

**Bushfire Risk Assessment
New Catholic Primary School and Early Learning Centre
121A Greigs Road Truganina**



May 2024

xwb consulting
Town Planning and Bushfire Consultants



**ADVERTISED
PLAN**

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1. Introduction

XWB Consulting has been engaged by Melbourne Archdiocese Catholic Schools to prepare a bushfire risk assessment for a planning permit application for a new primary school and early learning centre at 121A Greigs Road Truganina.

The land is not within a Bushfire Management Overlay under the Melton Planning Scheme, however a small section of the land is currently within in a Designated Bushfire Prone Area under the Building Regulations 2018.

The bushfire assessment has been prepared by:

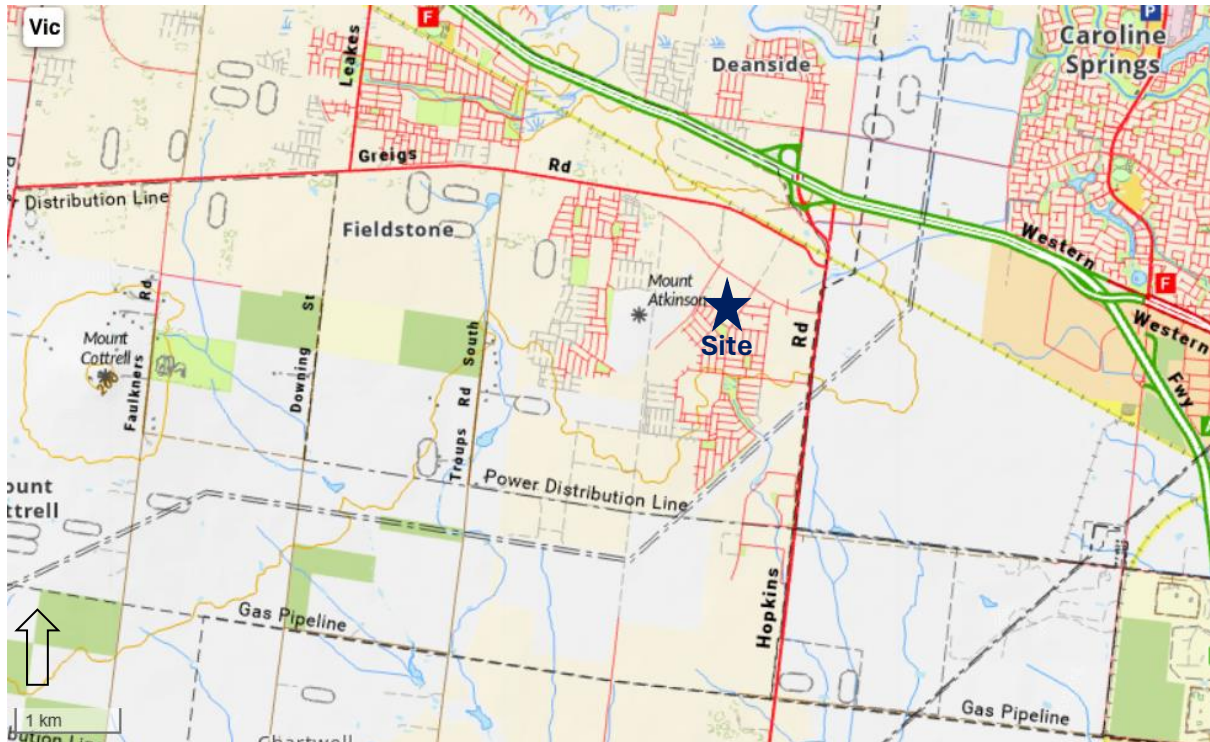
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2. Site Description

The site is located to the south of the Western Highway in a developing urban area. The site is bordered by roads including Sentinel Parade to the north, Carpathians Street to the west, Kangri Street to the south and Clara Avenue to the east. The land is shown on the plans and aerial photographs below:



Locality plan



Aerial photograph

The land is in an Urban Growth Zone (Schedule 9) under the Melton Planning Scheme. The land is not within a Bushfire Management Overlay under the Melton Planning Scheme, but has a small section is within a designated Bushfire Prone Area under the Building Regulations 2018.

3. Proposal

It is proposed to use and development of the land for a Catholic Primary School and early Learning Centre. The overall masterplan of the school is shown on the plan below and includes:

- School buildings on the northern and central part of the site.
- Existing roads encircling the site.
- Carparking off Sentinel Parade.
- Recreational spaces at the southern end of the site.

9 Masterplan Solution

- MASTERPLAN**
- SITE BOUNDARY
 - FENCING
 - GATE
 - ENTRY
 - ↔ KEY CONNECTIONS
- ABBREVIATIONS**
- OFF. OFFICE
 - RCPT. RECEPTION
 - F/A FIRST AID
 - T TOILET
 - S STORE
 - ATL. ATELIER
 - KIT. KITCHEN
 - M. MEETING
 - AM. AMENITIES
 - ELC. EARLY LEARNING CENTRE ROOM
 - GLA. GENERAL LEARNING AREA



4. State Planning Policy

State planning policy in relation to bushfire planning is set out in Clause 13.02-1S of the planning scheme. The objective of the state policy is to strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life. Strategies to meet this objective are set out below:

Protection of human life

Give priority to the protection of human life by:

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

Bushfire hazard identification and assessment

Identify bushfire hazard and undertake appropriate risk assessment by:

- Applying the best available science to identify vegetation, topographic and climatic conditions that create a bushfire hazard.
- Considering the best available information about bushfire hazard including the map of designated bushfire prone areas prepared under the *Building Act 1993* or regulations made under that Act.
- Applying the Bushfire Management Overlay in planning schemes to areas where the extent of vegetation can create an extreme bushfire hazard.
- 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 the site;
 - The site for the development.
- Consulting with emergency management agencies and the relevant fire authority early in the process to receive their recommendations and implement appropriate bushfire protection measures.
- Ensuring that strategic planning documents, planning scheme amendments, planning permit applications and development plan approvals properly assess bushfire risk and include appropriate bushfire protection measures.
- Not approving development where a landowner or proponent has not satisfactorily demonstrated that the relevant policies have been addressed, performance measures satisfied or bushfire protection measures can be adequately implemented.

Settlement planning

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

- Directing population growth and development to low risk locations, being those locations assessed as having a radiant heat flux of less than 12.5 kilowatts/square metre under *AS 3959-2009 Construction of Buildings in Bushfire-prone Areas* (Standards Australia, 2009).

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

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.

Use and development control in a Bushfire Prone Area

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

- Subdivisions of more than 10 lots
- Accommodation
- Childcare 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.

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.

Policy guidelines

The policy guidelines under the State Planning Policy Framework specify that planning must consider as relevant:

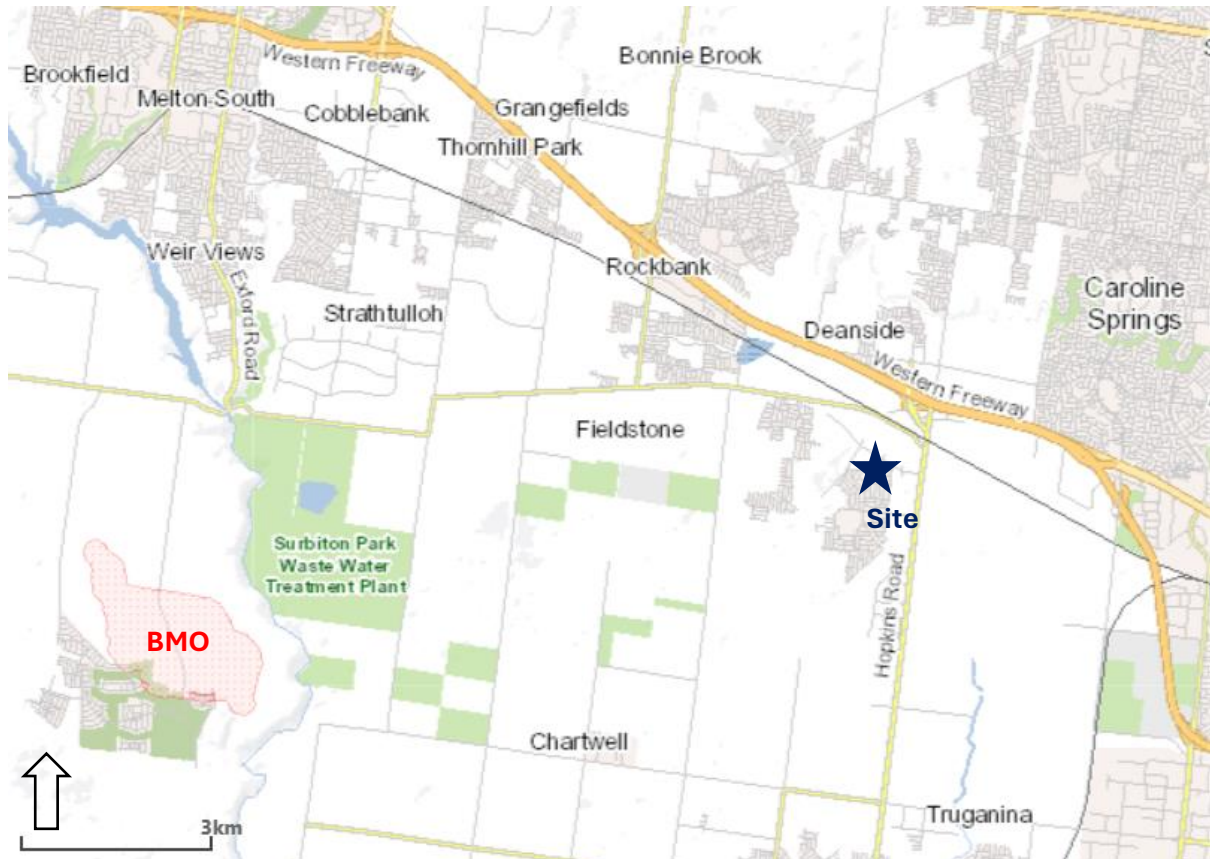
- Any relevant approved State, regional and municipal fire prevention plan.

- AS 3959-2009 Construction of Buildings in Bushfire-prone Areas (Standards Australia,2009).
- Building in bushfire-prone areas - CSIRO & Standards Australia (SAA HB36-1993)

5 Bushfire Risk Assessment

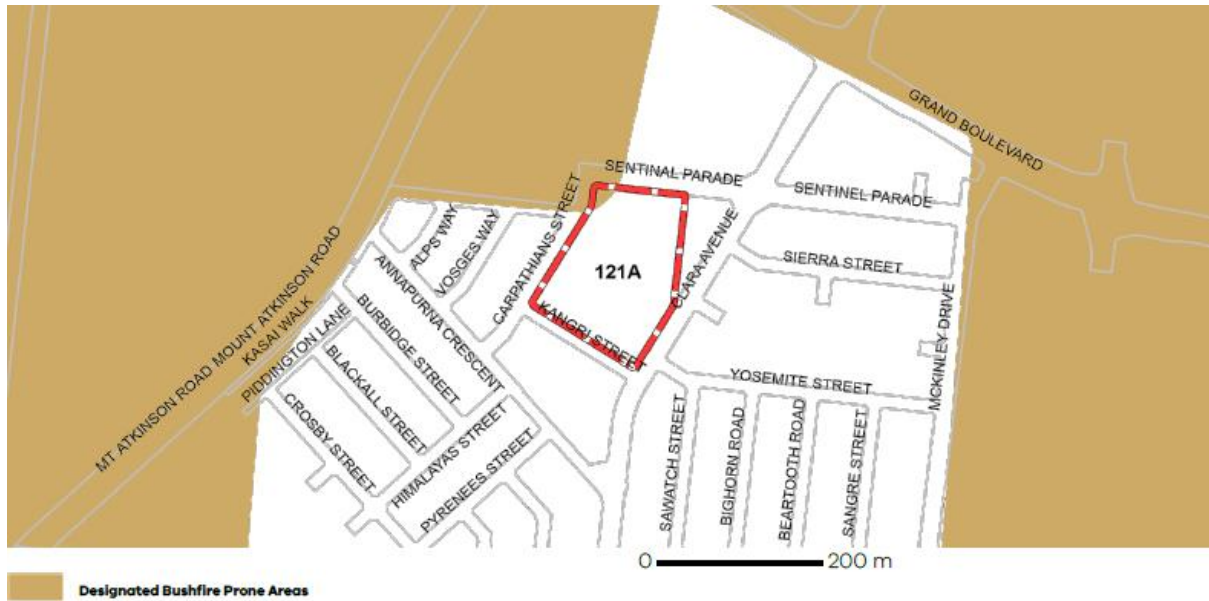
5.1 Bushfire Designation

The site is not included within a Bushfire Management Overlay under the Melton Planning Scheme as shown on the plan below:



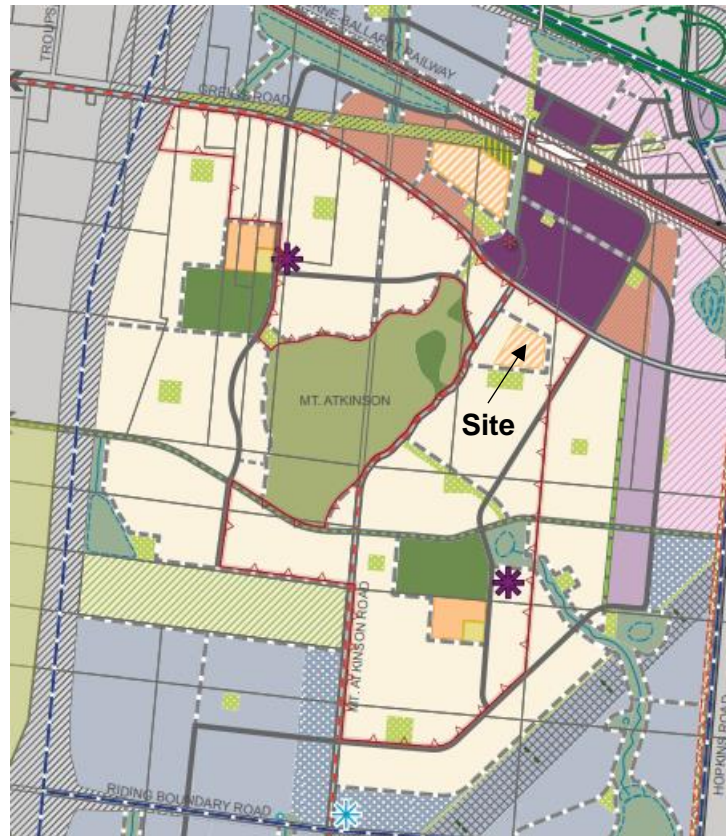
The closest area within a Bushfire Management Overlay is located 10km to the south west in Eynesbury. The Bushfire Management Overlay is applied in planning schemes to areas where the extent of vegetation can create an extreme bushfire hazard.

A small section of the site is included with a Bushfire Prone Area under the Building Regulations 2018 as shown on the plan below:



The areas of the land not within a bushfire prone area (including the majority of the school site) represent a negligible risk from bushfire that does not require any measures in relation to building construction standards. As the surrounding area continues to be developed for urban purposes, it is expected that the bushfire prone area designation will be removed completely and any bushfire risk to the school site will be eliminated.

The site is covered by the Mt Atkinson and Tarneit Plains Precinct Structure Plan which identifies the site as a non government school site. The area south of Grand Boulevard is to be largely developed for residential purposes while the land north of Grand Boulevard forms part of a major town centre. There is a large open space area associated with Mt Atkinson. An extract from the framework plan from the Mt Atkinson and Tarneit Plains Precinct Structure Plan is shown below:

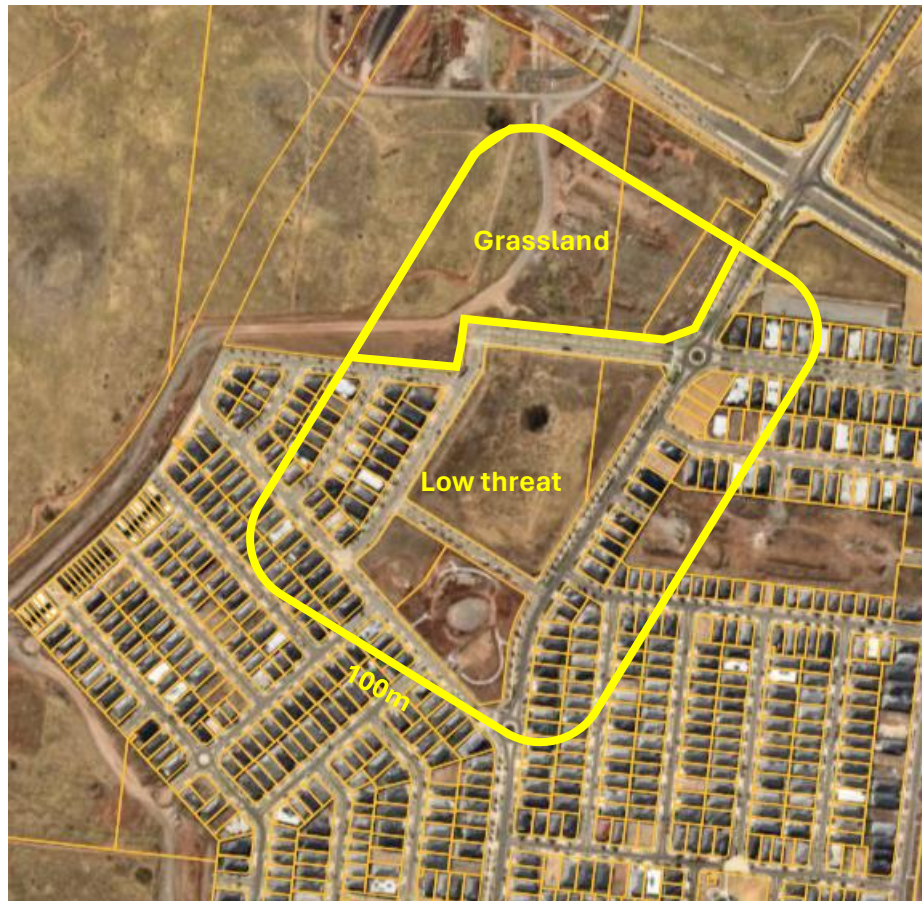


- | | |
|---|---|
| precinct boundary | conservation area (service open space) |
| walkable catchment boundary | easement - electricity transmission |
| mixed use | public acquisition overlay |
| industrial | planned future premium bus route |
| light industrial | pedestrian / cyclist bridge |
| residential | potential future train station |
| government school | railway reserve |
| potential non-government school | western freeway |
| community facilities | existing freeway access until OMR opens |
| indoor recreation facility | future freeway access |
| major town centre | arterial road (6 Lane) |
| local convenience centre | arterial road (4 Lane) |
| industrial convenience centre | connector street |
| business | connector street - boulevard |
| business / large format retail | main street |
| heritage place | key local access street |
| service open space (heritage) | key local access street w/ green link |
| service open space (drainage) | indicative potential access (subject to approval) |
| local park (ICP land) | high pressure gas transmission pipeline easement |
| local sports reserve (ICP land) | |
| greigs road reserve linear open space and local road (service open space) | |
| mt. atkinson volcanic cone reserve (service open space) | |

5.2 Bushfire Site Hazard Assessment

A bushfire site hazard site assessment describes the bushfire hazard within 100 metres of the land. The description of the hazard is prepared in accordance with AS3959:2018 Construction of buildings in bushfire prone areas (Standards Australia).

The plan below shows the bushfire hazard within 100m of the land.



The majority of the surrounding land comprises existing residential development, parks or residential subdivisions under construction which would be classified as low threat / exempt vegetation under AS3959.

To the north is an area of open paddocks with a level of disturbance associated with earthworks. The open paddocks would be conservatively classified as grassland under AS3959, however if earthworks and works associated with residential subdivision continue, then the area would be classified as low threat / exempt vegetation under AS3959.

As the school buildings are largely located outside the designated bushfire prone area, no building construction standards from a bushfire perspective would apply. A small section of the early learning centre building is likely to be within the designated bushfire prone area and it would be up to the relevant building surveyor to determine what building construction standards would apply. A minimum 19m separation is achieved from the grassland to the school buildings given the adjoining road reserves and building setback on the site. This is sufficient to achieve a radiant heat flux of less than 12.5 kilowatts/square metre or a bushfire attack level rating of BAL12.5 which is classified as a low risk location by state planning policy.

5.3 Landscape Risk

The surrounding landscape context primarily comprises urban development (either complete or under construction) and open paddocks.

In south eastern Australia, the greatest bushfire threat occurs when there is a strong dry north westerly wind followed by a south westerly wind change. Under such conditions, there is the potential for a localised grassfire in the open paddocks until such time as the land is developed for urban purposes.

The landscape is a Broader Landscape Type 1 under the Technical Guide Planning Permit Applications in a Bushfire Management Overlay, being the lowest risk landscape type. Under this landscape type:

- There is little vegetation beyond 150 metres of the site (except grasslands and low threat vegetation).
- Extreme bushfire behaviour is not possible.
- The type and extent of vegetation is unlikely to result in neighbourhood-scale destruction of property.
- Immediate access is available to a place that provides shelter from bushfire.

Overall the landscape bushfire risk to the school site is considered to be low to negligible particularly given the surrounding existing and planned urban development.

5.4 Response to State Planning Policy

The following response is provided to state planning policy in relation to bushfire:

State policy	Response
Objective	A risk based assessment has been undertaken in relation to the land. The risk at a landscape and site scale is low to negligible due to the protection afforded by the surrounding urban development and a grassland landscape.
Protection of human life	The risk at a landscape and site scale is low consistent with the prioritisation of the protection of human life. The priority of the protection of human life is not compromised by other policy considerations such as the protection of native vegetation or habitat areas. Development can achieve a separation distance from current surrounding bushfire hazard sufficient to achieve a radiant heat flux of 12.5 kilowatts/square metre (BAL12.5) under AS3959 which is considered to be a low risk location.
Bushfire hazard identification and assessment	The bushfire risk at a landscape and site scale has been identified within this report, and it has been assessed that the risk is low.
Settlement planning	Not applicable.
Area of biodiversity	There are no areas of significant biodiversity impacted in order to provide for development of the land.
Use and development controls in a bushfire prone area	The only bushfire exposure to the site is from a grassfire to the north. This risk can be mitigated by the perimeter roads around the site which provide for a suitable fire break. As most of the school site is outside the designated bushfire prone area, no building construction standards would apply from a bushfire perspective.

7 Conclusion

It is proposed to use and develop the site in Greigs Road Truganina for a Catholic primary school and early learning centre as identified in the Mt Atkinson and Tarneit Plains Precinct Structure Plan.

Based on the assessment undertaken, the bushfire risk is low to negligible. The bushfire risk from a localised grassfire to the north can be mitigated by adjoining roads which act as a fire break. As most of the school site is outside the designated bushfire prone area, no building construction standards would apply from a bushfire perspective.