

Bushfire Consulting

Bushfire Hazard Assessment

Project: BBS 23224



Barron Building Surveying

City Hive, 184 Marine Terrace

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Property Address

Lot 2349, Guara Drive, Sunset Beach
WA 6530

Client

Landwest Planning Consultants



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A. Disclaimer and Limitation

This assessment has been completed in accordance with *AS 3959* and *WA State Planning Policy SPP3.7* for the sole purpose of calculating the potential Bushfire Hazard to the proposed Guara Drive Structure Plan.

A fire event is in most cases, unpredictable and can be influenced by many factors. Some of these factors include, but are not limited to, temperature, wind speed, wind direction, humidity, the slope of the land, vegetation fuel load, growth, planting or the level of implementation and maintenance of fire prevention measures and the construction of additional structures upon the property that are not included as part of this assessment. If you are concerned or notice that factors have changed, a review of this management or assessment should be undertaken.

As permitted by the law and to its greatest extent, Barron Building Surveying (Chadwick Barron) and its associated employees exclude all liability whatsoever for: damage, loss, injury, death or claim to any property and/or person caused by a fire regardless of how that fire was caused and errors and/or omissions in this report with the client expressly acknowledging that such exclusion of liability is reasonable in all circumstances.

This assessment, recommendation and development of Bushfire Management Plan (BMP) does not in any way certify that the proposed structure(s) have been constructed in accordance with the assessed BAL rating. In providing this report as part of a development application or building license the client and landowner acknowledges that they understand, approve and will comply with all requirements to maintain the separation distances detailed in this report. Furthermore, the client/landowner acknowledges and accepts all responsibility in maintaining the required Asset Protection Zone.

This report is valid for 12 months only from the date of issue and supersedes all previous assessment if not noted otherwise.

Document Control

Author	Company	Revision Notes	Date and Number
Chadwick Barron	Barron Building Surveying	Draft Submission to Structure Pan. REV1	November 2023
Chadwick Barron	Barron Building Surveying	Updated report to Hazard Assessment only	Feb 2024

B. Executive Conclusion

The structure plan proposal enables the subdivision of the allotment, resulting in a Hazard Level outcome ranging from Moderate to Low. The allotment provides sufficient space for seating with a BAL 29 to 12.5 outcome. The clearing of vegetation and construction of roadways is feasible within the Gura Drive Structure Plan. Upon submission of the subdivision, a BMP assessment will be necessary to evaluate the design, layout, and roadways of the allotment.

C. Assessment Methods/Processes

Method of assessment is to determine the type of classifiable vegetation that may have a potential hazard to the proposed development areas, being Lot 2349, Guara Drive, Sunset Beach WA 6530. This will be undertaken by using method one assessment as per AS 3959 and comprise of an assessment against the *State Planning Policy SPP3.7 Clause 5.2.2* as an acceptable solution. This will be determined using all reference documents and liaising with stakeholders and other consultants as required.

D. Acknowledgement by Stakeholder/Owners

As the Stakeholders for which this Bushfire Management Plan has addressed and has been assessed, We/I understand the proposed development and confirm and agree with the executive conclusion, outputs, and management strategies of this Bushfire Management Plan. I shall comply with this report, and I am aware and understand the requirements set out within this Bushfire Management Plan and must ensure it is fulfilled in its entirety.

STAKEHOLDER/OWNER NAME	OWNER POSTAL ADDRESS	SIGNATURE(S)	DATE

ISSUED DETAILS					
Author/Company	Barron Building Surveying BSC Reg 93 Bushfire Consultant	Person	Chadwick Barron	Signature	Date February 2023 Version v2

1. Proposal Details

PROPERTY DESCRIPTION	
Address of Development	Lot 2349, Guara Drive, Sunset Beach WA 6530
Local Government Area	City of Greater Geraldton
Proposal	Undertaken Bushfire Assessment for proposed Structure Plan with for vacant land into residential allotments.
Town Planning Scheme	City Greater of Geraldton Scheme 5

1.1 Site Location

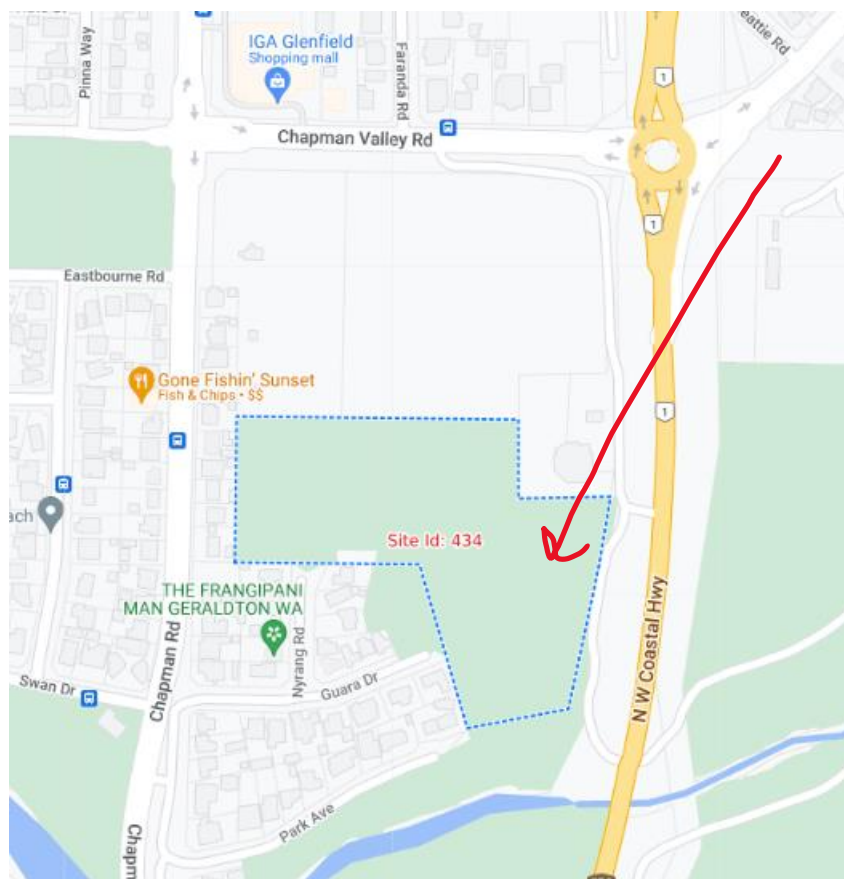


Figure 1 Site Location

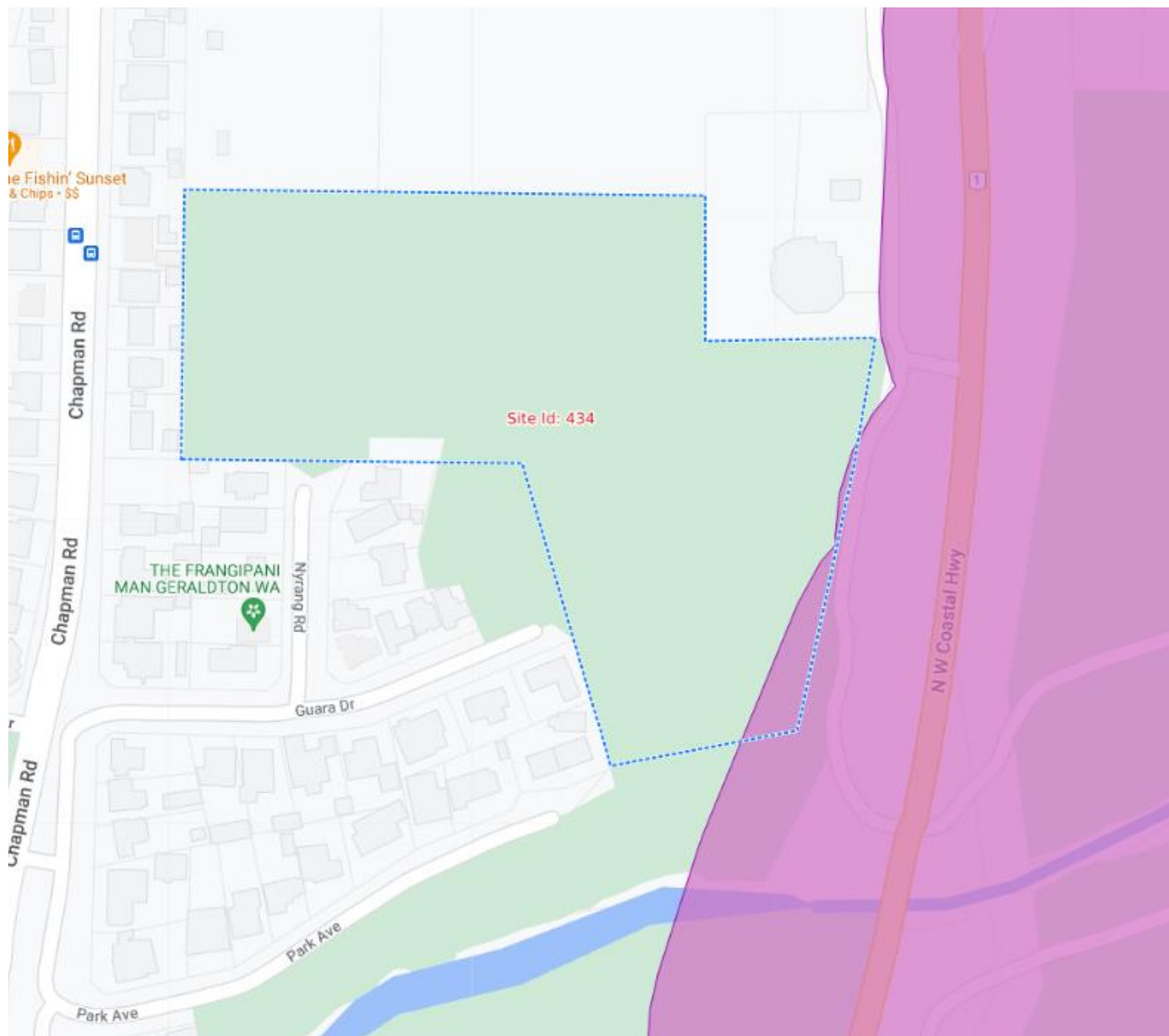


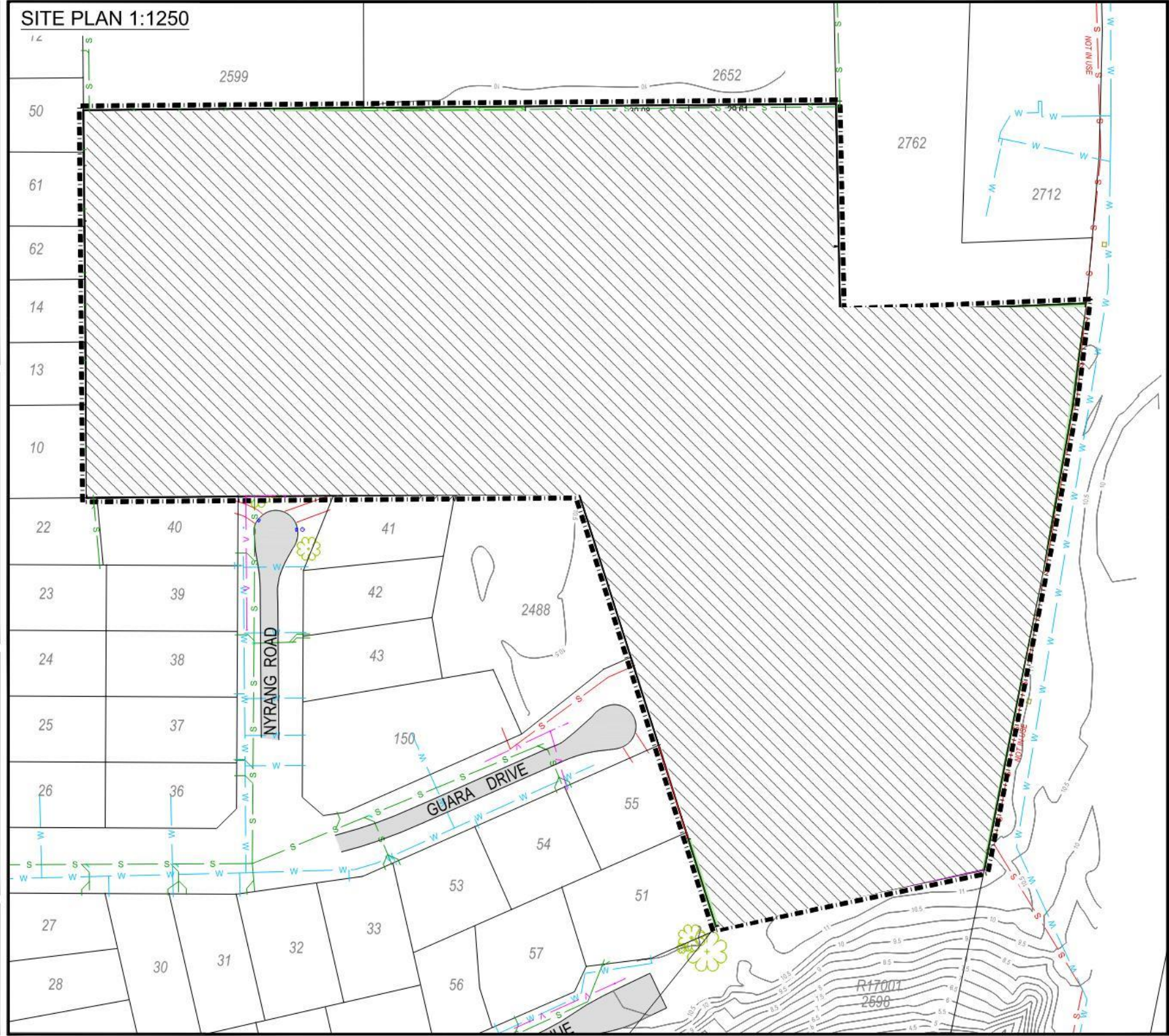
Figure 2 DFES Mapping Screen Shot (July 2023 Checked Oct)

City of Greater Geraldton LPS No1 Zoning: Residential R30			Minimum Requirement	Actual Provision
Gross Subdivisional Area				4.5762ha
Indicative Lot Yield Comprising:				36 Single Residential 1 Grouped Housing
Residential	R20	Minimum Lot Size	350m²	410m²
		Average Lot Size	450m²	520m²
		Minimum Frontage	10m²	14m
	R30	Minimum Lot Size	260m²	Determined at Development Stage
		Average Lot Size	300m²	Determined at Development Stage
Drainage Reserve				TBA
Length of Proposed Road Reserve				780m
Area of Proposed Road Reserve				1.310ha
Public Open Space Reserve Refer POS Schedule			10%	-

Public Open Space (POS) Schedule			
Lot 2349 Area			4.5762ha
Less Other Zoned Lots			NA
Less Other Deductions			NA
Gross Subdivisional Area			4.5762ha
Total POS Contribution	10%		4576m ²
To comprise Maximum	8% Unrestricted Use	TBA	
	2% Restricted Use	TBA	
POS Provision Actual	Unrestricted Use		TBA
	Restricted Use	2%	TBA
	Cash-in-lieu TBA % of 10%	8%	TBA

- Notes:
1. Subdivision Plan **Indicative Only**.
 2. The plan is prepared for discussion purposes only and should not be used for any other purpose. No liability will be accepted where the plan is used for purposes other than that indicated in (1) above.
 3. Indicative Only Plan to be included in Structure Plan application/report for illustrative purposes only. Lot dimensions and areas subject to detailed design at subdivision stage.
 4. POS/Stormwater retention areas indicative only.
 5. All service information provided by relevant agencies.
 6. This plan is prepared using information provided by Landgate. The data extracted from Geospatial Databases is intended for informational purposes only.
 7. Survey Data: Quantum Surveys Ref: 22517

LEGEND			
	- SUBJECT LAND BOUNDARY		- NBN ALIGNMENT
	- PROPOSED CADASTRAL		- SEWER ALIGNMENT
	- SEWERAGE EASEMENT		- WATER ALIGNMENT
			- SEWER ALIGNMENT
			- POWERLINE



TITLE: INDICATIVE SUBDIVISION LAYOUT PLAN LOT 2349 ON DEPOSITED PLAN 213800 GUARA DRIVE, SUNSET BEACH		CLIENT: SUNSET BEACH ESTATE PTY LTD		 LANDWEST URBAN AND RURAL PLANNING CONSULTANTS	8 Anzac Terrace Geraldton WA 6530 PO BOX 1597 Geraldton WA 6531 Email : info@landwest.net.au Phone : (08) 9965 0550 Fax : (08) 9965 0559		REV: DATE: DETAILS: BY: APPROVED:	
CERTIFICATE OF TITLE(S) : 4027/642		DATE LAST MODIFIED: 19/10/2023			APPROVED:		PLAN: 23130-01-F	
* This plan remains the property of Landwest and must not be used for any purpose other than which it was prepared for, in relation to the land duly described. Landwest accepts no responsibility for any losses or damages caused to any person/s who may use the information for a purpose for which it was not intended.		SCALE: 1:1250 @A3			DESIGNED: GMB DRAWN: DW			

Figure 3 Site Layout Plan (Not to scale) (A3 Page)

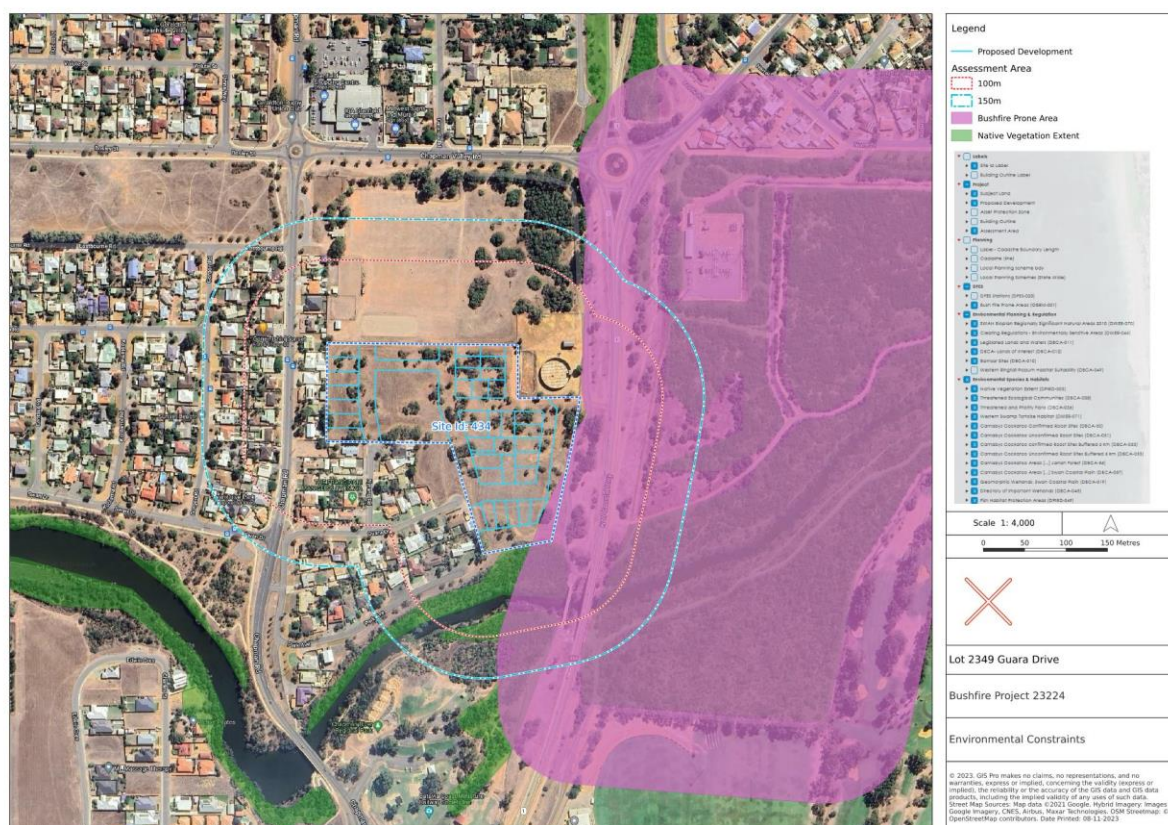
2. Environment Considerations

The proposed development is located within the administration area of the City of Greater Geraldton. The development of the site is for undertaken bushfire assessment for proposed Structure Plan of vacant land into residential allotments.

In accordance with the *Bushfire Management Plan – BAL Contour Template* prepared by the *Department of Planning, Lands and Heritage (2018)*, this BMP has considered *Table 1 Environment Consideration* which shows these results from publicly available databases.

Table 1 Environment Consideration

Department of Biodiversity, Conservation and Attractions (DBCA)	
RAMSAR Wetlands (DBCA-010)	None found on Government mapping systems register.
Threatened and Priority Flora (DBCA-036)	None found on Government mapping systems register.
Threatened Ecological Communities (DBCA-038)	None found on Government mapping systems register.
Department of Planning, Lands and Heritage	
Bush Forever Areas 2000 (DOP-071)	None found on Government mapping systems register.
Department of Water and Environmental Resources (DWER)	
Clearing Regulations – Environmentally Sensitive Areas (DWER-046)	None found on Government mapping systems register.
Swan Bio-plan Regionally Significant Natural Areas 2010 (DWER-070)	None found on Government mapping systems register.



2.1 Re-vegetation/Landscape Plans

The subdivision for the allotment is within classified vegetation as per *AS 3959 being Grassland (Open Shrubland)*. The structure plan does not indicate any vegetation planning at this stage. The recommendation is to be parkland cleared to meet the definition as per *AS 3959-2012 Table 2.3 Classification of Vegetation*, Open Shrubland (grassland).

This shall be undertaken if Local Government is satisfied, and the approval is granted under the *Planning and Development Act s157*. The justification is that this will reduce fuel load and decrease the bushfire risk and would be undertaken as per *Environmental Protection Act 1986 (Clearing of Native Vegetation) Regulations 2004, r51 schedule 6 cl 1 & 9*.

3. Bushfire Assessment Results

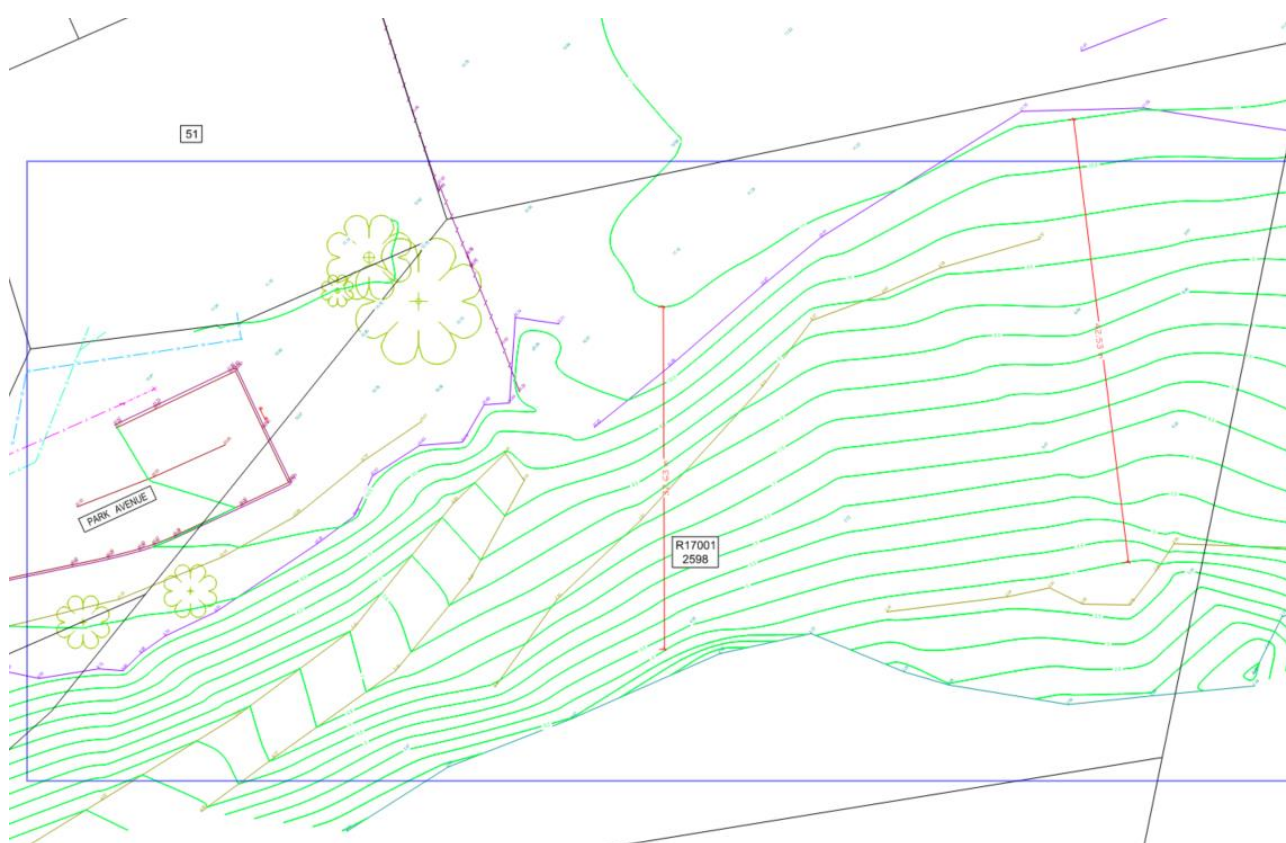
3.1 Assessment Inputs

The collection of input data is to identify the vegetation classification and Bushfire Hazard Levels for justification of the proposed structure plan. Onsite assessment and data collection has taken place and clarifies the results in *Table 2 Hazard Level Table and BAL Level* with the BMP including hazard levels, BAL contour plans and slope determination. These figures and tables show all classifiable vegetation within 150m of the development areas and the impact on each allotment.

3.1.1 Topography

The allotment is located on a coastal plain vegetation on near river system. The table below shows the slopes as determined by AS 3959 figures being, up slope or down slope.

Development Area	North	East	South	West
Lot 2349, Guara Drive, Sunset Beach	All upslopes and flat land (0 degrees)	Downslope >0 to 5 degrees	Downslope >5 to 10 degrees	All upslopes and flat land (0 degrees)



Southern side of development area into Chapman River. (slope ratio)

3.1.2 Vegetation Classification Assessment

All vegetation within 150m of the site/proposed development has been classified in accordance with AS 3959 Clause 2.2.3.1, *Department of Planning Visual Guide for Bushfire Risk Assessment* and the *Fire and Emergency Services Authority Visual Fuel Load Guide*. Each distinguishable type of vegetation has been plotted to show the potential Bushfire Attack Level (BAL Contour) and Bushfire Hazard Levels. There are only two vegetation structures within the fringe of the development area, the vegetation classification has considered the overall predominant vegetation type within the vegetation plotted. There are vegetation classification differences in AS 3959 compared to the botanical vegetation description and the BMP vegetation type area are based on AS 3959.

Refer to *Appendix 1* for vegetation photo data related to the locations plotted on *Figure 4 Photo Location Map (A3 Page)* and *Figure 5 Photo Location Map Aerial*.

Table 2 Hazard Level Table and BAL Level

Bushfire Vegetation				
Outcome onto Allotments based on POS being managed low threat vegetation (Parkland)				
Vegetation Plot	Plot Photos Numbers	Vegetation Classification	Effective Slope under Classified Vegetation	Hazard Level
Plot 1	1-2-3-4	Excludable – Clause 2.2.3.2(f)	All upslopes and flat land (0 degrees)	Low
		Plot 1 is utilised as a sporting ground for Pony Club and has well maintained vegetation within the allotment that is deemed low threat vegetation. The Pony Club has completed its annual fire breaks and the adjacent area to the proposed structure plan is well maintained.		
Vegetation Plot	Plot Photos Numbers	Vegetation Classification	Effective Slope under Classified Vegetation	Hazard Level
Plot 2	5 -6 -7	Excludable – Clause 2.2.3.2(f)	All upslopes and flat land (0 degrees)	Moderate
		Managed land area for water corporation, low threat vegetation.		
Vegetation Plot	Plot Photos Numbers	Vegetation Classification	Effective Slope under Classified Vegetation	Hazard Level
Plot 3	7-8-9-15	Class G Grassland	All upslopes and flat land (0 degrees)	Moderate
		Open Shrubland, trees 2 to 4m high with grassy understory, situations with shrubs and trees, if the overstorey foliage cover is less than 10%. Includes pasture and cropland.		
Vegetation Plot	Plot Photos Numbers	Vegetation Classification	Effective Slope under Classified Vegetation	Hazard Level
Plot 4	10 -11 -12 & Aerial mapping.	Class D Scrub	Downslope >0 to 5 degrees	Extreme
		Found in wet areas and/or areas affected by poor soil fertility or shallow soils; >30% foliage cover. Dry heaths occur in rocky or sandy areas. Shrubs >2 m high. Typical of coastal areas and tall heaths up to 6 metres in height. May be dominated by Banksia, Melaleuca or Leptospermum with heights of up to 6 metres.		

Vegetation Plot	Plot Photos Numbers	Vegetation Classification	Effective Slope under Classified Vegetation	Hazard Level
Plot 5	16 – 19 – 30	Class D Scrub Found in wet areas and/or areas affected by poor soil fertility or shallow soils; >30% foliage cover. Dry heaths occur in rocky or sandy areas. Shrubs >2 m high. Typical of coastal areas and tall heaths up to 6 metres in height. May be dominated by Banksia, Melaleuca or Leptospermum with heights of up to 6 metres.	All upslopes and flat land (0 degrees)	Extreme
Vegetation Plot	Plot Photos Numbers	Vegetation Classification	Effective Slope under Classified Vegetation	Hazard Level
Plot 6	10 -34	Excludable – Clause 2.2.3.2(e) Water way, Chapman River. Non vegetated area.	All upslopes and flat land (0 degrees)	Moderate
Vegetation Plot	Plot Photos Numbers	Vegetation Classification	Effective Slope under Classified Vegetation	Hazard Level
Plot 7	14 -17 - 18 – 29 – 30 -31 - 32	Class D Scrub Found in wet areas and/or areas affected by poor soil fertility or shallow soils; >30% foliage cover. Dry heaths occur in rocky or sandy areas. Shrubs >2 m high. Typical of coastal areas and tall heaths up to 6 metres in height. May be dominated by Banksia, Melaleuca or Leptospermum with heights of up to 6 metres.	Downslope >5 to 10 degrees	Extreme
Vegetation Plot	Plot Photos Numbers	Vegetation Classification	Effective Slope under Classified Vegetation	Hazard Level
Plot 8	21–33– 25 – 9 - 33 – 20 - 23 -24	Class G Grassland Open Shrubland, trees 2 to 4m high with grassy understory, situations with shrubs and trees, if the overstorey foliage cover is less than 10%. Includes pasture and cropland. This will be modified to low threat vegetation	All upslopes and flat land (0 degrees)	Moderate
Vegetation Plot	Plot Photos Numbers	Vegetation Classification	Effective Slope under Classified Vegetation	Hazard Level
Plot 9	21-22- 26-35	Excludable – Clause 2.2.3.2(f) Urban built-up area with roadways and buildings. Low threat vegetation. No continuous canopy vegetation through the allotments.	All upslopes and flat land (0 degrees)	Moderate

Vegetation Plot	Plot Photos Numbers	Vegetation Classification	Effective Slope under Classified Vegetation	Hazard Level
Plot 10	Aerial	Class G Grassland	All upslopes and flat land (0 degrees)	Moderate
		Open Shrubland, trees 2 to 4m high with grassy understory, situations with shrubs and trees, if the overstorey foliage cover is less than 10%. Includes pasture and cropland.		
Vegetation Plot	Plot Photos Numbers	Vegetation Classification	Effective Slope under Classified Vegetation	Hazard Level
Plot 11	36-37	Excludable – Clause 2.2.3.2(f)	All upslopes and flat land (0 degrees)	Low
		Urban built-up area with roadways and buildings. Low threat vegetation. No continuous canopy vegetation through the allotments.		

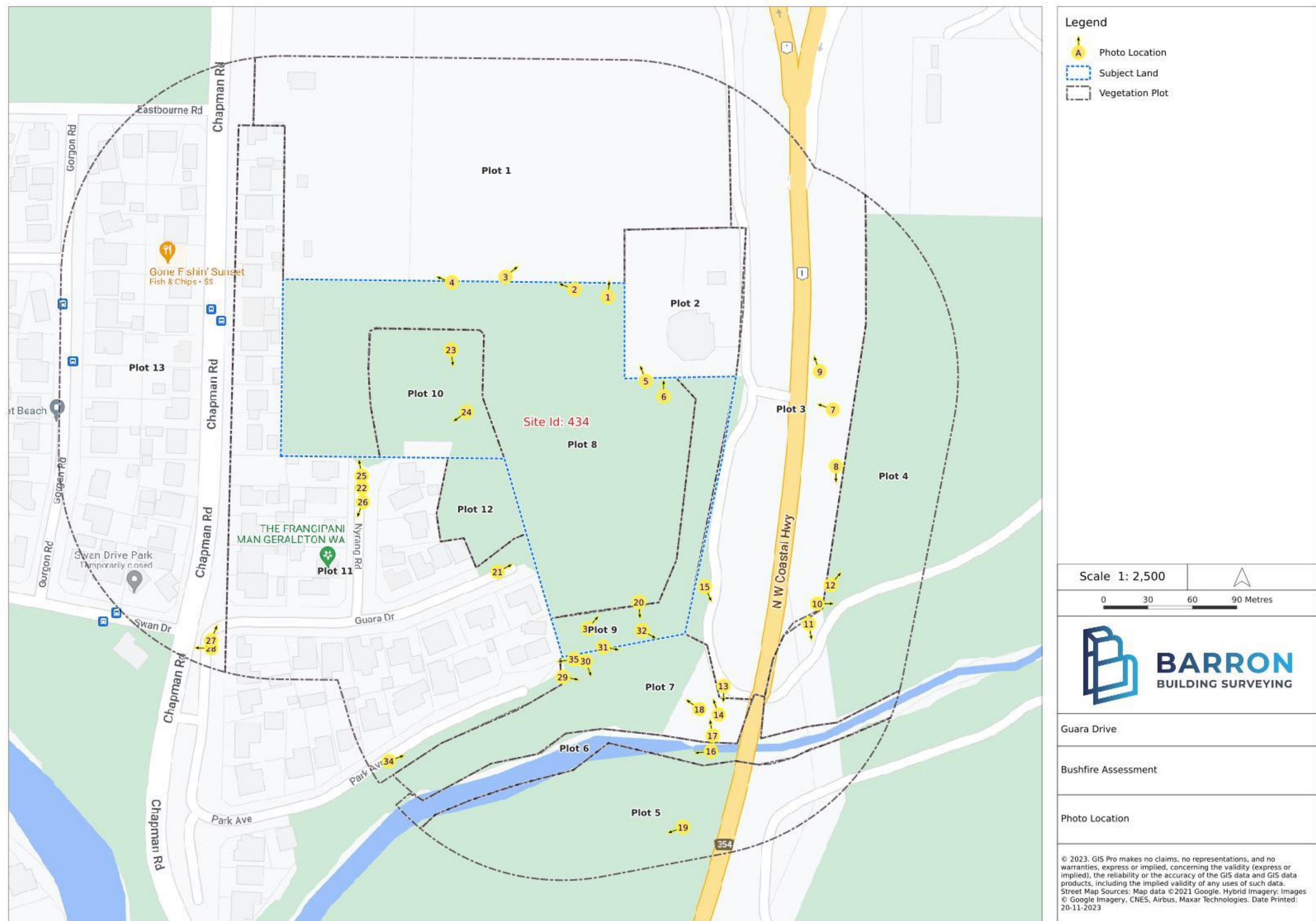


Figure 4 Photo Location Map (A3 Page)



Legend

- Photo Location
- Subject Land
- Assessment Area 100m
- Assessment Buffer (150m)

Scale 1: 2,500

0 30 60 90 Metres



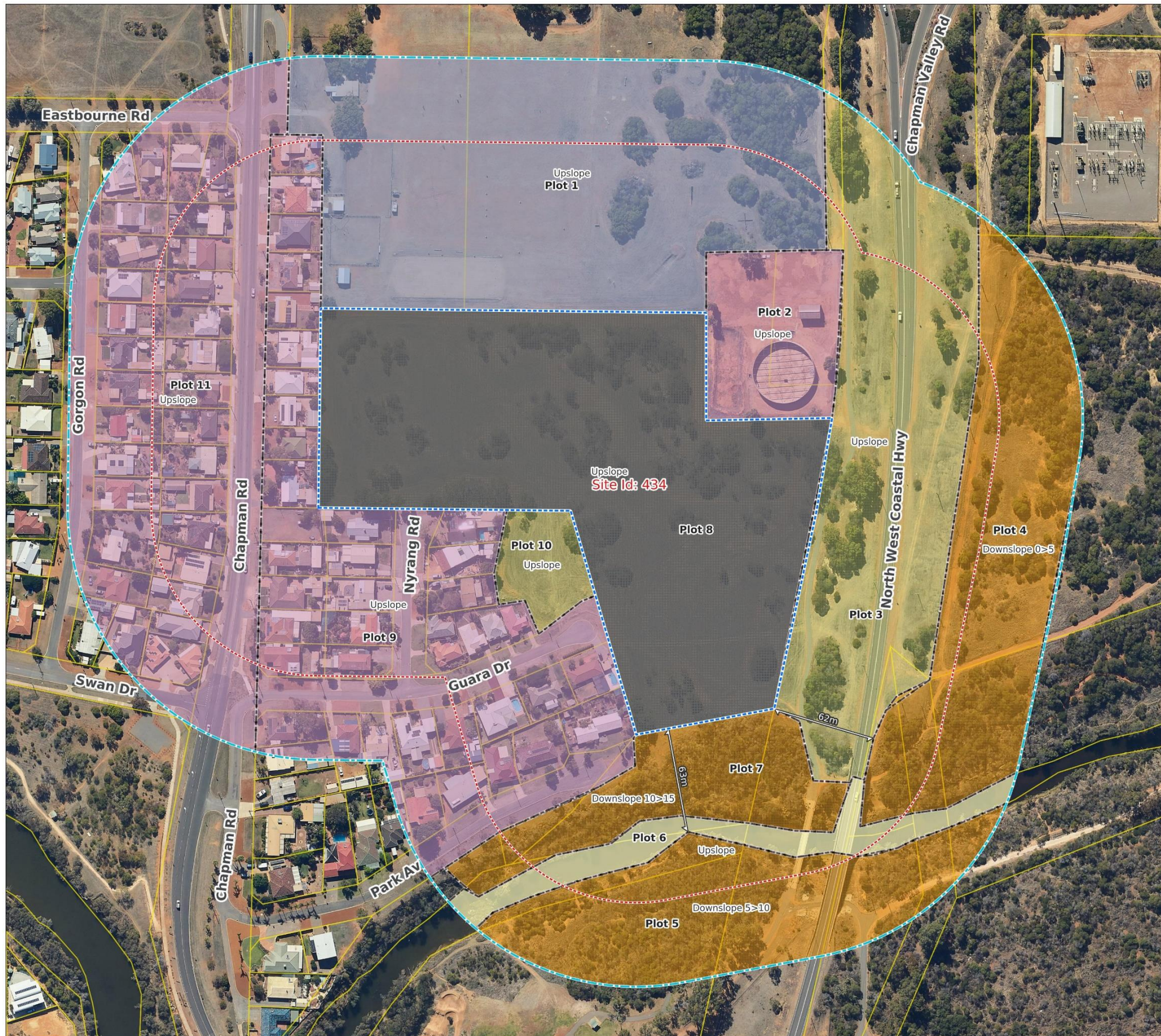
Guara Drive

Bushfire Assessment

Photo Location Aerial

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Street Map Sources: Map data ©2021 Google. Hybrid Imagery: Images © Google Imagery, CNES, Airbus, Maxar Technologies. Date Printed: 20-11-2023

Figure 5 Photo Location Map Aerial (A3 Page)



Legend

- Vegetation Distance From Site
- Subject Land
- Assessment Area 100m
- Assessment Buffer (150m)
- Cadastre
- Vegetation Plot
- Classified Vegetation
 - D. Scrub
 - G. Grassland
 - Excluded Clause 2.2.3.2(e)
 - Excluded Clause 2.2.3.2(f)
 - Excluded Clause 2.2.3.2(e&f)
 - Modified to non vegetated and low threat

Scale 1: 2,500

0 30 60 90 Metres

BARRON
BUILDING SURVEYING

Guara Drive

Bushfire Assessment

Vegetation Classification

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Figure 6 Vegetation Classification Mapping (A3 Page)



Figure 7 Slope and Contours Land Survey (A3 Page)

3.2 Bushfire Assessment Outputs

The potential bushfire impact to the Land Structure Plan has been determined by classifying the vegetation type and slope beneath the vegetation as per AS 3959 s2.2.5.

The potential Bushfire Hazard has been determined as per *Guidelines for Planning in Bushfire Prone Areas Table 3*. The bushfire impact is as per *Table 2 Hazard Level Table and BAL Level*.

Bushfire contour mapping has been produced to show the impact of bushfire ember attack into the development areas. The fire danger index for this site has been determined in accordance with AS 3959 Table 2.1 (FDI 80). The BAL Contour mapping is shown in *Figure 10 Bushfire BAL Contour*. Utilising this mapping will form part of the development of the internal design layout and placement of internal roadways, fire breaks and APZ's which determine the output of the management strategies.

Table 3: BHL and classified vegetation (as per AS-3959)

HAZARD LEVEL	CHARACTERISTICS
Extreme	• Class A: Forest • Class B: Woodland (05) • Class D: Scrub • Any classified vegetation with a greater than 10 degree slope
Moderate	• Class B: Open woodland (06), Low woodland (07), Low open woodland (08), Open shrubland (09)* • Class C: Shrubland • Class E: Mallee/Mulga • Class G: Grassland, including sown pasture and crops • Vegetation that has a low hazard level but is within 100 metres of vegetation classified as a moderate or extreme hazard, is to adopt a moderate hazard level.
Low	• Low threat vegetation may include areas of maintained lawns, golf courses, public recreation reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks. • Managed grassland in a minimal fuel condition (insufficient fuel is available to significantly increase the severity of the bushfire attack). For example, short-cropped grass to a nominal height of 100 millimetres. • Non-vegetated areas including waterways, roads, footpaths, buildings and rock outcrops.

Figure 8 SPP3.7 Table 3 Hazard Level

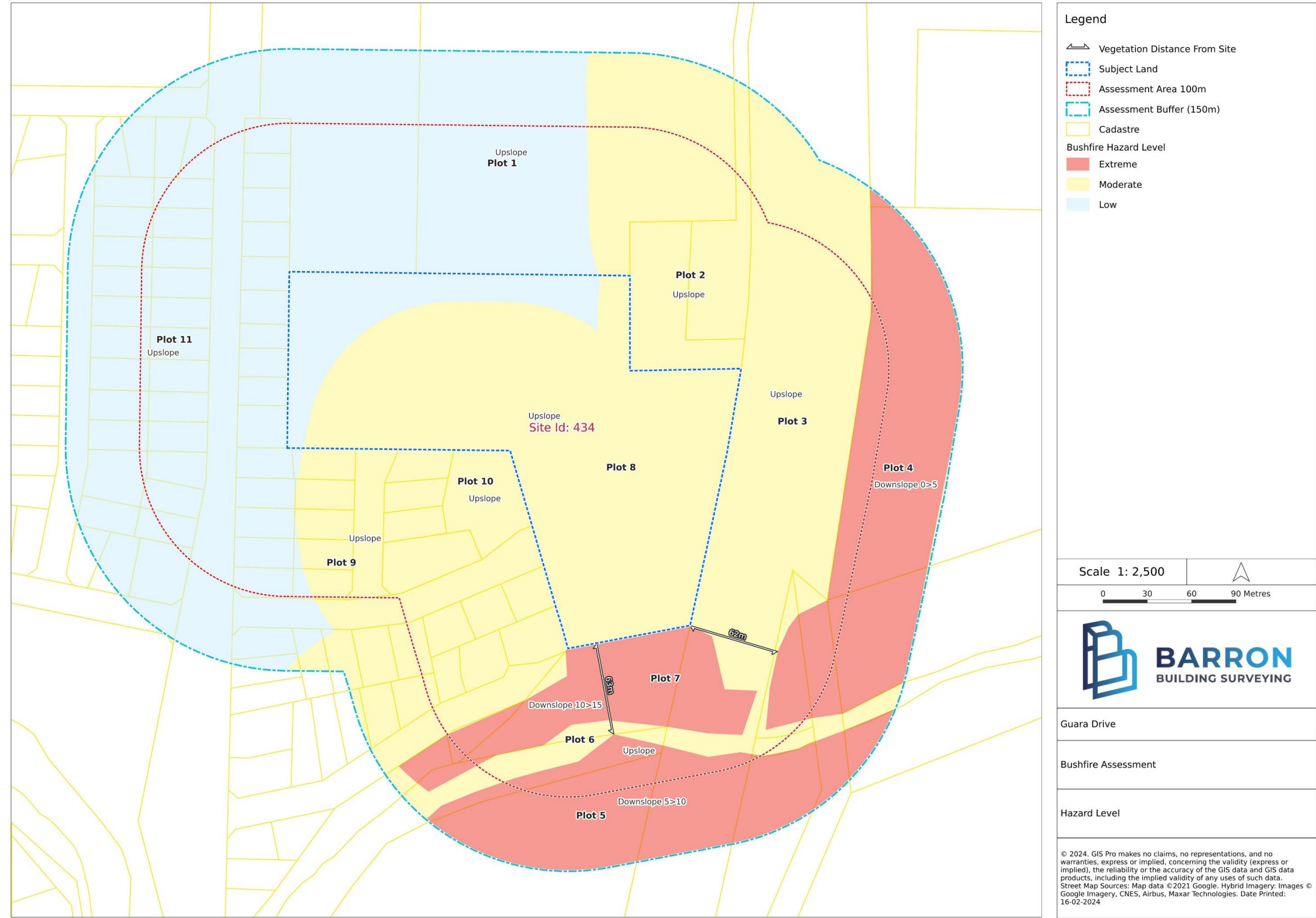


Figure 9 Hazard Level Mapping (A3 Page)

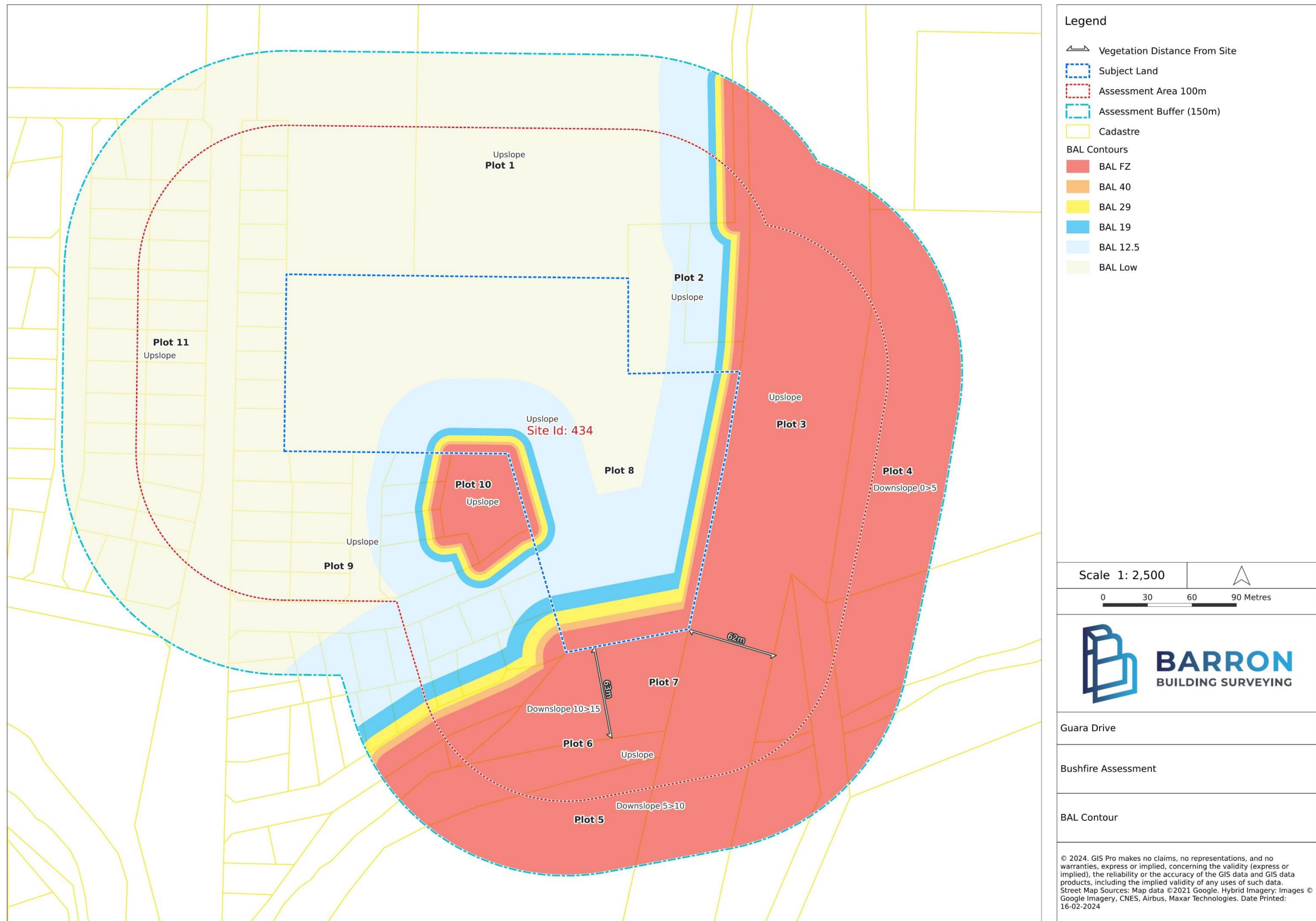


Figure 10 Bushfire BAL Contour (A3 Page)

4. Identification of Bushfire Hazard Issues

The other identified hazard issues other than bushfire, is that the proposed development area is located adjacent to Water Corporation Assets that is not active and major roadway, being Northwest Coastal Highway, which is an important asset to the surrounding community. Also, the Southern side rears onto Chapman River vegetation.

5. Assessment against Bushfire Protection Criteria

Objectives

- Avoid any increase in the threat of bushfire to people, property, and infrastructure.
- Reduce vulnerability to bushfire.
- Ensure that all level of planning documents consider bushfire protection requirements and include specified bushfire protection measures.
- Achieve an appropriate balance between bushfire risk management measures and other environmental issues.

The bushfire management measures required to achieve the acceptable solutions of the relevant bushfire protection criteria have been discussed through this report and are presented and summarised in *Table 3 SPP3.7 Solution Compliance Table* and described in the *Additional Management Strategies*.

Table 3 SPP3.7 Solution Compliance Table is based on the *State Planning Policy SPP3.7 - Guidelines for Planning in Bushfire Prone Areas Version 1.4 Appendix 4, Bushfire Protection Criteria*. The details for the acceptable solution of the *State Planning Policy SPP3.7*, are commented on and show how the development is addressing the bushfire risk.

Table 3 SPP3.7 Solution Compliance Table

ELEMENT 1: LOCATION	
PERFORMANCE PRINCIPLE	PROPOSED ACCEPTABLE SOLUTIONS
P1	A1.1 Development location
STATEMENT OF COMPLIANCE	
The proposed structure plan by Landwest Figure 3 shows the area of development would be suitable and meets the acceptable solutions. The development area is adjacent to unmanaged vegetation within the Chapman River area to the South and East, this vegetation is the potential hazard to the development. Figure 9 Hazard Level Mapping (A3 Page) shows that the hazard level outcome. Figure 10 Bushfire BAL Contour (A3 Page) shows the BAL levels onto the structure plan with and outcome off BAL level ranging from FZ Low to 12.5.	
ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT	
PERFORMANCE PRINCIPLE	PROPOSED ACCEPTABLE SOLUTIONS
P2	A2.1 Asset Protection Zone (APZ)
STATEMENT OF COMPLIANCE	
The BAL contour mapping reveals that certain regions in the Eastern and Southern parts of the structure plan have been classified as BAL FZ. These areas have the potential to accommodate APZs along with a subdivision layout. However, there is still a significant portion of land that falls under the BAL 29 to BAL 12.5 category. To achieve an APZ within the Eastern and Southern sides the proposed subdivision layout should consider the placement of public open spaces, stormwater drainage or longer allotment designs in these areas to facilitate APZ within each allotment boundary.	
ELEMENT 3: VEHICULAR ACCESS	
PERFORMANCE PRINCIPLE	PROPOSED ACCEPTABLE SOLUTIONS
P3i	A3.1 Public roads
STATEMENT OF COMPLIANCE	
Additional management strategies have been included as part of the BHL assessment.	

PERFORMANCE PRINCIPLE P3i	PROPOSED ACCEPTABLE SOLUTIONS A3.2a Multiple access routes
STATEMENT OF COMPLIANCE	
The existing Guara Road and Nyrang Road feeds onto Chapman Road which has a North and South direction to two different destinations. The development is situated adjacent to Northwest Coastal Highway and other allotments to the North. Therefore, the development is in an existing built out area. Due regard must be consisted to these in relation to the bushfire hazard, this being the South Chapman River area. The South allotments would be able to travel on an internal road network onto Nyrang Road in a North direction away from the hazard when out onto Chapman Road.	
PERFORMANCE PRINCIPLE P3i	PROPOSED ACCEPTABLE SOLUTIONS A3.2b Emergency access way
STATEMENT OF COMPLIANCE	
It no intention to provided and emergency access way, as an allotment design could achieve a multiple access routes	
PERFORMANCE PRINCIPLE P3i	PROPOSED ACCEPTABLE SOLUTIONS A3.3 Through-roads
STATEMENT OF COMPLIANCE	
Gura Drive presents site constraints due to its proximity to established development areas, necessitating careful consideration in the design of allotments. The design should prioritize creating a seamless link between Gura Drive and Nyrang Road, which would greatly enhance the accessibility of the existing road network.	
PERFORMANCE PRINCIPLE P3ii	PROPOSED ACCEPTABLE SOLUTIONS A3.4a Perimeter roads
STATEMENT OF COMPLIANCE	
The intention is not to provided perimiter road as the only roadway would be adjcent to North West Coastal Highway and would be seen to decrease the visual amaneties to the locality/development outcome.	
PERFORMANCE PRINCIPLE P3iii	PROPOSED ACCEPTABLE SOLUTIONS A3.4b Fire service access route
STATEMENT OF COMPLIANCE	
None proposed. It is noted the Park Avenue access could be designed to have fire access path.	
PERFORMANCE PRINCIPLE P3iv	PROPOSED ACCEPTABLE SOLUTIONS A3.5 Battle-axe access legs
STATEMENT OF COMPLIANCE	
The allotment is in built out area as per notes A3.2a, therefore has some design constrained to consider on design of the allotment layout. There is adequate space within the structure plan to avoid battle-axe legs.	
PERFORMANCE PRINCIPLE P3iv	PROPOSED ACCEPTABLE SOLUTIONS A3.6 Private driveways
STATEMENT OF COMPLIANCE	
N/A	
ELEMENT 4: WATER	
PERFORMANCE PRINCIPLE	PROPOSED ACCEPTABLE SOLUTIONS A4.1 Identification of future water supply
STATEMENT OF COMPLIANCE	
The existing area is serviced by reticulated water and would be designed to meet the Water Corporation guidelines. As per additional management strategies.	
PERFORMANCE PRINCIPLE P4	PROPOSED ACCEPTABLE SOLUTIONS A4.2 Provision of water for firefighting purposes
STATEMENT OF COMPLIANCE	
As per additional management strategies.	

6. Responsibilities for Implementation and Management of Bushfire Measures

6.1 Additional Management Strategies

The proposed development has been designed to include management strategies that are acceptable under the *State Planning Policy SPP3.7 Guidelines for Planning in Bushfire Prone Areas Version 1.4*.

1. Ensure owners listed as having responsibility under this Bushfire Hazard Level Assessment have endorsed it and provided future owners on transfers of land a complete copy of the current Bushfire Hazard Level Assessment for their information.
2. Lodge a Section 70A (Transfer of Land Act 1893) notification on the certificate(s) of title of the proposed lot(s). Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state 'Gura Drive Structure Plan is in a bushfire prone area and (if applicable) are subject to a Bushfire Risk'. This shall alert the purchasers of land and successors in title of their responsibilities (SPP3.7 s6.10 and 'Guidelines' s5.3).
3. Future development is required to address State Planning Policy 3.7 – Guidelines for Planning in Bushfire Prone Areas by installing Asset Protection Zone(s) to the standards stated in this BMP to achieve the intended BAL outcomes for the Public open space.
4. At subdivision design stage the design layout shall meeting the requirements of Local Government Guidelines for Subdivision Development (IPWEA Subdivision Guidelines), Liveable neighbourhoods, Austroad standard and/or any applicable standards for the local government.
5. Provide design layout at subdivision stage that meets the requirements of Water Supply Services Authority.

6.2 Responsibilities for Implementation and Management of the Bushfire Measures

This section relates to the responsibilities of the developer(s), landowner(s) and local government with regards to the initial implementation and ongoing maintenance of the required actions.

- The requirements are to be set out in a table(s) and provide the following:
 - the required initial and ongoing actions and any associated works that need to be undertaken
 - provision for those proposals that will be staged
 - responsibilities – separately identified and assigned to the developer(s), landowner and local government, as applicable
 - for each responsible entity, the actions are to be assigned a number
 - the required timing of the actions.

SPP3.7 Guideline Notes

For subdivision applications, the following table should be included to assist the local government in providing a subdivision 'clearance' to certify that all relevant conditions of the subdivision approval have been satisfactorily undertaken. The local government should determine which, if any, of these bushfire mitigation strategies they wish to certify and which (if any) they wish the planning practitioner to certify. Some may require certification by both practitioner and local government. Through completion of the necessary implementation actions, the bushfire planning practitioner is certifying the BAL ratings (derived from the BAL assessment) are correct.

Table 4 Implementation Actions

LANDOWNER/DEVELOPER – PRIOR TO ISSUE OF TITLES	
No.	Implementation Action
1.	A notification, pursuant to Section 165 of the <i>Planning and Development Act 2005</i> or Section 70A of the <i>Transfer of Land Act 1893</i>, is to be placed on the certificates of title of the lots advising of the existence of a hazard or other factor. Notice of this notification is to be included on the diagram or plan of survey (deposited plan), and/or as required by the Western Australian Planning Commission. The notification is to state as follows: <i>"This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner and is subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on this land".</i> This is to alert potential purchasers of the land and successors in title of their responsibilities regarding bushfire mitigation and hazard management.
LANDOWNER/OCCUPIER – PRIOR TO/AS PART OF DEVELOPMENT APPROVAL	
No.	Implementation Action
1.	If required, prepare DA stage BMP to support future development applications.
2.	Future development is required to address <i>State Planning Policy 3.7 – Guidelines for Planning in Bushfire Prone Areas</i> by installing Asset Protection Zone(s) to the standards stated in this BMP to achieve the intended BAL outcomes for the Public open space.
3.	Future access to the development site on Lot 2349 is to be constructed in accordance with the standards specified by the <i>State Planning Policy 3.7 Guidelines for Planning in Bushfire Prone Areas - A3.6 Private Driveways</i> .
4.	<i>Provide design layout at subdivision stage that meets the requirements of Water Supply Services Authority.</i>

LANDOWNER/OCCUPIER – ONGOING	
No.	Implementation Action
1.	Comply with the relevant local government annual firebreak notice issued under <i>s33 of the Bush Fires Act 1954</i> .
LOCAL GOVERNMENT – ONGOING MANAGEMENT	
No.	Implementation Action
1.	Maintain road verges in a low threat minimal fuel condition as per AS 3959.

7. Bushfire Attack Level Certificate

Bushfire Attack Level (BAL) Certificate Determined in accordance with AS 3959

Property Details and Description of Works

Address Details	Unit no	Street no Guara	Lot no	Street Name / Plan Reference Drive		
	Suburb Sunset Beach			State WA	Postcode 6530	
Local Government Area	City of Greater Geraldton					
Main BCA Class of the building	1a	Use(s) of the building				
Description of the building or works						

Determination of Highest Bushfire Attack Level

AS 3959 Assessment Procedure	Vegetation Classification	Effective Slope	Separation Distance installed APZ	BAL
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Method 1	Select Classification	Select Slope		Select BAL
Shield Provision				

Bushfire Consultant Details

Name Chadwick Barron – Bushfire Consultant		
Company Details		
I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level stated above in accordance with the requirements of AS 3959 (Incorporating Amendments 1, 2 and 3).		
<i>Authorized Practitioner Stamp</i>		

Reliance on the assessment and determination of the Bushfire Attack Level contained in this certificate should not extend beyond a period of 12 months from the date of issue of the certificate. If this certificate was issued more than 12 months ago, it is recommended that the validity of the determination be confirmed with the Accredited Practitioner and where required an updated certificate issued.

8. Bushfire Management Confirmation

Confirmation of Additional Management Strategies have been Implemented

Property Details and Description of Works

Address Details	Unit no	Street no Guara	Lot no 2349	Street Name / Plan Reference Drive	
	Suburb Sunset Beach			State WA	Postcode 6530
Local Government Area	City of Greater Geraldton				
Description of the BMP					

Person Details

Name		
Company Details		
I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Management Plan Additional Strategies have been completed to substantially satisfy the commencement of the Development.		
	<i>Authorized Practitioner Stamp</i>	