

# Summary environmental report guidance notes

EGN 174B

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14.1	No longer a public authority under the FM Act (require a permit for dredging work). Updated wording for the WM Act.	Michelle Quinn
14.2	Alignment with NS174C 2017, removed forest agreements, changed SHFA to Place Management, added biodiversity stewardship sites, updated movable heritage process, added oil EWMS and flood planning area requirements.	Michelle Quinn
14.3	Clarified typical construction methodologies and requirements for public land, marine parks, SANSW, consultation timeframes, Biodiversity stewardship sites, Significant tree register, hazardous materials and flood prone land.	James Hart
14.4	Minor amendments following Legal review	James Hart

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14.5	Updated notification requirements, decommissioning substations and various minor legislative changes.	James Hart
14.6	Updated to align with revised NS174C Environmental Handbook June 2020.	James Hart
14.7	Updated to include climate change adaptation controls and other minor amendments.	James Hart

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## Glossary

Term	Meaning
<b>ACM</b>	Asbestos containing material
<b>Activity</b>	Has the same meaning as that prescribed by section 5.1 of the <a href="#">EP&amp;A Act</a>
<b>AHIMS</b>	Aboriginal Heritage Information Management System
<b>AHIP</b>	Aboriginal Heritage Impact Permit
<b>ALR Act</b>	<i>Aboriginal Land Rights Act</i> (NSW)
<b>ARPANSA</b>	Australian Radiation Protection and Nuclear Safety Agency
<b>ASS</b>	acid sulfate soils
<b>Assessment Area</b>	The area defined by the WebGIS EL Report
<b>ASP</b>	Accredited Service Provider
<b>B Act</b>	NSW <i>Biosecurity Act</i>
<b>BC Act</b>	the <i>Biodiversity Conservation Act</i> (NSW)
<b>Blue Book</b>	<i>Managing Urban Stormwater – Soils and Construction</i> (Landcom 2004)
<b>CCO</b>	chemical control order
<b>CEMP</b>	construction environmental management plan
<b>CFC</b>	Chlorofluorocarbon
<b>Classified road</b>	Classified roads include main roads, highways, freeways, a controlled access road, a secondary road, a tourist road, a tollway, a transit way and State work.
<b>CLC</b>	customer load control
<b>Climate Change</b>	Describes both changed average climatic conditions, such as increased temperature and lower average rainfall, as well as changes in the patterns of extreme events, including increased frequency and intensity of storms.
<b>CPESC</b>	Certified Professional in Erosion and Sediment Control
<b>DA</b>	development application
<b>dB</b>	Decibels
<b>DII</b>	Department of Industry and Investment
<b>DoE</b>	Commonwealth Department of the Environment
<b>DP</b>	deposited plan
<b>DPI</b>	Department of Primary Industries (part of DII)
<b>EHC Act</b>	<i>Environmentally Hazardous Chemicals Act</i> (NSW)
<b>EIA</b>	Environmental impact assessment
<b>Emergency works</b>	Works for the purpose of maintaining or restoring infrastructure facilities or equipment in order to ensure public safety or to protect buildings or the environment due to: <ul style="list-style-type: none"> <li>• a sudden natural event, including a storm, flood, tree fall, bush fire, land slip or coastal inundation, or</li> <li>• accident, equipment failure or structural collapse, or</li> <li>• damage caused by vandalism or arson,</li> </ul> provided the works involve no greater disturbance to soil or vegetation than necessary and are carried out in accordance with all applicable requirements of the Blue Book.
<b>EMF</b>	electric and magnetic fields

Term	Meaning
<b>EP&amp;A Act</b>	NSW <i>Environmental Planning and Assessment Act</i>
<b>EPA</b>	NSW Environment Protection Authority
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act (Cth)</i>
<b>EPI</b>	environmental planning instruments
<b>ESU</b>	Ausgrid's Environmental Services section, who can be contacted on 02 9394 6659 or <a href="mailto:environmentalservices@ausgrid.com.au">environmentalservices@ausgrid.com.au</a>
<b>EWMS</b>	Environmental work method statement
<b>ES Act</b>	<i>Electricity Supply Act (NSW)</i>
<b>ESCP</b>	erosion and sediment control plan
<b>FM Act</b>	<i>Fisheries Management Act (NSW)</i>
<b>FM Regulation</b>	<i>Fisheries Management (General) Regulation (NSW)</i>
<b>GBD</b>	General Biosecurity Duty
<b>Heritage Act</b>	<i>Heritage Act (NSW)</i>
<b>HW Act</b>	<i>Hunter Water Act (NSW)</i>
<b>HV</b>	high voltage
<b>HWC</b>	Hunter Water Corporation
<b>ICNG</b>	Interim Construction Noise Guideline
<b>IECA</b>	International Erosion Control Association
<b>Infrastructure SEPP</b>	State Environmental Planning Policy (Infrastructure) 2007
<b>ICNIRP</b>	International Commission on Non-Ionizing Radiation Protection
<b>kg</b>	Kilogram
<b>kV</b>	Kilovolts
<b>LEP</b>	local environmental plan
<b>LV</b>	low voltage
<b>m, m<sup>2</sup>, mm</b>	metre, metres squared, millimetre
<b>mg</b>	Milligrams
<b>MoU</b>	memorandum of understanding
<b>NATA</b>	National Association of Testing Authorities, Australia.
<b>NDA</b>	Nominated Determining Authority
<b>NES</b>	national environmental significance
<b>NPW Act</b>	NSW <i>National Parks and Wildlife Act</i>
<b>NPWS</b>	National Parks and Wildlife Service
<b>NT Act</b>	<i>Native Title Act (Cth).</i>
<b>NVMP</b>	Noise and Vibration Management Plan
<b>OCP</b>	organochlorine pesticides
<b>PCBs</b>	polychlorinated biphenyls
<b>Planning Code</b>	<a href="#">NSW Code of Practice for Authorised Network Operators</a>
<b>POEO Act</b>	NSW <i>Protection of the Environment Operations Act</i>
<b>PT</b>	pole top transformer

Term	Meaning
<b>Ramsar</b>	A 'declared Ramsar wetland' is an area that has been designated under Article 2 of the Convention on Wetlands (Ramsar, Iran, 1971) or declared by the Minister to be a declared Ramsar wetland under the EPBC Act.
<b>REF</b>	review of environmental factors
<b>RMS</b>	Roads and Maritime Service
<b>ROL</b>	road occupancy licence
<b>SANSW</b>	Subsidence Advisory NSW
<b>SCW</b>	scheduled chemical waste
<b>SF<sub>6</sub></b>	Sulphur hexafluoride
<b>SEPP</b>	state environmental planning policy
<b>SER</b>	Summary Environmental Report
<b>SHFA</b>	Sydney Harbour foreshore area as defined by the <i>Placement Management NSW Act 1998</i>
<b>SIS</b>	Species Impact Statement
<b>SOPA</b>	Sydney Olympic Park Authority
<b>SRZ</b>	structural root zone
<b>SWMP</b>	soil and water management plan
<b>TMP</b>	Traffic Management Plan
<b>TPZ</b>	tree protection zone
<b>UGOH</b>	underground to overhead connection
<b>WebGIS EL</b>	Ausgrid's environmental geographic information system, WebGIS Environmental Layers
<b>WebGIS EL Report</b>	A report generated from the WebGIS EL.
<b>WHS</b>	Work health and safety
<b>WM Act</b>	NSW <i>Water Management Act</i>

## Introduction


These guidance notes provide assistance when completing Tables 1 and 2 of Ausgrid's NS174A SER, prepared under Part 5 of the *Environmental Planning and Assessment Act* (NSW) (EP&A Act).

The Summary Environmental Report (SER) is used to assess projects which are expected on a reasonable basis to have impacts which are minor and neither extensive nor complex. The SER is also used to determine whether a more detailed EIA, in the form of a review of environmental factors (REF), Environmental Impact Statement (EIS) or Species Impact Statement (SIS), is needed.

This document should be used where the "Stage 1 – preliminary assessment" conducted in accordance with Ausgrid's Environmental Assessment Guidelines (NS174B) identifies that an SER is required.

This document should be read in conjunction with the relevant information in Ausgrid's Environmental Assessment Guidelines (NS174B) which relates to the [NSW Code of Practice for Authorised Network Operators](#) (Planning Code) requirements for "Stage 1 – preliminary assessment", "Stage 2 – assessment and evaluation", "Stage 3 – preparation of EIA documentation" and "Stage 4 – determination by an authorised person". An SER prepared in accordance with these guidance notes must comply with the Planning Code requirements.

It is important to note that under the Planning Code, if Ausgrid is performing the Nominated Determining Authority (NDA) role, the SER must identify all factors other agencies will need to consider to determine whether a separate licence or approval can be issued and record that Ausgrid consulted with those agencies to clarify any specific information that should be covered by the assessment documentation.

This document is to be used by all Ausgrid employees and Accredited Service Providers (ASPs) undertaking planning work associated with Ausgrid's network in conjunction with Ausgrid's summary environmental report (SER). The information buttons  in the SER will link directly to the relevant section in this document.

SERs must be prepared by competent Ausgrid employees and ASPs who hold current SER Training (ET 005) in accordance with Ausgrid's Environmental Assessment Guidelines (NS174B).

Additional information about determining the environmental approval processes, submitting SERs, accessing relevant documents and undertaking training can be found on Ausgrid's Environmental Planning website: [enviro.ausgrid.com.au](http://enviro.ausgrid.com.au).

## Table 1 - Project details

### 1.1 Scope of activities covered by this SER

The description of the proposed Activity is essential to an SER because:

- it affects what approvals could be required
- it affects the assessment of the impacts
- only those activities covered by the description of the proposed Activity are approved
- an ill-considered description of the proposed Activity may restrict what activities can occur



- late changes to the description of the proposed Activity may require re-notification or a proposal to carry out work to local Council which could delay the project by an additional 40 or 21 days (see section 1.9).

The description of the proposed Activity should include the plant and equipment to be used as well as all of the activities to be assessed including ancillary works such as:

- earth works including trenching
- fencing
- tree trimming
- access tracks
- lighting
- site compounds
- construction pads.

It is essential that all activities are described in the description of the proposed Activity as only those activities listed are approved. Sources of information for the description of the proposed Activity could include:

- the development brief
- site inspection
- the project/construction manager
- design drawings.

It is mandatory to attach a design drawing to the SER to assist in describing the proposed Activity.

### Example SER text

Description\*

Works: [Ausgrid / The developer] proposes to [proposed works].

Design Reference: [Design reference number and date].

NOTE: CHANGES TO THE DESCRIPTION OF THE PROPOSED ACTIVITY (INCLUDING THE DESIGN) WILL REQUIRE A REASSESSMENT.

Typical construction methodologies would be utilised and include the use of a [concrete cutter and wet vac, excavator, tip truck, skip bin, pole erector].

Access: All work, including access during construction, would occur within existing roadways or pre-approved Ausgrid access tracks. Work would occur within a roadway and, as such, provisions for traffic management would be made sufficient to meet local Council and the Roads and Maritime Service (RMS) standards

Vegetation trimming/clearing: Vegetation [removal/trimming] required to complete this work includes [location and description of vegetation]. Vegetation management is required because [enter justification].

## 1.2 Future maintenance activities

The description of the proposed Activity should include all foreseeable future maintenance activities, such as:

- operation of the network
- transformer maintenance
- access track usage
- tree trimming
- pole inspections
- termite treatment.

#### Example SER text

Description\*

The Activity includes future maintenance, operation, inspection, repair and decommissioning. This may include works undertaken out of normal working hours and vegetation management works. All works would be undertaken in accordance with NS174C Environmental Handbook for Construction and Maintenance and Ausgrid's Tree Safety Management Plan or equivalent procedures in force at the time.

### 1.3 Related Projects that have an Environmental Impact Assessment (ie REF) associated with this project

The description should include any major projects or other related project works that have an environmental assessment (ie REF, SER or SIS) associated with the works. This includes a development application (DA) that has been approved by the local Council under Part 4 of the EP&A Act.

#### Example SER text

Description\*

This project involves the installation of 11 kV feeders associated with the new Bankstown 132/11 kV zone substation. The new substation has been assessed separately under Part 5 of the *Environmental Planning and Assessment Act 1979* (NSW) (Bankstown 132/11 kV zone substation review of environmental factors, 30 May 2012).

OR

The works are part of the proposed electrical reticulation for a residential subdivision that has been approved by Wyong Council as a Part 4 assessment under the *Environmental Planning and Assessment Act 1979* (NSW). The development consent for the overall project is DA/509/2014.

### 1.4 Need for the proposed Activity

The need for the proposed Activity must be identified in the SER. In most cases the justification is that the customer requires supply. However, in some cases alternatives may exist (eg new line extension versus new substation installation) and a justification is required as to why this project is the preferred option.

#### Example SER text

Description\*

Due to increased demand in the area, this part of the network has become overloaded and needs to be upgraded. Upgrading this part of the network will ensure the safe and reliable continuation of power supply to customers.

OR

This asset has reached the end of its serviceable life and is scheduled for replacement. Replacing this part of the network will ensure the safe and reliable continuation of power supply to customers.

OR

This span or feeder has been identified as being non-compliant with statutory requirements. Immediate rectification is required to ensure a safe and reliable electricity supply.

## 1.5 Route / site option justification and options assessed

A justification as to why the route or site was selected for the proposed Activity must be identified in the SER.

For routine projects with multiple options, a simple desktop analysis is often sufficient to demonstrate why an option is preferred. In some cases site specific studies and/or community consultation will be required to gain a better understanding of the impacts. For multiple options with multiple competing criteria, [EGN 424 Options Analysis Calculator](#) may assist in determining the preferred options. Note that [EGN 424 Options Analysis Calculator](#) has limitations that need to be considered.

When a number of options meet the network need, an options analysis is required to determine the preferred route / site. An options analysis aims to identify the preferred project by finding the best balance of the project's social, environmental, technical and financial objectives. The complexity of the analysis will depend on the nature of these objectives in relation to the options and the extent to which they conflict.

The route / site selected can have important implications for the type of assessment or the permits and approvals required. Sufficient information should be provided to enable an insight into why that particular route / site was chosen and what other routes / sites were considered as part of the "Stage 1 – preliminary assessment" conducted in accordance with Ausgrid's Environmental Assessment Guidelines (NS174B).

**Note:** It may be necessary to revisit this step after collecting information about the site and/or identifying any specific construction controls in Table 2.

### Example SER text

Description\*

Several factors were considered when determining the most suitable option. The preferred project achieves the best balance of social, environmental, technical and financial objectives. Options for this project have been restricted due to the need to make points of connection at certain locations.

Other options considered include:

- X
- X

These options were considered less favourable as it would [be expensive / create more of an impact on the environment / be more disruptive to the community / result in more of a change to the existing network than is necessary].

## 1.6 Indicative commencement date and duration of works

Provide the timing, phasing and schedule of the work to assess the extent and nature of the impacts. Any works outside standard operating hours must be justified and the impacts fully considered in this SER. In these cases it should be noted that additional community consultation and noise mitigation measures will be required.

### Example SER text

Description\*

Work is expected to commence in [INSERT DATE] and take approximately [X] months to complete. This timeframe is indicative and may vary due to the contractor or specialist availability, resources and consultation with the community.

The construction period may also vary in duration depending on weather conditions, technical parameters, environmental issues, resources and availability of [contractors and specialists].

Working hours are restricted to Monday to Friday 7 am to 6 pm and Saturdays 8 am to 1 pm, with no work on Sundays and public holidays. Working outside these hours, although not expected, may be required where [RMS Road Occupancy Licences stipulate out of hours work / there would be a greater environmental or social benefit as a result of out of hours work occurring / electrical outages require that work must be undertaken out of standard operating hours]. Refer to Table 2 regarding any specific construction controls.

## 1.7 Description of the land – environmental characteristics, land use and land ownership

Describe the geographic location of the land. Where possible include the title information for the Assessment Area such as the Lot and DP identifiers.

Describe the environmental characteristics of the Assessment Area relevant to the potential impacts and the current land use/s. List the potential issues identified in the WebGIS EL Report. The detail required will depend on the type of activity, but could include the following:

- water bodies and drainage systems
- landform and landscape character
- soils
- flora and fauna
- visual and scenic quality
- land use (eg residential, industrial, bush land, water bodies etc)
- transportation, public utilities and other services
- population, community services, recreation and tourism
- features of heritage, conservation or archaeological value.

It is mandatory to attach a WebGIS EL Report for the Assessment Area to the SER. The report must be less than 6 months old.

Identify the landowner/s of the Assessment Area and any relevant implications. Part 4A, Divisions 2 of the *Electricity Supply Act* (NSW) authorises Ausgrid (as a network operator) to carry out any of the following work:

- work comprising the erection, installation or extension of electricity works on public land;

- work on any land comprising or connected with the alteration, maintenance or removal of existing electricity works on any land; and
- work on public land that is connected with the erection, installation, extension, alteration, maintenance or removal of electricity works on any land.

“Public land” includes:

- a public road
- a public reserve
- Crown land within the meaning of the *Crown Lands Act* (NSW) or land within a reserve as defined in Part 5 of that Act
- State forest
- land under the control and management of a “public or local authority”,

but does not include:

- any land (other than State forest) that is occupied under any lease or other arrangement for private purposes that confers a right to exclusive possession of the land, or
- any land leased under the *Western Lands Act* (NSW).

“Public authority” means a public or local authority constituted by or under an Act or a statutory body representing the Crown, and includes a Minister and a statutory State owned corporation and its subsidiaries. Examples of “public” and “local authorities” include:

- local Councils
- Ministers and Government Departments, including Crown Lands
- Transport for NSW
- Hunter Water Corporation and Sydney Water Corporation
- Forestry Corporation of NSW
- Newcastle Port Corporation
- Hunter Development Corporation
- UrbanGrowth NSW Development Corporation

Easements, leases and licences may be required to carry out work in locations where the landowner is not Ausgrid.

Title searches are required for works not located on public roads or public reserves.

In general when on private land, kiosks will require an easement, chamber substations will require a lease and construction compounds will require a licence. There is no specific requirement in the EP&A Act for Ausgrid to obtain landowner permission as part of the environmental assessment process for determining an activity under Part 5 of the EP&A Act (see Environmental Assessment Guidelines (NS174B)). However, the landowner should be aware of and support the proposal prior to the SER being verified.

Where there is doubt in relation to whether land is “public land”, a certificate as to the classification of any public land and a copy of the Plan of Management should be obtained from the local Council.

Any acquisition or leasing of land or easements will need the involvement of Ausgrid's Property Section.

### Example SER text

#### Description\*

The Assessor undertook a site visit on [insert date of site visit].

The study area for this project has been defined by coordinates indicated in the attached Web GIS EL Report. This project is to be carried out on [insert Lot/DP]. The study area encompasses all those matters potentially affected as a result of the proposal. Matters likely to be affected are addressed in this assessment.

This area is dominated by [residential / commercial / industrial / recreational] land uses. Distinguishing features relating to this activity include a [waterway / main road / playground / National Park / trees].

The area has been mapped on Ausgrid's Web GIS EL Report to include [Aboriginal heritage items / acid sulfate soils / contaminated areas / threatened species / Non-Aboriginal heritage items] within the study area.

Land ownership: work would occur within a public road or reserve with the exception of [location] for the installation of [asset]. Ausgrid's Property section has undertaken a title search which shows that the land is owned by [insert]. An easement is required prior to works commencing.

## 1.8 Notification or approval requirements for Drinking Water Catchment Areas, Crown Land, Crown-timber Land, State Forests, Mine Subsidence areas, SHFA areas, SOPA areas

### 1.8.1 Water Catchment Areas

It is necessary to provide details including the conditions of approval if a project is located on land:

- identified as being in the "Sydney drinking water catchment" on the [Sydney Drinking Water Catchment Map](#) under the *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011* (NSW)
- declared to be a "special area" or "controlled area":
  - under the *Water NSW Act* (NSW) and *Water NSW Regulation 2013* (NSW), such as the Woronora Special Area
  - under the *Hunter Water Act* (NSW) (HW Act) and the *Hunter Water Regulation 2015* (NSW), such as the Hunter Special Catchment Area..

#### Collecting information

1. The Hunter and Central Coast (Ourimbah, Wyong, Porters Creek) catchment areas, Woronora Catchment area and some Council controlled catchment areas are available on the [WebGIS EL](#) (refer to the Web GIS EL Report).
2. The local Council can be contacted for additional information in relation to works in Council controlled catchment areas

#### Further information

For Hunter catchment area information: [www.hunterwater.com.au/Water-and-Sewer/Water-Supply/Our-Drinking-Water-Catchments.aspx](http://www.hunterwater.com.au/Water-and-Sewer/Water-Supply/Our-Drinking-Water-Catchments.aspx)

For Central Coast catchment area information: [gwcwater.nsw.gov.au/water-supply/dams--catchments](http://gwcwater.nsw.gov.au/water-supply/dams--catchments)

For Sydney catchment area information:

[www.sca.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0006/36375/Special-Areas-Brochure-Special-Areas-Map-October-2013.pdf](http://www.sca.nsw.gov.au/__data/assets/pdf_file/0006/36375/Special-Areas-Brochure-Special-Areas-Map-October-2013.pdf)

## Requirements

Under section 50 of the *Water NSW Act* (NSW), works must not be carried out in Sydney special catchment areas unless 28 days' notice has been given to Water NSW outlining the scope of the proposed works.

Ausgrid has undertaken a blanket notification under section 55 of the *Hunter Water Act* (NSW) with Hunter Water Corporation (HWC) for Hunter Special Catchment Areas. This blanket notification includes all minor maintenance and upgrade works undertaken by Ausgrid on overhead and underground power lines and substations (voltages of 415V-132kV).

Ausgrid must still notify HWC for the following works within Hunter Special Catchment Areas:

- new power lines outside of an existing easement or alignment (including underground lines)
- new pole top substations or kiosk substation (not replacing existing assets)
- replacement kiosk or pole top substations in a substantially different location
- any new zone or sub-transmission substation.

Ausgrid is not required to gain approval on the Central Coast. However, in the Ourimbah Catchment area development must be in line with the objective of [Gosford City Council's Water Supply Catchment Area Development Policy \(WS5.15\)](#), which is to ensure zero impact on the quality of the Central Coast Water Supply. Care must be taken to ensure that no pollution occurs within the construction area.

Contact the local Council for works in Council controlled catchment areas such as Muswellbrook Shire Council and Singleton Council.

Standard environmental controls apply to all catchment areas, refer to the WebGIS EL report and include in the SER.

## Example SER text

Description\*

The proposed works are within the [Enter text] catchment area.

1. All workers to be made aware of sensitive areas and the need to avoid impacts.
2. No using pesticides, herbicides or other chemicals.
3. No handling of oils or fuels including the refuelling of plant and equipment.
4. All vehicles working within the catchment area must carry an appropriate spill kit.
5. 28 day notification for works within Special Catchment Areas of the Sydney Catchment Authority and for any new works in Hunter Water Corporation areas.
6. No more than minor maintenance and upgrade works within Hunter Special Catchment Areas.
7. SERs for works within any drinking water catchment areas must demonstrate that the works will have no or a neutral impact upon water quality.
8. Contact the local council for works in council controlled catchment areas.



## 1.8.2 Working on Crown Lands or Crown-timber Lands

An SER must specify the conditions of any approval if works are on:

- Crown lands
- Crown timber lands.

Some new works on Crown lands require referral to Ausgrid's property section to undertake an assessment of tenure.

Works on Crown lands that do not require referral to Ausgrid's property section include:

- work on public roads or reserves
- work to maintain, repair or replace an existing asset within an existing developed footprint on Crown land. However, if additional disturbance is required outside the existing developed footprint, or if an asset is being upgraded, the works must be referred to Ausgrid's property section for an assessment of tenure.

Refer to Table 1 for examples of works that do and do not require an assessment of tenure. In summary, the works must be referred to Ausgrid's property section for consideration of native title issues if the Web GIS EL Report indicates that the work is on Crown land that is not a public road or reserve, and it is not work to maintain, repair or replace an existing asset within an existing developed footprint.

Table 1 Works on Crown land

Description of Works	Assessment of tenure required?
Installing a new PT on a new/existing pole on an existing overhead distribution power line.	No
Installing a new recloser on a new/existing pole on an existing overhead distribution power line.	No
Installing a regulator on a new/existing pole on an existing overhead distribution power line.	No
Installing a capacitor bank on a new/existing pole on an existing overhead distribution power line.	No
Replacing timber poles with concrete poles.	No
Upgrading from 415 V to 11 kV, 11 kV to 33 kV, etc.	Yes
Relocating a pole by a metre if it goes from being on one property to a different property.	Yes
Rebuilding an existing single phase overhead line (two wires) to three phases (three wires) on the same overhead power line route.	No
Installing communication wire on an existing overhead power line.	No
Installing a control cubicle or pilot wire box on the ground within an existing overhead power line easement.	No
Relocating overhead power lines due to an encroachment to meet clearance standards.	Yes
Distribution substation earthing inside easement.	No
Installing overhead earth wire (OHEW) on an existing overhead power line.	No
Upgrading a PT and relocating by 20m, on the same property.	No
Acquiring easements over existing assets (generally 11 kV) as a condition of a subdivision.	Yes



## Collecting information

1. Indicative locations of Crown lands and Crown-timber lands are available on the [WebGIS EL](#) (refer to the WebGIS EL Report).

## Further information

For Crown timber land information:

[www.epa.nsw.gov.au/forestagreements/regulatingcrownforestry.htm](http://www.epa.nsw.gov.au/forestagreements/regulatingcrownforestry.htm)

## Requirements

Under the *Land Acquisition (Just Terms Compensation) Act* (NSW), land (including an interest in land, such as an easement) can be compulsorily acquired over Crown land. Checks for any native title claims under the *Native Title Act* (Cth) (NT Act) and Aboriginal land claims under the *Aboriginal Land Rights Act* (NSW) (ALR Act) should also be made.

The NT Act provides for the recognition and protection of native title in Australia and establishes a mechanism for determining claims to native title (amongst other things). Native title can apply to Crown land and land held under land rights and water areas where it can be demonstrated that there is a continuous traditional connection to the land. Where works are proposed on land where native title may continue to exist, an assessment of the tenure should be undertaken. Native title holders and claimants have a statutory right to notification and consultation in terms of what impact a proposed project may have over their native title rights and interests. As is the case for ordinary title holders, native title holders hold the right to claim compensation for the extent to which their native title rights and interests are impacted or extinguished by Ausgrid's works.

The ALR Act was established in NSW to provide land rights for Aboriginal persons in New South Wales (amongst other things). The Act provides for the establishment of the NSW Aboriginal Land Council (ALC) which operates as a three tiered system consisting of the state body, local ALCs and regional ALCs. Through the ALCs, land claims can be made for the benefit of its members to claim back land for community purposes. The land must be "claimable Crown lands" which:

- are able to be lawfully sold or leased, or are reserved or dedicated for any purpose, under the Crown Lands Consolidation Act (NSW) or the Western Lands Act (NSW);
- are not lawfully used or occupied;
- do not comprise lands which, in the opinion of a Crown Lands Minister, are needed or are likely to be needed as residential lands;
- are not needed, nor likely to be needed, for an essential public purpose;
- do not comprise lands that are the subject of an application for a determination of native title (other than a non-claimant application that is an unopposed application) that has been registered in accordance with the NT Act; and
- do not comprise lands that are the subject of an approved determination of native title (within the meaning of the NT Act) (other than an approved determination that no native title exists in the lands).

Crown-timber lands are managed by the Department of Primary Industries (DPI). Crown timber lands are governed by the *Forestry Act* (NSW). "Crown-timber land" means any of the following:

- land within a State forest or flora reserve;

- Crown land (whether or not held under a lease or licence from the Crown and whether or not included in a timber reserve);
- land affected by a profit à prendre;

but does not include:

- any Crown land the subject of a prescribed Crown tenure if the subject land has an area of 2 hectares or less; or
- any Crown land the subject of a tenure from the Crown that is not a prescribed Crown tenure.

A clearing licence issued under section 43 of the *Forestry Act* is required to ringbark or otherwise kill or destroy trees on Crown-timber land.

### 1.8.3 Working within state forests

It is necessary to provide details including the conditions of approval if working within State forests.

#### Collecting information

1. State forests are available on the [WebGIS EL](#) (refer to the WebGIS EL Report).

#### Further information

For forest information: [www.forestrycorporation.com.au](http://www.forestrycorporation.com.au)

#### Requirements

Under section 43 of the *Forestry Act* a clearing licence to ringbark or otherwise kill or destroy trees in a State forest may be required to be obtained by Ausgrid or its contractor. Contact the Forestry Corporation of NSW to determine whether a licence is required.

### 1.8.4 Working within a mine subsidence district

Provide details including the conditions of approval if works are within a mine subsidence area.

#### Collecting information

1. Mine subsidence areas are available on the [WebGIS EL](#) (refer to the WebGIS EL Report).

#### Further information

For mine subsidence information: [www.subsidenceadvisory.nsw.gov.au](http://www.subsidenceadvisory.nsw.gov.au)

#### Requirements

In accordance with section 15(2A) of the *Mine Subsidence Compensation Act*, approval from the Subsidence Advisory NSW (SANSW) is required to alter or erect improvements within a mine subsidence district or to subdivide land therein. An 'improvement' includes any building work or work erected or constructed on land, any formed road, street, path, walk or drive-way and any pipeline, water, sewer, telephone, gas or other service main, whether above or below the surface of the land.

Ausgrid activities that do not involve the alteration or erection of improvements do not require SANSW approval. This would include emergency works, routine maintenance works and the above or below co-location of cabling on or within existing infrastructure.

SANSW does not require approval to be obtained for improvements for which a deemed approval has been given. The list of improvements given deemed approval is available on SANSW's website at:

[www.subsidenceadvisory.nsw.gov.au/SiteFiles/minesubnswgovau/Deemed\\_Approvals\\_for\\_Council\\_Staff.pdf](http://www.subsidenceadvisory.nsw.gov.au/SiteFiles/minesubnswgovau/Deemed_Approvals_for_Council_Staff.pdf)

SANSW have advised that in some areas the mines are ~3m below the surface. In this regard they are not concerned about stringing conductors on existing poles or changing crossarms etc. In other cases such as new poles/lines they are happy to accept a quick email advising of the nature of the works. In most cases they will respond that no approval will be required.

### Example SER text

Notification date and summary of responses \*

The proposed works are within a Mine Subsidence area. SANSW were notified on [enter text] and approval was received on [enter text]. The correspondence is attached to this assessment.

## 1.8.5 Working within Sydney Olympic Park Authority (SOPA) land

Provide details including the conditions of approval if undertaking works within [Sydney Olympic Park Authority \(SOPA\) land](#).

When undertaking works on Sydney Olympic Park land a Work Permit Application Form must be submitted to SOPA. All applications must be submitted 10 days in advance.

### Collecting information

1. Sydney Olympic Park Authority land are available on the [WebGIS EL](#) (refer to the WebGIS EL Report).

### Further information

For SOPA information:

[www.sopa.nsw.gov.au/planning\\_and\\_development/planning\\_and\\_building/site\\_operations](http://www.sopa.nsw.gov.au/planning_and_development/planning_and_building/site_operations)

## 1.8.6 Working on land vested in or managed by Place Management NSW

When working on land vested in or managed by Place Management NSW, a person must not undertake any of the following without an approval from Place Management NSW or unless in accordance with the regulation:

- damage, destroy or remove any tree, plant or other vegetation
- damage, destroy or remove any building, structure or equipment
- dig up or disturb the surface of any road or other land

Under the regulation activities reasonably related to the following are exempt from the need for an approval.

- the installation of electricity works,
- the alteration, maintenance or removal of existing electricity work,

- maintaining reasonable safety clearances under power lines, conductors and related structures and around communication sites associated with the supply of electricity.

### Collecting information

1. Land vested in or managed by Place Management NSW is available on the [WebGIS EL](#) (refer to the WebGIS EL Report).

### Further information

Refer to Place Management NSW for more information.

[www.property.nsw.gov.au/about-us](http://www.property.nsw.gov.au/about-us)

## 1.9 Council notification (Electricity Supply Act)

To determine the notification requirements for your works, use the [EGN 068 Environmental Planning Calculator](#).

Under the ES Act (section 45), other than for routine repairs or maintenance work, the local Council must be given notice of a proposal to carry out work and given a reasonable opportunity (being not less than 40 days from the date on which the notice was given) to make submissions to Ausgrid in relation to the proposal.

Wherever possible the SER should not be verified until the 21/40 day period has expired. This ensures that all submissions have been received and given due consideration. However, it is acknowledged that circumstances will arise where this is not practical or even possible (examples could include urgent works to restore power). Where required, verifying an SER before the 21/40 days expires requires a written response from relevant recipient stating that they do not intend to make any further submission and must be approved by an Ausgrid employee with appropriate delegated authority.

**Note:** see [Notification FAQs](#).

### Example SER text

Notification date and summary of responses \*

Notification date: [INSERT DATE]

Summary of responses: Council made a submission on [INSERT DATE] in response to the mandatory notification provided in accordance with Section 45 of the of the Electricity Supply Act NSW. It included comments on [X]. Those comments have been considered as part of this assessment and have informed Ausgrid's planning decision.

The mandatory notification and response is attached to this assessment.

## 1.10 Council /authority notification (SEPP Infrastructure and other)

To determine the notification requirements for your works, use the [EGN 068 Environmental Planning Calculator](#).

Under the Infrastructure SEPP (Division 1, and clause 42), development:

- with impacts on council-related infrastructure or services, local heritage or flood liable land; or
- for the purpose of a new or existing electricity substation of any voltage (including any associated yard, control building or building for housing plant),

must not be carried out unless written notice has been given to the local Council and any response received from the local Council within 21 days after the notice is given has been taken into consideration. These notifications can be served concurrently.

Under Infrastructure SEPP (Division 1), specified development must not be carried out unless written notice has been given to the specified authority in relation to the development and any response received from that authority within 21 days after the notice is given has been taken into consideration.

The following development is “specified development” and the following authorities are “specified authorities” in relation to that development:

- development adjacent to land reserved under the *National Parks and Wildlife Act 1974* (NSW) (NPW Act) or to land acquired under Part 11 of that Act – Office of Environment and Heritage (OEH)
- development on land in Zone E1 National Parks and Nature Reserves or in a land use zone that is equivalent to that zone – the Office of Environment and Heritage
- development adjacent to an aquatic reserve or a marine park under the *Marine Estate Management Act* (NSW) – Marine Estate Management Authority
- development in the Sydney Harbour foreshore area (SHFA) within the meaning of the *Place Management NSW Act* (NSW) – the Sydney Harbour Foreshore Authority
- development comprising a fixed or floating structure in or over navigable waters – RMS
- development on land in a mine subsidence district within the meaning of the *Mine Subsidence Compensation Act*—the Mine Subsidence Board

It is necessary to give due consideration to all submissions made by a local Council or specified authority as required under the Infrastructure SEPP. Details of the notifications (including the date on which they were made), any responses received, and how they have been addressed should be included in the SER.

The above datasets are available on the [WebGIS EL](#) (refer to the WebGIS EL Report).

“Adjacent” means areas or objects that are not separated by any significant physical barrier and are close enough for you to pass easily from one to another, i.e. houses separated by a road or road related area (as defined by the *Road Transport (General) Act* (NSW)) are adjacent.

Templates for consultation with local Councils and specified authorities are available [here](#).

**Note:** Wherever possible, the SER should not be verified until the full notification period has expired (see [Notification FAQs](#)).

In addition to the SEPP Infrastructure a number of regulations require notification to various authorities depending on the activity and location. Examples include working in special catchment areas, impacting marine vegetation or key fish habitat, transporting asbestos, demolishing a local heritage item on Ausgrid’s S170 register. To determine the notification requirements for your works, use the [EGN 068 Environmental Planning Calculator](#).

### Example SER text

Notification date and summary of responses \*

Authority: [INSERT AUTHORITY]

Notification date: [INSERT DATE]

Summary of responses: [AUTHORITY] made a submission on [INSERT DATE] in response to the mandatory notification provided in accordance with the State Environmental Planning Policy (Infrastructure) 2007 (NSW). It included comments on [X]. Those comments have been considered as part of this assessment and have informed Ausgrid's planning decision. The mandatory notification and response is attached to this assessment.

## 1.11 Community consultation (SEPP Infrastructure and other)

To determine the notification requirements for your works, use the [EGN 068 Environmental Planning Calculator](#).

Under clause 42 of the Infrastructure SEPP, development for the purpose of a new or existing electricity substation of any voltage (including any associated yard, control building or building for housing plant) must not be carried out unless written notice has been given to the occupiers of adjoining land and any response received from the occupiers of adjoining land within 21 days after the notice is given has been taken into consideration.

It is important to give due consideration to all submissions made by occupiers of adjoining land as required under the Infrastructure SEPP. Details of the notifications (including the date on which they were made), any responses received, and how they have been addressed should be included in the SER.

Templates for consultation with occupiers of adjoining land are available [here](#).

**Note:** Wherever possible, the SER should not be verified until the full notification period has expired (see [Notification FAQs](#)).

If an activity is likely to have more than a minimal impact, and there is an opportunity for the community to be involved in the route or site selection then additional community consultation should be considered. Submissions received from this consultation should be incorporated into the options analysis.

The SER must identify whether early community consultation is required and records of all consultation must be attached to the SER where appropriate.

**Note:** Under the Planning Code, written records of all consultation undertaken pursuant to the Planning Code must also be:

- kept for five years after the communication to which they relate took place;
- capable of being produced to a third party within a reasonable time frame, being in no case longer than 20 business days; and
- kept to a standard where a reasonable person inspecting the records could understand the essential nature of the communications that took place without reference to any material extrinsic to the records.

### Example SER text

Notification date and summary of responses \*

Notification date: [INSERT DATE]

Summary of submission: Submissions were received on [INSERT DATE/S] in response to the mandatory [notification/s] provided in accordance with [clause 42] of the *State Environmental Planning Policy (Infrastructure) 2007* (NSW). The [submission/s] made reference to [X]. The [submission/s] made have been considered as part of this assessment and have informed



Ausgrid's planning decision concerning the location of the new substation.  
The mandatory notification letter and response is attached to this assessment.

Proposed consultation: All potentially affected [residents / businesses] must be notified between 4 and 14 clear business days prior to the commencement of work. Where [residents / businesses] are directly affected by the work, for example their access will be restricted, at least four clear business days' notice must be given. Notices issued will outline the reason for the work, a suitable point of contact, estimated duration and any potential construction impacts. This may include temporary changes to traffic, construction noise and the location of site compounds.

## 1.12 Statutory context

It is necessary to confirm the Infrastructure SEPP is relevant to the activity as described in the scope of works (see [EGN 068 Environmental Planning Calculator](#)) and list the Local Environmental Plans (LEPs) or State Environmental Planning Policies (SEPPs) that may provide valuable information in undertaking the SER.

More information about the applicable LEPs and SEPPs can be obtained from the local Council for the project.

Example SER text

Description\*

The project falls within clause 41 of the *State Environmental Planning Policy (Infrastructure) 2007* (NSW) as 'development permitted without consent' and is not on land reserved under the *National Parks and Wildlife Act 1974* (NSW) or to which clauses 10 and 11 of *State Environmental Planning Policy (Coastal Management) 2018* apply.

This SER forms an assessment for the purposes of section 5.5 of Part 5 of the *Environmental Planning and Assessment Act 1979* (NSW) (in accordance with clause 228 of the *Environmental Planning and Assessment Regulation 2000* (NSW)) and the [NSW Code of Practice for Authorised Network Operators](#).

OR where work site is within Coastal Management Proximity Area:

The project falls within Clause 41 of the *State Environmental Planning Policy (Infrastructure) 2007* (NSW) as 'development permitted without consent' and is not on land reserved under the *National Parks and Wildlife Act 1974* (NSW).

The project is on land mapped as "proximity area for coastal wetland" to which clause 11 of *State Environmental Planning Policy (Coastal Management) 2018* applies. Potential impacts to the coastal wetland would be appropriately managed with the specific construction controls outlined in Table 2 of this SER. Therefore there is no requirement for an EIS or approval under Part 4 of the *EP&A Act 1979*.

This SER forms an assessment for the purposes of section 5.5 of Part 5 of the *Environmental Planning and Assessment Act 1979* (NSW) (in accordance with clause 228 of the *Environmental Planning and Assessment Regulation 2000* (NSW)) and the [NSW Code of Practice for Authorised Network Operators](#).

## 2 Table 2 - Environmental Impact Assessment & Specific Construction Controls

Using the description of the proposed Activity, WebGIS EL Report, and information gained from other sources such as consultation, site visits and desktop assessment, undertake the environmental impact assessment and identify the specific construction controls required for the project.

The polygon area used to create the WebGIS EL Report should include all components of the proposal including any site compounds, access tracks and any other ancillary site requirements.

Each issue is allocated an environmental risk level of either 1, 2 or 3. The principles for scoring are as follows:

### Level 1 - No potential impacts identified

Level 1 applies if both of the following apply:

- No 'sensitive features' are in the Assessment Area; and
- No 'hazardous activities' would be undertaken.

Where level 1 applies, the default minimum construction controls will be Ausgrid's Environmental Handbook (NS174C). All text fields can be modified and additional controls added as required by the assessor or verifier to suit specific circumstances.

### Level 2 - Impacts would be avoided

Level 2 applies if either of the following apply:

- 'Sensitive features' in the area although would not be impacted and activities would comply with certain controls; or
- 'Hazardous activities' would be undertaken although they would be below certain thresholds, comply with certain controls and be effectively managed by Ausgrid's Environmental Handbook (NS174C).

Where level 2 applies, standard minimum controls will be automatically populated in the SER. All text fields can be modified and additional controls added as required by the assessor or verifier to suit specific circumstances.

The description of potential impacts should be sufficient to demonstrate that the environmental risk from potential impacts is low.

### Level 3 - Referral to Environmental Services

Level 3 applies where level 1 and level 2 does not.

In these cases the SER **must** be referred to Environmental Services. The assessor is to provide details of the proposal and description of the potential impacts to help adequately assess the impacts and controls.

Environmental Services will undertake the environmental assessment and depending on the issue, a specialist study may be required to assess the impact. Where specialist





contractors are engaged there may be additional costs and time associated with the assessment.

Level 3 issues may also require an approval, permit, environmental work method statement or site specific management plan. In some cases the SER will not be able to be verified until the approval is obtained. Some approvals will trigger determining authority requirements for certain public authorities. Implications of other determining authorities will depend of the specific circumstances and need to be documented in the SER.

Environmental Services will document all factors agencies will need to consider to determine whether a separate licence or approval can be issued. Details of any agencies consulted will also be documented in the SER.

The SER will contain adequate information to identify the extent and nature of the individual impacts associated with the proposal for all level 3 issues. This will include identifying any potential community impacts.

Environmental Services will nominate specific construction controls for level 3 issues.

## 2.1 Matters of national environmental significance (NES, Commonwealth)

### 2.1.1 Requirements

Impacts on matters of NES should be avoided wherever possible. Where impacts are unavoidable, specialist assessments and/or approvals will be required to ensure impacts are minimised to an acceptable level.

Under Parts 3 and 7 of the *Environment Protection and Biodiversity Conservation Act* (Cth) (EPBC Act), any action that could have a significant impact on matters of NES or Commonwealth land must be referred to the Federal Minister for the Environment and Energy.

Repairing and maintaining existing distribution infrastructure for utilities for power, water and sewage would not normally be expected to have a significant impact on a matter of national environmental significance, unless there is a substantial expansion or modification of these utilities.

Matter of NES as listed in the EPBC Act which are relevant to Ausgrid's network include:

- wetlands of international significance (ie declared Ramsar wetlands)
- Commonwealth listed threatened species or ecological communities
- Commonwealth listed migratory species
- Commonwealth marine areas
- World heritage properties (addressed in non-Aboriginal heritage)
- National heritage places (addressed in non-Aboriginal heritage)

World heritage properties and national heritage places are assessed as non-Aboriginal heritage (refer to section 2.5 (Non-Aboriginal heritage) of this document).

Other matters of NES which are unlikely to apply include the Great Barrier Reef Marine Park, nuclear actions, and water resources in relation to coal seam gas development and large coal mining development.

Approval is also required for actions likely to have a significant impact on Commonwealth land.

## 2.1.2 Collect information

1. Check Ausgrid's [WebGIS EL](#) for matters of NES (refer to the WebGIS EL Report).

**Note:** Data of sensitive items is presented in a denatured point format, and only includes known and recorded items. A record should be used as a guide to indicate there may be items present and further investigation is required.

2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Determine if there are any wetlands, native vegetation, natural bushland or undisturbed areas within the Assessment Area.
3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).
4. Commonwealth land details can be found on the title search. Title searches are required for works not located on a public road or reserve (refer to section 1.7 (Description of the land – environmental characteristics, land use and land ownership)).

## 2.1.3 Allocate assessment level

### Only 'tick' Level 1 if:

There are no matters of NES within the Assessment Area (as identified by WebGIS EL report, consultation process and other means); AND

The proposal is NOT on Commonwealth land.

### Only 'tick' Level 2 if:

The proposal would NOT impact any matters of NES other than vegetation maintenance, undertaken in accordance with Ausgrid's TSMP where clearing is to the minimum extent necessary to maintain existing and regularly maintained clearances (ie no new clearance envelopes).

Generally, Level 2 specific construction controls will include as a minimum:

- *All workers to be made aware of ecologically sensitive areas and the need to avoid impacts.*
- *No works to be undertaken in [name no go zones].*
- *No works in undisturbed areas (including storing equipment in, parking vehicles on or accessing the worksite through an undisturbed area).*
- *No disturbance of bush rock, tree hollows, wetlands, mangroves, nests, aquatic or other sensitive habitats.*
- *Retain native ground cover vegetation.*
- *No disturbance of native vegetation unless works are for the purpose of vegetation maintenance, undertaken in accordance with Ausgrid's TSMP and clearing is to the minimum extent necessary to maintain existing and regularly maintained clearances (ie no new clearance envelopes).*
- *Comply with the controls in NS174C-Section 6.1.*

'Disturbance' includes trimming, pruning or removing vegetation including root structure.

### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.1.4 Design measures to avoid/mitigate impacts

- Choose routes/sites which avoid removal of ground cover and understorey vegetation.
- Choose routes/sites which can be accessed by existing access roads where possible.
- Design infrastructure to minimise ongoing trimming requirements (eg aerial bundled conductor).
- Consider design features to avoid any vegetation clearing, pruning, stripping or ground clearing (eg alternative routes, underboring, setbacks, covered conductors etc.). Where avoidance is not practical minimise clearance and disturbance of all vegetation, particularly along watercourses.
- Avoid work within the tree protection zone (TPZ) and structural root zone (SRZ) (refer to Ausgrid's [Environmental Handbook \(NS174C\)](#)). The [EGN 425 TPZ and SRZ Calculator](#) can be used to calculate the TPZ and SRZ.
- Choose routes/site which maximise the distance from fauna habitats and vegetated areas.

### 2.1.5 Further information

For information on the EPBC Act: [www.environment.gov.au/epbc/index.html](http://www.environment.gov.au/epbc/index.html)

## 2.2 Biodiversity (NSW)

### 2.2.1 Requirements

Impacts on:

- threatened species and ecological communities and areas of outstanding biodiversity value listed/declared under the *Biodiversity Conservation Act (NSW)* (BC Act); or
- threatened species, populations or ecological communities or critical habitat listed/declared under the *Fisheries Management Act (NSW)* (FM Act)

should be avoided wherever possible. Where impacts are unavoidable specialist assessments and/or approvals will be required to ensure impacts are minimised to an acceptable level.

Where the SER assessment determines the Activity is likely to significantly affect threatened species for the purposes of the BC Act or the FM Act an EIS and an SIS or a biodiversity development assessment report must be prepared and the concurrence of the CEO of the Office of Environment and Heritage (OEH) (and/or, in connection with fish or marine vegetation, the Secretary of the Department of Industry) is required.

### 2.2.2 Collecting information

1. Check Ausgrid's [WebGIS EL](#) for threatened species and ecological communities listed under the BC Act (refer to the WebGIS EL Report).

**Note:** Data of sensitive items is presented in a denatured point format, and only includes known and recorded items. A record should be used as a guide to indicate there may be particular items present and further investigation is required.

2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Determine if there is any native vegetation, natural bushland or undisturbed areas.
3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.2.3 Allocate assessment level

#### Only 'tick' Level 1 if:

There are no known areas of threatened species or ecological communities (or their habitats), declared areas of outstanding biodiversity value or critical habitat for the purposes of the BC Act or FM Act (as identified by WebGIS EL Report, consultation process and other means).

#### Only 'tick' Level 2 if:

Threatened species or ecological communities (or their habitats), declared areas of outstanding biodiversity value or critical habitat are in the Assessment Area, however, they would NOT be impacted. Excludes vegetation maintenance, undertaken in accordance with Ausgrid's TSMP where clearing is to the minimum extent necessary to maintain existing and regularly maintained clearances (ie no new clearance envelopes).

Generally, Level 2 specific construction controls will include as a minimum:

- *All workers to be made aware of ecologically sensitive areas and the need to avoid impacts.*
- *No works to be undertaken in [name no go zones].*
- *No works in undisturbed areas (including storing equipment in, parking vehicles on or accessing the worksite through an undisturbed area).*
- *No disturbance of bush rock, tree hollows, wetlands, mangroves, nests, aquatic or other sensitive habitats.*
- *Retain native ground cover vegetation.*
- *No disturbance of native vegetation unless works are for the purpose of vegetation maintenance, undertaken in accordance with Ausgrid's TSMP and clearing is to the minimum extent necessary to maintain existing and regularly maintained clearances (ie no new clearance envelopes).*
- *Comply with the controls in NS174C-Section 6.1.*

'Disturbance' includes trimming, pruning or removing vegetation including root structure.

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.2.4 Design measures to avoid/mitigate impacts

- Choose routes/sites which avoid removal of ground cover and understorey vegetation.

- Choose routes/sites which can be accessed by existing access roads where possible.
- Design infrastructure to minimise ongoing trimming requirements (eg aerial bundled conductor).
- Consider design features to avoid any vegetation clearing, pruning, stripping or ground clearing (eg alternative routes, underboring, setbacks, covered conductors etc.). Where avoidance is not practical minimise clearance and disturbance of all vegetation, particularly along watercourses.
- Avoid work within the TPZ (refer to Ausgrid's [Environmental Handbook \(NS174C\)](#)). The [EGN 425 TPZ and SRZ Calculator](#) can be used to calculate the TPZ and SRZ.
- Choose routes/site which maximise the distance from fauna habitats and vegetated areas. Ausgrid employees can refer to [EGN 140 Tree Hollow Protection Guidelines](#).

### 2.2.5 Further information

For the threatened biodiversity profiles search:

[www.environment.nsw.gov.au/threatenedSpeciesApp](http://www.environment.nsw.gov.au/threatenedSpeciesApp) or  
[www.dpi.nsw.gov.au/fisheries/species-protection/conservation](http://www.dpi.nsw.gov.au/fisheries/species-protection/conservation).

For an overview of the legislation:

[www.threatenedspecies.environment.nsw.gov.au/tsprofile/legislation.aspx](http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/legislation.aspx).

For additional information on areas of outstanding biodiversity value:

[www.environment.nsw.gov.au/criticalhabitat/CriticalHabitatProtection.htm](http://www.environment.nsw.gov.au/criticalhabitat/CriticalHabitatProtection.htm)

## 2.3 Marine vegetation (mangroves, seagrass etc.) or dredging/reclamation of a water body

### 2.3.1 Requirements

Impacts to marine vegetation should be avoided wherever possible. Where impacts are unavoidable specialist assessments and/or approvals will be required to ensure impacts are minimised to an acceptable level.

Under section 205 of the FM Act and *Fisheries Management (General) Regulation* (NSW) (FM Regulation) a person must not harm (ie. gather, cut, pull up, destroy, poison, dig up, remove, injure, prevent light from reaching or otherwise harm) certain types of marine vegetation on public water land, or any area that is the subject of an aquaculture lease (including the foreshore of any such land) without a permit. Such action must not be taken in relation to saltmarsh in a protected area, mangroves, seagrasses, and attached marine and estuarine macroalgae. Saltmarsh is identified within the endangered ecological community layer on the WebGIS EL.

Ausgrid has been granted a [permit](#), under Parts 7 and 14 of the FM Act and Regulation (respectively), which provides an exemption to the prohibition on harming marine vegetation under section 205 of the FM Act, subject to Ausgrid meeting a number of specific conditions. The permit allows Ausgrid employees or contractors to undertake mangrove clearing works for maintaining the visibility of warning signs, maintenance of access tracks and maintaining clearances to power lines. Conditions of the permit include notification requirements, site delineation, restrictions on material storage and stockpiling, requirements for site restoration and clean up, machinery access restrictions, no go areas and visual inspections.

**Note:** The permit does not cover new works.

Under Division 3 of the FM Act, approval is required before carrying out dredging and reclamation work on water land (ie. land submerged by water whether permanently or intermittently and whether forming an artificial or natural body of water, including wetlands).

“Dredging work” means any work that involves:

- excavating water land;
- the removal of woody debris, snags, gravel beds, cobbles, rocks, boulders, rock bars or aquatic vegetation; or
- the removal of any other material that disturbs, moves or harms those things.

“Reclamation work” means any work that involves:

- using any material (such as sand, soil, silt, gravel, concrete, oyster shells, tyres, timber or rocks) to fill in or reclaim water land;
- depositing any such material on water land for the purpose of constructing anything over water land (such as a bridge); or
- draining water from water land for the purpose of its reclamation.

Under Division 8 of the FM Act, a permit is required to create an obstruction across or within a river or creek or across or under a flat where fish will be blocked or left stranded, or immature fish will or could be destroyed, or the free passage of fish will or could be obstructed.

### 2.3.2 Collecting information

1. Check Ausgrid’s [WebGIS EL](#) – limited mangrove and seagrass data (refer to the WebGIS EL Report).
2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Determine if there is any evidence of seagrass, mangroves or other relevant marine vegetation.
3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.3.3 Allocate assessment level

#### Only ‘tick’ Level 1 if:

The proposal is NOT within 50m of marine vegetation (sea grass or mangroves etc.) or within 20m of a waterway (as identified by WebGIS EL Report, consultation process and other means).

#### Only ‘tick’ Level 2 if:



Marine vegetation (sea grass or mangroves etc.) is within 50m or waterways are within 20m of the Assessment Area, however, they would NOT be impacted; AND

The proposal would NOT involve dredging or disturbing a creek or waterway.

Generally, Level 2 specific construction controls will include as a minimum:

- *All workers to be made aware of seagrass, mangroves and waterways in the Assessment Area and the need to avoid impacts.*
- *No works to be undertaken in [name no go zones].*
- *No disturbance of mangroves, seagrass, saltmarsh, creeks or waterways.*
- *No works in undisturbed areas (including storing equipment in, parking vehicles on or accessing the site through undisturbed areas).*
- *No importing mulch from other sites.*

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.3.4 Design measures to avoid/mitigate impacts

- Choose routes/sites which avoid removal of ground cover and understorey vegetation.
- Choose routes/sites which can be accessed by existing access roads where possible.
- Design infrastructure to minimise ongoing trimming requirements (eg aerial bundled conductor).
- Consider design features to avoid any vegetation clearing, pruning, stripping or ground clearing (eg alternative routes, underboring, setbacks, covered conductors etc.). Where avoidance is not practical minimise clearance and disturbance of all vegetation, particularly along watercourses.
- Avoid work within the TPZ (refer to Ausgrid's [Environmental Handbook \(NS174C\)](#)). The [EGN 425 TPZ and SRZ Calculator](#) can be used to calculate the TPZ and SRZ.
- Choose routes/site which maximise the distance from vegetated areas and waterways.

### 2.3.5 Further information

Mangroves are a group of trees and shrubs that are capable of growing in marine, estuarine and, to a limited degree, fresh water. They occupy the fringe of intertidal shallows between the land and the sea. The term 'mangrove' is used to describe individual trees or shrubs and also the general habitat, although the habitat is often called a 'mangrove forest' or 'mangal'.

Coastal saltmarsh (also referred to as saltmarsh) is an intertidal community of plants, such as sedges, rushes, reeds, grasses, succulent herbs and low shrubs that can tolerate high soil salinity and occasional inundation with salt water. The term 'saltmarsh' is used to describe individual plants, groups of plants and the general estuarine habitat dominated by these plants.

Seagrasses are a unique group of specialised marine plants. They have evolved from land plants and are adapted to living and reproducing entirely within sea water.

Seagrasses occur in sheltered areas and shallow waters, growing in soft sediments such as sand or mud.

Seagrasses generally look like land grasses. The leaves are either strap-like or oval-shaped and they grow from rhizomes (underground stems).

Seagrass can easily be confused with marine macroalgae (seaweed). However, there are many important differences between the two. Unlike seaweed, seagrasses produce flowers, fruits and seeds during their reproductive cycle, and have specialised plant tissue which allows them to absorb nutrients from soft sediment and transport it internally.

For aquatic habitat information: [www.dpi.nsw.gov.au/fishing/habitat/aquatic-habitats](http://www.dpi.nsw.gov.au/fishing/habitat/aquatic-habitats)

For saltmarsh information:

[www.dpi.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0007/459628/Coastal-Saltmarsh-Primefact.pdf](http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0007/459628/Coastal-Saltmarsh-Primefact.pdf)

For mangrove information:

[www.dpi.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0020/236234/mangroves.pdf](http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0020/236234/mangroves.pdf)

For seagrass information:

[www.dpi.nsw.gov.au/\\_\\_data/assets/pdf\\_file/0019/203149/seagrasses-primefact-629.pdf](http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0019/203149/seagrasses-primefact-629.pdf)

## 2.4 Other ecological issues

### 2.4.1 Requirements

Impacts to ecology should be avoided wherever possible. Where impacts are unavoidable specialist assessments and/or approvals will be required to ensure impacts are minimised to an acceptable level.

Other ecological issues include:

- marine parks
- aquatic / nature reserves
- wild rivers
- national park estate
- declared wilderness areas
- coastal wetlands
- littoral rainforests
- hollow bearing trees
- biodiversity stewardship sites
- wildlife refuge areas / management areas
- conservation agreement areas (BC Act and NPW Act)
- native vegetation
- general biosecurity duty (GBD) (including weeds)
- key fauna habitat
- key fish habitat
- koala habitat (> 1 hectare of bush land)
- significant tree registers (local council)



- remnant roadside vegetation

### **Marine parks, Aquatic / Nature reserves, wild rivers**

Various assessment, approval and notification requirements apply. Contact Environmental Services.

**National park estate, declared wilderness areas** - Easements are required for new works in conservation areas, national parks and declared wilderness areas and new works may require a [National Parks and Wildlife Service \(NPWS\) review of environmental factors](#).

Ausgrid has a [protocol \(internal document\)](#) for maintenance of power lines in land reserved under the NPW Act (for example national parks, reserves or State conservation areas). This protocol requires prior notification and consultation with NPWS before commencing works. All works, including inspection, maintenance and emergency works, on land reserved under the NPW Act must be done in accordance with the protocol between the OEHL and Ausgrid.

Conditions include:

- Provide at least 4 days' notice for inspection works (unless the inspections are undertaken by foot or passenger vehicle and do not require the use of equipment).
- Provide at least 2 weeks' notice and a conservation risk assessment for maintenance works.
- Provide notice as soon as practicable after any emergency works have been undertaken.

Access track works within land reserved under the NPW Act must follow the requirements as outlined in the protocol. Refer to the additional requirements in the protocol. Works not covered by the Protocol include abrasive blasting of steel towers for the purpose of removing corrosion, clearing for the purposes of creating asset protection zones around Ausgrid's assets not already approved by OEHL, clearing and excavation outside the nominated criteria within the Protocol.

Under the Infrastructure SEPP (Division 1) development adjacent to land reserved under the NPW Act must not be carried out unless written notice has been given to OEHL in relation to the development and any response received from that authority within 21 days after the notice is given has been taken into consideration.

**Littoral Rainforests and Coastal Wetlands** – Under the *State Environmental Planning Policy (Coastal Management)*, development consent (Designated Development) is required for works in areas defined as Coastal Wetlands or Littoral Rainforests (excludes proximity areas). Under the Infrastructure SEPP emergency works and routine maintenance works would not require consent, but rather require a Part 5 assessment.

**Hollow bearing trees** - where there are no reasonable alternatives to affecting hollow bearing trees, include a justification for the chosen location in the SER. Complete the rest of the SER and refer the project to Environmental Services.

**Note:** A specialist ecological investigation will be required when affecting hollow bearing trees.

**Biodiversity stewardship sites, wildlife refuge areas, conservation agreement areas** - Works in these areas will need to comply with the conditions of the agreement. There are some exceptions, however, assessment, approval and notifications

requirements will apply. Contact Environmental Services.

**Native vegetation** - Where there are no reasonable alternatives to clearing native vegetation ensure the SER includes a justification for the chosen location in Table 1. Complete the rest of the SER and refer the project to Environmental Services. A suitably qualified ecologist will need to be consulted when affecting native vegetation. An ecological report may not be required if the project only involves clearing landscaped vegetation.

**General Biosecurity Duty (GBD) (including weeds)** - The *Biosecurity Act* (NSW) (B Act) outlines the principles that apply to biosecurity duties, prohibited matter, control orders, biosecurity zones, mandatory measures, biosecurity direction, biosecurity undertaking and emergency orders.

Under section 22, any person who deals with biosecurity matter or a carrier and who knows, or ought reasonably know, the biosecurity risk posed or likely to be posed by the biosecurity matter, carrier or dealing has a biosecurity duty to ensure that, so far as reasonably practicable, the biosecurity risk is prevented, eliminated or minimised.

There is a shared responsibility for biosecurity risks (including weeds) across government, community and industry, and applies to all land in the state regardless of whether it is publically or privately owned.

Any person who fails to discharge their biosecurity duty is guilty of an offence. NSW DPI administers the B Act and local Councils are responsible for enforcing weed legislation.

Weeds pose the second greatest threat to biodiversity after land clearing and habitat loss. State-wide management of weeds is directed by the [NSW Invasive Species Plan](#). This identified 4 goals: prevent the establishment of new invasive species, eliminate, or prevent the spread of new invasive species, reduce the impacts of widespread invasive species, and ensure NSW has the ability and commitment to manage invasive species.

Regional strategic weed management plans identify regional priority weeds including management objectives and outcomes to demonstrate compliance with the GBD.

Where GBD issues have been identified within the proposed work area or on land Ausgrid owns, weed management actions will need to be prepared in accordance with the regional strategic weed management plan and B Act.

Weed management control measures within the Ausgrid's Environmental Handbook (NS174C) (or construction environmental management plan (CEMP) for major projects) need to be followed. Identification and control actions of regional priority weeds should be part of any vegetation assessment report.

### **Significant tree register**

Some local Councils maintain significant tree registers. The registers identify and recognise the importance of significant trees in the local area and are used by local Councils to guide the management to ensure their protection for the future.

### **Remnant roadside vegetation**

Native vegetation along roadsides can be significant in that it has never been cleared or grazed, and in some areas is virtually the only remaining example of the original vegetation. It provides habitat for native wildlife, and often supports populations of threatened species. Roadside trees can also facilitate movements of wildlife, particularly birds, through the landscape.

## 2.4.2 Collecting information

1. Check Ausgrid's [WebGIS EL](#) for coastal wetlands and littoral rainforest areas, conservation areas, national park estates, declared wilderness areas, The Greater Eastern Ranges Conservation Corridor, key fauna habitat, key fish habitat, biodiversity stewardship sites, wildlife refuge areas, or conservation agreement areas (refer to the WebGIS EL Report).
2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Determine if there are any wetlands, hollow bearing trees, bushrock, native vegetation, bushland, remnant vegetation, undisturbed areas, GBD issues, rivers or street trees.
3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).
4. Use the [EGN 425 TPZ and SRZ Calculator](#).
5. Biobank information [www.environment.nsw.gov.au/bimsprapp/biobankingpr.aspx](http://www.environment.nsw.gov.au/bimsprapp/biobankingpr.aspx)
6. For priority and other regional weeds and the Regional Strategic Weed Management Plans refer to the Local Land Services website [www.lls.nsw.gov.au/biosecurity/weed-control](http://www.lls.nsw.gov.au/biosecurity/weed-control)

## 2.4.3 Allocate assessment level

### Only 'tick' Level 1 if:

The proposal is NOT within marine parks, aquatic / nature reserves, wild rivers, national park estate, declared wilderness areas, coastal wetlands, littoral rainforests, biodiversity stewardship sites, wildlife refuge areas / management areas, conservation agreement areas, key fauna habitat, key fish habitat, or koala habitat (> 1 hectare of bush land) (as identified by WebGIS EL Report, consultation process, site inspection and other means), AND

The proposal would not affect native vegetation, hollow bearing trees, remnant roadside vegetation, significant trees (as defined by local council) or street trees.

[Describe the relevant activities and potential impacts for any other ecological issues not mentioned above]

### Only 'tick' Level 2 if:

Sensitive ecology is in the area, however, it would NOT be impacted

Generally, Level 2 specific construction controls will include as a minimum:

- *All workers to be made aware of ecologically sensitive areas and the need to avoid impacts.*
- *No works to be undertaken in [name no go zones].*
- *No works in undisturbed areas (including storing equipment in, parking vehicles on or accessing the worksite through an undisturbed area).*
- *No disturbance of bush rock, tree hollows, wetlands, mangroves, nests, aquatic or other sensitive habitats.*
- *Retain native ground cover vegetation.*
- *No disturbance of native vegetation unless works are for the purpose of vegetation maintenance, undertaken in accordance with Ausgrid's TSMP and clearing is to the minimum extent necessary to maintain existing and regularly maintained clearances (ie no new clearance envelopes).*
- *Comply with the controls in NS174C-Section 6.1.*

**Only 'tick' Level 3 if:**

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

#### 2.4.4 Design measures to avoid/mitigate impacts

- Choose routes/sites which avoid removal of ground cover and understorey vegetation.
- Choose routes/sites which can be accessed by existing access roads where possible.
- Design infrastructure to minimise ongoing trimming requirements (eg aerial bundled conductor).
- Consider design features to avoid any vegetation clearing, pruning, stripping or ground clearing (eg alternative routes, underboring, setbacks, covered conductors etc.). Where avoidance is not practical minimise clearance and disturbance of all vegetation, particularly along watercourses.
- Avoid work within the TPZ (refer to Ausgrid's [Environmental Handbook \(NS174C\)](#)). The [EGN 425 TPZ and SRZ Calculator](#) can be used to calculate the TPZ and SRZ.
- Choose routes/site which maximise the distance from fauna habitats and vegetated areas. Ausgrid employees can refer to [EGN 140 Tree Hollow Protection Guidelines](#).

#### 2.4.5 Further information

For coastal wetland information:

[www.environment.nsw.gov.au/wetlands/WhatAreWetlands.htm](http://www.environment.nsw.gov.au/wetlands/WhatAreWetlands.htm)

For littoral rainforest information:

[www.environment.nsw.gov.au/determinations/LittoralRainforestEndSpListing.htm](http://www.environment.nsw.gov.au/determinations/LittoralRainforestEndSpListing.htm)

For Biobank information: [www.environment.nsw.gov.au/bimsprapp/biobankingpr.aspx](http://www.environment.nsw.gov.au/bimsprapp/biobankingpr.aspx)

For priority weed information refer to local council websites and here:

[www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds/profiles](http://www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds/profiles)

For Regional Strategic Weed Management Plans refer to the Local Land Services website [www.lls.nsw.gov.au/biosecurity/weed-control](http://www.lls.nsw.gov.au/biosecurity/weed-control)

For declared wilderness areas information:

[www.environment.nsw.gov.au/parktypes/Wilderness.htm](http://www.environment.nsw.gov.au/parktypes/Wilderness.htm)

For wild rivers information: [www.environment.nsw.gov.au/parktypes/wildrivers.htm](http://www.environment.nsw.gov.au/parktypes/wildrivers.htm)

For national parks information: [www.nationalparks.nsw.gov.au/](http://www.nationalparks.nsw.gov.au/)

## 2.5 Non-Aboriginal heritage

### 2.5.1 Requirements

Impacts on non-Aboriginal heritage should be avoided wherever possible. Where impacts are unavoidable specialist assessments and/or approvals will be required to ensure impacts are minimised to an acceptable level.

'Heritage' is the term which describes those aspects of the past which are important to the community. Heritage may be embodied in a place, an idea or in an activity. Non-Aboriginal heritage includes:

- world heritage properties under the EPBC Act
- national heritage places under the EPBC Act
- State heritage items under the *Heritage Act* (NSW) (Heritage Act)
- local heritage items under the Heritage Act or a local or regional environmental plan
- heritage items listed on the Heritage and Conservation Register under section 170 of the Heritage Act
- an archaeological area where there is a possibility of disturbing a relic under the Heritage Act
- moveable heritage under the Heritage Act.

Non-Aboriginal heritage items can include places such as buildings, places and trees that are of historical, cultural, social, architectural, natural or aesthetic value.

**State significance** - Under the Heritage Act, approval from the Heritage Council is required when affecting directly or indirectly a place of State significance or an item subject to an interim heritage order.

**Local significance** – Impacts to local heritage items are generally administered through the development application process by local Councils, or the DP&E for major projects. Ausgrid is in most cases exempt from approval for works to local heritage items under the Infrastructure SEPP. However, assessment and notification requirements apply.

#### Notification for work on local heritage items

For works likely to affect the heritage significance of a local heritage item or a heritage conservation area in a way that is more than minor or inconsequential, the Infrastructure SEPP requires that Ausgrid has:

- had an assessment of the impact prepared, and
- given written notice of the intention to carry out the development, with a copy of the assessment and a scope of works, to the Council for the area in which the heritage item or heritage conservation area (or the relevant part of such an area) is located, and
- taken into consideration any response to the notice that is received from the Council within 21 days after the notice is given.

Ausgrid must give due consideration to the potential impacts as part of the environmental assessment process and should consult with the Council's heritage officer.

**Heritage and Conservation Register (section 170 of the Heritage Act)** - see Environmental Services for requirements.

**Archaeological areas** - Under the Heritage Act, a permit is required if there is a possibility of disturbing a relic (ie. in archaeological areas).

**Moveable heritage** – Ausgrid’s movable heritage equipment has been categorised as either Tier 1 (requires approval prior to modification) or Tier 2 (requires a Photographic Archival Recording prior to modification). This is a non statutory list and Ausgrid does not have any movable heritage items on its S170 heritage register. The assessment of movable heritage equipment is to be undertaken in accordance with [EF 17740 Movable heritage assessment checklist](#).

## 2.5.2 Collecting information

1. Check Ausgrid’s [WebGIS EL](#) (refer to the WebGIS EL Report) and Ausgrid’s internal [Movable Heritage Register](#).
2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Determine if there are potential heritage items (eg. sandstone gutters, cobblestone roads or sandstone walls).
3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

## 2.5.3 Allocate assessment level

### Only ‘tick’ Level 1 if:

There are NO non-Aboriginal heritage items in the Assessment Area (as identified by WebGIS EL Report, consultation process, site inspection and other means) AND  
The proposal would NOT impact potential heritage items such as sandstone gutters, cobblestone roads or sandstone walls.

### Only ‘tick’ Level 2 if:



Non-Aboriginal heritage is in the Assessment Area, however, would NOT be impacted (unless in accordance with an approved CMP, exception or exemption).

The proposal would NOT involve any of the following:

- impact to World, Commonwealth or National heritage areas.
- works to or within the property boundary of State heritage items unless in accordance with an approved conservation management plan or exemption.
- impacts to local heritage items without a statement of heritage impact.
- excavation of any land which is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit or S139 exception.
- impact to Ausgrid's moveable heritage (Tier 1).
- physical alterations to heritage items including Heritage and Conservation Register items owned by Ausgrid and listed under section 170 of the Heritage Act unless complying with:
  - Ausgrid's heritage exemptions (for local heritage)
  - Ausgrid's EG261 Conservation for heritage distribution substations (for distribution substations) and
  - Ausgrid's conservation management plans (for state heritage).
- impact to potential heritage items such as sandstone gutters, cobblestone roads or sandstone walls.

Generally, Level 2 specific construction controls will include as a minimum:

- *All workers to be made aware of the presence of non-Aboriginal heritage in the Assessment Area and the need to avoid impacts.*
- *No impacts to [name heritage areas].*
- *No works to be undertaken in [name no go zones].*
- *All works to comply with [name CMP, exception or exemption and outline requirements].*
- *All works to stop immediately and restrict access if potential non-Aboriginal heritage is discovered. Notify the Supervisor and Ausgrid's Environmental Services. Environmental Services will contact the regulator if required. Ausgrid employees should contact Ausgrid Environmental Services on 9394 6659.*

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.5.4 Design measures to avoid/mitigate impacts

- Select sites/route that avoid works near known heritage listings.
- Consider the visibility of pillars, kiosks, underground to overhead connections (UGOH) and any subsequent connections to houses.

### 2.5.5 Further information

For non-Aboriginal heritage information: [www.heritage.nsw.gov.au](http://www.heritage.nsw.gov.au)

For information on local heritage items, refer to the local Council LEP.

Areas where relics are likely to be discovered are available on the archaeological zoning plans from the local Council.

For moveable heritage information (internal link):

<https://ausgrid.sharepoint.com/teams/SP0571/Lists/MovableHeritageRegister/WorkingList.aspx>.

## 2.6 Aboriginal cultural heritage

### 2.6.1 Requirements

Impacts to Aboriginal cultural heritage should be avoided wherever possible. Where impacts are unavoidable specialist assessments and/or approvals will be required to ensure impacts are minimised to an acceptable level.

Aboriginal cultural heritage consists of places and objects that are of significance to Aboriginal people because of their traditions, observances, lore, customs, beliefs and history. These can include artefacts, middens, axe-grinding or tool sharpening grooves, scarred or carved trees, paintings, rock engravings and burial sites.

Aboriginal cultural heritage provides evidence of the lives and existence of Aboriginal people before European settlement through to the present. Aboriginal cultural heritage is dynamic and may comprise objects or places. Potential archaeological deposits are also commonly recorded as a result of predictive modelling / investigations and are areas where sub-surface artefacts are likely to be found during excavation.

Aboriginal objects and places are protected under the NPW Act. When an activity is likely to impact upon Aboriginal cultural heritage an Aboriginal heritage impact permit may be required under Part 6 of the NPW Act. [The Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales](#) (OEH, 2010) sets out the steps to be followed to decide whether Aboriginal objects are likely to be present and whether further approvals are necessary. For level 3 issues, an Aboriginal Heritage Due Diligence Assessment may be required.

As part of the Due Diligence Assessment, Aboriginal Heritage Information Management System (AHIMS) site cards will need to be obtained for all objects within the vicinity of the works. To obtain AHIMS site cards, you must logon to AHIMS web services: [www.environment.nsw.gov.au/awssapp/login.aspx](http://www.environment.nsw.gov.au/awssapp/login.aspx) . If you are a first time user you will need to register using an email address. You will be asked to fill in some details and a password.

After obtaining site cards, confirm that these objects can be located in the area where the works are proposed. If you are aware of any other sources of information, you need to use these to identify whether or not Aboriginal objects are likely to be present in the area. Other sources of information can include previous studies, reports or surveys which you have commissioned or are otherwise aware of.

### 2.6.2 Collecting information

1. Check Ausgrid's [WebGIS EL](#) (refer to the WebGIS EL Report). Aboriginal cultural heritage may be present on up to four layers on the WebGIS EL including: Commonwealth Heritage, National Heritage, Aboriginal Heritage Information Management System (AHIMS) and Sensitive Environmental Features (SEF). Examples of Aboriginal objects and places include artefacts, middens, axe-grinding or tool sharpening grooves, scarred or carved trees, paintings, rock engraving and burial sites.

**Note:** Data of sensitive items is presented in a denatured point format, and only includes known and recorded items. A record should be used as a guide to



indicate there may be particular items present and further investigation is required. Surveys for Aboriginal cultural heritage have not been done in many parts of NSW. Aboriginal objects and places may exist even if they have not been recorded.

2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Determine if there are any landscape features (referred to above) that may indicate the presence of Aboriginal cultural heritage and whether the Assessment Area includes undisturbed land.
3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.6.3 Allocate assessment level

#### Only 'tick' Level 1 if:

There is NO known Aboriginal cultural heritage in the Assessment Area (as identified by WebGIS EL Report, consultation process, site inspection and other means) AND

The proposal does NOT involve disturbing rock outcrops; AND

The proposal is NOT in undisturbed land with the following landscape features:

- within 200 m of waters, or
- within a sand dune system, or
- on a ridge top, ridge line or headland, or
- within 200 m below or above a cliff face, or
- within 20 m of or in a cave, rock shelter, or cave mouth.

#### Only 'tick' Level 2 if:

Aboriginal cultural heritage is potentially located within the Assessment Area, however would NOT be impacted; AND

The proposal would NOT involve any of the following in “Aboriginal cultural heritage sensitive areas”:

- disturbance of the ground surface.
- disturbance of rock outcrops and native ground cover.
- vehicle or plant movements off existing roadways or access tracks.
- use of plant and equipment that would disturb rock outcrops (eg non rubber tyres).
- disturbance of native trees unless works are for the purpose of vegetation maintenance, undertaken in accordance with Ausgrid’s TSMP and clearing is to the minimum extent necessary to maintain existing and regularly maintained clearances (ie no new clearance envelopes).

“Aboriginal cultural heritage sensitive areas” include areas within the buffer of known Aboriginal heritage, natural rock outcrops or undisturbed land with the following landscape features:

- within 200m of waters, or
- within a sand dune system, or
- on a ridge top, ridge line or headline, or
- within 200m below or above a cliff face, or
- within 20m of or in a cave, rock shelter, or a cave mouth.

Generally, Level 2 specific construction controls will include as a minimum:

- *All workers to be made aware of the presence of Aboriginal cultural heritage in the area and the need to avoid impacts.*
- *No disturbance of the ground surface.*
- *No disturbance of rock outcrops and native ground cover.*
- *No works to be undertaken in [name no go zones].*
- *Where available keep to existing roadways or access tracks.*
- *Use plant and equipment that would not disturb rock outcrops (eg rubber tyres).*
- *No disturbance of native trees unless works are for the purpose of vegetation maintenance, undertaken in accordance with Ausgrid’s TSMP and clearing is to the minimum extent necessary to maintain existing and regularly maintained clearances (ie no new clearance envelopes).*
- *Comply with the controls in NS174C-Section 7.1.*
- *All works to stop immediately and restrict access if potential Aboriginal cultural heritage is discovered. Notify the Supervisor and Ausgrid’s Environmental Services. Environmental Services will contact the regulator if required. Ausgrid employees should contact Ausgrid Environmental Services on 9394 6659.*

#### Only ‘tick’ Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.6.4 Design measures to avoid/mitigate impacts

Select sites/route that avoid works near known Aboriginal cultural heritage objects or undisturbed land.

### 2.6.5 Further information

For Aboriginal cultural heritage information:

[www.environment.nsw.gov.au/licences/achregulation.htm](http://www.environment.nsw.gov.au/licences/achregulation.htm)

## 2.7 Air quality (dust and other emissions)

### 2.7.1 Requirements

Vegetation and ground cover protects soils from erosion. Exposed soils are more likely to produce dust from wind, vehicle movement or use of equipment.

Dust generation can have adverse effects on surrounding vegetation and waterways, and health and amenity implications for workers and residents.

Odours can affect not only workers, but also public amenity. Odours account for the largest source of air pollution complaints to the EPA's Environment Line.

Offensive odour is defined by the *Protection of the Environment Operations Act (NSW)* (POEO Act) to include an odour that is harmful to, or likely to be harmful to, a person who is outside the premises from which it is emitted or interferes unreasonably with, or likely to interfere unreasonably with, the comfort or repose of a person who is outside the premises from which it is emitted.

The POEO Act creates offences for causing air pollution as a result of failing to maintain and operate plant and equipment or deal with materials in a proper and efficient manner.

Some proposals will require the use of SF6 gas insulated equipment. As a guide, typical SF6 gas insulated equipment and typical gas volumes are listed below:

- SF6 filled pole mounted recloser 2.0 kg
- 11kV Ring Main Circuit Breaker 1.2 kg
- 11kV SF6 Ring Main Fuse Switch Unit < 1.0kg
- 36kV Dead Tank Circuit Breaker 3.0 kg
- 72kV Dead Tank Circuit Breaker 14.0 kg
- 145kV Dead Tank Circuit Breaker 27.0 kg

Describe the volume of SF6 proposed to be installed in equipment as part of the proposal in the SER.

### 2.7.2 Collecting information

1. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Determine if there are any landscape features likely to exacerbate dust generation (large areas of bare earth or exposure areas) and if there are any sensitive receivers.
2. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.7.3 Allocate assessment level

Only 'tick' Level 1 if:

The proposal would NOT involve any of the following:

- ground disturbance > than 250m<sup>2</sup>,
- use of generators or other fume generating equipment/activity
- installing a permanent exhaust.

#### Only 'tick' Level 2 if:

The proposal involves activities that could generate dust and other emissions, however, avoidance of impacts would be appropriately managed with specific construction controls, AND

The proposal would NOT involve dust leaving the worksite or generate offensive odours/fumes, AND

The proposal would NOT involve any of the following:

- transmission tower paint or corrosion removal or
- installing a permanent exhaust.

Generally, Level 2 specific construction controls will include as a minimum:

- *Manage the worksite to prevent dust and fumes leaving the worksite.*
- *Comply with the controls in NS174C-Section 4.1.*

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.7.4 Design measures to avoid/mitigate impacts

- Identify, and where appropriate, maximise distance to sensitive receivers eg schools, hospitals, cafes, high pedestrian traffic areas.
- Choose site/route which minimises disturbance of soil, vegetation and ground cover.
- Select site/route that avoids fumes and odours being generated (eg avoid excavating or disturbing contaminated soils or acid sulfate soils (ASS)).
- Design project so that all exposed surfaces can be stabilised as soon as practical.
- Require an erosion and sediment control plan (ESCP) or soil and water management plan (SWMP) to be prepared which addresses revegetation / stabilisation where more than 250m<sup>2</sup> of soil will be disturbed. A suitably qualified person (ie completed an International Erosion Control Association (IECA) endorsed course or passed the examination for Certified Professional in Erosion and Sediment Control (CPESC)) must prepare the ESCP or SWMP in accordance with '[Managing Urban Stormwater – Soils and Construction](#)' (Landcom, 2004) (the Blue Book).
- Minimise fumes and odours through design features (eg orient substation vent(s) away from receivers).

### 2.7.5 Further information

For air quality information: [www.environment.gov.au/protection/air-quality](http://www.environment.gov.au/protection/air-quality) & [www.epa.nsw.gov.au/your-environment/air](http://www.epa.nsw.gov.au/your-environment/air)

## 2.8 Oils, fuels and other chemicals

### 2.8.1 Requirements

It is an offence under Part 5.3 of the POEO Act to cause pollution of waters.

When assessing impacts to water quality, take into consideration the potential to contaminate soils and water from handling oil, fuel and chemicals.

There are specific requirements for the transport of Dangerous Goods. Refer to section 2.15 for information on Dangerous Goods.

Where there are no reasonable alternatives to siting oil filled equipment within 40 m of a sensitive area or within 5 m upstream of a drain, include justification for the chosen location in the SER, complete the rest of the SER and refer the project to Environmental Services.

Prepare an Environmental Work Method Statement for oil transfers greater than:

- 15,000 L or
- 5,000 L in a sensitive area (eg adjacent to a wetland, waterway etc).

Contact Environmental Services for assistance.

### 2.8.2 Collecting information

1. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Determine the location of drainage lines (noting grates, drains, inlets, dish drains, surface water, channels etc.) and receiving waters. Consider what could happen in the event of a spill.
2. Where required ensure that alternative options are assessed using [EGN 420 Relative Risk Model \(Oil Filled Equipment\)](#) and discussed in Table 1: Route / site option justification of the SER.

### 2.8.3 Allocate assessment level

#### Only 'tick' Level 1 if:

The proposal would NOT involve handling, storing, transporting or disposing of oils, fuels, chemicals or dangerous goods, including oil filled equipment.

#### Only 'tick' Level 2 if:

The proposal involves the use of oils, fuels and other chemicals, however, avoidance of impacts can be appropriately managed with specific construction controls, AND

The proposal would NOT involve any of the following:

- oil transfers > 25,000 litres (L)
- siting oil filled equipment within 40m of a sensitive area or within 5m upstream of a drain.

Generally, Level 2 specific construction controls will include as a minimum:

- *All workers to be made aware of the presence of drainage lines, grates, drains, inlets and waterways and the need to avoid impacts.*
- *Dangerous Goods (including scheduled PCBs) must be labelled and transported in accordance with the Australian Dangerous Goods Code.*
- *Manage worksite to prevent oils, fuels and other chemicals entering a waterway, drain, groundwater, stormwater drain or ground.*
- *Comply with the controls in NS174C-Sections 2.3 and 3.2.*

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.8.4 Design measures to avoid/mitigate impacts

- Avoid siting oil filled equipment in sensitive areas (adjacent to wetlands, waterways, flood prone areas, drinking water / special catchment areas, etc). Refer to [EGN 420 Relative Risk Model \(Oil Filled Equipment\)](#).
- Consider design features to minimise potential oil loss eg use bunded substations (see [NS117 Design and Construction Standards for Kiosk Type Substations](#)).
- Consider design features to maximise distance to sensitive areas (eg additional absorptive capacity of the pathway to water such as a grassy area rather than concrete).

### 2.8.5 Further information

These Network Standards apply to locating new kiosks and pole top transformers (PTs):

- [NS141 Site Selection and Site Preparation Standards for Kiosk Type Substations](#) - outlines the siting requirements for kiosks
- [NS122 Pole Mounted Substation Construction](#) - outlines the siting requirements for pole transformers
- [NS117 Design and Construction Standards for Kiosk Type Substations](#) - general requirements for kiosk design and installation.

## 2.9 Water quality (erosion and sedimentation)

### 2.9.1 Requirements

#### Erosion and sediment runoff

It is an offence under Part 5.3 of the POEO Act to cause pollution of waters.

## Dredging, disturbing a creek or waterway

Under the *Water Management Act (NSW)* (WM Act), a controlled activity approval under section 91 is required to excavate within 40 m of a water body (river, creek, canal, ocean, lake), however, clause 40 of the *Water Management (General) Regulation 2011 (NSW)* provides that Ausgrid is exempt in relation to the construction, modification, repair or maintenance of, or emergency work on Ausgrid's electricity infrastructure, being activities:

- that are carried out in, on or under waterfront land relating to a river, estuary or lake (other than in or on the bed or banks of a river, the bed or shore of a lake, or the bed or land lying between the bed and the mean high water mark of an estuary), and
- that do not cause any change in the course of the river, and
- the environmental impact of which has been considered under section 111 of the EP&A Act (or is exempt from the need for such consideration under section 110E of that Act).

Regarding contestable works undertaken by ASPs, if the works meet all of the following criteria, a controlled activity approval is not required:

- the proposed works are carried out on behalf of Ausgrid
- Ausgrid approves the design/specification for the proposed works
- Ausgrid signs off on the work complete.

As such, the majority of contestable work will not require a controlled activity approval.

Under section 256 of the WM Act, approval is required to construct any building, fence or structure in, on, or adjacent to, a levee bank.

## Category 2 regulated land

Erosion prone land (vulnerable land) typically includes land > 1 hectare with a slope > 18 degrees, or land within 20 m of a prescribed stream. Vulnerable land is mapped as category 2 regulated land on the native vegetation regulatory map under the *Local Land Services Act (NSW)* (LLS Act).

Vulnerable land and other category 2 regulated land (LLS Act) are available on the [WebGIS EL](#) (refer to the Web GIS EL Report).

Vulnerable land is especially vulnerable to soil erosion, sedimentation and landslip if appropriate techniques are not used when clearing vegetation.

Clearing native vegetation in a regulated rural area is an offence unless:

- The clearing is for an allowable activity
- The clearing is authorised by a land management (native vegetation) code
- The clearing is authorised by an approval of the Panel
- The clearing is authorised under other legislation (this includes a part of or ancillary to the carrying out of exempt development or an activity carried out by a determining authority within the meaning of Part 5 of the EP&A Act).

### 2.9.2 Collecting information

1. Check Ausgrid's [WebGIS EL](#) for waterways and other sensitive areas (refer to the WebGIS EL Report).



2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Check for drainage lines, grates, drains, inlets, exposed surfaces, areas slow to regenerate (saltmarsh/wetland), erodible areas (steep slope >18° or bare earth > 25%) areas subject to bogging (low lying areas, floodplains, swampy areas etc) and waterways. Consider what would happen in the event of significant rainfall during construction.
3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.9.3 Allocate assessment level

#### Only 'tick' Level 1 if:

The proposal would NOT involve any of the following:

- ground disturbance.
- works that could increase soil erosion, surface runoff or the possibility of sediment entering a drain or waterway.
- excavating/stockpiling within 40m of a wetland or waterway.
- working within a natural waterway, including dredging (excavating), reclamation (filling) or vehicle access.

#### Only 'tick' Level 2 if:

The proposal involves activities that could generate sediment or cause erosion, however, avoidance of impacts would be appropriately managed with specific construction controls, AND

The proposal would NOT involve any of the following:

- ground disturbance > 250m<sup>2</sup> at any one time.
- ground disturbance > 50m<sup>2</sup> or vegetation removal on category 2 regulated land (vulnerable land - steep, highly erodible or protected riparian land).
- ground disturbance > 50m<sup>2</sup> within 40m of a natural waterway, including creeks, rivers, lakes, wetlands, streams, and ponds.
- clearing within 20m of a waterway.
- working within a natural waterway, including dredging (excavating), reclamation (filling) or vehicle access.

Generally, Level 2 specific construction controls will include as a minimum:

- *All workers to be made aware of sensitive areas (drainage lines, grates, drains, inlets, exposed surfaces, areas subject to bogging and waterways) and the need to avoid impacts.*
- *Manage worksite to prevent sediment and unclean water leaving the site.*
- *Comply with the controls in NS174C-Section 2.1.*
- *No ground disturbance >250m<sup>2</sup> at any one time.*
- *No ground disturbance > 50m<sup>2</sup> or vegetation removal on category 2 regulated land (vulnerable land - steep, highly erodible or protected riparian land).*
- *No ground disturbance > 50m<sup>2</sup> within 40m of a natural waterway, including creeks, rivers, lakes, wetland, streams, and ponds.*
- *No working within a natural waterway, including dredging (excavating), reclamation (filling) or vehicle access.*
- *No clearing within 20m of a waterway.*

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

## 2.9.4 Design measures to avoid/mitigate impacts

- Avoid ground disturbing activities in erosion prone areas (eg slope  $\geq 18^\circ$ , sandy soils), areas of concentrated water flow (eg drainage lines, grates, drains, inlets and dish drains), areas subject to bogging (eg low lying areas, floodplains, swampy areas) and areas slow to regenerate (eg salt marshes, wetlands).
- Give preference to sites/route with less vegetation clearing requirements (including access to the site).
- Consider construction methods to minimise disturbance and time soils are exposed (eg directional drilling, utilising existing conduits, spanning over sensitive areas).
- Require an ESCP or SWMP to be prepared which addresses revegetation / stabilisation where more than 250m<sup>2</sup> of soil will be disturbed at any one time. A suitably qualified person (ie completed an IECA endorsed course or passed the examination for CPESC) must prepare the ESCP or SWMP in accordance with the 'Blue Book'.

For all works on land reserved and acquired under the NPW Act:

- Undertake works in accordance with the protocol between the OEH and Ausgrid.
- Restrict maintenance and inspection activities, as defined under the protocol, to periods of dry weather and daylight hours to minimise any damage to access tracks that could increase erosion.

Undertake maintenance of access tracks in accordance with the Blue Book, Volume 2C Unsealed Roads' (DECC, 2008) and '[Erosion and sediment control on unsealed roads – A field guide for erosion and sediment control maintenance practices](#)' (OEH, 2012).

## 2.9.5 Further information

For water management information: [www.water.nsw.gov.au/Water-management/Law-and-policy/Law-and-Policy](http://www.water.nsw.gov.au/Water-management/Law-and-policy/Law-and-Policy)

For vulnerable land (category 2 regulated land) information: [www.environment.nsw.gov.au/vegetation/vulnerable.htm](http://www.environment.nsw.gov.au/vegetation/vulnerable.htm)

## 2.10 Water quality (water discharge)

### 2.10.1 Requirements

Only clean rain water is allowed to enter a waterway or drain. Any other liquid or solid is considered a pollutant.

Water accumulated in trenches, pits and substations must be assessed and either managed by a documented procedure or tankered to a waste facility. Usually the most effective way of managing accumulated water is to avoid the situation in the first place.

Groundwater extraction can potentially lower or contaminate the local groundwater table. In some areas groundwater is used for domestic purposes such as irrigation.

It is an offence under Part 5.3 of the POEO Act to cause pollution of waters.

Under the WM Act, an Aquifer Interference Approval may be required for groundwater extraction or dewatering.

Under the *Water Act* (NSW), for any temporary or permanent works not defined in a gazetted water sharing plan under the WM Act, a licence or permit is required to extract:

- water from a stream, river, or water course via a pump or other work
- groundwater via any type of bore, well, spear point or groundwater interception scheme (including dewatering).

Under the POEO Act, a licence is required to discharge any pollutant to stormwater. To discharge to a stormwater system, permission must be obtained from the relevant water supply authority, for example Sydney Water if they are the owner of the stormwater system (Sydney Operations).

### 2.10.2 Collecting information

1. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Check for drainage lines, grates, drains, inlets, exposed surfaces, areas subject to bogging and waterways. Determine suitable grassed areas for controlled discharges.

### 2.10.3 Allocate assessment level

#### Only 'tick' Level 1 if:

The proposal would NOT involve discharging accumulated water.

#### Only 'tick' Level 2 if:

The proposal may involve discharges of accumulated water, however, all discharges would be in accordance with NS174C-Section 2.2; AND

The proposal would NOT involve any of the following:

- groundwater extraction,
- automatic or long term water discharges,
- discharges > 100,000L.

Generally, Level 2 specific construction controls will include as a minimum:

- *All workers to be made aware of sensitive areas and the need to avoid impacts.*
- *All discharges of accumulated water to comply with NS174C-Section 2.2.*
- *No automatic or long-term water discharges.*
- *No groundwater extraction.*

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

## 2.10.4 Design measures to avoid/mitigate impacts

- Identify groundwater issues as part of trial holes and geotechnical investigations, where undertaken, and where possible avoid works below the water table or with tidal influence.
- Where possible, avoid working in areas of potential groundwater contamination eg groundwater in areas of ASS is likely to be contaminated.
- If not possible to avoid, use design features to minimise water ingress eg water diversion measures, seal cable ends and avoid basement substations.

## 2.10.5 Further information

For water licensing information: [www.water.nsw.gov.au/Water-licensing/Approvals/Approvals/default.aspx](http://www.water.nsw.gov.au/Water-licensing/Approvals/Approvals/default.aspx)

For aquifer interference approvals:

[www.water.nsw.gov.au/ArticleDocuments/34/nsw\\_aquifer\\_interference\\_policy.pdf.aspx](http://www.water.nsw.gov.au/ArticleDocuments/34/nsw_aquifer_interference_policy.pdf.aspx)

For water pollution information: [www.environment.nsw.gov.au/water/polltreatment.htm](http://www.environment.nsw.gov.au/water/polltreatment.htm)

## 2.11 Construction noise and vibration

### 2.11.1 Requirements

Ausgrid receives more complaints about construction noise than any other construction issue. The impacts of noise may include reduced productivity, loss of business, adverse health effects or property damage.

Proper management and consultation can minimise complaints and avoid costly worksite shut downs and delays. Most complaints can be avoided if people are clear on what is happening and why.

Parts 5.5 of the POEO Act creates offences for causing noise pollution as a result of failing to maintain and operate plant and equipment or deal with materials in a proper and efficient manner.

Sensitive areas could be considered as, but not limited to, schools, nursing homes, hospitals, childcare centres, high density residential areas, adjacent to businesses, sensitive fauna nesting / roosting areas. In assessing the sensitive area topography and activities being proposed need to be considered to accurately assess the impact of construction noise and vibration.

Sensitive time periods could include, but limited to, school class/exam times, restaurant meal times, times of worship, and sensitive fauna breeding times.

### 2.11.2 Collecting information

1. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Determine the location of sensitive noise receivers, times they are likely to be most affected, existing barriers such as walls / buildings (including dimensions) and surrounding land use.
2. [EGN 421 Construction Noise Calculator](#).

3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.11.3 Allocate assessment level

#### Only 'tick' Level 1 if:

The proposal would NOT involve any of the following:

- audible works in sensitive areas.
- saw cutting, vibratory rolling, grinding, rock breaking, jack hammers, bitumen milling or profiling, underboring/ directional drilling, impact piling or other high impact activities.

#### Only 'tick' Level 2 if:

The proposal involves audible works in a sensitive area or high impact works, however, avoidance of impacts would be appropriately managed with specific construction controls, AND

The proposal will not impact a receiver for >3 consecutive weeks without a specialist assessment or noise and vibration management plan.

Generally, Level 2 specific construction controls will include as a minimum:

- *Implement noise control measures and notification/respice requirements in accordance with NS174C-Section 4.2.*
- *Out of hours work must meet strict justification, notification and other requirements and not impact a receiver:*
  - *for more than 2 nights in any 7-day period*
  - *on Sunday after 6pm*
  - *on a Monday before 7am*
  - *on a public holiday*
  - *after 12am (midnight) if undertaking high impact activities.*

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.11.4 Design measures to avoid/mitigate impacts

- Choose sites/route which maximise the distance to sensitive receivers. Vibration levels and structural integrity goals are typically within criteria when works are beyond these approximate separation distances:
  - rock hammering ~ 3 – 5 m
  - excavation ~ 2 m
  - ripping trench walls and road base > 5 m
  - compacting > 5 m
  - excavator tracking ~ 3 m.
- Specify the site layout to minimise impacts:

- Arrange the work site to take advantage of natural barriers (eg hills, trees) and structures (eg fences, work trucks, stockpiles) to break the line of sight between working equipment and receivers. Consider reflective noise.
- Site the noisiest equipment furthest away from the most receivers.
- Orientate the equipment so that noise is directed away from sensitive receivers.
- Consider installing portable screening around high impact activities so noise is directed into the work site.
- Install road plates to the RMS specification (ie recessing, inspecting and assessing noise impact, plate thickness, bearing support, additional or modified fixings to reduce noise).
- Consider the site layout to minimise movements that would activate audible reversing and movement alarms especially during out of hours work.
- Choose sites/route and schedule works to avoid coinciding with other developments:
  - Keep to standard operating hours, unless the works comply with out of hours work requirements (refer to Ausgrid's Environmental Handbook (NS174C) Section 4.2).
  - Avoid noisy work during sensitive time periods (eg school class/exam times, restaurant meal times, places of worship services).
  - Provide respite periods for high impact receivers. Examples include
    - 1 hour respite every 3 consecutive hours
    - 1 day respite after every 3 consecutive days.
    - For out of hours work, do not affect a receiver for more than 2 nights during any single week unless justified as necessary due to unavoidable and exceptional circumstances and targeted consultation has been undertaken.
  - Refer to Ausgrid's Environmental Handbook (NS174C) for out of hours work requirements.
- Consider design features to minimise noise (eg avoid excavation in rock).
- Specify substitute equipment for noisy works in sensitive areas.
- Highlight controls in Ausgrid's Environmental Handbook (NS174C) that are critical to managing noise impacts.

### Assessing the impacts

Where required, use the [EGN 421 Construction Noise Calculator](#) to compare the predicted noise level against the investigation criteria.

Under the [Interim Construction Noise Guidelines \(NSW DECC 2009\)](#), the assessment method that applies to the project depends on the duration of the works. Construction works with a duration:

- of less than 3 consecutive weeks can be assessed using a qualitative method which focuses on work practices
- longer than 3 consecutive weeks require a detailed quantitative assessment and may require noise monitoring.

A noise and vibration management plan (NVMP) is required where works may impact a receiver for greater than 3 consecutive weeks or works will impact a receiver and works cannot meet the minimum requirements in the Environmental Handbook. The NVMP

must be in accordance with the [Interim Construction Noise Guidelines \(NSW DECC 2009\)](#).

### 2.11.5 Further information

For construction noise information: [www.epa.nsw.gov.au/noise/constructnoise.htm](http://www.epa.nsw.gov.au/noise/constructnoise.htm).

## 2.12 Operational noise and vibration

### 2.12.1 Requirements

Transformer noise has come to prominence, mainly because of increased urban density, encroachments and land rezoning. It is becoming even more necessary to locate these assets carefully and some planning ahead of time is needed.

### 2.12.2 Collecting information

1. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Determine the location of sensitive noise receivers, times they are likely to be most affected, existing barriers such as walls / buildings (including dimensions) and surrounding land use.
2. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.12.3 Allocate assessment level

#### Only 'tick' Level 1 if:

The proposal would NOT involve the installation of transformers, CLCs, fans or other noise generating equipment.

#### Only 'tick' Level 2 if:

The proposal involves the installation of noise generating equipment, however, the equipment would NOT exceed the operational criteria, as determined by [EGN 422 Transformer Noise Calculator](#).; AND The proposal does NOT involve the installation of CLCs, fans or other noise generating equipment. Generally, Level 2 specific construction controls are not required.

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.12.4 Design measures to avoid/mitigate impacts

Noise at the receiver will depend on the, type of source, distance from source, obstacles and several other factors. Substations emit low frequency noise which is not noticeably reduced by many factors apart from distance and obstacles. For point sources like a substation, the sound pressure level will generally decrease by 6 decibels (dB) per doubling of distance.



Determine prospective site(s) for the substation:

- Select sites located away from sensitive receivers.
- Select sites that make use of any existing barriers.
- Consider future developments (eg construction works, advice received by council etc).
- Prioritise the sites if there is more than one option.
- Use the [EGN 422 Transformer Noise Calculator](#) to compare options.

### Assessing the impacts

Use the [EGN 422 Transformer Noise Calculator](#) to compare the predicted noise level against the criteria.

## 2.12.5 Further information

For operational noise information: [www.epa.nsw.gov.au/your-environment/noise](http://www.epa.nsw.gov.au/your-environment/noise)

## 2.13 Contamination and hazardous materials

### 2.13.1 Requirements - contamination

Disturbance of contaminated land should be avoided wherever possible. Where impacts are unavoidable specialist assessments and/or approvals will be required to ensure impacts are minimised to an acceptable level.

Contaminated sites can present a risk for workers, Ausgrid's infrastructure, the public and the environment.

Contaminated sites require a specialist assessment to determine necessary health, safety and environmental controls. Most contaminated sites are not known or recorded.

Some examples of where you may find a contaminated site include fuel storage areas, areas where oil filled equipment are being used or have been used, petrol stations, drycleaners and industrial sites.

Indicators of contaminated land include: odorous material (eg fuel, solvents, rotten egg gas), oil staining, oil sheen on groundwater, underground storage tanks, buried waste (eg asbestos in soil, construction waste, containers), imported fill (eg ash, coke, asbestos), unusually coloured material (eg green clay), 132kV transmission cable trenches installed before 1980.

Where possible (and economically viable) design to avoid contaminated land. Where there are no reasonable alternatives to siting works in contaminated land, ensure the SER includes a justification for the chosen location. Complete the rest of the SER and refer the project to Environmental Services.

Where the site is contaminated, Ausgrid would in most cases require satisfactory assurances (supported by suitably qualified technical advice) that:

- there are no contaminants which would present any risks to the integrity and long-term viability of Ausgrid's infrastructure
- there are no contaminants which would present any risks to the health and safety of employees, contractors and the public

- there are no contaminants (in excess of the existing land use criteria) which would result in additional construction, handling, transport and disposal expenses to Ausgrid (both now and in the future).

When working within a regulated contaminated site the works must comply with any applicable requirement in the Site Management Plan or documentation relating to the site.

Work health and safety (WHS) requirements fall outside this document and should be considered when in or adjacent to contaminated land,

**Note:** EPA's register relates only to contaminated sites that the EPA has determined pose a significant risk of harm and in relation to which it has issued a notice under the *Contaminated Land Management Act* (NSW). Other contaminated sites may be addressed by local councils through the planning process in accordance with *State Environmental Planning Policy No 55—Remediation of Land* (NSW) under the EP&A Act. The contamination may also be the subject of regulatory action under the POEO Act.

### Decommissioning substations

Where decommissioning a substation on private property (under easement, lease, ownership or other) upon which Ausgrid is absolving their occupation, additional intrusive investigations may be required.

Further investigations will be required when:

- Decommissioning substations with indicators of contaminated land.
- Decommissioning substations (excluding PTs) on private land.

These investigations will typically involve a limited stage 2 contamination assessment and/or hazardous materials survey. For ASP projects, the ASP is responsible for undertaking the contamination assessments and hazardous material survey.

**Note:** Ausgrid employees can refer to [EG 180 Contaminated Land](#).

### 2.13.2 Requirements – hazardous materials

Asbestos fibres must be prevented from becoming airborne. Asbestos containing materials (ACM) must be assessed, classified, registered, stored, handled, transported and disposed of in accordance with legal requirements. Labelling and licensing may be required for the removal, transport, storage and disposal of asbestos wastes.

All works with the potential to disturb ACM must be undertaken in accordance with WHS requirements, [SafeWorkNSW Code of Practice – How to Safely Remove Asbestos](#), the specific work instructions detailed in [NS211 Working with asbestos products](#) and Ausgrid's Asbestos training.

Lead is a metal that has been widely used in the Ausgrid work environment including conductors, solder, lead acid batteries, building flashing and in paint systems. Lead can also be found in accumulated dust. It has the potential to cause detrimental health effects and have a negative impact on the environment if not managed appropriately.

When planning work on the network or in the depot environment a check of the Asbestos Register for the presence of lead paint or lead levels in dust must be undertaken. If there are no entries relating to lead and a substation or depot was constructed prior to mid-90s an assessment of paint systems or dust that may be disturbed during the works is to be

undertaken. The Hazmat Field Manager in Contracted Services can provide support with lead assessment and lead removal. Any work involving the disturbance of lead products must be undertaken in accordance with the relevant SWMS for the task and comply with the controls listed in Be Safe Hazard Guideline 20: Lead.

Where equipment that is coated in a lead paint system is being decommissioned and scrapped the Reclamation Advisor in Logistics must be informed to enable appropriate disposal of the equipment.

### 2.13.3 Collecting information

1. Check Ausgrid's [WebGIS EL](#) for EPA regulated contaminated sites and known occurrences of hazardous materials such as asbestos and lead (refer to the WebGIS EL Report).
2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#).

Asbestos was used as insulating material for high temperature electrical wiring in cable bandages, fuses, joints, pits and conduit, switchboards and LV Boards, and was routinely installed in substation buildings in the form of asbestos cement sheeting or floor tiles. Examples of asbestos containing materials can be found [here](#) (Ausgrid employees).

Indicators of contaminated land include odorous material (eg fuels, solvents, rotten egg gas), oil staining, oil sheen on groundwater, underground storage tanks (UST), buried waste (eg asbestos, construction waste, containers), evidence of capped bore holes or test pits, imported fill (eg ash, coke, asbestos), unusually coloured material, 132 kV transmission cable trenches installed before 1980. Some examples of where you may find a contaminated site include fuel storage areas, areas where oil filled equipment are being used or have been used, petrol stations, drycleaners and industrial sites.

When decommissioning a substation identify any oil spills or leaks, or anything to suggest that oil may have penetrated into the ground, groundwater or a waterway (eg cracked concrete slab with oil staining). Determine if there is anything else to suggest that the substation may be contaminated (eg if the soil being disturbed or contains oily or odorous material, buried or exposed fill/waste, dead vegetation, ash, slag, coke or brightly coloured material, asbestos).

3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.13.4 Allocate assessment level

#### Only 'tick' Level 1 if:

The proposal would NOT involve any of the following:

- working in the vicinity of known or suspected asbestos or other hazardous materials.
- working in an area with known or indicators of contaminated land.
- siting infrastructure or disturbing the ground surface in an area potentially contaminated, such as adjacent to a petrol station, dry cleaners, workshops or industrial areas.
- decommissioning substations.

(as identified by WebGIS EL Report, consultation process, site inspection and other means).

### Only 'tick' Level 2 if:

Contaminated land or hazardous materials are in the Assessment Area, however, avoidance of impacts would be appropriately managed with specific construction controls, AND

There will be NO:

- ground disturbance works within an area of known or indicators of contaminated land (as identified by WebGIS EL report, consultation process, site inspection and other means).
- decommissioning any substations with indicators of contaminated land or decommissioning substations (excluding PTs) on private land.

Generally, Level 2 specific construction controls will include as a minimum:

#### *CAUTION: HAZARDOUS MATERIALS*

- *All workers to be made aware of the presence of known and suspected hazardous materials.*
- *All works with the potential to disturb asbestos containing materials must be undertaken in accordance with WHS requirements, SafeWorkNSW Code of Practice – How to Safely Remove Asbestos, the specific work instructions detailed in NS211 Working with asbestos products and Ausgrid's Asbestos training.*
- *No works to be undertaken in [name no go zones].*

#### *CAUTION: CONTAMINATED LAND*

- *No ground disturbance in [name contaminated areas].*
- *All workers to monitor for indicators of contaminated land:*
  - *unusual odours (eg fuels, solvents, rotten egg gas)*
  - *oil staining or oil sheen in groundwater*
  - *underground storage tanks (UST)*
  - *buried waste (eg asbestos in soil, construction waste, containers)*
  - *imported fill (eg ash, coke, slag, coal tar, asbestos)*
  - *unusually coloured material (eg green clay)*
- *If suspected contaminated land is encountered stop works and contact your supervisor and Environmental Services on 9394 6659.*

### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

## 2.13.5 Design measures to avoid/mitigate impacts

- Select sites/route that avoid/minimise works in areas of contamination.
- If contaminated areas cannot be avoided, contact Environmental Services as soon as possible. Working in contaminated areas can add significant time and cost to a project.

## 2.13.6 Further information

For contaminated land information: [www.epa.nsw.gov.au/clm/index.htm](http://www.epa.nsw.gov.au/clm/index.htm)

For asbestos information: [www.safework.nsw.gov.au/health-and-safety/safety-topics-a-z/asbestos/asbestos-at-work](http://www.safework.nsw.gov.au/health-and-safety/safety-topics-a-z/asbestos/asbestos-at-work)

For lead information: [www.safework.nsw.gov.au/health-and-safety/safety-topics-a-z/hazardous-chemical/lead-work](http://www.safework.nsw.gov.au/health-and-safety/safety-topics-a-z/hazardous-chemical/lead-work)

## 2.14 Acid sulfate soils

### 2.14.1 Requirements

Disturbance of ASS should be avoided wherever possible. Where impacts are unavoidable management plans and/or specialist assessments/approvals will be required to ensure impacts are minimised to an acceptable level.

Where there are no reasonable alternatives to siting works in ASS areas, ensure the SER includes a justification for the chosen location.

For excavations  $\leq 50 \text{ m}^3$  of ASS that do not involve discharging groundwater, Ausgrid employees can use the generic ASS management plan Ausgrid's [Environmental Work Method Statement \(EWMS\) 167 Acid Sulfate Soils](#).

If excavating  $> 50 \text{ m}^3$  of ASS at any one time or discharging groundwater, a specialist assessment or an ASS management plan may be required (Ausgrid employees can contact Environmental Services).

### 2.14.2 Collecting information

1. Check Ausgrid's [WebGIS EL](#) for ASS Planning Maps (Classes 1-4) (refer to the WebGIS EL Report).
2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#).

Indicators of the presence of ASS include:

- the presence of mangroves, reeds, rushes or swamp vegetation
  - sulfurous (rotten egg) smell after rain following a dry spell or when soils are disturbed
  - marine or estuarine sediments
  - soils that can be described as unripe muds or sediments (eg soft, buttery, blue/grey or dark greenish grey) which can include sands and gravels
  - milky blue/green water
  - shell fragments in the soil
  - Low lying, waterlogged, scalded or backswamp areas
  - land below 5 m Australia height datum (AHD) elevation
  - any jarosite (a pale yellow mineral deposit) or iron oxide (rusty) mottling
  - extensive iron stains on any drain surfaces or iron stained drain water and ochre deposits
  - corrosion of concrete and/or steel structures
  - surface or ground water with either a pH below 5.5 or that is unusually clear.
3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.14.3 Allocate assessment level

#### Only 'tick' Level 1 if:

The proposal would NOT involve disturbing ASS (as identified by WebGIS EL Report, consultation process, site inspection and other means).

#### Only 'tick' Level 2 if:

Ground disturbance works will occur in Acid Sulfate Soils, however, avoidance of impacts would be appropriately managed with specific construction controls, AND

The proposal would NOT involve any of the following:

- excavating > 50m<sup>3</sup> in Acid Sulfate Soils at any one time.
- dewatering or discharging groundwater from Acid Sulfate Soils areas.
- altering the water table.

Generally, Level 2 specific construction controls will include as a minimum:

- *Check for the presence of Acid Sulfate Soils and indicators of Acid Sulfate Soils .*
- *Manage Acid Sulfate Soils in accordance with NS174C-Section 5.2.*
- *For excavations > 50m<sup>3</sup> of Acid Sulfate Soils that do not impact groundwater, Ausgrid employees can use the generic Acid Sulfate Soils management plan in Ausgrid's Environmental Work Method Statement (EWMS) 167 Acid Sulfate Soils.*
- *No excavating > 50m<sup>3</sup> in Acid Sulfate Soils at any one time.*
- *No dewatering or discharging groundwater from Acid Sulfate Soils areas.*
- *No altering the water table.*
- *No ground disturbance in [List areas of known or suspected ASS in the area].*

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.14.4 Design measures to avoid/mitigate impacts

- Select sites/route that avoid/minimise works in areas of acid sulfate soils.

### 2.14.5 Further information

For ASS information: [www.environment.nsw.gov.au/topics/land-and-soil/soil-degradation/acid-sulfate-soils](http://www.environment.nsw.gov.au/topics/land-and-soil/soil-degradation/acid-sulfate-soils)

Guidance for the dewatering of acid sulfate soils in shallow groundwater environments (Commonwealth, June 2018):

<https://www.waterquality.gov.au/sites/default/files/documents/dewatering-acid-sulfate-soils.pdf>

## 2.15 Waste

### 2.15.1 Requirements

Waste is defined very broadly under the POEO Act to include any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in



such volume, constituency or manner as to cause an alteration in the environment and any discarded, rejected, unwanted, surplus or abandoned substance – even if it is intended for sale or for, recycling, processing, recovery or purification or may be processed, recycled, re-used or recovered. Good waste management reduces waste going to landfill, minimises disposal costs, conserves resources and avoids environmental damage.

Waste types may be identified by specialist reports such as a hazardous materials survey or contaminated land assessments. The wastes identified could be lead paint, asbestos containing materials including paint, hydrocarbon or heavy metal impacted soils, etc. Other hazardous materials may be known to be unique to specific assets.

### **Hazardous, restricted solid, liquid or special waste**

Under the POEO Act, licences may be required to store, transport or process hazardous, restricted solid, liquid or special waste (generally more than 5 tonnes stored, more than 200 kg transported or any processing). It should be noted that there are a number of exemptions and thresholds (refer to [Section 5.3 of Ausgrid's Environmental Handbook \(NS174C\)](#)). Ausgrid holds a number of Environment Protection Licences (EPLs) for the storage of transformer oil, PCBs and oily water at certain depots. Ausgrid employees intending to rely on these EPLs must comply with the specific licence conditions, including reporting and record keeping requirements.

Hazardous, restricted solid, liquid and special wastes require consignment approval and completion of waste tracking documentation prior to transporting by licensed transporters. Exemptions apply in some cases (refer to [Section 5.3 of Ausgrid's Environmental Handbook \(NS174C\)](#)). In particular, Ausgrid employees do not need a licence to transport wastes in Ausgrid vehicles between Ausgrid locations (eg from a substation to a depot).

### **Transporting and storing scheduled PCBs**

A PCB licence is required for the transport or storage of scheduled PCBs > 1 tonne. Where a PCB licence is required:

- a) Use PCB licensed transporters and storage facilities OR
- b) Transport and store in accordance with Ausgrid's PCB licence including:
  - Transport only between Ausgrid premises by Ausgrid employees.
  - Promptly arrange disposal.
  - Store in a covered and secure bunded area.
- c) Have current oil spill response training if involved in the handling, transport or storage of oil.
- d) Label scheduled PCBs with the scheduled PCB waste label
- e) When transporting, carry completed transport documentation.
- f) When transporting receptacles > 500 kg(L), use a dangerous goods licensed driver and vehicle and placard receptacles in accordance with the ADG Code.
- g) When transporting receptacles > 500 kg(L) or aggregate loads ≥ 1000 kg(L),
  - Carry specific PPE, safety equipment, Emergency Response Guides and an emergency information holder in transport vehicles.
  - Placard the vehicle in accordance with the ADG Code.

### **Disposal**



- a) Dispose of PCB waste only to an EPA licensed facility.
- b) Comply with waste tracking requirements (refer to Ausgrid's Environmental Handbook (NS174C), section 5.3 Waste management).
- c) To arrange disposal Ausgrid employees can contact:
  - Ausgrid's workshops for non-scheduled PCB oil.
  - ESU for all other PCB waste. Use PCB waste removal form (EF 104) or PCB insitu treatment form (EF 105).

### Hazardous chemicals

Hazardous chemicals must be stored and handled in accordance with the *Work Health and Safety Act* (Cth) and *Work Health and Safety Regulation 2017* (Cth). Notification to WorkCover NSW is required for storage of hazardous chemicals in excess of specific quantities contained in Schedule 11 of the *Work Health and Safety Regulation 2017* (Cth).

Labelling and signs are also required where the quantity of hazardous chemicals exceed the placarding quantity. Liquid hazardous chemicals must be stored to eliminate the risk of a spill or leak entering the environment. For further information refer to AS 1940-2004 *The Storage and Handling of Flammable and Combustible Liquids* or AS/NZS 1596-2008 *The Storage and Handling of LP Gas*.

For information on dangerous goods driver licences:  
[www.epa.nsw.gov.au/dangerousgoods/training.htm](http://www.epa.nsw.gov.au/dangerousgoods/training.htm)

The ASP process for sampling and returning equipment is detailed in the [Policy for ASP/1 Premises Connections](#).

### Scheduled chemical waste (SCW)

Under the [SCW Chemical Control Order](#) (CCO), a licence is required to store more than 1 tonne of scheduled chemical waste. Scheduled chemical wastes are the chemicals listed in Schedule A to the CCO with a concentration of total scheduled chemicals of more than 2ppm (2mg/kg). Scheduled chemical wastes include benzene, chlordane, heptachlor and OCPs such as aldrin, dieldrin, endrin and pentachlorophenol.

Soil and accumulated water from below the slab of Ausgrid's 132 kV cables, installed prior to 1980, may be contaminated with OCPs.

Requirements for keeping of SCW include where more than:

- 50 kg but less than one tonne is stored; the storage area must be sited and constructed so as to prevent any discharge to the external environment
- one tonne is stored; the scheduled chemical waste must be kept in an approved manner or in a storage facility in accordance with the conditions of a licence under the *Environmentally Hazardous Chemicals Act* (EHC Act)
- SCW may also be classified as a dangerous good under the *Dangerous Goods (Roads and Rail Transport) Act* (NSW) and may require a dangerous goods licensed vehicle and driver for transport.

## 2.15.2 Collecting information

1. The full list of hazardous, restricted solid, liquid or special waste is available at [www.epa.nsw.gov.au/waste/index.htm](http://www.epa.nsw.gov.au/waste/index.htm)

2. [EGN 323 Waste Database](#) and [EG 120 Waste](#) (Ausgrid employees)
3. **Hazardous chemicals** Hazardous chemicals are classified under the [Work Health and Safety Regulation 2011 \(NSW\)](#).
4. **Dangerous goods** - Dangerous goods are classified under the [Australian Dangerous Goods Code](#).
5. **PCBs** - Equipment manufactured prior to 1997 (or where the date is uncertain) requiring disposal or return to stores must be tested for the presence of PCBs prior to transporting. The PCB level can be obtained either from the PCB register or via an oil test undertaken at a suitable National Association of Testing Authorities, Australia (NATA) accredited laboratory (9410 5117).

Ausgrid's preferred option for PCB oil testing is to use the PLUS ES Chemical Testing Laboratory.

An Oil Test Report specifying the PCB content of the oil or an extract from the PCB register must accompany oil filled equipment movement requests (except for new oil or equipment). Oil filled equipment must not be drained until the PCB content is known.

### 2.15.3 Allocate assessment level

#### Only 'tick' Level 1 if:

The proposal would NOT generate hazardous, restricted solid, liquid, special (eg asbestos), PCB waste, OCPs or more than 1,000 tonnes of general solid waste.

#### Only 'tick' Level 2 if:

The proposal will generate hazardous, restricted solid, liquid, special (eg asbestos), PCB waste, or OCPs, however, avoidance of impacts would be appropriately managed with specific construction controls.

Generally, Level 2 specific construction controls will include as a minimum:

- *Manage all wastes in accordance with NS174C-Section 5.3.*
- *Manage PCBs in accordance with NS174C-Section 3.2.*
- *Manage spoil from 132 kV cable trenches in accordance with NS156 Working near or around underground cables.*

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.15.4 Design measures to avoid/mitigate impacts

- Identify which waste materials will be generated by the project (eg concrete, timber, plasterboard, soil, scrap metal) and determine quantities and reuse opportunities. Avoid, reduce or reuse resources through efficient design, such as:
  - Minimise the amount of materials required (eg minimise numbers of poles, cut and fill design).

- Avoid using scarce resources (eg avoid imported timber sourced from native or old growth forests; specify materials with recycled content where suitable).
- Adopt a design that has lower ongoing maintenance requirements.
- Adopt a design that has lower operating costs (eg incorporate passive ventilation measures).
- Select routes that require less construction and maintenance resources (eg minimise vegetation clearing and excavation). Refer to [EGN 424 Options Analysis Calculator](#).
- For initiatives applicable to substation projects see [EG 320 Major Substation Embodied Impacts - Interim Guidelines](#).

### 2.15.5 Further information

Hazardous, restricted solid, liquid or special wastes include:

- Asbestos and ACM
- batteries (lead acid and NiCad)
- bioguard bandages
- contaminated soil (above general solid waste thresholds)
- chemicals
- clinical waste (eg syringes)
- industrial cleaning agents
- PCB waste (greater than or equal to 2ppm)
- pesticides / biocides / herbicides / fungicides (including container rinsate)
- sulfur hexafluoride (SF<sub>6</sub>) and chlorofluorocarbon (CFCs)
- liquid waste
- wastes classified as dangerous goods (some exemptions apply).

Dangerous goods include:

- gases such as aerosol cans, gas cylinders, LPG bottles
- flammable solids and liquids such as fuel and solvents
- explosive, corrosive, radioactive, toxic, oxidising or infectious substances
- scheduled PCBs (> 50 ppm)

PCBs or scheduled chemical wastes include:

- benzene
- chlordane
- heptachlor
- OCPs such as aldrin, dieldrin and endrin.

For dangerous goods information:

[www.infrastructure.gov.au/transport/australia/dangerous/index.aspx](http://www.infrastructure.gov.au/transport/australia/dangerous/index.aspx)

For hazardous chemicals information: [www.safeworkaustralia.gov.au/chemicals](http://www.safeworkaustralia.gov.au/chemicals)

Ausgrid employees can also refer to HG-18 Workplace Substances Hazard Guideline.

For further information on pesticides: [www.epa.nsw.gov.au/pesticides/Pesticides.htm](http://www.epa.nsw.gov.au/pesticides/Pesticides.htm)

## 2.16 Traffic and access

### 2.16.1 Requirements

#### Traffic

Classified roads fall into three major categories, State roads, regional roads and local roads, and include freeways, state highways, main roads, tourist roads and secondary roads.

If works are proposed on a public road, consent is required under section 138(1) of the *Roads Act* (NSW). Consent is not required in relation any unclassified road other than a Crown road. To apply for a section 138 consent, write to RMS for State roads or the relevant local council for regional roads and local roads to request approval, providing a description of the work and including a plan showing the extent of the works. Ausgrid employees should use the relevant templates from Appendix 1 of [Ausgrid's Procedure to Seek Consent Under Section 138 of the Roads Act](#).

After section 138 consent is obtained and prior to starting works, a road occupancy licence (ROL) will need to be obtained for works as outlined in Appendix 6 of the [memorandum of understanding \(MoU\) between Ausgrid and RMS \(Ausgrid employees\)](#). An ROL is required in the Sydney region for all classified state roads, classified regional roads, and local roads within 100 m of a traffic signal or a classified state road and in the Hunter region for all state roads.

An ROL is not required prior to verification of the SER. Further information on applying for ROLs is available on the [RMS Road Occupancy Licence application website](#).

If works will require out of hours works (ie night works), ensure that it is sufficiently addressed in Table 2 of the SER under construction noise.

#### Access

Issues affecting people in wheelchairs and the effect of electricity works on people with visual impairments should properly be considered when Ausgrid assesses the environmental effects of a particular proposal to place pillars, poles, kiosks etc in footpaths or access ways.

The *Disability Discrimination Act* (Cth) and building standards that sit under that Act, including the Building Code of Australia and the AS1428 series, contain design standards for new buildings and building modifications in order to accommodate people with disabilities.

### 2.16.2 Collecting information

1. Check Ausgrid's [WebGIS EL](#) for Classified roads (refer to the WebGIS EL Report).
2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Assess potential traffic and access impacts taking into account pedestrian access, emergency vehicle access, access for people with disabilities, ongoing access, storage/staging/parking areas) and surrounding land use.
3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.16.3 Allocate assessment level

#### Only 'tick' Level 1 if:

The proposal would NOT involve any of the following:

- work occurring on a public road.
- restricting access or mobility for people with disabilities.
- restricting access to shops, businesses, schools, hospitals, childcares, recreational areas.

#### Only 'tick' Level 2 if:

The proposal will involve traffic and access impacts, however, impacts would be appropriately managed with specific construction controls, AND

The proposal would NOT involve any of the following:

- works on a public road which are non compliant with the relevant RMS approval and road occupancy licence (ROL) requirements.
- works non compliant with notification requirements for affected residences and businesses.
- permanent access restrictions for people with disabilities.

Generally, Level 2 specific construction controls will include as a minimum:

- *Where required, approvals and ROLs must be in place prior to works commencing. Comply with associated conditions.*

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.16.4 Design measures to avoid/mitigate impacts

- If located at an Ausgrid site, the site manager or representative in association with Ausgrid's Property Group shall prepare a Traffic Management Plan (TMP) specific to the site. Ausgrid employees can refer to [Be Safe HG 15: Traffic Management](#).
- Select sites/routes that avoid State roads and busy regional and local roads.

### 2.16.5 Further information

For state and regional classified road information: [www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/arrangements-councils/road-classification.html](http://www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/arrangements-councils/road-classification.html)

Ausgrid employees can refer to Ausgrid's Memorandum of Understanding (MoU) with the Roads and Maritime Service (RMS) and Transport for NSW: [balin.energy.com.au/techpub/agreements\\_with\\_other\\_organisations/mou\\_index.htm](http://balin.energy.com.au/techpub/agreements_with_other_organisations/mou_index.htm)

Designated Strategic Transport Land – The DP&E may designate any land as Designated Strategic Transport Land by causing notice of the designation to be published in the NSW Government Gazette.

## 2.17 Climate change adaptation

### 2.17.1 Requirements

Climate change is resulting in more frequent extreme weather events such as heatwaves, bush fires, droughts, storms and flooding as well as gradual changes such as higher sea levels and higher mean high tides. The Intergovernmental Panel on Climate Change predicts that based on current emissions, the sea level will rise 60-110cm by 2100.

- Flood planning areas are areas where flood related development controls apply and includes land subject to:
  - 1% Annual Exceedance Probability (AEP) flood (1 in 100 year flood)
  - Probable maximum flood (PMF). The largest flood likely to occur (known as flood liable land, floodplain or flood prone land).
  - Historical flood levels.
- Coastal vulnerability areas include areas subject to coastal hazards such as coastal erosion and tidal inundation.
- Areas below projected sea level rise (1m above mean high-water mark) are likely to be submerged this century.

Climate change resilience is a priority in Ausgrid's Asset Management Strategic Plan.

Kiosk substations should not be installed in flood planning areas or below 1m above high tide unless Ausgrid determines there is no reasonable alternative.

Avoid siting other infrastructure in flood planning areas, coastal vulnerability areas, or below projected sea level rise (1m above mean high-water mark) where reasonably practicable.

Under section 256 of the WM Act, approval is required to construct any building, fence or structure in, on, or adjacent to, a levee bank.

### 2.17.2 Collecting information

1. Check Ausgrid's [WebGIS EL](#) for flood planning areas, coastal vulnerability areas or areas below projected sea level rise (1m above mean high-water mark) (refer to the WebGIS EL Report).
2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Assess for indicators of flood prone land (eg flood signage, low lying areas etc).
3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.17.3 Allocate assessment level

#### Only 'tick' Level 1 if:

The proposal would NOT involve works within flood planning areas, coastal vulnerability areas or below projected sea level rise (1m above mean high-water mark) (as identified by WebGIS EL report, consultation process, site inspection and other means).

#### Only 'tick' Level 2 if:

The proposal will involve works within one of the following areas:

- flood planning areas,
- coastal vulnerability areas,
- below projected sea level rise (1m above mean high-water mark).

There will be no siting of kiosks in the above areas without Ausgrid's approval.

There will be no siting of other infrastructure in the above areas where reasonably practicable.

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

Note: Siting of infrastructure within flood prone land must comply with all relevant Network Standards including:

- [NS113 Site selection and construction design requirements for chamber substations](#)
- [NS141 Site selection and site preparation standards for kiosk type substations](#)

### 2.17.4 Design measures to avoid/mitigate impacts

- Select sites/route that avoid/minimise works in areas of flood prone land.

### 2.17.5 Further information

For coastal erosion management information:

[www.environment.nsw.gov.au/coasts/coastalerosionmgmt.htm](http://www.environment.nsw.gov.au/coasts/coastalerosionmgmt.htm)

For sea level and coasts information:

[www.climatechange.environment.nsw.gov.au/Impacts-of-climate-change/Sea-level-and-coasts](http://www.climatechange.environment.nsw.gov.au/Impacts-of-climate-change/Sea-level-and-coasts)

## 2.18 Bushfire

### 2.18.1 Requirements

Section 63(1) of the *Rural Fires Act* (NSW) requires public authorities to take all notified steps (if any) and any other practicable steps to prevent the occurrence of bushfires on, and to minimise the danger of the spread of bushfires on or from:

- any land vested in or under its control or management, or
- any highway, road, street, land or thoroughfare, the maintenance of which is charged on the authority.

Under section 63(2) the owner or occupier of land also has a duty to take the notified steps (if any) and any other practicable steps to prevent the occurrence of bush fires on, and to minimise the danger of the spread of bush fires on or from, that land.

Ausgrid manages bush fire risk by adopting a risk management approach to ensure that our assets and our customer's private power lines are properly designed, equipped and



maintained by the responsible party. All new and replacement assets must utilise appropriate technology in order to limit bush fire risks.

The location of kiosk substations on land which is declared bush fire prone land by the local Council and for the purposes of the *Rural Fires Act* (NSW), where there is a significant risk that a kiosk fault or fire could cause a bush fire, should be avoided wherever reasonably practicable.

All zone substation developments on land that is designated as bush fire prone land must consider bush fire risk and meet the requirements of NSW Rural Fire Services guide, *Planning for Bush Fire Protection 2006* and AS3959 – 2009 Construction of Buildings in Bushfire-prone Areas.

Zone substation developments must comply with Ausgrid's *NS187 Passive Fire Mitigation Design of Substations* which provides details for the design of passive fire mitigation requirements for substations and for safe egress from substation buildings and switchyards in the event of a fire. Substations under NS187 deemed to be in bush fire prone areas shall satisfy all the requirements of AS3959 – 2009 Construction of Buildings in Bushfire-prone Areas and the NSW Rural Fire Services guide, *Planning for Bushfire Protection 2006*.

### 2.18.2 Collecting information

1. Check Ausgrid's [WebGIS EL](#) for bushfire prone land.
2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Assess the proximity to bushland.
3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.18.3 Allocate assessment level

#### Only 'tick' Level 1 if:

The proposal is NOT within bushfire prone land (as identified by WebGIS EL report, consultation process, site inspection and other means).

#### Only 'tick' Level 2 if:

The proposal is within bushfire prone land, however, would comply with:

- design requirements in relevant Network Standards such as [NS187 Passive fire mitigation design of substations](#); and
- hot works requirements in NS174C-Section 6.4.

Generally, Level 2 specific construction controls will include as a minimum:

- *Check the requirements of any applicable Total Fire Ban exemption.*
- *Review high risk activities, assess the risk and consider the need for additional controls.*
- *Comply with the Total Fire Ban controls in NS174C-Section 6.4.*

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

## 2.18.4 Design measures to avoid/mitigate impacts

- Consider site / route / access (for both construction and maintenance) that avoid bushfire prone land.
- Consider the use of covered or underground conductors instead of bare overhead conductors.
- Consider fitting low voltage (LV) spreaders on bare overhead conductors.
- Where possible locate switches and drop out fuses away from bushfire prone land or vegetated areas.

## 2.18.5 Further information

For information on building in a bushfire area: [www.rfs.nsw.gov.au/plan-and-prepare/building-in-a-bush-fire-area](http://www.rfs.nsw.gov.au/plan-and-prepare/building-in-a-bush-fire-area)

For substation design: [NS141 Specification for Site Selection for Kiosk Type Substations](#)  
[NS187 Passive fire mitigation design of substations](#)

Ausgrid employees can refer to [Bushfire Risk Management Plans](#) and Ausgrid's [Environmental Handbook \(NS174C\)](#).

## 2.19 EMF

### 2.19.1 Requirements

Ausgrid's policy involves designing and operating our network prudently within the Australian guidelines. Prudent avoidance means designing new electrical infrastructure to minimise EMF exposure where this is both practicable and low cost (undergrounding or arbitrary setbacks fall outside this definition).

Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) advises that: *"the scientific evidence does not establish that exposure to the electric and magnetic fields found around the home, the office or near power lines causes health effects."*

International Commission on Non-Ionizing Radiation Protection (ICNIRP) has set exposure limits for established health effects:

- (a) Public exposure limit of 200µT which should also be applied to pregnant workers
- (b) Occupational exposure limit of 1,000µT (for Ausgrid workers)

### 2.19.2 "Collecting information"

1. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Assess the proximity to residential properties, schools and childcare centres.
2. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.19.3 Allocate assessment level

Only 'tick' Level 1 if:

The proposal would not result in changes to EMF levels from Ausgrid's network. Examples could include access tracks, vegetation management, civil works etc.

#### Only 'tick' Level 2 if:

The proposal will result in changes to EMF levels, however, EMF levels are within the ICNIRP 2010 Public Reference Levels and there are no further measures to reduce exposure consistent with prudent avoidance (ie very low cost and without unduly compromising other issues) AND

The community is unlikely to raise concerns.

Generally, Level 2 specific construction controls will include as a minimum:

- [Refer all EMF enquiries to Environmental Services on 9394 6659.](#)

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.19.4 Design measures to avoid/mitigate impacts

Consider "no" or "low cost" options for reducing EMF exposure for the project such as:

- Locate the substation away from receivers or in areas less frequented (eg adjacent to car parks, walkways, store rooms, switch rooms, amenity areas or fire stairs).
- Plan the substation layout with the low voltage (LV) side further away from receivers than the high voltage (HV) side. The HV side has a substantially smaller current than the LV side and therefore has lower associated EMF.
- Locate the incoming and outgoing cables associated with a substation in areas away from receivers.
- Choose a conductor configuration which will reduce fields (eg triangular arrangements, compact construction, bundled cabling, multicore cables).
- Arrange the phases to minimise the magnetic field (eg balance load on phases RWB/BWR).
- Increase the distance between the source and the receiver (eg raise conductor height).
- Make use of existing access restrictions (eg property line, fencing, landscaping).
- Choose a layout for adjacent apartments which minimises EMF exposure (eg locate bedrooms and lounge rooms away from the substation, locate bathrooms, laundry, storage rooms and entrances close to the substation).

Ausgrid employees can find further guidance in [NEG SE01 Power Frequency EMF – Prudent Avoidance](#).

#### Assess the impacts

Ausgrid's [EMF Calculator](#) (EGN 423) can be used to model the indicative magnetic field from a power line or kiosk for a given load. The results should be considered indicative only and it should be remembered that prudent avoidance is about considering low cost ways of reducing exposure, not achieving some arbitrary level.

## 2.19.5 Further information

ENA EMF Handbook: [www.ena.asn.au/electric-and-magnetic-fields](http://www.ena.asn.au/electric-and-magnetic-fields)

ARPANSA: [www.arpansa.gov.au/](http://www.arpansa.gov.au/)

## 2.20 Visual and aesthetics

### 2.20.1 Requirements

Visual impacts should be considered and assessed taking into account the extent and nature of the proposal, line of sight and the areas of high aesthetic, scenic, natural or recreational value.

Amenity and aesthetics influence the 'liveability' of a place that makes it pleasant and agreeable to be in for individuals and the community.

High aesthetic, scenic, recreational or natural value areas enhance the visual amenity.

Short term and minor construction impacts should be excluded from the assessment.

### 2.20.2 Collecting information

1. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Assess possible viewing locations, lookouts, areas of high aesthetic, scenic, natural or recreational values, existing screening opportunities and key viewer stakeholders.
2. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.20.3 Allocate assessment level

#### Only 'tick' Level 1 if:

The proposal would NOT involve any of the following:

- impacting areas of high aesthetic, scenic, natural or recreational value.
- materially impacting a property owners' view of waterways or scenic areas.
- impacting views where property owners are likely to raise concerns.

#### Only 'tick' Level 2 if:

The proposal could result in material visual impacts, however, consideration has been given to coastal protection areas and areas of high aesthetic, scenic, natural or recreational values. The type, bulk, scale and size of the proposal is appropriate for the location.

Consultation with affected owners has occurred where there will be a material impact on views of waterways or scenic areas or where concerns have been expressed.

All reasonable measures to reduce visual impacts have been considered and the impacts are minor and neither extensive nor complex.

Level 2 specific construction controls if required will be project specific.

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

#### 2.20.4 Design measures to avoid/mitigate impacts

- Select sites/routes that avoid view corridors of high visual appeal and high numbers of viewers.
- Consider the distance of the infrastructure from viewers (eg foreground, middle ground, background).
- Utilise existing electrical infrastructure and corridors where possible.
- Select materials, textures and colours which blend with the surrounds.
- Bundle overhead cables to reduce aesthetic impact and minimise tree pruning (where applicable)
- Limit the need for vegetation clearing.
- Position poles between property buildings rather than in front of a particular property.
- Utilise the existing topography and vegetation to shield views of the development.
- Install landscape screening between the development and viewers.

## 2.21 Other

### 2.21.1 Requirements

Assessments and requirements for other issues will depend on the specific circumstances. Allocate a risk level of 3 for issues which should be referred to Environmental Services.

### 2.21.2 Collecting information

1. Check Ausgrid's [WebGIS EL](#) for other environmental features/issues (refer to the WebGIS EL Report). The sensitive environmental feature layer is used to record site specific requirements and considerations.
2. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Assess possible other issues and impacts not already considered above.
3. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

### 2.21.3 Allocate assessment level

#### Only 'tick' Level 1 if:

There are no other identified impacts that are not covered by the SER.

#### Only 'tick' Level 2 if:

Additional potential impacts have been identified, however, impacts would be minor and neither extensive nor complex and can be effectively managed/avoided.

Level 2 specific construction controls if required will be project specific.

#### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

### 2.21.4 Further information

Some examples could include:

- encroaching on airspace near airports
- restricting access along a river.

## 2.22 Cumulative impact

### 2.22.1 Requirements

Cumulative impact is the combined effect of multiple projects on the environment. The other projects may be past, present or future and may be carried out by Ausgrid or others.

## 2.22.2 Collecting information

1. Undertake a site inspection using [EF 17410 SER Site Inspection Checklist](#). Assess for other activities and projects that have impacts that could interact with this project.
2. Consider any consultation responses including those received under section 45 of the ES Act and Division 1 and clause 42 of the Infrastructure SEPP (refer to sections 1.9 and 1.10 (Council / authority notification) and 1.11 (Community consultation) of this document).

## 2.22.3 Allocate assessment level

### Only 'tick' Level 1 if:

There are no other projects/proposals that have impacts that could interact with this project (as identified by the consultation process, site inspection and other means).

### Only 'tick' Level 2 if:

Cumulative impacts from other projects/proposals are likely, however, impacts would be minor and neither extensive nor complex and can be effectively managed/avoided.

Level 2 specific construction controls if required will be project specific.

### Only 'tick' Level 3 if:

Level 1 and Level 2 do not apply:

Describe the relevant activities and potential impacts sufficiently to enable Environmental Services to assess the impacts and confirm assessment/approval/licencing requirements.

## 2.22.4 Design measures to avoid/mitigate impacts

- Consult with other internal and external Project / Design managers.
- Arrange agreements and methodologies concerning the management activities prior to undertaking work in the area where cumulative impacts are likely.
- Community engagement must be streamlined to ensure an effective feedback mechanism. Ausgrid employees can consult with Ausgrid's designated community liaison officer.

**Example 1:** 11 kV feeder works are associated with a new zone substation which has been assessed separately. If works are likely to occur at the same time, the combined noise and amenity impacts should be assessed. Reference should also be made to the substation assessment to determine if commitments were made to the community about hours of operation, etc.

**Example 2:** A kiosk installation will require restricting access to the footpath. There is a major construction site on the opposite side of the road to the kiosk site. The combined traffic and access impacts should be assessed. Consultation should occur with the construction site to identify any specific Development Assessment (DA) conditions in order to ensure that impacts are adequately managed.

The risk assessment should be performed on the total cumulative impact.