BIODIVERSITY DEVELOPMENT

ASSESSMENT REPORT

WAIVER APPLICATION

for the proposed

Gosford Kibbleplex Development

Henry Parry Drive

GOSFORD NSW

Prepared by:

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For:

Donnison Street Property Trust

Job No: 12431

August 2019



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Project Name	Biodiversity Development Assessment Kibbleplex Development - Henry Parry Dri	· · · · · ·
Project Number	12431	
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Status	Final - 14 August 2019	
Version Number	1	

Disclaimer

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Acronyms and Abbreviations used in this report

BAM	Biodiversity Assessment Method	
BC Act	Biodiversity Conservation Act 2016	
BAR	Biodiversity Assessment Report	
BDAR	Biodiversity Development Assessment Report	
EEC	Endangered Ecological Community	
EIS	Environmental Impact Statement	
EP&A Act	Environmental Planning & Assessment Act 1979	
IBRA	Interim Biogeographic Regionalisation for Australia	
NPW Act	National Parks & Wildlife Act 1974	
OEH	Office of Environment & Heritage	
PCT	Plant Community Type	
SSD	State Significant Development	
TEC	Threatened Ecological Community	



1.0 INTRODUCTION

This report has been undertaken to request a Biodiversity Development Assessment Report (BDAR) waiver for a State Significant Development (SSD), the "Gosford Kibbleplex Development" at Lot 6 DP 598833 and Lot 1 DP 540292 Henry Parry Drive, Gosford NSW. The site is located in an urban area and predominantly hard stand space however, as a portion of the site contains vegetation the requirement of a BDAR is triggered.

1.1 LEGISLATIVE CONTEXT

State Significant Development (SSD) and State Significant Infrastructure (SSI) are regulated under the Environmental Planning and Assessment Act 1979 (EP&A Act) which requires proponents to apply to the Minister of Planning for development consent of infrastructure approval, supported by an Environmental Impact Statement (EIS). These applications are also subject to biodiversity assessment requirements under the Biodiversity Conservation Act 2016 (BC Act).

The BC Act requires that an SSD or SSI application must be accompanied by a biodiversity development assessment report (BDAR). Only if it is determined by the Secretary of the Department of Planning and of the Department of Planning and the Chef Executive of the Office of Environment and Heritage (OEH) that the proposed development is not likely to have a significant impact on biodiversity values. This determination is referred to as a BDAR waiver.

1.2 INFORMATION REQUIREMENTS FOR A BDAR WAIVER

All requests for a BDAR waiver are to include the information requirements set out in Tables 1 and 2 of the fact sheet; Biodiversity development assessment report waiver determinations for SSD and SSI applications, Attachment A – Information to include with BDAR waiver request (NSW Planning & Environment, 2018) which is contained within Appendix A of this report.



2.0 BDAR WAIVER REQUEST INFORMATION REQUIREMENTS (TABLE 1)

2.1 ADMINISTRATION

2.1.1 PROJECT NAME AND CONTACT DETAILS

Project Name

Gosford Kibbleplex Development

Contact details

Lederer Group Suite 34.01, L34, 201 Elizabeth St, SYDNEY NSW 2000

2.1.2 PROJECT INFORMATION

The project ID is SSD-9813 and the phase and it is at the 'Prepare EIS' phase.

2.2.3 NAME AND QUALIFICATIONS OF PERSON COMPLETING (TABLE 2)

Daryl Harman BEnvSc Senior Ecologist with Wildthing Environmental Consultants.

BAM Assessor Accreditation No: BAAS17074 Valid until 13/11/2020. Curriculum Vitae is shown in Appendix B.

2.2 SITE DETAILS

<u>Street Address</u> 136 Henry Parry Drive, Gosford.

Lot & DP Lot 6 DP 598833 & Lot 1 DP 540292.

Local Government Area Central Coast Council LGA

Existing Development

The existing development site is approximately 1.4ha and consists of the old Gosford Town Centre which was composed of a shopping centre and carparking. A vacant rectangular area was present in the south east.

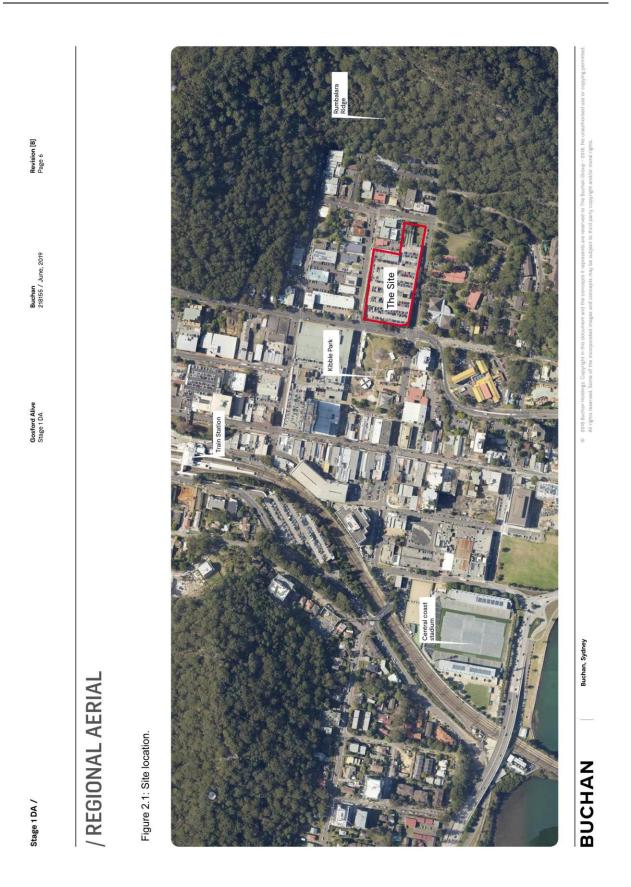
<u>Site Map</u>

A map showing the location of the site is shown in Figure 2.1.

2.3 PROPOSED DEVELOPMENT

It is proposed that five residential towers above a podium be constructed on approximately 70,000sqm of the site. The towers will vary between 15 and 27 storeys. The development will include both basement and above ground car parking. The existing shopping centre structure will undergo a complete demolition. A plan of the proposed development is shown in Figure 2.2.











3.0 IMPACTS OF THE PROPOSED DEVELOPMENT ON BIODIVERSITY VALUES (TABLE 2)

3.1 VEGETATION ABUNDANCE – 1.4 (B) BC REGULATION

Vegetation is present within the site was in the form of a rectangular vegetated area in the south-east and five planted garden beds around the periphery. The majority of the vegetation was non-native; however, a number of cultivated native species were present. Vegetation occurring outside the site within close proximity included planted street trees and an individual planted tree on private property.

The proposal will involve the removal of all vegetation from within the site. Outside the site the street trees and the single tree on private property will not require removal for the development. Future development of the site will include planted vegetated areas under a landscaping plan.

3.2 VEGETATION INTEGRITY 1.5 (2)(A) BCACT

No defined Plant Community Types (PCT's) were present within the site. All areas of vegetation present within the site have either resulted from landscape plantings or have grown opportunistically. The majority of the vegetation was non-native; however, a number of planted native species were present. An aerial photo showing the occurrence of vegetation within the site and in close proximity is contained in Figure 3.1. A detailed description of each corresponding vegetation occurrence within the site and in close proximity, contained within Figure 3.1 is shown below.

3.2.1 VEGETATION WITHIN THE SITE

A. <u>Rectangular Vegetated Area A</u>

The rectangular vegetated area in the north-east of the site was approximately 0.09ha, and consisted of a highly modified area of land which has been colonised and dominated by introduced flora species. A large portion of this area had an area of broken up bitumen for a surface. Common introduced species included *Axonopus fissifolius* (Narrow-leaved Carpet Grass), *Andropogon virginicus* (Whisky Grass), *Cenchrus clandestinus* (Kikuyu) and *Megathyrsus maximus* (Guinea Grass). Other common introduced species included *Trifolium repens* (White Clover), *Bidens pilosa* (Bidens), *Plantago lanceolata* (Plantain), *Coreopsis lanceolata* (Coreopsis), *Hydrocotyle bonariensis* (Kurnell Curse), *Ageratina adenophora* (Crofton Weed), *Acetosa sagittata* (Turkey Rhubarb), *Richardia humistrata* (White-eye), *Cerastium glomeratum* (Mouse-eared Chickweed), *Sida rhombifolia* (Paddy's Lucerne) and *Senecio madagascariensis* (Fireweed). An area of *Lantana camara* (Lantana) was also present in the south-west corner against the walls. The most common native species included *Cynodon dactylon* (Couch) which occurred in a small area of the rectangular shape and was also present in other isolated areas. Other native flora species were very sparse and included *Cheilanthes sieberi* (Mulga Fern) and *Pellaea falcata* (Sickle Fern). One small very young *Eucalyptus* sp. specimen was also noted in this area. Photos of this rectangular vegetated area are shown in Plates 1 – 5.









Plate 1: Rectangular Vegetated Area.



Plate 2: Rectangular Vegetated Area.





Plate 3: Rectangular Vegetated Area.



Plate 4: Rectangular Vegetated Area.





Plate 5: Rectangular Vegetated Area.

B. Planted Area B

Planted area was 0.002ha and was located on the southern side of the rooftop carpark entrance. This area was composed of introduced species *Strelitzia reginae* (Bird of Paradise), *Metrosideros thomasii* (New Zealand Christmas Bush). Native cultivated species were *Callistemon viminalis* (Weeping Bottlebrush) and *Syzygium* sp. (Lilly Pilly). Smaller introduced species were *Ehrhartia erecta* (Panic Veldt Grass), *Sonchus oleraceus* (Common Sow Thistle) and *Taraxacum officinale* (Dandelion). Photos of Area B is shown in Plates 6 and 7.

C. Planted Area C

Planted Area C was 0.003ha and was located on the northern side of the rooftop carpark entrance. This area contained two introduced *Syagrus romanzoffianum* (Cocos Island Palm), one *Schinus terebinthifolia* (Brazilian Pepper Tree) and one *Ochna serrulata* (Ochna). Cultivated natives included two specimens of *Corymbia citriodora* (Lemon-scented Gum) and one *Glochidion ferdinandi* (Cheese Tree). Photos of Area C is shown in Plates 6, 8 and 9.





Plate 6: Planted areas B & C.



Plate 7: Planted areas B.





Plate 8: Planted area C.



Plate 9: Planted area C.



D. Planted Area D

Planted D area was 0.007ha and was located in the far south-west of the site on the corner of Henry Parry Drive and Donnison Street. This area contained introduced species in the form of three *Syagrus romanzoffianum* (Cocos Island Palm), *Fraxinus* sp. (Ash) and one *Cinnamomum camphora* (Camphor Laurel). The large-leaved *Philodendron* sp. was common within the understorey. An introduced red coloured *Alternanthera* sp. was also common on the ground. One specimen of *Schefflera actinophylla* (Umbrella Tree) which is native to northern tropical Australia was also present. Clumps of a native cultivar *Lomandra longifolia* (Spiny Mat Rush) had also been planted in the northern part of this planted area. Photos of area D is shown in Plates 10, 11 and 12.



Plate 10: Planted area D.

E. Planted Area E

Planted E area was 0.006ha and was located along Henry Parry Drive. Trees here included planted natives *Livistona australis* (Cabbage Tree Palm) and also *Melia azedarach* (White Cedar) which is native to rainforest of northern NSW. Clumps of a native cultivar *Lomandra longifolia* (Spiny Mat Rush) had also been planted in this area. Photos of area E is shown in Plates 13.





Plate 11: Planted area D.



Plate 12: Planted area D.





Plate 13: Planted area E.

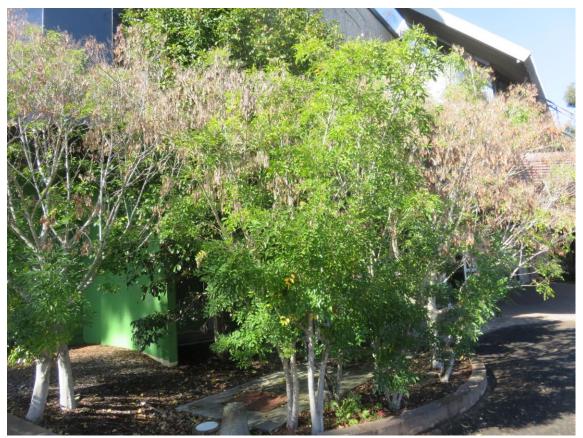


Plate 14: Planted area F.



F. Planted Area F

Planted F area was 0.001ha and was located in the far north-east of the site on the corner of Henry Parry Drive and William Street. This area contained a couple of specimens of the introduced *Fraxinus griffithii* (Flowering Ash). One specimen of the native *Glochidion ferdinandi* (Cheese Tree) was also present. A photo of Area F is shown in Plate 14.

G. Planted Area G

Planted Area G was 0.001ha and was located in the east in a small garden bed of the site on the corner of Henry Parry Drive and William Street. This area contained a couple of specimens of the introduced *Olea europaea* subsp. *cuspidata* (African Olive), *Senna pendula* (Senna) and *Asparagus aethiopicus* (Asparagus Fern). The introduced *Ficus pumila* (Creeping Fig) was also found to be climbing on the adjacent concrete wall. A photo of Area G is shown in Plate 15.

H. <u>Area H</u>

Area H was located along the boundary fence. Vegetation found here included the introduced climbers *Pyrostegia venusta* (Flame Vine) and *Ficus pumila* (Creeping Fig). A small number of opportunistic specimens of the native *Psilotum nudum* (Skeleton Fork Fern) were also observed growing out of the concrete wall. A photo of Area H is shown in Plate 16.



Plate 15: Planted Area G.





Plate 15: Planted Area H. Taken from planted Area G.

3.2.2 VEGETATION WITHIN PROXIMITY TO THE SITE

Vegetation occurring within close proximity to the site included planted street trees and a planted tree on private property. A total of ten street trees were recorded within proximity to the site. These planted trees were composed of nine specimens of *Eucalyptus robusta* (Swamp Mahogany) and one small specimen of *Podocarpus elatus* (Plum Pine)(see Figure 3.1).. An individual specimen of *Araucaria heterophylla* (Norfolk Island Pine) was also present on private land to the north-east. None of these trees are proposed to require removal for the development.



3.3 HABITAT SUITABILITY 1.5 (2)(B) BC ACT

No threatened endangered ecological communities were present within the site. Additionally, no threatened species were observed. Habitat for threatened species or endangered ecological communities was virtually absent from the site. Under clause 6.1(1)(a) the Biodiversity Conservation Regulation marginal habitat would be in the form of human made structures and non-native vegetation. The existing construction would represent human made structures. Limited areas of the existing structure may offer marginal roosting habitat in the form of crevices or voids for certain threatened microchiropteran bat species. The small areas of vegetation within the site may offer marginal potential foraging/hunting habitat for threatened microchiropteran bats and *Pteropus poliocephalus* (Grey-headed Flying-fox). The impact of development of the site, which has a very low level of habitat suitability for threatened species is not likely to be significant.

All areas of marginal habitat will be removed from the site for the proposal.

3.4 THREATENED SPECIES ABUNDANCE 1.4 (A) BC REGULATION

No threatened species were recorded within the site during the site inspection. There is a very low likelihood of any impacts on threatened species. The proposal is unlikely to increase vehicle strikes on threatened species.

3.5 HABITAT CONNECTIVITY 1.4 (C) BC ACT

The development site is unlikely to significantly contribute to habitat connectivity within the locality. The proposal is not likely to restrict the movement of any threatened species in the locality.

3.6 THREATENED SPECIES MOVEMENT 1.4 (D) BC REGULATION

The site is not likely to contribute to the movement of any listed threatened species to maintain their lifecycle. Isolated trees and vegetation within the site may offer some transitory habitat for fauna such as birds from better quality habitat areas to the east to treed areas such as Kibble Park to the west over Henry Parry Drive.

3.7 FLIGHT PATH INTEGRITY 1.4 (E) BC REGULATION

The proposal involves the construction of five towers between 15 and 27 storeys. However, the site is not significant for the flight paths of species that have been recorded in the locality.

3.8 WATER SUSTAINIBILITY 1.4 (F) BC REGULATION

There are no water bodies or hydrological processes on the site or in close proximity that are important for threatened species.



4.0 CONCLUSION

A BDAR waiver is formally requested based upon the reasons presented in this report. Assessment of the BC Act and Biodiversity Conservation Regulation 2017 indicate the proposal is unlikely to have a significant impact on biodiversity values. Considering the natural vegetation on the subject site has been previously removed and the fact that the site occurs in a highly urbanised area on a predominantly hard stand space with only small areas of largely planted introduced flora species that would not represent any described PCT, the proposal would have a very low level impact on habitat suitability for threatened species.

5.0 BIBLIOGRAPHY

NSW Planning & Environment (2018). *Biodiversity development assessment report waiver determinations for SSD and SSI applications*. November 2018.



APPENDIX A

FACT SHEET BDAR WAIVER DETERMINATIONS FOR SSD & SSI APPLICATIONS

BDAR Waiver



November 2018

Biodiversity development assessment report waiver determinations for SSD and SSI applications

Introduction

State significant development (SSD) and State significant infrastructure (SSI) are regulated under the *Environmental Planning and Assessment Act 1979* (EP&A Act), which requires proponents to apply to the Minister of Planning for development consent or infrastructure approval, supported by an environmental impact statement (EIS). These applications are also subject to biodiversity assessment requirements under the *Biodiversity Conservation Act 2016* (BC Act).

This Fact Sheet provides information on when a biodiversity development assessment report (BDAR) under the BC Act may not be required for SSD and SSI applications.

SSD and SSI biodiversity assessment

The BC Act requires that an SSD or SSI application must be accompanied by a biodiversity development assessment report (BDAR) **unless**:

- the Secretary of the Department of Planning and Environment (DPE) and
- the Chief Executive of the Office of Environment and Heritage (OEH)

determine that the proposed development is not likely to have any significant impact on biodiversity values. This determination is referred to here as a **BDAR waiver**.

An EIS for SSD and SSI applications must take into account the requirements of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), and any additional requirements issued by the Planning Secretary (termed 'Secretary's environmental assessment requirements' or SEARs).

What is a BDAR?

A BDAR is a report required under the BC Act and is prepared by a person accredited (under section 6.10 of the BC Act) to apply the biodiversity assessment method (BAM). The BAM is an assessment manual that provides a consistent method for the assessment of biodiversity, including assessing certain impacts on threatened species and threatened ecological communities, their habitats, and impacts on biodiversity

values. A BDAR provides guidance on how a proponent can avoid and minimise potential biodiversity impacts, and identifies the number and class of biodiversity credits that need to be offset to achieve a standard of 'no net loss' of biodiversity.

Note: A BDAR is not required if the SSD or SSI is proposed to be carried out on '**biodiversity** certified land' as described in Part 8 of the BC Act.

Regardless of whether a BDAR is required or not, SSD and SSI proponents may need to undertake a separate biodiversity assessment as part of their project application. The SEARs may outline further biodiversity matters that need to be addressed in the EIS (e.g. aquatic habitat including rivers, wetlands, lakes, estuaries, GWD ecosystems, marine environments; environmental flows, fish passage and water quality; marine protected areas; fish conservation including threatened fish and aquatic flora species protection; marine mammals, wandering sea birds).

How do I apply for a BDAR waiver?

Note: A BDAR waiver will only be issued in limited circumstances where it is clearly demonstrated, based on information provided by a proponent in accordance with this fact sheet, that the proposed development is not likely to have any significant impact on biodiversity values. For example, internal works to an existing building or development on a brownfield site with no threatened species habitat. Development that requires clearing of native vegetation is likely to require a BDAR. If there is doubt regarding potential impacts, or where information is not made available, a BDAR waiver will not be issued.

When to request a waiver

Fact Sheet BDAR waiver

A BDAR waiver request should be lodged before the SSD or SSI application is made.

For SSD, it is recommended that proponents wishing to request a BDAR waiver do so at the same time a request for SEARs is made. This will allow DPE and OEH to align their administrative processes so that proponents are made aware of all relevant biodiversity assessment requirements for the proposed development at the same time.

For SSI the proponent should lodge a waiver application before applying for approval from the Minister to carry out SSI, which triggers the requirement for the Secretary to prepare environmental assessment requirements.

Information that must accompany a BDAR waiver request

A request for a BDAR waiver is to include the information set out in **Table 1** and **Table 2** in **Attachment A.** This includes information on the proponent, site and project and the likely impacts on the biodiversity values.

Proponents must address all of the impacts on biodiversity values to which the biodiversity offsets scheme applies under section 6.3 of the BC Act. Biodiversity values are defined in the BC Act and the *Biodiversity Conservation Regulation 2017* (BC Regulation). The BC Regulation (clause 6.1) prescribes additional impacts on biodiversity values to be assessed under the biodiversity offsets scheme. The BDAR waiver request must explain whether or not each value is relevant to the site and/or the proposed development and provide supporting information to explain the likelihood and extent of any potential impacts, including prescribed impacts.

The request for a BDAR waiver and the accompanying information does not need to be prepared by a BAM accredited person. However, a **suitably qualified person**¹ should prepare the BDAR waiver application when one or more biodiversity values are relevant to the proposed development, ie, one or more biodiversity values are present on the development site or there is potential for direct or indirect impacts on a biodiversity value off-site.

You may wish to contact the DPE or OEH to discuss the specific information requirements that may be relevant to your site prior to lodging your request for a BDAR waiver (Ph 1300 305 695).

Note: A BDAR for SSD or SSI does not need to assess the impacts of any clearing of native vegetation and loss of habitat on land classified as '**Category 1-exempt land**' other than impacts 'prescribed' in clause 6.1 of the BC Regulation. Therefore, for any part of the proposed development that is on category 1-exempt land, only 'prescribed impacts' on biodiversity values are required to be considered in a request for a BDAR waiver.

Concept development applications (SSD) and staged infrastructure proposals (SSI)

Concept development applications for SSD and staged infrastructure proposals for SSI trigger the requirement for a BDAR unless the requirement is waived under s7.9(2) of the BC Act.

To apply for a BDAR waiver for a concept development application or staged infrastructure proposal, the concept proposals must be sufficiently defined to enable impacts on biodiversity values to be identified. The proponent will need to address the likely impact of the concept proposals on biodiversity values, including any clearing of native vegetation that is required or likely to be required for the concept proposals. As a minimum, the proponent must identify a development footprint and address the information requirements in Tables 1 and 2 at Attachment A.

Whether a separate BDAR waiver determination is required for subsequent SSD or SSI applications associated with a concept development consent or staged infrastructure approval will depend on whether the subsequent application is consistent with the description of 'proposed development' in the initial waiver determination.

Lodging waiver request

The BDAR waiver request can be lodged via the Major Projects Register (if a project already exists in the system) or via **information@planning.nsw.gov.au**. All necessary information must be provided with the request in accordance with the information requirements outlined in Attachment A. DPE may contact you if more information is required to process the request.

Determining BDAR waiver requests

DPE will coordinate the responses from both agencies and contact the proponent when a final determination has been made. This will generally be within 28 days of the request being received.

¹ A suitably qualified person is a person with tertiary qualifications in natural sciences including subjects that relate to the observation and description of terrestrial biodiversity and landforms, and at least three years of work experience in environmental assessment including field identification of plant and animal species and habitats.

If a BDAR waiver is not granted, there is no appeal mechanism and a BDAR must be submitted with the SSD/ SSI.

Note: Prior to the lodgement of an SSD or SSI application, the proponent must check that the proposed development, the subject of the SSD or SSI application is the same as the proposed development the subject of the BDAR waiver. If the proposed development is different, a fresh request for a BDAR waiver determination may be required. The proponent may need to either prepare a BDAR or lodge a new request to have the BDAR requirement waived.

For more information on the biodiversity assessment requirements of the BC Act please visit;

https://www.environment.nsw.gov.au/biodiversity/offsetsscheme.htm

ATTACHMENT A – Information to include with BDAR waiver request

All requests for a BDAR waiver are to include the information requirements set out in **Tables 1 and 2** below.

TABLE 1: BDAR waiver request Information requirements

Admin Site details	 Proponent name and contact details. Project ID (Information to identify which SSD or SSI project the request relates to and where the project is up to in the assessment process). Name and ecological qualifications of person completing TABLE 2. Street address, Lot and DP, local government area. Description of existing development site, ie, the area of land that is subject to the proposed development application. 		
	 Location map showing the development site in the context of surrounding areas and landscape features. Satellite image of site in context of adjoining sites. Site Map (to scale, ideally as a spatial shapefile). 		
Proposed development	 Project Description providing enough information to enable an understanding of the nature and scale of the proposed development and any associated activities (including construction etc). Proposed Site Plan. 		
Impacts on biodiversity values	 Complete TABLE 2 below on Biodiversity Values. For each biodiversity value, the proponent must either: explain why the value is not relevant to the proposed development; or where a biodiversity value may be relevant, provide an explanation of how impacts have been avoided and identify the likelihood and extent of any remaining impacts of the proposed development, including impacts prescribed under clause 6.1 of the BC Regulation. A biodiversity value is not relevant to a proposed development if the value is not present on the development site AND there is no potential for direct or indirect impacts on the biodiversity value if it occurs off-site. Where one or more biodiversity values may be relevant to the proposed development, TABLE 2 is to be completed by a suitably qualified person with tertiary qualifications in natural sciences including subjects that relate to the observation and description of terrestrial biodiversity and landforms, and at least three years of work experience in environmental assessment including field identification of plant and animal species and habitats The person does not need to be an accredited person under the BC Act. Attach any additional information required where biodiversity values are relevant to the site. E.g. Vegetation Map (indicating plant community types), Ecology Reports, Water Quality data, BioNet Atlas, Directory of Important Wetlands (DIWA), migratory bird flyway information. 		

TABLE 2: Impacts of the proposed development on biodiversity values

Biodiversity value	Meaning	Relevant (√or NA)	Explain and document potential impacts including additional impacts prescribed under the BC Regulation Attach additional supporting documentation where appropriate
Vegetation abundance - 1.4(b) BC Regulation	Occurrence and abundance of vegetation at a particular site		 Where vegetation is present on the development site, provide a map on digital aerial photography or the best available imagery of the development site showing: native vegetation (including grasslands and other non-woody vegetation types) and non-native vegetation, and the area of land that is directly impacted by the proposed development, including related infrastructure such as roads, pipelines, access tracks, temporary material stockpiles, asset protection zones and powerlines, if applicable. Describe how the proposed development avoids impacts on native vegetation and identify the likelihood and extent of any remaining impacts including removal of isolated or cultivated native plants.
Vegetation integrity 1.5(2)(a) BC Act	Degree to which the composition, structure and function of vegetation at a particular site and the surrounding landscape has been altered from a near natural state		Describe the vegetation integrity and any impacts on vegetation integrity of identified plant communities.
Habitat suitability 1.5(2)(b) BC Act	Degree to which the habitat needs of threatened species are present at a particular site		Identify any threatened species or ecological communities or their habitat on the development site. Describe how the proposed development avoids impacts on habitat suitability and identify the likelihood and extent of any remaining impacts including the impacts of development on the following habitat of threatened species or ecological communities: (i) karst, caves, crevices, cliffs and other geological features of significance (ii) rocks (iii) human made structures (iv) non-native vegetation (prescribed under clause 6.1(1)(a) of the BC Regulation). Impacts may include the removal or modification (eg. noise, light etc) of the habitat of threatened species or ecological communities.
Threatened species abundance 1.4(a) BC Regulation	Occurrence and abundance of threatened species or threatened ecological communities, or their habitat, at a particular site		Describe how the proposed development avoids impacts on threatened species abundance and identify the likelihood and extent of any remaining impacts including impacts of vehicle strikes on threatened species of animals or on animals that are part of a threatened ecological community (prescribed under clause 6.1(1)(f) of the BC Regulation).

Biodiversity value	Meaning	Relevant (√or NA)	Explain and document potential impacts including additional impacts prescribed under the BC Regulation Attach additional supporting documentation where appropriate
Habitat connectivity 1.4(c) BC Regulation	Degree to which a particular site connects different areas of habitat of threatened species to facilitate the movement of those species across their range		Identify whether the development site contributes to habitat connectivity. Describe how the proposed development avoids impacts on habitat connectivity and identify the likelihood and extent of any remaining impacts of development on the connectivity of different areas of habitat of threatened species that facilitates the movement of those species across their range (prescribed under clause 6.1(1)(b) of the BC Regulation).
Threatened species movement 1.4(d) BC Regulation	Degree to which a particular site contributes to the movement of threatened species to maintain their lifecycle		Describe how the proposed development avoids impacts on threatened species movement and identify the likelihood and extent of any remaining impacts of development on movement of threatened species that maintains their lifecycle (prescribed under clause 6.1(1)(c) BC Regulation).
Flight path integrity 1.4(e) BC Regulation	Degree to which the flight paths of protected animals over a particular site are free from interference		Identify whether flight paths of protected animals occur over the development site. Protected animals are animals of a species listed or referred to in Schedule 5 of the BC Act. They include any species of birds, mammals, amphibians or reptiles that are native to Australia or that periodically or occasionally migrate to Australia. Describe how the proposed development avoids impacts on flight path integrity and identify the likelihood and extent of any remaining impacts. Note: The impacts of wind turbine strikes on protected animals are prescribed under clause 6.1(1)(e) of the BC Regulation. It is, therefore, unlikely that a BDAR waiver would be issued for a proposed wind farm.
Water sustainability 1.4(f) BC Regulation	Degree to which water quality, water bodies and hydrological processes sustain threatened species and threatened ecological communities at a particular site.		Describe how the proposed development avoids impacts on water sustainability and identify the likelihood and extent of any remaining 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 or other development) (prescribed under clause 6.1(1)(d) of the BC Regulation).



APPENDIX B

CURRICULUM VITAE



Curriculum Vitae

Name:

Position:

Qualifications:

Daryl Harman

Senior Ecologist

Bachelor of Applied Science, (Environmental Science). Charles Sturt University Wagga Wagga. 1994-1997. Certificate II in Bushland Regeneration, North Wagga TAFE, 1998. Accredited BioBanking Assessor under the NSW Threatened Species Conservation Act 1995 No. 159. BAM Assessor Accreditation No: BAAS17074 Valid 13/11/2020

Fields of Competence:

- Flora and Fauna Impact Assessments
- Field Surveys involving Flora, Fauna and Habitat identification
- Ecological Constraints Assessments
- Environmental Management Plans
- Habitat Tree Identification and Clearance Supervision
- Nest Box Management Plans, Installation and Monitoring
- Geographic Information System Mapping
- Aquatic Fauna Surveys
- Plant identification.
- Fauna identification including invertebrates

Licences and other

- Scientific Investigation Licence, NSW National Parks and Wildlife Service.
- NSW Drivers Licence, Class C.
- Current with Lyssa Virus injections.
- Current Whitecard to work on construction sites.
- Work Safely at Heights RIIWHS204D card.

PROFESSIONAL EMPLOYMENT AND EXPERIENCE Wildthing Environmental Consultants, Newcastle (2002–Present) -Ecologist

Details of work carried out:

- Biodiversity Development Assessment Reports (BDAR)
- Biodiversity. Stewardship Site Assessment Report (BSSAR)
- Assessments on Flora and Fauna including invertebrates
- Species Impact Statements
- Five Part Test Assessments for Flora and Fauna.
- Environmental Management Plans.
- Bushfire Protection and Attack Assessments.
- Habitat Tree Felling Supervision
- Nest Box installation, monitoring & maintenance.
- Aquatic Surveys

Total Earth Care Pty. Ltd Warriewood NSW (2001 – 2002) - Bush Regenerator. Working around various sites in the Greater Sydney area.

Johnstone Centre, Charles Sturt University, Wagga Wagga, NSW - August & October 2001 Casual Technician (Flora and fauna surveys)

Charles Sturt University, Wagga Wagga NSW, Science and Technology (April 1999 – March 2001) Casual Technical Officer.

NSW Department of Agriculture, Wagga Wagga - Casual Regulatory Officer/Casual Farm Assistant (1998).

Greening Australia, Wagga Wagga, NSW (November/December 1998) Casual Technical Officer (Roadside Flora Surveys).

Charles Sturt University, Wagga Wagga NSW, Science and Technology (November/ December 1997) - Casual Technical Officer

Lot 6 DP 598833 Henry Parry Drive



GOSFORD NSW

Australian Army (1992 – 1997) - Infantry Soldier, Ready Reserve Scheme. 8/9 RAR Enoggera, Brisbane QLD.

Certificates/Short Courses

- Nest Box Workshop: Ecological Consultants Association of NSW. Hunter Valley Retreat, Quorrobolong NSW, 26 July 2019.
- Green and Golden Bell Frog Habitat Management Workshop, Sydney Olympic Park. 21 March 2019.
- Flying-Fox Rescue Workshop Hunter Wildlife Centre Shortland. Presented by John and Sandy Penman with Lacy their Flying Fox. Native Animal Trust Fund. 24 February 2019.
- First Aid and Care of Lizards and Turtles Hunter Wildlife Centre Shortland. Presented by Teresa Purnell and Kim Croft. 2 February 2019.
- Waterbug Blitz Training Workshop. Summerhill Waste Management Centre, Wallsend. Monday 8 October 2018.
- Work Safely at Heights RIIWHS204D Statement of Attainment (1 February 2018) Newcastle Rescue & Consultancy Pty Ltd, Beresfield, NSW.
- BAM Accredited Assessor Training 5-day Course, Newcastle 18-22 September 2017.
- Threatened Invertebrate Workshop (Snails. Dragonflies, Beetle, Moths & Butterflies. Dr Chris Reid & Dr Frank Koehler - Australian Museum, Sydney. Ecological Consultants Association of NSW. 22 June 2017.
- Statement of Attainment Prepare and Apply Chemicals AHCCHM303A, Transport, handle and store chemicals AHCCHM304A. Blackbutt Rangers Cottage, 11 February 2016.
- Shorebird Identification and Assessment Workshop. Ecological Consultants Association of NSW. Course Leader - Phil Straw. 20 April 2015.
- BioBanking & Biodiversity Certification Assessor Accreditation Training Course 4 8 August 2014.
- Snail Workshop Australian Botanic Garden, Mount Annan. Presented by Dr Stephanie Clark, Director of Invertebrate Identification Australia. 24 January 2013.
- Statement of Attainment Apply First Aid (HLTFA311A Allens Training 28 September 2012.
- Eucalypts of the Sydney Region. Eucalypt identification workshop with Van Klaphake. CECAL Hall, Earlwood. (10 & 11 July 2010).
- HLTFA301B Apply First Aid (17 September 2009).
- Safe Working at Heights Statement of Attainment (August 2008) Combined Safety Services, Adamstown NSW. BCPRF2001A.
- Sedges and Rushes of Sydney and the Blue Mountains –Van Klaphake. Marrickville, Sydney. (21 & 22 May 2005).
- Workshop on the Translocation of Threatened Plants. June 2004 Royal Botanic Gardens Sydney.
- Community Greening Volunteer. Newcastle City Council. 30 August 2003 Induction Training Module.
- 25 March 2002 Occupational Health and Safety, Induction Training for Construction Work. General course under the Occupational Health and Safety Regulation 2001. Work Cover NSW. Course completed to work on worksites.
- Identification of Coleoptera from the Australo-Pacific Region CSIRO Canberra. (10 16 December 2001).
- 13th Taxonomic Workshop: Hirudinea, Lepidoptera, Mollusca, Nematoda, Odonata and Plecoptera. Lake Hume Resort. 12 13 February 2001.
- Certificate II in Bushland Weed Control, North Wagga TAFE, 1998.
- Chainsaw Operations North Wagga TAFE 1998.
- Wildlife Management A subject through Charles Sturt University, Thurgoona Campus, Albury NSW. Summer Break 1997.
- Shearing Shed Hand College Statement Wagga Wagga TAFE 1989.

Memberships

- Australian Association of Bush Regenerators. Accredited Member
- Ecological Consultants Association of NSW Full Practicing Member
- Member of Native Animal Trust Fund NATF