



# Bushfire Development Report

for the Casey Fields South (Employment) –  
Devon Meadows Precinct Structure Plan

Prepared for  
the Victorian Planning Authority

April 2026

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Cover image: Looking north across the site and surrounding landscape.

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## Glossary

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AS 3959:2018	<i>AS 3959:2018 Construction of buildings in Bushfire Prone Areas.</i> Australian standard invoked by the National Construction Code and Victorian building regulations for the assessment of BALs and the design and construction of defined building classes in a BPA.
BAL	<i>Bushfire Attack Level</i> - 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 metre squared, and the basis for establishing the requirements for construction to improve protection of building elements from attack by bushfire e.g. a building constructed to a BAL-12.5 standard is designed to be exposed to radiant heat not exceeding 12.5 kW/m <sup>2</sup> .
BMO	<i>Bushfire Management Overlay</i> - A planning scheme provision used to guide the development of land in areas of high bushfire hazard. The BMO applies to areas where there is potential for extreme bushfire behaviour, such as a crown fire and extreme ember attack and radiant heat
BPA	<i>Bushfire Prone Area</i> - An area that is subject to, or likely to be subject to, bushfire attack as determined by the Minister for Planning.
Bushfire	An unplanned fire burning in vegetation; sometimes referred to as wildfire. A generic term which includes grass fires, forest fires and scrub fires.
Bushfire attack	Attack by wind, burning embers, radiant heat or flame generated by a bushfire.
Bushfire hazard	A specific source of potential damage or harm, typically consisting of three key elements; vegetation, weather and topography.
Bushfire risk	The chance or probability of damage or harm if exposed to a bushfire hazard and the severity of the impact i.e. consideration of the likelihood and consequences of impacts from bushfire.
Classified vegetation	Vegetation deemed to be a bushfire hazard in accordance with the Bushfire Management Overlay (BMO) and/or AS 3959:2018 <i>Construction of buildings in bushfire prone areas.</i>
CFA	<i>Country Fire Authority</i>
DELWP	The former <i>Department of Environment, Land Water and Planning</i> . The responsibilities of this Dept. are now split across the Department of Energy, Environment and Climate Action (DEECA) and the Department of Transport and Planning (DTP).
DTP	Department of Transport and Planning
Effective slope	The slope of the land (gradient, measured in degrees) under the classified vegetation which most influences the bushfire attack. The slope is

determined on the basis of the fire moving towards the building and the rate of spread of the fire and not solely on the basis of the relative elevation of the vegetation.

Ember attack	Attack by smouldering or flaming windborne debris that is capable of entering or accumulating around a building, and that may ignite the building or other combustible materials and debris.
EVC	<i>Ecological Vegetation Class</i> - The standard unit for classifying vegetation types in Victoria. EVCs are described through a combination of floristics, lifeforms and ecological characteristics, and through an inferred fidelity to particular environmental attributes. Each EVC includes a collection of floristic communities (i.e. lower level in the classification) that occur across a biogeographic range and, although differing in species, have similar habitat and ecological processes operating.
FFDI	<i>Forest Fire Danger Index</i> – A numerical index representing the chance of a fire starting, its rate of spread, its intensity and the difficulty of its suppression, according to various combinations of air temperature, relative humidity, wind speed and both the long- and short-term drought effects.
FRV	<i>Fire Rescue Victoria</i>
PSP	<i>Precinct Structure Plan</i> – Strategic masterplans for local areas that usually cater for between 5,000 to 30,000 people, 2,000 to 10,000 jobs or a combination of both. They are the ‘blueprint’ for localised development and investment that will occur over many years and will incorporate any relevant directions already outlined in a higher level Framework Plan.
RBGC	<i>Royal Botanic Gardens - Cranbourne</i>
RHF	<i>Radiant heat flux</i> - The heat transfer rate per unit area from thermal (electromagnetic) radiation, expressed as kilowatts per metre squared. Calculated or measured for a specific surface to determine the radiant heat received by that surface from flames associated with a bushfire.
SBB	<i>Southern Brown Bandicoot</i>
VPA	<i>Victorian Planning Authority</i>

## Executive summary

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- The Casey Fields South (Employment) - Devon Meadows precinct is in a relatively low bushfire risk landscape and bushfire behaviour with the potential for neighbourhood-scale destruction is not credible.
- Almost all the PSP area is in the BPA, however, no part of the precinct or the land for over 700 m around it is affected by the BMO or a Schedule to the BMO.
- To the north and west, most of the land around the precinct is not designated as a BPA.
- Once developed with reliably low threat and non-vegetated areas, much of the precinct will meet the criteria for future excision from the BPA, creating a large area safe from bushfire attack for existing and future residents.
- The landscape is dominated by land that is flat, slightly undulating or rising away from the site and will not exacerbate fire behaviour.
- The only appreciable bushfire hazard external to the PSP area within at least 800 m is Grassland and the mosaic of vegetation types to the south.
- There are existing areas of bushfire hazard within the PSP, some of which will be retained following realisation of the PSP.
- Areas of higher hazard vegetation likely to be retained or created in the drainage reserves and wetland areas (uncredited open space), Southern Brown Bandicoot (SBB) habitat corridors and other designated areas, will be relatively small, isolated and narrow. They will, therefore, not pose a significant threat if new and existing development is sufficiently setback from them the distances identified in this report.
- Where setbacks are shown in this report, they are indicative strategic parameters based on current assumptions and are subject to assessment at the subdivision stage.
- A 20 m setback is recommended as an appropriate setback for development from hazardous vegetation in the drainage reserves and wetland areas (uncredited open space), subject to agreement with the relevant fire authority.
- Setbacks drawn from AS 3959:2018 may apply to other areas of retained vegetation.
- The setbacks must provide enough separation to ensure development is not exposed to RHF above 12.5kW/m<sup>2</sup> and should preferably include a perimeter road between vegetation and development.
- It is acknowledged that further reduced setbacks may be appropriate where the drainage reserve design achieves low threat vegetation. Note that all setbacks within the PSP should be shown as 'indicative'.
- Interface areas where development setbacks will be required (as assessed at the subdivision stage) include from:
  - Unmanaged vegetation in the drainage reserves and wetland areas (uncredited open space).
  - Other areas of retained or created vegetation that are not excludable from classification.
  - Unmanaged vegetation on adjacent land where the vegetation poses an interim or possibly permanent bushfire hazard (generally to the south).

- Layout and subdivision design that implements the setbacks must ensure that no BAL construction standard will result that is higher than the BAL-12.5 outcome stipulated in the settlement planning strategies of Clause 13.02-1S.
- The only land use areas anticipated to contain buildings of a class that would require a BAL, are those designated residential and areas identified for potential schools.
- Scaled, illustrative design cross sections for areas that interface a permanent hazard, should be added to Appendix 6 of the PSP, to show the interface layout with development setbacks, including any proposed roads and landscaping. Note that all setbacks within the PSP should be shown as 'indicative'.
- The subdivision application requirement in the UGZ15 (e.g. similar to that applied at R23 in the neighbouring Casey Fields South Residential PSP), identifying how management of the bushfire hazard during the development and construction phases will be achieved is appropriate to the PSP.
- There are no apparent biodiversity impacts associated with the provision of bushfire protection measures over and above those anticipated to result from the development of the PSP.
- Development of the precinct can satisfy the objective and strategies of Clause 13.02-1S and acceptable bushfire safety will be achieved if the measures identified in this report are implemented. There are no identified barriers to this being achievable.

## 1 Introduction

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This Bushfire Development Report has been prepared for the Victorian Planning Authority (VPA). It assesses the bushfire risk to the Casey Fields South (Employment) - Devon Meadows Precinct Structure Plan (PSP) area and identifies how the PSP and future development within the precincts, can respond to the risk and comply with the applicable planning and building controls that relate to bushfire, specifically the objective and strategies of the Planning Policy Framework (PPF) at Clause 13.02-1S *Bushfire Planning*.

The VPA, in conjunction with stakeholders, are currently preparing the Casey Fields South (Employment) - Devon Meadows PSP to guide future industrial and commercial development – predominantly within the Casey Fields South (Employment) precinct area to the north-east of the South Gippsland Highway - and residential growth, predominantly within the Devon Meadows precinct area south-west of the South Gippsland Highway.

The purpose of this report is to assess the bushfire risk to the precincts and identify mechanisms to mitigate the bushfire risk to an acceptable level.

This report has been prepared in accordance with guidance for the assessment of, and response to, bushfire risk, provided in:

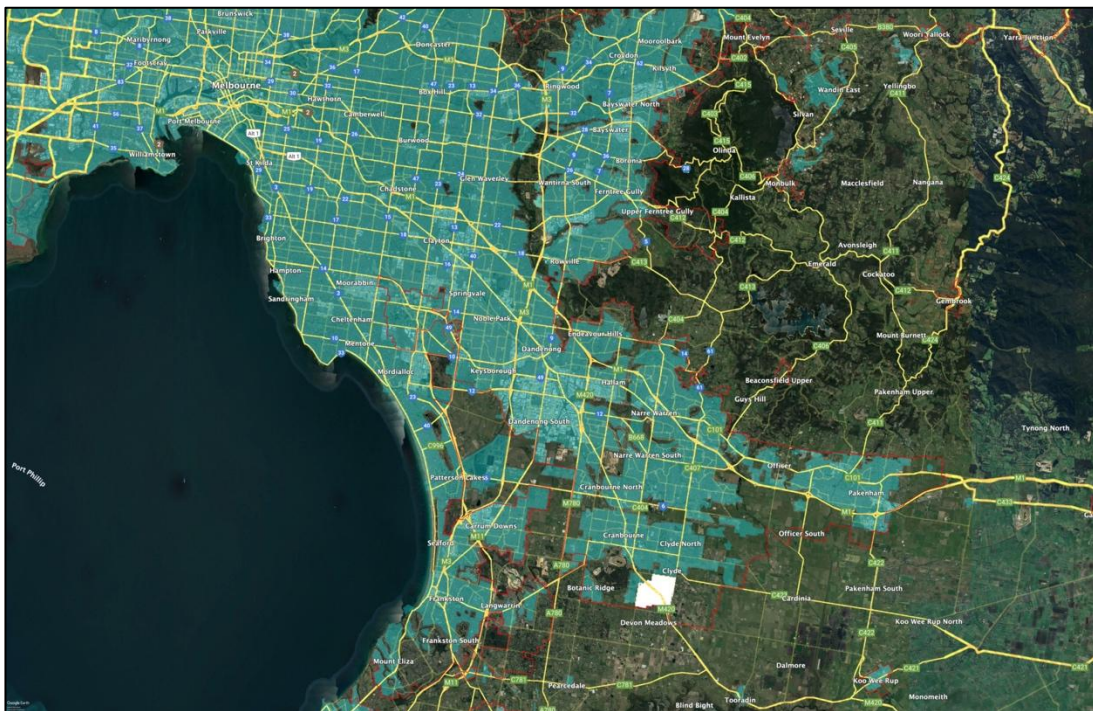
- *AS 3959:2018 Construction of buildings in bushfire-prone areas* (Standards Australia, 2020).
- *Local planning for bushfire protection*, Planning Practice Note 64 (DELWP, 2015).
- *Design Guidelines, Settlement Planning at the Bushfire Interface* (DELWP, 2020a).
- *Bushfire State Planning Policy Amendment VC140*, Planning Advisory Note 68, (DELWP, 2018); and in relation to assessing landscape risk,
- *Planning Permit Applications – Bushfire Management Overlay*, Technical Guide (DELWP, 2017).

## 2 Overview of precincts

The Casey Fields South (Employment) - Devon Meadows PSP comprises 537 ha of land in the City of Casey, in Melbourne’s south east growth corridor, approximately 55 km (53 mins travel) by road from the Melbourne CBD (Google Earth online, 2023) (see Figure 1). The PSP area comprises two precincts bisected by the South Gippsland Highway, with the 275 ha Casey Fields South (Employment) precinct to the northeast of the highway, bounded by Ballarto Road to the north and Clyde-Five Ways Road to the east, providing for largely industrial and employment development.

The 261 ha Devon Meadows precinct is south-west of the highway, bounded by Craig Road to the west, and Browns Road and properties on Facey Road to the south. The southern edge of this precinct also forms the southern edge of the Urban Growth Boundary. The Devon Meadows precinct will largely comprise residential and mixed-use land uses upon completion (see Figure 2).

Whilst most of the PSP area is designated as a Bushfire Prone Area (BPA), much of the land to the north and west, is currently, and will increasingly become, designated as non-BPA land. It is also anticipated that the future Clyde South PSP area to the east will be developed over time and be removed from the BPA. No part of the PSP, or any land for over 700 m around it, is covered by the Bushfire Management Overlay (BMO) (see Map 1). The relevant fire authority is the CFA.



**Figure 1 - Casey Fields South (Employment) - Devon Meadows PSP location (shown in white fill) with non-BPA land shown in teal shading and the Urban Growth Boundary (UGB) shown in red outline (Google Earth imagery 22-03-2024).**

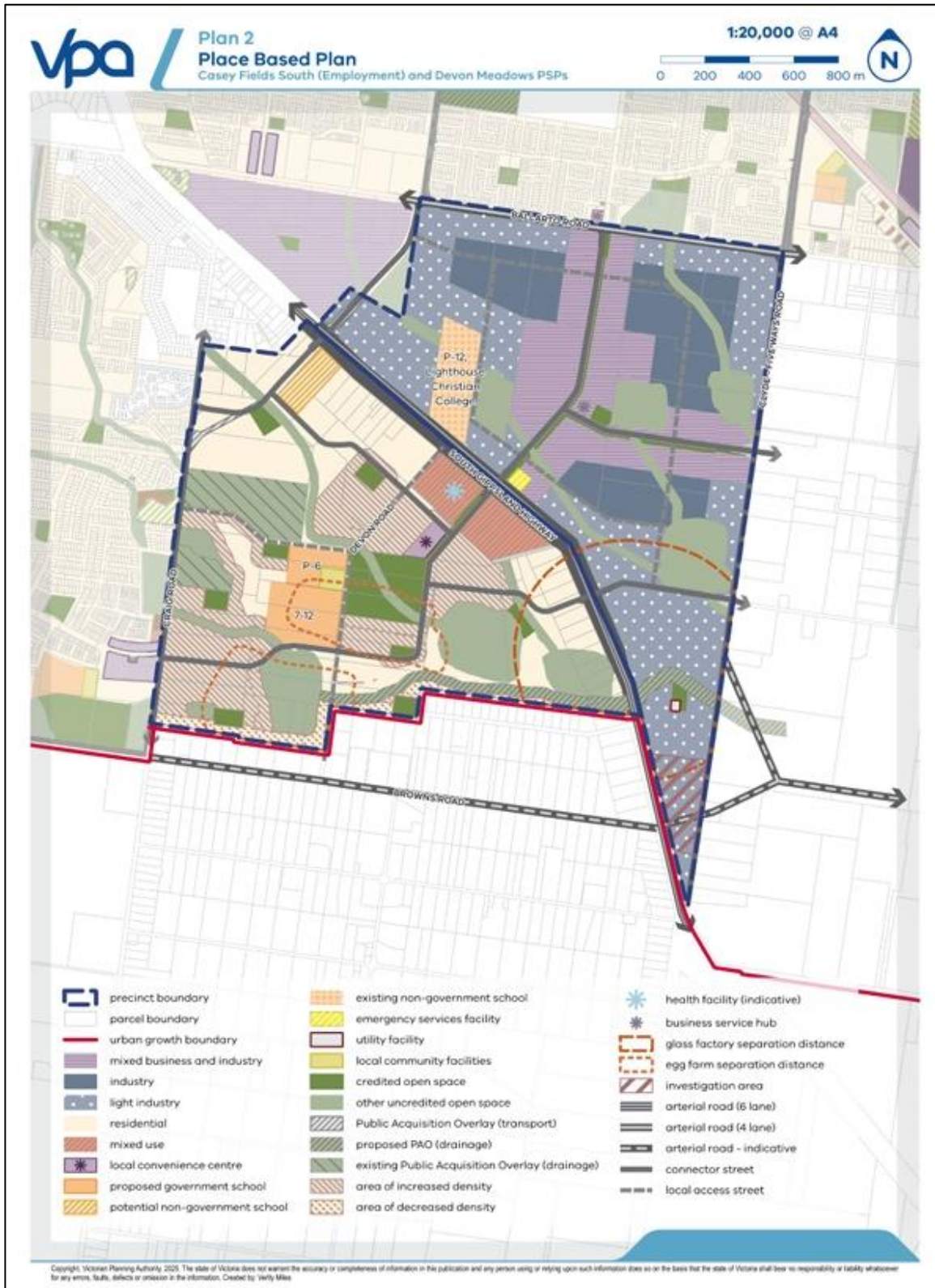


Figure 2 - Place Based Plan for the Casey Fields South (Employment) - Devon Meadows PSP (VPA, 2025).

## 3 Bushfire planning and building controls

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This section summarises the applicable planning and building controls that relate to bushfire.

### 3.1 Planning provisions

Clause 02.03 *Strategic Directions* in the Municipal Planning Strategy and Clause 13 *Environmental Risks and Amenity* in the Planning Policy Framework (PPF) have several minor provisions that consider bushfire, and two key provisions pertinent to bushfire.

#### 3.1.1 Clause 02.03-3 Environmental risks and amenity

The Casey Planning Scheme states:

***'Bushfire and Flooding***

*Increased incidences of bushfire and flooding are occurring as the result of climate change. Protection measures under the Casey Planning Scheme assist in the protection of life, property and the environment from the threat of bushfire or flood'* (Clause 02.03-3, Casey Planning Scheme).

And provides one strategic direction in relation to bushfire:

*'Ensure strategic and settlement planning and development decisions prioritise the protection of human life and minimise the risk to property from bushfire'* (Clause 02.03-3, Casey Planning Scheme).

The development of the Casey Fields South (Employment) – Devon Meadows PSP precincts is consistent with the surrounding (and proposed future) land use within the UGB and is within a lower bushfire risk landscape, as demonstrated in this report. If the bushfire protection measures documented in this Bushfire Development Report are adopted, the protection of human life and minimising of the risk to property from bushfire will have been prioritised.

#### 3.1.2 Clause 12.03-1S River and riparian corridors, waterways, lakes, wetlands and billabongs

As the Casey Fields South (Employment) – Devon Meadows PSP will contain considerable areas as wetlands and proposes drainage reserves adjacent to and intermixed with industrial and residential areas, this Clause may have implications for the site. Strategies of the Clause relevant to bushfire include (amongst others):

- *'Retaining, enhancing and re-establishing indigenous riparian vegetation along waterway systems, ensuring it responds to the bushfire risk of a location.*
- *Retaining and re-establishing vegetation, including grasslands and canopy trees, surrounding waterway systems to enhance and connect to the landscape setting,*

*ensuring it responds to the bushfire risk of a location'* (Clause 12.03-1S, Casey Planning Scheme).

Once developed, the Casey Fields South (Employment) – Devon Meadows PSP will largely comprise low threat vegetation and non-vegetated areas, with most of the PSP area eligible for exclusion from the BPA. However, the wetlands and drainage reserves anticipated to contain areas of potentially hazardous vegetation that may not be low threat vegetation, and some areas of the site – including adjacent residential and commercial areas - may remain in the BPA.

### **3.1.3 Clause 13.01-1S Natural hazards and climate change**

The objective of this Clause is to minimise the impacts of natural hazards and adapt to the impacts of climate change through risk-based planning. Strategies to achieve the objective are:

- *'Respond to the risks associated with climate change in planning and management decision making processes.*
- *Identify at risk areas using the best available data and climate change science.*
- *Integrate strategic land use planning with emergency management decision making.*
- *Direct population growth and development to low risk locations.*
- *Develop adaptation response strategies for existing settlements in risk areas to accommodate change over time.*
- *Ensure planning controls allow for risk mitigation and climate change adaptation strategies to be implemented.*
- *Site and design development to minimise risk to life, health, property, the natural environment and community infrastructure from natural hazards'* (Clause 13.01-1S, Casey Planning Scheme).

Especially in southern and eastern Australia, since the 1950's there has been an increase in the length of the fire weather season and a greater number of higher risk days associated with climate change (CSIRO/BOM, 2024). The Australasian Fire and Emergency Service Authorities Council (AFAC) identify that a failure of building codes and land use planning to adequately adapt to climate change is a significant risk (AFAC, 2018).

This clause in the PPF supports the adoption of a precautionary and conservative approach to assessing and responding to bushfire risk. Fire weather is discussed further in Section 4.4.

### **3.1.4 Clause 13.02-1S Bushfire Planning**

Clause 13.02-1S has the objective *'To strengthen the resilience of settlements and communities to bushfire through risk based planning that prioritises the protection of human life'* (Casey Planning Scheme). 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 BPA
- Subject to a BMO

- Proposed to be used or developed in a way that may create a bushfire hazard.

Clause 13.02-1S requires priority to be given 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 consideration of bushfire risk in decision-making at all stages of the planning process'* (Clause 13.02-1S, Casey Planning Scheme).

Key strategies are stipulated in Clause 13.02-1S, which require regional growth plans, precinct structure plans and planning scheme amendments to assess the bushfire hazard and respond with appropriate bushfire protection measures. This also applies to planning permit applications for:

- Subdivisions of more than 10 lots.
- Accommodation.
- Child care centre.
- Education centre.
- Emergency services facility.
- Hospital.
- Indoor recreation facility.
- Major sports and recreation facility.
- Place of assembly.
- Any application for development that will result in people congregating in large numbers.

This report assesses the bushfire hazard in accordance with hazard identification and assessment strategies of Clause 13.02-1S and identifies the bushfire protection measures that will be required for future development in accordance with the settlement planning strategies.

A maximum 12.5kW/m<sup>2</sup> safety threshold is required in settlement planning as the upper limit for acceptable risk. Responsible authorities must *'Not approve 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 3959:2018'* (Clause 13.02 Casey Planning Scheme).

A detailed response to the strategies in Clause 13.02-1S and recommendations for development are provided in Section 5.2.

### 3.1.5 Clause 71.02-3 Integrated Decision Making

Clause 71.02-3 states that planning and responsible authorities should endeavour to integrate policies and balance conflicting objectives in favour of net community benefit. However, in bushfire affected areas, it states that the protection of human life must be prioritised over all other policy considerations (Clause 71.02-3 Casey Planning Scheme).

### 3.1.6 Zoning

The Casey Fields (Employment) precinct to the north-east of the South Gippsland Highway is currently within the Urban Growth Zone (UGZ) with a corridor of Urban Floodway (UFZ) bisecting the site along the drainage line running on a north-west to south-east alignment. The Devon Meadows precinct area is currently within a Farming Zone to which Schedule 3 applies (FZ3), with a small area on the western edge in a Transport Zone to which Schedule 3 applies (TRZ3).

The precincts will be rezoned as Urban Growth Zone, to which Schedule 15 will apply (UGZ15). This rezoning will facilitate uses in the proposed industrial, commercial, residential or mixed-use areas of the PSP. The new zoning does not have appreciable bushfire safety implications. In relation to bushfire, the proposed UGZ15 includes the following application requirement:

#### ***Bushfire Management Plan***

*An application to subdivide land adjacent to a Bushfire Hazard Area shown on Plan 8 Bushfire Management of the Casey Fields South and Devon Meadows Precinct Structure Plan must be accompanied by a Bushfire Management Plan that demonstrates how the application will address bushfire risk at the site. The plan must be prepared in accordance with the relevant requirements and guidelines in Section 3.7, of the Casey Fields South and Devon Meadows Precinct Structure Plan, unless otherwise agreed in writing by the Responsible Authority and CFA. The plan must include:*

- *The design and layout of the subdivision, including lot layout, road design and access points, both vehicular and pedestrian;*
- *The location of any bushfire hazard areas;*
- *The details of any bushfire protection measures required for individual lots;*
- *The identification of any areas to form the setback between a bushfire hazard and built form;*
- *The details of any vegetation management in any area of defensible space including, information on how vegetation will be managed and when the vegetation management will occur i.e. annually, quarterly, during the fire danger period;*
- *Notation that indicated what authority is responsible for managing vegetation within open space areas; and*
- *Notation that ensures that the areas of classified vegetation in the nominated bushfire hazard areas must be managed to a level that will ensure the vegetation classification under AS3959-2019 will not be altered.*

*The responsible authority and fire authority may waive this requirement if a plan has been approved for the land (VPA 2025b).*

It is suggested that the UGZ15 be updated to refer to Plan 14 (rather than Plan 8) and Appendix 5 rather than Section 3.7 of the Casey Fields South (Employment) - Devon Meadows PSP.

Additionally, the reference to defendable space – a term used in the BMO within which particular vegetation management controls arising from Clause 53.02 apply – and replaced with ‘low threat setback’. The term ‘low threat setback’ should be defined in the Casey Fields South (Employment) - Devon Meadows PSP as ‘area of land around a building where vegetation is modified and managed to reduce the effects of flame contact and radiant heat associated with a bushfire’. Note that all setbacks within the PSP should be shown as ‘indicative’.

The reference to ‘AS3959-2019’ should be altered to ‘AS 3959:2018 and any subsequent amendment’. Plan 14 of the Casey Fields South (Employment) - Devon Meadows PSP should be updated to show a 20 m setback rather than the 19 m shown, and the legend term ‘indicative 19m setback (grassland)’ replaced with ‘20 m low threat setback’.

Additionally, the proposed UGZ15 includes the following conditions for a permit during subdivision:

**Condition – Management of bushfire risk during subdivision works**

*Prior to the commencement of works in an area adjacent to a Bushfire Hazard Area shown on Plan 8 of the incorporated Casey Fields South and Devon Meadows Precinct Structure Plan, a Site Management Plan prepared by a suitably qualified professional that addresses bushfire risk during, and where necessary, after construction must be approved by the Responsible Authority. The plan must be consistent with any Bushfire Management Plan approved for the land and specify:*

- *The staging of development and the likely bushfire risks at each stage;*
- *An area of land between the development edge and non urban areas consistent with the separation distances specified in AS3959-2018, where bushfire risk is managed to enable the development, on completion, to achieve a BAL-12.5 construction standard in accordance with AS3959- 2018;*
- *The land management measures to be undertaken by the developer to reduce the risk from fire within any surrounding rural or undeveloped landscape to protect residents and property from the threat of fire;*
- *How adequate opportunities for access and egress will be provided for early residents, construction workers and emergency vehicles.*
- *All to the satisfaction of the Responsible Authority (VPA 2025b).*

Again, it is suggested that the UGZ15 be updated to refer to Plan 14 (rather than Plan 8) of the Casey Fields South (Employment) - Devon Meadows PSP.

It is noted that the requirement for a Site Management Plan is consistent with R23 of the Casey Fields South PSP to the north.

### 3.1.7 Overlays

Various parts of the Casey Fields South (Employment) - Devon Meadows PSP are covered by a two Overlays and Schedules:

- Land Subject to Inundation Overlay (LSIO)
- Public Acquisition Overlay (PAO4)

Similar to the UFZ above, only the LSIO and associated proposed drainage reserves may have implications for bushfire within the site as it is likely to result in the retention of potentially hazardous vegetation adjacent to residential land. The PAO4 controls are considered to have no appreciable implications for bushfire safety.

## 3.2 Bushfire Prone Area (BPA)

BPAs are those areas subject to or likely to be subject to bushfire, as determined by the Minister for Planning. The precincts are currently designated as a BPA, however, as development occurs, most will be excised from the BPA.

Note that land not within the BPA is defined as an area of low bushfire hazard, where the extent, configuration and/or management of vegetation results in low potential for bushfire spread (DELWP, 2019) and no construction requirements for bushfire apply (i.e. BAL-LOW applies). Figure 1 and Map 1 show the extent of BPA coverage in and around the precinct and the surrounding broader landscape.

In a BPA, the Building Act 1993 and associated Building Regulations 2018, through application of the National Construction Code 2022 (NCC), require specific design and construction standards for Class 1, 2 and 3<sup>1</sup> buildings, certain Class 9 and 4 buildings<sup>2</sup>, and Class 10A buildings<sup>3</sup> or decks adjacent to, or connected with, these classes of buildings.

The performance requirements for Class 1, 2 and 3 buildings and associated Class 10a buildings and decks, is deemed to be satisfied by design and construction in accordance with AS 3959:2018 *Construction of buildings in bushfire prone areas* and, for Class 1 buildings and associated decks, the NASH Standard – *Steel Framed Construction in Bushfire Areas* (NASH, 2021). More onerous requirements apply to some other classes of buildings including schools and child care centres.

In a BPA larger developments and certain vulnerable uses, including applications for subdivision of more than 10 lots, are required by Clause 13.02-1S to:

---

<sup>1</sup> Class 1, 2 and 3 buildings are defined in the NCC and are generally those used for residential accommodation, including houses and other dwellings, apartments, hotels and other buildings with a similar function or use.

<sup>2</sup> Applicable Class 9 buildings are Class 9a health-care buildings, Class 9b early childhood centres, primary and secondary schools, Class 9c residential care buildings, and any Class 4 parts of a building associated with these Class 9 buildings.

<sup>3</sup> Class 10a buildings are defined in the NCC as non-habitable buildings including sheds, carports, and private garages.

- *‘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’ (Clause 13.02-1S, Casey Planning Scheme).*

There are no obstacles to future development in the Casey Fields South (Employment) - Devon Meadows PSP complying with this Clause 13.02-1S strategy and the building regulations invoked in a BPA. BAL-LOW land, where the BPA has been removed, will be created as reliably low threat and non-vegetated areas are created as development progresses. The only land use areas anticipated to contain buildings that would require a BAL, are those designated residential and areas with applicable Class 9 buildings.

### **3.2.1 Vulnerable uses**

In the BPA, applicable Class 9 buildings are Class 9a health-care buildings, Class 9b early childhood centres, primary and secondary schools, Class 9c residential care buildings, and any Class 4 parts of a building associated with these Class 9 buildings are considered to be a ‘vulnerable use’. These areas contain or will contain Class 9b buildings that – if not excised from the BPA – will be required to respond to the bushfire performance requirements in Part G5 of the National Construction Code (NCC) 2022

Specification 43 applies as a deemed-to-satisfy compliance pathway. The measures include a minimum building setback from hazardous vegetation; Bushfire Attack Level (BAL) construction standard; setback from other buildings, property boundaries and car parks; water supply and emergency service access. Smaller greenfield sites may find it impracticable to comply with this Specification, in which case a performance solution would be required for building approval.

### **3.2.2 Excision**

DTP review and excise areas from the BPA approximately every 6 months, particularly in growth areas where the hazard is removed as urban development occurs.

Land becomes eligible for excision if it satisfies statewide hazard mapping criteria, including that the land needs to be:

- At least 300 m from areas of classified vegetation (except grassland) larger than 4ha in size; and
- At least 150 m from areas of classified vegetation (except grassland) 2 to 4ha in size; and
- At least 60 m from areas of unmanaged grassland more than 2ha in size (DELWP, 2019).

For isolated areas of vegetation greater than 1ha but less than 2ha, the shape of the area and connectivity to any other hazardous vegetation is a further consideration (DELWP, 2019).

### 3.3 Other bushfire plans and strategies

#### 3.3.1 PSP objectives, requirements and guidelines

The site is bounded by or adjacent to four other PSPs, completed and yet to be completed:

- Casey Fields South Residential PSP to the north - completed
- Clyde South PSP to the east – yet to be completed, identified as ‘residential’ in the Casey ‘*Vision for Remaining Growth Areas*’ (Casey City Council, undated)
- Cranbourne East PSP to the north-west - completed
- Botanic Ridge PSP to the west - completed

Of these, the Casey Fields South Residential PSP and the Botanic Ridge PSP address bushfire matters. In relation to bushfire, Casey Fields South Residential PSP has one Objective at O11: ‘*Objective 11 - Ensure that bushfire protection measures are considered in the layout and development of the local street network*’ (MPA, 2014).

And at R22 and R23:

*Requirement 22* – addresses road width and access for fire fighting purposes (not listed here). These are consistent with the CFA publication *Design Requirements, Vehicle Access and Water Supply Requirements in Residential Developments*, Version 1, August (CFA, 2022).

*Requirement 23 - Before the commencement of works for a stage of subdivision, a Construction Management Plan that addresses Bushfire Risk Management must be submitted to and approved by the responsible authority and the CFA. The Construction Management Plan must specify, amongst other things:*

- *Measures to reduce the risk from fire within the surrounding rural landscape and protect residents from the threat of fire.*
- *A separation buffer, consistent with the separation distances specified in AS3959-2009, between the edge of the development and non-urban areas.*
- *How adequate opportunities for access and egress will be provided for early residents, construction workers and emergency vehicles’* (MPA, 2014).

The bushfire controls of the Casey Fields South Residential PSP address access in relation to the requirements of the relevant fire authority at Clause 56.06-7 where the requirements of Table C1 (at Clause 56.06-8) cannot be met. CFA access requirements will apply in the residential areas of the Casey Fields South (Employment) - Devon Meadows PSP and can be found in the CFA publication *Design Requirements, Vehicle Access and Water Supply Requirements in Residential Developments*, Version 1, August (CFA, 2022).

The Botanic Ridge PSP was updated May 2017 to incorporate bushfire management considerations (amongst other things). The amended 2017 version identifies a ‘Bushfire hazard

edge', which comprises the interface of the PSP with the Royal Botanic Gardens Cranbourne (RBGC) (VPA, 2017). This area of the Botanic Ridge PSP is in the BMO.

The Botanic Ridge PSP addresses bushfire at R16 to R20. The other requirements of the PSP address access, defensible space and perimeter roads adjacent to the fire hazard, and the provision of a landscape plan for subdivisions within the BMO area.

The Botanic Ridge PSP also makes reference to the CFA guidelines around landscaping and plant selection at G37, which should guide subdivision and public open space landscaping in the BMO areas of the PSP.

### **3.3.2 Metropolitan Bushfire Management Strategy 2020**

Strategic bushfire management planning in Victoria is jointly delivered by Forest Fire Management Victoria (FFMVic), Country Fire Authority (CFA), Emergency Management Victoria (EMV) and local governments. A key output is a Bushfire Management Strategy for each of the six planning regions. Each strategy informs more detailed operational-level planning, including municipal fire prevention planning, the CFA and FFMVic joint fuel management program, and readiness and response planning.

The Casey Fields South (Employment) - Devon Meadows PSP is in the region covered by the Metropolitan Bushfire Management Strategy. The bushfire risk documented is inconsistent with other bushfire risk assessments and reflects the presence of the urban/bushfire risk interface at Devon Meadows in a BPA.

### **3.3.3 Regional Bushfire Planning Assessment (RBPA) Melbourne Metropolitan Region**

As part of the response to the 2009 Victorian Bushfires Royal Commission, Regional Bushfire Planning Assessments (RBPAs) were undertaken across six regions that covered the whole of Victoria. The RBPAs provide information about 'identified areas' 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. The RBPAs state that *'This information should be addressed as part of strategic land use and settlement planning at the regional, municipal and local levels'* (DPCD, 2012).

The *Regional Bushfire Planning Assessment – Melbourne Metropolitan Region* covers the Casey City Council LGA. It does not identify any bushfire issues for the precinct or wider area, although the RBGC are identified as an interface where future strategic directions and bushfire hazard conflict (DPCD, 2012). However, this interface is sufficiently removed (>800 m from the site) and the RBGC is not an appreciable threat to the precinct.

### 3.3.4 Casey City Council Municipal Emergency Management Plan (MEMP) and Municipal Fire Management Plan (MFMP) (Annexure A to the MEMP)

There is no specific information in the Casey City Council MEMP pertinent to the precinct or this assessment (Casey City Council, 2025). However, the Casey City Council MFMP, which forms Annexure A to the MEMP, identifies ember attack and spotting activity affecting the semi-rural areas of Casey as the most likely impact of bushfire within the City of Casey. The highest risk areas are identified as being in the northern part of the City of Casey. Casey Fields and Devon Meadows are not identified as areas of bushfire risk, although Baxter-Tooradin Road in Devon Meadows – well to the south of the precincts is identified as a fire break subject to maintenance.

## 4 Bushfire hazard assessment

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One of the bushfire hazard identification and assessment strategies in Clause 13.02-1S, is to use the best available science to identify the hazard posed by vegetation, topographic and climatic conditions (Casey Planning Scheme). The basis for the hazard assessment should be:

- *‘Landscape conditions - meaning the conditions in the landscape within 20 kilometres and potentially up to 75 kilometres from a site;*
- *Local conditions - meaning conditions within approximately 1 kilometre from a site;*
- *Neighbourhood conditions - meaning conditions within 400 metres of a site; and,*
- *The site for the development’* (Clause 13.02-1S, Casey Planning Scheme).

This section includes an assessment of the hazard at the:

- Broader landscape scale, considering conditions beyond 1 km and up to 20 km around the precincts.
- The local and neighbourhood scale up to 1 km around the precincts.
- The site scale up to 150 m around the precinct, including classifying vegetation and topography to determine BAL setbacks for the precinct.

Note that the BPA coverage invokes AS 3959:2018 *Construction of buildings in bushfire prone areas* to determine an applicable BAL(s), which requires assessment of the vegetation and topography up to 100 m around a building or site (Standards Australia, 2020). For vulnerable uses and larger developments in a BPA, a 150 m assessment zone may be required (DELWP, 2018a). Whilst the bushfire risk to the precincts is relatively low, as a precaution for strategic planning purposes, a 150 m assessment area has been applied at the site scale.

Map 1 shows a 20 km landscape assessment area around the precinct, Map 3 shows the 1 km local and 400 m neighbourhood assessment areas, and Map 5 shows the 150 m site assessment area around the precinct.

## 4.1 Broader landscape scale conditions

### 4.1.1 Location description and context

The Casey Fields South (Employment) - Devon Meadows PSP is located toward the centre of the southern half of the City of Casey, in Melbourne's southeast growth corridor. It is approximately 56 km (55 mins travel) by road from the Melbourne CBD (Google Earth online, 2025) (see Figure 1 and Map 1), in a largely urban/rural interface area with land being transformed from predominantly pastoral and horticultural to residential, commercial and industrial land uses. The southern boundary of the Devon Meadows precinct coincides with the Urban Growth Boundary, with the current Green Wedge A Zone (GWAZ1) land use to the south anticipated to remain in the long term.

The broader landscape is characterised by:

- To the north of the site, the urban area extends over 10 km to Endeavour Hills, with the steeper bushland landscape around Beaconsfield Upper further to the north-east and to the north of the Officer/Berwick urban extension along the Princes Freeway.
- To the east of the site, horticultural land gives way to the rural pastoral landscape of Cardinia and Pakenham South, extending east and south to Westernport Bay.
- To the west, the urban area extends to Port Phillip Bay, with the RBGC, The Pines Flora and Fauna Reserve, golf courses and quarries forming large landscape features.
- To the south of the site, the landscape is a mosaic of pastoral land, horticulture and rural living properties up to the shores of Westernport Bay approximately 7 km away, a landscape that continues to the south-west into the Mornington Peninsula.

The designated BPA covers most of the 20 km landscape assessment zone to the south, south-west and east. The BMO covers all large areas of treed vegetation, such as to the north-west in the Dandenong Range, and including the RBGC and the bushland reserves to the west.

There is an extensive fire history within 20 km, generally at a distance such that they are not of direct relevance to the site and predominantly in the larger forested areas to the north-east and on French Island to the south. Smaller fires have occurred frequently in the bushland around Frankston. The publicly available bushfire history shows no record of the site itself being burnt by bushfire.

The bushfire threat from all directions is low. There is no credible scenario in which the site could be approached by a bushfire of the scale and intensity envisioned by AS 3959:2018. The only scenario is a locally ignited grassfire, that would vary in intensity as it burns through the varied vegetation patches that characterise the mosaic landscape around the site, particularly to the south, that could burn into and within the site and affect developing stages and neighbouring land.

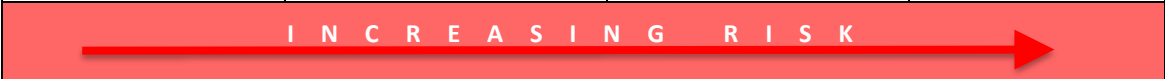
A comprehensive local road network provides ready access to lower threat areas in all directions around the site.

#### 4.1.2 Broader landscape risk type

Whilst there is no BMO coverage in, or near to the site, to assist in assessing landscape risk, four 'broader landscape types', representing different landscape risk levels, are described in the technical guide *Planning Applications Bushfire Management Overlay*. These are useful descriptors to apply, which are intended to streamline decision-making and support more consistent decisions based on the landscape risk (DELWP, 2017).

The four types range from low risk landscapes, where there is little hazardous vegetation beyond 150 m of a site and extreme bushfire behaviour is not credible, to extreme risk landscapes with limited or no evacuation options and where fire behaviour could exceed BMO/AS 3959:2018 presumptions (see Table 1).

**Table 1 - Landscape risk typologies (from DELWP, 2017).**

Broader Landscape Type 1	Broader Landscape Type 2	Broader Landscape Type 3	Broader Landscape Type 4
<ul style="list-style-type: none"> <li>• <i>There is little vegetation beyond 150 metres of the site (except grasslands and low-threat vegetation).</i></li> <li>• <i>Extreme bushfire behaviour is not possible.</i></li> <li>• <i>The type and extent of vegetation is unlikely to result in neighbourhood-scale destruction of property.</i></li> <li>• <i>Immediate access is available to a place that provides shelter from bushfire.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>The type and extent of vegetation located more than 150 metres from the site may result in neighbourhood-scale destruction as it interacts with the bushfire hazard on and close to a site.</i></li> <li>• <i>Bushfire can only approach from one aspect and the site is located in a suburban, township or urban area managed in a minimum fuel condition.</i></li> <li>• <i>Access is readily available to a place that provides shelter from bushfire. This will often be the surrounding developed area.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>The type and extent of vegetation located more than 150 metres from the site may result in neighbourhood-scale destruction as it interacts with the bushfire hazard on and close to a site.</i></li> <li>• <i>Bushfire can approach from more than one aspect.</i></li> <li>• <i>The site is located in an area that is not managed in a minimum fuel condition.</i></li> <li>• <i>Access to an appropriate place that provides shelter from bushfire is not certain.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>The broader landscape presents an extreme risk.</i></li> <li>• <i>Evacuation options are limited or not available.</i></li> <li>• <i>Fires have hours or days to grow and develop before impacting.</i></li> </ul>
			

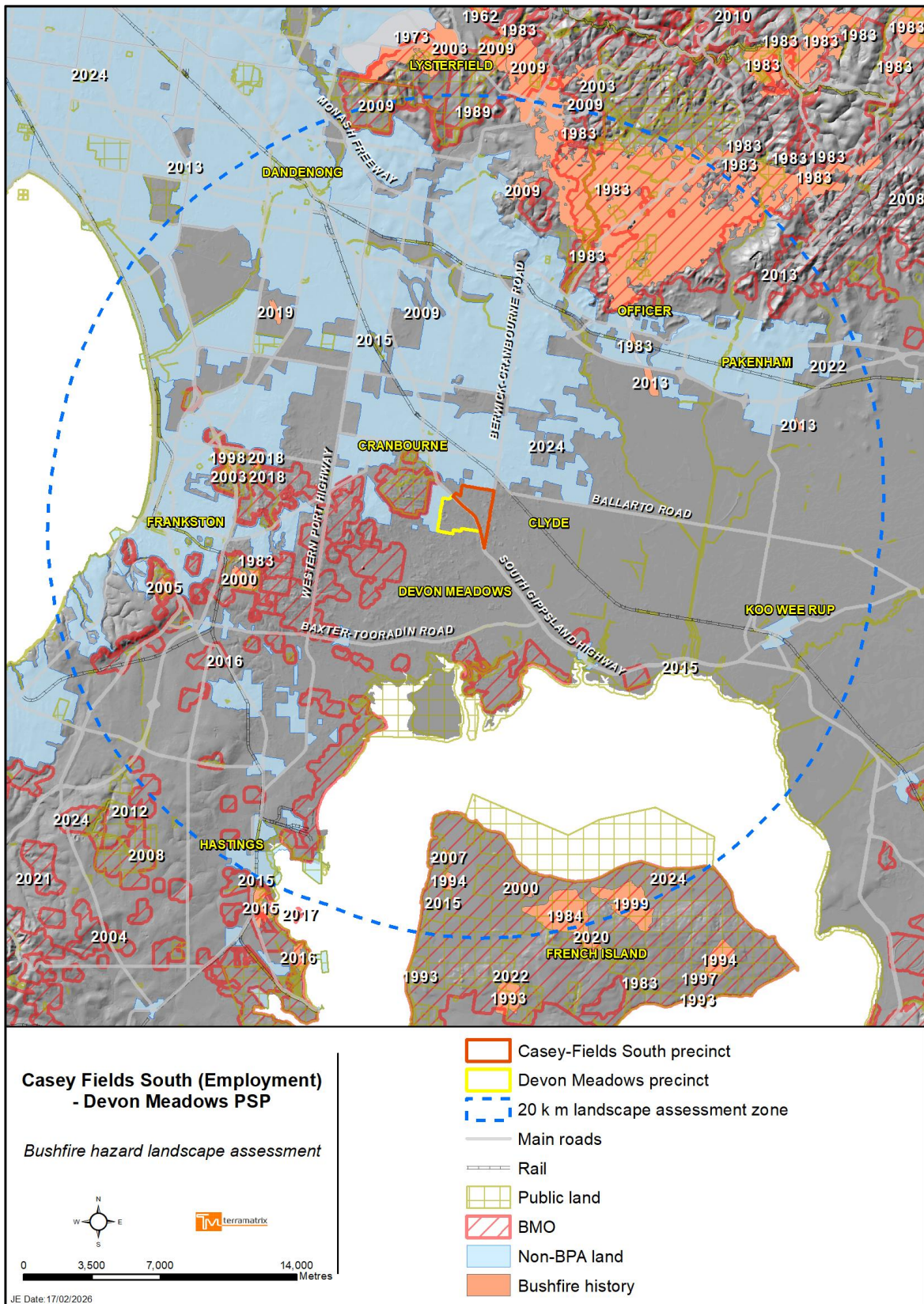
The characteristics of the Casey Fields South (Employment) - Devon Meadows PSP best accord with those of the lesser risk Landscape Type 1 on all aspects other than to the south, where Landscape Type 2 is considered more appropriate due to the presence of the mosaic of

vegetation types on private properties in the Green Wedge Zone (GWZ) in that direction. Within 5 km of the precinct, hazardous vegetation is limited to the mosaic of vegetation types in the GWZ to the south and remnant Grassland in easements and undeveloped properties, the RBGC to the west and Grassland on pastoral properties further afield to the east (see Map 2). Additionally, fire history within 5 km is limited to a single fire shown in the publicly available data that occurred to the north-east in 2024.

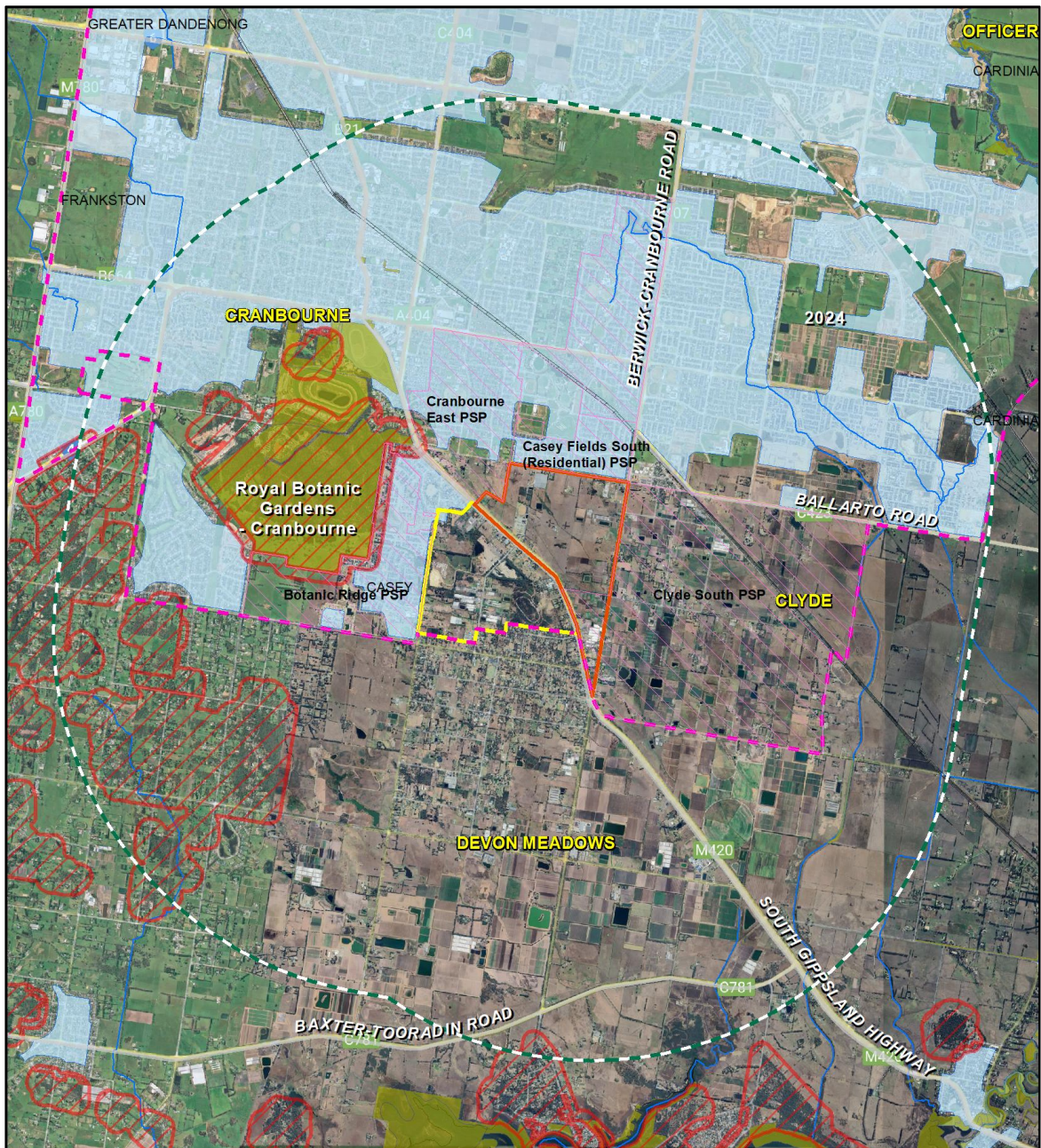
Outside of the RBGC, the areas of trees and shrubs that occur are small and confined to relatively narrow strips along the creeks, drainage lines and roadsides, forming a mosaic of vegetation types. Although this pattern of vegetation would allow a bushfire to move through the landscape with localised variation in intensity, it does not pose a significant hazard that could generate large-scale fire behaviour.

Much of the land to the north for several kilometres around the precinct, and to the west, is not designated as a BPA. The nearest areas of higher hazard vegetation with bushfire risk potential are the patches of Forest and Woodland that occur approximately 800 m to the west in the RBGC. The higher risk associated with this area is denoted by the BMO coverage (see Map 1 and Map 2).

Although the Clause 13.02-1S methodology specifies assessment at 20 km (see Map 1), 1 km and 400 m (see Map 3), a 5 km assessment has been added to provide a more detailed assessment of the immediately surrounding landscape (see Map 2).

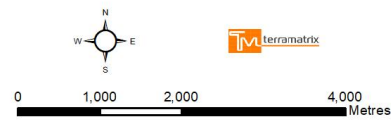


**Map 1 - Bushfire hazard broader landscape map.**



**Casey Fields South (Employment)  
- Devon Meadows PSP**

*Bushfire hazard landscape assessment  
to 5 kilometres*



JE Date: 17/02/2026

- |                                |                  |
|--------------------------------|------------------|
| Casey-Fields South precinct    | Rail             |
| Devon Meadows precinct         | Watercourse      |
| 5 km landscape assessment zone | Public land      |
| Urban Growth Boundary          | BMO              |
| Main roads                     | Non-BPA land     |
| Adjacent PSPs                  | Bushfire history |

**Map 2 – 5 km landscape assessment zone.**

## 4.2 Local and neighbourhood conditions

### 4.2.1 Risk factors

There are limited significant risk factors in the landscape within the 1 km local or 400 m neighbourhood areas (see Map 3) defined by the hazard assessment strategies of Clause 13.02-1S, other than within the site itself. The hazard comprises a small part of the RBGC, Grassland in and around the precincts, and typically small or narrow patches of Scrub and Grassland forming a mosaic of vegetation mainly associated with land in private properties to the south in the GWZ that, in elevated bushfire risk conditions, could allow the passage of bushfire with localised variations in intensity.

Consequently, although the overall risk to the precincts is low, the mosaic vegetation within the GWZ area to the south creates a slightly increased hazard in this direction with a consequent varied level of risk across the Casey Fields South (Employment) – Devon Meadows PSP boundaries, and the southern boundary is considered to be exposed to a low-moderate bushfire risk.

The topography outside of the site is largely flat or upslope and will not exacerbate fire behaviour.

### 4.2.2 Bushfire scenarios

There is no credible scenario in which the site could be approached by a bushfire of the scale and intensity envisioned by AS 3959:2018, although smaller scale fire could burn through the vegetative mosaic within the GWZ land to the south (see Map 3).

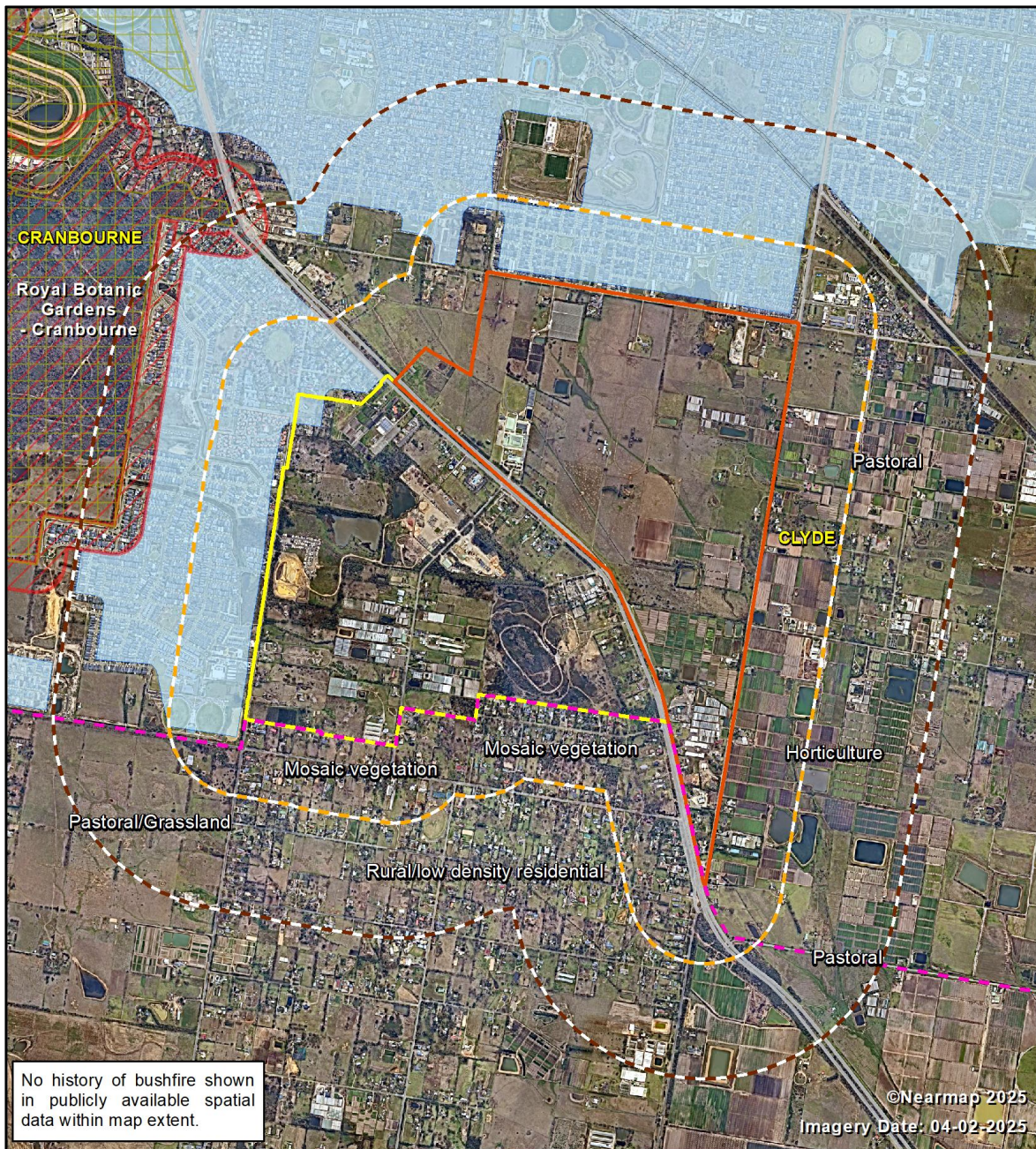
Fires from the north, west or southwest are the directions of highest threat, as they are typically associated with the predominant wind direction during elevated fire danger weather in Victoria (Long, 2006). The pattern and scale of existing and future residential and commercial development in these (and other) directions has (or will) removed or significantly lessened the risk, and the impacts associated with an Ash Wednesday-type scenario in the landscape well to the north in the Lysterfield Park or Dandenong Ranges would be confined to smoke.

The precincts could be impacted by smoke, and some limited potential for ember attack from a large fire in the RBGC to the north-west, although direct approach by fire is not possible. The Grassland on the pastoral land to the south-west could allow a fire to approach to around 150 m from the Devon Meadows precinct and impact existing dwellings south of Browns Road, however, the road and the mosaic of vegetation on properties on the southern boundary of the precinct makes direct impact by a large scale fire unlikely, although a smaller, potentially locally ignited, fire could burn into the site.

The risk can be acceptably mitigated by providing appropriate measures during development, setbacks from the unmanaged vegetation, including perimeter roads to assist in fire fighting where a permanent bushfire hazard interface occurs, a reticulated hydrant system as subdivision occurs, and BAL construction standards for buildings if required by the building regulations (see Section 3.2).

Note that whilst grassfires can be fast, unpredictable and life threatening, they do not typically generate significant ember attack or intensities that would contribute to penetration and destruction of an established residential area.

Note also that as identified in Section 3.2, non-BPA land will be created across most of the precincts once reliably low threat and non-vegetated areas are established as development commences. Access for people in the precinct will be readily available to these reliably low threat or non-vegetated areas that can function as places of relative safety from bushfire.



**Casey Fields South (Employment)  
- Devon Meadows PSP**

*Bushfire hazard local and  
neighbourhood assessment*



0 400 800 1,600  
Metres

JE Date: 17/02/2026

- |                                     |              |
|-------------------------------------|--------------|
| Casey-Fields South precinct         | Main roads   |
| Devon Meadows precinct              | Rail         |
| 400 m neighbourhood assessment zone | Public land  |
| 1 km local assessment zone          | Non-BPA land |
| Urban Growth Boundary               | BMO          |

**Map 3 - Bushfire hazard local and neighbourhood assessment map.**

### 4.3 Site scale conditions

The AS 3959:2018 site assessment methodology is invoked by Clause 13.02-1S to assess the bushfire risk at the site scale, and by the building regulations to determine BAL construction standards for defined classes of buildings in a BPA. It requires classification of the vegetation and topography within 100 m of a site or building.

Whilst the bushfire risk to the precincts is low, as a precaution for strategic planning purposes, a 150 m assessment area around the precinct boundary has been applied for the site scale assessment (see Map 5 and Map 6).

This site assessment anticipates the extent and types of vegetation that may be retained or created in the precincts, based on proposed land uses in the Place Based Plan and revegetation proposed by Melbourne Water. As it is based on assumptions about the proposed future vegetated state of the land, it can't be definitive. It should be noted that revegetation and/or natural recruitment of vegetation to create Southern Brown Bandicoot habitat may introduce additional, albeit likely minor, areas of hazard (WSP, 2025), although these will likely be largely coincident with the proposed drainage reserves.

These assumptions are:

- That the final urban form of the precincts will reflect the low threat urban areas to the north and much of the area will be eligible for excision from the BPA.
- That local parks will be maintained in a low threat state.
- That most classifiable vegetation within the precincts (see Map 4) will be removed during development process.
- That some development will be exposed to an interim bushfire hazard during the development and construction phases.
- That the eventual classifiable vegetation created or retained within the site will be largely constrained to drainage reserves, wetland areas and other areas of uncredited open space.

Accordingly, this assessment identifies:

- 1) The current arrangement of classifiable vegetation within and around the Casey Fields South (Employment) - Devon Meadows PSP (see Section 4.3.1).
- 2) Those areas of future uncredited open space areas – largely drainage reserves and wetlands, plus areas identified as vegetation to be retained – where future vegetation is likely to be retained or created (see Section 4.3.2).
- 3) The currently present classified vegetation that occurs within the future uncredited open space areas and other areas identified in the supplied data as areas of vegetation to be retained.
- 4) Areas of 'other classified vegetation' (see Map 5) where vegetation within the future uncredited open space was not classified but is anticipated to be revegetated.

Potential development setbacks of buildings from the hazardous vegetation – existing and anticipated - are discussed at Section 5.1.2. These setbacks – or a variation of them – would apply to any area of retained or created vegetation that is not eligible for exclusion from classification (see Section 4.3.3.).

#### **4.3.1 Vegetation at the time of assessment**

Classified vegetation is vegetation that is deemed hazardous from a bushfire perspective and is classified in accordance with the AS 3959:2018 methodology.

The classification system is not directly analogous to Ecological Vegetation Classes (EVCs) but uses a generalised description of vegetation based on the AUSLIG (Australian Natural Resources Atlas: No. 7 - Native Vegetation) classification system. The classification should be based on the likely fire behaviour that it will generate and, for settlement planning purposes, the long-term structure of the vegetation in its mature state.

The distribution of existing classified vegetation within and around the site is shown at Map 4. The distribution of vegetation forms a complex mosaic of vegetation types, low threat vegetation and non-vegetated land. In many locations, the assessed vegetation was modified from the AS 3959:2018 descriptors, with areas of mixed vegetation types such as Scrub and Woodland of varying densities.

As part of a precautionary approach, unless there is a clear distinction between vegetation types, mixed vegetation was assessed as the highest fuel load type.

#### **Forest**

Areas of remnant treed vegetation with a well-developed shrubby understorey and overall tree canopy cover greater than 30%, accord best with the AS 3959:2018 Forest group. Forest typically has a canopy of trees to 30 m high, with 30-70% overall foliage cover including an understorey of sclerophyllous low trees and tall scrubs (Standards Australia, 2020) (see Figure 3).



Figure 3 – Patch of Forest along Devon Road within the Devon Meadows precinct.

### Woodland

Where overall foliage cover in the canopy is less than 30%, and shrubs in the understorey are sparse, vegetation may comprise Woodland, which has the following typical characteristics: *'Trees up to 30 m high; 10%–30% foliage cover dominated by eucalypts and/or callitris with a prominent grassy understorey. May contain isolated shrubs'* (Standards Australia, 2020) (see Figure 4).



Figure 4 – Woodland at the western end of Rawlins Road within the Deveon Meadows precinct.

### Scrub

Vegetation in patches throughout the Devon Meadows precinct and on adjacent land to the south best accords with the Scrub group of AS 3959:2018 (see Map 4). *Scrub comprises areas with shrubs that have an average height of more than 2 m, with 10% to more than 30% foliage*

cover. Typical of coastal areas and tall heaths up to 6 m in height. May be dominated by *Banksia*, *Melaleuca* or *Leptospermum* with heights of up to 6 m (Standards Australia, 2020) (see Figure 5).

The Scrub group also includes the Open Scrub vegetation type, which is defined as ‘*Shrubs greater than 2 m high; 10–30% foliage cover with a mixed species composition*’ (Standards Australia, 2020).



Figure 5 - Scrub on the western side of Craig Road.

### Grassland

Areas of grassy vegetation with an overstorey foliage cover of less than 10%, are classifiable in the Grassland group of AS 3959:2018, which is defined as ‘*All forms (of vegetation except tussock moorlands) including areas with shrubs and trees, if the overstorey foliage cover is less than 10%*’ (Standards Australia, 2020). Grassland includes open woodland, pasture and cropland except for non-curing crops.

Grassland vegetation is considered hazardous, and therefore classifiable, when it is unmanaged i.e. >100 mm tall. A conservative and precautionary approach should be adopted, of assuming grassland areas will be unmanaged and classifiable unless they are reasonably assured to be managed in perpetuity, in a low threat state, no more than 100 mm high. However, if any grassland areas are mown or slashed and maintained in a low threat state during the fire danger period, they may meet one or more of the exclusion criteria and not be classifiable (see Section 4.3.3).

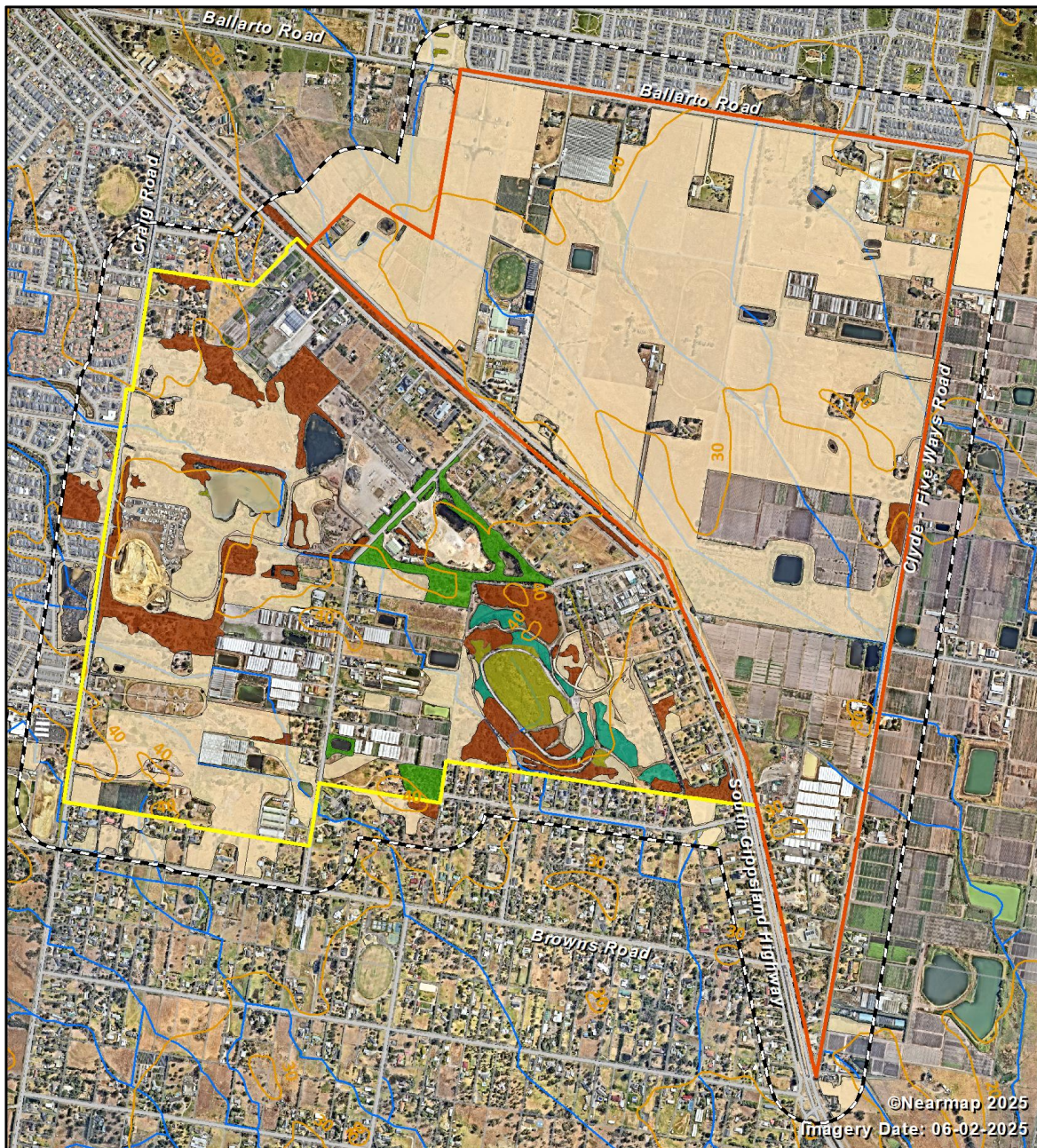
The majority of the precincts and some patches on adjoining land comprise Grassland (see Map 4, Figure 6 and Figure 7). Note that some areas of Grassland were in a largely managed or eaten out state at the time of assessment, however, as Grassland hazards are more dynamic and can vary significantly seasonally, curing, and in response to variations in land management, these areas were assessed as Grassland on the basis of their future potential for growth.



**Figure 6 – Grassland within the Devon Meadows precinct from Craig Road.**

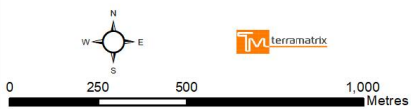


**Figure 7 – Grassland within the Casey Fields South (Employment) precinct area; note undulations forming the main area of land within the precincts that is not flat.**



**Casey Fields South (Employment)  
- Devon Meadows PSP**

*Bushfire hazard site assessment  
Existing classified vegetation  
throughout and around site*



JE Date: 18/02/2026

- |                             |                           |
|-----------------------------|---------------------------|
| Casey-Fields South precinct | 10 m contours             |
| Devon Meadows precinct      | Watercourse/drainage line |
| 150 m site assessment zone  | Road (existing)           |
| Forest                      | Cadastre                  |
| Grassland                   |                           |
| Scrub                       |                           |
| Shrubland                   |                           |
| Woodland                    |                           |

**Map 4 – Bushfire hazard site assessment map showing 150 m site assessment area around the precincts with existing vegetation.**

### 4.3.2 Anticipated future classifiable vegetation

The distribution of likely future classified vegetation within the site, of greater relevance to future development, is shown at Map 5.

The removal of classified vegetation (see Map 4) during development will see the retention of classified vegetation largely constrained to the drainage reserves and other areas of uncredited open space. Assumptions around the future state of the vegetation within the drainage reserves and wetland areas (uncredited open space) and other areas of retained vegetation are based on the site assessment (see Section 4.3.1), information provided by Melbourne Water (MW) about Ecological Vegetation Classes (EVCs) and drainage reserve cross sections, the Casey Fields South (Employment) - Devon Meadows PSP and Place Based Plan and the *Casey Fields South (Employment) - Devon Meadows Precinct Structure Plan Biodiversity Assessment Report (WSP, 2025)*.

It is anticipated that vegetation proposed for the drainage reserves and other areas of uncredited open space will reflect the EVCs typical of the Gippsland Plain Bioregion; it is likely that many areas will comprise Grassland rather than higher fuel load EVCs. Information from MW for revegetation based on EVCs, in draining reserves and wetland areas and the anticipated AS 3959:2018 vegetation classifications for each EVC area are shown at Table 2. The eventual distribution and density of the vegetation within the drainage reserves and wetland areas (uncredited open space) is unknown.

**Table 2 – MW EVCs and AS 3959:2018 equivalent.**

EVC	AS 3959:2018 classification
EVC 48: Heathy Woodland	Woodland
EVC 53-61: Swamp Scrub	Scrub
EVC 83: Swampy Riparian Woodland	Forest

#### **EVC 83: Swampy Riparian Woodland**

Areas of remnant treed vegetation will be present within the drainage reserves and wetland areas (uncredited open space), with a well-developed shrubby understorey and overall tree canopy cover greater than 30%, which will likely accord best with the AS 3959-2018 Forest group. Forest comprises the Open Forest or Low Open Forest vegetation types, which typically have a canopy of trees to 30 m high, with 30-70% overall foliage cover including an understorey of sclerophyllous low trees and tall scrubs (Standards Australia, 2020). Areas of

Some areas of the drainage reserves and wetland areas (uncredited open space) within the site will be revegetated as *EVC 83 - Swampy Riparian Woodland* and has been allocated to the Forest

group. Swampy Riparian Woodland has a 20% benchmark tree canopy cover, and the descriptions of this vegetation class is: *'Woodland to 15 m tall generally occupying low energy streams of the foothills and plains. The lower strata are variously locally dominated by a range of large and medium shrub species on the stream levees in combination with large tussock grasses and sedges in the ground layer'* (DSE, 2004a).

Forest was identified at the time of the site assessment and is shown as part of that assessment at Map 4. Some of the vegetation assessed as Forest will be retained within the drainage reserves and wetland areas (uncredited open space) and other areas identified as 'Areas of vegetation to be retained' in the supplied data; these are shown on Map 5.

### **EVC 53-61: Swamp Scrub**

Vegetation comprising this EVC will likely be classifiable as Scrub. The EVC description is *'Closed scrub to 8 m tall at low elevations on alluvial deposits along streams or on poorly drained sites with higher nutrient availability. The EVC is dominated by Swamp Paperbark Melaleuca ericifolia (or sometimes Woolly Tea-tree Leptospermum lanigerum) which often forms a dense thicket, out-competing other species. Occasional emergent eucalypts may be present. Where light penetrates to ground level, a moss/lichen/liverwort or herbaceous ground cover is often present. Dry variants have a grassy/herbaceous ground layer'* (DSE, 2004b). This EVC is planned for areas of the drainage reserves and has been classified as Scrub.

The Scrub classification group includes the AS 3959-2018 Closed Scrub vegetation type, which is defined as:

*'Found in wet areas and/or areas affected by poor soil fertility or shallow soils; >30% foliage cover. Dry heaths occur in rocky areas. Shrubs >2 m high. Typical of coastal areas and tall heaths up to 6 metres in height. May be dominated by Banksia, Melaleuca or Leptospermum with heights of up to 6 metres'.*

The Scrub group also includes the Open Scrub vegetation type, which is defined as *'Shrubs greater than 2 m high; 10–30% foliage cover with a mixed species composition'* (Standards Australia, 2020).

Scrub was identified at the time of the site assessment and is shown as part of that assessment at Map 4. Some of the vegetation assessed as Scrub will be retained within the drainage reserves and wetland areas (uncredited open space) and other areas identified as 'Areas of vegetation to be retained' in the supplied data; these are shown on Map 5.

### **EVC 48 Heathy Woodland**

EVC 48 has a limited canopy cover of only 10% (DSE, 2004c). Whilst it may have a well developed shrub layer, its anticipated fuel hazard likely best accords with an AS 3959-2018 classification as

Woodland, which is defined as ‘Trees up to 30 m high; 10%–30% foliage cover dominated by eucalypts and/or callitris with a prominent grassy understorey. May contain isolated shrubs’ (Standards Australia, 2020).

Woodland vegetation was identified at the time of the site assessment and is shown as part of that assessment at Map 4. Some of the vegetation assessed as Woodland will be retained within the drainage reserves and wetland areas (uncredited open space) and other areas identified as ‘Areas of vegetation to be retained’ in the supplied data; these are shown on Map 5.

**Vegetation distribution within drainage reserves**

MW has provided cross sections for constructed waterways containing EVC 48 Heathy Woodland with total widths of 55 m and 40 m. In both cases, the vegetation either side of the waterway is shown as 15 m wide with a variable hydraulic width, this has implications for the potential exclusion of vegetation from classification (see Section 4.3.3). Pursuant to Section 2.2.3.2 of AS 3959:2018 exclusion (d), strips of vegetation less than 20 m in width may be eligible for exclusion from classification.

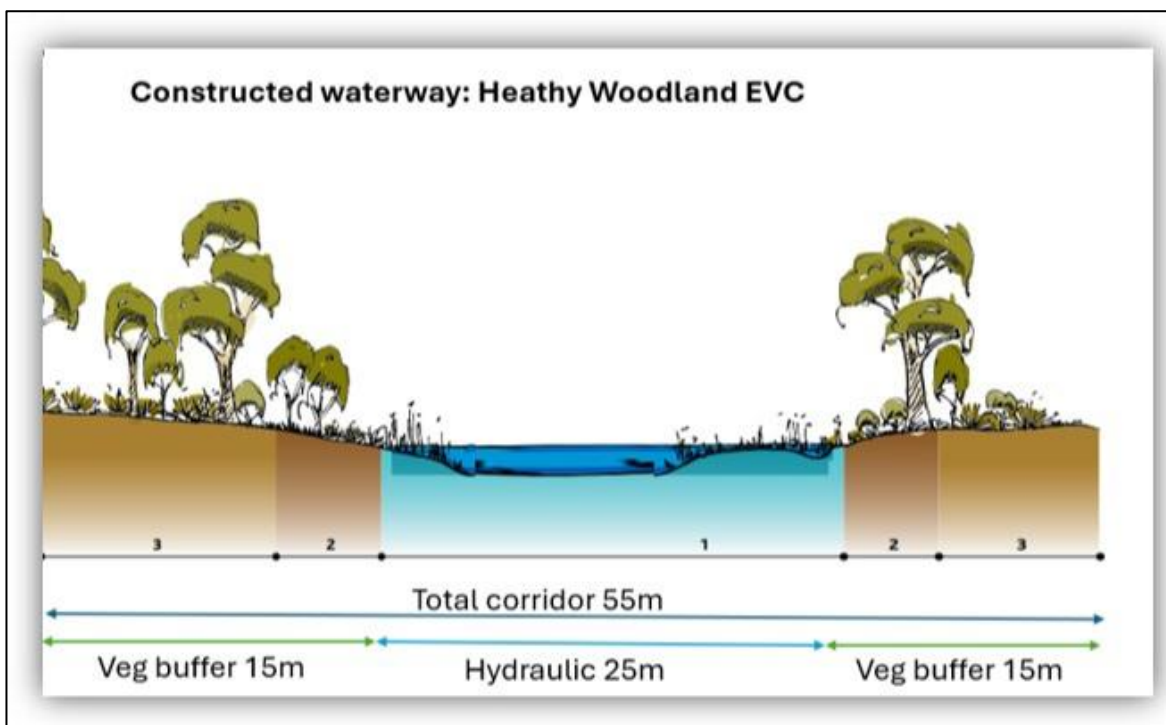


Figure 8 – Constructed waterway: Heathy Woodland EVC (Provided by MW, 2025).

The proposed drainage reserves within the precinct are predominantly 45 m wide, with the south-easternmost drainage reserve in the Devon Meadows precinct being of variable width (28 m – 65 m wide adjoining a wetland area) and the southernmost in the Casey Fields precinct being 55 m wide.

Map 5 shows areas of uncredited open space that currently do not contain classified vegetation as a light green shading with the term 'Other classified vegetation' in the legend. Although the arrangement and distribution of vegetation within the drainage reserves and wetland areas (uncredited open space), and in particular within these areas of 'Other classified vegetation' is unknown, a precautionary and conservative approach would be to assume Forest vegetation throughout the drainage reserves. This would require a 48 m setback for development from the classified vegetation, to enable the required maximum 12.5kW/m<sup>2</sup> safety threshold required in Clause 13.02-15.

Although this is a valid assumption, it does not capture the true nature and distribution of the vegetation within the uncredited open space and other areas of retained or created vegetation, nor the various factors that make a fire of the scale and intensity anticipated by AS 3959:2018 within or around the precincts unlikely. A broad classification of Forest within the uncredited open space and other areas of retained vegetation would arguably overstate the bushfire risk arising from the presence of unmanaged vegetation within those areas.

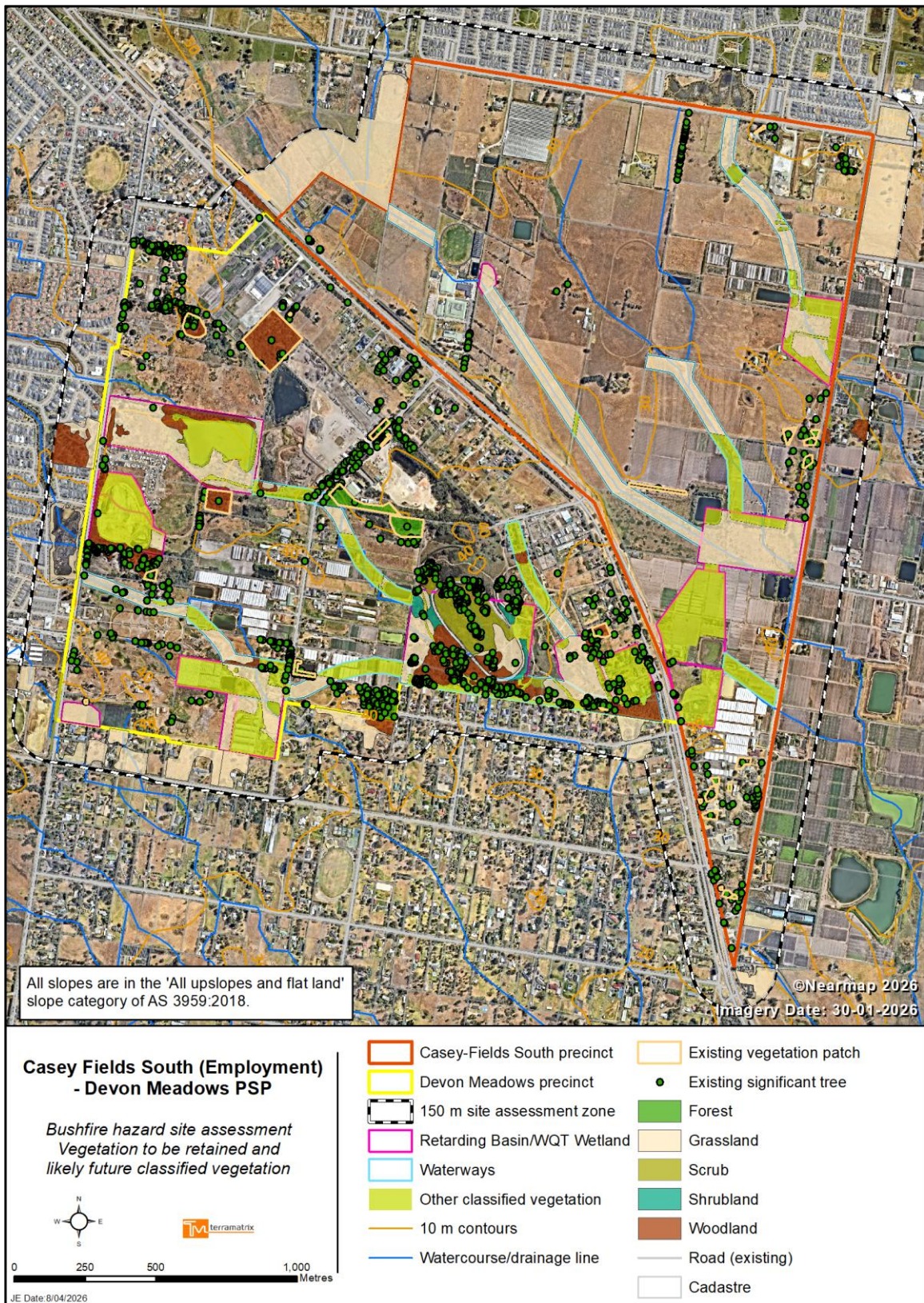
Consequently, these setbacks are documented and an alternate approach with lesser setbacks discussed at Section 5.1.2.

### **Vegetation to be retained**

Map 5 shows points for vegetation to be retained derived from the *Casey Fields South (Employment) - Devon Meadows Precinct Structure Plan Biodiversity Assessment Report (WSP, 2025)*. These points identify individual trees to be retained, many of which are outside areas of vegetation classified as part of this assessment and are considered to be excluded from classification. Although the retention of trees does not necessarily result in a bushfire hazard, where large groups of trees are retained and an understorey allowed to develop, the potential for classified vegetation other than that identified here to occur exists.

It is recommended that where canopy density of greater than 10% occurs that the understorey be managed in a low threat state.

In addition to the points that identify individual trees to be retained, areas of vegetation to be retained are identified at Plan 13 of the PSP as 'Vegetation patch to be retained'. Where vegetation within these areas has been classified, and is not eligible for exclusion from classification, that vegetation type is assumed to apply to the entire 'patch' and appropriate setbacks applied (see Section 5.1.2).



**Map 5 – Bushfire hazard site assessment map showing 150 m site assessment area around the precincts with existing external and anticipated future vegetation within the precincts.**

### 4.3.3 Excluded vegetation and non-vegetated areas

Areas of low threat vegetation and non-vegetated areas can be excluded from classification and be deemed non-hazardous for determining BALs, in accordance with Section 2.2.3.2 of AS 3959:2018, if they meet one or more of the following criteria:

- (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' (Standards Australia, 2020).*

Within the precincts, it is reasonable to assume that land in the residential, industrial and commercial parts of the precinct will be either non-vegetated or comprise low threat vegetation such as maintained lawns, cultivated gardens, streetscapes and other landscaped areas. This includes assuming the local parks will be managed in a low threat state (see Figure 2).

External to the precincts, land within 150 m that has been excluded from classification comprises the cultivated gardens of the surrounding residential properties and the horticultural land of nearby agricultural production areas. Non-vegetated areas include the roads, driveways and structures within the 150 m site assessment zone

The proposed drainage reserves and wetland areas (uncredited open space) are unlikely to be low threat and where all or parts of the reserves are not eligible for exclusion from classification, the potential classification is discussed at Section 5.1.2. The structure, size and setback from

development of any vegetation within them, and how the vegetation is managed during the fire danger period, will determine whether they are non-hazardous vegetation.

Smaller areas of 'Areas of vegetation to be retained' identified in the supplied information have been excluded from classification pursuant to Section 2.2.3.2 exclusion (c). Some areas of vegetation have been excluded pursuant to Section 2.2.3.2 exclusion (f) as narrow strips of roadside vegetation and single rows of trees that comprise windbreaks.

#### 4.3.4 Topography

AS 3959:2018 requires that the 'effective slope' be identified to determine the BAL and applicable development setback distances from classified vegetation. This is the slope of the land *under classified vegetation* that will most significantly influence the bushfire attack on a building. Two broad types apply:

- Flat and/or Upslope - land that is flat or on which a bushfire will be burning downhill in relation to the development. Fires burning downhill (i.e. on an upslope) will generally be moving more slowly with a reduced intensity.
- Downslope - land on which a bushfire will be burning uphill in relation to the development. As the rate of spread of a bushfire burning on a downslope (i.e. burning uphill towards a development) is significantly influenced by increases in slope, downslopes are grouped into five classes in 5° increments from 0° up to 20°<sup>4</sup>.

The Casey Fields South (Employment) - Devon Meadows PSP area is largely flat or gently undulating, with some slight rises and undulations in the eastern part of Casey Fields South (Employment) precinct along Clyde - Five Ways Road. A general rise of the land to the north-west also occurs, however, for the purposes of this bushfire assessment, land in most of the precinct and surrounding landscape is effectively flat, without any significant changes in elevation that would appreciably influence bushfire behaviour.

Therefore, as there will be no classified vegetation on the minor slopes identified (see Map 5), for the purposes of determining BAL-12.5 building-vegetation setback distances, the applicable slope class for all vegetation types is 'All upslopes and flat land'.

#### 4.4 Fire weather

The Forest Fire Danger Index (FFDI) and the Grassland Fire Danger Index (GFDI) represent the level of bushfire threat based on weather (and fuel) conditions. An FFDI 100/GFDI 130 is applied in non-alpine areas of Victoria by the building system, to establish a BAL based on building setback distances from classified vegetation in accordance with AS 3959:2018. This is considered appropriate for the precinct.

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<sup>4</sup> For downslope gradients over 20° and up to 30°, the detailed 'Method 2' procedure of AS 3959:2018 is used to determine the BAL.

The indices were also used for predicting fire behaviour including the difficulty of suppression, forecasting Fire Danger Ratings (FDRs) and determining an appropriate level of preparedness for emergency services. However, since September 2022 the FFDI/GFDI have been replaced by the Fire Behaviour Index (FBI) as a new Australian Fire Danger Rating System (AFDRS) for determining FDRs in all jurisdictions. Table 3 displays the new FDRs, their FBI range, the anticipated fire behaviour and recommended actions for each FDR.

Note that the AFDRS and FBIs do not correlate directly with the FFDI/GFFDI indices applied in the planning and building system. However, the benchmark FFDI 100 used to represent a 'one size fits all' model of extreme fire weather conditions (and the threshold for the previous 'Code Red' FDR), can be considered analogous to the FBI 100 'Catastrophic' FDR. Note that these extreme conditions have been exceeded during significant fire events, including at some locations in Victoria on 'Black Saturday' 2009. Therefore, it is important to note that this FDR threshold is not necessarily the *worst-case* conditions for any particular location.

Additionally, as identified in Section 3.1.3, in southern and eastern Australia since the 1950's there has been an increase in the length of the fire weather season and an increase in extreme fire weather (CSIRO/BOM, 2024). The trend of a longer fire season and increased number of dangerous fire weather days is projected to continue. Climate change is contributing to these changes in fire weather including by affecting temperature, relative humidity and associated changes to the fuel moisture content (CSIRO/BOM, 2024).

The Metropolitan Bushfire Management Strategy also states that in Victoria, climate change is forecast to extend the length of the fire danger period, make bushfires larger, more severe and frequent, and increase the frequency of days of elevated fire danger (DELWP, 2020b).

Climate change trends associated with the risk of bushfire, support the adoption of a precautionary and conservative approach in identifying and responding to the risk. However, as CFA and DTP have no published policy on FFDI recurrence intervals there is no compelling reason to apply a different FFDI/GFDI from the FFDI 100/GFDI 130 threshold used throughout non-Alpine areas of Victoria in the planning and building system<sup>5</sup>.

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<sup>5</sup> In Alpine areas of Victoria an FFDI 50 applies for determining BALs using Method 1 of AS 3959:2018.

**Table 3 - Fire Danger Ratings (AFDRS, 2022).**

Forest Behaviour Index	Fire Danger Rating (FDR)	Fire Behaviour	Action
>=100	Catastrophic	If a fire starts and takes hold, lives are likely to be lost.	<ul style="list-style-type: none"> <li>○ These are the most dangerous conditions for a fire.</li> <li>○ Your life may depend on the decisions on you make, even before there is a fire.</li> <li>○ For your survival, do not be in bushfire risk areas.</li> <li>○ Stay safe by going to a safer location early in the morning or the night before.</li> <li>○ If a fire starts and takes hold, lives and properties are likely to be lost.</li> <li>○ Homes cannot withstand fires in these conditions. You may not be able to leave and help may not be available.</li> </ul>
50-99	Extreme	Fires will spread quickly and be extremely dangerous.	<ul style="list-style-type: none"> <li>○ These are dangerous fire conditions.</li> <li>○ Check your bushfire plan and that your property is fire ready.</li> <li>○ If a fire starts, take immediate action. If you and your property are not prepared to the highest level, go to a safer location well before the fire impacts.</li> <li>○ Reconsider travel through bushfire risk areas.</li> <li>○ Expect hot, dry and windy conditions.</li> <li>○ Leaving bushfire risk areas early in the day is your safest option.</li> </ul>
24-49	High	Fires can be dangerous.	<ul style="list-style-type: none"> <li>○ There is a heightened risk. Be alert for fires in your area.</li> <li>○ Decide what you will do if a fire starts.</li> <li>○ If a fire starts, your life and property may be at risk. The safest option is to avoid bushfire risk areas.</li> </ul>
12-23	Moderate	Most fires can be controlled.	<ul style="list-style-type: none"> <li>○ Stay up to date and be ready to act if there is a fire.</li> </ul>

## 5 Planning and design response

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This section identifies how future development in the precinct can respond to the bushfire risk. It includes an assessment against the objective and strategies of Clause 13.02-1S, published guidance on settlement planning and the building regulations applicable to construction in a BPA.

### 5.1 Settlement Planning Guidelines

This section provides a summary assessment of how the proposal can incorporate the *Design Guidelines for Settlement Planning at the Bushfire Interface* (DELWP, 2020a) as appropriate. The section structure and headings follow that of the guidelines.

#### 5.1.1 Settlement form and structure

##### **Considering the bushfire hazard in directing growth**

The surrounding landscape contains a mix of hazards including areas of Grassland with connectivity to the broader landscape but with limited larger areas of denser vegetation and is of low bushfire risk as identified at Section 4. The mosaic vegetation within the GWZ area to the south creates a slightly increased hazard in this direction with a consequent varied level of risk across the Casey Fields South (Employment) – Devon Meadows PSP area, and the southern boundary is considered to be exposed to a low-moderate bushfire risk.

The location, and presence of the South Gippsland Highway bisecting the precincts, enables quick access to large urban areas of relative bushfire safety to the north and a fast and well-resourced emergency service response can be expected.

Large areas of non-BPA (BAL-LOW) land occur to the north and west of Casey Fields South (Employment) - Devon Meadows PSP and will likely be extended over most of the precinct once reliably low threat and non-vegetated areas are created by future development. A similar pattern of bushfire hazard reduction will occur to the east with the development of the Clyde South PSP area. The existing and future BAL-LOW areas are immediately accessible and provide places of relative safety from bushfire and therefore it is appropriate to direct growth to land within the precinct.

##### **The distribution of land uses in the settlement**

The proposed land uses in the precincts are primarily residential in the Devon Meadows precinct and industrial and commercial in the Casey Fields South (Employment) precinct. The areas proposed for conventional urban-residential development are sited close to a potential permanent bushfire hazard interface within the drainage reserves. These reserves are unlikely to pose a hazard that could generate a bushfire of the scale and intensity anticipated by AS 3959:2018 and appropriate setbacks – potentially varied from the setbacks specified in AS 3959:2018 as discussed below - from the vegetation in them can acceptably mitigate any risk.

Three sites within the precinct are shown as proposed government school, potential non-government school or existing non-government school (the last shown on the Place Based Plan as Lighthouse Christian College) (see sites highlighted with red dashed lines on Map 6 and the Devon Meadows maps shown at Appendix B: Devon Meadows setbacks). These areas contain or will contain Class 9b buildings that – if not excised from the BPA – will be required to respond to the bushfire performance requirements in Part G5 of the National Construction Code (NCC) 2022 (see Section 3.2.1).

Within the Casey Fields South (Employment) precinct, uncredited open space likely to contain classified vegetation is proposed close to the Lighthouse Christian College. Depending upon the eventual vegetative form of the drainage reserve to the west, and the wetland area to the east (likely Grassland), this may result in an increase in bushfire risk to the College, contrary to the Settlement Planning strategies of Clause 13.02-1S.

However, the drainage reserve to the west is adjacent to the College sports field and not close to any structures. To the east, although the wetland area is within 20 m of the college boundary, the existing structures are setback 25 m – 30 m from this boundary and the likely presence of Grassland type vegetation in this wetland will not result in an increase in bushfire risk.

The College is currently exposed to Grassland on three boundaries, and for an increase in bushfire hazard to occur a higher fuel load vegetation type would need to be created within the adjacent uncredited open space. It is recommended that these areas be restricted to Grassland fuels.

Within the northern part of the Devon Meadows precinct, the potential non-government school is adjacent to an area of Woodland that will be retained. The site is large enough that school buildings can be setback from the hazard to enable a radiant heat flux of less than 12.5 k/Wm<sup>2</sup> in accordance with Settlement Planning strategies of Clause 13.02-1S, however, consideration should be given to moving the potential non-government school further from this area of Woodland.

The proposed government school sites within the Devon Meadows precinct are similarly close to areas of identified bushfire hazard. As for the potential non-government school, the sites are large enough that school buildings can be setback from the hazard to enable a radiant heat flux of less than 12.5 k/Wm<sup>2</sup> in accordance with Settlement Planning strategies of Clause 13.02-1S and meet the bushfire performance requirements in Part G5 of the National Construction Code (NCC) 2022.

There is no apparent reason for significant alterations to the locations of the school sites in the Devon Meadows precinct arising from the presence of the identified bushfire hazard provided appropriate construction standard and setbacks are applied, although the risk could be further lowered by creating greater separation.

### **Lot sizes in settlement layout**

The settlement planning guidelines consider that in bushfire interface areas lot sizes between 800 m<sup>2</sup> and 1,200 m<sup>2</sup> provide a good balance between the risk of larger lots retaining more vegetation within a residential area, and smaller lots providing an increased risk of house-to-house ignitions or increased house losses from ember attack due to the higher housing density (DELWP, 2020a).

As noted at Section 4.2.1, there is a varied level of risk across the Casey Fields South (Employment) – Devon Meadows PSP area, with the mosaic vegetation within the GWZ area to the south creating a slightly increased hazard in this direction. On the southern boundary it is recommended that the 2020 DELWP guidelines regarding lot size be considered and lots on the southern boundary be created within the range specified.

However, given the overall low risk location of the precincts and lack of exposure to large areas of hazardous vegetation, there is no justification for requiring larger lot sizes in any other parts of the precincts to meet the suggested optimal lot size. All land in the precincts, other than on the southern boundary, is suitable for conventional urban residential development or industrial/commercial uses on a range of lot sizes with appropriate setbacks from hazardous vegetation within the PSP area applied.

### **Vegetated areas within a settlement**

As identified in Section 4.3.3, most of the land in the precinct can be expected to be either non-vegetated or comprise low threat vegetation such as maintained lawns, cultivated gardens, streetscapes and other landscaped areas. It is also reasonable to assume that any proposed local parks will be managed in a low threat state.

The proposed drainage reserves and wetland areas (uncredited open space) may, however, not be low threat (see Section 4.3.2). The structure, size and setback from development of any vegetation within them, and how the vegetation is managed during the fire danger period, will determine the hazard and associated risk the vegetation may pose.

Retarding basins to mitigate the flood threat or other water sensitive urban design (WSUD) features with managed grass, reliably open water or wet areas and little or no vegetation, may be deemed low threat. However, large, seasonally inundated wetlands or WSUD features that may be dry and vegetated during the fire danger period could comprise classifiable vegetation.

Consequently, setbacks should be applied around the drainage reserves and wetland areas (uncredited open space) and any other areas of classified vegetation within the PSP area. The size and extent of the setbacks are discussed in the following section. The setbacks should be provided in the form of perimeter roads (see Section 5.1.2) around the drainage reserves and wetland areas (uncredited open space). Note that this approach is typically applied in PSPs and has been applied within the existing urban areas on the western boundary of the site, within the

Botanic Ridge PSP area, where residential development interfaces with the bushfire hazard within drainage reserves and the RBGC.

### 5.1.2 The settlement interface

#### **Applying the required development setbacks**

To satisfy key settlement planning strategies of Clause 13.02-1S, development, especially future dwellings and other buildings requiring a BAL (see Section 3.2), must be sufficiently setback from classified vegetation to ensure radiant heat does not exceed 12.5 kW/m<sup>2</sup> (see Figure 9 and Appendix A).

The strategies aim to strengthen the resilience of settlements and communities and prioritise protection of human life, including 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 metre<sup>6</sup> under AS 3959-2018 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2018).*
- *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 3959-2018 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2018)’ (Clause 13.02-1S, Casey Planning Scheme).*

Most existing vegetation that will not be retained within the precincts (as assessed at Section 4.3.1) will be an interim issue during the development phase but will ultimately be removed or rendered low threat and will be adequately addressed by the UGZ15 during the development process; therefore, setbacks from this vegetation are not shown in this report.

Where existing classified vegetation occurs within the drainage reserves and wetland areas (uncredited open space), and those areas currently not comprising classified vegetation but anticipated to be revegetated as discussed at Section 4.3.2 (shown as ‘Other classified vegetation’ on Map 5), the AS 3959:2018 setbacks shown at Table 4 apply.

These setbacks also apply to areas of vegetation retained that are outside of the drainage reserves and wetland areas (uncredited open space), and to vegetation outside of the PSP area, particularly to the south.

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<sup>6</sup> Note that the first strategy is to ensure RHF is less than 12.5kW/m<sup>2</sup> (author’s emphasis). The second strategy stipulates a maximum BAL-12.5 construction standard (which allows for RHF up to and including 12.5kW/m<sup>2</sup>). It is assumed the intent of both strategies to ensure that BAL-12.5 is a maximum construction standard for settlement planning, which is consistent with the wording of the latter strategy and the criteria and setback distances for BAL-12.5 in AS 3959:2018.

The BAL-12.5 building setback<sup>7</sup> distances that are required in response to existing and potential future classified vegetation within the PSP area and on adjacent land, in the applicable ‘All upslopes and flat land’ slope class (see Section 4.3.4) are provided in Table 4 below.

Note that where setbacks are shown in this report, they are indicative strategic parameters based on current assumptions and are subject to assessment at the subdivision stage. Final setbacks will be confirmed at the subdivision stage through site specific bushfire assessment that will demonstrate that development can achieve BAL-12.5 setbacks.

**Table 4 – Minimum building/vegetation setback distances to achieve a radiant heat flux that does not exceed 12.5 kW/m<sup>2</sup>.**

Vegetation	Setback distance
Woodland	33 m
Scrub	27 m
Forest	48 m
Grassland	19 m

The application of these AS 3959:2018 setbacks is a deemed to satisfy measure and should be applied where the alternative setbacks discussed below are considered not to apply by the relevant fire authority.

The AS 3959:2018 assessment documented at Section 4.3.1 does not take into account the various factors that mean a bushfire within the PSP is unlikely to achieve a scale and intensity anticipated by AS 3959:2018. This is particularly the case if a precautionary approach is adopted and all areas of unknown future vegetation are classified as Forest. These factors include:

- The narrow width of the drainage reserves precluding long fire runs across the reserves and narrow head width where a fire burns along the reserve with a consequently reduced fire intensity.
- The variable distribution and small patch size of vegetation within the drainage reserves.
- The presence of non-vegetated waterways within the drainage reserves and wetland areas (uncredited open space) (see Figure 8) that may allow for some areas of vegetation (separated by the waterway) to be excluded from classification as narrow strips of

<sup>7</sup> The setback distance is measured from the edge of the classified vegetation to the external wall of the building, or for parts of the building that do not have external walls (including carports, verandas, decks, landings, steps and ramps), to the supporting posts or columns. The following parts of a building are excluded:

- a) Eaves and roof overhangs.
- b) Rainwater and domestic fuel tanks.
- c) Chimneys, pipes, cooling or heating appliances or other services.
- d) Unroofed pergolas.
- e) Sun blinds (Standards Australia, 2020).

vegetation less than 20 m in width pursuant to Section 2.2.3.2 of AS 3959:2018 exclusion (d).

- The variable aspect of the reserves in relation to neighbouring land (which would result in reduced bushfire intensity with limited exposure to a head fire).
- The short fire runs within the precincts that would act to reduce the scale and rate of spread of any bushfire.

Therefore, the nature and distribution of the drainage reserves and wetlands means they would not support a large bushfire.

With the consent of FRV, an alternative approach was adopted during the planning process for the Croskell PSP to the north which resulted in the application of 19 m setbacks (commensurate to a BAL-12.5 construction standard in response to Grassland on an Upslope) to all areas of bushfire hazard. This report recommends that a similar approach is adopted at the Casey Fields South (Employment) – Devon Meadows PSP, with the required setbacks distance increased to 20 m.

A uniform 20 m setback around all drainage reserves and wetland areas (uncredited open space) (see Map 6) is proposed as an alternative measure in response to the lesser bushfire risk identified in the points above. 20 m is identified in AS 3959:2018 as the distance at which smaller patches and fragments of vegetation become excludable from classification.

This 20 m setback is considered appropriate as it encompasses the minimum setback distance required for BAL-12.5 construction from Grassland and Shrubland (19 m), and allows for the exclusion from classification of eligible areas of vegetation that meet the AS 3959:2018 exclusion criteria (see Section 4.3.3):

- (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 (Standards Australia, 2020).*

The adoption of 20 m setbacks requires the agreement and consent of the relevant fire authority. This potential 20 m setbacks are shown as orange shading around all drainage reserves and wetland areas (uncredited open space) in Map 6.

Plan 14 - Bushfire of the PSP shows a 19 m setback around the drainage reserves and wetland areas (uncredited open space). It is recommended that this is increased to the 20 m setback discussed in this report. Note that all setbacks within the PSP should be shown as 'indicative'.

Agreement for the 20 m setbacks, will require consultation with VPA, CFA/FRV, MW, the City of Casey and other stakeholders, noting that this process was followed during the preparation of the Croskell (Employment) PSP (resulting in 19 m setbacks being applied).

The Croskell (Employment) PSP also defined anticipated revegetation within its proposed drainage reserves, not as Forest, Woodland or Scrub, but as 'Riparian revegetation' (subject to confirmation). The definition potentially to be applied is similar to:

*'Planted vegetation that may pose a bushfire hazard and therefore, is not excludable as low threat vegetation for the purposes of determining a Bushfire Attack Level (BAL). Riparian revegetation may or may not contain remnant vegetation and resemble Forest, Scrub or another classifiable vegetation type. However, due to the proposed small shape and area of these revegetation patches, the fire authority has agreed that a 20 m Grassland setback from riparian revegetation is appropriate for BAL-12.5 development'.*

This definition, or similar, could be applied within the Casey Fields South (Employment) – Devon Meadows PSP area.

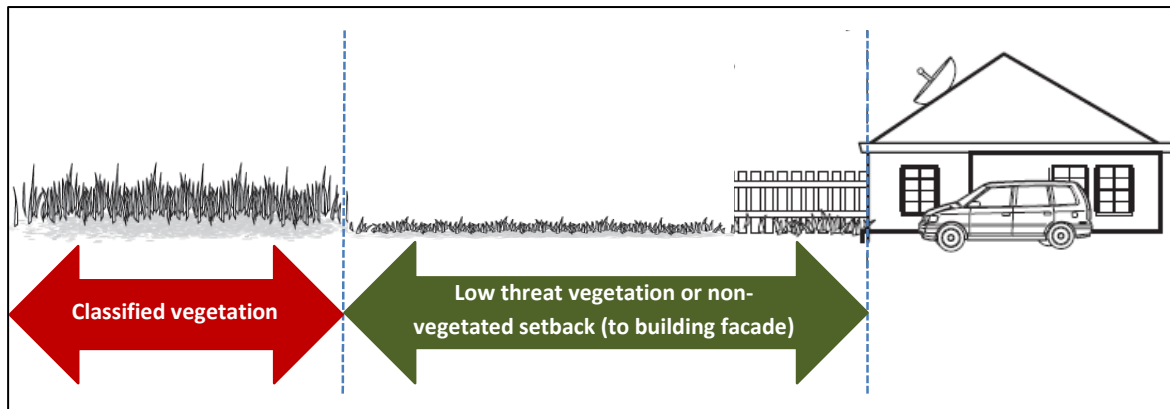
It is further acknowledged that further reduced setbacks may be appropriate where the drainage reserve design achieves low threat vegetation.

#### ***Setbacks from vegetation on adjoining land***

On the southern boundary of the Devon Meadows precinct, adjoining land contains a mosaic of vegetation types including areas of Grassland and patches of Scrub that will affect development within the PSP area. Setbacks (see Table 4) from classified vegetation outside of the precinct are shown with blue shading on Map 6 and on the Devon Meadows maps shown at Appendix B: Devon Meadows setbacks. The setbacks shown are indicative only and any variation to the management or retention of the vegetation on the neighbouring land will correspondingly alter the setbacks. The need for these setbacks informs the recommended lot size range discussed above.

Lots that back onto an area of permanent hazard should be avoided, and setbacks can be achieved by one or more of the following measures:

- Roads between classified vegetation and development (lots).
- Defined building envelopes to provide some, or all, of a setback within lots.
- Non-vegetated land and/or managed vegetation within any reserve, to achieve the setback within the perimeter of the reserve, rather than external to the reserve.



**Figure 9 - Illustration of a building-classified vegetation setback (adapted from CFA, 2013).**

In other regions within the PSP area, structures will need to be setback from areas of classified vegetation (see Figure 9) in other reserves, shown as ‘other classified vegetation’ on Map 6 and the Devon Meadows maps shown at Appendix B: Devon Meadows setbacks. AS 3959:2018 setbacks are shown in purple shading around these areas. The application of the alternative 20 m setback to some or all of these areas may also be considered appropriate by the relevant fire authority.

Note that the 20 m setbacks shown on Map 6 are indicative only and subject to the agreement of the relevant fire authority and will vary according to the eventual distribution of unmanaged vegetation retained or created within or adjacent to the development areas. Where vegetation is removed or assuredly managed in a low threat state, setbacks need not apply.

The following setbacks are shown on Map 6:

- 20 m setbacks from all drainages reserves and wetland areas (uncredited open space) (orange shading).
- AS 3959:2018 setbacks from classified vegetation on adjoining land (blue shading).
- AS 3959:2018 setbacks from ‘Vegetation patch to be retained’ within the PSP area (purple shading).

Note that the requirement for setbacks to achieve a radiant heat flux not exceeding 12.5kW/m<sup>2</sup> is not that same as the need for a BAL construction standard. All development areas should achieve the radiant heat flux safety threshold, but only those classes of buildings that require a BAL (see Section 3.2) will need to be built to BAL-12.5.

### **Designing the settlement interface**

The interface areas where development setbacks in accordance with Table 4 will be required include:

- The area between any unmanaged vegetation in the drainage reserves and the development adjacent to them.

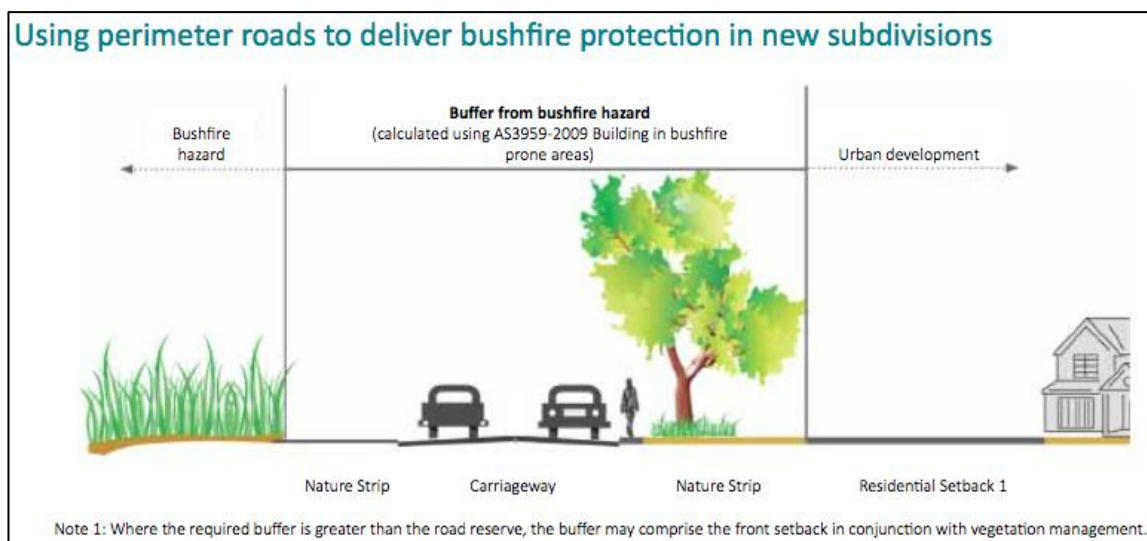
- Any areas of retained treed vegetation or bushland that do not meet one, or more, of the exclusion criteria of AS 3959:2018 (see Section 4.3.3).
- Any areas of retained classified vegetation on land adjacent to the site that do not meet one, or more, of the exclusion criteria of AS 3959:2018 (see Section 4.3.3).

Scaled, illustrative design cross section(s) for areas that interface a permanent hazard should be provided at Appendix 6 of the PSP to show the interface layout with development setbacks, including any proposed perimeter roads and landscaping.

### **Designing access and egress**

Subdivision design should provide good access/egress for emergency vehicles. A conventional urban-residential road layout in accordance with the standards at Clause 56-06 will provide appropriate access. Additional guidance is provided in the CFA document '*Design Requirements, Vehicle Access and Water Supply Requirements in Residential Developments*' (CFA, 2022).

Perimeter roads are a highly desirable access feature to achieve or contribute to BAL setbacks, separate future development from hazardous vegetation with a 'hard' non-vegetated edge and facilitate property protection and fire fighting (see Figure 10). Examples are seen in neighbouring precincts such as in the Botanic Ridge PSP area to the west.



**Figure 10 - Illustration of a perimeter road to provide required development setbacks (DELWP, 2015a).**

### **5.1.3 Bushfire protection measures across a settlement**

#### **Vegetation management**

As an urban growth precinct in a low risk location, with defined areas of hazardous vegetation likely to be retained or created within or adjacent to the precinct, it can be assumed that the majority of vegetation will be low threat and no specific overlay controls or other planning

mechanisms for vegetation control are considered necessary. The one key exception is the need to manage the temporary Grassland hazard within the precinct during the construction period.

This requirement is adequately addressed via the UGZ15 *'Condition – Management of bushfire risk during subdivision work's'* to be applied as part of the rezoning of the precincts, provided that the text is updated as discussed at Section 3.1.6.

The typical process of inspecting large undeveloped properties during the fire danger period via the municipal fire hazard inspection program and, if required, the issuing of fire prevention notices for non-compliance, will assist as an additional protective measure to prevent long grass creating a hazard on larger lots prior to subdivision.

### **Building construction standards**

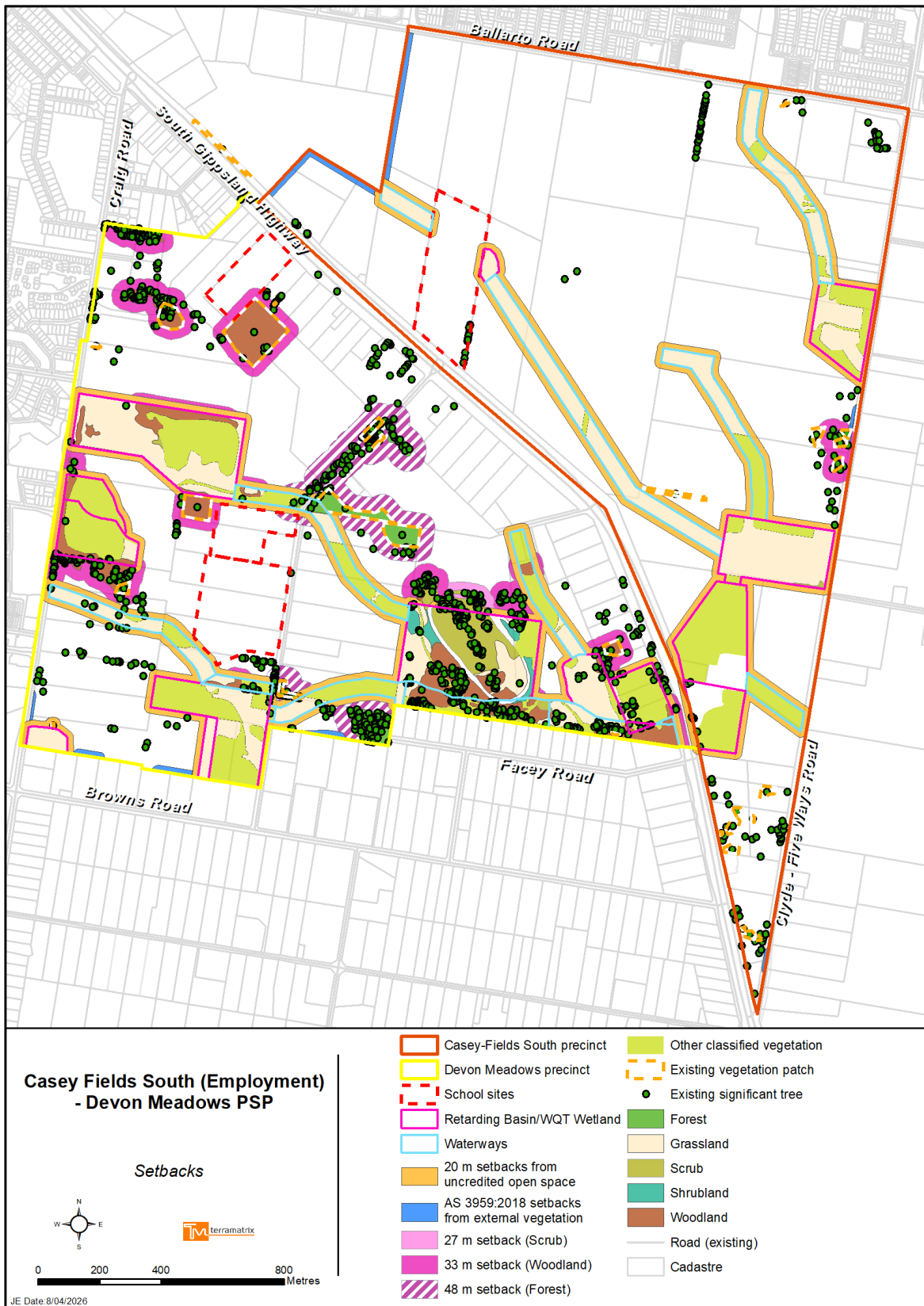
Layout and subdivision design must ensure that no BAL construction standard will result that is higher than the minimum BAL-12.5 that applies in a BPA, and which is invoked as a safety threshold for settlement planning by Clause 13.02-15. The setbacks for BAL-12.5 construction are provided in Table 4 and are indicatively shown on Map 6.

BAL-LOW land within the precinct, where the BPA designation has been removed, will be created once reliably low threat and non-vegetated areas are established that are sufficiently distant from hazardous vegetation. No BAL will be required for any buildings outside the BPA.

The only land use areas anticipated to contain buildings of a class that would require a BAL, are those designated residential, and the areas identified for potential schools (see Figure 2).

### **Fences and other localised fuel sources**

As an urban growth precinct in a low risk location, with defined areas of hazardous vegetation within or adjacent to the precinct, no specific fence or other fuel controls or mechanisms are considered necessary, beyond those that exist already in the planning controls and building regulations. Non-combustible fences (e.g. steel/colorbond), however, could be encouraged on the permanent interfaces – such as near the drainage reserves and wetland areas (uncredited open space) and other areas of retained or created vegetation - where perimeter roads have not been applied as they can provide useful protection against grassfire impacts.



**Map 6 – Setbacks from vegetation external to the site, indicative 20 m setbacks from drainage reserves and wetland areas (uncredited open space) and AS 3959:2018 setbacks from other areas of classified vegetation. See Appendix B: Devon Meadows setbacks for further setback mapping.**

## 5.2 Clause 13.02-1S Bushfire Planning

The following sub-sections provide a summary response about how development in the precinct can respond to the objectives and strategies for bushfire safety in the PPF at Clause 13.02-1S.

### 5.2.1 Protection of human life strategies

Clause 13.02-1S requires that the priority be given to protection of human life.

#### ***Prioritising the protection of human life over all other policy considerations***

The protection of human life can be prioritised by design and layout of development as identified in this report, and the application of the existing building regulations for construction in a BPA. Measures to achieve this are recommended in this report as appropriate, for inclusion in the structure plan.

A number of recommendations and suggestions for changes and edits to the PSP that would contribute to the protection of human life have been identified in this report, including:

- Edits to the proposed UGZ15 (see Section 3.1.6).
- Where trees are to be retained close to development a canopy density of less than 10% is recommended (see Section 4.3.2).
- Where drainage reserve and wetland areas are close to the Lighthouse Christian College it is recommended that the vegetation in those areas be restricted to Grassland (see Section 5.1.1).
- On the southern boundary it is recommended that the 2020 DELWP guidelines regarding lot size be followed and lots on the southern boundary be created within the range specified (see Section 5.1.1).
- It is recommended that a 20 m setback be applied around all drainage reserves and wetland areas (uncredited open space) (with the consent of CFA) (see Section 5.1.2).
- It is recommended that these 20 m setbacks generally comprise a perimeter road to provide the setback and facilitate fire fighting (see Section 5.1.2).
- It is recommended that the 19 m setback around the drainage reserves and wetland areas (uncredited open space) shown on Plan 14 - Bushfire of the PSP is increased to the 20 m setback discussed in this report.
- Other edits to Plan 14 – Bushfire of the PSP as recommended at Section 3.1.6 should be applied.

***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.***

As identified in the hazard assessment in Section 4, the precinct is in a low bushfire risk location at the local and wider landscape scales. All future development should, and can, be setback sufficiently from any hazardous vegetation such that it will not be exposed to RHF above 12.5kW/m<sup>2</sup> and, therefore, the risk will be mitigated to an acceptably low level.

Nearby locations where human life can be protected from the effects of bushfire are the existing urban areas immediately to the north and west of the precinct, including many that are not in the BPA. As development occurs in the precinct, land within it will become a safe location.

Most of the precinct will meet the criteria for future excision from the BPA, creating a large area of safety from bushfire attack for existing and future residents in the area.

***Reducing the vulnerability of communities to bushfire through consideration of bushfire risk in decision-making at all stages of the planning process***

This report provides the basis for incorporating bushfire risk into decision making associated with planning for development in the precinct.

### ***5.2.2 Bushfire hazard identification and assessment strategies***

Clause 13.02-15-1 requires that the bushfire hazard be identified, and appropriate risk assessment be undertaken.

***Applying the best available science to identify vegetation, topographic and climatic conditions that create a bushfire hazard.***

This report identifies the potential hazards in accordance with the commonly accepted methodologies of AS 3959:2018 and, as appropriate, additional guidance provided in *Planning Practice Note 64 Local planning for bushfire protection* (DELWP, 2015), *Planning Advisory Note 68 Bushfire State Planning Policy Amendment VC140* (DELWP, 2018) and in relation to landscape risk, *Planning Permit Applications – Bushfire Management Overlay, Technical Guide* (DELWP, 2017).

The type and extent of potentially hazardous vegetation within and around the precinct has been identified. Classification is based on information supplied regarding potential future vegetation within specified areas of the PSP and the consequent anticipated long-term state of the vegetation, aerial imagery and site assessment.

Publicly available 1 m contour data for the area was accessed, which along with the site assessment, determined that the land is essentially flat and therefore the topography is benign from a bushfire perspective.

In relation to climatic conditions and fire weather, the AS 3959:2018 default FFDI 100/GFDI 130 benchmark used in the Victorian planning and building system, has been applied as discussed in Section 4.4.

***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.***

The extent of BPA coverage has been considered (see Section 3.2) and is shown in Figure 1, Map 1, Map 2 and Map 3. This is based on the most recent BPA mapping for the state.

***Applying the Bushfire Management Overlay in planning schemes to areas where the extent of vegetation can create an extreme bushfire hazard.***

BMO coverage reflects current mapping in the Casey Planning Scheme. No part of the study area or the land for over 700 m around it is affected by the BMO or a Schedule to the BMO (see Map 1).

***Considering and assessing the bushfire hazard on the basis of:***

- ***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.***

The hazard has been assessed and described at the broader landscape (20 km and 5 km), local, neighbourhood and site scales (see Section 4).

The characteristics in the landscape between 1 km and out to at least 20 km around the site have been considered in accordance with guidance about assessing risk for planning scheme amendments provided in the Planning Advisory Note 68 (DELWP, 2018) and Planning Practice Note 64 (DELWP, 2015) (see Map 1). Additionally, a 5 km assessment zone has been added to provide a more detailed assessment of the landscape between 1 km and 5 km (see Map 2).

Local and neighbourhood conditions have been assessed at distances of 1 km and 400 m around the precinct respectively (see Map 3).

At the site scale, a 150 m assessment area has been applied around the precinct boundary. The site assessment follows the AS 3959:2018 methodology for classifying vegetation and topography (see Map 5).

***Consulting with emergency management agencies and the relevant fire authority early in the process to receive their recommendations and implement appropriate bushfire protection measures.***

This report is anticipated to be provided to the CFA/FRV for comment and their views will be incorporated into the final report. CFA consent is required for the adoption of a uniform 20 m setback around drainage reserves and wetland areas (uncredited open space), and potentially around other areas of retained vegetation. This report forms part of the consultation process that will occur prior to development. Additionally, this report recommends consultation with Melbourne Water regarding the future vegetated state of drainage reserves and wetland areas (uncredited open space) and the potential adoption of 20 m setbacks from them.

***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.***

DTP advisory and practice notes, Clause 13.02-1S and the building regulations invoked by the BPA coverage, specify the general requirements and standards for assessing the risk. These have been used in this report as appropriate and bushfire protection measures have been identified commensurate with the risk. Relevant regional bushfire plans and strategies have been identified, reviewed and incorporated into this assessment.

***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.***

The risk can be deemed to be acceptably mitigated such that development can proceed if the objectives and strategies of Clause 13.02-1S are successfully implemented as identified in this report.

### **5.2.3 Settlement planning strategies**

Clause 13.02-1S requires that settlement planning must strengthen the resilience of settlements and communities and prioritise protection of human life.

***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 metre under AS 3959:2018 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009).***

The precinct is a low risk location with the characteristics of Broader Landscape Type 1 on all aspects - other than to the south, where Landscape Type 2 is considered more

appropriate due to the presence of the mosaic of vegetation types on private properties in the GWZ in that direction - as described in the technical guide *Planning Applications Bushfire Management Overlay*. Applicable distances for dwellings or other buildings to be setback from classifiable vegetation, such that RHF is calculated to not exceed 12.5kW/m<sup>2</sup> and where, therefore, BAL 12.5 buildings could potentially be sited, have been identified.

***Ensuring the availability of, and safe access to, areas assessed as a BAL-LOW rating under AS 3959:2018 Construction of Buildings in Bushfire-prone Areas (Standards Australia, 2009) where human life can be better protected from the effects of bushfire.***

The nearest locations where human life can be better protected from the effects of bushfire are the existing developed areas immediately adjacent to the precinct to the north and west, including large areas that are not in the BPA (see Map 3). There is ready access to these areas on the South Gippsland Highway and the local road network. As development occurs in the precinct, land within it will become a safe location.

***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.***

There will be no increase in risk to existing or future residents, their property or community infrastructure, if development is setback from hazardous vegetation; it is noted that there are several areas within the PSP area where extensive areas of classified vegetation occur, much of which will be removed as part of the PSP development, resulting in an overall reduction in bushfire risk. Thus, the risk to existing residents will be reduced by the development of additional low threat or non-vegetated land that would accompany development of the precinct.

Where drainage reserves and wetland areas (uncredited open space) will be located close to Lighthouse Christian College it is recommended that the vegetation is restricted to Grassland to avoid an increase in bushfire risk.

A reticulated hydrant system for fire fighting can be provided in conjunction with access/egress for emergency vehicles and residents via a typical urban road network, with perimeter roads where lots abut a permanent Grassland hazard.

***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.***

As identified previously, this report appropriately assesses and addresses the risk at a range of scales. There is no potential for neighbourhood-scale destruction.

Areas of higher hazard vegetation are unlikely to be retained at a scale or in locations where they will pose a bushfire hazard. They will, therefore, not pose a significant threat if new and existing development is sufficiently distant from them as identified in this report.

***Assessing alternative low risk locations for settlement growth on a regional, municipal, settlement, local and neighbourhood basis.***

Assessment of alternative locations is beyond the scope of this report. As the precinct is in a designated growth corridor, inside the UGB and is low risk as identified in this report, it is suitable for urban/industrial/commercial development.

***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 3959:2018'***

If the setback distances from any hazardous vegetation, as identified in this report, are implemented, then development can achieve a BAL not exceeding BAL-12.5.

#### ***5.2.4 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***

The *Casey Fields South (Employment) - Devon Meadows Precinct Structure Plan Biodiversity Assessment* Report (WSP, 2025) documents the biodiversity assessment of the site and identified that Southern Brown Bandicoot habitat will likely be impacted by the development of the PSP.

The *Arboriculture Assessment Casey Fields South (Employment) - Devon Meadows Precinct Structure Plan* (Enspec, 2025) identifies that most of the current trees within the PSP will be lost to development.

This report assumes that revegetation and/or natural recruitment of vegetation to create Southern Brown Bandicoot habitat will likely be largely coincident with the proposed drainage reserves and the provision of 20 m setbacks around these reserves will not

impact the habitat values. Where this is the case, there are no evident biodiversity impacts associated with the provision of bushfire protection measures over and above those impacts anticipated to result from the development of the PSP.

### **5.2.5 Use and development control in a Bushfire Prone Area**

Clause 13.02-1S requires that *'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.*
- *Accommodation.*
- *Child care centre.*
- *Education centre.*
- *Emergency services facility.*
- *Hospital.*
- *Indoor recreation facility.*
- *Major sports and recreation facility.*
- *Place of assembly.*
- *Any application for development that will result in people congregating in large numbers' (Casey Planning Scheme).*

It further states that:

*'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' (Casey Planning Scheme).*

Future development can achieve acceptable bushfire safety if the measures identified in this report are implemented. There are no apparent barriers to this being achievable.

## 6 Conclusion

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This study has assessed the bushfire hazard in and around the Casey Fields South (Employment) - Devon Meadows precinct, in accordance with Clause 13.02-1S in the Casey Planning Scheme, the AS 3959:2018 methodology invoked by the Victorian planning and building system, and additional guidance provided in DTP planning and advisory notes, including:

- *AS 3959:2018 Construction of buildings in bushfire-prone areas* (Standards Australia, 2020).
- *Local planning for bushfire protection*, Planning Practice Note 64 (DELWP, 2015).
- *Design Guidelines, Settlement Planning at the Bushfire Interface* (DELWP, 2020a).
- *Bushfire State Planning Policy Amendment VC140*, Planning Advisory Note 68, (DELWP, 2018); and in relation to assessing landscape risk,
- *Planning Permit Applications – Bushfire Management Overlay*, Technical Guide (DELWP, 2017).

The precinct is in a low bushfire risk landscape, with a slightly higher, although still low, risk on the southern boundary. Bushfire behaviour with the potential for neighbourhood-scale destruction is not credible. The surrounding landscape is dominated by residential and commercial non-vegetated urban areas, horticultural land use and low-density residential land (to the south), with areas of Grassland and generally only small areas of remnant vegetation (other than Grassland) that do not pose an appreciable hazard. The generally flat land will not exacerbate fire behaviour. No part of the study area or the land for over 700 m around it is affected by the BMO or a Schedule to the BMO, with RBGC to the west the largest nearby bushfire hazard but at a distance such that no appreciable bushfire arises from its presence.

To the north, west and east much of the land around the precinct is currently, and will increasingly become, designated as non-BPA land. Once developed with reliably low threat and non-vegetated areas, most of the precinct will also meet the criteria for excision from the BPA, creating a large area safe from bushfire attack for existing and future residents in the area. Land to the south, outside of the UGB, is unlikely to alter and some small residual bushfire exposure will remain.

The only appreciable bushfire hazard (other than Grassland) within at least 800 m (the distance to the RBGC) are the areas of classified vegetation within the site itself and the mosaic of vegetation types to the south in the GWZ. Areas of higher hazard vegetation likely to be retained or created within the site will be relatively small, isolated and narrow. They will, therefore, not pose a significant threat if new and existing development is sufficiently setback from them the distances identified in this report.

Interface areas where development setbacks will likely be required include:

- Between unmanaged vegetation in the drainage reserves and wetland areas (uncredited open space) and the development adjacent to them.

- Between other areas of retained vegetation within the site and the development adjacent to them.
- The unmanaged vegetation on adjacent land where development will interface with an interim or possibly permanent bushfire hazard (generally to the south).

Layout and subdivision design that implements the recommended 20 m setbacks (subject to agreement from the relevant fire authority) from the drainage reserves and wetland areas (uncredited open space), with appropriate guidance for future assessment, will ensure that no BAL construction standard will result that is higher than the maximum BAL-12.5 outcome stipulated in the settlement planning strategies of Clause 13.02-1S. Note that the only land use areas anticipated to contain buildings of a class that would require a BAL are those designated residential or the proposed school sites.

Scaled, illustrative design cross section(s) for areas that interface a permanent hazard should be provided at Appendix 6 of the PSP to show the interface layout with development setbacks, including any proposed perimeter roads and landscaping.

There are no evident biodiversity impacts associated with the provision of bushfire protection measures over and above those impacts anticipated to result from the development of the PSP.

Development of the precinct can satisfy the objective and strategies of Clause 13.02-1S, which aim to prioritise protection of human life. Accordingly, acceptable bushfire safety will be achieved and the state planning policy objective for bushfire in the Casey Planning Scheme will be met, if the measures identified in this report are implemented, including the following recommendations and suggestions:

- Edits to the proposed UGZ15 (see Section 3.1.6).
- Where trees are to be retained close to development a canopy density of less than 10% is recommended (see Section 4.3.2).
- Where drainage reserve and wetland areas are close to the Lighthouse Christian College it is recommended that the vegetation in those areas be restricted to Grassland (see Section 5.1.1).
- On the southern boundary it is recommended that the 2020 DELWP guidelines regarding lot size be followed and lots on the southern boundary be created within the range specified (see Section 5.1.1).
- It is recommended that a 20 m setback be applied around all drainage reserves and wetland areas (uncredited open space) (with the consent of the relevant fire authority) (see Section 5.1.2).
- It is recommended that these 20 m setbacks generally comprise a perimeter road to provide the setback and facilitate fire fighting (see Section 5.1.2).
- It is recommended that the 19 m setback around the drainage reserves and wetland areas (uncredited open space) shown on Plan 14 - Bushfire of the PSP is increased to the 20 m setback discussed in this report.

- Other edits to Plan 14 – Bushfire of the PSP as recommended at Section 3.1.6 should be applied.

There are no apparent barriers to this being achievable.

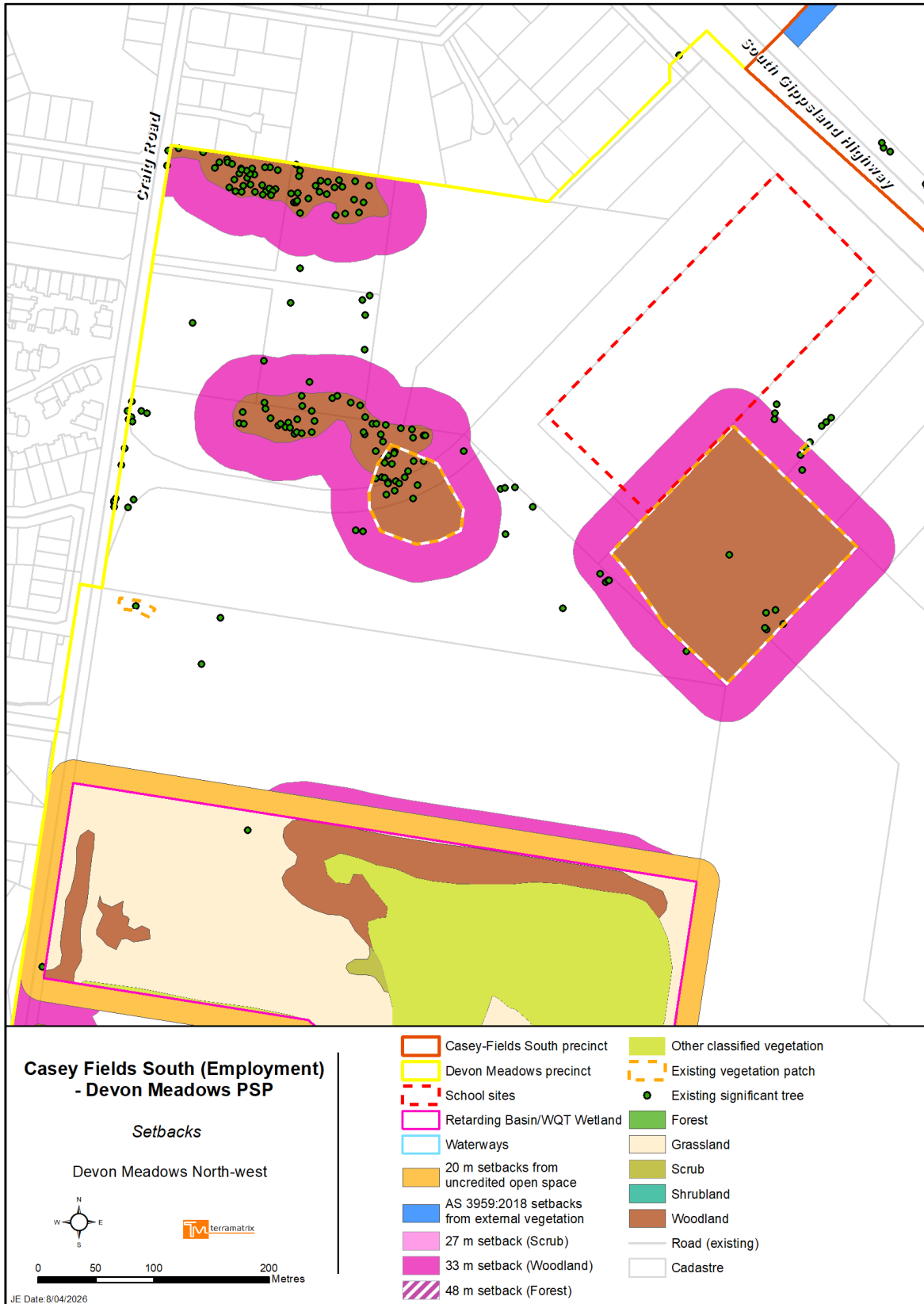
## 7 Appendices

### 7.1 Appendix A: BAL construction standards

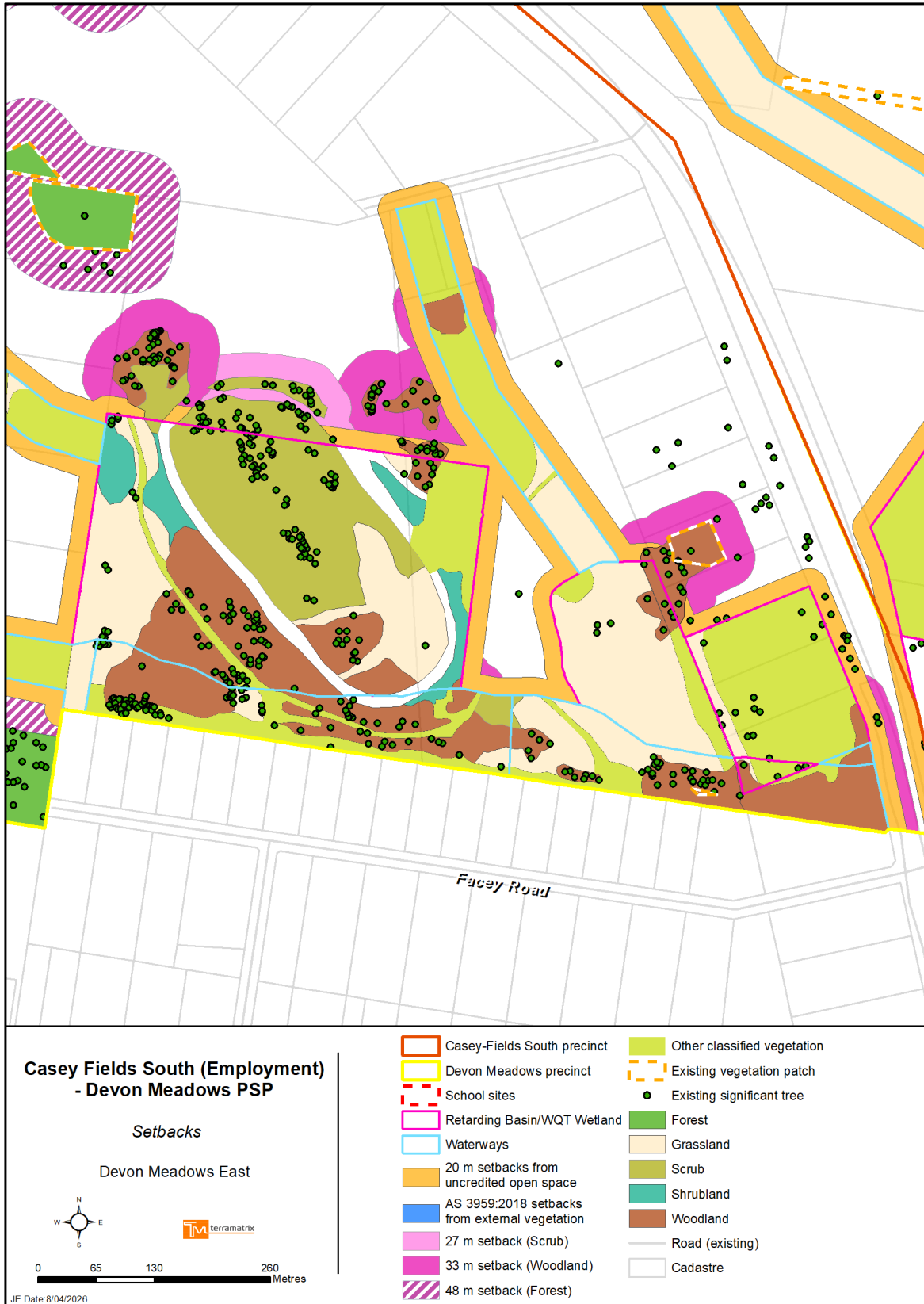
Bushfire Attack Level (BAL)	Risk Level	Construction elements are expected to be exposed to...	Comment
<b>BAL-Low</b>	VERY LOW: There is insufficient risk to warrant any specific construction requirements but there is still some risk.	No specification.	At 4 kW/m <sup>2</sup> pain to humans after 10 to 20 seconds exposure. Critical conditions at 10kW/m <sup>2</sup> and pain to humans after 3 seconds. Considered to be life threatening within 1 minute exposure in protective equipment.
<b>BAL-12.5</b>	LOW: There is risk of ember attack.	A radiant heat flux not greater than 12.5 kW/m <sup>2</sup>	At 12.5 kW/m <sup>2</sup> standard float glass could fail and some timbers can ignite with prolonged exposure and piloted ignition.
<b>BAL-19</b>	MODERATE: There is a risk of ember attack and burning debris ignited by windborne embers and a likelihood of exposure to radiant heat.	A radiant heat flux not greater than 19 kW/m <sup>2</sup>	At 19 kW/m <sup>2</sup> screened float glass could fail.
<b>BAL-29</b>	HIGH: There is an increased risk of ember attack and burning debris ignited by windborne embers and a likelihood of exposure to an increased level of radiant heat.	A radiant heat flux not greater than 29 kW/m <sup>2</sup>	At 29 kW/m <sup>2</sup> ignition of most timbers without piloted ignition after 3 minutes exposure. Toughened glass could fail.
<b>BAL-40</b>	VERY HIGH: There is a much increased risk of ember attack and burning debris ignited by windborne embers, a likelihood of exposure to a high level of radiant heat and some likelihood of direct exposure to flames from the fire front.	A radiant heat flux not greater than 40 kW/m <sup>2</sup>	At 42 kW/m <sup>2</sup> ignition of cotton fabric after 5 seconds exposure (without piloted ignition).
<b>BAL- FZ (Flame Zone)</b>	EXTREME: There is an extremely high risk of ember attack and a likelihood of exposure to an extreme level of radiant heat and direct exposure to flames from the fire front.	A radiant heat flux greater than 40 kW/m <sup>2</sup>	At 45 kW/m <sup>2</sup> ignition of timber in 20 seconds (without piloted ignition).

Adapted from Standards Australia, 2020.

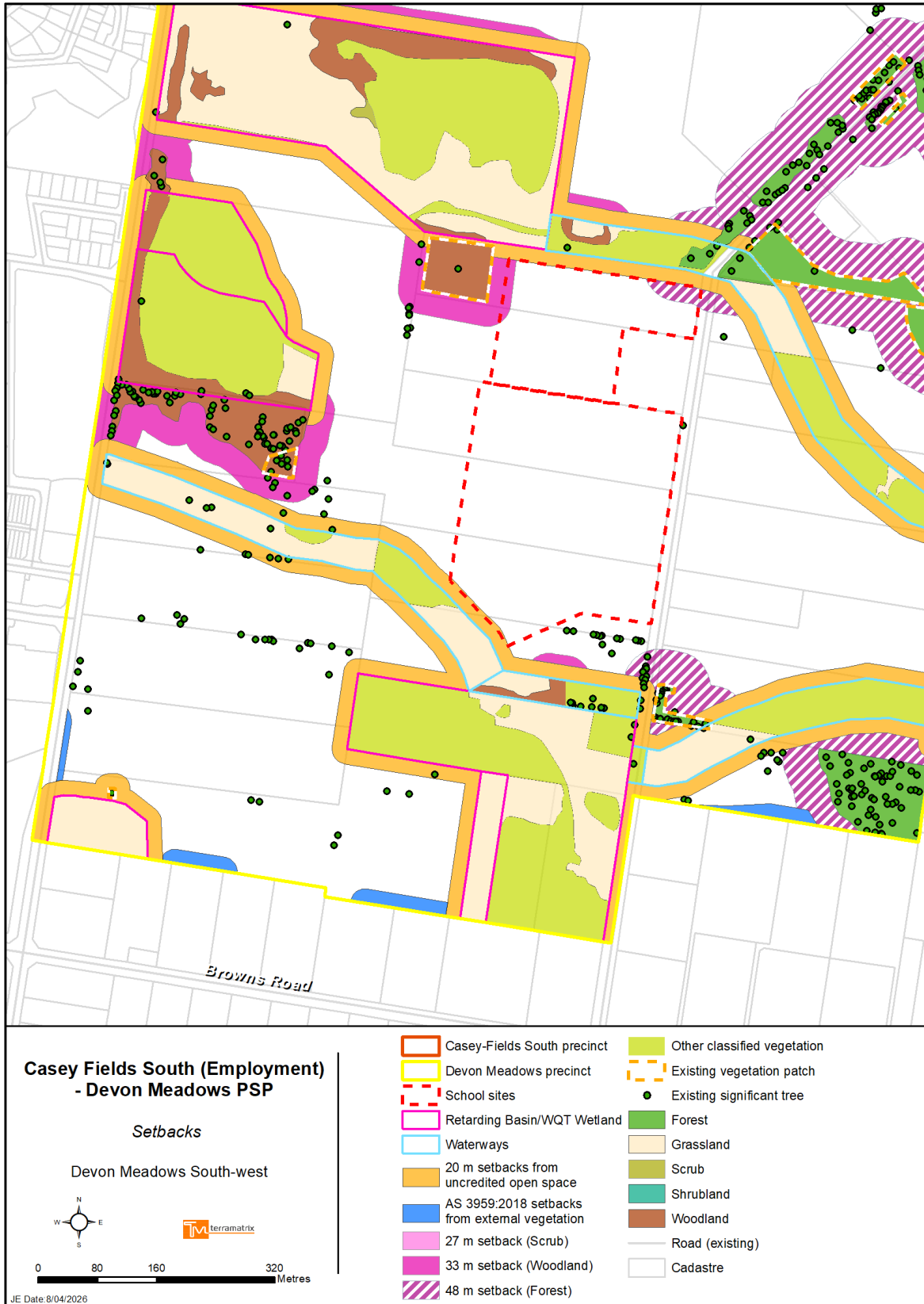
## 7.2 Appendix B: Devon Meadows setbacks



**Map 7 – Devon Meadows north-west – setbacks.**



**Map 8 – Devon Meadows east – setbacks.**



**Map 9 – Devon Meadows south-west – setbacks.**

## 8 References

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ABCB (2025) *Building Code of Australia 2019 Amendment 1, Volumes 1 and 2 of the National Construction Code (NCC)*, Australian Building Codes Board (ABCB). Available at <<http://abcb.gov.au/ncc-online/>>.

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