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BIODIVERSITY DEVELOPMENT ASSESSMENT REPORT

FOR

PROPOSED CHILDCARE CENTRE

AT

110 – 112 MOUNT VERNON ROAD, MOUNT VERNON, NSW

Prepared for: **Key Business Accountants**

26 October 2020

BOAMS Ref: 22090
AEP Ref: 2091.01

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EXECUTIVE SUMMARY

Anderson Environment & Planning (AEP) was commissioned by Key Business Accountants (the proponent) to undertake a Biodiversity Development Assessment Report (BDAR) over land that is associated with a proposed Childcare Centre development at 110-112 Mount Vernon Road, located within Lot 4 DP 865818.

This report has been prepared to meet the requirements of the *Biodiversity Assessment Method 2017* (BAM) established under Section 6.7 of the *Biodiversity Conservation Act 2016* (NSW). This assessment utilises methods detailed within the BAM Order 2017, to identify biodiversity values inherent within the site, including known and potentially occurring threatened species and ecological communities, and quantifies impacts of the proposal upon these values.

The Subject Site, encompassing the entirety of the lot, is approx. 1.03ha consisting of exotic grassland. The land on which the development is proposed is zoned E4 – Environmental Living.

The site primarily contains a mix of exotic grasses and herbs, with native vegetation limited to sporadic ground cover. It is assumed that the vegetation may have once formed part of Cumberland Shale Hill Woodland Ecological Endangered Community (EEC) (CSHW). The observed grasslands on site are dominated by exotics and lack the structure, composition and diagnostic species of the CSHW.

No threatened fauna or flora was identified by desktop research on records held by the NSW BioNet Atlas, no threatened species were observed during survey work.

BAM data collected during field surveys generated a very low Vegetation Integrity score (1.7) due to the highly disturbed nature of the site, therefore an assessment of habitat suitability for threatened species is not required under Section 3.1.1.3 of the BAM. As such, no biodiversity credits are required to address potential impacts to biodiversity values.

No serious and irreversible impacts (SAIIs) are considered likely to occur as a result of the proposal.

Avoid and minimise has been considered. Given the small size of the Subject Site, and highly disturbed nature of the vegetation present, it is considered that the proposed development can suitably avoid impacts to biodiversity values.

Assessment of the proposal under other relevant environmental policy instruments including the of the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* were undertaken. No impact on Matters of National Environmental Significance is expected as a result of the proposal. Therefore, referral under the *Environment Protection and Biodiversity Conservation Act* is not likely to be necessary for this development. Assessment under SEPP (Koala Habitat) 2020 found no core koala habitat on the Subject Site.

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Study Certification and Licensing

This report was written by Tim Mouton BEnvSc MEnvSc (BAAS: 19083), and reviewed and certified by Ian Benson BEng (Civil) & GradDipSc (Ecology) (BAAS: 18147) of Anderson Environment & Planning.

Research was conducted under the following licences:

- NSW National Parks and Wildlife Service Scientific Investigation Licence SL101313;
- Animal Research Authority (Trim File No: 14/600(2)) issued by NSW Department of Industry; and
- Animal Research Establishment Accreditation Number 53724.

Certification:

As the principal author, I, Tim Mouton, make the following certification:

- This report has been written to comply with the requirements of the BAM 2017 and obligations outlined within the BAM Assessor Code of Conduct and includes, in the opinion of the writer, a true and accurate account of the species recorded, or considered likely to occur within the Survey Area, and inferences of such for biodiversity credit calculations;
- BAM Assessment methodology, as well as Commonwealth, state and local government policies and guidelines formed the basis of project surveying methodology, unless specified departures from industry standard guidelines are justified for scientific and/or animal ethics reasons;
- All research workers have complied with relevant laws and codes relating to the conduct of flora and fauna research, including the *Animal Research Act 1995*, *National Parks and Wildlife Act 1974* and the Australian Code of Practice for the Care and Use of Animals for Scientific Purposes.

Principal Author and Certifier:

[redacted]

Tim Mouton
Senior Ecologist
Anderson Environment & Planning
BAAS no. **19083**
Calculator Ref: 00022090/BAAS18147/20/00022091
26 October 2020

Glossary of Terms

APZ	Asset Protection Zone
BAM	*Biodiversity Assessment Method Order* (2017) that determines: • Methodology applicable to quantifying biodiversity values inherent within a development site; • Avoid and mitigation efforts required to be employed as part of any development proposal; and • Number and class of credits required to offset residual impacts of the proposal upon the biodiversity values therein.
BC Act	The NSW *Biodiversity Conservation Act 2016.*
Biodiversity Credit Report	Specifies the number and type of biodiversity credits required to offset the impacts of a development.
BAM Calculator (BAM-C)	The online tool used to interpret site survey data and regional location information to quantify ecosystem and species credits required / generated at a development / stewardship site.
Biodiversity credits	Ecosystem or Species Credits required to offset the loss of biodiversity values on a development site.
Biodiversity offsets	Specific measures that are put in place to compensate for impacts on biodiversity values.
Biodiversity values	The composition, structure and function of ecosystems, and threatened species, populations and ecological communities, and their habitats.
CEEC	Critically Endangered Ecological Community.
Council	City of Penrith
Development Lands	Land upon which the development is proposed, and within which impacts upon biodiversity are required to be offset.
DoEE	The Commonwealth Department of the Environment and Energy.
DPI	The NSW Department of Primary Industries.
DPIE	The NSW Department of Planning, Industry and Environment.
Ecosystem credit	The class of biodiversity credits created or required for the impact on EECs, CEECs and threatened species habitat for species that can be reliably predicted to occur within a vegetation type.
EEC	Endangered Ecological Community (under BC Act).
EPBC Act	The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999.*
OEH	The former NSW Office of Environment and Heritage.
PFC	Percentage Foliage Cover

Subject Site	The development footprint as shown in **Figure 1**.
Species credit	Class of biodiversity credits created or required for the impact on threatened species that cannot be reliably predicted to use an area based on habitat surrogates.
TBDC	Threatened Biodiversity Data Collection
TEC	Threatened Ecological Community

1.0 Stage 1 – Biodiversity Assessment

1.1 Introduction

A Childcare Centre is proposed on land currently identified as 3110-112 Mount Vernon Road, located within Lot 4 DP 865818 (the Subject Site). Anderson Environment & Planning (AEP) have undertaken the necessary investigations to inform the production of a Biodiversity Development Assessment Report (BDAR) addressing the development proposal.

This BDAR undertaken adheres to the approach outlined in the Biodiversity Assessment Methodology (OEH 2017a) (the BAM), and the Biodiversity Assessment Method (BAM) Calculator User Guide (OEH 2017b).

1.1.1 Assessment Scope

The BDAR presented herewith aims to quantify impacts of the proposal upon biodiversity values based upon the methods described within the *Biodiversity Assessment Method Order 2017* (BAM), including threatened entities listed under the NSW *Biodiversity Conservation Act 2016* (BC Act).

This report includes:

- **Stage 1 – Biodiversity Assessment** – including the mapping of remnant vegetation communities including any Endangered Ecological Communities (EECs) within the site, the location of previously identified threatened species and their habitats, and potential contemporary occurrence of threatened species identified within the BAM Calculator; and

- **Stage 2 – Impact Assessment** – identification of impact avoidance and mitigation measures, and the quantifying of offset requirements in the form of biodiversity credits based upon residual impacts of the proposal.

1.1.2 The Proposal

The Subject Site occurs within the City of Penrith LGA. The proponent is seeking development consent to undertake a proposed Childcare Centre and associated civil works at the Subject Site. The land subject to the development is zoned E4 – Environmental Living. The proposed development and associated works are proposed to cover the majority of the 1.03ha lot, including access and parking, structures, landscaping, and wastewater treatment adsorption beds.

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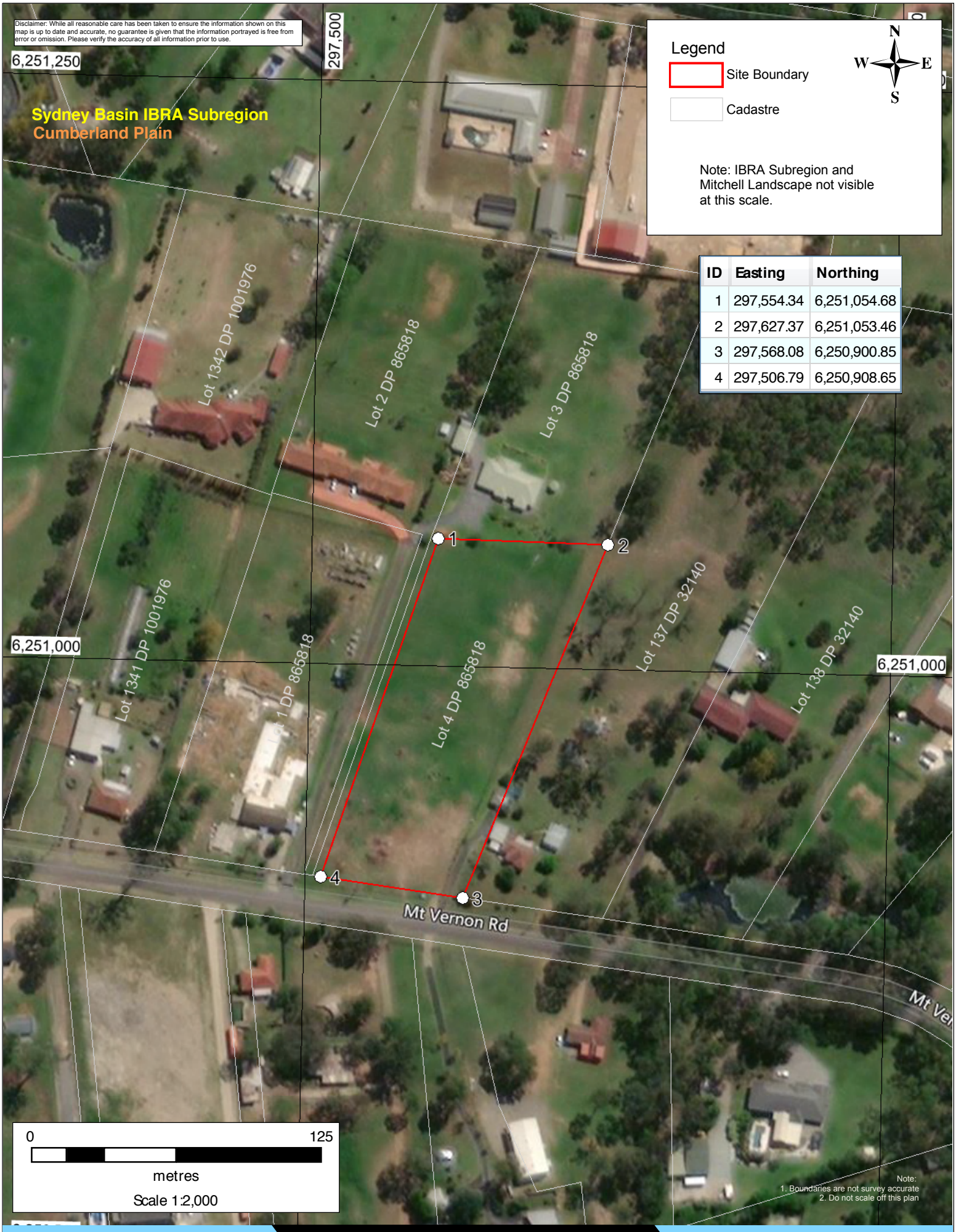
1.1.3 Site Particulars

- **Location** – 110-112 Mount Vernon Road, Mount Vernon, NSW.
- **Local Government Area (LGA)** – City of Penrith LGA.
- **Title** – The proposed development is situated within Lot 1 DP 865818.
- **Subject Site** – The Subject site encompasses the entirety of the lot, approx. 1.03ha.
- **Zoning** – Development is proposed within land zoned E4 – Environmental Living.
- **Current Land Use** – The site is entirely cleared, consisting of exotic grassland.
- **Surrounding Land Use –** The site is surrounded on all sides by low density residential and semi-rural lots, containing dwellings and occasional scattered paddock trees. Kemps Creek is located approximately 2km to the west. The surrounding land is zoned E4 – Environmental Living.

Figure 1 depicts the extent of the site and defines the Subject Site.

Figure 2 depicts the location of the site within the landscape.



ID	Easting	Northing
1	297,554.34	6,251,054.68
2	297,627.37	6,251,053.46
3	297,568.08	6,250,900.85
4	297,506.79	6,250,908.65

AEP

Title: FIgure 1 - Site Location

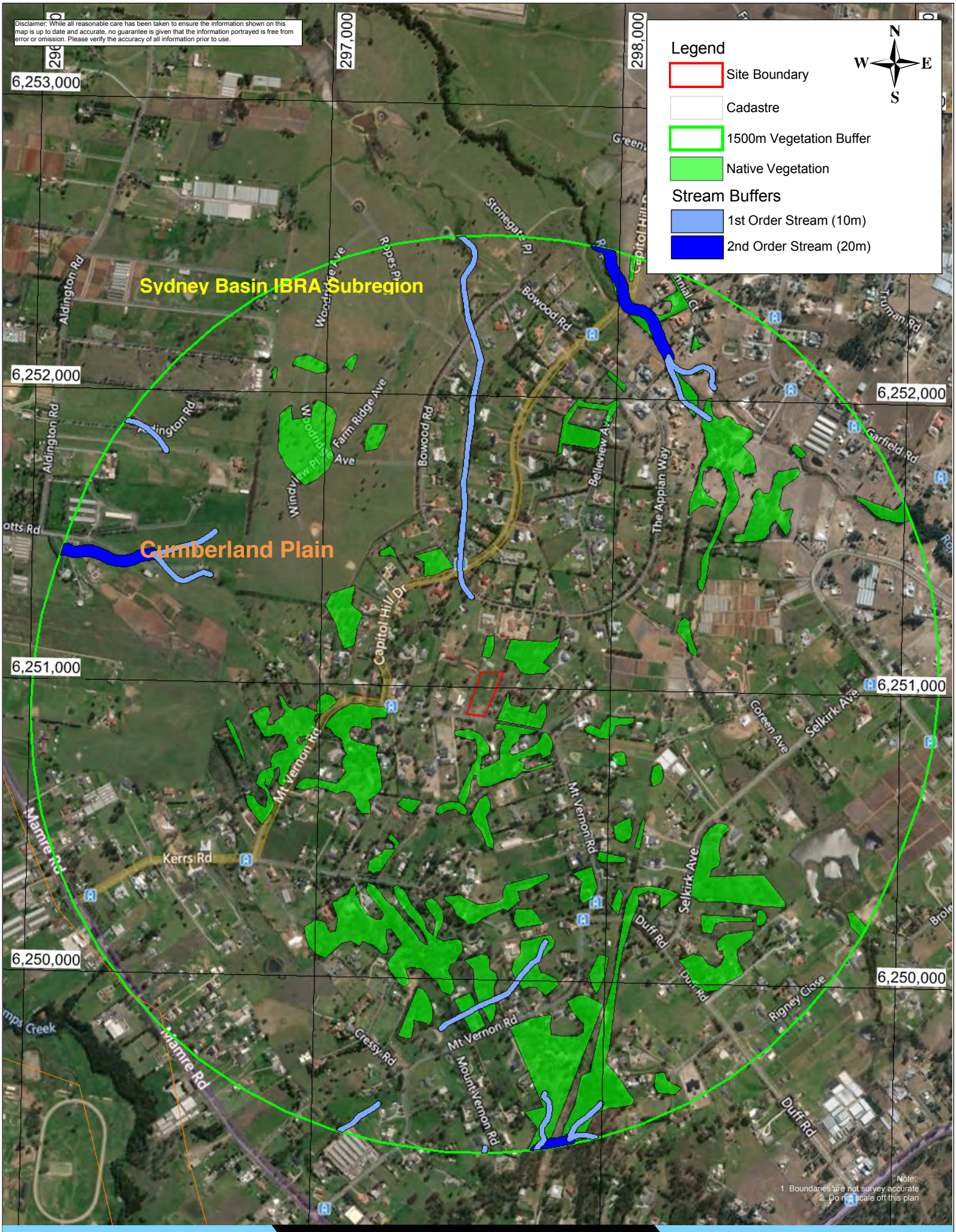
Date: 30 Sept 2020

Location: 110-112 Mount Vernon Road, Mount Vernon, NSW

BOAMS: 22090

Client: Key Business Accountants

AEP Ref: 2091.01



AEP

Title: FIgure 2 - Location Map

Date: 30 Sept 2020

Location: 110-112 Mount Vernon Road, Mount Vernon, NSW

BOAMS: 22090

Client: Key Business Accountants

AEP Ref: 2091.01

1.1.4 Information Sources

Information and spatial data provided within this BDAR has been compiled from various sources including:

- State survey guidelines (DEC 2004, DECC 2009, OEH 2020);
- PlantNET NSW (http://plantnet.rbgsyd.nsw.gov.au/);
- *Remnant Vegetation of the western Cumberland subregion, 2013 Update;*
- Aerial Photograph Interpretation (API) of the site and surrounding locality (Bing 2020; NSW Department of Finance, Services and Innovation 2020);
- OEH Threatened Biodiversity Profiles (https://www.environment.nsw.gov.au/threatenedSpeciesApp/);
- Search and review of flora and fauna sighting records in the OEH BioNet Atlas within 10km of the site;
- Protected Matters Search within a 5km radius of the site held by the Commonwealth Department of the Environment and Energy, summarising Matters of National Environmental Significance that may occur in, or may relate to the study area;
- BAM Important Area Mapping for Regent Honeyeater and Swift Parrot; (https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/biodiversity-offsets-scheme/biodiversity-offsets-and-agreement-management-system)
- Collective knowledge gained from previous ecological survey and assessment in the Cumberland region over the past 20 years; and
- Anecdotal records.

1.2 Landscape Features

1.2.1 Regional Landscapes

The Subject Site was identified as occurring within the following landscape areas:

- *IBRA Bioregion* – Sydney Basin
- *IBRA Subregion* – Cumberland
- *NSW Landscape* –Cumberland Plain

Delineation of *NSW Landscape* areas are shown in both the Site and Location Maps (**Figure 1** and **Figure 2**).

1.2.2 Site Context Components

1.2.2.1 Method

Site layout allowed for the landscape values to be determined based upon a site-based method, rather than that of a linear method.

1.2.2.2 Landscape Native Vegetation Cover

The 1500m buffer placed around the site is approximately 774ha in size. Of this, approx. 76.9ha comprises native vegetation as per Section 4.3.2 of the BAM. This equates to approximately **10%** native vegetation cover and was entered as such within the Calculator.

1.2.3 Regional Mapping

Regional vegetation mapping executed under the *Remnant Vegetation of the western Cumberland subregion, 2013 Update* was utilised to identify vegetation communities occurring on site.

Communities mapped within the Subject Site are provided in **Table 1** and displayed in **Figure 3.**

Table 1 – Regional Vegetation Mapping Results

Vegetation Community	Area (ha) – Subject Site
Shale Plains Woodland	0.2
Shale Hills Woodland	0.35
Not Mapped (Cleared or built areas)	0.48
Total	**1.03**

Regional vegetation models and community profiles developed under the *Remnant Vegetation of the western Cumberland subregion, 2013 Update* assessment informed our survey design and Plant Community Type determination, as well as assessment for Endangered Ecological Community (EEC) designations.

AEP

Title: FIgure 3 - Regional Vegetation Mapping

Location: 110-112 Mount Vernon Road, Mount Vernon, NSW

Client: Key Business Accountants

Date: 30 Sept 2020

BOAMS: 22090

AEP Ref: 2091.01

1.2.4 Field Survey Results

Flora survey was undertaken by AEP in 2020 to produce a flora species list for the Subject Site, to search specifically for threatened flora species known from the wider area, and to gather data necessary to both derive vegetation community type(s) and to meet relevant survey guidelines. Such works included:

- Identification of all vascular plant species encountered during fieldwork. Subject Site coverage was both systematic to ensure all key points of the site were checked, and therein the Random Meander Technique (Cropper, 1993) was utilised to maximise species encountered.
- One (1) BAM plot was undertaken within the Subject Site. A summary of the plot data is provided in **Appendix A**.
- A full list of all flora species recorded within the Subject Site and surrounds is included as **Appendix B.**
- Targeted searches for threatened species were undertaken on 31 March 2020 using the random meander technique. Targeted flora survey tracks are shown in **Figure 4**. Given the small size of the site and vegetation present consisting of open grassland, it is considered that the site was adequately covered using this technique.

1.2.4.1 Plant Community Types (PCTs)

Regional vegetation mapping identified the Subject Site contains two Plant Community Types (PCTs), PCT 849 – Cumberland shale plains woodland and PCT 850 – Cumberland shale hills woodland. Field survey carried out by AEP identified the vegetation present to be predominantly exotic grassland, however for the purpose of this assessment it is assumed this vegetation constitutes a highly degraded form of Cumberland Plain Woodland.

Diagnostic species found on site include *Microlaena stipoides* (Weeping Grass), *Themeda australis* (Kangaroo Grass), *Carex inversa* (Knob Sedge), and *Cyperus gracilis* (Slender Flat-sedge), however these species were only present at very low densities.

Given the uniformity of vegetation on site, similarities between PCT 849 and 850, and lack of diagnostic species present, it is assumed one PCT is present. Under regional mapping PCT 850 covers the larger portion of the site, and therefore has been selected as the representative PCT for this assessment. PCT 850 forms part of the Critically Endangered Ecological Community Cumberland Plain Woodland.

<u>Non-remnant / Cleared Areas</u>

Within the Subject Site approx. 0.48ha is managed, mown or cleared with no native canopy or shrub layer.

Vegetation community mapping for the site is shown in **Figure 4**. Additional site photographs are included in **Appendix G**.

1.2.4.2 Habitat Features

No habitat features were identified on site.

1.2.5 Vegetation Integrity Assessment

1.2.5.1 Patch Size

The vegetation that exists within the Subject Site is predominantly exotic grassland and does not form part of any 'patch' of native vegetation within the Subject Site or surrounds. As such the patch size class is <5ha and entered into the BAM-C as '1'.

1.2.5.2 Vegetation Zones

One (1) native vegetation zone has been identified, as mapped in **Figure 4.**

Table 2 – Vegetation Zones

Zone	Vegetation Community	TEC	Area (ha)
1	PCT 850 – Cumberland shale hills woodland	CEEC	0.55
Total – Remnant Vegetation			**0.55**
Non-remnant / cleared areas / dams		N/A	0.48
Total			**1.03**

Plate 1 – Vegetation Zone 1 - PCT 850 (Plot 1)

AEP

Title: FIgure 4 - Plant Community Types

Date: 30 Sept 2020

Location: 110-112 Mount Vernon Road, Mount Vernon, NSW

BOAMS: 22090

Client: Key Business Accountants

AEP Ref: 2091.01

1.2.5.3 Survey Effort

One (1) vegetation plot was undertaken within the Subject Site in March 2020 (AEP).

Plot survey was undertaken as per the requirements within Table 4 of the BAM. Given the small size and disturbed nature of the site the plot was placed in the best representation of native vegetation within the site.

Field data are provided in **Appendix C** and AEP field sheets are provided in **Appendix D**. See **Figure 5** for the location of the plot.

1.2.5.4 Vegetation Integrity Score

Plot data was used to determine the composition, structure and function condition score for the zone, which informed the vegetation integrity score within the BAM-C. Plot data has been tabulated and includes corresponding scores along with the overall vegetation integrity score (**Appendix D**).

AEP

Title: FIgure 5 - Survey Effort

Location: 110-112 Mount Vernon Road, Mount Vernon, NSW

Client: Key Business Accountants

Date: 30 Sept 2020

BOAMS: 22090

AEP Ref: 2091.01

1.3 Threatened Species

Under the BAM, threatened species are classified into two types: 'Ecosystem Credit' and 'Species Credit' type species, as detailed within the BioNet Atlas Threatened Species Profile Database (OEH).

Field surveys were undertaken on the site in March 2020. A summary of survey effort within the Subject Site is described in Section 1.3.2.2 and species listed are presented in **Appendix B** and **Appendix C**.

1.3.1 Ecosystem Credit Species

Ecosystem Credit species are associated with PCTs and other habitat surrogates that are used to predict their occurrence on a particular site.

The 'biodiversity risk weighting' for a species is based on the 'sensitivity to loss' and 'sensitivity to potential gain' score using criteria listed in Appendix 7 of the BAM, and are used in credit calculations to assess impacts of the proposal on a threatened species. The sensitivity to gain class is listed within the BAM calculator for Ecosystem Credit species.

Those Ecosystem Credit species predicted to occur within the site are provided in **Table 3**.

Table 3 – Predicted threatened species (Ecosystem credits)

Scientific Name	Common Name	Sensitivity to Gain Class	Recorded within 10km (NSW BioNet Wildlife Atlas 2020) Y/N	Recorded within site or nearby surrounds Y/N
Anthochaera phrygia	Regent Honeyeater	Very High	Y	N
Artamus cyanopterus cyanopterus	Dusky Woodswallow	Moderate	Y	N
Chthonicola sagittata	Speckled Warbler	Moderate	Y	N
Climacteris picumnus victoriae	Brown Treecreeper	Moderate	N	N
Dasyurus maculatus	Spotted-tailed Quoll	High	N	N
Glossopsitta pusilla	Little Lorikeet	High	Y	N
Haliaeetus leucogaster	White-bellied Sea-Eagle	Moderate	Y	N
Lathamus discolour	Swift Parrot	Moderate	Y	N
Melanodryas cucullata cucullata	Hooded Robin (south-eastern form)	Moderate	N	N

Scientific Name	Common Name	Sensitivity to Gain Class	Recorded within 10km (NSW BioNet Wildlife Atlas 2020) Y/N	Recorded within site or nearby surrounds Y/N
Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	High	Y	N
*Miniopterus australis^*	Little Bent-winged Bat	High	N	N
*Miniopterus orianae oceanensis^*	Large Bent-winged Bat	High	Y	N
Petroica boodang	Scarlet Robin	Moderate	N	N
Petroica phoenicea	Flame Robin	Moderate	Y	N
Phascolarctos cinereus	Koala	High	Y	N
Pteropus poliocephalus	Grey-headed Flying-fox	High	Y	N
Stagonopleura guttata	Diamond Firetail	Moderate	N	N

^ Habitat surrogates relating to Ecosystem Credits relevant for foraging habitat only

1.3.2 Species Credit Species

In addition to the above, the Calculator identifies Species Credit species that have the potential to occur within the development site. Due to the highly disturbed nature of the site and dominance by exotic species, which is expressed in the low VI score (1.7), the habitat suitability for threatened species to occur on site is considered extremely low. Therefore, an assessment of habitat suitability for Species Credit species is not required under Section 3.1.1.3 of the BAM. As such, habitat for predicted Species Credit species has been checked as degraded in the Calculator in accordance with 6.4.1.17 of the BAM, and no candidate species requiring targeted survey were generated.

1.3.2.1 Threatened Species Survey Effort

The overall survey effort within the Subject Site is detailed in **Tables 4**, and was conducted using relevant guidelines, in particular OEH survey guidelines for plants (2016), along with applicable EPBC guidelines (2010; 2011). Survey effort is shown in **Figure 5**.

Table 4 – Field Survey Effort – Subject Site

Date	Time	Activity	No. of Persons on Site
31/03/2020	10:00 – 14:30	Site reconnaissance, BAM plot, general observations.	1

1.3.2.2 Species Presence

As mentioned in Section 1.3.2, no Species Credit species were identified as requiring targeted surveys to determine presence due to the habitat on site being degraded.

As mentioned above in 1.3.2, poor conditions on site generated a very low VI score (1.7), and no candidate species were generated within the BAM-C as requiring targeted searches. As such targeted flora transects were not undertaken to meet BAM guidelines. The traverses undertaken did not exceed 20m, and averaged at approximately 14m apart for the whole site, and approximately 12m within the development footprint. Therefore, the survey effort is considered adequate for the purposes of this assessment.

In addition, no threatened species were recorded within the Subject Site (this survey, previous surveys, Atlas records, anecdotal records) which would require impact offsetting.

2.0 Stage 2 – Impact Assessment (Biodiversity Values)

Section 8 of the BAM provides a list of measures that need to be taken into consideration during project planning and design, to minimise impacts upon native vegetation, habitat and other prescribed biodiversity values. Applicable measures taken as part of this project to minimise impacts are provided below.

The avoid and minimise strategy for the development (in accordance with Section 8 of the BAM), is discussed in greater detail in **Table 5** below.

The prescribed impact risk assessment and mitigation measures (in accordance with Section 9 of the BAM) are included in **Table 6** below.

2.1 Avoid and Minimise Impacts

2.1.1 Project Design, Construction & Operation

The following measures are provided to help mitigate impacts of the construction and ongoing operation of the proposed development on the biodiversity values identified within the Subject Site and surrounds. Given that the Subject Site is highly disturbed and lacking any native vegetation structure, avoidance measures are limited as the biodiversity value of the site and immediate surrounds is negligible.

- Fencing around the Subject Site is to be erected during the construction phase to limit incursions of fauna and delineate the boundary of clearing works;
- Where possible native landscaping is to occur in conjunction with the proposed development;
- Implement hygiene protocols for machinery to prevent the spread of weeds outside the development site; and
- Best practice erosion and sedimentation (ERSED) and dust suppression control methods are to be adopted, enforced and maintained throughout any vegetation clearing works. Such are to be in accordance with "Soils and Construction – Managing Urban Stormwater" published by Landcom.

No further site-specific avoidance measures (as listed within Section 8.1 and 9.3 of the BAM) are proposed for the project.

Table 5 – Impact avoidance and minimisation

Locating a Project to Avoid and Minimise Impacts on Native Vegetation and Habitat	
Objectives/Requirements	**Evidence of compliance**
Project location decisions should be informed by knowledge of biodiversity values. The assessment requirements set out in Stage 1 of the BAM may be used to provide an initial desktop assessment of biodiversity values for early consideration in planning the route or location of a project.	Zoning of the Subject Site is E4 – Environmental Living. A childcare centre is a permitted use in this zone. The Subject Site is already highly modified in a disturbed state, with negligible biodiversity value.
Final selection of project location may be an iterative process. Location decisions may need to be revisited when all field surveys have been completed.	As discussed above, the Subject Site is highly modified, which is expressed in the field data collected and resulting low Vegetation Integrity score for the site (1.7). Therefore, the location of the proposed childcare centre is considered to be environmentally optimal in the context of the broader locality.
Direct impacts on clearing of native vegetation and habitat can be avoided and minimised by: *(a) locating the project in areas where there are no biodiversity values* *(b) locating the project in areas where the native vegetation or threatened species habitat is in the poorest condition (i.e. areas that have a lower vegetation integrity score)* *(c) locating the project in areas that avoid habitat for species that have a high biodiversity risk weighting or native vegetation that is a critically endangered ecological community (CEEC) or an endangered ecological community (EEC)* *(d) locating the project such that connectivity enabling movement of species and genetic material between areas of adjacent or nearby habitat is maintained.*	a) As reflected in the VI score, the site contains negligible biodiversity values. b) No threatened species or potential habitat was identified on site. c) As above. d) The site does not contain any connectivity value.
In selecting a project location, the following should be addressed, as they apply to the project:	a) The site contains negligible biodiversity value, as reflected in the low VI score, therefore analysis of alternatives to minimise impacts is not applicable. b) As above c) As mentioned above the site contains negligible biodiversity value, which is reflected in the low VI score. Therefore in the context of the locality, impacts to biodiversity have been avoided, and selection of location is

(a) an analysis of alternative modes or technologies that would avoid or minimise impacts on biodiversity values and justification for selecting the proposed mode or technology *(b) an analysis of alternative routes that would avoid or minimise impacts on biodiversity values and justification for selecting the proposed route* *(c) an analysis of alternative locations that would avoid or minimise impacts on biodiversity values and justification for selecting the proposed location* *(d) an analysis of alternative sites within a property on which the project is proposed that would avoid or minimise impacts on biodiversity values and justification for selecting the proposed site.*	deemed suitable to address avoid and minimise principals. No alternatives site were investigated as the site is owned by the proponent, therefore no other sites were considered. d) The site contains negligible biodiversity value, as reflected in the low VI score, therefore analysis of alternatives within the site was not considered necessary.
Justifications for project location decisions should identify any other site constraints that the proponent has considered in determining the location and design of the project, e.g. bushfire protection requirements including clearing for asset protection zones, flood planning levels, servicing constraints.	No other constraints were identified for the site.
Actions taken to avoid and minimise impacts through locating the project, or selecting the land to be biodiversity certified must be documented and justified in the BDAR or BCAR.	As above.
Designing a Project to Avoid and Minimise Impacts on Native Vegetation and Habitat	
Project design, including the location of temporary and permanent ancillary construction and maintenance facilities, should avoid and minimise clearing of native vegetation and habitat by: *(a) reducing the clearing footprint of the project* *(b) locating ancillary facilities in areas where there are no biodiversity values* *(c) locating ancillary facilities in areas where the native vegetation or threatened species habitat is in the poorest condition (i.e. areas that have a lower vegetation integrity score)* *(d) locating ancillary facilities in areas that avoid habitat for species and vegetation in high threat status categories (e.g. an EEC or CEEC)* *(e) providing structures to enable species and genetic material to move across barriers or hostile gaps*	a) – d) The site contains negligible biodiversity value, as reflected in the low VI score, therefore the site was deemed appropriate for development. e) – f) As mentioned above the site is already disconnected from larger areas of continuous vegetation as a result of surrounding development. Therefore, there is little value in providing structures or undertaking ecological restoration on site. Native landscaping will be undertaken, which will improve the vegetation structure currently present on site.

(f) making provision for the demarcation, ecological restoration, rehabilitation and/or ongoing maintenance of retained native vegetation habitat on the development site.	
Efforts to avoid and minimise impacts through design must be documented and justified in the BDAR or BCAR.	As above.

Table 6 – Prescribed impact avoidance and minimisation

Avoiding and Minimising Prescribed Biodiversity Impacts during Project Planning	
Objectives/Requirements	**Evidence of compliance**
Some types of projects may have impacts on biodiversity values in addition to, or instead of, impacts from clearing vegetation and/or loss of habitat. For many of these impacts, the biodiversity values may be difficult to quantify, replace or offset, making avoiding and minimising impacts critical.	No biodiversity values in addition to those noted in the BDAR as being subject to direct, indirect or prescribed impacts were identified for the Subject DA Footprint. Direct, indirect and prescribed impacts are considered in **Section 2.2** of the BDAR.
The BC Regulation (clause 6.1) identifies actions that are prescribed as impacts to be assessed under the biodiversity offsets scheme: *(a) impacts of development on the habitat of threatened species or ecological communities associated with:* *(i) karst, caves, crevices, cliffs and other geological features of significance, or* *(ii) rocks, or* *(iii) human made structures, or* *(iv) non-native vegetation* *(b) impacts of development on the connectivity of different areas of habitat of threatened species that facilitates the movement of those species across their range* *(c) impacts of development on movement of threatened species that maintains their life cycle* *(d) impacts of development on water quality, water bodies and hydrological processes that sustain threatened species and threatened ecological communities (including from subsidence or upsidence resulting from underground mining)* *(e) impacts of wind turbine strikes on protected animals* *(f) impacts of vehicle strikes on threatened species or on animals that are part of a TEC.*	a) The Subject DA: (i) Does not contain karsts, caves, crevices, cliffs, rocks and other features of geological significance supporting threatened species and ecological communities; (ii) Does not contain rocks supporting habitat for threatened species and ecological communities; (iii) Does not contain human made structures containing habitat for threatened species and ecological communities; (iv) Does not contain non-native vegetation supporting threatened species and ecological communities. b) It is considered that the vegetation within the Subject Site would not provide meaningful connectivity in the locality. c) As above d) No hydrological considerations are relevant to the site or immediate surrounds. e) Wind turbines are not a feature of the development proposed. f) It is not predicted that the development will increase traffic such that the risk of vehicle strike is increased in the locality.

Locating a Project to Avoid and Minimise Prescribed Biodiversity Impacts	
Objectives/Requirements	**Evidence of compliance**
Prescribed biodiversity impacts can be avoided and minimised by: *(a) locating the envelope of surface works to avoid direct impacts on the habitat features identified in Paragraph 8.2.1.2* *(b) locating the envelope of sub-surface works, both in the horizontal and vertical plane, to avoid and minimise operations beneath the habitat features identified in Paragraph 8.2.1.2, e.g. locating longwall panels away from geological features of significance or water dependent plant communities and their supporting aquifers* *(c) locating the project to avoid severing or interfering with corridors connecting different areas of habitat, migratory flight paths to important habitat or local movement pathways* *(d) optimising project layout to minimise interactions with threatened species and ecological communities, e.g. designing turbine layout to allow buffers around features that attract and support aerial species, such as forest edges, riparian corridors and wetlands, ridgetops and gullies* *(e) locating the project to avoid direct impacts on water bodies.*	a) The Subject DA envelope: (i) Does not contain karsts, caves, crevices, cliffs, rocks and other features of geological significance supporting threatened species and ecological communities; (ii) Does not contain rocks supporting habitat for threatened species and ecological communities; (iii) Does not contain human made structures containing habitat for threatened species and ecological communities; (iv) Does not contain non-native vegetation supporting threatened species and ecological communities; As described in Section 8.2.1.2 (b & c) of the BAM and above, connectivity for threatened species on site is negligible. As described in Section 8.2.1.2 (e) of the BAM and above, wind turbines are not a feature of the development proposed. As described in Section 8.2.1.2 (f) of the BAM and above, it is not predicted that the development will increase traffic such that the risk of vehicle strike is increased in the locality. b) Given the nature of the development, consideration of sub-surface works and their impacts to habitat features is deemed unnecessary. c) As discussed above threatened fauna species are not predicted to utilise the site and therefore considered unlikely that movement throughout the landscape will be hindered by the proposed development. d) As above. e) The proposed design will not impact any waterbody.
In selecting a project location, the following should be addressed, as they apply to the project: *(a) an analysis of alternative modes or technologies that would avoid or minimise prescribed biodiversity impacts and justification for selecting the proposed mode or technology* *(b) an analysis of alternative routes that would avoid or minimise prescribed biodiversity impacts and justification for selecting the proposed route* *(c) an analysis of alternative locations that would avoid or minimise prescribed biodiversity impacts and justification for selecting the proposed location*	a) – d) The site contains negligible biodiversity value, as reflected in the low VI score, therefore the site was deemed appropriate for development and analysis of alternatives not applicable.

(d) an analysis of alternative sites within a property on which the project is proposed that would avoid or minimise prescribed biodiversity impacts and justification for selecting the proposed site.	
Justifications for project location decisions should identify any other site constraints that the proponent has considered in determining the location and design of the project, e.g. bushfire protection requirements including clearing for asset protection zones, flood planning levels, servicing constraints.	No other constraints were identified for the site.
Efforts to avoid and minimise impacts through locating the project must be documented and justified in the BDAR or BCAR.	Refer to **Section 2.1** of the BDAR.

Designing a Project to Avoid and Minimise Prescribed Biodiversity Impacts	
Objectives/Requirements	**Evidence of compliance**
Prescribed biodiversity impacts can be avoided and minimised by: *(a) engineering solutions, e.g. proven techniques to minimise fracturing of bedrock underlying features of geological significance, water dependent communities and their supporting aquifers, proven engineering solutions to restore connectivity and favoured movement pathways* *(b) design of project elements to minimise interactions with threatened and protected species and ecological communities, e.g. designing turbines to dissuade perching and minimise the diameter of the rotor swept area, designing fencing to prevent animal entry to transport corridors* *(c) design of the project to maintain environmental processes critical to the formation and persistence of habitat features not associated with native vegetation* *(d) design of the project to maintain hydrological processes that sustain threatened species and TECs* *(e) design of the project to avoid and minimise downstream impacts on rivers, wetlands and estuaries by control of the quality of water released from the site.*	a)– e) It is considered unlikely given the nature of the development that engineering solutions would be required to avoid prescribed impacts to hydrology or underlying geology. No wind turbines are proposed.
Efforts to avoid and minimise impacts through design must be documented and justified in the BDAR or BCAR.	Refer to **Section 2.1** of the BDAR.

2.2 Assessment of Impacts

As per section 9 of the BAM, impacts on native vegetation and habitat and prescribed biodiversity impacts are to be assessed, and mitigation and management measures identified.

As stated above the biodiversity value of the site is negligible, and therefore the proposal would not result in any direct, prescribed, indirect or residual impacts requiring additional mitigation measures to those already discussed in Section 2.1.1.

2.3 Impact Summary

Credit requirements were quantified via the input of the site data and impacts detailed above within the BAM Calculator. Both desktop (GIS) and fieldwork data were entered into the Calculator to determine the number of credits required to offset the impacts of the development.

2.3.1 Serious and Irreversible Impacts (SAIIs)

PCT 850 is listed as a candidate SAII, however due to the very low VI score of vegetation present on site, reflecting the degraded state of the vegetation community, no further consideration is required in accordance with Section 3.1.1.3 of the BAM.

The site does not intersect any areas mapped as important habitat for SAII species Swift Parrot or Regent Honeyeater (refer to **Appendix I**). No SAII species were observed within the Subject Site.

2.3.2 Impacts requiring offset

2.3.2.1 Ecosystem Credits

As per Section 3.1.1.3 of the BAM, the vegetation representative of a critically endangered ecological community with a VI score of <15 does not require assessment for offsets. The VI score of vegetation present within the Subject Site was calculated to be 1.7, therefore removal of this vegetation does not require offsetting and no credits were generated within the BAM Calculator.

2.3.2.2 Species Credits

The mapped vegetation within the Subject Site generated a low VI score (1.7) within the Calculator, therefore the habitat suitability for threatened species to occur on site is considered extremely low. In accordance with Section 3.1.1.3 of the BAM, no further assessment of habitat suitability for Species Credit species is required. As such, habitat for predicted Species Credit species has been checked as degraded in the Calculator in accordance with 6.4.1.17 of the BAM, and no credits were generated.

2.3.3 Areas not requiring assessment

As mentioned above, no further assessment is required for offsets in accordance with Section 3.1.1.3 of the BAM.

2.4 Biodiversity Credit Report

The Biodiversity Credit Report generated within the BAM Calculator is provided in **Appendix F**.

3.0 Conclusion

Application of the BAM against the proposal has quantified current biodiversity values within the Subject Site and calculated offset requirements for residual impacts following avoid and mitigation efforts.

Regional vegetation determined PCT 850 to potentially occur on site. Site assessment revealed this vegetation to be in a highly degraded state, predominantly exotic grassland.

As a result, the BAM Calculator determined that no biodiversity credits are required to offset the proposal.

The full biodiversity credit report is attached as **Appendix F**.

4.0 References

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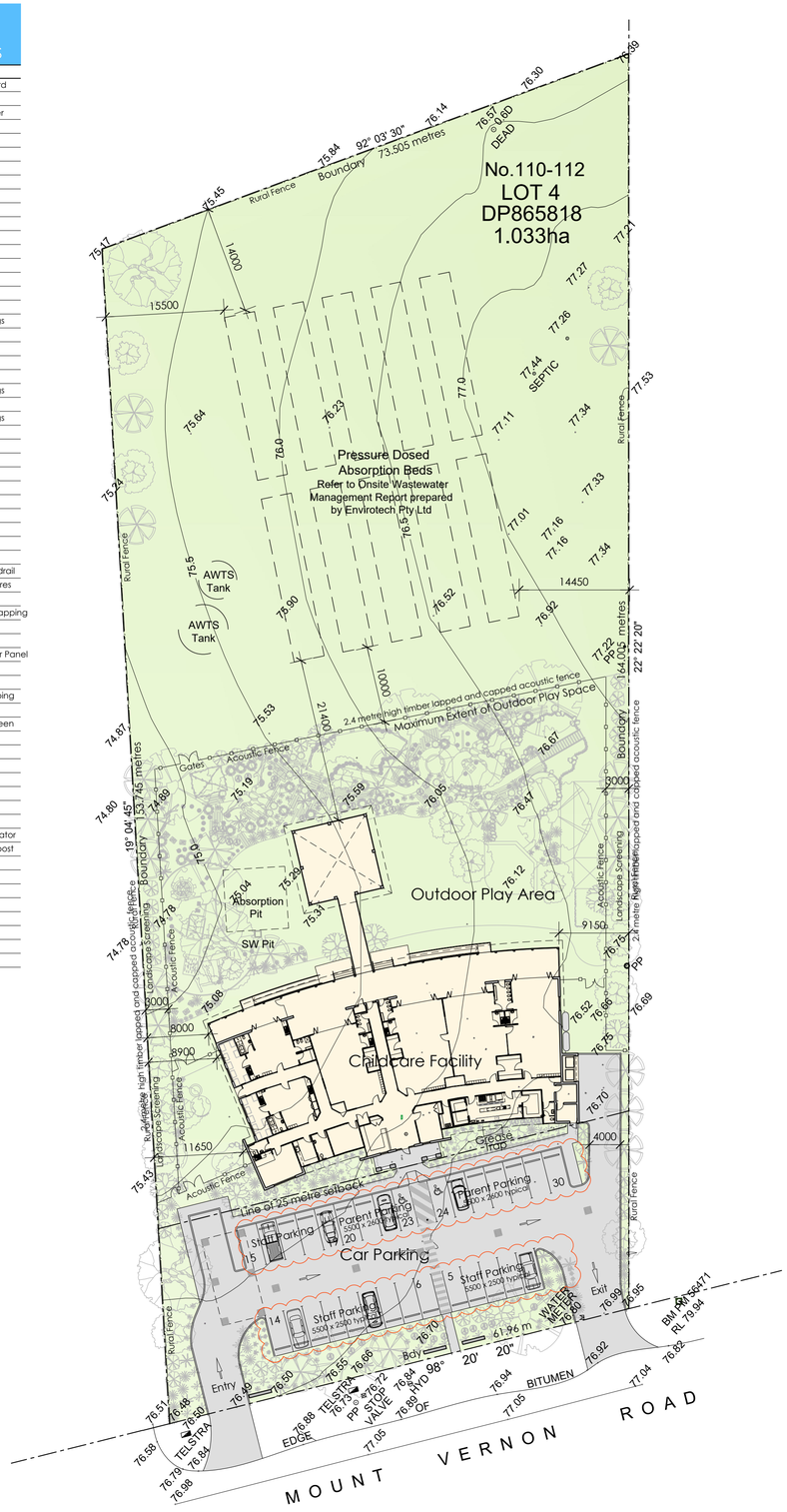
Appendix A – Development Plan

ABBREVIATIONS

Abbr.	Description
B.01	Colorbond Metal Barge Board
BB.01	Stainless steel baby bath
BBS	Electrical Baby Bottle Sanitiser
BAL.01	Select Glazed Balustrade
BG.01	Zincalume Box Gutter
BSN.01	Select Wall Basin
BSN.02	Select Wall Basin
BSN.03	Select Wall Basin
BSN.04	Hands Free Wall Basin
CON.01	Concrete driveway
CPD	Cupboard with benchtop
CRP.01	Cool Room Wall Panel
DK.01	'Modwood' Eco Decking
F.01	Colorbond Metal Fascia
FC.01	Paint Finish to FC Cladding
FCE.01	Decorative Timber Fence
FF.01	Select Vinyl Floor Coverings
FF.02	Select Carpet Floor Coverings
FF.03	Select Floor Tiles
FF.04	Select Floor Tiles
FF.05	Select Vinyl Floor Coverings
FF.06	Select Floor Tiles
FF.07	Select Carpet Floor Coverings
FF.08	Select Vinyl Floor Coverings
FF.09	Select Carpet Floor Coverings
FF.10	Select Vinyl Floor Coverings
FF.11	Select Floor Tiles
FF.12	Select Vinyl Floor Coverings
FF.13	Select Vinyl Floor Coverings
FF.14	Select Vinyl Floor Coverings
FF.15	Select Vinyl Floor Coverings
FF.16	Select Vinyl Floor Coverings
FF.17	Select Vinyl Floor Coverings
FF.18	Select Epoxy Floor Sealer
G.01	Colorbond Metal Gutter
HR.01	Powdercote Aluminium Handrail
LV.01	Powdercote Aluminium Louvres
OHC	Overhead cupboard
PC.01	Colorbond Metal Parapet Capping
PP.01	Laminate Toilet Partitions
PP.02	Laminate Toilet Partitions
PRP.01	Acratex finish to Hebel Power Panel
PWP	Existing power pole
R.01	Colorbond Metal Roof
RC.01	Colorbond metal ridge capping
RS.01	Colorbond roller shutter
SCN.01	'Modwood' Eco Decking Screen
SH.01	Free standing metal shelves
SL.01	Alum Framed Glass Skylight
SLH.01	Slop Hopper
SSS.01	Stainless Steel Sink
SSS.02	Stainless Steel Sink
STC.01	Stone Cladding
TBR.01	'Weathergroove' cladding
TGSI	Tactile Ground Surface Indicator
TP.01	Merbau timber cladding to post
TUB.01	Stainless Steel inset tub
VB.01	Accessible Vanity Basin
VB.02	Vanity Basin
WC.01	Junior Toilet Suite
WC.02	Toilet Suite
WC.03	Accessible Toilet Suite
WM	Washing machine space
WST.01	Stainless Steel Wash Trough



SITE PLAN
SCALE 1 : 400

PART SITE PLAN
SCALE 1 : 200

SCALE - 1:200 @ A1
0 1 2 3 4 5 10 METRES

SITE STATISTICS

Site Zoning -	E4 - Environmental Living	
Total Site Area.	10,330 sqm - 1.033 Ha	
Built Upon Area		
Ground Floor Level		798.0 sqm
Verandah		207.8 sqm
Gazebo & Boardwalk		128.7 sqm
Paving and Driveway		1058.0 sqm
Total Built Upon Area		2192.5 sqm
Planning Perameters		
Landscaped Area		8090.0 sqm
Total Site Coverage		1182.0 sqm
Item	Required	Provided
Site Coverage		11.4 %
Gross Floor Area (Previously approved)	600sqm	751.5sqm (891.6sqm)
Floor Space Ratio	N/A	0.0727 : 1
Soft Landscaping		78.3%
Parking		
Parent Car Spaces (Spaces 20-30)	10	11
Staff Car Spaces (Spaces 1-19)	19	19
Total Spaces	29	30

PLAY SPACE AREAS

Indoor Space	Unencumbered Area	No. of Children
Room 1	27.0sqm	8
Room 2	32.2sqm	8
Room 3	65.2sqm	20
Room 4	75.0sqm	20
Room 5	72.0sqm	20
Room 6	72.6sqm	20
Total	344.0sqm	96
Outdoor Space		
Baby Play Area	130.0sqm	Refer
Verandah	207.0 sqm	to
Gazebo and Boardwalk	128.0 sqm	P.O.M.
General Play Area	1795.0sqm	
Total	1316.0sqm	

P.O.M. = Plan of Management

AMENDMENTS

Issue	Description	Date	By
A	Carpark layout amended	10.03.20	GM
	Parking table updated		

Development Application

PROJECT WORKS DESIGN
Project Works Design Pty Ltd
ABN 97 108 707 482
a. p.o. box 5138
chittaway bay nsw 2261
p. 0412 637 875
admin@pwdesign.com.au
www.pwdesign.com.au

Rev Date Description
Amendments

Vladimir Vanovac and Mark Toma

Proposed Childcare Centre

110 - 112 Mount Vernon Road Mount Vernon NSW

North Point

Title: Proposed Site Plan
Drawn: GM
Date: 14.11.19
Checked: GM
Scale: 1 : 500 / 1:200 @A1
Dwg No. DA01
Job No. 18307
Issue: A

Appendix B – Expected Fauna Species List

EXPECTED FAUNA SPECIES LIST

The following list includes fauna species that could be reasonably expected to occur on the study site at some point, given site attributes and location.

"●" - species observed or indicated by scats, tracks etc. on, over or near the site during recent surveys by AEP (2020).

* - Introduced species

? - Unconfirmed record, anecdotal records etc.

Threatened species listed under the *Biodiversity Conservation Act* 2016 (BC Act) or the *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) are indicated in **bold font**.

Family Name		Scientific Name	Common Name
Amphibians			
Hylidae		*Litoria fallax*	Eastern Dwarf Tree Frog
Hylidae		*Litoria peronii*	Peron's Tree Frog
Hylidae		*Litoria phyllochroa*	Leaf-green Tree Frog
Hylidae		*Litoria tyleri*	Tyler's Tree Frog
Hylidae		*Litoria verreauxii*	Verreaux's Frog
Myobatrachidae		*Crinia signifera*	Common Eastern Froglet
Myobatrachidae		*Limnodynastes peronii*	Brown-striped Frog
Reptiles			
Agamidae		*Intellagama lesueurii*	Eastern Water Dragon
Agamidae		*Intellagama lesueurii lesueurii*	Eastern Water Dragon
Agamidae		*Pogona barbata*	Bearded Dragon
Elapidae		*Hemiaspis signata*	Black-bellied Swamp Snake
Elapidae		*Notechis scutatus*	Tiger Snake
Elapidae		*Pseudechis porphyriacus*	Red-bellied Black Snake
Elapidae		*Pseudonaja textilis*	Eastern Brown Snake
Pythonidae		*Morelia spilota spilota*	Diamond Python
Scincidae		*Eulamprus quoyii*	Eastern Water-skink
Scincidae		*Eulamprus tenuis*	Barred-sided Skink
Scincidae		*Lampropholis delicata*	Dark-flecked Garden Sunskink
Scincidae		*Tiliqua scincoides*	Eastern Blue-tongue
Varanidae		*Varanus varius*	Lace Monitor
Birds			
Acanthizidae		*Acanthiza nana*	Yellow Thornbill
Acanthizidae		*Acanthiza pusilla*	Brown Thornbill
Acanthizidae		*Gerygone olivacea*	White-throated Gerygone
Acanthizidae		*Sericornis frontalis*	White-browed Scrubwren
Accipitridae		*Aquila audax*	Wedge-tailed Eagle
Accipitridae		*Haliastur sphenurus*	Whistling Kite
Alcedinidae		*Dacelo novaeguineae*	Laughing Kookaburra
Anhingidae		*Anhinga novaehollandiae*	Australasian Darter
Apodidae		*Apus pacificus*	Fork-tailed Swift
Ardeidae		*Ardea ibis*	Cattle Egret
Ardeidae		*Ardea pacifica*	White-necked Heron
Ardeidae		*Egretta garzetta*	Little Egret
Ardeidae		*Egretta novaehollandiae*	White-faced Heron
Artamidae		*Cracticus nigrogularis*	Pied Butcherbird

Family Name		Scientific Name	Common Name
Artamidae		*Cracticus tibicen*	Australian Magpie
Artamidae		*Cracticus torquatus*	Grey Butcherbird
Artamidae		*Strepera graculina*	Pied Currawong
Cacatuidae		*Cacatua galerita*	Sulphur-crested Cockatoo
Cacatuidae		*Cacatua sanguinea*	Little Corella
Cacatuidae		*Eolophus roseicapillus*	Galah
Charadriidae		*Vanellus miles*	Masked Lapwing
Columbidae		*Geopelia striata*	Peaceful Dove
Columbidae		*Ocyphaps lophotes*	Crested Pigeon
Corcoracidae		*Corcorax melanorhamphos*	White-winged Chough
Corvidae		*Corvus coronoides*	Australian Raven
Cuculidae		*Cacomantis pallidus*	Pallid Cuckoo
Cuculidae		*Chalcites basalis*	Horsfield's Bronze-Cuckoo
Cuculidae		*Eudynamys orientalis*	Eastern Koel
Cuculidae		*Scythrops novaehollandiae*	Channel-billed Cuckoo
Estrildidae		*Neochmia temporalis*	Red-browed Finch
Hirundinidae		*Hirundo neoxena*	Welcome Swallow
Laridae		*Chroicocephalus novaehollandiae*	Silver Gull
Maluridae		*Malurus cyaneus*	Superb Fairy-wren
Megaluridae		*Megalurus gramineus*	Little Grassbird
Megaluridae		*Megalurus timoriensis*	Tawny Grassbird
Meliphagidae		*Acanthorhynchus tenuirostris*	Eastern Spinebill
Meliphagidae		*Anthochaera chrysoptera*	Little Wattlebird
Meliphagidae		*Manorina melanocephala*	Noisy Miner
Meliphagidae		*Manorina melanophrys*	Bell Miner
Meliphagidae		*Nesoptilotis leucotis*	White-eared Honeyeater
Meliphagidae		*Philemon corniculatus*	Noisy Friarbird
Monarchidae		*Grallina cyanoleuca*	Magpie-lark
Pardalotidae		*Pardalotus punctatus*	Spotted Pardalote
Pardalotidae		*Pardalotus striatus*	Striated Pardalote
Passeridae		*Passer domesticus**	House Sparrow
Pelecanidae		*Pelecanus conspicillatus*	Australian Pelican
Petroicidae		*Petroica rosea*	Rose Robin
Podargidae		*Podargus strigoides*	Tawny Frogmouth
Psittacidae		*Platycercus elegans*	Crimson Rosella
Psittacidae		*Platycercus eximius*	Eastern Rosella
Psittacidae		*Trichoglossus haematodus*	Rainbow Lorikeet
Psophodidae		*Psophodes olivaceus*	Eastern Whipbird
Ptilonorhynchidae		*Ptilonorhynchus violaceus*	Satin Bowerbird

Family Name		Scientific Name	Common Name
Rhipiduridae		*Rhipidura albiscapa*	Grey Fantail
Rhipiduridae		*Rhipidura leucophrys*	Willie Wagtail
Strigidae		*Ninox novaeseelandiae*	Southern Boobook
Sturnidae		*Sturnus tristis**	Common Myna
Sturnidae		*Sturnus vulgaris**	Common Starling
Timaliidae		*Zosterops lateralis*	Silvereye
Mammals			
Bovidae		*Bos taurus**	European cattle
Bovidae		*Capra hircus**	Goat
Bovidae		*Ovis aries**	Sheep (feral)
Canidae		*Canis lupus**	Dingo, domestic dog
Canidae		*Canis lupus familiaris**	Dog
Canidae		*Vulpes vulpes**	Fox
Cervidae		*Cervus elaphus**	Red Deer
Equidae		*Equus asinus**	Donkey
Equidae		*Equus caballus**	Horse
Felidae		*Felis catus**	Cat
Leporidae		*Lepus capensis**	Brown Hare
Leporidae		*Oryctolagus cuniculus**	Rabbit
Macropodidae		*Macropus giganteus*	Eastern Grey Kangaroo
Macropodidae		*Wallabia bicolor*	Swamp Wallaby
Molossidae		*Austronomus australis*	White-striped Freetail-bat
Molossidae		*Mormopterus ridei*	Eastern Free-tailed Bat
Muridae		*Mus musculus**	House Mouse
Muridae		*Rattus fuscipes*	Bush Rat
Muridae		*Rattus rattus**	Black Rat
Petauridae		*Petaurus breviceps*	Sugar Glider
Phalangeridae		*Trichosurus vulpecula*	Common Brushtail Possum
Pseudocheiridae		*Pseudocheirus peregrinus*	Common Ringtail Possum
Tachyglossidae		*Tachyglossus aculeatus*	Short-beaked Echidna
Vespertilionidae		*Nyctophilus geoffroyi*	Lesser Long-eared Bat
Vespertilionidae		*Nyctophilus gouldi*	Gould's Long-eared Bat

Appendix C – BAM Plot Field Data & Flora Species List

BAM Plot Field Data

HTE – High Threat Exotic
* - Introduced species

Family	Scientific Name	Common Name	BAM Growth Form	HTE	Plot 1
Amaranthaceae	*Alternanthera denticulata*	Lesser Joyweed	Forb		0.1
Anthericaceae	*Tricoryne elatior*	Yellow Rush Lily	Forb		0.1
Asteraceae	*Bidens pilosa**	Cobbler's Pegs	nil - exotic	Y	0.1
Asteraceae	*Cirsium vulgare**	Spear Thistle	nil - exotic		0.1
Asteraceae	*Hypochaeris radicata**	Flatweed	nil - exotic		0.1
Asteraceae	*Senecio madagascariensis**	Fireweed	nil - exotic	Y	0.1
Asteraceae	*Sonchus oleraceus**	Common Sow-thistle	nil - exotic		0.1
Chenopodiaceae	*Einadia hastata*	Berry Saltbush	Forb		0.1
Cyperaceae	*Carex inversa*	Knob Sedge	Sedge		0.1
Cyperaceae	*Cyperus gracilis*	Slender Flat Sedge	Sedge		0.1
Cyperaceae	*Cyperus rotundus**	Nutgrass	nil - exotic		0.3
Cyperaceae	*Cyperus sesquiflorus**		nil - exotic		0.1
Fabaceae	*Glycine clandestina*	Twining Glycine	Vine		0.1
Fabaceae	*Wisteria sinensis**	Chinese wisteria			0.3
Lamiaceae	*Stachys arvensis**	Stagger Weed			0.1
Malvaceae	*Modiola caroliniana**	Red-flowered Mallow	nil - exotic		0.1
Malvaceae	*Sida rhombifolia**	Paddy's Lucerne	nil - exotic		0.3
Meliaceae	*Melia azedarach*	White Cedar	Tree		0.3
Myrtaceae	*Eucalyptus sp.*		Tree		0.1
Oxalidaceae	*Oxalis corniculata subsp. corniculata**				0.1

Family	Scientific Name	Common Name	BAM Growth Form	HTE	Plot 1
Poaceae	*Cenchrus clandestinum**	Kikuyu	nil - exotic	Y	27
Poaceae	*Chloris virgata**	Feathertop Rhodes Grass			0.1
Poaceae	*Cynodon sp.**		nil - exotic		5
Poaceae	*Digitaria ciliaris**	Summer Grass	nil - exotic		0.3
Poaceae	*Eragrostis mexicana**	Mexican Lovegrass	nil - exotic		0.1
Poaceae	*Microlaena stipoides*	Weeping Grass	Other Grass		0.2
Poaceae	*Paspalidium distans*		Tussock Grass		0.2
Poaceae	*Paspalum dilatatum**	Paspalum	nil - exotic	Y	10
Poaceae	*Setaria parviflora**	Slender Pigeon Grass	nil - exotic		10
Poaceae	*Sporobolus fertilis**	Giant Parramatta Grass	nil - exotic	Y	0.1
Poaceae	*Stenotaphrum secundatum**	Buffalo Grass	nil - exotic	Y	10
Poaceae	*Themeda australis*	Kangaroo Grass	Tussock Grass		0.1
Polygonaceae	*Rumex crispus**	Curled Dock	nil - exotic		0.1
Primulaceae	*Lysimachia arvensis**	Scarlet Pimpernel	nil - exotic		0.1
Rubiaceae	*Richardia stellaris**		nil - exotic		0.1
Solanaceae	*Solanum sisymbriifolium**		nil - exotic		0.3
Verbenaceae	*Verbena bonariensis**	Purpletop	nil - exotic		0.1

Flora Species List

Family Name	Scientific Name	Common Name
Alliaceae	*Nothoscordum borbonicum**	Onion Weed
Amaranthaceae	*Alternanthera denticulata*	Lesser Joyweed
Anthericaceae	*Tricoryne elatior*	Yellow Rush Lily
Asteraceae	*Bidens pilosa**	Cobbler's Pegs
Asteraceae	*Cirsium vulgare**	Spear Thistle
Asteraceae	*Conyza bonariensis**	Flax-leaf Fleabane
Asteraceae	*Hypochaeris radicata**	Flatweed
Asteraceae	*Senecio madagascariensis**	Fireweed
Asteraceae	*Sonchus oleraceus**	Common Sow-thistle
Chenopodiaceae	*Einadia hastata*	Berry Saltbush
Cyperaceae	*Carex inversa*	Knob Sedge
Cyperaceae	*Cyperus gracilis*	Slender Flat Sedge
Cyperaceae	*Cyperus rotundus**	Nutgrass
Cyperaceae	*Cyperus sesquiflorus**	
Cyperaceae	*Fimbristylis dichotoma*	Common Fringe-rush
Euphorbiaceae	*Triadica sebifera**	Chinese Tallowood
Fabaceae	*Glycine clandestina*	Twining Glycine
Fabaceae	*Wisteria sinensis**	Chinese wisteria
Lamiaceae	*Stachys arvensis**	Stagger Weed
Liliaceae	*Chlorophytum comosum**	Spider Plant
Lythraceae	*Lagerstroemia indica**	Crepe Myrtle
Malvaceae	*Modiola caroliniana**	Red-flowered Mallow
Malvaceae	*Sida rhombifolia**	Paddy's Lucerne
Meliaceae	*Melia azedarach*	White Cedar
Myrtaceae	*Callistemon salignus*	Willow Bottlebrush
Myrtaceae	*Eucalyptus sp.*	
Oxalidaceae	*Oxalis corniculata subsp. corniculata**	
Poaceae	*Cenchrus clandestinum**	Kikuyu
Poaceae	*Chloris truncata*	Windmill Grass
Poaceae	*Chloris virgata**	Feathertop Rhodes Grass
Poaceae	*Cynodon sp.**	Couch
Poaceae	*Digitaria ciliaris**	Summer Grass
Poaceae	*Eleusine tristachya**	Goose Grass
Poaceae	*Eragrostis brownii*	Brown's Lovegrass
Poaceae	*Eragrostis mexicana**	Mexican Lovegrass
Poaceae	*Eriochloa australiensis*	Australian Cupgrass
Poaceae	*Microlaena stipoides*	Weeping Grass
Poaceae	*Paspalidium distans*	
Poaceae	*Paspalum dilatatum**	Paspalum
Poaceae	*Setaria parviflora**	Slender Pigeon Grass
Poaceae	*Sorghum halepense**	Johnson Grass
Poaceae	*Sporobolus africanus**	Parramatta Grass
Poaceae	*Sporobolus fertilis**	Giant Parramatta Grass
Poaceae	*Stenotaphrum secundatum**	Buffalo Grass
Poaceae	*Themeda australis*	Kangaroo Grass
Polygonaceae	*Rumex crispus**	Curled Dock
Portulacaceae	*Portulaca oleracea*	Purslane
Primulaceae	*Lysimachia arvensis**	Scarlet Pimpernel

Family Name	Scientific Name	Common Name
Rubiaceae	*Richardia stellaris**	
Solanaceae	*Solanum sisymbriifolium**	
Verbenaceae	*Verbena bonariensis**	Purpletop

Appendix D – BAM Plot Field Sheets

Date: 31/3/20	Job number: 2091	Site: Mt Vernon	Plot ID: P1	Bearing: 14	Observers: TM

AEP ECOLOGY | BIOBANKING | OFFSETS | BUSHFIRE

Upper stratum	C	Ab	Mid stratum	C	Ab	Lower stratum	C	Ab	Lower stratum	C	Ab
Eucalyptus sp.	0.1	1	Melia azadarach	0.3	1	Bidens pilosa	0.1	10	Cyperus gracilis	0.1	50
(juv-regrowth)						Kikuyu	27	100+	Paspalidium distans	0.2	20
						Cirsium vulgare	0.1	5	Paspalum dilatatum	10	100+
						Hypochaeris rad.	0.1	20	Sporobolus fertilis	0.1	10
						Senecio madagasc.	0.1	15	Seteria parv.	10	100+
						Alternanthera dent.	0.1	5	Buffalo Grass	10	100+
						Trycorgne elatior	0.1	5	Rumex crispus	0.1	10
						Sonchus oleraceus	0.1	10	Lysimachia arvensis	0.1	5
						Einadia hastata	0.1	5	Richardia stellaris	0.1	15
						Cyperus rotundus	0.3	30	Solanum sisymbrif.	0.3	30
						Cyperus sesquiflorus	0.1	10	Chloris virgata	0.1	10
						Modiola caroliniana	0.1	15	Oxalis corniculata	0.1	15
						Carex inversa	0.1	10	Stachys arvensis	0.1	10
						Microlaena stip.	0.2	50	Wisteria sinensis	0.3	1
						Sida rhombifolia	0.3	100	Glycine clandestina	0.1	5
						Couch	5	100+	Themeda australis	0.1	20
						Digitaria ciliaris	0.3	50	Verbena bon.	0.1	15
						Eragrostis Mexicana	0.1	20			
Total Cover DO FIRST											

20mx20m plot = 400m² **Note:** 0.1% = 63x63cm, 0.5% = 1.4x1.4m, 1% = 2x2m, 5% = 4x5m, 25% = 10x10m

C (%): 0.1, 0.2, 0.3, ..., 1, 2, 3, ..., 10, 15, 20, 25, ... (to nearest 5%). Include overhanging plants.

Abundance: 1-20, 50, 100, 500, 1000 etc. (numbers >20 are estimates only. For overhanging plants, record abundance as 1.

Date: 31/3/20	Job number: 2091	Site: Mt Vernon	Plot ID: P1	Bearing: 14	Observers: TM

AEP ECOLOGY | BIOBANKING | OFFSETS | BUSHFIRE

Arrival time: 10am **Departure time:** 2-30pm **Weather:** Sunny

1000m² plot **Mapped Vegetation community:** **Transect photos and GPS points taken** ✓

Tree Stem Size Class DBH (1.3m high)	Presence/Absence Count above 50 cm	Count of Hollow Bearing Trees
< 5 cm	(P) / A	0
5 - 9 cm	P / (A)	
10 – 19 cm	P / (A)	Total
20 – 29 cm	P / (A)	Length of logs (m) **Note:** >10cm diameter, >50cm length
30 – 49cm	P / (A)	
50 -79cm	# 0	10
>80cm	# 0	Total metres

Leaf Litter Cover within 5 x 1m² sub-plots

Note: - located at 5m, 15m, 25m, 35m and 45m along the transect - first plot located 5m on the left of the transect

Litter includes leaves, seeds, twigs and branches less than 10cm in diameter.

Also include dead material attached to living plants that is touching the ground.

	Leaf litter	Live vegetation, bare ground, rocks, etc.
1	15	
2	20	
3	10	
4	18	
5	12	
Average	15	

Plot Disturbance: (weediness, clearing, erosion, edge effects, grazing, fire, other)

Exotic grassland, few natives

Habitat features, comments and incidental fauna observations:

Old log pile

Note: Tree Stem Size Class <5cm refers to any regenerating stems and does not require a height of 1.3m.

Appendix E – Vegetation Integrity Score Table

Site Attribute	PCT850
Plot #	**1**
Location	6250924E 297526N
Bearing	14°
Tree	2
Shrub	0
Grass & Grass-like	5
Forb	3
Fern	0
Other	1
Total Composition Score	**18**
Tree	0.4
Shrub	0
Grass & Grass-like	0.7
Forb	0.3
Fern	0
Other	0.1
Total Structure Score	**0**
Regenerating Stems (<5cm DBH)	Present
Stem Classes (cm DBH)	-
# Large Trees	0
Hollow-bearing Trees	0
Litter Cover (%)	15
Coarse Woody Debris (m)	10
High Threat Weed Cover	47.3
Total Function Score	**24.7**
Overall Vegetation Integrity Score	**1.7**

Appendix F – Biodiversity Credit Report

BAM Biodiversity Credit Report (Like for like)

Proposal Details

Assessment Id 00022090/BAAS18147/20/00022091	Proposal Name 2091 Mt Vernon	BAM data last updated * 20/08/2020
Assessor Name Ian Douglas Benson	Assessor Number BAAS18147	BAM Data version * 30
Proponent Names Key Business Accountants	Report Created 26/10/2020	BAM Case Status Finalised
Assessment Revision 0	Assessment Type Part 4 Developments (General)	Date Finalised 01/10/2020
BOS entry trigger	* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.	

Potential Serious and Irreversible Impacts

Name of threatened ecological community	Listing status	Name of Plant Community Type/ID
Cumberland Plain Woodland in the Sydney Basin Bioregion	Critically Endangered Ecological Community	850-Cumberland shale hills woodland

Species
Nil

Additional Information for Approval

BAM Biodiversity Credit Report (Like for like)

PCTs With Customized Benchmarks

PCT
No Changes

Predicted Threatened Species Not On Site

Name
Haliaeetus leucogaster / White-bellied Sea-Eagle

Ecosystem Credit Summary (Number and class of biodiversity credits to be retired)

Name of Plant Community Type/ID	Name of threatened ecological community	Area of impact	HBT Cr	No HBT Cr	Total credits to be retired
850-Cumberland shale hills woodland	Cumberland Plain Woodland in the Sydney Basin Bioregion	0.6	0	0	0

Species Credit Summary

No Species Credit Data

Credit Retirement Options

Like-for-like credit retirement options

BAM Biodiversity Credit Report (Variations)

Proposal Details

Assessment Id
00022090/BAAS18147/20/00022091

Proposal Name
2091 Mt Vernon

BAM data last updated *
20/08/2020

Assessor Name
Ian Douglas Benson

Assessor Number
BAAS18147

BAM Data version *
30

Proponent Name(s)
Key Business Accountants

Report Created
26/10/2020

BAM Case Status
Finalised

Assessment Revision
0

Assessment Type
Part 4 Developments (General)

Date Finalised
01/10/2020

BOS entry trigger

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

Potential Serious and Irreversible Impacts

Name of threatened ecological community	Listing status	Name of Plant Community Type/ID
Cumberland Plain Woodland in the Sydney Basin Bioregion	Critically Endangered Ecological Community	850-Cumberland shale hills woodland

Species
Nil

Additional Information for Approval

PCTs With Customized Benchmarks

PCT
No Changes

BAM Biodiversity Credit Report (Variations)

Predicted Threatened Species Not On Site

Name
Haliaeetus leucogaster / White-bellied Sea-Eagle

Ecosystem Credit Summary (Number and class of biodiversity credits to be retired)

Name of Plant Community Type/ID	Name of threatened ecological community	Area of impact	HBT Cr	No HBT Cr	Total credits to be retired
850-Cumberland shale hills woodland	Cumberland Plain Woodland in the Sydney Basin Bioregion	0.6	0	0	0.00

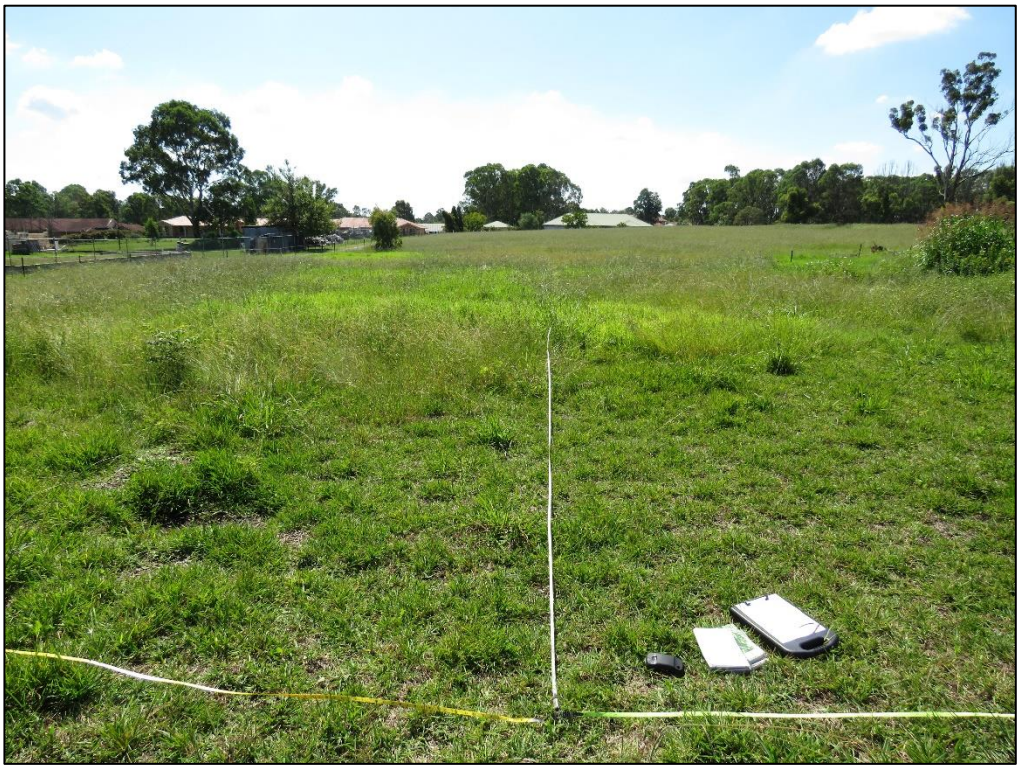
Species Credit Summary

No Species Credit Data

Credit Retirement Options

Like-for-like options

Appendix G – Site Photographs



Above: BAM Plot Start facing north. **Below**: BAM Plot End facing south.

Above: View from eastern edge showing exotic grassland. **Below:** View from western edge showing exotic grassland.

Appendix H – Other Legislation

EPBC Act Assessment

A search was conducted in March 2020 of Matters of National Environmental Significance (MNES) as relevant to the *Environment Protection & Biodiversity Conservation Act 1999* (EPBC Act). The following MNES are considered in this assessment.

World Heritage Properties:

The site is not a World Heritage area, and is not in close proximity to any such area.

National Heritage Places:

The site is not a National Heritage place, and it is not in close proximity to any such places.

Wetlands of International Significance (declared Ramsar wetlands);

The site does not contain Ramsar Wetlands, and it is not in close proximity to any Ramsar Wetlands.

Great Barrier Reef Marine Park:

The site is not part of, or within close proximity to, the Great Barrier Reef Marine Park.

Commonwealth Marine Areas:

The site is not part of, or within close proximity to, any Commonwealth Marine Area.

Threatened Ecological Communities:

Five (5) Threatened Ecological Communities are listed as likely to occur within the site's area. While Cumberland Plain Shale Woodland CEEC has been utilised for the BAM Assessment, as per the flowchart for condition threshold within the *Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest. A guide to identifying and protecting the nationally threatened ecological community Environment Protection and Biodiversity Conservation Act 1999, Policy Statement 3.31,* projected foliage cover of the native trees within the site is not greater than 10%, as such the vegetation on site is not considered to be the listed ecological community.

Threatened Species:

No threatened species listed within the EPBC Act were recorded on site during fieldwork.

Given that the Subject Site does not contain areas of potential habitat onsite it is not considered that the development of this land as proposed is likely to significantly impact potential habitat.

Migratory Species:

A number of EPBC listed migratory species have some potential to visit the site on an irregular basis. However, it is not considered that the development of this land as proposed is likely to significantly affect the potential habitat of such species, or disrupt migratory patterns.

EPBC Act Assessment Conclusion:

No MNES (specifically in this instance threatened species, threatened ecological communities or listed migratory species) are expected to be impacted upon significantly as a result of the proposal.

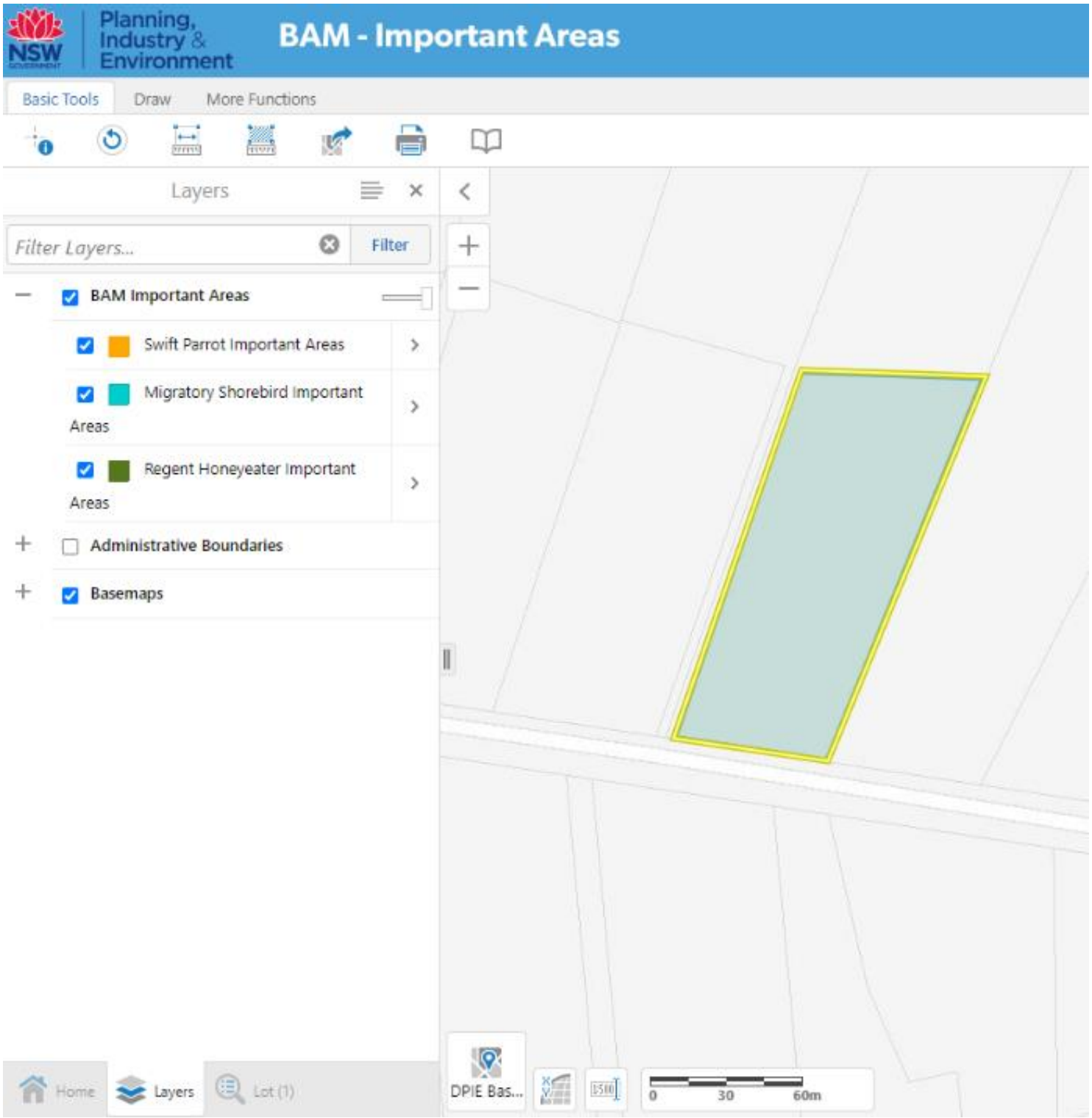
Koala SEPP Assessment

There is no recorded Koala Plan of Management (KPoM) covering the site and consequently the site is assessed under the draft State Environmental Planning Policy (Koala Habitat Protection) 2019.

Whilst the site is greater than 1ha in area, it is not located on the Koala Development application map and therefore no further consideration under the SEPP applies.

Furthermore, the SEPP does not apply to the City of Penrith LGA.

Appendix I – Important Area Mapping



Appendix J – CVs

IAN BENSON
Curriculum Vitae

Ian works with AEP in the role of Senior Ecologist. He is an experienced field ecologist, bird watcher and a regular participant in wader surveys. Ian has previously had a successful career as a project manager with a local geotechnical engineering firm. His background in project management and soil sciences combined with his ecological knowledge is utilised in a diverse array of applications in his current role.

Qualifications

- Graduate Diploma in Science (Ecology) University of New England (2014)
- Bachelor Engineering (Civil) University of Newcastle (2008)

Further Education & Training (select summary)

- Biobank and Biocertification Assessors Training Course (BAAS #18147)
- Advanced Plant Identification (University of New South Wales)
- NSW Class C Driver's Licence. Experienced 4WD operator
- Occupational Health & Safety Training
- Rail Industry Worker
- ARTC Safety Induction for Contractors (NSW)
- ARTC Hunter Bulk Terminal Induction

Fields of Special Competence

- Biobanking & Biodiversity Offset Commissions – initial scoping and feasibility, BAM impact assessments and BDAR reporting, biobank calculations, Stewardship site creation
- Detailed knowledge of environmental legislation and approval pathways
- Ecological field survey and habitat assessment covering terrestrial and aquatic flora and fauna. Experienced in camera trap methods particularly targeting cryptic and difficult to identify mammal species.
- Highly proficient at avifauna surveys, including challenging wetland and shorebird environs
- Project Management
- Soil science

Professional Affiliations / Memberships (past / present)

- Hunter Bird Observers Club (HBOC)
- Australasian Seabird Group
- Graduate Member of The Institution of Engineers Australia in the Civil College

Relevant Employment History

2018-Current **Senior Ecologist**
Anderson Environment & Planning, Newcastle

Currently employed by Anderson Environment & Planning as a Senior Ecologist overseeing all aspects of the business including training and management of field and office staff undertaking ecology and bushfire works to assist in the provision of consulting services to land, property, mining industry, legal and government sectors. Covering ecological, project management, environmental, planning services, advices, strategy and representation.

2016-2018 **Ecologist**
Anderson Environment & Planning, Newcastle

Currently employed by Anderson Environment & Planning to assist in the provision of consulting services to land, property, mining industry, legal and government sectors. Covering ecological, project management, environmental, planning services, advices, strategy and representation.

2012-2016 **Project Manager**
Douglas Partners, Newcastle

As a project manager with Douglas Partners I was responsible for proposal and tender preparation, planning, implementation and reporting of geotechnical and geo-environmental investigations for a broad range of projects including site classification, foundations, pavements, bridges and slope stability. I was required to liaise with clients regarding project requirements, project goals and deadlines. I was responsible for the development and implementation of Work Health and Safety Plans as well as Environmental Plans and documentation. This included the development of safe work procedures, safety inspections on site and implementing improved safety procedures with staff. I was responsible for ensuring projects were completed on time and on budget whilst meeting the clients' expectations and achieving quality assurance standards.

2008-2012 **Geotechnical Engineer**
Douglas Partners, Newcastle

As a geotechnical engineer for Douglas Partners I was involved in the planning and implementation of geotechnical investigations for a wide range of development in the Hunter Valley area. I was primarily involved in site supervision of geotechnical investigations using drilling rigs for boreholes, truck mounted cone penetration testing and test pit excavations using excavators and backhoes. My role also included site inspections involving the assessment of conditions for piles, piers and shallow footings. I also undertook site walkovers for assessment of mine subsidence and slope stability.

2007-2008 **Undergraduate Geotechnical Engineer**
Douglas Partners, Newcastle

Whilst an undergraduate engineer with Douglas Partners I experienced a broad range of practice areas and developed a diverse range of engineering skills.

Relevant Ecological Experience

2013 - Current **Bird Surveyor**
Hunter Bird Observers Club

Volunteer survey work for Hunter Bird Observers Club for regular wader and water bird counts and Tomago and Kooragang Island.

2017 – Current **Birdata Moderator**
Birdlife Australia

Volunteer moderating and vetting bird surveys from *Birdata* which is the Birdlife Australia Atlas to ensure a robust database for both the Hunter Valley and Central Coast reporting areas totalling approximately 5000 surveys per year.

Tim Mouton
Curriculum Vitae

Tim works with AEP in the role of Ecologist. Tim has over 10 years of professional experience managing projects in the fields of ecology, natural area restoration, biodiversity conservation, community education, and construction environmental management. Tim also has 5 years experience working in the field as a bush regenerator.

Qualifications

- Bachelor of Environmental Science University of Newcastle (2001)
- Conservation Land Management Certificate II Tafe (2003)
- Master of Environmental Science Southern Cross University (2008)

Further Education & Training (select summary)

- Biodiversity Assessment Methodology (BAM) Accredited Assessor (BAAS: 19083)
- NSW Class C Driver's Licence. Experienced 4WD operator.
- OH&S NSW White Card
- Erosion & Sediment Control Training (4 day Blue Book course / CPESC)
- Feral Animal Control training (1080 & Pindone baiting)
- Certificate 3 in Chemical Application (AQF3)

Fields of Special Competence

- Ecological field survey, covering terrestrial and aquatic flora and fauna
- Highly proficient at botanical surveys and establishing monitoring programs
- Project Management and auditing
- Restoration Science

Professional Affiliations / Memberships (past / present)

- Board of Management member for Worimi Conservation Lands (NPWS & Worimi LALC)
- Certified Practitioner in Erosion & Sediment Control (CPESC) (not currently active)

Relevant Employment History

2019-present **Ecologist**
Anderson Environment & Planning, Newcastle

Currently employed by Anderson Environment & Planning to assist in the provision of consulting services to land, property, mining industry, legal and government sectors. Covering ecological, project management, environmental, planning services, advices, strategy and representation.

2015-2018 **Senior Project Officer / Ecologist**
Conservation Volunteers Australia / WetlandCare Australia

- Project managing on-ground restoration works including revegetation, site stabilisation, weed control and bush regeneration.
- Facilitating community engagement events, and supervision of volunteers.
- Undertaking site assessments, ecological surveys, and preparing plans of management.
- Scoping and preparing grant applications, managing all aspects of grant delivery, budgets, and reporting.

2009-2015 **Senior Ecologist / Environmental Scientist**
Onsite Environmental Management

- Undertaking and project managing detailed environmental assessments including flora and fauna surveys, threatened species assessments, management plans and monitoring reports.
- Environmental site management, monitoring and compliance auditing on large scale infrastructure projects and extractive industries.

2008-2009 **Bush Regenerator / Leading Hand**
Lane Cove Council
Australian Wetlands

- Undertaking bush regeneration activities including removal of environmental/noxious weeds, track construction and maintenance, native seed collection and propagation, fire assisted regeneration, feral animal control and supervision and training of volunteers.
- Supervising bush regeneration and weed management teams.
- Undertaking large scale revegetation works on infrastructure projects involving mass tubestock planting, site stabilisation and maintenance weeding.

2006-2007 **Ecologist / Environmental Scientist**
GeoLINK Consulting

- Undertaking and project managing detailed environmental assessments including flora and fauna surveys, threatened species assessments, management plans and monitoring reports.
- Monitoring and analysis of wetland, groundwater, and domestic wastewater systems.

2002-2006 **Bush Regenerator / Leading Hand**
Gondwana Bush Restoration
Willoughby City Council

- Undertaking bush regeneration activities including removal of environmental/noxious weeds, track construction and maintenance, native seed collection and propagation, fire assisted regeneration, feral animal control and translocation of vegetation.
- Supervision and training of bush regeneration teams and volunteers.

2001-2002 John Holland Construction
Environmental Officer

- Environmental site management and monitoring and reporting on large scale infrastructure projects.

Relevant Volunteer Experience

2014 - Current Burwood Beach Coastcare - Facilitator (Volunteer)

Supporting and managing volunteers, on-ground works, promotion and funding opportunities on a monthly basis, to undertake conservation and restoration activities within Glenrock State Conservation Area (NPWS estate).

2013 - 2016 Humane Society International – EPBC Act Nomination Support

Preparation of Threatened Ecological Community (TEC) nominations under the Commonwealth Environment Protection and Biodiversity Conservation Act, 1999 (EPBC Act).