other policy considerations	<ul style="list-style-type: none"> - This proposal intensifies an area of the Eagle Point Township for residential use. - The growth is planned as the land is already zoned for residential purposes in

	<p>the northwestern corner. The proposal responds to the riparian land, given its site's constraints.</p>
Directing population growth and development to low risk locations and ensuring the availability of, and safe access to, areas where human life can be better protected from the effects of bushfire.	<ul style="list-style-type: none"> - At a local, state and regional level, this area has a lesser bushfire risk and is favorable for development. - The overall design can respond to the retained farming land and the drainage infrastructure on site. - Access and egress are facilitated from Waterview Road.
Reducing the vulnerability of communities to bushfire through the consideration of bushfire risk in decision-making at all stages of the planning process.	<ul style="list-style-type: none"> - An application to subdivide land needs to articulate how the design responds to the identified bushfire risk. - Landscaping plans, street plantings, lot size and orientation can respond to the risk of bushfire, and this can be included in the design response of the subdivision. - This report informs the design of the subdivision at the initial stages, and the detailing of staging plans.

Bushfire hazard identification and assessment

<i>Identify bushfire hazard and undertake appropriate risk assessment by:</i>	<i>Response</i>
Applying the best available science to identify vegetation, topographic and climatic conditions that create a bushfire hazard.	<ul style="list-style-type: none"> - The East Gippsland Planning Scheme relies on the planning proposal to respond to bushfire based on current assessment methods. - Clauses 13.02-1S and 53.02 are to be considered for all of the land. - Clause 71.02-3 <i>Integrated Decision Making</i> strengthens the importance of bushfire planning and the subdivision design response is the appropriate tool to reconcile potential conflicts in design and vision. - The assessment method aligns with AS3959-2018, and is provided in this report (see Section 4).
Considering the best available information about bushfire hazard including the map of designated bushfire prone areas prepared under the Building Act 1993 or regulations made under that Act.	<ul style="list-style-type: none"> - Consistent with the revised Clause 13.02-1S, the planning proposal responds to the Bushfire Prone Area. - This report demonstrates that all lots can achieve sufficient separation from the bushfire hazard to meet Table 2 of Clause 53.02, which is an appropriate benchmark for this development. - It is proposed that the developer be

	<p>required to ensure that the minimum separation from all unmanaged land meets a maximum radiant heat of 12.5kW/m². This separation is 19 metres across the development.</p>
Applying the Bushfire Management Overlay in planning schemes to areas where the extent of vegetation can create an extreme bushfire hazard	<ul style="list-style-type: none"> - The BMO does not apply to this land. This recognises that the land is not in an area of high bushfire hazard.
<p>Considering and assessing the bushfire hazard on the basis of:</p> <ul style="list-style-type: none"> • Landscape conditions - meaning the conditions in the landscape within 20 kilometres and potentially up to 75 kilometres from a site; • Local conditions - meaning conditions in the area within approximately 1 kilometre from a site; • Neighbourhood conditions - meaning conditions in the area within 400 metres of a site; and, • The site for the development 	<ul style="list-style-type: none"> - In light of the recent changes to Clause 13.02 and the addition of this assessment requirement, an assessment is provided in Section 4.0 of this report. - As it is subdivision area, three scales of consideration are applied - Landscape conditions at 20km, Local conditions at 10 km, and Neighbourhood conditions at 1km. - The site conditions are considered through the Bushfire Hazard Site Assessment.
Consulting with emergency management agencies and the relevant fire authority early in the process to receive their recommendations and implement appropriate bushfire protection measures.	<ul style="list-style-type: none"> - It is not expected that this subdivision would be referred to CFA for consideration (except for as it is in the Bushfire Prone Area and not the Bushfire Management Overlay).
Ensuring that strategic planning documents, planning scheme amendments, planning permit applications and development plan approvals properly assess bushfire risk and include appropriate bushfire protection measures	<ul style="list-style-type: none"> - The content of this report provides a solid foundation for the approval of the planning proposal, with regard to bushfire risk.
Not approving development where a landowner or proponent has not satisfactorily demonstrated that the relevant policies have been addressed, performance measures satisfied or bushfire protection measures can be adequately implemented.	<ul style="list-style-type: none"> - This element of the revised Clause 13.02-1S is the most important element and empowers the Responsible Authority to not approve a permit application until it is satisfied with the bushfire protection measures being implemented. - This report demonstrates that the risk of bushfire should not be a reason for refusal.

Settlement Planning

<i>Plan to strengthen the resilience of settlements and communities and prioritise protection of human life by:</i>	<i>Assessment of Structure Plan Response</i>
Directing population growth and development to low risk locations, being those locations assessed as having a radiant heat flux of less than 12.5 kilowatts/square metres under AS 3959-2009 Construction of Buildings in	<ul style="list-style-type: none"> - Recognising the land is already Farming Zone - Schedule 1 (FZ1) and General Residential Zone - Schedule 1 (GRZ1) and development is already identified in this area of the Eagle Point Framework Plan.

<p>Bushfire-prone Areas (Standards Australia, 2009).</p>	<ul style="list-style-type: none"> - Lots created in the future will be able to achieve a subdivision which demonstrate that the siting has been assessed as having a radiant heat flux of less than 12.5kW/m² under AS3959-2018.
<p>Ensuring the availability of, and safe access to, areas assessed as a BAL-LOW rating under AS 3959-2009 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009) where human life can be better protected from the effects of bushfire</p>	<ul style="list-style-type: none"> - The nature of the settlement of Eagle Point, provides access to Bairnsdale and Paynesville townships which have an extensive area that constitutes BAL-LOW.
<p>Ensuring the bushfire risk to existing and future residents, property and community infrastructure will not increase as a result of future land use and development.</p>	<ul style="list-style-type: none"> - The township edge interfaces with the bushfire hazard (grassland). - This property is at the current interface but not the final edge of the settlement. - A perimeter road is unable to be established along the riparian corridor due to the shape of the land and the road network. - The end-state vegetation hazard of the waterway has been considered.
<p>Achieving no net increase in risk to existing and future residents, property and community infrastructure, through the implementation of bushfire protection measures and where possible reduce bushfire risk overall.</p>	<ul style="list-style-type: none"> - Intensification of this area by further subdivision can appropriately consider the integration of bushfire mitigation measures into the settlement.
<p>Assessing and addressing the bushfire hazard posed to the settlement and the likely bushfire behaviour it will produce at a landscape, settlement, local, neighbourhood and site scale, including the potential for neighbourhood-scale Destruction</p>	<ul style="list-style-type: none"> - In light of the recent changes to Clause 13.02 and the addition of this assessment requirement, an assessment is provided in Section 4.0 of this report. - As it is a subdivision area, three scales of consideration are applied: Landscape conditions at 20km, Local conditions at 10 km, and Neighbourhood conditions at 1km. - The site conditions are best considered through the Bushfire Hazard Site Assessment methodology.
<p>Assessing alternative low risk locations for settlement growth on a regional, municipal, settlement, local and neighbourhood basis.</p>	<ul style="list-style-type: none"> - The proposal covers a small area of a regional town that has an increasing level of urbanization. - In a regional Council, there is limited potential to grow settlements. - The proposal provides a sound approach to the development of an expanding residential area.
<p>Not approving any strategic planning document, local planning policy, or planning scheme amendment that will result in the introduction or intensification of development in an area that has, or will on completion have, more than a BAL-12.5 rating under AS 3959-</p>	<ul style="list-style-type: none"> - At a strategic planning level Clause 13.02 requires that future settlement areas are identified to have low BAL assessments having characteristic to support future subdivision with no greater than BAL 12.5. In this case, the future growth area meets

2009.	this test. The land is already zoned General Residential Zone.
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Areas of high biodiversity conservation value

Ensure settlement growth and development approvals can implement bushfire protection measures without unacceptable biodiversity impacts by discouraging settlement growth and development in bushfire affected areas that are of high biodiversity conservation value.

Assessment of future subdivision:

- The vegetation is grassland with it being used for grazing.
- The waterway requires revegetation and East Gippsland Catchment Management Authority has been consulted and in correspondence dated 23 July 2024 advised the following revegetation:

A reduced buffer width of 15 metres on the western side of the waterway consisting of:

- *LOWER BANK-CHANNEL ZONE: The width of this zone is determined by the lower bank or wet channel section of a waterway and is to be planted at a density of 4-6 plants/m2 with aquatic and semi-aquatic herbs, sedges and rushes.*
- *PRIMARY BUFFER ZONE: The width of this zone is the remainder of the 15-metre buffer. Planting density to be 4-6 plants/m2 for graminoids and 2-4 plants/m2 for shrubs and herbs. Tree density, tree canopy separation and understorey planting to be in accordance with the end state vegetation classification of 'grassland' according to AS3959:2018.*

An increased buffer width of 45 metres on the eastern side of the waterway. This area should be revegetated generally in accordance with the Authority's Waterway Management Plan Guidelines for Urban Developments (2024) with an increased secondary buffer zone width to achieve the 45-metre total buffer width. Tree density, tree canopy separation and understorey planting in the primary and secondary buffers to be in accordance with the end state vegetation classification of 'woodland' according to AS3959:2018.

The advice from EGMA has been used to assess the western aspect of the subdivision. The balance of the 30metres of the waterway is in Farming Zone and will be part of the Waterway Management Plan. The first 15 metres will be managed as 'low threat vegetation, the second 15 metres revegetated as 'grassland' as described in the Primary Buffer zone, and the eastern side of the waterway will be 'woodland'.

Use and development control in a Bushfire Prone Area

In a bushfire prone area designated in accordance with regulations made under the Building Act 1993, bushfire risk should be considered when assessing planning applications for the subdivisions of more than 10 lots.

Assessment of Structure Plan Response: The subdivision is more than 10 lots, therefore this clause is relevant.

When assessing a planning permit application for the above uses and development:	Response
Consider the risk of bushfire to people, property and community infrastructure.	Consistent with Clause 13.02-1S, Clause 53.02 of the Scheme has been used as a guide and is supported by a landscape analysis that

	demonstrates that the risk to people, property and the asset can be appropriately mitigated by its inherent design features in this specific location.
Require the implementation of appropriate bushfire protection measures to address the identified bushfire risk.	The land use and type of development proposed can implement bushfire protection through its inherent design. Grassland management is a key bushfire mitigation measure to ensure separation of development from the bushfire hazard.
Ensure new development can implement bushfire protection measures without unacceptable biodiversity impacts.	The land is currently used for farming purposes. Intensification will decrease the extent of grassland and lessen the risk of bushfire spreading through the settlement. The proposed lot sizes, and the lack of landscape risk of bushfire negates the need for 'defendable space' requirements to be imposed on future lots.

4.2.4 Policy guidelines

Planning must consider as relevant:	Response
Any relevant approved State, regional and municipal fire prevention plan.	The ongoing management of the vegetation corridors and trails must consider the planning framework for Eagle Point. The proposed intensification is not expected to alter the current responsibility to manage the abutting farmland.
AS 3959-2018 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2018).	This is relevant through the derivation of Bushfire Attack Levels, and is considered when referring to BAL12.5. 2018 is the current version of the Standard.
Building in bushfire-prone areas - CSIRO & Standards Australia (SAA HB36-1993, May 1993).	This is the handbook to AS3959-2018 and does not need to be considered directly by the planning proposal.
Any Bushfire Prone Area map prepared under the Building Act 1993 or regulations made under that Act.	The updated Bushfire Prone Area map has been considered in this report.

5.0 Bushfire Risk

Considering the recent changes to Clause 13.02-15 and the addition of this assessment requirement, an assessment on bushfire risk consistent with Clauses 13.02, and 53.02 is provided. As it is intensification, it is considered that good practice requires three scales of consideration be applied - Landscape conditions at 20km, Local conditions at 10 km, and Neighbourhood conditions at 1km. The site conditions are considered through the Bushfire Hazard Site Assessment.

5.1 Landscape Conditions

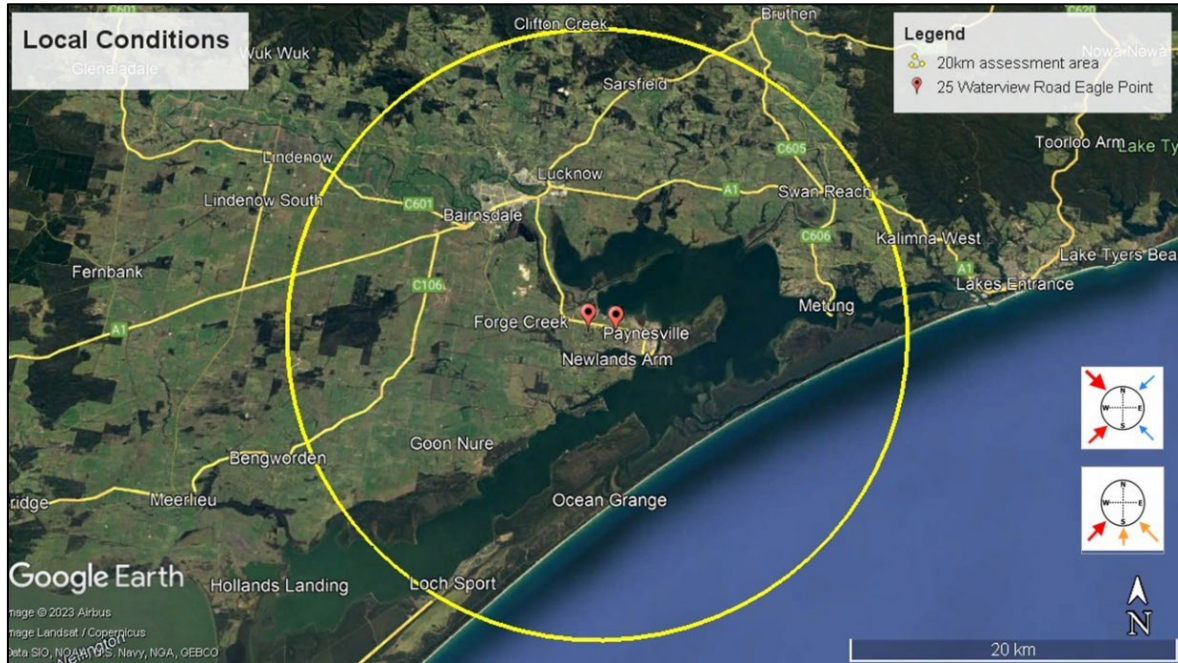


Figure Four – Location within the context of 20km radius from the site which is central to the image (Google Earth, 2024)

The landscape risk of a site is an important consideration when mitigating bushfire hazards. The landscape risk is the combination of several elements in the surrounding landscape. These relate to the vegetation extent, the area available to a landscape bushfire, the orientation of the ridgelines and the steepness of the terrain, the accessibility to low threat areas and the quality of the road networks surrounding the site.

Within 20 kilometres of the site, key features include:

- The extensive grassland and farming land mainly to the west and north and southwest in the broader landscape with isolated patches of vegetation; and
- Several towns and settlements interface the Eagle Point Bay; and
- The foothills of the Fairy Dell Nature Conversation Reserve to the north; and
- The Princes Highway (west to east); and
- Urban settlement in the key townships of Bairnsdale, Paynesville and Metung.

5.2 Local Conditions

Within 10 kilometres of the site, key features include:

- The extensive grassland and farming land in all directions; and

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- Towns and settlements interfacing the water; and
- The Princes Highway (west to east); and
- Urban settlement in the towns of Bairnsdale, Paynesville and Metung; and
- The smaller settlements of Nicholson, Eagle Point, Forge Creek, and Raymond Island.

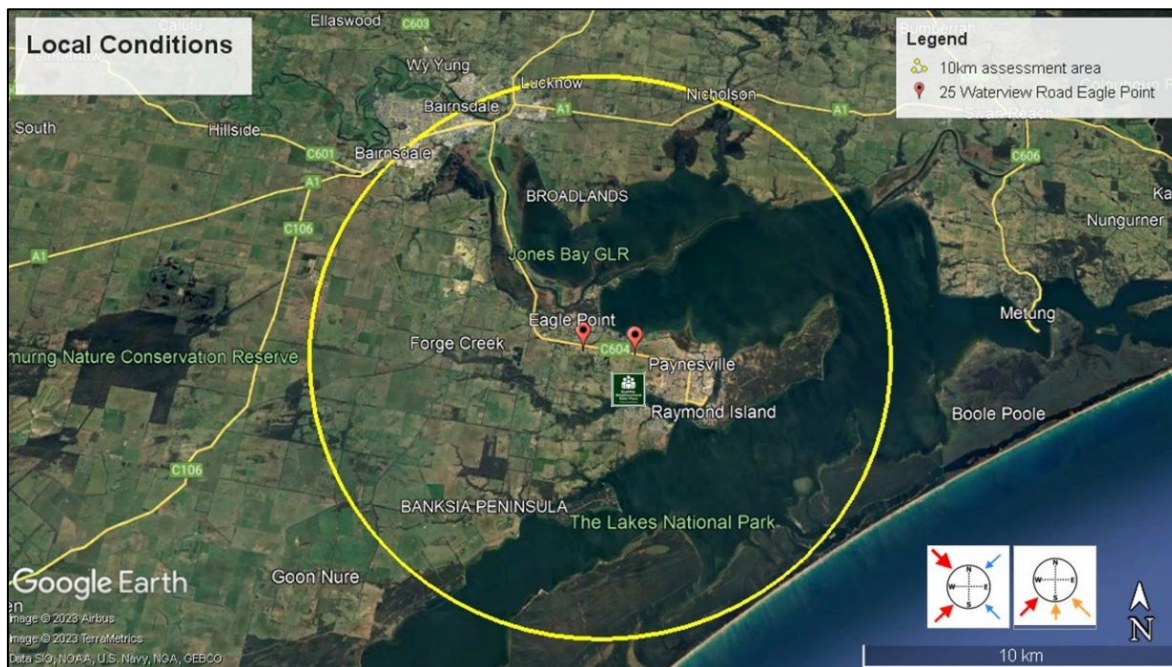


Figure Five – Location within the context of 10km radius from the site (Google Earth, 2024)

5.3 Neighbourhood Conditions



Figure Six – Location within the context of 1km radius from the site (Google Earth, 2024)

Key features located within 1 kilometre of the site include:

- Established residential area to the north, northeast and west.
- Paynesville Road south of subject land, running east-west connecting the townships of Bairnsdale and Paynesville.
- Local road networks surrounding the subject land to the north, east and west.
- Grassland within the subject site.

5.4 Bushfire Scenarios

Scenario 1 – Grassfires

The area around the proposed subdivision could experience a grassfire from the southeast and fire associated to the linear waterway woodland in the southwest. A grassfire from the southwest is the likely source of fire into the riparian woodland. To the north, east and west are established roads and residential development. This fire scenario is likely to provide radiant head to the proposed development site. This is not a landscape fire, but a localised fire threat that can be mitigated by appropriate setbacks.

5.5 Bushfire Hazard Site Assessment

As guided by Clause 13.02-15, the vegetation in the area was classified according to AS 3959:2018, Technical Guide: Planning Permit Applications Bushfire Management Overlay (DELWP, 2017) and the Overall Fuel Hazard Assessment Guide (DSE, 2010). The AS 3959:2018 approach uses a generalised description of vegetation based on the AUSLIG (Australian Natural Resources Atlas” No.7 Native Vegetation) classification system. According to this method, vegetation can be classified into seven categories. Each category indicates a particular type of fire behaviour and these categories or classifications are then used to determine bushfire intensity. An indication of the Ecological Vegetation Classes in the landscape is provided below in Figure Seven.

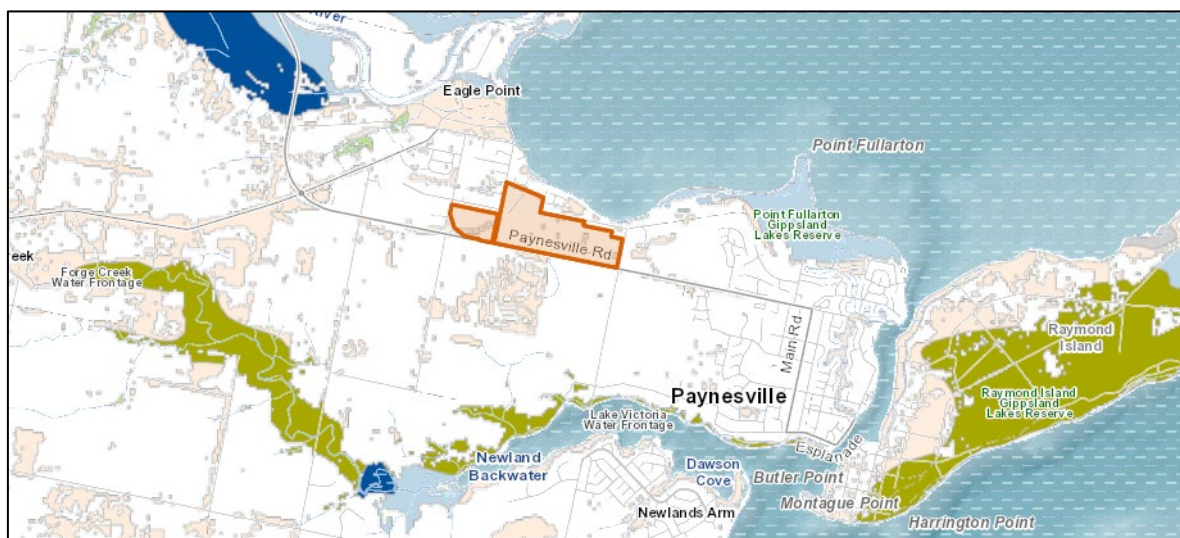


Figure Seven – Vegetation in the area (subject land outlined in orange) – Plains Grassy Woodland and Forest (pale pink), Damp Sands Herb-rich Woodland (olive green) and Wetlands (deep blue) (Source: Naturekit, 2024)

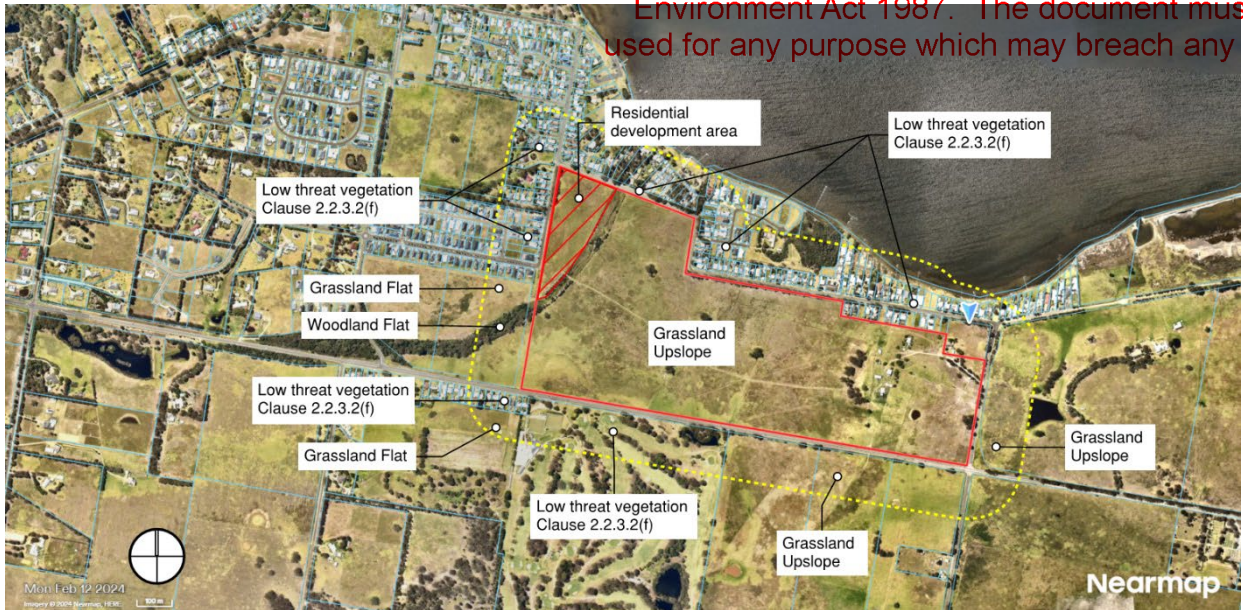


Figure Eight – Bushfire Hazard Site Assessment for the planning proposal site.

Vegetation Classification: Woodland

AS3959:2018 Definition:

Low woodland– Low trees and shrubs 2-10 m high; foliage cover less than 10%. Dominated by eucalypts and Acacias. Often have a grassy understorey or low shrubs. Acacias and Casuarina woodlands grade to Atriplex shrublands in the arid and semi-arid zones.

Site Description:

The land has woodland on flat terrain in the waterway located offsite to the west. This revegetation is required to occur along the waterway adjacent to the eastern boundary of the subdivision. EGCMA advice has been received and the end-state bushfire hazard ‘woodland’ will be set back 30 metres from the rear of the lots.



Looking south from Waterview Road.

Vegetation Classification: Grassland

AS3959:2018 Definition:

Sown pasture – All forms, including situations with shrubs and trees, if the overstorey foliage cover is less than 10%.

Site Description:

The land has grassland across its entirety. The land on the site slopes west towards the waterway and is flat/upslope for the balance (as seen by the residential subdivision).



Looking east from Waterview Road

Vegetation Classification: Excludable and low threat vegetation

AS3959:2018 Definition:

2.2.3.2 Exclusions – Low threat vegetation and non-vegetated areas

The following vegetation shall be excluded from a BAL assessment:

- a. Vegetation of any type that is more than 100 m from the site*
- b. Single areas of vegetation less than 1 ha in area and not within 100 m of other areas of vegetation being classified vegetation.*
- c. Multiple areas of vegetation less than 0.25 ha in area and not within 20 m of the site, or each other or of other areas of vegetation being classified vegetation.*
- d. Strips of vegetation less than 20 m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20 m of the site or each other, or other areas of vegetation being classified vegetation.*
- e. Non-vegetated areas, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.*

f. Vegetation regarded as low threat due to factors such as flammability, moisture content or fuel load. This includes grassland managed in a minimal fuel condition, mangroves and other saline wetlands, maintained lawns, golf courses (such as playing areas and fairways), maintained public reserves and parklands, sporting fields, vineyards, orchards, banana plantations, market gardens (and other non-curing crops), cultivated gardens, commercial nurseries, nature strips and windbreaks.

NOTES:

1. Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm).
2. A windbreak is considered a single row of trees used as a screen or to reduce the effect of wind on the leeward side of the trees.

Site Description

The land is excludable (Clause 2.2.3.2(e)) in the north and west by the roads, Tait Street, Cardinal Drive and Bay Road. Established residential lots exist in the north and west (Clause 2.2.3.2(f)).



Image - Adjacent low threat vegetation – Cardinal Drive, May 2023 (Google Maps)



Image - Adjacent low threat vegetation – Bay Road, July 2022 (Google Maps)

The bushfire attack level (BAL) is a means of measuring the severity of a building's potential exposure to ember attack, radiant heat and direct flame contact, using increments of radiant heat expressed in kilowatts per meter squared. The BAL is also the basis for establishing the requirements for construction to improve protection of building elements from attack by bushfire.

The highest BAL determines the construction requirements for the dwelling. A reduction of one BAL level may be applied if facades of the house are shielded from the bushfire hazard. The BAL for this site has been calculated using a Forest Fire Danger Index (FFDI) of 100 and a Flame Temperature of 1090K. An assessment of the site conditions informs the BAL assessment (Tables 1 and 2).

Table 1 – Bushfire Hazard Site Assessment (existing and proposed conditions) for the NW corner

Orientation	Highest threat vegetation	Average slope under classifiable vegetation	Separation distance	Separation distance required
North	Low threat	Not applicable	0 metres	0 metres
East	Grassland	Flat/upslope	0 metres	19 metres
	Woodland (reveg)	Flat	30 metres	33 metres
South	Grassland	Flat	0 metres	19 metres
	Woodland (reveg)	Flat	30 metres	33 metres
West	Grassland	Upslope	20 metres	19 metres
	Low threat	Not applicable	0 metres	0 metres

Table 2 – Method of achieving separation from the hazard to maximum of 12.5kW/m²

Orientation	Highest threat vegetation	Average slope under classifiable vegetation	Separation distance for 12.5kW/m ²	Means of achievement
North	Low threat	Not applicable	0 metres	No setback is required as the land is developed as residential
East	Grassland	Flat	19 metres	EGCMA requires 15m of the western side of the waterway revegetated to 'grassland' specification. The additional 15 metres will be managed and kept in low threat vegetation. This leaves 4 metres at the rear of each site that is a required building setback. Building envelopes could be used, however the likelihood of any building other than a non-habitable outbuilding within 4m of the rear boundary is very low so building envelopes are unnecessary.
	Woodland	Flat	33 metres	EGCMA requires 45m of the eastern side of the waterway revegetated to 'woodland' specification. To achieve the 33m setback, the 15m of grassland and the 15m of managed low threat vegetation is included. This leaves a

				3m setback on the lots that is less than the 4m setback required for the grassland.
South	As per East	As per East	As per East	As per East
West	Grassland	Flat	20 metres	The southern continuation of Tait Street/Cardinal Drive achieves this separation from the western grassland.

Based on the highest classifiable bushfire threat, and the effective slope under the classifiable bushfire threat, the Bushfire Attack Level (BAL) assessment identifies that all residential development will be exposed to a maximum radiant heat of 12.5kW/m². Within the study area, interim bushfire risk must be managed for buildings to be constructed to BAL12.5 and this will be achieved by maintaining a rolling separation distance of 19 metres towards any undeveloped land from the edge of each stage of development. The separation distance specified is provided in accordance with AS3959 for Grassland. This separation must be maintained until that component of the subdivision can be reclassified as ‘low threat’, i.e., an urban area.

5.6 Other considerations in relation to bushfire

The Regional Bushfire Planning Assessment (RBPA) for the Gippsland Region (2012) provides a high-level analysis of locations where the bushfire hazard may impact on planning objectives. The RBPA provides information where a range of land use planning matters intersect with a bushfire hazard to influence the level of risk to life and property from bushfire. This information is required to be used as part of strategic land use and settlement planning at the regional, municipal and local levels.

“The RBPA is not a statutory planning provision and does not directly translate into planning schemes. However, it complements planning scheme provisions such as the Bushfire Management Overlay (BMO) by providing spatial and qualitative information from a variety of sources which together can inform considerations about where bushfire should be assessed early in the strategic planning process.” RBPA – Gippsland Region (2012).

Of particular note, this area of Eagle Point is not identified for treatment. Areas that constitute ‘BAL-LOW’ are provided by the existing residential area in Paynesville and Bairnsdale.

There is no bushfire history in Eagle Point or the nearby area, except for a 2009 fire that impacted north of the area near the Princes Highway. Since that time urban development has occurred in that area.

5.7 Municipal Fire Management Plan

Municipal Fire Prevention is a statutory responsibility of all Municipalities falling within the Country Area of Victoria. Section 43 of the CFA Act states ‘it is the duty of every municipal council and public authority to take all practical steps (including burning) to prevent the occurrence of fires on, and minimise the danger of the spread of fires on and from – any land vested in it or under its control or management: and any road under its care and management’.

The Municipality appoints a Municipal Fire Prevention Officer (MFPO) who is responsible for

issuing permits to burn during the fire danger period and issuing fire prevention notices for hazard removal to private landowners in their municipality. Municipalities have prosecution powers under the CFA Act, relating specifically to failure to comply with Fire Prevention Notices and breaching conditions of Permits to Burn issued during the Fire Danger Period. Councils may enter private lands to remove fire hazards if fire prevention notices are not complied with.

Owners and occupiers have responsibilities to ensure their properties are free of fire hazards that may put the lives and property of others at risk. MFPOs and their assistants have a duty to ensure that Fire Prevention Notices are issued where required and to enter private land to remove those hazards if they are not treated within the time frame or manner stipulated on the Fire Prevention Notice. If a Fire Prevention Notice is not acted upon owners or occupiers may be liable to a penalty infringement notice or prosecution in court. The costs associated with the removal of the fire hazard are billed to the owner or occupier of the property.

The East Gippsland Municipal Fire Management Plan is a sub-plan of the East Gippsland Shire Municipal Emergency Management Plan. The East Gippsland Municipal Fire Management Plan identifies fire risk and the works to be undertaken to mitigate that bushfire risk. In this Plan, the area of Eagle Point is not specifically identified but has historically been considered for the westerly approach of grassfire. The Municipal Fire Prevention Officer appointed to East Gippsland Shire Council is responsible to ensure that all the grassland to the west of Eagle Point is appropriately managed to mitigate the risk of bushfire, as reflected in the Council's Fire Prevention Works Plan. This intensification of development removes grassland from adjacent the existing residential area, with conversion of grassland to paved area and increased onsite management decreasing the risk of bushfire.

5.8 Surrounding Road network

The planning proposal site has a main north-south road and east-west road that provides for traffic movement with connectivity to the broader road network. There is strategic safe access from the subject land and egress into the 'BAL-LOW' area of both Bairnsdale and Paynesville. As mentioned earlier in the report, the East Gippsland Municipal Fire Management Plan provides for roadside management works to be undertaken by the designated road manager.

6.0 Use and Development Matters

Any subdivision that will comprise 10 lots or more is required to provide dwelling sites that do not exceed a radiant heat flux of 12.5kW/m². All lots can meet the objective.

The proposed development does adequately respond to the bushfire risk of the locality by the following design elements:

1. It provides an access network that facilitates connection to the broader street network.
2. A boundary road exists along the western and northern sides of the development.
3. The road network provides egress towards areas in Bairnsdale and Paynesville that meets the BAL-LOW definition.
4. Revegetation of the waterway has been considered, and the development can ensure that no dwelling is built with an exposure that exceeds 12.5kW/m².
5. A perimeter road along the waterway has been fully investigated but due to the shape of the zoned land it is not possible to construct.

7.0 Conclusion

The proposed subdivision concept provides a sound basis to incorporate bushfire mitigation measures. The *Design Guidelines for Settlement Planning at the Bushfire Interface* have been applied. No further modification of the proposed subdivision layout is required to adequately respond to the bushfire considerations of the East Gippsland Planning Scheme. Rather a specific planning permit condition can be utilised to ensure the bushfire hazard is mitigated throughout the development, including a Waterway Management Plan that aligns to the EGCMA advice and the subdivision design response. It is suggested that the condition should be applied to staging to ensure the developer is always maintaining a separation from the bushfire hazard (grassland) in accordance with AS3959 for all stages of the development.

The proposal does not increase the risk of bushfire to the Eagle Point Township.

8.0 References

AN68 Bushfire State Planning Policy VC140

Blanchi, R., Lucas, C., Leonard, J., & Finkele, K. (2010). Meteorological conditions and wildfire-related house loss in Australia. *International Journal of Wildland Fire*, 19(7), 914-926.

Standards Australia (2018) Construction of Buildings in Bushfire Prone Areas. Standards Australia, North Sydney, NSW.

The State of Victoria (2018) East Gippsland Municipal Fire Management Plan.

The State of Victoria Department of Environment, Land, Water and Planning (2017) Planning Permit Applications Bushfire Management Overlay – Technical Guide.

The State of Victoria Department of Planning and Community Development (2012) Regional Bushfire Planning Assessment – Gippsland Region.

The State of Victoria Department of Transport, Planning and Local Infrastructure (2014) Planning Practice Note 64 – Local Planning for Bushfire Protection. Victorian Government, Melbourne.

The State of Victoria Department of Transport, Planning and Local Infrastructure (2013) Planning Advisory Note 46: Bushfire Management Overlay Mapping Methodology and Criteria. Victorian Government, Melbourne.

The State of Victoria Department of Environment, Land, Water and Planning (2020) Design Guidelines for Settlement Planning at the Bushfire Interface.



EGCMA Ref: EGCMA-F-2023-00045
Document No: 3
Date: 23 July 2024

Kayla Stephenson
Development Solutions Victoria Pty Ltd

Dear Kayla,

Application Number (CMA Ref): EGCMA-F-2023-00045

Property: **Street:** 25a Waterview Road Eagle Point Vic 3878
Cadastral: Lot A PS523941, Parish Of Bairnsdale

Thank you for your enquiry received at the East Gippsland Catchment Management Authority ('the Authority') on 3 July 2024. The Authority understands you are preparing a Bushfire Management Plan for the property and would like confirmation as to what the Ecological Vegetation Class (EVC) revegetation will be on the eastern side of the waterway. It is also understood that you are requesting that the first 15 metres be suitable to comply with the CFA Woodland or lesser requirements to enable residential development on the lots.

The site is within the Gippsland Plain Bioregion. The pre-1750s EVC mapping suggests that prior to European settlement, the vegetation covering the subject site was likely to be Plains Grassy Forest (EVC151) and Plains Grassy Woodland (EVC55). For the purposes of the Waterway Management Plan, the relevant EVC for the site determines the appropriate plant species to be used for revegetation of the waterway buffers. Plant species guides can be accessed on the Authority's website ([WGCMA | Waterway Management Plan](#)).

This differs from the end-state vegetation classification using the categories defined in AS3959:2018 'Construction of buildings in bushfire-prone areas' for the purposes of a bushfire hazard assessment. Extent of canopy cover and the understorey plantings define the classification of the end-state bushfire hazard within the buffer areas.

The Waterway Management Plan for the site should be prepared generally in accordance with the Authority's *Waterway Management Plan Guidelines for Urban Developments* (2024) which can also be accessed at the above link. However, as advised in previous correspondence the following variations will be accepted:

- A reduced buffer width of 15 metres on the western side of the waterway consisting of:
 - LOWER BANK-CHANNEL ZONE: The width of this zone is determined by the lower bank or wet channel section of a waterway and is to be planted at a density of 4-6 plants/m² with aquatic and semi-aquatic herbs, sedges and rushes.

- PRIMARY BUFFER ZONE: The width of this zone is the remainder of the 15-metre buffer. Planting density to be 4-6 plants/m² for graminoids and 2-4 plants/m² for shrubs and herbs. Tree density, tree canopy separation and understorey planting to be in accordance with the end state vegetation classification of 'grassland' according to AS3959:2018.
- An increased buffer width of 45 metres on the eastern side of the waterway. This area should be revegetated generally in accordance with the Authority's *Waterway Management Plan Guidelines for Urban Developments (2024)* with an increased secondary buffer zone width to achieve the 45-metre total buffer width. Tree density, tree canopy separation and understorey planting in the primary and secondary buffers to be in accordance with the end state vegetation classification of 'woodland' according to AS3959:2018.

Revegetation of these buffers will need to be undertaken using species representative of the EVC for the site.

Should you have any queries, please do not hesitate to contact Ben Proctor on 1300 094 262 or email planning@wgcm.vic.gov.au. To assist the Authority in handling any enquiries please quote **EGCMA-F-2023-00045** in your correspondence with us.

Yours sincerely,



Adam Dunn
Gippsland Floodplain Officer

Cc: East Gippsland Shire Council

The information contained in this correspondence is subject to the disclaimers and definitions attached.

Definitions and Disclaimers

1. The area referred to in this letter as the 'proposed development location' is the land parcel(s) that, according to the Authority's assessment, most closely represent(s) the location identified by the applicant. The identification of the 'proposed development location' on the Authority's GIS has been done in good faith and in accordance with the information given to the Authority by the applicant(s) and/or the local government authority.
2. While every endeavour has been made by the Authority to identify the proposed development location on its GIS using VicMap Parcel and Address data, the Authority accepts no responsibility for, or makes no warranty regarding, the accuracy or naming of this proposed development location according to its official land title description.
3. **AEP** as Annual Exceedance Probability is the likelihood of occurrence of a flood of given size or larger occurring in any one year. AEP is expressed as a percentage (%) risk and may be expressed as the reciprocal of ARI (Average Recurrence Interval).

Please note that the 1% probability flood is not the probable maximum flood (PMF). There is always a possibility that a flood larger in height and extent than the 1% probability flood may occur in the future.

4. **AHD** as Australian Height Datum is the adopted national height datum that generally relates to height above mean sea level. The elevation is in metres.
5. **ARI** as Average Recurrence Interval is the likelihood of occurrence, expressed in terms of the long-term average number of years, between flood events as large as, or larger than, the design flood event. For example, floods with a discharge as large as, or larger than, the 100 year ARI flood will occur on average once every 100 years.
6. **Nominal Flood Protection Level** is the minimum height required to protect a building or its contents, which includes a freeboard above the 1% AEP flood level.
7. No warranty is made as to the accuracy or liability of any studies, estimates, calculations, opinions, conclusions, recommendations (which may change without notice) or other information contained in this letter and, to the maximum extent permitted by law, the Authority disclaims all liability and responsibility for any direct or indirect loss or damage which may be suffered by any recipient or other person through relying on anything contained in or omitted from this letter.
8. This letter has been prepared for the sole use by the party to whom it is addressed, and no responsibility is accepted by the Authority regarding any third-party use of the whole or of any part of its contents. Neither the whole nor any part of this letter or any reference thereto may be included in any document, circular or statement without the Authority's written approval of the form and context in which it would appear.
9. The flood information provided represents the best estimates based on currently available information. This information is subject to change as new information becomes available and as further studies are carried out.
10. Please note that land levels provided by the Authority are an estimate only and should not be relied on by the applicant. Prior to any detailed planning or building approvals, a licensed surveyor should be engaged to confirm the above levels.

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WARNING
BEWARE OF UNDERGROUND SERVICES
 The location of underground services are approximate only and their exact position should be given on site before any works commence. No guarantee is given that all services are identified on this plan.
 It is the responsibility of the contractor to obtain DBYD for information on services in the area identified on the plan and verify the location and depth of all services.
 The contractor shall be liable for any damage to services during landscape works.

Existing overhead powerlines
 Existing vegetation being retained within Tail Street road reserve
 Arborist report and recommendations by others

25 x No. Street Trees
Eucalyptus mannifera 'Little Spotty'
 Dwarf Brittle Gum

No street tree
 To be planted in front of Lots 31 and 32
 Insufficient setbacks to vehicle crossovers

No street tree
 To be planted in front of Lots 26 and 27
 Insufficient setbacks to vehicle crossovers

9 x No. Street Trees
Eucalyptus mannifera 'Little Spotty'
 Dwarf Brittle Gum

No street tree
 To be planted in front of Lots 13 and 19
 Insufficient setbacks to vehicle crossovers



SPECIFICATION NOTES

GENERAL
 Before commencement of works, it is the responsibility of the contractor to obtain DBYD for information on services in the area identified on the plan and verify the location and depth of all services.

The contractor shall be liable for any damage to services during landscape works.

Any changes to the tree species or locations specified on this plan must have the approval of the Landscape Superintendent/Site Project Manager and the Responsible Authority.

SOIL PREPARATION
 Locate all underground services and ensure these are not disturbed when preparing soil for planting.

Cultivate subsoil to all grass and planting areas to a depth of 100mm. Do not disturb services. During cultivation, thoroughly mix in any materials required to be incorporated into the subsoil. Cultivate manually within 300 mm of paths or structures. Soil should be prepared by removing stones >25mm diameter, soil sods >50mm diameter and all unwanted matter, including crushed rock, concrete, rubbish, tree roots, sticks and weeds.

All weeds shall be removed or appropriately controlled using chemical means prior to planting. All weed material shall be disposed of appropriately off site in a manner which will not allow it to re-establish.

Site topsoil shall be used where possible and improved, if required. It is the contractor's responsibility to test this for suitability. Any imported topsoil shall be obtained from an approved, off-site source and shall consist of a mixture of nominated ingredients, so as to meet specifications for imported topsoil blends in AS4119 - 'Medium'. The Contractor is to use imported topsoil that is guaranteed free of weed seeds and provide documentation of such to the Superintendent's satisfaction.

Where imported topsoil is to be used, spread to a minimum depth of 100mm for grass areas, including nature strips, and a minimum depth of 300mm excavated holes for trees. Topsoil is to be lightly and uniformly compacted.

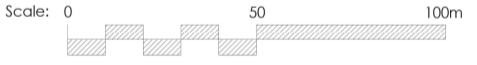
WEED CONTROL
 Any chemical controls are to be used in accordance with the manufacturer's specifications and site occupational health and safety procedures. The use of chemicals for weed control prior to planting must be approved by the Landscape Superintendent/Site Project Manager.

TREE SELECTION AND PLANTING PREPARATION
 Tree selection and planting criteria:
 - Trees are to have a trunk caliper of 20mm minimum
 - Only trees with a strong central leader should be selected for planting
 - All trees shall be healthy specimens free of pests and diseases
 - Trees are to be well-watered prior to planting

LOCATING STREET TREES
 Trees shall not be planted less than:
 - 2.0m from stormwater and sewerage pits
 - 4.0m from street lights
 - 3.0m from vehicle crossover/driveway
 - 10.0m from a street intersection (distance from projected line of the intersecting kerb line)

MULCH
 Where mulch is to be used around the base of trees, mulch is to be organic type laid to a minimum depth of 75mm and no deeper than 100mm. Mulch shall consist of fine dark coloured chipped or shredded pine bark or hardwood with not more than 5% fines content.

Use mulch to AS 4454 which is free of deleterious and extraneous matter such as soil, weeds, sticks and stones. Mulch is to be sloped towards the base of trees, but not in contact with the trunk.



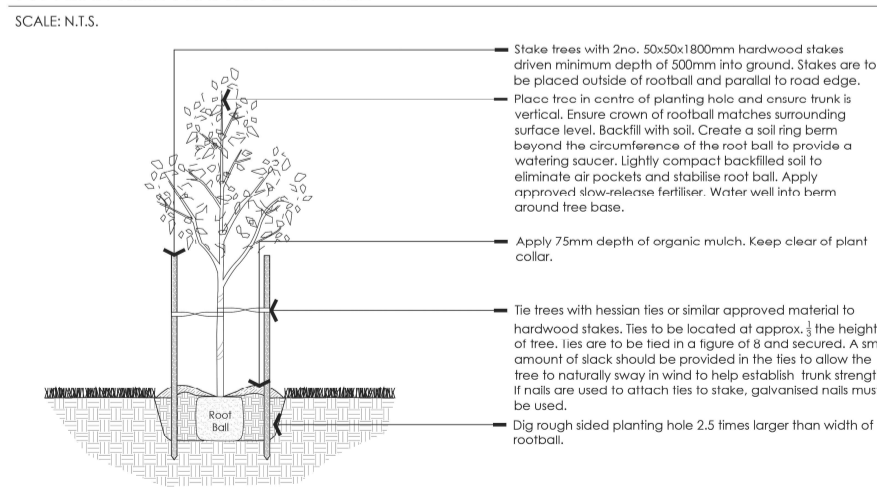
LEGEND

- Extent of Works Boundary - Streetscape
- Residential lot
- Existing street tree (proposed for retention)
- Proposed new street tree
- Proposed nature strip
- Indicative location of street light (14W LED) (Subject to detailed design by electrical engineer)
- Contour - 0.2m
- Proposed 1.5m wide concrete footpath

TREE SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	MATURE SIZE	SUPPLY SIZE	QTY
	<i>Eucalyptus mannifera</i> 'Little Spotty'	Dwarf Brittle Gum	4-10m H x 4-10m W	Min. 40cm Pot	34

TYPICAL TREE PLANTING DETAIL



STREETSCAPE PLAN
 25 Waterview Road, Eagle Point



Scale/Sheet	Date	
As shown	14 September 2024	
Project Number	File/Drawing Number	Revision
2024171	171-STP1	00

ADVERTISED

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179 Old Orbost Road, Swan Reach 3909

ABN: 301 597 457 67

Development Report

Development Solutions Victoria	
25 Water View Road, Eagle Point	

Prepared by

Nathan Williamson

Certificate 5 Arborist

ISA TRAQ Qualified

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Executive Summary

On the 15th of March 2023, Roots 2 Leaves Tree Services conducted a site inspection of the 25 Waterview road, Eagle point, during the site inspection a scope was created. That scope required the company to identify all trees within the proposed area, if any are significant, as well as their SRZ and TPZ for future developments.

The consultation involved inspections of other trees on the site to best identify which trees are worth retaining for both significance and longevity and which trees were not. Retention values are identified by a trees useful Life expectancy, ULE, The Ule is giving in time format of years. 20+ Years is the expected time that the tree will continue to survive and grow with no interruptions. 10+ Years shows the tree has some issues which may affected the tree within the next 10 years and so, dead trees have a -0 value.

It was identified that some of the trees are dead, removal of these may help for locations of driveway installs. Lower ULE trees could also be removed to allow room for driveways, Trees should not have the SRZ impacted at all and TPZ impacted to minimal amounts possible.

All trees have been assessed using the Tree Risk Assessment Qualified system (TRAQ) to identify risk, visual inspections have been conducted using VTA and development encroachments have been identified by either calculating and measuring the TPZ or visually identifying limbs that overhanging the building site.

There were 32 trees in the proposed area.

- Most were of a mature age
- Overall health conditions of the trees are fair – good



Introduction

Brief

This report has been commissioned by Sophie Dilks of Development Solutions Victoria and she has requested Roots 2 Leaves Tree Services to visit the site at 25 Water View Road Eagle Point and assess and identify trees that are within the proposed site as well as give advice on any recommendations with regards to Tree Protection Zones and Tree Management.

This report has been prepared by Roots 2 Leaves Tree Services Pty Ltd and authorized by its employee, Nathan Williamson, Consulting Arborist.

A Site inspection was carried out on March 14th 2023 by Nathan Williamson. Data entry has been provided by Nathan williamson & Michelle Williams of Roots 2 Leaves Tree Services.

Trees are a lovely part of our environment and without them we would lose out on many great advantages including shade, aesthetics, and most importantly our existence. However, it is necessary that trees in key areas, such as high traffic areas, are assessed for health, structure, and any associated risks.

Scope of works

- Identify Tree Species
- Provide site image with all trees
- Include existing and proposed site maps
- Provide images of each tree and identification
- Provide information on each tree including TPZ and SRZ
- Outline TPZ protection and Tree Management



Image 1 – Street view

Methodology

Inspection date

15/03/2023

Date report was written

21/03/2023

Inspection method

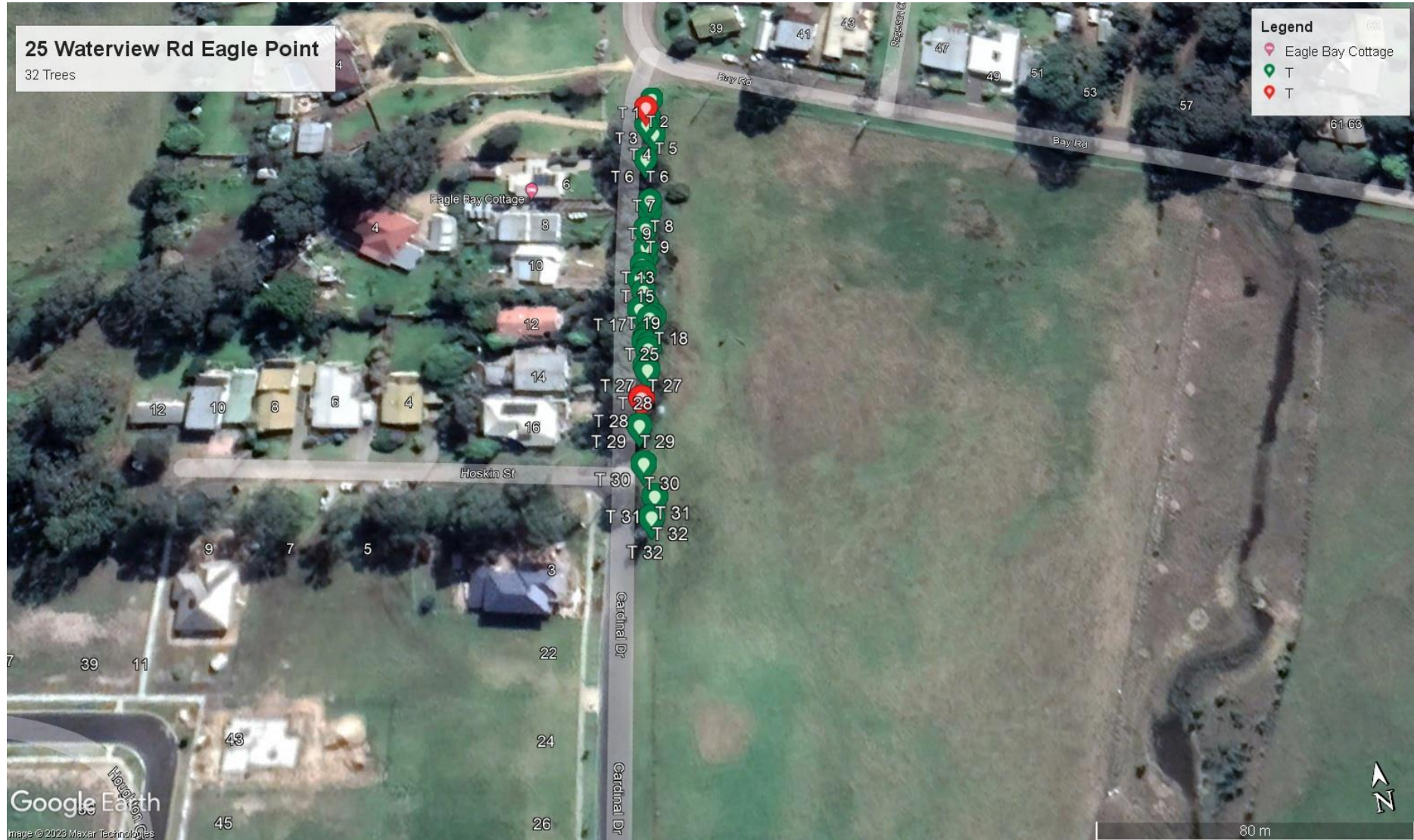
The site inspection was carried out unaccompanied during sunny and still conditions. The trees were inspected from the ground and observations were made of the growing environment and surrounding area. Wood density and extent of decay was determined using a mallet where appropriate.

This assessment has been conducted using the (VTA) method for assessment Level 1. This method has been slightly modified to include a walk around the trunk.

The content of this report has been prepared based on the arborist's experience within the tree industry.

All information that has been given to the arborist has been included in this report.

Pre-development Site Report – 25 Waterview Road, Eagle Point



Site Map 2 – Existing Site Map with trees.

Pre-development Site Report – 25 Water View Rd, Eagle Point



Site Map 4 – Site image

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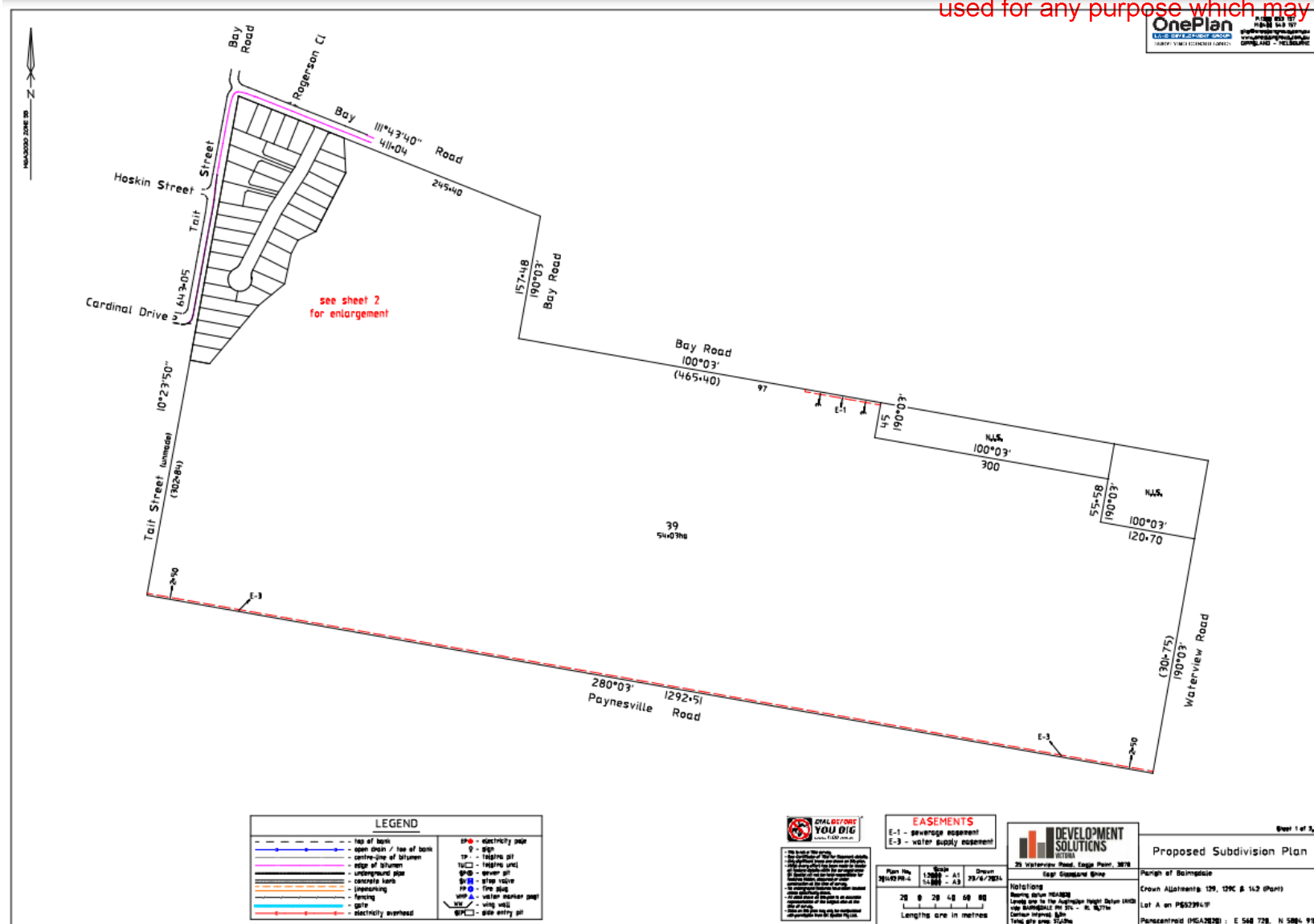


image 2 – Supplied site plan

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Pre-development Site Report – 25 Water View Rd, Eagle Point

Table 1 – Site Data Collection for trees 1-32

Tree #	Species	Common Name	Height	Canopy Width	Maturity	Health	Structure	DBH (MM)	TPZ (M)	DRC (MM)	SRZ (M)	ULE	Native to Victoria	Observations
1	<i>Eucalyptus tereticornis</i>	Forest Red Gum	25	18	Mature	Fair	Fair - Poor	1250	15.0	150	1.49	10+	Yes	Multi stemmed, habitat hollows
2	<i>Eucalyptus tereticornis</i>	Forest Red Gum	18	8	Dead	Dead	Poor	600	7.2	550	2.57	<5	Yes	Tree is dead
3	<i>Eucalyptus tereticornis</i>	Forest Red Gum	24	15	Mature	Fair	Fair	810	9.7	785	2.99	10+	Yes	Multi stemmed, deadwood
4	<i>Eucalyptus tereticornis</i>	Forest Red Gum	17	8	Mature	Fair	Fair - Poor	470	5.6	455	2.38	10+	Yes	Lean over road, deadwood
5	<i>Eucalyptus tereticornis</i>	Forest Red Gum	22	15	Mature	Fair	Fair	640	7.7	615	2.70	10+	Yes	Dadwood
6	<i>Eucalyptus tereticornis</i>	Forest Red Gum	9	15	Mature	Good	Fair - Poor	720	8.6	685	2.82	10+	Yes	Multi stemmed, likely coppiced tree
7	<i>Eucalyptus tereticornis</i>	Forest Red Gum	11	14	Mature	Good	Fair - Poor	760	9.1	740	2.92	10+	Yes	Multi trunked, lean, deadwood
8	<i>Eucalyptus tereticornis</i>	Forest Red Gum	12	15	Mature	Good	Poor	820	9.8	790	3.00	10+	Yes	Lean, habitat hollows, deadwood
9	<i>Eucalyptus tereticornis</i>	Forest Red Gum	15	18	Mature	Fair - Poor	Poor	640	7.7	630	2.73	10+	Yes	Lean over road, deadwood
10	<i>Eucalyptus tereticornis</i>	Forest Red Gum	22	19	Mature	Fair	Fair - Poor	950	11.4	920	3.20	10+	Yes	Multi stemmed, deadwood
11	<i>Eucalyptus tereticornis</i>	Forest Red Gum	23	19	Mature	Fair	Fair	1080	13.0	1020	3.34	10+	Yes	Multi stemmed, deadwood
12	<i>Eucalyptus tereticornis</i>	Forest Red Gum	8	4	Semi Mature	Fair	Poor	280	3.4	275	1.92	10+	Yes	No issues
13	<i>Eucalyptus tereticornis</i>	Forest Red Gum	24	18	Mature	Fair - Poor	Fair	640	7.7	620	2.71	10+	Yes	No issues
14	<i>Eucalyptus tereticornis</i>	Forest Red Gum	13	12	Mature	Fair	Fair - Poor	440	5.3	425	2.31	10+	Yes	Lean over road, multi stemmed
15	<i>Eucalyptus tereticornis</i>	Forest Red Gum	24	15	Mature	Fair	Fair - Poor	850	10.2	830	3.06	10+	Yes	Deadwood, old vertical splits
16	<i>Eucalyptus tereticornis</i>	Forest Red Gum	23	6	Semi Mature	Fair	Fair	350	4.2	360	2.15	10+	Yes	Deadwood
17	<i>Eucalyptus tereticornis</i>	Forest Red Gum	24	16	Mature	Fair	Fair - Poor	1020	12.2	950	3.24	10+	Yes	Multi stemmed, deadwood
18	<i>Eucalyptus tereticornis</i>	Forest Red Gum	9	5	Semi Mature	Fair	Fair	260	3.1	260	1.88	10+	Yes	No issues
19	<i>Eucalyptus tereticornis</i>	Forest Red Gum	10	8	Semi Mature	Fair	Fair	320	3.8	310	2.02	10+	Yes	Deadwood
20	<i>Eucalyptus tereticornis</i>	Forest Red Gum	18	7	Mature	Fair	Fair	360	4.3	340	2.10	10+	Yes	No issues
21	<i>Eucalyptus tereticornis</i>	Forest Red Gum	17	7	Mature	Fair	Fair	350	4.2	330	2.08	10+	Yes	No issues
22	<i>Eucalyptus bosistoana</i>	Coast grey box	7	12	Semi Mature	Fair - Poor	Fair - Poor	360	4.3	360	2.15	5+	Yes	Multi stemmed
23	<i>Eucalyptus tereticornis</i>	Forest Red Gum	23	14	Mature	Fair	Fair	480	5.8	490	2.45	10+	Yes	Deadwood
24	<i>Eucalyptus tereticornis</i>	Forest Red Gum	18	15	Mature	Fair	Fair	440	5.3	450	2.37	10+	Yes	Deadwood
25	<i>Eucalyptus tereticornis</i>	Forest Red Gum	7	7	Semi Mature	Fair	Fair	390	4.7	410	2.28	10+	Yes	No issues
26	<i>Eucalyptus tereticornis</i>	Forest Red Gum	24	21	Veteran	Fair	Good	930	11.2	950	3.24	10+	Yes	Habitat hollows, deadwood
27	<i>Eucalyptus tereticornis</i>	Forest Red Gum	18	17	Mature	Fair	Fair - Poor	620	7.4	610	2.69	10+	Yes	Lean, deadwood
28	<i>Eucalyptus tereticornis</i>	Forest Red Gum	18	15	Dead	Dead	Dead	720	8.6	760	2.95	<5	Yes	Tree is dead
29	<i>Eucalyptus bosistoana</i>	Coast grey box	12	6	Mature	Fair	Fair	230	2.8	240	1.82	5+	Yes	Multi trunked
30	<i>Eucalyptus tereticornis</i>	Forest Red Gum	9	6	Mature	Fair	Fair	490	5.9	510	2.49	10+	Yes	No issues
31	<i>Acacia mearsii</i>	Black wattle	7	4	Mature	Poor	Fair	410	4.9	430	2.32	10+	Yes	No issues
32	<i>Eucalyptus tereticornis</i>	Forest Red Gum	8	3	Mature	Good	Fair	390	4.7	400	2.25	10+	Yes	No issues

Discussion

Trees play a huge part in new and old developments; it is important where possible to work around trees and attempt to retain them however sometimes an area may have large numbers of trees and there isn't enough space to develop without damaging trees or their roots. This report helps to identify the Tree Protection Zones (TPZ) and Structural Root Zones (SRZ) to identify which trees will be adversely affected by the proposed development and which trees may need to be removed to complete it.

Due to changes within the Arboriculture field, there is now a new method for identify the SRZ, this is calculated by measuring the DRC, Diameter of the Root Crown (Buttress of Tree) and then following the calculations. This information can be found within our data tables.

By supplying this information (Data) an architect will be able to input the supplied data to identify which trees will be encroached by the proposed works. If a Trees TPZ is to be Encroached there are several methods of working within this area

Working with trees – Encroachments.

When working with trees on development sites it is crucial to ensure trees being retained are protected, both visual parts of the tree and the roots under the ground. Tree health can be reduced by causing damage to both the trunk and root plate, for example this damage can be caused by machinery impact and chemical spills. This damages the cambium layer and reduces the transfer of nutrients and carbohydrates.

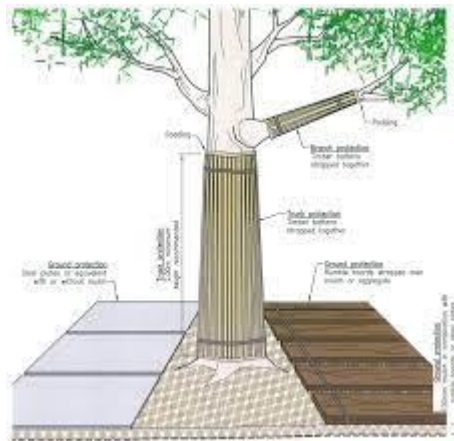


Figure 1 – Protection methods if equipment must operate within the TPZ

Root systems can also be damaged by excavation, compaction, and soil grade change. It is important to ensure adequate protection is provide and TPZ of trees are not interfered with if the tree is to be retained.

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The image above explains methods of protecting trees when or if machinery/vehicles must operate within the TPZ of a tree – these methods help to protect trunk and limb damage as well as soil compaction – root damage.

Figure 1 is to be used only when the TPZ has machinery/persons or vehicles within the TPZ,



Figure 2 - Either bunting or wire mesh fencing can be used. Flagged rope does not offer enough protection



Figure 3 – example of signage that can be used.

if there is no need for anyone or machinery/vehicles to access the TPZ then it can be simply fenced off and signs erected. Figure 2 is an example of sufficient fencing and figure 3 is signage that can be used.

When digging around Tree Protection Zones it is important to follow the Australian standards – Protection of trees on development sites. The TPZ is worked out by calculating the DBH (Diameter at breast height, 1.3m) then multiplied by 12. There is an exception of 10% encroachment allowed if required, figure 4 shows examples of encroachment methods.

Other options when trees must be encroached is to have a minimum AQF 4 Arborist on site to oversee excavation in order to see if any major roots are found or damaged. If roots are found they should be clean cut, have photos taken and be documented.



Figure 4 – examples of possible encroachments.

If the TPZ is to be impacted further, then the 10% allotment then further actions should be considered to prevent tree Health loss or Tree Failure.

These methods are as follows.

- **Radar Root inspections**
Radar can be used to identify the exact location of roots under ground and their size, this is a non-intrusive method but needs room to be performed and can be costly.
- **Low impact root excavation**
a Low impact root investigation may be performed using an Airspade or Water probe/Vac Truck. Both methods have their Pros and Cons. Using these methods will allow an arborist to identify if there are any roots that may be impacted by the works and if they are structural roots. These roots can be clean cut at this point if required. This should be completed by a CERT 5 Arborist minimum.
- **Excavate and inspect**
Worst case scenario is that the site can be excavated and then inspected, this method is not usually recommended as the damage will have already been done if large roots are found. Then the tree would have to be removed regardless.
- **Using Other methods**
Other methods may be considered when working within the TPZ, such as Permeable concrete allowing for water penetration, raised paths, and other types of materials that do not require digging, Gravel paths etc. all other options should be considered before removal of the Tree/Trees.

Permeable Concrete.

An alternate method when working over TPZ zones is to use permeable concrete. Although the area still requires excavation and root inspections it allows for future tree root growth and a reduction in future compaction.

Permeable concrete is a porous type of concrete that allows water penetration through the concrete base into the subbase (rock screenings) and then into the subsoils. There are several benefits to using Permeable concrete when working with trees and encroaching the TPZ, for example.

- Helps to keep moisture within subsoils.
- Allows for Root penetration and further root growth.
- Great for reducing water pooling in suburban areas.
- Great for noise reduction on road surfaces.

Currently there is a lot of information out there on permeable concrete and the benefits it has in urban areas, the information supports it being used for small road surfaces, driveways, foot paths and tree surroundings.

Recommendations

- Design Plans for driveway installs either outside SRZ or Remove Trees with low retention value to protect high retention value trees.
- Erect no go Zones where machinery may impact the TPZ.
- If TPZ is to be encroached, follow Australian Standards as required.
- Any Further consulting to be completed by a CERT 5 Arborist Minimum.
- All future pruning to be completed by an arborist to Australian standards.
- All future removals should be completed by an Arborist to Australian Standards.



Image 3 – Area of trees

References

Australian Standards 4970 – 2009 Protection of trees on development sites

Australian Standards 4373 – 2007 Pruning of amenity trees

Costermans, L. 2008. Native Trees and Shrubs of South-Eastern Australia

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Hayes, E. 2002. Tree Risk Assessments & Tree Mechanics.

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Appendices 1

Testimony

I am a Qualified Consulting Arborists with over 8 years in the industry directly and many more years spent learning about trees and arboriculture, I have Studied both my Cert 3 in Arboriculture and Cert 5 in Arboriculture at Wodonga institute of Tafe, under the instruction of some reputable industry leaders including Rod Hall.

As an arborist in the Field, I have extensive knowledge of trees and multiple situations and locations including remote/ Forest settings to Cityscapes/urban settings.

Appendices 2

Limitations of Tree Risk Assessments

It is important for the tree owner or manager to know and understand that all trees pose some degree of risk from failure or other conditions. The information and recommendations within this report have been derived from the level of tree risk assessment identified in this report, using the information and practices outlined in the International Society of Arboriculture's Best Management Practices for Tree Risk Assessment, as well as the information available at the time of the inspection. However, the overall risk rating, the mitigation recommendations, or any other conclusions do not preclude the possibility of failure from undetected conditions, weather events, or other acts of man or nature.

Trees can unpredictably fail even if no defects or other conditions are present. It is the responsibility of the tree owner or manager to schedule repeat or advanced assessments, determine actions, and implement follow up recommendations, monitoring and/or mitigation. Roots 2 Leaves Tree Services can make no warranty or guarantee whatsoever regarding the safety of any tree, trees, or parts of trees, regardless of the level of tree risk assessment provided, the risk rating, or the residual risk rating after mitigation.

This information is solely for the use of the tree owner and manager to assist in the decision-making process regarding the management of their tree or trees. Tree risk assessments are simply tools which should be used in conjunction with the owner or tree manager's knowledge, other information and observations related to the specific tree or trees discussed, and sound decision making.

Glossary

Tree risk Assessment has a unique set of terms with specific meanings. Definitions of all specific terms may be found in the International Society of Arboriculture's Best Management Practice for Tree Risk Assessment. Definitions of some of these terms used in this report are as follows:

The likelihood of failure may be categorized as imminent meaning that failure has started or could occur at any time; probable meaning that failure may be expected under normal

weather conditions within the next 3 years; possible meaning that failure could occur but is unlikely under normal weather conditions during that time frame; and improbable meaning that failure is not likely under normal weather conditions and may not occur in severe weather conditions during that time frame.

The likelihood of the failed tree part impacting a target may be categorized as high meaning that a failed tree or tree part will most likely impact a target; medium meaning that a failed tree or tree part may or may not impact a target with equal likelihood; low meaning that the failed tree or tree part is not likely to impact a target; and very low meaning that the chance of a failed tree or tree part impacting the target is remote.

The Likelihood of Failure and Impact is defined by Table 1, the Likelihood Matrix:

Likelihood of Failure	Likelihood of Impacting Target			
	Very Low	Low	Medium	High
Imminent	Unlikely	Somewhat likely	Likely	Very likely
Probable	Unlikely	Unlikely	Somewhat likely	Likely
Possible	Unlikely	Unlikely	Unlikely	Somewhat likely
Improbable	Unlikely	Unlikely	Unlikely	Unlikely

The consequences of a known target being struck may be categorized as severe meaning that impact could involve serious personal injury or death, damage to high value property, or disruption to important activities; significant meaning that the impact may involve personal injury, property damage of moderate to high value, or considerable disruption; minor meaning that impact could cause low to moderate property damage, small disruptions to traffic or a communication utility, or minor injury; and negligible meaning that impact may involve low value property damage, disruption that can be replaced or repaired, and do not involve personal injury.

Targets are people, property, or activities that could be injured, damaged, or disrupted by a tree failure

Levels of assessment

- 1) *Limited visual assessments* are conducted to identify obvious defects.
- 2) *Basic assessments* are visual inspections done by walking around the tree looking at the site, buttress roots, trunk, and branches. It may include the use of simple tools to gain information about the tree or defects.
- 3) *Advanced assessments* are performed to provide detailed information about specific tree parts, defects, targets of site conditions. Drilling to detect decay is an advanced assessment technique.

Tree Risk Ratings are terms used to communicate the level of risk rating. They are defined in Table 2, the Risk Matrix, as a combination of Likelihood and Consequences:

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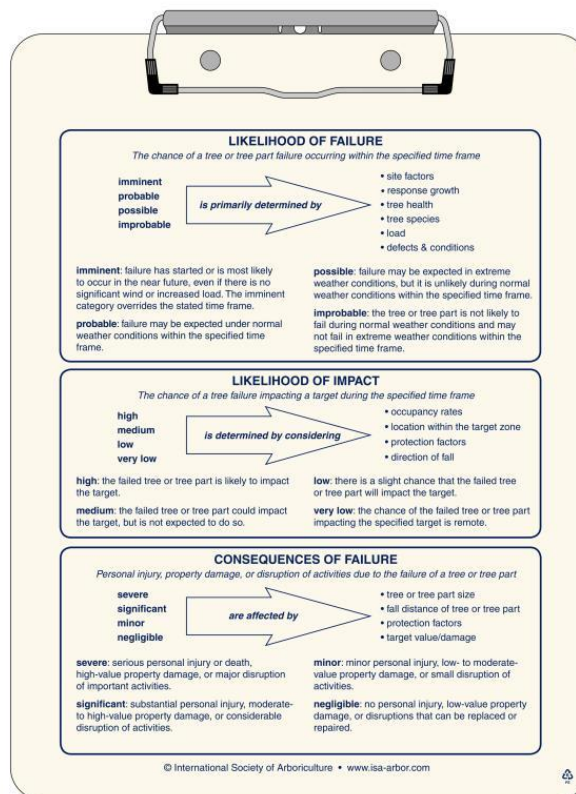
Likelihood of Failure & Impact	Consequences of Tree Failure			
	Negligible	Minor	Significant	Severe
Very likely	Low	Moderate	High	Extreme
Likely	Low	Moderate	High	High
Somewhat likely	Low	Low	Moderate	Moderate
Unlikely	Low	Low	Low	Low

Overall tree risk rating is the highest individual risk identified for the tree. The residual risk is the level of risk the tree should pose after the recommended mitigation. Mitigation priority 1 is defined as mitigation activities that should be scheduled prior to the next growing season. Mitigation Priority 2 can be scheduled on the next routine maintenance cycle.

Information and likelihoods are observed and depending report type written, this image shows the likelihoods and site factors etc observed on site.

Visual Tree Assessment (VTA)

VTA is a visual tree inspection method which, guided by the principles of biomechanics and based on the “Axiom of Constant Stress” (Mattheck, 1993), considers, and complies with the current jurisdiction (Breloer and Mattheck, 1992). The VTA procedure is composed of three steps:



1. Visual inspection for diagnostic symptoms of defects and visual inspection of the tree’s vitality. No further steps are taken when there are no indications that the tree presents a significant hazard.
2. Thorough examination of any defects which have been indicated in step 1.
3. Measurement and analysis of defects which turn out to be critical. Evaluation of the tree’s residual strength.

Appendices 3

Arboriculture Descriptors (from Table 1) Taken from Cameron McGregor May 2018

a) Tree Name

Provides botanical name (genus, species, variety, and cultivar) according to accepted international taxonomic classification, and common name

b) Tree Type

Describes the general geographical origin of the species and its type e.g., deciduous or evergreen.

Category	Description
Native Evergreen	evergreen Occurs within Australia and typically retains its leaves year-round Exotic deciduous
Exotic deciduous	Occurs outside Australia and typically sheds its leaves during Winter

c) Height & Width

Indicates the height and width of individual trees. Measurement is expressed in meters. Height was determined using a Clinometer and width was paced.

d) DBH

Diameter at Breast Height (1.4 meters from ground level). Measurements were taken using a diameter tape and is expressed in millimetres.

e) Age

Relates to the physiological stage of the tree's life cycle.

Category	Description
Semi-mature (SM)	Tree rapidly increasing in size and yet to achieve expected size
Mature (M)	Tree at expected Size in situation, with reduced incremental growth

f) Health

Assesses various attributes to describe the overall health and vigour of the tree

Descriptor	Vigour/extension growth	Decline symptoms/deadwood	Foliage density, size, colour	Pest & disease
Good	Above typical	None or Minimal	Better than typical	None or minimal

Pre-development Site Report – 25 Waterview Road, Eagle Point

Fair	Typical	Typical or expected	Typical	Typical, within damage threshold
Fair to Poor	Below Typical	More than typical	Exhibiting deficiencies	Exceeds damage thresholds
Poor	Minimal	Excessive and large amount/size	Exhibiting severe deficiencies	Extreme and contributing decline

g) Structure

Assesses principal components of tree structure

Descriptor	Root plate and lower stem	Trunk	Primary Branch support	Outer Crown and roots
Good	No damage, disease or decay, obvious basal flare, stable in ground	No damage, disease, or decay, well tapered	Well formed, attached, spaced, and tapered	No disease, decay, or structural defect
Fair	Minor damage or decay, basal flare present	Minor damage or decay	Typically formed, spaced, and tapered	Minor damage, disease, or decay; minor branch end weight or over extension
Fair to Poor	Moderate damage or decay; minimal basal flare	Moderate damage or decay, approaching recognised thresholds	Weak decayed or with acute branch attachments, previous branch failure evidence	Moderate damage, disease, or decay fungal fruiting bodies present; major branch end weight or over extension
Poor	Major damage, disease, or decay; fungal fruiting bodies present. Excessive lean placing pressure on root plate	Major damage, disease or decay exceeds recognised thresholds, fungal fruiting bodies present. Acute lean, stump resprout.	Decayed cavities or has acute branch attachments with included bark; excessive compression flaring, failure likely	Major damage, disease, or decay; fungal fruiting bodies present, major branch end weight or over extension

Appendices 4

Occupancy rates in target zones (Taken directly from TRAQ 2013)

The amount of time one or more targets is within the target zone- its occupancy rate- is a primary component of assessing the likelihood of a target being impacted. Not all targets may be always present in the target zone. Occupancy rates can be classified as constant, frequent, occasional, or rare. Static targets, represent a constant occupancy, while movable and mobile targets can be in any of the following four classifications:

Constant Occupancy

Constant occupancy indicates that a target is present at nearly all times, 24 hours a day, 7 days a week. Examples include, buildings, constant steady stream of traffic, constant steady stream of pedestrians. Each person or vehicle may occupy the target area for a very short time but, in aggregate, they represent constant occupancy.

Frequent Occupancy

If the target zone is occupied for a large portion of a day or week, the use is classified as frequent. Suburban streets that receive moderate volumes of traffic, car parks for facilities that are open during the daytime only, footpaths in shopping areas, and busy delivery areas are examples of frequent occupancy.

Occasional Occupancy

Occasionally used sites can be defined as those that are occupied by people or targets infrequently or irregularly. Examples include country roads, low use footpaths, and low use sections of parks. In some instances, a seldom-used area may be heavily used for short periods. Examples might include cemeteries, a field surrounded by trees that is used for special event parking, or trails and access roads used only when an event is under way. The client or tree manager may define whether the risk assessment is to consider low- or high use times or both.

Rare Occupancy

This category is for sites that are not commonly used by people. Backcountry trails, fenced areas that are well away from more actively used parts of a site, remote parts of an estate, and gardens through which neither workers nor visitors typically pass would all have a rare occupancy. The client or tree manager may decide, as a matter of policy, that the risk in these areas is so low that risk assessments is not justified.

Assumptions and Limiting Conditions

- No responsibility is assumed by Roots 2 Leaves Tree Services Pty Ltd for matters legal in nature related to this manual. Any legal or technical description given is assumed to be correct.
- All care has been taken to obtain reasonable and relevant information from qualified and reliable sources in the preparation of this document.
- Visual material within this manuals such as sketches, diagrams, photographs, etc. are not necessarily to scale and should not be construed as engineered data for construction.
- This document has been prepared utilising accepted contemporary standards of tree care and maintenance, evaluation and assessment procedures, diagnostic and reporting techniques and sound arboriculture practices as recommended by the sources listed in the 'References' section.

Reference No: B22313

Project No: 180722

25/07/2022

Development Solutions Victoria
48 Bailey Street
BAIRNSDALE Vic 3875

Attn: Sophie Dilks

Dear Sophie,

**RE: Proposed 38 Lot Subdivision
Bay Road, Eagle Point**

INTRODUCTION

Chris O'Brien & Company Pty Ltd have been engaged by Sophie Dilks of Development Solutions Victoria to provide a Geotechnical risk assessment report for a proposed 38 Lot residential subdivision at Bay Road, Eagle Point Vic 3875. An erosion management overlay exists over the property.

The purpose of this letter is to determine if the works to be carried out on this site will be a risk to the surrounding environment and is to be used in the planning application process only. This letter is not a soil classification report and shall not be used for this purpose.

Information contained in this letter is from a visual inspection of the site and based on information supplied to Chris O'Brien & Company Pty Ltd on the work to be completed on the site.

Note that in accordance with "Guidelines for Landslide Susceptibility" Section 5: Landslide Zoning: the subject site would not be considered in a landslide hazard zone.

The site was inspected by Andrew Powell on the 21st July 2022.

SITE DESCRIPTION

The approximate 3.73 Hectare site is located on the south side of Bay Road and to the east of Tait Street and Cardinal Drive. A natural water course is in existence to the east of the proposed subdivision which drains land from the south through to Eagle Point Bay. Significant vegetation exists in the nature strip on the east side of Tait Street with this vegetation running between Bay Road and Hoskin Street. The land which is currently used for grazing has a very good cover of grass and in general falls towards the existing water course located to the east of the proposed subdivision. The high point of the allotment is about 60m to the south of Hoskin Street falling from this point with falls of up to a maximum

of 1 in 8 observed on the site. A series of photos is attached to the end of this report showing site features as described.

PROJECT DETAILS

A 38 lot subdivision is proposed for the site. The construction work will be as follows.

- Excavation (cut/fill) along the proposed access road carriageway. Road reserve has been strategically placed to minimise the crossfall across areas where the road is to be formed. Maximum cut/fill batter to be 1 in 3.
- Stripping and stockpiling of all topsoil material from areas to be excavated or trenched.
- Placement and compaction of road making materials.
- Provide tie in to access streets being Bay Road to the north and to Tait Street in the south west corner.
- Placement of concrete for footpath.
- Upgrading of east side of Tait Street. New kerb & channel etc.
- Excavation of trenches for the provision of all services to the subdivision including provision of storm water drainage to allow external catchments to be drained through the site.
- Provision of treated storm water drainage outfalls to protect the existing water course to the east.
- Provision of site access for the duration of the works. Site access can be gained from the south west corner where access to the new street will be formed.
- Provision of areas for site facilities, machinery and fuel storage, and topsoil stockpiling for the duration of the works.
- All cut/fill batters (no steeper than 1 in 3) and disturbed areas to be re-sod and sown with local grasses.

FIELD INVESTIGATION

The site was inspected on the 21st July 2022 to assess what is currently occurring on site in regards to erosion and to determine services available to the site.

Visual inspection of the site confirmed no erosion currently occurring onsite. Site access has been located so as to minimise the amount of vegetation removal works to be done. Land is currently used for cattle grazing.

Inspection confirmed that all services are available to the site, with water, sewer and Ausnet available from both Bay Road and Tait Street. Storm water system is to drain to the north east.

A soil investigation was completed for the site with the typical soil profiles of the site listed below. Pits were hand excavated at 2 locations.

0 – 250	Dark grey silty sandy loam topsoil, Damp & Firm, with coarse grass roots
250 – 480	Fawn & grey clayey sandy silt, Damp & Stiff
480 – 950	Grey & Orange sandy silty clay, Damp & Stiff

Photos below show soils found and depth profile. No adverse moisture conditions or fill were encountered during the soil investigation. It is expected that the topsoil will be stripped in work areas and stockpiled for future use. Soils found were cohesive, strong and

considered ideal for forming batters up to a maximum slope of 1 in 3.



SUMMARY OF RISK

LANDSLIDE	LOW
SHEET/RILL EROSION	LOW
TUNNEL EROSION	LOW

- Low to moderate grades over the entire site ranging from about 1 in 20 to 1 in 8.
- There is no evidence of any landslip or soil erosion and any of the surrounding properties
- Vegetation removal in Tait Street road reserve to create access to proposed allotments fronting Tait Street between Hoskin Street and Bay Road. Provide erosion and sediment control measures i.e. silt fences to protect the existing area from any sediment run-off.
- A construction management plan will need to be implemented for entire construction time for the roads and associated underground services. The plan will need to show measures to be undertaken to control erosion and storm water during the construction period. The following will have to be considered:
 - i. Location of any temporary construction works office and machinery storage area.
 - ii. Identification and location of areas suitable for the stockpile of topsoil with measures of erosion control to be shown (i.e. diversion banks and sediment fences)
 - iii. Measures and techniques to protect drainage lines and watercourses from sediment runoff from disturbed or under construction areas.
 - iv. Drainage of all construction and stockpile areas for the duration of the works and details of stormwater treatment to be provided.
 - v. A stabilized vehicle access point to and from all storage areas on the site for the entire length of the construction
 - vi. The form, bulk, scale and location of cut and fill is to be controlled to ensure no adverse effects on the natural water course to the north. (i.e. diversion banks and spoon drains)
 - vii. All erosion and sediment control measures will need to be inspected on a daily basis by the site manager with any maintenance required to be rectified immediately.
- Storm water management plan for the whole site, with drainage treatment and details and control of storm water run-off to be clearly indicated. Control of sediment run-off and erosion control details to be shown. It is essential that all storm water run-off from construction areas be treated prior to entering site run-off areas.

The above recommendations will need to be provided and approved prior to the commencement of any construction works on site. All storm water pits, silt fences etc will need regular maintenance to ensure the systems work as intended, as any silt build up in pits etc could cause the system to fail.

CONCLUSION

We therefore suggest that a full geotechnical risk assessment report is not required for this development. As long as all recommendations above are strictly adhered to, we anticipate no environmental risks with the work to be undertaken.

Should you need to clarify anything, please contact the Andrew Powell on 0402384596

Yours faithfully,



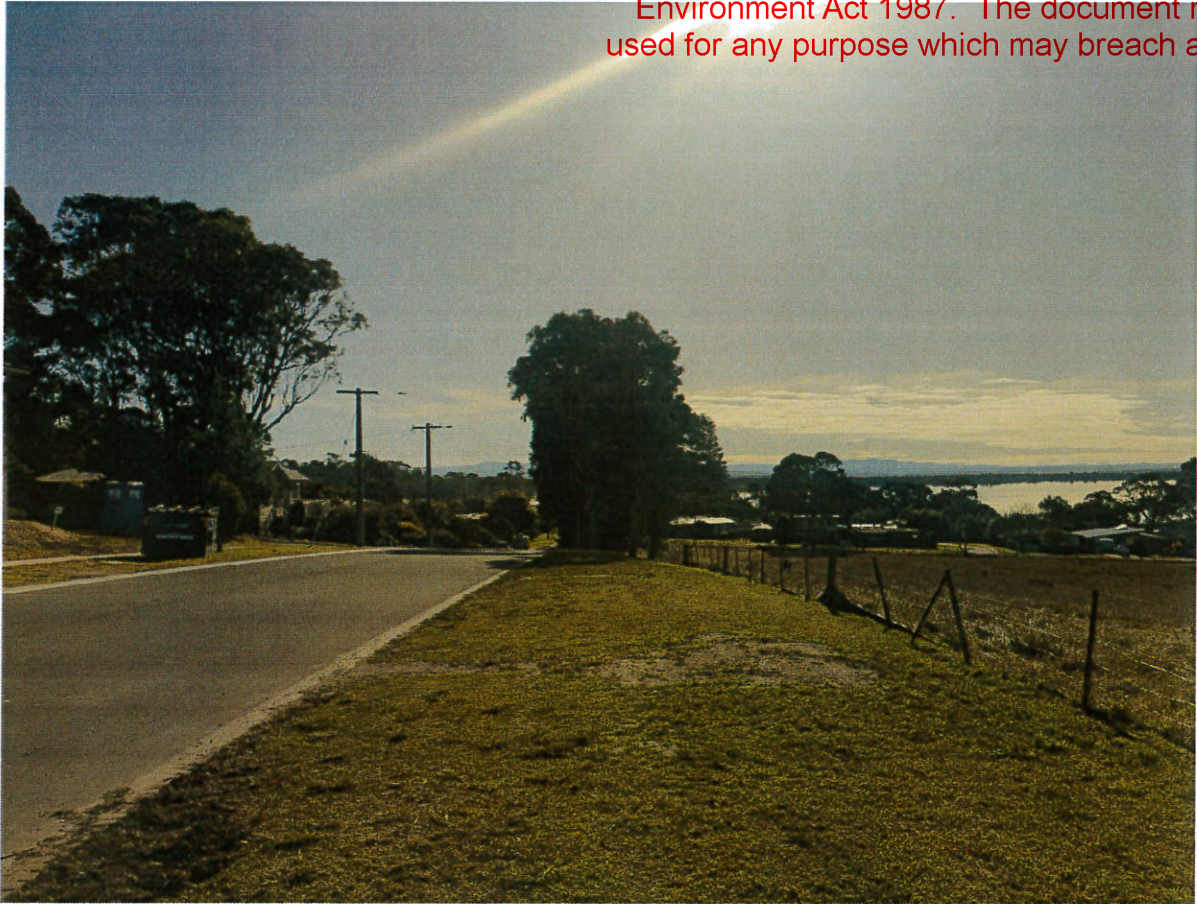
Andrew Powell Assoc.Dip (Civil)
for CHRIS O'BRIEN & COMPANY PTY LTD

Photos along Tait Street.



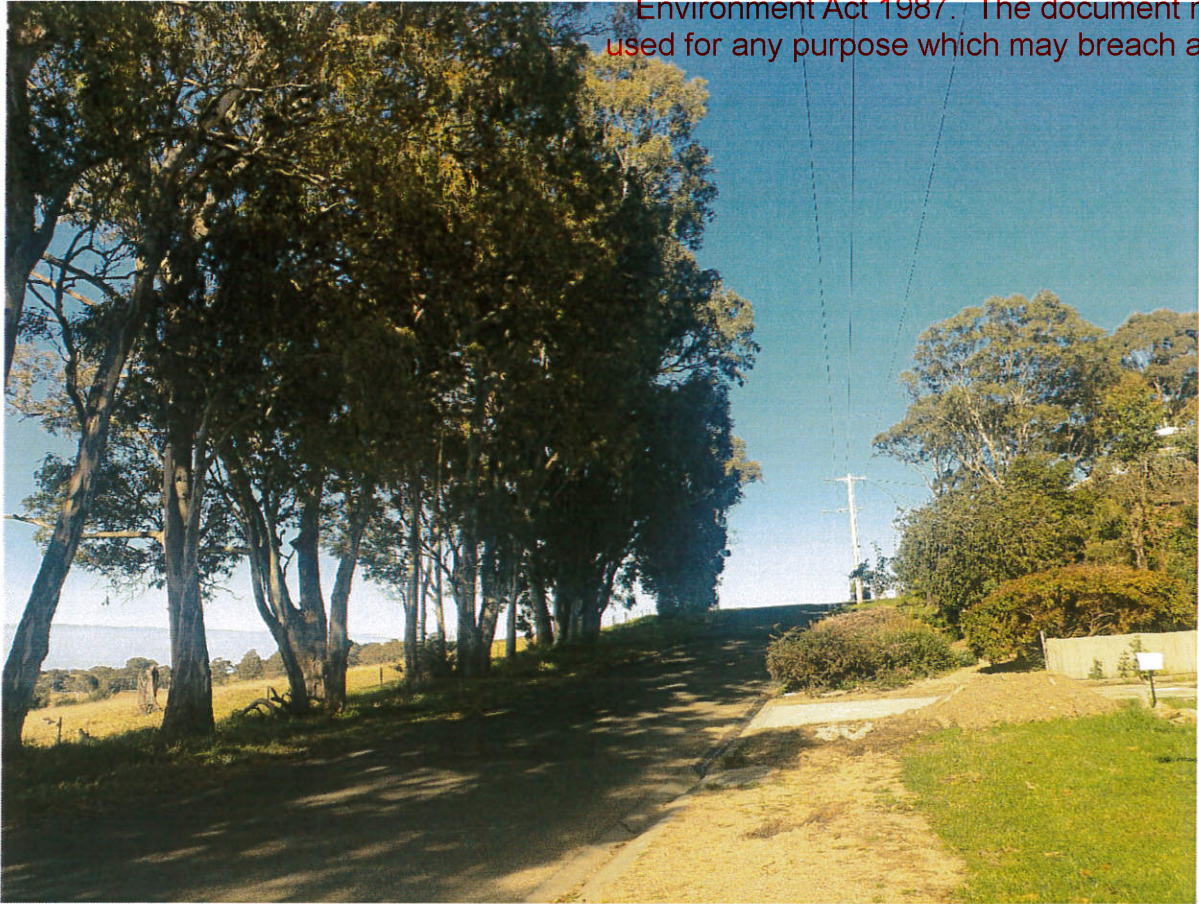
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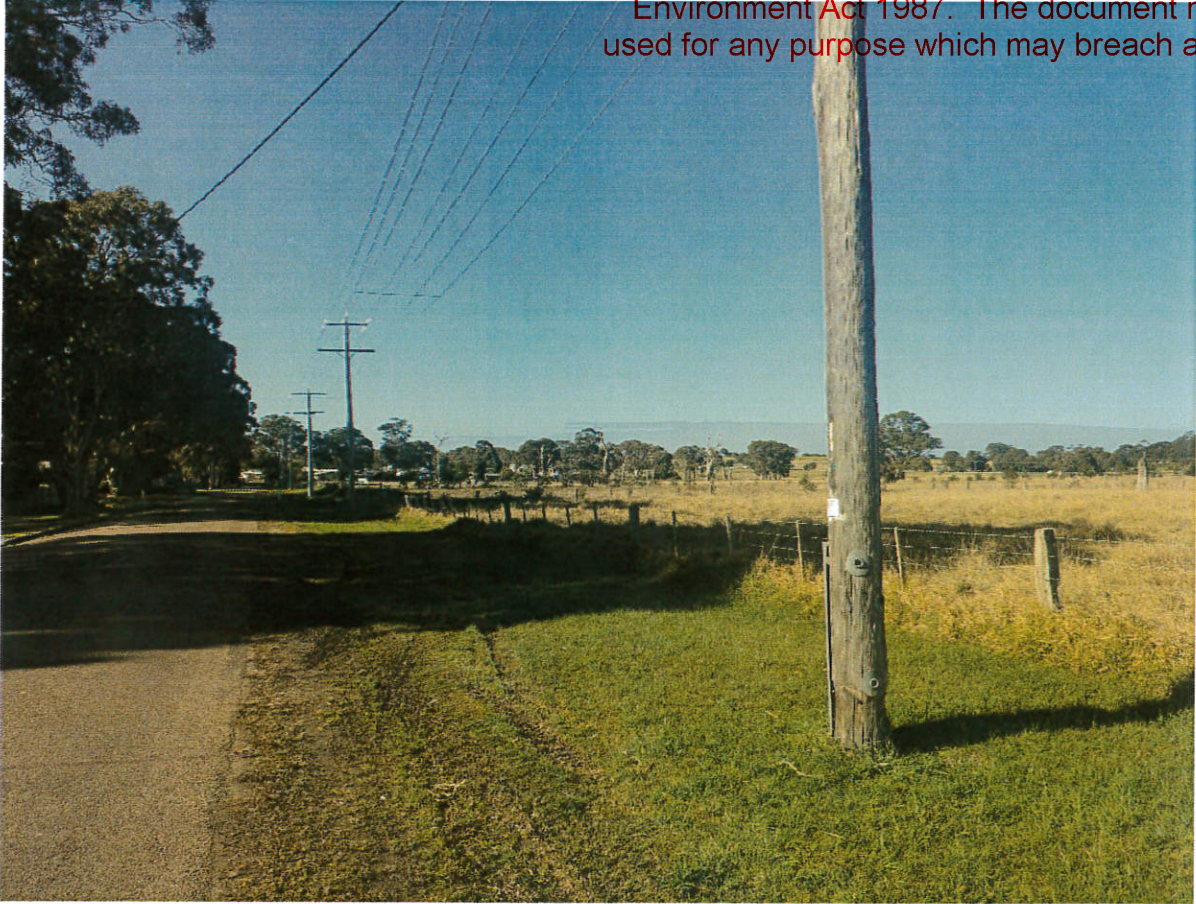


Photos along Bay Road.



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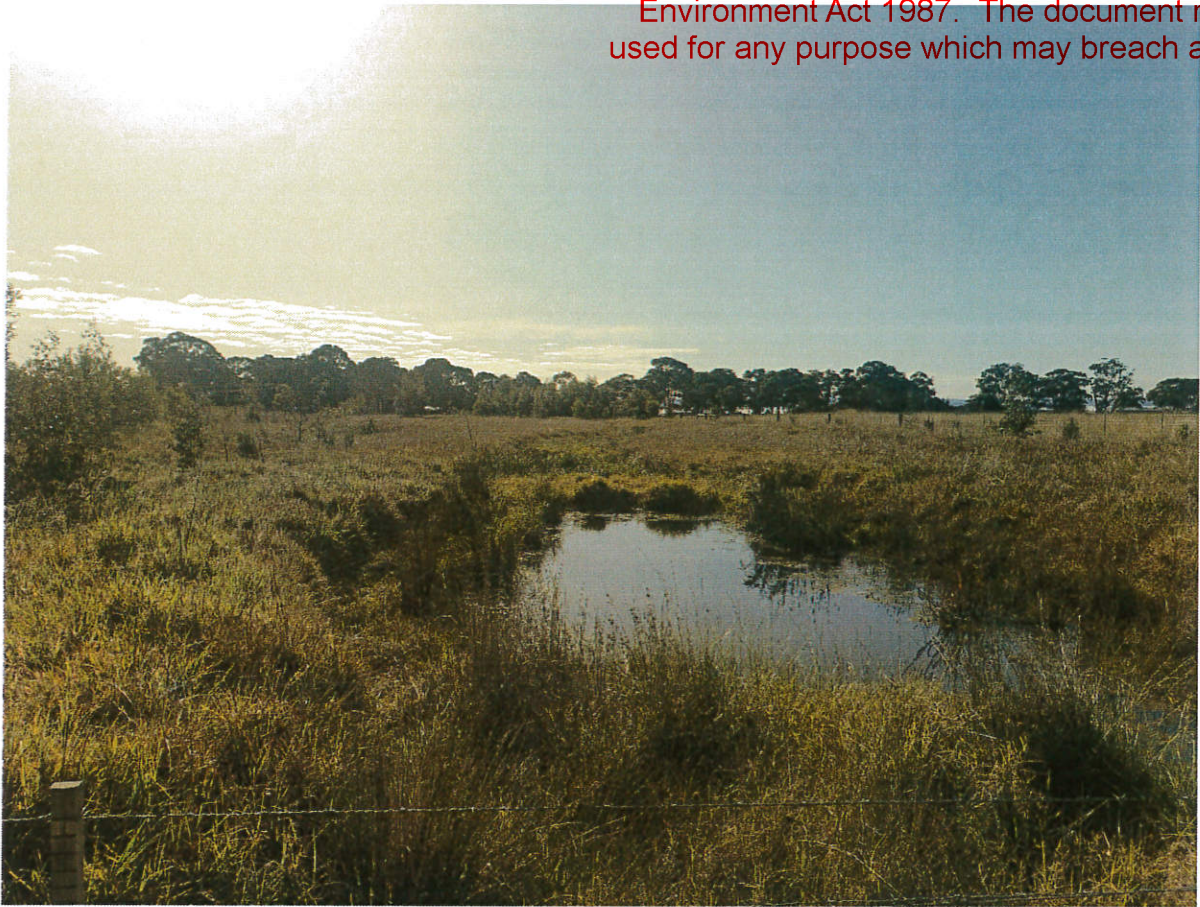


Photos of Existing Natural Water Course.



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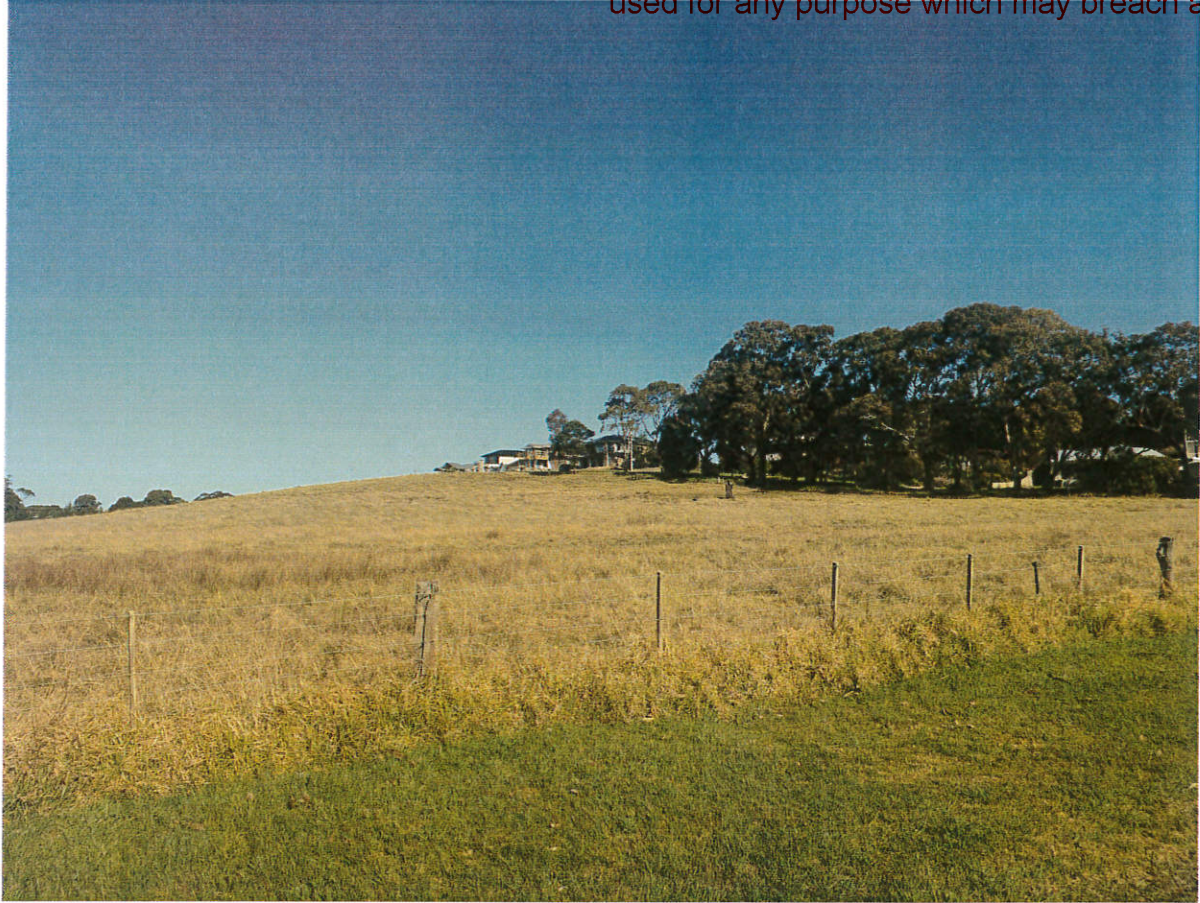


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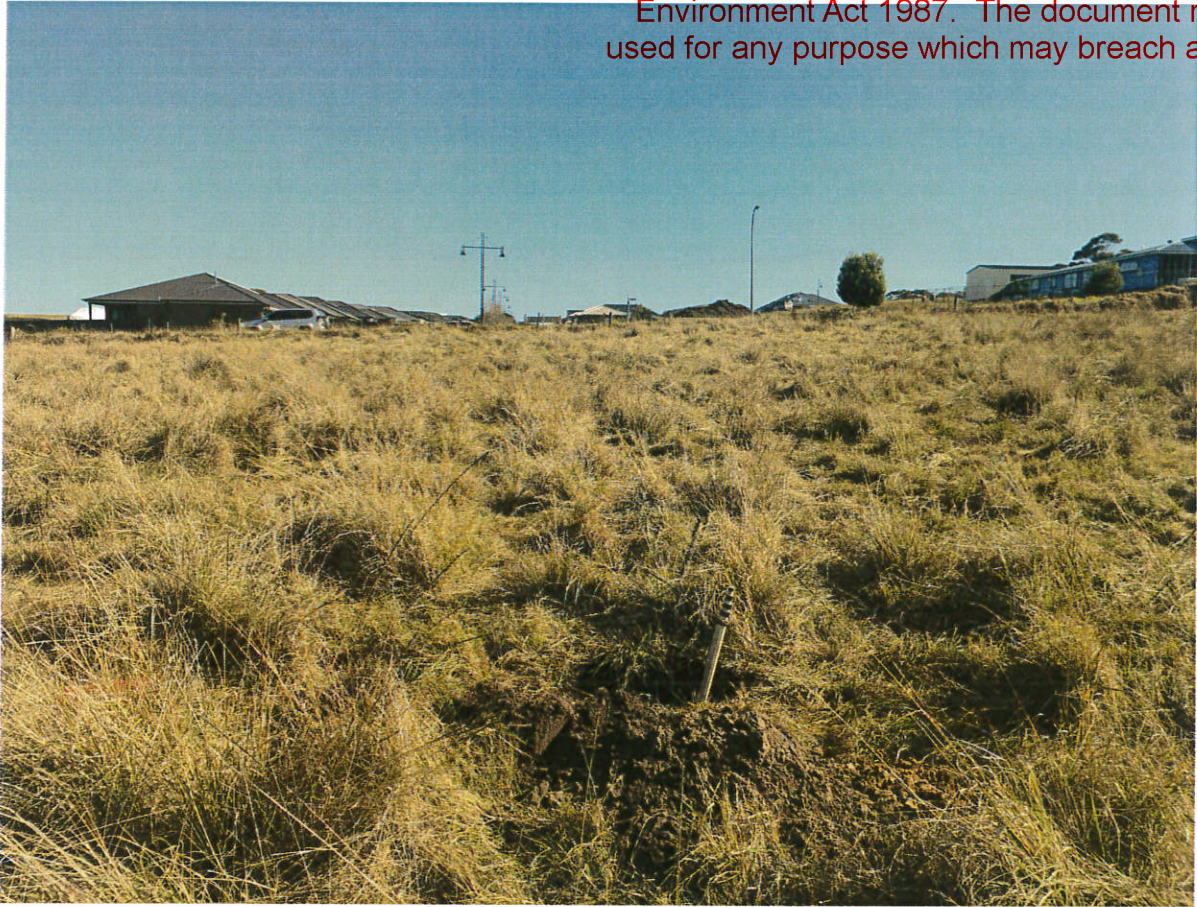


General Site Photos.



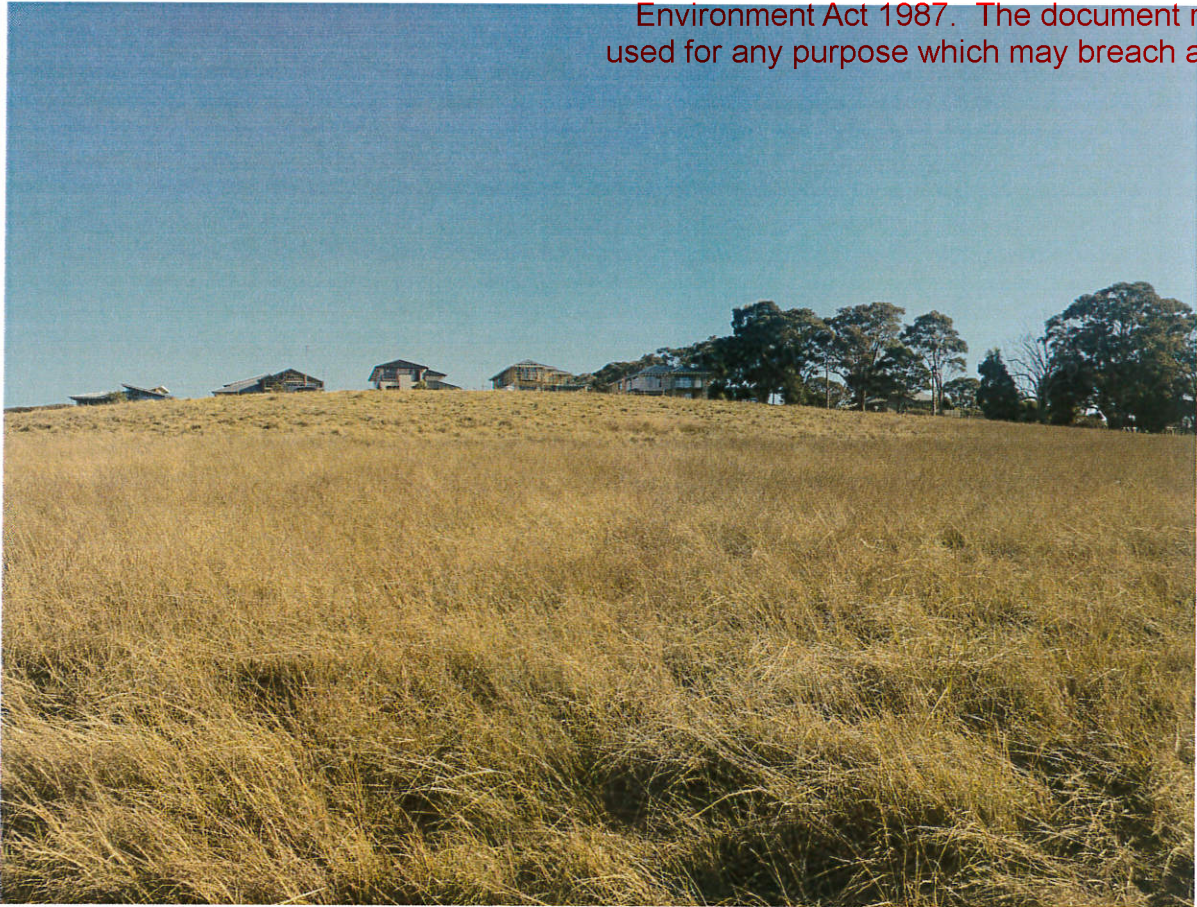
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Our Ref: 21006

11th April 2025

Emine Mestan
Statutory Planner
East Gippsland Shire Council
PO Box 1618
Bairnsdale Vic 3875

Dear Emine,

**Re: Application for Planning Permit No: 5.2024.369.1
25 Waterview Road, Eagle Point
Multi Lot Subdivision**

We act on behalf of Luke Priestley the applicant for the proposed subdivision on land at 25 Waterview Road, Eagle Point.

As a result of the meeting on the Friday the 13th of December 2024 in relation to the above application we offer revised subdivision plans.

The plans have been modified to show:

- A court connecting to the internal road to provide access to Lots 27, 28, 31 and 32.
- A footpath along Bay Road.
- A pedestrian connection from the internal road to Tait Street between Lot 19 and 20.
- A pedestrian connection from the internal road to the proposed reserve between Lot 13 and 12.
- A 15-metre-wide reserve will be gifted to Council as Public Open Space Contribution and is indicated on the revised plan of subdivision.

We trust that this information is sufficient to enable the application to proceed and a permit to be granted.

Should you require any further information or wish to discuss any element of the above further, please do not hesitate to contact our office on 03 5152 4858.

Regards



Courtney Campbell
Development Solutions Victoria

Amend a Planning Permit Application

s50 & s57A Planning and Environment Act 1987; r13 Planning and Environment Regulations 2015

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Applicant Details:

Applicant name:	
Business trading name (if applicable): DEVELOPMENT SOLUTIONS VICTORIA PTY LTD	
Email address:	
Postal address: 48 BAILEY STREET, BAIRNSDALE	
	Postcode: 3875
Preferred Phone number: 03 5152 4858	Secondary number:

Owners Details: (if not the applicant)

Owner name: ALBERT ROBERT LAURENCE, FREDERICK GEORGE AH YEE AND CHRISTOPHER JOHN AH YEE	
Business trading name (if applicable): C/- DEVELOPMENT SOLUTIONS VICTORIA PTY LTD	
Postal address: 48 BAILEY STREET, BAIRNSDALE	
	Postcode: 3875

Description of the Land:

Street number: 25	Street name: WATERVIEW ROAD
Town: EAGLE POINT	Postcode 3878

AND/OR

Lot Number: A, 1, 2	Plan Number: 523941F & 727582V
Other Legal Description:	

Other legal description may be a Crown Allotment reference, Volume/Folio, or other title descriptor. If the proposal relates to multiple addresses/parcels, please attach a document with the details of the additional land included, including Ownership detail.

Declaration in relation to Title Restrictions:

Is there any encumbrance on the Title such as a restrictive covenant, section 173 agreement or other obligation such as an easement or building envelope?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the proposal result in a breach of a registered covenant restriction or agreement?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Description of proposal:

Describe the use, development or other matter which needs a permit:

MULTI LOT SUBDIVISION

Amend a Planning Permit Application

s50 & s57A Planning and Environment Act 1987; r13 Planning and Environment Regulations 2015

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Amendment Type:

Under which section of the Act is the amendment to the application made? (one answer only)

<input checked="" type="checkbox"/> s50 Amendment by applicant before notice	<input type="checkbox"/> s57A Amendment by applicant after notice is given
Revised estimated cost of development: <i>Note: You may be required to verify this estimate</i>	\$ N/A

Existing conditions:

Describe how the land is used and developed currently:

EXISTING DWELLING AND ASSOCATED FARMING SHEDS

Required supporting documents (if the amendment to the application affects the existing documents)

- Title to each property subject to the application (must have been generated within the past 30 days)
- Full copy of Covenants or Section 173 agreements if applicable, and details of beneficiaries if there is a proposal which would contravene, alter, or end a covenant or restriction.
- Supporting documents which are mandatory requirements of the Planning Scheme (e.g. – Native Vegetation Removal Report, Bushfire Management Statement, Geotechnical report/waiver)
- Site plan & floor plan (for use and development applications) / elevations for development applications

Suggested supporting documents, or subject to requirements of the scheme

- A report responding to the relevant application requirements and the policies and objectives of the East Gippsland Planning Scheme
- Supporting information/reports which are commonly considered with similar applications (e.g. – Land Capability Assessment, Bushfire Management Statement, Geotechnical report/waiver)

If you need more space or have more information, please attach with this form.

Payment of Application Fees

For a s50 application, no additional fees are payable unless the amendment introduces a matter not already covered by the original application.

For a s57A application, a fee of 40 percent of the original application fee amount is payable. The amount will be to be confirmed by a senior planning officer in accordance with the *Planning and Environment (Fees) Regulations 2016*. An invoice will be generated once the amended application has been assessed to confirm it is complete.

Amend a Planning Permit Application

s50 & s57A Planning and Environment Act 1987; r13 Planning and Environment Regulations 2015

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Privacy Statement

The East Gippsland Shire Council asks for details about you to make decisions on planning permit applications. The information you give to us on this form is used for your application and is required for Council to make its decision under the *Planning and Environment Act 1987*. Sometimes we may provide a copy of this application form to another person, but only if it is for a legitimate purpose that is related to the planning process, or we are allowed by law, or to protect people or property. If your information is put onto Council's website or provided to another person, Council will always try to make sure your privacy is protected in line with the *Privacy and Data Protection Act 2014*. For instance, if requested by another person, after deciding that it is requested for a legitimate purpose, Council will obtain an undertaking from the recipient confirming how they will use your personal information and that they will destroy it once used.

You may ask for more information about Council's Privacy Policy by contacting our Privacy Officer on 03 5153 9500 or e-mail feedback@egipps.vic.gov.au. You can gain access to information you provided to us through the *Freedom of Information Act 1982*, more information about FOI is available on Council's website.

Declarations:

- I declare that I am the applicant and that all the information in this application is true and correct and the owner(s) (if not myself) has (have) been notified of the amendment to the permit application.
- I confirm that I have authority to use the relevant documents.
- In the event that the giving of notice is required pursuant to Section 52 or 57B of the *Planning and Environment Act 1987*, I permit documents submitted as part of this application, including my full contact information, to be made available for public viewing on Council's website.
- In the event that the giving of notice is required pursuant to Section 52 or 57B of the *Planning and Environment Act 1987*, and I receive instructions to give notice to potentially affected parties, I confirm that I will destroy the instructions and personal information once the information is no longer necessary.
- I accept the East Gippsland Shire Council Privacy Statement.

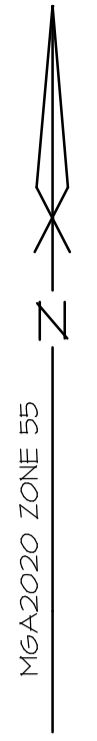
Applicant signature: 	
Name: COURTNEY CAMPBELL	Date: <u>26</u> / <u>06</u> / <u>2026</u>

Contact Council

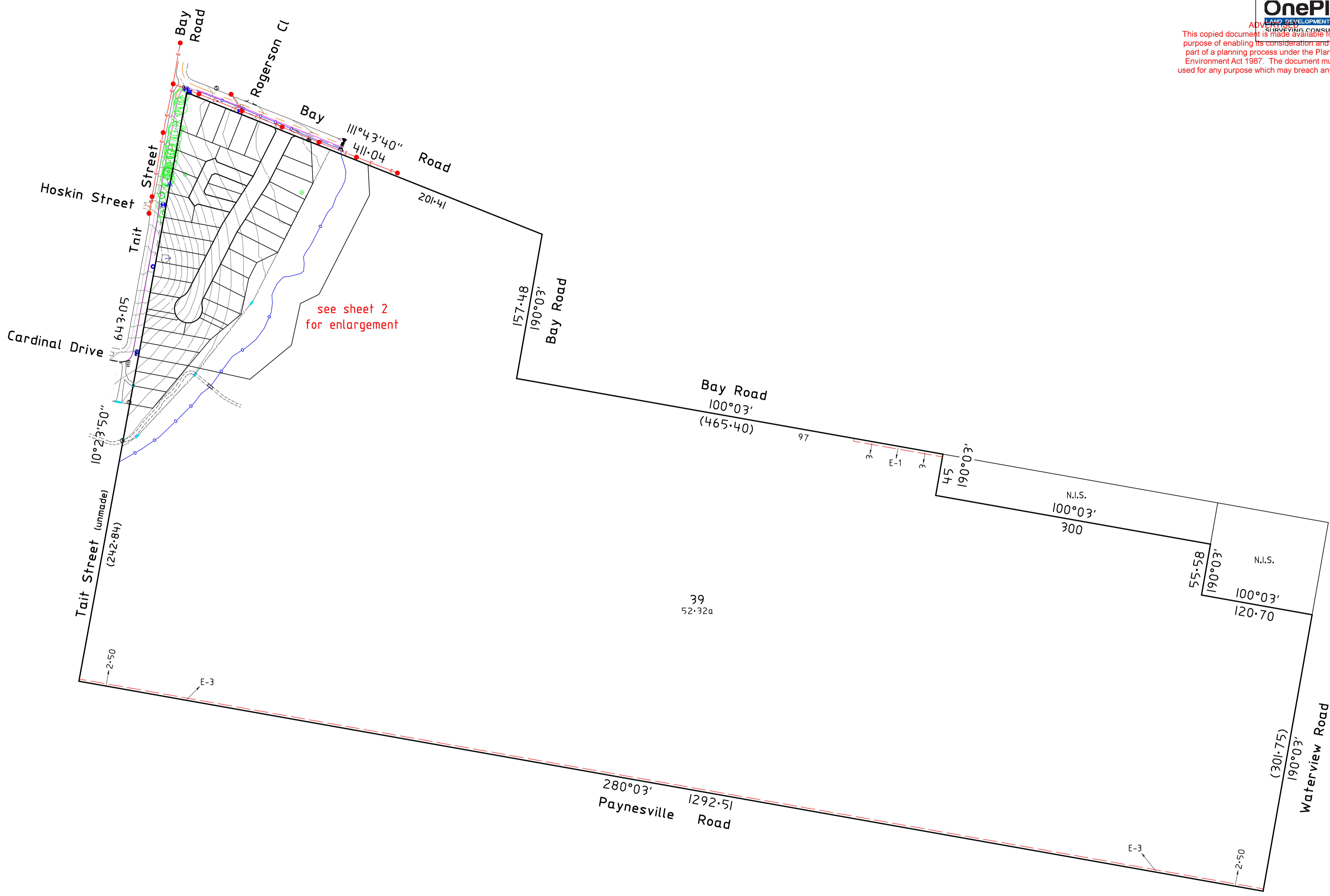
-  03 5153 9500
-  feedback@egipps.vic.gov.au
-  eastgippsland.vic.gov.au
-  PO Box 1618, Bairnsdale 3875

Customer Service Centres:

- **Bairnsdale:** 273 Main Street
- **Lakes Entrance:** 18 Mechanics Street
- **Mallacoota:** 70 Maurice Avenue
- **Omeo:** 179 Day Avenue
- **Orbost:** 1 Ruskin Street
- **Paynesville:** 55 Esplanade



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see sheet 2 for enlargement

LEGEND			
	- top of bank		- electricity pole
	- open drain / toe of bank		- sign
	- centre-line of bitumen		- telstra pit
	- edge of bitumen		- telstra uncl
	- underground pipe		- sewer pit
	- concrete kerb		- stop valve
	- linemarking		- fire plug
	- fencing		- water marker post
	- gate		- wing wall
	- electricity overhead		- side entry pit



- This is not a title survey.
 - See Certificate of Title for Easement details.
 - Only significant trees are shown on this plan.
 - Whilst every effort has been made to locate all feature details within the surveyed area SK Spatial will not be held responsible for features hidden, obscured or under construction at the time of survey.
 - No underground features have been located unless specifically shown.
 - All data shown on this plan is an accurate representation of the subject site at the time of survey.
 - Data on this plan may only be manipulated with permission from SK Spatial Pty Ltd.

EASEMENTS		
E-1	- sewerage easement	
E-3	- water supply easement	

Plan No.	Scale	Drawn
2014.92 SCPR-8	1:2000 - A1 1:4000 - A3	11/11/2025

20 0 20 40 60 80
 Lengths are in metres

DEVELOPMENT SOLUTIONS
 VICTORIA
 25 Waterview Road, Eagle Point, 3878
 East Gippsland Shire

Notations
 Bearing datum MGA2020
 Levels are to the Australian Height Datum (AHD) via BAINSDALE PM 374 - RL 18.771m
 Contour interval: 0.2m
 Total site area: 57.42ha

Sheet 1 of 2.

Site Context & Proposed Subdivision Plan

Parish of Bairnsdale

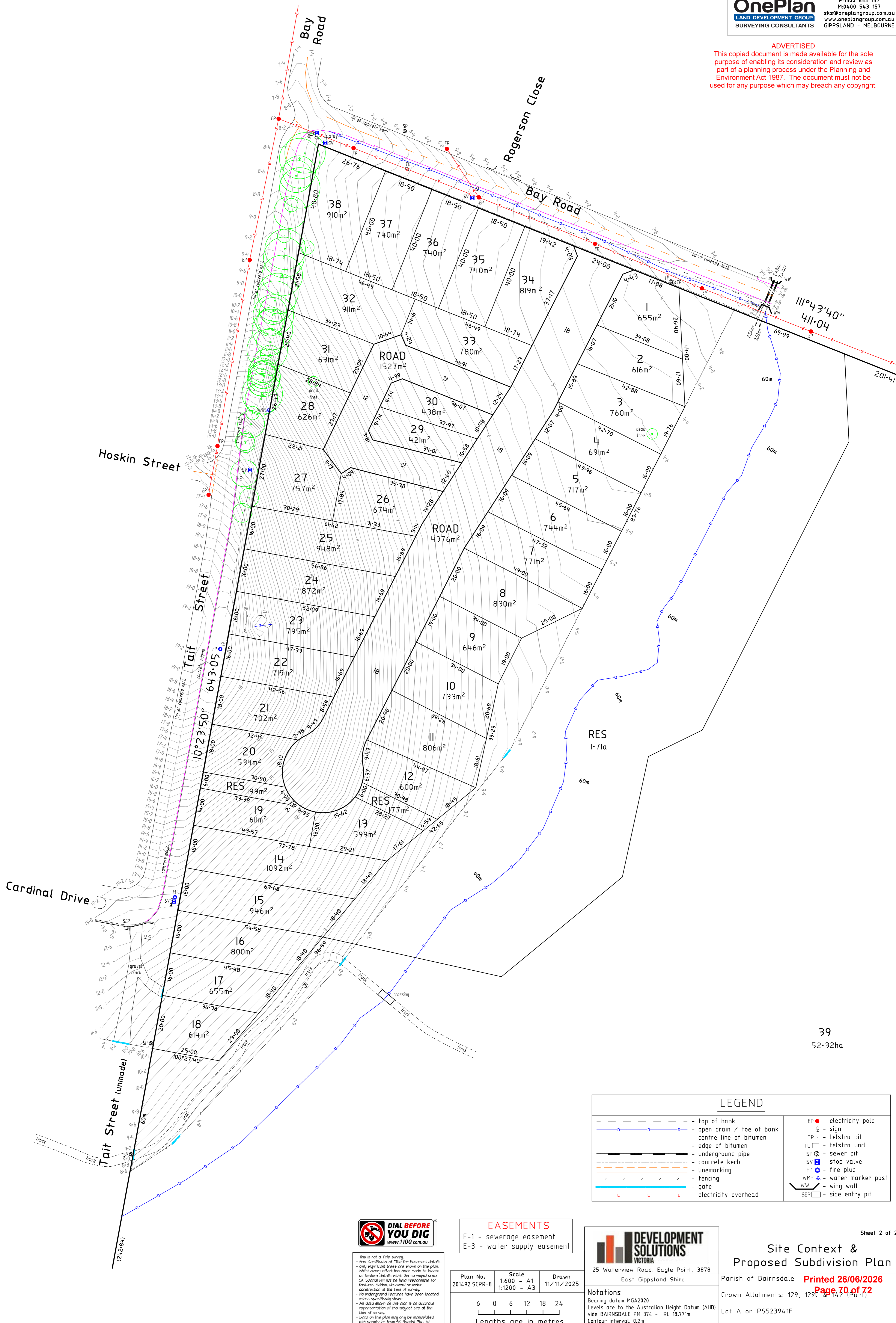
Crown Allotment 220128 (part)
 Lot A on PS523941

Printed 28/06/2025
 Page 69 of 72

Paracentroid (MGA2020) : E 560 720, N 5804 910

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MGA2020 ZONE 95



39
 52.32ha

LEGEND	
- - - - -	- top of bank
- - - - -	- open drain / toe of bank
- - - - -	- centre-line of bitumen
- - - - -	- edge of bitumen
- - - - -	- underground pipe
- - - - -	- concrete kerb
- - - - -	- linemarking
- - - - -	- fencing
- - - - -	- gate
- - - - -	- electricity overhead
EP ●	- electricity pole
♀	- sign
TP	- felstra pit
TU	- felstra uncl
SP	- sewer pit
SV	- stop valve
FP	- fire plug
WMP	- water marker post
WW	- wing wall
SEP	- side entry pit



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EASEMENTS
 E-1 - sewerage easement
 E-3 - water supply easement

Plan No.	Scale	Drawn
201492 SCPR-8	1:600 - A1 1:1200 - A3	11/11/2025

6 0 6 12 18 24
 Lengths are in metres

DEVELOPMENT SOLUTIONS
 VICTORIA
 25 Waterview Road, Eagle Point, 3878
 East Gippsland Shire

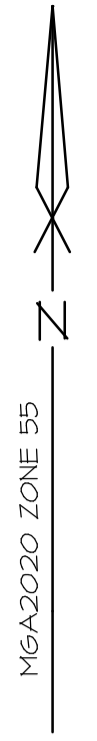
Notations
 Bearing datum MGA2020
 Levels are to the Australian Height Datum (AHD) vide BAINSDALE PM 374 - RL 18.771m
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 Total site area: 57.42ha

Sheet 2 of 2.

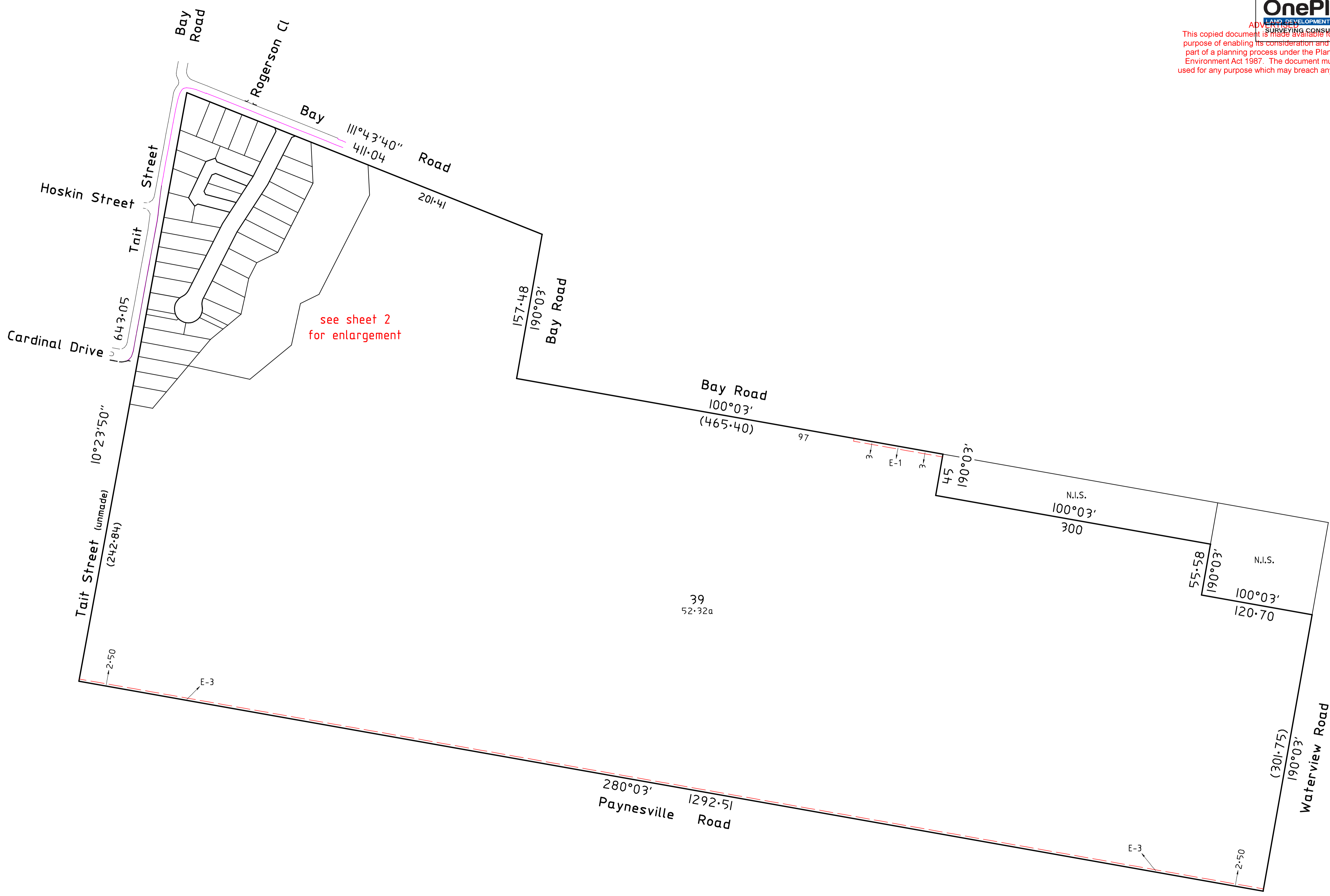
Site Context & Proposed Subdivision Plan

Parish of Bairnsdale Printed 26/06/2026
 Page 70 of 72

Crown Allotments: 129, 129C & 142 (Part)
 Lot A on PS523941F
 Paracentroid (MGA2020) : E 560 720, N 5804 910



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LEGEND			
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EASEMENTS		
E-1	- sewerage easement	
E-3	- water supply easement	

Plan No.	Scale	Drawn
2014.92 PR-8	1:2000 - A1 1:4000 - A3	11/11/2025

20 0 20 40 60 80
 Lengths are in metres

DEVELOPMENT SOLUTIONS
 VICTORIA
 25 Waterview Road, Eagle Point, 3878
 East Gippsland Shire

Notations
 Bearing datum MGA2020
 Levels are to the Australian Height Datum (AHD)
 via BAIRNSDALE PM 374 - RL 18.771m
 Contour interval: 0.2m
 Total site area: 57.42ha

Sheet 1 of 2.

Proposed Subdivision Plan

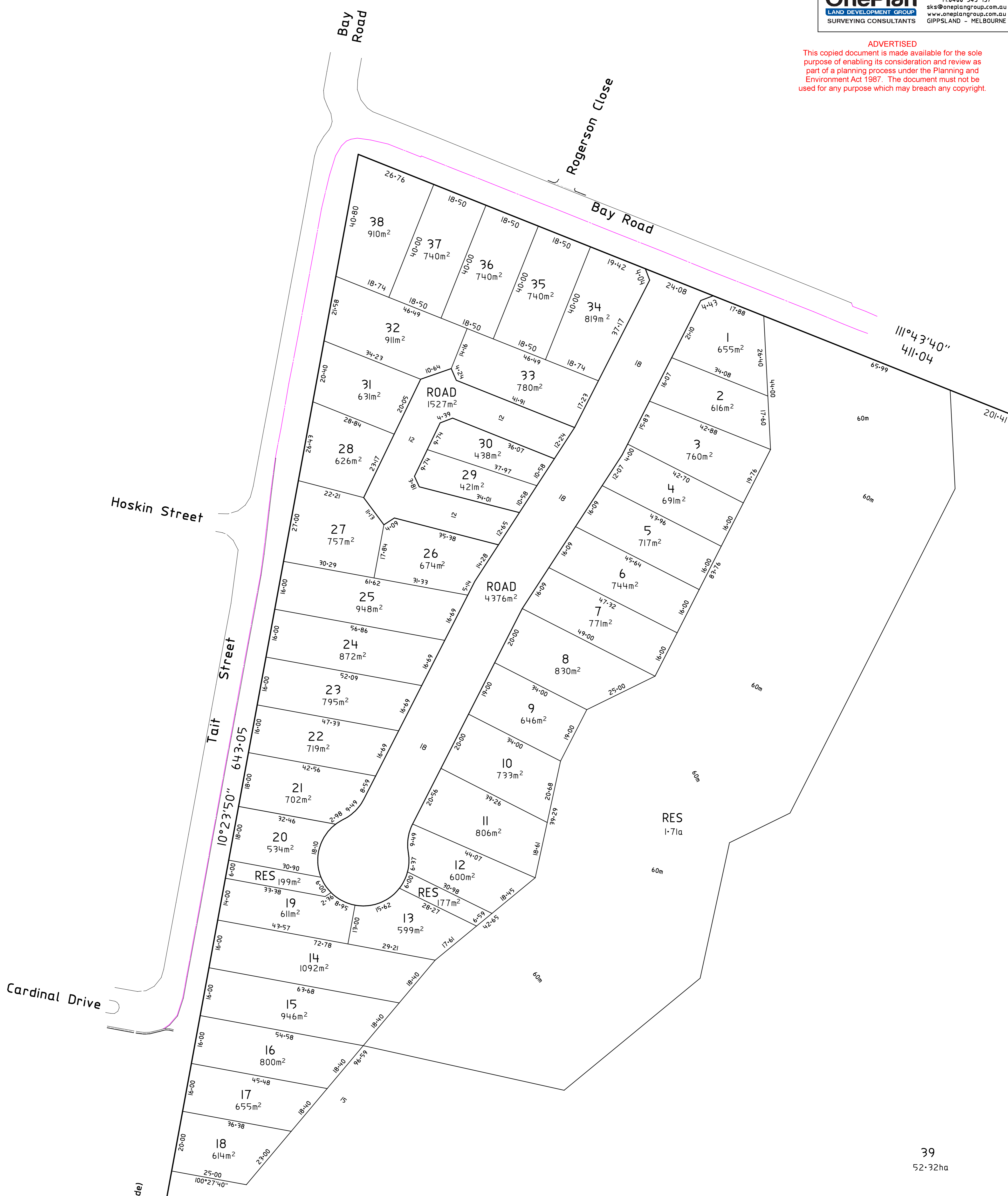
Parish of Bairnsdale

Crown Allotment 228 128 000 (part)
 Lot A on PS523941

Printed 28/06/2025
 Page 71 of 72

Paracentroid (MGA2020) : E 560 720, N 5804 910

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39
52.32ha

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	TP - telstra pit
	TU □ - telstra uncl
	SP ⊙ - sewer pit
	SV ⊠ - stop valve
	FP ⊕ - fire plug
	WMP ⊕ - water marker post
	WW - wing wall
	SEP □ - side entry pit



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EASEMENTS
 E-1 - sewerage easement
 E-3 - water supply easement

Plan No. 201492 PR-8	Scale 1:600 - A1 1:1200 - A3	Drawn 11/11/2025
-------------------------	------------------------------------	---------------------

6 0 6 12 18 24
Lengths are in metres

DEVELOPMENT SOLUTIONS
 VICTORIA
 25 Waterview Road, Eagle Point, 3878
 East Gippsland Shire

Notations
 Bearing datum MGA2020
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Sheet 2 of 2.

Proposed Subdivision Plan

Parish of Bairnsdale **Printed 26/06/2026**
 Page 72 of 72

Crown Allotments: 129, 129C & 142 (Part)
 Lot A on PS523941F
 Paracentroid (MGA2020) : E 560 720, N 5804 910