


SUMMARY ENVIRONMENTAL REPORT (SER)

SECTION 1

DECLARATION / COVER PAGE

Activity title: Connection of Load
 Worksite address: Junction Road, Schofields
 CAP / Project No. ULL2741
 Drawing No. 510067

On	26/06/2018	I,	Sachin Joshi, Designer
		Full name and position title	
		of	Connect Infrastructure Design
		Company Name	
DECLARE THAT:	1.	I have completed the required training to prepare and complete this SER in its entirety.	
	2.	All information contained in this document is to the best of my knowledge true and correct and does not by its presentation or omission of information, materially mislead.	
	3.	I have made all enquires and have provided sufficient evidence of database searches, which I believe are desirable and appropriate in respect of the SER, and I am aware that an authorised person within Endeavour Energy will rely upon this in deciding whether to certify the activity.	
	4.	I am satisfied that the SER examines and takes into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the activity (s111 of the <i>EP&A Act 1979</i> and cl228 of the <i>EP&A Reg 2000</i>).	
	5.	I have prepared an EMP that details relevant environmental risk mitigation measures and this has been signed off by construction crews for implementation.	
	6.	I have inserted Section 1 of this form inclusive of the EMP, site photographs and maps into the work package (Regional Services and ASPs).	
RECOMMENDATIONS – please check as appropriate:			
	<input checked="" type="checkbox"/>	The activity will not cause a significant adverse environmental impact and can proceed subject to the implementation of the mitigative measures as detailed in EMP (Section 1).	
	OR		
	<input type="checkbox"/>	A further EIA has been prepared and is attached OR the activity has been significantly modified and it will require reassessment.	
Signature:			
Contact address:	6 Progress Circuit Prestons		
Telephone number:	02 9733 3333		
Email address:	Design@connecteng.com.au		

THIS DECLARATION MUST BE SIGNED AND DATED BEFORE COMMENCING THE ACTIVITY

Approval of this SER can only be undertaken by authorised Endeavour Energy personnel. Approval is to be provided on the following basis:

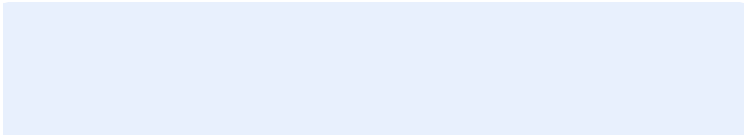
- The authorised person has undertaken the required training provided by Endeavour Energy;
- Approval is provided in accordance with Company Procedure GPE 0008 – Authority for Preparation and Approval of Environmental Assessments as an Authorised Network Operator;
- Approval is provided subject to satisfactory completion of all questions and through the provision of sufficient evidence of database searches;
- All identified environmental risks have been appropriately mitigated in the EMP.

If the Activity is designed by Endeavour Energy, the following environmental risks will render the SER to require verification by an Environmental Business Partner:

- Vegetation removal;
- Access needs to be improved;
- Generation of large amounts of spoil;
- If the worksite is located in or near a contaminated site;
- If the Activity involves a potential impact on threatened species, populations of endangered ecological communities;
- If the Activity involves a potential impact on local, state or commonwealth listed heritage items;
- If the Activity involves a potential impact on Aboriginal heritage;
- If “out of hours works” are proposed;
- If the Activity is likely to impact on Acid Sulfate Soils.

The Environmental Business Partner will escalate the SER to Network Environmental Assessment where there is a requirement for further detailed assessment (for example flora and fauna surveys, heritage investigations).

ASPs are to undertake an appropriate level of investigation to mitigate these environmental risks and provide sufficient evidence of this investigation to permit design certification. Network Connections is to escalate these SERs to Network Environmental Assessment.

Approved by authorised person	Click here to enter text. RAVI LAL
Signed	
Date	Click here to enter a date. 24-01-2019
Title	Click here to enter text. CWE

DOCUMENT CONTROL

Revision	Prepared by and Company Name	Date	Reviewed by and Company Name	Comments
V1	SJ	26/06/2018	SJ	Initial Submission
Choose an item.	Click here to enter text.	Click here to enter a date.	Click here to enter text.	Click here to enter text.
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Choose an item.	Click here to enter text.	Click here to enter a date.	Click here to enter text.	Click here to enter text.

ENVIRONMENTAL MANAGEMENT PLAN

INSTRUCTIONS:

- Step 1:** The following page contains a Generic Environmental Management Plan for the activity. Delete mitigation measures which are not relevant.
- Step 2:** Add additional rows to the table to document the environmental risks relevant to the activity (refer to SECTION 2 – Environmental Issues Questionnaire)
- Step 3:** Refer to FAT 0051 to supplement mitigation measures were required
- Step 4:** Seek advice from an environmental specialist where there is likelihood that identified environmental impacts cannot be mitigated by using these generic measures.
- Step 5:** Assign responsibility for the implementation of the environmental risk
- Step 6:** Summarise mitigation measures for high risk matters in the top right section of the construction drawing
- Step 7:** Section 1 of this form will be inserted into the work package for the implementation of mitigation measures to reduce environmental harm associated with the Activity
- Step 8:** The **Project Manager, Operations Manager and Site Supervisor** (internal employees) or relevant staff (ASPs) must review this Environmental Management Plan and sign the relevant section below to confirm the document has been read and understood.

Project Manager	
Name	
Signed (By signing here you confirm that you have read and understood the EMP and your responsibilities)	
Date	Click here to enter a date.
Title	
Operations Manager	
Name	Click here to enter text.
Signed (By signing here you confirm that you have read and understood the EMP and your responsibilities)	
Date	Click here to enter a date.
Title	Click here to enter text.
Site Supervisor	
Name	Click here to enter text.
Signed (By signing here you confirm that you have read and understood the EMP and your responsibilities)	
Date	Click here to enter a date.
Title	Click here to enter text.

ENVIRONMENTAL RISK	CONTROL MEASURES	RESPONSIBILITY FOR IMPLEMENTATION
General	Refer to the Environmental Guidelines Handbook for the identification of generic environmental mitigation measures when preparing the WHRA (or equivalent) for the Activity.	Construction personnel
Environmental Incidents	All accidents and emergencies must be reported by calling Endeavour Energy's Call Centre 131 003. Spills must be controlled and contained. Spill kits will be available at the worksite.	Construction personnel
COMMUNITY		
Community notification	<p>All landowners within or adjacent to the worksite (adjacent lands) will be notified in writing 14 to 30 days prior to the commencement of works. Notification will include:</p> <ul style="list-style-type: none"> • proposed commencement date; • anticipated duration of the works; • 24 hour contact details of the project manager or other appropriate contact person in the event of any complaints; and • details on proposed blocking or impairing access to driveways and/or residences/businesses (if any). <p>Evidence of this notification must be stored on the project file.</p>	Project Manager
Traffic management	Where required, approvals and Road Occupancy Licenses (ROLs) must be in place prior to works commencing. Comply with associated conditions.	Project Manager and construction personnel
Traffic management	Verify that affected residences/businesses are consulted with.	Project Manager
Traffic management	Safe pedestrian pathways are to be established and clearly signposted around the subject site for the duration of the proposal.	Construction personnel
Residents and normal working hours	Residents likely to be affected by excessive noise (for example, generator noise, excavation machinery, and the like) will be notified prior to work commencing.	Project Manager

ENVIRONMENTAL RISK	CONTROL MEASURES	RESPONSIBILITY FOR IMPLEMENTATION
Residents and normal working hours	The hours of work for any noise generating construction associated with the activity are to be limited to between 7am and 6pm, Mondays to Fridays inclusive, 7am to 1pm Saturdays or if audible on residential premises 8am to 1pm, with no construction activities to be undertaken on Sundays or public holidays.	Project Manager
Residents and normal working hours	Where out of normal working hours are proposed, these works will require notification to the local council and all nearby affected residents and sensitive receptors (for example hospitals, aged care homes). This notification must be at least 5 days but no more than 14 days prior to those works commencing. Out of normal working hours cannot be undertaken for more than two (2) consecutive nights in any one week. Seek advice from an environmental specialist in accordance with Company Policy 4.4 – Industrial and Construction Noise.	Project Manager
Residents and normal working hours	Implement noise control measures and respite requirements in accordance with the “Noise and Working Hours” section of the Environmental Guidelines Handbook.	Construction personnel
Air quality	Appropriate dust suppression and other emission reduction techniques will be employed as necessary in accordance with the “Air quality” section of the Environmental Guidelines Handbook.	Construction personnel
ACCESS TO THE WORKSITE		
Access tracks and pathways	<p>All vehicles should keep to any existing access tracks and/or entirely within any designated easement across private lands unless prior agreement with the landowner.</p> <p>Care must be taken with both vehicular access and construction works to minimise disturbance to any soils. Vehicles must use existing formed access tracks to minimise disturbance to the ground surface. If access to the subject is not suitable for the proposal, contact the relevant environmental personnel (internal employees).</p>	Construction personnel

ENVIRONMENTAL RISK	CONTROL MEASURES	RESPONSIBILITY FOR IMPLEMENTATION
	<p>No vegetation clearing or importation of materials must be undertaken to facilitate access unless it has been identified in the environmental assessment and appropriate approval has been obtained.</p> <p>Following the completion of the proposal, access tracks must be restored to the original condition.</p> <p>Access tracks located in sensitive environments (for example, National Parks and Water NSW Special Areas/Controlled Lands) must not be utilised following heavy rainfall (10 mm rainfall in a 24 hour period to 9 am), or if the access track is located on private lands, it must not be used if it is likely to cause damage and subsequent sedimentation and erosion. Damage to access tracks in these areas will be reported to relevant environmental personnel.</p>	
POLLUTION		
Erosion and sedimentation	Manage worksite to prevent sediment leaving the worksite. Refer to “Erosion and Sediment Control” section of the Environmental Guidelines Handbook for methods to achieve this outcome.	Construction personnel
Oils and Fuels	Manage worksite to prevent oils, fuels and chemicals entering a waterway, drain, stormwater drain or ground. Refer to “Oil Management” section of the Environmental Guidelines Handbook.	Construction personnel
Oils and Fuels	The storage and transport of oil and oil filled equipment containing PCBs may necessitate licensing requirements. Refer to “Oil Management” section of the Environmental Guidelines Handbook.	Construction personnel
Liquid waste	Manage the worksite to prevent unclean water leaving the worksite. Refer to “Dewatering” section of the Environmental Guidelines Handbook.	Construction personnel
ECOLOGY		
Threatened biodiversity, SEPP 14 – Coastal Wetlands, SEPP 26 – Littoral Rainforests	<p>All workers to be made aware of sensitive ecology in the worksite and the need to avoid impacts.</p> <p>No disturbance of vegetation.</p> <p>No disturbance of bush rock, tree hollows, wetlands, mangroves, nests, aquatic or other sensitive habitats.</p>	Project Manager and construction personnel

ENVIRONMENTAL RISK	CONTROL MEASURES	RESPONSIBILITY FOR IMPLEMENTATION
	No works in undisturbed areas (including storing equipment in, parking vehicles in or accessing the worksite). Refer to "Ecology" section of Environmental Guidelines Handbook	
Vegetation management	Any weeds that need to be cleared from the worksite must be disposed to an appropriate waste facility.	Construction personnel
Vegetation management	Any existing tree(s) that is not required to be removed on the worksite must be protected in accordance to AS4970 – Protection of trees on development sites. Protective fencing for these tree(s) should be erected and secured to restrict access before any machinery or materials are brought onto the worksite, and before the commencement of any works. Once erected, the protective fencing should not be altered or removed without approval.	Construction personnel
Vegetation management	Vehicles, plant, equipment and personnel will be appropriately cleaned (for example, removing soil clods, weed seed, and the like) before entry and when leaving the worksite in accordance with Endeavour Energy's Vehicle and Machinery Hygiene Protocol for Mitigating the Spread of Pests, Noxious Weeds and Diseases to prevent the spread of weeds and fungal pathogens (refer EMS 0004 Managing vegetation near electrical infrastructure and pest, weed and disease mitigation). These precautions are to be also implemented if the activity involves the generation of mulch.	Construction personnel
Marine vegetation	All workers to be made aware of the presence of seagrass, mangroves and waterways in the worksite and the need to avoid impacts. No disturbance of mangroves, seagrass, salt marsh, creeks or waterways. No disturbance of creeks or waterways. No works in undisturbed areas (including storing equipment in, parking vehicles in or accessing the site)	Construction personnel
HERITAGE		
Aboriginal heritage	Should any Aboriginal objects be encountered on the worksite, works must cease in the vicinity of the find and advice should be sought from an environmental specialist immediately. They will be responsible for notifying the OEH and Aboriginal stakeholders. A qualified archaeologist may also be required to assess the find.	Construction personnel

ENVIRONMENTAL RISK	CONTROL MEASURES	RESPONSIBILITY FOR IMPLEMENTATION
Non-European heritage	Should unanticipated non-aboriginal relics be discovered in the worksite, work in the vicinity must cease and advice should be sought from an environmental specialist to make a preliminary assessment of the find.	Construction personnel
CONTAMINATION AND WASTE		
Contamination	Workers to be made aware of the presence of known and suspected contaminated land. No ground disturbance in areas of known or suspected contaminated land.	Project Manager and Construction personnel
Spoil management	Re-use, storage and disposal of spoil is to occur in accordance with measures included in the "Spoil Management" section of the Environmental Guidelines Handbook	Project Manager and Construction personnel
Acid Sulfate Soil	Workers are to be made aware of the potential presence of Acid Sulfate Soil and the management of this material in accordance with measures included in the "Acid Sulfate Soil" section of the Environmental Guidelines Handbook.	Project Manager and Construction personnel
Waste	All rubbish/wastes must be removed from site daily and appropriately disposed to a licensed facility and/or segregated into correct receptacles available at FSCs. Waste dockets must be obtained for all wastes disposed to licensed facilities.	Construction personnel
Transformer Tank & Oil	<ul style="list-style-type: none"> • Ensure spill kits are accessible during oil handling activities or when using equipment that contains oil. • In the event of a spill, control, contain, clean-up and report the incident as per EMS 0008. • Establish drip trays under all valves and connection points during oil pumping. • Ensure adequate supervision during oil pumping to reduce the risk of overflow. • Establish permanent or portable bunds where oil filled equipment or containers will be stored on the site for more than one month. Dispose 	ASP1
Excess Soil	Soil is to be re-used where possible. Excess Soil shall be classed and disposed of in accordance with relevant guidelines. All excess or stockpiled materials shall be arranged to minimize the possibility of it being washed away or spread.	ASP1

ENVIRONMENTAL RISK	CONTROL MEASURES	RESPONSIBILITY FOR IMPLEMENTATION
Traffic & Pedestrian Access	ASP1 to ensure ROL is obtained and traffic control plan is implemented. Pedestrians to be provided with alternative route during works to minimize delays. All alternate routes shall be accessible to limited mobility pedestrians.	ASP1
Working hours	ASP1 to ensure the working hours within the public road must be notified through to the EPA, re-notification to the council. Noise and Vibration in relation to other notification requirements for out of hours work.	ASP1
Utilities and Services	<ul style="list-style-type: none"> Dial before you dig searches are to be carried out for the subject site prior to the proposal commencing and all services are to be avoided, where possible Recommendations and conditions provided by service providers (for example, Telstra, NBN) shall be adhered to during the operation of the proposal. If the proposal requires disruption to the local electricity supply, affected residences and businesses shall be notified seven (7) days prior to the disruption. This notification shall include an examination of the location of any life support systems that may be affected as a result of the disruption. Non-residential customers who may experience electricity disruption will be negotiated with as to the most convenient time to conduct an outage. If an agreement cannot be reached, a generator may need to be supplied. 	ASP1
Sedimentation & Erosion	<p>The removal of natural erosion controls such as grass, vegetation and mulch shall be minimised</p> <p>Any tracked soil must swept up or cleaned from the road pavement by the end of each day's work</p> <p>Sediment and erosion devices (e.g. fences, sandbags) downstream of disturbance shall be installed to prevent soil being washed into stormwater/water courses</p>	ASP1
Spoil Management	<p>Spoil shall be managed in accordance with EMS 0013 - Spoil management. Key points are provided below:</p> <p>Contaminated spoil</p> <ul style="list-style-type: none"> If spoil is excavated from a substation or FSC, or is suspected to be contaminated (including suspected contamination from onsite sensory observations), testing by an NATA accredited laboratory shall be carried out to determine the contamination status of the material. If the material is proved 	ASP1

ENVIRONMENTAL RISK	CONTROL MEASURES	RESPONSIBILITY FOR IMPLEMENTATION
	<p>to be contaminated, consideration shall be given to transport and storage requirements. Contaminated spoil shall not be re-used, and prior to disposal the material shall be classified. Following waste classification, the material shall be disposed of at a waste disposal facility licensed to accept that type of waste.</p> <ul style="list-style-type: none"> • If spoil is contaminated with asbestos, refer to Asbestos mitigation measures below. <p>Spoil re-use</p> <ul style="list-style-type: none"> • Re-use of spoil on the subject site can only occur without testing if the subject site is not a FSC or substation, or not suspected to be contaminated. • Spoil can be re-used only on another worksite without testing provided it is VENM. If the spoil is not VENM, it shall be tested and assessed against the Excavated Natural Material Exemption 2008 to determine whether it meets the ENM criteria for re-use. <p>Spoil disposal</p> <ul style="list-style-type: none"> • Spoil shall be disposed of to a landfill licensed to accept that type of waste. • Waste disposal dockets shall be obtained from the licensed waste disposal facility for all waste disposed of at the facility. <p>Spoil storage</p> <ul style="list-style-type: none"> • Spoil shall be stored preferably near its origin or on the subject site. If this is not possible, off-site spoil storage sites should be investigated and if deemed feasible appropriate approvals obtained prior to storage. • If there are no storage sites available, disposal options should be organised for the spoil • When storing spoil, consideration should be given to the time and volume of spoil being stored. The volume of uncontaminated spoil being stored shall be less than 2,500 tonnes or 2,500 cubic metres (whichever is less) at any one time, and less than 30,000 tonnes total volume each year at each storage location. • Spoil storage sites shall have adequate sediment control, and shall be restored to their original condition on completion of works. • Any long-term stockpiles should be placed on a flat, grassed area and be seeded or covered to prevent dust generation and erosion. Topsoil and subsoil excavated, as part of the proposal should be kept separate and if spoil is to be re-used, replaced in their correct sequence on completion of the 	

ENVIRONMENTAL RISK	CONTROL MEASURES	RESPONSIBILITY FOR IMPLEMENTATION
	<p>activity.</p> <ul style="list-style-type: none"> Sediment control devices (for example, fences, drain socks) downstream of disturbance or stockpiles shall be installed to prevent soil being washed away from the stockpile into any watercourses, drains or onto any adjoining property, including public roads and footpaths. All stockpiles should be covered with a tarpaulin and/or sediment control devices installed to minimise migration of the material. <p>Imported fill</p> <ul style="list-style-type: none"> If receiving imported fill onto the subject site, request certification that the material is not contaminated. <p>The delivery of all loads onto the subject site shall be supervised and inspected to ensure the material is not contaminated.</p>	
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.
Click here to enter text.	Click here to enter text.	Click here to enter text.

DESCRIPTION OF ACTIVITY

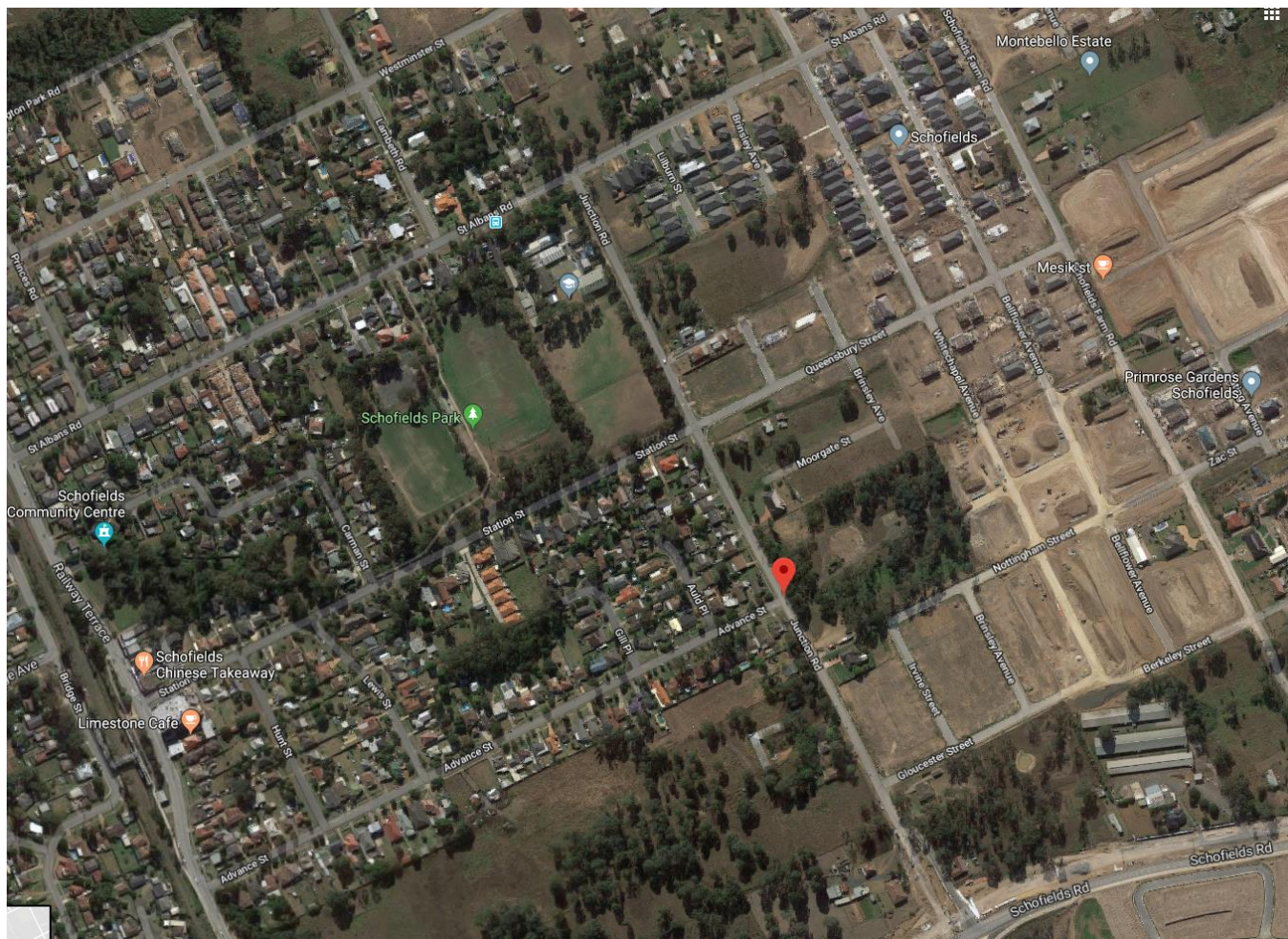
Complete the form below and provide all additional information necessary to describe the activity in the space provided (attach further pages if necessary).

SUMMARY OF THE ACTIVITY	
What will the activity involve?	Install new substation to supply School and maintain existing load that will decommissioning existing pole sub.
Why is the activity required?	School upgrade and install new lights with assets relocation.
Location of activity (address) (Include map from Google Earth or Six Maps on following pages)	Street address: Junction Road, Schofields
	Local government area: Blacktown <i>Internal Employees: Refer to Landbase → LPI Landbase → Boundaries → Local Government Area on EnviroGIS</i> <i>ASP: local council website</i>
	Land ownership: Private <i>Internal Employees: Obtain Lot and DP details from EnviroGIS. NPWS and Water NSW (refer to EMS 0012)</i> <i>ASPs: Six Maps</i>
	Land zoning: R2 - Residential <i>Internal Employees: For land zoning refer to Local Environment Plans on EnviroGIS</i> <i>ASP: Access current LEP zoning maps on the local council website or Department of Planning and Environment - Web Map Services</i> <i>(The land use could be residential, industrial, commercial, rural, bushland, water catchment and the like)</i>
Number of employees on site?	<ul style="list-style-type: none"> • Maximum: 10 • Average: 7
Duration of works? Relevant mitigation measures need to be provided the EMP if out of normal working hours are proposed	<ul style="list-style-type: none"> • Number of days: 8 • Days of the week: Monday - Friday
Indicative commencement date	10/09/2018
Proposed mode of access:	Existing public roads
Machinery (list all machinery):	Light vehicle, Excavator, Compactor, delivery Trucks, Crane Truck/Franna, EWP, Cable truck.

<p>Route justification Provide a description of all feasible alternatives that have been considered to minimise (and where possible avoid) impacts on the environment</p>	<p>Several factors and considered when determining the most suitable option. These include cost, environmental impact, community sensitivity and the parameters of the existing network configuration. A risk based approach determines the most suitable options for Endeavour Energy's network. The chosen option is considered suitably costed, and has minor environmental and community impact. Options for this project have been restricted due to the need to make points of HV connection at certain locations.</p>
<p>Notification requirements: Mandatory 40 days council notification (s45 ES Act) and 21 days council notification for substations (SEPP 2007) Notification or approval requirements for drinking water catchment areas, Water NSW Special Areas, National Parks (refer to EMS 0012) RMS notification for works in State and Regional road reserves</p>	<p>Include summary of response from stakeholders:</p> <p><u>Mandatory Council Notification (40 day notification)</u> <u>Under the Electricity Supply Act 1995 (Section 45);</u> at least 40 days notification is to be given to Blacktown City Council before undertaking electricity works (other than routine repairs or maintenance works). Notification was served on 29/08/2017.</p> <p>We await Council's notification.</p> <p>The mandatory notifications are attached to this assessment.</p> <p><u>Community Consultation (21 days notification)</u> <u>21 days council notification was advised of the project on 29/08/2018. No responses were received.</u></p> <p>The mandatory notifications are attached to this assessment.</p> <p>Reference is to be made in the EMP to the relevant notification requirements for the activity. Notifications are to be carried out by the Project Manager and stored on the project file. Evidence is to be provided of council and community notifications before the design can be certified.</p>
<p>Future maintenance activities and operational requirements</p>	<p>Future maintenance activities, inspection and emergency works will be associated with the cables/equipment. No vegetation maintenance is required for the area already developed.</p>
<p>Other information (set out any other information required to describe the activity and any specific approvals required for the activity to proceed)</p>	<p>Click here to enter text.</p>

Include map from Google Earth or Six Maps:

(<http://www.google.com/earth/> or <http://maps.six.nsw.gov.au/>)



SITE INSPECTION

An inspection of the worksite must be undertaken before completing SECTION 2 of this form.

Set out observations collected during the inspection of the worksite and include a description of the environment relevant to the potential environmental impacts on-site and off-site. **Consultation with the an environmental specialist may be required during the inspection of the worksite to assist with the accurate identification of the environmental risks pertaining to the activity.**

The inspection of the worksite should take note of the following:

- Land tenure and surrounding land uses (for example, National Parks, industrial, residential, and the like.)
- Drainage systems – presence of waterways, stormwater and their proximity to the worksite;
- Vegetation – presence of trees, shrubs and other vegetation that may be obstructing access to the worksite and that may affect the construction and operation of the activity;
- Access – availability of existing access tracks in the worksite that are adequate for the activity;
- Heritage items – potential European and Aboriginal heritage items within the worksite;
- Traffic flow and road type (for example, Council Road/RMS Road); and,
- Potential for land contamination – proximity of the worksite to contamination sources (for example, industrial areas, service stations).

Date: 14/05/2018	Time: 10am	By: Sachin
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General Site Description



Insert a site description for ease of describing potential environmental impacts in SECTION 2.


(Refer to the proximity to sensitive receptors, for example residences, landuse of adjoining properties, distance to any watercourses, whether the worksite is near or is located within a National Park or Water NSW Special Area and also include size, shape, slope, presence of vegetation, natural gradient or filled that is prevalent across the worksite etc.)

The subject site is largely flat and is already developed residential area. There are no major slopes, and bulk earthworks for the new development site will further level out the land, prior to electrical reticulation works taking place.

Photographs must be inserted of the worksite to support observations on the following pages. Insert additional rows for photos if required.

Observations:

Environmental Risk	Photograph (Click on image below to insert photo. Add additional rows if required)
Site overview	
Drainage systems (note the presence of any stormwater, drains, creeks, rivers, swamps)	<div><p>Existing Road</p></div>

Environmental Risk	Photograph (Click on image below to insert photo. Add additional rows if required)
<p>Vegetation</p> <p>(note any vegetation removal requirements or potential impacts on root systems from trenching activities)</p> <p>Clearing vegetation is the part of upgrading existing Junction Road.</p>	

Access

(is access considered to be suitable for the activity? Consider condition of access and plant requirements in vicinity of lines/easements or across land in private/other ownership)



Junction Road towards Schofields Road.

Other:

Existing Pole Sub22069



eE

SECTION 2: ENVIRONMENTAL ISSUES QUESTIONNAIRE

Complete the following questionnaire to identify environmental risks relevant to the activity. If the answer to any of the following questions is YES, environmental risks need to be mitigated in the EMP (Section 1). If a question is not understood, conduct further investigations or discuss with an environmental specialist. Documentary evidence of database searches must be provided where prompted to do so.

COMMUNITY (ref cl228 (2) (a) EP&A Reg 2000)	
Q1. TRAFFIC MANAGEMENT	
<p>a) Traffic – will the activity disrupt or obstruct traffic or pedestrian flow around the worksite and adjacent lands?</p> <p><i>Consider both the construction and operational phase of the activity when answering this question.</i></p> <p>Approval through the issue of a road occupancy licence is required from RMS for State or Regional Roads. Notification to the relevant Council is required for local roads.</p>	<p><input checked="" type="checkbox"/> Yes. How will traffic and/or pedestrian flow be affected?</p> <p>Traffic may be disrupted during construction for the works along Junction Road, and George Street. A Traffic Management Plan should be developed and submitted to Council for approval prior to work commencing.</p> <p><input type="checkbox"/> No</p>
Q2. RESIDENTS AND NORMAL WORKING HOURS	
<p>a) Is noise and vibration generated by the activity likely to cause annoyance to nearby residents?</p> <p><i>Consider whether areas adjacent to the worksite are sensitive to noise (for example residences, schools, hospitals etc.) If there will be noise impacts discuss with NEA (internal employees) or investigations should be undertaken to verify that sensitive sites are not adversely affected by the activity (ASPs).</i></p>	<p><input type="checkbox"/> Yes. If yes, what are the likely sources of noise and what are the likely impacts?</p> <p>Click here to enter text.</p> <p><i>If impacts that cannot be mitigated are likely, seek advice from an environmental specialist</i></p> <p><input checked="" type="checkbox"/> No. If no, provide explanation of why noise will be minimal:</p> <p>Minor impact to adjacent area. Work should be undertaken within NSW OEH recommended construction times. Residents & Businesses will be notified prior to construction.</p>
<p>b) Will the activity require works or use of equipment (for example a generator) being undertaken outside normal working hours?</p> <p><i>Note: Normal hours are 7.00am to 6.00pm Monday to Friday and 8.00am to 1.00pm Saturday. Construction must comply with road occupancy permit (including delivery of equipment to site).</i></p>	<p><input type="checkbox"/> Yes. When will the works be undertaken? Click here to enter text.</p> <p><i>Project Manager is to notify affected residents 5-14 days prior to the commencement of the Activity in consultation with an environmental specialist.</i></p> <p><input checked="" type="checkbox"/> No. The works will be undertaken within normal working hours.</p> <p>If no, go to Q3.</p>

<p>c) Will the activity require works or use of equipment outside of normal working hours (as identified above) for more than two consecutive nights in any given week?</p>	<p><input type="checkbox"/> Yes. If yes, provide justification</p> <p>Click here to enter text.</p> <p><i>Seek advice from an environmental specialist as NSW EPA notification may be required.</i></p> <p><input checked="" type="checkbox"/> No. The works will be less than two consecutive nights in any given week.</p>
<p>Q3. AIR QUALITY</p>	
<p>Is the activity likely to generate significant amounts of dust, fumes and/or odours?</p>	<p><input checked="" type="checkbox"/> Yes. If yes, what impacts are likely to occur from the generation of dust, fumes and/or odours? The works involved are trenching, pulling underground cable, installation of poles and streetlight columns which will be carried out to minimise the production of dust, fumes and odours. Dust mitigation measures should be used during trenching works.</p> <p><i>If impacts that cannot be mitigated are likely, seek advice from an environmental specialist</i></p> <p><input type="checkbox"/> No. If no, provide explanation of how dust, fumes and/or odour generation would be avoided:</p>
<p>Q4. Electromagnetic Fields (EMF)</p>	
<p>Will the activity exceed EMF guideline levels?</p> <p><i>EMF emission levels must not exceed the recognised exposure limit of 1000 milligauss (mG). Consider if the activity will result in a capacity change to the network.</i></p>	<p><input type="checkbox"/> Yes.</p> <p><i>If yes, further Environmental Assessment will be required. Contact an environmental specialist for advice on how to proceed</i></p> <p><input checked="" type="checkbox"/> No. The works will be within recommended guidelines for continuous public exposure.</p>
<p>ACCESS TO THE WORKSITE (ref c1228 (2) (b) – (l) (o) EP&A Reg 2000)</p>	
<p>Q5. ACCESS TRACKS TO AND WITHIN THE WORKSITE</p>	
<p>a) Is access to the worksite deemed suitable to undertake the activity?</p> <p><i>Consider the type and quantity of machinery that will be used during the activity, whether access is hindered by vegetation, if it has unsuitable pavement and if there are environmental sensitivities that may be impacted on by accessing the worksite.</i></p>	<p><input checked="" type="checkbox"/> Yes. Proceed to Q6.</p> <p><input type="checkbox"/> No. If no, proceed to Q5 (b).</p>

<p>b) Does access to the worksite need improving to make it suitable to undertake the activity?</p> <p><i>Note: Endeavour Energy will not provide project management as noted in EMS 0006 for track work undertaken by ASPs</i></p>	<p><input type="checkbox"/> Yes. What works are required? Click here to enter text.</p> <p><input checked="" type="checkbox"/> No. Describe current access arrangements: Click here to enter text.</p>
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VISUAL AMENITY IMPACTS (ref c1228 (2) (d) EP&A Reg 2000)

Q6. LANDSCAPE AND VISUAL

<p>Does the activity involve changing the visual or scenic landscape (for example restricting views, removing trees, installing OH powerlines (including the installation of a new pole or wires), installing substations, UGOH, causing obtrusive lighting, creating shadows and the like)?</p> <p><i>In designing the activity, consider the following:</i></p> <ul style="list-style-type: none"> • <i>Selecting sites/routes that avoid view corridors of high visual appeal and high number of viewers.</i> • <i>The distance of the infrastructure from viewers (for example foreground, middle ground, background).</i> • <i>Utilising existing electrical infrastructure and corridors where possible.</i> • <i>Selecting materials, textures and colours which blend with the surrounds.</i> • <i>Bundling overhead cables to reduce aesthetic impact and minimise tree pruning (where applicable)</i> • <i>Limiting the need for vegetation clearing.</i> • <i>Positioning poles between property buildings rather than in front of a particular property.</i> • <i>Utilising the existing topography and vegetation to shield views of the activity.</i> • <i>Installing landscape screening between the activity and viewers.</i> 	<p><input checked="" type="checkbox"/> Yes. If yes, what unavoidable impacts are likely to occur on the visual or scenic landscape? What alternative options have been considered?</p> <p>Visual impacts would be mitigated through mitigated management measures, such as landscaping.</p> <p>Long term impacts would be minimal and acceptable.</p> <p><i>If impacts are likely and no alternatives options are feasible, seek advice from an environmental specialist</i></p> <p><input type="checkbox"/> No.</p>
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POLLUTION(ref c1228 (2) (I) EP&A Reg 2000)

Q7. EROSION AND SEDIMENTATION

Does the activity involve excavation, removal of material, or obstructing water flow within 40 metres of a river, creek, lake or gully (drainage line)?

Provide photographs in Section 1 illustrating the proximity of the worksite to waterways.

☐ **Yes. If yes, what impacts are likely to occur on the drainage line as a result of the activity?**

[Click here to enter text.](#)

If impacts that cannot be mitigated are likely, seek advice from an environmental specialist

☒ **No. If no, chose one of the following:**

☒ **No, the site is not located within 40 m of a river/creek/waterbody.**

☐ **No, other explanation: [Click here to enter text.](#)**

Q8. SYDNEY DRINKING WATER CATCHMENT SEPP

Is the worksite within an area covered by the SEPP (Sydney Drinking Water Catchment) 2011?

Note: The SEPP only applies to certain parts of the following local government areas within Endeavour Energy's network area, Shoalhaven, Wollongong, Kiama, Wingecarribee, Wollondilly, Blue Mountains and Lithgow.

Impacts on drinking water can include sediment and oils. Consider the location and siting of oil filled equipment, containment of oils and fuels and the generation of sediment.

Refer to REP → Drinking Water Catchments no. 1 on EnviroGIS (internal employees) or [SEPP \(Sydney Drinking Water Catchment\) 2011](#)

☐ **Yes. If yes, are there any impacts on Sydney's drinking water envisaged?**

[Click here to enter text.](#)

If impacts that cannot be mitigated are likely, seek advice from an environmental specialist

☒ **No. The worksite is not within an area covered by the SEPP (Sydney Drinking Water Catchment) 2011.**

Q9. GROUND DISTURBANCE	
<p>a) Does the activity involve extensive disturbance to the ground surface that may occur in response to trenching, removal of ground cover, working on steep land underground excavation for cabling, installation of padmount substations and the like that could increase soil erosion, surface runoff or the possibility of sediment entering a drain or waterway?</p> <p><i>Extensive ground disturbance does not include a small number of NDD pole holes, a small trench(es) where they will be backfilled on the same day</i></p> <p><i>Provide photographs in Section 1 of the components of the worksite that will be disturbed.</i></p>	<p><input checked="" type="checkbox"/> Yes. If yes, is erosion and sedimentation likely to occur? What is the extent of the disturbance (in square metres)? Soil erosion & sedimentation is likely to occur as the site will be redeveloped, ground will be cleared-proposal involves trenching, cabling, installation of Poles & Street Light columns. Erosion and sedimentation controls are to be installed as necessary prior to construction commencing. They are to be inspected and maintained throughout the construction period and removed at the completion of works.</p> <p><i>If impacts that cannot be mitigated are likely, seek advice from an environmental specialist.</i></p> <p><input type="checkbox"/> No. If no, choose one of the following options:</p> <p><input type="checkbox"/> No, the disturbance will be relatively minor (for example a small number of NDD pole holes, a small trench where the trenches are opened and filled within one day).</p> <p><input type="checkbox"/> No, other explanation: Click here to enter text.</p> <p>If No, continue to Q10.</p>
<p>b) Is the worksite steeply sloped (greater than 1 in 3)?</p>	<p><input type="checkbox"/> Yes. If yes, are the impacts of erosion and sedimentation likely to be accelerated (increased/elevated)?</p> <p>Click here to enter text.</p> <p><i>If impacts are likely, consult with the relevant environmental personnel to determine</i></p> <p><input checked="" type="checkbox"/> No. Refer to the Site Description in Part 1.</p>
Q10. INCIDENCE OF FLOODING	
<p>Is the activity likely to increase the incidence of flooding within the worksite and adjacent lands (for example alter ground levels or divert water flow)?</p>	<p><input type="checkbox"/> Yes. If yes, what impacts are likely to occur from altering ground levels or diverting water flow within the worksite and adjacent lands?</p> <p>Click here to enter text.</p> <p><i>If impacts that cannot be mitigated are likely, seek advice from an environmental specialist</i></p> <p><input checked="" type="checkbox"/> No. Provide an explanation of how this has been determined:</p> <p>Click here to enter text.</p>

Q11. OILS AND FUELS

Does the activity involve storing, handling, transporting or disposing of oils, PCBs, fuels, pesticides, chemicals or other hazardous liquids (for example, moving or handling transformers or other oil-filled equipment) and/or siting oil filled equipment within 40 metres of a waterway?

☒ **Yes.** If yes, what impacts are likely to occur that cannot be mitigated using measures in the EMP?

The works involve in installing new Padmount Substation. ASP1 refers to mitigation measures.

If impacts that cannot be mitigated are likely, seek advice from an environmental specialist.

☐ **No.** Provide an explanation of how this has been determined:

[Click here to enter text.](#)

Q12. LIQUID WASTE

Is liquid waste (for example, stormwater accumulation in pits/trenches, drill mud, NDD works and the like) likely to be generated and/or discharged by the activity?

☐ **Yes.** What liquid waste is expected to be generated? [Click here to enter text.](#)

If impacts that cannot be mitigated are likely, seek advice from an environmental specialist.

☒ **No.** Liquid waste will not be generated.

ECOLOGY (ref cl228 (2) (f) – (g) and (p) EP&A Reg 2000)

Q13. MATTERS OF NATIONAL ENVIRONMENTAL SIGNIFICANCE (MNES – Commonwealth) AND BIODIVERSITY

a) Are there any MNES present within the worksite that the activity may impact on?

Search the **Protected Matters Search Tool** and include it as an annexure to this SER save the results of this investigation on the project file.

Route selection is critical to avoiding impacts on MNES.



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.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 14/05/18 14:14:42

[Summary](#)

[Details](#)

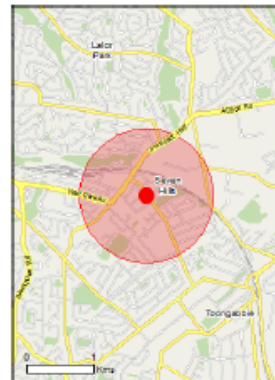
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



This map may contain data which are
©Commonwealth of Australia
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[Coordinates](#)
[Buffer 1.0Km](#)



☒ **Yes. If yes, list the MNES that are likely to be impacted on by the activity**

[Click here to enter text.](#)

If impacts that cannot be mitigated are likely, seek advice from an environmental specialist.

☒ **No. Provide an explanation of how this has been determined:**

Protected Matters Search Tool does show MNES present within the worksite that the activity may impact on. However, this will not impact to the proposed works. Please note 50m buffer has to be considered during the search.

<p>b) Are there any rare or threatened species, Endangered Ecological Communities (EECs) and/or Endangered Populations of animals or plants (or their habitat) within or adjacent to the worksite?</p> <p><i>Impacts on threatened biodiversity may include clearing/pruning/affecting vegetation excluding maintenance as per MMI 0013, disturbing bush rock, tree hollows, wetlands, mangroves, nests, aquatic or other sensitive habitats, and/or working in/parking plant or vehicles/storing equipment in undisturbed areas.</i></p> <p><i>Route selection is critical to avoiding impacts on threatened species.</i></p> <p><i>Refer to the location of these in relation to the activity (Vegetation → NSW Atlas Flora → Flora – V – Vulnerable, Flora – E1 – Endangered, Flora – E2 – Endangered Population and Flora – E4A – Critically Endangered; NSW Atlas of Fauna → Fauna – V – Vulnerable, Fauna – E1 – Endangered, Fauna – E2 – Endangered Population and Fauna – E4A – Critically Endangered, endangered ecological communities (Vegetation → Vegetation Communities) on EnviroGIS (internal employees) or NSW BioNet Atlas of NSW Wildlife and OEH Vegetation Information System (ASPs)</i></p>	<p><input type="checkbox"/> Yes. If yes list the threatened species, EECs and/or Endangered Populations likely to occur in the study area and adjacent lands. This list should include an explanation of any potential impacts:</p> <p>Refer attached BioNet Species List. However, they would not be impacted by the nature of this type of reticulation works. All workers would be made aware of threatened species the need to avoid impacts.</p> <p><i>Where it is identified that a threatened species, EEC and/or Endangered Population occurs in the vicinity of the worksite and If impacts that cannot be mitigated are likely, seek advice from an environmental specialist.</i></p> <p><input checked="" type="checkbox"/> No. The nominated databases were reviewed and no threatened species, EECs and/or Endangered Populations were identified in the vicinity of the activity.</p> <p>Insert screenshot demonstrating searches have been undertaken:</p> <div data-bbox="940 702 2128 1037"> <p>No records found</p> <p><small>Search criteria: Public Report of all Valid Records of Endangered Populations in selected area [North: -33.65 West: 150.83 East: 150.93 South: -33.75] returned 0 records for 0 species. Report generated on 26/06/2018 11:18 AM.</small></p> </div>
<p>c) Is the worksite listed as an area of critical habitat under the TSC Act 1995?</p> <p><i>Wollemi Pine in Wollemi NP is the only Critical Habitat that occurs within the Endeavour Energy network area. Reference should be made to the OEH Critical Habitat Register for an up to date list of final determinations of Critical Habitats.</i></p>	<p><input type="checkbox"/> Yes. If yes, provide the name of the Critical Habitat and an explanation of any potential impacts:</p> <p>Click here to enter text.</p> <p><i>If the worksite is located in or near a critical habitat, seek advice from an environmental specialist.</i></p> <p><input checked="" type="checkbox"/> No. The required databases were checked and no Critical Habitat was identified in the vicinity of the activity.</p>

d) Is the worksite located in areas identified as Coastal Wetlands (refer to SEPP 14 – Coastal Wetlands) or within Littoral Rainforest (refer to SEPP 26 – Littoral Rainforest)?

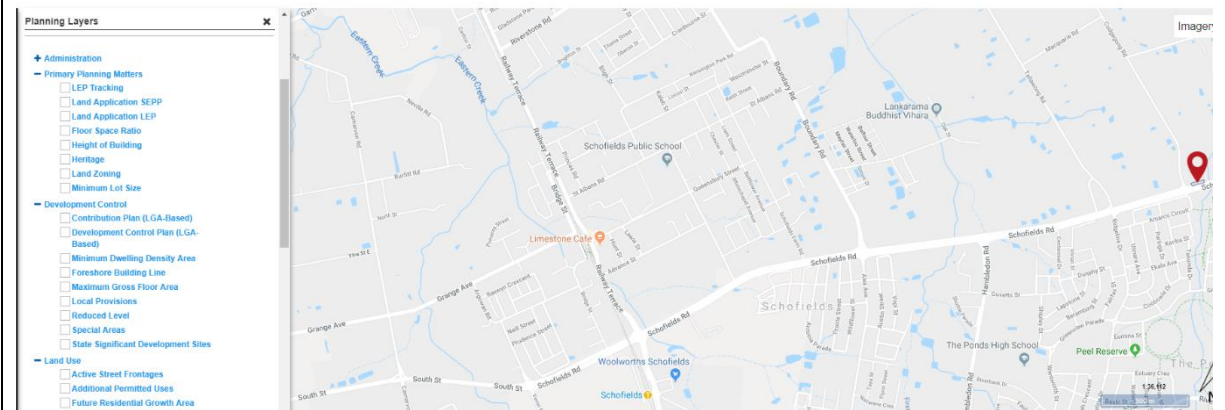
Refer to SEPP → SEPP 14 and SEPP → SEPP 26 on EnviroGIS (internal employees) or [Department of Planning and Environment - Web Map Services](#) (ASPs)

☐ Yes. If yes, provide the name and location of the SEPP 14 Wetland/SEPP 26 Rainforest and an explanation of any potential impacts: [Click here to enter text.](#)

Where it is identified that SEPP 14 or SEPP 26 lands may be impacted on by the activity, seek advice from an environmental specialist.

☒ No. The required databases were checked and no SEPP 14 or SEPP 26 lands were identified in the vicinity of the activity.

Insert screenshot demonstrating searches have been undertaken:



e) Is the Activity likely to impact on marine vegetation (mangroves, seagrass beds) or involve dredging a water body?

☐ Yes. If yes, provide details on how these are likely to be impacted on by the Activity: [Click here to enter text.](#)

Where it is identified that marine vegetation occurs in the vicinity of the worksite and If impacts that cannot be mitigated are likely, seek advice from an environmental specialist.

☒ No.

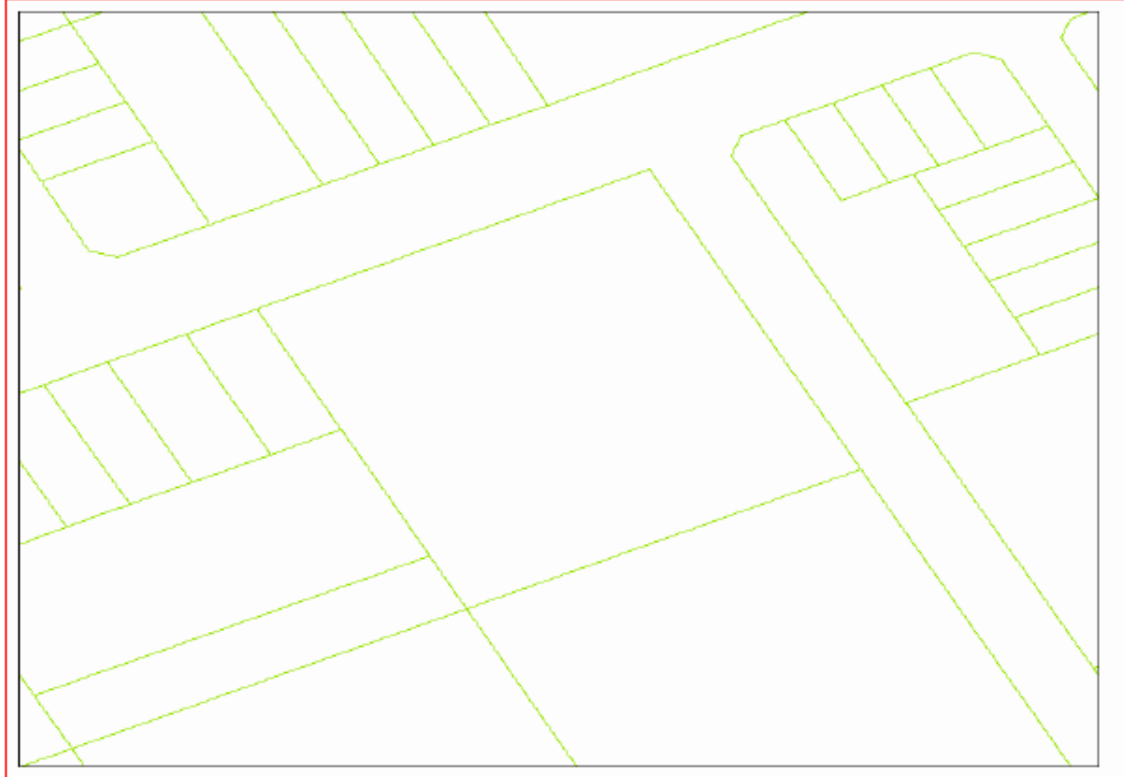
Q14. VEGETATION MANAGEMENT

<p>a) Will the activity potentially damage, or require the removal of, vegetation in order to install, operate and/or access electrical infrastructure?</p> <p><i>Note: Consider the potential damage to trees near work areas and/or to tree roots when undertaking excavation. All trimmings and tree removals are to be carried out to comply with the clearances defined in MMI 0013 and taking into account the location of bush fire prone areas. Documented evidence indicating approvals and/or relevant consultation for any vegetation removals must be supplied.</i></p> <p><i>Refer to the type of vegetation to be removed Vegetation → Vegetation Communities on EnviroGIS (internal employees) or OEH Vegetation Information System (ASPs) and the location of bushfire prone areas - Rural Fire Service on EnviroGIS or from council (ASPs)</i></p>	<p><input type="checkbox"/> Yes. If yes, provide details and an explanation of any potential impacts: Click here to enter text.</p> <p><i>If trees require removal, confirm that the landowner/manager of the worksite is appropriately notified and seek advice from an environmental specialist.</i></p> <p><input checked="" type="checkbox"/> No. If no, choose one of the following options:</p> <p><input checked="" type="checkbox"/> No, no vegetation will be affected by the activity.</p> <p><input type="checkbox"/> No, electrical clearances have already been established and maintained for this site.</p> <p><input type="checkbox"/> No, other explanation: Click here to enter text.</p> <p>If no, proceed to Q14.</p>
<p>b) Will the activity affect a significant tree as listed by the local council?</p> <p><i>Refer to local council significant tree register or local heritage items (Schedule 5 of the council LEP) or contact Council if this is not available.</i></p> <p><i>Save the results of this investigation on the project file.</i></p>	<p><input type="checkbox"/> Yes. If yes, provide details of the significant tree and an explanation of the potential impacts: Click here to enter text.</p> <p><i>If impacts to a significant tree are likely, notify the relevant Council of the activity and the likely impacts. Seek advice from an environmental specialist.</i></p> <p>Council contact: Click here to enter text.</p> <p>Summary of consultation: Click here to enter text.</p> <p><input checked="" type="checkbox"/> No. If no, choose one of the following options:</p> <p><input checked="" type="checkbox"/> No, local council significant tree registers and local heritage registers have been checked</p> <p><input type="checkbox"/> No. The council has been contacted and confirmed that the site is not in the vicinity of a significant tree.</p> <p><input type="checkbox"/> No, other explanation: Click here to enter text.</p>
<p>c) Will the activity involve the disturbance of noxious weeds and/or pests and diseases?</p> <p><i>Consider if mulch containing pests and diseases is to be imported into the worksite and/or the worksite is located in a disturbed area where noxious weeds are prone to occur.</i></p>	<p><input type="checkbox"/> Yes. If yes, provide details Click here to enter text.</p> <p><input checked="" type="checkbox"/> No.</p>

<p>Stakeholder management is essential to determine if these issues are prevalent at the worksite.</p>	
<p>HERITAGE (ref c1228 (2) (e) EP&A Reg 2000)</p>	
<p>Q15. ABORIGINAL AND NON-ABORIGINAL HERITAGE ITEMS</p>	
<p>Are there any items of <u>Aboriginal</u> or <u>non-Aboriginal</u> heritage on or near the worksite?</p> <p><i>Aboriginal heritage: Consideration should involve whether the activity includes working, storing equipment, parking vehicles or accessing the worksite near an identified item or place of Aboriginal heritage, a Potential Archaeological Deposit and/or lands registered as native title.</i></p> <p><i>Refer to Indigenous Heritage on <u>EnviroGIS</u> in combination with a search of the <u>AHIMS register</u> (internal employees) or <u>AHIMS register</u> (ASPs)</i></p> <p><i>Non-Aboriginal heritage: Consideration should involve whether the activity includes changing the appearance of a heritage place and/or when excavating any land that might disturb an archaeological relic.</i></p> <p><i>Refer to Euro Heritage on <u>EnviroGIS</u> in combination with the <u>State Heritage Register</u> and local heritage items (refer <u>Schedule 5 of the council LEP</u>) as well as Endeavour Energy's s170 Heritage Register (EMS 0001).</i></p> <p><i>Save results of this investigation on the project file as well as provide screenshot where indicated to do so.</i></p>	<p><input checked="" type="checkbox"/> Yes. If yes, list the Aboriginal and non-Aboriginal heritage items that have been previously recorded in the study area and adjacent lands and identify potential impacts:</p> <p>1 Aboriginal items were identified in the AHIMS.</p> <ul style="list-style-type: none"> - Schofields Public School <p><i>Where it is identified that heritage items may be affected by the activity, and If impacts that cannot be mitigated are likely, seek advice from an environmental specialist.</i></p> <p><input type="checkbox"/> No. The required databases were checked and no heritage items were identified in the vicinity of the activity.</p> <p>Insert screenshot demonstrating searches have been undertaken (aboriginal heritage):</p>

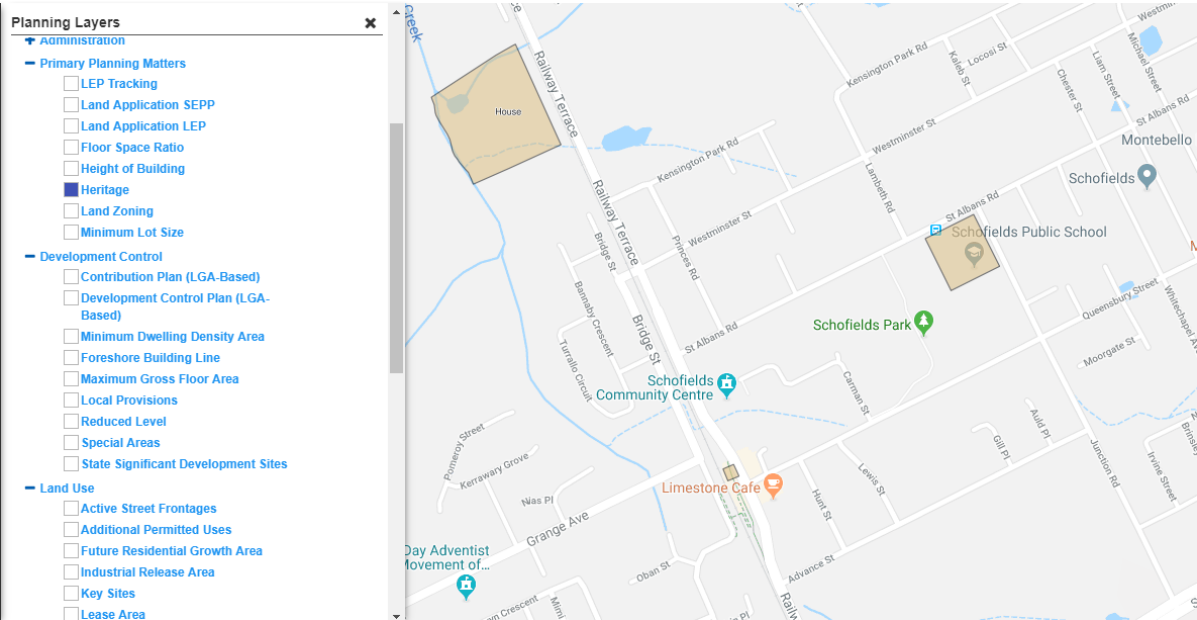
AHIMS Web Service search for the following area at Lot : 21, DP:DP2912 with a Buffer of 50 meters, conducted by Sachin Joshi on 26 June 2018.

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



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

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

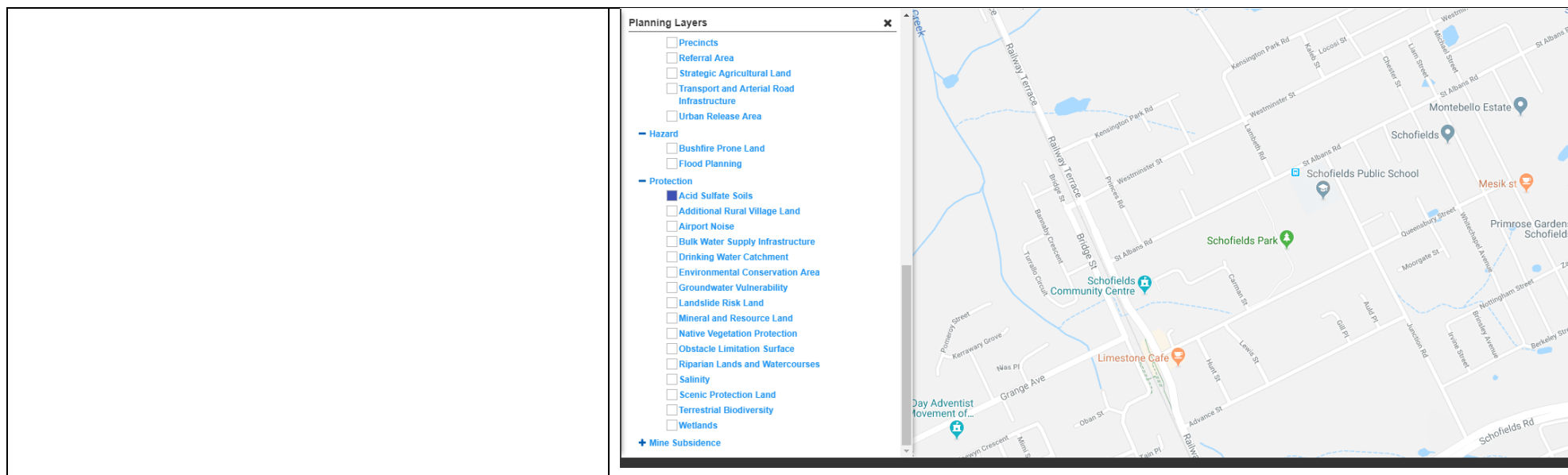
	<p>Insert screenshot demonstrating searches have been undertaken (non-aboriginal heritage)</p> 
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CONTAMINATION AND WASTE (ref ci228 (2) (m) *EP&A Reg 2000*)

Q16. SPOIL MANAGEMENT

<p>a) Will the activity involve the excavation and generation of spoil?</p>	<p><input checked="" type="checkbox"/> Yes. If yes, answer the remainder of Q16.</p> <p><input type="checkbox"/> No. If no, proceed to Q18.</p>
<p>b) Will the excavated spoil be potentially contaminated (for example FSC, substation, previous landfill, near a pole butt treated with creosote industrial land use, relinquishing easements that has contained operational electrical equipment.) or a site that has been declared contaminated by the NSW?</p> <p>Refer NSW EPA Contaminated Sites Register and List of NSW contaminated sites notified to the EPA</p>	<p><input type="checkbox"/> Yes. If yes, provide details of the potentially contaminated site (including the name of the contaminated site if listed on the NSW contaminated sites register):</p> <ul style="list-style-type: none"> Click here to enter text. <p><i>If yes, seek advice from an environmental specialist</i></p> <p><input checked="" type="checkbox"/> No. If no, proceed to Q16c).</p>

<p>Save results of this investigation on the project file</p>	
<p>c) Does the activity require the re-use of spoil on the site?</p> <p><i>Note: conditions apply for re-using spoil on other worksites as outlined in FAT0051.</i></p>	<p><input checked="" type="checkbox"/> Yes.</p> <p><input type="checkbox"/> No.</p>
<p>d) Does the activity require the disposal of spoil from the worksite?</p>	<p><input type="checkbox"/> Yes.</p> <p><input checked="" type="checkbox"/> No.</p>
<p>e) Is storage of spoil required while awaiting re-use and/or disposal?</p>	<p><input type="checkbox"/> Yes.</p> <p><input checked="" type="checkbox"/> No. If no, proceed to Q17.</p>
<p>Q17. ACID SULFATE SOIL</p>	
<p>Is the worksite located in the vicinity of Potential Acid Sulfate Soils?</p> <p><i>Internal employees: Refer to Soils → NSW Acid Sulfate Soil on EnviroGIS</i></p> <p><i>ASPs: Department of Planning and Environment - Web Map Services</i></p>	<p><input type="checkbox"/> Yes.</p> <p><i>Acid sulfate soil will be managed in accordance with Endeavour Energy's Acid Sulfate Soil Management Plan.</i></p> <p><input checked="" type="checkbox"/> No. The required databases were checked and the activity is not located in the vicinity of Potential Acid Sulfate Soil.</p> <p>Insert screenshot demonstrating searches have been undertaken:</p>



Q18. OTHER WASTES

a) Does the activity involve handling asbestos or other hazardous materials?

Refer [NSW EPA Contaminated Sites Register](#) and [List of NSW contaminated sites notified to the EPA](#) and [HAZMAT register](#) (internal employees) or [NSW EPA Contaminated Sites Register](#) and [List of NSW contaminated sites notified to the EPA](#) (ASPs) as well as the age of the asset (assets installed pre late 1980s are likely to contain asbestos containing materials).

Save results of this investigation on the project file

☐ Yes. What contains asbestos/hazardous materials?

[Click here to enter text.](#)

☒ No. There are no known asbestos/hazardous materials on the worksite.

b) Will any other waste types- be generated by the activity?

☒ Yes. If yes, specify the waste types and how they will be managed (for example, internal employees will sort waste into the correct receptacles at the nearest FSC)?:

Waste will be generated and includes duct offcuts, cable offcuts, packaging etc. Generate Waste will be managed in accordance with Endeavour Energy Standards EMS 0007 Waste Management.

☐ No.

SECTION 10: OTHER ISSUES (ref cl228 (2) (n) – (p) <i>EP&A Reg 2000</i>)	
Are there any other ways in which the works could affect the environment that need to be considered?	<input type="checkbox"/> Yes. If yes, provide explanation: <ul style="list-style-type: none"> Click here to enter text. If yes, provide appropriate mitigation measures to address these environmental risks in the EMP <input checked="" type="checkbox"/> No.

KEY CONTACTS FOR ENDEAVOUR ENERGY EMPLOYEES

Contact	Details
Network Environmental Assessment Manager	02 9853 6552 0419 628 593 pat.woodbury@endeavourenergy.com.au
Manager Safety and Environmental Services	02 9853 4183 0434 687 434 john.curran@endeavourenergy.com.au
Environmental Business Partner – Team Leader	02 4252 2207 0423 826 529 michael.w.roberts@endeavourenergy.com.au

INFORMATION RESOURCES

The following resources should be used when completing the SER.

Resource	Location
<u>Endeavour Energy Employees</u>	
EnviroGIS <i>Environmental layers and NPWS and SCA boundaries in relation to Endeavour Energy assets</i>	http://envirogis.eeaus.com/envirogis/framesetsetup.asp
Environmental Fact Sheets <i>One page summaries of control measures for major environmental risks.</i>	Safety and Environmental Services - Environmental Factsheets
Environmental Handbook <i>A collation of common environmental risks on worksites and relevant mitigation measures</i>	Safety and Environmental Services - Environmental Handbook
Environmental policies and procedures <i>Guidance on the best practice management of environmental risks and legislative requirements</i>	Business Management System (BMS)
<u>Other information sources referred to in the SER</u>	
Bionet Atlas of NSW Wildlife <i>Recorded sightings of plants, mammals, birds, reptiles, amphibians, some fish, and some (mainly endangered) invertebrates</i>	http://www.environment.nsw.gov.au/atlaspublicapp/UI_Modules/ATLAS/AtlasSearch.aspx
EPBC Protected Matters Search Tool <i>Records and predictions of Matters of National Environmental Significance</i>	http://www.environment.gov.au/epbc/pmst/index.html
NSW OEH State Heritage Register <i>Records of European heritage items, state heritage listings</i>	http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx
NSW OEH – Spatial Data Catalogue and download site <i>Biodiversity spatial information and management plans</i>	http://mapdata.environment.nsw.gov.au/DDWA/

Resource	Location
NSW Spatial Data Catalogue <i>Spatial Information on land, the environment, transport, communications, utility services and demographics</i>	http://www.sdi.nsw.gov.au/GPT9/catalog/main/home.page
NSW Planning and Environment – Web Map Services <i>Spatial Information on land, the environment, including heritage, SEPPs and Acid Sulfate Soils</i>	https://www.planningportal.nsw.gov.au/planning-tools/open-data/
SIX Spatial Information Exchange <i>Aerial images, cadastral and land and property information, spatial viewers, topography and land features</i>	https://six.nsw.gov.au/wps/portal/
<u>General</u>	
Endeavour Energy Standards <i>Environmental Management Standards (EMS), Mains Maintenance Instructions.</i>	http://asp.endeavourenergy.com.au/wps/wcm/connect/ASP/Content/Standards
NSW OEH Threatened Species Information <i>Profiles of threatened species, endangered populations and endangered ecological communities.</i>	http://www.environment.nsw.gov.au/threatenedspecies/
Aboriginal Heritage Information Management System (AHIMS) <i>Aboriginal heritage information, aboriginal places</i>	http://www.environment.nsw.gov.au/licences/WhatInformationCanYouObtainFromAHIMS.htm
Local Councils <i>Environmental data, LEPs, Local Government Heritage Register (Schedule 5 of LEP)</i>	<p>The following LGA's occur within the Endeavour Energy network area; Mid-western Regional, Lithgow, Bathurst Regional Council, Fairfield, Cumberland (previously known as Holroyd Council), Hawkesbury, Liverpool, Blue Mountains, The Hills Shire, Blacktown, Hornsby, Parramatta, Penrith, Wollondilly, Camden, Campbelltown, Wollongong, Wingecaribee, Shellharbour, Kiama, Goulburn Mulwaree, Shoalhaven.</p>
Endeavour Energy s170 Heritage Register <i>Endeavour Energy assets that are heritage items</i>	EMS 0001 (Annexure A)
NSW Legislation <i>Acts, Regulations and EPIs (SEPPs, LEPs) as consolidated and in force or as repealed.</i>	http://www.legislation.nsw.gov.au/maintop/scanact/inforce/NONE/0
NSW Land and Property information <i>Cadastral information, title searches, plans and dealings (easements and rights of way)</i>	http://www.lpi.nsw.gov.au/land_titles/
List of NSW contaminated sites notified to EPA <i>Contaminated sites that have been notified to the EPA by the land occupier</i>	http://www.environment.nsw.gov.au/clm/publiclist.htm

Resource	Location
NSW Contaminated Sites Register Contaminated sites that are regulated by the EPA	http://www.epa.nsw.gov.au/prclmapp/searchregister.aspx
NSW RMS Classification of roads	http://www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/arrangements-councils/road-classification.html

DEFINITIONS OF COMMONLY USED TERMS

Term	Definition
biodiversity	The variety of biological life (plants and animals).
Easement	An easement gives someone who does not own land a right to use it, or a part of it, for specific purposes. Common examples as they affect the electricity industry are rights of way, drainage easements and easements for electricity mains. The portion of the land subject to the easement is shown on a plan. Easements must be created and registered on title. Easements may be created for a definite period of time or in perpetuity.
Endangered Ecological Communities (EECs)	An endangered ecological community (EEC) is an ecological community listed under the NSW TSC Act and/or the Commonwealth EPBC Act as being at risk of extinction unless threats affecting these areas are managed and reduced.
Excavated Natural Material (ENM)	<p>Material that meets the conditions of the Excavated Natural Material Exemption 2012 and includes naturally occurring rock and soil that:</p> <ul style="list-style-type: none"> • has been excavated from the ground; • contains at least 98% (by weight) natural material (such as clay, gravel, sand, soil or rock fines); • does not meet the definition of Virgin Excavated Natural Material (VENM) in the Protection of <i>Environment Operations Act 1997 (NSW)</i>; and • has been sampled and tested in accordance with the Excavated Natural Material Exemption 2012. <p>ENM does not include material that has been processed, for example mixed, blended, from a contamination hotspot, or that contains asbestos or actual or potential acid sulphate soils. In other words, ENM is previously disturbed soil which has been proven to be uncontaminated via sampling and testing.</p>
Important habitat for migratory species	<p>An area of “important habitat” for a migratory species is:</p> <ol style="list-style-type: none"> a) habitat utilised by a migratory species occasionally or periodically within a region that supports an ecologically significant proportion of the population of the species, and/or b) habitat that is of critical importance to the species at particular life-cycle stages, and/or c) habitat utilised by a migratory species which is at the limit of the species range, and/or d) habitat within an area where the species is declining.
Activity	The work to be performed, which includes all activities, including material storage and access to the worksite.
Worksite	The area directly affected by the activity including the actual work area and access pathways. This may include additional areas beyond the immediate work area that may be subject to disturbance in response to the Activity (for example clearance around poles, vegetation clearance required and areas for storage compounds, sediment runoff), which are likely to be affected by the activity, either directly or indirectly.
Adjacent lands	Infers the parcel(s) of land immediately next to or bordering the worksite and taking into account potential indirect impacts encompassing the study area.

Term	Definition
Council	Refers to the body or organisation managing the LGA.
National Park/State Recreation Area	Refers to lands reserved and acquired under the <i>National Parks and Wildlife Act 1974</i> .
Matters of National Environmental Significance (MNES)	<p>The eight matters of national environmental significance protected under the EPBC Act are:</p> <ul style="list-style-type: none"> • world heritage properties; • national heritage places; • wetlands of international importance (listed under the Ramsar Convention); • listed threatened species and ecological communities; • migratory species protected under international agreements; • Commonwealth marine areas; • the Great Barrier Reef Marine Park; and • nuclear actions (including uranium mines).
Potential Archeological Deposit (PAD)	<p>A PAD (aboriginal heritage) is likely to be found if you:</p> <ul style="list-style-type: none"> • Are working in undisturbed areas or natural landscapes. • Observe any evidence of Aboriginal artefacts or past habitation such as caves, rocks, overhangs and platforms, shell mound. • Are working next to freshwater, springs, swamp, bush foods and the like. • Are removing undisturbed topsoil.
Water NSW Special Area/Controlled Lands	Refers to lands owned and managed by the SCA under the <i>Water NSW Act 2014</i> .
Normal Working Hours	Normal hours are 7.00am to 6.00pm Monday to Friday and 8.00am to 1.00pm Saturday.
Virgin Excavated Natural Material (VENM)	<p>The <i>Protection of the Environment Operations Act 1997</i> (NSW) defines VENM as natural material (such as clay, gravel, sand, soil or rock fines) that:</p> <ul style="list-style-type: none"> • has been excavated or quarried from areas that are not contaminated with manufactured chemicals or process residues, as a result of industrial, commercial, mining or agricultural activities; and • does not contain any sulfidic ores or soils or any other waste. <p>VENM cannot be “made” from processed soils, and excavated material that has been stored or processed in any way cannot be classified as VENM. In other words, VENM is previously unturned soil that has no potential to be contaminated.</p>

ABBREVIATIONS

Abbreviated	Expanded
AHIMS	Aboriginal Heritage Information Management System
ASPs	Accredited Service Provider
BMS	Business Management System
EECs	Endangered Ecological Communities
EIA	Environmental Impact Assessment
EMS	Environmental Management Standard
ENM	Excavated Natural Material
EPA	Environment Protection Authority
EPBC	Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>
LGA	Local Government Area
LEP	Local Environment Plan
MMI	Mains Maintenance Instruction
MNES	Matters of National Environmental Significance
NBN	National Broadband Network
NPWS	National Parks and Wildlife Service
OEH	Office of Environment and Heritage NSW
PAD	Potential Archeological Deposit
REF	Review of Environmental Factors
RMS	Roads and Maritime Service (formerly the RTA - Roads and Traffic Authority)
SEPPs	State Environmental Planning Policies
SER	Summary Environmental Report
TSC	NSW <i>Threatened Species Conservation Act 1995</i>
UGOH	Under Ground to Overhead construction
VENM	Virgin Excavated Natural Material

DOCUMENTS AND PLANS REFERENCED IN THIS SER

Title
General <i>(will be referenced when completing the SER)</i>
EMS 0001 – Environmental Impact Assessment and Environmental Management Plans
EMS 0004 – Vegetation Management
EMS 0006 – Maintenance and Construction of Access Tracks
EMS 0007 – Waste Management
EMS 0008 – Environmental Incident Response and Management
EMS 0012 – Notification of access to National Parks, reserves and Water NSW special areas and controlled lands
EMS 0013 – De-watering
EMS 0014 – Spoil Management
FAT 0051 – Generic Environmental Risk Mitigation Measures for use in preparing Environmental Management Plans
Additional documents referenced <i>(Please add any documents/plans referenced)</i>
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29/08/2017

**Electrical Infrastructure
Consultancy, Design
and Construction**

General Manager –Blacktown City Council

Level 1 and 3 ASP

Re: DT540 - Proposed installation of electrical infrastructure

Project Address – Junction Road, Schofields

I am writing to provide formal notification to Council with the opportunity to review and make a submission in relation to a Connect Infrastructure proposal at the above address, as required by the *Electricity Supply Act 1995* and the *State Environmental Planning Policy (Infrastructure) 2007*.

Attached are the following for your information:

1. One (1) copy, of the proposed substation location showing the proposed works

Connect Infrastructure will be carrying out an environmental assessment for this project to meet the requirements of the *Environmental Planning and Assessment Act 1979*. Therefore, in addition to any submission, can you please advise of any information, on proposed developments or activities in the immediate area of Connect Infrastructure's proposal, that Council is aware of which will assist us in considering all relevant issues and adequately assessing the environmental and cumulative impacts. Such information could include:

- Specific zoning and consent requirements;
- Approved surrounding land uses;
- Any known environmental restrictions (e.g. environmental protection area etc);
- Threatened or endangered flora or fauna species;
- Fire prone land;
- Stormwater;
- Councils infrastructure;
- Locally rare or protected flora or fauna or areas of critical habitat;
- Wetlands or flood prone areas;
- Land contamination, potential or actual acid sulphate soils, soil instability or subsidence;
- Heritage items or relics, including Aboriginal heritage and sites;
- Site access, traffic or parking restrictions;
- Adjacent sensitive sites;
- Potential community concerns of which Council may be aware;
- Other nearby development proposals likely to impact upon Connect Infrastructure's proposal;
- Any matter that Council is aware of that will assist in assessing the cumulative impact;
- Any other items that Council considers relevant.

The proposed activities will have environmental management safeguards to a suitable standard implemented in accordance with the assessment and the utility's environmental specifications.

Submissions and information for this project will be considered if received within 40 days of the date of this letter. Submissions and information may be sent via e-mail or facsimile number shown below.

If no written correspondence is received within 40 days we will consider that Council does not wish to lodge a submission and we will proceed to schedule work after this date. Please feel free to contact me if you would like to discuss this matter on (02) 9733 3333.

Yours sincerely,

Sachin Joshi
Design Consultant
Connect Infrastructure Pty Ltd
t: 02 9733 3333
f: 02 9733 3330
e: sjoshi@connecteng.com.au

29/08/2017

Attention: Resident or Body Corporate

Dear Resident / Body Corporate,

Re: Notification of proposed installation of Endeavour substation

Project justification: We are planning to install a new substation in the local area. This new substation is required to cater for the increased demand for power by new building developments in the area.

This proposed substation is an essential piece of electrical infrastructure, which will greatly improve our capability to meet the existing and future electricity needs of homes and businesses in your area. Substations need to be close to the electrical load they will serve in order to provide quality power to where it is needed.

Council notification

Connect Infrastructure is consulting with council regarding the proposed location of this substation.

Environmental considerations

Minimising the impact our works have on the environment is of paramount importance to Connect Infrastructure. These proposed works will be assessed under Part 5 of the Environmental Planning and Assessment Act 1979 and every effort will be made to minimise disruption to the community.

Construction works and timing

Once the location has been confirmed we will commence site preparation activities followed by the substation placement and installation of associated equipment. This includes excavation where necessary, soil removal, installation of the substation and other infrastructure and associated connection works. Further notification will be provided to affected residents before works commence.

Comments welcome

Under the *State Environmental Planning Policy (Infrastructure) 2007*, Connect Infrastructure welcomes written comments on this proposal within 21 days from the receipt of this letter. Please send these to Connect Infrastructure, PO Box 484, Casula Mall NSW 2170 or via email to: sjoshi@connecteng.com.au

Your feedback is important to us and all comments will be carefully considered before a final decision is made. If no feedback is received we will proceed with the proposed design and the construction phase will begin in due course.

Should you have any questions in relation to the proposed works, please feel free to contact me via the above email address or by phone at (02) 9733 3333.

Yours sincerely,

Sachin Joshi

Design Engineer

t: 02 9733 3333

e: sjoshi@connecteng.com.au

p: PO Box 484, Casula NSW 2170

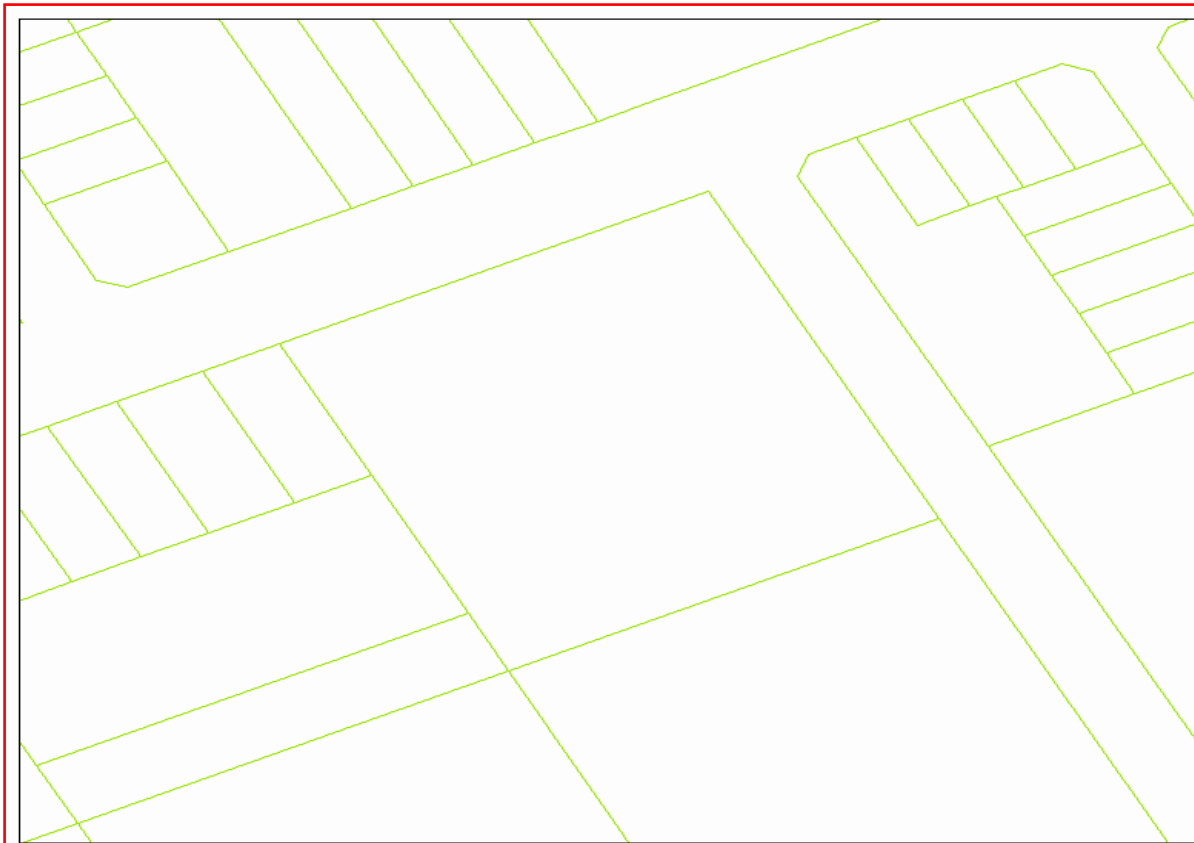
Sachin Joshi
6 PROGRESS CCT
PRESTON New South Wales 2170
Attention: Sachin Joshi
Email: sjoshi@connecteng.com.au

Date: 26 June 2018

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Lot : 21, DP:DP2912 with a Buffer of 50 meters,
conducted by Sachin Joshi on 26 June 2018.**

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



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

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

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

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

Important information about your AHIMS search

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



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.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 26/06/18 11:13:18

[Summary](#)

[Details](#)

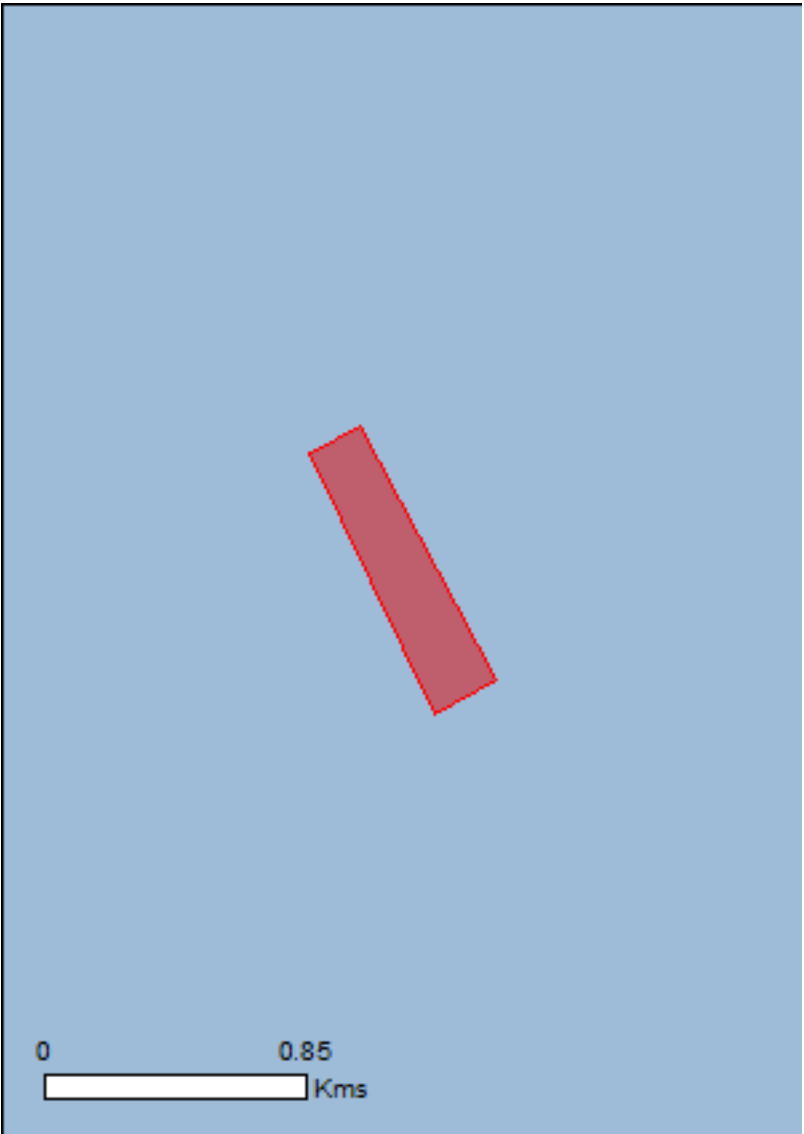
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

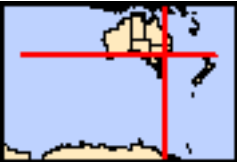
[Acknowledgements](#)



This map may contain data which are
©Commonwealth of Australia
(Geoscience Australia), ©PSMA 2010

[Coordinates](#)

Buffer: 1.0Km



Summary

Matters of National Environmental 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:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	6
Listed Threatened Species:	32
Listed Migratory Species:	15

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 environment anywhere.

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 Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	21
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Commonwealth Reserves Marine:	None

Extra Information

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

State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	50
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	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.

Name	Status	Type of Presence
Castlereagh Scribbly Gum and Agnes Banks Woodlands of the Sydney Basin Bioregion	Endangered	Community may occur within area
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community may occur within area
Cooks River/Castlereagh Ironbark Forest of the Sydney Basin Bioregion	Critically Endangered	Community may occur within area
Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	Critically Endangered	Community likely to occur within area
Shale Sandstone Transition Forest of the Sydney Basin Bioregion	Critically Endangered	Community may occur within area
Western Sydney Dry Rainforest and Moist Woodland on Shale	Critically Endangered	Community may occur within area

Listed Threatened Species

[Resource Information]

Name	Status	Type of Presence
Birds		
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
Fish		
Macquaria australasica Macquarie Perch [66632]	Endangered	Species or species habitat may occur within

Name	Status	Type of Presence
		area
Prototroctes maraena Australian Grayling [26179]	Vulnerable	Species or species habitat may occur within area
Frogs		
Heleioporus australiacus Giant Burrowing Frog [1973]	Vulnerable	Species or species habitat likely to occur within area
Litoria aurea Green and Golden Bell Frog [1870]	Vulnerable	Species or species habitat known to occur within area
Mammals		
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat known to occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area
Petauroides volans Greater Glider [254]	Vulnerable	Species or species habitat likely to occur within area
Petrogale penicillata Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat known to occur within area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Plants		
Acacia bynoeana Bynoe's Wattle, Tiny Wattle [8575]	Vulnerable	Species or species habitat likely to occur within area
Acacia pubescens Downy Wattle, Hairy Stemmed Wattle [18800]	Vulnerable	Species or species habitat may occur within area
Allocasuarina glareicola [21932]	Endangered	Species or species habitat likely to occur within area
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat likely to occur within area
Genoplesium baueri Yellow Gnat-orchid [7528]	Endangered	Species or species habitat may occur within area
Haloragis exalata subsp. exalata Wingless Raspwort, Square Raspwort [24636]	Vulnerable	Species or species habitat may occur within area
Micromyrtus minutiflora [11485]	Vulnerable	Species or species habitat likely to occur within area

Name	Status	Type of Presence
Pimelea curviflora var. curviflora [4182]	Vulnerable	Species or species habitat may occur within area
Pimelea spicata Spiked Rice-flower [20834]	Endangered	Species or species habitat likely to occur within area
Pterostylis gibbosa Illawarra Greenhood, Rufa Greenhood, Pouched Greenhood [4562]	Endangered	Species or species habitat may occur within area
Pterostylis saxicola Sydney Plains Greenhood [64537]	Endangered	Species or species habitat may occur within area
Pultenaea parviflora [19380]	Vulnerable	Species or species habitat likely to occur within area
Syzygium paniculatum Magenta Lilly Pilly, Magenta Cherry, Daguba, Scrub Cherry, Creek Lilly Pilly, Brush Cherry [20307]	Vulnerable	Species or species habitat may occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species

[Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]		Species or species habitat likely to occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land	[Resource Information]
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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.

Name
Commonwealth Land - Australian Telecommunications Commission

Listed Marine Species	[Resource Information]
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* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		

Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]		Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Cuculus saturatus Oriental Cuckoo, Himalayan Cuckoo [710]		Species or species

Name	Threatened	Type of Presence
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Critically Endangered	habitat known to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]		Species or species habitat likely to occur within area
Lathamus discolor Swift Parrot [744]		Species or species habitat known to occur within area
Merops ornatus Rainbow Bee-eater [670]	Critically Endangered	Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat likely to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]		Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered*	Species or species habitat likely to occur within area

Extra Information

Invasive Species

[Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Acridotheres tristis Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Alauda arvensis Skylark [656]		Species or species habitat likely to occur within area
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis European Goldfinch [403]		Species or species habitat likely to occur within area
Carduelis chloris European Greenfinch [404]		Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Lonchura punctulata Nutmeg Mannikin [399]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Passer montanus Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Pycnonotus jocosus Red-whiskered Bulbul [631]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Turdus merula Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
Frogs		
Rhinella marina Cane Toad [83218]		Species or species habitat likely to occur within area
Mammals		

Name	Status	Type of Presence
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Alternanthera philoxeroides Alligator Weed [11620]		Species or species habitat likely to occur within area
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]		Species or species habitat likely to occur within area
Asparagus aethiopicus Asparagus Fern, Ground Asparagus, Basket Fern, Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425]		Species or species habitat likely to occur within area
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Asparagus plumosus Climbing Asparagus-fern [48993]		Species or species habitat likely to occur within area
Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Chrysanthemoides monilifera subsp. monilifera Boneseed [16905]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Cytisus scoparius Broom, English Broom, Scotch Broom, Common Broom, Scottish Broom, Spanish Broom [5934]		Species or species habitat likely to occur within area
Dolichandra unguis-cati Cat's Claw Vine, Yellow Trumpet Vine, Cat's Claw Creeper, Funnel Creeper [85119]		Species or species habitat likely to occur within area
Eichhornia crassipes Water Hyacinth, Water Orchid, Nile Lily [13466]		Species or species habitat likely to occur within area
Genista monspessulana Montpellier Broom, Cape Broom, Canary Broom, Common Broom, French Broom, Soft Broom [20126]		Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Lantana camara Lantana, Common Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892] Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Nassella neesiana Chilean Needle grass [67699]		Species or species habitat likely to occur within area
Nassella trichotoma Serrated Tussock, Yass River Tussock, Yass Tussock, Nassella Tussock (NZ) [18884]		Species or species habitat likely to occur within area
Opuntia spp. Prickly Pears [82753]		Species or species habitat likely to occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Sagittaria platyphylla Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
Senecio madagascariensis Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
Ulex europaeus Gorse, Furze [7693]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur

Name	Status	Type of Presence within area
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Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

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.

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

Where very little information is available for 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 reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

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

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

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

Coordinates

-33.691732 150.874129,-33.691696 150.874215,-33.691107 150.875567,-33.697249 150.879558,-33.698052 150.877798,-33.691732 150.874129

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.