

## **Appendix A** – Preliminary ecology assessment



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To NSW Department of Education

Copy to

From Melissa Cotterill

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Subject Ecology input

Job no. 12521933

## 1.1 Ecology

A desktop review and site survey was completed to determine the biodiversity constraints associated with the project. The following sections outline the results of this assessment.

### 1.1.1 Methodology

#### **Desktop review**

A search of relevant databases and previous reports was undertaken in February and March 2020 to determine potential biodiversity constraints within a 10 kilometre radius (defined as the 'locality') of the project and that may be associated with the project area. The following databases were reviewed:

- NSW BioNet Atlas of NSW Wildlife for records of threatened species listed under the NSW *Biodiversity Conservation Act 2016* (BC Act) in the locality
- Biodiversity Conservation Division (BCD) Threatened Species, Populations and Communities database for threatened ecological communities that may occur in the locality
- Department of Agriculture, Water and Environment (DAWE) Protected Matters Search tool – for matters of national environmental significance listed under the *Commonwealth Environment Protection Biodiversity Conservation Act 1999* (EPBC Act) located within a 10 kilometre radius of project (searched February 2020)
- State Vegetation Type Mapping (SVTM), NSW Government Vegetation Information System (VIS) and OEH Spatial Data Catalogue for vegetation mapping in the study area
- National Herbarium of NSW, PlantNet database review for Rare or Threatened Australian Plants
- The DAWE directory of important wetlands
- The Commonwealth Bureau of Meteorology's Atlas of Groundwater Dependent Ecosystems (GDE)
- NSW BCD Threatened Species Profile Database
- Critical habitat registers:
  - DAWE – register of critical habitat
  - BCD – areas of outstanding biodiversity values (AOBVs)



## **Previous reports**

The following previous reports were reviewed:

- Biosis (2014), Googong Township Pink-tailed Worm-lizard Management Plan, report prepared for Googong Township Pty Ltd, July 2012
- Australian Government Department of Sustainability, Environment, Water, Populations and Communities (2011), Recommendation Report – Googong Township urban development and associated infrastructure, NSW, report based on EPBC Act referral 2011/5829.
- Manidis Roberts (2010), Googong Township water cycle project, report prepared for CIC Australia Ltd, November 2010.

## **Field survey**

A site survey was undertaken by an ecologist on 17 March 2020. The primary objectives of the site survey were to:

- Determine the vegetation condition within the project area and identify areas of conservation significance with reference to threatened ecological communities listed under the BC Act and EPBC Act
- Identify potential habitat for threatened flora and fauna species in the study area and determine the potential for threatened species to be affected by the project.

The site survey consisted of a random meander search of the entire project site and one flora plot (20 metres by 50 metres) to identify potential areas of habitat value and to determine the vegetation condition within the project area.

Within the plot, the following vegetation and habitat characteristics were recorded:

- Description of vegetation
- Dominant canopy vegetation
- Dominant understorey vegetation
- Groundcover species cover and abundance
- Percent native and exotic plant cover
- Proportion of overstorey regeneration
- Any signs of previous disturbance and grazing.

Fauna surveys were limited to habitat assessment to determine the potential of the project area to provide habitat for threatened fauna species

### **1.1.2 Existing environment**

#### **Vegetation**

The project site has been previously cleared of native vegetation during the construction works for the subdivision of the Googong residential area. The project site was used as a construction compound



and stockpile area during construction of the township and is therefore highly degraded and altered from its original state (refer Figure 1).

No remnant canopy vegetation is present in the project site, with trees limited to those planted adjacent to the surrounding footpath. No shrubs are present in the site. Groundcover vegetation is highly degraded and dominated by introduced species, including Turnip Weed (*Rapistrum rugosum*), Lambs Tongues (*Plantago lanceolata*) Cocksfoot (*Dactylis glomerata*) and Sheep Sorrel (*Acetosella vulgaris*). Introduced species account for about 70 percent of the groundcover, native species cover is about 1.4 percent and the remaining cover is bare ground.



**Figure 1: View of the project site looking south**

### ***Fauna habitat***

The project site is comprised of highly degraded groundcover dominated by introduced species. It is unlikely that the site would support fauna species other than to provide marginal foraging habitat for mammal species such as the Eastern Grey Kangaroo (*Macropus giganteus*), of which scats were present on site, common reptile species such as skinks and snakes, including the Eastern Blue-tongue (*Tiliqua schinoides*) and Eastern Brown Snake (*Pseudonaja textilis*), and birds that may forage on the ground. The project site lacks rocky habitat including surface and partially embedded rocks that are essential habitat components for the Pink-tailed Worm-lizard (*Aprasia parapulchella*), a vulnerable listed species under the BC Act and EPBC Act, which is known to occur in the Googong Township area.



### ***Threatened and migratory species***

The literature review and database search identified 24 listed species and ecological communities that have the potential to occur in the study area due to suitable habitat being available, and/or have been recorded in the locality (refer Table 1).

**Table 1 Listed species likely to occur in the study area**

<b>Species</b>	<b>Status</b>	<b>Recorded in locality</b>	<b>Recorded in project site</b>
<b><i>Reptiles, invertebrates, amphibians</i></b>			
Golden Sun Moth <i>Synemon plana</i>	E – BC Act CE – EPBC Act	Multiple records for the species, the closest record is 2.5 km west of the proposal site (BCD, 2020)	No
Green and Golden Bell frog <i>Litoria aurea</i>	E – BC Act V – EPBC Act	One record for the species, located 2.3 km north-east of the proposal site (BCD, 2020)	
Pink-tailed Worm-lizard <i>Aprasia parapulchella</i>	V – BC Act V – EPBC Act	Yes – just outside study area in designated offset area to the east and Rockley Oval to the west (BCD, 2020)	No
Rosenberg's Goanna <i>Varanus rosenbergi</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
Southern Bell Frog <i>Litoria raniformis</i>	E – BC Act V – EPBC Act	One records for the species located 2.3 km north-east of the proposal site (BCD, 2020)	
<b><i>Mammals</i></b>			
Grey-headed Flying-fox <i>Pteropus poliocephalus</i>	V – BC Act V – EPBC Act	Two records for the species, the closest is located 2.3 km south-west of the proposal site (BCD, 2020)	No
Koala <i>Phascolarctos cinereus</i>	V – BC Act V – EPBC Act	One record for the species 2.3 km north-east of the	



Species	Status	Recorded in locality	Recorded in project site
		proposal site (BCD, 2020)	
Large Bent-winged Bat <i>Miniopterus orianae oceanensis</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
Spotted-tailed Quoll <i>Dasyurus maculatus</i>	V – BC Act E – EPBC Act	Two records for the species, the closest is located 1.2 km east of the proposal site (BCD, 2020)	No
<b>Birds</b>			
Australasian Bittern <i>Botaurus poiciloptilus</i>	E – BC Act E – EPBC Act	One record for the species 5.7 km north of the proposal site (BCD, 2020)	
Brown Treecreeper (eastern subspecies) <i>Climacteris picumnus victoriae</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
Diamond Firetail <i>Stagonopleura guttata</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
Dusky Woodswallow <i>Artamus cyanopterus cyanopterus</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
Flame Robin <i>Petroica phoenicea</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
Gang-gang Cockatoo <i>Callocephalon fimbriatum</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
Hooded Robin (south-eastern form) <i>Melanodryas cucullata cucullata</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
Little Eagle <i>Haliaeetus leucogaster</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
Fork-tailed Swift <i>Apus pacificus</i>	Mi – EPBC Act	One record for the species 5.7 km north	No



Species	Status	Recorded in locality of the proposal site (BCD, 2020)	Recorded in project site
Scarlet Robin <i>Petroica boodang</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
Speckled Warbler <i>Chthonicola sagittata</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
Spotted Harrier <i>Circus assimilis</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
Superb Parrot <i>Polytelis swainsonii</i>	V – BC Act V – EPBC Act	One record for the species 6.0 km north of the proposal site (BCD, 2020)	No
Painted Honeyeater <i>Grantiella picta</i>	V – BC Act V – EPBC Act	One record for the species 5.7 km north of the proposal site (BCD, 2020)	No
Varied Sittella <i>Daphoenositta chrysoptera</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
White-bellied Sea Eagle <i>Haliaeetus leucogaster</i>	V – BC Act	Two records for the species, the closest is located 2.3 km north-east of the proposal site (BCD, 2020)	No
White-throated Needletail <i>Hirundapus caudacutus</i>	Mi – EPBC Act	Two records for the species, the closest is located 2.3 km north-east of the proposal site (BCD, 2020)	No
<b>Flora</b>			
Button Wrinklewort <i>Rutidosis leptorrhynchoides</i>	E – BC Act E – EPBC Act	Multiple records for the species, the closest record is 1.7 km east of the proposal site (BCD, 2020)	No
Hoary Sunray	E – EPBC Act	Multiple records for the species, the	No



Species	Status	Recorded in locality	Recorded in project site
<i>Leucochrysum albicans</i> var. <i>tricolor</i>		closest record is 1.7 km north of the proposal site (BCD, 2020)	
Pale Pomaderris <i>Pomaderris pallida</i>	V – BC Act V – EPBC Act	Multiple records for the species, the closest record is 3.9 km north of the proposal site (BCD, 2020)	No
Silky Swainson-pea <i>Swainsona sericea</i>	V – BC Act	No records within 10 km (BCD, 2020)	No
<b>Ecological communities</b>			
Box-Gum Woodland	E – BC Act E – EPBC Act	Known to occur in the offset area to the east of the project site	No
Natural Temperate Grassland	E – EPBC Act	Known to occur in numerous areas within the locality	No

The project site is unlikely to support, or be occupied by any of the species that are likely to occur in the study area, as indicated above. This is due to the highly degraded and introduced nature of the groundcover, the absence of canopy and shrub cover, and the absence of habitat features such as surface and partially embedded rocks and woody debris to provide suitable habitat for threatened species. There are no aquatic habitats or wetland areas in the project site to provide suitable habitat for aquatic or water-dependant species such as amphibians.

#### **Pink-tailed Worm-lizard habitat**

The Pink-tailed Worm-lizard is known to occur in the designated conservation area for the species, about 600 metres east of the project site. This 52 hectare conservation area was set aside specifically for the Pink-tailed Worm-lizard following an assessment of the impacts of the Googong Township on the habitat of the species in order to conserve and manage high quality habitat for the species in perpetuity (Biosis 2012). The conservation area is managed by the Queanbeyan-Palerang Regional Council.

With the limited access available at the site, a brief inspection of the conservation area was conducted during the survey period. The conservation area differs significantly from the project site due to the presence of native woodland vegetation with a groundcover containing native species, including Red-leg Grass (*Bothriochloa macra*), and an abundance of rocky habitat, particularly on sloping landform, which is favoured by the species (refer Figure 2).



The species was also previously recorded in the area of Rockley Oval, about 600 metres north-west of the project site. This area, in addition to the area of the project site, has since undergone clearing for the township subdivision and subsequent degradation of any potential habitat that may have been present for the species. The site survey indicated an absence of potential habitat for the species due to lack of surface and partially embedded rocks, and a dominance of introduced groundcover species. The project site is therefore unlikely to provide potential habitat for the species.



**Figure 2: View of the Pink-tailed Worm-lizard offset area, showing rocky habitat**

### **Googong foreshores**

Googong Foreshores is located about 1.5 kilometres to the east of the project site and known to provide habitat to numerous threatened species. It is Commonwealth land, leased to the Australian Capital Territory and New South Wales governments by the Commonwealth Department of Finance and Deregulation as part of the Queanbeyan Water Supply Agreement. The subdivision of Googong Township is entirely outside of Googong Foreshores. Listed threatened species and ecological communities known to occur within the Googong Foreshores are:



- Pink-tailed Worm-lizard
- Hoary Sunray
- Pale Pomaderris
- Button Wrinklewort
- Natural Temperate Grassland of the Southern Tablelands of New South Wales and the Australian Capital Territory
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland.

The project site is unlikely to support any of these listed species or ecological communities due to the highly degraded and introduced nature of the groundcover, and lack of habitat features required to provide suitable habitat for these species. As these species are unlikely to occur, Tests of Significance pursuant to section 7.3 of the *Biodiversity Conservation Act 2016* and/or significance assessments for matters of environmental significance pursuant to the Significant impact guidelines 1.1 of the *Environment Protection and Biodiversity Conservation Act 1999* are not required to assess the potential for significant impact on threatened biota or communities.

### **1.1.3 Conclusions and need for further assessment**

As the proposal is to be assessed under Part 4 of the EP&A Act, consideration must be given to the projects potential impacts on biodiversity under the Biodiversity Assessment Method (BAM). Where the BAM applies, a Biodiversity Development Assessment Report (BDAR) is required that sets out the proposed biodiversity offsets and that must be taken into account in assessing the proposed development. A BDAR must identify the biodiversity values to be impacted by a development, detail the avoidance methods undertaken to minimise impacts, and identify any offset requirements. However, following initial site surveys, it has been determined that the project site would not involve the removal of any native vegetation or have potential impacts on biodiversity values. Therefore, a BDAR waiver is considered an appropriate level of assessment for the project (refer Appendix B).

Regards

**Melissa Cotterill**

Scientist



## **Appendix B** - BDAR waiver



Table 1: BDAR waiver request information requirements	
Admin	<p><b>Proponent:</b> Department of Education</p> <p><b>Contact details:</b></p> <p>Sarah Kelly Principal Planner, School Infrastructure NSW 0419 125 237, <a href="mailto:Sarah.Kelly97@det.nsw.edu.au">Sarah.Kelly97@det.nsw.edu.au</a></p> <p>GHD on behalf of the proponent. Lucy Bourne Senior Environmental Scientist, GHD 02 6923 7424, <a href="mailto:Lucy.Bourne@ghd.com">Lucy.Bourne@ghd.com</a></p>
	Project ID (Information to identify which SSD or SSI project the request relates to and where the project is up to in the assessment process).
	<p>Melissa Cotterill</p> <p>Bachelor of Science (Ecology)</p> <p>Accredited Biodiversity Assessment Methodology (BAM) assessor.</p>
Site details	<p>Aprasia Avenue, Googong, NSW. Lot 3 DP 1179941. Queanbeyan-Palerang LGA</p> <p>The project site consists of an approximate 2.8 hectare vacant block owned by the Department of Education (DoE). The site has been previously cleared of native vegetation and contains minimal vegetation cover mostly limited to introduced groundcover vegetation. The project site has previously been utilised as a construction compound and stockpile site during the construction of the surrounding township, and subsequently has been degraded and altered from its original state in this time.</p> <p>Figures of the site location map depicting the development site in the context of surrounding areas and landscape features can be found below Figure 1.</p>
Proposed development	<p>The proposal is to develop a new primary school at Googong. The proposal is needed to meet the education needs of the area, both current and future, through the provision of core educational infrastructure, flexible learning spaces and play spaces, and would provide an new public school with the capacity for 700 students and 60 staff at completion.</p> <p>The proposal includes staged construction and operation of the following facilities:</p> <ul style="list-style-type: none"> <li>• 30 new general-purpose learning areas (teaching space/ classrooms) located in four two story buildings</li> <li>• Three special program rooms</li> <li>• Core facilities including a library, multipurpose hall, out of hours care facilities, canteen, administration facilities and staff facilities</li> <li>• Outdoor play areas including a playing field, yarning circle, quadrangle and playground</li> <li>• An onsite carpark, three kiss and ride facilities, and on street car parking bay and a school bus stop on Gorman Drive</li> <li>• Landscaping and property.</li> </ul> <p>The proposal would involve all works occurring within the site as well as on the adjacent roads.</p> <p>The proposal has been developed to allow the works to be delivered in two stages, This will enable Googong Primary School to become operational following the completion of the first stage of construction.</p>
Impacts on biodiversity values	Impacts on biodiversity values are summarised below in Table 2.



Please complete Table 1. For each biodiversity value either explain why the value is not relevant to the development or, where it is relevant, provide an explanation of how impacts have been avoided and identify the likelihood and extent of any remaining impacts on the proposed development.

Table 2: Impacts on biodiversity values from the proposed modification			
Biodiversity values	Meaning	Relevant or NA* (✓ or NA)	Likely impacts <i>Proponent should indicate how biodiversity values may relate to their development site and how impacts may have been avoided or otherwise.</i>
<b>Vegetation integrity</b>	Degree to which the composition, structure and function of vegetation at a particular site and the surrounding landscape has been altered from a near natural state	NA	<p>The proposed development involves the construction and operation of a new primary school on Aprasia Avenue, Googong. The development would include teaching spaces and play space with associated facilities. The development will be located on land that has been previously cleared of native vegetation during the construction works for the subdivision of the existing Googong residential area. The site was used as a construction compound and stockpile area during construction of the township and is therefore highly degraded and altered from its original state. There is no remnant or regrowth canopy or shrub layer vegetation present on the site.</p> <p>About 2.75 hectares of vegetation removal and disturbance would be required for the development, which is dominated by introduced species, including Turnip Weed (<i>Rapistrum rugosum</i>), Lambs Tongues (<i>Plantago lanceolata</i>), Cocksfoot (<i>Dactylis glomerata</i>) and Sheep Sorrel (<i>Acetosella vulgaris</i>). Introduced species account for about 70 percent of the groundcover, native species cover is about 1.4 percent with the remaining cover being bare ground (see Photo 1).</p>
<b>Habitat suitability</b>	Degree to which the habitat needs of threatened species are present at a particular site	NA	<p>The proposed location for the new primary school has previously been cleared of native vegetation for development of the Googong residential area, and is comprised of highly degraded groundcover dominated by introduced species. There are no fauna habitat features in the site of trees, shrubs rocky or watery habitats. The site is unlikely to support fauna species other than to provide marginal foraging habitat for commonly occurring species. It is unlikely the site would support threatened species due to the absence of suitable habitat, including native vegetation in any stratum and other habitat features (i.e. trees, rocky outcrops etc.) (see Photo 1).</p> <p>The proposed development has avoided impacts upon threatened species or ecological communities and their habitats through its location in a previously disturbed area with very low potential habitat value, and the avoidance of any clearing of native vegetation.</p>
<b>Threatened species abundance</b>	Occurrence and abundance of threatened species or threatened ecological communities, or their habitat, at a particular site	NA	<p>The development site was previously cleared of native vegetation during the construction works for the subdivision of the Googong residential area. The site was used as a construction compound and stockpile area during construction of the township and is therefore highly degraded and altered from its original state. The site is unlikely to support threatened species due to the absence of suitable potential habitat, including native vegetation and other habitat features (i.e. trees, rocky outcrops etc.).</p> <p>The proposed development has avoided impacts upon threatened species or ecological communities and their habitats through its location in a previously disturbed area with very low potential habitat value, and the avoidance of any clearing of native vegetation.</p> <p>No threatened species have previously been recorded in the study area. The Pink-tailed Worm-lizard (<i>Aprasia parapulchella</i>) is known to occur in a designated offset area for the species just outside the study area to the east. However, the development site lacks rocky habitat including surface and partially embedded rocks that are essential habitat components for the species, and is dominated by introduced</p>



Table 2: Impacts on biodiversity values from the proposed modification			
Biodiversity values	Meaning	Relevant or NA* (✓ or NA)	Likely impacts <i>Proponent should indicate how biodiversity values may relate to their development site and how impacts may have been avoided or otherwise.</i>
			groundcover species. The development site is therefore unlikely to provide potential habitat for the species.
<b>Vegetation abundance</b>	Occurrence and abundance of vegetation at a particular site	NA	The development site was previously cleared of native vegetation during the construction works for the subdivision of the Googong residential area. The site was used as a construction compound and stockpile area during construction of the township and is therefore highly degraded and altered from its original state. There is no remnant canopy or shrub layer vegetation present on the site. The area to be impacted for the Googong PS is about 2.75 hectares, which is dominated by introduced species, including Turnip Weed ( <i>Rapistrum rugosum</i> ), Lambs Tongues ( <i>Plantago lanceolata</i> ), Cocksfoot ( <i>Dactylis glomerata</i> ) and Sheep Sorrel ( <i>Acetosella vulgaris</i> ) (see Photo 1). Introduced species account for about 70 percent of the groundcover, native species cover is about 1.4 percent with the remaining cover being bare ground.
<b>Habitat connectivity</b>	Degree to which a particular site connects different areas of habitat of threatened species to facilitate the movement of those species across their range	NA	The development site does not contribute to habitat connectivity. The site is located in a previously cleared area and dominated by introduced species, as identified above. The development is unlikely to isolate any areas of habitat, with the Googong PS being constructed on a cleared area surrounded by a residential subdivision with a shopping precinct. Existing residential development occurs on all sides of the proposed proposal site. Therefore, connectivity to any other potential habitat features is extremely limited. No removal of native vegetation or other potential habitat features is required for the development.
<b>Threatened species movement</b>	Degree to which a particular site contributes to the movement of threatened species to maintain their lifecycle	NA	As described above, the site does not contain any habitat components likely to be important to threatened species due to the previous degradation of the site, and the site's location in a township surrounded by developments. As such, threatened species are unlikely to utilise the site, or move through the site to other areas of habitat, due to the site's isolation. The proposed development will not impact upon the movement of threatened species for the reasons detailed above.
<b>Flight path integrity</b>	Degree to which the flight paths of protected animals over a particular site are free from interference	NA	The new primary school will be constructed on cleared land surrounded by a residential subdivision and will not impact on the flight path of any protected animals. The structure will not include any elevated features beyond the context of the surrounding residential subdivision and shopping precinct that are likely to impact any flight paths.
<b>Water sustainability</b>	Degree to which water quality, water bodies and hydrological processes sustain threatened species and threatened ecological communities at a particular site	NA	The new primary school will result in an increased demand for water resources and potential alterations to stormwater run-off. This will result in potential changes to natural run-off conditions in the catchment.  Water resource investigations will be undertaken to identify the potential impacts of the development on water resources, including hydrology and flooding. Given drainage in the study area has been highly modified by the construction of the surrounding residential subdivision, there are no watercourses in the study area other than minor ephemeral drainage lines to the east and south and water resources to be used will be sourced from town supplies, it is unlikely the proposed development will have an impact on threatened species or ecological communities outside the study area where they are likely to occur. It is unlikely that the proposal would cause sedimentation or water quality impacts which would reach downstream waterbodies in the locality.

\*Provide reasoning against any NA recorded against any values where it is not relevant (e.g. if the site does not support any natural vegetation or habitat; Site is in a highly urbanized or industrial setting).



Table 1: Species list from flora plot survey at Googong site

Scientific name	Common name	Cover (%)
<i>Acetosella vulgaris</i> *	Sheep Sorrel	5
<i>Austrostipa bigeniculata</i>	Tall Speargrass	0.1
<i>Austrostipa scabra</i>	Speargrass	0.1
<i>Carthamus lanatus</i> *	Saffron Thistle	1
<i>Chloris truncata</i>	Windmill Grass	0.1
<i>Cirsium vulgare</i> *	Spear Thistle	1
<i>Conyza bonariensis</i> *	Flaxleaf Fleabane	0.1
<i>Cynodon dactylon</i>	Couch	0.1
<i>Dactylis glomerata</i> *	Cocksfoot	6
<i>Dittrichia graveolens</i> *	Stinkwort	0.1
<i>Echium plantagineum</i> *	Paterson's Curse	0.1
<i>Erodium botrys</i> *	Long Storksbill	0.1
<i>Erodium moschatum</i> *	Musky Crowfoot	5
<i>Geranium solanderi</i>	Native Geranium	0.1
<i>Hypochaeris radicata</i> *	Flatweed	1
<i>Lepidium africanum</i> *		0.1
<i>Lolium rigidum</i> *	Wimmera Ryegrass	2
<i>Malva parviflora</i> *	Small-flowered Mallow	1
<i>Modiola caroliniana</i> *	Red-flowered Mallow	0.1
<i>Persicaria prostrata</i>	Creeping Knotweed	0.5
<i>Plantago lanceolata</i> *	Lambs Tongues	25
<i>Rapistrum rugosum</i> *	Turnip Weed	20
<i>Romulea rosea</i> *	Onion Grass	0.1
<i>Rytidosperma caespitosum</i>	Ringed Wallaby Grass	0.1
<i>Senecio</i> sp.		0.1
<i>Sporobolus creber</i>	Western Rat-tail Grass	0.1
<i>Trifolium subterraneum</i> *	Subterranean Clover	0.1
<i>Wahlenbergia communis</i>	Tufted Bluebell	0.1

\* denotes introduced species





Photo 1: View of the proposal site looking south.





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Metres  
Map Projection: Transverse Mercator  
Horizontal Datum: GDA 1994  
Grid: GDA 1994 MGA Zone 55



Department of Education  
Development of new Primary School  
at Googong SEARs request

Project No. 12521933  
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Date 22/10/2020

The proposal site

FIGURE 1.1