

**Due Diligence
Flora & Fauna and Bushfire**

for

**61 – 79 Henry Street, Penrith NSW
Lot 1, DP 771927**

Proposed planning proposal for re-zoning

Date 19 December 2019
Report No: AE19-2069-REP-ISS 1
Prepared for: Steven Herald, CEO, Australian Foundation for Disability (AFFORD)
Prepared by: Abel Ecology



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Document History

Report	Version	Prepared by	Technical Review by	Proofread by	Submission	
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Letter	Draft A	Mark Mackinnon & Dr Daniel McDonald		Steve Smith	Dropbox	November 2019
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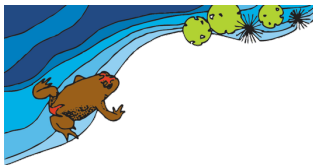


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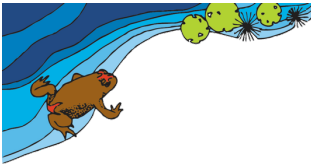
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List of Abbreviations

APZ Asset Protection Zone
EEC Endangered Ecological Community

Note regarding maps in this report

The diagrams/site maps used in this report have been supplied by and are used with the permission of Steven Herald (CEO, Australian Foundation for Disability (AFFORD)).

With regard to maps provided by the Land Information Centre, Topographic maps used with the permission of © Land and Property Information, NSW.

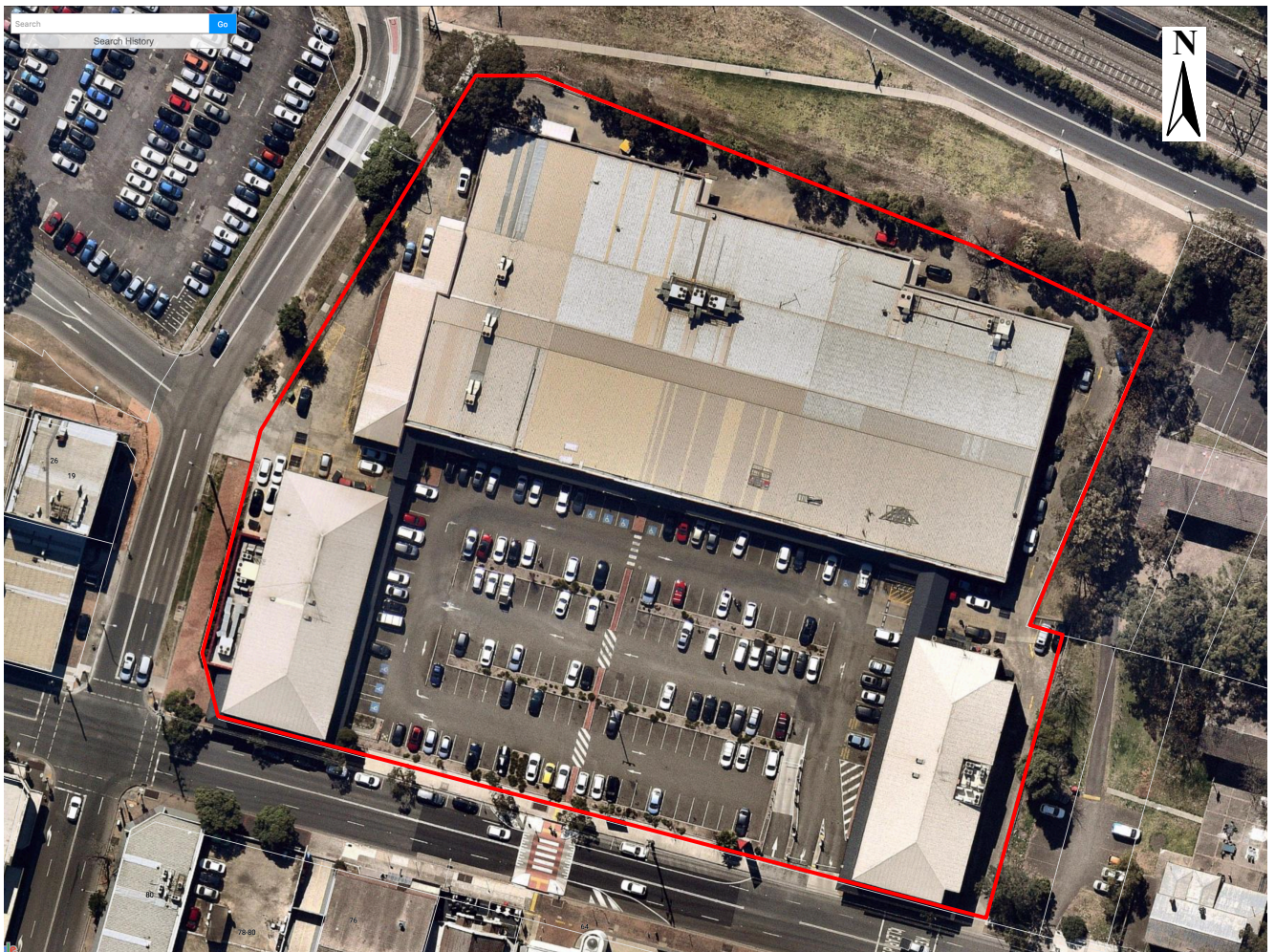
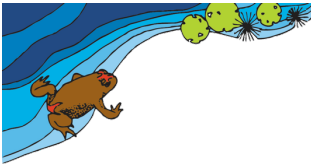



Figure 1. Locality map for Lot 1, DP771927, 61-79 Henry St, Penrith NSW ('the site').

 Site boundary

© Land and property Information NSW. Spatial Information eXchange (SIX) website 2019.

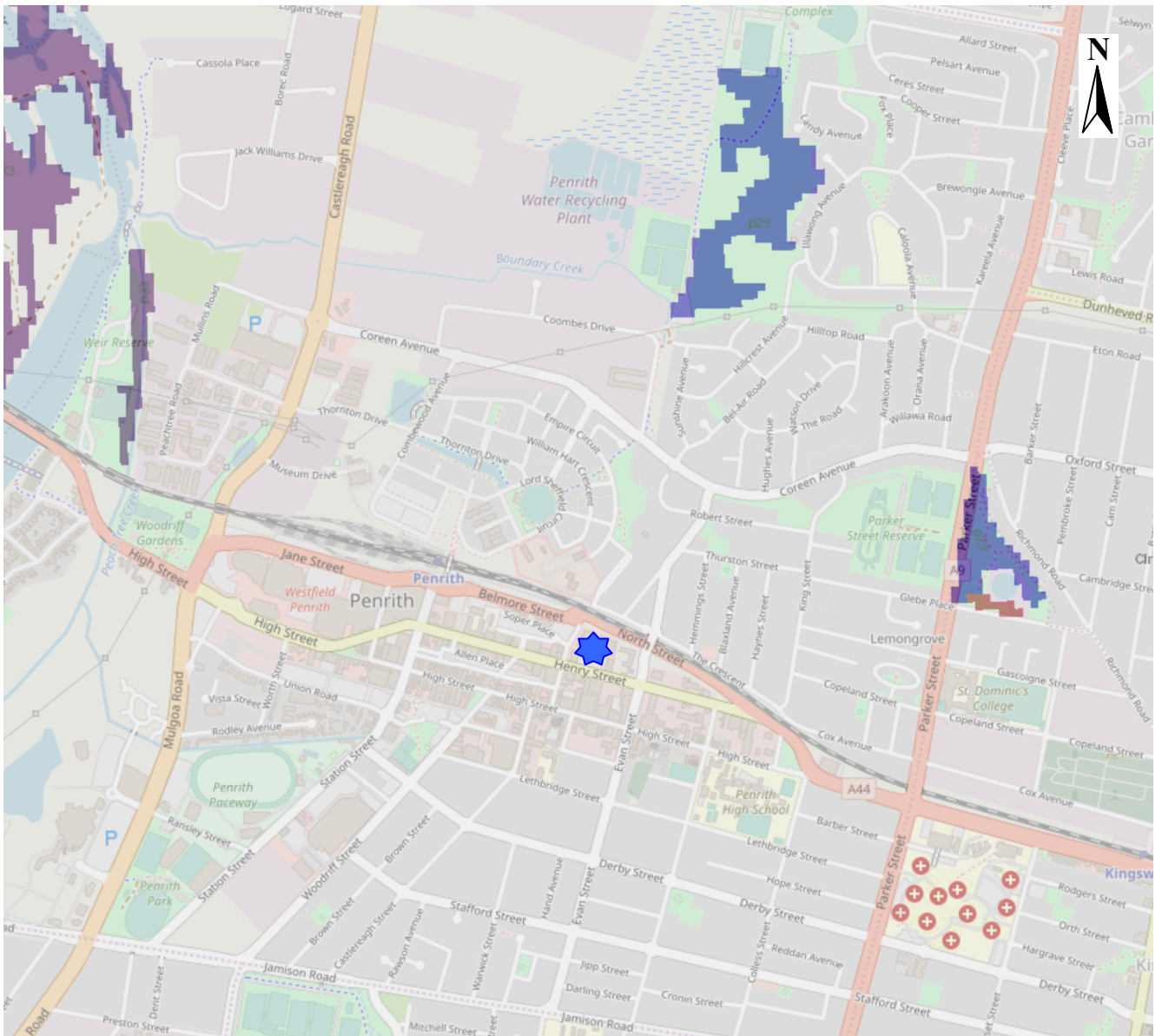
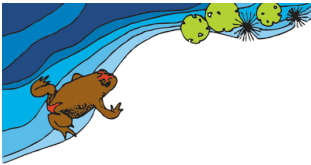


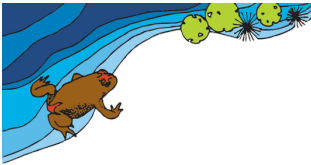
Figure 4. Locality vegetation map.

Site location



Source Map: NSW SEED website Vegetation Map – Southeast NSW Native Vegetation – SouthCoast_SCIVL_v14_E_2230 accessed 15Nov19.

- Cumberland Shale Plains Woodland
- Cumberland River Flat Forest
- Cumberland Shale Hills Woodland



Executive Summary

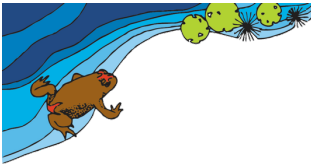
A bushfire and flora and fauna assessment of the proposed Principal Development Area (PDA) at Lot 1, DP771927, 61-79 Henry St, Penrith NSW ('the site' – Figure 1) was undertaken on 29 October 2019.

The aim of the assessment is to ascertain the potential fire hazard and to survey the vegetation and fauna on site and determine whether it consists of remnant vegetation, or threatened, protected or endangered flora and fauna as prescribed by the NSW Department of Planning, Industry and Environment (DPIE).

The current site and the adjoining properties are commercial and public service buildings. The vegetation consists of local and planted native trees and shrubs, planted exotic species and weeds around the outside edge of the current boundary. Approximately 50% of the vegetation is just outside or up against the boundary fence, with the remainder of the vegetation inside the fence.

The following conclusions and recommendations apply:

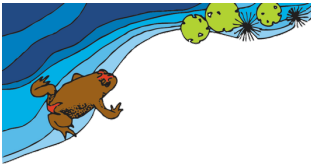
- a) The site is not mapped as bush fire prone land, therefore no specific asset protection zone or construction measures are required for bushfire protection.
- b) The majority or perhaps all of the vegetation on the site consists of planted or naturalised native and exotic species. No threatened flora were recorded on the site.
- c) A small area of the Critically Endangered Ecological Community Cumberland Plain Woodland may be present on the adjoining site. It may also perhaps extend into the site, such as through tree protection zones.
- d) It is recommended that a level five (5) arborist, or equivalent; or landscape designer/architect with suitable qualifications and experience be engaged during the design phase to address the recommendations e-h below.
- e) Tree protection zones must be considered for any trees off-site and any trees proposed for retention on-site. Tree-protection zones for trees off-site may extend onto the site and may slightly reduce developable area.
- f) When the landscape plan is prepared for the site, the soils and growing media for trees and other plantings must be adequately considered. Adequate soil volume and structure to support large trees as indicated in the landscape plans must be incorporated into the landscape design.
- g) The landscape plan must include suitable large trees to provide benefits such as modification of the local microclimate during warmer weather. These trees may be native species or suitable exotic species. No species that are potentially environmental weeds are to be included in any planting plan.



- h) For any future landscaping Abel Ecology recommends considering the inclusion of locally indigenous species, such as:
- I. Trees
 - Eucalyptus moluccana*
 - Eucalyptus tereticornis*
 - Eucalyptus crebra*
 - Angophora floribunda*
 - Melaleuca linariifolia*
 - II. Shrubs
 - Indigofera australis*
 - Acacia falcata*
 - Acacia parramattensis*
 - Acacia implexa*
 - III. Grasses and ground covers
 - Austrostipa ramosissima*
 - Microlaena stipoides*
 - Dianella revoluta*
 - Themeda australis*
- i) An appropriate location for the local native species is potentially along the northern and north-eastern boundaries.
- j) If the proposal is a state significant development or state significant infrastructure then a Biodiversity Development Assessment Report (BDAR) or a waiver will be required.

Special considerations

- a) Site vegetation conditions detailed in this report are subject to change over time due to various factors, e.g. germination from seed bank, bushfire, etc. It is recommended that this report be submitted within 6 months, after which further fieldwork may be required.
- b) With regard to any clearing of native vegetation on the property, it is the responsibility of the landowner to check whether all required permissions from local and statutory authorities are in place. This may include Parts 3, 4 and 5 of the *EP&A Act 1979*; s.4.46 and s.4.53 licences; licence or conservation agreement under the *NP&W Act 1974*; or approvals under the *Local Land Services Act 2013* and or the *Biodiversity Conservation Act 2016*.



1. Introduction

A fauna and flora survey of the proposed development site at Lot 1, DP771927, 61-79 Henry St, Penrith NSW ('the site' –Figure 1) was undertaken on 29 October 2019.

It is the understanding of Abel Ecology that this document is to provide general considerations of the site. A preliminary proposal has been prepared for guidance, however no assessment of a proposal is undertaken in this document. This document provides general details about opportunities and constraints on the site.

The main aim of this survey was to provide preliminary data so that the biodiversity assessment requirements of the *Environmental Planning and Assessment Act 1979*, the *Biodiversity Conservation Act 2016* and the *Biodiversity Conservation Regulation 2017* can be considered.

Three "tests" are to be considered when determining whether a proposal will trigger the biodiversity offsets scheme and require a Biodiversity Development Assessment Report (BDAR) or a Biodiversity Certification Assessment Report (BCAR).

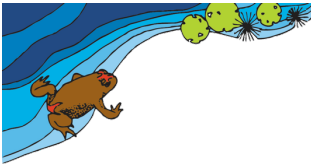
The three tests are:

- Will clearing of native vegetation be greater than the government threshold for the site?
- Will any activities associated with the proposal take place on the Biodiversity Values Map?
- Will the proposal trigger the "test of significance" – the five-part test?

The "test of significance" is used to determine whether the present proposal is likely to cause a significant effect on any endangered ecological community, endangered population, threatened species or their habitats. This assessment is based on the five factors listed under Section 7.3 of the *Biodiversity Conservation Act*.

This assessment addresses both 'endangered' and 'vulnerable', as required by the *Biodiversity Conservation Act 2016* (BC Act 2016). Throughout this report 'threatened' refers to those species and communities listed as 'endangered' or 'vulnerable' in Schedules 1 & 2 of the BC Act 2016. 'Protected fauna' refers to any native bird, mammal (except the dingo), reptile or amphibian in NSW.

Other planning instruments addressed include SEPP 44 Koala Habitat Protection and Planning for Bushfire Protection. Local planning instruments include the Penrith Local Environment Plan 2010, and Penrith Development Control Plan 2014.



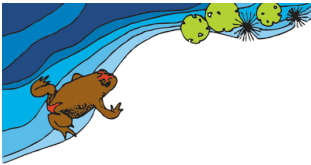
1.1 Planning Relationships

1.1.1 Legislation

Section 4.14 *Environmental Planning and Assessment Act 1979 (Previously s.79BA EP & A Act 1979)*,
Section 4.15(1)(c) *EP & A Act 1979 (Previously s.79C(1)(c) EP & A Act 1979)*,
Section 9.1 *EP & A Act 1979 (Previously s.117 EP & A Act 1979)*,
Section 4.46 *EP & A Act 1979 (Previously s.91 EP & A Act 1979)*,
Section 100B *Rural Fires Act 1997*,
Clause 44 *RF Regulation 2013*,
Clause 45 *RF Regulation 2013*,
Clause 46 *RF Regulation 2013*
Rural Fires Act 1997 (amended) s.63(1), 63(2),
Biodiversity Conservation Act 2016,
Biodiversity Conservation Regulation 2017,
Environmental Protection and Biodiversity Conservation Act 1999 (Commonwealth).

1.1.2 Planning Policies

- a) Planning for Bush Fire Protection 2018 (Pre-release version)
- b) Penrith Local Environment Plan 2010
- c) Penrith Development Control Plan 2014
- d) Standards Australia (2018) AS 3959, Construction of buildings in bushfire-prone areas.
- e) Adjacent land is controlled by the Cumberland Bushfire Risk Management Plan 2010.



2. The site

2.1 Site description

For the purposes of this report, the site is defined by the boundaries of Lot 1, DP771927, 61-79 Henry St, Penrith NSW. The site is 1.62 ha (approx) in size and the elevation is roughly 35 m above sea level.

The site is currently zoned Commercial Core (B3) and is relatively flat. There are no water bodies or creeks onsite. A significant proportion of the site is designated car parking and road pavement. Limited garden beds are the only unsealed areas of exposed earth. Surface water drains in a north-westerly direction.

The current site and the adjoining properties are commercial and public service buildings.

2.2 Vegetation and fauna habitat description

The majority of the vegetation is present along site boundaries. Some of the vegetation, including trees and shrubs along the site boundaries appears to be on-site while other areas of trees and shrubs is off-site. Table 1 provides details of trees and shrubs identified on the site or near to the site. Herbaceous species including planted exotic species, native species or weeds were not identified.

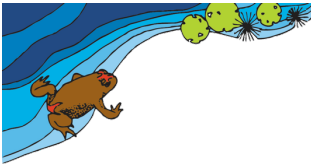
The vegetation consists of local and planted native trees and shrubs, planted exotic species and weeds around the outside edge of the current boundary. Approximately 50% of the vegetation is just outside or up against the boundary fence, with the remainder of the vegetation inside the fence. The majority of the trees and shrubs are also planted in a line strongly suggesting that they are planted rather than being regrowth of indigenous vegetation.

A few of the plants detailed in Table 1 are known to be local natives, such as *Eucalyptus tereticornis*, *Eucalyptus crebra* and *Acacia decurrens*. A precautionary approach is taken in this report and while it is likely that most or all of these species were planted, they may be remnants of Cumberland Plain Woodland. These species appear primarily adjacent to the north-east corner and on the other side of the fence. It is assumed these species are off-site.

Natural fauna habitat is limited primarily to canopy trees and shrubs.

2.3 Significant environmental features

Penrith City Council has not listed any significant environmental constraints on the site.



2.4 Threatened Flora and Fauna

No part of the land has been identified as critical habitat.

2.5 Archaeological and Heritage Significant sites

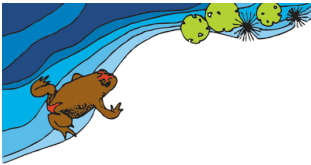
Abel Ecology is not aware of any recorded items of heritage or Aboriginal significance on the land. The AHIMS online basic search results can be seen in Appendix 2.

2.6 Survey methodology

A detailed walkover survey was conducted to compile vegetation descriptions and tree and shrub species lists for the site.

The method of survey undertaken to detect the various faunal groups or their habitat was based on visual inspection of likely habitat area.

Roads and road verges were searched for road-kill fauna. Surveys for mammals, reptiles and frogs are generally run concurrently. Targeted surveys were not made for threatened species on the basis of known local species records and habitat availability.



3. Consideration of the BC Act and BC Regulation

No threatened flora or fauna were recorded on the site during the survey. Some flora species known to be part of the Critically Endangered Ecological Community Cumberland Plain Woodland were recorded during the site survey. It is unknown if these plants are remnant or planted individuals.

A consideration of the three triggers for entry into the NSW biodiversity offsets scheme is presented. A fourth trigger may also be relevant for this proposal.

Trigger 1: There is no minimum lot size for the site. The actual lot size is approximately 1.62 ha in size. The biodiversity offset scheme will only be triggered if native vegetation clearing exceeds 0.5 ha or more. The total area of vegetation, including exotic plantings, native plantings and potential remnant vegetation is less than 0.3 ha on this site. Trigger 1 will not be activated.

Trigger 2: No part of the site overlaps any mapped area of Biodiversity Values. Trigger 2 will not be activated.

Trigger 3: The five-part test assessment. No five-part test is included in this report. However, it is unlikely that a significant effect will be triggered by this proposal, providing any areas of Cumberland Plain Woodland are avoided as part of the proposal. Further consideration of a five-part test assessment for the site can be provided as required.

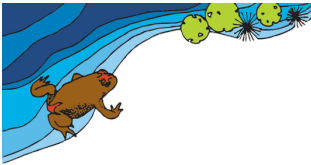
Additional consideration (fourth trigger): If the proposal is a state significant development or state significant infrastructure then a Biodiversity Development Assessment Report (BDAR) or a waiver will be required.

4. Bushfire

Survey methods were applied in accordance with assessment methodology set in Appendix 1 of *Pre-release of Planning for Bushfire Protection 2018*.

The site is not designated bushfire prone land and the nearest mapped bushfire prone land is located 1.1 km to the northeast at Kanangra Reserve, or at a very similar distance on undeveloped land to the north.

Compliance with *Planning for Bushfire Protection* does not apply to the proposal.



5. Conclusions and recommendations

The following conclusions and recommendations apply:

- a) The site is not mapped as bush fire prone land, therefore no specific asset protection zone or construction measures are required for bushfire protection.
- b) The majority or perhaps all of the vegetation on the site consists of planted or naturalised native and exotic species. No threatened flora were recorded on the site.
- c) A small area of the Critically Endangered Ecological Community Cumberland Plain Woodland may be present on the adjoining site. It may also perhaps extend into the site, such as through tree protection zones.
- d) It is recommended that a level five (5) arborist, or equivalent; or landscape designer/architect with suitable qualifications and experience be engaged during the design phase to address the recommendations e-h below.
- e) Tree protection zones must be considered for any trees off-site and any trees proposed for retention on-site. Tree-protection zones for trees off-site may extend onto the site and may slightly reduce developable area.
- f) When the landscape plan is prepared for the site, the soils and growing media for trees and other plantings must be adequately considered. Adequate soil volume and structure to support large trees as indicated in the landscape plans must be incorporated into the landscape design.
- g) The landscape plan must include suitable large trees to provide benefits such as modification of the local microclimate during warmer weather. These trees may be native species or suitable exotic species. No species that are potentially environmental weeds are to be included in any planting plan.
- h) For any future landscaping Abel Ecology recommends considering the inclusion of locally indigenous species, such as:

IV. Trees

Eucalyptus moluccana
Eucalyptus tereticornis
Eucalyptus crebra
Angophora floribunda
Melaleuca linariifolia

V. Shrubs

Indigofera australis
Acacia falcata
Acacia parramattensis
Acacia implexa



VI. Grasses and ground covers

Austrostipa ramosissima

Microlaena stipoides

Dianella revoluta

Themeda australis

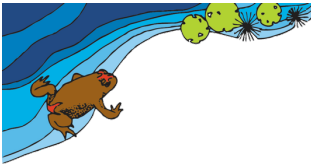
- i) An appropriate location for the local native species is potentially along the northern and north-eastern boundaries.
- j) If the proposal is a state significant development or state significant infrastructure then a Biodiversity Development Assessment Report (BDAR) or a waiver will be required.



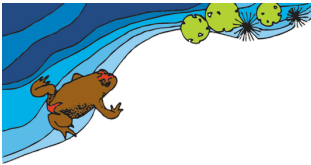
Appendix 1. Site flora species list

Table 1. Flora species including trees, shrubs and weeds.

Species name	Common name	Distribution
Native trees		
<i>Eucalyptus tereticornis</i>	Forest Red Gum	Potential remnant
<i>Eucalyptus sideroxylon</i>	Mugga Ironbark	Sydney district native
<i>Eucalyptus crebra</i>	Narrow leaved Ironbark	Potential remnant
<i>Acacia decurrens</i>	Black Wattle	Potential remnant
<i>Allocasuarina littoralis</i>	Black She-oak	Potential remnant
<i>Melia azedarach</i>	White cedar	Potential remnant
<i>Tristaniaopsis laurina</i>	Water gum	Sydney district native
<i>Corymbia citriodora</i>	Lemon-scented Gum	Queensland native
<i>Eucalyptus microcorys</i>	Tallowood	NSW native
<i>Lophostemon confertus</i>	Brush Box	NSW native
<i>Grevillea robusta</i>	Silky Oak	NSW native
Native shrubs		
<i>Melaleuca hypericifolia</i>	Hillock Bush	Sydney district native
Planted native shrubs		
<i>Melaleuca bracteata</i>	Black tea-tea	NSW native
<i>Callistemon viminalis</i>	Weeping bottle-brush	NSW native
<i>Callistemon rigidus</i>	Stiff bottle-brush	Sydney district native
<i>Leptospermum petersonii</i>	Lemon-scented tea-tree	NSW native
<i>Westringia fruticosa</i>	Coastal Rosemary	Sydney district native
Planted groundcovers		
<i>Dianella caerulea</i>	<i>Dianella caerulea</i>	
<i>Lomandra "tanika"</i>	Lomandra tanika	Native horticultural cultivar
Native mistletoes		
<i>Amyema pendulum</i>	Drooping Mistletoe	Potential remnant
<i>Dendrophthoe vitellina</i>	Mistletoe	Potential remnant
Exotic planted trees		
<i>Jacaranda mimosifolia</i>	Jacaranda	Planted exotic
<i>Washingtonia</i> sp.	Fan palm	Planted exotic
<i>Punica granatum</i>	Pomegranate	Planted exotic
<i>Platycladus orientalis</i>	Chinese thuja	Planted exotic
<i>Pyrus calleryana</i>	Callery Pear	Planted exotic
<i>Metrosideros excelsa</i>	New Zealand Christmas tree	Planted exotic
Exotic planted shrubs		
<i>Photinia serratifolia</i>	Chinese Photinia	Planted exotic



Species name	Common name	Distribution
<i>Nerium oleander</i>	Oleander	Planted exotic
<i>Nandina domestica</i>	Japanese Sacred Bamboo	Planted exotic
<i>Viburnum tinus</i>	Laurestinus	Planted exotic
Invasive weeds and weeds		
<i>Acer negundo</i>	Box-elder Maple	Invasive weed
<i>Olea europaea Sub.spp. cuspidata</i>	African Olive	Invasive weed
<i>Ligustrum lucidum</i>	Large-leaved Privet	Invasive weed
<i>Bryophyllum delagoense</i>	Mother-of-millions	Invasive weed
<i>Sonchus oleaceus</i>	Milk thistle	weed
Total Species: 31		



Appendix 2. AHIMS search results



AHIMS Web Services (AWS) Search Result

Purchase Order/Reference : AFFORD 2069, Penrith

Client Service ID : 465213

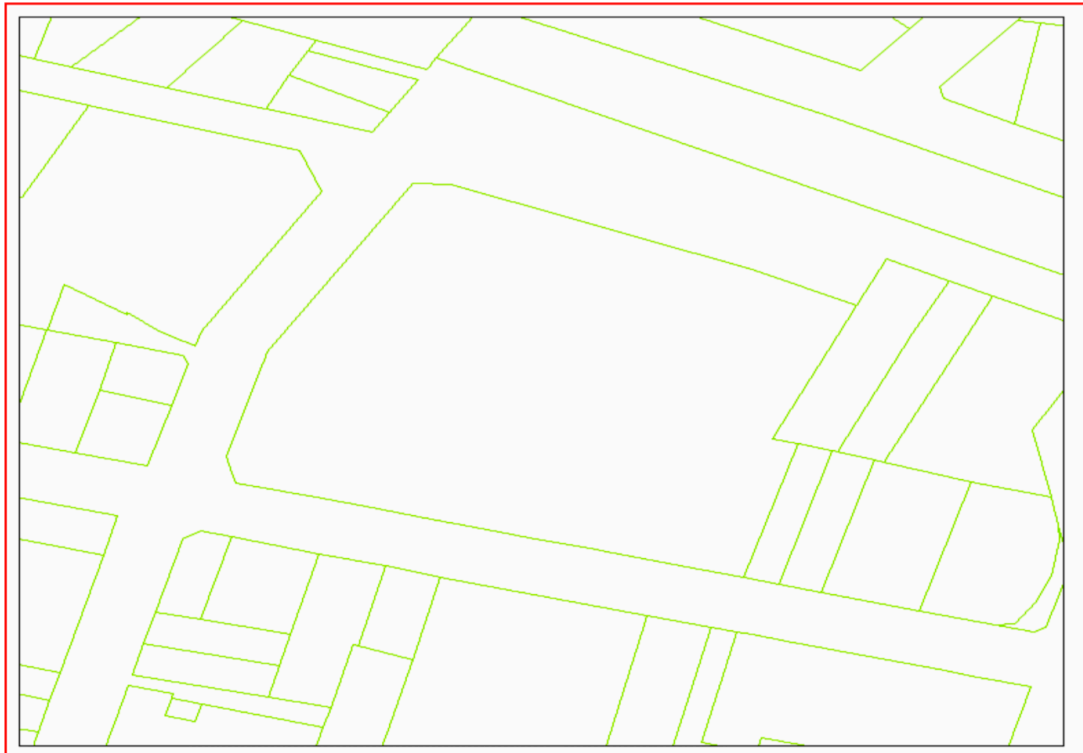
Abel Ecology - Springwood
PO BOX 495
Springwood New South Wales 2777
Attention: Adrian Wotherspoon
Email: info@abelecoology.com.au

Date: 18 November 2019

Dear Sir or Madam:

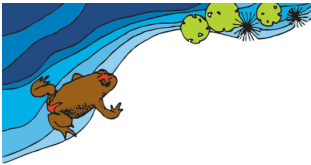
AHIMS Web Service search for the following area at Lot : 1, DP:DP771927 with a Buffer of 50 meters, conducted by Adrian Wotherspoon on 18 November 2019.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

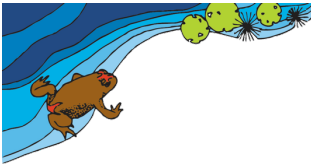


If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette](http://www.nsw.gov.au/gazette) (<http://www.nsw.gov.au/gazette>) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not to be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.



Appendix 3. Company Profile

Abel Ecology has been in the flora and fauna consulting business since 1991, starting in the Sydney Region, and progressively more state wide in New South Wales since 1998, and now also in Victoria. During this time extensive expertise has been gained with regard to Master Planning, Environmental Impact assessments including flora and fauna, bushfire reports, Vegetation Management Plans, Management of threatened species, Review of Environmental Factors, Species Impact Statements and as Expert Witness in the Land and Environment Court. We have done consultancy work for industrial and commercial developments, golf courses, civil engineering projects, tourist developments as well as residential and rural projects. This process has also generated many connections with relevant government departments and city councils in NSW. Our team consists of four scientists and two administrative staff, plus casual assistants as required.

Licences

NPWS s132C Scientific licence number is SL100780 expires 30 April 2020

NPWS GIS data licence number is CON95034

DG NSW Dept of Primary Industries Animal Care and Ethics Committee Approval expires 8 November 2021

DG NSW Dept of Primary Industries Animal Research Authority expires 8 November 2020

The Consultancy Team

Dr Danny Wotherspoon

Grad Dip Bushfire Protection (University of Western Sydney 2012)

PhD (researching Cumberland Plain vegetation and fauna habitat, at Centre for Integrated Catchment Management, University of Western Sydney, 2008)

Planning for Bushfire Protection Certificate course (University of Technology, 2006)

Consulting Planners Bushfire Training Course (Planning Institute of Australia, 2003)

MA (Macquarie University, 1991)

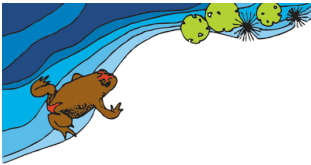
Wildlife Photography Certificate (Sydney Technical College, 1987)

Herpetological Techniques Certificate (Sydney Technical College, 1986)

Applied Herpetology Certificate (Sydney Technical College, 1980)

Dip Ed (University of New England, 1978)

BSc (Zoology, Ecology) University of New England 1974)



Dr Daniel McDonald

Cert IV – GIS (Riverina TAFE 2016)

PhD (The University of Sydney 2006)

M. Agr (The University of Sydney 1996)

B. Ag Sc. (The University of Sydney 1991)

Daniel is an accredited Biobanking Assessor

Quantified Tree Risk Assessment (QTRA) and Visual Tree Assessment (VTA)

Daniel is an experienced ecologist with expertise in fauna, plant species identification, vegetation assessment, agriculture, conservation genetics and seed collection and preservation. He is accredited both for BioBanking assessments and Biodiversity Certification. His present research interest is in Eastern Suburbs Banksia Scrub and fragmented endangered ecological communities.

Mark Mackinnon

Qualifications: B Env. Sci. (Hons),

Accredited Practitioner Level 2 - Bushfire Planning & Design (BPAD), Accreditation number 36395.

MEIANZ, General firefighter departmental accreditation, Snr 1st Aid Cert, Agricultural Chemical User Permit (1080 and PAPP), Chainsaw Lev.1 (Cross-cut), Manual 4x4 Driving Ticket, Medium-Rigid Vehicle Licence, Elevated-Work-Platform (+11m) Licence, Working at Height Cert., Simple & Complex Tree Climbing Cert., Venomous Snake and Reptile Handling Cert., Lyssavirus Immunisation (bat handling prerequisite), White Card.

Mark is a passionate and enthusiastic scientist who thrives in the field of natural resource management. In the last 6 years, Mark has worked for a number of inter-state government agencies and environmental consultancies. He has experience in threatened species, fire ecology, bushfire management, pest plant and animals, and landscape restoration. In particular he specializes in ornithology and bushfire management. Mark has a number of specialized field-based skills including: simple and complex tree climbing, working at heights, general firefighter departmental fire accreditation, venomous snake and reptile handling, immunization to handle bat species, and an A - class bird banding licence with mist-net endorsement. Mark is also skilled in ArcGIS mapping, first-aid, four -wheel-driving.