

New Primary School – Gregory Hills

Ecological Assessment Report

20231436
7 October 2022





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7 October 2022

20231436

School Infrastructure New South Wales
C/- Jacobs
Level 7, 177 Pacific Highway
Sydney, NSW 2060,
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Attention: Alastair Burdon-Jones

Subject: New Primary School – Gregory Hills
Ecological Assessment Report

1 INTRODUCTION

1.1 INTRODUCTION

This Ecological Assessment Report accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act), in support of a State Significant Development Application (SSDA) for the construction and operation of a new primary school at Gregory Hills (SSD-41306367).

This report addresses the Secretary's Environmental Assessment Requirements (SEARs) issued for the project, notably:

SEARs Requirement	Response
Assess the biodiversity impacts associated with the development in accordance with the Biodiversity Conservation Act 2016 and the Biodiversity Assessment Method 2020, including the preparation of a Biodiversity Development Assessment Report (BDAR), unless a waiver is granted or the site is on biodiversity certified land; and	See Chapter 2 of this report
If the development is on biodiversity certified land, provide information to identify the site (using associated mapping) and demonstrate the proposed development is consistent with the relevant biodiversity measure conferred by the biodiversity certification.	See Chapter 2 of this report

1.2 PROPOSAL

The proposal is for a new primary school at Gregory Hills that generally comprises the following:

- 44 General Learning Spaces.
- 4 Support Learning Spaces.
- Administration, staff hub, amenity and building service areas.
- Library, communal hall and canteen.

- Outside School Hours Care (OSHC) services.
- Sport courts, outdoor play space, a Covered Outdoor Learning Area (COLA) and site landscaping.
- Dedicated bicycle and scooter parking.
- Three (3) kiss and drop spaces for Supported Learning Students (SLS) located on Wallarah Circuit.
- On-site car parking.
- Signage.
- Footpath widening on Wallarah Circuit.



Figure 1 Site plan (source Bennett and Trimble)

1.3 SITE DESCRIPTION AND LOCATION

The site is located in Dharawal Country at 28 Wallarah Circuit, Gregory Hills NSW 2557, and is legally described as Lot 3257 DP1243285.

The site is located within the Camden Local Government Area and is within the Turner Road Precinct of the South-West Growth Centre.

The site has an area of approximately 2.926ha (by Deposited Plan). This will be reduced to 2.907ha under approved DA2022/742/1 once Long Reef Circuit has been widened.

Topography is minimal with a fall from the south-east corner (RL116.5) to the north- west corner (RL113).

The site has three (3) street frontages:

- Wallarah Circuit (southern boundary)

- Gregory Hills Drive (northern boundary)
- Long Reef Circuit (eastern Boundary)

The site is primarily vacant land, with the exception of an existing group of trees in the southwest corner of the site that pre-date the subdivision and development of the precinct. There is also an existing electrical substation located on the south-eastern boundary.

There are easements of varying widths located to the northern boundary identified for drainage.

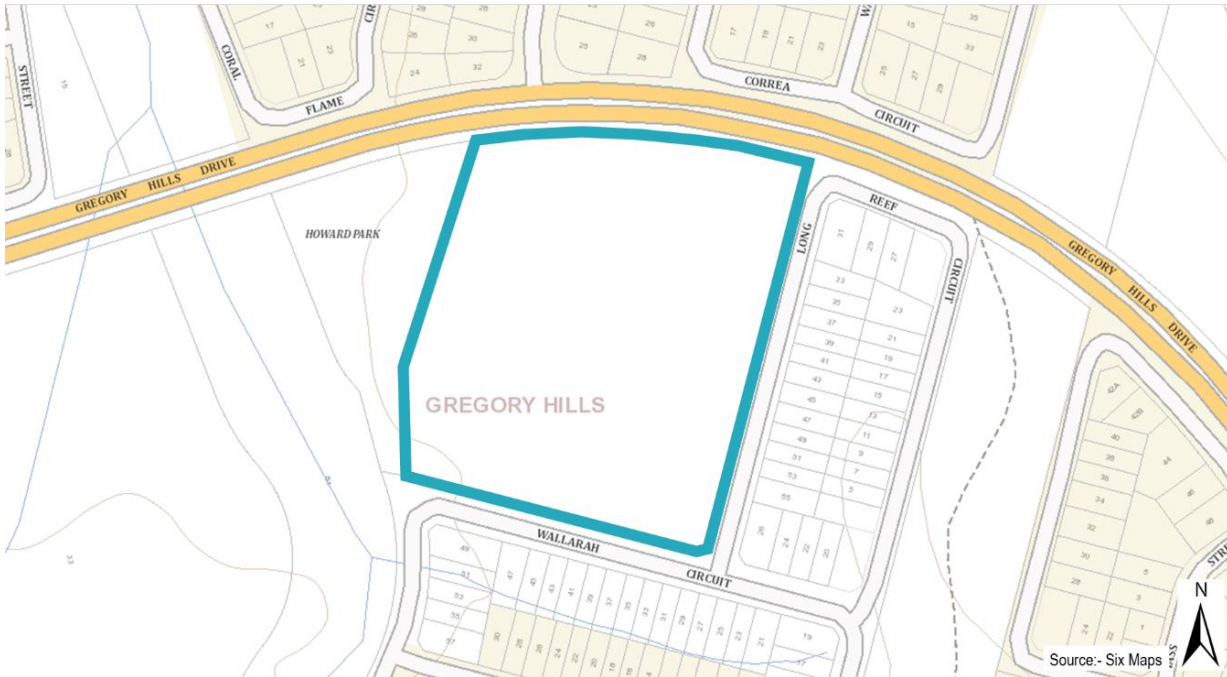


Figure 2 Locality Map (Six Maps)



Figure 3 Surrounding Development (Nearmap)

1.4 SURROUNDING ENVIRONMENT

To the north, east and south of the site is emerging and recently completed residential development.

To the east of the residential area fronting Long Reef Circuit are high voltage power lines within an easement which include pedestrian paths and cycleways.

To the west of the site, beyond Sykes Creek and Howard Park, is the Gregory Hills town centre. A pedestrian bridge links Wallarah Circuit with the town centre across Sykes Creek.



Figure 4 Surrounding Development (Nearmap)

2 BIODIVERSITY VALUES

2.1 METHODS

2.1.1 Vegetation and Habitat Assessment

A detailed vegetation and habitat assessment was conducted within the Study Area on the 20 June 2022. 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 of the Study Area.

Vegetation and habitats were compared with descriptions provided in the BioNet Vegetation Classification to identify Plant Community Types (PCTs). Plant identification and nomenclature was based on species descriptions presented within The Flora of New South Wales Volumes 1 to 4 (Harden, 1993) and with reference to taxonomic updates in PlantNET - The Plant Information Network System of Botanic Gardens Trust, Sydney, Australia (Botanic Gardens Trust, 2020). Two (2) BAM Plots (Biodiversity Assessment Method) were completed within the Study Area (**Figure**). The Study Area is considered potential marginal foraging habitat for only highly mobile local threatened fauna species listed under the NSW BC Act and Commonwealth's EPBC Act, such as the Grey-headed Flying-fox (*Pteropus poliocephalus*) (Vulnerable [BC and EPBC Act]). Impacts to these species were not considered significant as they are not proposed for clearing. There are however a total of eight trees proposed to be removed from the site as part of this development. The trees are permissible to be removed in line with the DCP and Biodiversity and Conservation SEPP whereby these trees represent a safety risk as they are dead or have a high risk of falling limbs.

2.1.2 Fauna Surveys

A diurnal fauna survey was completed within the Study Area on 20 June 2022. 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. Fauna surveys were therefore not completed as per *Threatened Species Survey and Assessment: Guidelines for developments and activities (working draft)* (Department of Environment and Conservation [DEC], 2004), and Department of Agriculture Water and Environment (DAWE) Guidelines.

2.2 RESULTS

2.2.1 Vegetation

The vegetation within the Study Area was characterised by managed exotic grassland and a patch of remnant woodland (*Eucalyptus tereticornis* [Forest Red Gum]) (see **Plate 1**). The remnant patch of woodland was determined to be representative of PCT 3320 - *Cumberland Shale Plains Woodland*. The road verges were characterised by exotic grassland and a mix of planted ornamental deciduous exotic trees and natives (i.e. *Cupaniopsis anacardioides* [Tuckeroo]) (**Plate 3**). A revegetated riparian corridor occurs to the west of the Study Area, this area is defined by a mix of native species including *Casuarina glauca* (Swamp Oak), *Eucalyptus tereticornis* (Forest Red Gum), *Lomandra longifolia* (Spiny-headed Mat-rush), *Dianella caerulea* (Blue Flax-lily), *Themeda triandra* (Kangaroo Grass), and *Typha orientalis* (Broadleaf Cumbungi) in wetter areas of the corridor (**Plate 4**).

2.2.2 Threatened Flora and Fauna habitat

A total of 39 flora species were recorded within the Study Area, including 25 exotic species of which four (4) are considered 'High Threat Exotics' and two (2) are listed Priority Weeds for the North Coast Local Land Services Region under the *Biosecurity Act 2015* (NSW), being *Lycium ferocissimum* (African Boxthorn) and *Senecio madagascariensis* (Fireweed). No threatened flora species were identified within the Study Area during field surveys. A list of the flora species identified within the Study Area is provided in **Attachment 2**.

As a result of recent clearing and ongoing construction works, much of the site is not considered to represent suitable habitat for locally occurring threatened flora species. The vegetation within the Study Area is characterised as large areas of managed exotic grassland (**Plate 2**), with a patch of remnant native eucalypt woodland (with an exotic species dominated groundcover) (**Plate 1**). The patch of woodland is proposed to be retained under this development application with a total of eight trees to be removed from site due to being dead or having a high risk of falling limbs (permissible under Camden Council DCP and in accordance with Biodiversity and Conservation SEPP chapter two). The vegetation within the Study Area is not considered to represent suitable habitat for locally occurring threatened flora species.

A total of three (3) bird nests were recorded within the Study Area, all within the patch of remnant woodland (see **Figure**). No other important fauna habitat features (i.e. waterbodies, hollow-bearing trees etc.) were identified within the Study Area. No threatened fauna species were recorded during the completion of diurnal fauna surveys.

2.2.3 Threatened Ecological Communities

Vegetation Zone 1 *PCT 3320 - Cumberland Shale Plains Woodland* was determined to be commensurate with one (1) Threatened Ecological Community (TEC); *Cumberland Plain Woodland in the Sydney Bioregion* Critically Endangered Ecological Community (CCEC) as listed under the New South Wales BC Act 2016.

2.3 PROPOSED BIODIVERSITY IMPACTS

The proposed development will occur entirely within land certified for development under the *South West Growth Centre Biodiversity Certification*. Direct impacts are detailed below.

Table 2: Direct Biodiversity Impacts resulting from the proposed development

Entity	Impacted (within the Development Site)	Not Impacted (Outside Development Site)	Within Study Area
Vegetation Communities			
Vegetation Zone 1: <i>PCT 3320 - Cumberland Shale Plains Woodland</i> (<i>Cumberland Plain Woodland in the Sydney Bioregion</i> CEEC under the NSW BC Act).	0.05 ha (only impacts to exotic groundcover)	0.14 ha	0.18 ha
Vegetation Zone 2: Managed exotic grassland	2.72 ha	0.01 ha	3.00 ha
Planted native/Exotic Vegetation	0.01 ha	0.02 ha	0.03 ha
Total	2.77 ha	0.15 ha	3.21 ha
Fauna Habitat			
Hollow-bearing Trees (HBTs)	None	None	None
Nests	None	Three (3)	Three (3)

Entity	Impacted (within the Development Site)	Not Impacted (Outside Development Site)	Within Study Area
Waterbodies/watercourses	None	None	None

The proposed development has the potential for edge effects on the adjoining vegetation including the retained Cumberland Woodland Patch and the Riparian Corridor the west of the Study Area. Potential indirect impacts resulting from the development include:

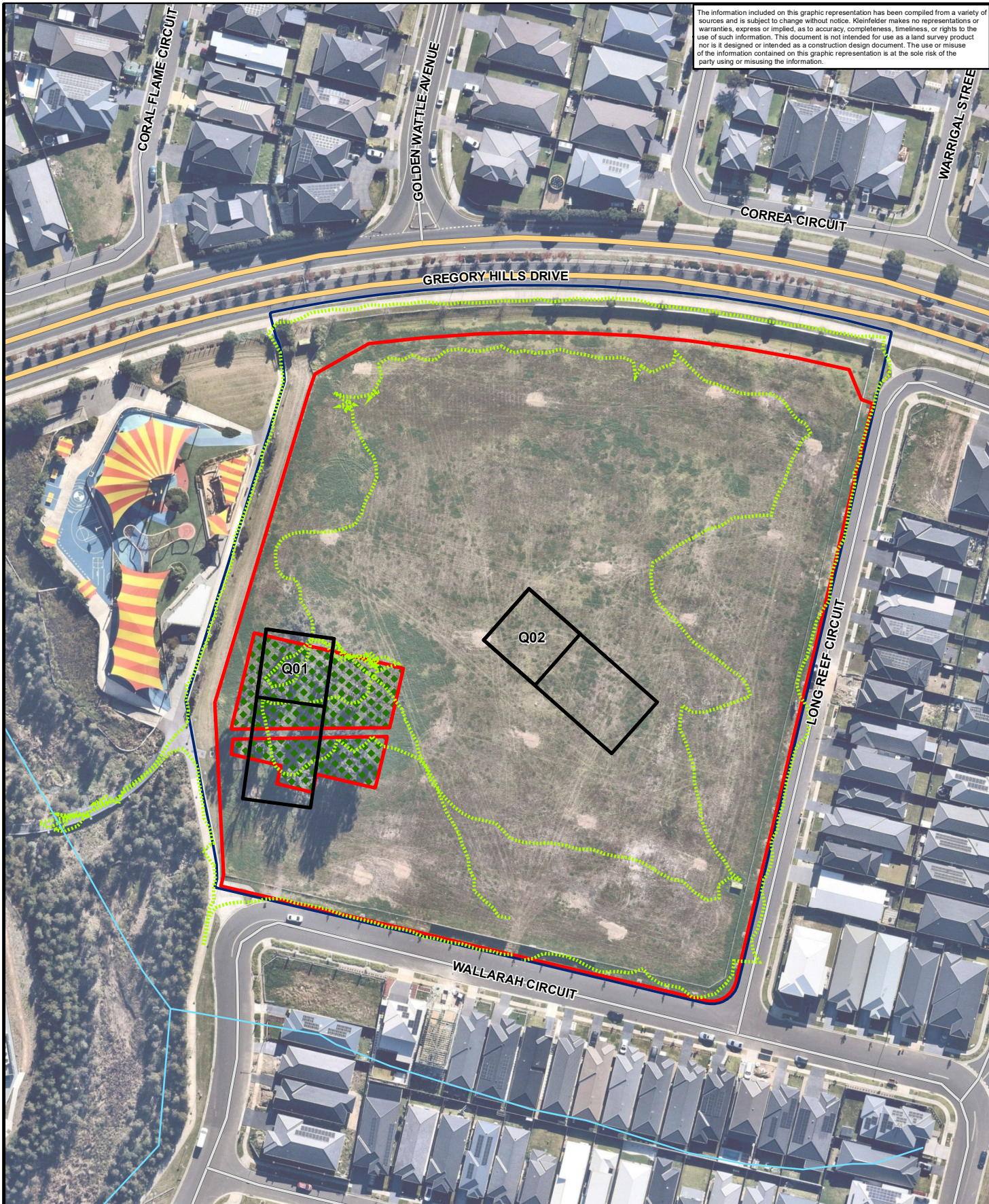
- Increased weed incursion and potential spread or introduction of pathogens from the site to adjacent vegetation;
- Accidental incursions during clearing;
- Reduced viability of adjoining habitats due to increased noise, dust or light spill; and
- Increase in rubbish dumping in adjoining habitats.

Provided appropriate mitigation measures and management plans are enforced, the proposed development is unlikely to indirectly impact threatened species, ecological communities, and their habitats during construction and operational phases (see mitigation and management recommendations in **Section 4**).

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Legend

- Study Area
- Development Site
- Retained Trees - Excluded from Development Site
- Sub-arterial Road
- Local Road
- Unnamed Watercourse
- Plot Transect
- Survey Tracks

Metres
0 5 10 20 30 40 50



PROJECT REFERENCE: Jacobs

DATE DRAWN: 1/07/2022 14:53 Version 1

DRAWN BY: GJoyce

DATA SOURCE:
NSW DFSI - 2020
Nearmap - 2022

Survey Effort

Jacobs Group Australia
Environmental Assessment Report
Gregory Hills Public School
Gregory Hills Drive, Gregory Hills NSW

FIGURE:

3



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Plate 1: Remnant Patch of Native Woodland within the Study Area (Vegetation Zone 1)

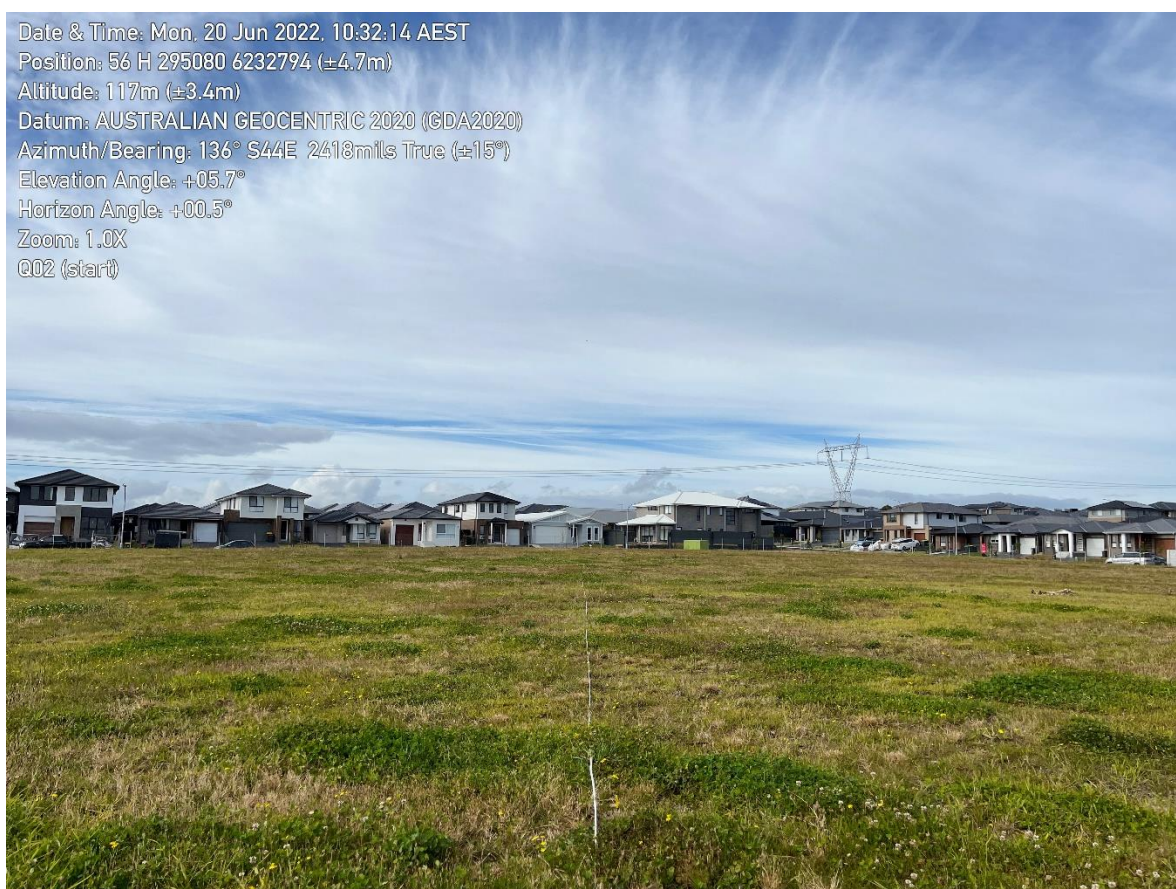


Plate 2: Large area of managed exotic grassland within the Study Area (Vegetation Zone 2)

Date & Time: Mon, 20 Jun 2022, 11:51:29 AEST
 Position: 56 H 295010 6232710 ($\pm 4.7\text{m}$)
 Altitude: 116m ($\pm 3.4\text{m}$)
 Datum: AUSTRALIAN GEOCENTRIC 2020 (GDA2020)
 Azimuth/Bearing: 087° N87E 1547mils True ($\pm 13^\circ$)
 Elevation Angle: +01.7°
 Horizon Angle: +01.7°
 Zoom: 1.0X



Plate 3: Planted Native/Exotic street trees *Cupaniopsis anacardioides* (Tuckeroo)

Date & Time: Mon, 20 Jun 2022, 11:50:38 AEST
 Position: 56 H 294993 6232725 ($\pm 4.7\text{m}$)
 Altitude: 115m ($\pm 3.4\text{m}$)
 Datum: AUSTRALIAN GEOCENTRIC 2020 (GDA2020)
 Azimuth/Bearing: 242° S62W 4302mils True ($\pm 13^\circ$)
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 Horizon Angle: +01.3°
 Zoom: 1.0X

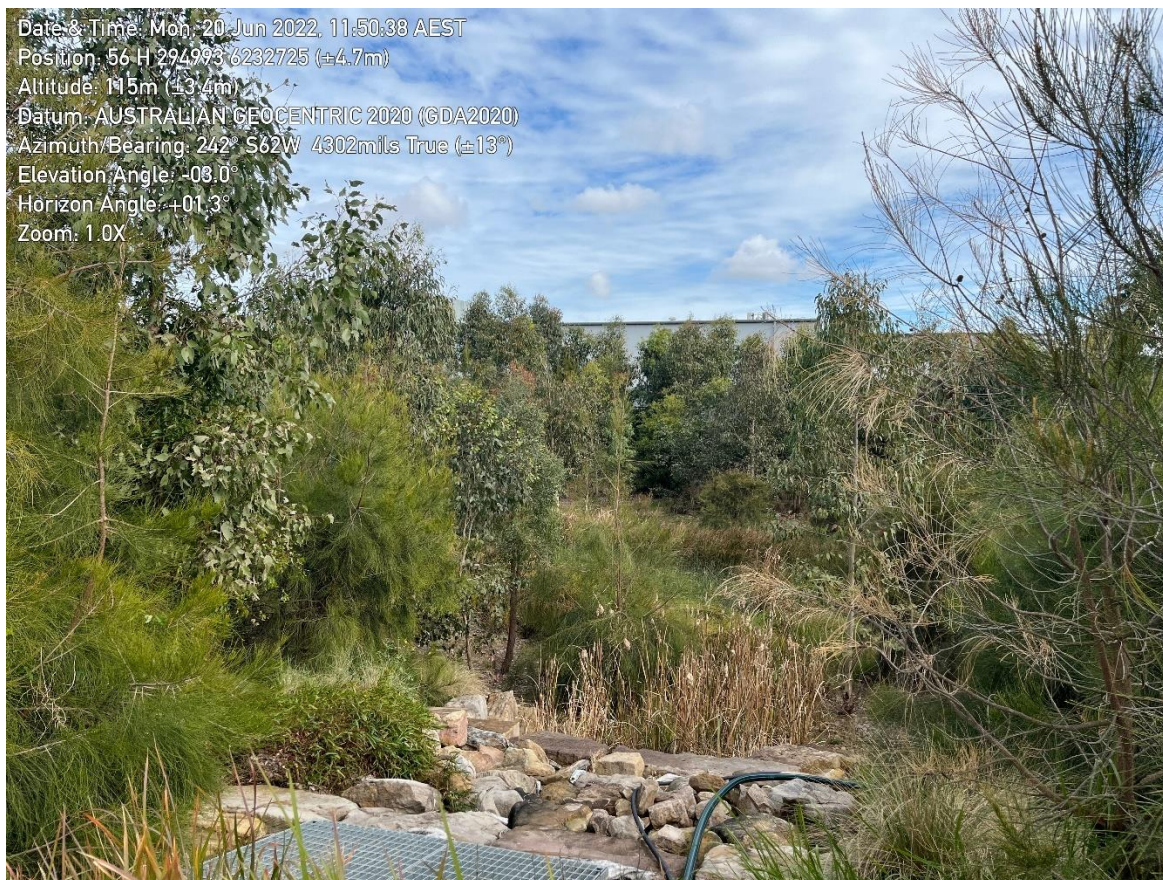
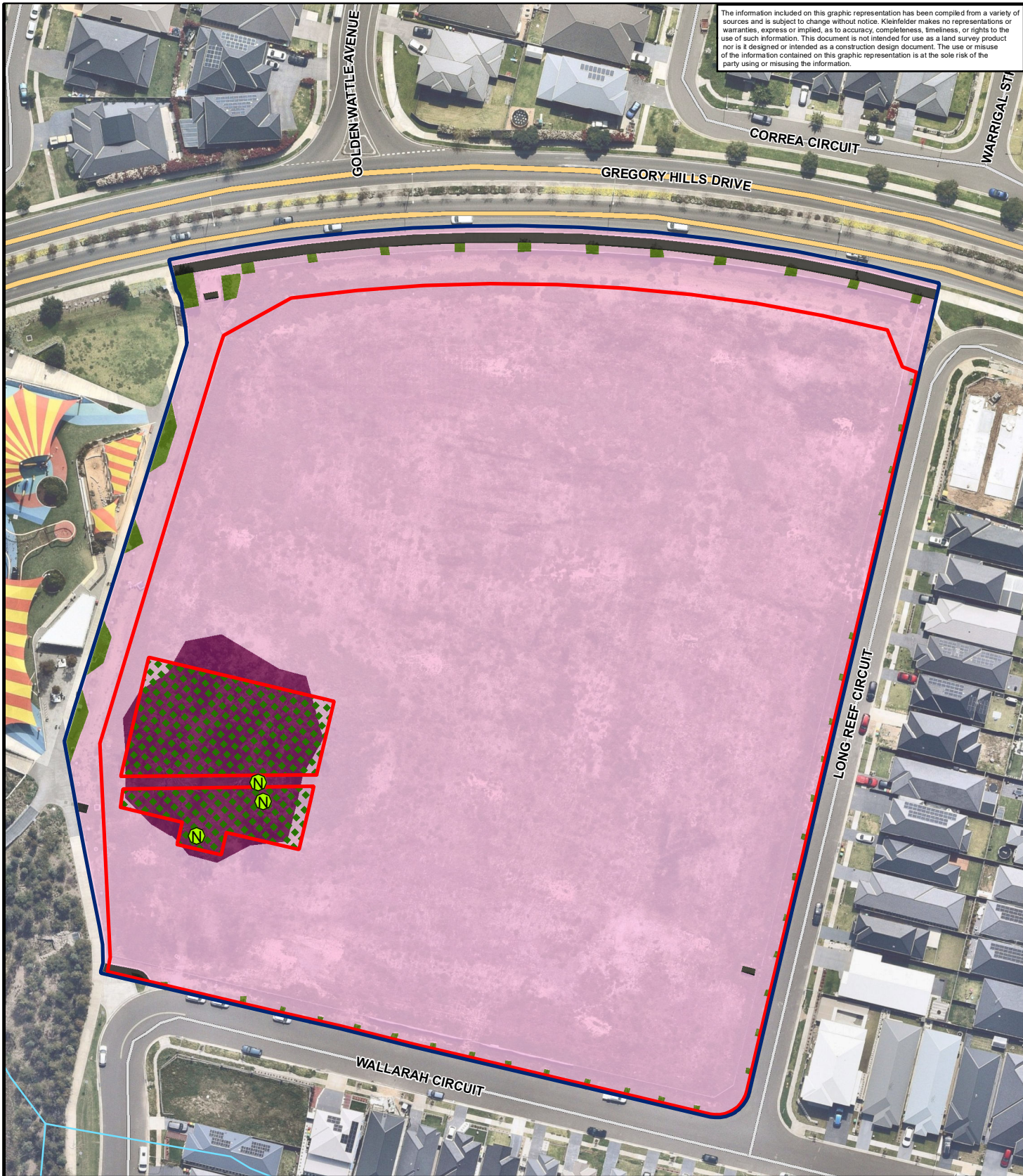


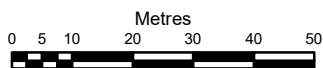
Plate 4: Revegetated Riparian Corridor to the west of the Study Area

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Legend

- | | |
|---|---|
| Study Area | Nest |
| Development Site | Vegetation Zones |
| Retained Trees - Excluded from Development Site | Vegetation Zone 1: PCT 3320 - Cumberland Shale Plains Woodland (CEEC) |
| Sub-arterial Road | Vegetation Zone 2: Exotic Grassland (managed) |
| Local Road | Planted Native/Exotic Vegetation |
| Unnamed Watercourse | Existing Infrastructure |



PROJECT REFERENCE: Jacobs

DATE DRAWN: 10/7/2022 15:32 Version 1

DRAWN BY: DNeylan

DATA SOURCE:
NSW DFSI - 2020
Nearmap - 2022

Biodiversity Values

Jacobs Group Australia
Ecological Assessment Report
Gregory Hills Public School
Gregory Hills Drive, Gregory Hills NSW

FIGURE:

7

3 LEGISLATIVE REQUIREMENTS

3.1 STATE LEGISLATION

3.1.1 *Biodiversity Conservation Act 2016 (NSW)*

The NSW *Biodiversity Conservation Act 2016* (BC Act), the NSW *Biodiversity Conservation Regulation 2017* (BC Regulation) and amendments to the NSW *Local Land Services Act 2013* (LLS Act) commenced on 25 August 2017. The legislation aims to “maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development”. The BC Act repeals several pre-existing Acts, most notably the NSW *Threatened Species Conservation Act 1995* (TSC), the NSW *Nature Conservation Trust Act 2001* and the NSW *Native Vegetation Act 2003*.

As the Study Area is subject to certification under the *Growth Centres Biodiversity Certification* the proposed development must be compliant with the provisions of the Certification, and Relevant Biodiversity Measures (RBMs) listed in the Order to confer Biodiversity Certification on the State Environmental Planning Policy (SEPP) (Sydney Region Growth Centres) 2006, conferred under the (now repealed) *TSC Act 1995*.

3.1.2 *Western Parklands City SEPP 2021*

As noted the site is subject to certification under the Growth Centres Biodiversity Certification (conferred under Part 7 Schedule 7 of the former TSC Act) which was identified in the recently repealed State Environmental Planning Policy (Sydney Region Growth Centres) 2006. The Clause enacting Part 7 Schedule 7 of the TSC Act within the Growth Centres SEPP has been transferred to the new Western Parkland City SEPP.

The Relevant Biodiversity Measures (RBMs) applying to the certification have remained unaltered since gazettal of the original order and require (among other things) the permanent protection of 2000 hectares of high-quality vegetation within the Growth Centres. As the proposed development occurs on land that is certified under the Growth Centres Biodiversity Certification and will not result in the removal of native vegetation, important fauna habitat, or impact threatened species (as listed under the BC Act and EPBC Act), the development is considered compliant with the RBMs listed in the Order.

3.1.3 *Biosecurity Act 2015*

Under the *Biosecurity Act 2015* (NSW) all plants are regulated with a general biosecurity duty “to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.” Under the Act, a biosecurity impact “is an adverse effect on the economy, environment, or the community that arises, or has the potential to arise, from a biosecurity matter.” Species which require control prior to and post construction of the Project to ensure they are not spread due to works, include the high threat species listed in

Table 3: Weed species requiring control within the Subject Site

Family	Scientific Name	Common Name	Weeds of National Significance (WONS)	Priority weeds of the North Coast LLS (Biosecurity Act)	High Threat Weeds (BAM)
Asteraceae	<i>Senecio madagascariensis</i>	Fireweed	-	✓	✓
Solanaceae	<i>Lycium ferocissimum</i>	African Boxthorn	✓	✓	✓

3.1.4 Water Management Act 2000

Mitigation measures to reduce the potential of indirect impacts to the watercourse and broader Riparian Corridor are detailed in **Section 4**.

3.2 COMMONWEALTH LEGISLATION

3.2.1 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Under the EPBC Act, an approval is required for actions that are likely to have a significant impact on Matters of National Environmental Significance (MNES). An action includes a project, development, undertaking, activity or series of activities. When a person proposes to take an action, which they believe may need approval under the EPBC Act, they must refer the proposal to the Australian Government Minister for the Environment. The Act identifies the following nine MNES:

1. World Heritage properties;
2. National heritage places;
3. Wetlands of international importance (Ramsar Convention);
4. Listed threatened species and communities;
5. Migratory species listed under international agreements;
6. Great Barrier Reef Marine Park;
7. Commonwealth marine areas;
8. Nuclear actions; and
9. Water resources in respect to CSG and large coal mines.

To enable development to proceed in the Growth Areas and protect Sydney's delicate environment, the NSW Government undertook a Strategic Assessment of the Growth Area under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The need for site-by-site approvals under the EPBC Act for the approved actions is no longer required, as long as the actions are consistent with the endorsed Program. Any proposal on **land that is certified** under the *Growth Centres Biodiversity Certification* is in accordance with the endorsed program. As such, as the proposed development occurs on land that is certified under the *Southwest Growth Centre Biodiversity Certification*, the actions are in accordance with the endorsed programme and approval under the EPBC Act is not required.

3.2.2 Camden Local Environmental Plan 2010

The Study Area is located within the Camden Council LGA. The Camden Local Environmental Plan 2010 (Camden LEP) controls development within the Study Area through zoning and development controls. These controls are described in greater detail by the supporting Camden Development Control Plan 2019 (Camden DCP).

3.2.3 Camden Development Control Plan 2019

The Camden DCP supports the Camden LEP by providing additional detail and guidance on addressing biodiversity issues associated with development. Regarding biodiversity, the DCP contains provisions that relate to environmental effects, soil and erosion control and vegetation. The proposed modification is consistent with the provisions of the Camden DCP.

3.2.4 Turner Road Precinct Development Control Plan 2007

The study area is located within the Turner Road Precinct DCP area which provides additional detail and guidance on development within the area. This DCP contains provisions that relate to environmental effects and development classifications. The subject site is not included in environmental parameter or restriction listed within the DCP except the subject site sits along side a riparian protection area.

4 MITIGATION MEASURES

The measures outlined in **Table 4** are proposed to minimise and avoid potential impacts associated with the proposed development.

Table 4: Summary of mitigation and management measures for the proposed development

Impact	Action and Outcome	Responsibility	Timing
Direct impact / prescribed impact			
Clearing of native vegetation	<ul style="list-style-type: none">Avoid and minimise clearing impacts to native vegetation where possible.Clearly delineate the boundaries of the project footprint to prevent any unnecessary clearing beyond its extent. This includes physical demarcation of the extent of the proposed APZs along the boundary with retained vegetation.Ensure vehicle and equipment parking areas and stockpile areas are identified and positioned to avoid areas containing ecological value. Stockpiling must not occur within, or in close proximity (5m) to, areas of native vegetation retained under the proposed development.Appropriate signage such as 'no go zone' or 'environmental protection area' should be installed surrounding the area of retained native vegetation.Clearly identify and communicate the location of any 'no go zones' in site inductions.Tree protection measures will be implemented to protect retained trees adjacent to the Development Site (the Cumberland Woodland Patch and Riparian Corridor). Tree protection measures should consider allowances for Tree Protection Zones in accordance with AS4970 (Standards Australia, 2009).	Construction site manager	Prior to and during vegetation clearing

Impact	Action and Outcome	Responsibility	Timing
Removal of vegetation resulting in fauna injury and mortality	<ul style="list-style-type: none"> Appropriate exclusion fencing around any retained trees and vegetation to be retained adjacent to the Development Site should be erected, considering allowance for Tree Protection Zones in accordance with AS4970 (Standards Australia, 2009). 	Construction site manager and suitably qualified/trained fauna handler	Prior to and during tree clearing
Impacts to surface and groundwater quality and quantity due to sediment run-off and/or contaminant runoff into adjacent watercourses	<ul style="list-style-type: none"> Source controls such as sediment fences, mulching and jute matting will be utilised where appropriate. Site-based vehicles and plant equipment will carry spill kits. Erosion and sediment control will be required for the development in accordance with Managing Urban Stormwater: Soils and Construction (Landcom, 2004) prior to commencement of construction. Limit the use of pesticides in the project footprint where possible to avoid contamination of nearby watercourses/wetland areas. 	Construction site manager	During vegetation clearing, construction and operation
Vehicle collision with fauna	<ul style="list-style-type: none"> Speed limits within the Development Site should be limited to 40 km/hr during construction. The Development Site should be separated from vegetated areas throughout the construction and operational phases of the development. This separation should be achieved through physical barriers including fencing and appropriate signage. 	Construction site manager	During construction and operation
Indirect Impact			
Transfer of weeds and pathogens to and from site	<ul style="list-style-type: none"> The fungal pathogens <i>Phytophthora cinnamomi</i> and Myrtle Rust (<i>Puccinia psidii</i>) are known to occur in the Camden LGA, however, it is unknown if they occur within the Development Site. These pathogens can have devastating impacts on native plant communities and inhabiting fauna if not properly managed. All plant and equipment brought on to site should be assessed (or declared) as clean of biological contamination. Ensure soil seed material is not transferred. 	Construction site manager	During vegetation clearing, construction, and operation
Noise, vibration, lighting, waste and air pollution impacts to adjacent sensitive habitat areas	<ul style="list-style-type: none"> Increased human activity (from workers and traffic levels) directly adjacent to sensitive habitat areas may cause disturbance to flora and fauna species in adjoining habitat. Impacts from construction and operational activities, such as disturbance to an animal's normal behaviour patterns due to noise, vibration, lighting or dust may cause areas of previously suitable habitat to become sub-optimal and may cause fauna species to vacate areas previously suitable. Measures to mitigate impacts on flora and fauna from noise, vibration, waste, light and air pollution such as: Enforce 'carry-in, carry-out' policy regarding rubbish and waste materials generated on-site during construction to avoid waste materials entering adjacent vegetation. Restriction of public access and associated impacts from domestic pets, waste dumping and damage to adjoining vegetation must be enforced pre, during and post construction. Levels of lighting within the site will be reduced to a minimal level to reduce any adverse effects upon the essential behavioural patterns of light-sensitive fauna. Lighting should comply with Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting. Noise minimisation practices in accordance with DPE recommendations. 	Construction site manager	During construction and operation

Impact	Action and Outcome	Responsibility	Timing
	<ul style="list-style-type: none"> Dust control measures such as covering loads where required; amending operations under excessive wind conditions including ceasing operations if required; use of water tankers as required, to control dust; rehabilitation through vegetation of surfaces to be left unsealed; and, truck wheel washes or other dust removal measures. 		

5 CONCLUSION AND RECOMMENDATIONS

The proposed development includes the construction of a new primary school at Gregory Hills. This report accompanies an impact assessment pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in support of a State Significant Development Application (SSD-41306367). In accordance with item 10 of the Industry Specific SEARs this report aimed to “*provide information to identify the site and demonstrate the proposed development is consistent with the relevant biodiversity measure conferred by the biodiversity certification*”.

A detailed vegetation and habitat assessment was conducted within the Study Area on the 20 June 2022 by a Senior Ecologist. The vegetation within the Study Area was characterised by managed exotic grassland and a patch of remnant woodland commensurate with *PCT 3320 - Cumberland Shale Plains Woodland and Cumberland Plain Woodland in the Sydney Bioregion* Critically Endangered Ecological Community (CCEC) as listed under the New South Wales BC Act 2016. No threatened species or their habitats were recorded within the Study Area.

The proposed development will result in direct impacts to 2.72 ha of Exotic Grassland (Vegetation Zone 2), 0.05 ha of the groundcover within Vegetation Zone 1, and 0.01 ha of Planted Native/Exotic Trees along the road verge. The proposed development will not result in impacts to native vegetation or important fauna habitat. The Study Area is considered potential marginal foraging habitat for only highly mobile local threatened fauna species listed under the NSW BC Act and Commonwealth’s EPBC Act, such as the Grey-headed Flying-fox (*Pteropus poliocephalus*) (Vulnerable [BC and EPBC Act]) with impacts to these species were not considered significant.

As part of the works associated with this project, there are a total of eight trees that are to be removed from site due to being dead or high risk of falling limbs. These trees are shown on Figure 1 and have been appropriately assessed by an arborist in accordance with chapter 2.4 3(b) of the Camden Council DCP and in accordance with chapter two of the Biodiversity and Conservation SEPP. In the case of these trees, when confirmed and adequately assessed by a qualified arborist the DCP does not apply. There is also no requirement to assess the removal of these trees in accordance with the biocertification order on a certified site such as the subject site. In addition, the BC Act is not triggered by their removal.

As the proposed development occurs on **land that is certified** under the *Growth Centres Biodiversity Certification* and will not result in the removal of native vegetation, important fauna habitat or impact threatened species (as listed under the BC Act and EPBC Act) the development is considered compliant with the RBMs listed in the Order. Furthermore, the proposed actions are in accordance with the Relevant Biodiversity Measures detailed within the Certification Order, as such approval under the EPBC Act is not required. Potential indirect impacts associated with the proposed development would be further avoided and/or minimised through the implementation of mitigation and management measures outlined in **Section 4** of the report.

6 REFERENCES

Department of Planning and Environment (DPE) (2022a). *BioNet Atlas of NSW*. Available at: <http://www.bionet.nsw.gov.au/>

Department of Planning and Environment (DPE) (2022b). *NSW Threatened Species Scientific Committee – Final Determinations*. Available at: <https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species/nsw-threatened-species-scientific-committee/determinations/final-determinations>

Department of Planning, Industry and Environment (DPIE) (2020a). *NSW Survey Guide for Threatened Frogs*. Published by the Environment, Energy and Science, Department of Planning, Industry and Environment, Parramatta, NSW.

Department of Planning, Industry and Environment (DPIE) (2020b). *Surveying threatened plants and their habitats - NSW survey guide for the Biodiversity Assessment Method*. Published by Environment, Energy and Science, Department of Planning, Industry and Environment, Parramatta, NSW.



ATTACHMENT 1 FLORA AND FAUNA SPECIES LISTS





Table A1 Flora Species List

No.	Family	Scientific Name	Common Name	Form	Plot Q01		Plot Q02	
					C	Ab	C	Ab
1.	Asteraceae	<i>Bidens pilosa</i>	Cobbler's Pegs	Exotic				
2.	Asteraceae	<i>Conyza bonariensis</i>	Flaxleaf Fleabane	Exotic			0.1	10
3.	Asteraceae	<i>Cotula australis</i>	Common Cotula	Forb (FG)	0.1	10		
4.	Asteraceae	<i>Euchiton sphaericus</i>	Star Cudweed	Forb (FG)			0.1	20
5.	Asteraceae	<i>Hypochaeris radicata</i>	Catsear	Exotic			0.1	30
6.	Asteraceae	<i>Senecio madagascariensis</i>	Fireweed	Exotic	0.1	10	1	500
7.	Asteraceae	<i>Sonchus asper</i>	Prickly Sowthistle	Exotic	0.1	20		
8.	Asteraceae	<i>Taraxacum officinale</i>	Dandelion	Exotic			0.1	20
9.	Brassicaceae	<i>Hirschfeldia incana</i>	Buchan Weed	Exotic	0.5	20		
10.	Brassicaceae	<i>Lepidium africanum</i>	Common Peppergrass	Exotic			0.1	20
11.	Chenopodiaceae	<i>Einadia hastata</i>	Berry Saltbush	Forb (FG)	0.1	20		
12.	Convolvulaceae	<i>Dichondra repens</i>	Kidney Weed	Forb (FG)	0.1	50		
13.	Cucurbitaceae	<i>Cucumis myriocarpus</i> subsp. <i>leptodermis</i>	Paddy Melon	Exotic	0.1	10		
14.	Cyperaceae	<i>Cyperus compressus</i>	0	Exotic	1	30		
15.	Euphorbiaceae	<i>Euphorbia drummondii</i>	Caustic Weed	Forb (FG)				
16.	Fabaceae (Faboideae)	<i>Glycine microphylla</i>	Small-leaf Glycine	Other (OG)	0.1	20		
17.	Fabaceae (Faboideae)	<i>Trifolium repens</i>	White Clover	Exotic	0.5	100	4	1000
18.	Fabaceae (Faboideae)	<i>Trifolium spp.</i>	0	Exotic	0.1	10		
19.	Malvaceae	<i>Sida rhombifolia</i>	Paddy's Lucerne	Exotic	0.1	10	0.1	10
20.	Myrtaceae	<i>Eucalyptus tereticornis</i>	Forest Red Gum	Tree (TG)	15	10		
21.	Plantaginaceae	<i>Plantago lanceolata</i>	Lamb's Tongues	Exotic	0.1	20	0.1	40
22.	Plantaginaceae	<i>Veronica plebeia</i>	Trailing Speedwell	Forb (FG)			0.1	40
23.	Poaceae	<i>Bromus catharticus</i>	Prairie Grass	Exotic	5	100		
24.	Poaceae	<i>Cenchrus clandestinus</i>	Kikuyu Grass	Exotic			10	1000



No.	Family	Scientific Name	Common Name	Form	Plot Q01		Plot Q02	
					C	Ab	C	Ab
25.	Poaceae	<i>Chloris gayana</i>	Rhodes Grass	HTW				
26.	Poaceae	<i>Chloris truncata</i>	Windmill Grass	Grass & grasslike (GG)	1	20	5	100
27.	Poaceae	<i>Cynodon dactylon</i>	Common Couch	Grass & grasslike (GG)	5	100	15	1000
28.	Poaceae	<i>Dichanthium sericeum</i>	Queensland Bluegrass	Grass & grasslike (GG)	3	100	30	1000
29.	Poaceae	<i>Digitaria spp.</i>	0	Grass & grasslike (GG)			20	100
30.	Poaceae	<i>Ehrharta erecta</i>	Panic Veldtgrass	HTW	80	1000		
31.	Poaceae	<i>Eragrostis curvula</i>	African Lovegrass	HTW	2	100		
32.	Poaceae	<i>Lolium rigidum</i>	Wimmera Ryegrass	Exotic				
33.	Poaceae	<i>Microlaena stipoides</i>	Weeping Grass	Grass & grasslike (GG)	3	100		
34.	Poaceae	<i>Panicum simile</i>	Two-colour Panic	Grass & grasslike (GG)				
35.	Poaceae	<i>Setaria parviflora</i>	0	Exotic				
36.	Poaceae	<i>Sporobolus africanus</i>	Parramatta Grass	Exotic	0.5	30		
37.	Solanaceae	<i>Lycium ferocissimum</i>	African Boxthorn	HTW - Manageable	0.2	1		
38.	Solanaceae	<i>Solanum nigrum</i>	Black-berry Nightshade	Exotic				
39.	Verbenaceae	<i>Verbena bonariensis</i>	Purpletop	Exotic				



Table A2 Fauna Species List

No.	Scientific Name	Common Name	Status		Observation Type*	General Abundance within Development Site**
			BC	EPBC		
1.	<i>Acridotheres tristis</i>	Common Myna	-	-	O	UC
2.	<i>Corvus coronoides</i>	Australian Raven	-	-	O	UC
3.	<i>Falco cenchroides</i>	Nankeen Kestrel	-	-	O	UC
4.	<i>Grallina cyanoleuca</i>	Magpie Lark	-	-	O	UC
5.	<i>Gymnorhina tibicen</i>	Australian Magpie	-	-	O	UC
6.	<i>Manorina melanocephala</i>	Noisy Miner	-	-	O	UC
7.	<i>Ocyphaps lophotes</i>	Crested Pigeon	-	-	O	UC
8.	<i>Platycercus eximius</i>	Eastern Rosella	-	-	O	UC
9.	<i>Trichoglossus haematodus</i>	Rainbow Lorikeet	-	-	O	C

*Observation Type: O (Visual Observation), H (Heard whilst on site), E (Evidence recorded inc scats, tracks or markings), R (Recorded through the use of call detectors [level of confidence C: Confident, Pr: Probable, Po: Possible]).

** General Abundance: I (Individual record), UC (Uncommon, 2-5 records), C (Common occurrence on site >5 records)



ATTACHMENT 2 THREATENED ECOLOGICAL COMMUNITY DETERMINATIONS





NSW Biodiversity Conservation Act 2016

Threatened Ecological Community Determination – BC Act *Cumberland Plain Woodland in the Sydney Bioregion CEEC*

Vegetation Zone 1 – Patch 1/1 – PCT 3320 - *Cumberland Shale Plains Woodland* (Low-Moderate Condition)



Assessment of Conservation Status - *Cumberland Plain Woodland in the Sydney Bioregion CEEC* (BC Act). – Vegetation Zone 1: PCT 3320 - *Cumberland Shale Plains Woodland* (Low-Moderate Condition)

Determination Criteria	Presence	Justification
Location - The vegetation is located within the area defined in the Determination (i.e. within the Sydney Basin bioregion associated with clay soils derived from Wianamatta Group geology, or more rarely alluvial substrates, on the Cumberland Plain)	Yes	The Study Area is located within the Sydney Basin IBRA Bioregion and Cumberland Plain IBRA Subregion.
Climate - The mean annual rainfall of this area is typically in the range of 700-900 mm, and is generally lower than that received on more elevated terrain that partially surrounds the Plain.	Yes	Mean annual rainfall for Camden is 796.6 mm
Landscape position - The community typically occurs on flat to undulating or hilly terrain up to about 350 m elevation but may also occur on locally steep sites and at slightly higher elevations.	Yes	The Study Area is positioned on flat to slightly undulating terrain approximately 116 m elevation.



Determination Criteria	Presence	Justification
Canopy floristics - Cumberland Plain Woodland is characterised by an upper-storey that is usually dominated by <i>Eucalyptus moluccana</i> (Grey Box) and <i>E. tereticornis</i> (Forest Red Gum), often with <i>E. crebra</i> (Grey Ironbark), <i>E. eugenoides</i> (Narrow-leaved Stringybark), <i>Corymbia maculata</i> (Spotted Gum) or other less frequently occurring eucalypts, including <i>Angophora floribunda</i> , <i>A. subvelutina</i> (Broad-leaved Apple), <i>E. amplifolia</i> (Cabbage Gum) and <i>E. fibrosa</i> (Broad-leaved Ironbark).	Yes	The vegetation within this zone was characterised by a canopy dominated by <i>Eucalyptus tereticornis</i> (Forest Red Gum).
Mid-storey floristics - The community may have an open stratum of small trees that may include any of these eucalypts, as well as species such as <i>Acacia decurrens</i> (Black Wattle), <i>A. parramattensis</i> (Parramatta Wattle), <i>A. implexa</i> (Hickory Wattle) or <i>Exocarpos cupressiformis</i> (Native Cherry).	Absent	The midstorey is not characterised by any listed diagnostic species.
Shrub Layer floristics - Shrubs are typically scattered in the understorey but may be absent or locally dense as a result of clearing activity or changes in grazing or fire regimes. <i>Bursaria spinosa</i> (Blackthorn) is usually dominant, while other species include <i>Daviesia ulicifolia</i> (Gorse Bitter Pea), <i>Dillwynia sieberi</i> , <i>Dodonaea viscosa</i> subsp. <i>cuneata</i> and <i>Indigofera australis</i> (Native Indigo).	Absent	The shrub layer is not characterised by any listed diagnostic species.
Groundcover floristics - The ground cover is dominated by a diverse range of grasses including <i>Aristida ramosa</i> (Purple Wiregrass), <i>A. vagans</i> (Threeawn Speargrass), <i>Cymbopogon refractus</i> (Barbed Wire Grass), <i>Dichelachne micrantha</i> (Plumegrass), <i>Echinopogon caespitosus</i> (Forest Hedgehog Grass), <i>Eragrostis leptostachya</i> (Paddock Lovegrass), <i>Microlaena stipoides</i> (Weeping Grass), <i>Paspalidium distans</i> and <i>Themeda australis</i> (Kangaroo Grass), and with graminoids <i>Carex inversa</i> (Knob Sedge), <i>Cyperus gracilis</i> , <i>Lomandra filiformis</i> subsp. <i>filiformis</i> (Wattle Mat-rush) and <i>L. multiflorus</i> subsp. <i>multiflorus</i> (Many-flowered Mat-rush). The ground cover also includes a diversity of forbs such as <i>Asperula conferta</i> (Common Woodruff), <i>Brunoniella australis</i> (Blue Trumpet), <i>Desmodium varians</i> (Slender Tick Trefoil), <i>Dianella longifolia</i> (Blue Flax Lily), <i>Dichondra repens</i> (Kidney Weed), <i>Opercularia diphylla</i> , <i>Oxalis perennans</i> and <i>Wahlenbergia gracilis</i> (Australian Bluebell), as well as scramblers, <i>Glycine</i> spp. and <i>Hardenbergia violacea</i> (Native Sarsaparilla) and the fern <i>Cheilanthes sieberi</i> (Poison Rock Fern).	Yes – but degraded	The groundlayer within this zone is dominated by exotic grasses including <i>Paspalum dilatatum</i> * (Paspalum) and <i>Ehrharta erecta</i> * (Panic Veldtgrass). A mix of native grasses and herbs still persist within this vegetation zone, including <i>Microlaena stipoides</i> (Weeping Grass), <i>Einadia hastata</i> (Berry Saltbush), and <i>Dichondra repens</i> (Kidney Weed).
Community structure - The community typically comprises an open tree canopy, a near-continuous groundcover dominated by grasses and herbs, sometimes with layers of shrubs and/or small trees. Shrubs may sometimes occur in locally dense stands. Less disturbed stands of the community may have a woodland or forest structure. Small trees or saplings may dominate the community in relatively high densities after partial or total clearing, and the groundcover may be relatively sparse,	Yes	The vegetation within this zone is characterised by an open canopy of <i>E. tereticornis</i> . The midstorey and shrub layers are absent owing to historical clearing and management. The groundcover is typically grassy and characterised by a number of diagnostic species, albeit dominated by exotic grass species.



Determination Criteria	Presence	Justification
especially where densities of trees or shrubs are high. The community also includes 'derived' native grasslands which result from removal of the woody strata from the woodlands and forests.		
Determination		The vegetation within Vegetation Zone 1 <u>does meet</u> the definition of the Critically Endangered Ecological Community <i>Cumberland Plain Woodland in the Sydney Bioregion</i> as listed under the New South Wales Biodiversity Conservation Act 2016. However, the community is very low condition owing to historical clearing and management.



The Commonwealth's Environment Protection and Biodiversity Conservation Act 1999

Threatened Ecological Community Determination – EPBC Act *Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest* CEEC

Vegetation Zone 1 – Patch 1/1 – PCT 3320 - *Cumberland Shale Plains Woodland* (Low-Moderate Condition)



Assessment of Conservation Status - *Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest* CEEC (EPBC Act). – Vegetation Zone 1 – Patch 1/1 – PCT 3320 - *Cumberland Shale Plains Woodland* (Low-Moderate Condition)

Decision Key Criteria	Answer	Justification
1. Are native tree species ¹ present with a minimum projected foliage cover ² of 10%? (i). Yes – Go to 2. (ii). No – Not the listed ecological community.	Yes	The vegetation within this zone was characterised by a canopy dominated by <i>Eucalyptus tereticornis</i> (Forest Red Gum). Projected foliage cover of <i>Eucalyptus tereticornis</i> within Vegetation Zone 1 was estimated at 15%, above the benchmark of 10%. <i>Eucalyptus tereticornis</i> is a recognised dominant tree species for <i>Cumberland Plain Woodland</i> .
2. Is the patch ³ of the ecological community 0.5 ha or greater in size? (i). Yes – Go to 3. (ii). No - Not the listed ecological community.	No	The Patch is 0.18 ha in size.



Decision Key Criteria	Answer	Justification
3. Of the perennial understorey vegetative cover present, is 50% made up of native species ⁴ ? (i). Yes – The listed ecological community. (ii) No – Go to 4.	N/A	Not Applicable
4. Is the patch 5 ha or greater in size? (i). Yes – Go to 5. (ii) No – Go to 6.	N/A	Not Applicable
5. Of the perennial understorey vegetative cover present, is 30% made up of native species ⁴ ? (i). Yes – The listed ecological community. (ii) No – Not the listed ecological community.	N/A	Not Applicable
6. Is the patch contiguous ⁵ with a native vegetation patch 5 ha or greater in size? (i). Yes – The listed ecological community. (ii) No – Not the listed ecological community.	N/A	Not Applicable
7. Does the patch contain at least one tree per ha that is large (> 80cm dbh ⁶) or has a hollow? (i). Yes – Go to 5. (ii) No – Not the listed ecological community.	NA	Not Applicable
Determination	The vegetation within Vegetation Zone 1 does not meet the definition of the Critically Endangered Ecological Community <i>Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest</i> as listed under the Commonwealth's <i>Environment Protection Biodiversity Conservation Act 1999</i> .	

Key notes pertaining to the decision criteria in the above table.

¹Typical dominant tree species are grey box (*Eucalyptus moluccana*), forest red gum (*Eucalyptus tereticornis*) and red ironbark (*Eucalyptus fibrosa*). Dominant means that one or more of the species listed above comprise 50% or more of the tree cover. Other tree canopy species may occur in association with the typical dominant species and may be locally dominant within the patch at some sites.

² Projected foliage cover excludes gaps between branches and leaves—for example, the amount of shadow that would be cast on the ground if there were a light source directly overhead.

³A patch is defined as a discrete and continuous area that comprises the ecological community. It is recognised that patches may occur in a range of sizes and shapes. In general, surveys within patches should be based on samples of at least 0.04 ha (a 20 m x 20 m plot or equivalent). The number of plots (quadrats or survey transects) per patch must take into consideration the size, shape and condition across the site. Permanent man-made structures, such as roads and buildings, are typically excluded from a patch, but a patch may include small-scale disturbances, such as tracks or breaks or other small-scale variations in native vegetation that do not significantly alter the overall functionality of the ecological community—for instance, the easy movement of wildlife or dispersal of plant spores and seeds.

⁴This determines how much of the understorey is native versus exotic. Perennial understorey vegetation cover includes vascular plant species of the ground and shrub layers with a lifecycle of more than two growing seasons. Measurements of perennial understorey vegetation cover exclude annuals, lichens and mosses, leaf litter or exposed soil.

⁵Contiguous means the woodland patch is continuous with, or close to (within 100 m), another patch of vegetation that is dominated by native species in each vegetation layer present. Apart from native vegetation with a tree canopy, adjoining native vegetation may consist of derived grasslands or shrublands. 'Derived' or 'secondary' grasslands or shrublands are sites where the trees have been cleared but the native understorey is retained, giving the appearance of a grassland or shrubland.

⁶dbh—diameter at breast height (measured 1.3 m above the base of the tree).



ATTACHMENT 3 ASSESSMENT DETAILS

Staff Contributions

The following staff were involved in the compilation of this report.

Table C1 Staff Contributions

Name	Qualification	Title/Experience	Contribution
David Martin	MSc	Ecologist (Botanist)	Flora and Fauna Surveys, Vegetation Mapping and Report Author.
Dallas Milburn	BAppSc	Principal Ecologist	Report Review
Gayle Joyce	BSc (Forestry) (Hons)	GIS Specialist	GIS and figure preparation

Scientific Licencing and Permits

Kleinfelder employees involved in the current study are licensed or approved under the *Biodiversity Conservation Act 2016* (License Number: SL100730, Expiry: 31 March 2023) and the *Animal Research Act 1985* to harm/trap/release protected native fauna and to pick for identification purposes native flora and to undertake fauna surveys.



ATTACHMENT 4 PROJECT SEARS

Planning Secretary's Environmental Assessment Requirements

Schools



Development details

Application number	SSD-41306367
Project name	Gregory Hills Primary School
Location	Lot 3257 DP 1243285 Gregory Hills Drive, Gregory Hills within Camden LGA
Applicant	Department of Education
Date of issue	27/04/2022

Content and guidance

Any Environmental Impact Statement (EIS) must meet the minimum form and content requirements as prescribed by Part 8 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) and the *State Significant Development Guidelines*.

Relevant policies and guidelines can be found at <https://www.planningportal.nsw.gov.au/major-projects/assessment/policies-and-guidelines>.

Key issues and documentation

Issue and Assessment Requirements	Documentation
1. Statutory Context <ul style="list-style-type: none">Address all relevant legislation, environmental planning instruments (EPIs) (including drafts), plans, policies and guidelines.Identify compliance with applicable development standards and provide a detailed justification for any non-compliances.If the development is only partly State significant development (SSD) declared under Chapter 2 of SEPP (Planning Systems) 2021, provide an explanation of how the remainder of the development is sufficiently related to the component that is SSD.Address the requirements of any approvals applying to the site, including any concept approval or recommendation from any Gateway determination.	<ul style="list-style-type: none">Address in EIS
2. Capital Investment Value and Employment <ul style="list-style-type: none">Provide a detailed calculation of the capital investment value (CIV) of the development, prepared by a qualified quantity surveyor.Provide an estimate of the retained and new jobs that would be created during the construction and operational phases of the development, including	<ul style="list-style-type: none">Cost Summary Report

Planning Secretary's Environmental Assessment Requirements

Schools



details of the methodology to determine the figures provided.

3. Design Quality

- Demonstrate how the development will achieve:
 - design excellence in accordance with any applicable EPI provisions.
 - good design in accordance with the seven objectives for good design in *Better Placed*.
- Where required by an EPI or concept approval, or where proposed, demonstrate how the development has been subject to a competitive design process, carried out in accordance with an endorsed brief and Design Excellence Strategy. Recommendations (from the jury and Design Integrity Panel) are to be addressed prior to lodgement.
- In all other instances, demonstrate that the development has been reviewed by the State Design Review Panel (SDRP). Recommendations are to be addressed prior to lodgement.

- Design Excellence Strategy (where design excellence is required by an EPI)
- Competition Report (where a competitive design process has been held)
- Design Review Report (where the project has been reviewed by the SDRP)

4. Built Form and Urban Design

- Demonstrate how design quality will be achieved in accordance with the Education SEPP Design Quality Principles and the Design Guide for Schools, including:
 - how the proposed built form (layout, height, bulk, scale, separation, setbacks, interface and articulation) addresses and responds to the context, site characteristics, streetscape and existing and future character of the locality.
 - how the building design will deliver a high-quality development, including consideration of façade design, articulation, roof design, materials, finishes, colours, any signage, integration of services, and the principles of Crime Prevention through Environmental Design.
- Assess how the development complies with the relevant accessibility requirements.

- Architectural drawings
- Design Report
- Survey Plan
- Building Code of Australia Compliance Report
- Accessibility Report

5. Environmental Amenity

- Address how good internal and external environmental amenity is achieved, including access to natural daylight and ventilation, pedestrian movement throughout the site, access to landscape and outdoor spaces.
- Assess amenity impacts on the surrounding locality, including lighting impacts, solar access, visual privacy, visual amenity, view loss and view sharing, overshadowing and wind impacts (including the preparation of a wind assessment where the development has a height above four storeys). A high level of environmental amenity for any surrounding residential or other sensitive land uses must be demonstrated.

- Shadow Diagrams
- View Analysis
- Pedestrian Wind Environment Assessment

Planning Secretary's Environmental Assessment Requirements

Schools



<ul style="list-style-type: none"> Provide a solar access analysis of the overshadowing impacts of the development within the site, on surrounding properties and public spaces (during summer and winter solstice) at hourly intervals between 9am and 3pm, when compared to the existing situation and a compliant development (if relevant). 	
<p>6. Visual Impact</p> <ul style="list-style-type: none"> Provide a visual analysis of the development from key viewpoints, including photomontages or perspectives showing the proposed and likely future development. Where the visual analysis has identified potential for significant visual impact, provide a visual impact assessment that addresses the impacts of the development on the existing catchment. 	<ul style="list-style-type: none"> Visual Analysis Visual Impact Assessment
<p>7. Trees and Landscaping</p> <ul style="list-style-type: none"> Assess the number, location, condition and significance of trees to be removed and retained and note any existing canopy coverage to be retained on-site. Provide a detailed site-wide landscape plan, that: <ul style="list-style-type: none"> details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage. provides evidence that opportunities to retain significant trees have been explored and/or informs the plan. considers equity and amenity of outdoor play spaces. demonstrates how the proposed development would: <ul style="list-style-type: none"> contribute to long term landscape setting in respect of the site and streetscape. mitigate the urban heat island effect and ensure appropriate comfort levels on-site. contribute to the objective of increased urban tree canopy cover. maximise opportunities for green infrastructure, consistent with <i>Greener Places</i>. 	<ul style="list-style-type: none"> Arboricultural Impact Assessment Landscape Plan
<p>8. Ecologically Sustainable Development (ESD)</p> <ul style="list-style-type: none"> Identify how ESD principles (as defined in section 193 of the EP&A Regulation) are to be incorporated in the design and ongoing operation of the development. Demonstrate how the development will meet or exceed the relevant industry recognised building sustainability and environmental performance standards, 	<ul style="list-style-type: none"> ESD Report

Planning Secretary's Environmental Assessment Requirements



Schools

and integrate environmental design strategies in accordance with the *Environmental Design in Schools Manual*.

- Demonstrate how the development minimises greenhouse gas emissions (reflecting the Government's goal of net zero emissions by 2050) and consumption of energy, water (including water sensitive urban design) and material resources.

9. Traffic, Transport and Accessibility

- Provide a transport and accessibility impact assessment, which includes:
 - an analysis of the existing transport network, including the road hierarchy and any pedestrian, bicycle or public transport infrastructure, current daily and peak hour vehicle movements, and existing performance levels of nearby intersections.
 - details of the proposed development, including pedestrian and vehicular access arrangements (including swept path analysis of the largest vehicle and height clearances), parking arrangements and rates (including bicycle and end-of-trip facilities), drop-off/pick-up-zone(s) and bus bays (if applicable), and provisions for servicing and loading/unloading.
 - analysis of the impacts of the proposed development (including justification for the methodology used), including predicted modal split, a forecast of additional daily and peak hour multimodal network flows as a result of the development (using industry standard modelling), potential queuing in drop-off/pick-up zones and bus bays during peak periods, identification of potential traffic impacts on road capacity, intersection performance and road safety (including pedestrian and cyclist conflict), and any cumulative impact from surrounding approved developments.
 - measures to mitigate any traffic impacts, including details of any new or upgraded infrastructure to achieve acceptable performance and safety, and the timing, viability and mechanisms (including proposed arrangements with local councils or government agencies) of delivery of any infrastructure improvements in accordance with relevant standards.
 - measures to promote sustainable travel choices for employees, students and visitors, such as connections into existing walking and cycling networks, minimising car parking provision, encouraging car share and public transport, providing adequate bicycle parking and high quality end-of-trip facilities, and implementing a Green Travel Plan.
 - a preliminary operational traffic and access management plan for the development, including drop-off/pick-up zones, bus bays and their operations.
- Provide a Construction Traffic Management Plan detailing predicted construction vehicle movements, routes, access and parking arrangements, coordination with other construction occurring in the area, and how impacts

- Transport and Accessibility Impact Assessment
- Construction Traffic Management Plan
- Green Travel Plan or equivalent

Planning Secretary's Environmental Assessment Requirements

Schools



on existing traffic, pedestrian and bicycle networks would be managed and mitigated.

10. Biodiversity

- Assess any biodiversity impacts associated with the development in accordance with the *Biodiversity Conservation Act 2016* and the *Biodiversity Assessment Method 2020*, including the preparation of a Biodiversity Development Assessment Report (BDAR), unless a waiver is granted or the site is on biodiversity certified land.
- If the development is on biodiversity certified land, provide information to identify the site (using associated mapping) and demonstrate the proposed development is consistent with the relevant biodiversity measure conferred by the biodiversity certification.

- Biodiversity Development Assessment Report or BDAR Waiver

11. Noise and Vibration

- Provide a noise and vibration assessment prepared in accordance with the relevant NSW Environment Protection Authority (EPA) guidelines. The assessment must detail construction and operational noise (including any public-address system, events, and out of hours use of school facilities) and vibration impacts on nearby sensitive receivers and structures, considers noise intrusion, and outline the proposed management and mitigation measures that would be implemented.

- Noise and Vibration Impact Assessment

12. Ground and Water Conditions

- Provide an assessment of the potential impacts on soil resources, including related infrastructure and riparian lands on and near the site.
- Provide an assessment of the potential impacts on surface and groundwater resources (quality and quantity), including related infrastructure, hydrology, aquatic and groundwater dependent ecosystems, drainage lines, downstream assets and watercourses.
- Provide an assessment of salinity and acid sulfate soil impacts.

- Geotechnical Assessment
- Surface and Groundwater Impact Assessment
- Salinity Management Plan and/or Acid Sulfate Soils Management Plan

13. Stormwater and Wastewater

- Provide an Integrated Water Management Plan for the development that:
 - is prepared in consultation with the local council and any other relevant drainage or water authority.
 - details the proposed drainage design for the site including any on-site treatment, reuse and detention facilities, water quality measures, and the nominated discharge points.
 - demonstrates compliance with the local council or other drainage or water authority requirements and avoids adverse impacts on any

- Integrated Water Management Plan

Planning Secretary's Environmental Assessment Requirements

Schools



<p>downstream properties.</p> <ul style="list-style-type: none"> Where drainage infrastructure works are required that would be handed over to the local council, or other drainage or water authority, provide full hydraulic details and detailed plans and specification of proposed works that have been prepared in consultation with, and comply with the relevant standards of, the local council or other drainage or water authority. 	
<p>14. Flooding Risk</p> <ul style="list-style-type: none"> Identify any flood risk on-site having regard to adopted flood studies, the potential effects of climate change, and any relevant provisions of the <i>NSW Floodplain Development Manual</i>. Assess the impacts of the development, including any changes to flood risk on-site or off-site, and detail design solutions and operational procedures to mitigate flood risk where required. 	<ul style="list-style-type: none"> Flood Risk Assessment
<p>15. Hazards and Risks</p> <ul style="list-style-type: none"> Where there are dangerous goods and hazardous materials associated with the development provide a preliminary risk screening in accordance with Chapter 3 of SEPP (Resilience and Hazards) 2021. Where required by SEPP (Resilience and Hazards) 2021, provide a Preliminary Hazard Analysis prepared in accordance with <i>Hazardous Industry Planning Advisory Paper No.6 – Guidelines for Hazard Analysis</i>. If the development is adjacent to or on land in a pipeline corridor, report on consultation outcomes with the operator of the pipeline, and prepare a hazard analysis. 	<ul style="list-style-type: none"> Preliminary Hazard Analysis
<p>16. Contamination and Remediation</p> <ul style="list-style-type: none"> In accordance with Chapter 4 of SEPP (Resilience and Hazards) 2021, assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable (or will be suitable, after remediation) for the development. 	<ul style="list-style-type: none"> Preliminary Site Investigation <p>If required, provide:</p> <ul style="list-style-type: none"> Detailed Site Investigation Remedial Action Plan Preliminary Long-term Environmental Management Plan

Planning Secretary's Environmental Assessment Requirements

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<p>17. Waste Management</p> <ul style="list-style-type: none"> Identify, quantify and classify the likely waste streams to be generated during construction and operation. Provide the measures to be implemented to manage, reuse, recycle and safely dispose of this waste. Identify appropriate servicing arrangements for the site. If buildings are proposed to be demolished or altered, provide a hazardous materials survey. 	<ul style="list-style-type: none"> Waste Management Plan Hazardous Material Survey
<p>18. Aboriginal Cultural Heritage</p> <ul style="list-style-type: none"> Provide an Aboriginal Cultural Heritage Assessment Report prepared in accordance with relevant guidelines, identifying, describing and assessing any impacts for any Aboriginal cultural heritage values on the site. 	<ul style="list-style-type: none"> Aboriginal Cultural Heritage Assessment Report
<p>19. Environmental Heritage</p> <ul style="list-style-type: none"> Where there is potential for direct or indirect impacts on the heritage significance of environmental heritage, provide a Statement of Heritage Impact and Archaeological Assessment (if potential impacts to archaeological resources are identified), prepared in accordance with the relevant guidelines, which assesses any impacts and outlines measures to ensure they are minimised and mitigated. 	<ul style="list-style-type: none"> Statement of Heritage Impact Archaeological Assessment
<p>20. Social Impact</p> <ul style="list-style-type: none"> Provide a Social Impact Assessment prepared in accordance with the <i>Social Impact Assessment Guidelines for State Significant Projects</i>. 	<ul style="list-style-type: none"> Social Impact Assessment
<p>21. Infrastructure Requirements and Utilities</p> <ul style="list-style-type: none"> In consultation with relevant service providers: <ul style="list-style-type: none"> assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site. identify any infrastructure upgrades required on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained. provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development. 	<ul style="list-style-type: none"> Infrastructure Delivery, Management and Staging Plan
<p>22. Bush Fire Risk</p> <ul style="list-style-type: none"> If the development is on bush fire prone land, provide a bush fire assessment 	<ul style="list-style-type: none"> Bush Fire Assessment

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that details proposed bush fire protection measures and demonstrates compliance with *Planning for Bush Fire Protection*.

23. Aviation

- If the development proposes a helicopter landing site (HLS), assess its potential impacts on the flight paths of any nearby airport, airfield or HLS.
- If the site contains or is adjacent to a HLS, assess the impacts of the development on that HLS.

- Aviation Report

24. Construction, Operation and Staging

- Provide details of existing (if relevant) and proposed operations, including staff and student numbers, any before/after school care services and/or community use of school facilities.
- If staging is proposed, provide details of how construction and operation would be managed and any impacts mitigated.

- Address in EIS

25. Contributions and Public Benefit

- Address the requirements of any relevant contribution plan(s), planning agreement or EPI requiring a monetary contribution, dedication of land and/or works-in-kind and include details of any proposal for further material public benefit.
- Where the development proposes alternative public benefits or a departure from an existing contributions framework, the local council, the Department and relevant State agencies are to be consulted prior to lodgement and details, including how comments have been addressed, are to be provided.

- Address in EIS

26. Engagement

- Detail engagement undertaken and demonstrate how it was consistent with the *Undertaking Engagement Guidelines for State Significant Projects*. Detail how issues raised and feedback provided have been considered and responded to in the project. In particular, applicants must consult with:
 - the relevant Department assessment team.
 - any relevant local councils.
 - any relevant agencies, including:
 - Transport for NSW
 - for development within the Western Parkland City, the Western Parkland City Authority.
 - the community.
 - if the development would have required an approval or authorisation under

- Engagement Report

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another Act but for the application of s 4.41 of the EP&A Act or requires an approval or authorisation under another Act to be applied consistently by s 4.42 of the EP&A Act, the agency relevant to that approval or authorisation.
