

8.2.3 Bushfire Hazard Overlay Code



8.2.3.1 Application

This code applies to development:

- (1) within the Bushfire Hazard Overlay as identified on the overlay maps contained in **Schedule 2 Mapping**;
and
- (2) identified as requiring assessment against the Bushfire Hazard Overlay Code by the tables of assessment in **Part 5 Tables of Assessment**.

Note - Land shown on the Bushfire Hazard Overlay Map OM-03 is designated as the Bushfire Prone Area for the purposes of section 12 of the Building Regulation 2006. The Bushfire Hazard Area includes land covered by the Medium, High and Very High Hazard Areas and Potential Bushfire Impact Buffer as identified in the SPP interactive mapping system (plan making) under the 'Safety and Resilience to Hazards' theme, subsection 'Natural Hazards Risks and Resilience'.

Note - The Building Act 1975 adopts the requirements of the Building Code of Australia and AS 3959-2009 and thus regulates construction standards of all building work identified in bushfire prone areas subsequent to development approval.

8.2.3.2 Purpose and Overall Outcomes

- (1) The purpose of the Bushfire Hazard Overlay Code is to ensure that risk to life and property, and the impact on the environment, as a result of bushfire is avoided or mitigated, where development:
 - (a) increases the number of people living and working in a bushfire hazard area;
 - (b) involves premises visited or occupied by guests on a short term basis; or
 - (c) involves uses where evacuating people may be difficult; or
 - (d) involves the manufacture or storage of hazardous materials in bulk.
- (2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) Development that potentially increases the exposure of people and property to natural hazards:
 - (i) avoids areas of bushfire risk; or
 - (ii) where areas of bushfire risk cannot be practicably avoided, development is designed, located and managed to ensure the risk to the safety of people and the damage to property is mitigated to an acceptable or tolerable level before, during and after a natural hazard event;
 - (b) Development in areas at risk from bushfire hazard is compatible with the nature of the hazard;
 - (c) Development is designed and operated in accordance with any Bushfire Management Plan prepared for the site;
 - (d) Development avoids involving the establishment or intensification of vulnerable uses and community infrastructure within or near areas that are subject to bushfire hazard;

- (e) Development does not result in a material increase in the extent or severity of bushfire hazard;
- (f) Bushfire risk mitigation treatments are accommodated in a manner that avoids or minimises impacts on the natural environment and ecological processes, and conserves biodiversity values;
- (g) Development involving the manufacture or storage of hazardous materials does not increase the risk to public safety or the environment in a bushfire event;
- (h) Development contributes to, and does not unduly burden, effective and efficient disaster management response and recovery capabilities; and
- (i) Development is located on landforms which can limit the intensity of a bushfire and that have other protective functions or community values.

8.2.3.3 Assessment Benchmarks

Note - A bushfire hazard assessment may verify the extent of hazardous vegetation and extent and nature of the bushfire hazard area (bushfire prone area). Such assessments should be undertaken using the methodology set out in **Planning Scheme Policy 4 - Bushfire Management Plans**.

In order to demonstrate compliance with the performance outcomes and/or acceptable outcomes, a bushfire management plan prepared by a suitably qualified person is required. Where acceptable outcomes are not met a risk assessment in accordance with AS/NZS 31000:2009 will be required to demonstrate the development achieves an acceptable or tolerable level of risk to life and property.

Table 8.2.3.3.1— Bushfire Hazard Overlay Code - For Accepted and Assessable Development

Performance Outcomes	Acceptable Outcomes
Access for Firefighting Appliances	
<p>PO1 All premises are provided with vehicular access that enables safe evacuation for occupants and easy access by fire-fighting appliances.</p> <p>Note: A site specific assessment prepared by a suitably qualified person in accordance with Planning Scheme Policy 4 - Bushfire Management Plans, may be required to determine compliance with PO1.</p>	<p>AO1.1</p> <p>(1) Development has a driveway from a <i>constructed road</i> with: a minimum vertical clearance of 4.8 metres; and</p> <p>(2) a minimum formed width of 3.5 metres.</p>
	<p>AO1.2</p> <p>(1) A driveway does not exceed a length of 60 metres from a <i>constructed road</i>;</p> <p>OR</p> <p>(2) Where a driveway from a <i>constructed road</i> is longer than 60 metres, it is designed to accommodate turning bays for firefighting appliance vehicles in accordance with Queensland Fire and Emergency Services, <i>Fire Hydrant and vehicle access guidelines for residential, commercial and industrial lots (2019)</i>.</p>

Table 8.3.1.3.2— Bushfire Hazard Overlay Code - Assessable Development

Performance Outcomes	Acceptable Outcomes
All Development	
<p>PO1 Development is located where it is not at risk from bushfire hazard.</p> <p><i>Note: A site specific assessment prepared by a suitably qualified person in accordance with Planning Scheme Policy 4 - Bushfire Management Plans will be required to determine compliance with PO1.</i></p>	<p>AO1 A site specific assessment determines that bushfire hazard is unlikely on any part of the site affected by the development.</p>
<p>The following Outcomes (PO2 - PO22) must be addressed only where it is determined through AO1 above that the site is at risk from Bushfire Hazard and a Bushfire Management Plan is required</p>	
<p>PO2 Development complies with a site specific Bushfire Management Plan (BMP), prepared by a <i>suitably qualified person</i> in accordance with Planning Scheme Policy 4 - Bushfire Management Plans. The BMP demonstrates:</p> <ul style="list-style-type: none"> (1) that the safety of people and property in a bushfire event can be managed and risks mitigated; and (2) how the specific outcomes of this Code can be achieved. 	<p>AO2 No Acceptable Outcome is prescribed.</p>
<p>PO3 Development does not increase the number of people living, congregating or working on land in a <i>bushfire hazard area</i>, unless a Bushfire Management Plan (BMP), prepared by a <i>suitably qualified person</i> in accordance with Planning Scheme Policy 4 - Bushfire Management Plans, demonstrates that the safety of people and property in a bushfire event can be managed and risks mitigated.</p>	<p>AO3.1 Development does not increase the number of people living, congregating or working on land in a <i>bushfire hazard area</i>.</p> <p>AO3.2 Development involving a <i>vulnerable use</i> is not established in a <i>bushfire hazard area</i>.</p>
<p>PO4 <i>Emergency services</i> and uses providing community support services:</p> <ul style="list-style-type: none"> (1) are able to function effectively and safely during and immediately after a bushfire hazard event; and (2) can demonstrate, by a Bushfire Management Plan prepared by a <i>suitably qualified person</i> in accordance with Planning Scheme Policy 4 - Bushfire Management Plans, that the safety of people and buildings in a bushfire event can be managed and lives protected during a bushfire event. 	<p>AO4 <i>Emergency services</i> and uses providing community support services;</p> <ul style="list-style-type: none"> (1) are not located in a <i>bushfire hazard area</i>; and (2) ensures the <i>development footprint</i>, including internal driveways between buildings and from buildings to the roadway, does not traverse a <i>bushfire hazard area</i>.
<p>PO5 Development does not cause:</p> <ul style="list-style-type: none"> (1) an adverse risk to people, property and the environment due to the impact of bushfire on hazardous materials; and (2) excess danger or difficulty for emergency services to provide an emergency response or evacuation. 	<p>AO5 Development involving the storage, handling or manufacture of hazardous materials is not located within a <i>bushfire hazard area</i>.</p>

Performance Outcomes	Acceptable Outcomes
<p>PO6 Landscaping and fuel sources within the bushfire prone area between hazardous vegetation and building envelopes does not increase the potential for bushfire hazard.</p>	<p>AO6 Landscaping treatments and fuel sources within a bushfire prone area, and any hazardous vegetation and building envelopes are designed and managed to achieve:</p> <ol style="list-style-type: none"> (1) a potential available fuel load which is less than 5 tonnes/hectare in aggregate; and (2) a fuel structure which is discontinuous. <p><i>Note - A landscape maintenance plan may be required to identify the long-term management arrangements to be implemented to achieve the above Acceptable Outcome.</i></p>
<p>PO7 Development is designed to minimise vegetation clearing and avoid or minimise impacts on the natural environment and ecological processes.</p>	<p>AO7 Development is located in an area that does not require the removal of <i>native vegetation</i>.</p>
<p>PO8 Development outside reticulated water supply areas include a dedicated static supply that is available solely for fire-fighting purposes and can be accessed by fire-fighting appliances.</p>	<p>AO8 A water tank is provided within 10 metres of each building (other than a class 10 building) which:</p> <ol style="list-style-type: none"> (1) is either below ground level or of non-flammable construction; (2) has a take-off connection at a level that allows the following dedicated, static water supply to be left available for access by fire fighters: <ol style="list-style-type: none"> (a) 10,000 litres for residential buildings; (b) for industrial, commercial and other buildings, a volume specified in AS 2304–2011; (3) includes shielding of tanks and pumps in accordance with AS2304–2011; (4) includes a hardstand area (concrete or construction standard gravel) allowing medium rigid vehicle (15 tonne fire appliance) access within 6 metre of the tank; (5) is provided with rural fire brigade tank fittings if serviced by a rural fire brigade (i.e. 50 mm ball valve and male camlock coupling and, if underground, an access hole of 200mm (minimum) to accommodate suction lines); and (6) is clearly identified by directional signage at the street frontage.
<p>PO9 Where development is undertaken in an urban area or is for urban purposes a constructed perimeter road with reticulated water supply is established between the lot or building envelope and is readily accessible at all times for urban fire fighting vehicles.</p> <p>The access to the perimeter road is available for both fire-fighting and maintenance works for hazard</p>	<p>AO9.1 Lot boundaries or building envelopes are separated from hazardous vegetation by a public road which:</p> <ol style="list-style-type: none"> (1) has a two-lane sealed carriageway clear of hazardous vegetation; (2) contains a reticulated water supply; (3) is connected to public roads at both ends and at intervals of no more than 500 m;

Performance Outcomes	Acceptable Outcomes
<p>reduction purposes.</p> <p>Note - For a material change of use perimeter roads are unlikely to be required where a development site involves less than 2.5ha and alternative access is available.</p>	<p>(4) accommodates geometry, turning radii and vertical clearance in accordance with Queensland Fire and Emergency Services' Fire Hydrant and Vehicle Access Guidelines and the Department of Transport and Main Roads' Planning and Design Manual; and</p> <p>(5) allows and does not impede access for fire-fighting and maintenance for fire-fighting purposes.</p> <p>AO9.2 Where a reticulated water supply is available, fire hydrants are designed, sited and installed in accordance with AS2419.1-2009 Fire Hydrant Installations - System Design, Installation and Commissioning, and connected to a reticulated water supply, unless otherwise specified by the relevant water entity.</p>
<p>PO10 Where development is undertaken for non-urban purposes either a constructed perimeter road or a formed, all weather fire trail is established between the development (including lots or building envelopes) and the hazardous vegetation, and is readily accessible at all times for the type of fire-fighting vehicles servicing the area.</p> <p>The access to the perimeter road or fire trail is available for both fire-fighting and maintenance works or hazard reduction activities.</p> <p>Note - For a material change of use fire trails are unlikely to be required where a development site involves less than 2.5ha and alternative access is available.</p>	<p>AO10 Lot boundaries or building envelopes are separated from hazardous vegetation by a public road (as per AO19.1), or a fire trail which has:</p> <ol style="list-style-type: none"> (1) a reserve or easement width of at least 20 metres (2) a minimum trafficable (cleared and formed) width of 4 metres and no less than 4.8 metres vertical clearance, with 3 metres each side cleared of all flammable vegetation greater than 10 centimetres in height (3) no cut or fill embankments or retaining walls adjacent to the 4 metres wide trafficable path (4) The trail must be capable of accommodating a 10 tonne vehicle (5) The balance 10 metre width of the easement has managed vegetation to remove major surface hazards (6) turning areas and vertical clearances for firefighting appliances in accordance with Queensland Fire and Emergency Services' Fire hydrant and vehicle access guidelines (7) a maximum gradient of 12.5 per cent (8) a cross-fall of no greater than 10 degrees (9) drainage and erosion control devices in accordance with the standards prescribed in a planning scheme policy (10) vehicular access at each end, which is connected to the public road network at intervals of no more than 500 metres (11) designated fire-trail signage (12) if used, has gates locked with a system authorised by Queensland Fire and Emergency Services; and (13) if a fire trail, has an access easement that is

Performance Outcomes	Acceptable Outcomes
	<p>granted in favour of council and Queensland Fire and Emergency Services; and (14) allows and does not impede access for firefighting and maintenance for firefighting purposes.</p>
<p>PO11 Development is not located on slopes and land forms that expose people or property to an intolerable level of risk to life or property.</p>	<p>AO11.1 Development along ridgelines saddles and crests where adjacent slopes exceed 14 degrees is avoided.</p> <p>AO11.2 Development is located where the effective slope is less than 5 degree downslope.</p>
<p>PO12 To ensure the protection of peoples' lives and property, an area designated for revegetation or rehabilitation will not create an additional bushfire prone area.</p> <p><i>Note - If the acceptable outcomes are not met a bushfire hazard assessment in accordance with Planning Scheme Policy will need to be conducted to demonstrate areas designated for revegetation or rehabilitation will not create additional bushfire prone areas.</i></p>	<p>AO12.1 The dimensions and configuration of an area designated for revegetation or rehabilitation ensure the area does not have the ability to become a medium, high or very high bushfire prone area in the future.</p> <p>OR</p> <p>The landscaping treatments are designed to achieve;</p> <p>(1) potential available fuel load which is less than 5 tonnes/hectare in aggregate; and (2) fuel structure which is discontinuous.</p> <p>AO12.2 A landscape maintenance plan specifies long-term management arrangements necessary to ensure that:</p> <p>(1) potential available fuel load is maintained at less than 5 tonnes/hectare in aggregate; and (2) fuel structure remains discontinuous.</p>
<p>PO13 Where required, recreational parks or open space are located to act as a buffer between bushfire hazard areas and development and do not create additional bushfire hazard areas.</p>	<p>AO13.1 Recreational parks or open space are designed and located between buildings, building envelopes or lot boundaries and adjacent bushfire hazard areas.</p> <p>AO13.2 Recreational parks or open space are designed to ensure that:</p> <p>(1) potential available fuel load is maintained at less than 5 tonnes/hectare in aggregate; and (2) fuel structure remains discontinuous.</p>

Performance Outcomes	Acceptable Outcomes
<p>PO14 Essential infrastructure is designed or located to minimise the creation of ignition sources that would increase the potential risk of bushfires to people and property.</p>	<p>AO14 Major electricity infrastructure, Electricity distribution and transmission networks within the bushfire hazard area, are managed in accordance with <i>Electrical Safety Act 2002</i> and Regulation 2013.</p>
Reconfiguring a Lot (PO15 - PO20)	
<p>PO15 The safety of people and property are maintained by locating house site areas and other <i>vulnerable uses</i> on land or part of the land not affected or accessed by bushfire hazard.</p>	<p>AO15.1 (1) Land that is subject to bushfire hazard is not subdivided for residential or rural residential purposes; or (2) Proposed lots are sited on land or part of the land that is determined as having low bushfire hazard by a Bushfire Management Plan prepared by a <i>suitably qualified person</i> in accordance with Planning Scheme Policy 4 - Bushfire Management Plans.</p> <p><i>Note - Building envelopes or similar mechanisms will be used to control the future siting of buildings.</i></p> <p>AO15.2 Additional lots are not created where the only vehicular access route is through a <i>bushfire hazard area</i>.</p>
<p>PO16 Development is located and designed to incorporate a bushfire defensible space which achieves separation between buildings and hazardous vegetation necessary to reduce risk to an acceptable or tolerable level.</p>	<p>AO16.1 Lots or building envelopes are separated from hazardous vegetation by a distance that achieves a radiant heat flux level at any point on the building or envelope respectively of; (1) 10kW/m² where involving a vulnerable use; or (2) 29kW/m² otherwise.</p> <p><i>Note - The radiant heat levels and separation distances are to be established in accordance with method 2 set out in AS3959-2009.</i></p> <p>AO16.2 Building envelopes are provided that separate adjacent buildings or building envelopes by a distance of 8 metres.</p> <p>Note - a) <i>Where a separation distance is proposed to be achieved by utilising existing cleared developed areas external to the site, certainty must be established (through tenure or other means) that the land will remain cleared of hazardous vegetation.</i> b) <i>For staged developments, temporary separation distances, perimeter roads or fire trails may be absorbed as part of subsequent stages.</i></p>
<p>PO17 Lots are designed so that their size and shape allow for efficient emergency access to buildings for firefighting appliances.</p> <p>Note - Long driveways must accommodate turning areas for fire-fighting appliances in accordance with</p>	<p>AO17 Private driveways within individual lots: (1) a length no greater than 60 metres from the street to the dwelling; or (2) where exceeding a length of 60m, provide a turning bay with an 8m radius adjacent to</p>

Performance Outcomes	Acceptable Outcomes
<p><i>Queensland Fire and Emergency Services' Fire Hydrant and Access Guidelines.</i></p>	<p>the proposed location of any buildings; and (3) have a minimum formed width of 3.5m; and (4) have a minimum vertical clearance of 4.8m; and (5) serve no more than 3 dwellings or occupied buildings.</p>
<p>PO18 Development minimises the risk of damage to life and property from bushfires, by providing: (1) permanent access for fire-fighting vehicles; and (2) an adequate water supply for fire fighting purposes.</p>	<p>AO18.1 Development involving the opening of a new road in a bushfire hazard area: (1) provides through roads; or (2) avoids cul-de-sac and dead end roads; and (3) ensures road design is capable of providing access for fire fighting and other emergency vehicles.</p> <p>AO18.2 Development: (1) where reticulated water supply is available, incorporates a reticulated water supply that provides a reliable water supply that has a minimum flow and pressure of 10 litres per second at 200 kPa; or (2) where outside reticulated water supply areas, provides an accessible water tank that is provided within 10m of each building (other than a class 10 building) that (a) is either below ground level or of non-flammable construction; (b) has a take-off connection at a level that allows the following dedicated, static water supply to be left available for access by fire fighters: (i) 10,000 litres for residential buildings; (ii) for industrial, commercial and other buildings, a volume specified in AS 2304–2011; (c) includes shielding of tanks and pumps in accordance with AS2304–2011; (d) includes a hardstand area (concrete or construction standard gravel) allowing medium rigid vehicle (15 tonne fire appliance) access within 6m of the tank; (e) is provided with rural fire brigade tank fittings if serviced by a rural fire brigade (i.e. 50 mm ball valve and male camlock coupling and, if underground, an access hole of 200mm (minimum) to accommodate suction lines); and (f) is clearly identified by directional signage at the street frontage.</p> <p>AO18.3 Where a reticulated water supply is available, fire hydrants are designed, sited and installed in accordance with <i>Queensland Fire and Emergency Services Fire Hydrant and</i></p>

Performance Outcomes	Acceptable Outcomes
	<i>Vehicle Access Guidelines</i> , unless other specified by the relevant water entity.
<p>PO19 The development design: (1) minimises the area of development exposed to bushfire attack; and (2) establishes safe evacuation routes to achieve an acceptable or tolerable risk to people.</p> <p>Note - For example, developments should avoid finger-like or hour-glass subdivision patterns or substantive vegetated corridors between lots.</p>	<p>AO19 The development: (1) minimises the length of the development perimeter exposed to, or adjoining hazardous vegetation; (2) avoids the creation of bottle-neck points in the movement network within the development; (3) establishes direct access to a safe assembly/evacuation area in the event of an approaching bushfire; (4) ensures roads internal and external to the development are designed to have sufficient capacity for the evacuating population, and minimise traffic congestion in the event of a bushfire; and (5) ensures access routes do not expose occupants to bushfire hazard.</p> <p>Note - A safe assembly / evacuation area in (2) and sufficient capacity in (4) are to be determined by a bushfire hazard/risk assessment and/or bushfire protection plan.</p>
<p>PO20 Emergency services and community infrastructure are able to function effectively and immediately after a bushfire event.</p>	<p>AO20 Access and egress routes are: (1) public roads; (2) are designed to be used in all weather conditions; and (3) allow provision for safe passage of a fire appliance in accordance with <i>Queensland Fire and Emergency Services' Fire Hydrant and Vehicle Access Guidelines</i>.</p>