



Henry Lawson Drive Upgrade Stage 1B investigations

Minor Works Review of
environmental factors

Country of the Darug and Eora People

Transport for NSW | July 2022

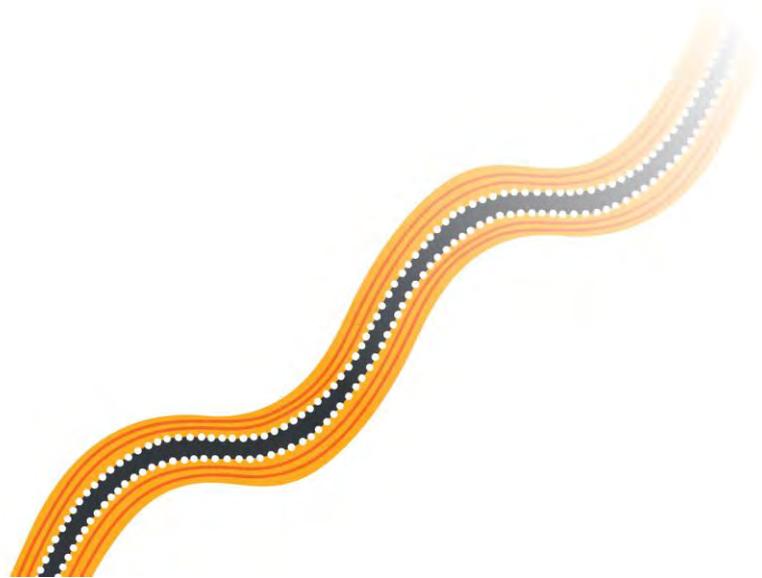
Acknowledgement of Country

Transport for NSW acknowledges the Darug and Eora People, the traditional custodians of the land on which the Henry Lawson Drive Upgrade Stage 1B investigations are proposed.

We pay our respects to their Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.



Henry Lawson Drive Upgrade Stage 1B investigations

Review of environmental factors

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1. Introduction

The purpose of the Minor Works review of environmental factors (REF) is to describe the proposal, to document the likely impacts of the proposal on the environment, to detail mitigation measures to be implemented and to determine whether or not the proposal can proceed. For the purposes of this work Transport for NSW (Transport) is the proponent and determining authority under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The description of the proposed works and assessment of associated environmental impacts has been undertaken in the context of section 171 of the Environmental Planning and Assessment Regulation 2021, *Guidelines for Division 5.1 Assessments* (DPE, 2022), the *Biodiversity Conservation Act 2016* (BC Act), the *Fisheries Management Act 1994* (FM Act) and the Commonwealth Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In doing so the REF helps to fulfil the requirements of section 5.5 of the EP&A Act including that Transport examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the activity.

The findings of the REF would be considered when assessing:

- Whether the proposal is likely to have a significant impact on the environment and therefore the necessity for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Division 5.2 of the EP&A Act
- The significance of any impact on threatened species as defined by the BC Act and/or FM Act, in section 1.7 of the EP&A Act and therefore the requirement for a Species Impact Statement or a Biodiversity Development Assessment Report
- The potential for the proposal to significantly impact a matter of national environmental significance, including nationally listed threatened biodiversity matters, or the environment of Commonwealth land. Where a significant impact is considered likely on nationally listed biodiversity matters, either the proposal must be reconsidered or a Project REF must be prepared.

2. The proposal

2.1 Description

2.1.1 Proposal location

Location details	
Title	Henry Lawson Drive Upgrade Stage 1B investigations
File number	SF2021/138448
Road name and number	Henry Lawson Drive and Bullecourt Avenue
Closest cross road(s):	Auld Avenue, Keys Parade, Raleigh Road, Amiens Avenue, Bullecourt Avenue, Ashford Avenue, Hermies Avenue, Pozieres Avenue, M5 Motorway
Chainage of works:	N/A
Local government area:	Canterbury-Bankstown
Transport for NSW region:	Greater Sydney – Central River City

2.1.2 Description of proposed work

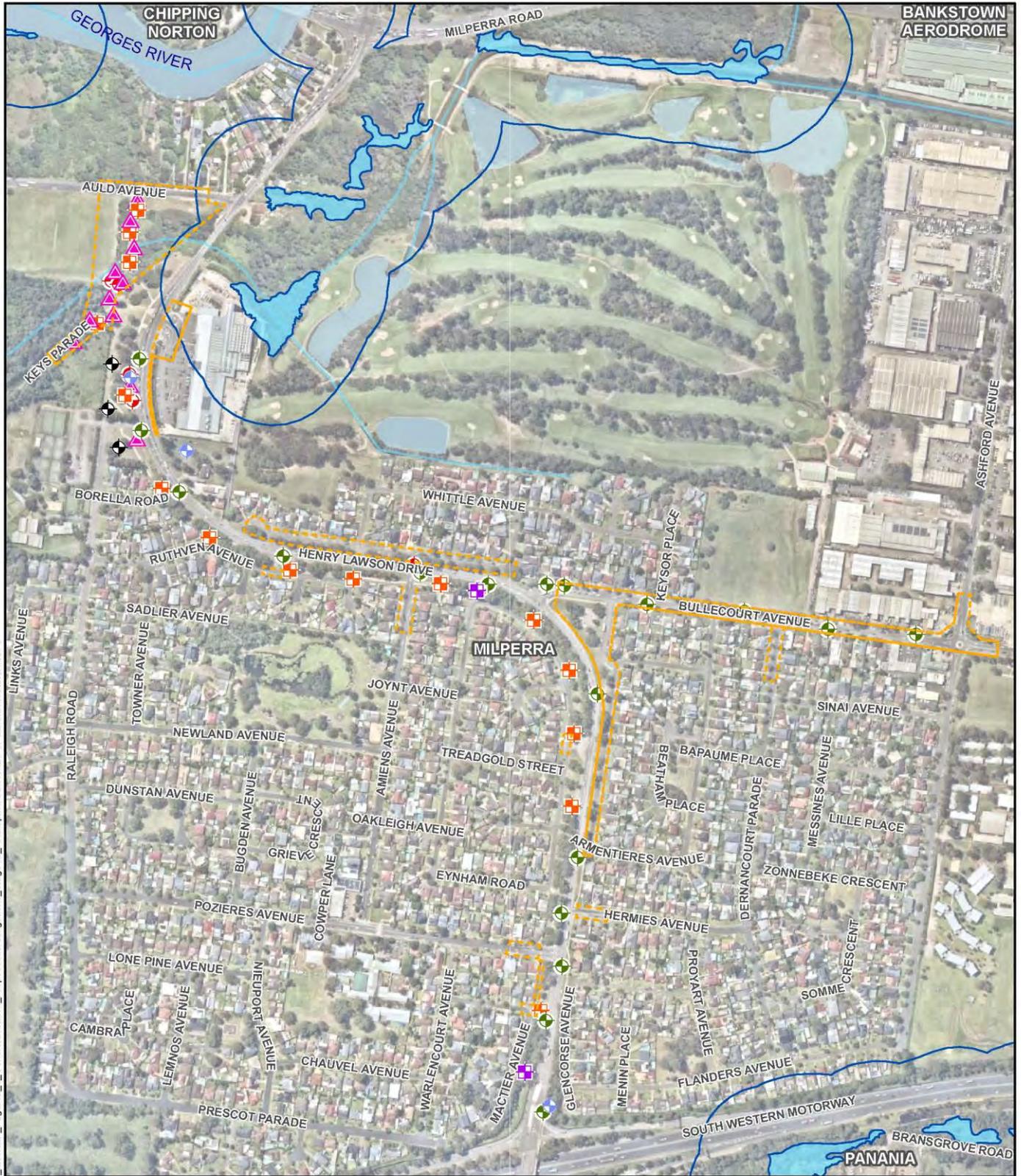
Transport for NSW proposes to carry out topographic surveys, utility surveys, contamination investigations (including test pits, borehole, groundwater wells, groundwater standpipes and hand augers) and geotechnical investigations (including boreholes, test pits, pavement cores and cone penetration tests) to inform the design of Henry Lawson Drive Stage 1B proposal. The general location of the proposed investigations is shown in Figure 2-1.

The activities involved in the investigations are described in the following sections and the proposed investigation locations are shown in more detail on the figures included in Appendix A.

Site access

Access to test locations will use existing clear spaces between trees, existing access tracks and roads / road shoulder where possible. No vegetation would be removed to access site locations.

For sites located on Henry Lawson Drive (pavement cores), access would be on Henry Lawson Drive, but the site would not be set up until traffic control is in place. As the pavement cores and Falling Weight Deflectometer testing would require lane closures, a contraflow arrangement would need to be set up to continue to allow two-way traffic on Henry Lawson Drive.



P:\GIS\Project-5\Project520566_HLDUST1B\Ar\ProHLD1B_MMREF_Figure2_1_GeneralLocation_ProposedInvestigations_Stage1B_rev2.aprx\JOB No.121-07-22\Chloe Carter\Rev 0

 Additional survey area

Coastal wetland management

 Coastal wetlands proximity area

 Coastal wetland

Proposed geotechnical investigations

 Proposed boreholes

 Proposed cone penetration test

 Proposed pavement core

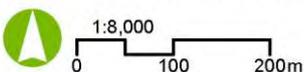
 Proposed test pit

 Proposed groundwater wells

 Proposed hand augers

 Proposed landfill gas monitoring standpipes

Source: Aurecon, TfNSW, Spatial Services, DPIE, Nearmap



Projection: GDA2020 MGA Zone 56

Henry Lawson Drive Upgrade Stage 1B Minor Works REF

Figure 2-1: General location of the proposed investigations

Topographic survey

The proposed topographic survey would involve:

- Terrestrial Laser Scanning (TLS) – A laser scanning instrument is mounted on tripod and operated at numerous coordinated control points along the project extents to capture sufficient information to extract key road features.
- Use of traditional ground survey methods to increase the accuracy of the point cloud and to capture areas behind physical barriers such as thick vegetation. Traditional survey involves of a surveyor walking around with a range pole taking measurements to points of interest. These measurements will be taken from a total station instrument mounted on a tripod and setup over a co-ordinated survey mark, within a distance less than 100 metres from the range pole.
- GPS survey – May be used to survey natural surface strings outside the road corridor. No hard surfaces will be surveyed using GPS methods.
- Control traversing – The Survey Control Network will be connected via the traversing method where measurements are taken from a total station set up over a survey control mark to targets also setup over surrounding survey control marks. The control network will be coordinated by connecting existing TfNSW project survey control and/or State Survey Marks in the area to each other to form a braced network to eliminate any discrepancies between marks. At locations where current state survey marks are not inter-visible or not sufficient to carry out the survey, new marks will need to be placed (refer below).
- Access to survey locations from Henry Lawson Drive would involve driving a light vehicle and walking through survey area. New access tracks would not be required.
- Tree trimming in vegetated areas using garden hand-held clippers if required to gain access by foot to set up survey control marks. Trimming of trees in the Threatened Ecological Communities (TEC) around Auld Avenue would be avoided.
- Placement of survey marks to provide a survey control framework for survey activities. The survey marks would primarily be in the form of small wooden pegs that are placed in the ground (generally 100-150 millimetres deep and flush with the ground). Star pickets and small 'Hilti'-style nails may be used in existing concrete structures (e.g. bridges or culverts) as survey marks. No pegs, pins, star pickets or paint would be placed in natural rock formations or potential Aboriginal sites
- Digging holes using hand tools to uncover and place sub surface survey marks. Holes would be a maximum of 500 millimetres diameter and 500 millimetres deep (1000 millimetres for star pickets).
- Digital Levelling – Secondary survey control marks would be levelled in a two-way level run, with a digital level and barcode staff. Level runs would be carried out by two surveyors, one operating the digital level and the other holding the barcode staff.
- Establishment of traffic control in situations where survey staff are working near traffic. This would be in accordance with Traffic control at work sites – Technical Manual (Roads and Maritime Services, 2018).

Utility survey

The proposed utility survey would involve:

- Locating of underground services using Electronic Service Locating equipment.
- Detailed survey of all drainage assets (drainage pits and inverts). Drainage assets which have pit lids may require heavy lifting mechanisms.
- Undertaking potholing using a sucker truck in existing road corridors to confirm clearances from existing and future utilities and proposed pavement (i.e. water, stormwater, gas, electricity, sewer lines).
- The disturbance footprint for slot trenches would typically be between 300 to 400 millimetres wide and extend from the kerb to road boundary. Slot trenches would be excavated to a maximum depth of around two metres, depending on the soil type.

- Surveying of all marked up underground utilities with conventional survey techniques (total station and ranging pole).
- Marking of all underground utilities in scope of works area with water-based spray paint.
- Using a sucker truck to clean pits (as necessary) during the above survey works.
- Filling of excavated holes with clean fill, all excavated material will be taken off site and disposed of at an authorised tipping site.
- Associated traffic management including traffic barriers and traffic controllers

Geotechnical investigations

Access and site establishment for proposed geotechnical investigations would involve:

- Access to investigation locations directly from the nearest public road. This would involve transport to site and use of a truck or track mounted drill rig (for boreholes), a five-tonne tracked excavator or backhoe, and support vehicles. Where investigation locations are not accessible directly off a public road, access would occur through existing paths or on previously cleared or disturbed areas (such as grassed areas). No TEC vegetation would be cleared for access. Grasses and weeds would need to be trimmed around investigation locations 1B-BH02 and 1B-CPT05.
- Establishment of traffic control in situations where personnel are working near traffic. This would be in accordance with Traffic control at work sites – Technical Manual (Roads and Maritime Services, 2018).
- Restoration of the site by reshaping the ground to pre-work conditions and either replacing the top soil or sowing with suitable cover crop.

Pavement cores

The method for pavement cores would be as follows:

- Auger the existing pavement and concrete surface (at 18 locations) to a suitable termination depth (approximately 1.5 metres) to determine condition of subgrade and basecourse materials
- Perform dynamic cone penetration (DCP) tests (refer below) testing on subgrade materials
- Fill pavement core hole with unused material, imported sand/gravel and rapid set concrete between 40 and 100 millimetres to arrive at the existing surface.

Test pits

The method for test pits would be as follows:

- Dig up to 15 test pits with an excavator or backhoe. Test pits would be typically two metres long, by 0.6 metres wide, by about three metres deep. The total disturbance area including track marks from the excavator would be up to three metres by five metres.
- Log, colour photograph, and test each pit to record in-situ conditions
- Perform dynamic cone penetration (DCP) tests adjacent to each test pit to a depth of three metres (refer below) and collect soil samples for later laboratory analysis
- Perform penetrometer tests at a 0.5 metre depth
- Restore site to condition suitable for safe pedestrian and vehicle access, including backfilling the test pit with material (including top soil and layers) and compacting in layers. The backfilled pits would be left slightly mounded to allow for any settlement and where necessary sown with a suitable cover-crop.

Boreholes

Boreholes should be backfilled with grout or monitoring well installed where required.

Drilling fluid at the completion of a site investigation should be removed off site and disposed of at a licensed waste disposal facility.

The method for boreholes would be as follows:

- Auger up to six boreholes with a diameter of about 150 millimetres to a depth of up to 30 metres or until refusal on bedrock encountered. The borehole would be grouted on completion. The disturbance area from the drilling component of the activity would be about 0.5 metres by 0.5 metres.
- Ground disturbance from manoeuvring the truck mounted drill rig would be up to three metres by five metres.
- Log, colour photograph, and test each borehole to record in-situ conditions, including standard penetration testing, pocket penetrometer tests, undisturbed push tubes and hand shear vanes.
- Excess biodegradable drilling mud used in the drilling process would be removed by a vacuum truck or portable vacuum system and legally disposed of off-site at an authorised waste disposal facility
- Backfill stie with grout or install monitoring well where required (see below).

Groundwater standpipes would be installed in four selected boreholes following completion of the borehole drilling to assess the groundwater level and to obtain groundwater samples. Groundwater standpipes would be installed near the culvert location near the proposed Auld Avenue link road design. Groundwater level measurements would be taken manually each week during the investigations, and fortnightly thereafter.

During sampling, physio-chemical parameters would be recorded using a calibrated water quality meter for pH, turbidity, conductivity, redox, temperature and dissolved oxygen in addition to observed visible characteristics and/or odours.

Dynamic cone penetration testing

The DCP test provides a measure of a material's in-situ resistance to penetration. The test would be carried out at each of the test pit locations and is performed by driving a metal cone and rod into the ground by repeatedly striking it with a weight dropped from a suitable height.

There have also been 11 separate test locations identified near the Auld Avenue link road to estimate the permeability of the soft clays. These test locations were selected based on assumed locations where soft to firm clay and loose sands may present and near culvert foundations.

DCP testing would be conducted using a handheld testing apparatus, including a hammer, anvil and a series of extendable steel rods. The penetration of the cone is measured after each blow and is recorded to provide a continuous measure of shearing resistance below the ground surface.

More than one DCP test may be required at certain test pit locations where variable or poor conditions are observed during initial testing.

No fluids would be used during the test and the testing rods would be extracted with specialist apparatus when testing is complete.

Falling Weight Deflectometer testing

Falling Weight Deflectometer (FWD) testing would be carried out for existing pavement along Henry Lawson Drive and Bullecourt Avenue. It would involve a slow-moving truck dropping a weight onto a rubber pad.

The FWD testing would occur during temporary lane closures to maintain flow of traffic and be aligned with lane closures required for pavement cores where possible.

Contamination investigations

Soil and groundwater sampling from boreholes, test pits and groundwater standpipes will be carried out in conjunction with the geotechnical scope. The boreholes and test pits proposed for geotechnical investigations would also be used for contamination investigations. Soil samples would be taken from all 15 test pits and six boreholes. Groundwater sampling would be taken from the four groundwater standpipes.

There are also additional investigation locations for the contamination investigations only, as outlined in the following sections.

Groundwater wells

Contamination groundwater wells would be installed in two boreholes following the completion of the borehole drilling to assess the groundwater level and to obtain groundwater samples and slug tests.

Groundwater wells would be located in the central section of the investigations (across Bullecourt Avenue) and the southern section (parallel to Mactier Avenue).

Landfill gas monitoring standpipes

Landfill gas monitoring standpipes would be installed in three boreholes following the completion of borehole drilling. Landfill gas field measurements should be taken using an infrared landfill gas analyser with a monthly frequency over three monitoring events. The monitoring events should include the measurement of borehole pressure (differential pressure), peak and steady concentrations of landfill gas compounds (CH₄, CO₂, O₂, H₂S and CO) and gas flow rates from within the standpipe.

Proposed locations for landfill gas monitoring are:

- West of Flower Power (former landfill), on the opposite side of Henry Lawson Drive
- Open space to the south of Flower Power site
- Southern section of the investigations, near the corner of Henry Lawson Drive and M5 Motorway, near Flanders Avenue.

Hand augers

Three hand auger holes would be drilled in the open area in the northern section of the investigation area between Raleigh Reserve and Keys Parade.

Plant and equipment

The investigations would require use of a small number of plant and equipment including:

- Excavator / backhoe
- Track or truck mounted drilling rigs of varying size, dependent on access and other constraints
- Float vehicle (if a track mounted drill rig is used)
- Cone penetrating test truck
- Drilling support vehicles, including a minimum of 1,000L in water storage
- Traffic control vehicles
- Survey vehicles
- Site support vehicles
- Dynamic cone penetration test equipment
- Point load test equipment.

Maintaining flexibility in the investigations

During the investigations, it may be necessary to select additional investigation sites. While indicative locations have been identified, these may also change due to access constraints, vegetation clearing constraints and / or conditions on site at the time of the investigations. The impact assessment in this report covers any additional investigation sites and changes to investigation sites along the design corridor.

If any additional investigations are required, the geotechnical or contamination contractor is to advise and consult with Transport's Henry Lawson Drive Stage 1B Environmental representative to agree locations and consider the need for additional environmental assessment or approvals.

If additional investigation sites are located outside the corridor, an addendum environmental assessment would be prepared prior to works proceeding.

2.1.3 Objectives of works

The objectives of the proposed investigations are to:

- Inform the design development process for the Henry Lawson Drive Upgrade Stage 1B by providing comprehensive geotechnical, utilities and survey information
- Minimise environmental impacts
- Minimise disruptions to road users.

2.1.4 Ancillary facilities

Ancillary facilities		
Will the proposal require the use or installation of a compound site?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the proposal require the use or installation of a stockpile site?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are any other ancillary facilities required (eg temporary plants, parking areas, access tracks)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2.1.5 Proposed date of commencement

The indicative start date of the investigations is August 2022.

2.1.6 Estimated length of construction period

The period of investigations would be up to four to eight weeks, depending on the weather.

2.2 Need and options

2.2.1 Options considered

There were two options considered. Option 1 is to do nothing, and Option 2 is to carry out the investigations as proposed.

The options considered for the proposed investigations included:

Option 1: Do nothing

Advantages:

- This option would have no impact on the surrounding environment, no impacts to soil and no visual and noise disturbance, access impacts or traffic disruption.

Disadvantages:

- There would be insufficient design information obtained on the surrounding project environment, which would either not allow for the design of the new road infrastructure or lead to a suboptimal design solution for Stage 1B of the Henry Lawson Drive Upgrade.

Option 2: Preferred option

Carry out the proposed investigations within the nominated investigation area.

Advantages:

- This option would provide the information required for the design.
- This option would meet with the objectives of the proposed investigations previously outlined.

Disadvantages:

- Potential for minor and short-term impacts to the surrounding environment, including soil disturbance, visual and noise disturbance, and access and traffic disruption.

2.2.2 Justification for the proposal

The proposed investigations are required to inform the development of Stage 1B of the Henry Lawson Drive Upgrade proposal. While the investigations would involve some disturbance, the potential environmental impacts of the proposed investigations have been identified as relatively minor and short term. On balance, the benefits derived from proceeding with the proposed investigations are considered to outweigh the potential impacts.

2.3 Statutory and planning framework

2.3.1 State Environmental Planning Policy (Transport and Infrastructure) 2021

In March 2022, the State Environmental Planning Policies (SEPPs) were updated. The former State Environmental Planning Policy (Infrastructure) 2007 was incorporated into the State Environmental Planning Policy (Transport and Infrastructure) 2021.

Chapter two of the SEPP (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP) aims to facilitate the effective delivery of infrastructure across the state, including for roads and road infrastructure facilities. Section 2.109 of the Transport and Infrastructure SEPP permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the proposed investigations are appropriately characterised as development for the purposes of a road or road infrastructure facilities, and is to be carried out by or on behalf of Transport, it can be assessed under Division 5.1 of the EP&A Act. Development consent from council is not required.

The proposed investigations are not located on land reserved under the *National Parks and Wildlife Act 1974* and does not require development consent or approval under State Environmental Planning Policy (Resilience and Hazards) 2021, State Environmental Planning Policy (Planning Systems) 2021 or State Environmental Planning Policy (Precincts – Central River City) 2021.

2.3.2 Other relevant legislation and environmental planning instruments

Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) promotes the maintenance of a healthy, productive and resilient environment. The BC Act focuses on biodiversity conservation through ecologically sustainable development.

The BC Act applies to the proposed investigations through the requirement to avoid and minimise the impacts on biodiversity. Four Threatened Ecological Communities (TECs) listed under the BC Act occur, or

are likely to occur, in the within or near the area of investigations. Vegetation disturbance within the TECs would be avoided. 360 threatened fauna species listed under the BC Act have the potential to occur or have habitat within five kilometres of the proposed investigations. The potential impacts and relevant safeguards are discussed further in Section 3.7. As impacts are expected to be negligible, the proposed investigations are unlikely to result in any significant impacts on any threatened TECs or species and therefore no SIS is required.

Biosecurity Act 2015

The *Biosecurity Act 2015* manages biosecurity risks, including weeds of national significance and the risks of contagion of infectious human diseases.

There is the potential for priority weeds as identified in the City of Canterbury-Bankstown local government area on the NSW WeedWise website (Appendix B) to be present at the location of investigations. Seven Weeds of National Significance have been identified near the proposed investigations. These include:

- Blackberry (*Rubus fruticosus*)
- Alligator weed (*Alternanthera philoxeroides*)
- Madeira Vine (*Anredera cordifolia*)
- Asparagus fern (*Asparagus aethiopicus*)
- Bridal Creeper (*Asparagus asaragoides*)
- Lantana (*Lantana camara*)
- Fireweed (*Senecio madagascariensis*).

The potential impacts and relevant safeguards are discussed further in Section 3.7.

Heritage Act 1977

The *Heritage Act 1977* provides for the conservation of buildings, work, relics and places that are of historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance to the State.

Approval under section 60 of the *Heritage Act 1977* is required for any action that would adversely affect an item that is subject to an Interim Heritage Order or a listing on the State Heritage Register.

An excavation permit under Section 140 of the *Heritage Act 1977* is required to disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed. A permit is also required to disturb or excavate any land on which the person has discovered or exposed a relic. An excavation permit exemption under Section 139(4) of the *Heritage Act 1977* may be required in areas of potential for significant archaeology, or in areas likely to contain relics.

While there is a moderate potential for historical subsurface archaeology near the proposed investigations, they are not expected to disturb any locally or State significant relics. This is because the surrounding area has seen moderate to high levels of disturbance due to road work and residential development over the last 70 to 90 years. As such, an excavation permit or an excavation permit exemption would not be required for the proposed investigations.

National Parks and Wildlife Act 1979

The harming or desecrating of Aboriginal objects or places is an offence under section 86 of the *National Parks and Wildlife Act 1979*. Under section 90, an Aboriginal heritage impact permit may be issued in relation to a specified Aboriginal object, Aboriginal place, land, activity or person or specified types or classes of Aboriginal objects, Aboriginal places, land, activities or persons.

An AHIMS search was carried out on 22 March 2022, which confirmed that the proposed investigations would not directly or indirectly impact any known Aboriginal heritage items. The proposed investigations are

within the area covered by a Stage 3 Transport for NSW Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI) assessment carried out for the Henry Lawson Drive Upgrade Program as well as an additional Stage 1 PACHCI for the area around Keys Parade and Auld Avenue. Between the two reports, the entire investigation area is covered. The Stage 3 PACHCI concluded that it was unlikely for Aboriginal cultural heritage to be present near the investigation locations. The Stage 1 PACHCI concluded that the proposed investigations within its study area are unlikely to have an impact on Aboriginal cultural heritage due to previous ground disturbance and absence of landscape features that indicate the presence of Aboriginal objects and sandstone rock outcrops likely to contain Aboriginal art.

The potential impacts and relevant safeguards are discussed further in Section 3.6. No permits under the NPWS Act are required for the proposal.

Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) aims to protect, restore and enhance the quality of the environment, to reduce risk to human health and provide information to the public about environmental protection and pollution. The POEO Act sets out a number of offences related to air, land, noise and water pollution. The Act also authorises discharges to the environment through issuing of an environment protection licence (EPL) for scheduled developments and activities, as listed on Schedule 1 of the POEO Act. The proposal is not a scheduled activity under the POEO Act and therefore an EPL is not required.

Water Management Act 2000

The *Water Management Act 2000* aims to provide for the sustainable and integrated management of the water sources of NSW. The installation of piezometers (where proposed) would fall within the definition of an exempt monitoring bore under the Water Management (General) Regulation 2018.

2.4 Community and agency consultation

2.4.1 Transport and Infrastructure SEPP consultation

Part 2.2 of the Transport and Infrastructure SEPP contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development. This is detailed below:

Is consultation with Council required under Section 2.10, 2.11 and 2.12 of the Transport and Infrastructure SEPP?		
Are the works likely to have a substantial impact on the stormwater management services which are provided by council?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the works likely to generate traffic to an extent that will strain the capacity of the existing road system in a local government area?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of the system?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the works involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Is consultation with Council required under Section 2.10, 2.11 and 2.12 of the Transport and Infrastructure SEPP?

Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow?

Yes

No

Will the works involve more than a minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?

Yes

No

Is there a local heritage item (that is not also a state heritage item) or a heritage conservation area in the study area for the works? If yes, does a heritage assessment indicate that the potential impacts to the heritage significance of the item/area are more than minor or inconsequential?

Yes

No

Is the proposal within the coastal vulnerability area and is inconsistent with a certified coastal management program applying to that land?

Yes

No

Note: See interactive map here:

<https://www.planning.nsw.gov.au/policy-and-legislation/coastal-management>. Note the coastal vulnerability area has not yet been mapped.

Note: a certified coastal zone management plan is taken to be a certified coastal management program

Are the works located on flood liable land? If so, will the works change flooding patterns to more than a minor extent?

Yes

No

Note: Flood liable land means land that is susceptible to flooding by the probable maximum flood event, identified in accordance with the principles set out in the manual entitled *Floodplain Development Manual: the management of flood liable land* published by the New South Wales Government.

The proposed investigations are within the probable maximum flood extents of the Georges River and Milperra Creek catchments as identified by the draft Henry Lawson Drive Upgrade Stage 1A Flooding Assessment Report (Lyll & Associates, 2021). However, the work would not change flooding patterns to more than a minor extent. Consultation with Council is not required.

Is consultation with a public authority (other than Council) required under Section 2.13 and 2.15 of the Transport and Infrastructure SEPP?

Are the works located on flood liable land? (to any extent) (Section 2.12 Transport and Infrastructure SEPP) If so, do the works comprise more than minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance?

Yes

No

Is consultation with a public authority (other than Council) required under Section 2.13 and 2.15 of the Transport and Infrastructure SEPP?

Note: Flood liable land means land that is susceptible to flooding by the probable maximum flood event, identified in accordance with the principles set out in the manual entitled *Floodplain Development Manual: the management of flood liable land* published by the New South Wales Government.

The proposed investigations are within the probable maximum flood extents of the Georges River and Milperra Creek catchments as identified by the draft Henry Lawson Drive Upgrade Stage 1A Flooding Assessment Report (Lyll & Associates, 2021). However, the work would not change flooding patterns and only require minor investigations work. Consultation with SES is not required.

Are the works adjacent to a national park, nature reserve or other area reserved under the *National Parks and Wildlife Act 1974*, or on land acquired under that Act?

Yes

No

Are the works on land in Zone C1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?

Yes

No

Are the works for the purpose of residential development, an educational establishment, a health services facility, a correctional facility or group home in bush fire prone land?

Yes

No

Would the works increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map? (Note: the dark sky region is within 200 kilometres of the Siding Spring Observatory)

Yes

No

Are the works on buffer land around the defence communications facility near Morundah? (Note: refer to Defence Communications Facility Buffer Map referred to in clause 5.15 of Lockhart LEP 2012, Narrandera LEP 2013 and Urana LEP 2011).

Yes

No

Are the works on land in a mine subsidence district within the meaning of the *Mine Subsidence Compensation Act 1961*?

Yes

No

Division 18 of Chapter 2 of the Transport and Infrastructure SEPP contains provisions for public authorities to notify local councils and occupiers of adjoining land prior to the commencement of certain types of development. This is detailed below:

Is Council and occupiers of adjoining land notification required under Section 2.110 of the Transport and Infrastructure SEPP?

Does the proposal include a car park intended for the use by commuters using regular bus services?

Yes

No

Does the proposal include a bus depot?

Yes

No

Is Council and occupiers of adjoining land notification required under Section 2.110 of the Transport and Infrastructure SEPP?

Does the proposal include a permanent road maintenance depot or associated infrastructure, such as garages, sheds, tool houses, storage yards, training facilities and workers amenities?

Yes

No

2.4.2 Other agency and community consultation

As the investigations would be short term, are of a routine nature and would have minimal environmental impacts, broader pre-work consultation is not proposed.

A letterbox drop notification for residential receivers within 335 metres of evening/night works (or 220 metres where there is an intervening physical barrier such as a row of houses) will occur at least five business days prior to works starting. The extent of the notification will be confirmed with reference to the noise assessment and the specific types of activities proposed. The notification will detail work activities, dates and hours, impacts and mitigation measures. It will also include a contact number for enquiries and complaints.

Any private property access required for the investigations would occur by written agreement with the relevant landowner.

3. Environmental assessment

This section provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposal. All aspects of the environmental potentially impacted upon by the proposal are considered. This includes consideration of the factors specified in the *Guidelines for Division 5.1 Assessments* (DPE, 2022) and section 171 of the Environmental Planning and Assessment Regulation 2021. The matters of national environmental significance under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* are also considered in section 5. Site-specific safeguards are provided to ameliorate the identified potential impacts.

3.1 Soil

Description of existing environmental and potential impacts		
<p>Are there any known occurrences of salinity or acid sulfate soils in the area?</p> <p>The NSW Department of Planning and Environment Acid Sulfate Soil Risk Mapping show that acid sulfate soils (ASS) are likely to occur to the north of the Raleigh Road intersection with Henry Lawson Drive. While ASS are likely to be found beyond one metre below the natural ground surface in this area, along the Auld Avenue road corridor, ASS are likely to be found two metres below the natural ground surface.</p> <p>ASS are not identified as being likely to occur near the rest of the proposed investigation locations (i.e. the area to the south and east of the Raleigh Road intersection with Henry Lawson Drive). However, this section of the proposed investigations are within 500 metres of land with a likelihood of ASS occurring.</p> <p>The salinity near the proposed investigations comprises:</p> <ul style="list-style-type: none"> • Very high salinity potential to the south and east of the Amiens Avenue intersection with Henry Lawson Drive • Very low salinity potential along Henry Lawson Drive between Raleigh Avenue and Amiens Avenue • Moderate salinity potential to the north of the Raleigh Road intersection with Henry Lawson Drive. <p>The proposed boreholes would be up to a depth of about 30 metres and are expected to intercept with ASS to the north of the Raleigh Road intersection. As a result, salinity or ASS impacts may occur during ground disturbance activities. Measures have been proposed to minimise the potential for impacts on land and nearby watercourses. It is noted that the areas that would be disturbed are very small and the disturbance period would be short.</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<p>Does the proposal involve the disturbance of large areas (eg >2ha) for earthworks?</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Does the site have constraints for erosion and sedimentation controls such as steep gradients or narrow corridors?</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Description of existing environmental and potential impacts

Are there any sensitive receiving environments that are located in or nearby the likely proposal area or that would likely receive stormwater discharge from the proposal?

Yes

No

Sensitive receiving environments include (but are not limited to) wetlands, state forests, national parks, nature reserves, rainforests, drinking water catchments).

While there are no sensitive receiving environments, it is noted that the Milperra Drain is located near investigation areas south of Auld Avenue. This is discussed further in the Waterways and water quality section.

Is there any evidence within or nearby the likely footprint of potential contamination?

Yes

No

Potential sources of contamination and key areas of environmental concern have been identified from a review of previous investigations and background information and include:

- Presumed presence of fill materials imported during construction of the Henry Lawson Drive and associated infrastructure during the 1960s
- Former landfill identified on the Flower Power site opposite Keys Parade and potential for exposure to volatile landfill gases, contaminated groundwater and waste material
- Potential fuel contamination from surface spills and underground storage tank leaks at the BP Service Station on Bullecourt Avenue. Based on supplied information, the state of underground infrastructure and subsurface material (ie soil and groundwater) is unknown
- General litter, illegal dumping and motor vehicle waste and spills in the road corridor
- Potential for presence of herbicides and pesticides in groundwater, sourced from use in the adjoining parklands and frequent watering/flushing of the soil profile.

A search (17 March 2022) of the NSW Environment Protection Authority contaminated land record of notices for the Canterbury-Bankstown LGA returned 75 notices relating to 17 sites. None of the sites are near the proposed investigations.

A search of the List of NSW contaminated sites notified to EPA (as at 17 March 2022) identified one EPA listed contaminated site within one kilometre of the proposed investigations:

- 479 Henry Lawson Dr – Former Landfill on property adjacent to northern portion of the area near the proposed investigations
- 689 Henry Lawson Dr – Service station located approximately 750 m north of the northern section of the proposed investigations
- 264 Milperra Road – Service station on property approximately 1 km east of the northern section of the proposed investigations

Description of existing environmental and potential impacts

Excavation of the soil has potential to expose contaminated materials. Common pollutants and contaminants from agricultural activities include pesticides, fertilisers and contaminated water (particularly used for irrigation). The proposed investigations may generate sediment during rainfall events due to ground disturbance as a result of excavation. These impacts would be minimised through implementation of soil and erosion control measures.

Vehicle use along Henry Lawson Drive and surrounding local roads could also have resulted in previous hydrocarbon, fuel and lead pollution.

Safeguards have been proposed to minimise the potential for impacts to the environment in the following sections.

Is the likely proposal footprint in or nearby highly sloping landform?

Yes

No

Is the proposals likely to result in more than 2.5ha (area) of exposed soil?

Yes

No

Excavated material from all intrusive investigation sites would be stored adjacent to the site and would be returned to the site on completion of the investigations. If not restrained properly, material can move off site due to the slope of the land or by wind or water erosion. Material is to be stored so that it does not leave the site. Material would be returned in the reverse order that it was excavated, with topsoil and grass put aside to cap the material. As the backfilling of all sites would be undertaken during the same shift, material would not be left exposed for long periods of time.

Ground disturbance as a result of vehicle use would also be minimised, with access to occur via the nearest public road or existing paths or previously cleared or disturbed areas (where investigation locations are not accessible directly off a public road).

Safeguards

Safeguards to be implemented are:

E1	<p>Erosion and sediment control measures are to be implemented and maintained to:</p> <ul style="list-style-type: none"> • Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets • Reduce water velocity and capture sediment on site • Minimise the amount of material transported from site to surrounding pavement surfaces • Divert clean water around the site <p>(in accordance with the Landcom/Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book))</p>
E2	<p>Erosion and sedimentation controls are to be checked and maintained on a regular basis (including clearing of sediment from behind barriers) and records kept and provided on request.</p>
E3	<p>Erosion and sediment control measures are not to be removed until the works at the particular site are complete, and the area is stabilised</p>
E4	<p>If contaminated areas are encountered during investigations, appropriate control measures will be implemented to manage the immediate risks of contamination. All other works that may impact on the contaminated area will cease until the nature and extent of the</p>

	contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the Transport for NSW Environment Manager and/or EPA. Unexpected finds would be managed in accordance with the Transport for NSW Unexpected Contaminated Land and Asbestos Finds Procedure. If identified, asbestos removal must be undertaken in accordance with Working with Asbestos: Guide 2008 published by WorkCover Australia.
E5	Should acid sulfate soil be encountered during investigations, the exposed soil would be treated with lime to neutralise the acid prior to the soil being returned to the ground.
E6	Ground disturbance from vehicle use will be minimised via access route selection, with vehicle access via the nearest public road or existing paths or previously cleared or disturbed areas (where investigation locations are not accessible directly off a public road).

3.2 Waterways and water quality

Description of existing environment and potential impacts		
Is the proposal located within, adjacent to or near a waterway?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Henry Lawson Drive is located to the east of the Georges River. CPT01 is the closest investigation site to the Georges River, located about 150 metres east of the river.		
There is a waterway (Milperra Drain) between Auld Avenue and Keys Parade with direct hydrological connection to the Georges River. The following investigation locations are within 100 metres of this waterway:		
<ul style="list-style-type: none"> • CPT01 • CPT02 • CPT03 • CPT04 • CPT05 • CPT06 • CPT07 • CPT08 • CPT09 • TP01 • TP02 • TP03 • TP04 • BH01 • BH02. 		
Investigation locations near Milperra Drain, if not managed correctly could result in water quality impacts. This could include increased nutrients, increased turbidity, lower dissolved oxygen levels and altered pH. The implementation of Safeguards W1 and W2 would minimise the potential for adverse impacts to aquatic health.		

Description of existing environment and potential impacts

Fuels and chemicals would be required to operate plant and equipment for the duration of works. There is potential for leaks and spills which could impact soil and nearby waterways. The refuelling of plant and equipment would occur off-site at licensed service stations and chemicals would be secured within vehicles.		
Is the location known to flood or be prone to water logging? The proposed investigations north of PC09 (near Hermies Avenue) are within the probable maximum flood extents for the Georges River flood event as identified by the Henry Lawson Drive Stage 1A Upgrade, Flooding Assessment Report (Lyll & Associates, 2021). However, there would be no impacts on flooding patterns due to the investigations as they would be localised and short-term in nature. There is the potential that increased rainfall could result in the area flooding during construction. This could result in test locations being inundated and moving stored material offsite or into waterways.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the proposal located within or immediately adjacent to the area managed by Sydney Catchment Authority covered by State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011? Maps of the Sydney Water Drinking Water Catchment are available from: http://www.legislation.nsw.gov.au/mapindex?type=epi&year=2011&no=28	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Would the proposal be undertaken on a bridge or ferry?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal likely to require the extraction of water from a local water course (not mains)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Safeguards

Safeguards to be implemented are:

W1	There is to be no release of dirty water into drainage lines and/or waterways.
W2	Water quality control measures are to be used to prevent any materials (e.g. bentonite, grout, sediment etc) entering drain inlets or waterways.
W3	Refuelling of plant and equipment is to occur at existing fuel service stations or in impervious bunded areas located a minimum of 50 metres from drainage lines or waterways.
W4	If an incident (e.g. spill) occurs, the Environmental Incident Procedure (Transport for NSW, 2021) is to be followed and the Transport for NSW Project Manager and Environment Manager notified immediately.
W5	An emergency spill kit will be kept on site at all times. All staff are to be made aware of the location of the spill kit and trained in its use.
W6	Weather monitoring will be undertaken to avoid where possible the inundation of the work area during storm events or prolonged periods of wet weather. If significant rain events are predicted, exposed soils and stockpiles will be covered where practicable. Equipment and materials with the potential to be affected by flood water will be moved out of the flood event.

3.3 Noise and vibration

Description of existing environmental and potential impacts

Are there any residential properties or other noise sensitive areas near the location of the proposal that may be affected by the work (ie church, school, hospital):

During construction?

Yes

No

The nearest noise sensitive receivers are residences located on:

- Auld Avenue, Milperra
- both sides of Henry Lawson Drive, Milperra between Raleigh Road and the M5 Motorway (including receivers with residential addresses on Borella Road, Ruthven Avenue, Ousley Place, Moncrieff Place)
- both sides of Bullecourt Avenue, Milperra between Henry Lawson Drive and Ashford Avenue.

Sensitive receivers would be most affected by geotechnical investigations proposed along Henry Lawson Drive and Bullecourt Avenue. The following investigation sites would occur within 55 metres of residential receiver buildings:

- Test pits TP06, TP07, TP08, TP10, TP10, TP11, TP12, TP13, TP14, TP15
- Pavement Cores PC02, PC03, PC04, PC05, PC06, PC07, PC08, PC09, PC10, PC11, PC12, PC13, PC14, PC15, PC16, PC17, PC18
- Bore holes BH05, BH06
- Cone penetration testing CPT11.

Utility investigations would generate some noise, although only for very short periods.

Topographic survey would generate minimal noise (limited to periodic light vehicle use and people talking) and is not expected to result in exceedance of construction noise management levels.

Noise calculations have been conducted (for geotechnical investigations) in accordance with the Transport for NSW Construction Noise and Vibration Guideline (Roads and Maritime Services, 2016) and associated estimator tool. Recognising the traffic volumes on Henry Lawson Drive, representative noise environment R2 from the estimator was used with the Distance Based Assessment (Noisiest Plant) worksheet.

The assessment (refer to Appendix C), which used a five tonne excavator as a proxy for the loudest plant, identified an affected distance of 55 metres during standard hours with moderately intrusive noise (20-30 dBA above background) within 25 metres and highly intrusive noise (greater than 30 dBA above background) within 10 metres. Impact radius maps showing the affected distances from investigation locations in standard working hours are shown in Figure D-1 in Appendix D. Work involving an excavator are not expected to occur outside standard hours.

Pavement cores may need to occur during evening or night periods. An assessment was also carried out to assess noise impacts for residential

Description of existing environmental and potential impacts

receivers for this activity using a micro drilling rig (SM-14) as a proxy for the loudest plant (refer to Appendix C). The assessment identified an affected distance of 220 metres during the evening out-of-hours period and 335 metres during the night out-of-hours period (although houses beyond the first row of residences would be less affected). Moderately intrusive noise (20-30 dBA above background) is predicted within 55 metres for the evening out-of-hours period and within 95 metres for the night out-of-hours period. Highly intrusive noise (greater than 30 dBA above background) is predicted within 25 metres for the evening and 35 metres for the night. Impact radius maps showing the affected distances from investigation locations in standard working hours are shown in Figure D-2 in Appendix D.

The typical duration for a pavement core is about one hour. The pavement core drilling rig would move along the length of the corridor to each proposed location (as identified in Appendix A). As such, the loudest plant would move during the investigation period so a single receiver would not experience highly intrusive noise for an extended period of time. Most pavement core locations along Henry Lawson Drive are between about 80 and 200 metres apart from each other, meaning that most residential receivers may only experience noise impacts from two pavement cores for work carried out during the evening out-of-hours period. This is based on an affected distance of 220 metres during this period and would minimise expected noise impacts for each residential receiver.

For the proposed bore holes, test pits and cone penetration tests (which would occur during standard construction hours), the estimator identifies notification, respite offers and phone calls as additional mitigation measures. Given the very short-term nature of the proposed investigations, only notification is proposed.

For the proposed pavement cores (which would occur during evening and night out of hours periods), the estimator identifies a range of additional mitigation measures. Given the very short-term nature of the proposed investigations, the following are proposed:

- Notification
- Respite Period 1 – work during the evening out of hours period (within an identified affected distance of 220 metres) would be limited to no more than three consecutive evenings per week. A minimum one-week respite period would be provided between these periods of work. The proposed work would not occur for more than six evenings per month.
- Respite Period 2 – for works during the night out of hours period (within an identified affected distance of 335 metres) would be limited to no more than two consecutive evenings per week. A minimum one-week respite period would be provided between these periods of work. The proposed work would not occur for more than six evenings per month.

During operation?

Yes

No

The proposed investigations have no operational component.

Description of existing environmental and potential impacts

<p>Is the proposal going to be undertaken only during standard working hours?</p> <p>Standard working hours Monday-Friday: 7:00am to 6.00pm Saturday: 8.00am to 1.00pm Sunday and Public Holidays: no work</p> <p>Most of the investigations would be carried out during standard working hours, however Road Occupancy Licence conditions may mean that pavement cores need to occur outside of standard working hours to minimise impacts on traffic. It is expected that about 12 night shifts would be required. The same receiver would not be exposed to night works for more than two consecutive nights.</p> <p>Evening out of hours work would occur between 6.00pm and 10.00pm and night out of hours work would occur between 10.00pm and 7.00am.</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Is any explosive blasting required for the proposal?</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Would construction noise or vibration from the proposal affect sensitive receivers?</p> <p>For construction noise refer to discussion above.</p> <p>Operation of plant and equipment would comply with the recommended minimum working distances for vibration intensive plant specified in Section 7.1 of the Construction Noise and Vibration Guideline (Roads and Maritime Services, 2016). Vibration impacts are therefore not expected at sensitive receivers.</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<p>Would operation of the proposal alter the noise environment for sensitive receivers? This might include, but not be limited to, altering the line or level of an existing carriageway, changing traffic flow, adding extra lanes, increasing traffic volume, increasing the number of heavy vehicles, removing obstacles that provide shielding including changing the angle of view of the traffic, changing the type of pavement, increasing traffic speeds by more than 10km/hr or installing audio-tactile line markings.</p> <p>The proposed investigations have no operational component.</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Would the proposal result in vibration being experienced by any surrounding properties or infrastructure during operation?</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Safeguards

Safeguards to be implemented are:

N1	The standard mitigation measures identified in Appendix B of the Construction Noise and Vibration Guideline (Roads and Maritime Services, 2016) will be implemented as relevant.
N2	Noise impacts are to be minimised in accordance with the Transport for NSW Construction Noise Estimator and identified applicable mitigation measures.
N3	Works to be carried out during normal work hours (ie 7am to 6pm Monday to Friday; 8am to 1pm Saturdays). Any work that is performed outside normal work hours or on Sundays or public holidays must have measures in place to minimise noise impacts.
N4	Respite periods will be implemented for the proposed investigations. Works during Respite Period 1 (the evening period where the affected distance has been identified at 220 metres) will be limited to no more than three consecutive evenings per week (these periods of work should be separated by not less than one week and no more than six evenings per month). Works during Respite Period 2 (the night period, where the affected distance has been identified at 335 metres) will be limited to no more than two consecutive evenings per week (these periods of works should be separated by not less than one week and no more than six evenings per month).
N5	Outside of hours work and vehicle/machinery movements will be planned to occur simultaneously, in order to minimise noise impacts to sensitive receivers.
N6	A letterbox drop notification for residential receivers within 335 metres (or 220 metres where there is an intervening physical barrier such as a row of houses) of evening/night works will occur at least five business days prior to works starting. The extent of the notification will be determined with reference to the noise assessment and the specific types of activities proposed. The notification will detail work activities, dates and hours, impacts (including any changed traffic arrangements) and mitigation measures. It will also include a contact number for enquiries and complaints.
N7	Out of hours work will consider the movement of the crew and noisy equipment so that the same receivers are not impacted over several consecutive nights. The noisiest works closest to sensitive receivers will be scheduled to occur before 11pm where possible. After 11pm or as soon as practicable the noisiest activities (pavement cores) will be carried out as far as possible from sensitive receivers.

3.4 Air quality

Description of existing environmental and potential impacts

Is the proposal likely to result in large areas (>2ha) of exposed soils?

Yes

No

Are there any dust sensitive receivers located within the vicinity of the proposal during the construction period?

Yes

No

The nearest air quality sensitive receivers are residences located on:

- Auld Avenue, Milperra
- both sides of Henry Lawson Drive, Milperra between Raleigh Road and the M5 Motorway (including receivers with residential addresses on Borella Road, Ruthven Avenue, Ousley Place, Moncrieff Place)

Description of existing environmental and potential impacts

- both sides of Bullecourt Avenue, Milperra between Henry Lawson Drive and Ashford Avenue.

The distance between each test pit and the nearest residential receiver is as follows:

- TP01 – 70 metres
- TP02 – 100 metres
- TP03 – 130 metres
- TP04 – 120 metres
- TP05 – 100 metres
- TP06 – 20 metres
- TP07 – 10 metres
- TP08 – 10 metres
- TP09 – 10 metres
- TP10 – 10 metres
- TP11 – 10 metres
- TP12 – 10 metres
- TP13 – 10 metres
- TP14 – 20 metres
- TP15 – 10 metres.

There would be some minor potential for dust generation (associated with vehicles tracking over unsealed surfaces and excavation for test pits) resulting in a localised nuisance. These impacts would be greatest to residential receivers at TP06 – TP15. Air quality impacts to residential receivers from TP01 – TP05 are unlikely.

Is there likely to be an emission to air during construction?

Yes

No

Minor exhaust emissions from vehicles would occur. It is anticipated that the investigations would not result in a material increase in air pollution due to the small number of vehicles to be used.

Safeguards

Safeguards to be implemented are:

A1	Works are not to be carried out during strong winds or in weather conditions where high levels of dust or air borne particulates are likely.
A2	Measures (including watering or covering exposed areas) are to be used to minimise or prevent air pollution and dust.
A3	Vehicles and vessels transporting waste or other materials that may produce odours or dust are to be covered during transportation.
A4	Unless in use, vehicles and plant on site are to have engines switched off and not idling.

3.5 Aboriginal heritage

Description of existing environmental and potential impacts		
Would the proposal involve disturbance in any area that has not been subject to previous ground disturbances?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Have online AHIMS search been completed?</p> <p>A Stage 3 assessment in accordance with the Transport for NSW Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI) has been completed for the Henry Lawson Drive Stage Upgrade (CHAR, 2020). While this covered most of the investigation locations, some of the locations between Keys Parade and Auld Avenue were outside the study area of the Stage 3 PACHCI. As such, a Stage 1 PACHCI was completed for this additional area.</p> <p>In addition, an updated AHIMS search for the proposed investigations was carried out on 22 March 2022 to confirm whether there are any known Aboriginal sites in the investigation areas. The updated search identified 2 Aboriginal sites recorded in the general area, however were south of the M5 Motorway. The southern-most proposed investigation site (PC13) would be about 350 metres north-east of the closest Aboriginal site to the proposed investigations. As such, the proposed investigations would not directly or indirectly affect these sites.</p> <p>The Stage 3 PACHCI and Stage 1 PACHCI, together with the updated AHIMS search result, concluded that the proposed investigations are unlikely to have an impact on Aboriginal cultural heritage.</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is there potential for the proposal to impact on any items of Aboriginal heritage?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Would the proposal involve the removal of mature native trees?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Would the proposals impact on any features that may indicate any potential archaeological remains?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Is the proposal consistent with the requirements of the legacy Roads and Maritime Procedure for Aboriginal cultural heritage consultation and investigation (PACHCI)?</p> <p>The proposed investigations are within the area covered by the Stage 3 PACHCI assessment carried out for the Henry Lawson Drive Upgrade Program as well as an additional Stage 1 PACHCI for the area around Keys Parade and Auld Avenue.</p> <p>The Stage 1 PACHCI concluded that the proposed investigations within its study area are unlikely to have an impact on Aboriginal cultural heritage. The Stage 3 PACHCI concluded that it was unlikely for Aboriginal cultural heritage to be present near the investigation locations.</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Safeguards

Safeguards to be implemented are:

B1	If Aboriginal heritage items are uncovered during the works, all works must cease in the vicinity of the find and the Transport for NSW Aboriginal cultural heritage advisor and the Environment Manager contacted immediately. The steps in the Standard Management Procedure: Unexpected Heritage Items (Roads and Maritime Services, 2015) must be followed.
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3.6 Non-Aboriginal heritage

Description of existing environmental and potential impacts		
<p>Have online heritage database searches been completed?</p> <ul style="list-style-type: none"> • Transport (including legacy Roads and Maritime) section 170 register • NSW Heritage database • Commonwealth EPBC heritage list • Australian Heritage Places Inventory • Local Environmental Plan(s) heritage items 	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<p>Are there any items of non-Aboriginal heritage or heritage conservation areas listed on relevant heritage databases/registers that are located within the vicinity of the proposal?</p> <p>The Milperra Soldier Settlement (former) is listed as an item of Local significance on the Bankstown Local Environment Plan 2015. This item is shown in the Environmental Constraint Maps in Appendix A. The sections of this item which would be impacted by the proposed investigations are:</p> <ul style="list-style-type: none"> • the Henry Lawson Drive road corridor east of Amiens Avenue until the M5 Motorway • Bullecourt Avenue road corridor between Henry Lawson Drive and Ashford Avenue. <p>The proposed investigations would result in pavement cores and test pits within the curtilage of the heritage item. Pavement cores would be drilled to a maximum depth of about 1.5 metres and so are unlikely to intercept any archaeological material. Test pits would be up to three metres deep. However, as this item is the existing road corridor and has been subject to moderate to high levels of disturbance due to road work and residential development over time, the proposed investigations would have minimal impact on the heritage significance of the item.</p> <p>In addition, while there is a moderate potential for historical subsurface archaeology near the proposed investigations, the proposed investigations are also not expected to disturb any locally or State significant relics.</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<p>Are there any items of potential non-Aboriginal heritage significance which are not listed on relevant heritage databases/registers that are in the vicinity of the proposal?</p> <p>There is a tree located between Henry Lawson Drive and Ingram Avenue which was planted by an early settler of Milperra in 1917. The tree may have potential non-Aboriginal heritage significance. The closest investigation</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Description of existing environmental and potential impacts		
location to this tree is PC04, which would be about 15 metres to the south of tree, on the opposite site of Henry Lawson Drive. As such, the proposed investigations are unlikely to impact the potential heritage significance of the item.		
Is the proposal likely to occur in or near features that indicate potential archaeological remains?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Safeguards

Safeguards to be implemented are:

H1	If unexpected archaeological remains are uncovered during the works, all works must cease in the vicinity of the material/find and the steps in the Standard Management Procedure: Unexpected Heritage Items (Roads and Maritime Services, 2015) must be followed. The Transport for NSW Environment Manager must be contacted immediately.
H2	Identify in toolbox talks the tree located between Henry Lawson Drive and Ingram Avenue that was planted by an early settler of Milperra in 1917. Personnel to avoid any impact to this tree and to avoid any work within its dripline.

3.7 Biodiversity

Description of existing environmental and potential impacts		
Have relevant database searches been carried out?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<p>A review of relevant literature, databases and existing vegetation mapping was carried out to identify vegetation, threatened flora and fauna and Threatened Ecological Communities (TECs) that are listed under both NSW and Commonwealth legislation with potential to occur within a five kilometre radius of the proposed investigations. This included review of the following databases and sources on 21 April 2022:</p> <ul style="list-style-type: none"> • Bionet Wildlife Atlas • EPBC Act Protected Matters Search Tool • NSW WeedWise Priority weeds for the Greater Sydney • NSW Threatened species profiles • Species Profile and Threats Database • The Native Vegetation of the Sydney Metropolitan Area - Version 3.1 (OEH, 2016) VIS_ID 4489 • Henry Lawson Drive Upgrade (M5 to Hume Highway) Biodiversity Assessment Report for Strategic Design (WSP, 2019). <p>Relevant database searches are provided in Appendix B.</p>		
Did the database searches identify any endangered ecological communities, threatened flora and/or threatened or protected fauna, or migratory species in or within the vicinity of the proposed works? Both Commonwealth and State listed matters must be considered.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Description of existing environmental and potential impacts

The desktop searches carried out for the proposed investigations identified that 360 threatened fauna species identified have the potential to occur or have habitat within a minimum five-kilometre radius of the proposed investigations. This includes:

- 342 species listed under the *Biodiversity Conservation Act 2016* (BC Act) only
- 18 species listed under both the BC Act and *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The searches also identified that 151 threatened flora species have the potential to occur or have habitat within a minimum five-kilometre radius of the proposed investigations. This includes:

- 134 species listed under the BC Act only
- one species listed under the EPBC Act only
- 16 species listed under both the BC Act and EPBC Act.

Potential fauna habitats for threatened fauna and threatened flora were identified as being near (but mostly away from) the proposed investigation locations.

There was limited potential fauna habitat or threatened flora identified near proposed investigation locations to the south of Raleigh Avenue. The investigations proposed at these locations are not expected to result in impacts to threatened flora or fauna species.

To the north of Raleigh Avenue, potential listed fauna habitat, a historical fauna record and Threatened Ecological Communities (TEC) were identified as being near the proposed investigation locations (refer to Appendix A). Potential impacts on these listed biotas are outlined in the following table.

Scientific and common name	Status*	Type of listing (BC Act or EPBC Act)	Distance from works	Potential Impacts
River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	EEC	BC Act	TP01, CPT03, CPT07 and CPT08 are located within the mapped TEC. TP02, TP04, TP05, CPT02, CPT06, CPT09, BH03 and LG01 are within five metres of the TEC. All other proposed test	Negligible impacts are expected to the ground storey layer of the TEC at TP01, CPT03, CPT07 and CPT08. This is because TP01 and CPT03 occur near the previously disturbed area along the footpath between Keys Parade and Auld Avenue and CPT07 and CPT08 occur in the previously disturbed road corridor of Keys Parade. Previously disturbed areas include grassed and mown areas.

Description of existing environmental and potential impacts

			locations are at least five metres from the mapped TEC.	TP02, TP04, TP05, CPT02, CPT06, CPT09, BH03 and LG01 would occur on previously disturbed land and be relocated away from any recent vegetation regrowth if required and so no impacts are expected.
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	CE	EPBC Act	CPT07 is located within the mapped TEC. TP05, BH03 and LG01 are within five metres of the TEC. All other proposed test locations are at least five metres from the mapped TEC.	Negligible impacts are expected to the ground storey layer of the TEC at CPT07 as it would occur in the previously disturbed road corridor of Keys Parade. TP05, BH03 and LG01 would occur on previously disturbed land and be relocated away from any recent vegetation regrowth if required and so no impacts are expected.
Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	EEC	BC Act	All proposed test locations are at least five metres from the mapped TEC.	Work located outside the TEC is not expected to impact the TEC.
Freshwater Wetlands on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	EEC	BC Act	All proposed test locations are at least five metres from the mapped TEC.	Work located outside the TEC is not expected to impact the TEC.
Southern Myotis (<i>Myotis Macropus</i>)	T	BC Act	All proposed test locations are at least five metres from the mapped	Work would be located outside the mapped habitat and is not expected to impact the mapped potential habitat. There is a known local population of Southern

Description of existing environmental and potential impacts

			potential habitat.	Myotis north of Newbridge Road, Milperra. The proposed investigations would not result in loss of foraging habitat or other impacts to the population.		
Black Bittern (<i>Ixobrychus flavicollis</i>)	V	BC Act	Known historical record within five metres of BH01.	BH01 would be relocated if any Black Bitterns are identified while work is being carried out.		
*T= Threatened, CE = critically endangered, EEC = endangered ecological community, V = vulnerable						
<p>Is the proposal likely to impact nationally listed threatened species, ecological communities or migratory species?</p> <p>As identified in the previous row, some of the proposed investigation locations would be within or adjacent to River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria (Critically Endangered), which is a nationally listed TEC. The proposed investigations would also be adjacent to one additional nationally listed TECs, being Coastal Swamp Oak (<i>Casuarina glauca</i>) Forest of New South Wales and South East Queensland ecological community (Endangered).</p> <p>Investigations within the TECs are expected to result in negligible impacts to the ground storey layer of the River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria TEC. As noted in the previous row, negligible impacts are expected due to work occurring on previously disturbed areas.</p> <p>Mitigation measures, including that work would be limited to previously disturbed areas where possible, no clearing of trees/understorey would occur and to limit the spread of priority weeds into and out of the TEC, would ensure that impacts are minimised and limited to the ground storey layer of the community (i.e. grasses). As such, impacts are expected to be negligible and no additional assessment is required.</p> <p>A checklist of matters of national environmental significance has been completed in Section 4.2 to ensure all matters covered under the EPBC Act have been considered.</p>					<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Would the proposal require the removal of any other vegetation?</p> <p>Where possible, the proposed investigation locations have been selected to avoid the need to clear vegetation either for access or to undertake the investigations. However, there would be minimal understorey clearing (trimming of grasses and weeds) required at CPT05 and BH02. No vegetation clearing would occur at any other investigation locations (including hand auger locations). The investigation location would be adjusted during</p>					<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Description of existing environmental and potential impacts

<p>construction to avoid the need to remove any recent vegetation regrowth, where possible. There is potential weed species may be removed.</p>		
<p>Would the proposal affect any tree hollows or hollow logs?</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Are there any known areas of outstanding biodiversity value or areas mapped as 'littoral rainforest' or 'coastal wetland' in the Coastal Management SEPP in or within the vicinity of the proposed work?</p> <p>Areas of known coastal wetlands are located to the east of the proposed investigations near Auld Avenue (refer to Appendix A). The proposed investigation locations are at least 145 metres to the west of the areas of known coastal wetlands. As such, no impacts to coastal wetlands are expected.</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<p>Would the proposal provide any additional barriers to the movement of wildlife?</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Would the proposal disturb any natural waterways or aquatic habitat?</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Would the proposal disturb any crevices or other locations (such as on bridges and culverts) for potential bat habitat?</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Safeguards

Safeguards to be implemented are:

F1	<p>There will be no trimming, pruning or clearing of native vegetation for access or to undertake the investigations within mapped TECs.</p> <p>If required, investigation locations will be relocated during construction to avoid impacts to vegetation within TECs. Proposed investigations will occur within previously disturbed areas of land where possible.</p>
F2	<p>There will be minimal trimming, pruning or clearing of native vegetation for access or to undertake the investigations outside mapped TECs.</p> <p>Only minor vegetation disturbance of the ground storey (i.e. grasses) is permitted for the investigations at CPT-05 and BH-02. No vegetation clearing will occur in other locations outside mapped TECs.</p> <p>If required, investigation locations will be relocated during construction to avoid impacts to vegetation outside of TECs. Proposed investigations will occur within previously disturbed areas of land where possible.</p>
F3	<p>The following decision process would be followed in relation to any native vegetation for survey:</p> <ul style="list-style-type: none"> • Avoid - adjustments to the height of the survey prism would be pursued with a view to minimising trimming. Possible alternative locations would be investigated.

	<ul style="list-style-type: none"> Move - vegetation would be gently moved to the side by hand with the aim of clearing the line of sight without trimming. Moving of branches would not be carried out to the extent where there is a risk of damage to the branch.
F4	If unexpected threatened fauna or flora species are discovered, stop works immediately and follow the Unexpected Threatened Species Find Procedure in Guide 1 - Pre-clearing process of the Biodiversity Guidelines (Roads and Traffic Authority, 2011).
F5	Biosecurity measures such as the washing down of vehicle tyres and brushing down of clothes and shoes before moving from one proposed investigation location to the next will be employed to prevent the spread of weeds.
F6	Weeds of national significance are to be managed according to requirements under the Biosecurity Act 2015 (see NSW Weedwise) and the Transport for NSW Services Biodiversity Guidelines 2011– Guide 6 (Weed Management).
F7	As part of the tool box talks, on site personnel are to be informed of the requirement not to disturb any TEC vegetation and to minimise other vegetation disturbance.

3.8 Trees

Description of existing environmental and potential impacts		
<p>Does the proposal involve pruning, trimming or removal of any tree/s?</p> <p>Refer to Section 3.7. Trees would not be pruned, trimmed or removed as part of the proposed investigations. Where required, investigation locations would be adjusted to avoid the need to impact any trees.</p> <p>Vehicles and plant/equipment are to be kept away from environmentally sensitive areas and outside the dripline of trees.</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Do the trees form part of a streetscape, an avenue or roadside planting?</p> <p>n/a – no trees to be impacted</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Have the trees been planted by a community group, landcare group or by council or is the tree a memorial or part of a memorial group eg. has a plaque?</p> <p>n/a – no trees to be impacted</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Do the trees form part of a heritage listing or have other heritage value?</p> <p>n/a – no trees to be impacted</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Safeguards

Safeguards to be implemented are:

O1	Parking of vehicles and storage of plant/equipment is to occur on existing paved or cleared areas. Where this is not possible, vehicles and plant/equipment are to be kept away from environmentally sensitive areas and outside the dripline of trees.
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3.9 Traffic and transport

Description of existing environmental and potential impacts		
<p>Is the proposal likely to result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during construction?</p> <p>Access to proposed investigation sites would be from Auld Avenue, Keys Parade, Henry Lawson Drive, Bullecourt Avenue and other local roads.</p> <p>Lane closures and work outside standard working hours would be required on Henry Lawson Drive and Bullecourt Avenue for:</p> <ul style="list-style-type: none"> allow access for vehicles and drill rigs to proposed pavement core locations within or near the existing road corridors Falling Weight Deflectometer (FWD) testing. <p>A contraflow arrangement may need to be set up to continue to allow two-way traffic on Henry Lawson Drive and Bullecourt Avenue. This would ensure safety of workers and minimise traffic disruptions to motorists. FWD testing would be aligned with lane closures required for pavement cores where possible to minimise disruption to motorists.</p> <p>Investigation locations have been adjusted to avoid temporary disruptions to property access, where possible. However, this is unlikely to be possible at the following locations:</p> <ul style="list-style-type: none"> 67 Bullecourt Avenue, Milperra: Access to the main driveway at 67 Bullecourt Avenue is expected to be temporarily blocked while PC-14 is being carried out. This would occur during night work to avoid disruptions to the residents. BP petrol station on Bullecourt Avenue, Milperra: The western-most driveway at the BP petrol station on Bullecourt Avenue would be temporarily blocked while PC-18 is being carried out. While there would be two other driveways to this property unimpacted by the investigations, investigations at PC-18 would occur after 10pm once the petrol station is closed to minimise any access impacts for staff or customers. <p>The impacts to driveway access to these properties would be temporary only. No permanent impacts would occur. In accordance with Safeguard S1, agreement would be reached with the property owners prior to disruption to driveway access to these properties.</p>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<p>Is the proposal likely to result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during operation?</p> <p>The proposed investigations have no operational aspect.</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Is the proposal likely to affect any other transport nodes or transport infrastructure (eg bus stops, bus routes) in the surrounding area? Or result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during operation?</p> <p>There are five bus stops on Henry Lawson Drive and five bus stops on Bullecourt Avenue near the proposed investigations. Proposed investigation locations would be adjusted if required to avoid direct impacts to bus stops or</p>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Description of existing environmental and potential impacts

their surrounds. Bus operators would be notified of any lane closures during out of hours work to minimise impacts on bus services.

Pedestrian access to pathways along Henry Lawson Drive, Bullecourt Avenue, other local roads and between Raleigh Road, Keys Parade and Auld Avenue may be temporarily limited due to rig placement. These impacts may be greatest near the following investigation locations:

- CPT02
- TP02, TP03, TP06, TP09, TP10, TP11.

Appropriate traffic control and safety measures would be implemented during works to mitigate any potential impacts resulting from restricted access.

Safeguards

Safeguards to be implemented are:

T1	During construction, traffic will be managed in accordance with Traffic control at work sites – Technical Manual (Roads and Maritime Services, 2018) and Australian Standard 1742.3 Manual of uniform control devices. This will include preparing and implementing a traffic control plan.
T2	If the investigations phase is at any stage likely to cause substantial disruption to the use of Henry Lawson Drive and the adjacent local road network by emergency vehicles, the NSW SES and emergency services will be notified.
T3	Temporary traffic management measures will be implemented in consultation with and in accordance with the Transport Management Centre requirements. A road occupancy licence would be obtained from the Transport Management Centre. Traffic control will be carried out under an approved Traffic Control Plan.
T4	Proposed investigation locations will be adjusted if required to avoid direct impacts to bus stops or their surrounds. Bus operators will be notified of any lane closures during out of hours work to minimise impacts on bus services.
T5	Where possible, temporary diversions will be provided if any pedestrian pathways are required to be closed due to the proposed investigations.

3.10 Socio-economic

Description of existing environmental and potential impacts

Is the proposal likely to impact on local business?

Yes

No

PC-01 would occur near the Flower Power Garden Centre, however, construction at this site would occur outside of standard working hours due to the need for lane closures. While lane closures along Henry Lawson Drive are anticipated to occur when this business is closed to customers, there may be delays to any deliveries which occur outside of business hours. Any disruption would be minimal and result in negligible impacts to the Flower Power business as northbound and southbound traffic movements along

Description of existing environmental and potential impacts

Henry Lawson Drive would still be maintained during temporary lane closures. This site is on the opposite side of Henry Lawson Drive and would affect the driveway into Flower Power.

PC-18 would occur near the BP petrol station on Bullecourt Avenue, Milperra. This is not expected to result in any impacts to the business as work would only be carried out at this location once the petrol station has closed for the night.

Is the proposal likely to require any property acquisition?

Yes

No

Is the proposal likely to alter any access for properties (either temporarily or permanently)?

Yes

No

Refer to Section 3.9. Lane closures and work outside standard working hours would be required on Henry Lawson Drive and Bullecourt Avenue. This may temporarily result in short delays for access to residences along Henry Lawson Drive, Bullecourt Avenue and other local roads.

Investigation locations have been adjusted to avoid temporary disruptions to property access, where possible. However, this is unlikely to be possible at the following locations:

- 67 Bullecourt Avenue, Milperra: Access to the main driveway at 67 Bullecourt Avenue is expected to be temporarily blocked while PC-14 is being carried out. This would occur during night work to avoid disruptions to the residents.
- BP petrol station on Bullecourt Avenue, Milperra: The western-most driveway at the BP petrol station on Bullecourt Avenue would be temporarily blocked while PC-18 is being carried out. While there would be two other driveways to this property unimpacted by the investigations, investigations at PC-18 would occur after 10pm once the petrol station is closed to minimise any access impacts for staff or customers.

The impacts to driveway access to these properties would be temporary only. No permanent impacts would occur. In accordance with Safeguard S1, agreement would be reached with the property owners prior to disruption to driveway access to these properties.

Is the proposal likely to alter any on-street parking arrangements (either temporarily or permanently)?

Yes

No

Is the proposal likely to change pedestrian movements or pedestrian access (either temporarily or permanently)?

Yes

No

Refer to Section 3.9. There may be short-term, partial closure of footpaths along Henry Lawson Drive, Bullecourt Avenue, other local roads and between Raleigh Road, Keys Parade and Auld Avenue due to the proposed investigations. Diversions would be provided where possible.

Is the proposal likely to impact on any items or places of social value to the community (either temporarily or permanently)?

Yes

No

Description of existing environmental and potential impacts		
CPT01, CPT02, CPT03, CPT04, TP01, TP02, TP03 and BH01 are located to the east of Gordon Parker Reserve between Keys Parade and Auld Avenue. When investigations are occurring at these locations, there may be temporary negative amenity impacts for community members using the oval due to the noise impacts and visual presence of the test investigations.		
Is the proposal likely to reduce or change visibility of any businesses, farms, tourist attractions or the like (either temporarily or permanently)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Safeguards

Safeguards to be implemented are:

S1	Where possible, temporary disruption to property access will be avoided. Driveway access to properties will be maintained unless otherwise agreed with the property owner.
S2	Alternative pedestrian/cycle detours will be provided where possible during closures, particularly along Henry Lawson Drive, Bullecourt Avenue and between Raleigh Road, Keys Parade and Auld Avenue.
S3	All complaints are to be recorded on a complaints register and attended to promptly.
S4	The community will be notified of all work outside standard hours which have the potential to impact noise sensitive receivers. Notification zones must be determined using the Transport for NSW Maintenance Noise Estimator. Notification requirements must comply with the Transport for NSW Construction Noise and Vibration Guideline (Roads and Maritime Services, 2016).
S5	Flower Power Garden Centre will be notified about the proposed investigations in advance of any lane closures on Henry Lawson Drive.

3.11 Landscape character and visual amenity

Description of existing environmental and potential impacts		
Is the proposed work over or near an important physical or cultural element or landscape? (heritage items and areas, distinctive or historic built form, National Parks, conservation areas, scenic highways etc)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
As noted in Section 3.6, some pavement cores and test pits would occur within the curtilage of the Milperra Soldier Settlement (former) heritage item. As this item has been highly disturbed historically and forms part of the existing road corridor, the proposed investigations would not impact on the views, landscape character and visual amenity of this item.		
Work areas would be cleaned during and at the end of each shift to minimise any potential visual impacts from rubbish on the broader Henry Lawson Drive road corridor.		
Would the proposal obstruct or intrude upon the character or views of a valued landscape or urban area. For example locally significant topography, a	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Description of existing environmental and potential impacts		
rural landscape or a park, a river, lake or the ocean or a historic or distinctive townscape or landmark?		
Would the proposal require the removal of mature trees or stands of vegetation, either native or introduced?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Would the proposal result in large areas of shotcrete visible from the road or adjacent properties?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Would the proposal involve new noise walls or visible changes to existing noise walls?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Would the proposal involve the removal or reuse of large areas of road corridor, landscape, either verges or medians?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Would the proposal involve substantial changes to the appearance of a bridge (including piers, girders, abutments and parapets) that are visible from the road or residential areas?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If involving lighting, would the proposal create unwanted light spillage on residential properties at night (in construction or operation)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Light spill may occur into nearby residential properties during night works. These impacts would be minimised by ensuring lighting is directed only towards the work area and is not in use for longer than required. Lighting impacts would be short term and any single receiver would not experience continuous highly intrusive light spill for an extended period.		
Would any new structures or features being constructed result in over shadowing to adjoining properties or areas?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Safeguards

Safeguards to be implemented are:

V1	Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.
V2	If lighting is required during work outside of standard working hours, direct light towards the work area at all times and away from residential properties.

3.12 Waste

Description of existing environmental and potential impacts		
Is the proposal likely to generate >200 tonnes of waste material (contaminated and /or non-contaminated material)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal likely to require a licence from EPA?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal likely to require the removal of asbestos?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Description of existing environmental and potential impacts

The following waste sources are likely to be generated during the works:

- domestic refuse (litter) generated by onsite personnel and construction workers
- green waste (e.g. weed species or grasses)
- excavated material (e.g. spoil) which is unsuitable and/or not required for backfilling and restoration
- maintenance waste – waste generated from site plant and vehicle maintenance such as oil, wastewater and drilling fluids and fuel (to be transported off site daily with workers).

Spoil generated during excavations would be used as backfill, where suitable. Prior to any off site disposal of waste material, it would be classified in accordance with Waste Classification Guidelines (Environment Protection Authority, 2014) and disposed of at a suitably licenced facility.

Safeguards

Safeguards to be implemented are:

W1	Resource management hierarchy principles are to be followed in accordance with the <i>Waste Avoidance and Resource Recovery Act 2001</i> : <ul style="list-style-type: none">• Avoid unnecessary resource consumption as a priority.• Avoidance is followed by resource recovery (including reuse of materials, reprocessing, recycling and energy recovery).• Disposal is undertaken as a last resort.
W2	Waste material is to be reused in accordance with any waste exemptions or disposed of legally in accordance with its waste classification.

4. Consideration of State and Commonwealth environmental factors

4.1 Environmental Planning and Assessment Regulation 2021 checklist

The following factors, listed in both the *Guidelines for Division 5.1 Assessments* (DPE, 2022) and section 171(2) of the Environmental Planning and Assessment Regulation 2021, have been considered to assess the likely impacts of the proposal on the natural and built environment. This consideration is required to comply with sections 5.5 and 5.7 of the EP&A Act.

Environmental factor	Impact
<p>(a) Any environmental impact on a community?</p> <p>The proposed investigations would have minor and short-term impacts on the community attributable to noise, visual amenity and lane closures. Safeguards have been proposed to address identified potential impacts.</p>	Negative (short-term)
<p>(b) Any transformation of a locality?</p> <p>The proposed investigations would not transform the locality, as works would be limited in scope, extent and duration.</p>	Nil
<p>(c) Any environmental impact on the ecosystems of a locality?</p> <p>The proposed investigations would have limited impact on ecosystems. The proposed investigations would not result in impacts to BC Act and EPBC Act listed threatened ecological communities would not be significant. Refer to Section 3.7.</p>	Nil
<p>(d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?</p> <p>The proposed investigations would result in a minor and temporary reduction in aesthetic value of the locality for road users, park users and nearby residents. Safeguards have been proposed to address identified potential impacts.</p>	Negative (short-term)
<p>(e) Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations?</p> <p>The proposed investigations would not have any impacts on any locality, place or building of significance or other special value for present or future generations.</p> <p>While investigations would occur within the curtilage of the Milperra Soldier Settlement (former) listed heritage item, the proposed investigations would have minimal impact on the heritage significance of the item. Refer to section 3.6.</p>	Negative (minor and short-term)
<p>(f) Any impact on habitat of any protected animals (within the meaning of the <i>Biodiversity Conservation Act 2016</i>)?</p>	Negative (minor and short-term)

Environmental factor	Impact
<p>The proposed investigations would not affect resources important for protected animals (including threatened species) potentially occurring in the broader locality. There is some potential for minor short-term impacts (associated with disturbance of ground storey) on the habitat of threatened fauna and threatened ecological communities. Refer to Section 3.7.</p>	
<p>(g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?</p> <p>The proposed investigations would not endanger any species of animal, plant or other form of life, whether living on land, in water or in the air given the limited scope, extent and duration. Refer Section 3.7.</p>	Nil
<p>(h) Any long-term effects on the environment?</p> <p>There are no anticipated negative long-term effects on the environment.</p>	Nil
<p>(i) Any degradation of the quality of the environment?</p> <p>Any impacts on environmental quality (e.g. noise, visual) would be short-term. Mitigation measures have been proposed to address potential construction noise impacts.</p>	Negative (short-term)
<p>(j) Any risk to the safety of the environment?</p> <p>The proposed investigations would involve minimal risk to the safety of the environment due to the limited scope of works and the implementation of appropriate work health and safety measures. All areas will be left stable and safe.</p>	Negative (minor and short-term)
<p>(k) Any reduction in the range of beneficial uses of the environment?</p> <p>The proposed investigations would not reduce the range of beneficial uses of the environment. There is the potential for short term changes to access along footpaths along Henry Lawson Drive, Bullecourt Avenue and between Raleigh Road, Keys Parade and Auld Avenue, however access arrangements will be managed through the implementation of appropriate traffic management measures. While there would be short-term amenity impacts to recreational users of Gordon Parker Reserve, there will be no direct impacts to the waterway or nearby social infrastructure. Refer Section 3.2 and 3.10.</p>	Negative (minor and short-term)
<p>(l) Any pollution of the environment?</p> <p>Pollution of the environment is not expected to result from the proposed investigations with the implementation of appropriate safeguards.</p>	Nil
<p>(m) Any environmental problems associated with the disposal of waste?</p> <p>Any waste generated would be removed from site and disposed of legally. No environmental problems are anticipated for the disposal of waste.</p>	Nil
<p>(n) Any increased demands on resources, natural or otherwise which are, or are likely to become, in short supply?</p> <p>The proposed investigations would not increase demand for resources, which are, or are likely to become, in short supply.</p>	Nil

Environmental factor	Impact
<p>(o) Any cumulative environmental effect with other existing or likely future activities?</p> <p>The minor nature of the proposed investigations and potential impacts mean that cumulative effects are unlikely.</p>	Nil
<p>(p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?</p> <p>The proposed investigations would not influence coastal processes and/or coastal hazards.</p>	Nil
<p>(q) Any impact on applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1?</p> <p>The proposed investigations are planned to inform the Henry Lawson Drive Upgrade Stage 1B, which would positively align with:</p> <ul style="list-style-type: none"> • Direction 2 (Allocate metropolitan-serving roads while optimising Canterbury-Bankstown as a freight and distribution powerhouse) of the Canterbury-Bankstown Council Local Strategic Planning Statement (Connective City 2036) • Objective 2 (Infrastructure aligns with forecast growth – growth infrastructure concept) and Objective 6 (Services and infrastructure meet communities’ changing needs) of the Greater Sydney Regional Plan 2018. 	Positive (long-term)
<p>(r) Any impact on other relevant environmental factors?</p> <p>In considering the potential impacts of the proposed investigations, all relevant environmental factors have been considered. Refer to Chapter 3 of this assessment.</p>	N/A

4.2 Matters of National Environmental Significance checklist

Under the environmental assessment provisions of the EPBC Act, the following matters of national environmental significance are required to be considered to:

- Assist in determining whether the proposal should be referred to the Australian Government Department of Agriculture, Water and the Environment
- For nationally listed threatened species, ecological communities and migratory species, whether the impacts are significant and should be assessed via a Project REF.

Factor	Impact
<p>(a) Any impact on a World Heritage property?</p> <p>There are no world heritage properties near the proposed investigations. Direct or indirect impacts are not expected.</p>	Nil
<p>(b) Any impact on a National Heritage place?</p> <p>There are no national heritage properties near the proposed investigations. Direct or indirect impacts are not expected.</p>	Nil

Factor	Impact
<p>(c) Any impact on a wetland of international importance (often called 'Ramsar' wetlands)?</p> <p>There are no wetlands of international importance near the proposed investigations. Direct or indirect impacts are not expected.</p>	Nil
<p>(d) Any impact on nationally threatened species, ecological communities or migratory species?</p> <p>The nature, scale and location of the proposed investigations are such that impacts on nationally listed species and communities or their habitats would be negligible with the implementation of the mitigation measures identified in Section 3.7.</p>	Minor ground disturbance at the edge of/ near EPBC Act listed threatened ecological communities may occur.
<p>(e) Any impact on a Commonwealth marine area?</p> <p>There would be no environmental impact on a Commonwealth Marine area.</p>	Nil
<p>(f) Does the proposal involve a nuclear action (including uranium mining)?</p> <p>The proposed investigations does not constitute a nuclear action.</p>	Nil
<p>Additionally, any impact (direct or indirect) on the environment of Commonwealth land?</p> <p>The proposed investigations would not affect Commonwealth land.</p>	Nil

5. Summary of safeguards and environmental management measures

This section provides a summary of the site specific environmental safeguards and management measures identified in described in chapters 3 and 4 of this REF. These safeguards will be implemented to reduce potential environmental impacts throughout construction and operation. A framework for managing the potential impacts is provided with reference to environmental management plans and relevant Transport QA specifications. Any potential licence and/or approval requirements required prior to construction are also listed

Table 5-1 Summary of site-specific safeguards for proposed work

Safeguards for the proposed work		
Soil	E1	Erosion and sediment control measures are to be implemented and maintained to: <ul style="list-style-type: none"> • Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets • Reduce water velocity and capture sediment on site • Minimise the amount of material transported from site to surrounding pavement surfaces • Divert clean water around the site (in accordance with the Landcom/Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book))
	E2	Erosion and sedimentation controls are to be checked and maintained on a regular basis (including clearing of sediment from behind barriers) and records kept and provided on request.
	E3	Erosion and sediment control measures are not to be removed until the works at the particular site are complete, and the area is stabilised
	E4	If contaminated areas are encountered during investigations, appropriate control measures will be implemented to manage the immediate risks of contamination. All other works that may impact on the contaminated area will cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the Transport for NSW Environment Manager and/or EPA. Unexpected finds would be managed in accordance with the Transport for NSW Unexpected Contaminated Land and Asbestos Finds Procedure. If identified, asbestos removal must be undertaken in accordance with Working with Asbestos: Guide 2008 published by WorkCover Australia.
	E5	Should acid sulfate soil be encountered during investigations, the exposed soil would be treated with lime to neutralise the acid prior to the soil being returned to the ground.
	E6	Ground disturbance from vehicle use will be minimised via access route selection, with vehicle access via the nearest public road or existing paths or previously cleared or disturbed areas (where investigation locations are not accessible directly off a public road).
	W1	There is to be no release of dirty water into drainage lines and/or waterways.

Safeguards for the proposed work

Waterways and water quality	W2	Water quality control measures are to be used to prevent any materials (e.g. bentonite, grout, sediment etc) entering drain inlets or waterways.
	W3	Refuelling of plant and equipment is to occur at existing fuel service stations or in impervious bunded areas located a minimum of 50 metres from drainage lines or waterways.
	W4	If an incident (e.g. spill) occurs, the Environmental Incident Procedure (Transport for NSW, 2021) is to be followed and the Transport for NSW Project Manager and Environment Manager notified immediately.
	W5	An emergency spill kit will be kept on site at all times. All staff are to be made aware of the location of the spill kit and trained in its use.
	W6	Weather monitoring will be undertaken to avoid where possible the inundation of the work area during storm events or prolonged periods of wet weather. If significant rain events are predicted, exposed soils and stockpiles will be covered where practicable. Equipment and materials with the potential to be affected by flood water will be moved out of the flood event.
	Noise and vibration	N1
N2		Noise impacts are to be minimised in accordance with the Transport for NSW Construction Noise Estimator and identified applicable mitigation measures.
N3		Works to be carried out during normal work hours (ie 7am to 6pm Monday to Friday; 8am to 1pm Saturdays). Any work that is performed outside normal work hours or on Sundays or public holidays must have measures in place to minimise noise impacts.
N4		Respite periods will be implemented for the proposed investigations. Works during Respite Period 1 (the evening period where the affected distance has been identified at 220 metres) will be limited to no more than three consecutive evenings per week (these periods of work should be separated by not less than one week and no more than six evenings per month). Works during Respite Period 2 (the night period, where the affected distance has been identified at 335 metres) will be limited to no more than two consecutive evenings per week (these periods of works should be separated by not less than one week and no more than six evenings per month).
N5		Outside of hours work and vehicle/machinery movements will be planned to occur simultaneously, in order to minimise noise impacts to sensitive receivers.
N6		A letterbox drop notification for residential receivers within 335 metres (or 220 metres where there is an intervening physical barrier such as a row of houses) of evening/night works will occur at least five business days prior to works starting. The extent of the notification will be determined with reference to the noise assessment and the specific types of activities proposed. The notification will detail work activities, dates and hours, impacts (including any changed traffic arrangements) and mitigation measures. It will also include a contact number for enquiries and complaints.

Safeguards for the proposed work

	N7	Out of hours work will consider the movement of the crew and noisy equipment so that the same receivers are not impacted over several consecutive nights. The noisiest works closest to sensitive receivers will be scheduled to occur before 11pm where possible. After 11pm or as soon as practicable the noisiest activities (pavement cores) will be carried out as far as possible from sensitive receivers.
Air quality	A1	Works are not to be carried out during strong winds or in weather conditions where high levels of dust or air borne particulates are likely.
	A2	Measures (including watering or covering exposed areas) are to be used to minimise or prevent air pollution and dust.
	A3	Vehicles and vessels transporting waste or other materials that may produce odours or dust are to be covered during transportation.
	A4	Unless in use, vehicles and plant on site are to have engines switched off and not idling.
Non-Aboriginal Heritage	H1	If unexpected archaeological remains are uncovered during the works, all works must cease in the vicinity of the material/find and the steps in the Standard Management Procedure: Unexpected Heritage Items (Roads and Maritime Services, 2015) must be followed. The Transport for NSW Environment Manager must be contacted immediately.
	H2	Identify in toolbox talks the tree located between Henry Lawson Drive and Ingram Avenue that was planted by an early settler of Milperra in 1917. Personnel to avoid any impact to this tree and to avoid any work within its dripline.
Aboriginal Heritage	B1	If Aboriginal heritage items are uncovered during the works, all works must cease in the vicinity of the find and the Transport for NSW Aboriginal cultural heritage advisor and the Environment Manager contacted immediately. The steps in the Standard Management Procedure: Unexpected Heritage Items (Roads and Maritime Services, 2015) must be followed.
Biodiversity	F1	There will be no trimming, pruning or clearing of native vegetation for access or to undertake the investigations within mapped TECs. If required, investigation locations will be relocated during construction to avoid impacts to vegetation within TECs. Proposed investigations will occur within previously disturbed areas of land where possible.
	F2	There will be minimal trimming, pruning or clearing of native vegetation for access or to undertake the investigations outside mapped TECs. Only minor vegetation disturbance of the ground storey (i.e. grasses) is permitted for the investigations at CPT-05 and BH-02. No vegetation clearing will occur in other locations outside mapped TECs. If required, investigation locations will be relocated during construction to avoid impacts to vegetation outside of TECs. Proposed investigations will occur within previously disturbed areas of land where possible.

Safeguards for the proposed work

29/07/2022/	F3	The following decision process would be followed in relation to any native vegetation for survey: <ul style="list-style-type: none"> • Avoid - adjustments to the height of the survey prism would be pursued with a view to minimising trimming. Possible alternative locations would be investigated. • Move - vegetation would be gently moved to the side by hand with the aim of clearing the line of sight without trimming. Moving of branches would not be carried out to the extent where there is a risk of damage to the branch.
	F4	If unexpected threatened fauna or flora species are discovered, stop works immediately and follow the Unexpected Threatened Species Find Procedure in Guide 1 - Pre-clearing process of the Biodiversity Guidelines (Roads and Traffic Authority, 2011).
	F5	Biosecurity measures such as the washing down of vehicle tyres and brushing down of clothes and shoes before moving from one proposed investigation location to the next will be employed to prevent the spread of weeds.
	F6	Weeds of national significance are to be managed according to requirements under the Biosecurity Act 2015 (see NSW Weedwise) and the Transport for NSW Services Biodiversity Guidelines 2011– Guide 6 (Weed Management).
	F7	As part of the tool box talks, on site personnel are to be informed of the requirement not to disturb any TEC vegetation and to minimise other vegetation disturbance.
Trees	O1	Parking of vehicles and storage of plant/equipment is to occur on existing paved or cleared areas. Where this is not possible, vehicles and plant/equipment are to be kept away from environmentally sensitive areas and outside the dripline of trees.
Traffic and transport	T1	During construction, traffic will be managed in accordance with Traffic control at work sites – Technical Manual (Roads and Maritime Services, 2018) and Australian Standard 1742.3 Manual of uniform control devices. This will include preparing and implementing a traffic control plan.
	T2	If the investigations phase is at any stage likely to cause substantial disruption to the use of Henry Lawson Drive and the adjacent local road network by emergency vehicles, the NSW SES and emergency services will be notified.
	T3	Temporary traffic management measures will be implemented in consultation with and in accordance with the Transport Management Centre requirements. A road occupancy licence would be obtained from the Transport Management Centre. Traffic control will be carried out under an approved Traffic Control Plan.
	T4	Proposed investigation locations will be adjusted if required to avoid direct impacts to bus stops or their surrounds. Bus operators will be notified of any lane closures during out of hours work to minimise impacts on bus services.
	T5	Where possible, temporary diversions will be provided if any pedestrian pathways are required to be closed due to the proposed investigations.

Safeguards for the proposed work		
Socio-economic	S1	Where possible, temporary disruption to property access will be avoided. Driveway access to properties will be maintained unless otherwise agreed with the property owner.
	S2	Alternative pedestrian/cycle detours will be provided where possible during closures, particularly along Henry Lawson Drive, Bullecourt Avenue and between Raleigh Road, Keys Parade and Auld Avenue.
	S3	All complaints are to be recorded on a complaints register and attended to promptly.
	S4	The community will be notified of all work outside standard hours which have the potential to impact noise sensitive receivers. Notification zones must be determined using the Transport for NSW Maintenance Noise Estimator. Notification requirements must comply with the Transport for NSW Construction Noise and Vibration Guideline (Roads and Maritime Services, 2016).
	S5	Flower Power Garden Centre will be notified about the proposed investigations in advance of any lane closures on Henry Lawson Drive.
Landscape character and visual amenity	V1	Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.
	V2	If lighting is required during work outside of standard working hours, direct light towards the work area at all times and away from residential properties.
Waste	W1	Resource management hierarchy principles are to be followed in accordance with the <i>Waste Avoidance and Resource Recovery Act 2001</i> : <ul style="list-style-type: none"> • Avoid unnecessary resource consumption as a priority. • Avoidance is followed by resource recovery (including reuse of materials, reprocessing, recycling and energy recovery). • Disposal is undertaken as a last resort.
	W2	Waste material is to be reused in accordance with any waste exemptions or disposed of legally in accordance with its waste classification.

5.1 Licensing and approvals

The licences and/or approvals required for the proposed investigations are outlined in Table 5-2.

Table 5-2 Summary of licensing and approval required

Instrument	Requirement	Timing
<i>Roads Act 1933</i> (s138)	A Road Occupancy Licence would be required from the relevant roads authority by the contractor for prior to work on public roads.	Prior to start of the activity.

5.2 Other requirements

Requirement		
Environmental management plan sent to SMES for review.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

6. Certification, review and decision

6.1 Certification

This minor works REF provides a true and fair review of the proposal in relation to its potential effects on the environment. It addresses to the fullest extent possible all matters affecting or likely to affect the environment as a result of the proposal.

Prepared by:



Lachlan Mitchell

Consultant, Environment & Planning

Aurecon

Date: 28/07/2022

Minor Works REF reviewed by:



Lucia Coletta

Associate, Environment & Planning

Aurecon

Date: 28/07/2022

6.2 Environment staff review

The Minor Works REF has been reviewed and considered against the requirements of sections 5.5 and 5.7 of the EP&A Act.

In considering the proposal this assessment has examined and taken into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of that activity as addressed in the Minor Works REF and associated information. This assessment is considered to be in accordance with the factors required to be considered under section 171 of the Environmental Planning and Assessment Regulation 2021.

The proposal described in the Minor Works REF will have some environmental impacts which can be ameliorated satisfactorily. Having regard to the safeguard and management measures proposed, this assessment has considered that these impacts are unlikely to be significant and therefore an approval for the proposal does not need to be sought under Division 5.2 of the EP&A Act.

The assessment has considered the potential impacts of the activity on areas of outstanding value and on threatened species, ecological communities or their habitats for both terrestrial and aquatic species as defined by the *Biodiversity Conservation Act 2016* and the *Fisheries Management Act 1994*.

The proposal described in the Minor Works REF will not affect areas of outstanding value. The activity described in the Minor Works REF will not significantly affect threatened species ecological communities or their habitats. Therefore a species impact statement is not required.

The assessment has also addressed the potential impacts on the activity on matters of national environmental significance and any impacts on the environment of Commonwealth land and concluded that there will be no significant impacts. Therefore there is no need for a referral to be made to the Australian Government Department of Agriculture, Water and the Environment for a decision by the Commonwealth Minister for the Environment on whether assessment and approval is required under the *Environment Protection and Biodiversity Conservation Act 1999*.

The Minor Works REF is considered to meet all relevant requirements.

6.3 Environment staff recommendation

It is recommended that the proposal to topographic survey, utility surveys and geotechnical investigations to inform Henry Lawson Drive Upgrade Stage 1B at Milperra as described in this Minor Works REF proceed subject to the implementation of all safeguards identified in the Minor Works REF and compliance with all other relevant statutory approvals, licences, permits and authorisations.

The Minor Works REF has examined and taken into account to the fullest extent possible all matters likely to affect the environment by reason of the activity and established that the activity is not likely to significantly affect the environment or threatened species, ecological communities or their habitats.

The Minor Works REF has concluded that there will be no significant impacts on matters of national environmental significance or any impacts on the environment of Commonwealth land.

The Minor Works REF determination will remain current for five years until August 2027 at which time it shall lapse if works have not been physically commenced. The pre-construction checklist must be completed prior to the commencement of any works.

Recommended by:



Con Lambous

Senior Manager, Environment and Sustainability

Date: 29/07/2022

Noted by:



Alex Lyle

Project Development Manager, I&P

Date: 29/07/2022

6.4 Determination

In accordance with the above recommendation and sections 5.5 and 5.7 of the EP&A Act, I determine that Transport for NSW may proceed with the activity.



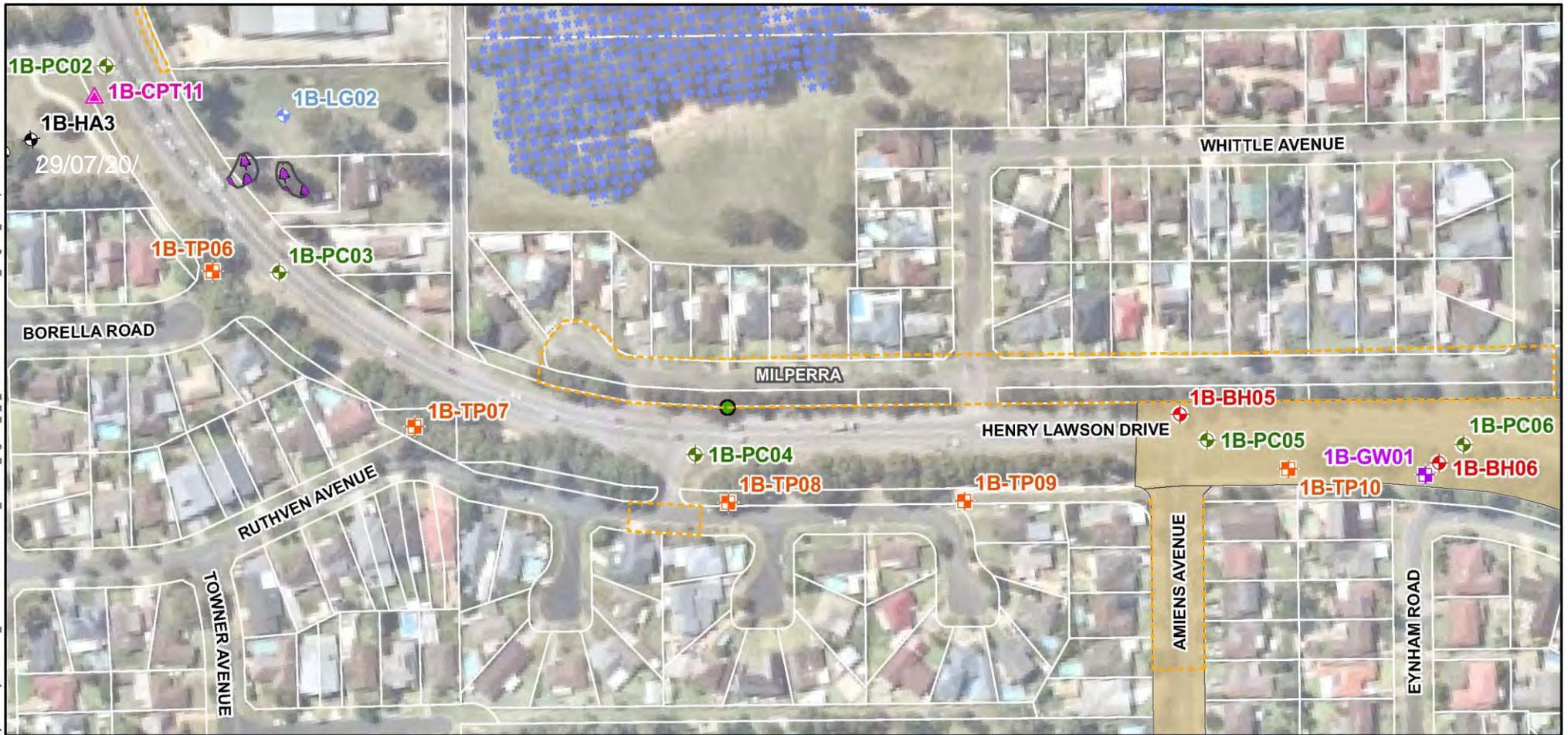
Richard Hine

Director Program Management, I&P

Date: 1/8/2022

Appendix A

Environmental Constraint Maps

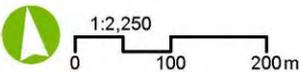


- Additional survey area
- Proposed geotechnical investigations**
- ◆ Proposed boreholes
- ▲ Proposed cone penetration test
- ◆ Proposed pavement core
- ⊕ Proposed test pit
- ⊕ Proposed groundwater wells

- ◆ Proposed hand augers
- ◆ Proposed landfill gas monitoring standpipes
- ⊗ Hollow Bearing Tree Detail (WSP 2020-10-23)

- Heritage Items**
- Tree with potential heritage significance (planted by early settler of Milperra in 1917)
 - Milperra Soldier Settlement (former) - Bankstown LEP 2015
- Coastal wetland management**
- ~ Coastal wetland proximity area
 - ~ Coastal wetland

- Threatened Ecological Communities - EPBC Act**
- ▲ River Flat Eucalypt Forest
 - ◆ Shale Gravel Transition Forest
- Threatened Ecological Communities - BC Act**
- River Flat Eucalypt Forest



Projection: GDA2020 MGA Zone 56

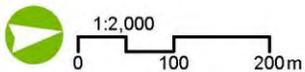
Henry Lawson Drive Upgrade Stage 1B **Minor Works REF**

Figure 2: Environmental Constraints Map



	Additional survey area		Proposed test pit	Heritage Items	
Proposed geotechnical investigations		Proposed boreholes		Milperra Soldier Settlement (former) - Bankstown LEP 2015	
	Proposed cone penetration test		Coastal wetland proximity area	Coastal wetland management	
	Proposed pavement core		Coastal wetland		

Source: Aurecon, Nearmap, LPI



Projection: GDA2020 MGA Zone 56

Henry Lawson Drive Upgrade Stage 1B **Minor Works REF**

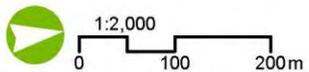
Figure 3: Environmental Constraints Map



- Additional survey area
 - Proposed geotechnical investigations**
 - ◆ Proposed boreholes
 - ▲ Proposed cone penetration test
 - ◆ Proposed pavement core
 - + Proposed test pit
 - + Proposed groundwater wells
- Source: Aurecon, Nearmap, LPI

◆ Proposed landfill gas monitoring standpipes

- Heritage Items**
- Milperra Soldier Settlement (former) - Bankstown LEP 2015
- Coastal wetland management**
- ~ Coastal wetland proximity area
 - ~ Coastal wetland



Projection: GDA2020 MGA Zone 56

Henry Lawson Drive Upgrade Stage 1B **Minor Works REF**

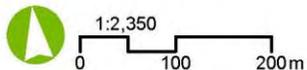
Figure 4: Environmental Constraints Map



- Additional survey area
- Proposed geotechnical investigations**
- ◆ Proposed boreholes
- ▲ Proposed cone penetration test
- ◆ Proposed pavement core
- Proposed test pit

- Heritage Items**
- Milperra Soldier Settlement (former) - Bankstown LEP 2015
- Coastal wetland management**
- ☞ Coastal wetland proximity area
- ☞ Coastal wetland

☆☆☆☆ Shale Gravel Transition Forest



Projection: GDA2020 MGA Zone 56

Appendix B

Database searches

Data from the BioNet Atlas website, which holds records from a number of custodians. The data are only indicative and cannot be considered a comprehensive inventory, and may contain errors and omissions. Species listed under the Sensitive Species Data Policy may have their locations denatured (^ rounded to 0.1°C; ^^ rounded to 0.01°C. Copyright the State of NSW through the Department of Planning, Industry and Environment. Search criteria : Public Report of all Valid Records of Threatened (listed on BC Act 2016) ,Commonwealth listed ,Protected ,CAMBA listed ,JAMBA listed or ROKAMBA listed Entities in selected area [North: -33.89 West: 150.93 East: 151.03 South: -33.99] returned a total of 22,228 records of 511 species.

Report generated on 21/04/2022 3:05 PM

Kingdom	Class	Family	Species Code	Scientific Name	Exotic	Common Name	NSW status	Comm. status	Records	Info
Animalia	Amphibia	Myobatrachidae	3134	<i>Crinia signifera</i>		Common Eastern Froglet	P		381	
Animalia	Amphibia	Myobatrachidae	3103	<i>Paracrinia haswelli</i>		Haswell's Froglet	P		1	
Animalia	Amphibia	Myobatrachidae	3116	<i>Pseudophryne australis</i>		Red-crowned Toadlet	V,P		5	
Animalia	Amphibia	Myobatrachidae	3117	<i>Pseudophryne bibronii</i>		Bibron's Toadlet	P		6	
Animalia	Amphibia	Myobatrachidae	T119	<i>Pseudophryne sp.</i>			P		1	
Animalia	Amphibia	Myobatrachidae	3035	<i>Uperoleia fusca</i>		Dusky Toadlet	P		1	
Animalia	Amphibia	Myobatrachidae	3158	<i>Uperoleia laevisgata</i>		Smooth Toadlet	P		6	
Animalia	Amphibia	Myobatrachidae	3329	<i>Uperoleia sp.</i>			P		3	
Animalia	Amphibia	Hylidae	3166	<i>Litoria aurea</i>		Green and Golden Bell Frog	E1,P	V	20	
Animalia	Amphibia	Hylidae	3171	<i>Litoria caerulea</i>		Green Tree Frog	P		20	
Animalia	Amphibia	Hylidae	3180	<i>Litoria dentata</i>		Bleating Tree Frog	P		26	
Animalia	Amphibia	Hylidae	3183	<i>Litoria fallax</i>		Eastern Dwarf Tree Frog	P		90	
Animalia	Amphibia	Hylidae	3184	<i>Litoria freycineti</i>		Freycinet's Frog	P		2	
Animalia	Amphibia	Hylidae	3190	<i>Litoria jervisiensis</i>		Jervis Bay Tree Frog	P		1	
Animalia	Amphibia	Hylidae	3191	<i>Litoria latopalmata</i>		Broad-palmed Frog	P		3	
Animalia	Amphibia	Hylidae	3316	<i>Litoria lesueuri</i>		Lesueur's Frog	P		1	
Animalia	Amphibia	Hylidae	3199	<i>Litoria nasuta</i>		Rocket Frog	P		1	
Animalia	Amphibia	Hylidae	3204	<i>Litoria peronii</i>		Peron's Tree Frog	P		208	
Animalia	Amphibia	Hylidae	3206	<i>Litoria phyllochroa</i>		Leaf-green Tree Frog	P		4	
Animalia	Amphibia	Hylidae	3214	<i>Litoria tyleri</i>		Tyler's Tree Frog	P		35	
Animalia	Amphibia	Hylidae	3215	<i>Litoria verreauxii</i>		Verreaux's Frog	P		4	
Animalia	Amphibia	Limnodynastidae	3058	<i>Limnodynastes dumerilii</i>		Eastern Banjo Frog	P		9	
Animalia	Amphibia	Limnodynastidae	3061	<i>Limnodynastes peronii</i>		Brown-striped Frog	P		220	
Animalia	Amphibia	Limnodynastidae	3063	<i>Limnodynastes tasmaniensis</i>		Spotted Grass Frog	P		11	
Animalia	Reptilia	Cheloniidae	2004	<i>Caretta caretta</i>		Loggerhead Turtle	E1,P	E	1	
Animalia	Reptilia	Chelidae	2017	<i>Chelodina longicollis</i>		Eastern Snake-necked Turtle	P		70	
Animalia	Reptilia	Chelidae	2951	<i>Emydura macquarii macquarii</i>		Macquarie River Turtle	P		4	
Animalia	Reptilia	Chelidae	9057	<i>Emydura sp.</i>		Unidentified Emydura	P		1	
Animalia	Reptilia	Carphodactylidae	2129	<i>Phyllurus platurus</i>		Broad-tailed Gecko	P		9	
Animalia	Reptilia	Carphodactylidae	2138	<i>Underwoodisaurus milii</i>		Thick-tailed Gecko	P		2	
Animalia	Reptilia	Diplodactylidae	2118	<i>Amalosia lesueurii</i>		Lesueur's Velvet Gecko	P		1	
Animalia	Reptilia	Diplodactylidae	2077	<i>Diplodactylus vittatus</i>		Wood Gecko	P		5	
Animalia	Reptilia	Pygopodidae	2174	<i>Pygopus lepidopodus</i>		Common Scaly-foot	P		8	
Animalia	Reptilia	Scincidae	2464	<i>Acritoscincus platynotus</i>		Red-throated Skink	P		4	
Animalia	Reptilia	Scincidae	2559	<i>Concinnia tenuis</i>		Barred-sided Skink	P		7	
Animalia	Reptilia	Scincidae	2331	<i>Cryptoblepharus virgatus</i>		Cream-striped Shinning-skink	P		18	
Animalia	Reptilia	Scincidae	2375	<i>Ctenotus robustus</i>		Robust Ctenotus	P		15	
Animalia	Reptilia	Scincidae	2386	<i>Ctenotus taeniolatus</i>		Copper-tailed Skink	P		14	

Animalia	Reptilia	Scincidae	2557	<i>Eulamprus quoyii</i>	Eastern Water-skink	P	42
Animalia	Reptilia	Scincidae	2441	<i>Hemiergis decresiensis</i>	Three-toed Earless Skink	P	1
Animalia	Reptilia	Scincidae	2450	<i>Lampropholis delicata</i>	Dark-flecked Garden Sunskink	P	95
Animalia	Reptilia	Scincidae	2451	<i>Lampropholis guichenoti</i>	Pale-flecked Garden Sunskink	P	39
Animalia	Reptilia	Scincidae	T117	<i>Lampropholis sp.</i>	unidentified grass skink	P	5
Animalia	Reptilia	Scincidae	2430	<i>Liopholis whitii</i>	White's Skink	P	1
Animalia	Reptilia	Scincidae	2542	<i>Saiphos equalis</i>	Three-toed Skink	P	17
Animalia	Reptilia	Scincidae	2452	<i>Saproscincus mustelinus</i>	Weasel Skink	P	12
Animalia	Reptilia	Scincidae	2583	<i>Tiliqua rugosa</i>	Shingle-back	P	1
Animalia	Reptilia	Scincidae	2580	<i>Tiliqua scincoides</i>	Eastern Blue-tongue	P	456
Animalia	Reptilia	Scincidae	5056	<i>Tiliqua scincoides scincoides</i>		P	2
Animalia	Reptilia	Agamidae	2194	<i>Amphibolurus muricatus</i>	Jacky Lizard	P	15
Animalia	Reptilia	Agamidae	2252	<i>Intellagama lesueurii</i>	Eastern Water Dragon	P	32
Animalia	Reptilia	Agamidae	5075	<i>Intellagama lesueurii lesueurii</i>	Eastern Water Dragon	P	2
Animalia	Reptilia	Agamidae	2177	<i>Pogona barbata</i>	Bearded Dragon	P	19
Animalia	Reptilia	Varanidae	9056	<i>Varanus sp.</i>	Unidentified Goanna	P	2
Animalia	Reptilia	Varanidae	2283	<i>Varanus varius</i>	Lace Monitor	P	11
Animalia	Reptilia	Typhlopidae	2599	<i>Anilius nigrescens</i>	Blackish Blind Snake	P	6
Animalia	Reptilia	Typhlopidae	T112	<i>Anilius sp.</i>	blind snake	P	1
Animalia	Reptilia	Pythonidae	5096	<i>Morelia spilota spilota</i>	Diamond Python	P	1
Animalia	Reptilia	Colubridae	2633	<i>Dendrelaphis punctulatus</i>	Common Tree Snake	P	15
Animalia	Reptilia	Elapidae	2647	<i>Cacophis squamulosus</i>	Golden-crowned Snake	P	2
Animalia	Reptilia	Elapidae	2655	<i>Demansia psammophis</i>	Yellow-faced Whip Snake	P	10
Animalia	Reptilia	Elapidae	2669	<i>Furina diadema</i>	Red-naped Snake	P	5
Animalia	Reptilia	Elapidae	2674	<i>Hemiaspis signata</i>	Black-bellied Swamp Snake	P	4
Animalia	Reptilia	Elapidae	2681	<i>Notechis scutatus</i>	Tiger Snake	P	1
Animalia	Reptilia	Elapidae	2693	<i>Pseudechis porphyriacus</i>	Red-bellied Black Snake	P	186
Animalia	Reptilia	Elapidae	2699	<i>Pseudonaja textilis</i>	Eastern Brown Snake	P	47
Animalia	Reptilia	Elapidae	2734	<i>Vermicella annulata</i>	Bandy-bandy	P	3
Animalia	Aves	Casuariidae	0001	<i>Dromaius novaehollandiae</i>	Emu	P	1
Animalia	Aves	Megapodiidae	0008	<i>Alectura lathami</i>	Australian Brush-turkey	P	2
Animalia	Aves	Phasianidae	9046	<i>Coturnix sp.</i>	Unidentified Quail	P	6
Animalia	Aves	Phasianidae	0011	<i>Synoicus ypsilophora</i>	Brown Quail	P	4
Animalia	Aves	Anatidae	0210	<i>Anas castanea</i>	Chestnut Teal	P	83
Animalia	Aves	Anatidae	0211	<i>Anas gracilis</i>	Grey Teal	P	23
Animalia	Aves	Anatidae	0212	<i>Anas rhynchotis</i>	Australasian Shoveler	P	6
Animalia	Aves	Anatidae	0208	<i>Anas superciliosa</i>	Pacific Black Duck	P	110
Animalia	Aves	Anatidae	0215	<i>Aythya australis</i>	Hardhead	P	19
Animalia	Aves	Anatidae	0217	<i>Biziura lobata</i>	Musk Duck	P	2
Animalia	Aves	Anatidae	0202	<i>Chenonetta jubata</i>	Australian Wood Duck	P	136
Animalia	Aves	Anatidae	0203	<i>Cygnus atratus</i>	Black Swan	P	39
Animalia	Aves	Anatidae	0213	<i>Malacorhynchus membranaceus</i>	Pink-eared Duck	P	6
Animalia	Aves	Podicipedidae	0060	<i>Podiceps cristatus</i>	Great Crested Grebe	P	1
Animalia	Aves	Podicipedidae	0062	<i>Polioccephalus polioccephalus</i>	Hoary-headed Grebe	P	4
Animalia	Aves	Podicipedidae	0061	<i>Tachybaptus novaehollandiae</i>	Australasian Grebe	P	31
Animalia	Aves	Columbidae	0028	<i>Columba leucomela</i>	White-headed Pigeon	P	3
Animalia	Aves	Columbidae	0032	<i>Geopelia humeralis</i>	Bar-shouldered Dove	P	1
Animalia	Aves	Columbidae	9931	<i>Geopelia striata</i>	Peaceful Dove	P	4
Animalia	Aves	Columbidae	0027	<i>Lopholaimus antarcticus</i>	Topknot Pigeon	P	5
Animalia	Aves	Columbidae	0029	<i>Macropygia phasianella</i>	Brown Cuckoo-Dove	P	3
Animalia	Aves	Columbidae	0043	<i>Ocyphaps lophotes</i>	Crested Pigeon	P	122
Animalia	Aves	Columbidae	0034	<i>Phaps chalcoptera</i>	Common Bronzewing	P	5
Animalia	Aves	Columbidae	0035	<i>Phaps elegans</i>	Brush Bronzewing	P	1
Animalia	Aves	Podargidae	0313	<i>Padargus strigoides</i>	Tawny Frogmouth	P	127
Animalia	Aves	Aegothelidae	0317	<i>Aegotheles cristatus</i>	Australian Owlet-nightjar	P	18
Animalia	Aves	Apodidae	0334	<i>Hirundapus caudacutus</i>	White-throated Needletail	P	V,C,I,K 5

Animalia	Aves	Procellariidae	0071	<i>Ardenna tenuirostris</i>	Short-tailed Shearwater	P	C,J,K	1	
Animalia	Aves	Anhingidae	8731	<i>Anhinga novaehollandiae</i>	Australasian Darter	P		33	
Animalia	Aves	Phalacrocoracidae	0100	<i>Microcarbo melanoleucos</i>	Little Pied Cormorant	P		39	
Animalia	Aves	Phalacrocoracidae	0096	<i>Phalacrocorax carbo</i>	Great Cormorant	P		21	
Animalia	Aves	Phalacrocoracidae	T021	<i>Phalacrocorax sp.</i>	Unidentified Cormorant	P		3	
Animalia	Aves	Phalacrocoracidae	0097	<i>Phalacrocorax sulcirostris</i>	Little Black Cormorant	P		31	
Animalia	Aves	Phalacrocoracidae	0099	<i>Phalacrocorax varius</i>	Pied Cormorant	P		20	
Animalia	Aves	Pelecanidae	0106	<i>Pelecanus conspicillatus</i>	Australian Pelican	P		76	
Animalia	Aves	Ciconiidae	0183	<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork	E1,P		2	
Animalia	Aves	Ardeidae	0186	<i>Ardea intermedia</i>	Intermediate Egret	P		5	
Animalia	Aves	Ardeidae	0189	<i>Ardea pacifica</i>	White-necked Heron	P		5	
Animalia	Aves	Ardeidae	T179	<i>Ardea/Egretta sp.</i>	Unidentified Egret	P		1	
Animalia	Aves	Ardeidae	0197	<i>Botaurus poiciloptilus</i>	Australasian Bittern	E1,P	E	1	
Animalia	Aves	Ardeidae	0977	<i>Bubulcus ibis</i>	Cattle Egret	P		8	
Animalia	Aves	Ardeidae	0193	<i>Butorides striata</i>	Striated Heron	P		10	
Animalia	Aves	Ardeidae	8712	<i>Casmerodius modesta</i>	Eastern Great Egret	P		19	
Animalia	Aves	Ardeidae	0185	<i>Egretta garzetta</i>	Little Egret	P		3	
Animalia	Aves	Ardeidae	0188	<i>Egretta novaehollandiae</i>	White-faced Heron	P		56	
Animalia	Aves	Ardeidae	0191	<i>Egretta sacra</i>	Eastern Reef Egret	P		1	
Animalia	Aves	Ardeidae	0196	<i>Ixobrychus flavicollis</i>	Black Bittern	V,P		8	
Animalia	Aves	Ardeidae	0192	<i>Nycticorax caledonicus</i>	Nankeen Night Heron	P		18	
Animalia	Aves	Threskiornithidae	0182	<i>Platalea flavipes</i>	Yellow-billed Spoonbill	P		1	
Animalia	Aves	Threskiornithidae	0181	<i>Platalea regia</i>	Royal Spoonbill	P		12	
Animalia	Aves	Threskiornithidae	0179	<i>Threskiornis moluccus</i>	Australian White Ibis	P		454	
Animalia	Aves	Accipitridae	0222	<i>Accipiter cirrocephalus</i>	Collared Sparrowhawk	P		7	
Animalia	Aves	Accipitridae	0221	<i>Accipiter fasciatus</i>	Brown Goshawk	P		33	
Animalia	Aves	Accipitridae	0220	<i>Accipiter</i>	Grey Goshawk	P		8	
Animalia	Aves	Accipitridae	T047	<i>Accipiter sp.</i>	Unidentified goshawk	P		1	
Animalia	Aves	Accipitridae	0224	<i>Aquila audax</i>	Wedge-tailed Eagle	P		3	
Animalia	Aves	Accipitridae	0234	<i>Aviceda subcristata</i>	Pacific Baza	P		4	
Animalia	Aves	Accipitridae	0219	<i>Circus approximans</i>	Swamp Harrier	P		9	
Animalia	Aves	Accipitridae	0218	<i>Circus assimilis</i>	Spotted Harrier	V,P		5	
Animalia	Aves	Accipitridae	0232	<i>Elanus axillaris</i>	Black-shouldered Kite	P		18	
Animalia	Aves	Accipitridae	0226	<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	V,P		26	
Animalia	Aves	Accipitridae	0228	<i>Haliastur sphenurus</i>	Whistling Kite	P		5	
Animalia	Aves	Accipitridae	0225	<i>Hieraetus morphnoides</i>	Little Eagle	V,P		15	
Animalia	Aves	Accipitridae	0230	<i>Lophoictinia isura</i>	Square-tailed Kite	V,P,3		2	
Animalia	Aves	Accipitridae	0229	<i>Milvus migrans</i>	Black Kite	P		2	
Animalia	Aves	Accipitridae	8739	<i>Pandion cristatus</i>	Eastern Osprey	V,P,3		8	
Animalia	Aves	Falconidae	0239	<i>Falco berigora</i>	Brown Falcon	P		5	
Animalia	Aves	Falconidae	0240	<i>Falco cenchroides cenchroides</i>	Nankeen Kestrel	P		13	
Animalia	Aves	Falconidae	0235	<i>Falco longipennis</i>	Australian Hobby	P		11	
Animalia	Aves	Falconidae	0237	<i>Falco peregrinus</i>	Peregrine Falcon	P		10	
Animalia	Aves	Rallidae	0059	<i>Fulica atra</i>	Eurasian Coot	P		51	
Animalia	Aves	Rallidae	0056	<i>Gallinula tenebrosa</i>	Dusky Moorhen	P		68	
Animalia	Aves	Rallidae	0046	<i>Hypotaenidia philippensis</i>	Buff-banded Rail	P		7	
Animalia	Aves	Rallidae	0045	<i>Lewinia pectoralis</i>	Lewin's Rail	P		4	
Animalia	Aves	Rallidae	0058	<i>Porphyrio porphyrio</i>	Purple Swamphen	P		65	
Animalia	Aves	Rallidae	0049	<i>Porzana fluminea</i>	Australian Spotted Crake	P		1	
Animalia	Aves	Rallidae	0050	<i>Porzana pusilla</i>	Baillon's Crake	P		5	
Animalia	Aves	Rallidae	0051	<i>Porzana tabuensis</i>	Spotless Crake	P		2	
Animalia	Aves	Burhinidae	0174	<i>Burhinus grallarius</i>	Bush Stone-curlew	E1,P		3	

Animalia	Aves	Recurvirostridae	0146	<i>Himantopus himantopus</i>	Black-winged Stilt	P		21
Animalia	Aves	Recurvirostridae	0148	<i>Recurvirostra novaehollandiae</i>	Red-necked Avocet	P		1
Animalia	Aves	Charadriidae	0140	<i>Charadrius bicinctus</i>	Double-banded Plover	P		1
Animalia	Aves	Charadriidae	0144	<i>Euseyornis melanops</i>	Black-fronted Dotterel	P		28
Animalia	Aves	Charadriidae	0133	<i>Vanellus miles</i>	Masked Lapwing	P		118
Animalia	Aves	Charadriidae	0134	<i>Vanellus miles novaehollandiae</i>	[Spur-winged Plover]	P		1
Animalia	Aves	Charadriidae	0135	<i>Vanellus tricolor</i>	Banded Lapwing	P		2
Animalia	Aves	Scolopacidae	0157	<i>Actitis hypoleucos</i>	Common Sandpiper	P	C,J,K	2
Animalia	Aves	Scolopacidae	0163	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	P	C,J,K	1
Animalia	Aves	Scolopacidae	0168	<i>Gallinago hardwickii</i>	Latham's Snipe	P	I,K	81
Animalia	Aves	Scolopacidae	0158	<i>Tringa nebularia</i>	Common Greenshank	P	C,J,K	1
Animalia	Aves	Turnicidae	0019	<i>Turnix pyrrhotorax</i>	Red-chested Button-quail	P		1
Animalia	Aves	Turnicidae	0014	<i>Turnix varius</i>	Painted Button-quail	P		2
Animalia	Aves	Laridae	0125	<i>Chroicocephalus novaehollandiae</i>	Silver Gull	P		51
Animalia	Aves	Laridae	0112	<i>Hydroprogne caspia</i>	Caspian Tern	P	J	2
Animalia	Aves	Cacatuidae	0269	<i>Cacatua galerita</i>	Sulphur-crested Cockatoo	P		489
Animalia	Aves	Cacatuidae	0271	<i>Cacatua sanguinea</i>	Little Corella	P		76
Animalia	Aves	Cacatuidae	T187	<i>Cacatua sp.</i>		P		10
Animalia	Aves	Cacatuidae	0272	<i>Cacatua tenuirostris</i>	Long-billed Corella	P		13
Animalia	Aves	Cacatuidae	0265	<i>^Calyptorhynchus lathami</i>	Glossy Black-Cockatoo	V,P,2		5
Animalia	Aves	Cacatuidae	0273	<i>Eolophus roseicapilla</i>	Galah	P		137
Animalia	Aves	Cacatuidae	0274	<i>Nymphicus hollandicus</i>	Cockatiel	P		7
Animalia	Aves	Cacatuidae	0267	<i>Zanda funereus</i>	Yellow-tailed Black-Cockatoo	P		23
Animalia	Aves	Psittacidae	0281	<i>Alisterus scapularis</i>	Australian King-Parrot	P		28
Animalia	Aves	Psittacidae	0258	<i>Glossopsitta concinna</i>	Musk Lorikeet	P		56
Animalia	Aves	Psittacidae	0260	<i>Glossopsitta pusilla</i>	Little Lorikeet	V,P		36
Animalia	Aves	Psittacidae	0309	<i>^Lathamus discolor</i>	Swift Parrot	E1,P,3	CE	10
Animalia	Aves	Psittacidae	0310	<i>Melopsittacus undulatus</i>	Budgerigar	P		2
Animalia	Aves	Psittacidae	0302	<i>^Neophema pulchella</i>	Turquoise Parrot	V,P,3		1
Animalia	Aves	Psittacidae	0286	<i>Platycercus adscitus</i>	Pale-headed Rosella	P		1
Animalia	Aves	Psittacidae	0282	<i>Platycercus elegans</i>	Crimson Rosella	P		39
Animalia	Aves	Psittacidae	0288	<i>Platycercus eximius</i>	Eastern Rosella	P		77
Animalia	Aves	Psittacidae	T039	<i>Platycercus sp.</i>	Unidentified Rosella	P		16
Animalia	Aves	Psittacidae	0279	<i>Polytelis alexandrae</i>	Princess Parrot	P		1
Animalia	Aves	Psittacidae	0295	<i>Psephotus haematonotus</i>	Red-rumped Parrot	P		47
Animalia	Aves	Psittacidae	0256	<i>Trichoglossus chlorolepidotus</i>	Scaly-breasted Lorikeet	P		26
Animalia	Aves	Psittacidae	9947	<i>Trichoglossus haematodus</i>	Rainbow Lorikeet	P		859
Animalia	Aves	Cuculidae	0338	<i>Cacomantis flabelliformis</i>	Fan-tailed Cuckoo	P		55
Animalia	Aves	Cuculidae	0339	<i>Cacomantis variolosus</i>	Brush Cuckoo	P		2
Animalia	Aves	Cuculidae	0342	<i>Chalcites basalis</i>	Horsfield's Bronze-Cuckoo	P		7
Animalia	Aves	Cuculidae	0343	<i>Chalcites lucidus</i>	Shining Bronze-Cuckoo	P		11
Animalia	Aves	Cuculidae	0347	<i>Eudynamis orientalis</i>	Eastern Koel	P		41
Animalia	Aves	Cuculidae	0337	<i>Heteroscenes pallidus</i>	Pallid Cuckoo	P		4
Animalia	Aves	Cuculidae	0348	<i>Scythrops novaehollandiae</i>	Channel-billed Cuckoo	P		24
Animalia	Aves	Strigidae	9922	<i>Ninox novaeseelandiae</i>	Southern Boobook	P		25
Animalia	Aves	Strigidae	0248	<i>^Ninox strenua</i>	Powerful Owl	V,P,3		23
Animalia	Aves	Tytonidae	9923	<i>Tyto javanica</i>	Eastern Barn Owl	P		9
Animalia	Aves	Tytonidae	0250	<i>^Tyto novaehollandiae</i>	Masked Owl	V,P,3		2
Animalia	Aves	Tytonidae	9924	<i>^Tyto tenebricosa</i>	Sooty Owl	V,P,3		2
Animalia	Aves	Alcedinidae	0319	<i>Ceyx azureus</i>	Azure Kingfisher	P		25
Animalia	Aves	Alcedinidae	0322	<i>Dacela novaeguineae</i>	Laughing Kookaburra	P		158
Animalia	Aves	Alcedinidae	0324	<i>Todiramphus macleayii</i>	Forest Kingfisher	P		3
Animalia	Aves	Alcedinidae	0326	<i>Todiramphus sanctus</i>	Sacred Kingfisher	P		74
Animalia	Aves	Coraciidae	0318	<i>Eurystomus orientalis</i>	Dollarbird	P		32
Animalia	Aves	Climacteridae	0558	<i>Cormobates leucophaea</i>	White-throated Treecreeper	P		11

Animalia	Aves	Ptilonorhynchidae	0679	<i>Ptilonorhynchus violaceus</i>	Satin Bowerbird	P		5
Animalia	Aves	Maluridae	0529	<i>Makurus cyaneus</i>	Superb Fairy-wren	P		366
Animalia	Aves	Maluridae	0536	<i>Makurus lamberti</i>	Variagated Fairy-wren	P		28
Animalia	Aves	Maluridae	9038	<i>Makurus sp.</i>	Unidentified Fairy-wren	P		2
Animalia	Aves	Maluridae	0526	<i>Stipiturus malachurus</i>	Southern Emu-wren	P		5
Animalia	Aves	Acanthizidae	0486	<i>Acanthiza chrysorrhoa</i>	Yellow-rumped Thornbill	P		9
Animalia	Aves	Acanthizidae	0470	<i>Acanthiza lineata</i>	Striated Thornbill	P		12
Animalia	Aves	Acanthizidae	0471	<i>Acanthiza nana</i>	Yellow Thornbill	P		66
Animalia	Aves	Acanthizidae	0475	<i>Acanthiza pusilla</i>	Brown Thornbill	P		78
Animalia	Aves	Acanthizidae	0484	<i>Acanthiza reguloides</i>	Buff-rumped Thornbill	P		2
Animalia	Aves	Acanthizidae	0454	<i>Gerygone mouki</i>	Brown Gerygone	P		32
Animalia	Aves	Acanthizidae	0453	<i>Gerygone olivacea</i>	White-throated Gerygone	P		15
Animalia	Aves	Acanthizidae	0498	<i>Hylacola pyrrhopygia</i>	Chestnut-rumped Heathwren	P		2
Animalia	Aves	Acanthizidae	0505	<i>Origma solitaria</i>	Rockwarbler	P		3
Animalia	Aves	Acanthizidae	0488	<i>Sericornis frontalis</i>	White-browed Scrubwren	P		91
Animalia	Aves	Acanthizidae	0494	<i>Sericornis magnirostra</i>	Large-billed Scrubwren	P		1
Animalia	Aves	Acanthizidae	0465	<i>Smicronis brevirostris</i>	Weebill	P		24
Animalia	Aves	Pardalotidae	0565	<i>Pardalotus punctatus</i>	Spotted Pardalote	P		136
Animalia	Aves	Pardalotidae	T023	<i>Pardalotus sp.</i>	Unidentified Pardalote	P		1
Animalia	Aves	Pardalotidae	0976	<i>Pardalotus striatus</i>	Striated Pardalote	P		9
Animalia	Aves	Meliphagidae	0591	<i>Acanthorhynchus tenuirostris</i>	Eastern Spinebill	P		85
Animalia	Aves	Meliphagidae	0638	<i>Anthochaera carunculata</i>	Red Wattlebird	P		153
Animalia	Aves	Meliphagidae	0710	<i>Anthochaera chrysoptera</i>	Little Wattlebird	P		76
Animalia	Aves	Meliphagidae	0603	<i>Anthochaera phrygia</i>	Regent Honeyeater	E4A,P	CE	6
Animalia	Aves	Meliphagidae	T210	<i>Anthochaera sp.</i>	Unidentified Wattlebird	P		20
Animalia	Aves	Meliphagidae	0614	<i>Caligavis chrysoptis</i>	Yellow-faced Honeyeater	P		115
Animalia	Aves	Meliphagidae	0593	<i>Gliciphila melanops</i>	Tawny-crowned Honeyeater	P		3
Animalia	Aves	Meliphagidae	0619	<i>Lichenostomus melanops</i>	Yellow-tufted Honeyeater	P		9
Animalia	Aves	Meliphagidae	0597	<i>Lichmera indistincta</i>	Brown Honeyeater	P		2
Animalia	Aves	Meliphagidae	0634	<i>Manorina</i>	Noisy Miner	P		388
Animalia	Aves	Meliphagidae	0633	<i>Manorina melanophrys</i>	Bell Miner	P		38
Animalia	Aves	Meliphagidae	0605	<i>Meliphaga lewinii</i>	Lewin's Honeyeater	P		6
Animalia	Aves	Meliphagidae	0583	<i>Melithreptus brevirostris</i>	Brown-headed Honeyeater	P		5
Animalia	Aves	Meliphagidae	8303	<i>Melithreptus gularis gularis</i>	Black-chinned Honeyeater (eastern subspecies)	V,P		4
Animalia	Aves	Meliphagidae	0578	<i>Melithreptus lunatus</i>	White-naped Honeyeater	P		28
Animalia	Aves	Meliphagidae	0586	<i>Myzomela sanguinolenta</i>	Scarlet Honeyeater	P		23
Animalia	Aves	Meliphagidae	0617	<i>Nesoptilotis leucotis</i>	White-eared Honeyeater	P		45
Animalia	Aves	Meliphagidae	0646	<i>Philemon citreogularis</i>	Little Friarbird	P		1
Animalia	Aves	Meliphagidae	0645	<i>Philemon corniculatus</i>	Noisy Friarbird	P		78
Animalia	Aves	Meliphagidae	0632	<i>Phylidonyris niger</i>	White-cheeked Honeyeater	P		3
Animalia	Aves	Meliphagidae	0631	<i>Phylidonyris novaehollandiae</i>	New Holland Honeyeater	P		47
Animalia	Aves	Meliphagidae	0613	<i>Ptilotula fusca</i>	Fuscous Honeyeater	P		7
Animalia	Aves	Meliphagidae	0625	<i>Ptilotula penicillata</i>	White-plumed Honeyeater	P		59
Animalia	Aves	Meliphagidae	0594	<i>Purnella albifrons</i>	White-fronted Honeyeater	P		1
Animalia	Aves	Cinclosomatidae	0436	<i>Cinclosoma punctatum</i>	Spotted Quail-thrush	P		3
Animalia	Aves	Falconulidae	9951	<i>Falcunculus frontatus</i>		P		2
Animalia	Aves	Falconulidae	0416	<i>Falcunculus frontatus frontatus</i>	Eastern Shrike-tit	P		12
Animalia	Aves	Psophodidae	0421	<i>Psophodes olivaceus</i>	Eastern Whipbird	P		81
Animalia	Aves	Neosittidae	0549	<i>Daphoenositta chrysoptera</i>	Varied Sittella	V,P		21
Animalia	Aves	Campephagidae	0424	<i>Coracina novaehollandiae</i>	Black-faced Cuckoo-shrike	P		129
Animalia	Aves	Campephagidae	0425	<i>Coracina papuensis</i>	White-bellied Cuckoo-shrike	P		4
Animalia	Aves	Campephagidae	0430	<i>Lalage sueurii</i>	White-winged Triller	P		4
Animalia	Aves	Pachycephalidae	0408	<i>Colluricincla harmonica</i>	Grey Shrike-thrush	P		87

Animalia	Aves	Pachycephalidae	0398	<i>Pachycephala pectoralis</i>	Golden Whistler	P	151
Animalia	Aves	Pachycephalidae	0401	<i>Pachycephala rufiventris</i>	Rufous Whistler	P	53
Animalia	Aves	Oriolidae	0671	<i>Oriolus sagittatus</i>	Olive-backed Oriole	P	46
Animalia	Aves	Oriolidae	0432	<i>Sphecotheres vieillotii</i>	Australasian Figbird	P	3
Animalia	Aves	Artamidae	8519	<i>Artamus cyanopterus cyanopterus</i>	Dusky Woodswallow	V,P	23
Animalia	Aves	Artamidae	0544	<i>Artamus personatus</i>	Masked Woodswallow	P	3
Animalia	Aves	Artamidae	0700	<i>Cracticus nigrogularis</i>	Pied Butcherbird	P	11
Animalia	Aves	Artamidae	T022	<i>Cracticus sp.</i>	Unidentified Butcherbird	P	17
Animalia	Aves	Artamidae	0702	<i>Cracticus torquatus</i>	Grey Butcherbird	P	95
Animalia	Aves	Artamidae	0705	<i>Gymnorhina tibicen</i>	Australian Magpie	P	400
Animalia	Aves	Artamidae	0694	<i>Strepera graculina</i>	Pied Currawong	P	192
Animalia	Aves	Artamidae	T906	<i>Strepera sp.</i>		P	11
Animalia	Aves	Artamidae	0697	<i>Strepera versicolor</i>	Grey Currawong	P	7
Animalia	Aves	Dicruridae	0673	<i>Dicrurus bracteatus</i>	Spangled Drongo	P	15
Animalia	Aves	Rhipiduridae	0361	<i>Rhipidura albiscapa</i>	Grey Fantail	P	127
Animalia	Aves	Rhipiduridae	0364	<i>Rhipidura leucophrys</i>	Willie Wagtail	P	117
Animalia	Aves	Rhipiduridae	0362	<i>Rhipidura rufifrons</i>	Rufous Fantail	P	37
Animalia	Aves	Corvidae	0930	<i>Corvus coronoides</i>	Australian Raven	P	288
Animalia	Aves	Corvidae	0954	<i>Corvus mellori</i>	Little Raven	P	4
Animalia	Aves	Corvidae	9067	<i>Corvus sp.</i>	Unidentified Corvid	P	16
Animalia	Aves	Monarchidae	0415	<i>Grallina cyanoleuca</i>	Magpie-lark	P	166
Animalia	Aves	Monarchidae	0373	<i>Monarcha melanopsis</i>	Black-faced Monarch	P	12
Animalia	Aves	Monarchidae	0366	<i>Myiagra cyanoleuca</i>	Satin Flycatcher	P	3
Animalia	Aves	Monarchidae	9955	<i>Myiagra inquieta</i>	Restless Flycatcher	P	6
Animalia	Aves	Monarchidae	0365	<i>Myiagra rubecula</i>	Leaden Flycatcher	P	6
Animalia	Aves	Monarchidae	9078	<i>Myiagra sp.</i>	unidentified Flycatcher	P	1
Animalia	Aves	Corcoracidae	0693	<i>Corcorax melanorhamphos</i>	White-winged Chough	P	9
Animalia	Aves	Corcoracidae	0675	<i>Struthidea cinerea</i>	Apostlebird	P	1
Animalia	Aves	Petroicidae	0392	<i>Eopsaltria australis</i>	Eastern Yellow Robin	P	117
Animalia	Aves	Petroicidae	0377	<i>Microeca fascians</i>	Jacky Winter	P	7
Animalia	Aves	Petroicidae	0380	<i>Petroica boodang</i>	Scarlet Robin	V,P	2
Animalia	Aves	Petroicidae	0382	<i>Petroica phoenicea</i>	Flame Robin	V,P	3
Animalia	Aves	Petroicidae	0383	<i>Petroica rodinogaster</i>	Pink Robin	V,P	1
Animalia	Aves	Petroicidae	0384	<i>Petroica rosea</i>	Rose Robin	P	28
Animalia	Aves	Cisticolidae	0525	<i>Cisticola exilis</i>	Golden-headed Cisticola	P	18
Animalia	Aves	Acrocephalidae	0524	<i>Acrocephalus australis</i>	Australian Reed-Warbler	P	24
Animalia	Aves	Locustellidae	0523	<i>Cincloramphus timoriensis</i>	Tawny Grassbird	P	2
Animalia	Aves	Locustellidae	0522	<i>Poodytes gramineus</i>	Little Grassbird	P	11
Animalia	Aves	Megaluridae	CINC	<i>Cincloramphus sp.</i>		P	3
Animalia	Aves	Hirundinidae	0358	<i>Cheramaeca leucosterna</i>	White-backed Swallow	P	1
Animalia	Aves	Hirundinidae	0357	<i>Hirundo neoxena</i>	Welcome Swallow	P	105
Animalia	Aves	Hirundinidae	0360	<i>Petrochelidon ariel</i>	Fairy Martin	P	15
Animalia	Aves	Hirundinidae	0359	<i>Petrochelidon nigricans</i>	Tree Martin	P	3
Animalia	Aves	Zosteropidae	0574	<i>Zosterops lateralis</i>	Silveryeye	P	94
Animalia	Aves	Dicaeidae	0564	<i>Dicaeum hirundinaceum</i>	Mistletoebird	P	36
Animalia	Aves	Estrildidae	0657	<i>Lonchura castaneothorax</i>	Chestnut-breasted Mannikin	P	1
Animalia	Aves	Estrildidae	0662	<i>Neochmia temporalis</i>	Red-browed Finch	P	86
Animalia	Aves	Estrildidae	0650	<i>Staganopleura bella</i>	Beautiful Firetail	P	1
Animalia	Aves	Estrildidae	0655	<i>Stizoptera bichenovii</i>	Double-barred Finch	P	8
Animalia	Aves	Estrildidae	0653	<i>Taeniopygia guttata</i>	Zebra Finch	P	1
Animalia	Aves	Motacillidae	0647	<i>Anthus novaeseelandiae</i>	Australian Pipit	P	5
Animalia	Mammalia	Ornithorhynchidae	1001	<i>Ornithorhynchus anatinus</i>	Platypus	P	1
Animalia	Mammalia	Tachyglossidae	1003	<i>Tachyglossus aculeatus</i>	Short-beaked Echidna	P	86
Animalia	Mammalia	Dasyuridae	T093	<i>Antechinus sp.</i>	Unidentified Antechinus	P	2
Animalia	Mammalia	Dasyuridae	1674	<i>Antechinus stuartii</i>	Brown Antechinus	P	20
Animalia	Mammalia	Dasyuridae	T105	<i>Dasyuridae sp.</i>	unidentified dasyurid	P	1
Animalia	Mammalia	Dasyuridae	1061	<i>Sminthopsis murina</i>	Common Dunnart	P	1

Animalia	Mammalia	Peramelidae	1710	<i>Isoodon obesulus</i> <i>obesulus</i>	Southern Brown Bandicoot (eastern)	E1,P	E	1	
Animalia	Mammalia	Peramelidae	T081	<i>Isoodon/Perameles</i> sp.	unidentified Bandicoot	P		1	
Animalia	Mammalia	Peramelidae	1097	<i>Perameles nasuta</i>	Long-nosed Bandicoot	P		8	
Animalia	Mammalia	Phascolarctidae	1162	<i>Phascolarctos cinereus</i>	Koala	V,P	E	82	
Animalia	Mammalia	Vombatidae	1165	<i>Vombatus ursinus</i>	Bare-nosed Wombat	P		10	
Animalia	Mammalia	Burramyidae	1150	<i>Cercartetus nanus</i>	Eastern Pygmy-possum	V,P		2	
Animalia	Mammalia	Petauridae	1138	<i>Petaurus breviceps</i>	Sugar Glider	P		47	
Animalia	Mammalia	Petauridae	T084	<i>Petaurus</i> sp.	Glider	P		1	
Animalia	Mammalia	Pseudocheiridae	1129	<i>Pseudocheirus peregrinus</i>	Common Ringtail Possum	P		322	
Animalia	Mammalia	Acrobatidae	1147	<i>Acrobates pygmaeus</i>	Feathertail Glider	P		1	
Animalia	Mammalia	Phalangeridae	T082	<i>Trichosurus</i> sp.	brushtail possum	P		31	
Animalia	Mammalia	Phalangeridae	1113	<i>Trichosurus vulpecula</i>	Common Brushtail Possum	P		390	
Animalia	Mammalia	Macropodidae	T108	<i>Macropod</i> sp.	unidentified macropod	P		5	
Animalia	Mammalia	Macropodidae	1265	<i>Macropus giganteus</i>	Eastern Grey Kangaroo	P		17	
Animalia	Mammalia	Macropodidae	T085	<i>Macropus</i> sp.	kangaroo / wallaby	P		17	
Animalia	Mammalia	Macropodidae	1266	<i>Osphranter robustus</i>	Common Wallaroo	P		6	
Animalia	Mammalia	Macropodidae	1215	<i>Petrogale penicillata</i>	Brush-tailed Rock-wallaby	E1,P	V	1	
Animalia	Mammalia	Macropodidae	1242	<i>Wallabia bicolor</i>	Swamp Wallaby	P		1113	
Animalia	Mammalia	Pteropodidae	1282	<i>Pteropus alecto</i>	Black Flying-fox	P		1	
Animalia	Mammalia	Pteropodidae	1280	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V,P	V	304	
Animalia	Mammalia	Pteropodidae	T087	<i>Pteropus</i> sp.	Flying-fox	P		177	
Animalia	Mammalia	Emballonuridae	1321	<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheath-tail-bat	V,P		15	
Animalia	Mammalia	Molossidae	1324	<i>Austronomus australis</i>	White-striped Freetail-bat	P		50	
Animalia	Mammalia	Molossidae	1329	<i>Micronomus norfolkensis</i>	Eastern Coastal Free-tailed Bat	V,P		7	
Animalia	Mammalia	Molossidae	1938	<i>Ozimops ridei</i>	Eastern Free-tailed Bat	P		36	
Animalia	Mammalia	Vespertilionidae	1353	<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	V,P	V	3	
Animalia	Mammalia	Vespertilionidae	1349	<i>Chalinolobus gouldii</i>	Gould's Wattled Bat	P		70	
Animalia	Mammalia	Vespertilionidae	1351	<i>Chalinolobus morio</i>	Chocolate Wattled Bat	P		32	
Animalia	Mammalia	Vespertilionidae	1372	<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	V,P		29	
Animalia	Mammalia	Vespertilionidae	1357	<i>Myotis macropus</i>	Southern Myotis	V,P		25	
Animalia	Mammalia	Vespertilionidae	1335	<i>Nyctophilus geoffroyi</i>	Lesser Long-eared Bat	P		16	
Animalia	Mammalia	Vespertilionidae	1334	<i>Nyctophilus gouldi</i>	Gould's Long-eared Bat	P		19	
Animalia	Mammalia	Vespertilionidae	T092	<i>Nyctophilus</i> sp.	long-eared bat	P		22	
Animalia	Mammalia	Vespertilionidae	1361	<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	V,P		25	
Animalia	Mammalia	Vespertilionidae	1365	<i>Scotorepens orion</i>	Eastern Broad-nosed Bat	P		34	
Animalia	Mammalia	Vespertilionidae	1022	<i>Vespadelus darlingtoni</i>	Large Forest Bat	P		5	
Animalia	Mammalia	Vespertilionidae	1377	<i>Vespadelus pumilus</i>	Eastern Forest Bat	P		1	
Animalia	Mammalia	Vespertilionidae	1378	<i>Vespadelus regulus</i>	Southern Forest Bat	P		4	
Animalia	Mammalia	Vespertilionidae	T088	<i>Vespadelus</i> sp.	Unidentified Eptesicus	P		6	
Animalia	Mammalia	Vespertilionidae	1379	<i>Vespadelus vulturinus</i>	Little Forest Bat	P		27	
Animalia	Mammalia	Miniopteridae	1346	<i>Miniopterus australis</i>	Little Bent-winged Bat	V,P		6	
Animalia	Mammalia	Miniopteridae	3330	<i>Miniopterus orianae</i> <i>oceanensis</i>	Large Bent-winged Bat	V,P		29	
Animalia	Mammalia	Muridae	T104	<i>Muridae</i> sp.	unidentified murid rodent	P		55	

Animalia	Mammalia	Muridae	1455	<i>Pseudomys novaehollandiae</i>	New Holland Mouse	P	V	6	
Animalia	Mammalia	Muridae	1395	<i>Rattus fuscipes</i>	Bush Rat	P		6	
Animalia	Mammalia	Muridae	1398	<i>Rattus lutreolus</i>	Swamp Rat	P		4	
Animalia	Mammalia	Muridae	T094	<i>Rattus sp.</i>	rat	P		115	
Animalia	Mammalia	Leporidae	1929	<i>Lepus capensis occidentalis</i>		P		16	
Animalia	Gastropoda	Camaenidae	1006	<i>Meridolum corneovirens</i>	Cumberland Plain Land Snail	E1		39	
Plantae	Flora	Anthericaceae	7501	<i>Caesia parviflora var. minor</i>	Small Pale Grass-lily	E1		1	
Plantae	Flora	Apiaceae	1094	<i>Actinotus helianthi</i>	Flannel Flower	P		25	
Plantae	Flora	Apocynaceae	10896	<i>Marsdenia viridiflora subsp. viridiflora</i>	Marsdenia viridiflora R. Br. subsp. viridiflora population in the Bankstown, Blacktown, Camden, Campbelltown, Fairfield, Holroyd, Liverpool and Penrith local government	E2		457	
Plantae	Flora	Arecaceae	6458	<i>Archontophoenix cunninghamiana</i>	Bangalow Palm	P		2	
Plantae	Flora	Arecaceae	1218	<i>Howea forsteriana</i>	Kentia Palm	P		1	
Plantae	Flora	Arecaceae	1221	<i>Livistona australis</i>	Cabbage Palm	P		6	
Plantae	Flora	Asteliceae	1018	<i>Cordyline stricta</i>	Narrow-leaved Palm Lily	P		2	
Plantae	Flora	Asteraceae	1363	<i>Cassinia aureonitens</i>		P		3	
Plantae	Flora	Campanulaceae	1937	<i>Wahlenbergia multicaulis</i>	Tadgell's Bluebell in the local government areas of Auburn, Bankstown, Baulkham Hills, Canterbury, Hornsby, Parramatta and Strathfield	E2		7	
Plantae	Flora	Casuarinaceae	9009	<i>Allocasuarina diminuta subsp. mimica</i>	Allocasuarina diminuta subsp. mimica population in the Sutherland Shire and Liverpool City local government areas	E2		1	
Plantae	Flora	Casuarinaceae	8320	<i>Allocasuarina glareicola</i>		E1	E	1	
Plantae	Flora	Convolvulaceae	2234	<i>Wilsonia backhousei</i>	Narrow-leaved Wilsonia	V		4	
Plantae	Flora	Cyatheaceae	8076	<i>Cyathea cooperi</i>	Straw Treefern	P		3	
Plantae	Flora	Cyperaceae	2341	<i>Caustis flexuosa</i>	Curly Wig	P		14	
Plantae	Flora	Cyperaceae	2343	<i>Caustis recurvata</i>		P		1	
Plantae	Flora	Cyperaceae	2442	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge	P		11	
Plantae	Flora	Dilleniaceae	14735	<i>Hibbertia fumana</i>		E4A		14	
Plantae	Flora	Dilleniaceae	11422	<i>Hibbertia puberula</i>		E1		416	
Plantae	Flora	Dilleniaceae	13902	<i>Hibbertia sp. Bankstown</i>		E4A	CE	217	
Plantae	Flora	Dilleniaceae	14564	<i>Hibbertia stricta subsp. furcatula</i>		E1		6	
Plantae	Flora	Doryanthaceae	1019	<i>Doryanthes excelsa</i>	Gynea Lily	P		5	
Plantae	Flora	Ericaceae	7752	<i>Epacris purpurascens var. purpurascens</i>		V		6	
Plantae	Flora	Ericaceae	2618	<i>Leucopogon exololius</i>	Woronora Beard-heath	V	V	3	
Plantae	Flora	Fabaceae (Faboideae)	3007	<i>Pultenaea parviflora</i>		E1	V	2	
Plantae	Flora	Fabaceae (Faboideae)	3008	<i>Pultenaea pedunculata</i>	Matted Bush-pea	E1		1	
Plantae	Flora	Fabaceae (Mimosoideae)	3728	<i>Acacia bynoeana</i>	Bynoe's Wattle	E1	V	1	
Plantae	Flora	Fabaceae (Mimosoideae)	3860	<i>Acacia pubescens</i>	Downy Wattle	V	V	4060	
Plantae	Flora	Gleicheniaceae	11175	<i>Sticherus flabellatus var. flabellatus</i>	Umbrella Fern	P		1	
Plantae	Flora	Lamiaceae	3429	<i>Prostanthera saxicola</i>	Prostanthera saxicola population in Sutherland and Liverpool local government areas	E2		1	

Plantae	Flora	Myrtaceae	4007	^{AA} <i>Callistemon linearifolius</i>	Netted Bottle Brush	V,3	31
Plantae	Flora	Myrtaceae	4204	<i>Kunzea ambigua</i>	Tick Bush	P	74
Plantae	Flora	Myrtaceae	4207	<i>Kunzea capitata</i>		P	12
Plantae	Flora	Myrtaceae	4248	<i>Melaleuca deanei</i>	Deane's Paperbark	V V	7
Plantae	Flora	Myrtaceae	4283	<i>Rhodamnia rubescens</i>	Scrub Turpentine	E4A CE	2
Plantae	Flora	Myrtaceae	4293	<i>Syzygium paniculatum</i>	Magenta Lilly Pilly	E1 V	1
Plantae	Flora	Orchidaceae	4352	<i>Acianthus exertus</i>	Mosquito Orchid	P	4
Plantae	Flora	Orchidaceae	4353	<i>Acianthus fornicatus</i>	Pixie Caps	P	15
Plantae	Flora	Orchidaceae	ACIA	<i>Acianthus spp.</i>	Mosquito Orchid	P	4
Plantae	Flora	Orchidaceae	4373	<i>Caladenia carnea</i>	Pink Fingers	P	8
Plantae	Flora	Orchidaceae	6703	<i>Caladenia catenata</i>	White Caladenia	P	11
Plantae	Flora	Orchidaceae	7588	<i>Caladenia picta</i>		P	2
Plantae	Flora	Orchidaceae	4389	<i>Caleana major</i>	Large Duck Orchid	P	5
Plantae	Flora	Orchidaceae	4390	<i>Calochilus campestris</i>	Copper Beard Orchid	P	4
Plantae	Flora	Orchidaceae	4394	<i>Calochilus paludosus</i>	Red Beard Orchid	P	5
Plantae	Flora	Orchidaceae	4395	<i>Calochilus robertsonii</i>	Purplish Beard Orchid	P	3
Plantae	Flora	Orchidaceae	14091	<i>Cestichis reflexa</i>		P	3
Plantae	Flora	Orchidaceae	4404	<i>Corybas aconitiflorus</i>	Spurred Helmet Orchid	P	2
Plantae	Flora	Orchidaceae	4410	<i>Corybas prinosus</i>	Toothed Helmet Orchid	P	2
Plantae	Flora	Orchidaceae	4414	<i>Cryptostylis erecta</i>	Tartan Tongue Orchid	P	4
Plantae	Flora	Orchidaceae	11228	<i>Cyanicula caerulea</i>	Blue Caladenia	P	5
Plantae	Flora	Orchidaceae	6889	<i>Cyrtostylis reniformis</i>	Gnat Orchid	P	2
Plantae	Flora	Orchidaceae	4426	<i>Dendrobium linguiforme</i>	Tongue Orchid	P	5
Plantae	Flora	Orchidaceae	4437	<i>Dipodium hamiltonianum</i>	Yellow Hyacinth-orchid	P	2
Plantae	Flora	Orchidaceae	7887	<i>Dipodium punctatum</i>		P	6
Plantae	Flora	Orchidaceae	DIPO	<i>Dipodium spp.</i>		P	1
Plantae	Flora	Orchidaceae	7888	<i>Dipodium variegatum</i>		P	1
Plantae	Flora	Orchidaceae	4441	<i>Diuris aurea</i>		P	2
Plantae	Flora	Orchidaceae	4447	<i>Diuris maculata</i>	Spotted Doubletail	P	10
Plantae	Flora	Orchidaceae	10272	<i>Diuris pardina</i>	Leopard Orchid	P	1
Plantae	Flora	Orchidaceae	4453	<i>Diuris punctata</i>	Purple Donkey Orchid	P	2
Plantae	Flora	Orchidaceae	4456	<i>Diuris sulphurea</i>	Tiger Orchid	P	5
Plantae	Flora	Orchidaceae	4460	<i>Eriochilus cuculatus</i>	Parson's Bands	P	2
Plantae	Flora	Orchidaceae	8872	<i>Genoplesium fimbriatum</i>	Fringed Midge Orchid	P	3
Plantae	Flora	Orchidaceae	9201	<i>Genoplesium rufum</i>	Red Midge Orchid	P	3
Plantae	Flora	Orchidaceae	GENO	<i>Genoplesium spp.</i>		P	2
Plantae	Flora	Orchidaceae	4465	<i>Glossodia major</i>	Waxlip Orchid	P	7
Plantae	Flora	Orchidaceae	4466	<i>Glossodia minor</i>	Small Waxlip Orchid	P	5
Plantae	Flora	Orchidaceae	GLOO	<i>Glossodia spp.</i>		P	1
Plantae	Flora	Orchidaceae	4472	<i>Lyperanthus suaveolens</i>	Brown Beaks	P	5
Plantae	Flora	Orchidaceae	7101	<i>Microtis rara</i>	Scented Onion Orchid	P	1
Plantae	Flora	Orchidaceae	MICO	<i>Microtis spp.</i>		P	1
Plantae	Flora	Orchidaceae	4473	<i>Microtis unifolia</i>	Common Onion Orchid	P	7
Plantae	Flora	Orchidaceae	4476	<i>Orthoceras strictum</i>	Bird's-mouth Orchid	P	2
Plantae	Flora	Orchidaceae	4497	<i>Prasophyllum elatum</i>	Tall Leek Orchid	P	4
Plantae	Flora	Orchidaceae	4535	<i>Pterostylis acuminata</i>	Pointed Greenhood	P	10
Plantae	Flora	Orchidaceae	4539	<i>Pterostylis baptistii</i>	King Greenhood	P	3
Plantae	Flora	Orchidaceae	4544	<i>Pterostylis concinna</i>	Trim Greenhood	P	9
Plantae	Flora	Orchidaceae	7025	<i>Pterostylis erecta</i>	Erect Maroonhood	P	4
Plantae	Flora	Orchidaceae	4559	<i>Pterostylis longifolia</i>	Tall Greenhood	P	3
Plantae	Flora	Orchidaceae	4562	<i>Pterostylis nutans</i>	Nodding Greenhood	P	3
Plantae	Flora	Orchidaceae	4563	<i>Pterostylis obtusa</i>	Blue-tongue Greenhood	P	1
Plantae	Flora	Orchidaceae	4566	<i>Pterostylis parviflora</i>	Tiny Greenhood	P	1
Plantae	Flora	Orchidaceae	4572	<i>Pterostylis revoluta</i>		P	1
Plantae	Flora	Orchidaceae	4573	<i>Pterostylis rufa</i>	Rusty Hood	P	4
Plantae	Flora	Orchidaceae	9615	^A <i>Pterostylis saxicola</i>	Sydney Plains Greenhood	E1,P,2 E	2
Plantae	Flora	Orchidaceae	PTER	<i>Pterostylis spp.</i>	Greenhood	P	5
Plantae	Flora	Orchidaceae	11877	<i>Spiranthes australis</i>	Ladies' Tresses	P	2
Plantae	Flora	Orchidaceae	4592	<i>Thelymitra carnea</i>	Tiny Sun Orchid	P	3
Plantae	Flora	Orchidaceae	8968	<i>Thelymitra ixioides</i> var. <i>ixioides</i>	Dotted Sun Orchid	P	7
Plantae	Flora	Orchidaceae	4602	<i>Thelymitra pauciflora</i>	Slender Sun Orchid	P	3
Plantae	Flora	Orchidaceae	THEL	<i>Thelymitra spp.</i>		P	4

Plantae	Flora	Poaceae	4875	<i>Deyeuxia appressa</i>		E1	E	1	
Plantae	Flora	Proteaceae	5349	<i>Banksia spinulosa</i>	Hairpin Banksia	P		50	
Plantae	Flora	Proteaceae	7488	<i>Banksia spinulosa</i> var. <i>spinulosa</i>		P		15	
Plantae	Flora	Proteaceae	5382	<i>Grevillea longifolia</i>		P		1	
Plantae	Flora	Proteaceae	10009	<i>Grevillea parviflora</i> subsp. <i>parviflora</i>	Small-flower Grevillea	V	V	431	
Plantae	Flora	Proteaceae	5433	<i>Isopogon anemonifolius</i>	Broad-leaf Drumsticks	P		41	
Plantae	Flora	Proteaceae	6839	<i>Isopogon anethifolius</i>	Narrow-leaf Drumsticks	P		5	
Plantae	Flora	Proteaceae	ISOP	<i>Isopogon</i> spp.		P		2	
Plantae	Flora	Proteaceae	5445	<i>Lomatia silaifolia</i>	Crinkle Bush	P		29	
Plantae	Flora	Proteaceae	9680	<i>Macadamia integrifolia</i>	Macadamia Nut		V	2	
Plantae	Flora	Proteaceae	5458	<i>Persoonia hirsuta</i>	Hairy Geebung	E1,P,3	E	2	
Plantae	Flora	Proteaceae	5460	<i>Persoonia lanceolata</i>	Lance Leaf Geebung	P		19	
Plantae	Flora	Proteaceae	5461	<i>Persoonia laurina</i>	Laurel Geebung	P		2	
Plantae	Flora	Proteaceae	9824	<i>Persoonia laurina</i> subsp. <i>intermedia</i>		P		3	
Plantae	Flora	Proteaceae	9823	<i>Persoonia laurina</i> subsp. <i>laurina</i>		P		1	
Plantae	Flora	Proteaceae	5462	<i>Persoonia levis</i>	Broad-leaved Geebung	P		42	
Plantae	Flora	Proteaceae	11756	<i>Persoonia levis</i> x <i>linearis</i>		P		1	
Plantae	Flora	Proteaceae	5463	<i>Persoonia linearis</i>	Narrow-leaved Geebung	P		69	
Plantae	Flora	Proteaceae	9005	<i>Persoonia mollis</i> subsp. <i>leptophylla</i>		P		1	
Plantae	Flora	Proteaceae	5467	<i>Persoonia nutans</i>	Nodding Geebung	E1,P	E	103	
Plantae	Flora	Proteaceae	5468	<i>Persoonia oblongata</i>		P		1	
Plantae	Flora	Proteaceae	5469	<i>Persoonia pinifolia</i>	Pine-leaved Geebung	P		6	
Plantae	Flora	Proteaceae	5478	<i>Petrophile pedunculata</i>		P		7	
Plantae	Flora	Proteaceae	5479	<i>Petrophile pulchella</i>	Conesticks	P		7	
Plantae	Flora	Proteaceae	5480	<i>Petrophile sessilis</i>		P		38	
Plantae	Flora	Proteaceae	PETO	<i>Petrophile</i> spp.		P		1	
Plantae	Flora	Proteaceae	5488	<i>Telopea speciosissima</i>	Waratah	P		3	
Plantae	Flora	Proteaceae	5490	<i>Xylomelum pyriforme</i>	Woody Pear	P		7	
Plantae	Flora	Pteridaceae	7997	<i>Adiantum aethiopicum</i>	Common Maidenhair	P		40	
Plantae	Flora	Pteridaceae	8000	<i>Adiantum hispidulum</i>	Rough Maidenhair	P		1	
Plantae	Flora	Pteridaceae	12634	<i>Adiantum raddianum</i> *		P		1	
Plantae	Flora	Rhamnaceae	5573	<i>Pomaderris brunnea</i>	Brown Pomaderris	E1	V	5	
Plantae	Flora	Rhamnaceae	5591	<i>Pomaderris prunifolia</i>	P. prunifolia in the Parramatta, Auburn, Strathfield and Bankstown Local Government Areas	E2		3	
Plantae	Flora	Rutaceae	5744	<i>Boronia ledifolia</i>	Sydney Boronia	P		3	
Plantae	Flora	Rutaceae	5749	<i>Boronia parviflora</i>	Swamp Boronia	P		1	
Plantae	Flora	Rutaceae	5750	<i>Boronia pinnata</i>		P		1	
Plantae	Flora	Rutaceae	5751	<i>Boronia polygalifolia</i>	Dwarf Boronia	P		7	
Plantae	Flora	Rutaceae	5754	<i>Boronia rigens</i>	Stiff Boronia	P		1	
Plantae	Flora	Rutaceae	5774	<i>Crowea exalata</i>		P		2	
Plantae	Flora	Rutaceae	5775	<i>Crowea saligna</i>		P		4	
Plantae	Flora	Rutaceae	5776	<i>Eriostemon australasius</i>		P		13	
Plantae	Flora	Rutaceae	5826	<i>Phebalium squamulosum</i>	Scaly Phebalium	P		1	
Plantae	Flora	Rutaceae	8374	<i>Phebalium squamulosum</i> subsp. <i>squamulosum</i>		P		6	
Plantae	Flora	Rutaceae	10588	<i>Philotheca myoporoides</i>	Long-leaf Wax Flower	P		1	
Plantae	Flora	Rutaceae	10593	<i>Philotheca myoporoides</i> subsp. <i>myoporoides</i>		P		1	
Plantae	Flora	Rutaceae	5831	<i>Philotheca salsolifolia</i>		P		1	
Plantae	Flora	Rutaceae	10597	<i>Philotheca scabra</i>		P		4	
Plantae	Flora	Rutaceae	10599	<i>Philotheca scabra</i> subsp. <i>scabra</i>		P		13	
Plantae	Flora	Rutaceae	PHIL	<i>Philotheca</i> spp.		P		1	
Plantae	Flora	Thymelaeaceae	6190	<i>Pimelea spicata</i>	Spiked Rice-flower	E1	E	318	
Plantae	Flora	Xanthorrhoeaceae	6315	<i>Xanthorrhoea arborea</i>		P		16	

Plantae	Flora	Xanthorrhoeaceae	7995	<i>Xanthorrhoea concava</i>		P	11
Plantae	Flora	Xanthorrhoeaceae	6319	<i>Xanthorrhoea media</i>		P	15
Plantae	Flora	Xanthorrhoeaceae	6320	<i>Xanthorrhoea minor</i>		P	10
Plantae	Flora	Xanthorrhoeaceae	7919	<i>Xanthorrhoea minor</i> <i>subsp. minor</i>		P	5
Plantae	Flora	Xanthorrhoeaceae	6321	<i>Xanthorrhoea resinosa</i>		P	3
Plantae	Flora	Xanthorrhoeaceae	XANT	<i>Xanthorrhoea spp.</i>		P	24
Plantae	Flora	Zamiaceae	6327	<i>Macrozamia communis</i>	Burrawang	P	8
Plantae	Flora	Zamiaceae	6335	<i>Macrozamia spiralis</i>		P	4
Plantae	Flora	Zamiaceae	MACZ	<i>Macrozamia spp.</i>		P	2

Priority weeds for the Greater Sydney

Note: this region includes the local council areas of Bayside Council, Blacktown, Blue Mountains, Burwood, Camden, Campbelltown, Canada Bay, Canterbury-Bankstown, Central Coast, City of Parramatta, Cumberland, Fairfield, Georges River, Hawkesbury, Hornsby Shire Council, Hunters Hill, Inner West, Ku-ring-gai, Lane Cove, Liverpool, Mosman, North Sydney, Northern Beaches, Penrith, Randwick, Ryde, Strathfield, Sutherland, Sydney, The Hills, Waverley, Willoughby, Wollondilly and Woollahra.

[Select another region](#)

Weed

All plants

[Aaron's beard prickly pear](#)

Opuntia leucotricha

[African boxthorn](#)

Lycium ferocissimum

[African olive](#)

Olea europaea subsp. *cuspidata*

[Alligator weed](#)

Alternanthera philoxeroides

Duty

General Biosecurity Duty

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.

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Regional Recommended Measure

Exclusion zone is established for all lands in Blue Mountains City Council local government area and in Penrith local government area west of the Nepean River. Core area: The remainder of the region.

Whole region: The plant or parts of the plant are not traded, carried, grown or released into the environment. *Exclusion zone:* The plant is eradicated from the land and the land kept free of the plant. *Core infestation area:* Land managers prevent spread from their land where feasible. Land managers reduce impacts from the plant on priority assets.

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Alligator weed

Alternanthera philoxeroides

Biosecurity Zone

The Alligator Weed Biosecurity Zone is established for all land within the state except land in the following regions: Greater Sydney; Hunter (but only in the local government areas of City of Lake Macquarie, City of Maitland, City of Newcastle or Port Stephens).

Within the Biosecurity Zone this weed must be eradicated where practicable, or as much of the weed destroyed as practicable, and any remaining weed suppressed. The local control authority must be notified of any new infestations of this weed within the Biosecurity Zone

Alligator weed

Alternanthera philoxeroides

Regional Recommended Measure

Exclusion zone: Blue Mountains City Council area. Core infestation area: the remainder of the region.

Whole region: Land managers prevent spread from their land where feasible. Exclusion zone: The plant is eradicated from the land and the land kept free of the plant. Core infestation area: Land managers mitigate the risk of new weeds being introduced to their land. Land managers reduce the impact on priority assets.

Anchored water hyacinth

Eichhornia azurea

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Asparagus fern

Asparagus virgatus

Regional Recommended Measure

Exclusion zone: all lands in the region, except the core infestation area of: Central Coast local government area.

Whole region: Land managers should mitigate the risk of new weeds being introduced to their land. The plant or parts of the plant should not be traded, carried, grown or released into the environment. Notify the Local Control Authority if found.

Exclusion zone: The plant should be eradicated from the land and the land kept free of the plant. Core infestation: Land managers should mitigate spread from their land. Land managers should reduce impacts from the plant on priority assets.

Athel pine

Tamarix aphylla

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Bellyache bush

Jatropha gossypifolia

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Bitou bush

Chrysanthemoides monilifera subsp.
rotundata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Bitou bush

Chrysanthemoides monilifera subsp.
rotundata

Biosecurity Zone

The Bitou Bush Biosecurity Zone is established for all land within the State except land within 10 kilometres of the mean high water mark of the Pacific Ocean between Cape Byron in the north and Point Perpendicular in the south.

Within the Biosecurity Zone this weed must be eradicated where practicable, or as much of the weed destroyed as practicable, and any remaining weed suppressed. The local control authority must be notified of any new infestations of this weed within the Biosecurity Zone

Black knapweed

Centaurea x moncktonii

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Black willow

Salix nigra

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Black willow

Salix nigra

Regional Recommended Measure

The plant is eradicated from the land and the land is kept free of the plant. Local Control Authority is notified if the plant is found on the land.

Blackberry

Rubus fruticosus species aggregate

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Rubus fruticosus* species aggregate have this requirement, except for the varieties Black Satin, Chehalem, Chester Thornless, Dirksen Thornless, Loch Ness, Murrindindi, Silvan, Smooth Stem, and Thornfree

Blind cactus

Opuntia rufida

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Boneseed

Chrysanthemoides monilifera subsp.
monilifera

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Boneseed

Chrysanthemoides monilifera subsp.
monilifera

Control Order

Bonseed Control Zone: Whole of NSW

Boneseed Control Zone (Whole of NSW): Owners and occupiers of land on which there is boneseed must notify the local control authority of new infestations; immediately destroy the plants; ensure subsequent generations are destroyed; and ensure the land is kept free of the plant. A person who deals with a carrier of boneseed must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant.

Boxing glove cactus

Cylindropuntia fulgida var. *mamillata*

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Bridal creeper

Asparagus asparagoides

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

***this requirement also applies to the Western Cape form of bridal creeper**

Bridal veil creeper

Asparagus declinatus

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Broomrapes

Orobanche species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species of Orobanche are Prohibited Matter in NSW, except Clover broomrape, Orobanche minor and Australian broomrape, Orobanche cernua var. australiana.

Bunny ears cactus

Opuntia microdasys

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Cabomba

Cabomba caroliniana

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Cabomba

Cabomba caroliniana

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. Plants should not be bought, sold, grown, carried or released into the environment.

Cane cactus

Austrocylindropuntia cylindrica

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the Austrocylindropuntia genus have this requirement

Cape broom

Genista monspessulana

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Cat's claw creeper

Dolichandra unguis-cati

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Cat's claw creeper

Dolichandra unguis-cati

Regional Recommended Measure

Land managers prevent spread from their land where feasible. Land managers mitigate the risk of the plant being introduced to their land. Land managers reduce the impact on priority assets. The plant should not be bought, sold, grown, carried or released into the environment.

Chicken dance cactus
Opuntia schickendantzii

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Chilean needle grass
Nassella neesiana

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Chinese knotweed
Persicaria chinensis

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Chinese violet
Asystasia gangetica subsp. *micrantha*

Control Order

Owners and occupiers of land on which there is Chinese violet must notify the local control authority for the area if the Chinese violet is part of a new infestation on the land, destroy all Chinese violet on the land ensuring that subsequent generations of Chinese violet are destroyed; and keep the land free of Chinese violet. A person who deals with a carrier of Chinese violet must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant on the land, or on or in a carrier.

Climbing asparagus
Asparagus africanus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Climbing asparagus
Asparagus africanus

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. Notify local control authority if found.

Climbing asparagus fern
Asparagus plumosus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Common pear
Opuntia stricta

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Coral creeper
Barleria repens

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

East Indian hygrophila
Hygrophila polysperma

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Eurasian water milfoil
Myriophyllum spicatum

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Eve's needle cactus
Austrocylindropuntia subulata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the Austrocylindropuntia genus have this requirement

Fireweed
Senecio madagascariensis

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Flax-leaf broom
Genista linifolia

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Foxtail fern
Asparagus densiflorus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Frogbit

Limnobium laevigatum

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species of Limnobium are Prohibited Matter

Gamba grass

Andropogon gayanus

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Giant devil's fig

Solanum chrysotrichum

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Giant rat's tail grass

Sporobolus pyramidalis

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Giant reed

Arundo donax

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should not be bought, sold, grown, carried or released into the environment.

Glory lily

Gloriosa superba

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Gorse

Ulex europaeus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Gorse

Ulex europaeus

Regional Recommended Measure

Exclusion zone: Blue Mountains City Council area. Core

infestation area: rest of region

Whole region: Land managers should mitigate the risk of new weeds being introduced to their land. The plant or parts of the plant should not be traded, carried, grown or released into the environment. Exclusion zone: The plant should be eradicated from the land and the land kept free of the plant. Core infestation area: Land managers should mitigate spread from their land.

Green cestrum

Cestrum parqui

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to land used for grazing livestock. Land managers should mitigate spread from their land. Plant should not be bought, sold, grown, carried or released into the environment.

Grey willow

Salix cinerea

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Grey willow

Salix cinerea

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Ground asparagus

Asparagus aethiopicus

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Groundsel bush

Baccharis halimifolia

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Hawkweeds

Pilosella species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the genera *Pilosella* and *Hieracium* are Prohibited Matter except for *Hieracium murorum*.

Holly leaved senecio

Senecio glastifolius

Regional Recommended Measure

Exclusion zone: whole region except for the core infestation area of the Royal National Park.

Whole region: Land managers mitigate the risk of the plant being introduced to their land. The plant or parts of the plant are not traded, carried, grown or released into the environment. The Local Control Authority should be notified if the plant is found. Exclusion zone: The plant is eradicated and the land kept free of the plant. Core infestation area: Land managers prevent spread from their land where feasible. Land managers reduce impacts from the plant on priority assets.

Horsetails

Equisetum species

Regional Recommended Measure

Exclusion zone: whole of region except Northern Beaches local government area. The Northern Beaches local government area is the core area.

Whole region: Land managers mitigate the risk of the plant being introduced to their land. Local Control Authority is notified if the plant is found on the land. The plant or parts of the plant are not traded, carried, grown or released into the environment. Exclusion zone: The plant is eradicated from the land and the land is kept free of the plant. Core area: Land managers prevent spread from their land where feasible.

Hudson pear

Cylindropuntia pallida

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Hydrocotyl

Hydrocotyle ranunculoides

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Hygrophila

Hygrophila costata

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Hymenachne

Hymenachne amplexicaulis and hybrids

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Hymenachne

Hymenachne amplexicaulis and hybrids

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Karoo acacia

Vachellia karroo

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Kei apple

Dovyalis caffra

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Kidney-leaf mud plantain

Heteranthera reniformis

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Kochia

Bassia scoparia

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Excluding the subspecies *trichophylla*

Koster's curse

Clidemia hirta

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Kudzu

Pueraria lobata

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Lagarosiphon

Lagarosiphon major

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Lantana

Lantana camara

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Leaf cactus

Pereskia aculeata

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Ludwigia

Ludwigia peruviana

Regional Recommended Measure

Land managers mitigate the risk of the plant being introduced to their land. Land managers prevent spread from their land where feasible. Land managers reduce the impact on priority assets. The plant should not be bought, sold, grown, carried or released into the environment. Local Control Authority is notified if the plant is found on the land.

Madeira vine

Anredera cordifolia

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Mesquite

Prosopis species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the genus *Prosopis* have this requirement

Mexican feather grass

Nassella tenuissima

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Miconia

Miconia species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species of *Miconia* are Prohibited Matter in NSW

Mikania vine

Mikania micrantha

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

***all species in the genus *Mikania* are Prohibited Matter in NSW**

Mimosa

Mimosa pigra

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Ming asparagus fern

Asparagus macowanii

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Mysore thorn

Caesalpinia decapetala

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment.

Nodding thistle

Carduus nutans subsp. *nutans*

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Pampas grass

Cortaderia species

Regional Recommended Measure

Land managers mitigate the risk of the plant being introduced to their land. Land managers prevent spread from their land where feasible. Land managers reduce the impact on priority assets. The plant or parts of the plant are not traded, carried, grown or released into the environment.

Parkinsonia

Parkinsonia aculeata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Parkinsonia

Parkinsonia aculeata

Control Order

Parkinsonia Control Zone: Whole of NSW

Parkinsonia Control Zone (Whole of NSW): Owners and occupiers of land on which there is parkinsonia must notify the local control authority of new infestations; immediately destroy the plants; ensure subsequent generations are destroyed; and ensure the land is kept free of the plant. A person who deals with a carrier of parkinsonia must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant.

Parthenium weed

Parthenium hysterophorus

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Parthenium weed

Parthenium hysterophorus

Prohibition on certain dealings

The following equipment must not be imported into NSW from Queensland: grain harvesters (including the comb or front), comb trailers (including the comb or front), bins used for holding grain during harvest operations, augers or similar for moving grain, vehicles used to transport grain harvesters, support vehicles driven in paddocks during harvest operations, mineral exploration drilling rigs and vehicles used to transport those rigs, unless set out as an exception in Division 5, Part 2 of the Biosecurity Order (Permitted Activities) 2017

Pond apple

Annona glabra

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Prickly acacia

Vachellia nilotica

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Prickly pears - Austrocyllindropuntias

Austrocyllindropuntia species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the Austrocyllindropuntia genus have this requirement

Prickly pears - Cyllindropuntias

Cyllindropuntia species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the Cyllindropuntia genus have this requirement

Prickly pears - Opuntias

Opuntia species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

For all Opuntia species except for *Opuntia ficus-indica* (Indian fig).

Rope pear

Cylindropuntia imbricata

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Cylindropuntia* genus have this requirement

Rubber vine

Cryptostegia grandiflora

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Sagittaria

Sagittaria platyphylla

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Salvinia

Salvinia molesta

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Salvinia

Salvinia molesta

Regional Recommended Measure

Exclusion zone: whole region except for the core infestation area of the Georges and Hawkesbury-Nepean Rivers and their tributaries.

Whole region: Land managers mitigate the risk of the plant being introduced to their land. Exclusion zone: The plant is eradicated and the land kept free of the plant. The Local Control Authority should be notified if the plant is found. Core infestation area: Land managers should prevent spread from their land where feasible.

Scotch broom

Cytisus scoparius subsp. *scoparius*

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Scotch broom

Cytisus scoparius subsp. *scoparius*

Regional Recommended Measure

Land managers mitigate the risk of the plant being introduced to their land. Land managers reduce the impact on priority assets.

Sea spurge

Euphorbia paralias

Regional Recommended Measure

Exclusion zone: whole region except the core infestation area of the Sutherland Shire.

Whole region: Land managers mitigate the risk of the plant being introduced to their land. The plant or parts of the plant are not traded, carried, grown or released into the environment. Exclusion zone: The plant is eradicated from the land and the land is kept free of the plant. Local Control Authority is notified if the plant is found on the land. Core area: Land managers prevent spread from their land where feasible.

Senegal tea plant

Gymnocoronis spilanthoides

Regional Recommended Measure

Exclusion zone: whole region except the core infestation area of the Central Coast Council LGA, Royal National Park and the Hawkesbury-Nepean River and its tributaries.

Land managers mitigate the risk of the plant being introduced to their land. The plant or parts of the plant are not traded, carried, grown or released into the environment. Local Control Authority is notified if the plant is found on the land. Exclusion zone: The plant is eradicated and the land kept free of the plant. Core infestation area: Land managers prevent spread from their land where feasible.

Serrated tussock

Nassella trichotoma

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Serrated tussock

Nassella trichotoma

Regional Recommended Measure

Exclusion zone: whole region excluding the core infestation area of Wollondilly and Camden local government areas.

Whole region: Land managers should mitigate the risk of new weeds being introduced to their land. The plant or parts of the plant should not be traded, carried, grown or released into the environment. Notify the Local Control Authority if found. Exclusion zone: The plant should be eradicated from the land and the land kept free of the plant. Core infestation: Land managers prevent spread from their land where feasible.

Siam weed

Chromolaena odorata

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Sicilian sea lavender
Limonium hyblaenum

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Sicklethorn
Asparagus falcatus

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Silverleaf nightshade
Solanum elaeagnifolium

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Singapore daisy
Sphagneticola trilobata

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should not be bought, sold, grown, carried or released into the environment. Land managers reduce the impact on priority assets.

Skunk vine
Paederia foetida

Regional Recommended Measure

The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Smooth tree pear
Opuntia monacantha

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Snakefeather
Asparagus scandens

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Spanish broom
Spartium junceum

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Spongeplant

Limnobiium spongia

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species of *Limnobiium* are Prohibited Matter

Spotted knapweed

Centaurea stoebe subsp. *micranthos*

Prohibited Matter

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Tiger pear

Opuntia aurantiaca

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Tiger pear

Opuntia aurantiaca

Regional Recommended Measure

Exclusion zone: all lands in the region except the core infestation area of: Blacktown and Wollondilly local government areas.

Whole region: Land managers mitigate the risk of the plant spreading from their land. Notify Local Control Authority if found. Exclusion zone: The plant should be eradicated from the land and the land kept free of the plant. Core infestation: Land managers should mitigate the risk of new weeds being introduced to their land. Land managers reduce impacts from the plant on priority assets.

Tropical soda apple

Solanum viarum

Control Order

Tropical Soda Apple Control Zone: Whole of NSW

Tropical Soda Apple Control Zone (Whole of NSW): Owners and occupiers of land on which there is tropical soda apple must notify the local control authority of new infestations; destroy the plants including the fruit; ensure subsequent generations are destroyed; and ensure the land is kept free of the plant. A person who deals with a carrier of tropical soda apple must ensure the plant (and any seed and propagules) is not moved from the land; and immediately notify the local control authority of the presence of the plant on the land, or on or in a carrier.

Velvety tree pear
Opuntia tomentosa

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Water caltrop
Trapa species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the *Trapa* genus are Prohibited Matter in NSW

Water hyacinth
Eichhornia crassipes

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

Water hyacinth
Eichhornia crassipes

Biosecurity Zone

The Water Hyacinth Biosecurity Zone applies to all land within the State, except for the following regions: Greater Sydney or North Coast, North West (but only the local government area of Moree Plains), Hunter (but only in the local government areas of City of Cessnock, City of Lake Macquarie, MidCoast, City of Maitland, City of Newcastle or Port Stephens), South East (but only in the local government areas of Eurobodalla, Kiama, City of Shellharbour, City of Shoalhaven or City of Wollongong).

Within the Biosecurity Zone this weed must be eradicated where practicable, or as much of the weed destroyed as practicable, and any remaining weed suppressed. The local control authority must be notified of any new infestations of this weed within the Biosecurity Zone

Water hyacinth
Eichhornia crassipes

Regional Recommended Measure

Land managers should mitigate spread from their land. Plant should not be bought, sold, grown, carried or released into the environment.

Water lettuce
Pistia stratiotes

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Water poppy

Hydrocleys nymphoides

Regional Recommended Measure

Exclusion zone: All lands and waters in the region except for the core infestation area of the Hacking River catchment.

Whole region: The plant should not be bought, sold, grown, carried or released into the environment. Exclusion zone: The plant should be eradicated from the land and the land kept free of the plant. Notify Local Control Authority if found. Core infestation: Land managers should mitigate the risk of new weeds being introduced to their land. Land managers should mitigate spread from their land.

Water soldier

Stratiotes aloides

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

Water star grass

Heteranthera zosterifolia

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Wheel cactus

Opuntia robusta

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

White blackberry

Rubus niveus

Regional Recommended Measure

Land managers should mitigate the risk of new weeds being introduced to their land. The plant should be eradicated from the land and the land kept free of the plant. The plant should not be bought, sold, grown, carried or released into the environment. Notify local control authority if found.

Willows

Salix species

Prohibition on certain dealings

Must not be imported into the state, sold, bartered, exchanged or offered for sale.

All species in the *Salix* genus have this requirement, except *Salix babylonica* (weeping willows), *Salix x calodendron* (pussy willow) and *Salix x reichardtii* (sterile pussy willow)

Witchweeds
Striga species

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

All species in the *Striga* genus are Prohibited Matter in NSW, except the native *Striga parviflora*

Yellow burrhead
Limnocharis flava

Prohibited Matter

A person who deals with prohibited matter or a carrier of prohibited matter is guilty of an offence. A person who becomes aware of or suspects the presence of prohibited matter must immediately notify the Department of Primary Industries

The content provided here is for information purposes only and is taken from the *Biosecurity Act 2015* and its subordinate legislation, and the Regional Strategic Weed Management Plans (published by each Local Land Services region in NSW). It describes the state and regional priorities for weeds in New South Wales, Australia.



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 21-Apr-2022

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar)	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	12
Listed Threatened Species:	84
Listed Migratory Species:	43

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	871
Commonwealth Heritage Places:	3
Listed Marine Species:	50
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	1
Regional Forest Agreements:	None
Nationally Important Wetlands:	2
EPBC Act Referrals:	30
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities

[\[Resource Information \]](#)

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Castlereagh Scribbly Gum and Agnes Banks Woodlands of the Sydney Basin Bioregion	Endangered	Community likely to occur within area	In feature area
Coastal Swamp Oak (<i>Casuarina glauca</i>) Forest of New South Wales and South East Queensland ecological community	Endangered	Community likely to occur within area	In feature area
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	Community known to occur within area	In feature area
Coastal Upland Swamps in the Sydney Basin Bioregion	Endangered	Community may occur within area	In buffer area only
Cooks River/Castlereagh Ironbark Forest of the Sydney Basin Bioregion	Critically Endangered	Community likely to occur within area	In feature area
Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	Critically Endangered	Community likely to occur within area	In feature area
River-flat eucalypt forest on coastal floodplains of southern New South Wales and eastern Victoria	Critically Endangered	Community likely to occur within area	In feature area
Shale Sandstone Transition Forest of the Sydney Basin Bioregion	Critically Endangered	Community likely to occur within area	In feature area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area	In buffer area only
Turpentine-Ironbark Forest of the Sydney Basin Bioregion	Critically Endangered	Community likely to occur within area	In buffer area only
Upland Basalt Eucalypt Forests of the Sydney Basin Bioregion	Endangered	Community may occur within area	In buffer area only
Western Sydney Dry Rainforest and Moist Woodland on Shale	Critically Endangered	Community may occur within area	In feature area

Listed Threatened Species

[\[Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.

Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In buffer area only
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Callocephalon fimbriatum Gang-gang Cockatoo [768]	Endangered	Species or species habitat likely to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In feature area
Dasyornis brachypterus Eastern Bristlebird [533]	Endangered	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat may occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat known to occur within area	In feature area
Pycnoptilus floccosus Pilotbird [525]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area	In feature area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche bulleri platei Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

FISH

Epinephelus daemeli Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Macquaria australasica Macquarie Perch [66632]	Endangered	Species or species habitat known to occur within area	In feature area
Thunnus maccoyii Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only

FROG

Heleioporus australiacus Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Litoria aurea Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat known to occur within area	In feature area
Mixophyes balbus Stuttering Frog, Southern Barred Frog (in Victoria) [1942]	Vulnerable	Species or species habitat may occur within area	In buffer area only

MAMMAL

Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat known to occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat known to occur within area	In feature area
Isoodon obesulus obesulus Southern Brown Bandicoot (eastern), Southern Brown Bandicoot (south-eastern) [68050]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Petauroides volans Greater Glider [254]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Petrogale penicillata Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area	In feature area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat known to occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area	In feature area
PLANT			
Acacia bynoeana Bynoe's Wattle, Tiny Wattle [8575]	Vulnerable	Species or species habitat may occur within area	In feature area
Acacia pubescens Downy Wattle, Hairy Stemmed Wattle [18800]	Vulnerable	Species or species habitat known to occur within area	In feature area
Acacia terminalis subsp. terminalis MS Sunshine Wattle (Sydney region) [88882]	Endangered	Species or species habitat may occur within area	In buffer area only
Allocasuarina glareicola [21932]	Endangered	Migration route known to occur within area	In feature area
Caladenia tessellata Thick-lipped Spider-orchid, Daddy Long-legs [2119]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat likely to occur within area	In feature area
Deyeuxia appressa [7438]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Eucalyptus camfieldii Camfield's Stringybark [15460]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Genoplesium baueri Yellow Gnat-orchid, Bauer's Midge Orchid, Brittle Midge Orchid [7528]	Endangered	Species or species habitat likely to occur within area	In feature area
Grevillea parviflora subsp. parviflora Small-flower Grevillea [64910]	Vulnerable	Species or species habitat known to occur within area	In feature area
Hibbertia puberula subsp. glabrescens [86645]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Leucopogon exolasius Woronora Beard-heath [14251]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Melaleuca biconvexa Biconvex Paperbark [5583]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Melaleuca deanei Deane's Melaleuca [5818]	Vulnerable	Species or species habitat known to occur within area	In feature area
Persicaria elatior Knotweed, Tall Knotweed [5831]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Persoonia hirsuta Hairy Geebung, Hairy Persoonia [19006]	Endangered	Species or species habitat likely to occur within area	In feature area
Persoonia nutans Nodding Geebung [18119]	Endangered	Species or species habitat known to occur within area	In feature area
Pimelea curviflora var. curviflora [4182]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pimelea spicata Spiked Rice-flower [20834]	Endangered	Species or species habitat known to occur within area	In feature area
Pomaderris brunnea Rufous Pomaderris, Brown Pomaderris [16845]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pterostylis saxicola Sydney Plains Greenhood [64537]	Endangered	Species or species habitat known to occur within area	In feature area
Rhizanthella slateri Eastern Underground Orchid [11768]	Endangered	Species or species habitat may occur within area	In feature area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Rhodomyrtus psidioides Native Guava [19162]	Critically Endangered	Species or species habitat may occur within area	In feature area
Syzygium paniculatum Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry [20307]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thelymitra kangaloonica Kangaloon Sun Orchid [81861]	Critically Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area	In buffer area only

REPTILE

Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Hoplocephalus bungaroides Broad-headed Snake [1182]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area	In buffer area only

SHARK

Sphyrna lewini Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only
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SNAIL

Pommerhelix duralensis Dural Land Snail [85268]	Endangered	Species or species habitat likely to occur within area	In buffer area only
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Listed Migratory Species [[Resource Information](#)]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Anous stolidus Common Noddy [825]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Ardenna grisea Sooty Shearwater [82651]		Species or species habitat likely to occur within area	In buffer area only
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Migratory Marine Species			
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
<i>Eretmochelys imbricata</i> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
<i>Lamna nasus</i> Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area	In buffer area only
<i>Mobula alfredi</i> as <i>Manta alfredi</i> Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In buffer area only
<i>Mobula birostris</i> as <i>Manta birostris</i> Giant Manta Ray [90034]		Species or species habitat may occur within area	In buffer area only
<i>Natator depressus</i> Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Migratory Terrestrial Species			
<i>Cuculus optatus</i> Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
<i>Hirundapus caudacutus</i> White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
<i>Monarcha melanopsis</i> Black-faced Monarch [609]		Species or species habitat known to occur within area	In feature area
<i>Motacilla flava</i> Yellow Wagtail [644]		Species or species habitat likely to occur within area	In feature area
<i>Myiagra cyanoleuca</i> Satin Flycatcher [612]		Species or species habitat known to occur within area	In feature area
<i>Rhipidura rufifrons</i> Rufous Fantail [592]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sympsiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat may occur within area	In buffer area only
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In buffer area only
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands

[[Resource Information](#)]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Communications, Information Technology and the Arts - Australian Postal Corporation		
Commonwealth Land - Australian Postal Commission [13864]	NSW	In buffer area only
Commonwealth Land - Australian Postal Commission [15698]	NSW	In buffer area only
Commonwealth Land - Australian Postal Commission [13845]	NSW	In buffer area only

Communications, Information Technology and the Arts - Telstra Corporation Limited

Commonwealth Land - Australian Telecommunications Commission [13883]	NSW	In buffer area only
Commonwealth Land - Australian Telecommunications Commission [13882]	NSW	In buffer area only
Commonwealth Land - Australian Telecommunications Commission [14485]	NSW	In buffer area only
Commonwealth Land - Australian Telecommunications Commission [14484]	NSW	In buffer area only
Commonwealth Land - Australian Telecommunications Corporation [13503]	NSW	In buffer area only
Commonwealth Land - Telstra Corporation Limited [13860]	NSW	In buffer area only
Commonwealth Land - Telstra Corporation Limited [14442]	NSW	In buffer area only
Commonwealth Land - Telstra Corporation Limited [13849]	NSW	In buffer area only

Defence

Commonwealth Land - Defence Service Homes Corporation [13869]	NSW	In buffer area only
Commonwealth Land - Defence Service Homes Corporation [13872]	NSW	In buffer area only
Commonwealth Land - Defence Service Homes Corporation [13873]	NSW	In buffer area only
Commonwealth Land - Defence Service Homes Corporation [13870]	NSW	In buffer area only
Commonwealth Land - Defence Service Homes Corporation [13871]	NSW	In buffer area only
Commonwealth Land - Defence Service Homes Corporation [13876]	NSW	In buffer area only
Commonwealth Land - Defence Service Homes Corporation [13877]	NSW	In buffer area only
Commonwealth Land - Defence Service Homes Corporation [13874]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Service Homes Corporation [13875]	NSW	In buffer area only
Commonwealth Land - Defence Service Homes Corporation [13846]	NSW	In buffer area only
Defence - CAMP SAPPER-EAST HILLS (Lot 2) : CAMP SAPPER TRAINING AREA (Lot 1) [10237]	NSW	In buffer area only
Defence - CAMP SAPPER-EAST HILLS (Lot 2) : CAMP SAPPER TRAINING AREA (Lot 1) [10236]	NSW	In buffer area only
Defence - EAST HILLS BARRACKS - OP SAFE HAVEN [10191]	NSW	In buffer area only
Defence - MOOREBANK AREA INC SME [10205]	NSW	In buffer area only
Defence - Suite 8, Library Plaza [10230]	NSW	In buffer area only
Defence - VILLAWOOD - MOTOR REPAIR W/SHP (VILLAWOOD GEMS BASE) [10231]	NSW	In buffer area only
Defence - Defence Housing Authority		
Commonwealth Land - Defence Housing Authority [13668]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13746]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13828]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15860]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13757]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15863]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13662]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15864]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13663]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15861]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13660]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15862]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13661]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15867]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13741]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13740]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15865]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13743]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15866]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13742]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13524]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15470]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13525]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15471]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15472]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15473]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13520]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13521]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13522]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13523]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16353]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15478]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15854]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15479]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16352]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15576]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15474]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15475]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15476]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15477]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15875]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13614]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13617]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13616]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13744]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13619]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15597]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13618]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15873]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13752]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13753]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15871]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13754]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15870]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13755]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15877]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13756]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15876]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15464]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16182]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13615]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16185]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15549]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16180]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16183]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15462]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15466]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15467]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16181]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13745]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16341]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [15463]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15468]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15812]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15469]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16186]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13515]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16187]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16543]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16027]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16026]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13449]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13428]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13613]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13447]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13612]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13448]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13611]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13445]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13610]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13446]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16548]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13443]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16549]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13444]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16540]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16541]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15497]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [15494]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15495]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13517]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15492]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13516]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13511]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13510]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16542]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13513]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16545]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13512]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15808]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13855]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13856]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13857]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15496]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13665]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13749]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13748]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13604]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16552]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16546]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16555]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16547]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16554]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16544]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13664]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [15819]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13603]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15818]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16551]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13506]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16550]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15580]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16553]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13852]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13853]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13850]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13851]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15813]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13540]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15810]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13767]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13854]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15858]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15561]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13542]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13526]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13601]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13600]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13529]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15578]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13527]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13528]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [15146]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13770]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13508]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13509]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13678]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13759]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [14639]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13609]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13677]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13606]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13418]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13830]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [14638]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13608]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13674]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13605]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13673]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13602]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13676]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13607]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13675]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13500]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13501]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13502]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15551]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15553]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13583]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [15552]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15555]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13779]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15554]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13671]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15557]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15556]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13973]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13441]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13977]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13440]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13504]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13505]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13775]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13507]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13776]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13777]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13774]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13772]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13773]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13679]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13976]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13975]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13974]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13594]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13596]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13597]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13590]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13591]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13592]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13593]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13598]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13599]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15323]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13672]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13682]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13670]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13778]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15869]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15868]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [14642]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [14441]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [14635]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16523]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [14636]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [14637]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [14634]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15322]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15321]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16522]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13768]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13769]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13766]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13378]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13765]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13764]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13641]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13646]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13451]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13644]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13645]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13761]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13760]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13763]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13762]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13640]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16539]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16538]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15498]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15148]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15691]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13648]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15493]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13649]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16537]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15491]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15490]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13642]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13643]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15693]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16083]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13584]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13587]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13586]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13581]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13589]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13588]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13585]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13580]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13582]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16355]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16354]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15575]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15573]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15577]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15574]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15842]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15845]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13793]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15840]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13792]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15159]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13364]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15154]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13365]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15841]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13366]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13367]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13361]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13409]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13363]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13771]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15846]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15847]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15844]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13799]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13794]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16479]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13798]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16478]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13791]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13790]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13797]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13796]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13795]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13497]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13496]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13495]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13494]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13498]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13499]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13492]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13493]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13490]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13491]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [15997]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15998]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15996]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13450]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15325]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13804]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15999]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13667]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13666]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15874]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15878]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13518]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13514]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15991]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15990]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15993]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15992]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15995]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15994]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15853]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15852]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15851]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15850]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16004]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13812]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15859]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13813]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [16502]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13396]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13394]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13393]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13391]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15156]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13392]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15155]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13399]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13390]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15799]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15798]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15849]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15152]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15151]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15150]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13410]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15171]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15174]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15175]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15173]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15170]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13655]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16509]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16508]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13658]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15770]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13659]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16506]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13562]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16507]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13563]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16504]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16505]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13368]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13400]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16503]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13402]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13747]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13404]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13818]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13819]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13815]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15772]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15785]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15773]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13816]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15789]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15771]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13814]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15776]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15781]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15777]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15784]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [15774]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15787]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15775]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13628]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13716]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13715]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15778]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13714]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15779]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13652]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15142]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15141]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13654]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13647]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13657]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13568]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13569]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13564]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13650]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15987]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13653]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15980]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13656]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15981]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13651]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13389]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15982]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13561]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15989]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15984]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15985]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15143]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15986]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13565]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13566]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13567]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13472]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13560]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15988]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15856]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13629]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13810]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15848]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15149]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13620]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13578]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13621]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15147]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13622]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13817]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15145]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13624]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15144]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13625]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13626]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15843]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13627]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13719]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15828]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15857]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13386]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13717]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13387]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13710]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13384]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13711]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13385]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13712]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13713]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15158]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15791]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13718]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15790]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13811]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15797]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15855]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15796]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15579]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15795]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13388]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15794]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13382]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13549]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13383]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13473]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13380]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13381]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15983]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15582]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13487]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15583]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13480]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15584]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13485]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15585]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13486]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13484]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16488]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16489]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13403]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15157]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13401]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13481]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15581]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13482]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16510]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16513]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16516]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [16511]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16514]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16517]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16515]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16518]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16512]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16519]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15780]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13370]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13371]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15782]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13376]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15783]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13377]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13488]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13489]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13479]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13478]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13800]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15786]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13369]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13374]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13405]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13406]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13595]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13707]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13706]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13705]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13704]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [14641]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [14640]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13758]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13373]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13483]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13703]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13702]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13835]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13379]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13832]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13475]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13809]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16364]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13422]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13476]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13430]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13570]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13837]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13474]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13834]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13477]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13426]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13421]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13420]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13423]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13701]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13708]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15839]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13700]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13709]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15836]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15835]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15838]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15837]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15834]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13471]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13375]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13574]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13575]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13801]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15319]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15488]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15316]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15317]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15921]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13398]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13843]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15922]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13838]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13431]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13831]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13833]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [15832]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15833]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15831]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15830]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15165]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15164]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15167]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15166]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15161]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15160]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13571]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13573]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13572]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15801]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15800]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15807]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15806]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13735]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15803]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15802]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13684]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13685]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13439]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13438]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13686]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13737]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13687]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13734]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13546]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13978]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15788]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15153]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13731]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13730]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13733]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13732]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13739]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13738]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15320]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16302]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13736]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13547]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13545]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13544]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13543]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13429]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13751]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13541]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16521]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13424]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13425]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13427]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16003]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15809]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [16005]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13729]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16000]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16001]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16002]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13720]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13681]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13725]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13683]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13680]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13726]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15805]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13721]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16007]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13724]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13727]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15804]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13419]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13417]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15820]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13827]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15827]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15822]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15821]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15824]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15829]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15826]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13780]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15825]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15823]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15172]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13781]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13783]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13782]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13785]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13784]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13787]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13786]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13789]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13788]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13519]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16437]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13750]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13555]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13552]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13553]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13550]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13551]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13979]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13558]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13559]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13554]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13556]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13557]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13415]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13414]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13416]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13411]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13829]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13413]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13412]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15763]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13638]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13836]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13639]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15768]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15769]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13699]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13577]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13548]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13632]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13576]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13633]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13690]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13698]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13579]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15765]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15764]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15767]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15766]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15326]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13433]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15168]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13534]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16560]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13432]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13728]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13536]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13535]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15762]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13530]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13531]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13532]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13533]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15163]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15162]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13697]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13694]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13722]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15558]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13696]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13693]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13723]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13634]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13695]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13692]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15324]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13630]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13637]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13636]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13635]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15559]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16438]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15550]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13631]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13807]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13808]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16365]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13470]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13372]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13802]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15560]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15565]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15562]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13839]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13805]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13806]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13842]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15489]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13840]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13841]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13539]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13436]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13437]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13434]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - Defence Housing Authority [13435]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15487]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16480]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [16487]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15817]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15814]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15811]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15816]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13688]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15480]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15815]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13844]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [13689]	NSW	In buffer area only
Commonwealth Land - Defence Housing Authority [15481]	NSW	In buffer area only
Commonwealth Land - Director of War Service Homes [13865]	NSW	In buffer area only
Commonwealth Land - Director of War Service Homes [13863]	NSW	In buffer area only
Commonwealth Land - Director of War Service Homes [13861]	NSW	In buffer area only
Commonwealth Land - Director of War Service Homes [13884]	NSW	In buffer area only
Commonwealth Land - Director of War Service Homes [14480]	NSW	In buffer area only
Commonwealth Land - Director of War Service Homes [14483]	NSW	In buffer area only
Commonwealth Land - Director of War Service Homes [14474]	NSW	In buffer area only
Commonwealth Land - Director of War Service Homes [14479]	NSW	In buffer area only
Commonwealth Land - Director of War Service Homes [14478]	NSW	In buffer area only
Unknown		
Commonwealth Land - [15872]	NSW	In buffer area only
Commonwealth Land - [15465]	NSW	In buffer area only
Commonwealth Land - [16184]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [16188]	NSW	In buffer area only
Commonwealth Land - [13858]	NSW	In feature area
Commonwealth Land - [13859]	NSW	In buffer area only
Commonwealth Land - [13820]	NSW	In buffer area only
Commonwealth Land - [13442]	NSW	In buffer area only
Commonwealth Land - [13469]	NSW	In buffer area only
Commonwealth Land - [13463]	NSW	In buffer area only
Commonwealth Land - [13462]	NSW	In buffer area only
Commonwealth Land - [16520]	NSW	In buffer area only
Commonwealth Land - [13885]	NSW	In buffer area only
Commonwealth Land - [15692]	NSW	In buffer area only
Commonwealth Land - [15140]	NSW	In buffer area only
Commonwealth Land - [15694]	NSW	In buffer area only
Commonwealth Land - [13468]	NSW	In buffer area only
Commonwealth Land - [13464]	NSW	In buffer area only
Commonwealth Land - [13465]	NSW	In buffer area only
Commonwealth Land - [13466]	NSW	In buffer area only
Commonwealth Land - [13467]	NSW	In buffer area only
Commonwealth Land - [13362]	NSW	In buffer area only
Commonwealth Land - [13803]	NSW	In buffer area only
Commonwealth Land - [13397]	NSW	In buffer area only
Commonwealth Land - [13395]	NSW	In buffer area only
Commonwealth Land - [15792]	NSW	In buffer area only
Commonwealth Land - [13669]	NSW	In buffer area only
Commonwealth Land - [13623]	NSW	In buffer area only
Commonwealth Land - [15793]	NSW	In buffer area only
Commonwealth Land - [13848]	NSW	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [15318]	NSW	In buffer area only
Commonwealth Land - [16303]	NSW	In buffer area only
Commonwealth Land - [16006]	NSW	In buffer area only
Commonwealth Land - [13823]	NSW	In buffer area only
Commonwealth Land - [13821]	NSW	In buffer area only
Commonwealth Land - [13824]	NSW	In buffer area only
Commonwealth Land - [13825]	NSW	In buffer area only
Commonwealth Land - [13822]	NSW	In buffer area only
Commonwealth Land - [13826]	NSW	In buffer area only
Commonwealth Land - [13691]	NSW	In buffer area only
Commonwealth Land - [12926]	NSW	In buffer area only
Commonwealth Land - [15169]	NSW	In buffer area only
Commonwealth Land - [13537]	NSW	In buffer area only
Commonwealth Land - [12925]	NSW	In buffer area only
Commonwealth Land - [16361]	NSW	In buffer area only
Commonwealth Land - [15539]	NSW	In buffer area only
Commonwealth Land - [13538]	NSW	In buffer area only
Commonwealth Land - [13847]	NSW	In feature area

Commonwealth Heritage Places [\[Resource Information \]](#)

Name	State	Status	Buffer Status
Historic			
Bankstown Airport Air Traffic Control Tower	NSW	Listed place	In buffer area only
Old Army / Internment Camp Group Holsworthy	NSW	Listed place	In buffer area only

Indigenous			
Cubbitch Barta National Estate Area	NSW	Listed place	In buffer area only

Listed Marine Species [\[Resource Information \]](#)

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anous stolidus Common Noddy [825]		Species or species habitat may occur within area	In buffer area only
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat likely to occur within area	In buffer area only
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area	In buffer area only
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In feature area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea antipodensis gibsoni as Diomedea gibsoni Gibson's Albatross [82270]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area	In buffer area only
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat known to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area
Neophema chrysogaster Orange-bellied Parrot [747]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In buffer area only
Neophema chrysostoma Blue-winged Parrot [726]		Species or species habitat may occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pachyptila turtur Fairy Prion [1066]		Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In feature area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area	In buffer area only
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat may occur within area overfly marine area	In buffer area only
Thalassarche bulleri Buller's Albatross, Pacific Albatross [64460]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche bulleri platei as Thalassarche sp. nov. Northern Buller's Albatross, Pacific Albatross [82273]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche eremita Chatham Albatross [64457]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
<u>Thalassarche impavida</u> Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<u>Thalassarche melanophris</u> Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area	In buffer area only
<u>Thalassarche salvini</u> Salvin's Albatross [64463]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<u>Thalassarche steadi</u> White-capped Albatross [64462]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
<u>Tringa nebularia</u> Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area overfly marine area	In feature area
Reptile			
<u>Caretta caretta</u> Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area	In buffer area only
<u>Chelonia mydas</u> Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
<u>Dermochelys coriacea</u> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In buffer area only
<u>Eretmochelys imbricata</u> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
<u>Natator depressus</u> Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area	In buffer area only

Extra Information

State and Territory Reserves [\[Resource Information \]](#)

Protected Area Name	Reserve Type	State	Buffer Status
Georges River	National Park	NSW	In buffer area only

Nationally Important Wetlands [\[Resource Information \]](#)

Wetland Name	State	Buffer Status
Liverpool Military Training Area	NSW	In buffer area only
Voyager Point	NSW	In buffer area only

EPBC Act Referrals [\[Resource Information \]](#)

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Development of an Aged Care Facility	2007/3660	Controlled Action	Post-Approval	In buffer area only
Lyn Parade Extension	2004/1392	Controlled Action	Post-Approval	In feature area
Moorebank Avenue Realignment	2020/8839	Controlled Action	Post-Approval	In buffer area only
Moorebank Intermodal Terminal Facility	2011/6229	Controlled Action	Post-Approval	In buffer area only
Moorebank Intermodal Terminal Project	2011/6086	Controlled Action	Post-Approval	In buffer area only
South Sydney Freight Rail Line	2005/2393	Controlled Action	Post-Approval	In buffer area only
Upper South Creek Advanced Water Recycling Centre	2020/8816	Controlled Action	Assessment Approach	In buffer area only
Widening three roads and construction of an access road to Bankstown Business Estate development	2016/7719	Controlled Action	Completed	In feature area

Not controlled action

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
2A and 2B Mavis Street, Revesby	2020/8665	Not Controlled Action	Completed	In buffer area only
Boral Moorebank Quarry Rehabilitation	2000/115	Not Controlled Action	Completed	In buffer area only
construct access road and install underground water main	2005/2299	Not Controlled Action	Completed	In buffer area only
construction of a road linking Newbridge Road and Nuwarra Road	2004/1843	Not Controlled Action	Completed	In feature area
Decommissioning of the Australia Post Mail Distribution Centre	2002/612	Not Controlled Action	Completed	In buffer area only
Demobilisation of Lot 3001, Moorebank Intermodal Terminal, Liverpool, Sydney	2014/7152	Not Controlled Action	Completed	In buffer area only
Demolition and replacement of footbridge	2002/643	Not Controlled Action	Completed	In buffer area only
Development of Surplus Land at the Potts Hill Reservoirs Site for Residential an	2009/4962	Not Controlled Action	Completed	In buffer area only
Extension to Lucas Heights production building	2003/1114	Not Controlled Action	Completed	In buffer area only
Georges River Program 2	2003/999	Not Controlled Action	Completed	In buffer area only
Holsworthy Redevelopment Project Program of Works	2004/1391	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Install Window Air-Conditioning Unit to Building 2, 361 Milperra Rd, Bankstown, NSW	2013/7107	Not Controlled Action	Completed	In buffer area only
Shipment of Spent Nuclear Fuel to USA	2007/3672	Not Controlled Action	Completed	In buffer area only
Staged Revelopment of Riverlands Golf Club Site	2008/4464	Not Controlled Action	Completed	In feature area
subdivision and development on the Rhodes Peninsula for residential and commerci	2003/1249	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Sydney Primary Loop Gas Pipeline	2006/2622	Not Controlled Action	Completed	In feature area
Widening of the M5 Southwest Motorway	2010/5665	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Moorebank Units Relocation Project, Holsworthy Training Area, NSW	2012/6462	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Villawood Immigration Detention Centre Redevelopment	2006/2725	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Bioregional Assessments

SubRegion	BioRegion	Website	Buffer Status
Sydney	Sydney Basin	BA website	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Department of Land and Resource Management, Northern Territory](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- [-Natural history museums of Australia](#)
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- [-Australian Tropical Herbarium, Cairns](#)
- [-eBird Australia](#)
- [-Australian Government – Australian Antarctic Data Centre](#)
- [-Museum and Art Gallery of the Northern Territory](#)
- [-Australian Government National Environmental Science Program](#)
- [-Australian Institute of Marine Science](#)
- [-Reef Life Survey Australia](#)
- [-American Museum of Natural History](#)
- [-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [-Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- [-Other groups and individuals](#)

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact Us](#) page.

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[Department of Agriculture Water and the Environment](#)

GPO Box 858

Canberra City ACT 2601 Australia

+61 2 6274 1111

Appendix C

Construction noise assessment

Distanced Based Assessment (Noisiest Plant)

Steps for Assessment:

- Schedule noisy works to occur in standard hours where possible or before 11pm and implement Standard Measures.
 - Select the representative noise area category. The worksheet titled 'Representative Noise Environments' provides a number of examples to help select the noise area category.
 - Select the noisiest plant. If not found in drop-down list, refer to 'Source List' and select a representative plant with equivalent sound power level.
 - Is there line of sight to receiver? Select the appropriate scenario from the drop-down list. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list. Solid barriers can be in the form of road cutting, timber lapped and capped fence, shipping container, site office, etc. Substantial solid barriers are barriers greater than 5 metres in height, or multiple rows of houses or a sound barrier specifically designed to mitigate construction noise. Please note that vegetation and trees are not considered to be a form of solid barrier and any gaps would compromise the acoustic integrity of the solid barrier.
 - Determine if there are any receivers (both residential and non-residential receivers) within the affected distance for each relevant time period. Consider background LA90 noise measurements to check assumption in Step #2 if:
 - there are many affected receivers and the impact duration at any one receiver is more than 3 weeks; or
 - there are a few affected receivers and the impact duration at any one receiver is more than 6 weeks.
 Note that consideration need to be given to the construction staging plan when determining impact duration.
 - Identify if there are any receivers within the additional mitigation measures distances and identify feasible and reasonable measures at each receiver.
 - Where night works are involved, identify sleep disturbance affected distance.
 - Document the outcomes of these steps.
- (Note that suitable noise management levels for other noise-sensitive businesses not identified in the Construction Noise Estimator should be investigated on a project-by-project basis. Please contact a Roads and Maritime noise specialist for more information.)

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Note that spot check verification of noise levels and individual briefings are not required for projects with less than 3 weeks impact duration

Please pick from drop-down list in orange cells

Noise area category		R2
RBL or LA90	Day	45
Background level (dB(A))	Evening	40
	Night	35
	Day	55
LAeq(5minute) Noise Management Level (dB(A))	Day (OOHW)	50
	Evening	45
	Night	40
Noisiest plant		5T Excavator
Is there line of sight to receiver?		Yes

Residential receiver

	Affected distance (m)	LAeq(5minute) noise level above background (LA90)												LAeq(15minute) 75 dB(A) or greater (Highly affected)			Sleep disturbance LAmax 65 dB(A)	
		5 to 10 dB(A)			10 to 20 dB(A)			20 to 30 dB(A)			> 30 dB(A)							
		Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))					
Undeveloped green fields, rural areas with isolated dwellings	Day	50																
	Day (OOHW)	85																
	Evening	130																
	Night	185	N	185	40	N,R1,DR	50	55	N,R1,DR	25	65	N,R1,DR,P,C,SN	10	75	N,P,C,RO	10	75	
Developed settlements (urban and suburban)	Day	10																
	Day (OOHW)	95																
	Evening	145																
	Night	220	N	220	40	N,R1,DR	55	55	N,R1,DR	25	65	N,R1,DR,P,C,SN	10	75	N,P,C,RO	10	75	55
Propagation across a valley / over water	Day	65																
	Day (OOHW)	105																
	Evening	175																
	Night	280	N	280	40	N,R1,DR	105	50	N,R1,DR	40	60	N,R1,DR,P,C,SN	15	70	N,P,C,RO	10	75	65

Non-residential receiver

	Standard hours	LAeq(15minute) noise level above NML									LAeq(15minute) 75 dB(A) or greater (Highly affected)		
		< 10 dB(A)			10 to 20 dB(A)			> 20 dB(A)					
		Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))			
Classroom at schools and other educational institutions	Day	55	25		N	25	65	N,P,C,RO	10	75			
Hospital wards and operating theatres	Day	65	25										
Place of worship	Day	55	50		N	25	65	N,P,C,RO	10	75			
Active recreation	Day	65	25										
Passive recreation	Day	60	30										
Industrial premise	Day	75	10										
Offices, retail outlets	Day	70	15										

	OOHW	LAeq(15minute) noise level above NML											
		< 5 dB(A)			5 to 15 dB(A)			15 to 25 dB(A)			> 25 dB(A)		
		Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))
Hospital wards and operating theatres	Evening	65	25		N,R1,DR	15	70	N,R1,DR	5	80	N,R1,DR,P,C,SN	2	90
	Night	65	25	N	25	65	N,P,C,SN,R2,DR	5	80	AA,N,P,C,SN,R2,DR	2	90	
	Evening	55	50		N,R1,DR	30	60	N,R1,DR	15	70	N,R1,DR,P,C,SN	5	80
Place of worship	Evening	55	50		N,R2,NR	30	60	N,P,C,SN,R2,DR	15	70	AA,N,P,C,SN,R2,DR	5	80
	Night	55	50	N	50	55	N,R1,DR	5	80	N,R1,DR,P,C,SN	2	90	
	Evening	65	25		N,R1,DR	15	70	N,R1,DR	5	80	N,R1,DR,P,C,SN	2	90
Active recreation	Evening	60	30		N,R1,DR	25	65	N,R1,DR	10	75	N,R1,DR,P,C,SN	3	85
	Evening	75	10		N,R1,DR	5	80	N,R1,DR	2	90	N,R1,DR,P,C,SN	1	100
	Night	75	10		N,R2,NR	5	80	N,P,C,SN,R2,DR	2	90	AA,N,P,C,SN,R2,DR	1	100
Passive recreation	Evening	70	15		N,R1,DR	10	75	N,R1,DR	3	85	N,R1,DR,P,C,SN	1	95
	Evening	70	15		N,R2,NR	10	75	N,P,C,SN,R2,DR	3	85	AA,N,P,C,SN,R2,DR	1	95
	Night	70	15	N	15	70	N,P,C,SN,R2,DR	3	85	AA,N,P,C,SN,R2,DR	1	95	

Non-residential receiver

	Standard hours	LAeq(15minute) noise level above NML									LAeq(15minute) 75 dB(A) or greater (Highly affected)		
		< 10 dB(A)			10 to 20 dB(A)			> 20 dB(A)					
		Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))			
Classroom at schools and other educational institutions	Day	55	25		N	25	65	N,P,C,RO	10	75			
Hospital wards and operating theatres	Day	65	25										
Place of worship	Day	55	55										
Active recreation	Day	65	25										
Passive recreation	Day	60	35										

Industrial premise	Day	75	10	N,PC,RO	10	75
Offices, retail outlets	Day	70	15	N,PC,RO	10	75

		L _{Aeq} (15min) noise level above NML												
		< 5 dB(A)			5 to 15 dB(A)			15 to 25 dB(A)			> 25 dB(A)			
Period	NML	Affected distance (m)	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))
Hospital wards and operating theatres	Evening	65	25			N, R1, DR	15	70	N, R1, DR	5	80	N, R1, DR, PC, SN	2	90
	Night	65	25	N	25	65	N, R2, NR	15	70	N, PC, SN, R2, DR	5	80	AA, N, PC, SN, R2, DR	2
Place of worship	Evening	55	55			N, R1, DR	35	60	N, R1, DR	15	70	N, R1, DR, PC, SN	5	80
	Night	55	55	N	55	55	N, R2, NR	35	60	N, PC, SN, R2, DR	15	70	AA, N, PC, SN, R2, DR	5
Active recreation	Evening	65	25			N, R1, DR	15	70	N, R1, DR	5	80	N, R1, DR, PC, SN	2	90
	Evening	60	35			N, R1, DR	25	65	N, R1, DR	10	75	N, R1, DR, PC, SN	3	85
Industrial premise	Evening	75	10			N, R1, DR	5	80	N, R1, DR	2	90	N, R1, DR, PC, SN	1	100
	Night	75	10	N	10	75	N, R2, NR	5	80	N, PC, SN, R2, DR	2	90	AA, N, PC, SN, R2, DR	1
Offices, retail outlets	Evening	70	15			N, R1, DR	10	75	N, R1, DR	3	85	N, R1, DR, PC, SN	1	95
	Night	70	15	N	15	70	N, R2, NR	10	75	N, PC, SN, R2, DR	3	85	AA, N, PC, SN, R2, DR	1

		L _{Aeq} (15min) noise level above NML												
		< 10 dB(A)			10 to 20 dB(A)			L _{Aeq} (15min) 75 dB(A) or greater (Highly affected)						
Period	NML	Affected distance (m)	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))
Classroom at schools and other educational institutions	Day	55	65			N	25	65	N, PC, RO	10	75			
Hospital wards and operating theatres	Day	65	25						N, PC, RO	10	75			
	Day	55	65						N, PC, RO	10	75			
Place of worship	Day	55	65						N, PC, RO	10	75			
Active recreation	Day	65	25						N, PC, RO	10	75			
Passive recreation	Day	60	40						N, PC, RO	10	75			
Industrial premise	Day	75	10						N, PC, RO	10	75			
Offices, retail outlets	Day	70	15						N, PC, RO	10	75			

		L _{Aeq} (15min) noise level above NML												
		< 5 dB(A)			5 to 15 dB(A)			15 to 25 dB(A)			> 25 dB(A)			
Period	NML	Affected distance (m)	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))
Hospital wards and operating theatres	Evening	65	25			N, R1, DR	15	70	N, R1, DR	5	80	N, R1, DR, PC, SN	2	90
	Night	65	25	N	25	65	N, R2, NR	15	70	N, PC, SN, R2, DR	5	80	AA, N, PC, SN, R2, DR	2
Place of worship	Evening	55	65			N, R1, DR	40	60	N, R1, DR	15	70	N, R1, DR, PC, SN	5	80
	Night	55	65	N	65	55	N, R2, NR	40	60	N, PC, SN, R2, DR	15	70	AA, N, PC, SN, R2, DR	5
Active recreation	Evening	65	25			N, R1, DR	15	70	N, R1, DR	5	80	N, R1, DR, PC, SN	2	90
	Evening	60	40			N, R1, DR	25	65	N, R1, DR	10	75	N, R1, DR, PC, SN	5	85
Industrial premise	Evening	75	10			N, R1, DR	5	80	N, R1, DR	2	90	N, R1, DR, PC, SN	1	100
	Night	75	10	N	10	75	N, R2, NR	5	80	N, PC, SN, R2, DR	2	90	AA, N, PC, SN, R2, DR	1
Offices, retail outlets	Evening	70	15			N, R1, DR	10	75	N, R1, DR	5	85	N, R1, DR, PC, SN	1	95
	Night	70	15	N	15	70	N, R2, NR	10	75	N, PC, SN, R2, DR	5	85	AA, N, PC, SN, R2, DR	1

Distanced Based Assessment (Noisiest Plant)

Steps for Assessment:

- Schedule noisy works to occur in standard hours where possible or before 11pm and implement Standard Measures.
 - Select the representative noise area category. The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
 - Select the noisiest plant. If not found in drop-down list, refer to 'Source List' and select a representative plant with equivalent sound power level.
 - Is there line of sight to receiver? Select the appropriate scenario from the drop down list. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list. Solid barriers can be in the form of road cutting, timber lapped and capped fence, shipping container, site office, etc. Substantial solid barriers are barriers greater than 5 metres in height, or multiple rows of houses or a sound barrier specifically designed to mitigate construction noise. Please note that vegetation and trees are not considered to be a form of solid barrier and any gaps would compromise the acoustic integrity of the solid barrier.
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DR	Duration respite
AA	Alternative accommodation
V	Verification

Note that spot check verification of noise levels and individual briefings are not required for projects with less than 3 weeks impact duration

Please pick from drop-down list in orange cells

Noise area category		R2
Background level (dB(A))	Day	45
	Evening	40
	Night	35
LAeq (15minute) Noise Management Level (dB(A))	Day	55
	Day (OOHW)	50
	Evening	45
	Night	40
Noisiest plant		Microchilling Rig (Solimeo SM-14)
Is there line of sight to receiver?		Yes

Residential receiver

Affected distance (m)	LAeq(15minute) noise level above background (LA90)												LAeq(15minute) 75 dB(A) or greater (Highly affected)			Sleep disturbance L _{max} 65 dB(A)		
	Indicible			Clearly audible			Moderately intrusive			Highly intrusive			Measures	Within distance (m)	Mitigation level (dB(A))		Affected distance (m)	
	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))	Measures	Within distance (m)	Mitigation level (dB(A))						
Undeveloped green fields, rural areas with isolated dwellings	Day	85																
	Day (OOHW)	130																
	Evening	185																
	Night	270	N	270	40	N,R1,DR	85	55	N,R1,DR	30	65	N,R1,DR,PC,SN	15	75	N,P,C,RO	15	75	
Highly Affected	15																	30
Developed settlements (urban and suburban)	Day	95																
	Day (OOHW)	145																
	Evening	220																
	Night	325	N	335	40	N,R1,DR	145	50	N,R1,DR	55	60	N,R1,DR,PC,SN	25	70	N,P,C,RO	15	75	
Highly Affected	15																	35
Propagation across a valley / over water	Day	105																
	Day (OOHW)	175																
	Evening	280																
	Night	445	N	445	40	N,R1,DR	105	55	N,R1,DR	40	65	N,R1,DR,PC,SN	15	75	N,P,C,RO	15	75	
Highly Affected	15																	45

Non-residential receiver

Undeveloped green fields, rural areas with isolated dwellings

Standard hours	LAeq(15minute) noise level above NML						LAeq(15minute) 75 dB(A) or greater (Highly affected)					
	Period	NML	Affected distance (m)	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))			
Classroom at schools and other educational institutions	Day	55	85				N	30	65	N,P,C,RO	15	75
Hospital wards and operating theatres	Day	65	30							N,P,C,RO	15	75
Place of worship	Day	55	85				N	30	65	N,P,C,RO	15	75
Active recreation	Day	65	30							N,P,C,RO	15	75
Passive recreation	Day	60	50				N	25	70	N,P,C,RO	15	75
Industrial premise	Day	75	15							N,P,C,RO	15	75
Offices, retail outlets	Day	70	25							N,P,C,RO	15	75

OOHW	LAeq(15minute) noise level above NML														
	Period	NML	Affected distance (m)	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))			
Hospital wards and operating theatres	Evening	65	30				N,R1,DR	25	70	N,R1,DR	8	80	N,R1,DR,PC,SN	3	90
	Night	65	30	N	30	65	N,P,C,SN,R2,DR	8	80	AA,N,P,C,SN,R2,DR	3	90			
	Evening	55	85				N,R1,DR	25	70	N,R1,DR	8	80	N,R1,DR,PC,SN	3	90
Place of worship	Evening	55	85	N	85	55	N,P2,NR	50	60	N,P,C,SN,R2,DR	25	70	AA,N,P,C,SN,R2,DR	8	80
	Night	55	85				N,R1,DR	25	70	N,R1,DR	8	80	N,R1,DR,PC,SN	3	90
Active recreation	Evening	65	30				N,R1,DR	30	65	N,R1,DR	15	75	N,R1,DR,PC,SN	5	85
	Evening	60	50				N,R1,DR	8	80	N,R1,DR	3	90	N,R1,DR,PC,SN	1	100
Passive recreation	Evening	75	15				N,R1,DR	8	80	N,R1,DR	3	90	N,R1,DR,PC,SN	1	100
	Night	75	15	N	15	75	N,R2,NR	8	80	N,P,C,SN,R2,DR	3	90	AA,N,P,C,SN,R2,DR	1	100
Industrial premise	Evening	70	25				N,R1,DR	15	75	N,R1,DR	5	85	N,R1,DR,PC,SN	2	95
	Night	70	25	N	25	70	N,R2,NR	15	75	N,P,C,SN,R2,DR	5	85	AA,N,P,C,SN,R2,DR	2	95
Offices, retail outlets	Evening	70	25				N,R1,DR	15	75	N,R1,DR	5	85	N,R1,DR,PC,SN	2	95
	Night	70	25	N	25	70	N,R2,NR	15	75	N,P,C,SN,R2,DR	5	85	AA,N,P,C,SN,R2,DR	2	95

Non-residential receiver

Developed settlements (urban and suburban)

Standard hours	LAeq(15minute) noise level above NML						LAeq(15minute) 75 dB(A) or greater (Highly affected)					
	Period	NML	Affected distance (m)	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))			
Classroom at schools and other educational institutions	Day	55	95				N	35	65	N,P,C,RO	15	75
Hospital wards and operating theatres	Day	65	35							N,P,C,RO	15	75
Place of worship	Day	55	95				N	35	65	N,P,C,RO	15	75
Active recreation	Day	65	35							N,P,C,RO	15	75
Passive recreation	Day	60	55				N	25	70	N,P,C,RO	15	75

Industrial premise	Day	75	15	N, P.C, RO	15	75
Offices, retail outlets	Day	70	25	N, P.C, RO	15	75

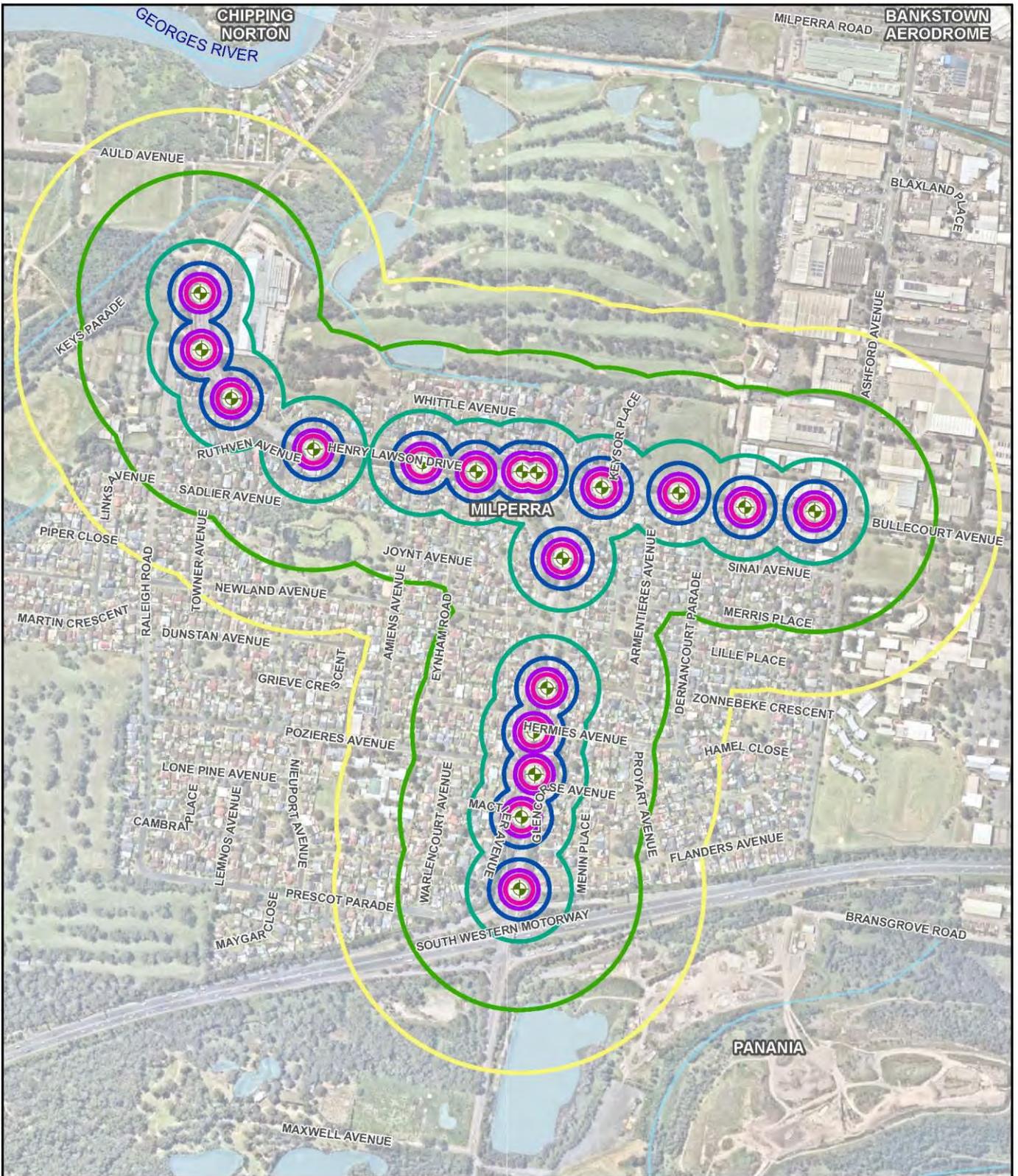
		L _{eq(15min)} noise level above NML														
		OORW			< 5 dB(A)			5 to 15 dB(A)			15 to 25 dB(A)			> 25 dB(A)		
Period	NML	Affected distance (m)	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))		
Hospital wards and operating theatres	Evening	65	35				N, R1, DR	25	70	N, R1, DR	8	80	N, R1, DR, PC, SN	3	90	
	Night	65	35	N	35	65	N, R2, NR	25	70	N, PC, SN, R2, DR	8	80	AA, N, PC, SN, R2, DR	3	90	
Place of worship	Evening	55	95				N, R1, DR	55	60	N, R1, DR	25	70	N, R1, DR, PC, SN	8	80	
	Night	55	95	N	95	55	N, R2, NR	55	60	N, PC, SN, R2, DR	25	70	AA, N, PC, SN, R2, DR	8	80	
Active recreation	Evening	65	35				N, R1, DR	25	70	N, R1, DR	8	80	N, R1, DR, PC, SN	3	90	
	Evening	60	55				N, R1, DR	35	65	N, R1, DR	15	75	N, R1, DR, PC, SN	5	85	
Industrial premise	Evening	75	15				N, R1, DR	8	80	N, R1, DR	3	90	N, R1, DR, PC, SN	1	100	
	Night	75	15	N	15	75	N, R2, NR	8	80	N, PC, SN, R2, DR	3	90	AA, N, PC, SN, R2, DR	1	100	
Offices, retail outlets	Evening	70	25				N, R1, DR	15	75	N, R1, DR	5	85	N, R1, DR, PC, SN	2	95	
	Night	70	25	N	25	70	N, R2, NR	15	75	N, PC, SN, R2, DR	5	85	AA, N, PC, SN, R2, DR	2	95	

Non-residential receiver Propagation across a valley / over water		L _{eq(15min)} noise level above NML														
		Standard hours			< 10 dB(A)			10 to 20 dB(A)			> 20 dB(A)					
Period	NML	Affected distance (m)	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))					
Classroom at schools and other educational institutions	Day	55	105				N	40	65	N, P.C, RO	15	75				
Hospital wards and operating theatres	Day	65	40							N, P.C, RO	15	75				
	Day	55	105				N	40	65	N, P.C, RO	15	75				
Place of worship	Day	65	40							N, P.C, RO	15	75				
Active recreation	Day	60	65				N	25	70	N, P.C, RO	15	75				
Passive recreation	Day	75	15							N, P.C, RO	15	75				
Industrial premise	Day	70	25							N, P.C, RO	15	75				

		L _{eq(15min)} noise level above NML														
		OORW			< 5 dB(A)			5 to 15 dB(A)			15 to 25 dB(A)			> 25 dB(A)		
Period	NML	Affected distance (m)	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))	Measure	Within distance (m)	Mitigation level (dB(A))		
Hospital wards and operating theatres	Evening	65	40				N, R1, DR	25	70	N, R1, DR	10	80	N, R1, DR, PC, SN	3	90	
	Night	65	40	N	40	65	N, R2, NR	25	70	N, PC, SN, R2, DR	10	80	AA, N, PC, SN, R2, DR	3	90	
Place of worship	Evening	55	105				N, R1, DR	65	60	N, R1, DR	25	70	N, R1, DR, PC, SN	10	80	
	Night	55	105	N	105	55	N, R2, NR	65	60	N, PC, SN, R2, DR	25	70	AA, N, PC, SN, R2, DR	10	80	
Active recreation	Evening	65	40				N, R1, DR	25	70	N, R1, DR	10	80	N, R1, DR, PC, SN	3	90	
	Evening	60	65				N, R1, DR	40	65	N, R1, DR	15	75	N, R1, DR, PC, SN	5	85	
Industrial premise	Evening	75	15				N, R1, DR	10	80	N, R1, DR	3	90	N, R1, DR, PC, SN	1	100	
	Night	75	15	N	15	75	N, R2, NR	10	80	N, PC, SN, R2, DR	3	90	AA, N, PC, SN, R2, DR	1	100	
Offices, retail outlets	Evening	70	25				N, R1, DR	15	75	N, R1, DR	5	85	N, R1, DR, PC, SN	2	95	
	Night	70	25	N	25	70	N, R2, NR	15	75	N, PC, SN, R2, DR	5	85	AA, N, PC, SN, R2, DR	2	95	

Appendix D

Construction noise impact figures



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Proposed geotechnical investigations

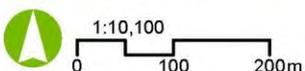
➤ Proposed pavement core

Noise impacts (OOHW)

- Highly intrusive noise – Evening OOHW
- Highly intrusive noise – Night OOHW

- Moderately intrusive noise – Evening OOHW
- Moderately intrusive noise – Night OOHW
- Noise affected area – Evening OOHW
- Noise affected area – Night OOHW

Source: Aurecon, TfNSW, Spatial Services, DPIE, Nearmap



Projection: GDA2020 MGA Zone 56

Henry Lawson Drive Upgrade Stage 1B **Minor Works REF**

Figure D-2: Noise impacts (OOHW)

