Albany Motorsport
Park
Lot 5780 Down Road
Drome

Bushfire Management Plan





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TITLE

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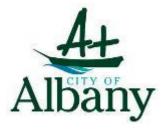
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1. Executive Summary

The City of Albany commissioned Bio Diverse Solutions and Eco Logical Australia to prepare a Bushfire Management Plan (BMP) for the proposed Albany Motorsport Park (AMP) at Lot 5780 Down Road, Drome WA 6330. The City of Albany Local Planning Scheme (LPS) No.1 outlines the area zoned as 'Priority Agriculture' and is located within the Drome Industrial Buffer Area. It is proposed through the Scheme Amendment Process to rezone the area to 'Special use' under LPS1.

This BMP has been prepared to assess the subject site against the current and endorsed Guidelines for Planning in Bushfire Prone Areas Vers 1.3 (WAPC, 2017) and State Planning Policy 3.7 (SPP 3.7; WAPC, 2015). Such planning takes into consideration standards and requirements specified in various documents such as Australian Standard (AS) 3959-2009, Western Australian Planning Commission (WAPC) Guidelines for Planning in Bushfire Prone Areas Vers 1.3 (WAPC, 2017) and SPP 3.7 (WAPC, 2015). These policies, plans and guidelines have been developed by WAPC to ensure uniformity to planning in designated "Bushfire Prone Areas" and consideration of the relevant bushfire hazards when identifying or investigating land for future development.

The concept plan outlines a multi-use development, the details of this plan will be finalised as part of the future Development Application, the plan includes:

- · Motocross track and clubrooms;
- A multi-use 3.5km bitumen race track for race events such as for motor car racing, motorcycle racing, drifting, driver training and cycling;
- A 1000 foot drag strip for drag racing;
- A 1300m² burnout area;
- A function building and club rooms;
- Spectator viewing areas;
- Pit marshalling areas and storage sheds;
- Site parking; and
- An off-road four-wheel drive and all-terrain vehicle training area.

The staging of the development of the AMP includes a 2 staged process:

Stage 1: Development of the motocross track in the north of the site, development of the multiuse track for state motor car, motorcycle and cycling events; and enabling works such as feasibility, planning, design works and access roads.

Stage 2: Contemplate the further development of the AMP site as patronage increases and the range of uses in broadened (e.g. lighted evening events, international events) and is dependent on further funding. (GHD, 2018)

The proposed Motorsport Park is located in a Bushfire Prone Area (SLIP, 2018) and as such triggers compliance with requirements of State Planning Policy 3.7 – Planning in Bushfire Prone Areas (SPP 3.7). The proposed scheme amendment is considered a 'Strategic Planning Proposal' under SPP 3.7 and must be accompanied by a Bushfire Hazard Level (BHL) Assessment and demonstrate compliance with bushfire protection criteria in the form of a BMP. The BMP is to provide sufficient evidence that the rezoning proposal has, or can be made to have a low to moderate Bushfire Hazard Level.

The external bushfire risks to the site are the continuous remnant vegetation and plantations located to the west and north west, east, north and south east. The creek central to the subject site drains to the south west and risks of bushfire in this direction is also evident. Remnant vegetation located internal to the subject site in the west was burnt in the recent May 2018 bushfires. The external remnant forest areas (including plantations) present Extreme Bushfire Hazard levels (as defined by WAPC) to the AMP development. To the south and east of the site is predominantly farmland areas grazed by cattle which present moderate BHL risks.

The subject site was assessed as having internal areas of Forest Type A, Woodland Type B, Grassland Type G, Shrubland Type C and Scrub Type D. Bushfire Hazard Level (BHL) Mapping has allocated extreme,



moderate and low hazard level across the site with the post development BHL moderate or low in development areas of the AMP.

BAL contouring across the subject site has allocated BAL ratings of BAL-29 or less applies to buildings within the proposed concept plan. All internal woodland and grassland areas (previously grazed paddocks) will be managed and maintained in low fuel state (slashed/mowed to <100mm for grasses and trees to WAPC APZ standards) and documented through the Operational Management Plan (OMP) prior to the AMP operating.

To mitigate bushfire risks to the site the following parameters are to be employed:

- Fuel hazard reduction burning in the internal western remnant bushland (rotation 8-10 years and governed by CoA Emergency services priorities and resources). Refer to Section 9.2 of this report.
- Excluding bushfire from the central creek area to reduce the risk of peat fires on the subject site (no planned burning, mineral earth firebreaks, low fuel buffers).
- Reducing risks of ignition from the motorsport events (internal) as outlined in Section 7 of this report.
- Reducing risk of ignition from external sources through liaison with neighbours and consultation with the Local Bushfire Brigade (Highway Brigade located 5km away near Albany Airport).
- Modifying and maintaining the existing internal areas of Grassland Type G and Woodland Type B to a low fuel state at all times (as per WAPC Standards).
- Traffic control during events to ensure safe and timely evacuation of personnel from the site in event of bushfire.
- Consideration of purchase of fast attack light unit for the AMP site and to be placed adjacent to any
 practise areas (non-event days).
- Event days will have full fire safety crews, ambulance and safety personnel strategically located around the track.
- Documentation of control measures in the OMP as outlined in this BMP report for the site.
- Lease arrangements from the CoA to the AMP controlling body to define management controls of the development site as defined in the implementation table Section 10 of this report.

Consultation with Department of Fire and Emergency Services (DFES) and Department of Planning, Lands and Heritage (DPLH) confirmed that they deemed the AMP to be a "High risk" land use. SPP 3.7 outlines that certain land uses may potentially ignite a bushfire, prolong its duration or increase its intensity. Such land uses are defined as 'High Risk'. The proposed Albany Motorsport Park (AMP) is defined a high-risk industry due to:

- Motorsport activities giving rise to risk of ignition and bushfire; and
- Exposure of the community, fire fighters and environment to dangerous substances from vehicles igniting.

A summary of recommendations from the brief risk assessment process includes:

- A detailed Operational Management Plan (OMP) to be developed by AMP which includes risk
 assessments (refer to example Appendix 5) as per Confederation of Australian Motor Sport (CAMS)
 policy and regulations to ensure there are actions to minimize risks of ignition from internal sources
 of the park.
- The OMP will be reviewed and endorsed by the CAMS prior to operation of the Albany Motorsport Park.
- Restricting public access through the site to spectator viewing areas and competitor areas, access
 around the whole of the site is restricted to emergency and safety services.
- Practice days and non-events are to be controlled and regulated by AMP and documented in the OMP for the site.
- Hazard reduction burning only occurs in the western remnant vegetation block, restrictions of fire in central creek area (peat fire risk) through 8m firebreak at edge of fencing of remnant vegetation (restrict grass fires passing into remnant vegetation).
- Controlled re-fueling of vehicles in designated areas, documented in OMP.



- Observing and complying with "Total fire ban days" and "Vehicle movement restrictions/bans" as set by LGA.
- No events held during Catastrophic Fire Danger Rating (FDR) days.

It is noted that although designated as a High-risk industry through the definition of SPP 3.7, the controls and management procedures implemented through the risk management process will reduce the risks of the AMP. The proposed uses associated with the AMP will be controlled and governed through:

- Designed to comply with CAMS' Track Operator's Safety Guide (CAMS 2012) and Motorcycling Australia (MA) Track Guidelines (MA 2011).
- To be licensed by CAMS for Fédération Internationalé de l'Automobile (FIA) Grade 2 and Fédération Internationalé Motocyclisme (FIM) Grade B (i.e. up to second-tier international motor racing).
- Motocross track designed and constructed in association with Motocross Australia guidelines.
- Drag strip designed and constructed in accordance with FIA specifications for drag strips and in association with Australian National Drag Racing Association (ANDRA).

Consideration of the High-risk nature of the AMP site is an ongoing process to be refined in future stages of the development approval process and to be addressed under a Bushfire Risk Management Plan (BRMP) if required or requested from the approving agency.

The proposal is defined as 'Vulnerable Land Use' (as per SPP 3.7) due to:

- Large numbers of people attending the AMP events (400-500 people club events, 10,000 people state events);
- Elderly demographic, children and mobility impaired people attending the AMP events;
- Presence of a function centre and clubrooms; and
- Site evacuation challenges associated with visitors and spectators on site.

Access internal the site will be provided in alternative directions to separate destinations to Down Road to the north and Down Road South to the weast. Multiple gates will also facilitate access/egress from the site on the north and eastern boundaries. Down Road is essentially a long cul-de-sac (dead end road terminating to the north west of the subject site), as is Down South Road (terminating to the south of the subject site). The surrounding public road network is a legacy to previous precinct planning and development approvals. During the preparation of this BMP report four access options were investigated to the north, west, and south. The City of Albany will be providing secondary emergency access to Albany Highway via securing tenure and implementing the construction as per Option 4 outlined in Appendix 7 of this report.

Access Option 4 is the construction of and Emergency Access Way (EAW) to link Down Road South and Albany Highway to enable a secondary access/egress for the AMP site. Consultation undertaken by CoA during the preparation of this BMP has sought verbal in-principle agreement for the linking EAW by Main Roads Western Australia (MRWA), Water Corporation Western Australia (WCWA) (landowner), and Lindsay Black (landowner). This will be gazetted as an easement in gross to allow for emergency access/egress in a bushfire event. This will give the AMP an alternative access route, which presently does not exist. The EAW will be an easement in gross to a minimum of 12m wide and measures 4.38km which does not meet the Acceptable Solutions (WAPC, 2017) and therefore has been assessed as non-compliant to the acceptable solutions (assessed under a performance based assessment as per the WAPC guidelines).

A Bushfire Emergency Evacuation Plan (BEEP) has been prepared to support this development and provides contingency actions in accordance with the requirements of the DPLH current and endorsed *Position Statement: Tourism land uses within bushfire prone areas* (WAPC, 2019). These contingencies include early closure of the site, off-site evacuation and as a last resort, refuge on site in a suitable building / open space.

The aim of the BEEP is early, safe and timely evacuation of the site prior to bushfire events and no events held on site during Catastrophic Fire Danger Rating (FDR) days (i.e. consider evening events, "Total Fire Ban" days and "Restricted vehicle movement days" (harvest bans). Contingency planning for evacuation is via an on-site open-air refuge (located in an area subject to a radiant heat flux of ≤2 kW/m²) for large events and clubroom buildings built to the ABCB handbook (ABCB, 2014) and BAL-29 (located in an area subject to a



radiant heat flux of ≤10 kW/m²). This is compliant with the current and endorsed DPLH *Position Statement:* Tourism land uses within bushfire prone areas (WAPC, 2019). The BEEP will form part of the Emergency Management Plan for the site which will be developed by AMP and updated prior to operations of the site.

An assessment to the WAPC Guidelines for Planning in Bushfire Prone Areas Vers 1.3, (WAPC,2017) bushfire protection criteria is summarised in Table 1 over the page.



Table 1: Bushfire protection criteria applicable to the site

Element	Acceptable Solution	Applicable or not Yes/No	Meets Acceptable Solution
Element 1 – Location	A1.1 Development Location	Yes	Compliant. BAL 29 or less applied to development footprint, Low to Moderate BHL post development.
Element 2 – Siting and Design	A2.1 Asset Protection Zone	Yes	Compliant. APZ applies to whole of development area to WAPC guidelines and contained within the subject site.
	A3.1 Two Access Routes		Internal compliant, external non- compliant. Two access to 2 destinations addressed using BEEP as per WAPC <i>Draft Position</i> Statement: Tourism land uses within bushfire prone areas (WAPC, 2018).
	A3.2 Public Road No		Not assessed existing public road network to be used.
	A3.3 Cul-de-sacs	No	N/A
	A3.4 Battle axes	No	N/A
Element 3 – Vehicular Access	A3.5 Private driveways	Yes	Compliant, all internal access to 6m pavement with 12m horizontal clearance.
	A3.6 Emergency Access Ways	Yes	Non-compliant external alternative emergency access via easement in gross 4.38km from site to Albany Highway, via a performance-based assessment.
	A3.7 Fire Service Access Ways	Yes	All internal FSAs to 8m width and linking around the subject site.
	A3.8 Firebreaks	Yes	All firebreaks to CoA FMN or to 8m as defined in report.
	A4.1 Reticulated areas	No	N/A
Element 4 –	A4.2 Non-reticulated areas	Yes	Compliant, Bore and Tank supply
Water	A4.3 Individual lots in non- reticulated areas	No	internal to the site. N/A

The City of Albany is presently pursuing the purchase of Lot 5780 Down Road Drome. Once purchased, the property, tracks and all permanent facilities and infrastructure constructed on the property will be owned by the City of Albany. The Albany Motorsport Park (AMP) will then be leased to an operator-manager by the City of Albany, with all operational and maintenance activities to be conducted by the operator-manager. Responsibilities for implementation are documented in Section 10 of this report and outlines responsibilities for the AMP Developer (occupiers of the development area) and the City of Albany as land managers. Measures outlined in this report are to be implemented in subsequent stages of planning and development.



2. Introduction

The City of Albany commissioned Bio Diverse Solutions in consultation with Eco Logical Australia to prepare a Bushfire Management Plan (BMP) for the proposed Albany Motorsport Park at Lot 5780 Down Road, Drome WA 6330. This BMP has been prepared to assess the subject site against the current and endorsed Guidelines for Planning in Bushfire Prone Areas Vers 1.3 (WAPC, 2017) and State Planning Policy 3.7 (SPP 3.7; WAPC, 2015). Such planning takes into consideration standards and requirements specified in various documents such as Australian Standard (AS) 3959-2009, Western Australian Planning Commission (WAPC) Guidelines for Planning in Bushfire Prone Areas Vers 1.3 (WAPC, 2017) and SPP 3.7 (WAPC, 2015). These policies, plans and guidelines have been developed by WAPC to ensure uniformity to planning in designated "Bushfire Prone Areas" and consideration of the relevant bushfire hazards when identifying or investigating land for future development.

Consultation with Department of Fire and Emergency Services (DFES) and Department of Planning, Lands and Heritage (DPLH) confirmed that they deemed the AMP to be a "High risk". SPP 3.7 outlines that certain land uses may potentially ignite a bushfire, prolong its duration or increase its intensity. Such land uses are defined as 'High Risk'.

The proposed Albany Motorsport Park (AMP) is defined a high-risk industry as per SPP 3.7 due to:

- · Motorsport activities giving rise to risk of ignition and bushfire; and
- Exposure of the community, fire fighters and environment to dangerous substances from vehicles igniting.

Consideration of the High-risk nature of the AMP site is an ongoing process to be refined in future stages of the development approval process and to be addressed under a Bushfire Risk Management Plan (BRMP) if required

The proposal is defined as 'Vulnerable Land Use' (as per SPP 3.7) due to:

- Large numbers of people attending the AMP events (400-500 people club events, 10,000 people state events);
- Elderly demographic, children and mobility impaired people attending the AMP events;
- Presence of a function centre and clubrooms; and
- Site evacuation challenges associated with visitors and spectators on site.

The BEEP prepared to support this development provides contingency actions in accordance with the requirements of the DPLH current and endorsed *Position Statement: Tourism land uses within bushfire prone areas* (WAPC, 201). These contingencies include early closure of the site, off-site evacuation and as a last resort, refuge on site in a suitable building / open space. Eco Logical Australia has been engaged to provide Level 3 BPAD practitioners input into the BMP and prepare the Bushfire Emergency Evacuation Plan (BEEP) for the site.

2.1. Location

The "Subject Site" is defined as Lot 5780 Down Road, in the locality of Drome, refer to Figure 1. The development location of the proposed Albany Motorsport Park is the open paddock areas of Lot 5780, refer to current "Concept Plan' Figure 2. The subject site is located 31 km from the Albany CBD in the Drome Industrial zone and is approximately 192.20ha in size. The site is currently used for agricultural pursuits (grazing of cattle).





Figure 1: Location Plan

2.2. Development Proposal

Lot 5780 Down Road, Drome is the proposed Albany Motorsport Park site. The concept plan covers approximately 142.8ha of the site as shown in Figure 2 and outlines a multi-use development. The details of this plan will be finalised as part of the future Development Application, the plan includes:

- Motocross track and clubrooms;
- A multi-use 3.5km bitumen race track for race events such as for motor car racing, motorcycle racing, drifting, driver training and cycling;
- A 1000 foot drag strip for drag racing;
- A 1300m² burnout area;
- A function building and club rooms;
- Spectator viewing areas;
- Pit marshalling areas and storage sheds;
- Site parking; and
- An off-road four wheel drive and all-terrain vehicle training area.

The staging of the development of the AMP includes a 2 staged process:

Stage 1: Development of the motocross track development in the north of the site, development of the multiuse track for state motor car, motorcycle and cycling events; and enabling works such as feasibility, planning, design works and access roads.

Stage 2: Contemplate the further development of the AMP site as patronage increases and the range of uses in broadened (e.g. lighted evening events, international events) and is dependent on further funding. (GHD, 2018).

The City of Albany Local Planning Scheme (LPS) No.1 outlines the area zoned as 'Priority Agriculture' and is located within the Drome Industrial Buffer Area. It is proposed through the Scheme Amendment Process to rezone the area to 'Special use' under LPS1. The proposed Motorsport Park is located in a Bushfire Prone Area (SLIP, 2018) and as such is required to comply with requirements of State Planning Policy 3.7 – Planning in Bushfire Prone Areas (SPP 3.7). The proposed scheme amendment is considered a 'Strategic Planning Proposal' under SPP 3.7 and must be accompanied by a Bushfire Hazard Level (BHL) Assessment, demonstrate compliance with bushfire protection criteria in the form of a BMP. The BMP is to provide sufficient evidence that the rezoning proposal has, or can be made to have a low to moderate Bushfire Hazard Level.



The proposed Motorsport Park is also classified according to SPP 3.7 as 'High Risk' and 'Vulnerable Land Use' and therefore in accordance with SPP 3.7 requires the consultation of a Level 3 BPAD Accredited Bushfire Practitioner. Eco Logical Australia has been engaged to provide Level 3 BPAD practitioner input into the BMP and prepare a Bushfire Emergency Evacuation Plan (BEEP).



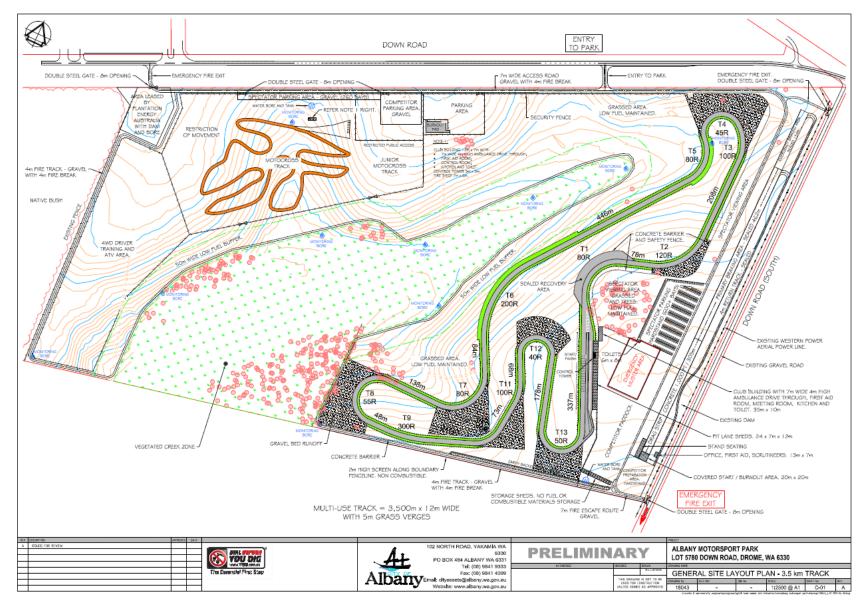


Figure 2: AMP General Site Layout Plan (Concept Plan)



2.3. Statutory Framework

This document and the recommendations contained within are aligned to the following policy and guidelines:

- Planning and Development Act 2005;
- Planning and Development Regulations 2009;
- Planning and Development (Local Planning Scheme) Regulations 2015;
- State Planning Policy 3.7 Planning in Bushfire Prone Areas;
- Guidelines for Planning in Bushfire Prone Areas;
- Fire and Emergency Services Act 1998.
- AS 3959-2009 "Construction of Buildings in Bushfire Prone Areas" current and endorsed standards;
- Bushfires Act 1954;
- Position Statement: Tourism land uses within bushfire prone areas (DPLH, 2019); and
- City of Albany Annual Fire Management Notice.

The publicly released Bushfire Prone Area Mapping (SLIP, 2018) shows that the Subject Site is located within a Bushfire Prone Area (situated within 100m of >1 ha of bushfire prone vegetation). The WA Bushfire Prone Area Mapping is shown on Figure 3.



Figure 3: Bushfire Prone Area Mapping (SLIP, 2018)



2.4. Suitably Qualified Bushfire Consultant

This BMP has been prepared by Kathryn Kinnear (nee White), who has 10 years operational fire experience with the (formerly) DEC (1995-2005) and has the following accreditation in bushfire management:

- Incident Control Systems;
- Operations Officer;
- Prescribed Burning Operations;
- Fire and Incident Operations;
- Wildfire Suppression 1, 2 & 3;
- Structural Modules Hydrants and hoses, Introduction to Structural Fires, and Fire extinguishers; and
- Ground Controller.

Kathryn Kinnear currently has the following tertiary Qualifications:

- BAS Technology Studies & Environmental Management;
- Diploma Business Studies; and
- Graduate Diploma in Environmental Management.

Kathryn Kinnear is an accredited Level 2 Bushfire Practitioner (Accreditation No: BPAD30794). Bio Diverse Solutions are Bronze Corporate Members of the Fire Protection Australia Association and Kathryn is a suitably qualified Bushfire Practitioner to prepare this Bushfire Management Plan.

Level 3 Bushfire Practitioner Bruce Horkings (Eco Logical Australia, FPAA BPAD 29962-L3) and Daniel Panickar (Eco Logical Australia, FPAA BPAD 37802-L2) were commissioned to assist in the preparation of this report specifically in relation to the "High Risk Industry" (as defined by SPP3.7) nature of the proposal, prepare the performance based assessment for "Vulnerable Land use", to prepare the Bushfire Emergency Evacuation Plan (BEEP), and undertake a technical peer review of the BMP report.



3. Objectives

The objectives of this BMP are to assess the bushfire risks associated with the proposed Concept Plan to reduce the occurrence of, and minimise the impact of bushfires, thereby reducing the threat to life, property and the environment. It also aims to guide the design by assessing the proposed Concept Plan against the Bushfire Protection Criteria as outlined in the Guidelines.

The BMP aims to:

- Achieve consistency with objectives and policy measures of SPP 3.7 (WAPC, 2015);
- Assess any building requirements to AS3959 (current and endorsed standards) and BAL Construction;
- Assess the proposal as a "High Risk Industry" and Vulnerable Land use" as outlined in the Guidelines for Planning in Bushfire Prone Areas (WAPC, 2017);
- Assess the proposal against the Bushfire Protection Criteria Acceptable Solutions as outlined in the Guidelines for Planning in Bushfire Prone Areas (WAPC, 2017);
- Understand and document the extent of the bushfire risk to the subject site;
- Prepare bushfire risk management measures for bushfire management of all land within the subject site with due regard to people, property, infrastructure and the environment;
- Nominate individuals and organisations responsible for implementation of fire management and associated works within the subject site; and
- Ensure alignment to the recommended assessment procedure which evaluates the effectiveness and impact of proposed, as well as existing, bushfire risk management measures and strategies.



4. Spatial consideration of bushfire threat

4.1. Climate

The Albany area is characterised by a Mediterranean climate with mild wet winters and mild to hot dry summers. The average annual temperature in Albany ranges from 11.8 – 19.5°C. The average summer temperature range between 14-22.9°C, whilst average winter temperatures range between 8.2-15.8°C. The annual mean rainfall for Albany is 927.1mm (BOM, 2019).

4.2. Topography

The subject site has an undulating topography within the existing agricultural areas, sloping from a high point of 75m AHD along the eastern boundary to 40m AHD within the creek line (east - west). It then ascends to 70m AHD in a north westerly direction towards Down Road. The remnant vegetation block to the west slopes in a north-south / north-south westerly direction from 70m AHD from the northern boundary to 30m AHD to the southern boundary. Topographic contours (5 metre contours) are shown on Figure 4.

The effective slopes (measured as per AS3959) for the subject site are generally low in the central (creek line), eastern and some northern (grassland) areas ranging from 0.4 to 4.6 degrees downslope. The effective slope in the western grassland areas ranges from 5.1 to 6.5 degrees downslope. The effective slopes in the remnant vegetation in the west range from upslope in the south eastern and north eastern corners to downslope from 2 degrees to 14.3 degrees downslope. The effective slopes for the Subject Site and surrounding areas are shown on Figure 4.

4.3. Environmental consideration

A reconnaissance flora, vegetation and Level 1 fauna survey was undertaken in spring 2018 by Bio Diverse Solutions (Bio Diverse Solutions, 2018) and identified six vegetation types across the subject site; Jarrah/Marri/Sheoak Laterite Forest, Jarrah/Sheoak/*Eucalyptus staeri* Sandy Woodland, *Homalospermum firmum/Callistemon glaucus* Peat Thicket, *Melaleuca preissiana* Low Woodland, Miscellaneous Drainage Woodland/Shrubland and Open paddock / agricultural land including bare and sand extraction areas. Of the 141 flora species recorded within the survey area, 19 (12.7%) are introduced (weeds).

The vegetation types described above align with vegetation units described in the Albany Regional Vegetation Survey (ARVS) report by Sandiford and Barret (2010). The vegetation types / wildlife habitat present within the survey area are well represented locally and in nearby reserves. The Jarrah / Marri dominated woodland and forest present are one of the most abundant habitat types present within the ARVS survey area, providing a significant proportion of wildlife habitat. The *Homalospermum* and *Callistemon* dominated thickets present within the survey area are not as common at a regional level based on ARVS mapping. However, these habitat types are well represented in surrounding remnant vegetation and nearby reserves such as the Down Road Nature Reserve. A copy of the vegetation complex mapping and vegetation condition mapping is provided in Appendix 2.

Potential habitat for threatened species within the survey area includes all remnant vegetation within the site, the creek system and the larger stands of paddock trees throughout the paddock areas. There is a high level of fauna activity in vegetation surrounding the creek line from both threatened and non-threatened fauna species as well as the highest occurrence of significant trees that contain hollows. This indicates that the area contains highly attractive habitat for fauna.

The southern pocket of Jarrah / Marri remnant vegetation had the highest occurrences of *Calyptorhynchus banksii subsp. naso* (Red Tailed Black Cockatoo) and *Calyptorhynchus baudinii* (Baudin's Black Cockatoo), feeding signs. The majority of feeding evidence consisted of *Corymbia calophylla* nuts. As the number of significant Black Cockatoo feeding sites across the survey area was relatively low this indicates that although the site contains potential high value foraging habitat for the three species it is currently not a favoured feeding area. The presence of significant feeding signs in the remnant vegetation in the south appears to indicate this area is anecdotally more attractive for food than the other vegetated areas.



Assessment of the proposal by governing environmental agencies will occur through the Scheme Amendment process with referral under the WA *Environmental Protection Act* (*EPA Act*).

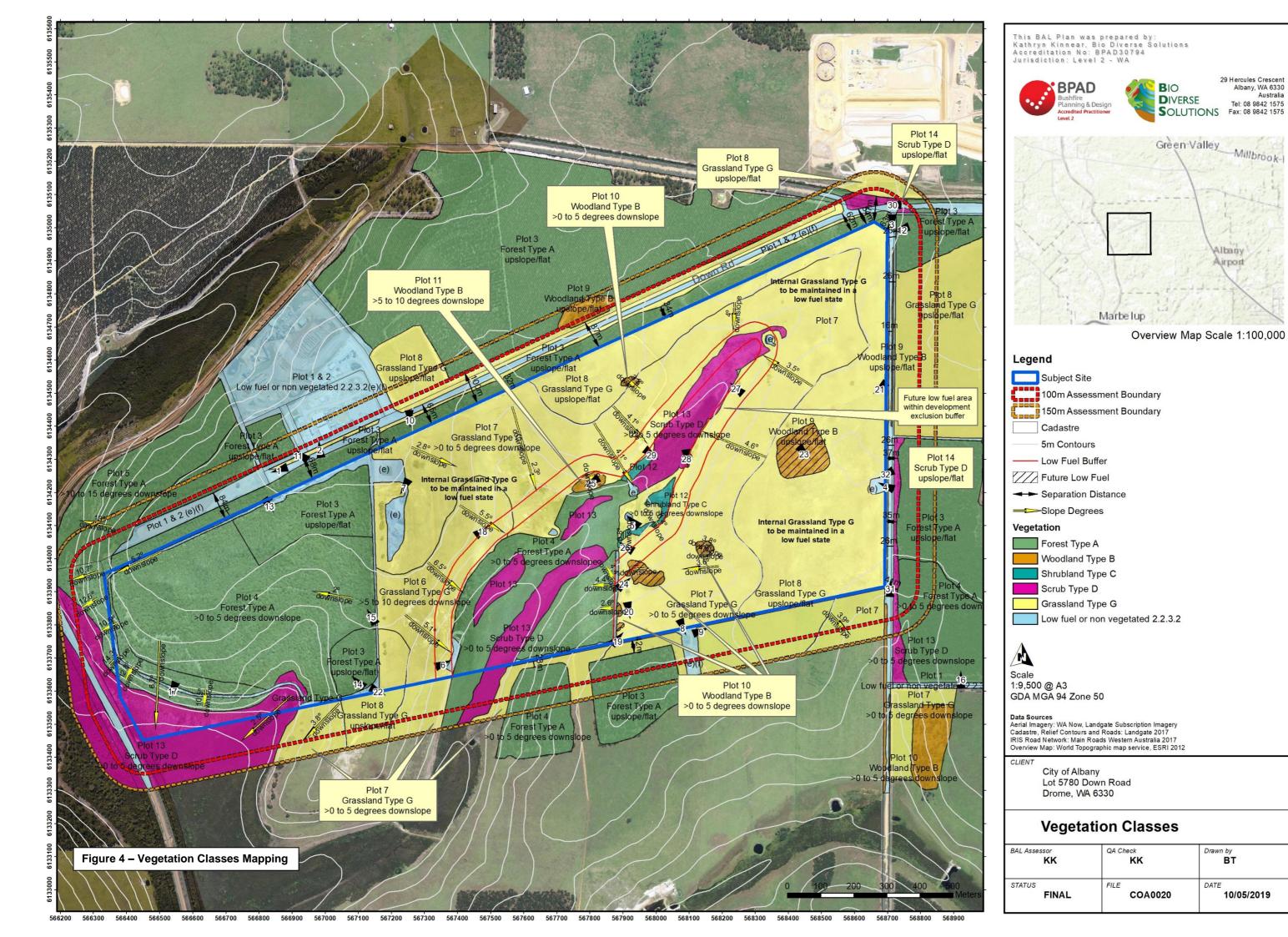
4.4. Bushfire fuels – Vegetation

Site assessment occurred on the 14th February 2019 by Kathryn Kinnear (BPAD 30794). All vegetation within 150m of the site / proposed development was classified in accordance with Clause 2.2.3 of AS 3959-2009. Each distinguishable vegetation plot with the potential to determine the Bushfire Attack Level is identified in Appendix 3 and shown on the Vegetation Classes Map Figure 4. A summary of the vegetation classifications and plot data is provided in Table 2.

Table 2: Classified Vegetation to AS3959

Plot Number	Vegetation Classification Table 2.3 AS3959	Effective Slope AS3959	Location on Vegetation Classes Mapping
1	Low fuel or non-vegetated areas exclusion 2.2.3.2 (e)	N/A	North of subject site in APEC and Plantation Energy site, roads and buildings
2	Low fuel or non-vegetated areas Exc 2.2.3.2 (f)	N/A	Firebreaks internal t the site, adjacent private property areas maintained in a low fuel state.
3	Forest Type A (04)	Upslope	Internal to the site in north west, external to the north, east and south
4	Forest Type A (04)	Downslope >0-5 degrees	Internal to the site to the west and central creek area. External to the south and south east.
5	Forest Type A (04)	Downslope >10- 15 degrees	External to the site to the west and north west. Internal along western ridgeline.
6	Grassland Type G (26)	Downslope >5-10 degrees	Internal to the site in the west.
7	Grassland Type G (26)	Downslope >0-5 degrees	Internal to the site in the north, east and north east. External to the south east.
8	Grassland Type G (26)	Upslope	Internal to the site in the north and south east. External to the north, north east and
9	Woodland Type B (06)	Upslope	Internal to the site in the east in grazed paddock areas, external to the north.
10	Woodland Type B (06)	Downslope >0 to 5 degrees	Internal to the site adjacent in the east in grazed paddock areas.
11	Woodland Type B (06)	Downslope >5 to 10 degrees	Internal adjacent to central creek area (central to the site). External to the south east.
12	Shrubland Type C (12)	Downslope >0 to 5 degrees	Central creek areas in the north east.
13	Scrub Type D (13)	Downslope >0 to 5 degrees	Central creek areas in the subject site and in the south west internal and external to the site in wet areas.
14	Scrub Type D (13)	Upslope	External to the site near Down Road and Down South Road, east in property.

Plot 1 and 2 is allocated exclusion Clauses 2.2.3.2 of AS3959 and therefore does not have an effective slope allocation.





5. Bushfire Assessment Outputs

5.1. Bushfire Hazard Level Mapping

The BHL process provides an indication of the likely impact of a bushfire event as it interacts with the bushfire hazards within and adjacent to the site. The BHL is a measure of the likely intensity of a bushfire and the likely level of bushfire attack on a site by categorizing the hazard (WAPC, 2017). The allocation of category of the bushfire hazard is determined as per Table 3 of the Guidelines for Planning in Bushfire Prone Areas (WAPC, 2017). Refer to Figure 5 below.

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 5: BHL Assessment allocation of category (WAPC, 2017).

5.2. Potential Bushfire Impacts

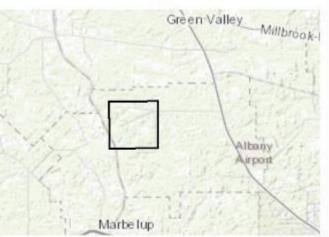
The potential bushfire impact to the site / proposed development from each of the identified vegetation plots are identified below and shown on the Bushfire Hazard Assessment Mapping Figure 6 Pre-Development BHL, and Figure 7 Post Development BHL.



This BAL Plan was prepared by: Kathryn Kinnear, Bio Diverse Solutions Accreditation No. BPAD30794 Jurisdiction: Level 2 - WA







Overview Map Scale 1:250,000

Legend

Subject Site

100m Assessment Boundary 150m Assessment Boundary

Cadastre

Bushfire Hazard Level

Extreme Moderate

Low

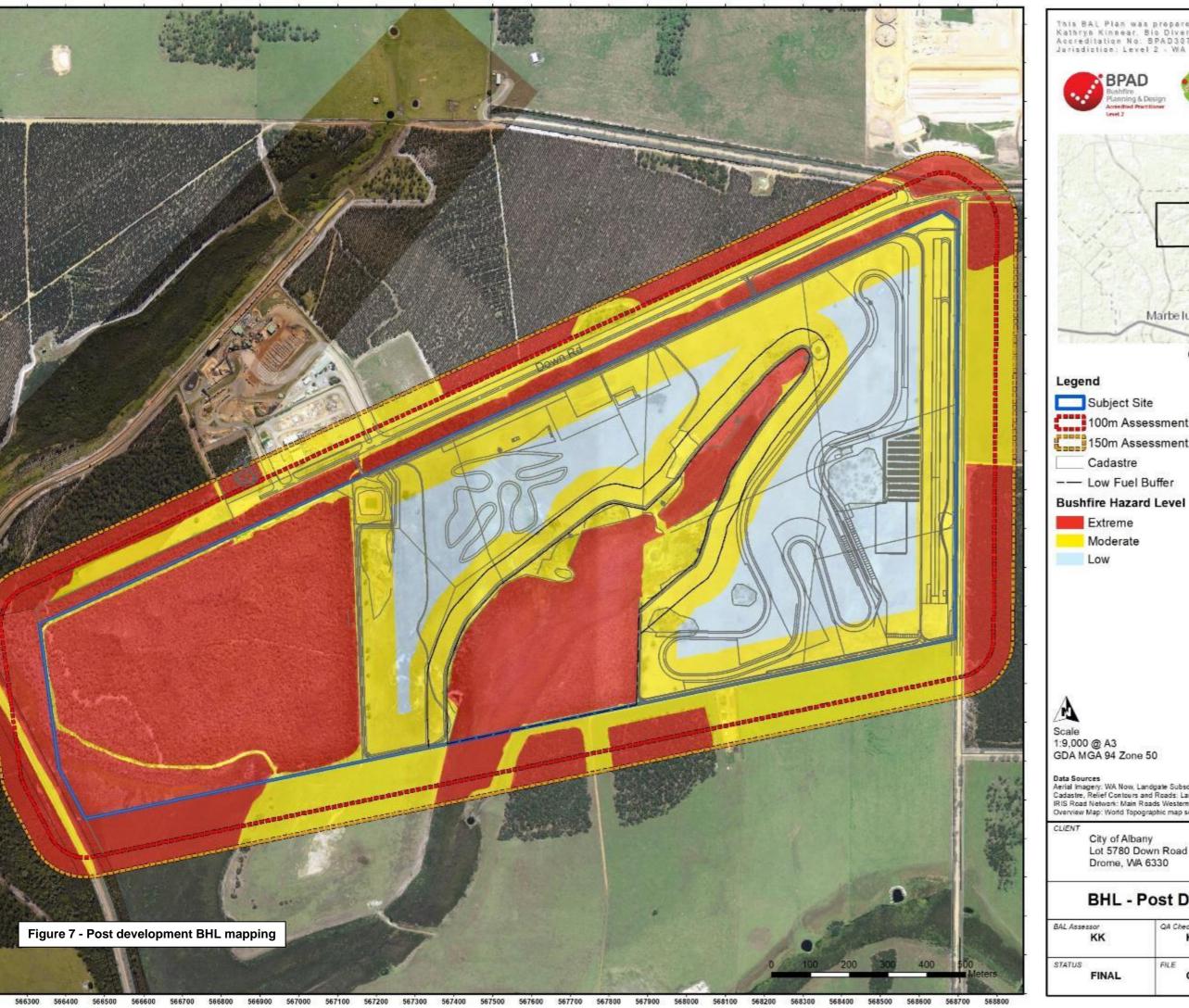
Scale 1:9,000 @ A3 GDA MGA 94 Zone 50

Data Sources
Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
IRIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

City of Albany Lot 5780 Down Road Drome, WA 6330

BHL - Pre Development

BAL Assessor KK	QA Check KK	BT
STATUS FINAL	FILE COA0020	DATE 10/05/2019



This BAL Plan was prepared by: Kathryn Kinnear, Bio Diverse Solutions Accreditation No. BPAD30794 Jurisdiction: Level 2 - WA 29 Hercules Crescent Albany, WA 6330 Australia DIVERSE DIVERSE Tel: 08 9842 1575 SOLUTIONS Fax: 08 9842 1575 Marbe lup Overview Map Scale 1:250,000 100m Assessment Boundary 150m Assessment Boundary -- Low Fuel Buffer **Bushfire Hazard Level** Data Sources
Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
RIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

BHL - Post Development

BAL Assessor	QA Check	Drawn by
KK	KK	BT
STATUS FINAL	COA0020	DATE 10/05/2019



Table 3: Potential bushfire impacts (BHL)

Plot number	Vegetation Type (Table 2.3)	Effective Slope (Table 2.4.3)	BHL Pre Development	BHL Post Development
1	Low fuel or non-vegetated areas exclusion 2.2.3.2 (e)	N/A	Moderate	Moderate
2	Low fuel or non-vegetated areas exclusion 2.2.3.2 (f)	N/A	Moderate	Moderate
3	Forest Type A	Upslope	Extreme	Extreme
4	Forest Type A	Downslope >0 to 5 degrees	Extreme	Extreme
5	Forest Type A	Downslope >15 to 20 degrees	Extreme	Extreme
6	Grassland Type G	Downslope >5 to 10 degrees	Moderate	Moderate / Low
7	Grassland Type G	Downslope >0 to 5 degrees	Moderate	Moderate / Low
8	Grassland Type G	Upslope	Moderate	Moderate / Low
9	Woodland Type B (06)	Upslope	Moderate	Moderate / Low
10	Woodland Type B (06)	Downslope >0 to 5 degrees	Moderate	Moderate / Low
11	Woodland Type B (06)	Downslope >5 to 10 degrees	Moderate	Moderate
12	Shrubland Type C	Downslope >0 to 5 degrees	Moderate	Moderate
13	Scrub Type D	Downslope >0 to 5 degrees	Extreme	Extreme
14	Scrub Type D	Upslope	Extreme	Extreme

Notes on BHL Assessment:

- The BHL assessment was prepared by an Accredited Level 2 Bushfire Planning Practitioner (BPAD30794);
- The BHL Assessment and BHL Map has been prepared in accordance with Department of Planning (WAPC) Guidelines for Planning in Bushfire Prone Areas Version 1.3 (WAPC, 2017) Appendix 2; and
- Subject Site is located in a Bushfire Prone Area (SLIP, 2018).

5.3. Method 1 BAL Calculation

A Method 1 BAL calculation (in the form of BAL contours) has been completed for the proposed development in accordance with AS 3959-2009 methodology. The BAL rating gives an indication of the level of bushfire attack (i.e. the radiant heat flux) that may be received by proposed buildings and subsequently informs the standard of building construction required to increase building tolerance to potentially withstand such impacts in line with the assessed BAL. The Bushfire Attack Level (BAL) has been calculated using the Method 1 procedure as outlined in AS3959. This incorporates the following factors:

- WA adopted Fire Danger Index (FDI);
- Vegetation Classes;
- Slope under classified vegetation; and
- Distance between proposed development site and classified vegetation.

The outcomes of the above inputs then allocate a specified BAL construction/setback for proposed buildings.



5.4. Fire Danger Index

The Western Australian adopted FDI is 80 as outlined in AS3959 and endorsed by Australasian Fire and Emergency Services Authorities Council. The FDI input for this project is also therefore 80.

5.5. Slope under Classified Vegetation

Slope under classifiable vegetation (Effective Slope) was assessed in accordance with Section 2.2.5 of AS3959. Table 2 summarises the slopes assigned to each plot of classifiable vegetation for the BAL calculation.

5.6. AS 3959 BAL Allocation

The assessed BAL ratings for the development are depicted as BAL contours, BAL ratings for the subject site are presented in Table 3 with BAL Contours shown on Figures 8 and 9. All proposed buildings will be located in areas subject to a BAL rating of BAL-29 or lower.

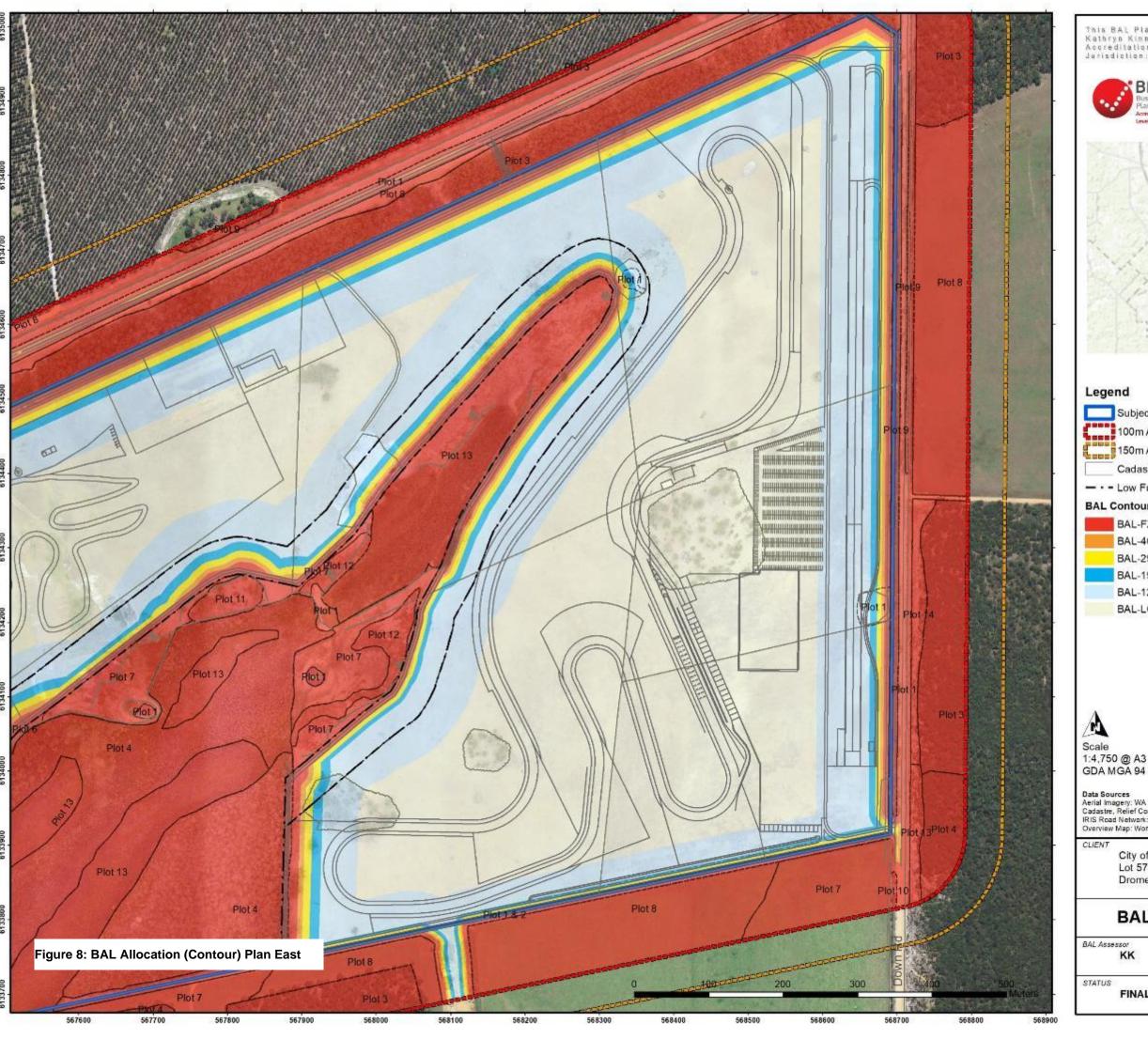
Table 4: BAL ratings

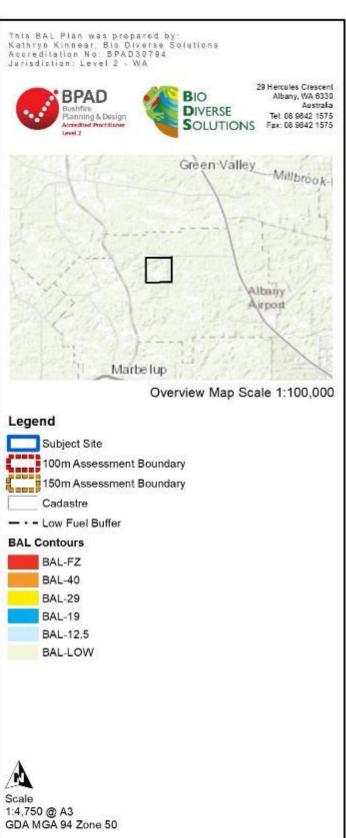
Plot number	Vegetation Type	Effective Slope	Applicable BAL Rating to AMP Concept Plan
1	Low fuel or non-vegetated areas exclusion 2.2.3.2 (e)	N/A	BAL-LOW
2	Low fuel or non-vegetated areas exclusion 2.2.3.2 (f)	N/A	BAL-LOW
3	Forest Type A	Upslope	BAL-29 or less can apply.
4	Forest Type A	Downslope >0 to 5 degrees	BAL-29 or less can apply.
5	Forest Type A	Downslope >15 to 20 degrees	BAL-29 or less can apply.
6	Grassland Type G	Downslope >5 to 10 degrees	N/A all internal grasslands will be maintained in a low fuel condition at all times.
7	Grassland Type G	Downslope >0 to 5 degrees	N/A all internal grasslands will be maintained in a low fuel condition at all times.
8	Grassland Type G	Upslope	N/A all internal grasslands will be maintained in a low fuel condition at all times.
9	Woodland Type B (06)	Upslope	All internal woodland areas to be modified and maintained in a low fuel condition at all times. External Woodland areas BAL-29 or less can apply.
10	Woodland Type B (06)	Downslope >0 to 5 degrees	All internal woodland areas to be modified and maintained in a low fuel condition at all times. External Woodland areas BAL-29 or less can apply.
11	Woodland Type B (06)	Downslope >5 to 10 degrees	BAL-29 or less can apply.
12	Shrubland Type C	Downslope >0 to 5 degrees	BAL-29 or less can apply.
13	Scrub Type D	Downslope >0 to 5 degrees	BAL-29 or less can apply.
14	Scrub Type D	Upslope	BAL 29 or less can apply.



Assumptions made in BAL Contour Mapping:

- The subject site will be developed according to the guiding principles in the Concept Plan; and
- The Albany Motorsport Park will modify and maintain grasslands and woodland areas (east) internal to the site in a low fuel state at all times (i.e. slashed to <100mm).



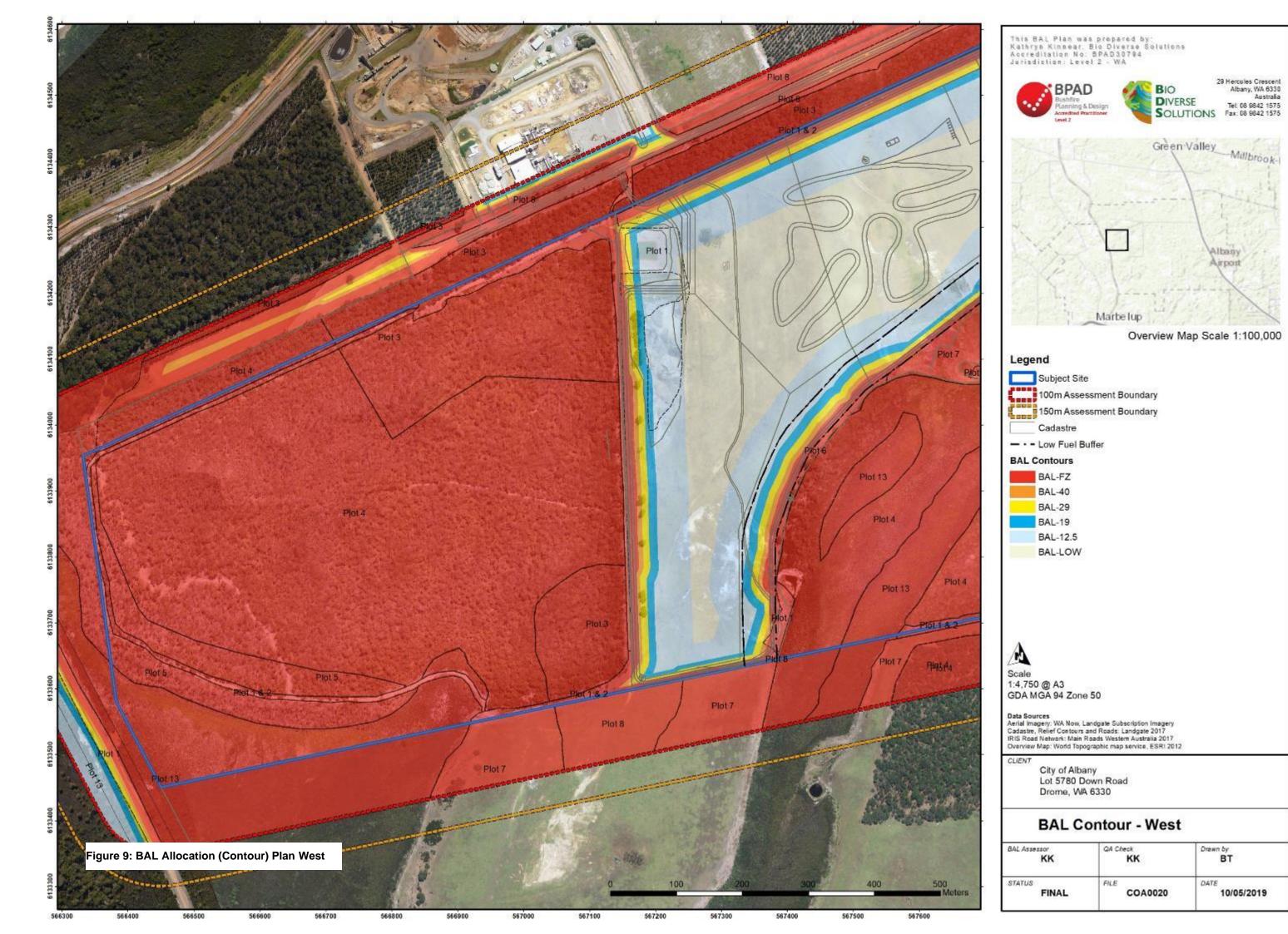


Data Sources
Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
RIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

City of Albany Lot 5780 Down Road Drome, WA 6330

BAL Contour - East

BAL Assessor	QA Check	Drawn by
KK	KK	BT
STATUS FINAL	FILE COA0020	DATE 10/05/2019





6. Identification of bushfire issues pertinent to the AMP site

6.1. Bushfire risks

The external bushfire risks to the site are the continuous remnant vegetation and plantations located to the west and north west, east, north and south east. The creek central to the subject site drains to the south west and risks of bushfire this direction are also evident. Remnant vegetation located internal to the subject site in the west was burnt in the recent May 2018 fires (refer to Redmond fire scar as Figure 10 below, courtesy of CoA, Emergency Services).

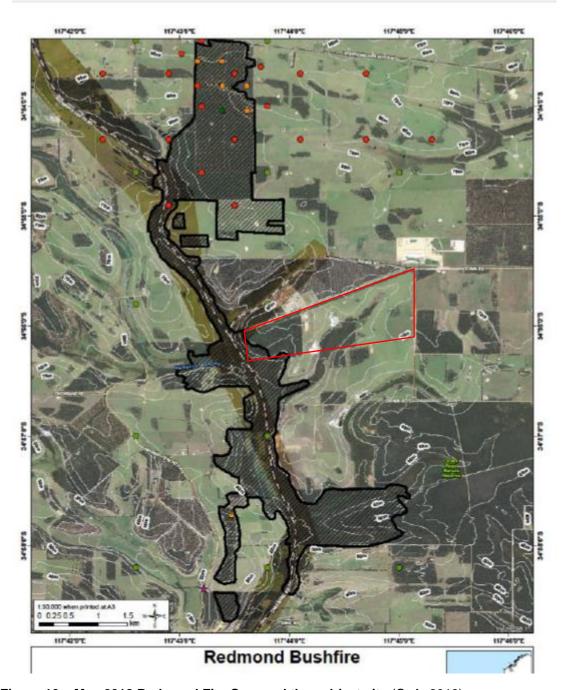


Figure 10 – May 2018 Redmond Fire Scar and the subject site (CoA, 2019)

The external remnant forest areas (including plantations) present Extreme Bushfire Hazard Levels (as per the definition of bushfire hazards in the Guidelines) to the AMP development. To the south and east



of the site is predominantly farmland areas grazed by cattle which present Low BHL risks. Under hot, dry and unstable conditions (Severe to Catastrophic bushfire weather) the subject site is most at risk from bushfire from the north, north east, north west and west. Risk of ignition of bushfire events is detailed in Section 7 of this report.

To mitigate bushfire risks to the site the following parameters are to be employed:

- Fuel hazard reduction burning in the internal western remnant bushland (rotation 8-10 years and governed by CoA Emergency services priorities and resources). Refer to Section 9.1.2 of this report.
- Excluding bushfire from the central creek area to reduce the risk of peat fires on the subject site (no planned burning, mineral earth firebreaks, low fuel buffers).
- Reducing risks of ignition from the motorsport events (internal) as outlined in Section 7 of this
 report.
- Reducing risk of ignition from external sources of through liaison with neighbours and consultation with the Local Bushfire Brigade (Highway Brigade located 5km away near Albany Airport).
- Modifying and maintaining the existing internal areas of Grassland Type G and Woodland Type B to a low fuel state at all times (as per WAPC Standards).
- Traffic control during events to ensure safe and timely evacuation of personnel from the site in event of bushfire. This will ensure all gates are accessible for emergency access/egress.
- Consideration of purchase of fast attack light unit for the AMP site and to be placed adjacent to any practise areas (non-event days).
- Event days will have full fire safety crews, ambulance and safety personnel strategically located around the track.
- Documentation of control measures in the OMP as outlined in this BMP report for the site.
- Lease arrangements from the CoA to the AMP controlling body to define management controls of the development site as defined in the implementation table Section 10 of this report.

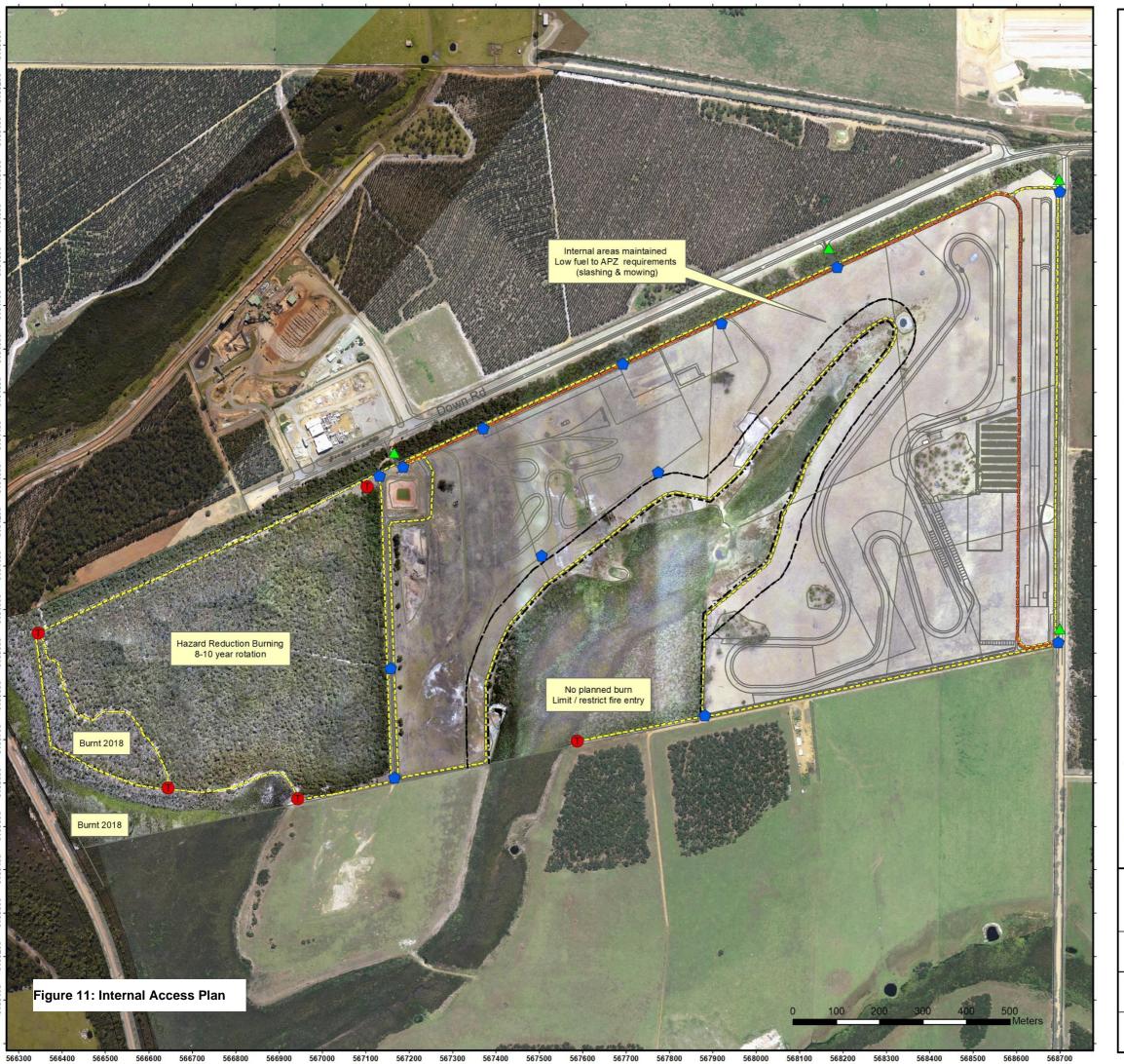
6.2. Water Sources for bushfire

Water supply will be through on-site resources via bore extraction. A copy of a monitoring bore testing for water sources in the northern area of the precinct is provided in Appendix 4. Storage of water for fire fighting will be located in the north and the eastern precincts and tanks are to be a minimum of 110,000L (DFES to confirm). Water tanks are shown conceptually at the northern motocross precinct and at the southern boundary. A test water supply bore was drilled in April 2019, refer to bore test log in Appendix 4. This indicates that water is available for supply at a suitable depth and rate of supply. A suitably qualified Fire Engineer will need to be engaged by the AMP prior to DA to ensure hydrants and supply pressure are to the required standards, to be approved by the CoA at Development Approval Stages.

6.3. Internal fire service access and firebreak network

A network of Fire Service Access (FSA) and Firebreaks are to be developed during construction phases and prior to operations of the AMP. Details of management of the maintenance of the internal FSA, Firebreak networks and internal service roads is to be documented in the OMP in the AMP lease area. FSA's outside of the lease area are to be maintained by CoA and documented in their reserve's management plan for the area.

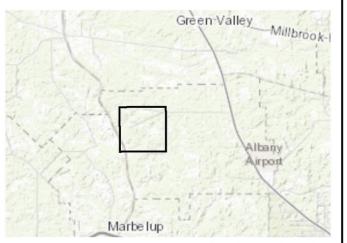
To facilitate in access and evacuation of the site there are additional gates along northern and eastern boundaries. Refer to the Internal Access Plan Figure 11.



This BAL Plan was prepared by: Kathryn Kinnear, Bio Diverse Solutions Accreditation No: BPAD30794 Jurisdiction: Level 2 - WA



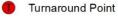


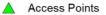


Overview Map Scale 1:250,000

Legend

Cadastre







---- Low Fuel Buffer

---- Internal Access Road

Fire Service Access & 4m wide firebreaks



Scale 1:8,500 @ A3 GDA MGA 94 Zone 50

Data Sources
Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
IRIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

City of Albany Lot 5780 Down Road Drome, WA 6330

Internal Access & Fuel Management Plan

BAL Assessor KK	QA Check KK	Drawn by BT
STATUS FINAL	COA0020	10/05/2019



7. Bushfire risk assessment - high risk land use

Consultation with Department of Fire and Emergency Services (DFES) and Department of Planning, Lands and Heritage (DPLH) confirmed that they deemed the AMP to be a "High risk". SPP 3.7 outlines that certain land uses may potentially ignite a bushfire, prolong its duration or increase its intensity. Such land uses are defined as 'High Risk'. The proposed Albany Motorsport Park (AMP) is defined a high-risk industry due to:

- · Motorsport activities giving rise to risk of ignition and bushfire; and
- Exposure of the community, fire fighters and environment to dangerous substances from vehicles igniting.

A risk assessment has been prepared by Bio Diverse Solutions and is detailed in Appendix 5 of this report. A summary of the risk assessment is provided below in Table 5.

Data has been gathered from following sources for the risk assessment:

- 20km radius of the subject site on originating fire causes (sources CoA Emergency Services, Parks and Wildlife & DFES);
- Consultation with CoA Emergency Services, DFES land use planning unit, DFES Regional Services Albany and Parks and Wildlife Albany office;
- CAMS risk register; and
- Great Southern Motorsport Group Inc (cross section of sporting codes).

Table 5: Summary of Risk Assessment AMP

Risk No.	Hazard -Bushfire originating/causing fire	Risk rating
1	Ignition Vehicles/Bikes combusting on track due to crashes including fuel	Substantial/high
	or oil line leaks on track	risk
2	Grinding sparks in pits or near fuel sources	Low risk
	(hot works)	
3	Smoking public viewing areas or in pits near fuels	Low risk
4	Vehicles (exhausts) near dry vegetation or slashing/mowing rocky ground	Low risk
	(maintenance)	
5	Electrical faults building faults	Moderate risk
6	Electrical faults from extension cords/cables (pits/trailers)	Moderate risk
7	Re-fueling area (designated and controlled)	Very high risk
8	Substandard race vehicles using the facility	Low risk
9	Re-ignition of previously controlled fires (peat Central creek area)	Substantial risk
10	Water pump failure causing spark/ignition	Substantial risk
11	Gas Barbecues and camp fires causing ignition (unattended, faulty)	High risk
12	Tyre barriers igniting from crash from vehicle	High risk
13	Re-ignition of previously controlled fires	Moderate risk
	(May and November non-prohibited periods)	
14	External: Ignition from trains under heavy loads sparks associated with	Low risk
	braking	
15	External: Aircraft Crash	Low risk
16	External: Western powerlines transmission	High risk
17	External: Ignition from stockpiled woodchips north of site at Plantation	High risk
	Energy site.	
18	External: Ignition from Blue gum slash burning (cause of May 2018 fire)	High risk
19	External and Internal: Lightning strikes	High risk
20	Illegally lit fires (deliberate)	Moderate risk



A summary of recommendations from the risk assessment process includes:

- A detailed Operational Management Plan (OMP) is to be developed by AMP which includes
 risk assessments (refer to example from Confederation of Australian Motor Sport (CAMS)
 prior Appendix 6) as per CAMS policy and regulations to ensure there are actions to minimize
 risks of ignition from internal sources of the park.
- The operational plan will be reviewed and endorsed by the CAMS prior to operation of the Albany Motorsport Park.
- Restricting public access through the site to spectator viewing areas and competitor areas, access around the whole of the site is restricted to emergency and safety services.
- Practice days and non-events are to be controlled and regulated by AMP and documented in the Operational Management Plan for the site.
- Hazard reduction burning only occurs in the western remnant vegetation block, restrictions of fire in central creek area (peat fire risk) through 8m Fire Service Access (4m pavement and 4m mineral earth firebreak) at edge of fencing of remnant vegetation (restrict grass fires into remnant vegetation).
- Controlled re-fueling in designated areas, documented in Operational Procedures Manual.
- No fuel storage on site, only fuel will be in vehicles during race events.
- Observing and complying with "Total fire ban days" and "vehicle movement bans" as set by LGA.
- No events held during catastrophic Fire Danger Rating (FDR) days.

The proposed uses associated with the AMP will be controlled and governed through:

- Designed to comply with CAMS' Track Operator's Safety Guide (CAMS 2012) and Motorcycling Australia (MA) Track Guidelines (MA 2011).
- To be licensed by CAMS for Fédération Internationalé de l'Automobile (FIA) Grade 2 and Fédération Internationalé Motocyclisme (FIM) Grade B (i.e. up to second-tier international motor racing).
- Motocross track designed and constructed in association with Motocross Australia guidelines.
- Drag strip designed and constructed in accordance with FIA specifications for drag strips and in association with Australian National Drag Racing Association (ANDRA).

Consideration of the High-risk nature of the AMP site is an ongoing process to be refined in future stages of the development approval process and to be addressed under a Bushfire Risk Management Plan (BRMP) if required.



8. Vulnerable Land Use and Access

8.1. Access

Access internal the site will be provided in alternative directions to separate destinations to Down Road to the north and Down Road South. Multiple gates will also facilitate access/egress from the site on the north and eastern boundaries. Down Road is essentially a long cul-de-sac (dead end road terminating to the north west of the subject site), as is Down South Road (terminating to the south of the subject site). The surrounding public road network is a legacy to previous precinct planning and development approvals. During the preparation of this BMP report four access options were investigated to the north, west, and south. The City of Albany will be providing secondary emergency access to Albany Highway via securing tenure and implementing the construction as per Option 4 outlined in Appendix 7 of this report.

Access Option 4 is the construction of and Emergency Access Way (EAW) to link Down Road South and Albany Highway to enable a secondary access/egress for the AMP site. Consultation undertaken by CoA during the preparation of this BMP has sought verbal in-principal agreement for the linking EAW by Main Roads Western Australia (MRWA), Water Corporation Western Australia (WCWA) (landowner), and Lindsay Black (landowner). This will give the AMP an alternative access route, which presently does not exist. The EAW will be a 20m wide road reserve excised from Lot 1 Down Road, and a 10m wide easement in gross through Lot 10 Down Road and measures 4.38km which does not meet the Acceptable Solutions (WAPC, 2017) and therefore has been assessed as non-compliant to the acceptable solutions (assessed under a performance-based assessment as per the WAPC guidelines).

The BEEP prepared to support this development provides contingency actions in accordance with the requirements of the *Position Statement: Tourism land uses within bushfire prone areas* (WAPC, 2018). These contingencies include early closure of the site, off-site evacuation and as a last resort, refuge on site in a suitable building / open space.

It is noted the following will apply for the proposed EAW:

- Traffic control for evacuation, contracted and documented in Operational Management Plan.
- Consultation during the preparation of this plan occurred with Main Roads Western Australia (MRWA), Water Corporation Western Australia (WCWA), & Lindsay Black (landowner) in principle agreement for the EAW is currently being sought by the CoA as stated in email from J Van Der Mescht Appendix 7. Legal agreements/ documentation will be sought in following stages (i.e. Development approval stages).
- The conditions of Scheme Amendment to document land owner agreements in subsequent DA documentation.
- It is 5km to Highway Volunteer Bushfire Brigade (located near Albany Airport).
- Water bombers and air attack facilities are located at Albany Airport.
- A public road is presently deemed not viable by CoA, it may be investigated in the future for wider precinct in the future through a Structure Planning process.
- Regular inspections along EAW (condition, gates etc) by AMP representatives prior to events occurring, documented in the OMP.

The BEEP and the alignment to the DPLH position statement have been utilised as a performancebased assessment to meet the intent for Access as per the WAPC guideline allow.



8.2. Bushfire Emergency Evacuation Plan

The aim of the BEEP is early, safe and timely evacuation of the site prior to bushfire events and no events are to be held on site during Catastrophic Fire Danger Rating (FDR) days. The BEEP has been prepared to support the proposed development will address on-site and off-site refuges, triggers for evacuation and roles and responsibilities for staff and stakeholders. Refer to Appendix 8. As the proposed development progresses beyond the rezoning phase, the BEEP will be updated for each stage including further specific details.

As previously identified, the design of the site does not allow for alternative access and is a legacy issue. As a result of legacy issues of the surrounding public road network, these constraints are addressed by the BEEP providing contingency measures to address identified risks including:

- Clear triggers for off and onsite evacuation (to be updated to support future planning applications);
- Clear triggers & guidelines for scheduling events or cancelling based on such factors as Fire
 Danger Rating (FDR), evening events during certain times of the year, 'Total Fire Ban' days
 and "Restricted vehicle movement days" (harvest bans);
- An on-site refuge for use in an emergency (i.e. a building constructed to the requirements of a
 'community refuge' as per the Australian Building Codes Board 'Design and Construction of
 Community Bushfire Refuges' that can accommodate the number of people using that part of
 the facility (i.e. 200-500 for a club event);
- The proposed building located within the site and position to limit radiant heat exposure to <10 kW/m² and constructed to BAL-29; and
- Open air refuge with the capacity for a large event (upto 10,000 approx.) located in area where
 radiant heat exposure is limited to <2 kW/m².and preferably shaded with non-combustible
 material.

This is compliant with the WAPC *Position Statement: Tourism land uses within bushfire prone areas* (WAPC 2019). The BEEP will form part of the Emergency Management Plan for the site which will be developed by AMP prior to operations of the site.

The current locations of the proposed building and open-air refuge locations are indicative only and may change as development design progresses.

8.3. Bushfire Emergency Evacuation Plan inputs

The BEEP will be updated to support future planning applications and could consider the following inputs underpinning the drivers for evacuation:

- Offsite / On site evacuation time for different event sizes and locations within overall site;
- Potential fire scenarios under different Fire Danger Ratings (FDR):
- Bushfire modelling to determine the 10 kW/m² and 2 kW/m² line used an FFDI value of 80 and a flame temperature of 1200K;
- In determining the required capacity for any refuge building and open space dimensions an area of 0.75 m² to 1m² per person has been used; and
- Address potential numbers for people onsite ranging from 200-500 for club events up to 10,000 for state events.

ELA has identified suitable on-site refuge locations (see Figure 12) in the event of a bushfire. Early evacuation is always preferable however, in the event that this cannot occur, a building located within the 10 kW/m² zone (and constructed to specified standards) will provide a 'safer-place' option for onsite users. For larger events, open space areas that provide radiant heat exposure limited to <2 kW/m².is also identified. These areas (10kW/m² and 2 kW/m²) have been determined using a Method 2 BAL



assessment (refer to Appendix 9). A designated outdoor emergency assembly area and refuge building have been incorporated into the master plan design as indicated in Figure 12.

Triggers for evacuation will be identified in the BEEP and will be updated to support future planning applications in accordance with SPP 3.7. This will include: potential closures of the site under certain Fire Danger Ratings (FDR), triggers for off-site evacuation and procedures for staff and visitors in the event of an emergency etc.



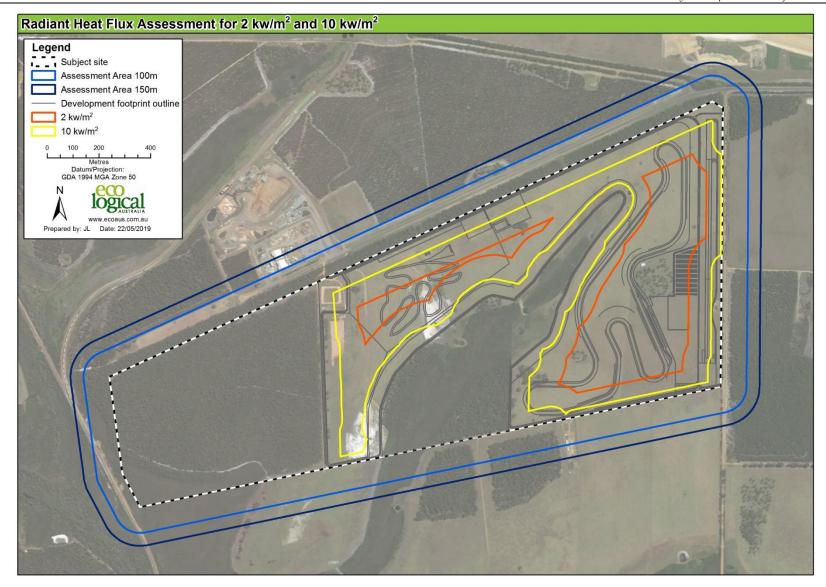


Figure 12: 10 kW/m² and 2 kW/m² locations



It is to be noted by the AMP governing body:

- Emergency Management Plan for the site which will be developed by AMP prior to operations
 of the site and will include the BEEP which will be finalised in consultation with CoA
 Emergency Management Services, DFES Albany Region and LEMC at Development
 Approval Stages; and
- CoA Emergency Management Services to ensure the BEEP and Emergency Management Plan for the AMP site is referred and registered through the Local Emergency Management Committee (LEMC).



9. Assessment to the bushfire protection criteria

The Guidelines for Planning in Bushfire Prone Areas (WAPC, 2017) outlines bushfire protection criteria which subdivision and development proposals are assessed for compliance. The bushfire protection criteria (Appendix 4, WAPC, 2017) are a performance-based criteria utilised to assess bushfire risk management measures and they outline four elements, being:

- Element 1: Location
- Element 2: Siting and Design of Development;
- Element 3: Vehicle Access; and
- Element 4: Water.

(WAPC, 2017)

The development is required to meet the "Acceptable Solutions" of each Element of the bushfire protection criteria (WAPC, 2017). The proposal has been assessed against the bushfire protection criteria Acceptable Solutions for Elements A1, A2, A3 and A4. As stated in Section 7 of this report the subject site has one way in and one-way out due to the legacy of the surrounding road network. A performance-based assessment has been detailed in Section 9.2 and a summary of the Performance Principle and Acceptable Solutions assessment is provided in Table 6.



Table 6: Bushfire protection criteria applicable to the site

Element	Acceptable Solution	Applicable or not Yes/No	Meets Acceptable Solution	
Element 1 – Location	A1.1 Development Location	Yes	Compliant. The proposed AMP concept plan is located in an area (post development) which all infrastructure will be in either Moderate or Low BHL. BAL Contour mapping indicates that all infrastructure and development can be located in BAL 29 or less with no BAL 40 prevailing over the development. Refer to Figure 8 and 9. Proposal meets acceptable solution A1.1.	
Element 2 – Siting and Design	A2.1 Asset Protection Zone	Yes	Compliant. APZ standards will apply to the development footprint and the buffer (50m) areas. Low fuel standards are to be to WAPC APZ standards (refer to Appendix 10) at all times. Maintenance and management of the site is to be documented in the Operational Management Plan for the site. Proposal meets acceptable solution A2.1.	
			Non-compliant.	
			Access internal the site will be provided in alternative directions to separate destinations to Down Road to the north and Down Road South (south east). Multiple gates will also facilitate access/egress from the site in the north and eastern boundaries. Refer to internal Access Plan Figure 11. Down Road is essentially a long cul-de-sac (dead end road terminating to the north west of the subject site), as is Down South Road (terminating to the south of the subject site). The surrounding public road network is a legacy to previous precinct planning and development approvals.	
Element 3 – Vehicular Access	A3.1 Two Access Routes	Yes	The City of Albany will be providing secondary emergency access to Albany Highway via securing tenure and implementing the construction of the Emergency Access Way as per Option 4 outlined in Appendix 7 of this report. Access Option 4 is the construction of and Emergency Access Way (EAW) to link Down Road South and Albany Highway to enable a secondary access/egress for the AMP site. This will give the AMP an alternative access route, which presently does not exist. The EAW will be a 20m wide road reserve excised from Lot 1 Down Road, and a 10m wide easement in gross through Lot 10 Down Road and measures 4.38km which does not meet the Acceptable Solutions (WAPC, 2017) and therefore has been assessed as non-compliant to the acceptable solutions (assessed under a performance-based assessment as per the WAPC guidelines). The BEEP prepared to support this development provides contingency actions in accordance with the requirements of the <i>DPLH Position Statement: Tourism land uses within bushfire prone areas</i> (WAPC, 2019). These contingencies include early closure of the site, off-site evacuation and as a last resort, refuge on site in a suitable building / open space.	

Table 6 cont.



Element	Acceptable Solution	Applicable or not Yes/No	Meets Acceptable Solution	
	A3.2 Public Road	No	No public roads are proposed. Not assessed to A3.2.	
	A3.3 Cul-de-sacs	No	No cul-de-sacs are proposed. Not assessed to A3.3.	
	A3.4 Battle axes	No	No cul-de-sacs are proposed. Not assessed to A3.4.	
Compliant. Internal driveways and access ways in and around the site are to confirm be a minimum of 12m wide horizontal clearance with a 6m trafficable su driveways/public access roads meet the minimum requirements as set by 7 Vehicle Access Technical Requirements. Detail on the internal access		Internal driveways and access ways in and around the site are to confirm to public road standards and will be a minimum of 12m wide horizontal clearance with a 6m trafficable surface. Standards for the internal driveways/public access roads meet the minimum requirements as set by the guidelines as shown in Table 7 Vehicle Access Technical Requirements. Detail on the internal access driveways will be documented in the detailed civil engineering drawings to be approved by CoA at Development Approval Stages.		
Element 3 –			Non-compliant. Performance based assessment	
Vehicular Access cont.	A3.6 Emergency Access Ways		An Emergency Access Way is to be constructed to enable a secondary access/egress to Albany Highway. This will be gazetted as an easement in gross to allow for emergency access/egress in a bushfire event. This will give the AMP an alternative access route, which presently does not exist. The EAW to Albany Highway from Down Road South (Option 4) will be an easement in gross to a minimum of 12m wide and measures 4.38km in length (from the site to Albany Highway) which does not meet the Acceptable Solutions (WAPC, 2017) and therefore has been assessed as non-compliant. Standards for the EAW are to meet Table 7 Vehicle Access Technical Requirements and documented in the detailed civil engineering drawings to be approved by CoA at Development Approval Stages.	
			The BEEP prepared to support this development provides contingency actions in accordance with the requirements of the <i>DPLH Position Statement: Tourism land uses within bushfire prone areas</i> (WAPC, 2018). These contingencies include early closure of the site, off-site evacuation and as a last resort, refuge on site in a suitable building / open space. The BEEP and the alignment to the DPLH position statement have been utilised as a performance based assessment to meet the intent for Access as per the WAPC guideline allow.	



Table 6 cont.

Element	Acceptable Solution	Applicable or not Yes/No	Meets Acceptable Solution	
A3.7 Fire Service Access Ways Yes A3.8 Firebreaks A3.8 Firebreaks Yes A3.8 Firebreaks A3.8 Firebreaks		Yes	Fire Service Access Ways (FSA's) will be located internal to the site to enable fire appliances to easily access the site during motorsport events and non-event days. Refer to the Access Plan Figure 11. FSA's are to be 8m wide horizontal clearance with a 4m wide trafficable surface (noting 1m wide stabilised shoulders can apply as per Table 7). Standards for the internal FSA's are to meet table 7 Vehicle Access Technical Requirements and documented in the detailed civil engineering drawings to be approved by CoA at Development Approval Stages.	
		A network of strategic fire breaks and FSA access to 8m is proposed for the site and has been prepared in consultation with CoA Emergency Management Services and AMP representatives. Refer to the Access Plan Figure 11. Existing firebreaks are evident across the site and are to be maintained by the leasees until AMP and CoA are managers of Lot 5780 Down Road. CoA to ensure this is documented in any temporary lease agreements once in ownership of the land.		
	A4.1 Reticulated areas	No	N/A not assessed to A 4.1.	
Element 4 – Water	A4.2 Non- reticulated areas	Yes	Compliant Water supply will be through on-site resources via bore extraction to tank storage and pumped to facilities around the site. Bore water supply is known to the area, a copy of a monitoring bore testing for water sources in the northern area of the precinct is provided in Appendix 4. Storage of water dedicated for fire fighting will be located in the north and the eastern precincts and tanks are to be a minimum of 110,000L. A suitably qualified Fire Engineer will be engaged by the AMP prior to DA to ensure hydrants and supply pressure are to the required standards, to be approved by the CoA at Development Approval Stages. Proposal is deemed compliant to A4.2.	
	A4.3 Individual lots in non-reticulated areas	No	N/A not assessed to A4.3.	



Table 7: Vehicular Access Technical Requirements (WAPC, 2017)

Technical requirements	Private Driveways	Emergency Access Ways (EAW)	Fire Service Access Ways (FSA)
Minimum trafficable surface (m)	4	*6	*6
Horizontal clearance (m)	6	6	6
Vertical clearance (m)	4.5	4.5	4.5
Maximum grades	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33
Curves minimum inner radius (m)	8.5	8.5	8.5

^{*}Denotes the width can include a 4m wide paving with one metre wide constructed road shoulders



9.1. Barrier Fencing

In November 2010 the Australian Bushfire CRC issued a "Fire Note" (Bushfire CRC, 2010) which outlined the potential for residential fencing systems to act as a barrier against radiant heat, burning debris and flame impingement during bushfire. The research aimed to observe, record, measure and compare the performance of commercial fencing of Colourbond steel and timber (treated softwood and hardwood).

The findings of the research found that:

- ".. Colourbond steel fencing panels do not ignite and contribute significant heat release during cone calorimeter exposure" (exposure to heat)
- .."Colourbond steel (fencing) had the best performance as a non-combustible material. It maintained structural; integrity as a heat barrier under all experimental exposure conditions, and it did not spread flame laterally and contribute to fire intensity during exposure"

It is also noted that non-combustible fences are recommended by WAPC (APZ standards: Fences and sheds within the APZ are constructed using non-combustible materials e.g. colourbond iron, brick, limestone, metal post and wire). The AMP will be required to build non-combustible fences through-out the site and will be documented through the OMP.

9.2. Fuel Reduction Strategy

The following parameters/strategies are recommended for the property. Sampling and fuel calculation should be as per the recommended methodology as outlined by DFES:

- Forest fuels are maintained to maximum of 15 t/ha in Forest (Type A) vegetation types;
- Woodland fuels are maintained to maximum of 8 t/ha in Woodland (Type B) vegetation types;
- Fuel reduction can be achieved through slashing or hazard reduction burning;
- Hazard reduction burning in the western remnant native vegetation area should be carried out in
 consultation with DFES and the CoA in accordance with the *Bushfires Act 1954*. This will be the
 responsibility of the landowner (CoA) and documented through their reserve's management plan;
- Hazard reduction burning in the western remnant native vegetation (Jarrah/Marri vegetation) is generally recommended to be a rotation 8-10 years over a series of cells;
- Slashing/mowing all internal grassland and woodland areas to maintain in a low fuel status;
- Observing no vehicle movement bans and total fire bans during slashing operations; and
- Hazard reduction burning only occurs in the western remnant vegetation block, restrictions of fire in central creek area (to reduce risk of peat fires) through an 8m firebreak/FSA at edge of fencing of remnant vegetation (restrict grass fires into remnant vegetation).



10. Implementation of the BMP

Implementation of this BMP will be the responsibility of the AMP and City of Albany. A draft governance document is provided in Appendix 1, which will be further refined through the development process. Table 8 and 9 outline responsibilities for implementation of this BMP report, noting there are further standards requirements documented throughout this BMP report.

10.1. Developer Responsibility

It is recommended the AMP governing body be responsible for the following:

Table 8: Implementation actions AMP

Develop	per – Prior to issue of titles		
No	Implementation Action	Prior to D/A	Prior to operations
1	A detailed Operational Management Plan (OMP) to be developed by AMP which includes risk assessments (refer to example Appendix 5) as per Confederation of Australian Motor Sport (CAMS) OSH policy and governing regulations to ensure there are actions to minimize risks of ignition and potential bushfire from internal sources of the park.	√	
2	OMP to outline maintenance requirements across the lease area especially in regards to management and maintenance of Fire Service Access, fire breaks, low fuel areas, inspections of the secondary Emergency Access Ways from Down Road South to Albany Highway	✓	
3	OMP to outline arrangement in place for communication to local brigades and neighbours in relation to external bushfire risks.	✓	
4	The OMP will be reviewed and endorsed by the CAMS prior to operation of the AMP.	✓	
5	AMP governing body to ensure that events are not held on Catastrophic FDR days, Total fire ban days and vehicle movement restrictions as regulated by CoA or DFES.	✓	
6	Consideration of purchase of fast attack light unit for the AMP site and to be placed adjacent to any practise areas (non-event days).		✓
7	Practice days and non-events are to be controlled and regulated by AMP and documented in the OMP for the site.	✓	
8	Event days will have full fire safety crews, ambulance and safety personnel strategically located around the track and documented through the OMP.	✓	
9	Restricting public access through the site to spectator viewing areas and competitor areas, access around the whole of the site is restricted to emergency and safety services.		✓
10	Controlled re-fueling in designated areas for all motorsport park precincts and documented in OMP.	✓	
11	Traffic control for evacuation, contracted and documented in Operational Management Plan.	✓	✓
12	Site construction activities are to confirm to the BMP report and detailed in contractual arrangements with any contractors.		✓
13	Refuge buildings for (club days) 200-500 people built to AS 3959 BAL-29 and conform to the ABCB handbook.		✓
14	Emergency Management Plan for the site which will be developed by AMP prior to operations of the site and will include the BEEP which will be finalised in consultation with CoA Emergency Management Services, DFES Albany region and LEMC at Development Approval Stages.		✓



Table 8 cont.

No	Implementation Action	Prior to D/A	Prior to operations
15	Standards for the internal driveways/public access roads, EAW and FSA's are to meet Table 7 Vehicle Access Technical Requirements and documented in the detailed civil engineering drawings to be approved by CoA at Development Approval Stages.	✓	
16	Existing firebreaks are evident across the site and are to be maintained to the CoA FMN standards by the AMP and maintenance documented in the OMP. Once operational the firebreaks are to confirm to the standards as outlined in the Access mapping Figure 11.	✓	✓
17	Fire Engineer will be engaged by the AMP prior to DA to ensure hydrants and supply pressure are to the required standards.	✓	✓
18	Update and review the BMP and BEEP as any changes occur, prior to Development Approval or every 5 years.	✓	✓

10.2. Local Government Responsibility

It is recommended the City of Albany shall be responsible for the following:

Table 9: Implementation actions City of Albany

LGA-CI	LGA- Clearance of conditions				
No	Implementation Action	Lease	Land		
		arrangements	manager		
1	Restricting public access through the site to spectator viewing	,			
	areas and competitor areas, access around the whole of the site is restricted to emergency and safety services.	~			
2	A Management Plan be developed for the remnant vegetation				
	(future CoA managed land) outside of AMP lease area,		_		
	particularly in relation to maintenance of Fire Service Access		✓		
	(outside of the AMP lease area), fire control and hazard				
	reduction protocols as outlined in this document.				
3	Ensure the secondary access for the AMP is secured as a 20m				
	wide road reserve excised from Lot 1 Down Road, and a 10m				
	wide easement in gross through Lot 10 Down Road (min 6m	✓			
	trafficable surface) prior to any operations or construction of the				
	AMP site.				
4	CoA Emergency Management Services to ensure the BEEP				
	and Emergency management Plan for the AMP site is referred				
	and registered through the Local Emergency Management				
	Committee (LEMC).				
5	Existing firebreaks are evident across the site and are to be				
	maintained to the CoA FMN by the leasees until AMP and CoA				
	are managers of Lot 5780 Down Road. CoA to ensure this is				
	documented in any temporary lease agreements once in				
6	ownership of the land.				
0	Developing and maintaining District Fire Fighting Facilities and related infrastructure.	NI/A			
		N/A, ongoing			
7	Provide advice on standards and methods to achieve				
	community fire protection to owners/occupiers of land through				
	issue and enforcement of the current Fire Management Notice	N/A, ongoing			
	(yearly advice brochure updated annually).				
8	CoA, through their Bush Fire Brigade Organisation is the				
	Controlling Authority for fire suppression and prescribed	N/A, ongoing			
	burning operations on the area.				



11. Disclaimer

The recommendations and measures contained in this assessment report are based on the requirements of the Australian Standards 3959 – Building in Bushfire Prone Areas, WAPC State Planning Policy 3.7 (WAPC, 2015), WAPC Guidelines for Planning in Bushfire Prone Areas (WAPC, 2017), and CSIRO's research into Bushfire behaviour. These are considered the minimum standards required to balance the protection of the proposed dwelling and occupants with the aesthetic and environmental conditions required by local, state and federal government authorities. They DO NOT guarantee that a building will not be destroyed or damaged by a bushfire. All surveys and forecasts, projections and recommendations made in this assessment report and associated with this proposed dwelling are made in good faith on the basis of the information available to the fire protection consultant at the time of assessment. The achievement of the level of implementation of fire precautions will depend amongst other things on actions of the landowner or occupiers of the land, over which the fire protection consultant has no control. Notwithstanding anything contained within, the fire consultant/s or local government authority will not, except as the law may require, be liable for any loss or other consequences (whether or not due to negligence of the fire consultant/s and the local government authority, their servants or agents) arising out of the services rendered by the fire consultant/s or local government authority.

AS3959 disclaimer: It should be borne in mind that the measures contained within this Standard (AS3959) cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the unpredictable nature and behaviour of fire and extreme weather conditions.

Building to AS3959 is a standard primarily concerned with improving the ability of buildings in designated bushfire prone areas to better withstand attack from bushfire thus giving a measure of protection to the building occupants (until the fire front passes) as well as to the building itself.

(AS3959)

12. Certification

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 Amendment Nos 1, 2 and 3) and the Guidelines for Planning in Bushfire Prone Areas Ver 1.3 (WAPC, 2017).

SIGNED, ASSESSOR: DATE: 01/07/2021

Kathryn Kinnear, Bio Diverse Solutions Accredited Level 2 Bushfire Practitioner (Accreditation No: BPAD30794)





Please refer to Appendix 11 for the certification of this BMP report from Level 3 BPAD practitioners, Eco Logical Australia.



13. References

AS 3959 Australian Standard, Construction of buildings in bushfire-prone areas, Building Code of Australia, Primary Referenced Standard, Australian Building Codes Board and Standards Australia.

Australian Building Codes Board (ABCB) (2014) Design and Construction of Community Bushfire Refuges. Australian Government and States and Territories of Australia. ABCB, GPO 9839, Canberra ACT 2601

Bio Diverse Solutions (2018) Reconnaissance Flora and Level 1 Fauna Survey, Lot 5780 Down Road, Drome. Unpublished report prepared for the City of Albany

Bushfire CRC (2010) Managing Forest in South West Western Australia, Research project undertaken by Dr Lachlan McCaw and Dr Roy Wittkuhn, retrieved from: http://www.bushfirecrc.com/projects/b11/managing-forest-fires-south-western-australia

Bureau of Meteorology Australia Climate Data online accessed September 2018 from: http://www.bom.gov.au

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City of Albany Fire Management Notice, yearly advice brochure, accessed July 2017 from: http://www.albany.wa.gov.au

Confederation of Australian Motor Sport (CAMS) Occupational Health and Safety Policy, accessed March 2019 retrieved from:

www.cams.com.au

Confederation of Australian Motor Sport (CAMS) (2012) CAMS' Track Operator's Safety Guide. Accessed March 2019 retrieved from:

www.cams.com.au

Department of Planning, Lands and Heritage (DPLH) (2019) *Position Statement: Tourism land uses within bushfire prone areas.* Government of Western Australia.

Motorcycling Australia (MA) (2011) Track Guidelines. Accessed March 2019 retrieved from: www.ma.org.au/

GHD (2018) extract from: Albany Motorsport Park Site Feasibility Study – Lot 5780 Down Road South Drome. Unpublished report prepared for the City of Albany.

Sandiford, E.M. and Barrett, S. (2010) Albany Regional Vegetation Survey, Extent Type and Status, A project funded by the Western Australian Planning Commission (EnviroPlanning "Integrating NRM into Land Use Planning" and State NRM Program), South Coast Natural Resource Management Inc. and City of Albany for the Department of Environment and Conservation. Unpublished report. Department of Environment and Conservation, Western Australia.

Western Australian Planning Commission (WAPC) (2017) Guidelines for Planning in Bushfire Prone Areas. Western Australian Planning Commission and Department of Planning WA, Government of Western Australia.

Western Australian Planning Commission (WAPC, 2015) State Planning Policy 3.2 Planning in Bushfire Prone Areas. Department of Planning WA and Western Australian Planning Commission.



State Land Information Portal (SLIP) (2018) Map of Bushfire Prone Areas. Office of Bushfire Risk Management (OBRM) data retrieved from:

https://maps.slip.wa.gov.au/landgate/bushfireprone/

Appendices

Appendix 1: Governance Model for AMP

Appendix 2: Flora survey vegetation complex mapping and vegetation condition mapping (BDS, 2018)

Appendix 3: Vegetation classifications to AS3959

Appendix 4: Bore Test Certificate

Appendix 5: BDS Risk Assessment AMP

Appendix 6: CAMS OSH policy and risk assessment template

Appendix 7: Access options

Appendix 8: Bushfire Emergency Evacuation Plan

Appendix 9: ELA Method 2 BAL Calculations ELA

Appendix 10: WAPC APZ standards

Appendix 11: ELA peer review

Appendix 1

Draft governance model AMP

ALBANY MOTORSPORT PARK DRAFT GOVERNANCE MODEL

VENUE

Albany Motorsport Park

2. LOCATION

Lot 5780 Down Road, DROME, Western Australia

LAND OWNER

City of Albany owns the land (LOCATION) approving Authority for any modifications

VENUE OWNER

Albany Motorsport Venue Incorporated (AMV Inc.) leases land from the LAND OWNER owns and maintains the facilities and infrastructure

THE BOARD

VENUE OWNER's board of 7 Directors responsible for management and operation of the VENUE

OCCUPIER

The VENUE OWNER

7. AFFILIATIONS

Confederation of Australian Motor Sport Limited, trading as Motorsport Australia Motorcycling Australia Ltd

VENUE MAP

Albany Motorsport Park Masterplan

9. OWNERSHIP & OPERATION

- Ownership of the land (The Land) is and will remain owned by the City of Albany.
- Post construction by the City of Albany, ownership of all facilities and infrastructure (will be transferred to the Albany Motorsport Venue Incorporated (AMV Inc.) by written agreement.
- The Land (not the Venue) will be leased by the City of Albany to the AMV Inc.
- The AMV Inc. will be responsible for the operation, maintenance and repair of the Venue.

10. AMV INC. BOARD GOVERNANCE

- AMV Inc. is to be established as a not for profit <u>association</u> incorporated in accordance with the Associations Incorporation Act 2015.
- Noting it is acceptable for an <u>association</u> to trade with the public so long as the
 profits from those transactions are used to promote the objects and purposes of
 the association and members do not profit from the activities.
- AMV Inc. will consist of a Board of Directors (the Board).
- The Directors will be paid a remuneration agreed annually.

11. THE BOARD

- 11.1 The Board may have up to seven (7) Directors, who shall comprise:
 - Two (2) community representatives recommended by the City of Albany for the Board's consideration.

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ALBANY MOTORSPORT PARK

DRAFT GOVERNANCE MODEL

- One (1) representing Motorsport Australia;
- One (1) representing Motorcycling Western Australia (MWA);
- · One (1) representing 4-wheel racing clubs;
- One (1) representing 2-wheel racing (motorcycle road racing) clubs;
- One (1) representing motocross clubs;
- 11.2 The Chairman of the Board will be elected by the Directors.
- 11.3 Appointments are to be up to a two-year term, with skills determined by the Board.
- 11.4 The Directors shall meet monthly or on more occasions if the need dictates.
- 11.5 The Board to employ an Operations Manager and any other staff deemed necessary to ensure the safe and compliant Venue.
- 11.6 The Board shall lease the Land from the City of Albany.
- 11.7 A Lease Agreement shall be prepared by the City of Albany and approved by the City of Albany Council.
- 11.8 The Board shall be responsible for the insurance of the tracks, roads and any other permanent buildings and fixtures on the Venue.
- 11.9 The Board is responsible for the development of an Albany Motorsport Park Strategic Development Plan and overseeing the implementation of the strategies and supporting policies.
- 11.10 The Board is responsible for the development and implementation of systems to enable it to comply with its legal and policy obligations, adhering to accounting standards and ensuring the Venue assets are protected through appropriate risk management.
- 11.11 The Board is responsible for the marketing, management, programming and the safe use of the Venue.

12. VENUE OWNER

- 12.1 The Venue Owner shall carry out:
 - marketing the Venue;
 - · hiring of facilities to various users and user groups;
 - · programme the hiring and events held at the Venue;
 - ensure the hirer has the appropriate permit for the event being conducted;
 - ensure the hirer has the appropriate event insurance in place;
 - adherence to the Motorsport Australia "Track Operations Safety Guide";
 - adherence to the Motorcycling Australia "Track Standards" and current "Manual of Motorcycle Sport";
 - management and maintenance of the infrastructure;
 - establish and maintain an ongoing maintenance (sinking) fund;
 - ensure the Venue is cost-effective, that is, income is equal to or greater than expenses;
 - adherence to the Bushfire Management Plan;

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Appendix 2

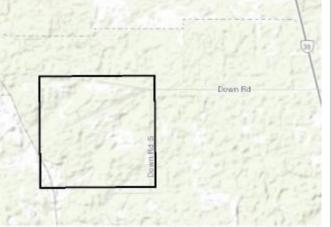
Flora Vegetation Complexes and Vegetation Condition Mapping





29 Hercules Crescent Albany, WA 6330 Australia

Tel: 08 9842 1575 Fax: 08 9842 1575



Overview Map Scale 1:100,000

Subject Site

Cadastre

5m Contours

▲ Vegetation Releves **Vegetation Complexes**

Jarrah/Sheoak/Eucalyptus staeri Sandy Woodland

Jarrah/Marri/Sheoak Laterite Forest

Homalospermum firmum/Callistemon glaucus Peat Thicket

Melaleuca preissiena Low Woodland

Open paddock / agricultural land

Miscellaneous Drainage Woodland/Shrubland



Scale 1:8,500 @ A3 GDA MGA 94 Zone 50

Data Sources
Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
IRIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

City of Albany PO Box 484 Albany, WA 6331

Vegetation Complexes Mapping

Assessor EH	QA Check KK	Drawn by BT
STATUS FINAL	FILE MSC0137-002	06/02/2019





Legend

Subject Site

Cadastre

5m Contours

Vegetation Condition

Completely Degraded

Very Good Excellent

Pristine



Scale 1:8,500 @ A3 GDA MGA 94 Zone 50

Data Sources
Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
IRIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

City of Albany PO Box 484 Albany, WA 6331

Vegetation Condition Mapping

Assessor EH	QA Check KK	BT
STATUS	FILE	DATE
FINAL	MSC0137-002	13/12/2018

<u>Appe</u>	ndix 3
Vegetation Classifications to A	S3959

Vegetation classification to AS3959

Site Details			
Address:	Lot 5780 Down Road		
Suburb:	Drome	State:	W.A.
Local Government Area:	City of Albany		•
Stage of WAPC Planning	Scheme Amendment and Rezoning		
Report use:	Preparation of the BMP for AMP		

BMP Plan Details					
Report / Job Number:	COA0020	Report Version:	FINAL		
Assessment Date:	14/02/2019	Report Date:	10/05/2019		
BPAD Practitioner	Kathryn Kinnear	Accreditation No.	BPAD 30794		

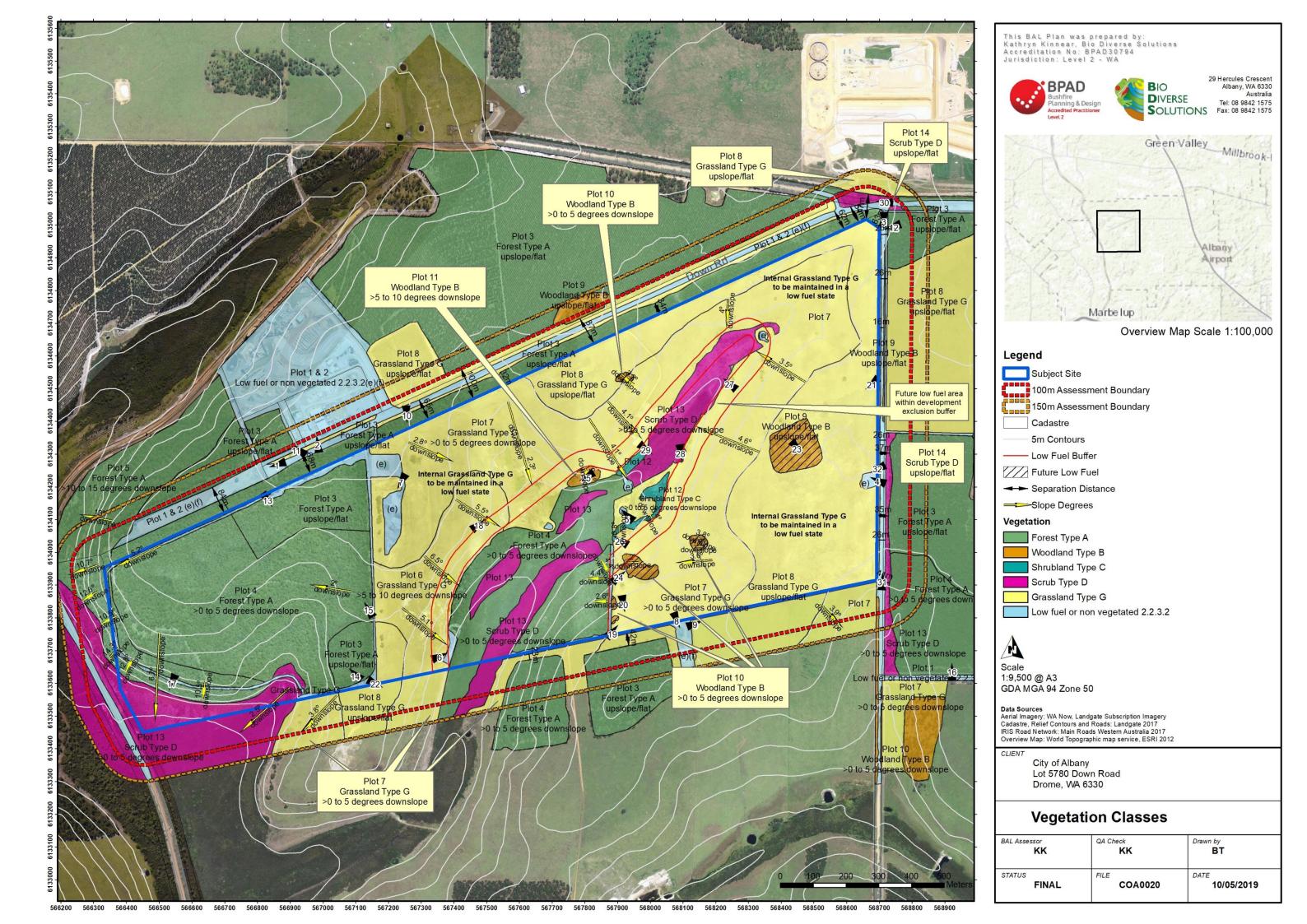






Vegetation Classification

Site assessment occurred on the 14th February 2019 by Kathryn Kinnear (BPAD 30794). All vegetation within 150m of the site / proposed development was classified in accordance with Clause 2.2.3 of AS 3959. Each distinguishable vegetation plot with the potential to determine the Bushfire Attack Level is identified in the following pages and shown on the Vegetation Classes Map Page 2.





Low fuel or non-vegetated areas exclusion 2.2.3.2 (e)

Location: Internal and external to the site.

Description: Hardstand areas, roads, driveways, dams, and buildings. Excluded as per AS3959 exclusion clause 2.2.3.2 (e).

Photo Id 1: View of Down Road to the west where it terminates west of Plantation Energy site.

Photo Id 2: View to the north of the Plantation Energy site.



Plot	1 cont.	Classification or Exclusion Clause	Low fuel or non- vegetated areas exclusion 2.2.3.2 (e)
E 93 - 1 -	.1.1.1.	SW 240 270 2-34°55.502', 117°45.140' ±5m ▲ 74m 44 Feb 2019, 11/36:49	Additional Photo of Plot 1.

Plot	1 cont.	Classification or Exclu	sion Clause	Low fuel or non- vegetated areas exclusion 2.2.3.2 (e)
1 • 1 •	SW • • ²⁴⁰ • • 3 293°NW (T)	W NW 300 NW 300 -34°55.931', 117°45.130	N i · ı · ı · i · ı · ı · · 0' ±5m ▲ 73m	Additional Photo of Plot 1.
43				
			14 Feb 2019, 11:52:18	

Photo Id 4: View of existing internal dam located along eastern boundary.



Plot	1 cont.	Classification or Exclusion Clause	Low fuel or non- vegetated areas exclusion 2.2.3.2 (e)
SW • • • • •	W • • ²⁷⁰ • • 3°NW (T)	IW N N NI - 1 · 300 · 1 · 1 · 1 · 1 · 1 · 1 · 1 · 1 · 1 ·	Additional Photo of Plot 1.
wh			
		14 Feb 2019, 12:34:18	

Photo Id 5: View of existing internal dam/soak located in the central creek area.

Plot	1 cont.	Classification or Exclusion Clause	Low fuel or non- vegetated areas exclusion 2.2.3.2 (e)
	67°NE (T) •	NE	Additional Photo of Plot 1.

Photo Id 6: View of existing internal dam/soak located along the southern boundary.



Plot 1 cont. Classification or Exclusion Clause Low fuel or non-vegetated areas exclusion 2.2.3.2 (e)

SE S SW W Additional Photo of Plot 1.

\$209°SW (T) 3-34°55.892', 117°44.131' ±5m 71m

Photo Id 7: View of hardstand area in the north west of the site.

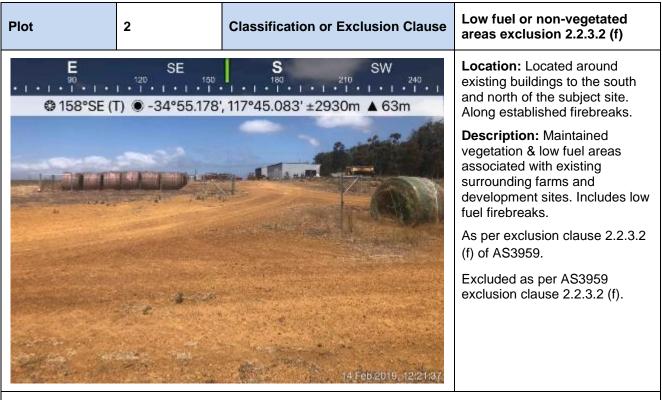


Photo Id 8: View to the south/south east of adjacent farm/shed area.





Photo Id 9: View along the southern boundary showing low fuel fire break and adjacent driveways access maintained in a low fuel condition.

Plot 3 **Classification or Exclusion Clause** Forest Type A Location: Located internal to the subject site in the north and south east corners of the western remnant vegetation block. External to the site in the north, and north east. -34°55.828', 117°44.185' ±5m Separation Distance: Nil internal. Description: Jarrah, Marri and Sheoak low forest. Midstorey dominated by Banksia, Agonis, Hakea and Leucopogon. Understorey of native shrubs, sedges and grasses. Multilayered. Includes Blue gum plantations external to the site. Average vegetation height: 8 Vegetation Coverage: 30-70%. 14 Feb 2019, 11 Available fuel loading: 25-35t/ha. Effective slope: Upslope.

Photo Id 10: View to the south of fringing vegetation along Down Road.





Photo Id 11: View to the north west of Blue Gum Plantations located north of Down Road.

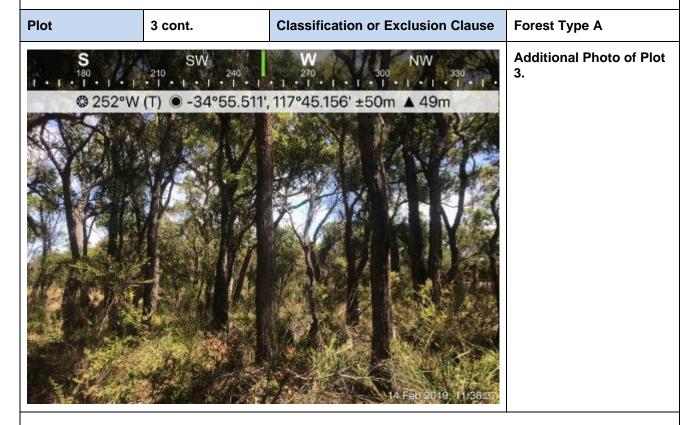


Photo Id 12: View to the west of Forest Type A along Down Road South.



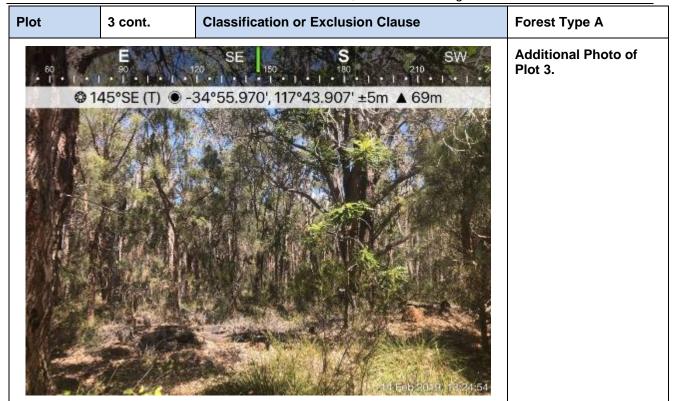


Photo Id 13: View to the south east of internal Forest located in the north west of the site.

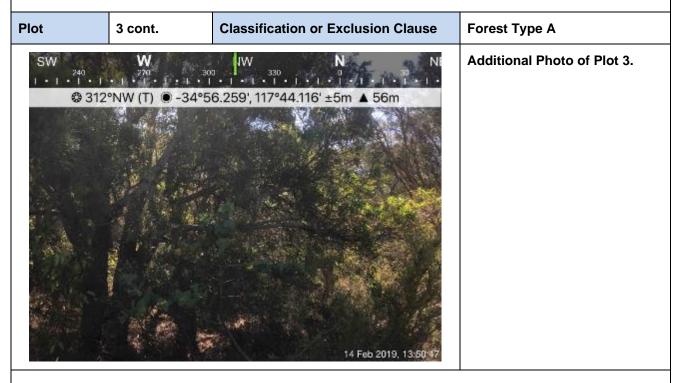


Photo Id 14: View to the north west of Forest Type A located in the south west (internal) of the site.



4 Plot **Classification or Exclusion Clause** Forest Type A Location: Internal in remnant vegetation along creekline and in the remnant to the west. External to the east and south east. Separation distance: Nil @ 330°NW (T) @ -34°56.195', 117°44.117' ±5m 55m internal and 35-41m to the east. Dominant species & description: Jarrah, Marri and Sheoak low forest. Midstorey dominated by Banksia, Agonis, Hakea and Leucopogon. Understorey of native shrubs, sedges and grasses. Multilayered. In creekline dominated by Taxandria linearfolia and Native Willow Average vegetation height: 8-13m. Vegetation Coverage: 30-70%. Available fuel loading: 25-35t/ha. Effective slope: Downslope >0 to 5 degrees.

Photo Id 15: View to the north west of Forest Type A.

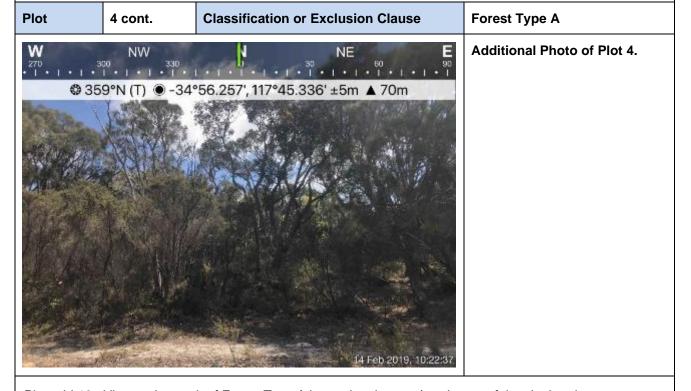


Photo Id 16: View to the north of Forest Type A located to the east/south east of the site in private property.



5

Plot

Classification or Exclusion Clause

Forest Type A

Location: Internal to the subject site along a ridge in the western remnant vegetation block. Extends to the north of the subject site. Recently burnt (May 2018 bushfires).

Separation distance: Nil.

Dominant species & description: Jarrah, Marri and Sheoak low forest. Midstorey dominated by *Banksia, Agonis, Hakea* and *Leucopogon*. Understorey of native shrubs, sedges and grasses. Multilayered.

Average vegetation height: 8-

Vegetation Coverage: 30-70%.

Available fuel loading: 28-

35t/ha.

Effective slope: Downslope > 10 to 15 degrees.

Photo Id 17: View to the south of Forest Type A recently burnt (May 2018).

Plot 6 Classification or Exclusion Clause

V N N NE E SE 120 SE

Grassland Type G

Location: Internal to the west of the creekline area.

Separation distance: Nil.

Dominant species & description: Kikuyu, Cape Weed, Clovers, *Hypochaeris sp.,* and patches of Fiddle Dock, Inkweed and Burr (mainly in rehabilitated areas.

Average vegetation height: 50-500mm.

Vegetation Coverage: <10%

trees.

Available fuel loading: 4.5t/ha. **Effective slope:** Downslope >5

to 10 degrees.

Photo Id 18: View to the north east of internal paddock areas in the west of the subject site.

Grassland Type G



Plot

7

Location: Internal to the site in the east, north and west, also NW located to the south in adjacent property. \$\text{\$\text{\$\Phi\$}} 43\text{°NE} (T) \(\bar{\text{\$\Phi\$}} -34\text{°56.183'}, 117\text{°44.601'} ±5m \(\bar{\text{\$\Dhi\$}} 70m \) Separation distance: Nil internal, 0-6m to the south. Dominant species & description: Kikuyu, Cape Weed, Clovers, Hypochaeris sp., and patches of Fiddle Dock, Inkweed and Burr (mainly in rehabilitated areas. Average vegetation height: 50-500mm. **Vegetation Coverage: <10%** trees. Available fuel loading: 4.5t/ha. Effective slope: Downslope >0 to 5 degrees.

Classification or Exclusion Clause

Photo Id 19: View to the north east of internal paddock areas from the southern boundary.



Photo Id 20: View of Plot 7 on the eastern side of the remnant vegetation (Plot 4), note rocky ground.



Plot 8 **Classification or Exclusion Clause Grassland Type G Location:** Internal to the site to the east. To the north, south and NW east of the subject site in adjacent properties and road reserves. ② 229°SW (T) ③ -34°55.763', 117°45.136' ±30m ▲ 70m Separation distance: Nil internal, 26m to the east, 0-6m to the south and 32-71m to the north. Dominant species & description: Kikuyu, Cape Weed, Clovers, Hypochaeris sp., and patches of Fiddle Dock, Inkweed and Burr (mainly in rehabilitated areas. Average vegetation height: 50-500mm. **Vegetation Coverage: <10%** trees. Available fuel loading: 4.5t/ha. Effective slope: Upslope.

Photo Id 21: View along internal fenceline in the east (central) area of internal paddocks.



Photo Id 22: View to the south east along ridgeline located south/south west of the subject site.



Classification or Exclusion Plot 9 Woodland Type B (06) Clause Location: Internal to the site in small isolated patches. North in adjacent property and east along Down Road South. Separation distance: Nil internal and Down Road South. 87m to the north. Dominant species & description: Stands of Marri and Jarrah trees in open paddock areas. Grazed and disturbed understorey. Not multilayered. Average vegetation height: 12-15m. **Vegetation Coverage: 10-30%.** Available fuel loading: 15-25t/ha. Effective slope: Upslope. Note: Central paddock areas will be maintained as low fuel near track and facilities.

Photo Id 23: View to the south east through open woodland areas (central paddock areas in the east).



Photo Id 32: View along Down Road South.



Plot 10 Classification or Exclusion Clause Woodland Type B (06) Location: Internal to the site in small isolated patches. Separation distance: Nil. **⊕** 50°NE (T) ● -34°56,093', 117°44,612' ±10m ▲ 41m Dominant species & description: Stands of Marri and Jarrah trees in open paddock areas. Grazed and disturbed understorey. Not multilayered. Noted as future low fuel. Average vegetation height: 12-15m. Vegetation Coverage: 10-Available fuel loading: 15-25t/ha. **Effective slope:** Downslope >0 to 5 degrees.

Photo Id 24: View to the north east through Plot 10.

Plot 11 Woodland Type B (06) Classification or Exclusion Clause Location: Internal to the subject site situated the north of the creek. ② 239°SW (T) ③ -34°55.929′. 117°44.546′ ±5m ▲ 57m Separation distance: Nil. Dominant species & description: Stands of Marri and Jarrah trees in open paddock areas. Grazed and disturbed understorey. Not multilayered. Noted as future low fuel. Average vegetation height: 12-15m. Vegetation Coverage: 10-Available fuel loading: 15-25t/ha. Effective slope: Downslope >5 to 10 degrees.

Photo Id 25: View to the south west through Plot 11 located on the north of the central creek area.

Scrub Type D

presents as Shrubland Type C, future revegetation within the creek area is expected to result in Scrub Type D

vegetation type.



Plot

13

Plot 12 **Classification or Exclusion Clause** Shrubland Type C **Location:** Internal to the site situated along creek line area. ₱ 303°NW (T) ● -34°56.033′, 117°44.615′ ±10m ▲ 41m Separation distance: Nil. Dominant species & description: Taxandria, Homalospermum, Callistemon, native sedges and introduced grasses. Average vegetation height: 1-1.5m. **Vegetation Coverage: 30%** foliage cover. Available fuel loading: 15t/ha. Effective slope: Downslope >0 to 5 degrees. Feb 2019, 12:30:1

Photo Id 26: View through Shrubland Type C located around central creek area (southern edge).

Classification or Exclusion Clause

Location: Internal in creek area. Separation distance: Nil. Dominant species & @ 311°NW (T) @ -34°55.772', 117°44.832' ±5m 53m description: Melaleuca, Callistemon, Homalospermum, Banksia, Taxandria, Acacia and native sedges. Average vegetation height: 3-4m. Vegetation Coverage: >30% foliage cover. Available fuel loading: 25t/ha. Effective slope: Downslope >0 to 5 degrees. Note: Although this currently

Photo Id 27: View through future Scrub Type D located around central creek area (eastern edge).



Photo Id 28: View of Scrub Type D located along central creek area (southern edge). Note 4m height staff.

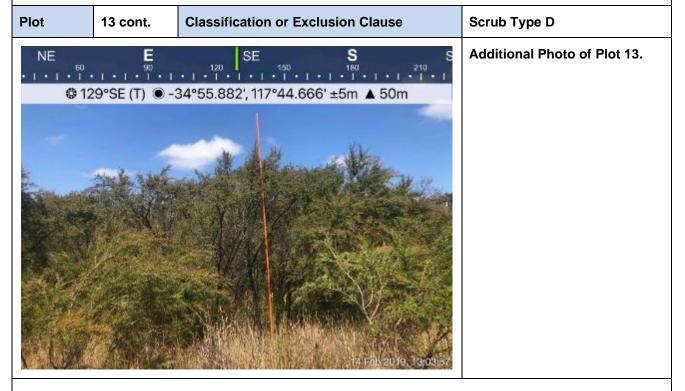


Photo Id 29: View through Plot 13 on the northern side of the central creek area. Note 4m height staff.



Plot 14 **Classification or Exclusion Clause** Scrub Type D Location: External to the east along Down South Road and to the North at the Down Road and Down Road @ 275°W (T) @ -34°55.470', 117°45.141' ±5m 72m South intersection. Separation distance: 26m to the east 54-63m to the DOWN SOUTH north. Dominant species & description: Predominately Taxandria (Tea tree) and Taylorina, some native sedges and introduced grasses. Average vegetation height: 2-4m. **Vegetation Coverage:** >30% foliage cover. Available fuel loading: 25t/ha. Effective slope: Upslope.

Photo Id 30: View along Down Road at the intersection of Down Road South (note 1.5m high sign).

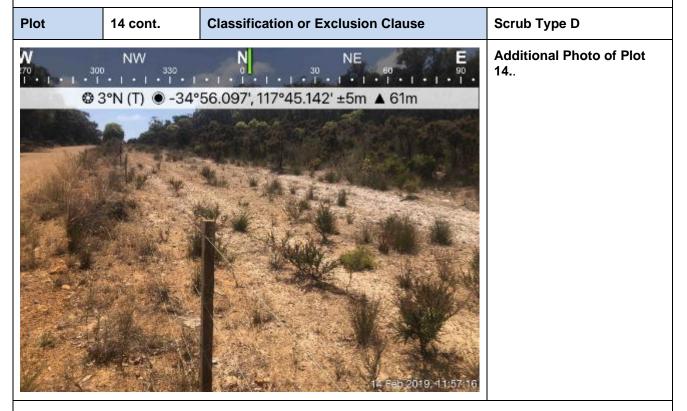


Photo Id 31: View along Down Road of adjacent property, low fuel firebreak in foreground, regrowth Tea Tree Scrub in background.



Comments on Vegetation Classifications:

- Distances from vegetation were made based on surface fuels to edge of lot (subject site) boundary;
- Effective slopes were measured in the field using a Nikon Forestry Pro and represented on the respective plots;
- Method 1 (AS3959) Simplified procedure was used for vegetation classification Assessment process;
- All vegetation was classified within the subject site and within 150m of the lot boundaries to AS3959
 Table 2.3; and
- The perimeter of the vegetation was measured using field GPS and notations on field GIS maps.

CERTIFICATION

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 Amendment Nos 1, 2 and 3).

SIGNED, ASSESSOR: ...

DATE

10/05/2019

Kathryn Kinnear, Bio Diverse Solutions Accredited Level 2 Bushfire Practitioner (Accreditation No: BPAD30794)





Appendix 4

Bore water supply test certificate



Details of Person carrying out the works

Driller Driller License Address Telephone Phil Putland

48 Driller Classification Class 2
PO Box 5150 ALBANY WA 6331

0427 882 561

Email danic@omninet.net.au

Location of Well

Client

City of Albany

Address

Po Box 484 Albany WA 6330

Location

Proposed motor race track Downe Rd

S3493037 E11773965+.7

Construction Details (all measurements taken from ground level)

		Production ca	asing detail			
Material	Nominal	Diameter	Wall	Depth		
	bore	bore O.D. (mm)	thickness (mm)	From (m)	To (m)	
PVC	100mm	114mm	7mm	0	17	
				23.78	35.78	

		Screen/slots		- No 12-77 (10)	
Screens/slot (type)	Diameter O.D. (mm)	Aperture (mm)	Top of screen (m)	Bottom of screen (m)	
PVC	114mm	.5mm	17.7	8	23.78
Open Hole					

	Gravel pack details	-vi
Gravel size	From (m)	To (m)
.85-2mm	2	0 35.78

Annular Fill						
Material Type	From (m)	To (m)				
Drill cuttings						
Bentinite Pellets	19	20				

		Cementing d	letail					
Casing diamete	r		Depth					
(mm O.D.)			From (m)	To (m)				
5%Cement Ben	tinite Grout		19					
Head works Co	ncrete Block		.500mm x .500mm					
From (m)	To (m)	Strata descri						
0	2		clay with gravel					
3	5	sandy						
6	9	Clayey						
10	/2	Silfy Si	andy clay					
13	28		ne sandstone					
29	32	clay o	eark grey, Werill	up Formation				
32	40	clay a	nd shale siltstone					
40	EOH	Saseme	nt granite					
Particulars of w	ellan			(4.2 MSFE) (4.2 MSFE) (4.1 MSFE)				
Particulars of w	ell	SECAL SM						
	ell	09-05	-19 Drilling completion	10-05-1				
Drilling start	ell ell	09-05 Rotary air	-19 Drilling completion	10-05-1				
Drilling start	ell x	Rotary air	-19 Drilling completion	10-05-1				
Particulars of w Drilling start Drilling method used	ell x		i-19 Drilling completion	10-05-1				
Drilling start Drilling method	ell x	Rotary air Rotary mud	i-19 Drilling completion	10-05-1				
Drilling start Drilling method used	x	Rotary air Rotary mud	i-19 Drilling completion	10-05-1				
Drilling start Drilling method used	x	Rotary air Rotary mud	i-19 Drilling completion	10-05-1				
Drilling start Drilling method used Well Developm	x	Rotary air Rotary mud						
Drilling start Drilling method used Well Developm Duration of dev	x	Rotary air Rotary mud	3hrs					
Drilling start Drilling method used Well Developm Duration of dev Conductivity	ent elopment	Rotary air Rotary mud	3hrs					
Drilling start Drilling method used Well Developm Duration of dev	ent elopment	Rotary air Rotary mud	3hrs					

Recommended Pumping Set Pump

100ltrs min 21mtrs

Appendix 5

Risk Assessment AMP

Albany Motorsport Park Risk Assessment

Risk No.	Hazard -Bushfire originating/causing fire	Probability of event occurring	Exposure of Visitors	Possible consequences if event occurs	Risk rating	Control measure
Interna	I to the site	occurring		ii evenii oodars		
1	Ignition Vehicles/Bikes combusting on track due to crashes Inc fuel or oil line leaks on track	Almost Certain	Occasional	Very serious	Substantial/high	 Low fuel grass areas Buffer areas low fuel to vegetation Requirements outlined in Operators safety manual (CAMS) Fire extinguishers located around the track and pit areas. Safety crews on site every meeting and fire unit for unsupervised non track days during summer. Spark arrestors on Motocross bikes. No events on Total fire ban periods and Catastrophic & Extreme FDI. Consider twilight events. Restrict public access and vehicle movement near the central creek area (safety and fire crews only).
2	Grinding sparks in pits or near fuel sources (hot works)	Very unlikley (designated re-fuelling areas)	Rare	Disaster	Low risk	 Operators safety manual (CAMS). No storage of fuels on site. Designated re-fueling areas (controlled zone). Fire extinguishers strategically located. Fire extinguishers each event participant. Requirements outlined in Operators safety manual (CAMS). Ensure control measures instigated during unsupervised non track days during summer.
3	Smoking public viewing areas or in pits near fuels	Unlikely (smoke free site)	Rare	Disaster	Low risk	 No smoking on site Fire extinguishers strategically located. Security enforcement to general public.
4	Vehicles (exhausts) near dry vegetation or slashing/mowing rocky ground (maintenance)	Likely	Rare	Very serious	Low risk	 Operations manual to define slashing procedures Fast attack unit on site. No slashing on high winds and hot days, Total fire ban periods and Catastrophic & Extreme FDI. Observe no vehicle movement bans and total fire bans in Operators safety manual (CAMS).

Risk No.	Hazard -Bushfire originating/causing fire	Probability of event occurring	Exposure of Visitors	Possible consequences if event occurs	Risk rating	Control measure
Internal	cont.					
5	Electrical faults building faults	Possible	Occasional	Very serious	Moderate	 New buildings to be constructed, less risk of faults. Regular building inspections. Compliance in new building, safety certification on electrical elements. (regulated) All buildings built to BAL 29 on site.
6	Electrical faults from extension cords/cables (pits/trailers)	Possible	Occasional	Very serious	Moderate	 Worksafe procedures in place - Tagged and tested extension cords only from all event participants. Fire extinguishers strategically located in pit area and with each event participant. RCD protection on all power supply on site. (regulated). Pit inspections & participant gear inspections for compliance during events.
7	Re-fuelling area (designated and controlled)	Likely	Occasional	Very serious	Very high risk	 Designated area for each site. Low fuel non-combustible area. Requirements outlined in Operators safety manual (CAMS) Safety crews on site every meeting. Fire unit for unsupervised non-track days during summer. No events on Total fire ban periods and Catastrophic & Extreme FDI. Restrict public access and vehicle movement near refuelling area.
8	Substandard race vehicles using the facility	Remotely possible	Very rare	Serious	Low risk	 Race scrutineering controls Designated practice area Requirements outlined in Operators safety manual (CAMS)

Risk No.	Hazard -Bushfire originating/causing fire	Probability of event occurring	Exposure of Visitors	Possible consequences if event occurs	Risk rating	Control measure
Internal	cont.					
9	Re-ignition of previously controlled fires (peat Central creek area)	Possible	Infrequent	Very serious/Disaster	Substantial	 No controlled burning in creek area. Restrict public access and vehicle movement near the central creek area (safety and fire crews only). Barriers non combustible material to central creek area. Access (FSA) to creek/remnant vegetation area from fire crews, turnarounds and 6-8m wide horizontal clearance, 4m trafficable surface. Gates for fire access. Low fuel buffer areas (50m) from vegetated areas. No hazard reduction burning in central creek/remnant vegetation area. 8m firebreak around central remnant vegetation area to restrict grass fires from entering the area.
10	Water pump failure causing spark/ignition	Possible	Infrequent	Very serious/Disaster	Substantial	 Ensure pumps adjacent bores are regularly maintained and inspected. Located in low fuel area, non-combustible materials No fuel storage near. Not located near buildings.
11	Gas Barbecues and camp fires causing ignition (unattended, faulty)	Very likely	Occasional	Very serious/Disaster	High risk	 No camping on site No barbeques, unless in organized near kitchen (register) facility. Condition on lease No informal BBQ's from participants Inspections in pit areas. Requirements outlined in Operators safety manual (CAMS) CoA licensed vendors for food catering
12	Tire barriers igniting from crash from vehicle	Very likely	Occasional	Very serious/Disaster	High risk	 Tires to be placed in accordance with DFES practice note Use concrete barriers and sand traps instead of tire barriers No storage of tyres on site. Refer to DFES guideline of storage of tires.

Risk No.	Hazard -Bushfire originating/causing fire	Probability of event occurring	Exposure of Visitors	Possible consequences if event occurs	Risk rating	Control measure
External						
13	Re-ignition of previously controlled fires (May and November non-prohibited periods)	Very likely	Occasional	Serious injury	Moderate	 Monitor and liaison with brigade fire control officer. Restrictions of burning within 20m of site? Monitor weather conditions prior to event, documented in operations manual and fire warden for site. Liaison with neighbours during summer periods. Scheduling of events - No events on Total fire ban periods and Catastrophic & Extreme FDI. Consider twilight events.
14	External: Ignition from trains under heavy loads sparks associated with braking	Conceivable but very unlikely	Rare	Serious	Low risk	 Train movements low Low fuel areas adjacent to railway Monitor weather conditions prior to event, documented in operations manual and fire warden for site. Liaison with neighbours during summer periods.
15	External: Aircraft Crash	Conceivable but very unlikely	Rare	Serious	Low risk	 Flight path 1km west Plane movements mostly through weekdays Monitor weather conditions prior to event, documented in operations manual and fire warden for site.
16	External: Western powerlines transmission	Very likely	Occasional	Very serious	High risk	 Underground power supply to site? Major transmission lines to the east Monitor weather conditions and fires in area Liaison with Chief Fire Control Officer Radio for Warden?

Risk No.	Hazard -Bushfire originating/causing fire	Probability of event occurring	Exposure of Visitors	Possible consequences if event occurs	Risk rating	Control measure
Extern	nal					
17	External: Ignition from stockpiled woodchips north of site	Very likely	Occasional	Very serious	High risk	 Plantation energy stockpiles of woodchips Safety measures and fire control procedures in place. Low fuel environment north f subject site. Water supply in lease area of subject site for sprinkler system Storage controls for woodchips, monitors and wardens in place. No woodchips stored on Motorsport park site. Copy of emergency response procedure to Albany motorsport park Liaison with APEC and plantation energy.
18	External: Ignition from Blue gum slash burning (cause of May 2018 fire)	Very likely	Occasional	Very serious	High risk	 Monitor and liaison with brigade fire control officer. Restrictions of burning within 20m of site? Monitor weather conditions prior to event, documented in operations manual and fire warden for site. Liaison with neighbours during summer periods. Scheduling of events - No events on Total fire ban periods and Catastrophic & Extreme FDI. Consider twilight events.
19	External and Internal: Lightning strikes	Very likely	Occasional	Very serious	High risk	 Monitor and liaison with brigade fire control officer. Monitor weather conditions prior to event, documented in operations manual and fire warden for site. Liaison with neighbours during summer periods. Scheduling of events - No events on Total fire ban periods and Catastrophic & Extreme FDI. Consider twilight events.

Risk No	Hazard -Bushfire originating/causing fire	Probability of event occurring	Exposure of Visitors	Possible consequences if event occurs	Risk rating	•	Control measure
20	Illegally lit fires (deliberate)	Unusual but possible	Occasional	Very serious	Moderate risk	•	Monitor and liaison with brigade fire control officer. Monitor weather conditions prior to event, documented in operations manual and fire warden for site. Liaison with neighbours during summer periods. Scheduling of events - No events on Total fire ban periods and Catastrophic & Extreme FDI. Consider twilight events.

Probability – Almost Certain, Likely, Possible Unlikely

Exposure – Very rare, infrequent, occasional, frequent, continuous

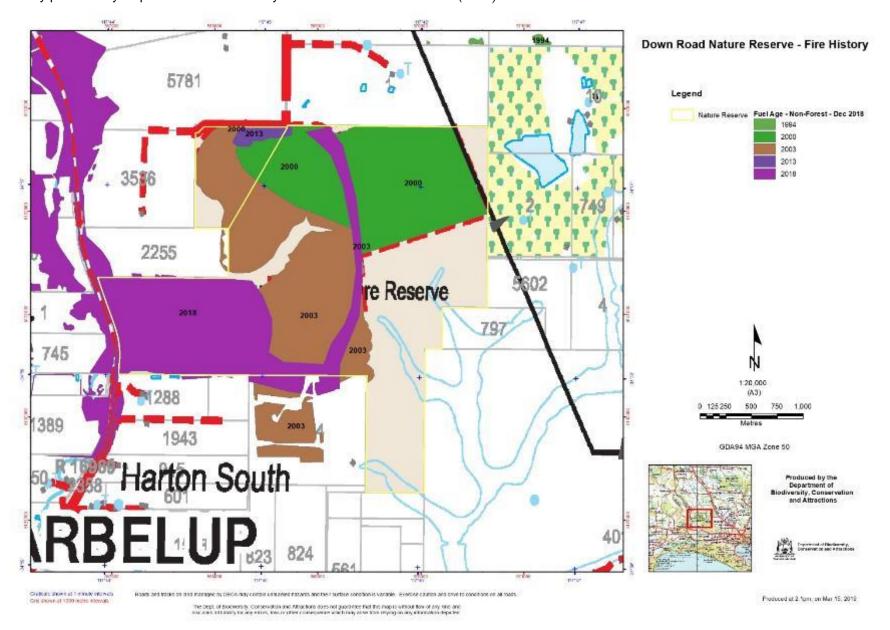
Consequence- Catastrophe, Disaster, Very Serious, Serious, Important, Noticeable

Risk – Very High, High, Substantial, Moderate and Low

Data has been gathered from following sources:

- 20km radius of the subject site on originating fire causes (DBCA, CoA & DFES)
- CAMS risk register
- Great Southern Motorsport Group Inc (cross section of sporting codes)

Kindly provided by Department of Biodiversity Conservation and Attractions (2019)



Appendix 6

CAMS Occupational health and safety policy Example of CAMS risk assessment forms

Occupational Health & Safety Policy

Scope

This policy applies to all CAMS Staff and Volunteers working for CAMS.



Policy Objective

This Policy shows CAMS' commitment to ensuring the health and safety of staff, contractors and volunteers who work for CAMS, and for minimising the risk to competitors, participants, officials, contractors, and visitors at CAMS Events, to the extent reasonably practicable.

Policy Statement

1. The Working Environment

CAMS will use its best endeavours to achieve a working environment that, to the extent reasonably practicable, eliminates or reduces risks to health and safety by:

- conducting risk assessments on hazards and risks relating to the work of Staff and Volunteers:
- monitoring the health and safety of Staff and Volunteers;
- seeking advice on safety matters when required;
- promoting safety and welfare to Staff and Volunteers:
- working with Staff who are returning to work after illness or injury to assist their rehabilitation:
- providing training to Staff on work health and safety on induction and then as required;
- providing training and instruction to Volunteers as to the safe performance of their work as required;
- ensuring contractors comply with their health and safety obligations by requiring them in CAMS contracts to address risks and have in place control measures to eliminate or reduce risks arising from their work:

- ensuring those conducting Permitted Events adopt any work health and safety policies required by CAMS and address risks and have in place control measures to eliminate or reduce risks arising from their Permitted Event/s:
- consulting with Staff and Volunteers on work health and safety matters;
- reporting to the Board Members on work health and safety.

2. The Motor Sport Environment

CAMS recognises that motor sport may present risks to the health and safety of competitors, officials, contractors, and visitors at CAMS Events. CAMS seeks to reduce those potential risks by:

- having a health and safety program ('the program'), which will protect and enhance the health and safety of all relevant CAMS stakeholders:
- having CAMS Board Members, Staff, Volunteers and CAMS-associated and affiliated organisations working together to develop and implement the program;
- · providing training to Volunteers as required;
- applying the program at all CAMS Events and, to the extent possible, Permitted Events;
- reviewing the program annually or more frequently if required;
- reporting on compliance and implementation to the Board Members.

3. Procedures

3.1 Best Practice

CAMS aims to be recognised as the motor sport leader in safety as it relates to its Staff and Volunteers.

3.2 Leadership

All CAMS managers and those in leadership positions, including senior volunteers, will provide the leadership needed to reach these goals.

Occupational Health & Safety Policy

3.3 Managers and Senior Volunteers

CAMS Managers and Senior Volunteers are committed to the provision and maintenance of a healthy and safe workplace, and to the extent reasonably practicable and as appropriate, will:

- consult and participate with CAMS Staff. Volunteers and associated stakeholders in the health and safety program:
- · use risk identification, assessment and control principles to reach CAMS health and safety objectives:
- inform and train CAMS Staff and Volunteers and associated stakeholders in relevant policies, procedures and health and safety obligations;
- · participate in CAMS induction and implement all safety procedures;
- allocate appropriate resources for the program.

3.4 Staff and Volunteers

CAMS Staff and Volunteers will:

- · participate and support CAMS in its efforts to reach its health, safety and where relevant, rehabilitation objectives;
- follow reasonable health and safety instructions from managers, supervisors or senior volunteers:
- · report any serious incidents, accidents, injuries or hazards in the workplace to supervisors or designated representatives;
- · aim to work in a way that does not endanger the safety of themselves and/or others:
- properly use and maintain safety equipment:
- · make sure other CAMS Staff and Volunteers and visitors follow safety rules in the workplace:
- participate in all CAMS induction programs when required, and follow all safety procedures.

3.5 CAMS Staff and CAMS Appointed Officials at Permitted Events

- CAMS Staff and CAMS Appointed Officials will conduct themselves in a safe manner and in line with local safety policies and procedures when attending Permitted Events on behalf of CAMS. In the absence of these, CAMS' organisational procedures will apply:
- · CAMS Staff and CAMS Appointed Officials have the right to cease work at any Permitted Event if the staff member or CAMS Appointed Official has concerns that risks to health and safety have not been appropriately eliminated or reduced.

3.6 Consultation

CAMS consults on work health and safety with its Staff, Volunteers and stakeholders in a number of different ways and in accordance with any Consultation Policy.

3.7 Dispute Resolution

Any disputes as to work health and safety matters that are not addressed by other CAMS policies or procedures will be at the first instance addressed through informal mediation between the parties. If this is unsuccessful the CAMS CEO will refer the matter to formal mediation, and may then arbitrate the dispute if required.

Definitions

The following definitions apply to this policy:

Staff

A paid employee of CAMS who conducts work for CAMS including at CAMS Events and Permitted Events.

CAMS Appointed Officials

Officials appointed by CAMS to work at a CAMS Event or a Permitted Event, namely Stewards of Meetings, Race Directors, Technical Commissioners and any other official expressly appointed by CAMS.

Contractor

A contractor or subcontractor engaged by CAMS.

Senior Volunteers

A volunteer who is a Board Member of CAMS, or a Chair of any CAMS Commission, Committee, State Executive, Working Group, Panel or is otherwise appointed by CAMS to a senior voluntary position.

Volunteers

Unpaid/Honorary representatives working for CAMS on authorised and approved CAMS business, including senior volunteers, Commission and Committee members and CAMS Appointed Officials.

Board Members (The Board)

Directors of the CAMS Board, which also includes the President and FIA delegate.

CAMS Events

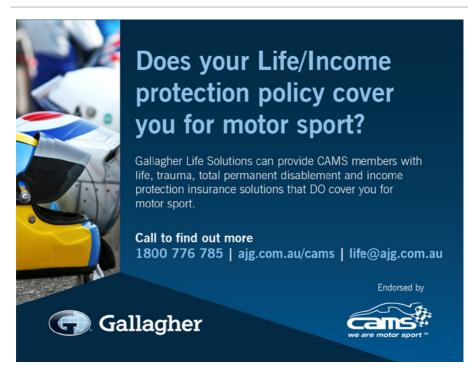
Motor sport events conducted by CAMS excluding Permitted Events.

Permitted Events

Motor sport events that are not conducted by CAMS but are conducted pursuant to a licence, permit or authority issued by CAMS.

Note: OH&S Policies on specific issues

Policies, procedures, operational safety requirements and safe work methods on specific occupational health and safety issues, consistent with the principles in this policy, will be issued as appropriate.





Sanctioned Event – Targeted Risk Assessment

Event / Venue	Type of Work being performed e.g. refuelling, waving flag, walking to work area
Area / Location	
Date	

RISK MATRIX	Consequence						
Likelihood	1 Insignificant	2 Minor	3 Moderate	4 Major			
A - Almost Certain	High	High	Extreme	Extreme			
B - Likely	Medium	High	High	Extreme			
C - Possible	- Possible Low		High	Extreme			
D – Unlikely	D – Unlikely Low		Medium	High			

ACTIONS REQUIRED FOLLOWING ASSESSMENT OF RISK:

Extreme risk Immediate actions required

Senior Management (Senior Event Official) attention needed High risk Medium risk Management (Organiser) responsibility must be specified Low risk Manage by current procedures / continue current process

Note: "Management" and "Official" are considered to be like terms See reverse for descriptions of Likelihood and Consequence outcomes

IDENTIFIED RISKS:

Description of identified Risks	Likelihood (A-D)	Consequence (1-4)	Resultant Risk	Controls / Treatment performed What has been done about it?	Who will Implement?	Who will Check?	Who confirmed actions were completed (sign)
Example: spectator could be hit by debris from car	С	3	HIGH	Debris fence, move spectators further back, additional crowd control officials	Organiser Marshals	Race Sec	
1.							
2.							
3.							
4.							



Sanctioned Event – Targeted Risk Assessment

LIKELIHOOD/CONSEQUENCE DESCRIPTIONS:

Likelihood		Consequence	Personal Injury	Administrative
A - Almost certain	Action will probably occur numerous times or in many circumstances	4 – Major Consequence	Death, permanent or extensive injury requiring hospitalisation to one or more people.	Significant hardship to Organisation
B - Likely	Action may occur occasionally or in some circumstances	3 – Moderate Consequence	Serious injury requiring hospitalisation; broken limbs or stand down for duration of event	Significant rejigging of organisational plans required
C - Possible	Action may occur in exceptional circumstances and has been known to occur elsewhere	2 – Minor Consequence	Medical attention on-site or ongoing attention to injury may be required	Minor rearrangement of plans required to address the situation
D - Unlikely	Whist theoretically possible is not known to have occurred	1 – Insignificant Consequence	Minor first aid, if at all. No ongoing medical attention	Localised assessment of affected issue to be considered

POINTS TO REMEMBER:

slips/trips Collapse of structuresDangerous or flammable Materials Electrical cables Heavy equipment Public access / egress / behaviour Weather (e.g. Rain / Hail / Wind / Thunderstorms) Projectiles

What can cause injury or death?

Four Risk Treatments Avoid: Don't do the activity • Treat: Reduce by use of controls • Accept: If low or if consequences can be tolerated. • Transfer: (Caution – not possible to transfer duty of care.)

Levels of Control Methods ■ Avoid ← Try to start here Substitute Isolate Reduce by physical controls Reduce by admin warning and rules Use Personal Protection Equipment ← Last resort

WHO DID YOU TALK TO IN ASSESSING AND IDENTIFYING THIS RISK?

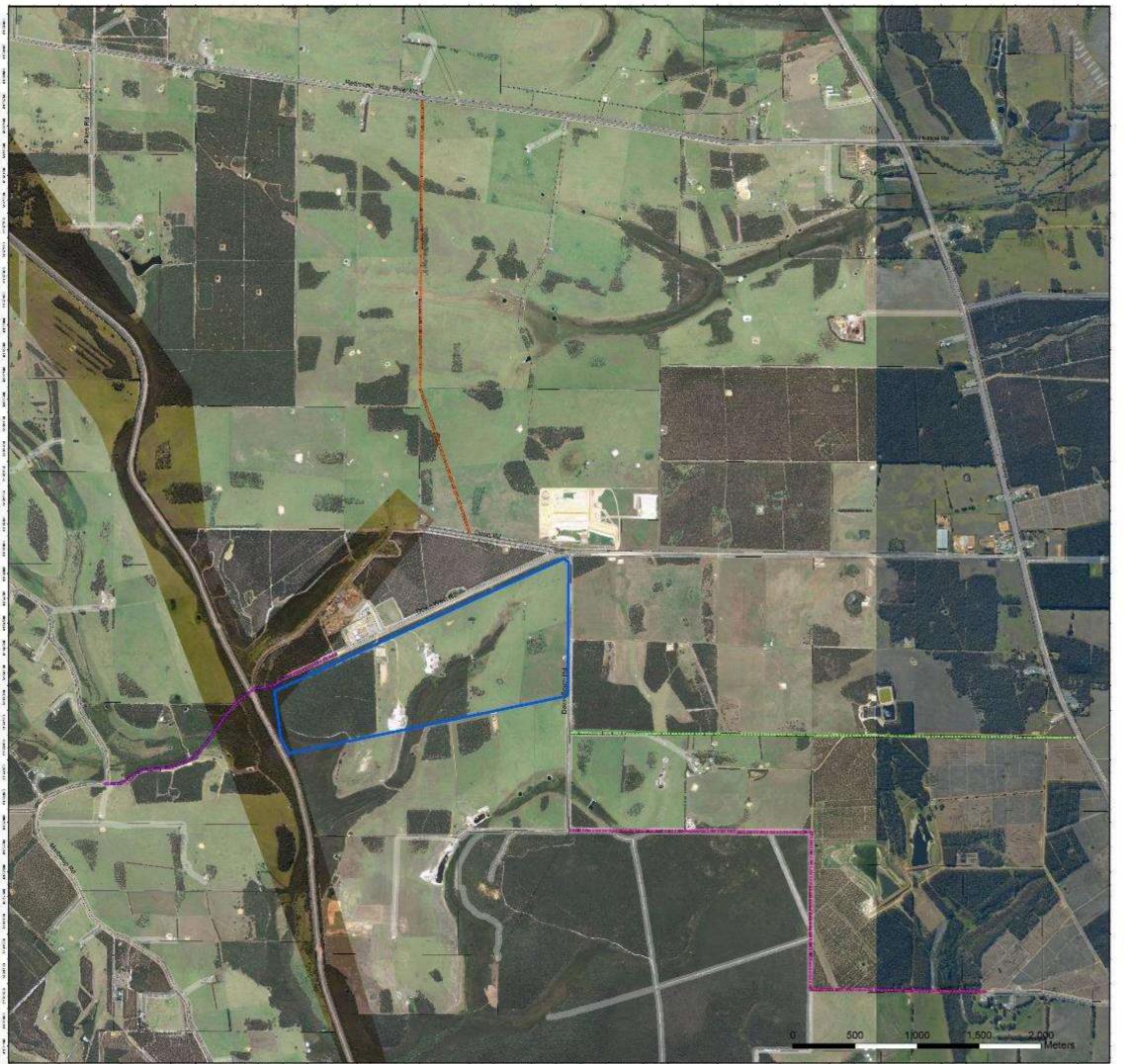
Date	Name	Position	Signature

Completed by:	Signed:	Date:
	G .	Dago 2 of

Appendix 7 Access options AMP

Albany Motorsport Park Access Options

Option No.	Location/direction	Comments	Bushfire risks and features	Outcome/feasibility
Option 1	North to Redmond Road then east to Albany Highway PL 05775 PL 5774 PL5778	Originally desired by DFES and destination is Redmond VBFB Fire shed.	 Moderate BHL through the paddocks some small isolated patches of remnant vegetation extreme BHL. Redmond VBFB Fire shed not a safe destination, shed is not attended. Shed surrounded by Extreme BHL risks and no parking or facilities. Redmond Road is narrow carriageway with Extreme BHL along the length (both sides Forest Type A). 3.55km to construct to link Redmond Road to Down Road. 	Land owner not willing to entertain idea of access on their land. Refer to letter from XXX. (? JVM) Not feasible.
Option 2	West from Down Road west to Marbelup Road P054723 RRnth-A Railway RRsth-PL02358 PL4117 PL4118	Undeveloped road reserve	 High slopes in excess of 15° west of down road prior to crossing railway line. Railway to cross, not easily approved and costly to construct. Low lying native vegetation (wetland) west of railway line. Extensive native vegetation clearing in road reserve required to link public roads. Extreme BHL with Extreme slopes to pass through. 2.28km to construct from Down Road to Marbelup Rd. 	Not deemed feasible due to large environmental constraints to overcome. Extreme Bushfire risks to overcome.
Option 3	South then linking east to Gun Road. D04385 PL00749 D0438451 D084694 Down Rd E NR 20948 PL01248 815	Formed CoA road then Class A Nature Reserve Down Road Nature Reserve 20948	 Extreme BHL to pass through in NR Reserve area. Clearing native vegetation would be required in Class A Nature Reserve Wetland/low lying areas to negotiate Western powerline alignment? 4.64 km to construct from Down Road South to Gunn Road 	Not deemed feasible due to extensive environmental constraints in Class A nature Reserve to overcome. Extreme Bushfire risks to overcome.
Option 4	South along Down Road then east to Albany Highway PL 2026 D043845 PL04638 D084694	Formed CoA road then Private property and Water Corp land.	 Two areas of remnant vegetation at west end of PP on north of alignment (6m firebreak present) are extreme BHL Paddock areas along majority of central area of route Mod BHL. BG Plantations recently harvested on east end. BG Plantation present Extreme BHL, however a 25m corridor can be achieved from plantations. Sightlines at entry/exit point are good. Eastern passing lane terminating. Traffic control would be required. 4.07 km from Down Road South to Albany Hwy. 1.8km Constructed all weather in W/C land. 2.27 Km to construct. 	Water corporation and MRWA supports this arrangement in principle. See attached correspondence. Private Property owner in principle support. Most likely feasible option. 12m Easement in Gross refer to attached email from Jan Van Der Mescht.



This BAL Plan was prepared by: Kathryn Kinnear, Bio Diverse Solutions Accreditation No. BPAD30794 Jurisdiction: Level 2 - WA







Overview Map Scale 1:100,000

Legend



Scale 1:15,00@ A1 GDA MGA 94 Zone 50

Data Sources
Acrial Imagery: SLIP Virtual Mosaic WMS Service, Landgate 2017
Cadestre, Relief Contours and Roads: Landgate 2017
IRIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

City of Albany Lot 5780 Down Road Drome, WA 6330

Access Options

BAL Assessor	QA Check	Drawn by
KK	KK	ВТ
STATUS	FILE	DATE
FINAL	COA0020	21/02/2019

Hi Kath.

I can confirm that the secondary access for the AMP will be in the form of a 12m easement in Gross to Albany Highway from Down South Road as per Option 4 of the attached mapping.

We will now commence work on getting an "in principle agreement" from Lyndsay Black, Water Corporation and MRWA in place.

Regards



Jan Van Der Mescht / Manager Planning and Land Information Services

@ Janv@albany.wa.gov.au

(08) 6820 3047

(08) 9841 4099

PO BOX 484, Albany, WA, 6331

9 102 North Road, Yakamia

www.albany.wa.gov.au



OPEN MON-FRI 9AM-4PM SATURDAY 10AM-3PM VISIT US TODAY!



Please consider the environment before printing this email.

From: Kathryn Kinnear <kath@biodiversesplutions.com.au>

Sent: Monday, 11 March 2019 11:10 AM

To: Jan Van Der Mescht <janv@albany.wa.gov.au>

Cc: Theo Newhouse <theo.newhouse@bigpond.com>; Michael Cole <michael.cole@albany.wa.gov.au>

Subject: AMP Secondary Access easement

Importance: High

Hi tan

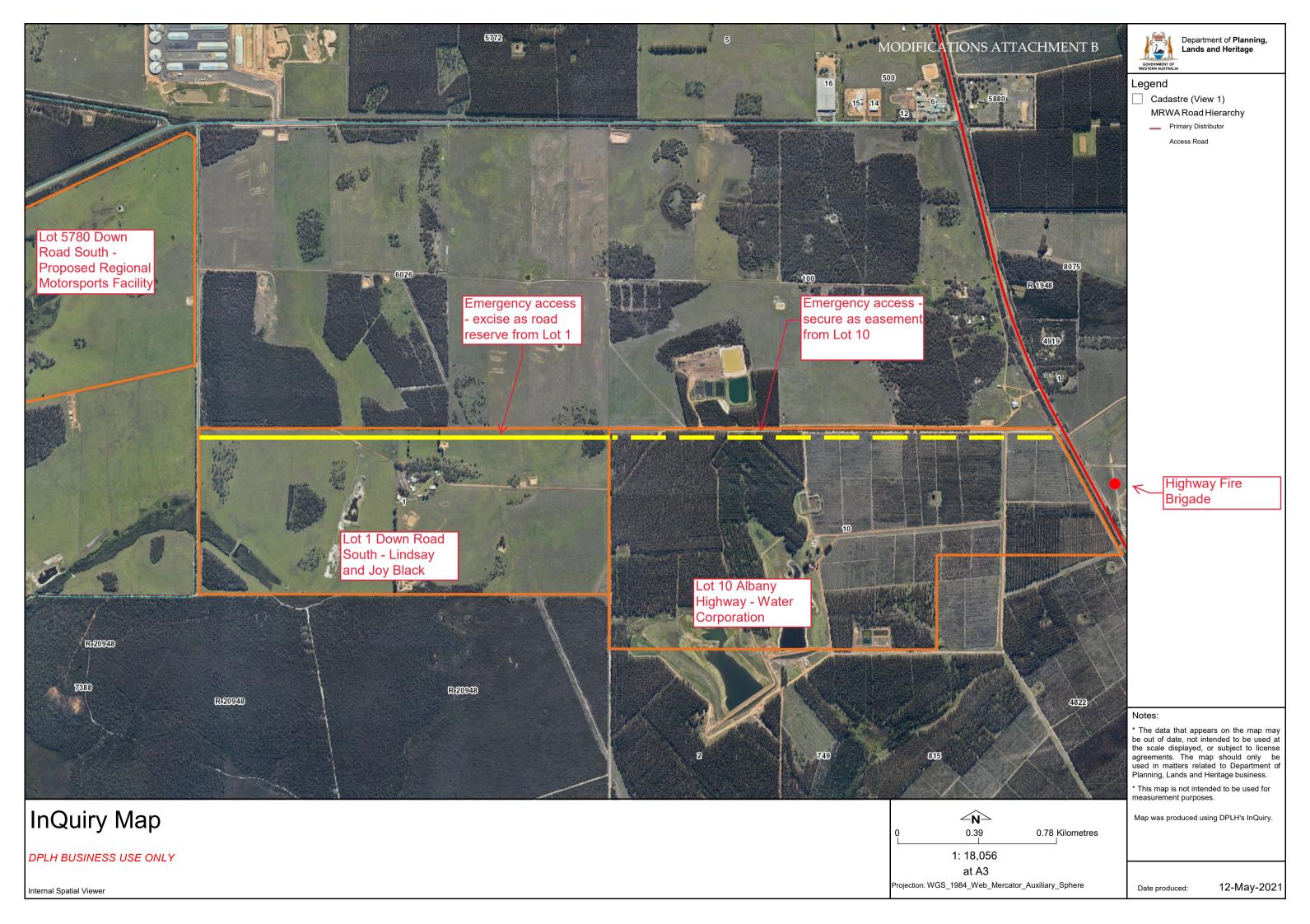
Can you please confirm via return written advice that the secondary access for the AMP will be in the form of a 12m easement to Albany Highway from Down South Road as per Option 4 of the attached mapping? AMP have indicated this emergency access will only operate with traffic control during events.

As per our stakeholder pre-application meeting with DFES and DPLH the other day, if you can provide some "in principle agreement" from Lyndsay Black, Water Corporation and MRWA that will greatly assist in the approvals process of the BMP report for AMP.

Kind regards,

Kathryn Kinnear

Director/Bushfire & Env Consultant 29 Heroules Cres



Appendix 8

ELA Bushfire Emergency Evacuation Plan

1. Location details

Facility type:

Motorsport Park in land zoned as "Priority Agriculture" area

Location

Lot 5780 Down Road, Drome, Western Australia

Infrastructure:

A motorsport Park including a motorcycle track and raceway track plus associated buildings.

Occupation (number of people):

- Maximum occupants:
 - 200-500 people (club event)
 - o 10,000 people (full event)

Access:

- Four different internal driveways accessing four separate points along Down Road West and Down Road South: and
- An Emergency Access Way is to be constructed to enable access/ egress to Albany Hwy. The EAW is to the south of Down Road South.

Fire Weather Forecast Area:

- South West Land Division Fire District
- · Stirling Coast Region

2. Communications

Mobile:

 Mobile reception is available – however, mobile communications can become unreliable during bushfire/emergency events due to the volume of usage

Landline / NBN:

Landline: to be confirmed

Satellite phone: to be confirmed

Radio:

■ ABC: 630 AM

Internet Sites:

- Preparing your Property <u>DFES Link</u>
- Emergency WA www.emergency.wa.gov.au
- DFES on Facebook www.facebook.com/dfeswa
- DFES on Twitter <u>www.twitter.com/dfes_wa</u>
- National Bushfires app www.bushfireblankets.com/bushfire-app.html

3. Contacts

Fire reporting		000		
Warden	to be confirmed	to be confirmed		
DFES (Emergency Information)		13 33 37		
SES (Emergency Assistance)		132 500		
SES (Local)		9841 2400		
WA Police	000			
Police Station (Local – Albany)	9892 9300			
WA Ambulance		000		
Ambulance (Local)		9841 4212		
Albany Hospital	9892 2222			
Bureau of Meteorology (BoM) Recorded Information	1300 659 213			

4. Evacuation preparedness

ACTION

Radio or 'National Bushfires

app for fire incidents

preparedness checks

Complete building

- All staff must be briefed during the Bushfire Danger Period (November-April) on the bushfire
 evacuation procedures with updated advice provided when the fire danger exceeds Very High or a
 fire warning is issued by Emergency Services (currently DFES) for the locality.
- This Evacuation Plan is to be displayed in all buildings around the Motorsport Park.

BUSHFIRE PREPAREDNESS MATRIX

LOW/

ACTION	MOD	HIGH	HIGH	SEVERE	EXTREME	CATASTROPHIC	
Warden to perform daily check (after 4pm) on the DFES and BoM websites to determine the Fire Danger Rating (FDR) for the following day and weekly prediction. Update staff and parents if there is a likelihood of the site being closed to due to Catastrophic Fire Danger Rating.							
Warden to monitor Emergency WA / or DFES website or ABC		Min.	Min.	Min. 9am, 11am, 1pm, 3pm (or more frequently			

By 10am if fire event in

locality)

By 8am

Facility to be

Facility to be closed

5. Evacuation triggers

A decision to evacuate off-site is to be determined by:

- Instructions from Police, DFES, other Emergency Services, the Warden or the manager of the Motorsport Park.
- the Bushfire Evacuation Matrix (overleaf) or public bushfire warnings in conjunction with confirmation from DFES / Emergency Services.

Minimum time for evacuation is to be confirmed. To travel from the Motorsport Park to Albany, will take approximately 25 minutes.

SEE EVACUATION DECISION MATRIX (OVERLEAF)

6. Evacuation Procedures

Every bushfire attack is different. The response to each must therefore be specific and be in response to bushfire warnings

Bushfire Warning Notification

- Emergency WA website, SMS or the 'National Bushfires' App (for smartphones) will provide initial notification of a fire and evacuation instructions.
- DFES, Police (or other incident personnel) may also attempt to notify the Motorsport Park.
- The Motorsport Park is also responsible to ensure any visitors are aware of a fire warning has been issued

Off-site refuge

- Off-site evacuation is always safer, provided adequate time is available to complete it safely. Confirm with Lead Agency (DFES or other Emergency Service) prior to evacuating and follow all directions.
- Off-site evacuation is to occur by buses to the nominated off-site refuge at to be confirmed.
- Evacuation well in advance of a fire's predicted arrival time is safer than remaining on-site.

On-site safer Location

- Evacuating to the nominated Safer Location may be required where it is not possible to evacuate to the off-site refuge.
- The on-site safer location are the club rooms adjacent to the motorbike track or to the open space adjacent to the main race track.
- A building (site location to be determined later) ensuring that the building is subject to a radiant heat flux of <10 kW/m², is accessible by emergency service vehicles and has an approximate floor space of 375 m² for 500 people (assuming a minimum of 0.75m² per person).
- The open space on-site safer location is within an area that is subject
 to a radiant heat flux of <2 kW/m². This area is 10,634 m² which is
 sufficient to accommodate up to 10,000 people (maximum amount of
 people for a full event, assuming a minimum of 1m² per person).

7. Staff welfare during shelter in offsite refuge and on-site safer location

 The Facility Manager/Warden and Accredited First Aid Officers nominated will be in charge of spectator/ users welfare. Serious medical needs will require emergency response via 000.

8. Building Preparedness Checks

- Include such tasks as ensuring reduced fuel loads around buildings, routine maintenance is up to date including cleaning of gutters, fire breaks are in place, and static water supply is available.
- Checklists on tasks for completion before the fire season is provided within the schools College Bushfire Plan
- Detailed information and checklists are available on the DFES website including the 'The Homeowner's Bushfire Survival Manual' and the 'Prepare Act Survive Booklet' published by DFES:

https://www.dfes.wa.gov.au/safetyinformation/fire/bushfire/BushfireManualsandGuides/DFES Bushfire-Homeowners Survival Manual.pdf

https://www.dfes.wa.gov.au/safetyinformation/fire/bushfire/BushfireManualsandGuides/DFES-Fire-Chat-Bushfire-Preparedness-Toolkit.pdf

9. Notes on Fire Danger Rating and Total Fire Ban Declaration

- The Fire Danger Rating (FDR) gives an indication of the potential consequences of a fire, if a fire was to start.
- The rating is based on predicted conditions such as the forecast temperature, humidity, wind and dryness of the landscape.
- The higher the fire danger rating, the more dangerous the
- conditions.

 During the Bushfire Danger Period (1st November 30th April)
- the forecast FDR for the following day is typically released around 4pm but can be changed as weather conditions unfold.
- Both predicted and current FDR are available from the DFES and BoM websites.

A 'Total Fire Ban' (known as TFB) is a separate declaration (i.e. a particular day or part thereof may have both 'Severe' FDR and a TFB.

10. What to do if caught in a bushfire

The following provide current guidelines* on what to do if caught in a bushfire in a building or on foot. Each requires a different response involving critical decisions for your survival.

What to do if caught in a bushfire IN A BUILDING

Outside your building

- Ensure you drink plenty of water so you do not dehydrate Block your downpipes, (a sock full of sand/soil will help) and fill your gutters with water
- Move flammable items such as outdoor furniture, doormats,
- Gas cylinders should have the valve facing away from the building
- Do not stand on the roof with a hose. In bush fires, often more people are injured by falling from roofs than suffering burns
- Patrol the outside of the building, putting out any embers and spot fires that may start. An ember or spark can reach your home hours before the fire front arrives
- Just before the fire arrives, wet down timber decks and gardens close to the building
- Move any firefighting equipment to a place where it will not get burnt.

Inside your building

- Continue to drink water so you do not dehydrate
- Close doors, windows, vents, blinds and curtains to prevent flames, smoke and embers from entering
- Put tape across the inside of the windows so they stay in place if they break
- Shut off gas at the meter or bottle
- Move furniture away from the windows to prevent any embers that enter the building from igniting
- Fill sinks, bath and buckets with water for putting out any fires that may start inside
- Place wet towels around window and door edges to stop smoke and embers from entering
- Put a ladder next to the access hole to the roof space so you can check for spot fires.

During the fire

- When the fire arrives, go inside to protect you from the radiant heat
- Ensure you have torches ready as it is likely to become completely dark and you will not be able to see
- Patrol the inside of the building, including the roof space for sparks and embers
- Remember if your life is at risk, call Triple Zero (000) immediately.

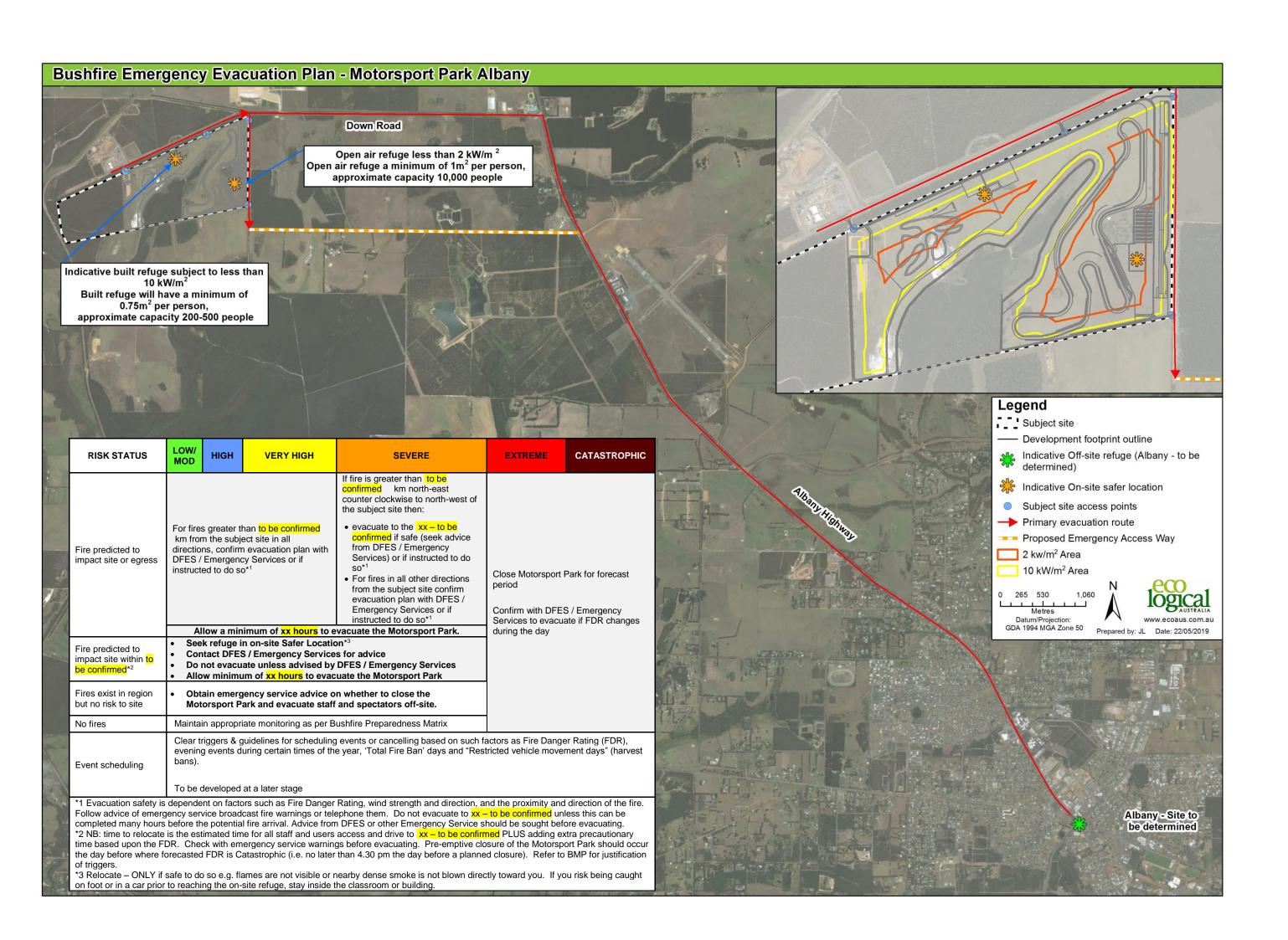
After the fire

- Once the fire has passed, you may need to patrol the property for hours. Go outside and put out any part of the building which is alight.
- An ember or spark from a fire can impact on a house many hours after the main fire front has
 passed and small spot fires can quickly get out of control.

What to do if caught in a bushfire ON FOOT/ IN VEHICLE

- Try to move on to bare or burnt ground at least 100 m from where fire is likely to burn, if this is not feasible find the largest bare or burnt ground possible

 Do not run uphill or away from the fire unless you know a safe refuge is able to be reached before
- the fire arrives. Try and position yourself downhill of the on-coming fire.
- Move across the slope out of the path of the fire front and work your way downslope towards the back of the fire or onto burnt ground.
 Do not attempt to run through flames unless you can see clearly behind them. This generally
- means that the flames are less than 1 metre high and less than 1 to 2 metres deep at the back or on the flanks of the fire.
- Lulls in the fire often result in the flames in these parts being low enough to step or run through to the burnt ground beyond.
- When conditions become severe use every possible means to protect yourself from radiation. On bare ground cover yourself, use wheel ruts, depressions, large rocks or logs to give protection.
- Take refuge in ponds, running streams or culverts, but behind solid objects such a rock
- Remain calm and do not run blindly from the fire. If you become exhausted you are much more
 prone to heat stroke and you may easily overlook a safe refuge. Consider an alternative course of
 action.
- * adapted from NSW RFS bushfire training modules.



Appendix 9

ELA Method 2 BAL Assessment

NBC Bushfire Attack Assessment Report V2.1

AS3959 (2009) Appendix B - Detailed Method 2

Printed: 11/04/2019 **Assessment Date:** 27/02/2019



Site Street Address: Albany Motorsport Complex, Albany

Local Government Area: WA Alpine Area: No

Bruce Horkings; Ecological Australia

Equations Used

Assessor:

Transmissivity: Fuss and Hammins, 2002

Flame Length: RFS PBP. 2001

Rate of Fire Spread: Noble et al., 1980

Radiant Heat: Drysdale, 1985; Sullivan et al., 2003; Tan et al., 2005

Peak Elevation of Receiver: Tan et al., 2005

Peak Flame Angle: Tan et al., 2005

Run Description: Plot 10 - 10 kW/m2

Vegetation Information

Vegetation Type:WoodlandVegetation Group:Forest and Woodland

Vegetation Slope: 5 Degrees Vegetation Slope Type: Downslope

Surface Fuel Load(t/ha): 15 Overall Fuel Load(t/ha): 25

Site Information

Site Slope: 0 Degrees Site Slope Type: Level Elevation of Receiver(m): Default APZ/Separation(m): 56

Fire Inputs

Veg./Flame Width(m): 100 Flame Temp(K) 1200

Calculation Parameters

Flame Emissivity: 95 Relative Humidity(%): 25
Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308
Moisture Factor: 5 FDI: 80

Program Outputs

Category of Attack: LOW Peak Elevation of Receiver(m): 7.93 26263 Level of Construction: BAL 12.5 Fire Intensity(kW/m): Radiant Heat(kW/m2): 9.85 Flame Angle (degrees): 78 Flame Length(m): **Maximum View Factor:** 0.114 16.22 Rate Of Spread (km/h): 2.03 Inner Protection Area(m): 56 0.773 Outer Protection Area(m): 0 **Transmissivity:**

Run Description: Plot 10 - 2 kW/m2 **Vegetation Information** Woodland **Vegetation Type: Vegetation Group:** Forest and Woodland Vegetation Slope Type: Downslope Vegetation Slope: 5 Degrees Surface Fuel Load(t/ha): 15 Overall Fuel Load(t/ha): 25 Site Information 0 Degrees Site Slope Type: Level Site Slope: Elevation of Receiver(m): Default APZ/Separation(m): 138 **Fire Inputs** Veg./Flame Width(m): 100 Flame Temp(K) 1200 **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Ambient Temp(K): 308 Heat of Combustion(kJ/kg) 18600 FDI: 80 **Moisture Factor:** 5 **Program Outputs Category of Attack: VERY LOW** Peak Elevation of Receiver(m): 8.06 Level of Construction: BAL LOW 26263 Fire Intensity(kW/m): Radiant Heat(kW/m2): 1.99 Flame Angle (degrees): 84 Flame Length(m): **Maximum View Factor:** 0.025 16.22 Rate Of Spread (km/h): 2.03 Inner Protection Area(m): 138 0.711 0 **Transmissivity:** Outer Protection Area(m):

Plot 11 - 10 kW/m2 **Run Description: Vegetation Information** Woodland **Vegetation Type:** Forest and Woodland **Vegetation Group:** Vegetation Slope: 10 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 15 Overall Fuel Load(t/ha): 25 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 67 **Fire Inputs** Veg./Flame Width(m): 1200 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: LOW Peak Elevation of Receiver(m): 10.51 37083 Level of Construction: BAL 12.5 Fire Intensity(kW/m): Radiant Heat(kW/m2): 9.96 Flame Angle (degrees): 76 Flame Length(m): 21.66 **Maximum View Factor:** 0.117 Inner Protection Area(m): Rate Of Spread (km/h): 2.87 67 **Transmissivity:** 0.761 Outer Protection Area(m): 0

Run Description: Plot 11 - 2 kW/m2 **Vegetation Information** Woodland **Vegetation Type:** Forest and Woodland **Vegetation Group:** Vegetation Slope: 10 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 15 Overall Fuel Load(t/ha): 25 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 160 **Fire Inputs** Veg./Flame Width(m): 1200 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: **VERY LOW** Peak Elevation of Receiver(m): 10.75 37083 Level of Construction: BAL LOW Fire Intensity(kW/m): Radiant Heat(kW/m2): 1.98 Flame Angle (degrees): 83 Flame Length(m): 21.66 **Maximum View Factor:** 0.025 Inner Protection Area(m): 160 Rate Of Spread (km/h): 2.87 **Transmissivity:** 0.697 Outer Protection Area(m): 0

Run Description: Plot 12 - 10 kW/m2 **Vegetation Information Vegetation Type:** Shrubland/Short Heath Shrub & Heath **Vegetation Group:** Vegetation Slope: 5 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 15 Overall Fuel Load(t/ha): 15 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 37 Fire Inputs 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: LOW Peak Elevation of Receiver(m): 4.48 31357 Level of Construction: BAL 12.5 Fire Intensity(kW/m): Radiant Heat(kW/m2): 9.89 Flame Angle (degrees): 81 Flame Length(m): 9.07 **Maximum View Factor:** 0.111 Rate Of Spread (km/h): 4.05 Inner Protection Area(m): 37 **Transmissivity:** 0.801 Outer Protection Area(m): 0

Run Description: Plot 12 - 2 kW/m2 **Vegetation Information Vegetation Type:** Shrubland/Short Heath Shrub & Heath **Vegetation Group:** Vegetation Slope: 5 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 15 Overall Fuel Load(t/ha): 15 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 102 **Fire Inputs** 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: **VERY LOW** Peak Elevation of Receiver(m): 4.52 31357 Level of Construction: BAL LOW Fire Intensity(kW/m): Radiant Heat(kW/m2): 1.98 Flame Angle (degrees): 86 Flame Length(m): 9.07 **Maximum View Factor:** 0.024 Inner Protection Area(m): 102 Rate Of Spread (km/h): 4.05 **Transmissivity:** 0.733 Outer Protection Area(m): 0

Run Description: Plot 13 - 10 kW/m2 **Vegetation Information** Scrub/Tall Heath **Vegetation Type:** Shrub & Heath **Vegetation Group:** Vegetation Slope: 5 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 25 Overall Fuel Load(t/ha): 25 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 50 **Fire Inputs** Veg./Flame Width(m): 1200 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: LOW Peak Elevation of Receiver(m): 6.69 75988 Level of Construction: BAL 12.5 Fire Intensity(kW/m): Radiant Heat(kW/m2): 9.79 Flame Angle (degrees): 79 Flame Length(m): 13.63 **Maximum View Factor:** 0.112 Inner Protection Area(m): Rate Of Spread (km/h): 5.88 50 **Transmissivity:** 0.78 Outer Protection Area(m): 0

Run Description: Plot 13 - 10 kW/m2 **Vegetation Information** Scrub/Tall Heath **Vegetation Type:** Shrub & Heath **Vegetation Group:** Vegetation Slope: 5 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 25 Overall Fuel Load(t/ha): 25 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 126 **Fire Inputs** 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: **VERY LOW** Peak Elevation of Receiver(m): 6.78 75988 Level of Construction: BAL LOW Fire Intensity(kW/m): Radiant Heat(kW/m2): 2 Flame Angle (degrees): 84 Flame Length(m): 13.63 **Maximum View Factor:** 0.025 Inner Protection Area(m): 126 Rate Of Spread (km/h): 5.88 0.718 **Transmissivity:** Outer Protection Area(m): 0

Run Description: Plot 14 - 10 kW/m2 **Vegetation Information** Scrub/Tall Heath Vegetation Type: Shrub & Heath **Vegetation Group:** Vegetation Slope: 0 Degrees Vegetation Slope Type: Level Surface Fuel Load(t/ha): 25 Overall Fuel Load(t/ha): 25 **Site Information** 0 Degrees Site Slope Type: Level Site Slope: Elevation of Receiver(m): Default APZ/Separation(m): 45 **Fire Inputs** 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: LOW Peak Elevation of Receiver(m): 5.73 53816 Level of Construction: BAL 12.5 Fire Intensity(kW/m): Radiant Heat(kW/m2): 9.71 Flame Angle (degrees): 80 Flame Length(m): 11.63 **Maximum View Factor:** 0.11 Rate Of Spread (km/h): 4.17 Inner Protection Area(m): 45 **Transmissivity:** 0.787 Outer Protection Area(m): 0

Run Description: Plot 14 - 2 kW/m2 **Vegetation Information** Scrub/Tall Heath **Vegetation Type:** Shrub & Heath **Vegetation Group:** Vegetation Slope: 0 Degrees Vegetation Slope Type: Level Surface Fuel Load(t/ha): 25 Overall Fuel Load(t/ha): 25 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 116 **Fire Inputs** 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: **VERY LOW** Peak Elevation of Receiver(m): 5.79 53816 Level of Construction: BAL LOW Fire Intensity(kW/m): Radiant Heat(kW/m2): 1.99 Flame Angle (degrees): 85 Flame Length(m): 11.63 **Maximum View Factor:** 0.025 Rate Of Spread (km/h): 4.17 Inner Protection Area(m): 116 **Transmissivity:** 0.724 Outer Protection Area(m): 0

Run Description: Plot 3 - 10 kW/m2 **Vegetation Information** Forest **Vegetation Type:** Forest and Woodland **Vegetation Group:** Vegetation Slope: 0 Degrees Vegetation Slope Type: Level Surface Fuel Load(t/ha): 25 Overall Fuel Load(t/ha): 35 **Site Information** 0 Degrees Site Slope Type: Level Site Slope: Elevation of Receiver(m): Default APZ/Separation(m): 64 **Fire Inputs** 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: LOW Peak Elevation of Receiver(m): 9.65 Level of Construction: BAL 12.5 Fire Intensity(kW/m): 43400 Radiant Heat(kW/m2): 9.78 Flame Angle (degrees): 77 Flame Length(m): 19.8 **Maximum View Factor:** 0.115 Inner Protection Area(m): Rate Of Spread (km/h): 2.4 47 0.764 **Transmissivity:** Outer Protection Area(m): 17

Run Description: Plot 3 - 2 kW/m2 **Vegetation Information** Forest **Vegetation Type:** Forest and Woodland **Vegetation Group:** Vegetation Slope: 0 Degrees Vegetation Slope Type: Level Surface Fuel Load(t/ha): 25 Overall Fuel Load(t/ha): 35 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 153 **Fire Inputs** Veg./Flame Width(m): 1200 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: **VERY LOW** Peak Elevation of Receiver(m): 9.83 Level of Construction: BAL LOW Fire Intensity(kW/m): 43400 Radiant Heat(kW/m2): 1.98 Flame Angle (degrees): 83 Flame Length(m): 19.8 **Maximum View Factor:** 0.025 Inner Protection Area(m): Rate Of Spread (km/h): 2.4 120 **Transmissivity:** 0.702 Outer Protection Area(m): 33

Run Description: Plot 4 - 10 kW/m2 **Vegetation Information** Forest **Vegetation Type:** Forest and Woodland **Vegetation Group:** Vegetation Slope: 5 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 25 Overall Fuel Load(t/ha): 35 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 76 Fire Inputs 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: LOW Peak Elevation of Receiver(m): 12.61 61280 Level of Construction: BAL 12.5 Fire Intensity(kW/m): Radiant Heat(kW/m2): 9.83 Flame Angle (degrees): 74 Flame Length(m): 26.23 **Maximum View Factor:** 0.117 Rate Of Spread (km/h): 3.39 Inner Protection Area(m): 56 0.754 **Transmissivity:** Outer Protection Area(m): 20

Run Description: Plot 4 - 2 kW/m2 **Vegetation Information** Forest **Vegetation Type:** Forest and Woodland **Vegetation Group:** Vegetation Slope: 5 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 25 Overall Fuel Load(t/ha): 35 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 175 Fire Inputs 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: **VERY LOW** Peak Elevation of Receiver(m): 12.99 61280 Level of Construction: BAL LOW Fire Intensity(kW/m): Radiant Heat(kW/m2): 2 Flame Angle (degrees): 82 Flame Length(m): 26.23 **Maximum View Factor:** 0.026 Inner Protection Area(m): Rate Of Spread (km/h): 3.39 138 **Transmissivity:** 0.689 Outer Protection Area(m): 37

Run Description: Plot 5 - 10 kW/m2 **Vegetation Information** Forest **Vegetation Type:** Forest and Woodland **Vegetation Group:** Vegetation Slope: 15 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 25 Overall Fuel Load(t/ha): 35 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 108 Fire Inputs 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: **VERY LOW** Peak Elevation of Receiver(m): 22.31 122176 Level of Construction: BAL LOW Fire Intensity(kW/m): Radiant Heat(kW/m2): 9.93 Flame Angle (degrees): 68 Flame Length(m): 48.12 **Maximum View Factor:** 0.121 Inner Protection Area(m): Rate Of Spread (km/h): 6.76 81 **Transmissivity:** 0.735 Outer Protection Area(m): 27

Run Description: Plot 5 - 2 kW/m2 **Vegetation Information** Forest **Vegetation Type:** Forest and Woodland **Vegetation Group:** Vegetation Slope: 15 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 25 Overall Fuel Load(t/ha): 35 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 240 Fire Inputs 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: **VERY LOW** Peak Elevation of Receiver(m): 23.62 122176 Level of Construction: BAL LOW Fire Intensity(kW/m): Radiant Heat(kW/m2): 1.99 Flame Angle (degrees): 79 Flame Length(m): 48.12 **Maximum View Factor:** 0.026 Inner Protection Area(m): Rate Of Spread (km/h): 6.76 186 **Transmissivity:** 0.681 Outer Protection Area(m): 54

Run Description: Plot 6 - 10 kW/m2 **Vegetation Information Vegetation Type:** Grassland Grassland **Vegetation Group:** Vegetation Slope: 10 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 4.5 Overall Fuel Load(t/ha): 4.5 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 39 Fire Inputs 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 110 **Moisture Factor: Program Outputs** Category of Attack: LOW Peak Elevation of Receiver(m): 4.79 66286 Level of Construction: BAL 12.5 Fire Intensity(kW/m): Radiant Heat(kW/m2): 9.86 Flame Angle (degrees): 81 0.111 Flame Length(m): 9.7 **Maximum View Factor:** Rate Of Spread (km/h): 28.51 Inner Protection Area(m): 39 **Transmissivity:** 0.797 Outer Protection Area(m): 0

Run Description: Plot 6 - 2 kW/m2 **Vegetation Information** Vegetation Type: Grassland Grassland **Vegetation Group:** Vegetation Slope: 10 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 4.5 Overall Fuel Load(t/ha): 4.5 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 105 Fire Inputs 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 110 **Moisture Factor: Program Outputs** Category of Attack: **VERY LOW** Peak Elevation of Receiver(m): 4.83 66286 Level of Construction: BAL LOW Fire Intensity(kW/m): Radiant Heat(kW/m2): 2 Flame Angle (degrees): 85 Flame Length(m): 9.7 **Maximum View Factor:** 0.025 Inner Protection Area(m): 105 Rate Of Spread (km/h): 28.51 **Transmissivity:** 0.731 Outer Protection Area(m): 0

Run Description: Plot 7 - 10 kW/m2 **Vegetation Information Vegetation Type:** Grassland Grassland **Vegetation Group:** Vegetation Slope: 5 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 4.5 Overall Fuel Load(t/ha): 4.5 **Site Information** 0 Degrees Site Slope Type: Level Site Slope: Elevation of Receiver(m): Default APZ/Separation(m): 34 Fire Inputs 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 110 **Moisture Factor: Program Outputs** Category of Attack: LOW Peak Elevation of Receiver(m): 4.04 46945 Level of Construction: BAL 12.5 Fire Intensity(kW/m): Radiant Heat(kW/m2): 9.94 Flame Angle (degrees): 82 Flame Length(m): 8.17 **Maximum View Factor:** 0.11 Inner Protection Area(m): 34 Rate Of Spread (km/h): 20.19 **Transmissivity:** 0.806 Outer Protection Area(m): 0

Run Description: Plot 7 - 2 kW/m2 **Vegetation Information Vegetation Type:** Grassland Grassland **Vegetation Group:** Vegetation Slope: 5 Degrees Vegetation Slope Type: Downslope Surface Fuel Load(t/ha): 4.5 Overall Fuel Load(t/ha): 4.5 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 96 Fire Inputs 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 110 **Moisture Factor: Program Outputs** Category of Attack: LOW Peak Elevation of Receiver(m): 4.07 46945 Level of Construction: BAL 12.5 Fire Intensity(kW/m): Radiant Heat(kW/m2): 1.99 Flame Angle (degrees): 86 Flame Length(m): 8.17 **Maximum View Factor:** 0.024 Inner Protection Area(m): Rate Of Spread (km/h): 20.19 96 **Transmissivity:** 0.737 Outer Protection Area(m): 0

Run Description: Plot 8 - 10 kW/m2 **Vegetation Information Vegetation Type:** Grassland Grassland **Vegetation Group:** Vegetation Slope: 0 Degrees Vegetation Slope Type: Level Surface Fuel Load(t/ha): 4.5 Overall Fuel Load(t/ha): 4.5 **Site Information** 0 Degrees Site Slope Type: Level Site Slope: Elevation of Receiver(m): Default APZ/Separation(m): 30 Fire Inputs 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 110 **Moisture Factor: Program Outputs** Category of Attack: LOW Peak Elevation of Receiver(m): 3.4 33248 Level of Construction: BAL 12.5 Fire Intensity(kW/m): Radiant Heat(kW/m2): 9.79 Flame Angle (degrees): 82 0.108 Flame Length(m): 6.87 **Maximum View Factor:** Inner Protection Area(m): 30 Rate Of Spread (km/h): 14.3 **Transmissivity:** 0.815 Outer Protection Area(m): 0

Run Description: Plot 8 - 2 kW/m2 **Vegetation Information Vegetation Type:** Grassland Grassland **Vegetation Group:** Vegetation Slope: 0 Degrees Vegetation Slope Type: Level Surface Fuel Load(t/ha): 4.5 Overall Fuel Load(t/ha): 4.5 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 87 Fire Inputs 1200 Veg./Flame Width(m): 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 110 **Moisture Factor: Program Outputs** Category of Attack: LOW Peak Elevation of Receiver(m): 3.43 33248 Level of Construction: BAL 12.5 Fire Intensity(kW/m): Radiant Heat(kW/m2): 1.99 Flame Angle (degrees): 86 Flame Length(m): 6.87 **Maximum View Factor:** 0.024 Rate Of Spread (km/h): 14.3 Inner Protection Area(m): 87 **Transmissivity:** 0.743 Outer Protection Area(m): 0

Run Description: Plot 9 - 10 kW/m2 **Vegetation Information** Woodland Vegetation Type: Forest and Woodland **Vegetation Group:** Vegetation Slope: 0 Degrees Vegetation Slope Type: Level Surface Fuel Load(t/ha): 15 Overall Fuel Load(t/ha): 25 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 47 **Fire Inputs** Veg./Flame Width(m): 1200 100 Flame Temp(K) **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: LOW Peak Elevation of Receiver(m): 6.09 18600 Level of Construction: BAL 12.5 Fire Intensity(kW/m): Radiant Heat(kW/m2): 9.7 Flame Angle (degrees): 80 Flame Length(m): 12.36 **Maximum View Factor:** 0.111 Rate Of Spread (km/h): 1.44 Inner Protection Area(m): 47 0.784 **Transmissivity:** Outer Protection Area(m): 0

Run Description: Plot 9 - 2 kW/m2 **Vegetation Information** Woodland Vegetation Type: Forest and Woodland **Vegetation Group:** Vegetation Slope: 0 Degrees Vegetation Slope Type: Level Surface Fuel Load(t/ha): 15 Overall Fuel Load(t/ha): 25 **Site Information** 0 Degrees Site Slope Type: Site Slope: Level Elevation of Receiver(m): Default APZ/Separation(m): 120 **Fire Inputs** Veg./Flame Width(m): Flame Temp(K) 1200 100 **Calculation Parameters** Flame Emissivity: 95 **Relative Humidity(%):** 25 Heat of Combustion(kJ/kg) 18600 Ambient Temp(K): 308 FDI: 80 **Moisture Factor: Program Outputs** Category of Attack: **VERY LOW** Peak Elevation of Receiver(m): 6.16 18600 Level of Construction: BAL LOW Fire Intensity(kW/m): Radiant Heat(kW/m2): 1.99 Flame Angle (degrees): 85 Flame Length(m): 12.36 **Maximum View Factor:** 0.025 Rate Of Spread (km/h): 1.44 Inner Protection Area(m): 120 **Transmissivity:** 0.722 Outer Protection Area(m): 0

Appendix 10

WAPC APZ standards to apply

Standards for an Asset Protection Zone (APZ) (WAPC, 2017)

Fences: Within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.

Objects: Within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.

Fine Fuel load: Combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.

Trees (> 5 metres in height): Trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy. See Figure 10 (WAPC Figure 16, Appendix 4) below.

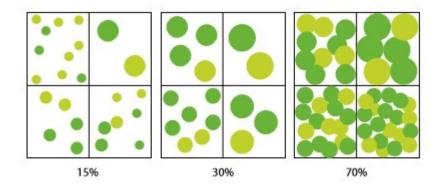


Figure 1 - Tree Canopy Cover

(WAPC, 2017)

Shrubs (0.5 metres to 5 metres in height): Should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m2 in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.

Ground covers (<0.5 metres in height): Can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs. –

Grass: Should be managed to maintain a height of 100 millimetres or less.

Appendix 11

ELA Peer Review



23 May 2019

Our ref: 12360

To whom it may concern,

Peer review of Bushfire Management Plan Albany Motorsport Park: Lot 5780 Down Road, Drome

Eco Logical Australia (ELA) was engaged by Bio Diverse Solutions (BDS) to undertake a technical peer review of a Bushfire Management Plan (BMP) for the proposed development of the above-mentioned site.

ELA has not physically inspected the site, however, has reviewed data and photographs taken by BDS during their site assessments.

The technical peer review was undertaken by ELA Senior Bushfire Consultants Daniel Panickar (BPAD 37802) and Bruce Horkings (BPAD 29962). Bruce is a BPAD Level 3 accredited practitioner in NSW and has attended the relevant FPA workshop held in Sydney specifically for NSW based consultants undertaking BPAD Level 3 accredited works in WA.

BDS engaged ELA to undertake a technical peer review of the final Bushfire Management Plan (BMP), prepare a Bushfire Emergency Evacuation Plan (BEEP) and provide a letter documenting the completion of the review.

PEER REVIEW

The peer review process began at the inception of the project with the provision of ongoing technical advice and guidance in the development of the report. The final version of the BMP (dated 23 May 2019) was assessed against Policy Measures 6.2 and 6.3 of *State Planning Policy 3.7 Planning in Bushfire Prone Areas* (SPP 3.7; WAPC December 2015) with consideration given to Policy measure 6.6, and is technically consistent with the identified requirements of SPP 3.7 and *Guidelines for Planning in Bushfire Prone Areas v 1.3* (the Guidelines; WAPC December 2017).

The proposed development meets the bushfire protection criteria of the Guidelines using Acceptable Solutions where possible. Compliance with the Acceptable Solutions for *Element 3: Vehicular Access* is not possible and as such, the BEEP prepared to support this development provides contingency actions in accordance with the requirements of the *Draft Position Statement: Tourism land uses within bushfire*

prone areas (WAPC, 2018). These contingencies include early closure of the site, off-site evacuation and as a last resort, refuge on site in a suitable building / open space.

ELA note there are a few minor typographical errors in the report, however these do not detract from the overall outcomes of the plan.

BUSHFIRE EMERGENCY EVACUATION PLAN

The BEEP developed by ELA was produced in a usable poster style to be located at relevant locations in the site.

The aim of the BEEP is early, safe and timely evacuation of the site prior to bushfire events and no events are to be held on site during Catastrophic Fire Danger Rating (FDR) days. The BEEP has been prepared to support the proposed development will address on-site and off-site refuges, triggers for evacuation and roles and responsibilities for staff and stakeholders. As the proposed development progresses beyond the rezoning phase, the BEEP will be updated for each stage including further specific details.

As previously identified. the design of the site does not allow for alternative access and is a legacy issue. As a result of legacy issues of the surrounding public road network, these constraints are addressed by the BEEP providing contingency measures to address identified risks including:

- Clear triggers for off and onsite evacuation (to be updated to support future planning applications);
- Clear triggers & guidelines for scheduling events or cancelling based on such factors as Fire
 Danger Rating (FDR), evening events during certain times of the year, 'Total Fire Ban' days and
 "Restricted vehicle movement days" (harvest bans);
- An on-site refuge for use in an emergency (i.e. a building constructed to the requirements of a
 'community refuge' as per the Australian Building Codes Board 'Design and Construction of
 Community Bushfire Refuges' that can accommodate the number of people using that part of
 the facility (i.e. 200-500 for a club event);
- The proposed building located within the site and position to limit radiant heat exposure to <10 kW/m² and constructed to BAL-29; and
- Open air refuge with the capacity for a large event (upto 10,000 approx.) located in area where radiant heat exposure is limited to <2 kW/m² and preferably shaded with non-combustible material.

This is compliant with the WAPC Draft Position Statement: Tourism land uses within bushfire prone areas (WAPC 2018). The BEEP will form part of the Emergency Management Plan for the site which will be developed prior to operation of the site.

CONCLUSION

The peer review undertaken by ELA of the Bushfire Management Plan written by BDS (dated 23 May 2019) concludes that this report meets the technical requirements of SPP 3.7 and the Guidelines. Furthermore, the BMP incorporates a Bushfire Emergency Evacuation Plan developed by a suitably accredited Bushfire Planning Practitioner.

CV's of the ELA bushfire consultants involved in this project are included below.

Yours sincerely,



Daniel Panickar

Manager and Bushfire Lead - WA (BPAD 37802)



Bruce Horkings

Senior Bushfire Consultant (BPAD 29962)







Bruce Horkings senior bushfire consultant

Bruce holds a Post Graduate Diploma in Bushfire Protection from the University of Western Sydney, and also both an Associate Degree in Forestry Management and Diploma of Conservation and Land Management from Melbourne University. Bruce has over 14 years' experience in the environmental and bushfire realm with a focus on bushfire consulting over the last 10 years in Western Australia, Victoria and New South Wales and is an accredited Level 3 Bushfire Planning and Design (BPAD) practitioner.

Work undertaken includes bushfire site assessments and production of reports including constraints & analysis, Bushfire Protection Assessments, Bushfire Management Plans, Evacuations Plans and acceptable and performance-based solutions in line with current state standards and Australian Standard AS 3959. Most recently he has been involved with complex projects involving detailed bushfire weather analysis, short fire run modelling and landscape based modelling using SPARK.

He has a good working knowledge of bushfire planning legislation in many states and territories across the country especially WA, NSW and Vic and specialises in complex assessments, bushfire modelling and the development of performance solution response. Bruce is experienced in bushfire site assessment and analysis, project management, tender preparation and assessment, and detailed technical analysis of building design and construction materials against AS 3959.

QUALIFICATIONS

- Post Graduate Diploma of Bushfire Protection, University of Western Sydney (2013)
- Development and Building in Bushfire Prone Areas, UTS Centre for Local Government (2013)
- Associate Degree of Forestry Management, Melbourne University (2006)
- Diploma of Conservation and Land Management, Melbourne University (2004-2006)

PROJECT EXPERIENCE

- Development of a detailed bushfire risk analysis at a landscape and local scale of built assets, critical
 infrastructure and research facilities for CSIRO in Canberra with a corresponding Bushfire Operations
 Plan to implement risk mitigation measures to enhance resilience from bushfire for the rural site and
 surrounding residential developments.
- Use and development of the landscape bushfire modelling tool SPARK developed by CSIRO for projects where thousands of bushfire scenarios are assessed.
- Creation of a Short Fire Run models (point ignition) to demonstrate bushfire behaviour as part of developing performance solutions where the standard fire models found in AS 3959 over predict this scenario.
- Development of performance based solutions to demonstrate compliance to various state based bushfire planning requirements.
- Completion of hundreds of bushfire assessments across the country.
- Assessment of Defence projects from Bushfire Management Plans to compliance with bushfire specifications detailed in the Manual of Fire Protection Engineering (MFPE) and state-based requirements.
- Analysis of building design and construction materials against AS 3959 for residential and non-residential buildings.





Daniel Panickar manager and bushfire lead - wa

Daniel is an experienced environmental and bushfire consultant with over eight years' experience in the consulting industry. Initially trained as an ecologist and environmental planner, Daniel has gained invaluable experience in fire ecology, flora and fauna surveys and environmental approvals. Since being involved in the industry, Daniel's skills have diversified to include bushfire management planning and team management and he has held senior roles including lead ecologist and lead bushfire consultant. Daniel currently manages ELA's Western Australian operations.

Daniel also possesses well-developed project management skills and has managed over 50 land development projects throughout Western Australia and has been responsible for undertaking field investigations, managing sub-consultants and provision of advice regarding bushfire and environmental approvals.

Daniel has worked on over 500 bushfire management projects across Australia and is an accredited Level 2 Bushfire Planning and Design (BPAD) practitioner with experience in Bushfire Attack Level (BAL) assessments, preparation of Bushfire Management Plans, Bushfire Emergency Evacuation Plans, Bushfire Risk Assessments and providing expert advice at Joint Development Assessment Panel (JDAP) meetings and State Administrative Tribunal (SAT) hearings.

Daniel's experience in environmental approvals and bushfire planning, particularly in the land development and infrastructure sectors allow him to provide accurate, pragmatic advice regarding opportunities and constraints, and develop innovative solutions to facilitate development in potentially problematic areas. This experience has been acknowledged through Daniel's membership on the Fire Protection Association Australia (FPAA) WA Bushfire Working Group, National Environmental Law Association (NELA) WA State Committee and the Urban Development Institute of Australia (UDIA) Outlook Committee.

QUALIFICATIONS

Bachelor of Science (Environmental Biology; Honours), Curtin University of Technology, 2011 Graduate Diploma in Bushfire Protection, Western Sydney University, in progress Level 2 accredited Bushfire Planning and Design (BPAD) practitioner, 2016

PUBLICATIONS

Panickar, D 2018, 'Bushfire protection and environmental management for mine sites in arid and semi-arid regions', *Goldfields Environmental Management Group, Kalgoorlie, 16-18 May*.

PROJECT EXPERIENCE

Land development

Daniel has been involved in over 100 urban development projects across WA, NSW and QLD. A few detailed examples are provided below, and some other key projects have been listed further to this.

The Hales: Satterley Property Group: Environmental project manager to ensure the project meets the requirements of all relevant environmental legislation whilst meeting project timeframes and yield objectives. Undertook and/or coordinated all environmental surveys within the development site (ecological and bushfire assessments, groundwater monitoring and contaminated sites investigations). Provided ongoing strategic environmental and bushfire management advice and prepared all required environmental approvals documentation including a native vegetation clearing permit application and referral to the Commonwealth Department of the Environment. Prepared the Bushfire Management Plan for the estate.



Shorehaven: Peet Limited: Led and coordinated all bushfire assessments within the development site. Provided ongoing strategic advice to reduce bushfire risk and maintain visual amenity and prepared/reviewed Bushfire Management Plans, Bushfire Attack Level Assessments and associated Native Vegetation Clearing permits to facilitate development. Assisted in negotiations with adjacent landowners to clear vegetation and reduce bushfire risk to the Shorehaven site.

Sienna Wood: Stockland: Undertook a bushfire hazard level assessment of the estate (including wetlands of conservation significance, revegetation areas and Aboriginal heritage areas). Provision of advice to the project team regarding redesigning road networks and landscaping areas (including natural streams and wetlands) to achieve a layout that was fully compliant with bushfire planning guidelines and State legislation while maintaining the integrity of the planning vision for the estate. The final Bushfire Management Plan prepared for the estate was endorsed by the Department of Fire and Emergency Services (DFES), the Department of Parks and Wildlife) and local government and approved for use.

Redevelopment of St Vincent's Aged Care Facility: Catholic Homes Inc.: Undertook a bushfire hazard level assessment, prepared a Bushfire Management and Evacuation Plan and coordinated geotechnical investigations. Site constraints compromised the ability to achieve a compliant bushfire management outcome and a strategy was developed whereby vegetation on neighbouring land would be cleared and landscaped to facilitate a compliant outcome. Organised meetings between the Western Australia Planning Commission, the project team and other relevant stakeholders to negotiate a favourable outcome. All stakeholders agreed with my proposed approach and following the preparation of the revised development design; the DA was lodged successfully.

Rezoning support – 119 Hammond Road: Private land developer: Managed and undertook an environmental opportunities and constraints analysis to inform proposed rezoning of the site. Facilitated environmental and bushfire planning approvals for the site which included undertaking a flora, vegetation and black cockatoo survey and preparation of a Bushfire Management Plan.

Frenchman Bay Resort: Private land developer: Developed a Bushfire Management Plan and Bushfire Emergency Evacuation Plan to support a resort in Frenchman Bay (an extreme bushfire risk area). Method 2 Bushfire Attack Level (BAL) assessments and performance-based bushfire management solutions were developed to facilitate development and ensure a safer outcome for future guests. The plans were approved by the City of Albany and Department of Fire and Emergency Services.

Some other key land development projects Daniel has been involved in as an environmental and bushfire consultant are:

- Butler North District Open Space, Butler;
- Baldivis District Open Space;
- Catalina Estate, Clarkson;
- Brightwood Estate, Baldivis;
- Flamewood Estate, Brabham;
- Mason Green Estate, Piara Waters;
- The Village at Wellard Estate, Wellard;
- Newhaven Estate, Piara Waters;
- Beenyup Grove Estate, Byford;
- Allara Estate, Eglinton;
- Burns Beach Estate, Burns Beach;
- Holland Park Estate, Piara Waters;
- Numerous BP and Caltex service stations across Western Australia;





- Chinatown Revitalisation Project, Broome;
- Glenmore Park/Mulgoa, Western Sydney;
- New Breeze Estate, Bardia (NSW).

Department of Defence

Daniel has been involved in ecological surveys and the preparation of bushfire management reports for numerous Department of Defence bases across Australia. Some key projects are highlighted below. Daniel also has baseline security clearance from the Department of Defence.

Preparation of bushfire construction advice (Campbell Barracks and RAAF Base Townsville): Assessed proposed building upgrades, refurbishments and new structures at Campbell Barracks, Western Australia and RAAF Base Townsville, Queensland. All structures were assessed for bushfire risk and treatments were prescribed based on State and National guidelines as well as relevant construction standards.

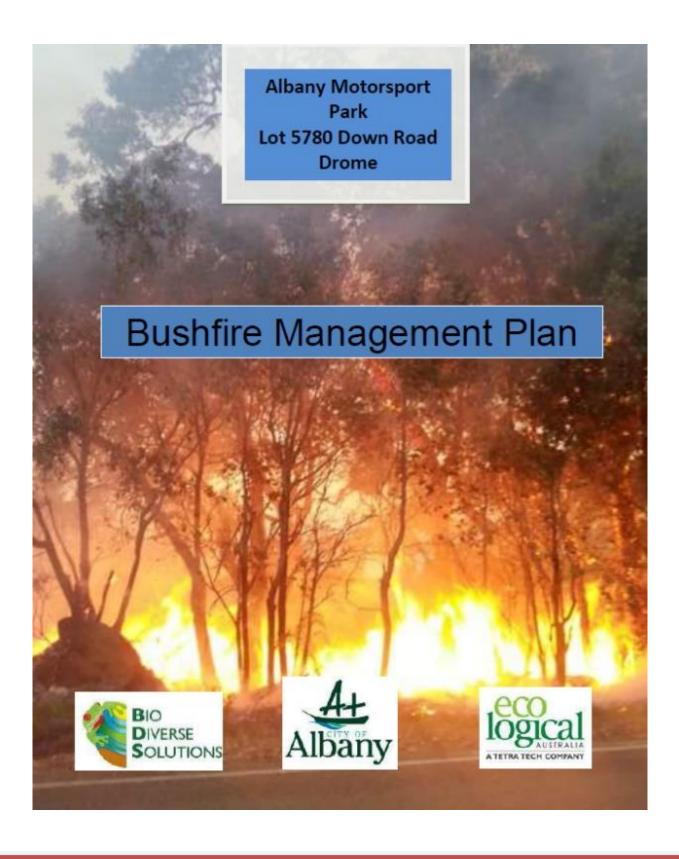
Preparation of Bushfire Management Plans for HMAS Stirling and Exmouth properties: Project manager and author for a new Bushfire Risk Management Plan, Emergency Evacuation Plan and Operations Plan for the entirety of Defence's operations on Garden Island and Exmouth, Western Australia. The project involved close liaison with Defence, Department of Biodiversity Conservation and Attractions, Department of Fire and Emergency Services and local stakeholders. Risk workshops were organised and facilitated to discuss risks and responses prior to finalisation.

Preparation of Bushfire Management Plans for RAAF Base Learmonth and Lancelin Defence Training Area: Project manager and author for a new Bushfire Risk Management Plan, Emergency Evacuation Plan, Bushfire Prevention Plan and Operations Plan for the entirety of Defence's operations at Learmonth and Lancelin, Western Australia. State of the art fire spread modelling was also undertaken to identify impacts associated with Defence activities on the base and surrounding properties. The project involved close liaison with Defence, Department of Fire and Emergency Services and local stakeholders. Risk workshops were organised and facilitated to discuss risks and responses prior to finalisation.

Preparation of Bushfire Management Plans for HMAS Albatross, Bhewerre Ridge and Beecroft Air Weapons Range properties: Prepared bushfire risk management plans and strategies for these three Defence properties in Shoalhaven NSW. Developed Emergency Evacuation Plans for HMAS Albatross and the high-risk Bhewerre Ridge properties as part of the works package.

Weed surveys for HMAS Stirling Garden Island: Managed and coordinated weed surveys throughout Garden Island, Western Australia to inform annual weed control programs and identify new species of invasive plants on the naval base and surrounding island.

Addendum Report





Site Details					
Address:	Lot 5780 Down Road				
Suburb:	Drome	State:	W.A.	Postcode	6330
Local Government Area:	City of Albany				
Description of Building Works:	Development of Stage 1A -Motocross track and 4-wheel drive training area and Stage 1B – Multi use track				
Stage of WAPC Planning	Development Application				

Report Details				
Report / Job Number:	GHD003	Report Version:	Final v1	
Assessment Date:	1 April 2021	Report Date:	26 July 2021	
BPAD Practitioner	Kathryn Kinnear (Level 2)	Accreditation No.	BPAD 30794	

Revision	Prepared By	Summary	Reviewed By	Date
Draft Id 1/07/2021	Kathryn Kinnear	Internal QA review	Bianca Theyer	1/07/2021
Draft Id 26/07/2021	Kathryn Kinnear	Internal QA review	Bianca Theyer	26/07/2021
Final Vers 1 26/07/2021	Kathryn Kinnear	Updated from client review		26/07/2021







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Appendix: A: Mapping (Maps 1-3)

Appendix: B: Updated documents relating to the BMP



1. Introduction

GHD commissioned Bio Diverse Solutions (Bushfire Consultants), on behalf of the City of Albany to prepare an Addendum report to the original approved Bushfire Management Plan (BMP) to accompany a Development Application (DA) to the City of Albany for the construction of Stage 1 (including 1A and 1B) of the Proposed Albany Motorsport Park at Lot 5780 Down Road, Drome (the subject site) within the City of Albany (CoA).

A Bushfire Management Plan was prepared during the Scheme Amendment stages of planning for the greater Albany Motorsport Park (AMP) development in 2019, and updated in June 2021, and should be consulted for further detail and risk management procedures. This Addendum document will guide the implementation of the development/construction of Stage 1A and 1B of the AMP site. It is recommended that the original, overarching BMP is updated to reflect changes through the DA approvals process to have one all-inclusive BMP plan for the AMP site. Refer to the Implementation table of this report (Action 6, Table 4).

1.2 Location

The subject site is described as Stage 1A and 1B located to the northwest of Albany in the suburb of Drome in the municipality of the CoA, as shown in Figure 1. Lot 5780 Down Road South is located approximately 20 km to the north of the Albany CBD and is 192.34 ha in size. The AMP comprises 141.7 ha (including 0.2 ha for crossovers) in the eastern portion of the site. Approximately 51 ha at the western end of the site is covered with native vegetation and is excluded from the development of the AMP.



Figure 1: Location Mapping of the subject site.



1.3 Development Proposal

The Great Southern Motorplex Group Inc. (GSMG), the Proponent, in partnership with the City of Albany, intends to develop the site as a regional motorsports facility. In October 2018, the City of Albany Council resolved to purchase the site. Settlement of the land purchase was concluded in 2019.

The proposed AMP forms part of the CoA's strategy to expand upon its existing motorsports facilities within the greater Albany area. The AMP is to be the largest facility of its kind in Western Australia and will support the local economy.

At full development, the proposed AMP will consist of:

- Sealed, configurable multi-use track (3.5 km long x 12 m wide) for motor car racing, motorcycle racing, drifting, driver training and cycling:
 - Designed to comply with CAMS' Track Operator's Safety Guide (CAMS, 2012) and Motorcycling Australia (MA) Track Standards for Inspectors 1st Edition 1 August 2018; and
 - To be licensed by CAMS for Fédération Internationalé de l'Automobile (FIA) Grade 2 and Fédération Internationalé Motocyclisme (FIM) Grade B (i.e. up to second-tier international motor racing).
- · A motocross circuit:
 - Designed and constructed in association with MA guidelines.
- An off-road four-wheel drive (4WD) and all-terrain vehicle (ATV) training area.
- · Associated buildings and structures.

Due to the scale and nature of the complex, the works have been broken down into two (2) key stages which comprise of:

Stage 1:

1A: Construction of Motocross Precinct and 4WD Driver Training and ATV Precinct; and

1B: Construction of Race Track Precinct (with temporary structures).

Stage 1A of the development proposal includes (Figure 2):

- 4WD Driver Training & ATV Precinct.
- Motocross Precinct which includes:
 - Motocross track;
 - Junior motocross track;
 - Spectator and competitor parking;
 - Overflow parking and spectator area;
 - Clubrooms, first aid and scrutineering building;
 - Trials track; and
 - Refuelling area.
- Open air emergency muster area.
- Fencing of protected exclusion area, fencing of precincts and fencing of venue boundary.
- Constructing fire access tracks.

Stage 1 B of the development proposal includes (Figure 2):

Multi-use sealed race track, runoff areas, barriers, safety fencing, spectator and competitor parking, concrete covered refuelling and minor maintenance area, drift training transportable clubroom and toilets, open air emergency muster area.

Stage 1A and 1B have been assessed briefly in this addendum document for compliance to the original BMP report.

Stage 2

Construction of remaining permanent structures to support the function of the motorsports park.



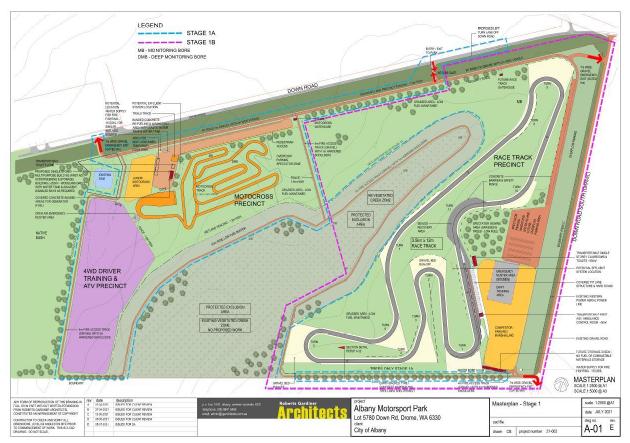


Figure 2: Masterplan (Stage 1Aand 1B).

The publicly released Bushfire Prone Area Mapping (OBRM, 2019) shows that the subject site is located within a Bushfire Prone Area (within 100m of >1ha of bushfire prone vegetation) and as such is subject to a planning assessment of the bushfire risks. Bushfire Prone Area Mapping (OBRM, 2019) is shown in Figure 3.



Figure 3: Map of Bushfire Prone Areas and relevance to subject site (OBRM, 2019).



1.4 Albany Motorsport Park BMP (2021)

In 2019 an all-encompassing BMP report was prepared for the Albany Motorsport Park (AMP) by Bio Diverse Solutions and Eco Logical Australia. This report is formally approved by WAPC and CoA from the Scheme Amendment Stages and is to be implemented during the development of the AMP.

In 2021 the BMP was updated to reflect the requests from WAPC during Scheme Amendment. The version which should be referred to during the Assessment of the Development Approval is *FINAL Vers 4.0 BMP Report Albany Motorsport Park Down Road Drome 01-07-2021*.

This Addendum report aims to:

- Assess the updated Development Guide Plan to the WAPC Bushfire Protection Criteria (WAPC, 2017);
- Assess the requirements under the approved BMP (specifically Table 8 implementation actions); and
- Give recommendation to the Decision Maker regarding the approval of the AMP and actions to be undertaken in the subsequent stages of planning and development of the site.

1.5 Additional information since original BMP report

This section is described in relevance to the BMP and not necessarily all of the other documents and plans, these should be consulted if required.

1. Development Guide Plan

The development guide plan has been updated to indicate the staged development of the site and the infrastructure requirements. The most recent Development Plan is shown in Figure 2. The overlay of the Development plan is shown in the mapping Appendix A (Map1-3).

2. Landscaping Plan and Protected Exclusion Area Management Plan

These plans are located in Appendix B of this document and have been prepared through the Scheme Amendment process to guide the revegetation and the landscaping of the AMP site.

3. Governance

An update to the draft governance model has been developed for the AMP site and is shown in Appendix B.

4. Alternative Access to South Coast Highway

An excise of land through various land acquisitions has occurred to enable the development of a road reserve to link from Down South Road to Albany Highway. An update on the access and securing of tenure is provided in Appendix B.



2 Assessment against the Bushfire Protection Criteria

2.1 Compliance table

The Guidelines for Planning in Bushfire Prone Areas (WAPC, 2017) outlines bushfire protection criteria which subdivision and development proposals are assessed for compliance. The bushfire protection criteria (Appendix 4, WAPC, 2017) are performance-based criteria utilised to assess bushfire risk management measures and they outline four elements, being:

- Element 1: Location;
- Element 2: Siting and Design of Development;
- · Element 3: Vehicle Access; and
- Element 4: Water.

2.2 Compliance Table

The subject site and the Development Plan will be assessed and are required to meet the "Acceptable Solutions" of each element of the bushfire mitigation measures (WAPC, 2017). The proposal will be assessed against all elements of the bushfire protection criteria (Table 1).

Maps supporting the compliance table are located in Appendix 1, being:

Map 1: Vegetation Classes Stage 1A

Map 2: BAL Contour plan Stage 1A

Map 3: BAL Contour plan Stage 1B



Table 1: Bushfire protection criteria applicable to the subject site

Note. Acronyms used in Table 1 include Bushfire Attack Level (BAL), Asset Protection Zone (APZ), and Local Government Authority (CoA).

Element	Acceptable Solution	Applicable or not Yes/No	Proposal meets Acceptable Solution Stage 1A	Proposal meets Acceptable Solution Stage 1B		
			Compliant	Compliant		
Element 1 – Location	A1.1 Development Location	Yes	Refer to Map 1 outlining all structures located in BAL 29 or less. Construction to BAL and AS3959 does not apply to the class buildings. Proposal meets Acceptable Solution A1.1.	Refer to map 1 outlining all structures located in BAL 29 or less (all in BAL Low). See map 4 Appendix A. Construction to BAL and AS3959 does not apply to the class buildings. Proposal meets Acceptable Solution A1.1.		
			Compliant	Compliant		
Element 2 – Siting and Design	A2.1 Asset Protection Zone (APZ)	Yes	Low fuel status will apply within the motocross track area as shown on the concept plan and outlined in the original BMP. Any landscaping/streetscaping is to conform to WAPC APZ standards (WAPC, 2017). Refer to standards in original BMP. Proposal meets Acceptable Solution A2.1.	Low fuel status will apply within stage 1B (including the race circuit) as shown on the concept plan and outlined in the original BMP. Any landscaping/streetscaping is to conform to WAPC APZ standards (WAPC, 2017). Refer to standards in original BMP. Proposal meets Acceptable Solution A2.1.		
Element 3 – Vehicular	A3.1 Two Access Routes	Yes	N/A The development is located on Down Road which is a culde-sac road. The access for the greater AMP site was assessed as a "Performance Based Solution" for the site and for the development. The approving agency should refer to the overarching BMP report for the performance-based assessment and subsequent approvals. The development of a secondary road access from Down Road South to Albany Highway is being provided by the CoA, refer to Appendix B.			
Access	A3.2 Public Road	No	No public roads are proposed as part of this development. Internal public access is discussed in A3.5 as private driveways. Not assessed to Acceptable Solution A3.2.			
	A3.3 Cul-de- sacs	No		ed as part of this development. ceptable Solution A3.3.		
	A3.4 Battle axes	No	Not assessed to Acc	roposed as part of this development. d to Acceptable Solution A3.4.		
Element 3 – Vehicular Access	A3.5 Private driveways	Yes	Compliant The main access point / driveway into the Albany Motorsport Park will be built to a 7.6m wide standard for public access. CoA to ensure the engineering plans meet the minimum technical requirements as per Table 2. Proposal meets Acceptable Solution A3.5.			
	A3.6 Emergency Access Ways	Yes	Compliant Emergency Access Ways are to be built to a minimum of 6m horizontal clearance and the CoA to ensure at DA the minimum technical requirements are met as per Table 2. Proposal meets Acceptable Solution A3.6.			



Table 1: Continued

Table 1: Co	Table 1: Continued				
Element	Acceptable Solution	Applicable or Not Yes/No	Proposal meets Acceptable Solution		
	A3.7 Fire Service Access Ways	Yes	Compliant Fire service access (FSA) ways are to be built to a minimum of 6m horizontal clearance and the CoA to ensure at DA the minimum technical requirements are met as per Table 2. Proposal meets Acceptable Solution A3.7.		
Element 3 – Vehicular Access Cont.	A3.8 Firebreaks	Yes	Compliant Firebreaks are noted to be installed around the entirety of the subject site lot (Lot 5780). Furthermore, internal firebreaks are proposed to be a minimum of 4m wide. It is noted that as the land is owned by the CoA that the CoA Fire Management Notice (and subsequent section 33 notices) are not applicable to this site (CoA and GSMA to note). The implementation of this addendum BMP and the overarching BMP and conformance to the BMP's are essential. Proposal meets Acceptable Solution A3.8.		
	A4.1 Reticulated areas	No	N/A reticulated water is not available. Not assessed to Acceptable Solution A4.1.		
Element 4 – Water	A4.2 non- reticulated areas	Yes	Water supply will be through on-site resources via bore extraction to tank storage and pumped to facilities around the site. Bore water supply is known to the area, a copy of a monitoring bore testing for water sources in the northern area of the precinct is provided in the overarching BMP report. Storage of water dedicated for firefighting will be located in the north and the eastern precincts and tanks are to be a minimum of 110,000L (as shown on Masterplan). 75mm Camlock fittings and turnaround hardstand areas (See Figure 4) to be installed at tanks. To be approved by the CoA at Development Approval Stages. Proposal meets Acceptable Solution A4.1.		
	A4.3 Individual lots in non- reticulated areas	No	Not assessed to A4.3.		

Table 2: Minimum technical requirements for access

Technical requirements	Private Driveways & public access ways	Emergency Access Ways	Fire Service Access Ways
Minimum trafficable surface (m)	4	6*	6*
Horizontal clearance (m)	6	6	6
Vertical clearance (m)	4.5	4.5	4.5
Maximum grades	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33
Curves minimum inner radius (m)	8.5	8.5	8.5
Maximum Length	50m	600m	N/A



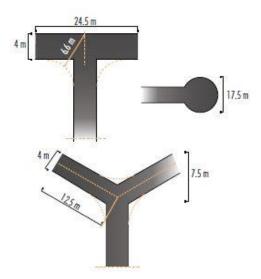


Figure 4: Turnaround areas minimum standard

2.3 Other bushfire mitigation measures

The following section outlines additional measures to assist in mitigating the bushfire risk for the proposed development and should be added into the overarching BMP report as a maintenance schedule for the AMP.

2.3.1 Minimise ignition sources

There is little control of offsite ignition sources, however the following is recommended to be undertaken by the AMP (as per the recommendations in the overarching BMP) while in ownership of the land and any subsequent lease areas:

Prior to the bushfire season (October) the following activities are undertaken:

- Mowing, slashing and brush cutting (noting illegal to do so on Total fire ban days);
- · Maintenance of road access into and out of the site; and
- Sub-contractors and volunteers are aware of their obligations to observe any total fire bans or vehicle movement bans as designated by the CoA.

During the summer bushfire season (1st December to 30th April inclusive) maintenance activities internal to the site should be planned and risk assessed prior to commencement. This includes but not limited to:

- Mowing, slashing and brush cutting (noting illegal to do so on Total fire ban days);
- Welding, grinding and hot works (not undertaken on Total fire ban days);
- Temporary waste disposal areas and green waste dumps ensure piles are not exceeding
 1.5m high and have bare mineral earth surrounding (min of 10m); and
- A water tender (min of 200L) fast attack unit is on site during the fire season.

The Site manager in consultation with developer are responsible for safety in during the bushfire season and are to ensure safety of the site and adjacent properties at all times from potential ignition sources.

2.3.2 Fuel reduction and site maintenance schedule

Fuel reduction through mechanical slashing and mowing will be required to be undertaken regularly to ensure all internal grasses are maintained. Buildings are to be inspected regularly for build-up of wind-borne debris and leaf accumulation in gutters and at penetrations to buildings (doors, windows, etc). The Lessee or site manager is to be responsible for implementation of the maintenance schedule which should generally reflect the following actions, refer to Table 4.



Table 3: Maintenance Schedule

Frequency & Compliance Number	Activity
Weekly	Check all buildings for wind borne debris build up and remove.
(During fire season	Check waste materials collected from site are correctly sorted and stored (i.e. green waste, refuelling in designated areas only).
operations and prior to event)	Check personal safety equipment before each use.
eventy	Check dust filters on equipment.
	Visually check vehicles and equipment for leaks or potential oil spills, check on fuel storage areas (if applicable).
	Check signage, gates and access gates are unlocked and accessible on emergency cues points.
	Check noise and spark suppression devices on equipment prior to working.
	Check gutters are free from vegetation or overhand.
	Trimming and removing dead plants or leaf litter.
	Pruning climbing vegetation (such as vines) on a trellis, to ensure it does not connect to a building, particularly near windows and doors.
	Removing vegetation in close proximity to a water tank to ensure it is not touching the sides of a tank.
	Check fire firefighting water tanks are full and serviceable.
	Check outdoor objects around buildings (see list below).
	Raking and cleaning underfloor spaces (if applicable).
Monthly	Mowing, slashing and maintaining grasses, more frequent during spring and Autumn growth periods.
	Whipper snipper/grass cutter around all buildings.
	Ensure al Fire Service Access tracks are traversable and no erosion or washouts.
	Ensure public access is restricted and signage in place.
	Check no combustible materials are store near buildings or penetrations of buildings (windows doors etc), includes but not limited to – gas bottles, fences stored combustible material, vines, plants etc.
Yearly	Undertake any fuel reduction burning (if applicable).
(prior to bushfire season)	Maintain firebreaks and fire service access tracks, check gates can easily be opened and closed.
	Check locks are in working order and check gates which are not to be locked (i.e. for emergency access).
	Check water tank cam lock (Storz) valves are working and in good order (i.e. open and shut).
	Check hardstand areas are clear and traversable adjacent to firefighting storage tanks.
	Ensure weeds or woody material is not encroaching into the APZ area around buildings (20m minimum), attend to any dead material through trimming and pruning, raking and removing to green waste.
	Any material from pre fire season preparation is either disposed to green waste or burn in piles away for the buildings with a 10m mineral earth break around the pile.



The above is recommended to be combined into the AMP site Operational Management Plans. Prior to a fire event best practice recommends that objects within the APZ are moved away from the building prior to any bushfire event. Objects may include, but are not limited to:

- Door mats
- Outdoor furniture
- Potted plants
- Shade sails or umbrellas
- Plastic garbage bins
- Firewood stacks
- Flammable sculptures
- Playground equipment and children's toys.

These should always be considered in the proximity to buildings and stored appropriately when not in attendance at site. Consider any replanting or landscaping refer and to the Country Fire Authority's Landscaping for Bushfire Garden Design and Plant Selection (CFA, 2012) – Plant Selection Key or aim for plants within the APZ that have the following characteristics:

- Grow in a predicted structure, shape and height.
- Are open and loose branching with leaves that are thinly spread.
- Have a coarse texture and low surface-area-to-volume ratio.
- Will not drop large amounts of leaves or limbs, that require regular maintenance.
- Have wide, flat, and thick or succulent leaves.
- Trees that have bark attached tightly to their trunk or have smooth bark.
- Have low amounts of oils, waxes, and resins (which will often have a strong scent when crushed).
- Do not produce or hold large amounts of fine dead material in their crowns.
- Will not become a weed in the area.



3 Implementation Actions Matters to be addressed as DA conditions

3.1 AMP/Lessee Responsibility

It is recommended the future lessee's shall be responsible for the following:

Table 4: Implementation actions AMP/Lessee's

No	Implementation Action	DA condition	DA clearances
1	Ensure internal road, fire access and public entry/exit points are constructed in accordance with the minimum requirements of vehicle access as required in the overarching BMP.	No	Yes
2	Prepare and implement Operational Environmental Management Plan for the site and comply to maintenance schedule as per original BMP requirements.	Yes	Yes
3	Ensure low fuel areas implemented prior to commencement of any site works or events. Any landscaping/streetscaping is to conform to WAPC APZ standards (WAPC, 2017). Refer to the standard Appendix B and the maintenance schedule implemented as outlined in Table 3.	No	Yes
4	Install minimum storage of water dedicated for firefighting as shown on Masterplan for Stage 1A and 1B and tanks are to be a minimum of 110,000L. 75mm Camlock and turnaround hardstand areas (See Figure 4) to be installed at tanks. If future buildings (Stage 2) are required to have structural (internal) fire water supply and (external) hydrants then (if required) a Fire Engineer is to be engaged to ensure flow rates are achieved to the relevant technical requirements.	Yes	Yes
5	Ensure the Bushfire Emergency Evacuation Plan (BEEP) is updated for the site with wardens and responsible persons identified. This can be undertaken as a condition of the DA approval.	Yes	Yes
6	Update the overarching BMP report to incorporate the changes through the DA stages (including the updated BEEP) to ensure there is one BMP report for the whole of site and for the AMP governing body to consult with the lease holders. The BMP update can be conditioned at DA stages and should be reviewed every 5 years for consistency, updates or changes or legislative requirements.		

3.2 City of Albany Responsibility

It is recommended the City of Albany and GSMG be responsible for the following:

Table 5: Implementation actions City of Albany

No	Implementation Action	D/A condition
1	Continue to arrange for designation and construction of the Emergency Access way from Down Road South to Albany Highway as outlined in Appendix C of this report.	N/A
2	Ensure internal road and public access is constructed in accordance with the minimum requirements of vehicle access as shown in Table 2.	Yes
3	Ensure the Bushfire Emergency Evacuation Plan (BEEP) is updated for the Albany site with wardens and responsible persons identified. This can be undertaken as a condition of the DA approval.	Yes
4	Ensure compliance of the BMP through the condition of the DA, update of the overarching BMP to reflect any changes through DA stages.	Yes
5	CoA to consider fuel reduction management on the native vegetated areas through hazard reduction burning as per the City of Albany Bushire mitigation planning or through designated reserve management plans. Noting that the CoA Fire Management Notice does not apply to crown land or lease arrangements of crown land.	N/A



4 Disclaimer

The recommendations and measures contained in this assessment report are based on the information available at the time of writing following the instructions of the regulatory authorities and following the requirements of the Australian Standards 3959-2018 – Building in Bushfire Prone Areas, WAPC State Planning Policy 3.7 (WAPC, 2015), WAPC Guidelines for Planning in Bushfire Prone Areas (WAPC, 2017) Vers 1.3, and applying best practise as described by Fire Protection Association Australia. These are considered the minimum standards required to balance the protection of the dwellings and occupants with the aesthetic and environmental conditions required by local, state and federal government authorities. They DO NOT guarantee that a building will not be destroyed or damaged by a bushfire, people injured, or fatalities occur either at the site or while evacuating. All surveys and forecasts, projections and recommendations made in this assessment report and associated with this proposed development are made in good faith on the basis of the information available to the fire protection consultant at the time of assessment. The achievement of the level of implementation of fire precautions will depend amongst other things on actions of the landowner or occupiers of the land, over which the bushfire consultant has no control. Notwithstanding anything contained within, the consultant/s will not, except as the law may require, be liable for any loss or other consequences (whether or not due to negligence of the bushfire consultant) arising out of the services rendered by the consultant.

AS3959-2018 disclaimer: It should be borne in mind that the measures contained within this Standard (AS3959-2018) cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the unpredictable nature and behaviour of fire and extreme weather condition.

Building to AS3959-2018 is a standard primarily concerned with improving the ability of buildings in designated bushfire prone areas to better withstand attack from bushfire thus giving a measure of protection to the building occupants (until the fire front passes) as well as to the building itself.

(AS3959, 2018)

5 Certification

I hereby certify that I have undertaken the assessment of the above site and determined the Bushfire Attack Level (s) stated in this document have been prepared in accordance with the requirements of AS 3959-2018 and the WAPC Guidelines for Planning in Bushfire Prone Areas (WAPC, 2017).

SIGNED, ASSESSOR: DATE: 26/07/2021

Kathryn Kinnear, Bio Diverse Solutions

Accredited Level 2 Bushfire Practitioner (Accreditation No: BPAD30794)







6 Appendices

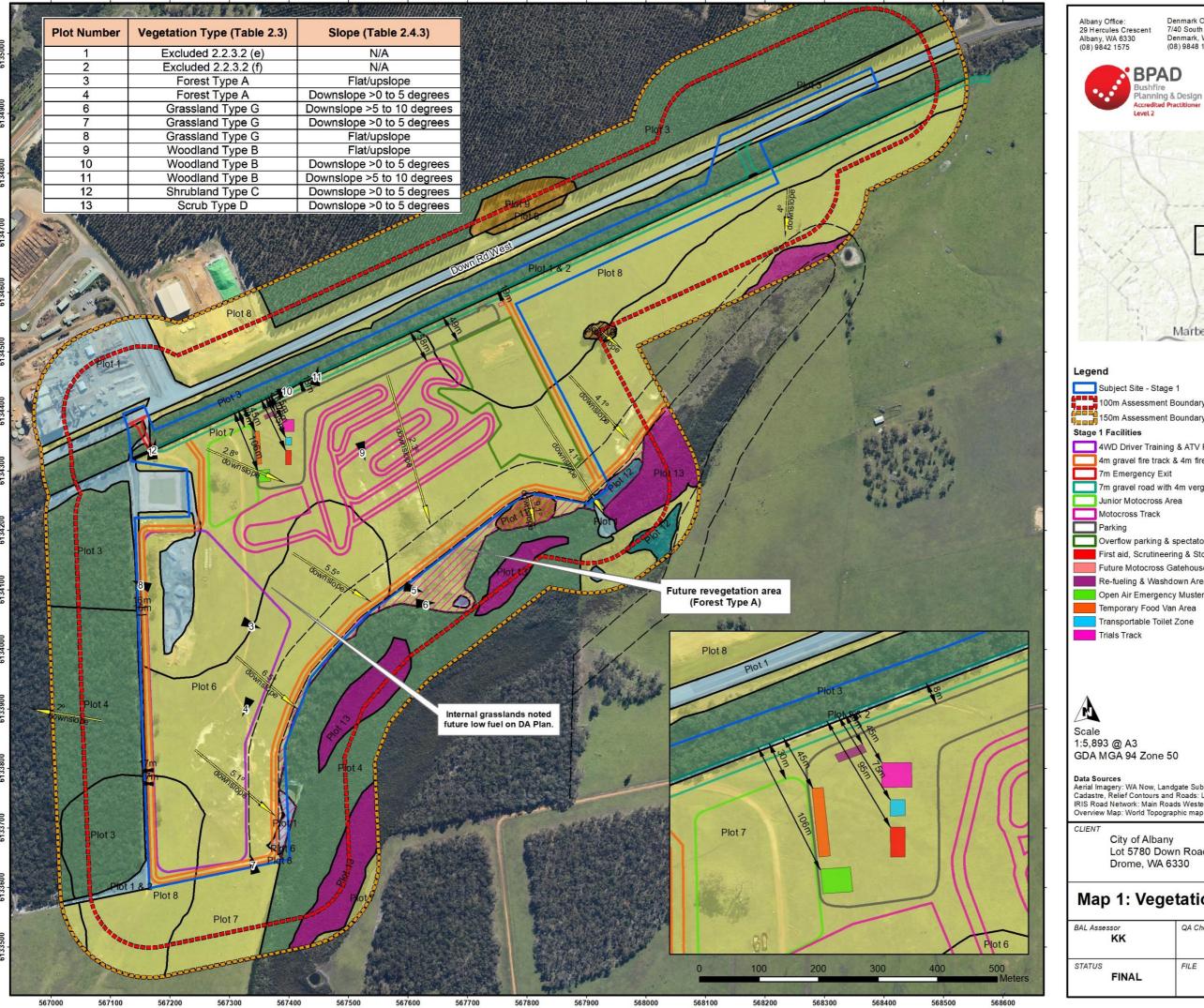
Appendix A: Mapping (Map 1-3)

Appendix B: Additional information for the AMP site



Appendix A:

Mapping (Maps 1-3)



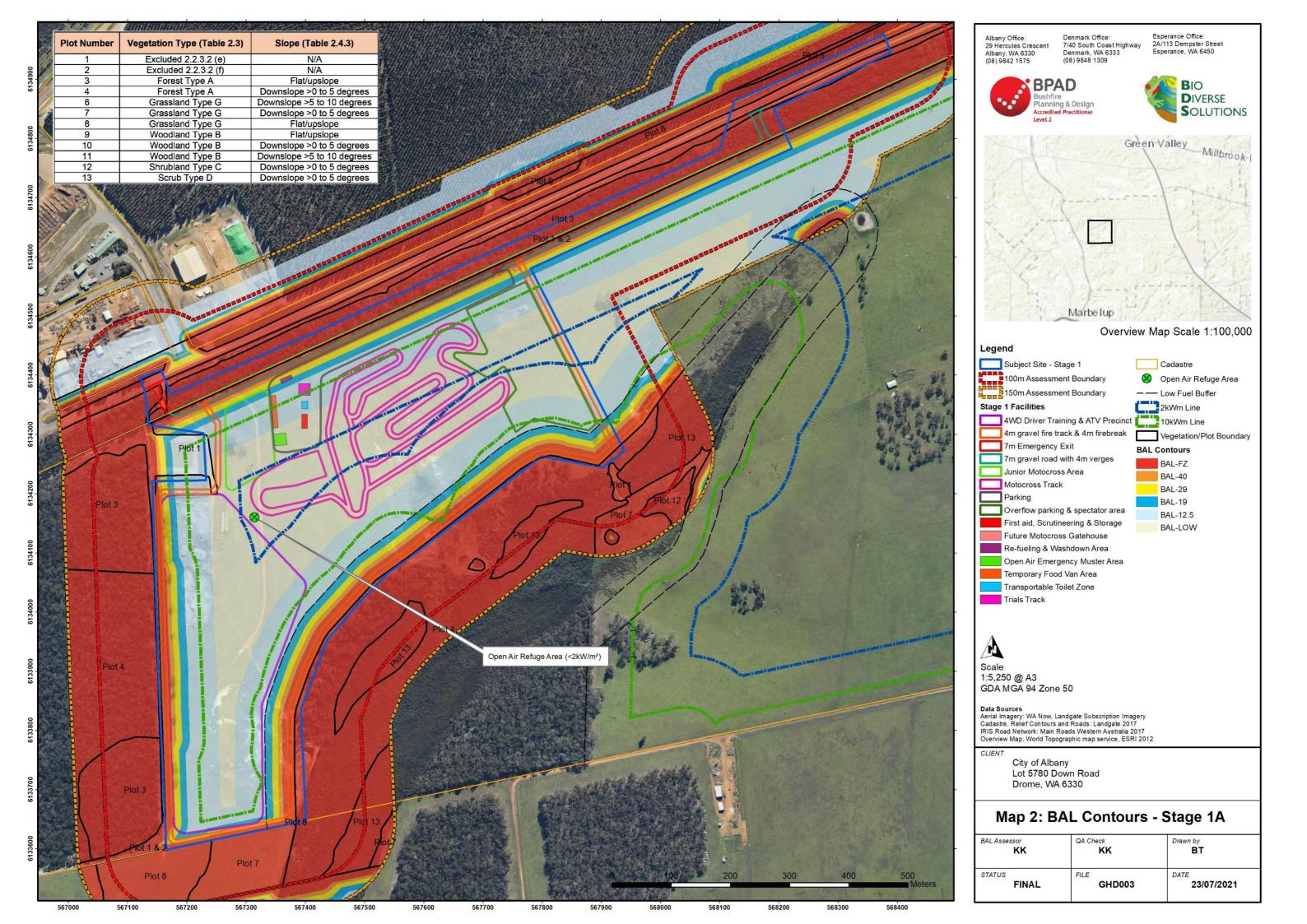
Esperance Office: 2A/113 Dempster Street Esperance, WA 6450 Denmark Office: 7/40 South Coast Highway Denmark, WA 6333 (08) 9848 1309 BIO **D**IVERSE SOLUTIONS Green-Valley Millbrook-Marbe lup Overview Map Scale 1:100,000 Cadastre 100m Assessment Boundary - - Low Fuel Buffer 150m Assessment Boundary Separation Distance ⇒Slope Degrees 4WD Driver Training & ATV Precinct Photo Point 4m gravel fire track & 4m firebreak // Future Low Fuel 7m gravel road with 4m verges // Future Revegetation Area Vegetation/Plot Boundary Vegetation Forest Type A Overflow parking & spectator area Woodland Type B First aid, Scrutineering & Storage Shrubland Type C Future Motocross Gatehouse Scrub Type D Re-fueling & Washdown Area Grassland Type G Open Air Emergency Muster Area Low fuel or non vegetated 2.2.3.2 Data Sources
Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
IRIS Road Network: Main Roads Western Australia 2017

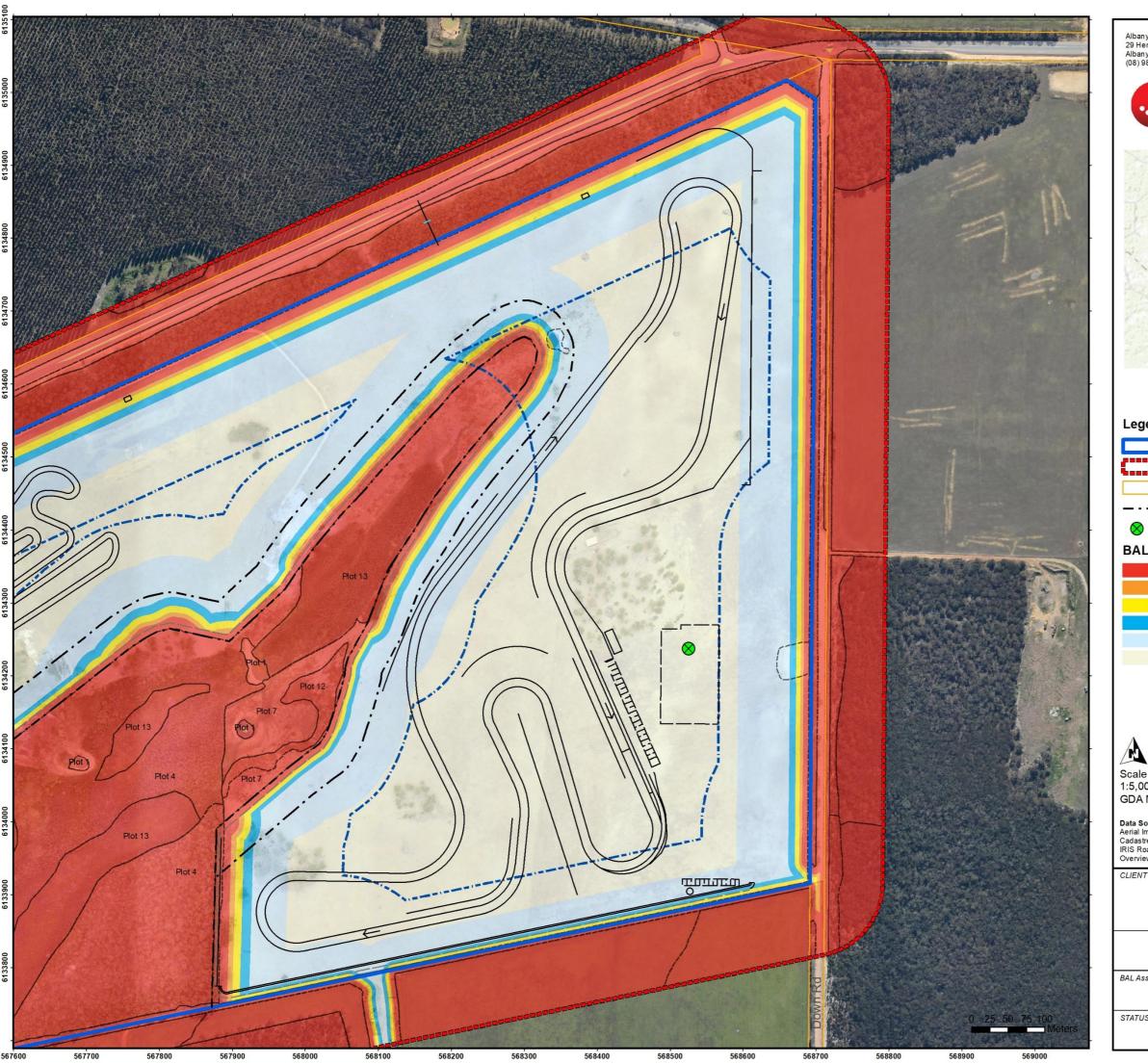
Overview Map: World Topographic map service, ESRI 2012

Lot 5780 Down Road

Map 1: Vegetation Classes - Stage 1A

BAL Assessor KK	QA Check KK	BT
STATUS FINAL	FILE GHD003	DATE 01/07/2021





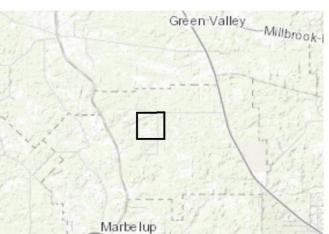
Albany Office: 29 Hercules Crescent Albany, WA 6330 (08) 9842 1575

Denmark Office: 7/40 South Coast Highway Denmark, WA 6333 (08) 9848 1309

Esperance Office: 2A/113 Dempster Street Esperance, WA 6450 (08) 9072 1382







Overview Map Scale 1:100,000

Legend

Subject Site

100m Assessment Boundary

Cadastre

Low Fuel Buffer

Open Air Refuge Area

BAL Contours

BAL-FZ

BAL-40

BAL-29 BAL-19

BAL-12.5

BAL-LOW

1:5,000 @ A3 GDA MGA 94 Zone 50

Data Sources
Aerial Imagery: WA Now, Landgate Subscription Imagery
Cadastre, Relief Contours and Roads: Landgate 2017
IRIS Road Network: Main Roads Western Australia 2017
Overview Map: World Topographic map service, ESRI 2012

City of Albany Lot 5780 Down Road Drome, WA 6330

Map 3: BAL Contour - Stage 1B

BAL Assessor KK	QA Check KK	Drawn by BT
STATUS FINAL	COA0020	23/07/2021



Appendix B:

Updated information AMP site
Updated information AMP Governance
Access to South Coast Highway
Landscape Master Plan
Protected Exclusion Zone Management Plan



ALBANY MOTORSPORT PARK

DRAFT GOVERNANCE MODEL

VENUE

Albany Motorsport Park

2. LOCATION

Lot 5780 Down Road, DROME, Western Australia

LAND OWNER

City of Albany owns the land (LOCATION) approving Authority for any modifications

4. VENUE OWNER

Albany Motorsport Venue Incorporated (AMV Inc.) leases land from the LAND OWNER owns and maintains the facilities and infrastructure

THE BOARD

VENUE OWNER's board of 7 Directors responsible for management and operation of the VENUE

6. OCCUPIER

The VENUE OWNER

7. AFFILIATIONS

Confederation of Australian Motor Sport Limited, trading as Motorsport Australia Motorcycling Australia Ltd

VENUE MAP

Albany Motorsport Park Masterplan

9. OWNERSHIP & OPERATION

- Ownership of the land (The Land) is and will remain owned by the City of Albany.
- Post construction by the City of Albany, ownership of all facilities and infrastructure (will be transferred to the Albany Motorsport Venue Incorporated (AMV Inc.) by written agreement.
- The Land (not the Venue) will be leased by the City of Albany to the AMV Inc.
- The AMV Inc. will be responsible for the operation, maintenance and repair of the Venue

10. AMV INC. BOARD GOVERNANCE

- AMV Inc. is to be established as a not for profit <u>association</u> incorporated in accordance with the Associations Incorporation Act 2015.
- Noting it is acceptable for an <u>association</u> to trade with the public so long as the
 profits from those transactions are used to promote the objects and purposes of
 the association and members do not profit from the activities.
- AMV Inc. will consist of a Board of Directors (the Board).
- The Directors will be paid a remuneration agreed annually.

11. THE BOARD

- 11.1 The Board may have up to seven (7) Directors, who shall comprise:
 - Two (2) community representatives recommended by the City of Albany for the Board's consideration.

Version: Thursday, 13 May 2021 | Page 1 of 4



ALBANY MOTORSPORT PARK DRAFT GOVERNANCE MODEL

- One (1) representing Motorsport Australia;
- One (1) representing Motorcycling Western Australia (MWA);
- One (1) representing 4-wheel racing clubs;
- One (1) representing 2-wheel racing (motorcycle road racing) clubs;
- One (1) representing motocross clubs;
- 11.2 The Chairman of the Board will be elected by the Directors.
- 11.3 Appointments are to be up to a two-year term, with skills determined by the Board.
- 11.4 The Directors shall meet monthly or on more occasions if the need dictates.
- 11.5 The Board to employ an Operations Manager and any other staff deemed necessary to ensure the safe and compliant Venue.
- 11.6 The Board shall lease the Land from the City of Albany.
- 11.7 A Lease Agreement shall be prepared by the City of Albany and approved by the City of Albany Council.
- 11.8 The Board shall be responsible for the insurance of the tracks, roads and any other permanent buildings and fixtures on the Venue.
- 11.9 The Board is responsible for the development of an Albany Motorsport Park Strategic Development Plan and overseeing the implementation of the strategies and supporting policies.
- 11.10 The Board is responsible for the development and implementation of systems to enable it to comply with its legal and policy obligations, adhering to accounting standards and ensuring the Venue assets are protected through appropriate risk management.
- 11.11 The Board is responsible for the marketing, management, programming and the safe use of the Venue.

12. VENUE OWNER

- 12.1 The Venue Owner shall carry out:
 - marketing the Venue;
 - hiring of facilities to various users and user groups;
 - programme the hiring and events held at the Venue;
 - · ensure the hirer has the appropriate permit for the event being conducted;
 - ensure the hirer has the appropriate event insurance in place;
 - adherence to the Motorsport Australia "Track Operations Safety Guide";
 - adherence to the Motorcycling Australia "Track Standards" and current "Manual of Motorcycle Sport";
 - management and maintenance of the infrastructure;
 - establish and maintain an ongoing maintenance (sinking) fund;
 - ensure the Venue is cost-effective, that is, income is equal to or greater than expenses;
 - adherence to the Bushfire Management Plan;

Version: Thursday, 13 May 2021 | Page 2 of 4



ALBANY MOTORSPORT PARK

DRAFT GOVERNANCE MODEL

- adherence to the Noise Management Plan;
- · adherence to the Water Management Plan;
- adherence to the Hydrocarbon Management Plan;
- adherence to the Dust Management Plan; and
- present an annual report to the City of Albany.
- 12.2 Produce and administer a "Venue Procedures Manual".
- 12.3 Produce and administer a "Code of Conduct Manual".
- 12.4 Ensure the tracks are certified and sanctioned by Motorsport Australia and Motorcycling Australia on an annual basis.
- 12.5 Ensure users of the Venue have the appropriate training and qualifications and operate in accordance with the relevant governing motorsport organisation.
- 12.6 Purchase and have available the required safety equipment.
- 12.7 Purchase and have available the required maintenance equipment.
- 12.8 Ensure grounds maintenance is carried out by trained employees and/or trained volunteers.

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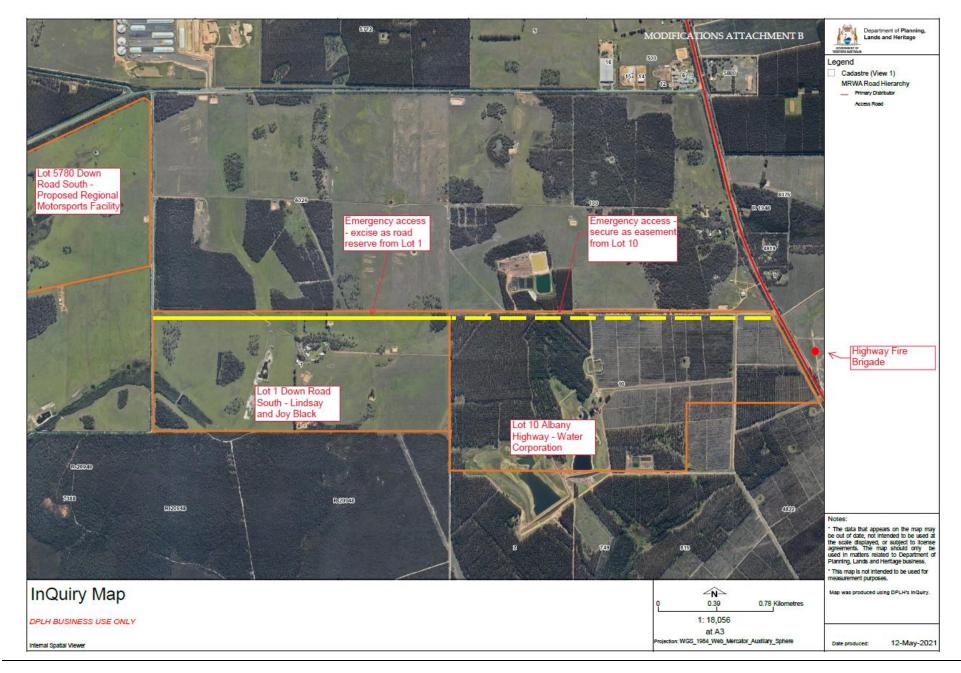
ALBANY MOTORSPORT PARK DRAFT GOVERNANCE MODEL

Revision History

Author	Version Description	Date Completed	
Great Southern Motorplex Group Inc.	Draft prepared for review by City of Albany	26/04/2021	
City of Albany	Reviewed and marked up by City of Albany. Changes review to compared document.	27/04/2021	
City of Albany / Great Southern Motorplex Group Inc.	Amended post meeting held on 4 May 2021. Agreed amended marked up in RED.	04/05/2021	
City of Albany	Changes accepted	06/05/2021	
City of Albany	Amendment to Item 11	13/05/2021	

Version: Thursday, 13 May 2021 | Page 4 of 4











629 Newcastle Street Leederville WA 6007

PO Box 100 Leederville 6902 T (08) 9420 2420



F20219243 - RC PJT 2 Your Ref: 105339620 / A2884 Miranda Hahn Our Ref: Enquiries: 9420 3615 Telephone:

Email: miranda.hahn@watercorporation.com.au

19 March 2021

Atlanta Veld Lands Officer City of Albany PO BOX 484

ALBANY WA 6331

Sent by email to: Atlantav@albany.wa.gov.au

WATER CORPORATION FREEHOLD LAND: PORTION OF LOT 10 ON DIAGRAM 84694 / 35554 ALBANY HIGHWAY, DROME - PROPOSED EMERGENCY ACCESS EASEMENT (PROPOSED ALBANY MOTORSPORT PARK)

I refer to our previous correspondence in relation to the abovementioned proposal.

Water Corporation's Procurement and Property Business Unit has completed due diligence investigations into the City of Albany's request and can advise the Water Corporation is willing to provide in principle support to grant the City an easement for emergency access purposes for consideration of \$1.00 (Plus GST if applicable), conditional upon, but not limited to the following:

- City of Albany to obtain approval from MRWA with respect to traffic safety assessment at Albany Highway intersection.
- The easement is restricted to ten metres wide and is to be located along the full length and adjacent to the northern boundary of Lot 10, i.e. the proposed easement land area is identical to the existing easement land area which benefits Lot 1, No. 35552 Albany Highway.
- 3. The purpose of the proposed access easement is strictly limited to 'emergency use' only, i.e. only to be used for access / egress in the case of a bushfire event / fire emergencies.
- 4. The easement land area is not to be developed for any other purposes other than for emergency access. It is noted that portion of the proposed easement at the western edge intersects a 'P2' Public drinking water source area (PDWSA).
- The City acknowledges there are existing interests registered across the subject land and agrees to be a shared user of the subject access track.
- 6. The Water Corporation to retain the right of access to the easement land at all times.

ARN 28 003 434 917 watercorporation.com.au



2

- The City of Albany is to ensure the access track / easement land area is maintained in a proper and safe condition, and to carry out necessary repairs to ensure same at its own cost (associated with its usage).
- The City of Albany is to indemnify Water Corporation and accepts full liability with respect to its use i.e. associated traffic over the easement land.
- The City is to extend the existing gravel access track at the western end to ensure it is contained entirely within the agreed easement land area. The City is to submit associated design plans and works methodology to Technical Advisor, Graham Wright – telephone 9842 4230 / M: 0427 907 769 for Water Corporation's review and approval.
- 10. In addition to the above, the City is to meet any on ground requirements across the easement land area specified by Water Corporation's Albany Regional Office.
- 11. All costs associated with the proposal including but not limited to surveying requirements and the preparation, negotiation, execution and registration of a suitable Deed of Easement document (including both parties solicitors' costs) are to be met by the City of Albany.
 - Our preference is for Water Corporation's Solicitors to prepare the Deed of Easement document. We believe the associated costs would be in the order of \$2,500 (incl. GST) which would need to be provided upfront to cover the anticipated costs.
- 12. The preliminary Deposited Plan showing the extent of the easement must be submitted for review and approval by the Water Corporation prior to lodgement at Landgate.
- All necessary consents to the proposed easement being provided by the required parties.
- 14. Prior to any works commencing across the easement land, all relevant permits and / or approvals must be obtained by the City including but not limited to environmental, planning, a Water Corporation clearance to work permit and "Approval to Work Near Our Assets".
- 15. Following any works on the easement land, the Water Corporation will inspect the land to ensure that all structures are in a safe condition and appropriate signage installed (where applicable).

If the City accepts the abovementioned conditions and wishes to proceed with formalising access arrangements over portion of the Water Corporation's Lot 10, we note that further consultation will be required. On this basis, please keep me informed of any developments.

If you require further information, please don't hesitate to contact me.

Yours sincerely

Miranda Hahn

Advisor - Property Portfolio

PROCUREMENT AND PROPERTY