

BUSHFIRE MANAGEMENT PLAN

97 - 105 Upper Ormeau Road,
Kingsholme

LOT 2 RP29994 AND LOT 2
RP107328

PREPARED FOR: Kingsholme
Developments Pty Ltd

November 2016



gassman
development
perspectives

project coordination
urban + regional planning
landscape + urban design
environmental management
visualisation + spatial services
surveying services
advisory services

TABLE OF CONTENTS

1	INTRODUCTION	3
	1.1. BACKGROUND	3
	1.2. STATE PLANNING POLICY	4
2	HAZARD ASSESSMENT AND MANAGEMENT	
	RECOMMENDATIONS	6
3	ROADS AND FIRE TRAILS	7
	3.1. ROADS	7
	3.2. FIRE TRAILS	7
	3.3. DRIVEWAYS	8
4	HOUSE SITES AND CONSTRUCTION STANDARDS	9
5	LANDSCAPING AND REVEGETATION	11
6	FIREFIGHTING PROVISIONS	12
7	COMMUNITY ENGAGEMENT	13
	APPENDIX 1 - RESPONSE TO BUSHFIRE MANAGEMENT AREAS	
	CONSTRAINT CODES	14
	APPENDIX 1 - BUSHFIRE MANAGEMENT PLAN	28
	APPENDIX 2 – QFES FIRE PREPAREDNESS GUIDE	29

1 Introduction

1.1. Background

This Bushfire Management Plan (BMP) has been prepared in support of a large rural residential subdivision over land at 97 - 105 Upper Ormeau Road, Kingsholme described as Lot 2 RP29994 and Lot 2 RP107328. The site is mapped as containing low, medium and high areas of bushfire risk (Figure 1). This BMP has been prepared in accordance with the State Planning Policy and Gold Coast City Council's Bushfire Management Areas Constraint Code.

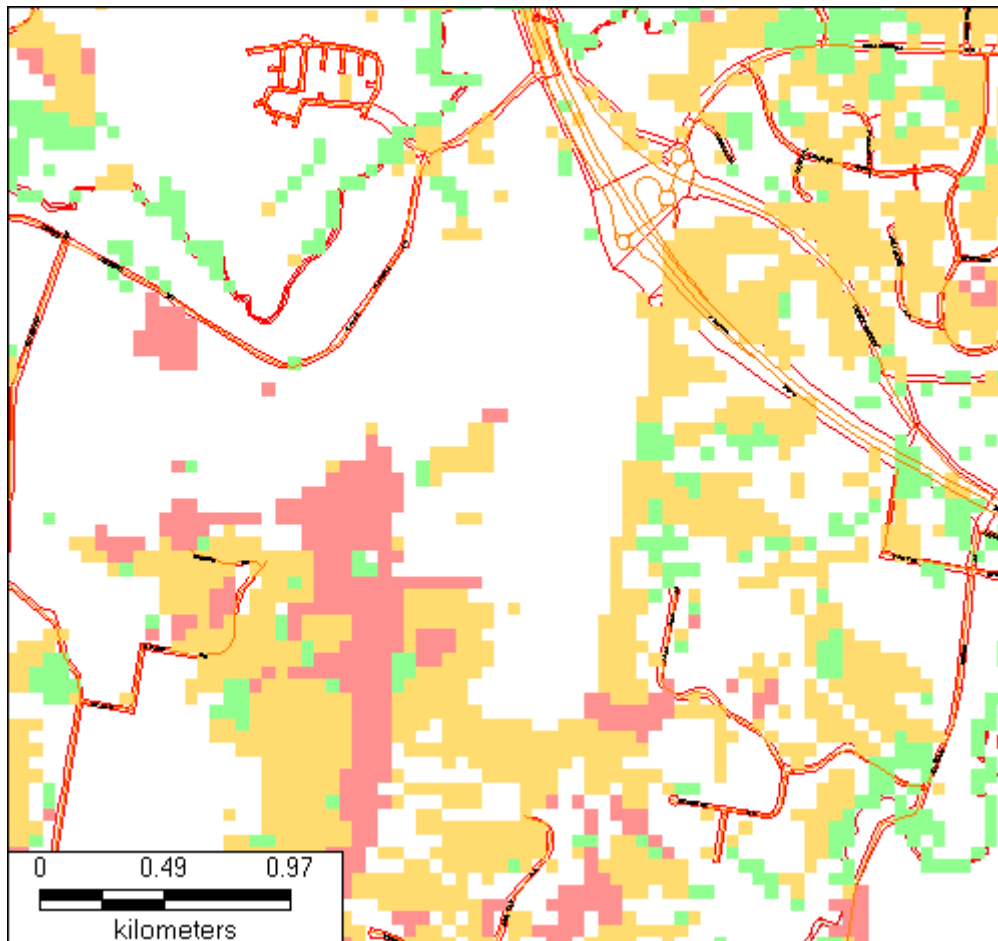


Figure 1 – Potential Bushfire Hazard Areas (Gold Coast City Council)

The purpose of this plan is to outline mitigation measures proposed to minimise the risk of bushfire to life and property on the subject site. This plan has been prepared to update a previous plan prepared in May, 2009 in response to changes to layouts proposed for the development in addition to changes to legislation and requirements in the interim period.

1.2. State Planning Policy

The Queensland Government State Planning Policy (SPP) contains all state interests into one consolidated document, including bushfire hazard risks. Figure 2 illustrates the potential bushfire risk as mapped by the SPP.

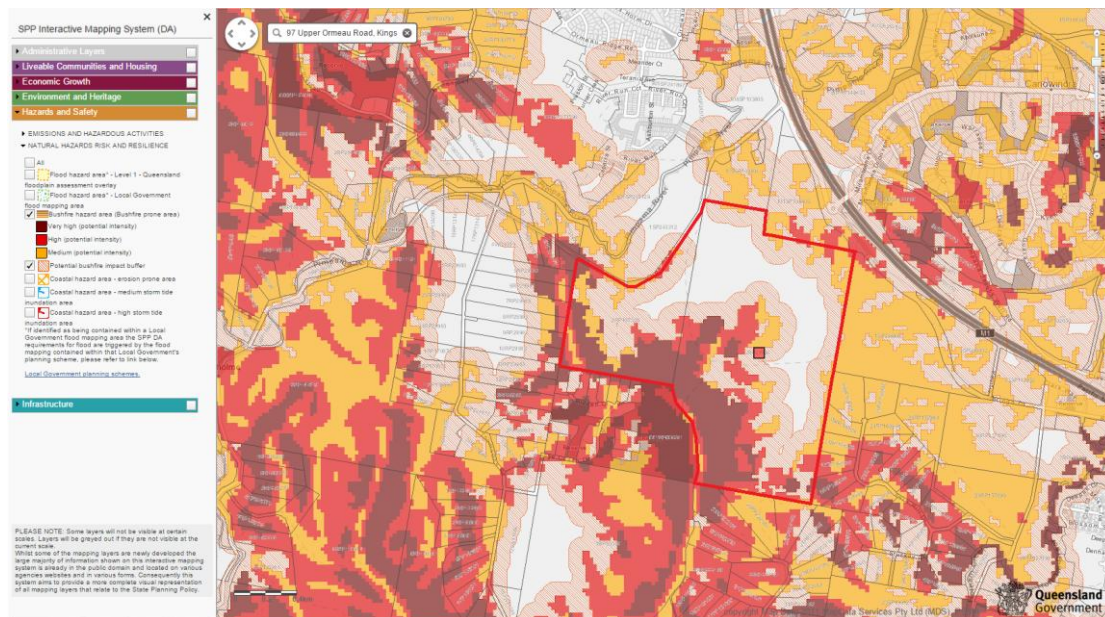


Figure 2 – State Planning Policy (SPP) Bushfire Risk Mapping

Table 1 below addresses the performance requirements as stated in the State Planning Policy.

Table 1 – SPP development requirements for natural hazards

Development Application Requirements	Response
(1) avoids natural hazard areas or mitigates the risks of the natural hazard to an acceptable or tolerable level	(1) The development is concentrated in currently cleared paddock areas and avoids areas of mapped high bushfire risk.
(2) supports, and does not unduly burden, disaster management response or recovery capacity and capabilities	(2) The development has been designed in accordance with acceptable standards to ensure that access for fire fighting personnel is unhindered. Adequate water supplies have also been designed for the subject site.
(3) directly, indirectly and cumulatively avoids an increase in the severity of the natural hazard and the potential for damage on the site or to other properties	(3) Because the development simply converts unvegetated paddocks to large residential lots, it is not considered likely to increase the severity of bushfire hazard.
(4) avoids risks to public safety and the environment from the location of hazardous materials and the release of these materials as a result of a natural hazard	(4) No hazardous materials will be stored which may increase public risks resulting from bushfire hazard.
(5) maintains or enhances natural processes and the protective function of landforms and vegetation that can mitigate risks associated with the natural hazard	(5) The development occurs downslope of the dominant fire threat and does not disturb natural processes and landforms as they currently mitigate bushfire risks.

2 Hazard Assessment and Management Recommendations

As can be seen in Figure 2, the risk of bushfire is primarily likely to exist in the southern portion of the site where the majority of the retained bushland is located. The majority of the development is proposed in already cleared paddocks, with further buffers to existing adjacent bushland areas.

Because the future dwellings will be located downslope of the primary bushfire threat, the general bushfire threat over the site is considered to be **low** to **medium**. The potential bushfire hazard areas with a high rating as identified in Figure 1 above are represented by the retained bushland areas in the areas of higher topography. The primary bushfire risk is represented by the areas of extant bushland contained in the upper topography in the southern portions of the subject site (Appendix 1). These corridors will be managed for fuel loads to ensure that bushfire risks are minimised in these areas.

3 Roads and Fire Trails

3.1. Roads

All roads proposed to be constructed will be done so in accordance with Gold Coast City Council's Policy 11 – Land Development Guidelines (2005, amended 2013). In accordance with this guideline, adequate access for firefighting vehicles will be provided to all areas of the proposed development.

3.2. Fire trails

Fire trails will be constructed to indicative locations as shown on the development plan. Where topography allows, they have been proposed as close as possible to the interface of lot boundaries and unmanaged bushland as both a setback from dominant firefront and also access for firefighting vehicles. The steep grades in some areas of the site such as those in proximity to Stage 2b have resulted in alignment of tracks away from the edge of lots.

Access to these tracks will be made available from cul de sac heads and adjacent roadways which intersect the indicative fire trails. Existing fire trails occurring throughout the park areas will be retained and maintained as fire trails where possible. Locked gates constructed to Gold Coast City Council standard drawings as per the Land Development Guidelines will be installed on each fire trail entrance from roadways to prevent unauthorised access. The proposed locations of fire trails and access gates are included in Appendix 1.

Firetrails are proposed to have a minimum 4m formed width with a 6m maintained width wherever possible. Passing bays will be constructed every 200m. In places where significant battering and earthworks would be required to maintain a 4m formed width, 3m wide sections are proposed. Firetrails will be maintained by slashing.

A firetrail has not been constructed along the southern boundary of the site because a firetrail on the adjoining Council parklands abuts this boundary and intersects with one of the firetrails on the subject site.

3.3. Driveways

Driveways accessing private lots will be constructed in accordance with relevant Australian Standards and Council requirements. Driveway gradients will not exceed 25% and cross slopes not exceeding 5%. Because driveways are constructed to access house lots, they will not require passing bays. Because driveways are not at risk of damage by bushfire, they are permitted to be constructed in bushfire hazard areas.

4 House sites and construction standards

Building envelopes have been nominated for all proposed lots. Each building envelope represents appropriate setbacks from adjacent bushfire risk for lots abutting future bushland areas in consideration of radiation zones. This includes an inner 10m zone within which lawns shall be mowed and no vegetation is to be located except for maintained landscaping comprised of fire retardant species, and an outer 10m zone which will be managed for fuel loads and shrubs managed to ensure they are under 2m in height.

The fire trails proposed to be located immediately behind lots are considered to offer additional setbacks for houses in this area.

Houses located in high and medium bushfire prone areas will be required to be constructed in accordance with Australian Standard AS3959-2009. These include dwellings within 100m of a medium bushfire area. If houses are located more than 100m from a medium bushfire hazard area, they will not require construction to bushfire hazard standards. Specific house building standards for individual dwellings should be addressed at the time of house building approval stage to ensure that assessments reflect the current vegetation present in the surrounding areas.

The following list of lots are impacted by potential bushfire hazard and will be required to meet bushfire mitigation measures. The locations of these lots can be found in Appendix 1. Specific ratings for individual dwellings will be undertaken at house building approval stage.

Table 1 – Private lots affected by potential bushfire hazard

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	36	37	38	39	40	41	42
43	48	49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64	65	66
67	68	69	70	71	72	73	74	75	76
85	86	93	94	95	96	97	98	99	100
101	104	105	106	107	108	109	115	116	117
122	123	124	125	130	131	132	133	138	139
140	141	144	145	146	147	148	149	150	153
154	155	156	157						

5 Landscaping and revegetation

Lots with exposure to adjacent bushland will be constructed with radiation zones taken into consideration. Radiation zones include a 10m 'inner' zone which is to be slashed and maintained in addition to a 10m 'outer' zone within which fuel loads will be maintained. Driveways should also be maintained for build up of fuel loads and low hanging branches managed to ensure fire spread risk is minimised.

The 100m buffer to Upper Ormeau Road, proposed for the purpose of undertaking road works, is to be managed grassland in order to reduce build up of fuel loads which may represent a safety hazard to persons or property.

Any rubbish, wood or other maintained vegetated material which has been cleared out of the 10m inner zones around houses must be removed from site. It must not be moved down slope on the site as this would result in higher fuel loads and a subsequent increase in the potential bushfire hazard for a site.

Landowners with pole homes must ensure that flammable materials are not stored or permitted to accumulate underneath the house which may increase bushfire mitigation measures.

In some cases, maintenance burning may be required in the retained and revegetated bush areas. Residents should be advised of this requirement prior to purchasing land in the estate.

Landscaping to be implemented on the site will be select species known to be fire retardant.

Covenant areas that form part of the inner protection area (IPA) and outer protection areas (OPA) of building envelopes will be rehabilitated in accordance with IPA and OPA requirements to ensure that they comply with bushfire requirements.

6 Firefighting Provisions

The site will be fully connected to reticulated water and appropriate water supply infrastructure in the form of fire hydrants will be constructed to allow adequate access for firefighting personnel to access. Private individual swimming pools and water tanks may provide further sources of water should they be required.

However, Lots 76, 115 and 116 cannot meet the pressure requirements for water supply. As a result, minimum 5000L dedicated water supply tanks will be constructed on these three lots in addition to the 22,500L tanks which are proposed for all lots. Alternatively, a reserve section may be built into the 22,500L tank for this purpose or a swimming pool constructed directly behind the dwelling.

The recommended bushfire mitigation measures will be implemented prior to plan sealing for each relevant stage in accordance with the development plan.

7 Community Engagement

Community education for residents of this housing estate will be critical to adequate implementation of the bushfire management plan for the subject site. Residents should be made aware of the importance of maintaining ground fuels on their lots in relation to minimising fire risks. Education relating to not dumping garden wastes or other rubbish into the interface between residential areas and adjacent bushland and fire risks should be communicated to residents and a copy of this Bushfire Management Plan made available to all future residents as part of the contract of sale.

The Rural Fire Service of Queensland releases a fire preparedness guide which is included in Appendix 2 to this report. This guide should be provided to all residents upon purchase of land within the subject site.

Appendix 1 - Response to Bushfire Management Areas

Constraint Codes

Part 7 Codes

Division 3 Constraint Codes

Chapter 2 Bushfire Management Areas

2.0 Purpose

This code seeks to regulate development occurring in Potential Bushfire Hazard Areas through land use and development practices that ensure appropriate fire mitigation measures are adopted to protect life and property from bushfires.

This code also seeks to ensure that water supply facilities, with fire fighting vehicle fittings and appropriate access arrangements, are provided in new developments.

The ecological role of fire is recognised in this code, and protecting and maintaining the biodiversity and health of ecological systems of the Gold Coast City is a priority.

Land identified on **Overlay Map OM10 – Potential Bushfire Hazard Areas**, and confirmed through site-based assessment as being in a Medium or High Potential Bushfire Hazard Area, should be considered as designated bushfire prone areas for the purposes of the **Building Code of Australia** and **AS3959-1999 Construction of Buildings in Bushfire-Prone Areas**, and all Building Work must be carried out in a manner consistent with this standard.

Application

This code applies to any development indicated as self, code or impact assessable in the Table of Development of the Domain or Local Area Plan (LAP) within which the development is proposed.

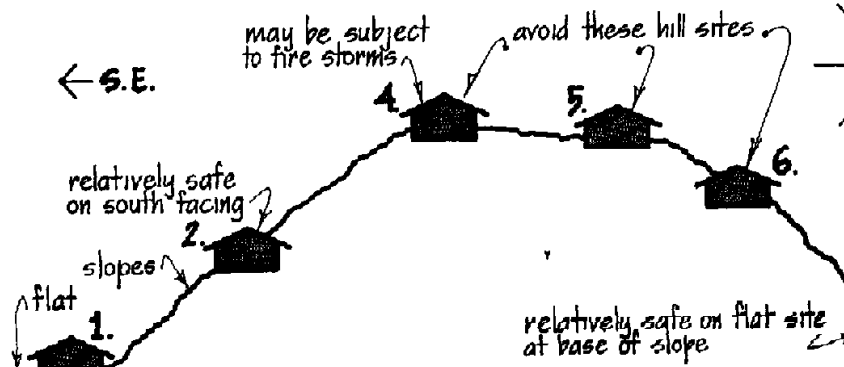
In particular, this code applies to land identified on **Overlay Map OM10 – Potential Bushfire Hazard Areas** as being of at least Medium Potential Bushfire Hazard. As the map has been prepared at a citywide scale, it should be used as a trigger for the consideration of bushfire

hazard issues. In each case, detailed site specific assessment will be required as part of the development process to determine the level of potential bushfire hazard on the site and, therefore, actual development requirements.

Performance Criteria PC1-PC15 apply to all code and impact assessable development subject to this code. For development identified as self assessable, only the acceptable solutions to Performance Criteria PC1-PC3 apply.

3.0 Development Requirements

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Development that is Self Assessable, Code Assessable or Impact Assessable			
Bushfire Hazard			
<p>PC1</p> <p>The fire mitigation methods used at the site must be adequate for the Potential Bushfire Hazard rating of the individual site, having regard to:</p> <ul style="list-style-type: none"> a) vegetation type; b) slope; c) aspect; d) on-site and off-site fire hazard implications of the development; e) bushfire history; f) conservation values of the site; g) ongoing maintenance. 	<p>AS1.1.1</p> <p>A Fire Management Plan has been prepared in accordance with Planning Scheme Policy 9 – Guidelines for Preparing Fire Management Plans, and the development complies with the Fire Management Plan.</p> <p>OR</p> <p>AS1.1.2</p> <p>The development is for a detached dwelling, located within a lot that has been created by a residential subdivision approval under one of the superseded Planning Schemes (ie. the lot is intended to be serviced by sewerage reticulation) and the development complies with the conditions of the subdivision approval.</p> <p>OR</p> <p>AS1.1.3.</p> <p>A written assessment by a competent person confirms that the subject site is of Low Potential Bushfire Hazard or has a lower rating; accordingly specific fire mitigation measures are not mandated for the development.</p>	<p>PC1 – Proposal Complies</p> <p>The report accompanying this code response is a Fire Management Plan prepared in accordance with Planning Scheme Policy 9 – Guidelines for Preparing Fire Management Plans.</p>	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Siting			
<p>PC2 Buildings must be sited to minimise the Potential Bushfire Hazard and maximise the protection of life and property from bushfire.</p> <p>Note: <i>This does not apply to sites where a written assessment by a competent person confirms that the subject site is of Low Potential Bushfire Hazard or has a lower rating.</i></p>	<p>AS2.1 Houses are located away from the most likely direction of a fire front, or on a flat site at the base of the slope (refer Figure 2-1).</p> <p>AS2.2 The Fire Management Plan clearly identifies the preferred location of building sites, and the building is located within these areas.</p>	<p>PC2 – Proposal Complies The likely firefront occurs upslope of the proposed houses.</p>	
<p>Figure 2-1: Preferred House Site Location in High and Medium Potential Bushfire Hazard Areas. Source: adapted from QDHLGP (1993) Bushfire Hazard Planning in Queensland.</p> 			

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
House sites are numbered in order of the degree of fire safety.			
Building Design and Construction			
<p>PC3</p> <p>A building proposed in a designated Bushfire Prone Area (ie. in an area confirmed through site-based assessment to be subject to High or Medium Potential Bushfire Hazard) must be designed and constructed to maximise the protection of life and property from bushfire.</p>	<p>AS3</p> <p>The building is constructed in accordance with the requirements of the Building Code of Australia and, where relevant, AS3959-1999 – Construction of Buildings in Bushfire-Prone Areas.</p>	<p>PC3 – Proposal complies</p> <p>Buildings within medium and high fire hazard zones will be subject to building certification which will require individual Bushfire Attack Level (BAL) reports for each</p>	
Development that is Code Assessable or Impact Assessable			
Private Water Supply – In Areas with No Water Reticulation			
<p>PC4</p> <p>The development proposed in a High and/or Medium Potential Bushfire Hazard Area must provide an adequate water supply for fire fighting purposes.</p>	<p>AS4.1.1</p> <p>The property contains one dwelling, and the water supply has a volume of water not less than 5,000 litres, and is either:</p> <ul style="list-style-type: none"> a) a separate tank; and/or b) a reserve section in the bottom part of the main water supply tank; and/or c) a swimming pool installed immediately upon construction of the dwelling <p>OR</p> <p>AS4.1.2</p> <p>The property contains more than one</p>	<p>Not Applicable</p> <p>All proposed new lots are to be connected to water reticulation with the exception of lots 76, 115 and 116 which have insufficient water pressures and will comply with the 5,000L separate tank, reserve section or swimming pool.</p>	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	dwelling and the water supply is provided to protect each individual dwelling, and has a volume of water not less than 10,000 litres, and is: <ul style="list-style-type: none"> a) a separate tank; and/or b) a reserve section in the bottom part of the main water supply tank; and/or c) a swimming pool installed immediately upon construction of the home. 		
PC5 In areas of High and/or Medium Potential Bushfire Hazard, all on-site water supply tanks, including domestic water supply tanks, must be fitted with the standard rural fire brigade fittings for emergency fire fighting purposes.	AS5 The water supply is fitted with a 50mm male camlock (standard rural fire brigade fitting).	Not Applicable All proposed new lots are to be connected to water reticulation.	
PC6 Water supply provided for fire fighting purposes must be safely located and freely accessible for fire fighting purposes at all times.	AS6.1 The water supply outlet is located remote from any potential fire hazards, such as venting gas bottles, a burning house and burning sheds. AS6.2 The outlet pipe is 50mm in diameter and fitted with a 50mm male camlock (standard rural fire brigade fitting). AS6.3 A hardstand area is provided not	Not Applicable All proposed new lots are to be connected to water reticulation.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	more than six metres from the water supply outlet or, where applicable, a swimming pool.		
Private Water Supply – In Areas with Water Reticulation			
<p>PC7</p> <p>The water supply must be reliable, and have sufficient flow and pressure requirements for fire fighting purposes at all times.</p>	<p>AS7</p> <p>The development is proposed in a High and/or Medium Potential Bushfire Hazard Area, and reticulated water is supplied in accordance with Planning Scheme Policy 11 – Land Development Guidelines.</p>	<p>PC7 – Proposal Complies</p> <p>Reticulated water is supplied to the site in accordance with Planning Scheme Policy 11 – Land Development Guidelines.</p>	
Public Water Supply – In Areas with No Water Reticulation			
<p>PC8</p> <p>The development proposed in a High and/or Medium Potential Bushfire Hazard Area must provide an adequate water supply which is readily accessible to fire brigades for fire fighting purposes.</p>	<p>AS8.1</p> <p>Where public water supplies, fire hydrants, public water storage or permanent waterways do not exist, water tanks are provided on public land within the development. The water tanks:</p> <ul style="list-style-type: none"> a) hold a volume of at least 22,500 litres; b) are of concrete construction; and c) fitted with a 50mm male camlock (standard rural fire brigade fitting). <p>AS8.2</p> <p>A hardstand area is provided not more than six metres from the water supply outlet.</p>	<p>Not Applicable</p> <p>All proposed new lots are to be connected to water reticulation.</p>	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Clearing and Landscaping			
<p>PC9 The development proposed in a High and/or Medium Potential Bushfire Hazard Area must undertake appropriate vegetation clearing and landscaping to mitigate fire hazard.</p>	<p>AS9 The Fire Management Plan addresses appropriate vegetation clearing and landscaping. Note: <i>Part 7, Chapter 36 – Vegetation Management specifies the maximum area of clearing permitted by the Planning Scheme for bushfire hazard mitigation. The Fire Management Plan may recommend lesser clearing on the basis of the specific nature of the development and of the site and the use of alternative fire hazard mitigation measures such as landscaping with fire retardant species.</i></p>	<p>AS9 – Proposal Complies Landscape species will be selected from fire retardant species palettes. Further clearing to mitigate fire risk</p>	
Fire/Maintenance Trails			
<p>PC10 Fire/maintenance trails must be provided to: a) enable access for fire fighters, residents and equipment; b) mitigate against fire hazard; and</p>	<p>AS10.1 The development is proposed in a Medium Potential Bushfire Hazard Area, and the subdivision design incorporates fire/maintenance trails located as close as possible to the boundaries of the lots and the</p>	<p>PC10 – Proposal Complies Firetrails are proposed at the rear of lots adjoining the bushland areas. They will be connected between cul de sac heads and adjoining roadways and will have passing bays at 200m intervals. Fire trails will comply with all</p>	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
c) allow fuel reduction activity.	<p>adjoining bushland.</p> <p>AS10.2 The fire/maintenance trail has:</p> <ul style="list-style-type: none"> a) a minimum cleared width of six metres; b) a minimum formed width of four metres; and c) a maximum gradient of 16%, with adequate drainage to prevent soil erosion and minimise ongoing trail maintenance. <p>AS10.3.1 Vehicular links are provided along the fire/maintenance trail either to existing fire/maintenance trails or roads, and these links are designed having regard to the topography of the site, fire fighter safety and the need to regularly access water supplies.</p> <p>AND</p> <p>AS10.3.2 The fire/maintenance trail has vehicular access at each end, and links either to existing fire/maintenance trails or roads.</p> <p>OR</p> <p>AS10.3.3 Vehicular access at each end of fire/maintenance trails does not exist, and a turning circle is provided for</p>	construction requirements.	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	<p>turning of fire fighting vehicles.</p> <p>OR</p> <p>AS10.3.4 Vehicular access at each end of fire/maintenance trails does not exist, and a 'T' or 'Y' shaped turning bay is provided for turning of fire fighting vehicles.</p> <p>AS10.4 The fire/maintenance trail provides areas for vehicles to pass or turn at intervals of not more than 400 metres and with a maximum grade of 5% (1 in 20).</p> <p>AS10.5.1 Fire/maintenance trails are located on public land (including public open space areas) to facilitate access for fire brigades.</p> <p>OR</p> <p>AS10.5.2 Fire/maintenance trails are located on public land (including public open space areas) to facilitate access for fire brigades and other purposes, such as pedestrian and cycling access.</p> <p>OR</p> <p>AS10.5.3 Fire/maintenance trails are located on</p>		

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	the site, and an access easement is granted in favour of Council and fire brigades.		
Advice to New Residents			
<p>PC11</p> <p>Reconfiguring a Lot occurs in a High and/or Medium Potential Bushfire Hazard Area and new residents must be informed about:</p> <p>a) the potential bushfire hazard on their site;</p> <p>b) their responsibility for fire management; and</p> <p>c) the measures available for ongoing fire hazard mitigation.</p>	<p>AS11</p> <p>A copy of the Fire Management Plan is provided to each resident for the information of occupants.</p>	<p>PC11 – Proposal complies</p> <p>A copy of the Fire Management Plan will be provided to each resident for the information of occupants.</p>	
Vehicular Access			
<p>PC12</p> <p>The vehicular access (including internal roads) must be designed to mitigate against bushfire hazard by ensuring adequate access for:</p> <p>a) fire fighting and other emergency vehicles; and</p> <p>b) the evacuation of residents and emergency personnel, in the event of an emergency.</p>	<p>AS12.1</p> <p>The development is proposed in a High Potential Bushfire Hazard Area, and the Reconfiguring a Lot design incorporates a perimeter road that:</p> <p>a) is located between the boundary of the lots and the adjacent bushland;</p> <p>b) has a minimum cleared width of 20 metres;</p> <p>c) has a constructed road width of six metres; and</p>	<p>AS12 – Proposal Complies</p> <p>Permanent cul de sac heads which abut the bushfire hazard area will have a minimum cleared width of 20m. In lieu of a perimeter road, a fire trail traversing the entire interface between the development and the adjacent bushland will be constructed. This fire trail will contribute to increasing the setback of the development for fire safety reasons and will ensure adequate access to all bushfire prone areas from within the</p>	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
	<p>d) is constructed to an all weather standard (refer Figure 2-2).</p> <p>AS12.2 The road design is capable of providing access for fire fighting and other emergency vehicles, in accordance with Planning Scheme Policy 11 – Land Development Guidelines.</p> <p>AS12.3 Reconfiguring a Lot is proposed to occur in a High Potential Bushfire Hazard Area, and all roads are through roads and <i>culs-de-sac</i> are not utilised (refer Figure 2-2).</p>	development.	
Figure 2-2: Preferred Road Layout in High Potential Bushfire Hazard Areas			

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
Unacceptable design with a High Risk – Hazardous ridge top development has no breaks and obstructs fire fighters.	Acceptable design – Ring road system provides a fire break and access for fire fighters.		
	<p>AS12.4.1 Reconfiguring a Lot is proposed to occur in a Medium Potential Bushfire Hazard area, and <i>culs-de-sac</i> are not more than 200 metres in length, and intersect or are met by a cross road or connecting road.</p> <p>OR</p> <p>AS12.4.2 Reconfiguring a Lot is proposed to occur in a Medium Potential Bushfire Hazard area, and <i>culs-de-sac</i> are utilised, and an alternative access links the <i>cul-de-sac</i> to other through roads.</p>		
Lot Layout			
<p>PC13 In areas of High and/or Medium Potential Bushfire Hazard, access and internal roads must be constructed for the safe and effective operational use of the water supply and equipment on the fire fighting vehicles.</p>	<p>AS13 The development is proposed in a High and/or Medium Potential Bushfire Hazard Area, and roads are designed and constructed in accordance with Planning Scheme Policy 11 – Land Development Guidelines.</p>	<p>PC13 – Proposal Complies Roads will be designed and constructed in accordance with Planning Scheme Policy 11 – Land Development Guidelines.</p>	

Performance Criteria	Acceptable Solutions	How does the proposal comply with the Acceptable Solution or Performance Criteria?	Internal Use: Has compliance with the Acceptable Solution/ Performance Criteria been demonstrated? Is a request for further information required?
<p>PC14</p> <p>The lot layout of residential developments must be designed to mitigate any Potential Bushfire Hazard and provide safe sites for dwellings.</p>	<p>AS14</p> <p>Residential lots are not located wholly within a High Potential Bushfire Hazard Area, and the building envelope is located in a lower Potential Bushfire Hazard Area of the site.</p>	<p>PC14 – Proposal complies</p> <p>The proposed development does not propose lots in areas of high bushfire risk area. The high bushfire risk areas are located up the slope of the areas proposed to be retained as public open space.</p>	
Land Use			
<p>PC15</p> <p>Any Material Change of Use, other than a detached dwelling, must not result in a high concentration of people living or congregating in a High Potential Bushfire Hazard Area.</p>	<p>AS15</p> <p>The following uses are inappropriate in the High Potential Bushfire Hazard Area:</p> <ul style="list-style-type: none"> a) educational establishment; b) hospital; c) aged persons accommodation; d) caravan park; e) child care centre; f) community care centre; g) corrective institution; h) ecotourism facility; i) minor tourist facility; or j) tourist cabins. 	<p>PC15 – Proposal Complies</p> <p>None of the listed uses is proposed or contemplated within high bushfire hazard areas.</p>	

Appendix 1 - Bushfire Management Plan



STAGE SUMMARY	STAGE 2A	STAGE 2B	STAGE 2C	STAGE 2D	STAGE 3	STAGE 5	STAGE 6	STAGE 7A	STAGE 7B
TOTAL STAGE AREA	13.261Ha	47.345Ha	20.531Ha	11.267Ha	24.065Ha	18.457Ha	48.047Ha	44.687Ha	9.814Ha
- Public Use Land Area (including Drainage Reserve areas)	-	42.08Ha	6.339Ha	-	22.066Ha	7.577Ha	33.826Ha	27.754Ha	4.897Ha
- Lot area	11.057Ha	4.632Ha	11.91Ha	9.732Ha	2.0Ha	9.307Ha	12.055Ha	14.706Ha	3.699Ha
- Road area	2.204Ha	6330m ²	2.282Ha	1.535Ha	-	1.573Ha	2.166Ha	2.227Ha	1.219Ha

NOTE:
Equal Area transfer between Lot 912 (Drainage Reserve) and Lot 900(Pt) (Public Use Land)

Client:
MONTEGO Hills
for
Designed for Living
villawood properties

Site Address:
MONTEGO HILLS
Upper Ormeau Road,
Kingsholme

RPD:
Lot:
Plan:
Parish:
County:
Local Authority:
Level Datum:
Meridian:

2/RP29994, 2/RP107328,
1/SP243312
Pimpama
Ward
Gold Coast City
Council
AHD of
RP107328

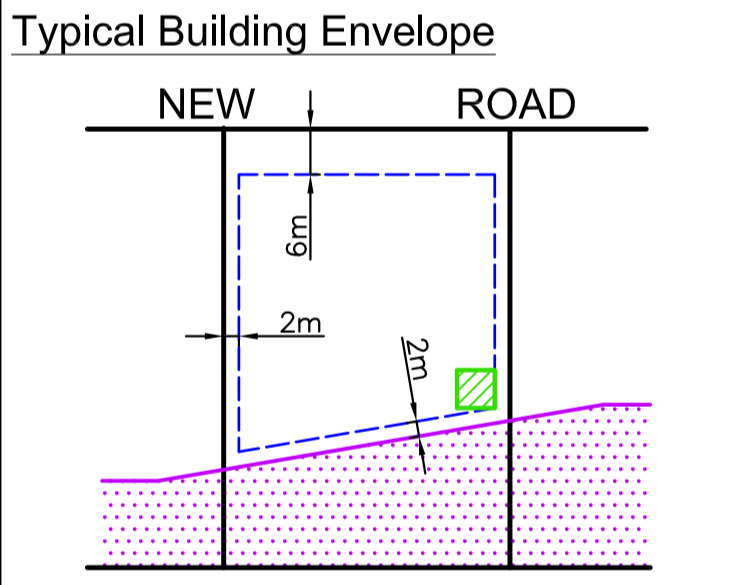
Associated Consultants:
MORTON
urbansolutions
Urban & Regional Planning
Civil Engineering
Project Coordination

© 2012 Gassman Development Perspectives
All rights reserved. No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the written permission of Gassman Development Perspectives.
This plan has been prepared for the exclusive use of the client as stated on this plan for the purpose of application to the relevant local authority for material change of use and/or reconfiguration of the land as described and should not be used by any other person or corporation and for any other purpose.
Property boundaries have not been defined by this survey and have been compiled from RP.
All dimensions are approximate only and subject to survey.
This plan may not be photocopied unless these notes are included.
Gassman Development Perspectives Pty. Ltd. accepts no responsibility for any loss or damages caused in contravention of the above.
Gassman Development Perspectives Pty. Ltd. hereby grants permission for the local authority as noted to reproduce all relevant information contained herein for the purposes stated in the Sustainable Planning Act 2009. It should be noted that granting of this consent by the copyright holder does not sign away copyright approval under the Commonwealth Copyright Act 1968.

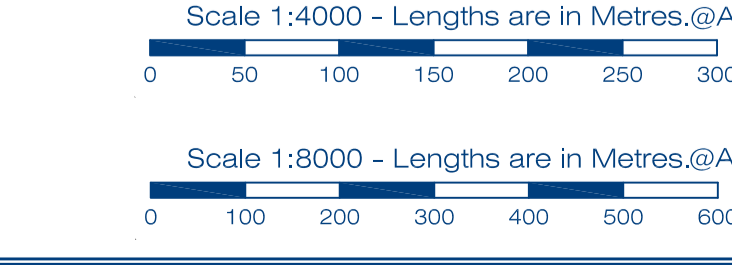
Issue	Date	Description	DRN/CHK
S	18-01-17	Amended Fire Trails	RGM AWG
R	17-11-16	Revised Note 2 & Added PMT to Stage 5	RGM AWG
D	13-10-16	Amended Issue	RGM AWG
P	16-08-16	Effluent Areas Revised and Stage Summary Details Updated	NDB AWG
O	21-07-16	Revised Stages 4, 5 & 6	RGM AWG
N	14-07-16	Stage 2C added to Stage 3	RGM AWG
M	23-03-16	Additional Drainage Reserve	SJH BFG
L	02-03-16	Changes to Drainage Reserve	SJH BFG
K	18-12-15	Stage Summary Table	SJH BFG
J	14-08-15	Additional note, remove stage line	SJH BFG
I	20-07-15	Revised Effluent Disposal areas from Borne Consulting	SJH BFG
H	18-07-15	Removing road lots in 36, 40, 41, 42	SJH BFG
G	06-07-15	Additional Cov Lots 57-59	SJH BFG
F	03-07-15	Additional Cov. Road dedication	SJH BFG

DEVELOPMENT SUMMARY	
Total Site Area 235.813Ha	
(Lot 2 on RP29994 - 159.044Ha)	
(Lot 2 on RP107328 - 52.609Ha)	
(Lot 1 on SP243312 - 24.16)	
Public Use Land / Drainage Area	144.6363Ha
Area of New Road	13.8356Ha
Total No. of Lots	157 Lots
Smallest Lot Area (excluding Lot 157)	4047m ²
Largest Lot Area (excluding Lot 157)	1.496Ha
Average Lot Area (excluding Lot 157)	4942m ²

LEGEND	
	Covenant Areas
	Building Envelopes
	Indicative Effluent Disposal Areas
	Indicative Fire Breaks / Trails
	20m setback to edge of building envelope for bushfire hazard area



NOTE:
1. SITE COVER TO NOT EXCEED 40% OF THE LOT SIZE OR 2,000m², WHICHEVER IS THE LESSER.
2. FINAL EFFLUENT DISPOSAL AREAS MUST BE LOCATED WITHIN APPROVED BUILDING ENVELOPE AREAS, OUTSIDE OF APPROVED COVENANT AREAS AND IN ACCORDANCE WITH ALL REQUIRED SETBACKS AS PER THE QUEENSLAND PLUMBING AND WASTEWATER CODE AND AS/NZS 1547.



Scale at A1: 1:4000

Date: 18-01-17

Design: AWG

Drawn: SJH

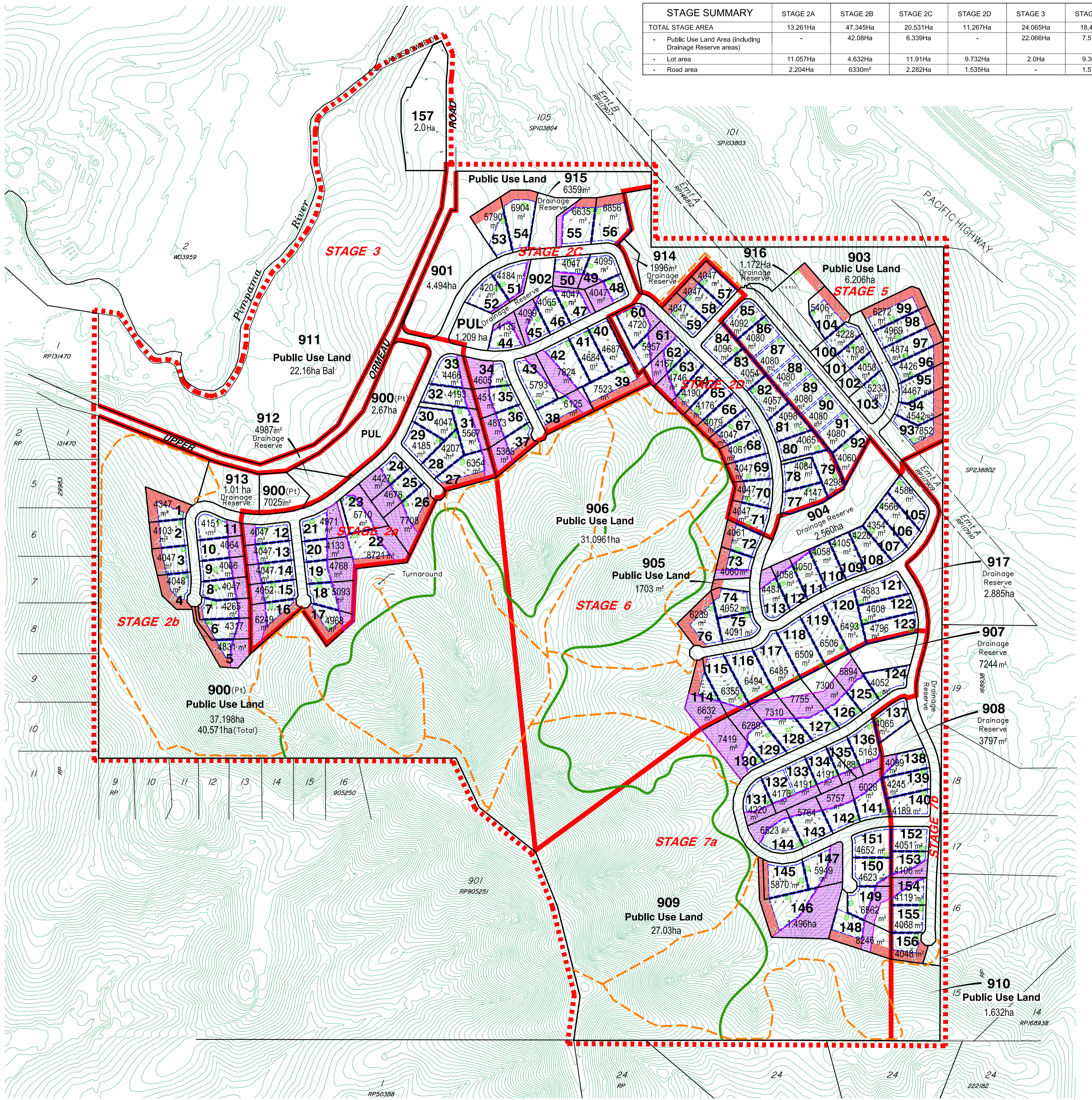
Checked: BFG

Drawing Title:
PROPOSED STAGED RECONFIGURATION OF A LOT PLAN - Bushfire Management Provisions

Cancelling Lot: 2 on RP29994, Lot 2 on RP107328 & Lot 1 on SP243312

gassman development perspectives
est. 1985
planning | environment | landscape | engineering | survey
T: 3807 3333 | F: 3287 5461 | www.gassman.com.au
5/44 Coast & Logan | 176 Business Street, Yamba Q.C. | PO Box 392, Beerwah 4207

Drawing No: 5543 P ROL 12S
Rev. No:



Appendix 2 – QFES Fire Preparedness Guide

Bushfire Survival Plan

PREPARE. ACT. SURVIVE.





You must **PREPARE** . **ACT** . **SURVIVE** .

Your main priority is to ensure that you and your family are safe. During a bushfire, you and your family's survival and safety depend on your preparations, and the decisions you make.

The lives of you and your family are more important than any building.

Whether your plan is to leave early or stay, you must prepare your home and property to increase their levels of resilience and your chances of survival.

Bushfires in Queensland

The fire season in Queensland normally commences in the far north of the state in July and progresses through to southern areas as spring approaches. The fire season can extend through to February in southern and far south-western Queensland. These time frames can vary significantly from year to year, depending on the fuel loads, long-term climate, and short-term weather conditions in each area.

There are four key considerations for dealing with bushfire:

- The safety of you and your family.
- The resilience of your property.
- The protection of irreplaceable valuables and important documents.
- The maintenance of adequate levels of insurance.

This document will provide you with information about the things you need to consider to prepare yourself and your home for the bushfire season, and how to make your own personal Bushfire Survival Plan.

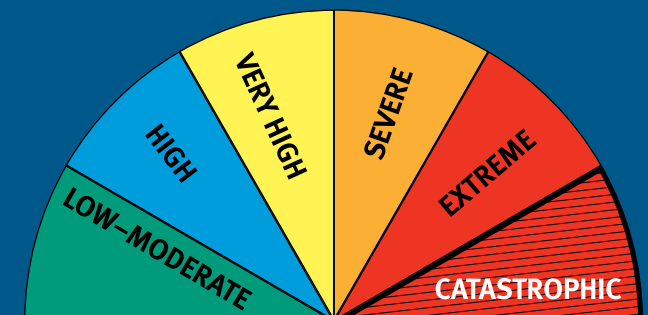
It is your responsibility to prepare yourself, your family and your home for the threat of bushfire.

Understand your risk

The first step in planning to survive a bushfire is to understand your own level of risk. By understanding your own level of risk, you will be able to make informed decisions that are right for you and your family. Included with this Bushfire Survival Plan is a self-assessment tool that will enable you to gauge the risk level associated with your property. If you are still unsure of your level of risk or require assistance, contact your local fire station for more information. To book a Bushfire Safety presentation, call 13 QGOV (13 74 68).

Fire danger ratings

The increased frequency of extreme bushfires in Australia in the last 10 years and the recent experience of the Black Saturday fires in Victoria have encouraged fire services throughout Australia to introduce new levels of Fire Danger Rating (FDR). A lift-out chart of the FDR system is contained within this document. Display it in a prominent place in your home, or keep it with your Bushfire Survival Plan.



Catastrophic fire danger rating

The highest level is catastrophic. On a day of catastrophic FDR, leaving early is the only option to ensure your survival. You must relocate early to a safer location hours before a fire approaches, or even the day before. Under no circumstances will it be safe to stay with your property.

Extreme fire danger rating

The second highest level is extreme. Should a fire occur in your area on a day of extreme FDR, leaving early will always be the only option. Staying can only be considered for homes that:

- Have been designed and constructed specifically to address the threat of bushfire.
- Have been maintained to those levels and are currently well prepared.
- Can be actively defended by people with the skills, knowledge and confidence to implement a well-rehearsed Bushfire Survival Plan.

On days of catastrophic or extreme FDR:

- Fires are likely to be uncontrollable, unpredictable and very fast moving, with highly aggressive flames extending high above tree tops and buildings.
- Thousands of embers may be violently blown into and around homes causing other fires to start rapidly and spread quickly up to 20 kilometres ahead of the main fire.
- Fire can threaten suddenly, without warning, and the heat and wind will make it difficult to see, hear and breathe as the fire approaches.
- People in the path of such fires will almost certainly be injured or die, and a significant number of homes and businesses will be destroyed or damaged.
- Even well-prepared and constructed homes will not be safe.
- Expect power, water and phone networks to fail as severe winds well ahead of the fire will bring down trees and power lines, and blow roofs off buildings.

It is vital that you understand that, on these days, your survival will depend solely on how well you have prepared and how decisively you act.

**Leaving late can be
a deadly option.
If you are in any doubt,
make the decision to
LEAVE EARLY.**

What will you do?

At all times you need to **PREPARE.ACT.SURVIVE.**

When the fire danger rating is 'catastrophic', leaving early is the safest option.

When the fire danger rating is lower than 'catastrophic', one of the most important decisions you need to make is whether you will leave early or stay with a well-prepared property. This decision is the basis of your Bushfire Survival Plan.

The following questions may help you make the right decision about whether you leave early or stay:

- Do you need to consider family members who are young, elderly or infirm?
- Are you physically and emotionally prepared to stay with your property?
- Do you have the knowledge, skills, and confidence to stay with your property?
- Is your home adequately constructed, maintained, and prepared to withstand the impact of a fire? In other words, is your home prepared to withstand the impact of a bushfire?
- Do you have well-maintained resources and equipment to fight fire, and do you know how to use them?
- Do you have appropriate protective clothing to fight a fire?
- What will you do if a rapid onset fire gives you no time to leave? Where will you shelter?
-



Leave early

If you plan to leave early, then you must leave your home well before a bushfire threatens and travelling by road becomes hazardous. Your leave-early preparations include:

Step 1: Preparation – your property should be well prepared for bushfire, even if you intend to leave early.

Step 2: What you will do? Make your Bushfire Survival Plan in accordance with your decision to leave early.

Step 3: Make a contingency plan – the FDR, the preparedness of your home, a change in household circumstances, a change in your physical preparedness or unexpected visitors are some things that may require you to reconsider your Bushfire Survival Plan.

Planning to stay

Planning is critical to successfully staying with your home, as it may involve the risk of psychological trauma, injury or death.

Step 1: Preparation – your property must be able to withstand the impact of bushfire and be prepared well enough to shelter you and your family.

Step 2: What you will do? Make your Bushfire Survival Plan in accordance with your decision to stay.

Step 3: Make a contingency plan – the FDR, the preparedness of your home, a change in household circumstances, a change in your physical preparedness or unexpected visitors are some things that may require you to reconsider your Bushfire Survival Plan.

In making your decision to stay, there are a few things you need to consider:

- Is your property able to withstand the impact of a bushfire?
- Are you physically and emotionally prepared to stay with your property?
- Do you have well-maintained resources and equipment, and do you know how to use them?
- Do you have appropriate protective clothing?
- Will your bushfire survival plan need to be different for weekdays, weekends or if someone is sick at home?
- Do you have a contingency plan?

Preparing your Bushfire Survival Plan

Preparation is the key to survival. Being involved in a fire will be one of the most traumatic experiences of your life.

- Prepare yourself – you need to be both mentally and physically prepared to carry out your Bushfire Survival Plan.
- Prepare your Bushfire Survival Plan.
- Prepare your Bushfire Emergency Kit.
- Prepare your Bushfire Evacuation Kit.
- Prepare your property.

When writing your plan, you need to consider:

- Have you made the right choice – to leave early or stay?
- Have you discussed your choice with your family, friends and neighbours?
- Who will take charge and lead other family members by carefully communicating the various tasks set out in the plan?
- If you have chosen to stay, what will you do to protect your property when the fire arrives?
- What will you put in your Bushfire Emergency Kit and where will you store it?
- Do your friends, family and neighbours know the details of your plan?

- What will you do if your Bushfire Survival Plan fails?
- Do you have an alternative option or contingency plan if your plan fails?
- Do you have a Neighbourhood Safer Place (NSP) you can go to as a last resort? For more information on NSPs, see www.ruralfire.qld.gov.au.
- Is it safe to travel there?

If your decision is to leave early, you must include the following information or action items in your Bushfire Survival Plan:

- Monitor media outlets – radio, TV, mobile phone and internet for bushfire alerts.
- When will you leave?
- What will be your trigger for action?
- Will your plan be different for weekdays, weekends, or if someone is at home sick or injured?
- What will you take with you (Evacuation Kit)?
- Where will you and your family go when you leave early?
- What route will you take to get there?
- What will you do with your pets?
- What will you do if there are consecutive or multiple **‘catastrophic’** or extreme fire danger days?
- Will you go to work on days when the FDR is in the upper levels?
- Will you send your children to school when the FDR is in the upper levels?
- Will all members of your household leave early?
- What will you do to prepare your property?
- What is your contingency plan in the event that it is unsafe to leave?

If your decision is to stay, you must include the following information or actions items in your Bushfire Survival Plan:

- Monitor media outlets – radio, TV, mobile phone and internet.
- Locate your Bushfire Emergency Kit.
- Put on protective clothing.
- Remain hydrated by drinking lots of water.

- Move any stock to fully grazed paddocks.
- Move cars to a safe location.
- Remove garden furniture, doormats, and other items.
- Close windows and doors and shut blinds.
- Take down curtains and move furniture away from windows.
- Seal gaps under doors and window screens with wet towels.
- Place pets inside, restrain them, and provide water.
- Block downpipes and fill gutters with water.
- Wet down the sides of buildings facing the approaching fire front.
- Wet down decks and verandas.
- Wet down fine fuels close to buildings.
- Turn on garden sprinklers before the bushfire arrives.
- Fill containers with water – bath, sinks, buckets, wheelie bins, etc.
- Have ladders ready to access inside roof spaces, and against the roof on the outside.
- Have a generator or petrol pump ready.
- Start patrolling outside to check for embers.

When the fire front arrives:

- Take all fire-fighting equipment, such as hoses and pumps, inside – these may melt during the fire.
- Go inside and shelter away from the fire front.
- Patrol the inside of your home, including the ceiling space, for embers or small fires that may start.
- Drink lots of water.
- Check family and pets.

After the fire front has passed:

- Wear protective equipment.
- Go outside once it is safe.
- Check for small spot fires and burning embers:
 - inside roof space
 - under floor boards
 - under house space

- on veranda and decks
 - on window ledges and door sills
 - in roof lines and gutters
 - garden beds and mulch
 - wood heaps
 - outdoor furniture
 - sheds and carports.
- Continue to drink lots of water.
 - Stay at your property until the surrounding area is clear of fire.
 - Monitor media outlets – radio, TV, mobile phone and internet.

You need to be both mentally and physically prepared to carry out your Bushfire Survival Plan.

There may be other actions to include, depending on your individual property and the level of bushfire risk you are exposed to.

Include the whole family in creating your Bushfire Survival Plan. You and your family should be aware of the actions you will take at the various FDR levels. and it is important to ensure this is incorporated into your Bushfire Survival Plan. The FDR for your area can be found on roadside signs and by visiting www.ruralfire.qld.gov.au and following the FDR link.

It is important that your Bushfire Survival Plan does not rely solely on receiving an alert.

Once you have completed your Bushfire Survival Plan, practise it regularly to ensure everyone involved knows exactly what to do in the event of a fire.

Preparing your Bushfire Emergency Kit

It is essential that you have a Bushfire Emergency Kit if your choice is to stay with your property. This kit will ensure you and your family have the important equipment you need to stay. For a comprehensive list of equipment needed in a Bushfire Emergency Kit see page 14.

Preparing your Bushfire Evacuation Kit

It is equally important to have a Evacuation Kit if your choice is to leave early. This kit will ensure you and your family have important items and equipment required to relocate for the time needed. For a comprehensive list of items and equipment needed in a Bushfire Evacuation Kit see page 15.

Making a contingency plan

No matter whether your decision is to leave early, well before a bush fire threatens, or to stay, you should still have a contingency plan as part of your Bushfire Survival Plan. There are many scenarios to consider, such as: what you will do if a rapid onset fire starts in your local area, making roads impassable or travel particularly dangerous? You should have other options if road travel is not safe.

- Is your house well prepared?
- Can it provide you with protection from radiant heat?
- Have you identified a safer location, such as an NSP?

Sheltering in a well-prepared property is far safer than being out in the open or in a vehicle.

Preparing your property

An unprepared property is not only at risk itself, but may also present an increased danger for your neighbours and their homes.

Planning is absolutely critical to safely staying with your home. Staying home involves the risk of psychological trauma, injury and death.

There are a number of measures you can take to prepare your home and property for bushfire. These include annual preparations you must take before the bushfire season.

Your pre-season property preparations should include:

- Displaying a prominent house number.
- Ensuring there is adequate access to your property for fire trucks – 4 metres wide by 4 metres high with a turn-around area. Reduce vegetation loads along the access path.
- Mowing your grass regularly.
- Removing excess ground fuels and combustible material (long dry grass, dead leaves and branches).
- Clearing leaves, twigs, bark and other debris from the roof and gutters.
- Purchasing and testing the effectiveness of gutter plugs.
- Trimming low-lying branches 2 metres from the ground surrounding your home.
- Enclosing open areas under your decks and floors.
- Installing fine steel wire mesh screens on all windows, doors, vents and weep holes.
- Pointing LPG cylinder relief valves away from the house.
- Conducting maintenance checks on pumps, generators and water systems.
- Checking that you have sufficient personal protective clothing and equipment.
- Relocating flammable items away from your home, including woodpiles, paper, boxes, crates, hanging baskets and garden furniture.
- Sealing all gaps in external roof and wall cladding.
- Checking that the first-aid kit is fully stocked.

Bushfire Alerts

If you receive an emergency warning about a bushfire or other emergency, take notice – it could save your life.

There are three types of alert messages to help you make the right safety choices:

Bushfire Advice Message – a fire has started – general information to keep you up to date.

Bushfire Watch and Act Message – represents a heightened level of threat. Conditions are changing, a fire is approaching; lives may come under threat. Take appropriate action.

Bushfire Emergency Warning – is the highest level message advising of impending danger. It may be preceded with the Standard Emergency Warning Signal (SEWS).

An Emergency Warning means there is a threat to lives, and protective action is required immediately.

When a bushfire strikes

You have made your decision to **PREPARE.ACT.SURVIVE**. You have prepared your property before the fire season. You have made your Bushfire Survival Plan. You have practised your Bushfire Survival Plan.

A bushfire is threatening. What do you do?

- Know the FDR for any given day.
- Regularly check the FDR on the Rural Fire Services website at www.ruralfire.qld.gov.au.
- Monitor your media outlets for warnings on bushfire activity.
- Seek out information if you have to, and do not assume that you will receive a warning.
- Leave early or stay according to your Bushfire Survival Plan.
- Act decisively in accordance with your Bushfire Survival Plan.
- Do not adopt the 'wait-and-see' option.

Travelling in your vehicle near a bushfire

Sheltering inside a vehicle is a high-risk strategy that can result in death. While sheltering inside a vehicle offers you a slightly higher chance of survival than being caught in the open, having a leave-early or stay strategy is a much safer option.

You should never take a journey into areas where the fire danger is catastrophic or extreme. You should consider postponing or finding alternative routes if necessary. If you can smell or see smoke in the distance, it is best to U-turn and drive away from the danger.

If you are caught in smoke or flames while on the road:

- Turn on the vehicle's headlights and hazard warning lights.
- If you need to shelter in your vehicle, drive your car into a bare, clear area well away from surrounding trees, leaving lights on. Position the vehicle to prevent a side impact from an advancing fire front.
- Close all windows and vents.
- Leave the engine running and turn off the air conditioning system.

- Cover your entire body with woollen or cotton blankets to protect you from radiant heat.
- Take shelter below the window level.
- Drink water frequently, and stay in the vehicle until the fire front has passed.
- Once the fire front has passed, exit the vehicle to inspect the damage and ensure other passengers are safe.

Neighbourhood Safer Places

A Neighbourhood Safer Place (NSP) is a place of last resort for people during a bushfire. An NSP may form part of a back-up plan when:

- Your Bushfire Survival Plan has failed.
- Your plan was to stay, but the extent of the fire means that your home cannot withstand the impact of the fire and, therefore, your home is not a safe place to shelter.
- The fire has escalated to an extreme or catastrophic level and relocation is the safest option.

An NSP is an identified building or open space within the community that can provide a level of protection from the immediate life-threatening effects of a bushfire. NSPs still entail some risk, both in moving to them and while sheltering in them; they cannot be considered completely safe.

They are a place of *last resort* in bushfire emergencies only. The following limitations of NSPs need to be considered within your Bushfire Survival Plan:

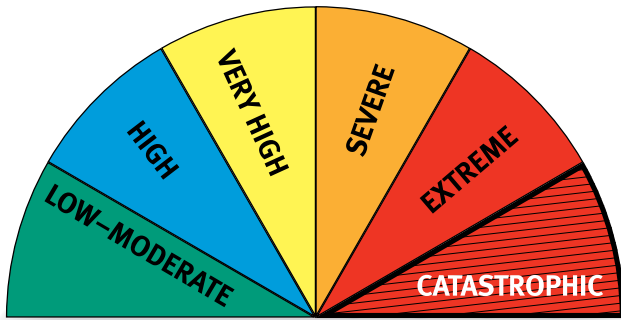
- NSPs do not cater for pets.
- Firefighters may not be present, as they will be elsewhere fighting the main fire front.
- NSPs do not provide meals or amenities.
- They may not provide shelter from the elements, particularly flying embers.

If you are a person with special needs, you should consider what assistance you may require at an NSP.

Although QFES cannot guarantee an immediate presence during a bushfire, every effort will be made to provide support as soon as resources are available.

If an NSP is part of your contingency plan, it should not require extended travel through fire-affected areas to get there.

FIRE DANGER RATING



The Fire Danger Rating (FDR) is an early indicator of potential danger, and should act as your first trigger for action. The higher the rating, the greater the need for you to act.

The FDR is an assessment of the potential fire behaviour, the difficulty of suppressing a fire, and the potential impact on the community should a bushfire occur on a given day.

A Fire Danger Index (FDI) of 'low-moderate' means that the fire will burn slowly and that it will be easily controlled, whereas a FDI in excess of 'catastrophic 100+' means that the fire will burn so fast and hot, it will be uncontrollable.

CATASTROPHIC

A fire with a rating of 'catastrophic' may be uncontrollable, unpredictable and fast-moving. The flames will be higher than roof tops. Many people may be injured, and many homes and businesses may be destroyed.

During a 'catastrophic' fire, well-prepared and constructed homes will not be safe. Leaving is the only option for your survival.

EXTREME

A fire with an 'extreme' rating may be uncontrollable, unpredictable and fast-moving. The flames may be higher than roof tops. During an 'extreme' fire, people will be injured, and homes and businesses may be destroyed.

During an 'extreme' fire, well-prepared and well-constructed homes may not be safe. Leaving is the only option for your survival.

SEVERE

A fire with a 'severe' rating may be uncontrollable and move quickly, with flames that may be higher than roof tops. A 'severe' fire may cause injuries, and some homes or businesses will be destroyed.

During a fire with a 'severe' rating, leaving is the safest option for your survival. Use your home as a place of safety only if it is well-prepared and well-constructed.

VERY HIGH

A fire with a 'very high' danger rating is one that can be difficult to control with flames that may burn into the tree tops. During a fire of this type, some homes and businesses may be damaged or destroyed.

During a fire with a 'very high' danger rating, you should use your home as a place of safety only if it is well-prepared and well-constructed.

HIGH

A fire with a 'high' danger rating is one that can be controlled, where loss of life is unlikely, and damage to property will be limited.

During a fire with a 'high' danger rating, you should know where to get more information and monitor the situation for any changes.

LOW-MODERATE

A fire with a 'low to moderate' rating can be easily controlled and poses little or no risk to life or property.

During a fire with a 'low to moderate' rating, you should know where to get more information and monitor the situation for any changes.

BUSHFIRE SURVIVAL PLAN

Complete your personalised Bushfire Survival Plan lift-out.

Personal details:

Important phone numbers: **000 (Triple Zero)** (Fire, Police and Ambulance)

Family:	Family:	Family:
Work:	Friends:	Friends:
School:		

Important contact details – name and phone number:

Insurer:	Policy Number:	Phone:
Electricity:		Phone:
Water:		Phone:
Gas:		Phone:
Phone Company:		Phone:
Council:	Phone:	

Leave early:

List all names and contact phone numbers of household members who have decided to leave early – then complete Section 1.

Names:
Phone:

Stay:

List all names and contact phone numbers of household members who have decided to stay – then complete Section 2.

Names:
Phone:

Leave early – Section 1

Pull this Bushfire Survival Plan lift-out from this document and keep in a safe place.

Leaving early will always be the safest option for you and your family. It is extremely important for you to prepare a detailed leave-early plan to ensure everyone understands what to do and when. Use the boxes below to list tasks to do.

When to go – Think of different triggers that will cause you and your family to leave early. Think about what you will do if you have sent the children to school that day. Think about whether or not you will have to travel from work into the fire zone.

Where to go – Identify one or more safer locations. Consider putting on personal protective clothing before you leave home.

How to get there – What roads will you take to your destination? Have an alternative route if your first choice is impassable.

What to take – Make a list of your most valuable items (e.g. insurance papers, electronic records, photo albums, passports, birth certificates and other important information).

Stay – Section 2

Anyone who is not going to leave early must be involved in completing this stay-and-defend plan to ensure they know what to do. Every stay plan will be different depending on your circumstances. Use the boxes below to list tasks to do.

Before the fire approaches – Start getting yourself and your property ready for a bushfire.

As the fire approaches – Prepare for ember attack on or near your home. Remember to put on personal protective clothing.

As the fire front arrives – Stay safe by monitoring the fire from inside your home.

After the fire passed – Patrol your property and extinguish any spot fires or burning embers. You may need to keep this up for several hours.

Everyone must have a contingency plan

Have a contingency plan – what will you do if you can't activate your Bushfire Survival Plan? Remember that leaving late can lead to loss of life.

Know where your nearest NSP is and how to get there.

ACTIVATING YOUR BUSHFIRE SURVIVAL PLAN

Once you have prepared your Bushfire Survival Plan and completed your preparations, it is absolutely essential that you regularly practise and review your plan. This will make sure you and your family are well organised in the event of a bushfire. If a bushfire threatens the health and safety of you, your family, home or property, you should follow these steps:

Step 1 – Activate your Bushfire Survival Plan

Someone must take charge and lead other family members through this emotional experience by carefully communicating the various tasks set out in the plan. Know who is going to leave early and who is going to stay.

Step 2 – Put on your personal protective clothing

Every member of the family must change into their personal protective clothing, including long pants, long-sleeve-shirt and closed-in shoes.

Step 3A – Pack your vehicle and leave early

If your plan is to leave early, pack all valuables in your vehicle (see Evacuation Kit) and relocate to your designated safer location. Give yourself enough time to get you and your family to safety. Don't return home until it is safe to do so.

Step 3B – Implement your strategy to stay and defend

If your plan is to stay, ensure you have all the items in the Bushfire Emergency Kit ready to go. This can be a dangerous option, and you should be physically and mentally prepared.

OR

Step 4 – Keep informed of bushfire activity

Listen to the radio, television, internet, firefighters and/or police for information on the fire in your local area. Bushfire is dynamic and unpredictable, so you need to be prepared for the unexpected. Warnings are not guaranteed, so do whatever is necessary to ensure you remain safe.

BUSHFIRE EMERGENCY KIT

You need to have a Bushfire Emergency Kit stored in an area of the house that is safe and easy to access. It should contain:

- protective clothing
- mop
- gloves
- torch
- hoses
- shovel
- towels
- buckets
- safety goggles
- ladder
- medications
- bottled drinking water
- fire extinguishers
- battery-operated radio
- spare batteries
- smoke mask
- woollen blankets
- first-aid kit
- knapsack sprayer
- protective clothing for the whole family.



EVACUATION KIT

Write a list of all items your family will need before, during, and after your relocation. The list below shows items that you might like to put in your evacuation kit:

- protective clothing for the whole family
- battery-operated radio and spare batteries
- safety goggles
- mobile phone and battery charger
- medications
- wallet or purse and money
- clothing (two sets of clothes for each family member)
- identity information (passports, birth certificates)
- bottled water (enough for each relocated family member)
- family and friends' phone numbers
- items of high importance (e.g. family photos, valuables, important documents)
- blankets (natural fibres)
- children's toys.



BUSHFIRE RISK SELF-ASSESSMENT CHECKLIST



This basic self-assessment checklist is designed to give you a greater understanding of the bushfire risk level relevant to your property. Information provided in this assessment will assist you when completing your Bushfire Survival Plan.

Address:

Postcode:

Property Owner / Property Name:

ACCESS/EGRESS

Road/Street/Driveway

PLEASE ✓ APPROPRIATE BOX

Clear of overhanging vegetation

Yes

No

Unrestricted gate access

Yes

No

Clear of overhead power lines

Yes

No

Able to reverse in

Yes

No

Turning/passing areas

Yes

No

Heavy vehicle access on cattle grid/bridge

Yes

No

Alternative way out

Yes

No

Two-wheel drive access

Yes

No

STRUCTURE/S

Exterior walls – non-combustible

Yes

No

Roof ridge capping sealed

Yes

No

Eaves enclosed

Yes

No

Roofing gutters and valleys clear of leaf litter and fine fuels

Yes

No

Underfloor enclosed

Yes

No

Vents screened

Yes

No

Windows – non-combustible finishing

Yes

No

Deck/veranda non-combustible

Yes

No

WATER SUPPLY

Reticulated water supply

Yes

No

Tank supply with QFES access – 50 mm male camlock fitting so fire fighters can use water if needed

Yes

No

QFES accessible external open water supply (dam/pool)

Yes

No

Firefighting pump and hose connected to water supply

Yes

No

Other considerations

There are a range of other things to be considered regardless of your decision to leave early or stay:

- Firefighting equipment (such as pumps, hoses and sprinkler systems) should be tested regularly and maintained in maximum operational working condition.
- Firefighters may need access to your property during a bushfire. So, it is in your best interests to allow enough space for fire trucks (4 metres wide by 4 metres high).
- Your pets, livestock, and other animals require proper care and attention during fires. Consider food, medication, transportation and sleeping arrangements for your animals.

Will someone from an emergency service knock on my door when it is time to leave?

Emergency services personnel are not always available to alert the community of potential risks by door knocking and encouraging you to leave. Monitor local radio stations, television networks and emergency service websites for information updates. Remember, the safest option is to leave early. Leaving too late can be fatal.

Will there always be a fire truck available to fight a bushfire threatening my home?

No, not always. Fire trucks and firefighters are a limited resource, so it is important they are deployed in an appropriate manner to best manage the fire. The QFES cannot guarantee a fire truck will be available to defend every home during a large bushfire event.

Is my home at risk from burning if there is more than 50 metres between my home and nearby bushland?

Yes, most houses destroyed in bushfires are lost as a result of ember attack. Under certain conditions, embers can cause fires to ignite up to 20 kilometres in front of the main fire. A combination of your level of preparation and your home construction will determine the survivability of your home.

What does leaving early mean?

Leaving early means before a bushfire event has reached your neighbourhood. Leaving early could be the day before or morning of predicted extreme or catastrophic bushfire weather.

Can I be made to leave my home during a bushfire?

In Queensland, you can be ordered by the Police or Fire Service to evacuate if they believe it is necessary for your safety.

Is cleaning my gutters and mowing my lawns enough to prepare my property for bushfire?

No! Fire requires fuel, heat and oxygen to occur. The radiant heat and flying embers produced by bushfires mean that overhanging trees, shrubs and mulch against homes, woodpiles, old building materials, outdoor furniture or other objects stored under the deck or chemicals in the garden will quickly ignite. Do yourself and your neighbours a favour by taking the time to properly prepare your whole property, which includes yourself, your house and your land.

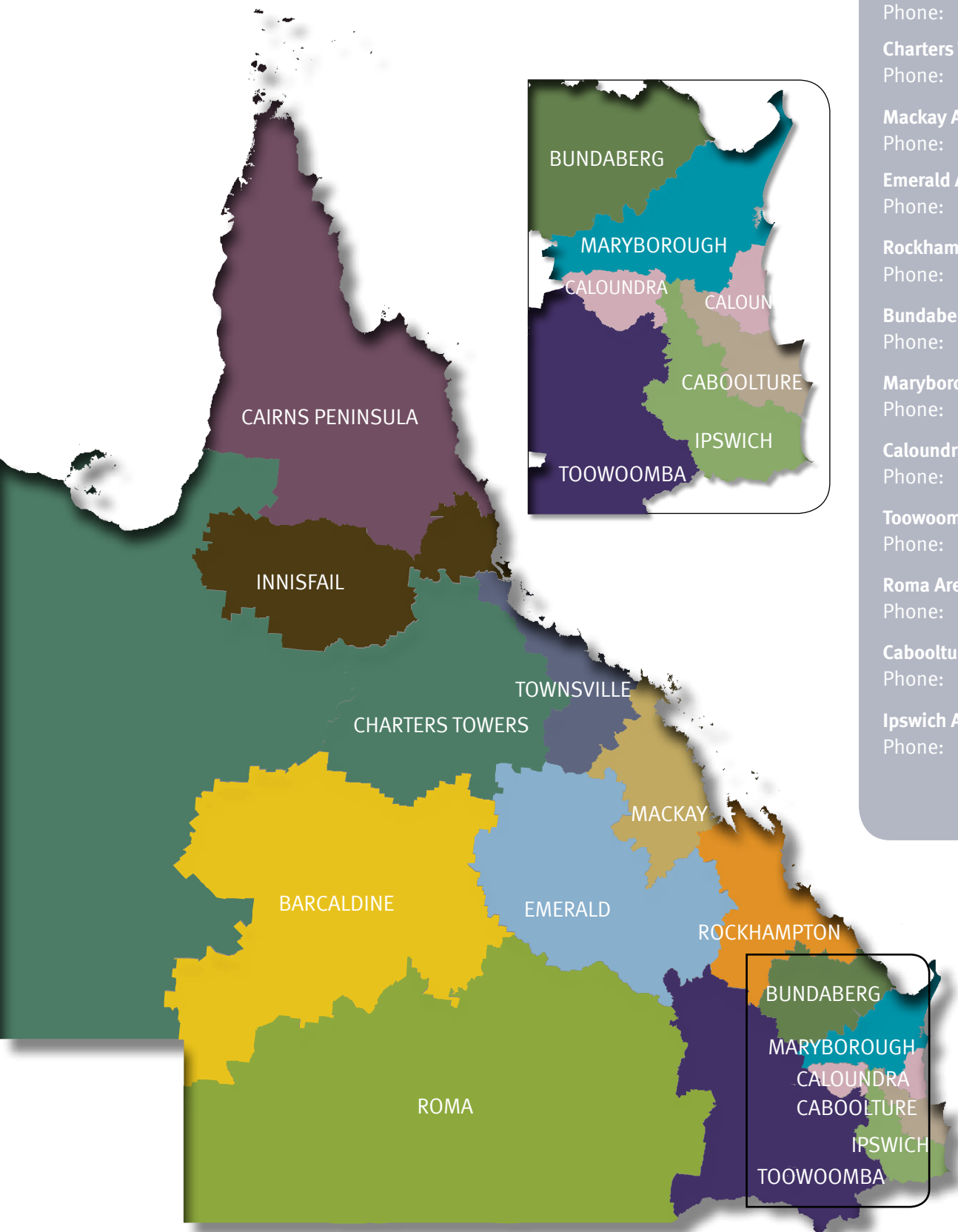
If I know the backstreets in my suburb or town very well, is it okay for me to leave at the last minute?

If your decision in your Bushfire Survival Plan is to leave early, then you should leave well before the fire front reaches your property. Irrespective of your local area knowledge, you must stick to your plan and leave early. Leaving late can be fatal.

FAQ'S

Rural Operations Areas

For further assistance contact your local Area Office



- Cairns Area Office**
Phone: (07) 4042 5468
- Innisfail Area Office**
Phone: (07) 4061 0650
- Townsville Area Office**
Phone: (07) 4796 9082
- Charters Towers Area Office**
Phone: (07) 4761 5130
- Mackay Area Office**
Phone: (07) 4965 6641
- Emerald Area Office**
Phone: (07) 4983 7580
- Rockhampton Area Office**
Phone: (07) 4938 4736
- Bundaberg Area Office**
Phone: (07) 4153 3244
- Maryborough Area Office**
Phone: (07) 4790 4839
- Caloundra Area Office**
Phone: (07) 5420 7517
- Toowoomba Area Office**
Phone: (07) 4616 1945
- Roma Area Office**
Phone: (07) 4622 2074
- Caboolture Area Office**
Phone: (07) 5420 1333
- Ipswich Area Office**
Phone: (07) 3294 4944

Bushfire is a very real risk to many of our suburbs, so make sure you are prepared now!

FOR FURTHER INFORMATION

GO TO www.ruralfire.qld.gov.au
www.qfes.qld.gov.au

OR book a free
“Are you Bushfire Prepared?”
presentation by calling

13 QGOV



facebook.com/QueenslandFireandRescueService



twitter.com/QueenslandFES or [@QueenslandFES](https://twitter.com/QueenslandFES)



youtube.com/QueenslandFireRescue