



**Bushland Protection
Systems**
Specialising in
**BUSHFIRE HAZARD
PLANNING & MITIGATION**

ABN 97 782 336 595 | Phone: 07 5546 7933 | PO Box 599, Oxenford, Q, 4210 | E-mail: admin@bpsfire.com.au

BUSHFIRE HAZARD ASSESSMENT AND MITIGATION PLAN

PROPOSED TOWN CENTRE CORE
Precinct 7 ROL1
Yarrabilba

FOR

Stockland

DATED

2nd December 2025

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV-2025-YAR-4087

Date: 21 July 2026



A Bushfire Mitigation Plan is designed to identify and minimise the potential bushfire risk to a given property and to help property owner/occupiers to minimise bushfire risk to themselves, their property and their neighbours, although it cannot completely eliminate that risk. Ultimately it is a community responsibility to protect the environmental values, life and property in their area.

Bushland Protection Systems
Document Control:

Version	Date	Details	Prepared	Checked
1	15/10/25	Draft BMP	Brett Bain	
2	28/11/25	Finalised BMP	Brett Bain	
3	02/12/25	Amended with Bushfire Plan Appendix and reduced management over basins	Brett Bain	

Table of Contents

1. Background	4
2. Site Description and Bushfire Hazard Assessment.....	4
3. Roads, Driveways and Trails	5
4. Appropriate Building Location	5
5. Appropriate Clearing and Landscaping	6
6. Building Construction.....	7
7. Provision of Adequate Water Supplies	8
8. Provision of Fire Fighting Infrastructure	8
9. Local Fire Brigades	8
10. Improved Community Awareness	8
11. Summary of Recommendations	9
12. Conclusion	10
13. Bibliography	11

List of Tables

Table 2.1: Potential Bushfire Hazard Rating	5
Table 4.1: Vulnerable Use, Community Infrastructure & Hazardous Materials	6

List of Appendices

Appendix 1: Precinct 7 ROL 1 Plan of Subdivision	13
Appendix 2: Bushfire Hazard Assessment and Management Plan	14

1. Background

This plan is for the proposed Yarrabilba Town Centre Core – Stage 1 in Precinct 7 of Yarrabilba, as shown in Appendix 1 of this report.

This plan is based on the following material supplied by Stockland.

- 1.1. Yarrabilba Town Centre – Major Centre Core – Stage 1 Proposed ROL Plan, drawn by RPS, Plan Ref. AU8248-21, Revision I, dated 27/11/25, is attached as Appendix 1.
- 1.2. Bushfire Hazard Assessment and Management Plan, drawn by RPS, Plan Ref.: AU8248-27, Revision A, dated 1/12/25, is attached as Appendix 2.

This plan is produced in accordance with:

- Bushfire hazard assessment in accordance with the Logan Planning Scheme 2015, Section 8.2.3 – Bushfire Hazard Overlay Code and Sc6.2.6 – Planning Scheme Policy 6, based on State Planning Policy 7/17, support document – Bushfire Resilient Communities 2019, under the Planning Act 2016.
- This report also takes into consideration the ‘Pre-Development Bushfire Mitigation Concept’ Plan prepared by Bushland Protection Systems, dated 30/1/12, and the approved ‘Conceptual Bushfire Risk Assessment and Mitigation Plan’ (BMP), produced by Bushland Protection Systems, dated 18/7/2012.

2. Site Description and Bushfire Hazard Assessment

Precinct 7 ROL 1 is located at the northern end of Precinct 7 Town Centre and consists of commercial allotments, which will be cleared for development. The proposed lots will be managed and be assigned a Vegetation Hazard Class (VHC) 42.6, resulting in a ‘Not Bushfire Prone Area’ hazard rating.

The power line easement area (to the northeast), is to be managed by regular slashing in accordance with the approved Concept BMP, providing a ‘Not Bushfire Prone Area’ rating.

To the south is Wentland Avenue with future development and active parkland opposite, providing a ‘Not Bushfire Prone Area’ hazard rating. To the west is also future development for over 100 metres.

To the northwest of Proposed Lots 3 & 4 are future lots, with bushland beyond that. The bushland would be assigned a Vegetation Hazard Class (VHC) 16.1 with associated fuel loads of up to 16t/Ha, over a slope of up to 2 degrees with a Forest Fire Danger Index (FFDI) of 54, providing for a potential fire line intensity of up to 8,486kW/m equating to a ‘Medium’ hazard rating. The roadway along the northwest side of Lot 3 & 4 just falls within 100 metres of this bushland, however the proposed lots are over 100 metres from this bushland.

To the east is Yarrabilba Drive with future lots opposite, and then bushland beyond that. The bushland would be assigned a Vegetation Hazard Class (VHC) 16.1 with associated fuel loads of up to 16t/Ha, over a slope of up to 2 degrees with a Forest Fire Danger Index (FFDI) of 54, providing for a potential fire line intensity of up to 8,486kW/m equating to a ‘Medium’ hazard rating. The closest point of Lot 1 to the bushland is the northeast corner with 97 metres of separation, with only a 3 metres of the northeast corner of the lot within 100 metres of the bushland. The proposed buildings on Lot 1 will have over 100 metres of separation.

Proposed Lot 5 has 73 metres of separation from this bushland with just a small portion at the eastern end, within 100 metres of the bushland.

Table 2.1: Potential Bushfire Hazard Rating

POTENTIAL HAZARD CLASS	POTENTIAL FIRELINE INTENSITY
Not Bushfire Prone Area (Low)	<4,000 kw/m
Medium	4,000 to 20,000 kw/m
High	20,000 to 40,000 kw/m
Very High	>40,000 kw/m

The Bushfire Hazard Mapping also incorporates a 100 metre Potential Impact Buffer meaning that any land within 100 metres of a Potential Bushfire Hazard is also assigned the same rating as that bushland and triggers the Bushfire Code if Medium, High or Very High. Whilst having the same distance for all three levels of hazard is not considered a fit for purpose application, it is unfortunately what is legislated at this current time. Therefore, the eastern 27 metres of Proposed Lot 5 would be assigned a 'Medium' hazard rating. The northeast corner of proposed Lot 1 (within 3 metres of the boundary corner) would also have a 'Medium' hazard rating. The remainder of the proposed Lots would be assigned a Low/No hazard rating.

3. Roads, Driveways and Trails

3.1. Roads

The proposed development has a substantial internal road network with future connections in all directions. It is considered unlikely that access/egress would be compromised by bushfire.

3.2. Driveways

Being commercial allotments, the driveways would be short and direct.

3.3. Trails

No fire trails are proposed as part of this application.

4. Appropriate Building Location

The proposed allotments are located on relatively level ground, away from steep slopes and ridgelines, in an already disturbed area.

The State Planning Policy 7/17 support document - Bushfire Resilient Communities Technical Reference Guide 10/19, requires a separation distance between buildings and unmanaged bushland that limits the radiant heat flux impact on the building to less than 29kW/m² when assessed under the methodology specified in the Bushfire Resilient Communities Technical Reference Guide 10/19. The minimum distance equates to 15 metres separation between buildings and bushland in this location. The roadways and future development around the subject site provide more than the minimum required and therefore, achieves a tolerable risk level.

Vulnerable Uses, Community Infrastructure for Essential Services and Hazardous Material Sites (as defined in Table 7 of the State Planning Policy – state interest guidance material – Natural hazards, risk and resilience – Bushfire 12/19), see Table 4.1 below, are preferably not located in a bushfire prone area (within 100 metres of bush). If an overriding community need for the use to be in a bushfire location can be proven and it cannot go anywhere else, then these uses must have a separation distance that achieves a 10kW/m² radiant heat flux or less, which equates to a minimum distance of 36 metres for those uses in this location.

Table 4.1: Vulnerable Use, Community Infrastructure & Hazardous Materials

Group	Uses
Vulnerable uses	<i>childcare centre, community care centre, detention facility, educational establishment, hospital, nature-based tourism, relocatable home park, rooming accommodation, residential care facility, resort complex, retirement facility, tourist park</i>
Community infrastructure for essential services	<i>educational establishment, emergency services, hospital</i>
Hazardous materials in the context of bushfire hazard	Hazardous chemicals that are present at the levels or in the quantities that would constitute the use being a hazardous chemical facility Hazardous materials that are present in the quantities identified in the Work Health and Safety Regulation, schedule 15

Table 7 – Vulnerable uses, community infrastructure for essential services and materials that are hazardous in the context of bushfire hazard

5. Appropriate Clearing and Landscaping

The proposed allotments are to be maintained with low ground fuel levels at all times and may include domestic gardens, lawns with grass kept under 100mm in height and scattered trees with discontinuous canopy.

As a guide to landscaping and gardening in a bushfire prone area, the document ‘Landscaping for Bushfire’ produced by the CFA Victoria, is a useful guide on plant selection, garden design and ongoing maintenance. It can be found at <https://www.cfa.vic.gov.au/plan-prepare/landscaping>.

The vegetation corridors to the northwest and east should be managed by control of non-endemic grass and weed growth. All slash pine is to be removed.

All previous or future cleared timber and foliage or accumulated rubbish should be removed from the site or mulched and not simply moved aside as this will result in a concentrated area of fuel loading which will increase the potential bushfire hazard from that direction.

Fibrous bark trees, such as melaleuca, swamp mahogany and stringy bark, have a tendency to increase ember attack during a bushfire, due to the fire running up the tree trunk and burning bark breaking off, creating large quantities of airborne burning embers. Ribbon bark tree species (trees that shed their bark in long strips) are also an issue, significantly increasing the potential for spot fires. For this reason, tree species with these bark types should not be used as revegetation/rehabilitation/regeneration plantings in urban interface areas.

In bushland areas, the areas around the fringes of the bushland and along fire trails have a tendency to have increased ground fuel loading, as a result of increased sunlight penetration producing better growing conditions for grass and weeds (known as 'Edge Effects'), which can have an adverse impact on the local ecosystem and safety issues for fire suppression personnel during unplanned fire events. These non-endemic grasses and weeds penetrate into the edges of the retained bushland, creating conditions for higher intensity fire which damages the edges of the bushland, opening up the canopy which then allows more sunlight in and promotes grass and weed intrusion further into the bushland. This cyclic process has the effect of decreasing the size of quality bushland and increasing grass and weed dominated areas. The most cost-effective way to control grass and weed growth is to create a good closed in canopy cover, which will shade out the undesirable species. The control of fuel loads along the edges by regular mowing, brush cutting or in some cases poisoning may be suitable. Areas with a build-up of volatile fuel levels along the open edges of bushland, where full sunlight is available, can be where the most damage is inflicted on the bushland during a bushfire.

For optimal bushfire safety and best practise, the allotments must be cleared during operational works and maintained by the developer with low ground fuel levels until sold. Once sold the purchaser must maintain the allotment at all times, before, during and after construction of the dwelling.

Where the development is to take place in stages, care should be exercised to ensure the developed stages are not threatened by bushfire from the undeveloped stages. When operational clearing approvals are applied for, the application needs to include cleared buffers of 100 metres into developable areas in adjoining stages and these areas must be managed until developed.

6. Building Construction

The bushfire provisions of the National Construction Code (NCC) are applied to Class 1, 2 & 3 buildings and associated Class 10a buildings, located in designated bushfire prone areas. "Designated bushfire prone area means land which has been designated under a power in legislation as being subject, or likely to be subject, to bushfires" (*NCC Schedule 3 Definitions*).

As the proposed development is a commercial area, future buildings will not be Class 1, 2, 3 or associated 10A structures and therefore the bushfire requirements of the NCC, including AS3959-2018, are not applicable.

Under the National Construction Code (NCC) 2022 (adopted May 2023) there are bushfire mitigation requirements for certain Class 9 buildings in or within 100 metres of bushfire prone areas. These structures include difficult to evacuate facilities, such as early childhood centres, primary and secondary schools, residential care buildings, health-care buildings (as defined in the NCC 2022 G5D4). If any buildings associated with these uses are proposed within 100 metres of the Medium hazard rated bushland, additional requirements will be applicable under Specification 43 of the NCC, and further advice should be sought at building application stage. The increase in minimum separation between buildings and bushland would be covered by the minimum separation for Vulnerable Uses outlined above in Section 4.

7. Provision of Adequate Water Supplies

The area of the proposed development is to be serviced by reticulated water supplies with the inclusion of fire hydrants for firefighting purposes. These services are to comply with the relevant standards as required by the local authorities, including a minimum pressure and flow of 10 litres a second at 200kPa or that which is able to be supplied by the local reticulated network.

Fire Hydrants are to be installed in accordance with the *Fire Hydrant and Vehicle Access Guidelines for residential, commercial and industrial lots*, Queensland Fire and Emergency Services, 2015, unless otherwise specified by the relevant water authority.

8. Provision of Fire Fighting Infrastructure

Buildings are to have external taps and hoses (or hose reels) that are positioned so water supply is capable of reaching to all parts of the building. All water lines are to be covered by at least 300mm of soil or be of metal above ground. Occupants should maintain good access around their buildings for fire suppression activities by fire services.

9. Local Fire Brigades

The subject property is in the urban Fire & Rescue district, and they would be responded on a 000 emergency call, with back-up from Logan Village and Tamborine Rural Fire Brigades. If further back-up is required, additional units would be engaged by the Beaudesert/Logan Rural Fire Brigade Groups.

10. Improved Community Awareness

Managing ground fuel in small pockets of bushland at the interface between urban development and bushland (Izone) is the easiest way of reducing bushfire hazard, particularly the removal of non-endemic grass and weeds.

It is recommended that a copy of this report be placed on display at any sales office, and a copy of the report be given to the purchasers of lots to provide them with the necessary information required for the building application process.

A copy of this plan should be retained by lot owners and occupants to assist them in minimising the risk of bushfire damage. It is recommended that regular liaison with the local fire brigade takes place as a way of being informed of danger periods.

Further useful information on Bushfire Preparedness and Local Rural Fire Brigades can be obtained through the Rural Fire Service Division of the Queensland Fire and Emergency Service at www.ruralfire.qld.gov.au or by phoning 1300 369 003.

11. Summary of Recommendations

- The proposed allotments are to be maintained with low ground fuel levels at all times and may include domestic gardens, lawns with grass kept under 100mm in height and scattered trees with discontinuous canopy.
- The vegetation corridors to the northwest and east should be managed by control of non-endemic grass and weed growth. All slash pine is to be removed.
- All previous or future cleared timber and foliage or accumulated rubbish should be removed from the site or mulched and not simply moved aside as this will result in a concentrated area of fuel loading which will increase the potential bushfire hazard from that direction.
- Tree species with fibrous type bark or ribbon bark should not be used as revegetation/rehabilitation/regeneration plantings in urban interface areas.
- Edge effects are to be managed.
- For optimal bushfire safety and best practise, the allotments must be cleared during operational works and maintained by the developer with low ground fuel levels until sold. Once sold the purchaser must maintain the allotment at all times, before, during and after construction of the dwelling.
- Where the development is to take place in stages, care should be exercised to ensure the developed stages are not threatened by bushfire from the undeveloped stages. When operational clearing approvals are applied for, the application needs to include cleared buffers of 100 metres into developable areas in adjoining stages and these areas must be managed until developed.
- Under the National Construction Code (NCC) 2022 (adopted May 2023) there are bushfire mitigation requirements for certain Class 9 buildings in or within 100 metres of bushfire prone areas. These structures include difficult to evacuate facilities, such as early childhood centres, primary and secondary schools, residential care buildings, health-care buildings (as defined in the NCC 2022 G5D4). If any buildings associated with these uses are proposed within 100 metres of the Medium hazard rated bushland, additional requirements will be applicable under Specification 43 of the NCC, and further advice should be sought at building application stage.
- The area of the proposed development is to be serviced by reticulated water supplies with the inclusion of fire hydrants for firefighting purposes. These services are to comply with the relevant standards as required by the local authorities, including a minimum pressure and flow of 10 litres a second at 200kPa or that which is able to be supplied by the local reticulated network.
- Fire Hydrants are to be installed in accordance with the *Fire Hydrant and Vehicle Access Guidelines for residential, commercial and industrial lots*, Queensland Fire and Emergency Services, 2015, unless otherwise specified by the relevant water authority.

- Buildings are to have external taps and hoses (or hose reels) that are positioned so water supply is capable of reaching to all parts of the building. All water lines are to be covered by at least 300mm of soil or be of metal above ground. Occupants should maintain good access around their buildings for fire suppression activities by fire services.
- It is recommended that a copy of this report be placed on display at any sales office, and a copy of the report be given to the purchasers of lots to provide them with the necessary information required for the building application process.
- A copy of this plan should be retained by lot owners and occupants to assist them in minimising the risk of bushfire damage. It is recommended that regular liaison with the local fire brigade takes place as a way of being informed of danger periods.

12. Conclusion

With the appropriate maintenance of fuel levels around the development, adequate water supply, good access provisions and minimising ground fuels, the risk of bushfire damage can be managed and improve the safety of occupants and fire services in attending to a bushfire threat.

This plan remains current for a period of 5 years, until 2030, at which time it should be subject to review to take account of changing land use and vegetation patterns. Any major bushfire event affecting the subject site should also trigger a review to determine effectiveness of protection measures and annual hazard reduction initiatives.

Ultimately, persons living/working in a bushfire prone area must take the precautions necessary to protect themselves, their families and their homes/premises if Brigades are stretched and are unable to attend immediately.

If you require any further assistance, please do not hesitate to contact this office.



Brett Bain, MDIA, MRFAQ
Lead Bushfire Consultant.

13. Bibliography

Articles/Books/Reports/Guidelines/Standards

Australian Building Codes Board, March 2019, National Construction Code Handbook, “Bushfire Verification Method”

Leonard, J, Et al., 2014, “A new methodology for State-wide mapping of bushfire prone areas in Queensland”, CSIRO.

Leonard, J and Opie, K, 2017, “Estimating the potential bushfire hazard of vegetation patches and corridors”, CSIRO.

Queensland Department of State Development, Manufacturing, Infrastructure and Planning, December 2019, “Natural hazards, risk and resilience – Bushfire: State Planning Policy – state interest guidance material”

Queensland Fire and Emergency Services, October 2019, Bushfire Resilient Communities, “Technical Reference Guide for the State Planning Policy State Interest: Natural Hazards, Risk and Resilience – Bushfire”

Queensland Fire and Emergency Services, March 2019, “Fire Hydrant and Vehicle Access Guidelines for Residential, Commercial and Industrial Lots”

Standards Australia, 2018, “Australian Standard 3959: Construction of buildings in bushfire-prone areas” (First Edition 1991; Second Edition 1999; Third Edition 2009; Fourth Edition 2018)

Standards Australia, Barry Eadie Et al., 2009, HB330-2009, “Living in bushfire-prone areas – A guide to reducing the threat and impact of bushfire attack and an explanation of the basis of AS3959”

The State of Queensland (Queensland Reconstruction Authority), CSIRO, July 2020, Bushfire Resilient Building Guidance for Queensland Homes

Vic Department of Sustainability and Environment, July 2010, “Overall fuel hazard assessment guide”, 4th Edition.

Legislation

Fire and Rescue Service Act 1990 (Qld)

<https://www.legislation.qld.gov.au/view/html/inforce/current/act-1990-010>

Building Act 1975 (Qld)

<https://www.legislation.qld.gov.au/view/html/inforce/current/act-1975-011>

Building Regulation 2006 (Qld)

<https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2006-0227>

Planning Act 2016 (Qld)

<https://www.legislation.qld.gov.au/view/html/inforce/current/act-2016-025>

Vegetation Management Act 1999 (Qld)

<https://www.legislation.qld.gov.au/view/html/inforce/current/act-1999-090>

Work Health and Safety Regulation 2011 (Qld)

<https://www.legislation.qld.gov.au/view/html/inforce/current/sl-2011-0240>

Other Legislative Materials

Australian Building Codes Board, National Construction Code (NCC) Volumes 1 & 2

Department of Local Government and Planning, Department of Emergency Services, June 2003, State Planning Policy Guideline, “Mitigating the Adverse Impacts of Flood, Bushfire and Landslide” (SPP1/03)

Department of Infrastructure, Local Government and Planning, April 2016, State Planning Policy – State interest guideline “Natural hazards, risk and resilience” (SPP 7/17)

Council Planning Scheme

Note:
All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and Council approval.
Dimensions have been rounded to the nearest 0.1 metres.
Areas have been rounded down to the nearest 5m².
The boundaries shown on this plan should not be used for final detailed engineers design.
Source Information:
Site boundaries: Registered Survey Plans.
Adjoining information: RPS SURVEY
Contours: MPN Engineers
Environment constraints: STOCKLAND

Legend

- Application Boundary
Stage Boundary
Proposed Contours (0.5 metre)

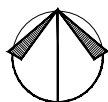
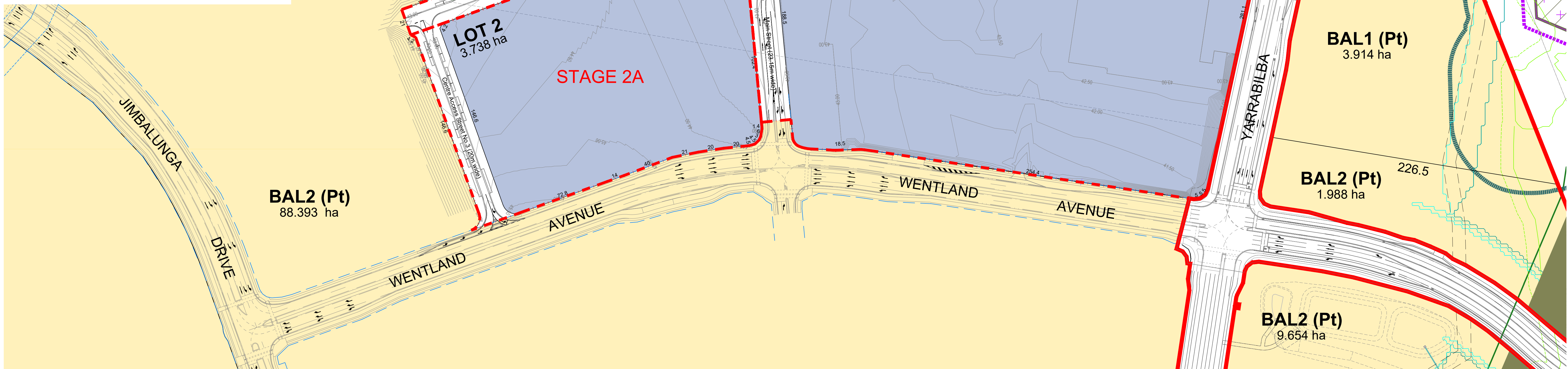
Existing

- Fauna Corridor and Conservation
Koala habitat (to be managed)
Koala habitat (10 metre buffer)
Flood Line (5 Years)
Flood Line (20 Years)
Flood Line (100 Years)
Wetland 50m Buffer
Location of Transmission Tower
Transmission Easement

Proposed

- Town Centre Super Lot
Balance Lot
Potential Shared Zone in Main Street
Green Plaza opportunity

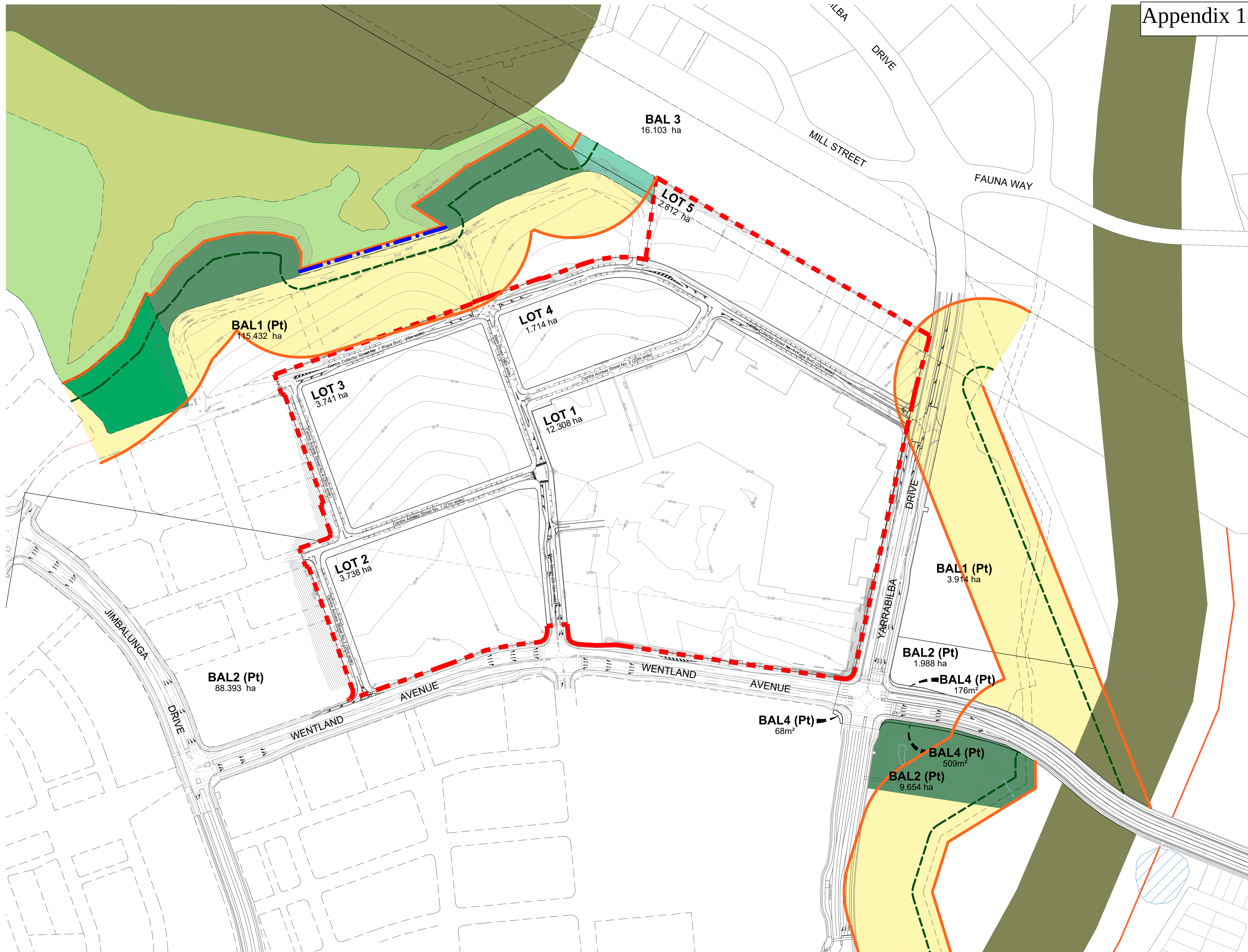
Land Use Areas:		
Total Application Area	264.112ha	100%
Proposed Allotments	259.797ha	98%
Town Centre Super Lots	24.313ha	9%
Balance Lots	235.485ha	89%
Proposed Road Reserve	4.315ha	2%
Centre Collector	1.820ha	1%
Centre Access	2.495ha	1%



Note:
All Lot Numbers, Dimensions and Areas are approximate only, and are subject to survey and Council approval.
Dimensions have been rounded to the nearest 0.1 metres.
Areas have been rounded down to the nearest 5m².
The boundaries shown on this plan should not be used for final detailed engineers design.
Source Information:
Site boundaries: Registered Survey Plans.
Adjoining information: DCD6.
Contours:
Aerial photography:
Environment constraints:

Legend

- Proposed Stage 1 Boundary
- Proposed Contours (0.5 metre)
- Proposed Retaining Walls
- Fauna Corridor & Conservation
- Linear Park (Unmanaged)
- Bushfire Hazard Line
- Minimum Building Setback
- Potential Bushfire Impact Zone
- Linear Park (Managed)
- Neighbourhood Park (Managed)
- Bio-retention Basin (Managed)





Bushland Protection Systems

Specialising in

BUSHFIRE HAZARD

PLANNING & MITIGATION

ABN 97 782 336 595 | Phone: 07 5546 7933 | PO Box 599, Oxenford, Qld, 4210 | E-mail: admin@bpsfire.com.au

Fire is a part of nature. Its effects can be catastrophic and fire can never be totally eliminated, however there are steps that can be taken to reduce the chances of uncontrolled fires occurring and the risk to life, property and the environment, in the event of uncontrolled fires. This is what we concentrate on, how the threats from bushfire can be minimised. There are many methods to do so, however deciding which method/s is best to use can be a complex decision to make. There are so many factors to consider such as ecological values, biodiversity, fire history, availability of resources, cost effectiveness and public awareness just to name a few. No guarantees can ever be given when dealing with Mother Nature, with ever increasing complexities it has now become a specialist field to be able to create plans to try and minimise the risk from bushfire. Ultimately it is a community responsibility to protect the environmental values, life and property in their area

COMPANY PROFILE

Bushland Protection Systems Pty Ltd (BPS) is a leading Bushfire Management Consultancy firm in Queensland, with many clients, ranging from private landowners to multi-national companies and Government bodies.

BPS consultants began operating as Bushfire Management Consultants with the introduction of the Gold Coast Bushfire Management Strategy in 1998 and spread their operations across the state with the implementation in 2003 of the State Planning Policy for mitigating the adverse impacts of flood, bushfire and landslide.

During that time over 3700 projects have been successfully completed, including large residential estates such as Coomera Waters, Spring Mountain, Pacific Pines, Coomera Springs, Observatory, Highland Reserve, Delfin Woodlands & Yarrabilba as well as commercial or Government project sites such as Paradise Country, Wacol Police Academy, Numinbah Correctional Facility, Silkwood Steiner School, Canon Hill Community Links Project & Griffith University.

With a strong background in bush fire fighting and involvement with numerous industry bodies, Bushland Protection Systems continues to deliver realistic and cost effective advice and solutions to provide higher levels of safety for the community, improve wildfire suppression and mitigation options for emergency services and land managers, while maintaining and improving environmental values for the future.

Our Consultants are registered with the Rural Fire Association of Queensland (RFAQ) as Level 2 Accredited Bushfire Practitioners.