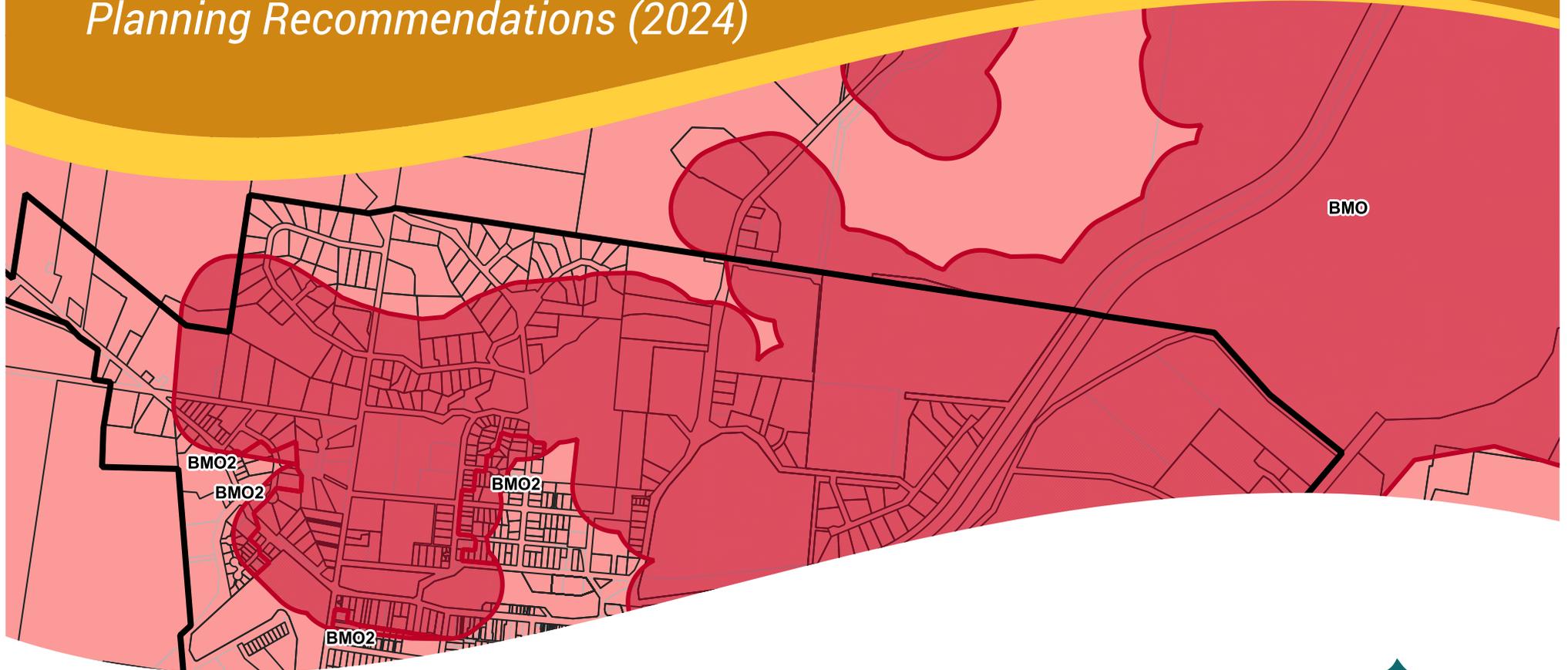


SOUTH GIPPSLAND SHIRE COUNCIL

Mirboo North Bushfire Report

Risk Assessment Summary & Planning Recommendations (2024)



South Gippsland
Shire Council

Overview

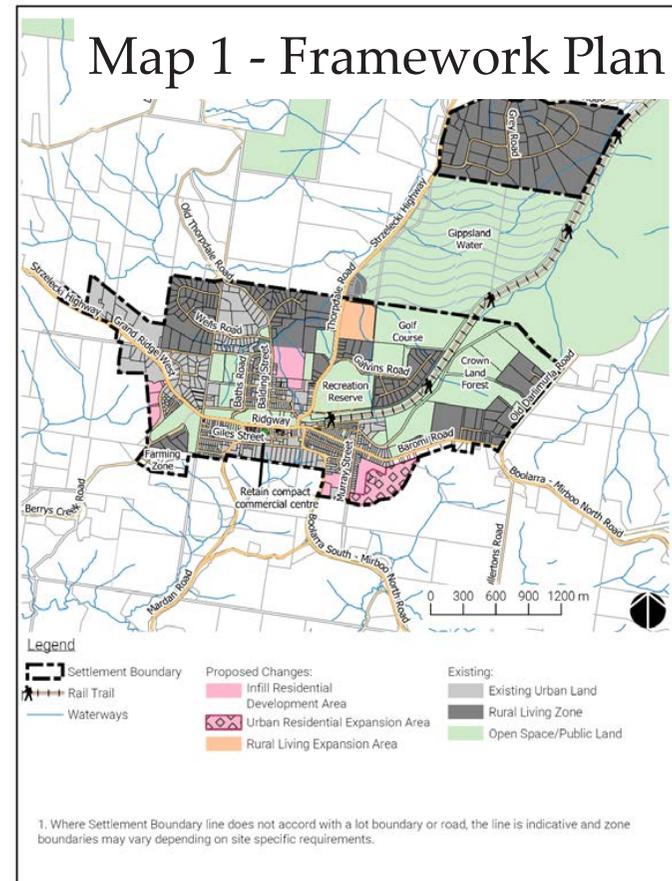
South Gippsland Shire Council co-authored this report with Euca Planning who prepared the *Strategic Bushfire Risk Assessment for Mirboo North* (2020). The 2020 technical report forms the basis of this report's analysis and planning recommendations.

Mirboo North's bushfire risk has been assessed as high. The town is suitable for limited growth. The Mirboo North Structure Plan and [Framework Plan](#) should be revised and additional planning controls applied in the town to better address bushfire risk.

Background

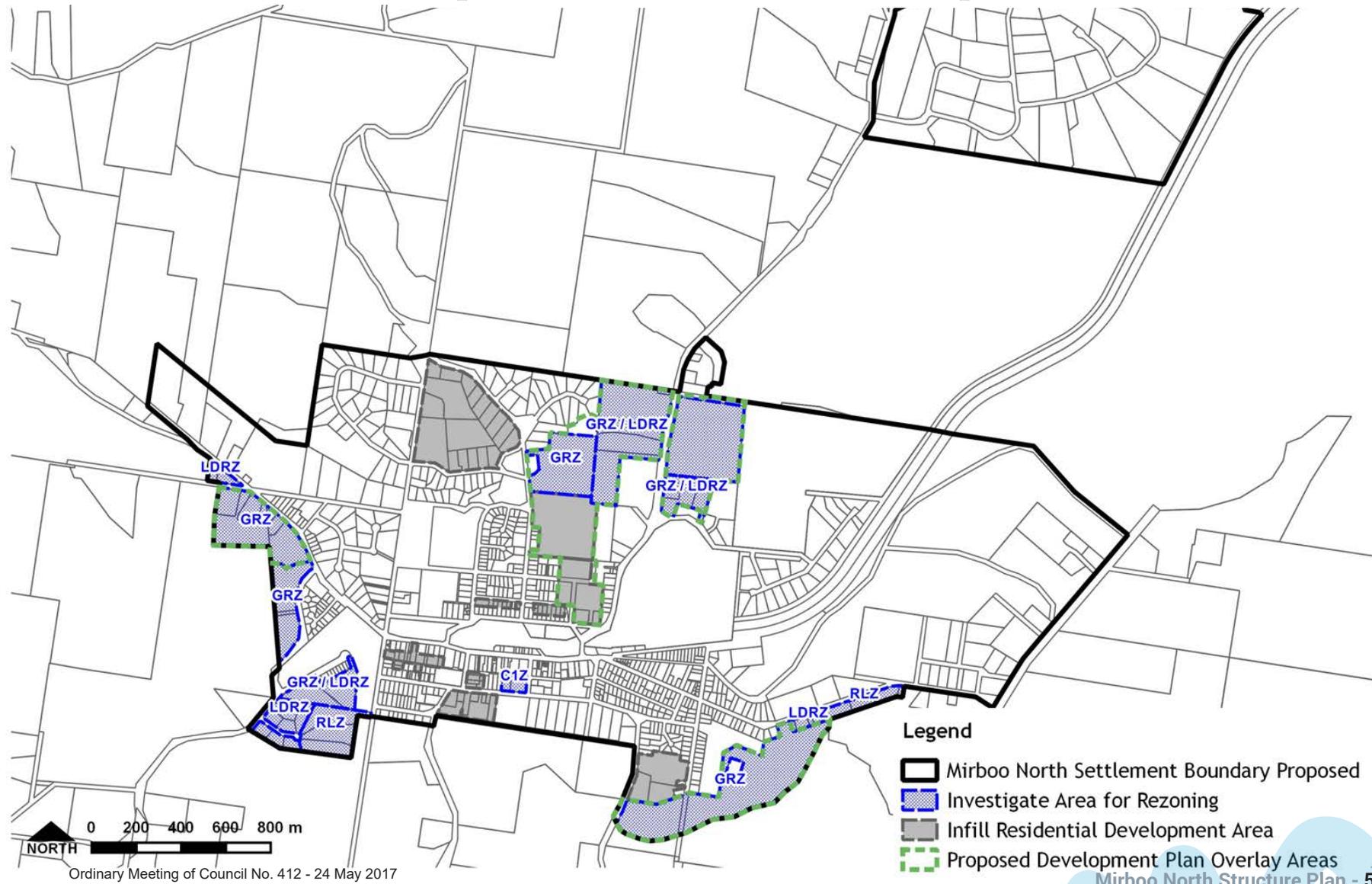
The [Mirboo North Structure Plan Refresh \(2017\)](#) proposed updates to the town's [Framework Plan](#) in the South Gippsland Planning Scheme (refer to **Map 1**) and additional planning controls including the [Development Plan Overlay \(DPO\)](#) (refer to **Map 2**).

The *Strategic Bushfire Risk Assessment* project (2020) was commissioned for two growth towns, Mirboo North and Foster, to address the impacts of the new State policy for bushfire introduced by [Amendment VC140](#) (gazetted 12/12/17). The project aimed to inform the revision of both towns' structure plans.



Clause 11.01-1L-06 Sth Gippsland Planning Scheme

Map 2 - 2017 Structure Plan Proposed Framework Plan



Policy Context

State Planning Controls & Policy

In bushfire affected areas, the Planning Policy Framework prioritises the protection of human life over all other policy considerations ([Clause 71.02-3](#)). The [Bushfire Prone Area](#), which affects building permit approvals, and the [Bushfire Management Overlay \(BMO\)](#), which triggers planning permits, apply to large portions of the settlement and its surrounds as shown in [Map 3. Planning Practice Note 64 – Local Planning for Bushfire Protection \(DELWP 2015\)](#) and the [Technical Guide for Planning Permit Applications in the Bushfire Management Overlay \(DELWP 2017\)](#) provide guidance about assessing the bushfire risk in relation to land use planning decisions and incorporating risk mitigation measures in future development. [Design guidelines for settlement planning at the bushfire interface \(DELWP 2020\)](#) also provide guidance for settlements affected by bushfire risk.

Draft Victorian Bushfire Management Strategy (2023)

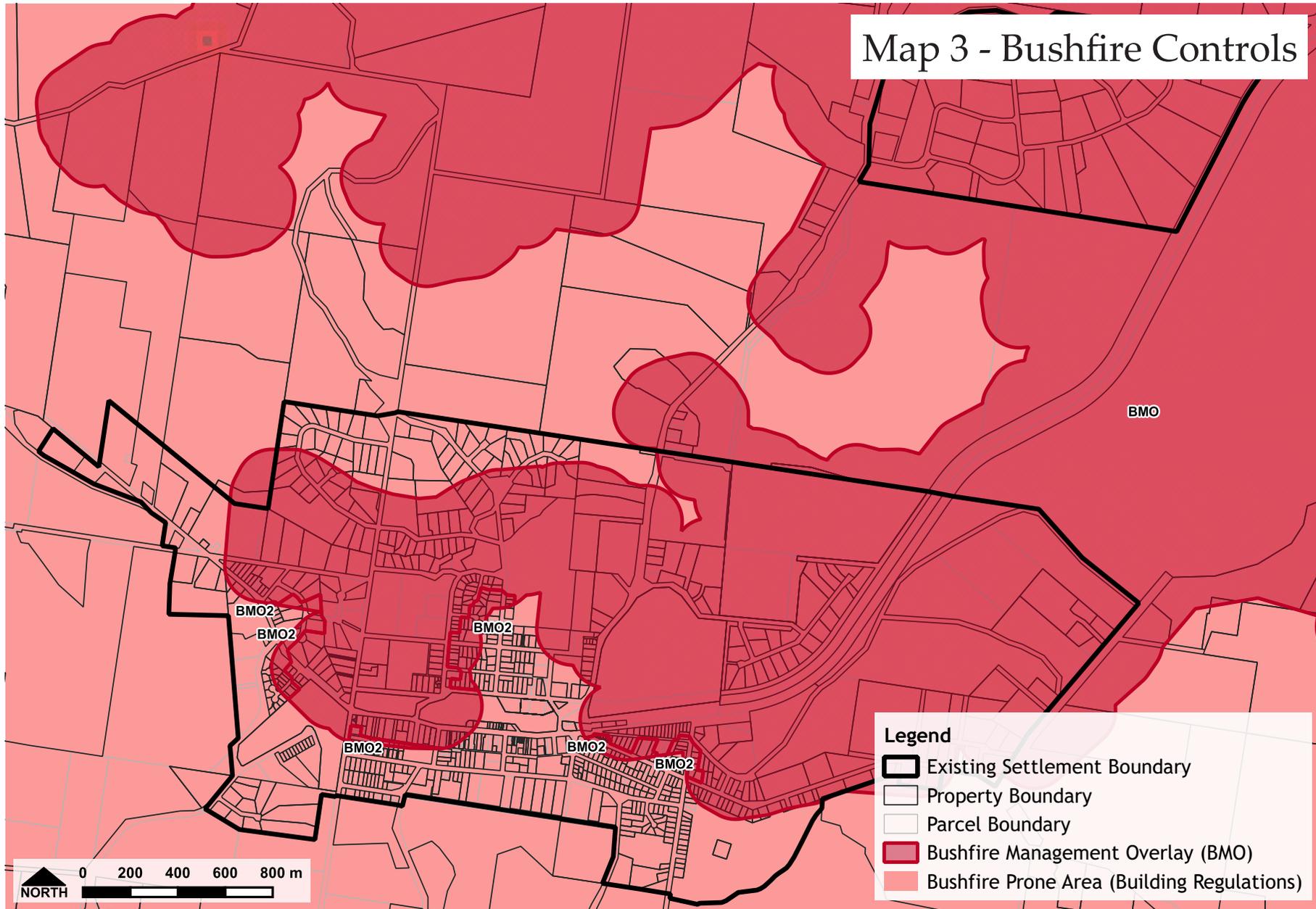
The [Draft Victorian Bushfire Management Strategy \(2023\)](#) includes the strategy: 'use a broad range of mitigation strategies to reduce the chance of fires starting and limit their impact on values'. Discussion about this emphasises the important of prioritising human life and unacceptable environmental impacts and proposes that strategic planning may require:

- *Adaptation and maladaptation, including re-settlement planning, for communities living in high-risk bushfire areas; and*
- *Design protection and risk reduction measures, including long-term transition planning for settlements facing extreme risks that cannot [sic] be mitigated (p.25)*

Regional Policy & Bushfire Assessment

Gippsland Regional Growth Plan (2014)

The [Gippsland Regional Growth Plan \(2014\)](#) identifies Mirboo North as a 'town' in the region where sustainable change is directed (Map 17, p.74). More specifically, where small-scale residential, commercial and industrial development and change is directed. It also notes, however, that the town is affected by 'urban bushfire considerations' (Map 9, p.46).



Policy Context

Regional Policy & Bushfire Assessment (cont.)

Regional Bushfire Planning Assessment - Gippsland Region (2012)

The Regional Bushfire Planning Assessment - Gippsland Region (DELWP 2012) for Gippsland identified the following issues particular to Mirboo North:

- The settlements of Mirboo North and Baromi interface with bushfire hazard and include a combination of small and medium size lots containing vegetation of high and very high conservation significance. The interface occurs in and around the existing golf course and south of Railway Road (p.37)
- The area to the west of Mirboo North contains a mixture of landscapes and subdivision patterns, including small and medium size lots interspersed with vegetated reserves and rural living land. The area forms the western periphery of the township with a combination of living environments susceptible to the impacts of bushfire (p.37)
- Cluster of medium sized rural-residential lots in Darlimurla, surrounded by state forest, containing vegetation of high to very high conservation significance. The area also contains a cluster of small lots in bushfire hazard adjacent to Darlimurla Road in the north-east. (p.37)

Gippsland Bushfire Management Strategy (2020)

The [Gippsland Bushfire Management Strategy \(2020\)](#) specifically identifies Mirboo North as one of the highest bushfire risk towns in Gippsland. It is the only South Gippsland town that is singled out as having a high risk because it is bordered by large areas of forest that can allow fires to become large and intense before impacting the settlement. The fact that Mirboo North is mentioned with towns like Bruthen, Cann River and Mallacoota is notable.

The strategy identifies the town, including Darlimurla, as having the highest risk of house loss (top 5% of risk comparatively in the region).

Implications for Mirboo North

Emerging State strategy for Mirboo North suggests that the town is not only high risk but possibly extreme risk due to its landscape setting. As such, the town may need to be reconsidered as a settlement where growth should be directed. This has major implications for the town, the bushfire assessment's recommendations and the planning controls proposed to implement its findings.

Assuming that Mirboo North is considered a settlement facing extreme risks that cannot be mitigated, controls will need to be more restrictive. In some areas of the town, further development could improve the bushfire risk of existing areas or the existing settlement as a whole. How much this should occur (if at all) will need to be considered in the context of how much further development should be allowed in the town overall as well as in the town compared with the surrounding areas that have much lower levels of services available.

The following questions arising out of emerging State bushfire policy for Mirboo North are:

- How much should planning facilitate and provide for growth of Mirboo North (increasing the number of permanent residents at risk)?
 - How much more expansion of the town boundary should occur?
 - How much land rezoning should be considered?
 - How much should growth be allowed through vegetation removal (reducing the bushfire risk)?
 - How much additional development should be allowed where it improves the settlement's interface with existing bushfire hazards?
- If planning should restrict further growth, how restrictive should proposed planning controls be?
 - How much should additional subdivision that creates new lots or provides additional development be restricted?
 - How much should additional housing (new builds and extensions) be restricted?
 - How much should additional vulnerable and hazardous uses (new builds and extensions e.g. aged care expansion and new petrol stations) be restricted?

Fire History

There is a long history of small fires around Mirboo North, with the main causes being human. All of these fires have been quickly attacked and suppressed. Approximately 57% of all fires are contained to less than 1ha in size.

Significant fires in the vicinity include:

- Delburn Complex (2009): deliberately lit directly affecting 128 properties including properties in Darlimurla (which threatened Mirboo North)
- Hallston (2013): A fire started from a DELWP prescribed burn in Hallston in 2013 burnt 562ha comprising public land (267 ha), pine and blue gum plantations (151ha) private forest (95ha) and private pasture (49ha)
- Seaview (2018): A fire near McDonalds Track at Seaview burnt 254 ha

Fire Control

Fire control is likely to fail most of the time once Very High fire danger conditions are reached, or even lower depending on other fires occurring in the greater region which may divert resources. A large fire is therefore a realistic scenario which must be considered as a likelihood.

Bushfire Context

Regional Context

South Gippsland Shire has less bushfire hazard and less risk of bushfire than the majority of the Gippsland region. There is potential for a bushfire to spread and grow large over a few days, however not the few weeks experienced in other areas of Gippsland.

Within a municipal context, Mirboo North has a higher risk of bushfire and presence of bushfire hazard than the central area around Korumburra and Leongatha (refer to *Map 4*).

The Strategic Bushfire Management Plan for East Central (DELWP 2014, p. 20) identifies Mirboo North as being at risk from fire originating in a 'catchment' that extends from the Central Highlands (near Woods Point) to Leongatha. However Mirboo North may be more exposed to bushfire that originates locally due to the wide break provided by the Latrobe Valley and the northern escarpment of the Strzelecki Range.

Local Context

The town of Mirboo North is at high risk of bushfire from direct fire attack from forest to the north-west to north-east, including ember attack. Within the township there are reserves that are dominated by forest. The bark hazard for these trees in Mirboo North will produce massive ember attack and fire spread. Combined with the bark hazard, the understorey is sufficient to carry a surface fire into the canopies of the trees.

The primary bushfire risk to the study area is from forest fire from the north and north-east. There is potential for extreme fire behaviour due to the large tracts of forest and the terrain. Strzelecki State Forest is a larger scale risk and impacts from north-west to north-east. There is potential for a bushfire to spread and grow large over a few days, however not the few weeks experienced in other areas of Gippsland. This is illustrated on *Map 5*, *Map 6* and *Map 7*.

The secondary bushfire risk to the study area is from grassfire from the south-west. There is no potential for extreme fire behaviour due to the lack of larger, non-grassland areas of vegetation.

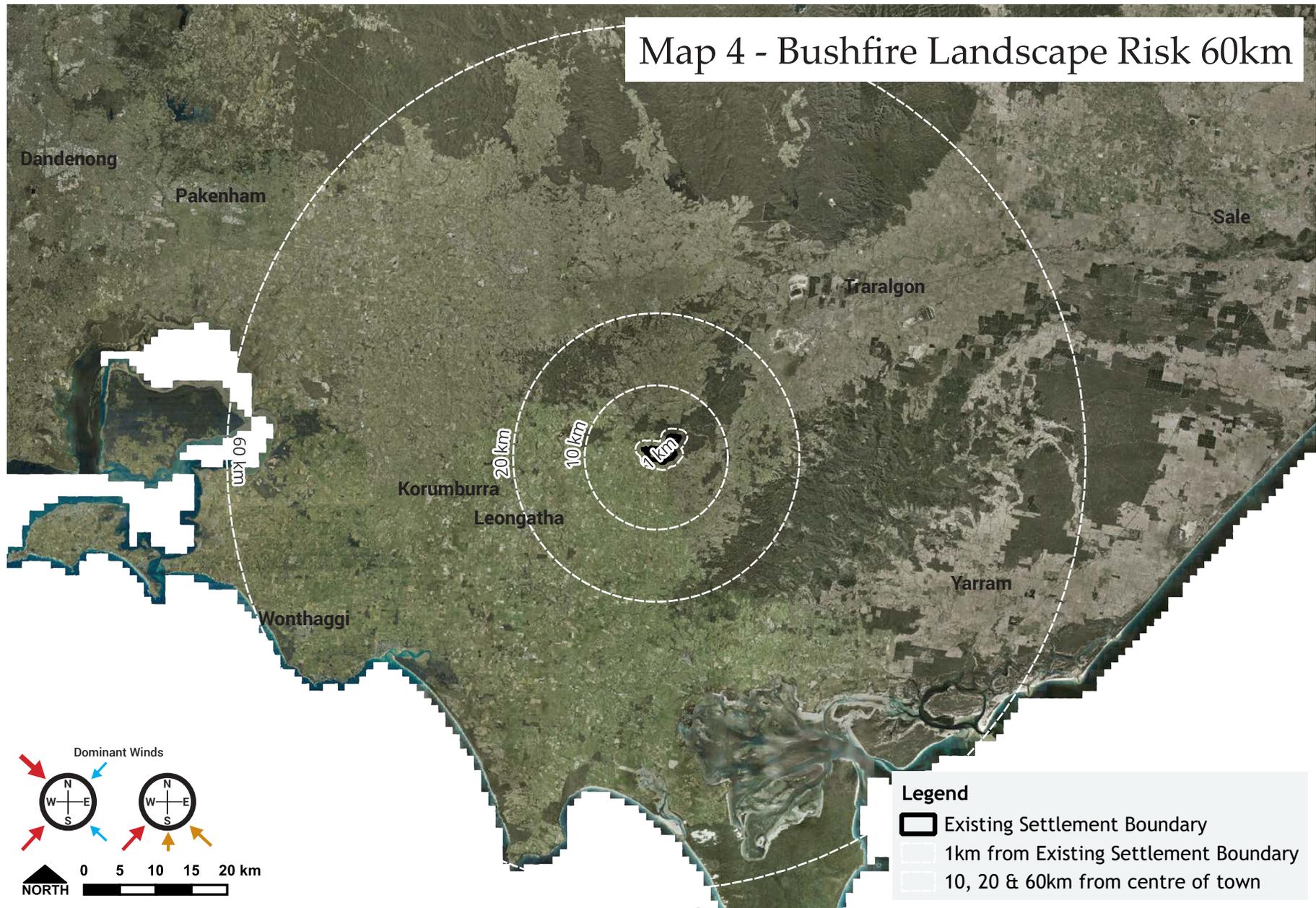
The landscape in the north does not provide good access to locations where human life can be better protected from the harmful effects of bushfire. Travel south into the township takes time and for the Darlimurla settlement is by a single main road which adds an additional risk factor.

The landscape to the west and south provides

good access to locations where human life can be better protected, including good access to areas of BAL:LOW¹ in the developed area around and south of the town centre. These areas of BAL:LOW are small and will be affected by ember attack. Further development along the southern side of Mirboo North will increase the area considered BAL:LOW. However, the existing forest reserves in the northern and eastern parts of the town will always limit the extent of land that constitutes BAL:LOW. The existing urban area provides people with limited but immediate access to safer areas in the event of a bushfire if they have not left the township earlier.

While the location of Mirboo North on the high plains near the Strzelecki State Forest forms a strong barrier to movement to the north and east, the road network does connect the town to other urban areas that are capable of being assessed as BAL:LOW. Leongatha can be accessed through a 25km journey through grassland areas via Strzelecki Highway to the west or alternatively by longer routes exiting the town to the south via Mirboo and/or Dumbalk. Traralgon and Morwell in the Latrobe Valley can also be accessed to the north, but the route traverses forest and is situated along a large vegetated corridor (forest and plantations).

¹ A Bushfire Attack Level (BAL) is a way of measuring the severity of a building's exposure to ember attack, radiant heat and direct flame contact ([DTP 2023](#)). BAL:LOW is the lowest risk rating.





Broader Landscape Type

The [Technical Guide for Planning Permit Applications in the Bushfire Management Overlay \(DELWP 2017\)](#) identifies four different landscape types that can be applied when preparing landscape assessments for a site. This has been used to assess Mirboo North at a township-scale. Mirboo North sits between 'Broader Landscape Type Two' and 'Broader Landscape Type Three'.

Type Two is at the lower end of bushfire risk arising under Victoria's planning system. Type Three, however, should be approached with greater caution.

Broader Landscape Type Two:

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

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

Access is readily available to a place that provides shelter from bushfire. This will often be the surrounding developed area. (p.14 [DELWP 2017](#))

Broader Landscape Type Three:

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.

Bushfire can approach from more than one aspect.

The site is located in an area that is not managed in a minimum fuel condition.

Access to an appropriate place that provides shelter from bushfire is not certain.

Justification

The northern and eastern areas of Mirboo North have a higher bushfire landscape risk as the bushfire can approach from more than one direction and access to shelter is not certain. However on the southern side of the township, bushfire can only approach from one direction and as a grassfire.

The broader landscape is prone to fire. The landscape and strategic bushfire risk to the study area is moderate (southern side) to high (northern side) but with extreme ember risk for the entire township.

Land Use & Development

The planning system has greatest scope to control land use and development in response to bushfire risk, with some scope to influence building standards, vegetation management and emergency management. The consideration of bushfire risk and whether or not it can be addressed is fundamental to any decision to rezone and subdivide land. Land uses of most concern in relation to bushfire risk are those where people congregate, reside permanently and are vulnerable and those which may pose hazards, such as timber production.

The planning system, however, has no scope to affect existing use and development unless change occurs that triggers a planning permit.

Vulnerable Uses

In Mirboo North, vulnerable uses² such as the schools and aged care are located near the town centre. Consolidation in these areas is appropriate as they have the greatest protection from the bushfire being located south of the main street.

Hazardous Uses

Hazardous uses, such as a petrol stations, can present a significant risk during a bushfire. In Mirboo North, the petrol station located at the eastern end of town is close to the forest hazard. While not ideal, this is an existing situation and vulnerable development is located approximately 500 metres away. Given the size of Mirboo North, this is the best separation of land use that can occur.

² Vulnerable development includes the following uses: residential aged care facility, residential building, retirement village, child care centre, education centre, hospital, leisure and recreation facility and a place of assembly ([p.10 DELWP 2020](#))

Settlement Planning

Town Characteristics

Settlement planning should direct growth to locations that are less exposed to bushfire. Mirboo North has been identified for limited growth because:

- Forest fire is generally from the north-west to north-east
- Grassfire is generally from the south and west
- There are established areas of lower risk within the town centre that can function as an area to retreat to
- Fires do not have days to develop

Bushfire Assessment Recommendations

Council should consider undertaking bushfire assessment work for the rest of the South Gippsland Shire area not covered by the Mirboo North and accompanying Foster work. The proposed planning scheme recommendations have considered policy for areas beyond these two towns in recognition that other areas in the municipality are likely to and expected to have a higher risk of bushfire and less services, particularly areas outside of settlements.

The following general policy should be included in the South Gippsland Planning Scheme in bushfire policy with reference to Framework Plans and on the Mirboo North Framework Plan:

General Recommendations for bushfire risk areas

Subdivision

- Discourage the creation of additional lots outside the settlement boundary in high fire risk areas (Type D in Mirboo North).
- Ensure at least two different roads leading away from the bushfire hazard edge are available to each lot.
- Require multiple access points to subdivisions of more than 10 lots.
- Require perimeter roads as development occurs at the settlement edge to provide buffers to bushfire hazards and emergency vehicle access (see illustrations below).
- Require perimeter roads along the edge of bushfire hazards (e.g. adjacent grassland for DPO11 area and bushland reserves)

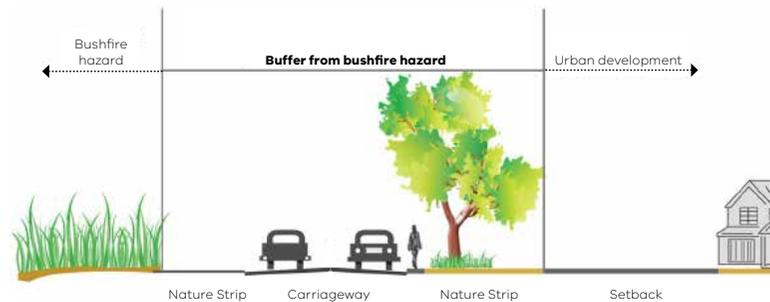


Illustration of perimeter road and residential setback used for bushfire hazard buffer from [DELWP 2015 PPN64 Local Planning for Bushfire Protection](#)



Illustration of a perimeter road at the edge of a settlement (Figure 6 from [DELWP 2020 Design Guidelines for Settlement Planning at the Bushfire Interface](#))

in Mirboo North), including vegetation corridors (e.g. Little Morwell River and Grand Ridge rail trail including adjoining forest in Mirboo North) to provide buffers and emergency vehicle access.

- Provide multiple roads leading away from bushfire hazards that are no more than 120 metres apart (see illustration below).
- Site and design public and common open space areas to provide bushfire hazard setbacks with good vegetation management in perpetuity.
- Ensure public and common open space areas to be easy to maintain with low threat vegetation.



Illustration of multiple roads in a subdivision leading away from a bushfire hazard (Figure 8 from [DELWP 2020](#))

Land Use & Development

- Ensure that land use and development identified in Clause 13.02-1S incorporates measures to mitigate bushfire risk, including:
 - A reliable water supply for property protection and fire fighting.
 - Adequate access for emergency vehicles.
 - A Bushfire Emergency Management Plan (BEMP), including triggers for closure or restricted operation on days of elevated fire danger.
- Avoid additional housing, especially permanent accommodation, and vulnerable uses and development, such as residential aged care facilities, residential buildings, group accommodation, retirement villages, child care centres, education centres and hospitals, in bushfire prone areas outside settlement boundaries and in high fire risk areas (Type D in Mirboo North).
- Avoid places of assembly and leisure and recreation facilities outside settlement boundaries, particularly in high fire risk areas like Type D in Mirboo North, unless supported by a Bushfire Emergency Management Plan (BEMP).
- Direct vulnerable uses and vulnerable development, such as residential aged care facilities, residential buildings, group accommodation, retirement villages, child care centres, education centres, hospitals, leisure and recreation facilities and places of assembly, to safer bushfire areas.
- Locate and design hazardous uses, such as petrol stations, in such a way that they pose less risk to populated areas and vulnerable uses (i.e. south-eastern side of Mirboo North).
- Retain productive agricultural uses like grazing outside settlement boundaries to promote bushfire resilience (along all edges of Mirboo North).

Vegetation

- Discourage continuous vegetation corridors and tracts from being established except along waterways.
- Where vegetation is retained as part of future development, provide appropriate bushfire measures (adequate management and buffers).

Additional Planning Controls

When applying any additional planning controls such as the Design and Development Overlay (DDO) and Development Plan Overlay (DPO), consider including policy to:

- Provide only non-combustible fencing, discouraging timber panel and brush fencing, especially in high fire risk areas.

Bushfire Assessment Types

The 2020 technical report considered areas within the existing and adjoining the settlement boundary to recommend where growth should be directed within Mirboo North. Based on this work, the following 'Bushfire Assessment Types' have been identified according to risk as illustrated on *Map 8* and its corresponding table of detailed recommendations:

Figure 1. Bushfire Assessment Types

Type	Recommendation
A	Preferred location for urban intensification and vulnerable uses
B	Suitable location for urban intensification
C	Avoid intensification unless mitigated
D	No further intensification

The following policy should be included in the South Gippsland Planning Scheme with reference to Mirboo North Framework Plan to take the town's broader landscape risk into consideration, particularly for sites where the BMO applies:

Mirboo North Recommendations

- Direct urban development, including subdivision, particularly vulnerable uses and permanent accommodation, to **Type A**
- Facilitate further subdivision and urban development (particularly vulnerable uses and permanent accommodation) with consideration of bushfire risk in **Type B**.
- Avoid further subdivision and development (particularly vulnerable uses and permanent accommodation) in **Type C** unless it can improve the interface with surrounding grassland and any forest hazard.
- Avoid further subdivision and development (particularly vulnerable uses and permanent accommodation) in **Type D** this includes no new dwellings or subdivision creating new lots.

Justification

From a bushfire perspective, growth in Mirboo North should be directed to the south and south-east where the existing township provides protection and further development can improve the interface of the town (shown as Type A). Though this area would still be affected by ember attack, expansion would allow new residents to egress to areas of lower risk and expand the area of the town that provides lower risk (the area considered BAL:LOW).

The industrial area provides an appropriate interface to the adjacent grassland hazard because it has good access to the highway and large areas of hard surfaces and cleared managed land (Type A).

While the land north of the town centre has good access to the town centre's urban area in the event of a bushfire if people have not left the town earlier, the presence of existing forest reserves (e.g. Baths Road Reserve and Little Morwell River riparian corridor) impacts its bushfire risk (Type B). While expansion to the north, north-west and even west could improve the town's interface with the adjoining grassland hazard, this would not only be difficult due to existing access arrangements, it would provide growth in a dominant fire direction (Type C).

Forest and plantation areas as well as the sewage treatment plant provide natural barriers to township expansion to the east and north. Mirboo North is exposed to potentially long fire runs through forest located to the north and north east. Direct attack from forest is most likely in areas to the north east and east of the township (Type D).

Location	Characteristics	Bushfire Assessment Recommendation
Least constrained by bushfire	<p>Type A</p> <p>Minimum risk of bushfire</p> <p>Most protected from forest fire and grassland fire runs from dominant fire directions</p> <p>Single direction grassfire hazard (except ①)</p> <p>Limited native vegetation</p> <p>Area for retreat</p> <p>Varied terrain, including very steep land to the south</p> <p>Ⓐ <i>Town centre area:</i> Most protected from bushfire hazards Road separation from most forest hazards Pedestrian access to safer areas High amenity (access to shelter, toilets, buildings, food, and water)</p> <p>Ⓑ <i>Undeveloped area (south) - zoned Farming (FZ) & General Residential (GRZ) (part):</i> Protected by adjacent existing town centre and residential areas Existing settlement provides protection for fire spread from forest hazard Development could provide good access to and extension of BAL:LOW areas</p> <p>① <i>Industrial area - zoned Industrial 1 (IN1Z):</i> Grassland interface on more than one side Risk of grassland fire from direct ignition or forest fire from north Provides an interface between grassland hazard and residential settlement Direct vehicle egress via highway to town centre or to exit town via grassland traveling west/north-west Non-vegetated areas on each site Non-residential</p>	<p>Preferred location for urban intensification and vulnerable uses</p> <p>Areas Ⓐ and Ⓑ are most suitable for further subdivision and development including vulnerable uses, permanent housing as well as uses that involve large numbers of people congregating (places of assembly). Where developed appropriately, they provide a safe location where occupants could easily move to by foot or vehicle. Lot sizes less than 800sqm could be encouraged. The land where the Bushfire Management Overlay (BMO) applies will need to address bushfire risk as part of any planning permit application. The BMO2 Schedule should be removed for this area as they are out-of-date. No other changes to planning controls are proposed. A minimum BAL-12.5 construction standard applies to these areas because of the Bushfire Prone Area (BPA).</p> <p>Vulnerable development includes the following uses: residential aged care facility, residential building, retirement village, child care centre, education centre, hospital, leisure and recreation facility and a place of assembly (DELWP 2020). Local policy should encourage vulnerable uses in Type A and discourage them elsewhere in Mirboo North.</p> <p>Subdivision of existing large lots should improve vehicle access between Grand Ridge East and Murray Street.</p> <p>The growth front ④ and ⑤ (with extension to settlement boundary) and proposed Development Plan Overlays (DPO) are appropriate. Area ② could also be considered for future growth given its slope and proximity. The DPOs should require perimeter roads as development occurs and multiple access points. A DPO should also be applied to General Residential Zone (GRZ) land ③ to ensure future subdivision improves the settlement's interface with adjacent grassland hazard and considers future access to the growth area. As for all undeveloped areas in the settlement boundary, perimeter roads should be provided as development occurs.</p> <p>Perimeter roads will also be expected adjacent forest i.e. north of Railway Road ⑨ as subdivision occurs.</p> <p>Area ① zoned Industrial 1 Zone (IN1Z) is also suitable for further urban development. The following policy is also proposed due to the possibility of hazardous uses (see ① for further discussion):</p> <ul style="list-style-type: none"> • Encourage hard-paved and non-vegetated areas • Require adequate firefighting water supply on-site • Restrict open-air storage of flammable materials
Most constrained by bushfire (continues on following page)		

Location	Characteristics	Bushfire Assessment Recommendation
<p>Least constrained by bushfire</p>   <p>Most constrained by bushfire (continues on following page)</p>	<p>Type B</p> <p>Elevated landscape risk</p> <p>Grassland interface at edge of settlement as well as patches of vegetation within the settlement in dominant fire directions</p> <p>Risk of direct forest fire attack (landscape scale and within settlement) and ember attack</p> <p>Retained mature trees and native vegetation generally present</p> <p>Adjacent riparian forest and forest reserves</p> <p>Compromised egress through or adjacent bushfire hazard to a place of greater protection to human life (due to vegetation and curvilinear, cul de sac and irregular lot patterns)</p>	<p>Suitable location for limited urban intensification</p> <p>Further subdivision and development is appropriate in this area with bushfire controls addressing bushfire risk on a site-basis. Lot sizes of 800-1,200sqm could be encouraged*. Additional bushfire mitigation measures including landscaping and road networks could provide for smaller lot sizes. The BMO2 Schedule should be replaced with BMO as the schedule does not reflect the landscape risk of the area.</p> <p>Additional planning controls (e.g. DDO or VPO) should be applied to establish a balance between development and retention of a bushland setting. Generally development should be avoided where vegetation would be lost. A Design and Development Overlay (DDO) is proposed rather than a Vegetation Protection Overlay (VPO) because it can include a minimum construction standard of BAL-29 as well as other measures such as considering landscape risk, improved access (perimeter roads and good egress).</p> <p>Further development should only occur where it improves the interface with bushfire hazards. Incremental subdivision should be discouraged where it prevents future improvements to access, vegetation management and emergency planning. Further subdivision in areas with large lots and close to hazards should be prevented until it can be demonstrated that additional development would improve the area's bushfire risk (i.e. restrict further subdivision until urban rezoning can be justified for areas ⑤ and ⑦).</p> <p>Further subdivision is not considered appropriate for the RLZ areas and GRZ area ⑤. The minimum lot sizes to be included in the zone schedules or DDO (for area ⑤) to prevent further subdivision are as follows:</p> <ul style="list-style-type: none"> • Rural Living Zone (RLZ) Areas ①, ③, ⑥ & ⑩ - 3ha • Low Density Residential Zone (LDRZ) Area ⑦ - 0.6ha • General Residential Zone (GRZ) Area ⑤ - 0.4ha <p>Alternatively area ⑤ could be rezoned to Neighbourhood Residential Zone (NRZ), including the minimum lot size in the schedule, though this is not preferred as discussed on page 26.</p> <p>Areas with larger lots that have subdivision potential and where further subdivision could improve bushfire resilience are: GRZ areas ②, ⑧ and, subject to rezoning, ③.</p>

Location	Characteristics	Bushfire Assessment Recommendation
<p style="text-align: center;">Type B (cont.)</p>		<p>The controls (DDO) applied to this area should ensure adequate bushfire measures are provided including coordination of access as subdivision occurs. This is important to avoid incremental subdivision that compromises access improvements. Outbuildings, extensions and other works would be exempt.</p> <p>The following policy is suggested for BMO areas: Infill development should be limited to locations where the hazard is removed (scattered vegetation) and adequate building separation is ensured (at least 10 metres*). Policy could specify a minimum lot size of 800sqm but smaller lots with building envelopes could also achieve 10m separation distances.</p> <p>For Farming Zone (FZ) area 4 the Framework Plan should identify the land as 'Urban Residential Expansion Area' (only GRZ/NRZ not LDRZ) and the planning scheme should also include the following policy considerations:</p> <ul style="list-style-type: none"> • Rezoning of this land should be subject to the following requirements: <ul style="list-style-type: none"> - Perimeter roads - Multiple exit points in different directions (at least pedestrian access to golf course) - Place to retreat to off-site - Consideration of the end state any vegetation established as part of waterway rehabilitation - Lots adjoining the road of a sufficient depth to ensure bushfire setbacks
<p style="text-align: center;">Type C</p>	<p>Located in a dominant fire direction</p> <p>Steeper slopes and/or retained mature trees and native vegetation generally present</p> <p>Grassland areas or interface on one or more side</p>	<p>Avoid intensification unless mitigated</p> <p>Further subdivision, dwellings and places of assembly should be avoided unless they can improve the interface with surrounding grassland and any forest hazard. Where subdivision occurs, new lots should be 800-1,200sqm*.</p> <p>Removal from settlement boundary is preferred, particularly areas affected by the BMO. Remove areas 1 and 2 from the settlement boundary as further development will not contribute to bushfire risk improvements.</p> <p>If retaining in settlement boundary, propose urban development (not rural residential) and apply policy and controls to require perimeter roads before development occurs at each stage (e.g. DPO), hazard separation, preferred lot sizes and other measures as appropriate:</p> <ul style="list-style-type: none"> • Replace the BMO2 Schedule with the BMO as the schedule does not reflect the landscape risk of the area.

Least constrained by bushfire



Most constrained by bushfire

(continues on following page)

Location	Characteristics	Bushfire Assessment Recommendation
<p>Least constrained by bushfire</p> <p>Type C (cont.)</p>		<ul style="list-style-type: none"> Update DPO11 at ③ to include bushfire requirements (perimeter road and multiple vehicle egress points). Increase the minimum lot sizes in RLZ and LDRZ to prevent further subdivision until land can be rezoned to provide perimeter roads at the edge of settlement as well as multiple egress points and other bushfire measures. Apply policy to prefer uses with lack of permanent occupancy, e.g. tourism and provide landscaping for bushfire considerations, particularly not bringing the forest hazard closer to the settlement or providing fire transmission links.
<p>Most constrained by bushfire</p> <p>Type D</p>	<p>Located in a dominant fire direction</p> <p>Adjacent to large tracts of forest vegetation</p> <p>Retained mature trees and native vegetation generally present</p> <p>Direct attack from forest fire is likely</p> <p>Place of shelter not certain</p> <p>Egress compromised (long egress in a northerly direction through forest)</p>	<p>No further intensification</p> <p>Avoid additional Accommodation, especially permanent housing and vulnerable uses and places of assembly. No additional dwellings or new lots created. Higher BAL construction standard (building) may be required for redevelopment.</p> <p>These areas should be removed from settlement boundary where possible (i.e. ⑥) and additional policy and controls applied to prevent further subdivision and dwellings (e.g. Restructure Overlay). Policy and additional controls should direct population growth away from these areas of very high risk and mitigate bushfire risk through additional measures as much as possible.</p> <p>Minimum lot size to prevent further subdivision for RLZ Areas ②, ③, ④ & ⑤: 5ha.</p> <p>Apply Restructure Overlay to ③, ⑤ and ⑦ to reduce the number of potential lots available for further development in the Rural Living Zone and Farming Zone.</p> <p>Rezone forested Crown land road reserves and parcel on Old Darlimurla Road ④ to Public Conservation & Resource Zone (PCRZ) like adjoining forested Crown land.</p> <p>Permit development on existing lots where deemed an acceptable outcome considering the Bushfire Management Overlay and policy at Clause 13.02 Bushfire and Clause 71.02-3 Integrated Decision Making.</p>

For recommendations that apply to all of Mirboo North refer to page 15.

* Lot sizes are provided as a guide because they provide for building separation which can also be achieved through setbacks. Bushfire mitigation measures including landscaping and road networks are important in determining the acceptable lot size. A discussion regarding optimal lot sizes and separation distances is provided on page 27.

Specific Areas

Map 8 also illustrates the following areas of interest.

TYPE A AREAS

1 Industrial IN1Z precinct

The Industrial 1 Zoned (IN1Z) precinct at the north-western edge of Mirboo North interfaces with farmland to the north, west, and east and forest vegetation to the east. Some of the lots are vacant. The most likely bushfire risk would be from fire starting in nearby farmland either due to direct ignition or ember attack from a forest fire to the north. Industrial Zone land is appropriate for an interface with the hazard as these types of development usually have ease of access and large areas of hard surfaces, although external storage of large amounts of combustible materials may be problematic.

Additional policy should be provided for these areas to:

- Encourage hard-paved and non-vegetated areas
- Require adequate firefighting water supply on-site
- Restrict open-air storage of flammable materials

2 - 5 Southern Growth Area including 19 Murray St (3 & 4)

Undeveloped land at the southern edge of Mirboo North is mostly zoned Farming (FZ) with an undeveloped portion to the south-east zoned General Residential (GRZ) (3). Area 4 is the town's only identified growth front. Area 5 was also identified as a growth area as part of the

proposed Framework Plan changes in [Mirboo North Structure Plan Refresh \(2017\)](#).

From a bushfire point of view, the south of the town is the preferred direction for residential growth because the existing township provides protection and further development could improve the town's interface with adjacent grassland hazard.

The growth of these areas could improve vehicular and pedestrian access, including emergency access, for current and future development. Growth could also improve the edge of settlement by providing separation (perimeter road) between development and the adjacent grassland hazard.

There are, however, a number of issues that make this area difficult to develop, including the presence of waterways and water bodies, very steep land, servicing issues and its location in an open potable water catchment.

Areas 3, 4 and 5, to the south-east of the town, are still considered appropriate for growth as proposed in [Mirboo North Structure Plan Refresh \(2017\)](#) because they are reasonably flat. Rezoning land in 4 and 5 or applying development controls as part of any further subdivision of area 3 could improve the settlement's interface with the adjacent grassland hazard while locating people and property in a relatively safer location in the town.

Development of area 2 could also be considered, particularly along Boolarra South-Mirboo North Road where it is flatter. The land, however, drops reasonably steeply beyond that down to a waterway which is likely to make development feasibility difficult.

Additional controls (e.g. DPO) should be applied to both GRZ areas marked 3 coordinate development as subdivision occurs to ensure bushfire measures, specifically perimeter roads at the edge of settlement, are provided.

6 C1Z area

Both sides of the Main Street, in the centre of Mirboo North, are in the Commercial 1 Zone (C1Z). This is the area of shops, retail and office use. The police station is also located centrally in this zone. It is the area of Mirboo North where residents are likely to congregate in a bushfire emergency. Development in this zone has a reliance on reticulated water in the street hydrants for fire suppression as most lots generally have limited space for static water supplies.

7 MUZ area

The Mixed Use Zone (MUZ) area near the centre of town is well protected from bushfire attack from all directions and will experience ember attack as the main bushfire risk. It is an area that could be readily developed.

8 Giles Street LDRZ area

The Giles Street Low Density Residential Zoned (LDRZ) area is well protected from bushfire by the settlement to the north. Development could be intensified which would remove the retained grassland risk within the zone and strengthen the town's interface with the southern grassland. However it is noted that the steep slope of this land will present challenges for development intensification.

There is a road reservation that connects Meeniyan-Mirboo North Road to Giles Street/ Grand Ridge East Road separates these properties from adjoining farmland. Ideally this would be formed to provide better separation from adjoining grassland. The reservation, however, would be very difficult to form to provide access because it is so steep.

TYPE B AREAS

1, 3, 6 & 10 RLZ areas

The Rural Living Zone (RLZ) areas to the north of the town generally have poor access to safer locations as well as a poor interface with adjacent bushfire hazards. Some of the larger lots in these areas could be further subdivided.

Area 3 would benefit from further subdivision, preferably urban rather than rural residential subdivision, that provides bushfire protection measures. Additional development controls are proposed to ensure development is coordinated and consider future urban potential, especially given the potential development of 36 Balding Street (part RLZ, part GRZ).

32 Old Thorpdale Road (shown at 3a) is split zoned Farming Zone (FZ) and RLZ and only its RLZ portion (a separate lot) is included in the settlement boundary. Any land use changes or development of this property should seek to improve the bushfire interface of the settlement, particularly by establishing a perimeter road.

Further subdivision in the other RLZ areas is not expected to improve bushfire risk especially since subdivision potential in these areas is very limited. Additional subdivision in these areas is likely to require vegetation removal, impacting waterways and biodiversity in the area. 31 Well Road (4.21ha) in area 1 (shown at 1a) could technically be further subdivided but is constrained by the waterway, vegetation

and large dam on-site. 8 Galvin Road (2.14ha) in area 6 (shown at 6a) and 41 Thorpdale Road (2.06ha) in area 9 (shown at 9a) could also be subdivided in two with the current lot size restrictions.

Area 10 is particularly isolated with one road into the area (Galvins Road), surrounded by vegetation, much of which is forest. The land is zoned RLZ and has no further subdivision potential, making the area's bushfire resilience difficult to improve from a planning point of view.

To prevent further subdivision in the area in response to bushfire risk, the minimum lot size would need to be increased. The minimum lot size would need to be over 2.5 ha to prevent any further subdivision (this would be a temporary measure for area 3 until rezoning occurs).

4 10 Thorpdale Road FZ area

This Farming Zoned (FZ) property located on the Strzelecki Highway is currently within the settlement boundary. It is appropriate to retain this site in the settlement boundary because it could improve the area's resilience to bushfire and is expected to be able to achieve adequate separation from bushfire hazards (to meet maximum radiant heat exposure of 12.5kW/m²). A rural residential zoning like LDRZ is not recommended (as proposed in the Mirboo North Structure Plan Refresh which recommends

GRZ/LDRZ for the site) because this type of development often presents unique bushfire risks (see boxed discussion "Rural Residential Land & Optimal Lot Sizes" on page 27).

The site is transected by a north-south waterway with the site sloping up the adjacent forested area. Achieving adequate hazard separation from existing and potential future vegetation is likely to make development difficult, particularly for the eastern portion of the site. Access to this portion of the site is also challenging. Good planning and management of the vegetation along the waterway will be important. A 30 metre waterway buffer and rehabilitation will be expected as part of any rezoning proposal.

It is recommended that this land be rezoned to GRZ i.e. 'Urban Residential Expansion Area' in the Framework plan (not LDRZ) and the planning scheme should also include the following policy considerations:

- Rezoning of this land should be subject to the following requirements:
 - Perimeter roads
 - Multiple exit points in different directions (at least pedestrian access to golf course)
 - Place to retreat to off-site
 - Consideration of the end state any vegetation established as part of waterway rehabilitation
 - Lots adjoining the road of a sufficient depth to ensure bushfire setbacks

② Wells Road North GRZ area

This area north of Wells Road between Balook Street and Old Thorpdale Road is approximately 1km north of the town centre, located between two areas of Rural Living Zone (RLZ). Most properties have large cleared areas. The area's development pattern reflects these nearby lower density areas with large lots from 4,000-6,000sqm in area. The four largest lots are larger than this and total approximately 9ha in area. This area has a lot of subdivision potential if developed at urban densities. This would require an extension of reticulated sewerage which is possible.

Applying the RLZ to this area would better reflect the existing pattern of development and would constrain the number of additional residents in the area. Development, however, has the opportunity of improving the bushfire resilience of the area, particularly through improving access and managing vegetation.

Development controls should be applied to ensure adequate planning occurs prior to any subdivision or another use or development that requires careful bushfire consideration. This is important to avoid incremental subdivision compromising access through serial battle-axe subdivisions and provide road access through to the largest lots.

⑤ Wells Road South GRZ area along Little Morwell River

This area, located on the Little Morwell River, is generally bound by Wells Road, Balding Street, Baths Road/Jordan Way and Balook Street. Further subdivision in this area should be avoided to avoid increasing risk to bushfire and significant loss of vegetation.

This could be achieved through applying a minimum lot size in either a Design and Development Overlay (DDO) or Neighbourhood Residential Zone (NRZ). The use of a DDO is preferred because it is being applied to the broader (Type B) area and can include other bushfire measures. Many of the bushfire measures that should be applied to this broader area are better suited to inclusion as design requirements. The NRZ can only include objectives and decision guidelines, not design requirements in the zone schedule. The DDO can also be specifically to bushfire. It is also noted that an updated housing strategy may be needed to justify rezoning.

7 Josephine Court LDRZ area

This area, near the western entry to town, is generally bound by the Strzelecki Highway, Wanke Road and Baths Reserve. It has lots backing onto the forested bushfire hazard and does not represent the current approach to subdivision in bushfire prone areas. This area is not suited to intensification of development. Ideally access would be improved but this is difficult to achieve because of the existing lot configuration, adjacent forested areas, lack of subdivision potential in LDRZ and safety issues with providing additional vehicular access to Strzelecki Highway.

The largest lot in this area is 1.18ha (16 Balook Street). Other lots are generally 2,000-2,500sqm. A minimum lot size of 0.6ha (i.e. 6,000sqm) would be required to prevent further subdivision.

8 Development Potential GRZ Corridor

This north-south corridor of land with development potential is located along a southern tributary of the Little Morwell River. The properties extend from 36 Balding Street to 1A Thorpdale Road with access from Balding, Allen, Bourke and Ogilvie/Couper Streets as well as Thorpdale Road (Strzelecki Highway).

A DPO could be applied to these lots and extended into the undeveloped RLZ area to the north to provide appropriate bushfire measures including coordination of access before further subdivision takes place. Since the DDO is already proposed for this area, it is recommended that this control be used, as far as possible to ensure appropriate coordination.

Rural Residential Land & Optimal Lot Sizes

A key bushfire risk to many settlements is from ember attack. Ember attack may ignite fuel sources and create many smaller fires throughout the settlement. Lot sizes are an important mechanism to support the management of fires ignited from ember attack. Different lot sizes support different bushfire outcomes.

Smaller urban lots, for example less than 800sq.m in size, are less likely to enable fuel sources (including vegetation) due to the limited area of open space. They contribute positively to achieving lower-fuel settlements. However, smaller lots result in structures closer to together, increasing the risk of structure to structure fire.

Larger lots, for example 0.2ha- 4ha in size, have the capacity for more localised fuel sources (particularly vegetation) due to more extensive open space areas. They require more extensive management by individual landowners. They also tend not to be large enough for landowners to have specialised equipment (for example, tractors) that would make management more practical. Houses, however, are separated further apart minimising the risk of structure to structure fire.

An optimum lot size of between 800sq.m-1,200sq.m provides a good balance. This minimises available open space for fuel sources while enabling a good separation between individual structures (ideally more than 10m).

Many parts of Victoria encourage the provision of low-density and rural living lots of 0.2ha and above. They are often justified in locations that do not have reticulated services or as a transitional land use from rural to urban (for example, on the edges of settlements).

These style of lots present a unique bushfire risk as they have not historically resulted in a well-planned settlement interface or an edge to the bushfire hazard. Bushfires and grassfires can penetrate larger lots and create bushfire pathways into denser residential areas. This can include a moving bushfire front entering a settlement. They may also make it more difficult for firefighting (for example, for the setting up of containment lines) and for the monitoring and enforcement of vegetation management on private land.

DELWP 2020 Settlement Planning at the Bushfire Interface Design Guidelines, page 10

TYPE C AREAS

① & ⑦ Small lot FZ areas

The small lots Farming Zone along Strzelecki Highway/ Barfoot Road and Wembridges Road (①) and in Scott Court (⑦) are currently inside the town's settlement boundary. The [Mirboo North Structure Plan Refresh \(2017\)](#) identified most of this are to be investigated for rezoning. Further development of these areas was considered to improve the settlement edge but is considered difficult to achieve. As such it would be better to remove these areas from the settlement boundary, particularly given the area's elevated bushfire risk.

For area ① the existing road is considered a more appropriate settlement boundary and for area ⑦ there is potential that a future rezoning of area ⑥ could improve the settlement's interface. A perimeter road is more likely to be achieved in area ⑥ than by rezoning area ⑦.

② Grand Ridge West LDRZ

This collection of large lots in the LDRZ near the western entry to town has significant subdivision potential, particularly if connected to reticulated sewer. The bushfire interface at the edge of settlement has the opportunity to be improved through further development. This is likely to be difficult to achieve, justifying the cost of a perimeter road, at LDRZ densities. As such, it is proposed that the LDRZ minimum lot size be increased to prevent subdivision until such a time that the land can be rezoned to a more urban zoning.

Alternatively a DPO could be applied to this land to ensure that a perimeter road is developed as part of any subdivision.

③ Berrys Creek Road DPO11 area

Refer to DPO section on page 33.

④ Eldon Court GRZ area

This area on the western side of town is generally bound by Berrys Creek Road, Strzelecki Highway and Mirboo North Secondary College. The eastern portion of this area is affected by the BMO. The area is buffered from grassland hazard at the edge of settlement by Berrys Creek Road.

In the short term, it is unlikely that much additional housing will be proposed in this area due to the size and number of buildings on house blocks. That said, this area has potential for additional subdivision given lot sizes range from 600 to over 1,000sqm, with the bowling club site at approximately 5,500sqm of which 2,700sqm is vacant.

More detailed housing work could consider the application of the NRZ with a minimum lot size to achieve optimal lot sizes and encourage good spacing between buildings to respond to bushfire risk.

⑤ Castle Street GRZ

Castle Street provides access to the Secondary College and Primary School. It has 11 GRZ blocks approximately 600sqm in size with one split zone (1A Castle Street zoned GRZ and RLZ). They are not affected by the BMO. These properties have limited potential for additional subdivision. They are also buffered from the edge of settlement by two roads.

As for ④, more detailed housing work could consider the application of the NRZ with a minimum lot size to achieve optimal lot sizes and encourage good spacing between buildings to respond to bushfire risk.

⑥ Castle Street RLZ

These large lots are located between the Primary School and Scott Court behind the Castle Street GRZ properties (⑤). They have already been subdivided down to the minimum lot sizes so no additional lots can be created.

Rezoning this land to a more urban zone should be considered to improve access and provide a perimeter road at the edge of the settlement as a buffer to adjacent hazards. This would provide additional protection for the school precinct.

TYPE D AREAS

①, ⑦ & ⑧ FZ & RAZ areas

These agricultural areas, which include the Darlimurla settlement 1.5km north of Mirboo North, have a high bushfire risk. They are connected to large forest and plantation tracts of vegetation like the Strzelecki State Forest's Darlimurla Block. North-west fire runs from the forest are of particular concern for these areas.

Policy should be applied for these areas that strongly discourages further intensification, including permanent residence.

170 Baromi Road, Baromi ⑦ is made up of several land parcels in the one ownership with a single dwelling. A Restructure Overlay should be applied with Specific Controls to discourage the selling off of lots and prevent additional dwellings from being established.

②, ③, ④ & ⑤ RLZ areas

These areas which are adjacent to forest, contain significant native vegetation, contributing to the semi-rural feel of Mirboo North. They have potential to bring fire into the township which is a particular concern to the north and east of the township.

Further subdivision is possibly for a number of lots. The high bushfire risk for these areas mean that no further subdivision should occur. A minimum subdivision size of 5ha is proposed because the largest lot is 8.5ha (8 Gilfedder Terrace in ②).

There are several vacant lots in the RLZ where new dwellings could be established. The following changes are proposed to avoid additional permanent dwellings.

Some of the vacant lots form part of larger properties (in the same ownership) which already have a dwelling on site. As for 170 Baromi Road, Baromi ⑦, a Restructure Overlay should be applied to discourage the selling off of lots and prevent additional dwellings from being established (75 Old Darlimurla Road ③ and 169 Baromi Road Baromi ⑤).

One of the vacant lots is a 2.45ha lot located on Old Darlimurla Road, is forested and owned by State Government. This lot and its adjacent road reserve should be rezoned to PCRZ like the other nearby forested lots.

The remaining vacant lots including 30 Darlimurla Road are in separate ownership and recently subdivided land in ② is more difficult to address. Changing the minimum lot size to prevent further subdivision will ensure no additional new lots are created.

Proposed Controls

The proposed planning scheme controls to implement the bushfire assessment findings are illustrated on **Map 9**. A range of planning tools have been considered to implement the assessment's findings. It is noted that these focus on development as there is limited scope to address land use with the available planning tools except through rezoning or local policy.

Changes to controls are proposed where the most pressure and risk is present. The key pressure in Mirboo North is for additional subdivision and dwellings, particularly to the north of the town centre (Type B). This area has the most opportunity for additional subdivision and dwellings. The most restrictive planning controls are proposed in the highest risk areas (e.g. Restructure Overlay with Specific Controls for land use).

Planning tools that were considered but not proposed in Mirboo North are:

- *Residential Growth Zone (RGZ) & Neighbourhood Residential Zone (NRZ)* - which could provide more certainty about where growth in the town should and should not occur (these have not been proposed because it would be preferable to consider residential zoning more broadly as part of further housing strategy work)
- *Environmental Significance Overlay (ESO)* - which triggers a permit for vegetation removal, buildings and works (not applied because the environmental values of the area need to be identified in further work and bushfire measures not included as easily as in a DDO or DPO)
- *Vegetation Protection Overlay (VPO)* - which triggers a permit for vegetation removal (not applied because the significant vegetation needs to be identified in further work and the VPO cannot address building and works issues)

Low Density Residential Zone (LDRZ)

The purpose of the [LDRZ](#) is to provide for low-density residential development on lots which, in the absence of reticulated sewerage, can treat and retain all wastewater.

The LDRZ provides a minimum lot size of 0.2ha where reticulated sewerage is connected and 0.4ha if it is not.

The minimum lot size can be varied in the schedule to the LDRZ.

The minimum lot size is proposed to be varied for the following areas to prevent further subdivision until such a time that the land can be rezoned and developed at urban densities in a way that reduces the area's bushfire risk.

To achieve this requires the following minimum lot sizes by area:

- Area 2 2ha
- Area 7 0.4ha

While it is unusual to apply a minimum lot size as high as 2ha in the LDRZ, this approach is preferred to applying a DPO and allowing additional growth prior to rezoning at more urban densities (800-1,200sqm preferred).

Alternatively it may be more appropriate to rezone area 2 to Rural Living Zone given the large minimum lot size.

Rural Living Zone (RLZ)

The purpose of the [RLZ](#) is to:

- provide for residential use in a rural environment.
- provide for agricultural land uses which do not adversely affect the amenity of surrounding land uses.
- protect and enhance the natural resources, biodiversity and landscape and heritage values of the area.
- encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.

The RLZ provides a minimum lot size of 2ha. In Mirboo North, like most of South Gippsland, the minimum lot size is varied in the schedule to 1ha.

The minimum lot size is proposed to be varied for all RLZ areas to prevent further subdivision.

For areas subject to the highest risk i.e. Type D (areas [2](#), [3](#), [4](#) & [5](#)) this is intended to prevent introducing additional people and property into these areas.

This is also the case for the following areas in Type B where further subdivision is not considered appropriate: [1](#), [6](#) and [10](#). In area [3](#), further subdivision should be prevented until such a time that the land can be rezoned and developed at urban densities in a way that reduces the area's bushfire risk.

To achieve this requires the following minimum subdivision lots by Type:

- Type B ([1](#), [3](#), [6](#) & [10](#)) 3ha
- Type D ([2](#), [3](#), [4](#) & [5](#)) 5ha

Public Conservation & Resource Zone (PCRZ)

The purpose of the [PCRZ](#) is to protect and conserve the natural environment and natural processes for their historic, scientific, landscape, habitat or cultural values.

One of the locations where this zone applies in Mirboo North and Baromi is to the Strzelecki State Forest Baromi Block. Some forested Crown land in this area is currently zoned Rural Living Zone. Rezoning this land to PCRZ would be more appropriate given these conditions, as well as the fact that dwellings and other sensitive uses should be discouraged in this location because of its high fire risk.

Bushfire Management Overlay (BMO)

The purpose of the [BMO](#) is to:

- ensure that the development of land prioritises human life and strengthens community resilience to bushfire
- identify areas where bushfire hazard warrants bushfire protection measures to be implemented
- ensure development is only permitted where the risk to life and property can be reduced to an acceptable level.

As described in [Planning Advisory Note 46 \(DTPLI 2013\)](#), the BMO is a planning scheme provision used to guide the development of land in areas of high bushfire hazard. The location, design and construction of development and the implementation of bushfire protection measures must be considered under a BMO. 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 and where the bushfire hazard warrants implementation of bushfire protection measures.

The BMO requires that development only be permitted where the risk to life and property from bushfire can be reduced to an acceptable level.

A planning permit is required to construct or carry out works associated with accommodation and a range of other community, commercial and other uses where occupants are at risk. Planning permit applications must be accompanied by a bushfire hazard site assessment; a bushfire hazard

landscape assessment; a bushfire management statement and a bushfire management plan. Mandatory conditions are applied to permits issued for subdivision and buildings and works.

The extreme bushfire hazard that determines where the BMO should apply is where the head fire intensity of bushfire is modelled to be 30,000kW/m or more. Inputs to this calculation include physical characteristics such as vegetation and topography. Different fire behaviour models are used appropriate to the vegetation classification. While areas of contiguous vegetation of less than 4ha are excluded from the BMO, the BMO includes a buffer of 150 metres from larger areas of vegetation in recognition of research that indicates that 92% of house loss occurs within this distance (Blanchi et al. 2010b). Following a recommendation of the 2009 Victorian Bushfires Royal Commission, the BMO was mapped using hazard data developed by the Department of Environment and Primary Industries (DEPI). Revised mapping was verified by councils during 2016 and 2017 and then gazetted on October 3rd, 2017.

As described in [Planning Practice Note 64 Local Planning for Bushfire Protection \(DELWP 2015\)](#), a schedule can vary specified requirements of Clause 44.06 (including permit requirements, and notice/referral requirements) and modify the measures and application requirements in Clause 52.47. [South Gippsland's BMO2](#) applies to the construction and extension of one dwelling on a lot. It exempts the need for application referral.

The removal of the BMO schedule in Mirboo North is proposed because its extent and the schedule contents are out-of-date and do not reflect the landscape risk of the area. The findings of this assessment, which considers the town's broader landscape risk, do not reflect the existing BMO2 mapping. The current BMO Schedules reflect low threat vegetation. This is no longer acceptable and, in this case, should reflect forest vegetation present in the area.

The BMO could be extended to apply to all areas in Type B and Type C as areas warranting implementation of bushfire measures. Given the application of the BMO to date, it is not clear that this approach would be supported. The application of DDOs, for example, has been proposed by the CFA instead to address these issues. Greater Bendigo's DDO24 and DDO28 approved in 2020 via Amendment C232gben, for example, triggers permits in the BPA that require consideration of bushfire risk and measures rather than amending the BMO or its schedule.

Areas in Type B where the BMO is not currently applied are affected by risk of bushfire from forest which accords more closely with the BMO application than Type C areas affected mostly by grassland hazard.

Design & Development Overlay (DDO)

The purpose of the [DDO](#) is to identify areas which are affected by specific requirements relating to the design and built form of new development.

Additional controls are proposed to provide additional bushfire measures to address Clause 13.02S. These are intended to be applied in Type B (which has some areas not in the BMO) to establish a balance between development and retention of a bushland setting.

A DDO is proposed rather than a VPO because it can include a minimum construction standards as well as other measures such as considering landscape risk, improved access (perimeter roads and good egress). A VPO would need additional strategic justification regarding the significance of vegetation in the area and the overlay's boundaries. The DDO, however, does not trigger a permit for vegetation removal. An ESO could trigger a permit for both vegetation removal and development, however it is not designed to include development requirements or to address bushfire issues.

A minimum construction standard of BAL-29 is proposed for this area to address landscape risk and access issues as well as recognise the retained mature trees and native vegetation that are generally present. This reflects the potential for radiant heat and ember attack given that more robust building construction should be considered in this location with areas of dense vegetation (forest) nearby.

The DDO should include the following bushfire requirements and considerations:

- minimum construction standard of BAL-29
- perimeter roads
- multiple access points
- adequate hazard separation
- protection of significant vegetation (may be able to reference this in relation to the extent of development and works)
- policy discouraging hazardous uses and vulnerable uses
- minimum lot size of 3,000sqm for area ⑤

DDO1 Infill Areas

This DDO applies to most of Type B which is affected by the BMO and BPA and areas only in the BPA. It is not proposed to apply to areas where no further subdivision is possible as subdivision is the main threat where bushfire needs further consideration in this area.

DDO2 No Further Subdivision Areas

Further subdivision in these areas will be restricted by minimum lot sizes in the zone for Rural Living Zone areas and in the DDO for the heavily vegetated GRZ area along the Little Morwell River ⑤. The minimum lot size for this area to include in the DDO is proposed to be 3,000sqm.

Development Plan Overlay (DPO)

The purpose of the DPO is to identify areas which require the form and conditions of future use and development to be shown on a development plan before a permit can be granted to use or develop the land.

It can be an effective planning tool to achieve good subdivision design that is responsive to bushfire when the overlay schedule includes consideration for bushfire, specifically requirements for:

- perimeter roads
- multiple access points
- adequate road spacing leading away from the hazard
- adequate hazard separation

DPO1 (current DPO11) Berrys Creek Road

The DPO (currently DPO11) at ③ should be updated to reflect bushfire planning policy and provisions to require perimeter road and more than one point of access rather than emphasising a single point of access with no consideration of a perimeter road.

DPO2 Existing Growth Area

A DPO (or alternatively a DDO) is proposed at ③ to guide infill development. It is considered appropriate to apply a DPO beyond the edge of the GRZ boundary to area ④ given it is part of the same property.

DPO3 Future Growth Areas

Areas ② and ⑤ should have a DPO applied as rezoning occurs. An extension of DPO2 (updated as necessary) would provide for good connectivity and consideration of access issues.

Restructure Overlay (RO) & Specific Controls

Most lots in Type D have been developed with a single dwelling. The following properties include vacant land parcels that have the potential to be sold off and built on, increasing the potential number of people and amount of property at highest risk of bushfire in the settlement. The [Restructure Overlay \(RO\)](#) should be applied along with [Specific Controls](#) (to specify no further dwellings and restrict other uses until consolidation occurs) and referred to in the [Restructure Plans for Old and Inappropriate Subdivisions in South Gippsland Shire \(2019\)](#) Incorporated Document in order to prevent further dwellings on the properties.

- 3 75 Old Darlimurla Road (6.52ha) consists of 2 parcels in the Rural Living Zone with a single dwelling.



- 5 169 Baromi Road, Baromi (1.399ha) consists of 3 parcels in the Rural Living Zone which are separated by a road reserve the house appears to be built on.



- 7 170 Baromi Road, Baromi (36.77ha) consists of 10 parcels in the Farming Zone with a single dwelling.



Map 9 - Proposed Planning Scheme Changes

