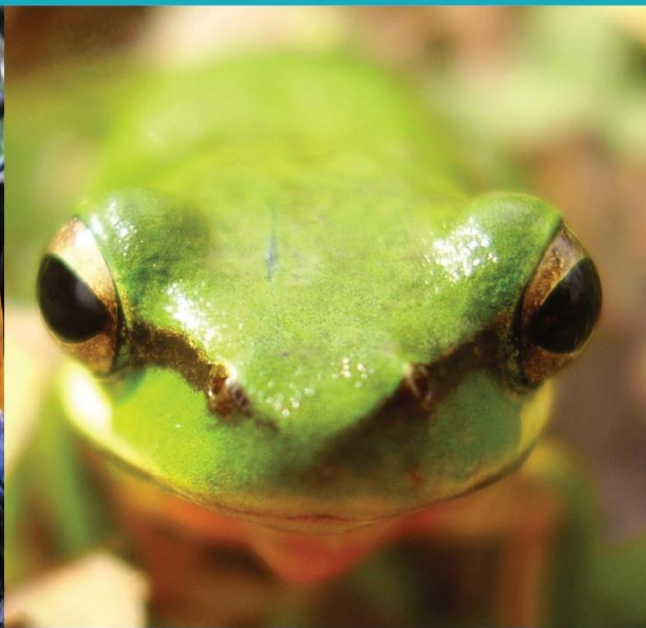




TRAVERS BUSHFIRE & ECOLOGY

A TBE ENVIRONMENTAL COMPANY



GLEDSDOOD HILLS HIGH SCHOOL – BIODIVERSITY REPORT

Lot 2, DP 1262720

9 Gregory Hills Drive, Gledswood Hills

7 January 2025

(Our reference: TSA15ECO)



GLEDSWOOD HILLS HIGH SCHOOL – BIODIVERSITY REPORT

Proposed new high school

Lot 2, DP 1262720, 9 Gregory Hills Drive, Gledswood Hills

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Date:	7/01/25
File:	TSA15ECO



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The mapping is indicative of available space and location of features which may prove critical in assessing the viability of the proposed works. Mapping has been produced on a map base with an inherent level of inaccuracy, the location of all mapped features is to be confirmed by a registered surveyor.

LIST OF ABBREVIATIONS

APZ	asset protection zone
BAM	Biodiversity Assessment Method (2020)
BAR	Biodiversity Assessment Report
<i>BC Act</i>	<i>Biodiversity Conservation Act (2016)</i>
<i>BC Reg</i>	<i>Biodiversity Conservation Regulation (2017)</i>
BCAR	Biodiversity Certification Assessment Report
BDAR	Biodiversity Development Assessment Report
BOS	Biodiversity Offset Scheme
BPA	bushfire protection assessment
BSSAR	Biodiversity Stewardship Site Assessment Report
CEEC	Critically endangered ecological community
<i>CM Act</i>	<i>Coastal Management Act 2016</i>
DAWE	Commonwealth Department of Agriculture, Water and the Environment (superseded by DCCEEW)
DCCEEW	NSW (2024) and Commonwealth Department of Climate Change, Energy, the Environment and Water
DCP	development control plan
DEC	NSW Department of Environment and Conservation (superseded by DECC from April 2007)
DECC	NSW Department of Environment and Climate Change (superseded by DECCW from October 2009)
DECCW	NSW Department of Environment, Climate Change and Water (superseded by OEHL from April 2011)
DEWHA	Commonwealth Department of Environment, Water, Heritage & the Arts (superseded by SEWPAC)
DOEE	Commonwealth Department of Environment & Energy (superseded by DAWE)
DPE	NSW Department of Planning and Environment
DPIE	NSW Department of Planning, Industry and Environment (superseded by DPE)
EEC	endangered ecological community
EPA	Environment Protection Authority
<i>EP&A Act</i>	<i>Environmental Planning and Assessment Act (1979)</i>
<i>EPBC Act</i>	<i>Environment Protection and Biodiversity Conservation Act (1999)</i>
<i>FM Act</i>	<i>Fisheries Management Act</i>
IBRA	Interim Biogeographic Regionalisation for Australia
LEP	local environmental plan
LGA	local government area
<i>LLS Act</i>	<i>Local Land Services Act (2013)</i>
NES	national environmental significance
<i>NPW Act</i>	<i>National Parks and Wildlife Act (1974)</i>
NRAR	Natural Resources Access Regulator (NSW)
NSW DPI	NSW Department of Industry and Investment
OEHL	Office of Environment and Heritage (superseded by DPIE from August 2019)
PCT	plant community type
PFC	projected foliage cover
RFS	NSW Rural Fire Service
SAIL	Serious And Irreversible Impacts
SEPP	State Environmental Planning Policy
SEWPAC	Commonwealth Dept. of Sustainability, Environment, Water, Population & Communities (superseded by DOEE)
SIS	species impact statement
TEC	threatened ecological community
TPZ	tree preservation zone
<i>TSC Act</i>	<i>Threatened Species Conservation Act (1995) – Superseded by the Biodiversity Conservation Act (2016)</i>
VMP	vegetation management plan

EXECUTIVE SUMMARY

This Biodiversity report has been prepared by *Travers bushfire & ecology (TBE)* on behalf of the NSW Department of Education (DoE) to assess the potential environmental impacts that may arise from the proposed new Gledswood Hills High School at Lot 2, DP 1262720, 9 Gregory Hills Drive, Gledswood Hills within the Camden Council Local Government Area (LGA). The activity has been proposed by the NSW Department of Education (DoE) to meet the growth in educational expectations in Gregory Hills and Gledswood Hills and the Southwest Growth Area.

The extent of this entire lot is shown in Figure 1. This lot is subject to a proposed activity and will hereafter be referred to as the 'study area.'

Proponent

The NSW Department of Education (DoE) is the proponent and determining authority pursuant to Section 5.1 of the *Environmental Planning and Assessment Act 1979* (the Act).

Landowner

The Minister for Education and Early Learning is the landowner. (Subject to acquisition of the site by DoE prior to the lodgement of the REF, which is ongoing)

Proposed Activity

The proposed activity is for the construction of the building for the Gledswood Hills High School and associated infrastructure. The project is seeking approval for a Development Without Consent (REF) application under Part 5 of the *EP&A Act*.

The site of the proposed school forms part of a larger site that is made up of eight separate lots. All eight lots are subject to an approved Concept Development Application (DA) (DA/2017/45/1) for a mixed-use development comprising bulky goods premises, business premises, food and drink premises, indoor recreation facilities, two hotels and a cinema.

Biodiversity and potential environmental impacts

Vegetation onsite does not conform to any listed Plant Community Types with no potential for threatened flora on site due to past and ongoing land management disturbances (refer to Figure 8). The site does contain any habitat features that are likely to be of importance to threatened fauna species. Notably, canopy species that could have the potential to contain any hollow bearing trees, old buildings that could provide habitat for microbats, and leaf litter around remnant trees to provide habitat for the Cumberland Plain Land Snail are all not present on the site.

Potential impacts to the drainage line on the eastern side of the study area could occur when ground clearance begins at the start of the activity, however any impacts can be mitigated using correct sediment fence placement along the boundary of the proposed area during construction works. The 2004 'Blue Book' by Landcom details measures that may be followed to minimise this low risk.

The site is clear of vegetation.

The site is also located on 'biodiversity certified land' within the Turner Road Precinct of the South West Growth Centre (see Figure 5). It was certified under the then State Environmental Planning Policy (Sydney Regional Growth Centre) 2006 and the then Threatened Species Conservation Act 1995 (TSC Act).

It is noted that the **Turner Road Precinct Development Control Plan 2007 (DCP 2007)**, applies to the site and therefore any controls under the DCP are to be complied with. The DCP 2007 was updated in 2018 and is now referred to as DCP 2018.

Mitigation measures

Mitigation measures to minimise the potential environmental impacts within the study area are outlined in Section 4. These are minor in nature given the lack of any existing ecological attributes likely to be directly or indirectly impacted.

The controls and associated mitigation measures of the Biodiversity Certification for Turner Road Precinct of the South West Growth Centre were enshrined into the updated version of the DCP as amended in 2018. For the purposes of development approval the mitigation measures are enshrined within the Turner Road Precinct DCP (2018).

A construction and environment management plan is to be prepared take into any requirements under the General Terms of Approval, DCP and the requirements of the Water Management Act (2000) and the Regulation (2003).

Environmental Management Controls as required in section 6 of the DCP 2018. These are outlined where relevant within Section 1.3.2. of this biodiversity report.

As the site is not mapped as a riparian corridor and does not contain any significant vegetation, the only DCP controls do not impose any significant controls that cannot other wise be covered under the CEMP. As this Biodiversity Report has not undertaken a full priority weed assessment of the site, we recommend that a Weed Eradication and Management Plan is appended to the CEMP.

Conclusion

In accordance with the Biodiversity Conservation (Savings and Transitional) Regulation 2017, biodiversity certification that was conferred under Part 7AA of the TSC Act is taken to be biodiversity certification conferred under the new Biodiversity Conservation Act 2016 (BC Act).

Therefore, there is no requirement to prepare a BDAR or BDAR Waiver for the project.

No Conflict of Interest Certification

Lindsay Holmes (BAAS 17032) is an accredited person under the *BC Act*. I, Lindsay Holmes, declare that I have no conflict of interest with this proposal.

Signed 17/12/2024



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1. INTRODUCTION

Travers bushfire & ecology (TBE) has been engaged by the NSW Department of Education (DoE) to undertake a Biodiversity Report within Lot 2, DP 1262720, at 9 Gregory Hills Drive, Gledswood Hills within the Camden Council Local Government Area (LGA). The extent of this entire lot is shown in Figure 1 below.

The works are proposed by the DoE to meet the growth in educational demand in Gregory Hills and Gledswood Hills, and the broader South West Growth Area.

The report has been prepared to provide advice regarding the biodiversity of, or utilising the site, and to prepare relevant mitigation measures where necessary to ensure that there are no significant impacts to biodiversity. The REF pathways requires that impacts are mitigated such that they are rendered as not significant. Section 4 will list out the likely site issues and provide the required mitigation measures to ensure compliance with the pathway.



Figure 1 – Study area (red)

1.1 Proposed activity

The proposed activity involves the construction and operation of a new high school at the site accommodating 1000 students, including:

- A series of school buildings along the northern, eastern and southern site boundaries.
- A school hall.
- An assembly area, sports field and multi sports courts.
- Car parking and a Kiss and Drop zone.
- Associated on and off-site infrastructure to support the school, including a new pedestrian crossing and relocation of the existing bus stop on Gregory Hills Drive to the site frontage.

The Review of Environmental Factors prepared by Ethos Urban provides a full description of the proposed works.

Figure 2 shows the proposed layout of the high school. Note the lack of native vegetation and habitat attributes in the aerial on Figure 1.



Figure 2 - Proposed site plan

1.2 Previous concept approval history

The site of the proposed school forms part of a larger site made up of eight separate lots. This report has considered the concept approval for Concept Development Application (DA) (DA/2017/45/1) for a mixed-use development comprising bulky goods premises, business premises, food and drink premises, indoor recreation facilities, two hotels and a cinema. It has been determined that the concept approval is not relevant to the subject of this report and the inferences for assessment have not been associated.

DA/2021/1956/1 for earthworks on site was approved by the Local Planning Panel.

1.3 Ecological assessment pathway and DCP controls

As the proposal is for a statutory authority, NSW Department of Education (DoE), the activity is being assessed under Part V of the Environmental Planning and Assessment Act (EP&A Act) 1979.

Part 5 of the EP&A Act 1979 establishes environmental assessment requirements for certain activities. These activities include:

- Infrastructure works, such as transport or utilities, carried out by public authorities
- Private development that requires government approvals other than development consent

The Part 5 assessment scheme includes the following duties:

- Examining and taking into account all matters affecting the environment
- Determining if an activity is likely to significantly affect the environment
- Not carrying out or granting an approval unless an environmental impact statement (EIS) has been provided

Therefore the proposal is being assessed through the preparation of an REF which requires an appropriate ecological assessment report to be prepared.

As a Part V matter the assessment under the Biodiversity Conservation Act 2000 is required.

1.3.1 Biodiversity Certification

The proposed activity occurs within biodiversity certified land, being part of the Southwest Growth Centre Biodiversity Certification that was conferred in 2007 (Figures 3 & 4).

When land is biodiversity certified, an activity can occur without the need for site-by-site biodiversity assessment under the *BC Act*. Any relevant conditions or measures of the biodiversity certification order are to be implemented if those measures are contained within the land upon which the proposed activity is occurring.



Figure 3 - Site location within certified lands, zoomed (in yellow)

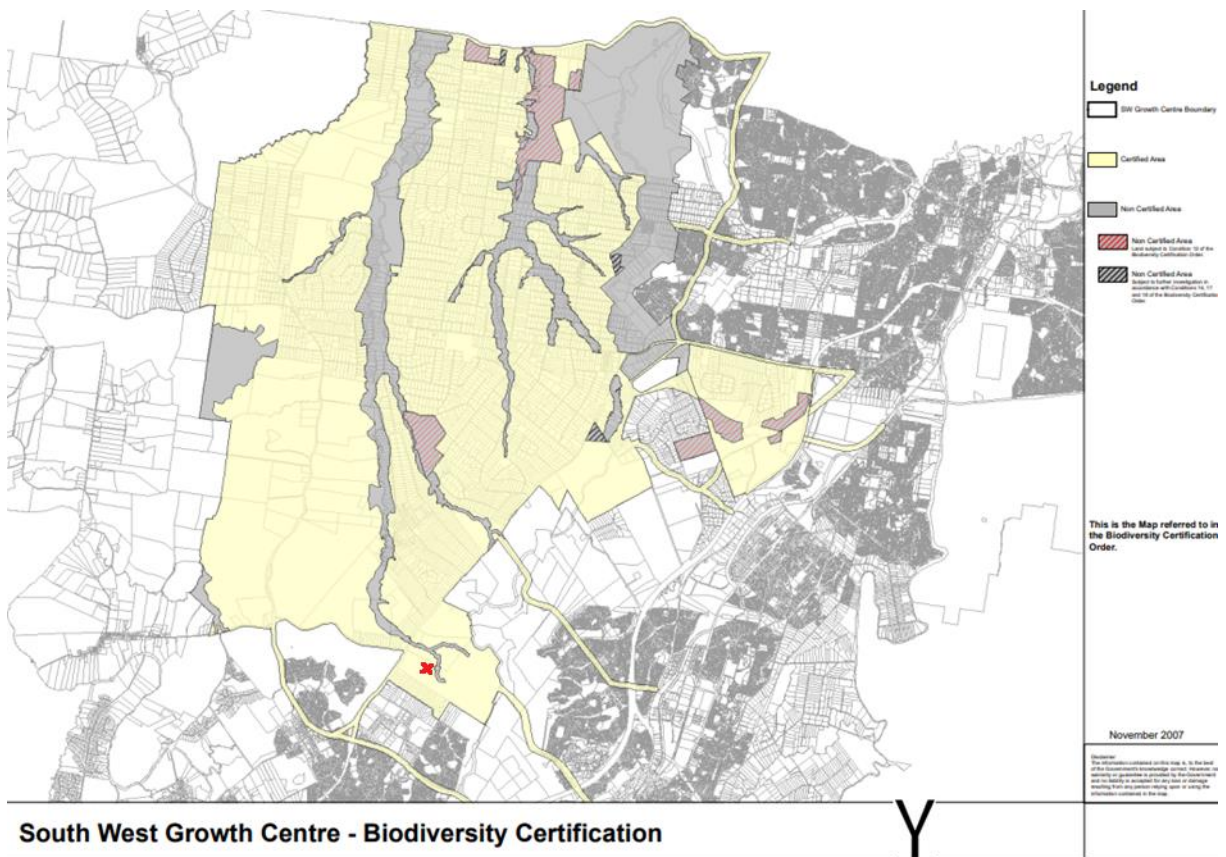


Figure 4 - Site location within certified lands (in yellow) -Full view of the south-west growth centres area

1.3.2 Turner Road Precinct Development Control Plan 2018 (DCP 2018)

Section 6 of the DCP 2018, the key controls relevant to biodiversity are covered under the following sections:

- Section 6.1 Riparian corridors
- Section 6.7 Tree retention and biodiversity

Riparian corridor controls

Objectives include:

- (a) To protect, restore and enhance the environmental qualities of water courses, in particular South Creek.
- (b) To ensure that the development has a neutral or beneficial impact on the quality and quantity of water and water courses.
- (c) To allow the use of riparian corridor buffers for low impact recreation activities such as walking and cycling.
- (d) To manage riparian corridors, wherever possible, in single ownership and as a continuous corridor.

Controls are as follows:

- (1) Riparian corridors are to be provided in accordance with the Oran Park and Turner Road Waterfront Land Strategy 2009 (The Strategy), except where located within Gregory Hills. The Strategy no longer applies where riparian land has been rezoned in accordance with State Environmental Planning Policy (Sydney Region Growth Centres) 2006.
- (2) Development in and adjoining riparian corridors shall be consistent with Part B2 of this DCP. In the event of any inconsistency between this DCP and the Waterfront Land Strategy, the Waterfront Land Strategy prevails.

Response

The site is not mapped as a riparian corridor as shown below:

The site is not mapped as containing a riparian corridor, however the South Creek Riparian Corridor is located to the north and east of the site (see **Figure 4**). The site is located over 40m from the riparian corridor, and so no further investigation or assessment is proposed.



Tree retention and biodiversity controls

Objectives include:

- (a) To ensure the protection and enhancement of existing significant trees and to improve or maintain biodiversity values within the precinct.
- (b) To maintain or improve as much existing vegetation as practicable within the precinct.
- (c) To reduce impacts of runoff from roads and impervious areas on adjacent lands.
- (d) To prevent the spread of weeds during and after construction.

Controls are as follows:

- (1) The vegetation of moderate significance identified at Figure 25 is to be retained where possible.

Turner Road Precinct Development Control Plan

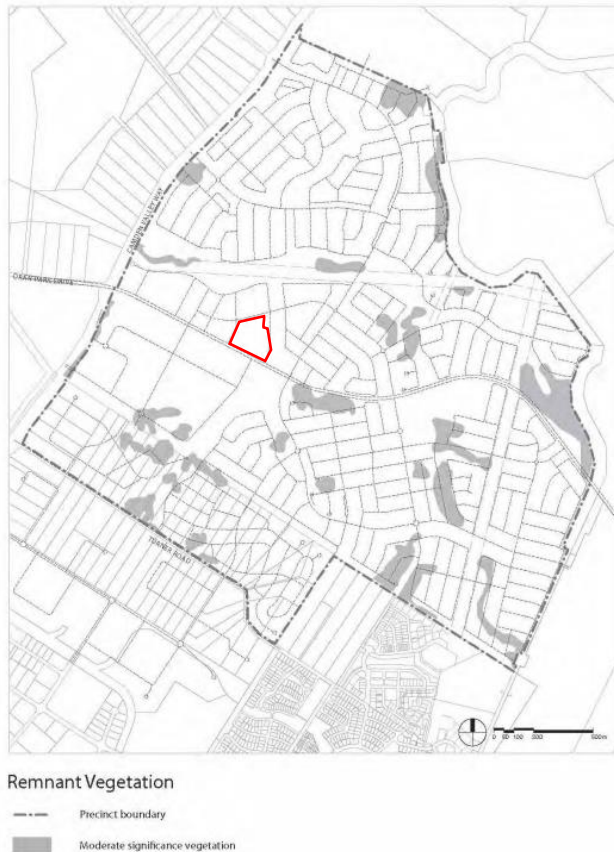


Figure 25: Areas of Remnant Damaged Vegetation

(2) A Tree Survey Plan is to be submitted with each subdivision DA. The Tree Survey Plan is to identify the location, type and condition of all existing trees, and is to indicate those trees proposed to be removed, including the justification for their removal, and those to be retained. Where trees are to be retained, details of any protection methods shall be submitted with the DA. Priority should be given to retention of trees that have biodiversity value, particularly hollow bearing trees. These and other significant trees are to be retained wherever possible within public and community parks, streetscapes and riparian corridors.

(3) Native vegetation (canopy level) shall be provided, where possible, within pocket parks, riparian corridors and street verges to create a 'stepping-stone corridor' for terrestrial biodiversity. Details of any planting shall be provided within a detailed Landscape Plan submitted with a development application for subdivision of land.

(4) Where development is located within or close to a known biodiversity corridor fencing shall be sympathetic to the passage of native fauna.

(5) All subdivision design and bulk earthwork is to consider the need to minimise weed dispersion and eradication. In the opinion of Council, where a significant weed issue exists, a Weed Eradication and Management Plan is to be submitted with the subdivision DA that

outlines weed control measures during and after construction. In these instances, a detailed Management Plan will be required to be prepared prior to any earth works being undertaken.

Response

The site is not mapped as containing significant native vegetation as per the Figure 25 of the DCP 2018 and the site is cleared with no remnant native vegetation. Whilst this report has not undertaken a full priority weed assessment of the site, we would normally recommend that a Weed Eradication and Management Plan is appended to the CEMP.

1.4 Site description

Table 1 provides a summary of the planning, cadastral, topographical, and disturbance details of the site footprint.

The site is located at 9 Gregory Hills Road, Gledswood Hills NSW 2557, within the Camden Local Government Area (LGA) and is legally described as Lot 2 1262720 measuring 4.15 ha. It is situated approximately 60km southwest of the Sydney CBD and 3.5 km from Narellan Town Centre. The site is bound by Digitaria Drive to the North and Gregory Hills Drive to the South. The east of the site contains two vacant lots, the west of the site contains a childcare centre and a vacant lot.

This land has been cleared for many decades, and earthworks took place from around 2013 which included realignment of the stream to the east of the site that appears to have once gone through the very edge of the NE corner of the site. Current imagery shows the site is still clear of any native vegetation of significance and the site is not mapped as having biodiversity values nor mapped plant community types.

Table 1 – Site features

Location	9 Gregory Hills Road, Gledswood Hills. Lot 2, DP 2650
Area	Approximately 4.15 ha
Local government area	Camden
Zoning	B5 Business Development SEPP Western Parkland City 2021
Grid reference	293900 S 6233150 E MGA-56
Elevation	Approximately 68-72 m AHD
Topography	Situated on a very slight northerly aspect with a gradient of generally less than 3 degrees
Geology and soils	Geology: Bringelly Shale Soils: Kurosols
Catchment, drainage and stream order	Original stream realigned from the NE of the site
Existing land use	Primarily vacant land, large-vacant rural
Connectivity features	There are no connectivity features to any adjoining natural areas within the immediate area.

1.5 Site assessment

We undertook a predominately desktop assessment along with a site visit to confirm no existing habitat features onsite along with the vegetation condition on site appears to largely

conform to an exotic grassland also containing exotic annual species. There is limited potential for threatened flora on site, and unlikely to be any significant population due to past and ongoing land management disturbances. Historical aerial imagery shows the site as being used for pasture practices since before 1961 and there does not appear to be any mature trees and shrubbery on site at that time. Given these land management practices have been undertaken for many decades, the likelihood of a viable seed bank for natural regeneration of Cumberland Plain Woodland vegetation is very low. In addition, the creek along the north-eastern boundary has been re-aligned since the end of 2013 and no longer occurs within the boundary of the site.

There are no specific habitat features for threatened fauna species on site that will require removal for the proposal for those recorded within a 10 km radius from the site.

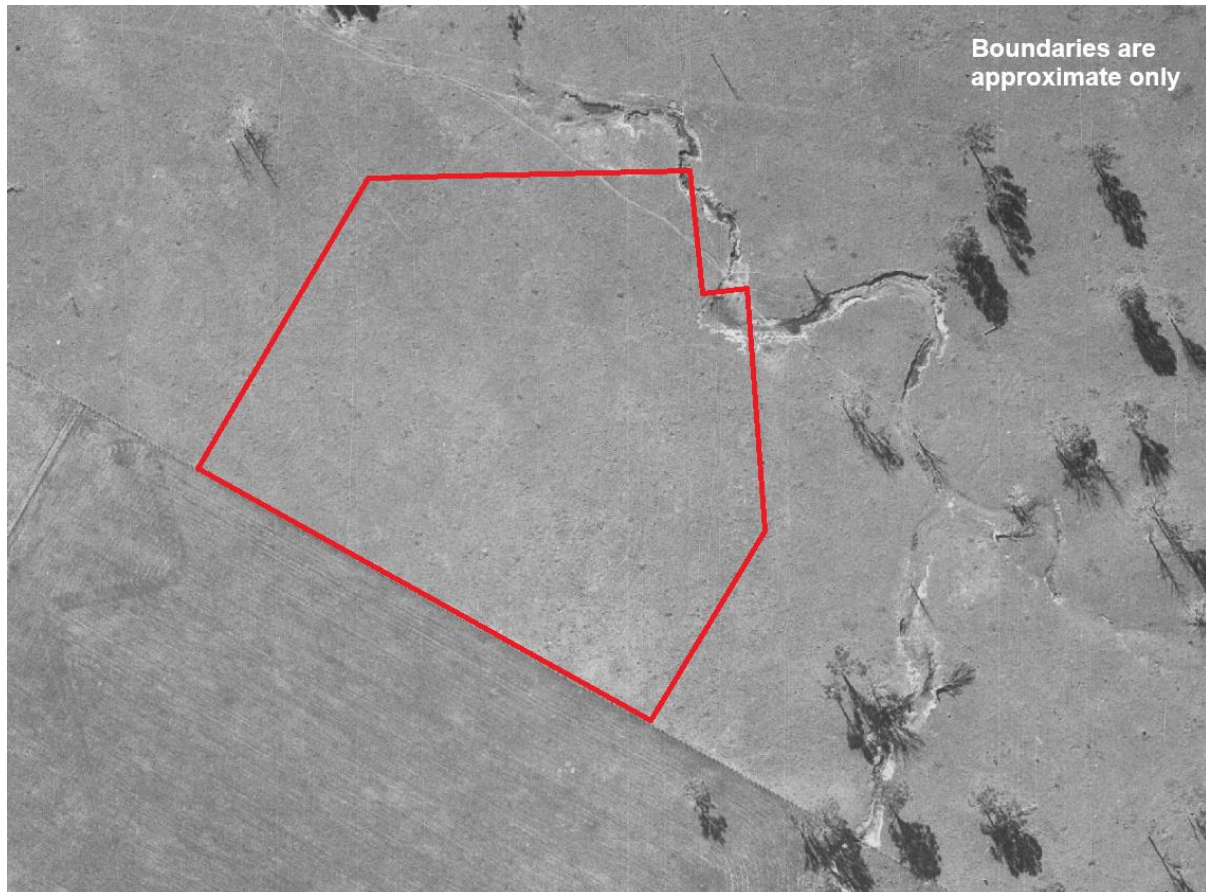


Figure 8 - Historical aerial, 1961

There are no underlying ecological features of the site that require avoidance, and the proposal will have minimal impact on local ecological matters.

The proposal does not require further ecological assessment to be undertaken and because the land has been biodiversity certified, no biodiversity offsetting is required.

2. VEGETATION AND THREATENED SPECIES

2.1 Survey

Our desktop review provides relevant information regarding Plant Community Types (PCT) on the site. Vegetation and habitats were compared with descriptions provided in the BioNet Vegetation Classification to identify Plant Community Types (PCTs).

A detailed vegetation and habitat assessment was conducted within the Study Area on 30 October 2024. Existing information on the flora and fauna of the Study Area and the locality, including relevant threatened biota, was obtained from regional vegetation mapping, and BioNet Atlas of NSW Wildlife (DPE, 2022a) for previous records of threatened species, populations and ecological communities (as listed under the *BC Act*) within a 5 km radius.

The site visit found that the study area consists of grassland that is largely exotic and provides very little contribution to native flora/fauna habitat in the locality. The lot does not contain vegetation that would be considered connective and important for the movement of fauna as in a corridor.

It is considered based on the history of maintenance on the site, that no direct impacts to biodiversity will result from the proposed activity as endemic flora and fauna do not exist. Site visits show that the ground layer is slashed regularly, and that there are no upper canopy trees or mid canopy shrubs in the landscape (Site Photo 1).

A diurnal fauna survey was completed within the Study Area on 30 October 2024. Due to the absence of remnant native vegetation and proposed impacts within the Study Area, a reduced survey effort was deemed suitable for the assessment.

2.2 Vegetation communities

DPE 2022 State Vegetation Type Map denotes the following vegetation communities found within proximity of the site:

- PCT 4023 Coastal Valleys Riparian Forest
- PCT 3320 Cumberland Shale Plains Woodland

There is no vegetation remaining on the site due to past clearance and as a result, no PCT can be determined within the study area. >85% of the ground layer appears to be exotic or non-native pasture and forbs.



Photo 1 – Exotic grassland



Photo 2 – Exotic grasses and annuals

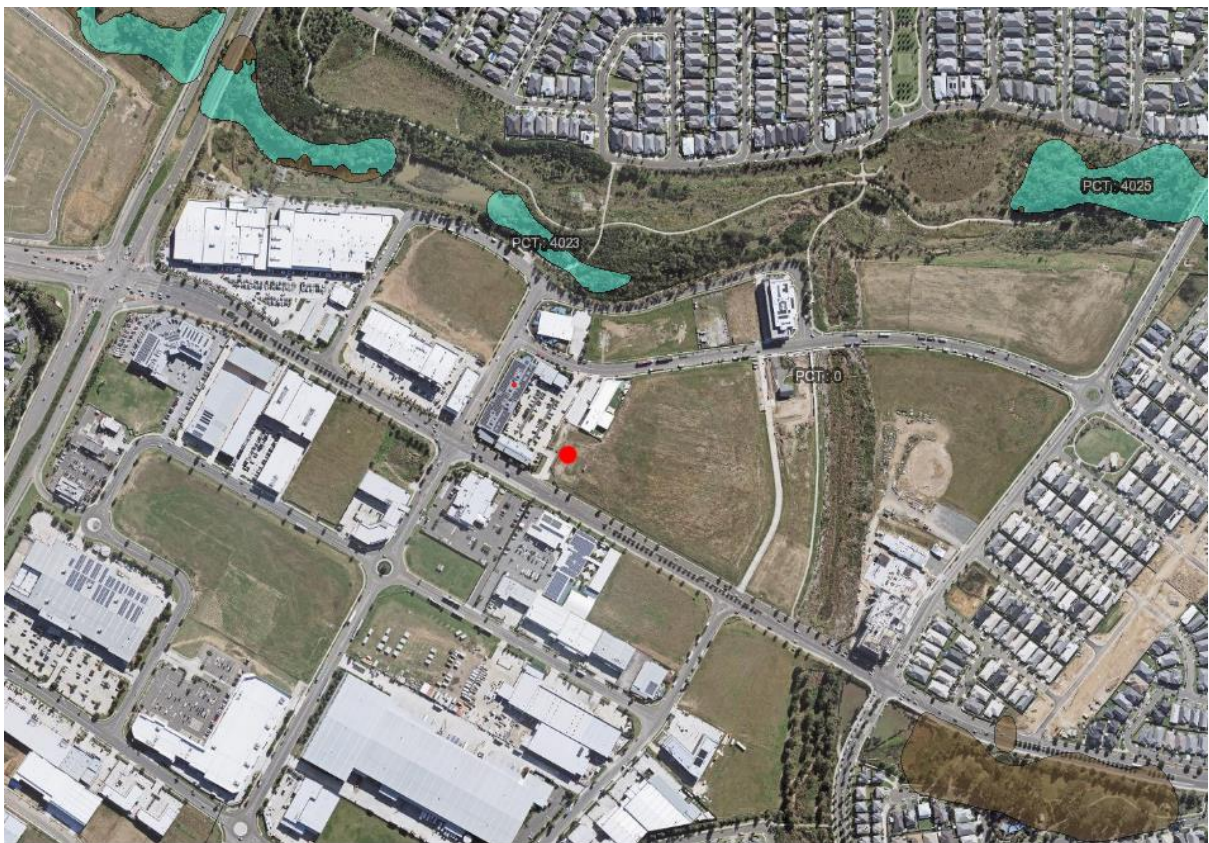


Figure 5 - 2013 vegetation mapping

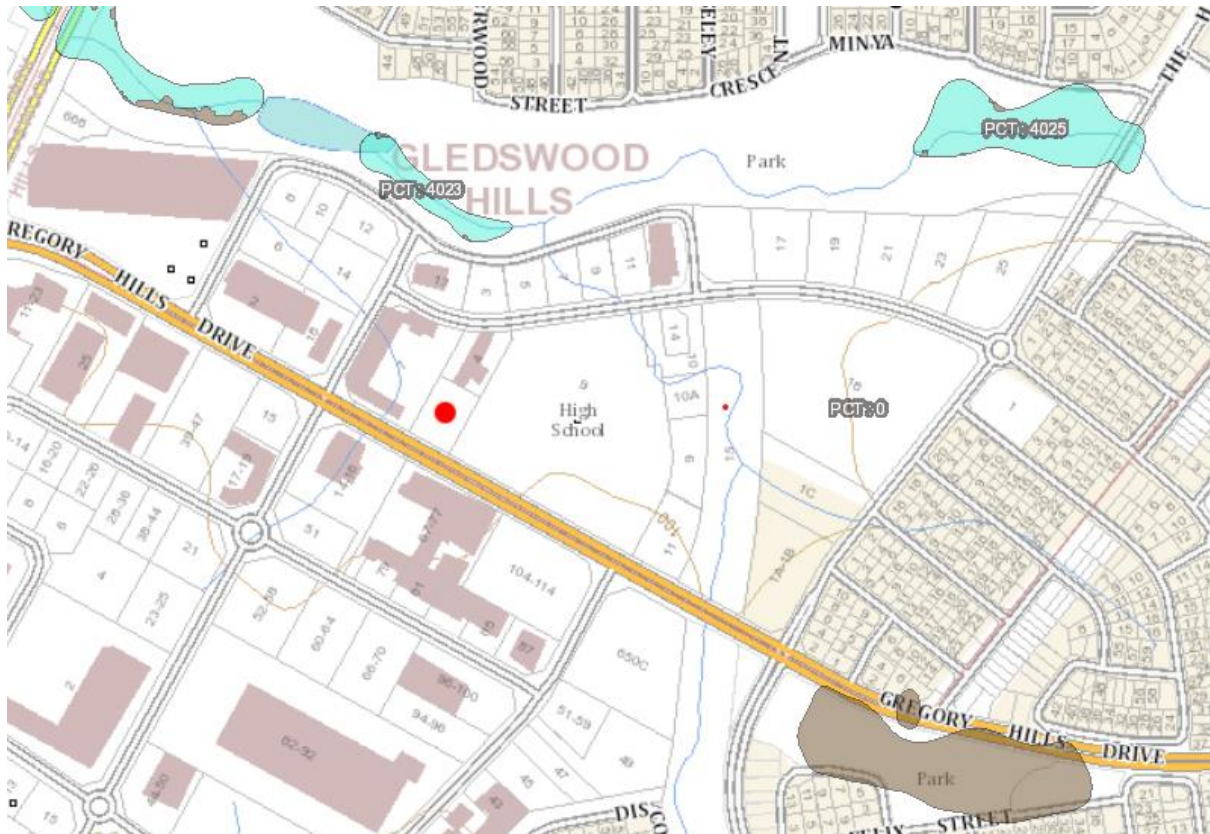


Figure 6 - DPE 2022 vegetation mapping

2.3 Threatened species habitat and likelihood of occurrence

BC Act – A search of the Atlas of NSW Wildlife, Bionet, (DCCEEW 2024) indicated a list of species that have been recorded within a 10 km radius of the site.

Table 2 – Threatened flora & fauna species

Scientific name	BC Act	EPBC Act	Records within 10 km	Potential to occur
<i>Pseudophryne australis</i> (Red Crowned Toadlet)	V,P		6	No
<i>Heleioporus australiacus</i> (Giant Burrowing Frog)	V,P	V	5	No
<i>Litoria aurea</i> (Green and Golden Bell Frog)	E1,P	V	4	Unlikely
<i>Varanus rosenbergi</i> (Rosenbergs Monitor)	V,P		2	No

Scientific name	BC Act	EPBC Act	Records within 10 km	Potential to occur
<i>Hoplocephalus bungaroides</i> (Broad Headed Snake)	E1,P ,2	E	2	No
<i>Oxyura australis</i> (Blue Billed Duck)	V,P		1	No
<i>Stictonetta naevosa</i> (Freckled Duck)	V,P		7	No
<i>Hirundapus caudacutus</i> (White Throated Needle-tail)	V,P	V,C,J,K	4	Unlikely
<i>Ephippiorhynchus asiaticus</i> (Black Necked Stork)	E1,P		1	Unlikely
<i>Botaurus poiciloptilus</i> (Australasian Bittern)	E1,P	E	2	Unlikely
<i>Circus assimilis</i> (Spotted Harrier)	V,P		2	Unlikely
<i>Haliaeetus leucogaster</i> (White Bellied Sea Eagle)	V,P		21	Unlikely
<i>Hieraaetus morphnoides</i> (Little Eagle)	V,P		34	Unlikely
<i>Lophoictinia isura</i> (Square-tailed Kite)	V,P, 3		14	Unlikely
<i>Falco subniger</i> (Black Falcon)	V,P		1	Unlikely
<i>Burhinus grallarius</i> (Bush Stone Curlew)	E1,P		2	No
<i>Gallinago hardwickii</i> (Latham's Snipe)	V,P	V,J,K	31	No
<i>Callocephalon fimbriatum</i> (Yellow Bellied Sheath-tail Bat)	E1,P ,3	E	44	Unlikely
<i>Calyptorhynchus lathami lathami</i> (Glossy Black-Cockatoo)	V,P, 2	V	5	Unlikely
<i>Glossopsitta pusilla</i>	V,P		52	Unlikely

Scientific name	BC Act	EPBC Act	Records within 10 km	Potential to occur
(Little Lorikeet)				
<i>Lathamus discolor</i> (Swift Parrot)	E1,P	CE	216	Unlikely
<i>Neophema pulchella</i> (Turquoise Parrot)	V,P, 3		4	Unlikely
<i>Ninox connivens</i> (Barking Owl)	V,P, 3		3	Unlikely
<i>Ninox strenua</i> (Powerful Owl)	V,P, 3		51	Unlikely
<i>Tyto novaehollandiae</i> (Australian Masked Owl)	V,P, 3		2	Unlikely
<i>Climacteris picumnus victoriae</i> (Brown Tree Creeper)	V,P	V	5	Unlikely
<i>Chthonicola sagittate</i> (Speckled Warbler)	V,P		17	Unlikely
<i>Anthochaera Phrygia</i> (Regent Honeyeater)	E4A, P,2	CE	3	Unlikely
<i>Melithreptus gularis gularis</i> (Black Chinned Honeyeater)	V,P		3	Unlikely
<i>Daphoenositta chrysoptera</i> (Varied Sittella)	V,P		52	Unlikely
<i>Artamus cyanopterus cyanopterus</i> (Dusky Woodswallow)	V,P		116	Unlikely
<i>Melanodryas cucullata cucullata</i> (Southeastern Hooded Robin)	E1,P	E	3	Unlikely
<i>Petroica boodang</i> (Scarlet Robin)	V,P		13	Unlikely
<i>Petroica phoenicea</i> (Flame Robin)	V,P		3	Unlikely
<i>Stagonopleura guttata</i> (Diamond Firetail)	V,P	V	3	Unlikely

Scientific name	BC Act	EPBC Act	Records within 10 km	Potential to occur
<i>Dasyurus maculatus</i> (Tiger Quoll)	V,P	E	2	No
<i>Phascolarctos cinereus</i> (Koala)	E1,P	E	2220	No
<i>Cercartetus nanus</i> (Eastern Pygmy Possum)	V,P		2	No
<i>Petaurus australis</i> (Yellow Bellied Glider)	V,P	V	1	No
<i>Petaurus norfolcensis</i> (Squirrel Glider)	V,P		1	No
<i>Petauroides volans</i> (Southern Greater Glider)	E1,P	E	1	No
<i>Pteropus poliocephalus</i> (Grey-headed Flying-fox)	V,P	V	392	Unlikely
<i>Saccolaimus flaviventris</i> (Yellow-bellied Sheath-tailed Bat)	V,P		10	Unlikely
<i>Micronomus norfolkensis</i> (Eastern Free-tailed Bat)	V,P		90	Unlikely
<i>Chalinolobus dwyeri</i> (Large Eared Pied Bat)	E1,P	E	9	Unlikely
<i>Falsistrellus tasmaniensis</i> (Eastern False Pipistrelle)	V,P		21	Unlikely
<i>Myotis Macropus</i> (Southern Myotis)	V,P		66	Unlikely
<i>Scoteanax rueppellii</i> (Ruppells Broad-Nosed Bat)	V,P		45	Unlikely
<i>Miniopterus australis</i> (Little Bent Winged Bat)	V,P		16	Unlikely
<i>Miniopterus orianae oceanensis</i> (Australasian Bent-Wing Bat)	E1		80	Unlikely
<i>Meridolum corneovirens</i>	E1	E	303	Unlikely

Scientific name	BC Act	EPBC Act	Records within 10 km	Potential to occur
(Cumberland Plain Land Snail)				
<i>Pommerhelix duralensis</i> (Dural Land Snail)	E1	E	1	No
<i>Cynanchum elegans</i>	E2		9	No
<i>Marsdenia viridiflora</i> subsp. <i>viridiflora</i>	E1		44	Unlikely
<i>Hibbertia puberula</i>	V	V	44	No
<i>Leucopogon exolasius</i>	E1		9	No
<i>Pultenaea pedunculata</i>	V	V	6	No
<i>Acacia pubescens</i>	E1,3		10	Unlikely
<i>Gyrostemon thesioides</i>	E4A, 3	CE	30	Unlikely
<i>Prostanthera marifolia</i>	V,3		1	No
<i>Callistemon linearifolius</i>	E4A	V	2	No
<i>Eucalyptus benthamii</i>	E1	V	323	No
<i>Eucalyptus scoparia</i>	V	V	1	No
<i>Melaleuca deanei</i>	E1	V	8	No
<i>Syzygium paniculatum</i>	E1,P ,2	E	5	No
<i>Genoplesium baueri</i>	E1,P ,2	E	1	No
<i>Pterostylis saxicola</i>	V	V	3	No
<i>Grevillea parviflora</i> subsp. <i>parviflora</i>	E1,P ,3	E	7	No
<i>Persoonia hirsuta</i>	E1	V	4	No
<i>Pomaderris brunnea</i>	V	V	64	No
<i>Thesium australe</i>	V	V	1	No
<i>Pimelea spicata</i>	E1	E	864	Unlikely

3. BIODIVERSITY IMPACT ASSESSMENT

The proposal occurs within a biodiversity certified area which turns off the requirements for further consideration for offsetting. Notwithstanding this, the proposal will not impact mapped biodiversity values, AOBV, and there are no impacts to native vegetation.

For fauna species, the habitat quality is typically quite low and without a native canopy or understory that may be utilized for shelter or feeding from pollen, insects and prey, the value is very limited and likely to be more so for those which are common in urban and highly disturbed landscapes.

Based on the habitat features likely to be available and the quality of vegetation, it was considered that the proposal will have also no impact on the threatened flora and fauna considered in section 2.3. As the site is maintained to just a ground layer, this may provide some value for prey species to occur, however there is no habitat of suitable breeding quality within the site for any assessed threatened fauna species.

3.1 Protected migratory species (National)

The *EPBC Act* Protected Matters Report provides additionally listed terrestrial, wetland and marine migratory species of national significance likely to occur, or with habitat for these species likely to occur, within a 10 km radius of the proposed activity footprint.

Table 3 - EPBC migratory species

Common name	Class	Potential habitat
Fork-tailed Swift	Bird	Overhead flight
Sharp-tailed Sandpiper	Bird	Shorebird, unlikely habitat on site
Osprey	Bird	Overhead flight
Pectoral Sandpiper	Bird	Shorebird, unlikely habitat on site
Curlew Sandpiper	Bird	Shorebird, unlikely habitat on site
Common Greenshank	Bird	Shorebird, unlikely habitat on site
Common Sandpiper	Bird	Shorebird, unlikely habitat on site
Yellow Wagtail	Bird	Favouring wet meadows, marshland, grassy and muddy lakeshores. Occurs in fields and often near livestock during migration. Very low likelihood of occurrence.
White-throated Needletail	Bird	Overhead flight
Latham's Snipe	Bird	No suitable habitat
Oriental Cuckoo	Bird	No suitable habitat
Eastern Curlew	Bird	Shorebird, unlikely habitat on site

3.2 Endangered fauna populations

There are no known endangered fauna populations within the Liverpool LGA.

Marsdenia viridiflora R.Br. subsp. *viridiflora* population in the Bankstown, Blacktown, Camden, Campbelltown, Fairfield, Holroyd, Liverpool, and Penrith local government areas is known to occur locally. Currently there is no suitable habitat present on site.

3.3 State Environmental Planning Policy (Biodiversity and Conservation) 2021 – Koala Habitat Protection

Chapter 4 of State Environmental Planning Policy (Biodiversity and Conservation) 2021 (Koala Habitat Protection) applies to land within LGAs listed under Schedule 2 of the Policy. As the study area falls under the Camden Council LGA, it is considered that SEPP (Biodiversity and Conservation) 2021 – Koala habitat protection applies to this proposed activity.

Land to which this policy applies in accordance with Section 4.4 of the SEPP 2021 is as follows:

- (1) This Chapter applies to each local government area listed in Schedule 2.*
- (2) The whole of each local government area is—*
 - (a) in the koala management area specified in Schedule 2 opposite the local government area, or*
 - (b) if more than 1 koala management area is specified, in each of those koala management areas.*
- (3) Despite subsection (1), this Chapter does not apply to—*
 - (a) land dedicated or reserved under the [National Parks and Wildlife Act 1974](#), or acquired under Part 11 of that Act, or*
 - (b) land dedicated under the [Forestry Act 2012](#) as a State forest or a flora reserve, or*
 - (c) land on which biodiversity certification has been conferred, and is in force, under Part 8 of the [Biodiversity Conservation Act 2016](#), or*
 - (d) land in the following land use zones, or an equivalent land use zone, unless the zone is in a local government area marked with an * in Schedule 2—*
 - (i) Zone RU1 Primary Production,*
 - (ii) Zone RU2 Rural Landscape,*
 - (iii) Zone RU3 Forestry.*

There is currently no approved Koala Plan of Management (KPoM) for the LGA that this site is located in.

There are no remnant canopy trees within the site and given the lack of connectivity and local records, the site is unlikely to comprise core koala habitat or potential koala habitat. The proposal will have no affection on the likely movement corridors, foraging or breeding habitat for koalas. DoE will be the determining authority on this matter, not Council given this is a Part 5 assessment.

4. MINIMISATION AND MITIGATION ACTIONS

Given the scale of the activity and absence of TECs, threatened plants, Plant Community Types (PCT) or any notable habitat features no design avoidance actions are considered necessary.

If there was native vegetation present on site, then some of these features would be considered further, however due to the lack of sufficient habitat attributes, no avoidance and minimisation actions are required.

As a mitigation measure however, we consider that where native landscaping is to be placed around the school, Cumberland Plain Woodland origin species should be considered, subject to any existing landscaping plans where this has already been determined. Landscaping beds should incorporate a reasonable proportion of understorey species also of Cumberland Plain Woodland origin where appropriate.

Mitigation measures addressing the following potentially relevant impacts are considered unnecessary including:

- Clearing of remnant vegetation
- Loss of microbat habitat
- Loss of Cumberland Plain Land Snail habitat
- Vehicle collision with fauna
- Loss of habitat trees
- Weed invasion

Potential soil impacts

Earthworks undertaken for the Project may result in very minor alterations to surface slope due to excavation and backfilling activities. Earthworks could potentially have the following impacts:

- dust generation from excavation work and vehicle movements.
- disturbed sediments in stormwater and/or adjacent drainage line.
- compaction of soil by heavy machinery.
- soil contamination caused by oil, chemical, grease or fuel spills or leaks from machinery.
- restriction of the movement of rainfall into the soil column and alteration of surface drainage characteristics due to soil compaction.
- sediment laden runoff from disturbed areas next to excavations.

Mitigation measures

The following measures will be implemented to manage potential impacts:

- Minimise disturbance and compaction of existing soils where possible
- Replace any topsoil once works are completed
- Recreate a natural landscape profile where excavation works have been completed
- Stabilise any exposed soils
- Revegetation any disturbed areas not required for maintenance purposes.
- Sediment control fences installed.

Point source impacts may include sediment export from areas subject to earthworks. Potential impacts to the drainage line on the eastern side of the study area could occur when ground clearance begins at the start of any proposed activity however, any impacts can be mitigated using adequate sediment fence placement along the boundary of the activity area.

Various temporary stormwater management measures such as sandbags, sediment fences and berms are to be appropriately located to intercept surface water run-off during the construction phase and ensure that sediment laden runoff and other construction pollutants do not enter downstream aquatic systems.

Where open trenching is undertaken it is recommended the trench is to be exposed for as minimal length of time as feasible and outside of wet weather conditions. In addition, restoration and stabilisation of the disturbed sections is to be commenced immediately after completion of construction works. Backfilling and stabilisation are to be undertaken as quickly as possible following installation of infrastructure. Should dewatering be required, water collected is to be contained and discharged in a manner that avoids sedimentation, flooding and erosion.

During construction all potential chemical pollutants (e.g. fuels, oils, lubricants, paints, etc.) are to be stored in appropriate containers in bunded areas within construction compounds to minimise the risk of spillages and mobilisation of any pollutants into aquatic environments.

The installation phase of the proposed cycleway has the potential to emit some dust, vibrations and noise. These emissions will be for a short time during construction and will not be apparent after construction is completed.

Potential impacts from dust, odours, noise and vibration

The installation phase of the proposed activity has the potential to emit some dust, vibrations and noise. These emissions will be for a short time during construction and will not be apparent after construction is completed.

Mitigation measures

Best practice construction management protocols such as timing, daytime work hours, damping of soils and noise suppressed machinery should be utilised during the construction phase. These controls will ameliorate the creation, severity and annoyance levels of these emissions.

Mitigation measures for Aboriginal and cultural heritage matters

A basic search of the AHIMS database identified two known Aboriginal sites within 200 metres of the study area as shown below (Figure 7). An ACHAR (heritage) report has been completed by Indigeco and refer to any measures as stipulated in this report

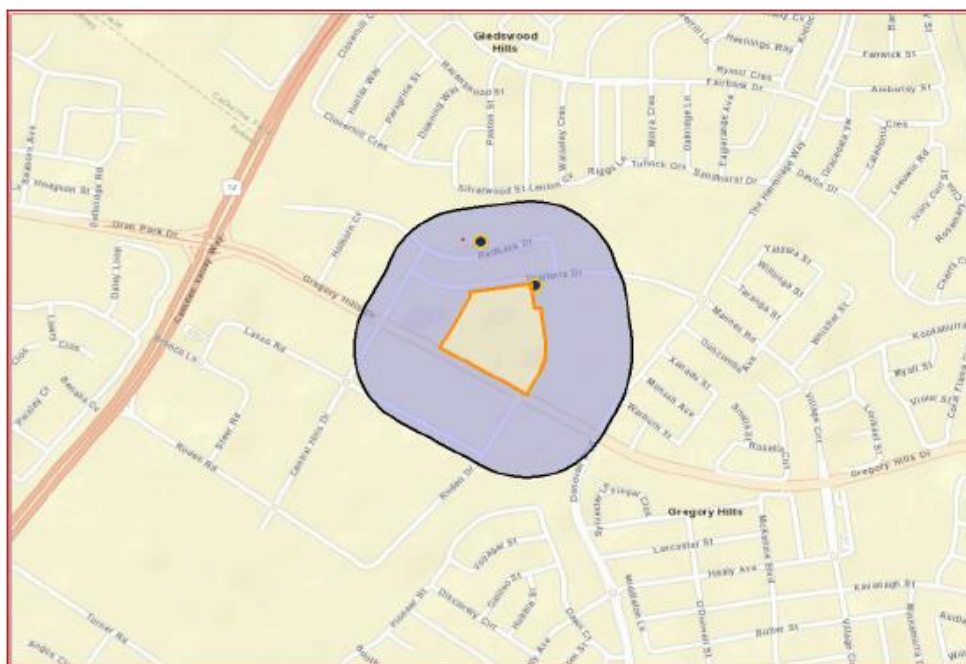
Travers bushfire and ecology
38A The Avenue Mt Penang Parklands
Karingong New South Wales 2250
Attention: Samuel Riley
Email: sriley@traverseecology.com.au

Date: 26 November 2024

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot: 2, DP:DP1262720, Section :- with a Buffer of 200 meters, conducted by Samuel Riley on 26 November 2024.

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 Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

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

Figure 7 – AHIMS Search results

Weed invasion

The construction and ongoing use of the site is susceptible to the establishment, harbouring and source of priority invasive weeds.

Mitigation measures

Preparation and implementation of a Weed eradication and management Plan

Significance of Environmental Impacts

Based on the identification of any potential issues, and an assessment of the nature and extent of the impacts of the proposed activity, it is determined that:

- The extent and nature of potential impacts are considered low and will not have significant impact on the locality, community and/or the environment.

Table 3 - Mitigation measures

Project stage	Impact	Mitigation measure	Reason for mitigation measure
Construction and partial operations stage	Soil impacts from excavation, vehicle movements, contamination and sediment runoff	Implement erosion and sediment control plan as per Civil Design Report by TTW Minimise disturbance and compaction of existing soils where possible. Replace any topsoil once works are completed. Recreate a natural landscape profile where excavation works have been completed. Stabilise any exposed soils. Revegetation any disturbed areas not required for maintenance purposes. Sediment control fences installed. Damping of soils in dry and windy conditions to prevent excess dust spreading over neighbouring properties. Keep vehicle movements on site to tracks and limit movement through temporary construction fencing.	To avoid soil degradation and ability to be successfully landscaped in the future. To ensure that exposed soils are stabilised to minimise dust impacts during construction and to ensure that runoff after heavy rainfall events does not scour the landscape causing excess sedimentation of local watercourses. Restriction of vehicle movements will avoid soil compaction.
Construction	Noise and vibration	Works to be conducted during standard daylight work hours. Loading docks are not to be used between 10pm and 7am. Limit vehicle movements associated with the loading docks. Vehicles stopped in loading dock areas are to switch off engines.	Avoid neighbour complaints and compliance with Council's general noise abatement regulation.

Project stage	Impact	Mitigation measure	Reason for mitigation measure
		Details are provided in the Acoustic Report by NDY.	
Construction	Impacts on items of heritage value	Consultant to undertake inspection and liaise with team at the beginning of the project. It is noted that the ACHAR by Indigeco has been completed including community consultation.	For report compliance and to ensure that any local heritage features are not adversely impacted.
Prior to commencement of works and for life of the activity	Weed invasion e.g. Chilean Needle Grass which is invading pasture locations and is a highly invasive priority weed.	In accordance with, Section 2.3.4 native vegetation and ecology, Blacktown City Council Growth Centre Precincts Development Control Plan 2010 (Amended March 2022), A weed Eradication and Management Plan is required to be prepared. And implemented .	To limit the establishment and harbouring or priority and invasive weeds within the site and to minimise mobilisation from the site.

4.1 Significance of impact post mitigation actions

The proposal is located in an area where there has been site clearing and earthworks DA approvals. As a result, there are very few biodiversity or environmental impacts that remain,

Based on the identification of potential issues, and an assessment of the nature and extent of the impacts of the proposed activity, it is determined that the nature of the impacts are likely to be low and will not have a significant impact on the locality, community or the environment. The outstanding impact can be appropriately managed and mitigated to ensure that the residual impacts on the locality, community of the environment are minimal.

A Construction & Environmental Management Plan (CEMP) and an appended Weed Eradication Management Plan is recommended to be prepared as a condition of consent in an integrated manner with the Landscaping Plans and 'For Construction Plan' plan set.

5. CONCLUSION

Ecological survey and constraints analysis / assessment has been undertaken in accordance with relevant legislation including the *Environmental Planning and Assessment Act 1979*, the *Biodiversity Conservation Act 2016*, the commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and the *Fisheries Management Act 1994*.

This Biodiversity report has been prepared by *Travers bushfire & ecology (TBE)* on behalf of the NSW Department of Education (DoE) to assess the potential environmental impacts that may arise from the proposed new Gledswood Hills High School at Lot 2, DP 1262720, 9 Gregory Hills Drive, Gledswood Hills within the Camden Council Local Government Area (LGA). The activity has been proposed by the NSW Department of Education (DoE) to meet the growth in educational expectations in Gregory Hills and Gledswood Hills and the Southwest Growth Area.

The site is also located on 'biodiversity certified land' within the Turner Road Precinct of the South West Growth Centre (see Figure 5). It was certified under the then State Environmental Planning Policy (Sydney Regional Growth Centre) 2006 and the then Threatened Species Conservation Act 1995 (TSC Act).

In accordance with the Biodiversity Conservation (Savings and Transitional) Regulation 2017, biodiversity certification that was conferred under Part 7AA of the TSC Act is taken to be biodiversity certification conferred under the new Biodiversity Conservation Act 2016 (BC Act).

Therefore, there is no requirement to prepare a BDAR or BDAR Waiver for the project.

5.1 Recommendations

The following documents are recommended to be prepared in accordance with DCP 2018:

- A Construction & Environmental Management Plan (CEMP)
- A Weed Eradication Management Plan
- Mitigation measures have been suggested in section 4 for limiting impacts of dust, noise, vibration, to soils (stabilisation and erosion) and Aboriginal heritage.
- Landscaping of the school grounds may also consider utilising endemic species (to a degree) that originate from the Cumberland Plain Woodland threatened ecological community that could provide some foraging habitat value for local bird and small mammal species. The associated landscaping plan is generally supportive of this.

The CEMP associated sediment & erosion control plan, landscaping plan, and the weed eradication and management plan is recommended to be prepared as a condition of consent by appropriate qualified consultants, integrated with the "for construction" plan set and submitted as a condition of consent for approval.