



TransGrid

TransGrid Relocation Plan

**Western Sydney Airport
Transmission Line 39 Relocation**

December 2017

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Document Preparation History

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1. Introduction

1.1 Background

This TransGrid Relocation Plan has been prepared to comply with Condition 4 of the Western Sydney Airport Plan (the Airport Plan). It underpins relocation of 3.2 kilometres of aboveground 330kV transmission line from its current route through the Western Sydney Airport site (including subsequent demolition) to an underground cable route along the perimeter of the designated Western Sydney Airport site (the proposed activity). Condition 4 requires the approval of this TransGrid Relocation Plan prior to commencement of the proposed activity. Additionally, the proposed activity must not be carried out inconsistently with this TransGrid Relocation Plan. Requirements for the approval of this TransGrid Relocation Plan are that:

- an environmental assessment has been completed in respect of any impacts of the proposed activity which were not assessed as part of the Environmental Impact Statement for the Western Sydney Airport
- the plan includes appropriate management and mitigation measures to avoid, minimise or manage the identified environmental impacts
- the plan identifies the persons responsible for implanting the plan
- the plan is otherwise appropriate.

An environmental assessment (EA) for the purposes of this Condition was completed in August 2017 (refer to Appendix E). A Submissions Report was also prepared to address the submissions received during the public display of the EA (refer to Appendix F). The Submissions Report includes an updated proposed activity description and set of mitigation measures as amended in a response to the submissions received and progressions in the proposed activity design.

The Western Sydney Airport Environmental Impact Statement (WSA EIS) assessed the impacts of the clearance and earthworks across an area identified in the airport plan as the indicative Construction Impact Zone (shown in Figure 2 of the Airport Plan). The TransGrid Relocation Works, to which this TransGrid Relocation Plan relates, will occur entirely within the indicative Construction Impact Zone outlined in Figure 2 of the Airport Plan and as assessed by the WSA EIS and the Stage 1 Biodiversity Assessment Report.

Accordingly, in respect of impacts not previously assessed in the WSA EIS, the EA and Submissions Report draw upon the environmental assessment framework under Part 5 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). Additionally, the EA and Submissions Report substantially satisfies the environmental assessment requirements stipulated in the Department of Planning & Environment's NSW Code of Practice for Authorised Network Operators (2015).

This TransGrid Relocation Plan has been prepared in general accordance with the *Guidelines for the Preparation of Environmental Management Plans* (DIPNR, 2004) and the ISO 14001 Environmental Management Systems standard.

TransGrid is committed to undertaking the proposed activity in a manner that minimises pollution, environmental impacts, and complies with relevant legislation, industry standards and codes of practice. This TransGrid Relocation Plan provides the overarching framework for the management of environmental impacts and risks associated with construction of the proposed activity. Implementing this TransGrid Relocation Plan will ensure that the team for the proposed activity complies with the requirements of the EA and Condition 4 of the Airport Plan (and other

conditions outlined in Table 3.2), which forms the conditions of approval for the development of the Western Sydney Airport.

In particular this TransGrid Relocation Plan has been developed to:

- Provide the general environmental management framework for the development of a Construction Environmental Management Plan (CEMP) and associated sub-plans by the contractor/s involved in the construction works related to the proposed activity.
- Assist those involved in the construction works to comply with the requirements of relevant environmental legislation, and the conditions of any applicable licences, approvals and permits.
- Describe the environmental management related roles and responsibilities of all personnel involved.
- Outline the potential environmental impacts of the construction phase and associated objectives and targets.
- Describe the appropriate environmental management measures and procedures to be implemented to reduce adverse impacts on the environment during the construction works.
- Provide monitoring and reporting requirements to review the effectiveness of environmental controls.

This TransGrid Relocation Plan is applicable to all staff and contractors associated with construction of the proposed activity.

1.2 Proposed activity description

Transmission Line 39 is a 330 kilovolt (kV), single circuit overhead connection that extends 114 kilometres between the Sydney West and Bannaby substations. An approximate 3.2 kilometre section of Transmission Line 39 crosses Commonwealth land that is the designated site for the Western Sydney Airport (the airport site).

The proposed activity involves the construction of a proposed 3.8 kilometre underground cable that generally follows the perimeter of the airport site. Following construction of the new underground cable, the existing 3.2 kilometre section of overhead transmission line that crosses Commonwealth land will be demolished. The proposed activity is described in further detail in Section 2.

Relocation of the existing overhead cable is required for the safe and efficient construction and subsequent operation of the airport.

1.2.1 Proposed activity location

The proposed activity is located at the designated Western Sydney Airport site, approximately 50 kilometres west of Sydney at Badgerys Creek and approximately one kilometre southeast of Luddenham. The designated Western Sydney Airport site is located within the Liverpool local government area. The underground cable and two transition sites required for the interface between the above ground and proposed underground component of the transmission line are entirely within Commonwealth land (except for a crossing of the existing The Northern Road). Notwithstanding this, a new transmission structure would be constructed as part of the northern transition site, however approval for this has been sought separately by TransGrid as the structure is located outside of Commonwealth land. The location of the proposed activity and the airport site is shown in Figure 2-1.

The airport site will be subject to significant change to facilitate development of Western Sydney Airport. This includes bulk earthworks to level and stabilise the airport site, drainage measures, and infrastructure construction.

The proposed activity is located on Commonwealth land, which comprises the following land parcels:

- Lots 98 to 104 inclusive of DP 1236319
- Lot 32 of DP 259698
- Lot 9, 10 and 11 of DP 1233751.

Subject to Government approvals it is expected that the Commonwealth Department of Infrastructure and Regional Development (DIRD) will provide an easement over the land for the proposed underground cable while the easement for the existing overhead transmission line will be extinguished upon completion of works. Additionally, it is proposed for two small parcels of Commonwealth owned land to be made available as freehold land disposals to TransGrid via the NSW State Government to facilitate construction of the required transition points at each end of the underground cable.

1.3 Environmental management framework

Figure 1-1 shows the overall environmental management framework principles in delivering TransGrid’s scope for construction of the proposed activity. The framework meets the requirements of ISO 14001 Environmental Management Systems – Requirements with Guidance for Use.

Figure 1-1 Environmental management principles



1.3.1 TransGrid Environmental Policy

TransGrid is committed to conducting activities and services in a manner that prevents pollution and complies with relevant legislation, industry standards and codes of practice.

The TransGrid Environment Policy covers all activities and services undertaken by TransGrid. It describes TransGrid’s commitment to enhance systems and processes in a manner that promotes continuous improvement in environmental management and which will lead to the achievement of good industry practice.

A copy of the TransGrid Environmental Policy is provided in Appendix A and will be displayed in site offices and communicated to all staff and contractors via site inductions (refer to Section 5.3.1).

2. Proposed activity scope

2.1 Detailed activity scope

Section 3.5.2 of the Airport Plan authorises the relocation and removal of a range of existing utilities from the airport site to facilitate development for the Western Sydney Airport. Section 3.10 outlines the conditions to be completed in accordance with subsection 96B(9) of the Airports Act 1996, including the need for TransGrid to undertake relocation of the transmission line in accordance with a TransGrid Relocation Plan.

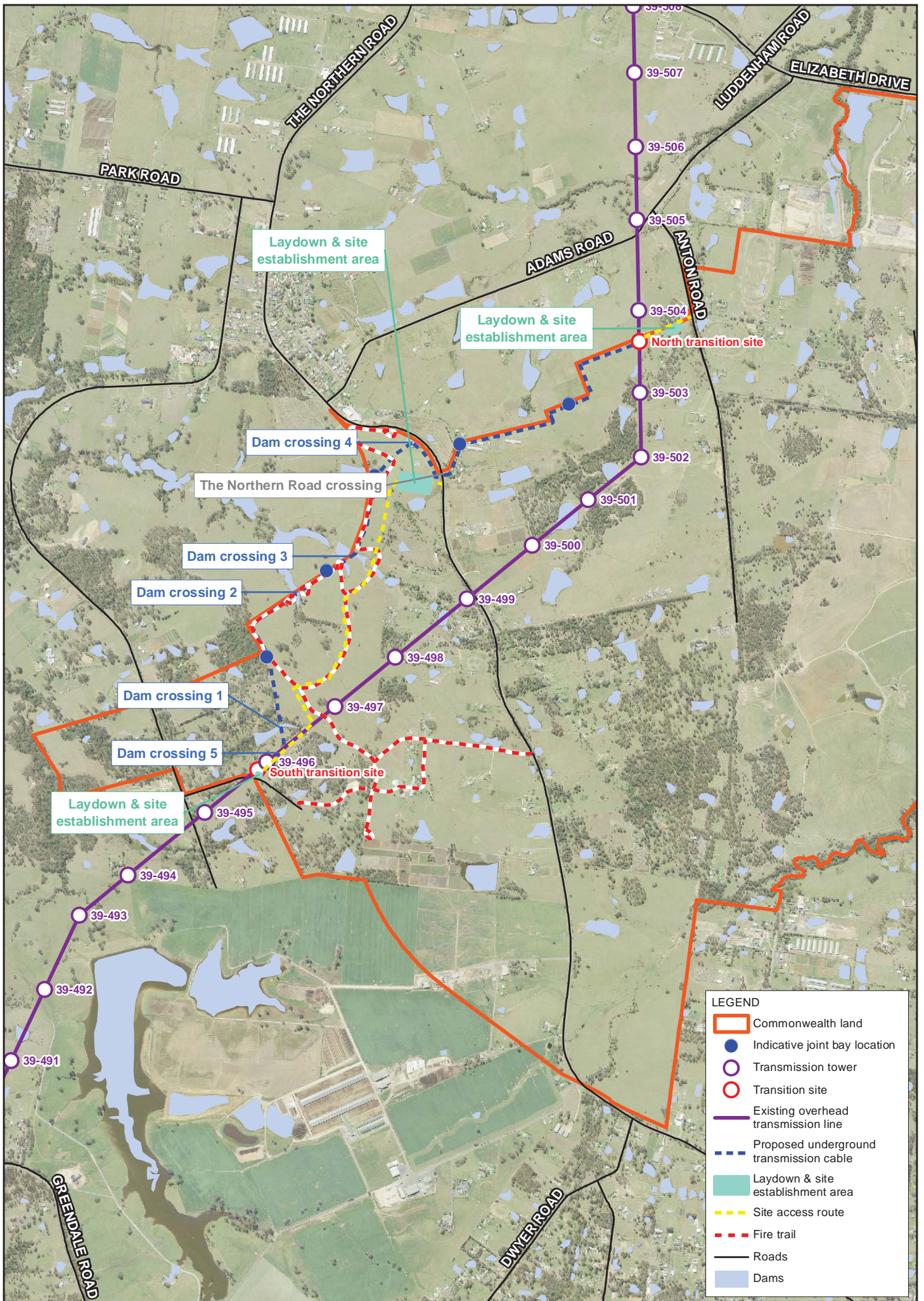
The proposed activity consists of works to relocate the TransGrid 330kV high voltage transmission line crossing the airport site, which would involve the following key activities:

- Installation of an underground high voltage transmission cables
- Construction of two above ground to below ground transition points at each end of the underground cable on, or in the vicinity of, the boundary of the airport site
- Construction of a laydown area, access roads and watercourse crossing structures to facilitate construction as well as provide maintenance access
- Removal of the existing above ground transmission line.

The proposed underground cable and underground/overhead transition sites, existing overhead transmission line and temporary construction access tracks and laydown areas are shown in Figure 2-1.

The works will primarily be undertaken offline from the existing operational transmission line. Outages will however be required to allow the connection of the new underground cables to the existing transmission line at the two transition sites. Works for this connection will seek to minimise power outages wherever possible, with TransGrid's standard procedures to be applied for these works. Details of these outages are outlined in Section 2.2.4.

The proposed activity scope is detailed further in Sections 2.1.1, 2.1.2 and 2.1.3.



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Data source: Aerial imagery - sixmaps 2016, General topo - NSW LPI DTDB 2012 & 2015, Transmission line data - TransGrid, Heritage - Navin Officer Heritage Consultations. Created by:jprice

Figure 2-1 Proposed activity

0 250 500 1,000

Metres



2.1.1 Underground/overhead transition sites

Transition sites would be established at the northern and southern ends of the underground cable to connect it to the existing overhead transmission line located outside the airport site. The location of the transition sites is shown in Figure 2-1.

Northern transition site

The northern transition site would be located within a fenced yard and will be approximately 37 metres wide by 52 metres long, including a seven metre buffer zone surrounding the physical infrastructure. The transition site would include surge arrestors, current sensors, cable sealing ends, conductor supports and three concrete or steel landing poles about 20 metres tall.

The terminal tower for this transition site is located outside of the airport site and does not form part of the proposed activity.

Southern transition site

The southern transition site would be located within a fenced yard and will be 40 metres wide by 70 metres long, including all buffer zone for embankments and clearances for new terminal tower. The transition site would include surge arrestors, current sensors, cable sealing ends, conductor supports and three concrete or steel landing poles about 20 metres tall.

The southern transition site would include the provision of a 30 metre high terminal tower to the north-east of the transition site.

2.1.2 Underground cable

Alignment

The proposed underground cable would be positioned within the airport site, however external to the airside operational areas of the airport. This results in the cable being positioned along the perimeter of the designated airport site (see Figure 2-1).

Cable arrangement and surface infrastructure within the easement

The underground cable is proposed to be constructed in a split trench arrangement which results in two separate parallel trenches each containing Cross Linked Poly-Ethylene (XLPE) cabling. The typical cross section of these trenches within the easement is shown in Figure 2-2.

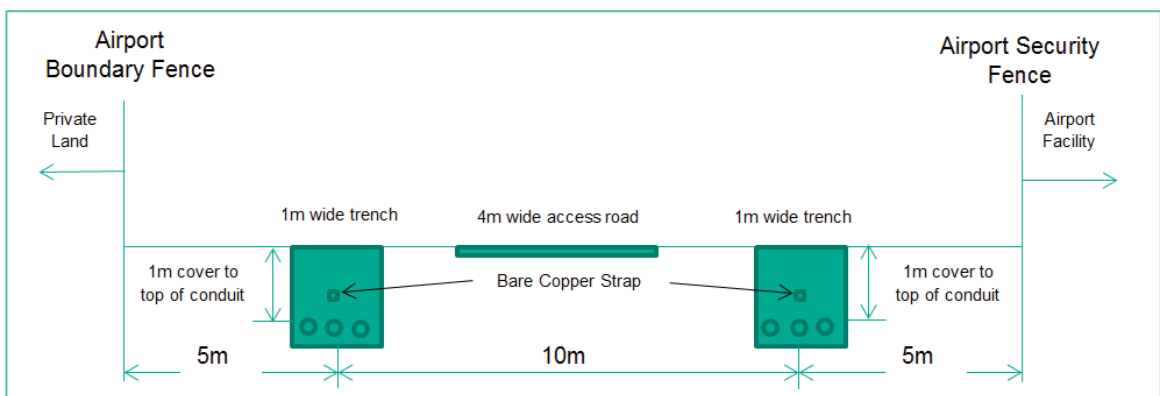


Figure 2-2 Typical cross section of proposed underground cable

Each trench will contain three cables which will be laid in conduits and buried at a minimum depth of one metre. The cable arrangement within each trench is shown in Figure 2-3. The cable trenches will be backfilled with thermal stabilised backfill, which will enhance the heat dissipation from the cables. This will allow the use of cables with the minimum possible cross sectional area to achieve the required ratings.

Each trench will also include communication cabling to assist TransGrid with the monitoring and management of the entire transmission line (including beyond the extent of the proposed activity).

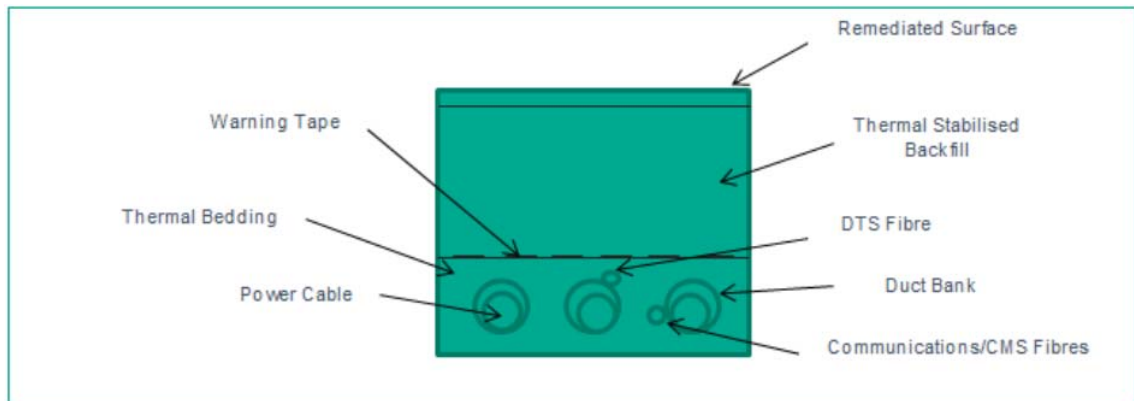


Figure 2-3 Typical cross section of proposed underground cable trench

Joint bays will be required to connect lengths of cable together along the proposed underground cable. It is estimated that approximately five bays will be required for each cable; these bays occur at the approximate locations shown in Figure 2-1. The actual location of the joint bays will be confirmed during detailed design. The positioning of joint bays will be avoided in some areas where they will interfere with the operation of the airport (e.g. at the end of runways). Cable joint bays will consist of a concrete structure (refer to Figure 2-5) where cables will be joined. These bays will be buried in sand to allow access when required during future maintenance activities (including during emergencies).

An access track will also be provided along the entire easement for maintenance purposes. This will be positioned between the two trenches as shown in Figure 2-2. The access track will be constructed of gravel or road base (to be confirmed during detailed design).

Dam crossings

The proposed underground cable will require work to cross a five existing dams as shown in Figure 2-1. All dam crossings are located within the airport site, however the boundary of Dam 2 and Dam 3 extend beyond the airport site.

The crossings at Dam 1, Dam 2 and Dam 3 would be established through the installation of a large diameter culvert crossing as shown in Figure 2-4. The crossing at Dam 4 and Dam 5 would be established via dewatering each dam, followed by infilling and reshaping the void, so it is level with the surrounding ground surface and topography.

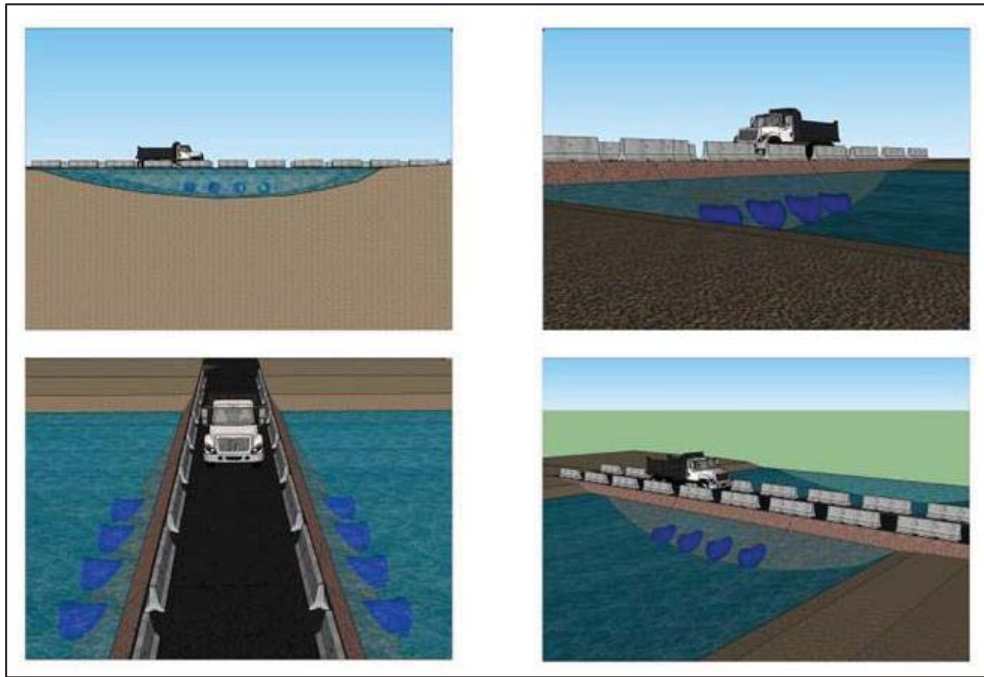


Figure 2-4 Indicative diagram of a large diameter culvert crossing used for dam crossings



Figure 2-5 Joint bay

The Northern Road crossing

The proposed underground cable will cross The Northern Road at the location shown in Figure 2-1. The crossing would be either trenched or underbored, with the preferred method to be determined during detailed design by the appointed contractor under consultation with TransGrid, Roads and Maritime Services and potentially affected utility providers. All works within the road reserve would be undertaken in accordance with a Road Occupancy Licence to be obtained from Roads and Maritime Services prior to the commencement of the cable crossing works.

Rehabilitation of new transmission line easement

All disturbed areas not required for future construction activities within the designated airport site, or operation of the proposed underground cable will be rehabilitated and stabilised as soon as practicable after disturbance. Rehabilitation of the site will be to a level which is consistent with the existing situation. The exception to this is where consultation with DIRD or WSA Co have alternate conditions they wish the site to be left in.

Testing and commissioning

Following completion of construction activities, the cable will be tested, connected to the transmission line and energised. Once energised the transmission line will be operational and the existing transmission line would be able to be demolished (refer to Section 2.1.3).

2.1.3 Overhead transmission line demolition and removal

Following the commissioning of the proposed underground cable, the existing overhead section of the transmission line within the designated airport site will be decommissioned and demolished.

Decommissioning and demolition will involve the removal of eight steel transmission structures and the associated conductors, fittings and earth wires; however the concrete footings will remain in-situ and later removed as part of the construction of Western Sydney Airport.

2.2 Construction activities

2.2.1 Construction methodology

Construction of the proposed activity will involve the following key stages:

- Construction of access tracks
- Establishment of laydown area/compound area
- Construction of new transition sites
- Construction of proposed underground cable
- Testing and commissioning of new transmission line
- Decommissioning and removal of existing transmission line
- Site demobilisation.

Note that some of the construction stages may be undertaken concurrently.

Construction of access tracks

Access to construction areas will be available via the following:

- New access track to provide access to the northern transition site from Anton Road and to the southern transition site from The Northern Road. The access track will also provide access to the cable easement and the laydown area

- Along existing fire trails located on the airport site wherever possible
- Along the proposed underground cable easement
- Along the existing transmission line easements which can be accessed from existing roads (e.g. The Northern Road) or via the new access track mentioned above.

These tracks will be wholly located within the airport site. They will be constructed of gravel/road base and will provide improved wet weather access particularly for large equipment such as cranes. The track will be approximately four metres wide with the alignment shown in Figure 2-1. It is anticipated that the new access track could remain in-situ to facilitate future construction activities within the airport site.

Some minor ground improvements (such as grading, temporary culverts or the placement of gravel or similar material) will be required to provide access along the existing transmission line easement in order to access the existing transmission towers. The need for any further tracks will be confirmed during detailed design or construction planning. Any additional tracks would be planned in consultation with WSA Co and/or the Commonwealth. The siting of any tracks will be guided using the following principles to minimise impacts on the environment:

- Be located to minimise the need for heavy vehicles to travel on local streets and/or through residential areas once vehicles leave the airport site
- Be located on relatively level land
- Not require native vegetation clearing beyond that already required for the proposed activity
- Not have any more than a minor impact on heritage items beyond those already assessed for the proposed activity
- Not unreasonably affect the land use of adjacent properties
- Be above the five per cent annual exceedance probability flood level, unless a contingency plan to manage flooding is prepared and implemented.

Construction of laydown area

A construction laydown area will be established. The indicative location is shown in Figure 2-1. This laydown area will be located west of The Northern Road near the proposed underground cable crossing. The laydown area will be approximately 170 metres by 100 metres in size. The laydown area will also function as a construction compound and will support the construction of the proposed activity. The primary purpose of the laydown area is for the storage of equipment and materials as they arrive to site. Materials will then be moved to where works are occurring along either the existing or new transmission line alignments.

The laydown area/compound will also potentially include the following facilities:

- Demountable site offices
- Toilet facilities
- Vehicle parking
- Storage areas for equipment, material and waste.

The laydown area/compound will be accessed via new access tracks from The Northern Road.

Two smaller laydown areas will also be needed at the northern and southern transition sites. These will be approximately 100 metres by 60 metres and 60 metres by 60 metres respectively. The positioning of each of these sites is shown in Figure 2-6.

The northern transition site will be accessed via a new track from Anton Road, while the southern site will be accessed via the new access track off The Northern Road (refer to Figure 2-6).

Additional laydown areas or the modification of those identified above may be identified by the construction contractor. The siting of new laydowns or modification of existing laydowns will be guided using the following principles to minimise impacts on the environment:

- Located more than 50 metres from a waterway, unless an erosion and sediment control plan is developed and implemented (as detailed in Section 5.2)
- Have ready access to the road network
- Be located to minimise the need for heavy vehicles to travel on local streets and/or through residential areas
- Be located on relatively level land
- Be separated from the nearest residences by at least 200 metres, unless reasonable and feasible noise and light spill mitigation measures are implemented
- Not require native vegetation clearing beyond that already required for the proposed activity
- Not have any more than a minor impact on heritage items beyond those already assessed for the proposed activity
- Not unreasonably affect the land use of adjacent properties external to the airport site
- Be above the five per cent annual exceedance probability flood level, unless a contingency plan to manage flooding is prepared and implemented
- Provide sufficient space for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard daytime construction hours.

Consultation with WSA Co or the Commonwealth would also be undertaken and agreement obtained to ensure the positioning does not interfere with any works being undertaken by these stakeholders.

Construction of new transition sites

Works at the two transition sites will be undertaken within the proposed transition site areas. Works will generally involve the assembly and installation of prefabricated components with cranes and elevated work platforms. Clearing of vegetation will be required within the boundary of each transition site to facilitate construction.

Civil works at the transition sites will include bulk earthworks to establish a level bench at each transition site followed by the establishment of foundations for primary plant. Additionally, excavations for the new northern and southern termination tower footings will be established. It is anticipated that approximately 169 and 773 cubic metres of spoil will be generated at the northern and southern transition sites respectively. The above numbers are considered to be worst-case should the spoil excavated not be suitable for reuse as part of rehabilitation works at these sites.

Construction of proposed underground cable

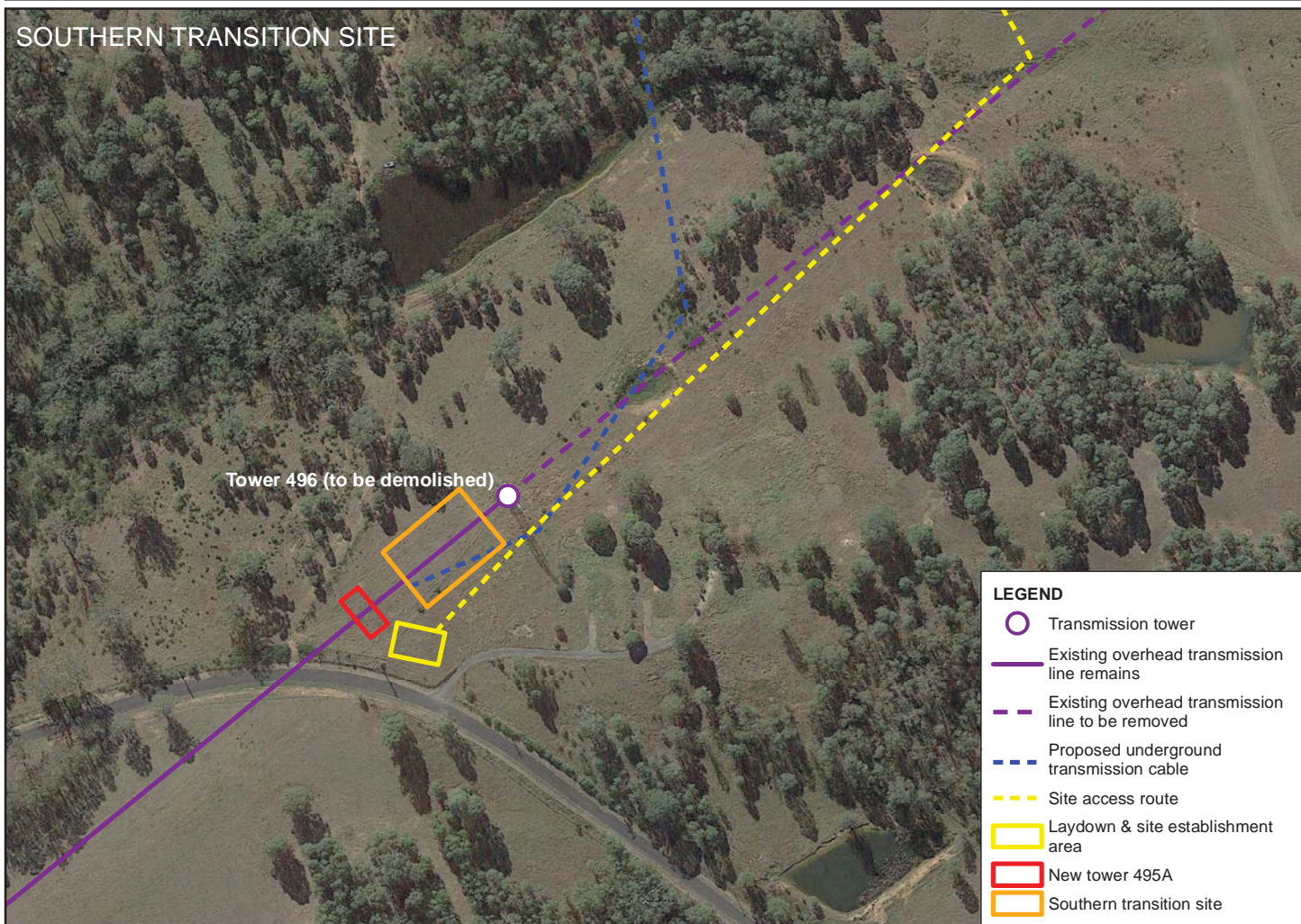
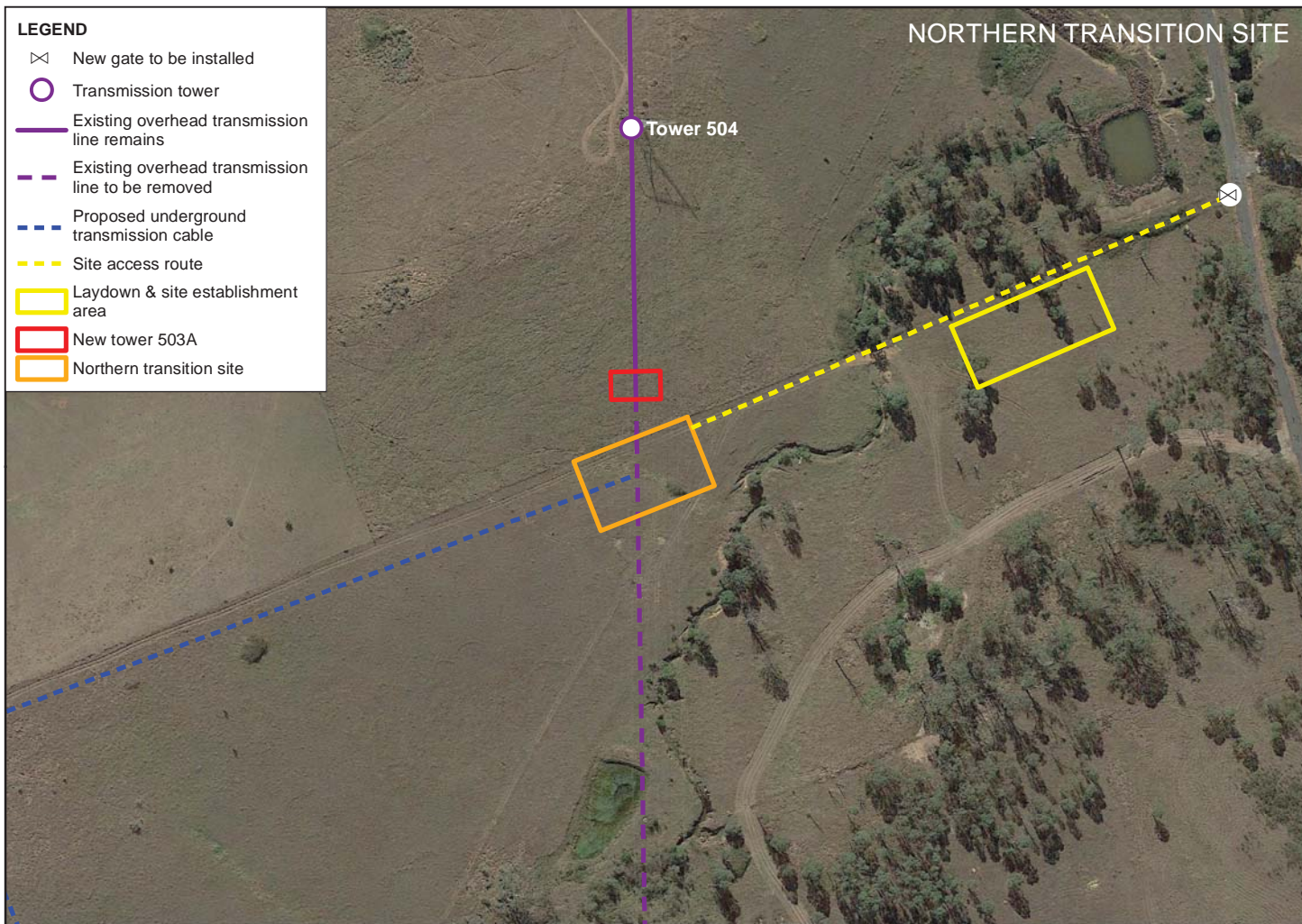
Preparation of the easement

To mark the alignment of the proposed underground cable, small concrete pegs will be installed along the easement. The pegs will be placed at approximate 50 metre intervals along the easement or at any change in direction of the transmission line. Cable markers will also be

provided at The Northern Road crossing in the form of metallic plates on the kerb at either end of the road crossing.

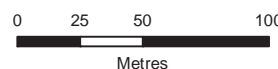
The easement will be progressively cleared to allow for trenching. The clearance area will be delineated to ensure clearance activities are contained within the 20 metre wide easement. Topsoil will be stripped and stockpiled outside the easement for reuse (where appropriate) along the easement once all excavation has been backfilled. The exact location of stockpiles will be determined in consultation with WSA Co and the Commonwealth.

All vegetation waste will be collected and disposed of at a facility lawfully permitted to receive it. Alternatively, vegetation will be mulched on site and stockpiled for potential reuse where appropriate. All vegetation clearing will be undertaken in accordance with the prescribed mitigation measures in Appendix D.



Data source: Aerial imagery - sixmaps 2016, General topo - NSW LPI DTDB 2012 & 2015, Transmission line data - TransGrid, Heritage - Navin Officer Heritage Consultations. Created by:jprice

Figure 2-6 Northern and southern transition sites



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Trenching, cable installation and backfilling

Construction activities associated with trenching will include:

- Excavating trenches, including stockpiling spoil material on site for potential reuse in the filling of dams (subject to confirmation of suitability for this purpose)
- Spreading granular bedding material such as sand or gravel along the base of the trench before cable laying
- Installing the cable (further detail provided below)
- Backfilling the trench with imported thermal stabilised backfill
- Reuse of stockpiled topsoil to rehabilitate the surface.

Trenching methods will include both machine trenching and hand trenching. Trenching will generally be carried out using excavators and a small compactor. Rock breakers may also be required where bedrock is encountered during excavation. Hand trenching will only be used in areas where an excavator is unable to undertake the trenching works. Trenching would however potentially not be used for the crossing of The Northern Road as described below, with underboring to also be considered during detailed design.

The trench will be constructed in sections and will aim to minimise the time in which any one section of trench remains open. The above method will be repeated for each new section of the transmission line. Trench shoring will be provided to prevent collapse of the trench.

Approximately 12,000 cubic metres of soil is expected to be excavated for the proposed underground transmission cable. The cable trench will be backfilled with thermal stabilised backfill to enhance the heat dissipation from the cables to achieve operational requirements, resulting in surplus spoil. Where appropriate, surplus spoil will be reused onsite as fill for the dams or stockpiled within the airport site (to be confirmed as part of construction planning for the airport) for future activities as part of the construction of the airport. Any spoil not suitable for reuse due to contamination or other issues will be removed from the airport site and disposed at a facility lawfully permitted to receive it.

Cable laying

The cables will be installed by pulling from the cable drum and winch sites. Pulling pits will also be required along the alignment to assist in moving the cable through the trench system, thus preventing damage to the cable sheath. Cable drum and winch sites and pulling pits will be required for each section of the proposed underground cable. The location of these sites and pits will be determined during detailed design. Once laid, the cable trenches will be backfilled.

Joint bays

During the construction of the joint bays, temporary joint bay huts will be erected over the joint bay to provide a safe and secure working environment during cable joining activities. An example of a temporary joint bay hut is shown below in Figure 2-7.



Figure 2-7 Temporary joint bay hut

Rehabilitation of corridor including new access track and cable markers

Following the rehabilitation of the land surface, the new access track will be constructed along the easement with the use of gravel/road base. All areas not forming part of the access track will be stabilised through seeding for grass. Reuse of topsoil will also provide a seed bank for grass to regrow.

Cable markers will then be installed to identify the location of the cables.

The Northern Road crossing

The construction of the cable across The Northern Road would be undertaken utilising either open trenching or underboring methods which would be further considered during detailed design in consultation with Roads and Maritime Services and other potentially affected utility providers. The Northern Road north of Bringelly Road is a classified road controlled by Roads and Maritime and has a traffic volume of approximately 15,593 vehicles per day. All works occurring within the road reserve of The Northern Road would be undertaken in accordance with a Road Occupancy Licence to be obtained from Roads and Maritime Services prior to the commencement of the cable crossing works.

Underboring the cable would minimise traffic related impacts along The Northern Road as traffic flows would unlikely be affected. If trenching of the cable was to occur, it is anticipated that this would be undertaken across approximately two to three nights when traffic flows are low. The works would be performed under traffic control with one lane to remain open to allow for the passing of traffic. Additionally, any other conditions associated with the Road Occupancy Licence would also be implemented. At the completion of each night of works, the excavated road would be plated over to Roads and Maritime's standards, ready for full use during daylight hours. The remaining section of the trench would be performed on the following night(s) utilising

the same method. At the completion of the crossing works, the road would be reinstated to Roads and Maritime Services standards.

Undertaking the cable crossing using the underboring methods would involve the establishment of pits on either side of the roadway. The exact positioning of these pits (if required) would be determined during detailed design in consultation with Roads and Maritime Services. The pits would be contained within the 20 metre wide TransGrid easement. Boring would then be undertaken from one pit to the other beneath the road. These pits would only be required for the construction phase of the proposed activity, with the pits to be backfilled and the land rehabilitated.

Testing and commissioning of proposed underground cable

Prior to the removal of the existing transmission line, the underground cable will be tested and commissioned.

Decommissioning and removal of existing transmission line

Following the commissioning of the underground cable, the decommissioning and removal of the existing transmission line can commence. The removal of existing overhead transmission line infrastructure will involve:

- Removal of hardware, conductors and earthwires from transmission towers
- De-stringing of transmission towers by controlled pulling and coiling
- Staged demolition of transmission towers and bundling of steel members.

A number of temporary measures will be implemented during the removal of infrastructure for health and safety reasons including the installation of working earths, protection at road crossings and exclusion zones near towers.

Removal of the existing overhead transmission line would involve the use of cranes, elevated work platforms, winches and excavators. Depending on ground conditions, level construction benches (measuring about 10 metres by 10 metres) may be established at the base of transmission towers to support the safe operation of cranes, elevated work platforms and other plant and equipment. Prior to the removal of transmission line infrastructure, working earths would be placed on conductors for safety purposes. Conductors and earthwires would then be removed from transmission towers. Prior to de-stringing of the overhead conductors and the earthwires, they would be de-tensioned and placed in rolling blocks fitted to the top of each structure. The next day each conductor would be separately lowered to the ground surface, and then cut at the intersection point of The Northern Road. Once cut, each conductor and the overhead earth wire would be moved to each side of The Northern Road. The conductors would then be hauled via winch system from each transition site in a controlled manner. The de-stringing works would be undertaken under traffic control. Once conductors and earthwires are removed, the transmission towers would be disassembled.

Waste materials from the removal of the existing overhead transmission line will be transported by scrap trucks to a facility lawfully permitted to receive them. Suitable materials such as wires or transmission tower members will be recycled if practicable. TransGrid will report to WSA Co on the details of how this waste will be recycled or disposed in accordance with obligations to minimise waste.

Access to work areas along the transmission line corridor will be undertaken via the existing easement which will be accessed via neighbouring roads, existing access tracks and/or access tracks constructed as part of the proposed activity.

Construction plant and equipment

A range of plant and equipment would be required for construction/ demolition. The following is an indicative list of plant and equipment which would be required for the proposed activity:

- Light vehicles
- Four-wheel drives
- Reticulated heavy vehicles
- Excavators
- Cranes (including up to 100 tonnes)
- Elevated work platforms
- Dump trucks
- Brake and winch trucks
- Cable drums
- Timber shredder
- Rock-breaker.

The proposed activity would require approximately 30 workers each day during the construction period.

2.2.2 Construction schedule

The indicative construction schedule for the proposed activity is summarised in Table 2.1.

Table 2.1 Indicative construction schedule

Activity	Start date (from)	Approximate duration
Site preparation	December 2017	2 months
Southern transition site works	January 2018	3 months
Northern transition site works	January 2018	3 months
Construction of proposed underground cable	February 2018	11 months
Installation of underground cable	June 2018	7 months
Demolition of existing overhead transmission line	May 2019	1 month

2.2.3 Construction hours

Noise generating works will be limited to the recommended standard hours for construction work outlined in the *Interim Construction Noise Guideline* (DECC, 2009) which are:

- Monday to Friday 7:00am to 6:00pm
- Saturday 8:00am to 1:00pm
- No works on Sundays or Public Holidays.

Work outside standard hours could include:

- Delivery of materials outside standard hours requested by police or other authorities for safety reasons (i.e. drums of conductor)
- Works near The Northern Road in line with any requirements of Roads and Maritime Services
- Emergency work to avoid the loss of lives and/or property

- Work timed to correlate with system planning outages (refer to Section 2.2.4).

If additional noise generating works outside standard construction hours are needed, they will require justification in accordance with the *Interim Construction Noise Guideline* (DECC, 2009) and the formal written consent from DIRD prior to occurring.

Any out of hours works would be undertaken to ensure that:

- All feasible and reasonable noise mitigation and management measures are implemented to minimise noise impacts on nearby residences.
- No residence is subject to noise impacts arising from the proposed activity on more than 2 nights during any single week.
- The noisiest works (example: saw cutting, jack hammering, rock breaking and vibratory rolling) during any night of works would be undertaken early in the night and prior to an 11.00 pm curfew (or midnight where road occupancy is unavailable until after 8.00 pm); where residences along the cable route are affected by noise from night works associated with other infrastructure projects in the locality, transmission cable night works are co-ordinated with those other night works.
- Residences likely to be affected by night works are notified of upcoming night works not less than 5 days nor more than 14 days before those works are undertaken.
- A telephone complaints line operated by appropriately trained staff is available during all times at which work is being undertaken to receive complaints from members of the public who may have concerns about the manner in which the proposed activity is being undertaken.
- Community communication, consultation, and complaints investigation protocols and procedures are developed prior to any works.

2.2.4 Planned power outages

The proposed activity would require works on existing electricity assets (e.g. transmission line and towers) which when live are not safe for workers. For this reason, works are required to be undertaken during planned power outages (period when the line is de-energised) to ensure the safety of workers in the vicinity of the assets.

TransGrid's network can only tolerate a number of outages a year for maintenance or construction, and if these are not planned in advance they may be disallowed. The network is also constrained by periods of high demand (e.g. hot summer days and cold winter days).

The proposed activity would make use of a number of pre-planned outages throughout the construction period. Table 2.2 outlines the indicative list of planned outages to be utilised for the proposed activity. TransGrid would continue to develop this program of outages in line with the proposed construction program for the proposed activity and other outages located on the TransGrid network. Outages are unlikely to result in power loss to any properties as power would be rerouted via other transmission lines during these periods.

Table 2.2 Summary of indicative outages

Outage	Timing	Duration	Works undertaken	Type of outage
1	March 2018 to March 2019	11 months	Construction of transition points	Daily outages possible
2	February to March 2018	2 weeks	Tower 495A and 503A foundations	Daily outages
3	April 2019 to May 2019	7 weeks	Connection and commissioning of new cable alignment to transmission line	Continuous outage

2.3 Operation and Maintenance

The proposed underground cable would provide the same level of transmission as the existing overhead transmission line at 330 kV. Maintenance activities would include:

- Routine inspection of the underground cable
- Half-yearly inspection of cable bridges
- Three yearly cable sheath and link testing.

If repairs underground cable are required, they would typically involve mobilisation of the construction equipment. The section of the transmission line to be repaired would be excavated, removed, replaced, backfilled and remediated. Based on similar activities, repair and replacement of a section of transmission line would take about two months.

The installation of two separate cables in parallel trenches would provide a level of contingency in the event of a failure during operation and potential for continuation of service during maintenance activities.

Repairs and other maintenance activities would occur during the operation of Western Sydney Airport and would therefore comply with its operating rules.

3. Planning

3.1 Legislative and other environmental management requirements

A register of legal and other requirements for the proposed activity is provided in Appendix B. This register will be maintained as a checklist and reviewed at regular intervals (eg during audits and management reviews). If required, it will be revised with any changes and these changes will be communicated to the wider team, where relevant.

3.2 Environmental objectives and targets

Environmental objectives and targets have been established to assist in managing environmental risks and assessing the environmental performance of the proposed activity. The objectives and targets are consistent with TransGrid's Environmental Policy and will help ensure that the commitments of the Policy, and corporate and legislative requirements are being met.

The targets will be incorporated into the CEMP and sub-plans and the performance of the proposed activity against the objectives and targets will be documented in the proposed activity construction compliance reports.

Environmental objectives and targets are provided in Table 3.1 below.

Table 3.1 Environmental objectives and targets

Objective	Target	Measurement tool
Undertake construction in accordance with environmental approvals and relevant licenses	<ul style="list-style-type: none"> Compliance with approvals and licences 	<ul style="list-style-type: none"> Audits, inspections, compliance reporting and management review
Undertake construction in accordance with all relevant regulatory requirements	<ul style="list-style-type: none"> No infringement notices No formal warnings 	<ul style="list-style-type: none"> Audits, inspections, compliance reporting and management review
Undertake construction in accordance with all environmental management plans, including this TransGrid Relocation Plan	<ul style="list-style-type: none"> Compliance with the TransGrid Relocation Plan, CEMP/s and sub-plans Compliance with EWMS and environmental procedures 	<ul style="list-style-type: none"> Audits, inspections, compliance reporting and management review
Implement a comprehensive EMS that meets the requirements of AS/NZS ISO 14001	<ul style="list-style-type: none"> All non-conformances and corrective actions addressed within specific timeframe and environmental impacts minimised 	<ul style="list-style-type: none"> Audits and management review

Objective	Target	Measurement tool
In consultation with the WSA Co and the Commonwealth, undertake stakeholder and community engagement to keep community informed, minimise potential complaints and respond appropriate to complaints within a suitable timeframe	<ul style="list-style-type: none"> Regular information and updates provided to the community and stakeholders as required. Complaints recorded and responded to in accordance with TransGrid requirements 	<ul style="list-style-type: none"> Audits, compliance reporting and review of complaints register
Continuously improve environmental performance	<ul style="list-style-type: none"> Lessons learnt captured and disseminated to proposed activity team through meetings/training etc Environmental training ongoing Proactive responses, near miss reporting and innovation efforts rewarded 	<ul style="list-style-type: none"> Environmental training minutes/record review, audits, inspections, compliance reporting and management review

3.2.1 Conditions of approval

The *Airports Act 1996* (the Act) regulates the development, ownership and operation of airports. The relocation of Transmission Line 39 (the proposed activity) forms part of the development of Stage 1 of the Western Sydney Airport as described in the Western Sydney Airport EIS. The development of Stage 1 of the Western Sydney Airport, including the TransGrid Relocation Works, is authorised under the Airport Plan which was determined in accordance with the *Airports Act 1996* by the Minister for Urban Infrastructure on 5 December 2016.

With regard to Section 99(3)(ee)(v) of the Act, the proposed activity is building work that will occur before the airport completion date and therefore is required to be consistent with the Airport Plan. Section 3.10.2 of the Airport Plan outlined the conditions relating to construction of the Western Sydney Airport, specifically, condition 4(1) to 4(4) and 37(2) of the Airport Plan provides the conditions specific to the relocation of Transmission Line 39. Preparation and approval of a TransGrid Relocation Plan prior to the commencement of construction, is a requirement of these conditions. Each of the requirements of these conditions, and where they are addressed in this document, are detailed in Table 3.2.

Table 3.2 Approval conditions applicable to the Relocation of Transmission Line 39

Condition in the Airport Plan	Condition	Where/how addressed
Condition 4(1)	The Site Occupier must not permit TransGrid Relocation Works (other than Preparatory Activities) to commence until a TransGrid Relocation Plan has been prepared and approved in accordance with this condition.	Through preparation of this TransGrid Relocation Plan

Condition in the Airport Plan	Condition	Where/how addressed
Condition 4(2)	TransGrid must: (a) prepare; and (b) submit to an Approver for approval; a TransGrid Relocation Plan in respect of the TransGrid Relocation Works.	Through preparation of this TransGrid Relocation Plan
Condition 4(3)	TransGrid must not carry out TransGrid Relocation Works inconsistently with the approved TransGrid Relocation Plan.	As described in Section 1, this TransGrid Relocation Plan provides the framework for the preparation of the CEMP and associated sub-plan. Awareness training will be provided to all staff as per the training requirements detailed in Section 5.3. Compliance with this TransGrid Relocation Plan, the CEMP associated sub-plans will be monitored through the audit and monitoring schedule described in Section 6.
Condition 4(4)	The criteria for approval of the TransGrid Relocation Plan are that an Approver is satisfied that: (a) an environmental assessment which would substantially satisfy the requirements for the assessment of environmental impacts under the laws which would apply to the TransGrid Relocation Works if the Act did not apply to the TransGrid Relocation Works has been completed in respect of any impacts of the TransGrid Relocation Works which were not assessed as part of the EIS; (b) the plan includes appropriate management and mitigation measures to avoid, minimise or manage, the identified environmental impacts of the TransGrid Relocation Works; (c) the plan identifies the persons responsible for implementing the plan; and (d) the plan is otherwise appropriate.	The environmental impact identification and risk management process is described in Section 4. A copy of the Environmental Assessment and submissions report undertaken as part of the proposed activity are located in Appendix E and Appendix F. A summary of management and mitigation measures is provided in Appendix D. The persons responsible for implementing the TransGrid Relocation Plan are identified in Section 5.1.

Condition in the Airport Plan	Condition	Where/how addressed
Condition 37(2)	TransGrid must take reasonable steps to ensure that each person involved in carrying out TransGrid Relocation Works is informed of, and complies with, the approved TransGrid Relocation Plan.	Awareness training will be provided to all staff as per the training requirements detailed in Section 5.3. Compliance with this TransGrid Relocation Plan, the CEMP and associated sub-plans will be monitored through the audit and monitoring schedule described in Section 6.
Condition 38	Each Site Occupier and each Plan Owner must maintain accurate records, which demonstrate its compliance with the conditions, including measures taken to implement the Approved Plans, and must make the records available upon request to the Infrastructure Department.	Reporting of the works against the TransGrid Relocation Plan (and the CEMP) would be undertaken by the contractors as outlined in Section 6.2.1.
Condition 41(1)	The Plan Owner may seek approval for a variation of an Approved Plan by submitting to an Approver a version of the plan with the proposed variation clearly marked in it (<i>varied plan</i>).	Details of how the TransGrid Relocation Plan is to be varied (if required) is outlined in Section 5.6.3.
Condition 41(2)	The criteria for approval of the varied plan are the same as those in the Approval Condition, but only to the extent that they are relevant to the proposed variation.	Details of how the TransGrid Relocation Plan is to be varied (if required) is outlined in Section 5.6.3.
Condition 41(3)	If an Approver approves a varied plan prepared under subcondition (1) or paragraph (5)(b), or the Infrastructure Minister varies an Approved Plan under subcondition (5)(a), then, from the date when it is approved or varied (as the case may be), the plan as varied is taken to be the Approved Plan for the purposes of the conditions.	Details of how the TransGrid Relocation Plan is to be varied (if required) is outlined in Section 5.6.3.

Condition in the Airport Plan	Condition	Where/how addressed
Condition 41(5)	<p>The Infrastructure Minister may:</p> <p>(a) vary an Approved Plan; or</p> <p>(b) request in writing that the Plan Owner prepare and seek approval for a specified variation of an Approved Plan in accordance with subcondition (1), if the Infrastructure Minister believes on reasonable grounds that:</p> <ul style="list-style-type: none"> • a condition has been contravened and the nature of the contravention is relevant to the subject matter of the Approved Plan; and • the variation or the request for a specified variation (as the case may be) will address the contravention. 	<p>Details of how the TransGrid Relocation Plan is to be varied (if required) is outlined in Section 5.6.3.</p>
Condition 41(6)	<p>The Plan Owner must comply with a request made by the Infrastructure Minister in accordance with subcondition (5) within three months of the date of the request.</p>	<p>Details of how the TransGrid Relocation Plan is to be varied (if required) is outlined in Section 5.6.3.</p>
Condition 42(1)	<p>Unless otherwise agreed in writing by an Approver, the Plan Owner must publish all Approved Plans on its website.</p>	<p>The TransGrid Relocation Plan would be placed on TransGrid's website. This includes any varied plans.</p>
Condition 42(2)	<p>Each Approved Plan must be published on the Plan Owner's website within one month of being approved and remain so published:</p> <p>(a) for CEMPs – until the end of the Construction Period;</p> <p>(b) for the Biodiversity Offset Delivery Plan – until all biodiversity offsets and other compensatory measures required by the plan have been secured or implemented; and</p> <p>(c) for all other plans – until there is a master plan for the Airport.</p>	<p>The TransGrid Relocation Plan would be made available on TransGrid's website (refer to Section 5.2).</p>

4. Risk management

4.1 Environmental risk management

A risk assessment will be conducted prior to the commencement of the proposed activity, to determine the severity and likelihood of an activity’s impact on the environment and community and to prioritise its significance.

The objectives of the risk assessment will be to:

- Identify key activities likely to have an environmental impact
- Identify potential key risks or impacts associated with each issue
- Evaluate the likelihood of occurrence and consequence
- Assigning a risk rating
- Evaluate whether risks can be managed appropriately with environmental controls
- Qualitatively evaluate residual risk following implementation of controls.

Risk assessments for the proposed activity will be based on Risk Management Standard AS/NZS 31000:2009. Likelihood and consequence definitions from this Standard are provided in Table 4.1 and Table 4.2 and potential risk ratings are provided in Table 4.3.

Specific hazards and risks will be identified in the preparation of the CEMP/s, sub-plans and the EWMS.

Table 4.1 Likelihood definitions

Descriptor	Description
Almost certain	The consequence expected to occur on an annual basis
Likely	The event has occurred several times or more
Possible	The event might occur once
Unlikely	The event does occur somewhere from time to time
Very unlikely	Heard of something like that occurring elsewhere

Table 4.2 Consequence definitions

Consequence level	Environment and community impact
6	<ul style="list-style-type: none"> • Regional and long term impact on an area of significant environmental value • Destruction of an important population of plants and animals with recognised conservation value • Complete remediation impossible • Complete loss of trust by affected community threatening the continued viability of the business

Consequence level	Environment and community impact
5	<ul style="list-style-type: none"> • Destruction of an important population of plants or animals or of an area of significant environmental value • Complete remediation not practical or possible • Long-term community unrest and outrage significantly impacting business performance
4	<ul style="list-style-type: none"> • Extensive and medium-term impact to an area, plants or animals of recognised environmental value • Remediation possible but might be difficult or expensive • Community protest requiring intervention and substantial management attention
3	<ul style="list-style-type: none"> • Localised and medium term impact to areas, plants or animals of significant environmental value • Remediation may be difficult or expensive • Persistent community complaints
2	<ul style="list-style-type: none"> • Localised and short term impact to an area, plants or animals of environmental value • Minor remediation is required • Complaints from interested parties
1	<ul style="list-style-type: none"> • Localised and short term environmental or community impact requiring no or very minor remediation

Table 4.3 Risk matrix

	Consequence						
	1	2	3	4	5	6	
Likelihood	Almost certain	Medium	Medium	High	Very High	Very High	Very High
	Likely	Low	Medium	Medium	High	Very High	Very High
	Possible	Low	Low	Medium	Medium	High	Very High
	Unlikely	Low	Low	Low	Medium	Medium	High
	Very unlikely	Low	Low	Low	Low	Medium	Medium

4.2 Environmental impacts and management measures

The potential environmental impacts associated with the proposed activity as identified and assessed in the EA are summarised in Table 4.4. Where additional impacts were identified as part of the proposed activity to those not already assessed in the WSA EIS, is outlined in Table 4.4. The EA concluded that the proposed activity would not result in significant environmental impacts additional to those identified and assessed in the WSA EIS. Specific environmental impacts associated with the proposed activity will be identified in the CEMP/s, sub-plans and

EWMS, and appropriate measures and controls to mitigate environmental impacts and risks will be assigned accordingly. The environmental management and mitigation measures to be implemented during the proposed activity to minimise the environmental impacts are provided in Appendix D. This consolidated set of management and mitigation measures also includes relevant management and mitigation measures included the EIS which apply to the proposed activity.

Table 4.4 Environmental impacts

Environmental aspect	Impacts	Assessed as part of the WSA EIS
Terrestrial ecology	Removal of approximately 0.61 hectares of River Flat Eucalypt Forest (Forest Red Gum – Rough-barked Apple grassy woodland) and 4.61 hectares of Cumberland Plain Woodland (Grey Box – Forest Red Gum grassy woodland) within the easement.	Impacts on these threatened vegetation communities were also assessed in the WSA EIS.
Terrestrial ecology	Removal of approximately 9.74 hectares of exotic vegetation within the easement.	Impacts on the removal of exotic vegetation within the airport site were assessed in the WSA EIS.
Terrestrial ecology	Removal of individual Spike Rice-flower (<i>Pimalea spicata</i>) plants, listed as threatened under the EPBC Act.	Impacts on the local population of Spike Rice-flower was not assessed as part of the WSA EIS, however was addressed in the EA.
Aboriginal heritage	Potential disturbance and/or removal of Aboriginal heritage sites B32, B91, B113, B114, B116, B122 and B134 (as detailed in the EA).	Impacts on these items were identified and assessed in the WSA EIS. However, the management of these particular know sites are specific to the proposed activity.
Aboriginal heritage	Potential disturbance and/or removal of previously unidentified Aboriginal heritage sites.	Impacts to previously unidentified Aboriginal heritage sites were considered as part of the WSA EIS.
Non-Aboriginal heritage	Potential disturbance and/or removal of non-Aboriginal heritage sites including The Northern Road, a well at 1972 The Northern Road, Lawson’s Inn, Jackson Road cottage and St Francis Xavier Church (as detailed in the EA).	Impacts on these items where considered as part of the WSA EIS. Whilst impacts on other non-Aboriginal heritage items were assessed as part of the WSA EIS, these items relate specifically to the proposed activity due to their proximity (within 250 metres) to the proposed works.
Traffic and access	Potential disturbance of local traffic during delivery of over-sized cable drums and other large plant and equipment.	These impacts on traffic and access were not directly considered as part of the WSA EIS.
Contaminated land	Potential disturbance of known areas of contaminated land (including asbestos) as shown in Figure 5-5 of the EA.	Works in these areas were considered as part of the WSA EIS.

Environmental aspect	Impacts	Assessed as part of the WSA EIS
Contaminated land	Potential disturbance of previously unknown areas of contaminated land.	Impacts to previously unknown areas of contaminated land were considered as part of the WSA EIS.
Hydrology and water quality	Potential for minor alterations to local hydrology through changes to drainage lines and infilling of existing farm dams.	Impacts to surface water features were also considered as part of the WSA EIS.
Hydrology and water quality	Potential pollution of waters from erosion and sedimentation and uncontrolled leaks and spills.	These impacts were also considered as part of the WSA EIS.
Noise and vibration	Potential short term noise impacts on sensitive receivers during construction works (including out-of-hours works).	Noise impacts at nearby sensitive receivers were considered as part of the WSA EIS. A qualitative noise assessment specific to the proposed activity including potential out-of-hours works was addressed in the EA.
Air quality	Potential nuisance dust generation during trenching works and from disturbance of soil stockpiles. Such impacts were also considered as part of the Western Sydney Airport EIS.	Impacts on air quality from dust generation were assessed as part of the WSA EIS.
Visual amenity	Potential short term impact on visual amenity for surrounding residents.	Impacts on the visual amenity specific to the proposed activity was undertaken as part of the EA.
Waste	Generation and disposal of up to 12,000 cubic metres of surplus soil from the construction of trenches and pits.	Waste generation for the WSA was assessed as part of the WSA EIS. However, waste types and volumes specific to the proposed activity were assessed in the EA.

5. Implementation and operation

5.1 Environmental management responsibility

The key roles and responsibilities related to environmental management for construction of the proposed activity are described in Table 5.1.

Table 5.1 Roles and responsibilities of key construction personnel

Key Personnel	Responsibilities
Project Manager	<ul style="list-style-type: none"> • Ensure resources are made available to enable works to comply with the TransGrid Environmental Management System (EMS), this TransGrid Relocation Plan and CEMP/s and other environmental management requirements. • Ensure that all approvals are complied with. • Ensure appropriate licenses are in place and approvals obtained prior to the commencement of applicable works. • Ensure that all staff or contractors are aware of their environmental obligations. • Oversee the proposed activity implementation.
Environment Manager	<ul style="list-style-type: none"> • Review and approval of environmental documents including the CEMP and any sub-plans of the proposed activity. • Assess and monitor the implementation and effectiveness of the TransGrid Relocation Plan by the contractor. • Liaise with the Proponent and relevant stakeholders as necessary. • Assist with training and induction of construction personnel for the proposed activity where required. • Prepare reports on contractor performance and environmental compliance as required. • Maintain a register of all environmental management documentation and ensure they are updated maintained as required. • Identify where mitigation measures are not being implemented or are not sufficient.
Site Construction Coordinator	<ul style="list-style-type: none"> • Ensure the induction of all site staff and contractors. • Responsible for all aspects of the work site. • Ensure all works are carried out in accordance with the requirements of this TransGrid Relocation Plan. • Undertake regular site inspections. • Ensure the work site is set up and managed in accordance with relevant site controls. • Address corrective actions arising from inspections as required.

Key Personnel	Responsibilities
Environmental Officer	<ul style="list-style-type: none"> • Develop, implement, maintain and monitor the effectiveness of the TransGrid Relocation Plan. • Develop relevant environmental checklists for implementation during construction. • Perform regular on-site inspections of construction works and provide environmental advice and assistance to construction personnel as required. • Prepare environmental work method statements (EWMS) for works in/adjacent to sensitive areas or high risk work areas. • Identify, prepare and conduct environmental induction and training. • Respond to, investigate and report on environmental incidents and complaints. • Manage environmental sub-contractors. • Co-ordinate and/or perform environmental monitoring activities where required. • Maintain environmental documents, including records, reports, checklists etc. • Liaise with stakeholders regarding the as required.
Staff and contractors	<ul style="list-style-type: none"> • The Contractor is to prepare the CEMPs relevant to their package of works. • All staff working on the proposed activity have responsibility for environmental performance of the proposed activity. The responsibilities of all personnel include: • Attend all environmental training required and adhere to the requirements of the TransGrid Relocation Plan. • Undertake all activities in accordance with agreed procedures and work methods. • Ensure they are aware of the contact person for environmental matters. • Report any activity to the Environment Manager that has resulted, or has the potential to result in an environmental incident.
Visitors	<ul style="list-style-type: none"> • All visitors to the proposed activity site are required to be inducted and accompanied by proposed activity personnel at all times. A record of visitor inductions and visits is to be maintained by the contractor.

5.2 Environmental management plans

The proposed activity is subject to the overarching environmental management framework provided by this Transgrid Relocation Plan, which has been prepared to fulfil Condition 4 of the Airport Plan. Notwithstanding this, relevant mitigation measures from Chapter 28 of the EIS relating to Preparatory Activities as defined in the Airport Plan have been captured in this plan and included in the consolidated list of mitigation measures in Appendix D.

A Construction Environmental Management Plan (CEMP) will be prepared by the contractor to guide the delivery of environmental management on the proposed activity. These CEMP would be developed in accordance with this TransGrid Relocation Plan. The CEMP will be supported by a series of sub-plans, Environmental Work Method Statements (EWMS), Environmental Control Plans (ECPs), Erosion and Sediment Control Plans (ESCPs) and other documents. These documents are to be prepared to identify requirements and processes applicable to specific impacts or aspects of the activities associated with construction of the proposed activity and they are to address the measures identified in the environment assessment documentation.

Additionally, the CEMP, relevant sub-plans and the management measures outlined in Appendix D satisfy all standard procedures for work of this nature.

The CEMP would be placed on TransGrid’s website along with the TransGrid Relocation Plan. Any varied plans or sub plans are also to be provided on TransGrid’s website.

A list of the environmental management plans and procedures for the proposed activity are provided below in Table 5.2.

Table 5.2 Construction environmental plans and sub-plans

Document name	Document Identifier	Reference
Construction Environmental Management Plan	CEMP	Transmission Line 39 Diversion REF/submissions report – EM1
Erosion and Sediment Control Plan	ESCP	Prepared under CEMP (and required by Transmission Line 39 Diversion REF/submissions report – GS1)
Green and Gold Bell Frog Management Plan	GGBFMP	Transmission Line 39 Diversion REF/submissions report – EC6 Only required based on results of additional survey
Bushfire Management Plan	BMP	Transmission Line 39 Diversion REF/submissions report – EC11 This plan has been developed by DIRD for the wider airport site.
Interim Protocol on the Discovery of Aboriginal Cultural Heritage Objects and Human Remains	Unexpected finds protocol	Until the Aboriginal Cultural Heritage CEMP has been approved, the management of Aboriginal cultural heritage would be undertaken in accordance with the unexpected finds protocol as per AH1 and AH3.
Environmental Work Method Statements	EWMS	Prepared under CEMP
Checklist, records, registers and procedures	As required	As required

5.3 Training, awareness and competence

To ensure that this TransGrid Relocation Plan is effectively implemented, each level of management is responsible for ensuring that all personnel reporting to them are aware of the requirements of this Plan. The Environmental Manager (or nominated delegate) will coordinate the environmental training, which may be carried out in conjunction with other training and development activities (e.g. safety).

5.3.1 Environmental induction

Prior to working on site all personnel and sub-contractors will undertake an environmental induction. This is done to ensure all personnel involved in the proposed activity are aware of the requirements of the CEMP/s and to ensure the implementation of environmental management measures.

Short-term visitors to site for purposes such as deliveries will be required to be accompanied by inducted personnel at all times whilst on site.

The Environmental Officer will conduct the environmental component of the site inductions. The environmental induction will address a range of issues including, but not limited to:

- Meeting legal and other requirements
- Roles and responsibilities
- Typical environmental hazards and risks
- Typical environmental controls
- Stop work procedures (e.g. heritage finds)
- Emergency preparedness and response procedure.

A record of all environment inductions will be maintained and kept on-site.

The Environmental Manager (or nominated delegate) will review and approve the induction program and monitor its implementation. The induction program will be reviewed and updated as required to account for changes in the proposed activity (e.g. changes in risks due to phase works or occurrence of a near miss or incident). Inducted employees will be advised of any update to this program via Toolbox discussions, or other appropriate mechanism (refer to Section 5.3.2 below).

5.3.2 Toolbox talks

Toolbox talks will be one method of raising awareness and educating personnel on issues related to all aspects of construction including environmental issues. The Toolbox talks are used to ensure environmental awareness continues throughout construction and provides a forum for the provision of updates and pertinent information in addition to targeted training as required.

Toolbox training will help to ensure that relevant information is communicated to the workforce and that feedback can be provided on issues of interest or concern. Environmental aspects of the Toolbox training will generally be prepared and delivered by the Environmental Officer. A register of Toolbox training will be kept on site and maintained by the Environmental Manager (or nominated delegate).

Toolbox attendance is mandatory and attendees are required to sign an attendance form / register and the records are to be maintained.

The Environmental Manager (or nominated delegate) will review the training program and monitor implementation.

5.3.3 Daily pre-start meetings

The pre-start meeting is a tool for informing the workforce of the day's activities. Suggested content of pre-start meetings include but is not limited to the following:

- Safe work practices
- Environmental protection practices
- Work area restrictions

- Activities that may affect the works
- Coordination with other activities and trades
- Recent incidents
- Hazards and other information that may be relevant to the day's work.

The site construction co-ordinator will conduct a daily pre-start meeting with the site workforce before the commencement of work each day (or shift) or where changes occur during a shift. Daily pre-start meetings are generally succinct and take approximately 10-15 minutes.

The environmental component of pre-starts will be determined by relevant foreman and environmental personnel and will include any environmental issues that could potentially be impacted by, or impact on, the day's activities. All attendees will be required to sign on to the pre-start and acknowledge their understanding of the issues explained.

Pre-start topics, dates delivered and a register of attendees will be recorded.

5.3.4 Environmental awareness training

Staff and sub-contractors working on site will be provided with environmental training that will be incorporated into Toolbox talks and inductions.

Targeted environmental awareness training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact. The aim will be to achieve a level of awareness and competence appropriate to their assigned activities.

This training will generally be prepared and delivered by the Environmental Manager (or nominated delegate). The target groups and suggested topics for this training are detailed in the Table 5.3.

Table 5.3 Example environmental training schedule

Training	Superintendents	Site Engineers	Environmental Staff	Foreman	Leading Hands	Sub-contractors	Administrative Staff
Proposed activity inductions	✓	✓	✓	✓	✓	✓	✓
Biodiversity awareness (induction and Toolbox talks)	✓	✓	✓	✓	✓	✓	
Soil and water management (induction and Toolbox talks)	✓	✓	✓	✓	✓	✓	
Heritage (both Aboriginal and non-Aboriginal) awareness training (induction and Toolbox talks) to ensure that the requirements of the Commonwealth's unexpected finds protocol is met on site	✓	✓	✓	✓	✓	✓	
Incident response training (induction and Toolbox talks)	✓	✓	✓	✓	✓	✓	

5.4 Internal and external communication

5.4.1 Internal communication

The proposed activity will rely on clear lines of communication through all levels and function of staff, contractors and sub-contractors, to minimise environmental impacts and achieve continual improvements in environmental performance. The following will be carried out in addition to the other forms of internal communications specified in Section 5.2:

- Fortnightly construction meetings with the representatives from each function of the proposed activity (including Construction, Environment, Safety and Community) to discuss any new or emerging issues, changes to legislative, permit or reporting requirements, changes to any plans or reports, and outcomes/actions from monitoring and auditing requirements.
- Weekly environmental inspections, to be undertaken with the Project Superintendent and Environment Manager (or their delegates), to communicate ongoing environmental performance and to identify any issues to be addressed. Refer to section 6.1 for further detail.

The CEMP/s are to include the option of a regular meeting to enable interaction and communication between TransGrid and the Contractor with regards to environmental issues and performance. This can be combined with the fortnightly construction meeting or established as a separate forum.

Attendance at these meetings will also be offered to both the Commonwealth and the WSA Co to enable them to be informed of progress and/or issues arising to ensure the compliance with the expectations of the EIS and the Airport Plan.

5.4.2 External communication

The proposed activity will respond to and manage complaints made by stakeholders in accordance with *AS-ISO 10002-2006 Complaints Handling* guidelines. The Environment Manager will be the main point of contact with regards to environmental issues.

All complaints received during the proposed activity shall be managed in accordance with the complaints handling procedure developed for the proposed activity.

Contact numbers (including 24 hour contact numbers for TransGrid Works Delivery Project Manager and the TransGrid Site Construction Coordinator) are to be provided in the CEMP. Table 5.4 outlines the contact details which are required to be included, along with the other contacts which are to be incorporated into the CEMP. These contacts include TransGrid site personnel who have the authority to take immediate action to shut down any activity or effect control measures as directed by an authorised officer.

Table 5.4 Emergency contact numbers

Name	Number
Project Manager – To be confirmed in CEMP	To be confirmed in CEMP
Environment Manager - To be confirmed in CEMP	To be confirmed in CEMP
Site Construction Coordinator - To be confirmed in CEMP	To be confirmed in CEMP
WSA Co representative - To be confirmed in CEMP	To be confirmed in CEMP
DIRD representative – To be confirmed in CEMP	To be confirmed in CEMP
Police, Fire, Ambulance, HAZCHEM	000
State Emergency Services	132 500

Name	Number
Poisons Information Centre	13 11 26
Fire and Rescue NSW	1300 729 579
Lifeline	13 11 14
Environment Protection Authority	131 555
South Western Sydney Local Health District	02 8738 6000
Liverpool City Council	02 9821 9222
Penrith City Council	02 4732 7777
Roads and Maritime Services Transport Management Centre	131 700
SafeWork NSW	13 10 50
WIRES Fauna Rescue	1300 094 737

In addition, communications may be extended beyond those directly related to complaints and emergencies. This would involve notification to nearby landholders associated with potential disruptions specific to the proposed activity (e.g. out-of-hours works and potential elevated noise generating works) as per the mitigation measures in Appendix D. All external notifications are to be approved by DIRD and WSA Co prior to their release. Additionally, any approaches by the media, members of the public or other personnel not associated with the WSA development are to be directed to the relevant DIRD and WSA Co representatives. All community and stakeholder communications would be in accordance with the Joint Community Action Plan, which is a joint communications plan between TransGrid and WSA Co.

5.5 Emergency preparedness and response (incident management)

Incidents that may pose a potential risk to the surrounding environment include but are not limited to:

- Ignition of fire due to proposed activity or threat of fire from offsite
- Spill of fuel, oil or other dangerous goods
- Breach or failure of sediment control structures
- Deviation from the unexpected finds protocol, or unauthorised removal, damage or destruction of a previously unexpected Aboriginal or non-Aboriginal heritage artefacts
- Unauthorised removal, damage or destruction of a previously unexpected threatened or endangered flora or fauna
- Disturbance of contaminated material (both known and unknown) and the distribution of this material across the site
- Spread of rubbish across the site.

TransGrid has an Environmental Incident Management Procedure a copy of which is provided in Appendix C.

Any environmental incidents shall be registered in TransGrid's Asset and Risk Management System and managed in accordance with TransGrid's procedures. Where incidents arise, the *Environmental Incident Management Procedure* is to be implemented and the Environment Manager will immediately notify DIRD and all efforts will be undertaken immediately to avoid and reduce impacts of incidents and suitable controls put in place. Incidents will be closed out as quickly as possible, taking all required action to resolve each environmental incident.

5.5.1 Pollution incident

“From the grant of the lease in accordance with the *Airports Act 1996*, the *Airports (Environment Protection) Regulations 1997* will apply. Therefore, from the grant of the lease, environmental incidents will be notified to the Airport Environment Officer.

A pollution incident (e.g. accidental oil spill, chemical spill or other accidental effluent release with the potential to impact soil, groundwater and/or surface water features) is required to be notified if there is a risk of “material harm” to the environment, which is defined in Section 147 of the *Protection of the Environment Operations Act 1997* as:

(a) *harm to the environment is material if:*

(i) *it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*

(ii) *it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and*

(b) *loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.*

If an incident occurs on site that has resulted in or has the potential to cause material harm to the environment, then the following authorities will be notified immediately (refer to Table 5.4 for contact numbers):

- Airport Environment Officer (following airport lease grant)
- The Commonwealth and the WSA Co (and Council if the incident extends beyond Commonwealth Land)
- TransGrid Environment Manager
- Fire/Police/Ambulance/HAZCHEM
- EPA
- SafeWork NSW.

Where an incident includes an Aboriginal site, the contractor is to notify the Environmental manager who in turn will notify relevant parties in accordance with DIRDs *Interim Protocol on the Discovery of Aboriginal Cultural Heritage Objects and Human Remains* or the Aboriginal Cultural Heritage CEMP developed for Western Sydney Airport, once it is approved.

The Environmental Manager (or nominated delegate) will maintain all records relating to environmental incidents.

5.5.2 Incident investigation

All incidents will be documented, investigations conducted and action plans established in accordance with the Environmental Incident Management Procedure (Appendix C) to prevent recurrence of the event. Where lessons are learnt from the investigation or current procedures are identified as being ineffective, the TransGrid Relocation Plan and Incident Response Plan will be revised to include the improved procedures or requirement.

5.6 Document management and review

The Environment Manager is responsible for maintaining all environmental management documents. Types of records and documents include:

- This TransGrid Relocation Plan, contractor CEMP, sub-plans and other documents detailed in Section 6.2
- Induction and training records
- Licenses and permits
- Monitoring, auditing and compliance reports
- Monitoring data
- Environmental incident records, including investigation details and follow up actions
- Communication with external stakeholders and public authorities
- Minutes of any environmental-related meetings.

All environmental management documents are subject to ongoing review and continual improvement. This includes changes to legislative or licensing requirements, or environmental impacts.

5.6.1 Document control

Documents associated with the proposed activity will be stored in the main site office and access to electronic copies will be made available to all site staff and contractors.

A document control procedure will be implemented to control the flow of documents within and between all staff, contractors and external stakeholders.

The procedure will also ensure that documentation is:

- Developed, reviewed and approved prior to issue
- Issued for use
- Controlled and stored for the legally required timeframe
- Removed from use when superseded or obsolete
- Archived.

A register and distribution list will identify the current revision of particular documents or data.

5.6.2 Document review

The TransGrid Relocation Plan will be reviewed on an annual basis or following a change in conditions of approval, a notifiable pollution incident (as described in Section 5.4.1), or an audit identifying deficiencies in the Plan. Review of the CEMP/s and sub-plans will be undertaken by senior management on an annual basis or following a notifiable pollution incident (as described in Section 5.4.1). This will include the Project Manager, Environment Manager and relevant team members and stakeholders (including TransGrid).

The reviews will consider, as a minimum, the environmental performance of the proposed activity, risks, objectives and targets, changes in organisational structures and legal and corporate requirements.

The recommendations stemming from the reviews shall be incorporated into the documents, communicated to relevant personnel and implemented on site as appropriate. Variations to the TransGrid Relocation Plan will be managed in accordance with Section 5.6.3.

5.6.3 Variations to the TransGrid Relocation Plan

Variations to the TransGrid Relocation Plan may be required due to proposed changes in construction, in response to an incident, audit, organisational changes or other external factors

(such as a change in the Airport Plan). This includes any requests by the Infrastructure Minister to make changes to the TransGrid Relocation Plan. Any such request to amend the plan by the Minister is required to be undertaken within three months.

Each proposed variation to the TransGrid Relocation Plan shall be accompanied by information outlining:

- The need or reason for the proposed variation
- The potential environmental impacts of the variation
- The proposed mitigation and control measures (reference may be given to existing control measures within the TransGrid Relocation Plan, or to new or altered control measures).

Proposed variations will be reviewed by the Project Manager and TransGrid to:

- Ascertain if the changes are permissible and/or appropriate under the existing approved TransGrid Relocation Plan
- Evaluate whether other environmental documentation is appropriate or is required to be modified.

Any variation to the TransGrid Relocation Plan will be undertaken in accordance with the process set out in Condition 41 of the Airport Plan. In the event the TransGrid Relocation Plan is to be revised the new version of the plan is to be cleared marked as 'varied plan'.

The changes stemming from the variation will be incorporated into other documents as relevant, and communicated to relevant personnel and implemented on site as appropriate.

Following the variation of the TransGrid Relocation Plan being approved, the varied plan is then considered to be the Approved Plan for the purposes of the conditions of the Airport Plan.

6. Monitoring and review

TransGrid and its contractors will identify opportunities for improvement and implement necessary actions to ensure the objectives of the EA, this TransGrid Relocation Plan, the CEMP/s and sub-plans are realised. TransGrid will provide DIRD with any results of the environment inspections and audits or environmental monitoring and reporting upon request by DIRD.

6.1 Environmental inspections and audits

6.1.1 Environmental inspections

The Environmental Manager (or nominated delegate) will be responsible for carrying out weekly environmental inspections with the Project Superintendent (or their delegate).

The Environmental Manager (or nominated delegate) will also carry out inspections prior to and following significant rainfall events (definition of a significant rainfall event is to be detailed in the CEMP/s).

At the completion of the inspection, the Environmental Manager (or nominated delegate) will prepare the following:

- A site inspection action plan listing minor deficiencies identified
- Notices for major/serious deficiencies.

Where deficiencies cannot be immediately rectified, an action plan or notice shall be assigned to the appropriate personnel for rectification within a specified time frame commensurate to the risk posed by the deficiency.

Any environmental non-conformances and corrective actions will be recorded and managed as described in Section 6.3.

Site inspections and surveillance may also be undertaken by, or on behalf of, TransGrid at any time. All actions identified during the inspections will be:

- Actioned in the specified timeframes as detailed on the site inspection form
- Responded to in writing to TransGrid within 5 working days.

6.1.2 Environmental audits

Audits will be undertaken by the contractor to assess the performance and compliance of the works against the requirements of the TransGrid Relocation Plan, the Airport Plan and the CEMP (and associated sub-plans, EWMS etc.).

The CEMP is to include details with regards to the process of environmental auditing and as a minimum is to include the following:

- Proposed audit methodology
- Audit schedule – to be undertaken on a minimum six-monthly basis
- Audit personnel – to be undertaken by appropriately experienced and qualified personnel
- Provisions to involve TransGrid – to ensure an appropriate line of communication and sufficient notice
- Audit reports – to be generated / prepared at the completion of the audit and copies are to be provided to TransGrid.

In the event of a non-compliance, the contractor will be responsible for ensuring appropriate investigation, reporting and implementation of corrective actions (refer to Section 6.3).

6.2 Environmental monitoring and reporting

6.2.1 Environmental monitoring

Monitoring will be undertaken to:

- Validate the impacts predicted for the proposed activity
- Measure the effectiveness of environmental controls and implementation of this TransGrid Relocation Plan
- Address specific regulatory or other requirements.

Preliminary environmental monitoring required as identified through the EA is shown in Table 6.1. Detailed monitoring plans will be prepared within the CEMP/s and sub-plans.

Environmental monitoring forms, checklists and registers for the proposed activity will be used for data collection, recording and review.

Registers will be maintained by the Environment Manager for all environmental monitoring results on an ongoing basis, to enable review of trends or exceedance of criteria and to simplify compliance or other reporting.

6.2.1 Environmental reporting

Environmental reporting will be carried out to evaluate the environmental performance of the proposed activity and compliance with this TransGrid Relocation Plan, the CEMP/s and sub-plans. The report shall be submitted to TransGrid on a monthly basis, addressing the previous month's activities and include:

- A summary of monitoring results
- The status of audits and inspections
- As summary of environmental non-conformances and corrective actions.

Table 6.1 Environmental monitoring and reporting plan

Objective	Requirement	Reference	Method / reporting	Frequency	Responsibility (or delegate)
Continuous environmental improvement and undertake construction in accordance with environmental management plans and approvals	General environmental management on site is to be monitored / inspected regularly, with a site inspection to be completed weekly and also before and after a rainfall event (rainfall event to be defined in the CEMP/s)	TransGrid Relocation Plan s.6.1.1	Undertake a weekly environmental site inspections with the Project Superintendent (or their delegate). The site inspection findings are to be recorded on a <i>Site Inspection Checklist</i> . For follow-up and close-out actions, refer to the <i>Site Inspection Action Plan</i> requirements below.	Weekly or prior to or following a rainfall event	Environmental Manager
Continuous environmental improvement and undertake construction in accordance with environmental management plans and approvals	Where deficiencies cannot be immediately rectified, an action plan or notice shall be assigned to the appropriate personnel for rectification within a specified time frame commensurate to the risk posed by the deficiency	TransGrid Relocation Plan s.6.1.1	Where deficiencies identified during the environmental site inspection cannot be immediately rectified, a <i>Site Inspection Action Plan</i> or notice shall be assigned to the appropriate personnel. Copies of all completed <i>Site Inspection Action Plans</i> are to be maintained on site at all times.	As required	Environmental Manager
Undertake construction in accordance with environmental management plans and approvals	TransGrid are required to ensure that reasonable steps are taken to ensure that each person involved in carrying out TransGrid relocation works is informed of and complies with, the approved TransGrid Relocation Plan	Airport Plan Condition 37(2)	The site induction material is to include all relevant material and information required to implement this TransGrid Relocation Plan effectively. All site personnel are to receive a site induction, tailored to specific works on site. Relevant details of all personnel inducted are to be recorded on the <i>Site Induction and Training Register</i> .	As required (for all site personnel)	Project Manager
Undertake construction in accordance with environmental management plans and approvals	Ensure that all workers are inducted into the CEMP/s	EIA Mitigation Measure EM2	All site personnel are to receive a site induction, tailored to specific works on site. Relevant details of all personnel inducted are to be recorded on the <i>Site Induction and Training Register</i> .	As required (for all site personnel)	Project Manager

Objective	Requirement	Reference	Method / reporting	Frequency	Responsibility (or delegate)
Undertake construction in accordance with environmental management plans and approvals	Transportation and equipment delivery shall be in accordance with Roads and Maritime Services and Council requirements and within the required construction timeframes	EIA Mitigation Measure TA1 and NV1	A <i>Traffic and Access Register</i> is to be maintained to record the movement of all plant and machinery in and out of site. The register is to include vehicle / plant details and time in and time out.	As required	Project Manager
Continuous environmental improvement	Undertake toolbox training to educate and raise awareness on related specific environmental issues.	TransGrid Relocation Plan s.5.2.2	Details of any specific toolbox talks to be recorded on the <i>Toolbox Register</i> .	As required	Environmental Manager
Continuous environmental improvement	Site personnel are required to attend the pre-start (or be aware of the content of the pre-start meeting) prior to commencement of works on site.	TransGrid Relocation Plan s.5.2.3	All pre-start topics, dates and register of attendees will be recorded on the <i>Toolbox Register</i> and maintained on site.	Daily	Project Manager
Continuous environmental improvement	Undertake specific training where required to achieve a level of awareness and competence appropriate to assigned activities	EIA Mitigation Measure EM2	Details of any specific training (targeted or otherwise) are to be recorded on the <i>Site Induction and Training Register</i> .	As required	Environmental Manager
Continuous environmental improvement and undertake construction in accordance with environmental management plans and approvals	Fortnightly construction meetings with the representatives from each function of the proposed activity to discuss any new or emerging issues, changes to legislative, permit or reporting requirements, changes to any plans or reports, and outcomes/actions from monitoring and auditing requirements.	TransGrid Relocation Plan s.5.2.2	Fortnightly construction meetings are to be minuted and a copy of the records are to be maintained on site.	Fortnightly	Project Manager

Objective	Requirement	Reference	Method / reporting	Frequency	Responsibility (or delegate)
Continuous environmental improvement	Weekly environmental inspections, to be undertaken with the Project Superintendent and Environment Manager (or their delegates).	TransGrid Relocation Plan s.5.3.1	The findings of the weekly environmental inspection is to be recorded on the <i>Weekly Environmental Checklist</i> . Copies are to be maintained on site at all times.	Weekly	Environmental Manager
Undertake construction in accordance with environmental management plans, approvals and in accordance with all relevant regulatory requirements	Environmental incidents shall be registered in TransGrid's Asset and Risk Management System and managed in accordance with TransGrid's procedures	TransGrid Relocation Plan s.5.4	Recording of incidents and close-out / follow-up action as per TransGrid's <i>Environmental Incident Management Procedure</i> .	As required	Environmental Manager
Continuous environmental improvement and undertake construction in accordance with environmental management plans and approvals	With regards to weed management, all vehicles are to undergo a vehicle inspection prior to coming onto site (in accordance with a <i>Vehicle Check Procedure</i> to be developed as part of the Contractor's CEMP/s).	EIA Mitigation Measure EC3	All vehicle checks, including time, date and vehicle details, are to be recorded on a <i>Vehicle Check Inspection Checklist</i> , and an overarching <i>Vehicle Inspection Register</i> maintained for all plant and vehicles checked on site.	As required	Project Manager
Continuous environmental improvement and undertake construction in accordance with environmental management plans and approvals	Any imported fill material shall be certified at the source location as pathogen and weed-free Excavated Natural Material or Virgin Excavated Natural Material in accordance with <i>EPA Waste Classification guidelines</i> (EPA 2014).	EIA Mitigation Measure GS7	Waste classification certificates of all imported material is to be obtained and maintained on site at all times. Recommended that a register or similar is prepared to track and manage all imported material.	As required – for all imported fill.	Project Manager

Objective	Requirement	Reference	Method / reporting	Frequency	Responsibility (or delegate)
Undertake construction in accordance with environmental management plans, approvals and in accordance with all relevant regulatory requirements	Release of water associated with drainage of dams or dewatering following treatment to an acceptable level of water quality as per ANZECC guidelines and the <i>Airports (Environment Protection) Regulations 1997</i>	EIA Mitigation Measure HW5	Procedure for dewatering is to be developed. Monitoring of water prior to discharge is to be undertaken and recorded on a <i>Water Discharge Quality Register</i> (or similar).	As required – for each water release event.	Environmental Manager
Undertake construction in accordance with environmental management plans, approvals and in accordance with all relevant regulatory requirements	Ensure that all soil to be re-used on site has been tested to confirm absence of contamination	EIA Mitigation Measure WA2	Undertake soil sampling and analysis for all soil to be reused on site. All soil analysis results are to be recorded and maintained on site.	As required	Environmental Manager
Undertake construction in accordance with all relevant regulatory requirements	All waste generated from the works are to be disposed of in accordance with the <i>NSW EPA Waste Classification Guidelines</i> (EPA, 2014).	EIA Mitigation Measure WA3	Maintain a <i>Waste Register</i> to track and manage all waste removed from site. Ensure that copies of all waste receipts / dockets are maintained and referenced in the register.	As required	Environmental Manager
Continuous environmental improvement and undertake construction in accordance with environmental management plans and approvals	Prepare a monthly environmental report to be submitted to TransGrid on a monthly basis to address environmental performance on the previous month's activities.	TransGrid Relocation Plan s.6.2.2	A monthly report (structure to be determined in the CEMP/s) to include the following as a minimum: <ul style="list-style-type: none"> - a summary of monitoring results - the status of audits and inspections - as summary of environmental non-conformances and corrective actions. 	Monthly	Environmental Manager
Demonstrate compliance of the works against the conditions of the Airport Plan	Records showing compliance with the conditions of the Airport Plan are to be made available to DIRD upon request.	Airport Plan Condition 38	Records of environmental reporting undertaken to be provided to DIRD.	As required	Environmental Manager

6.3 Non-conformances and corrective action

Environmental non-conformances are situations or events that fail to fulfil or are in breach of a requirement. Corrective actions are the steps taken to rectify the non-conformance and to prevent recurrence.

Non-conformances may include:

- Deviations from the procedures or protocols defined in the EA, this TransGrid Relocation Plan, the CEMP/s and sub-plans or the contract
- Failing to comply with the environmental regulations or license / permit conditions
- Carrying out activities that have caused or have the potential to cause actual harm to the environment not otherwise authorised by the proposed activity and deficiencies or concerns raised by TransGrid and/or by state and local authorities or agencies.

Any member of the proposed activity team may raise a non-conformance or improvement opportunity.

Upon becoming aware of a non-conformance the contractor will:

- Take actions to control and correct it, including taking steps to mitigate any adverse environmental impacts that may arise from it;
- Investigate the non-conformance to:
 - Identify the cause of the incident
 - Identify the necessary corrective action(s)
 - Identify personnel responsible for carrying out corrective action(s).
- Implement or modifying corrective actions necessary to avoid repetition
- Monitor and review the effectiveness of the corrective actions.

Records and documentation shall be retained as evidence of the non-conformance and the relevant corrective actions.

Appendices

Appendix A – TransGrid Environmental Policy

Environment Policy

TransGrid is committed to conducting its activities and services in a manner that prevents pollution and complies with relevant legislation, industry standards and codes of practice. TransGrid implores all employees and contractors to stop and consider the potential impact to the environment from their activities.

“We promote continuous improvement in environmental management”



Paul Italiano
Chief Executive Officer
Approved:
May 2016

The Environment Policy covers all activities and services undertaken by TransGrid including the planning, building and operation of infrastructure, ongoing management of these assets and their decommissioning.

We aim to enhance our systems and processes in a manner that promotes continuous improvement in environmental management and which will lead to the achievement of good industry practice.

In meeting these commitments, TransGrid:

- > Maintains an Environmental Management System that provides the framework for setting and reviewing our environmental objectives and targets, including the implementation, monitoring and review of these objectives and targets, as well as facilitating continuous improvement in environmental performance
- > Continues to develop systems that recognise sensitive environmental and cultural sites on or near our infrastructure, and provides processes to manage our activities with the aim of preventing environmental harm or adversely impacting the environment
- > Integrates environmental management considerations into the planning, design, siting, construction, maintenance, operation, decommissioning and disposal of all TransGrid assets
- > Provides environmental training, assessment and authorisation under our Environmental Management System to employees and contractors to enable them to perform their duties in an environmentally sensitive manner
- > Engages with the community, customers, employees, government and other stakeholders regarding potential environmental or cultural impacts associated with our plans and activities
- > Pursues opportunities to maximise resource efficiencies and reduce the generation of waste through reduction, reuse and recycling programs
- > Identifies, sets and monitors realistic environmental performance measures and communicates them to all employees and stakeholders.

Documentary controls:

Revision no:	6	HP TRIM No:	D2003/1736
Business function:	Manage Environment		
Process owner:	Manager / Health, Safety and Environment		
Author:	David Donehue, Manager/Corporate Environment		
Reviewers:	Michael Gatt, EGM / People and Corporate Services Lionel Smyth, EGM/ Network Services and Operations Stephen Clark, EGM / Network Performance and Planning Gerard Reiter, EGM / Capital Program Delivery	Ken McCall, Manager / Health and Safety Environment Suzanne Sheekey, Environmental Advisor Sarah Conacher, Environmental Advisor Michaela Burgess, HSE Reporting & Compliance Officer	
Approver:	Paul Italiano Chief Executive Officer		

Implementation:

This policy will be implemented in the following ways:

- > Notification to all employees when the policy is approved
- > Environment Policy to be displayed at offices and substation
- > Environment Policy to be available to all external stakeholders on the TransGrid website

Change history:

Revision no	Approved by	Amendment
5	Name, Peter McIntyre, Managing Director	Change from 'minimises pollution' to 'prevents pollution' Inclusion of requirement for TransGrid to implore all employees and contractors to stop and consider the potential impact the environmental from their activities Inclusion of requirement for facilitating continuous improvement in environmental performance Change from 'industry best practice' to 'good industry practice' Change the requirement from authorisation under the Environmental Rules to Environmental Management System Inclusion of requirement for environmental performance measures and communication to all employees and stakeholders.
6	Paul Italiano Chief Executive Officer	Changed signatory to Paul Italiano (new CEO)

Appendix B – Legal and other requirements

Table B.1 Legislative requirements

Key legislation	Legislative requirement	Applicability	Approvals/permits/licenses	Responsibility to implement the condition
Airport Plan				
Condition 4(1)	The Site Occupier must not permit TransGrid Relocation Works (other than Preparatory Activities) to commence until a TransGrid Relocation Plan has been prepared and approved in accordance with this condition.	Yes	Yes	Commonwealth
Condition 4(2)	TransGrid must: (a) prepare; and (b) submit to an Approver for approval; a TransGrid Relocation Plan in respect of the TransGrid Relocation Works.	Yes	Yes	TransGrid
Condition 4(3)	TransGrid must not carry out TransGrid Relocation Works inconsistently with the approved TransGrid Relocation Plan.	Yes	No	TransGrid
Condition 4(4)	The criteria for approval of the TransGrid Relocation Plan are that an Approver is satisfied that: (a) an environmental assessment which would substantially satisfy the requirements for the assessment of environmental impacts under the laws which would apply to the TransGrid Relocation Works if the Act did not apply to the TransGrid Relocation Works has been completed in respect of any impacts of the TransGrid Relocation Works which were not assessed as part of the EIS; (b) the plan includes appropriate management and mitigation measures to avoid, minimise or manage, the identified	Yes	No	Commonwealth

Key legislation	Legislative requirement	Applicability	Approvals/permits/licenses	Responsibility to implement the condition
	environmental impacts of the TransGrid Relocation Works; (c) the plan identifies the persons responsible for implementing the plan; and (d) the plan is otherwise appropriate.			
Condition 37(2)	TransGrid must take reasonable steps to ensure that each person involved in carrying out TransGrid Relocation Works is informed of, and complies with, the approved TransGrid Relocation Plan.	Yes	No	TransGrid
Condition 38	Each Site Occupier and each Plan Owner must maintain accurate records, which demonstrate its compliance with the conditions, including measures taken to implement the Approved Plans, and must make the records available upon request to the Infrastructure Department.	Yes	No	Commonwealth /WSA Co/ TransGrid
Condition 39(1)	The Plan Owner may seek approval for a variation of an Approved Plan by submitting to an Approver a version of the plan with the proposed variation clearly marked in it (varied plan).	Yes	Yes	TransGrid
Condition 39(2)	The criteria for approval of the varied plan are the same as those in the Approval Condition (in this case, Condition 4), but only to the extent that they are relevant to the proposed variation.	Yes	Yes	TransGrid
Condition 39(3)	If an Approver approves a varied plan prepared under subsection (1) or paragraph (5)(b), or the Infrastructure Minister varies an Approved Plan under subsection (5)(a), then, from the date when it is approved or varied (as the case may be), the plan as varied is taken to be the Approved Plan for the purposes of the conditions.	Yes	No	Commonwealth

Key legislation	Legislative requirement	Applicability	Approvals/permits/licenses	Responsibility to implement the condition
Condition 39(5)	<p>The Infrastructure Minister may:</p> <p>(a) vary an Approved Plan; or</p> <p>(b) request in writing that the Plan Owner prepare and seek approval for a specified variation of an Approved Plan in accordance with subsection (1), if the Infrastructure Minister believes on reasonable grounds that:</p> <ul style="list-style-type: none"> a condition has been contravened and the nature of the contravention is relevant to the subject matter of the Approved Plan; and the variation or the request for a specified variation (as the case may be) will address the contravention. 	Yes	No	Commonwealth
Condition 39(6)	The Plan Owner must comply with a request made by the Infrastructure Minister in accordance with subsection (5) within three months of the date of the request.	Yes	No	TransGrid
Condition 42 (1)	Unless otherwise agreed in writing by an Approver, the Plan Owner must publish all Approved Plans on its website.	Yes	No	TransGrid
Condition 42(2)	<p>Each Approved Plan must be published on the Plan Owner's website within one month of being approved and remain so published:</p> <p>(a) for CEMPs – until the end of the Construction Period;</p> <p>(b) for the Biodiversity Offset Delivery Plan – until all biodiversity offsets and other compensatory measures required by the plan have been secured or implemented; and</p> <p>(c) for all other plans – until there is a master plan for the Airport.</p>	Yes	No	TransGrid

Key legislation	Legislative requirement	Applicability	Approvals/permits/licenses	Responsibility to implement the condition
Commonwealth				
<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)	The EPBC Act is the principal environmental law in Australia. The development of Stage 1 of the Western Sydney Airport (including the proposed activity) was determined to be a controlled action in relation for its impacts on listed threatened species and ecological communities and it potential to impact listed National and World heritage places.	The development of Stage 1 of the Western Sydney Airport, which includes the relocation of Transmission Line 39, will involve the removal of Cumberland Plain Woodland which is a listed threatened ecological community (TEC). Additionally, a number of individual species listed under the Act have the potential to be impacted by the proposed activity. Consequently, management of EPBC listed species and the Cumberland Plain TEC is required as part of the proposed activity.	Yes, a permit in accordance with Section 200 of the Act	TransGrid
<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)	The EPBC Act is the principal environmental law in Australia. The development of Stage 1 of the Western Sydney Airport was determined to be a controlled action in relation for its impacts on listed threatened species and ecological communities and it potential to impact listed National and World heritage places.	The development of Stage 1 of the Western Sydney Airport, including the relocation of Transmission Line 39 will involve the removal of a threatened ecological community listed under the Act. Under Section 201 of the Act, it is an offence to affect any listed species or ecological community within a Commonwealth Area. A permit in accordance with Section 200 of the Act is required.	Yes, a permit in accordance with Section 200 of the Act	TransGrid

Key legislation	Legislative requirement	Applicability	Approvals/permits/licenses	Responsibility to implement the condition
<i>Airports Act 1996</i> <i>Airports (Building Control) Regulations 1996</i> (Commonwealth)	The <i>Airports Act 1996</i> regulates the development, ownership and operation of airports. The Act allows for the declaration of airport sites and for the determination of an airport plans for Western Sydney Airport.	The development of Stage 1 of the Western Sydney Airport, which encompasses the proposed activity, is authorised under the Airport Plan which was determined in accordance with the <i>Airports Act 1996</i> . Consequently, the proposed activity is subject to the conditions provided in the Western Sydney Airport – Airport Plan. Specifically, the conditions relating to the proposed activity are outlined in Section 2 of this TransGrid Relocation Plan.	The following permits are required under the <i>Airports (Building Control) Regulations 1996</i> : demolition permit for the removal of the existing overhead Transmission Line 39 within the airport site. Building permit for construction of the underground 330 kV cable around the permitter of the airport site.	TransGrid
NSW <i>Environmentally Hazardous Chemicals Act 1985</i>	The Environmentally Hazardous Chemicals Act and associated Regulation regulates the use and disposal of hazardous chemicals, and is administered by the NSW EPA. The Act applies in respect of chemicals, a broadly defined term.	It is unlikely the proposed activity will require the use of hazardous chemicals prescribed under the Act. In the event that hazardous chemicals are required on site, any disposal, transportation or use of the products will occur in accordance with the requirements under the Act. Relevant measures will be incorporated into the Construction Environmental Management Plan and sub-plans to be prepared by TransGrid's contractor/s.	None required	TransGrid/Contractor

Key legislation	Legislative requirement	Applicability	Approvals/permits/licenses	Responsibility to implement the condition
<p><i>Contaminated Lands Management Act 1997</i></p>	<p>The <i>Contaminated Land Management Act 1997</i> (CLM Act) establishes a process for investigating and (where appropriate) remediating land that the EPA considers to be contaminated significantly enough to require regulation. There is a duty to report significant risk of harm under Section 60 of the CLM Act if during investigations or construction it is determined that there is a significant risk of harm to the environment or human health from contaminated land.</p>	<p>In the event contamination is identified or occurs on or is likely to impact land beyond the Commonwealth boundary actions will be undertaken in accordance with the <i>Contaminated Lands Management Act 1997</i>. Additionally, measures to manage known contamination present within the airport site and accidental instances of contamination resulting from accidental spills and/or leaks from construction plant and equipment will be incorporated into the CEMP to be prepared by TransGrid's contractor/s.</p>	<p>None required</p>	<p>Contractor</p>

Key legislation	Legislative requirement	Applicability	Approvals/permits/licenses	Responsibility to implement the condition
<p><i>Protection of the Environment Operations Act 1997</i></p>	<p>Among other things, the classification of waste is regulated under the <i>Protection of the Environment Operations Act 1997</i> (POEO Act). The NSW EPA has prepared the Waste Classification Guidelines (2014) which sets out the requirements for classifying waste material prior to disposal off-site. The guidelines apply to any waste that is being disposed off-site from the proposed activity.</p>	<p>As waste materials generated by the proposed activity will be disposed of outside the airport site, waste generated during construction will be reused if appropriate, or removed, transported and disposed from the airport site in accordance with the <i>Waste Classification Guidelines (EPA, 2014)</i> and the relevant provision under the <i>POEO Act and POEO (Waste) Regulation 2005</i>.</p> <p>Leaks, spills or other pollution incidents threatening or causing material harm to the environment must be notified to the relevant authorities in accordance with Section 148 of the POEO Act.</p>	<p>None required. See also duty to report under Section 148.</p>	<p>Contractor</p>
<p><i>Roads Act 1993</i></p>	<p>The <i>Roads Act 1993</i> is administered by Roads and Maritime Services, councils or the Department Primary Industries - Lands. Under Section 138 of the <i>Roads Act 1993</i>, a person must not impact or carry out work on or over a public road otherwise than with the consent of the appropriate roads authority.</p>	<p>The proposed activity will involve works that traverse The Northern Road, which is a classified road administered by RMS.</p>	<p>A permit under Section 138 under the Act will be required prior to works commencing within the road reserve of The Northern Road</p>	<p>Contractor</p>

Appendix C – TransGrid Environmental Incident Management Procedure

Environmental Incident Management

Summary

This procedure details the requirements for notifying and investigating environmental incidents within TransGrid. All environmental incidents, no matter how minor must be managed and details reported

Document Control

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Approver:	Michael Gatt, EM/Works Delivery				

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1. Purpose

This procedure details the requirements for notifying and investigating environmental incidents within TransGrid. All environmental incidents, no matter how minor must be managed and details reported.

2. Scope

This procedure applies to all TransGrid staff.

3. Definitions

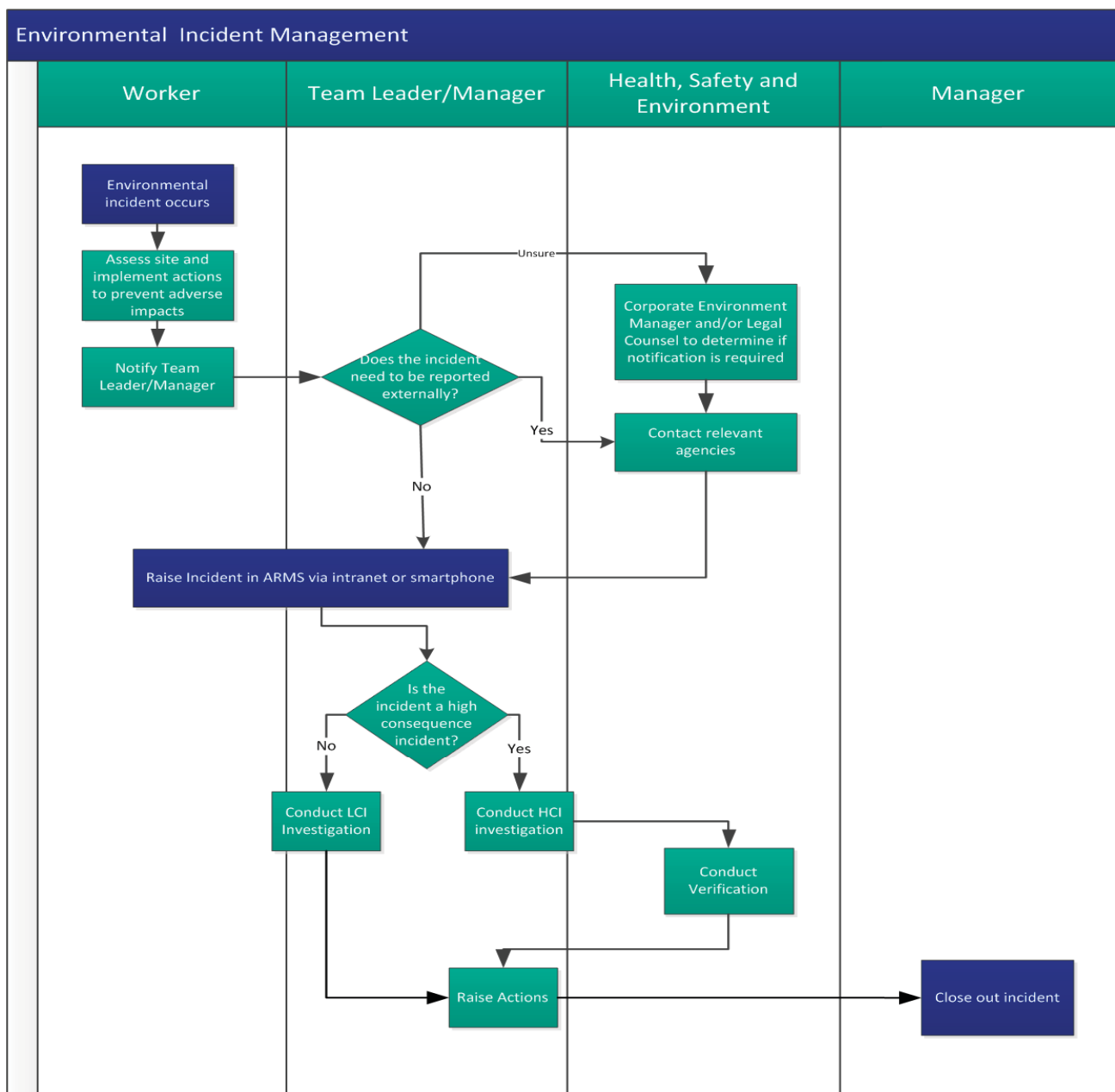
Term	Definition
Environmental incidents	<p>Any potential or actual adverse/negative impact on the environment that may arise from:</p> <ul style="list-style-type: none">• A failure to comply with legislation;• A failure to comply with any TransGrid procedure;• An inadequate operating procedure;• Unforeseen circumstances, e.g. abnormal operating conditions;• Emergencies resulting in spills, discharges or adverse environmental situations; and• Equipment failure.
High Consequence Environmental Incident	<p>A high consequence environmental incident is an incident that has caused, or has the potential to cause material harm to the environment. Examples of these are as follows:</p> <ul style="list-style-type: none">• Harm to threatened species, endangered populations, endangered ecological communities or critical habitat• Damage to any State or locally significant relic or heritage item• Harm to Aboriginal objects and Aboriginal places• Failure to comply with a REF determination/approval/EPA license condition• Works undertaken without required approval or environmental assessment• Discharge of waters from site not in accordance with any legislative requirements• Unauthorised disposal or transport of hazardous chemicals or waste• Unauthorised disposal or management of contaminated soils or waste.• Identification of contaminated soil and/or groundwater during maintenance or construction activities• Material, odour, fire or noise that travels beyond site boundary causing or potentially causing adverse impact to the environment or community. <p>Note: this does not include fires that are fully contained within switch yards (e.g. CVT catches fire), but does include the potential to cause bushfires beyond site boundaries (e.g. hot works on or near boundary fences).</p>
Pollution Incident	<p>Pollution incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.</p>
Notifiable Pollution incidents	<p>As defined by the Protection of the Environment Operations Act 1997, notification to the</p>

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Term	Definition
and Material Harm to the Environment	<p>regulator is required if harm to the environment is material. That is:</p> <ul style="list-style-type: none"> • It involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or • It results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations); and • Loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment. <p>It does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.</p>

4. Corporate-wide Procedure

The following flowchart sets out the environmental incident management process in TransGrid.



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4.1 Environmental Incidents

Environmental incidents can include (but not be limited to the following):

- > Pollution - a leak or spills of fuels, oils, chemicals and other hazardous materials or escape of a substance, or circumstances in which this is likely to occur
- > Potential contamination of waterways or land
- > Sediment discharge or sediment laden water moving off site
- > Pesticide or runoff containing pesticide that (i) enters waters or causes unintended damage to vegetation or property on a site, or (ii) leaves a site and enters waters or causes damage to non target vegetation or property
- > Unauthorised damage to an Aboriginal heritage site or object, or any State or locally significant listed relic
- > Unauthorised clearing or clearing beyond the extent of the intended scope of works
- > Inadequate installation and subsequent failure of temporary erosion and sediment controls
- > Unexpected find of contaminated soils, asbestos or other potentially hazardous substances
- > Unauthorised damage or interference to native vegetation, threatened species, endangered ecological communities or critical habitat
- > Dredging or reclamation works within a watercourse without appropriate authorisation
- > Accidental starting of a fire
- > Unauthorised or illegal waste disposal by TransGrid or its contractors
- > Breaches of environment protection licence conditions
- > Odour pollution incidents that involve the emission of an offensive odour that might unreasonably impact on nearby users of land
- > Dust pollution involving the generation of excessive dust and/or levels that might unreasonably impact on nearby residences/users of land
- > Inappropriate storage of solid or liquid waste that could potentially result in pollution of waters or property damage
- > Loss of significant amounts of SF₆, for example, greater than 10 kg
- > Vehicles tracking soil or mud onto roadways, where the soil or mud is not cleaned up immediately.
- > Failure to notify a regulatory authority in accordance with approval or agreement conditions.

4.1.1 Initial Response to Incidents

If an incident occurs:

- > Assess the site or area for danger and make safe where required and possible
- > Implement actions to prevent adverse impacts to the environment, this may include:
 - ceasing work in the relevant area, e.g. shutting of equipment if this is a source of pollution
 - preventing substances from spreading e.g. by using spill kits to contain a spill and protect stormwater drains
 - calling for external assistance if required from the Fire Brigade or State Emergency Services
 - clean up the area and dispose of any contaminated materials appropriately
- > Complete internal and external notifications and reporting as required by this procedure

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4.2 Internal Notification and Reporting

All staff are responsible for reporting environmental incidents. All environmental incidents or near misses must be reported. Any person becoming aware of an environmental incident must immediately notify their Team Leader or Manager. Environmental incidents must be reported in ARMS within 1 hour.

All environmental incidents shall be recorded through the ARMS Incident Reporting process. This can be done through the following ways:

- > Incident Reporting via the WIRE – easy reporting via a weblink.
- > Using the app on your smartphone – all TransGrid smart phones will have the ARMS Incident Reporting app installed.
- > ARMS system (for authorised users only) - Incidents can be raised directly in the ARMS system for staff who are authorised to use the system (typically Managers and Team Leaders).

The person who raised the incident will receive an email to notify that it has been raised in ARMS. Their Team Leader/Manager will also be notified that an incident has been raised to conduct an initial investigation.

4.3 External Assistance

Where incidents are beyond the ability of TransGrid to control, external assistance may be required from local authorities such as the Fire Brigade, State Emergency Services or Local Council. Where external assistance is required, the local manager and the Corporate Environment Manager or delegate must also be notified.

Where external assistance is requested, staff should record the following details in the ARMS:

- > Who was notified (organisation);
- > Who they notified (name and position);
- > How they were notified (phone/fax); and
- > Time they were notified.

External notification of notifiable pollution incidents are described in section 4.4.

4.4 External Notification and Reporting

4.4.1 Incidents that Require External Reporting

Incidents that need to be reported to external authorities include:

- > Any pollution incidents causing or threatening material harm to the environment, as defined in the POEO Act (see section 4.4.2 for more details)
- > Any incidents related to an activity that is licenced under the POEO Act
- > Discovery of a heritage item or relic
- > Discovery of an Aboriginal object or remains
- > Contamination of land at levels above those specified in the reporting guidelines, or if TransGrid becomes aware that their land is contaminated at such levels
- > Inability to extinguish any fire burning during a bush fire danger period
- > Any serious breaches of the NSW Code of Practice for Authorised Network Authorities relating Part 5 (SER, REF) works. A serious breach includes a breach which has, or is likely to have, a material adverse impact on the environment

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The requirements for notification of pollution incidents (e.g. who and what to notify) are described in more detail in sections 4.4.2 and 4.4.3.

The Corporate Environment Manager and the appropriate line manager should be notified verbally of any incident that is likely to require external notification to seek advice on any reporting requirements.

For all other incidents in the list above, in the first instance, contact the Corporate Environment Manager to discuss and confirm if external notification is required. Also, refer to the [Environmental High Consequence Incident](#) guideline for more information on external notification requirements for high consequence incidents that are reportable to an external authority.

4.4.2 Pollution Incidents that Require Immediate Notification

Pollution incidents that cause or threaten material harm to the environment or humans must be notified **immediately to relevant authorities** (in accordance with section 148 of the POEO Act) after becoming aware of the incident.

There are specific definitions for the terms **pollution incident** and **material harm to the environment**:

- > **Pollution incident** - includes a leak, spill or escape of a substance, or circumstances in which this is likely to occur
- > **Material harm** - includes on-site harm, as well as harm to the environment beyond the premises where the pollution incident occurred. Material harm includes actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial or that results in actual or potential loss or property damage of an amount over \$10,000

In determining if the costs from the incident are likely to exceed \$10,000, consider likely costs that may be associated with the following activities:

- > soil and water sampling to determine extent and level of pollution
- > labour involved in the clean up
- > any equipment that will need to be brought onto the site to remove any contaminated material

4.4.3 Notification of Pollution Incidents

Under the POEO Act, the following people have a duty to notify a pollution incident occurring in the course of an activity that causes or threatens material harm to the environment:

- a. the person carrying on the activity
- b. an employee or agent carrying on the activity
- c. an employer carrying on the activity
- d. the occupier of the premises where the incident occurs.

Notification must be given immediately, i.e. promptly and without delay, after the person becomes aware of the incident. Only persons engaged in the activity resulting in the pollution incident, and occupiers of the land where the incident occurs, have a duty to report the incident.

When an incident occurs as a result of an activity by TransGrid or its contractors, the definition of material harm will need to be reviewed to determine if the incident meets the required criteria. As soon as a TransGrid employee becomes aware of such a pollution incident, they are to immediately notify the Corporate Environment Manager by phone. The Corporate Environment Manager will assist in making an assessment of the incident and determine whether or not formal notification of the incident to the NSW Environmental

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Protection Authority (EPA) and other relevant authorities is required. If for any reason the Corporate Environment Manager is not contactable, staff should contact TransGrid's Legal Counsel to assist in assessing whether an incident triggers the notification requirements.

Legal Counsel and the Corporate Environment Manager should be consulted by phone if possible prior to reporting, to determine if specialist advice may also be required to confirm if the incident has caused pollution and/or material harm to the environment. While there is a requirement to notify immediately after becoming aware of pollution incidents causing or threatening material harm to the environment, it is appropriate to establish if the incident meets the definition in the POEO Act.

In any case, if no assistance can be obtained within a reasonable time, staff are required to notify the relevant authorities in the order of notification outlined in section 4.4.4 and provide each agency with the information required (see section 4.4.5). Even if you do not have all the information, you must notify each agency with the information you have at hand and ensure that they are updated as soon as further relevant information becomes available.


Contractors undertaking works are responsible for notifying TransGrid, EPA and the relevant authorities in accordance with Part 5.7 of the POEO Act. If the incident occurs on premises that are regulated by an environment protection licence, also refer to the Pollution Incident Response Management Plan.

4.4.4 Authorities to be Notified – Notifiable Pollution Incidents

Pollution incidents causing or threatening material harm to the environment should be notified to each relevant authority (see table below), immediately after becoming aware of the incident.

If the incident presents an immediate threat to human health or property, Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service should be contacted first for emergency assistance.

If the incident does not require an initial emergency agency, or once the 000 call has been made, notify the relevant authorities in the following order:

Relevant Authority (as defined in section 148(8) of the POEO Act)	Contact Details
Environment Protection Authority (EPA) Environment Line	phone 131 555
Appropriate regulatory authority (ARA)	the ARA for the activity under the POEO Act (usually the EPA or local authority) – the local authority is a local council of an area under the Local Government Act 1993), or the Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council)
Ministry of Health	via the local Public Health Unit – see www.health.nsw.gov.au/publichealth/infectious/plus.asp 
SafeWork Authority	phone 13 10 50

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Fire and Rescue NSW	phone 1300 729 579 (for environmental harm) phone 000 for human health or safety incidents Note: If the situation warranted calling 000 as a first point of notification, you do not need to ring Fire and Rescue NSW again
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4.4.5 Information to Provide

The table below summarises the information that needs to be notified. It is important to avoid speculation on origin, causes or outcomes of a pollution incident in discussions with the authorities.

There is also an ongoing duty to ensure that relevant information be notified after it becomes known i.e. if the information required is not known when the initial notification is made, but becomes known afterwards, that information must be notified immediately after it becomes known.

Section 150 POEO Act - Relevant Information to Provide

No.	Relevant Information
a	The time, date, nature, duration and location of the incident.
b	The location of the place where pollution is occurring or is likely to occur, the nature, the estimated quantity or volume and the concentration of any pollutants involved, if known.
c	The circumstances in which the incident occurred (including the cause of the incident, if known).
d	The action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution, if known.
e	Other information prescribed by the regulations.

4.5 Incident Investigation

Once an incident has been raised, the team/leader manager is responsible for determining if it is a high consequence environmental incident. A high consequence environmental incident is an incident that has caused, or has the potential to cause material harm to the environment. Examples of these are as follows:

- > Harm to threatened species, endangered populations, endangered ecological communities or critical habitat
- > Damage to any State or locally significant relic or heritage item
- > Harm to Aboriginal objects and Aboriginal places
- > Failure to comply with a REF determination/approval/EPA license condition
- > Works undertaken without required approval or environmental assessment
- > Discharge of waters from site not in accordance with any applicable REF determination/approval/EPA license condition
 - Unauthorised disposal or transport of hazardous chemicals or waste

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- > Unauthorised disposal or management of contaminated soils or waste.
- > Identification of contaminated soil and/or groundwater during maintenance or construction activities
- > Material, odour, fire or noise that travels beyond the site boundary causing or potentially causing adverse impact to the environment or community.

Note: this does not include fires that are fully contained within switch yards (e.g. CVT catches fire), but does include the potential to cause bushfires beyond site boundaries (e.g. hot works on or near boundary fences).

If the incident is a high consequence environmental incident, a detailed investigation is undertaken in ARMS. If an incident is not a high consequence incident, a less detailed investigation is undertaken. If an incident investigator determines that a detailed incident investigation is required for a low consequence incident, contact the System Administrator in the HSE Group to make the change in ARMS.

The determination of incident consequence must be made within 24 hours of receiving the incident notification. If the determination is not made within that timeframe, the incident will be escalated to their direct manager.

4.5.1 High Consequence Investigation

For high consequence incident investigations, a detailed investigation is required. The requirements for a high consequence investigation are as follows:

- > Determine the timeline or sequence of events for the incident
- > Identify any environmental, property or equipment damage
- > Review network assets maintenance history, if appropriate
- > Determine the primary causal factor (Attachment A), and if any contributing causal factors, for the incident
- > Document the activities undertaken for the investigation
- > Document the recommendations from the incident investigation
- > Raise or link existing actions in ARMS, if appropriate.
- > The investigation must be verified by the Health, Safety and Environment group before the incident can be closed out by a manager.

High consequence investigations must be completed within 12 days of the incident occurring.

For more information on how to conduct an incident investigation, refer to the Incident Investigation Process Work Instruction.

4.5.2 Low Consequence Investigation

For low consequence incident investigations, a less rigorous investigation is required. The requirements for a low consequence investigation are as follows:

- > Determine the primary causal factor (Attachment 1), and any contributing causal factors, if relevant, for the incident.
- > Raise or link existing actions in ARMS, if appropriate.
- > The investigation must be completed in ARMS and closed out by a manager. No verification by HSE Group is required for low consequence incidents.

Low consequence incident investigations must be completed within 2 days of the incident occurring.

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5. Accountability

Title	Responsibilities and Accountabilities
Worker	<ul style="list-style-type: none">> Notifying team leader/manager of incident> Raising incident notification in ARMS
Manager/Team Leader	<ul style="list-style-type: none">> Raising incident notification in ARMS> Conducting incident investigations
Health, Safety and Environment Group	<ul style="list-style-type: none">> Verification of all high consequence environmental incidents
Managers	<ul style="list-style-type: none">> Closing out incident investigations

6. Implementation

This procedure will be implemented the following ways:

- Notification on the HSE news page on the WIRE
- Discussed at WHS Committee meetings
- Email to all Team Leaders/Manager with a briefing pack.

7. Monitoring and review

This procedure will be reviewed every three years in accordance with the Document and Records procedure.

8. Change from previous version

Revision no	Approved by	Amendment
3	Ken McCall, Manager/HSE	Reformat of procedure to revised template with the following minor amendments: <ul style="list-style-type: none">• Updating position titles
4	Ken McCall, Manager/HSE	Document has been update to reflect the new ARMS incident notification and investigation process.
5	Ken McCall, Manager/HSE	Clarification of timeframes for incident reporting and investigation Minor typographical errors

9. References

Corporate and Regional Emergency Management Plan (CREMP)

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Appendix D – Summary of environmental management measures

Table D-1 Summary of revised environmental management measures (as per the TransGrid Environment Assessment and amended by the Submissions Report)

Environmental issue	Mitigation measure	Timing	Responsibility
Environmental Management			
EM1	Construction Environmental Management Plans (CEMPs) shall be prepared, and submitted to TransGrid for review and endorsement prior to the commencement of works, including site establishment. The CEMPs shall be prepared in accordance with the TransGrid Relocation Plan and TransGrid's procedure 'Preparation of a Construction Environmental Management Plan'. The CEMPs shall be updated in line with changes to work plans and all workers shall be advised of changes.	Pre-construction	TransGrid Construction Contractor
EM2	All workers are to be provided with an environmental induction prior to starting on site construction activities. This would include but not be limited to information on: <ul style="list-style-type: none"> • The ecological values of the airport site • Protection measures and site procedures to be implemented to protect biodiversity during construction • The Aboriginal and non-Aboriginal heritage values of the airport site. Training would be provided where appropriate. Records shall be kept of this induction and training.	Pre-construction Construction	Construction Contractor
EM3	An Environmental Supervisor shall be included as part of the construction staff to oversee implementation of the CEMPs and to ensure that all mitigation measures are being effectively applied. TransGrid shall appoint an Environmental Inspector to regularly check that the work is being carried out in compliance with all environmental approval and legislative conditions.	Pre-construction Construction	Construction Contractor
EM4	The following additional environmental approvals/licences/permits are required for the activity: <ul style="list-style-type: none"> • Road Occupation Licence under Section 138 of the Roads Act 1993 for works within the road reserve of The Northern Road. • Section 201 permit under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). 	Construction	Construction Contractor

Environmental issue	Mitigation measure	Timing	Responsibility
EM5	All environmental incidents and near misses shall be reported to TransGrid. All pollution incidents that threatens or harms the environment shall be reported immediately to relevant authorities, and TransGrid, in accordance with the <i>Protection of the Environment Operations Act 1997</i> (POEO Act).	Construction	Construction Contractor
Ecology			
EC1	Disturbed sites shall be stabilised, and areas not required for operation shall be returned to as close to their original condition as soon as possible.	Construction Post-construction	Construction Contractor
EC2	Where possible, impacts to known locations of the Spiked Rice-flower shall be minimised. The construction corridor shall be fenced off in the vicinity of locations containing the Spiked Rice-flower.	Pre-construction	Construction Contractor TransGrid
EC3	Weed control mitigation and management strategies shall be implemented. All herbicide use shall be in accordance with TransGrid requirements, and only TransGrid approved herbicides shall be used. Weed control strategies shall include: <ul style="list-style-type: none"> • Vehicle check procedures, including wash/brush down if required, to reduce the spread of weeds via vehicles and machinery. • Target areas of potential new outbreaks including soil stockpiles, roadsides and any other disturbed areas. • Cleaning of vehicle tyres, undersides and radiator grills before leaving a property (as appropriate), cleaning of footwear and minimising soil movement between locations. • Mitigation strategies for of noxious and problematic weeds and pests should they be found at the activity site. 	Construction	Construction Contractor
EC4	All hot works shall be undertaken in accordance with TransGrid's Hot Work and Fire Risk Work Procedure.	Construction	Construction Contractor
EC5	No fires or burning of materials shall occur on site.	Construction	Construction Contractor

Environmental issue	Mitigation measure	Timing	Responsibility
EC6	Pre-clearance surveys for the Green and Golden Bell Frog (in suitable conditions were possible) to confirm that they are not present at the site (within any impacted dams). Such surveys are to be undertaken by a suitably qualified ecologist. Should this species be located during targeted surveys, a management plan would be prepared to provide detail on Green and Golden Bell Frog relocation and habitat management. Frog collection and relocation would need to be conducted by appropriately experienced ecologists.	Construction	Construction Contractor
EC7	New waterway crossings or upgrades of existing crossings, if required on the airport site, will be designed and constructed to minimise potential impacts on watercourse functionality, in particular impacts on riparian and aquatic habitats and fish passage.	Pre-construction	Construction Contractor TransGrid
EC8	Pre-clearing surveys for larger birds nest, particularly the White-bellied Sea-eagles and Little Eagle.	Pre-construction	Construction Contractor
EC9	Any unexpected finds would be communicated to DIRD and addressed in the translocation plan and/or Offset Delivery Plan as appropriate.	Construction	Construction Contractor
EC10	The decommissioning or emptying of dams would be undertaken ensuring the following mitigation measures are implemented: <ul style="list-style-type: none"> • Progressively emptying dams over a number of days to allow fauna to relocate • Avoid undertaking works during nesting season wherever possible. A pre-removal survey would be conducted to identify any bird breeding locations. • Salvaging and relocation aquatic vertebrate fauna, including frogs, turtles and eels, to areas of suitable habitat retained at the airport site or nearby habitats, with regard to numbers and identification of suitable release sites. • Preventing the release of Eastern Gambusia (<i>Gambusia holbrooki</i>) and other noxious fish into local waterways as a result of the draining of farm dams. Eastern Gambusia will be eradicated from dams using humane methods. • Establishing protocols for the humane euthanasia of aquatic fauna, including fish. 	Construction	Construction Contractor

Environmental issue	Mitigation measure	Timing	Responsibility
EC11	Works on the site will be undertaken in accordance with the bushfire management plan developed by the DIRD. This plan addresses current bushfire risk and identifies response actions. This plan would be reviewed to ensure any additional risks associated with the TransGrid Relocation Plan works are adequately covered in the plan.	Construction	Construction Contractor
Aboriginal cultural heritage			
AH1	Until the Aboriginal Cultural Heritage CEMP has been approved, the management of Aboriginal cultural heritage would be undertaken in accordance with the <i>Interim Protocol on the Discovery of Aboriginal Cultural Heritage Objects and Human Remains</i> (unexpected finds protocol). In the event that an unexpected find is encountered, works shall cease at the location. The find shall be immediately reported to TransGrid, and the unexpected finds protocol complied with.	Construction	Construction Contractor
AH2	The location of Aboriginal heritage sites B32 and B114 would be confirmed by an archaeologist on site prior to works commencing to determine an appropriate buffer and demarcation as a no go zone. The construction corridor is to be fenced off in the vicinity of known Aboriginal sites to ensure construction activities, vehicles and personnel do not impact on these sites. The location of these sites and an appropriate buffer is to be delineated in consultation with an appropriately qualified archaeologist as part of work for the development and approval of the initial survey and salvage program plan. If site impact is determined, after consultation, to be unavoidable, any mitigation will be in accordance with the approved initial survey and salvage programme plan, and once approved the Aboriginal Cultural Heritage Management Plan CEMP, which are being prepared by DIRD.	Construction	Construction Contractor
AH3	Training on the identification of Aboriginal cultural heritage items along with the implementation of the unexpected finds protocol, would be included as part of the induction to all construction staff. Records of the induction would be kept by the Construction Contractor in accordance with EM2.	Construction	Construction Contractor
Non-Aboriginal cultural heritage			
NH1	In the event that a site or artefact of potential non-Aboriginal significance is identified during construction works (unexpected find), works shall cease at the location. The find shall be	Construction	Construction Contractor

Environmental issue	Mitigation measure	Timing	Responsibility
	immediately reported to TransGrid, and DIRDs <i>Interim Protocol on the Discovery of European Heritage Items and Human Remains</i> shall be complied with.		
Traffic and access			
TA1	Transportation and equipment delivery shall be in accordance with Roads and Maritime Services and Council requirements.	Construction	Construction Contractor
TA2	New access tracks required for the completion of the works shall be constructed in accordance with the approved plan of work that shall comply with the Soils and Construction Volume 2C Unsealed Roads (DECC, 2008).	Construction	Construction Contractor
TA3	<p>Traffic, transportation and access mitigation and management strategies shall be documented and implemented in accordance with the construction environmental management plans developed in accordance with the TransGrid Relocation Plan and updated as required. This shall include the following elements:</p> <ul style="list-style-type: none"> • Management for the temporary closures of roads within the airport site • Ongoing consultation with Roads and Maritime Services, local councils and emergency services, as appropriate • Induction for drivers working on the project to cover safety measures particularly for night works • Review of speed environments along transport corridors • Restriction of construction traffic within the AM and PM peak periods, where required • Management of the transportation of construction materials to optimise vehicle loads in order to minimise vehicle movements • Traffic control measures to manage and regulate traffic movements during construction • Identification of potential disruptions to road users • Identification of any road closures and/or road upgrade that may be required • Construction vehicle routes, including the use of arterial roads, haulage routes, access to the proposed activity site and procedures of oversized and heavy vehicles 	Construction	Construction Contractor

Environmental issue	Mitigation measure	Timing	Responsibility
	<ul style="list-style-type: none"> Measures to support and encourage sustainable travel for construction workers to and from the site, including public transport, shuttle buses, cycling, walking and car-sharing. Identification of staff parking areas. 		
Land use			
-	No mitigation measures proposed	NA	NA
Geology and soils			
GS1	An Erosion and Sediment Control Plan (ESCP) shall be prepared as part of construction environmental management plans to be developed in accordance with the TransGrid Relocation Plan. All erosion and sediment control measures shall be designed, implemented and maintained in accordance with relevant sections of "Managing Urban Stormwater: Soil and Construction Volume 1" (Landcom, 2004) (the Blue Book) (particularly Section 2.2) and "Managing Urban Stormwater: Soil and Construction Volume 2A – Installation of Services" (DECC, 2008)". The ESCP shall apply to stockpiles, site boundaries, access tracks and laydown areas. Exposed surfaces shall be kept to a minimum to limit the potential for erosion.	Pre-construction Construction	Construction Contractor
GS2	Cleared vegetation would be mulched for use in erosion control at construction sites.	Construction	Construction Contractor
GS3	Any material or soil suspected of contamination shall be sampled and analysed by a NATA registered laboratory and managed in accordance with the Waste Classification Guidelines (EPA, 2014), the Guidelines on the Duty to Report Contamination (EPA, 2015) and the Contaminated Land Management Act 1997.	Construction	Construction Contractor
GS4	Providing excess spoil is free of contamination, it may be stockpiled within the airport site for future use as part of earthworks required for the Stage 1 development. The positioning of this material is to be confirmed with the DIRD. Stockpiles shall be stabilised in a manner as to prevent erosion in line with the Erosion and Sediment Control Plan.	Construction	Construction Contractor
GS5	Construction plant and vehicles shall be cleaned of any mud or soils prior to access onto public roads. Vehicles and equipment shall be confined to existing roads and defined site access tracks.	Construction	Construction Contractor

Environmental issue	Mitigation measure	Timing	Responsibility
GS6	Any imported fill shall be certified at source location (e.g. Quarrymaster or property owner) as pathogen and weed free Excavated Natural Material (ENM) or Virgin Excavated Natural Material (VENM) in accordance with the NSW Protection of the Environment Operations Act 1997 (POEO Act) and the Protection of the Environment (Waste) Regulation 2014 (POEO Waste Regulation).	Construction	Construction Contractor
GS7	Environmental spill kits containing spill response materials suitable for the works being undertaken shall be kept on site at all times and be used in the event of a spill.	Construction	Construction Contractor
GS8	All chemicals or other hazardous substances shall be stored in bunded and weatherproof facilities away from drainage lines. The capacity of the bunded area shall be at least 130% of the largest chemical volume contained within the bunded area. The location of the bunded enclosure/s shall be shown on the Site Plans.	Construction	Construction Contractor
GS9	Prior to the establishment and use of the site laydown areas, a suitably qualified contractor shall be engaged to delineate the area(s) subject to potential asbestos contamination associated with the occupancy of the former dwelling. Any identified asbestos containing material (ACM) shall be appropriately managed in accordance with applicable regulatory requirement to ensure the site is safe for use prior to occupation.	Pre-construction	Construction Contractor
GS10	Stockpiling of topsoil and spoil should be limited to a maximum height of two metres, where practicable.	Construction	Construction Contractor
GS11	Topsoil stockpiled on site shall be distributed and seeded over landscaped areas at the completion of the works.	Construction	Construction Contractor
GS12	Prior to the demolition of the transmission structures, each tower shall be tested for the presence of asbestos and lead based paint by a NATA accredited laboratory. Should asbestos and/or lead be identified on any of the towers, the redundant steel towers shall be handled by a suitably qualified contractor and disposed of at a facility licenced to receive those waste types.	Construction	Construction Contractor
Hydrology and water Quality			
HW1	Spoil shall be stockpiled in a manner so as to avoid the possibility of sediments entering	Construction	Construction Contractor

Environmental issue	Mitigation measure	Timing	Responsibility
	waterways (including stormwater drains) or migrating off-site.	Post-construction	
HW2	Any bulk fuel/herbicide or hazardous material transport vehicles shall be parked on level ground a minimum of 40 metres away from waterways (including drainage and irrigation channels). No refuelling or bulk herbicide preparation shall occur within 40 metres of a waterway or open site drains.	Construction	Construction Contractor
HW3	Culvert crossings at dams would be designed to maintain downstream flows.	Construction	Construction Contractor
HW4	A dewatering procedure shall be developed to ensure that the release of water associated with drainage of dams or dewatering would be performed in a controlled manner that prevents pollution, erosion, sedimentation or scouring of receiving waterways. Where water is being discharged to the environment, the water would be treated to an appropriate quality prior to release with consideration to the receiving waterway and its classification under the Australian and New Zealand Environment Conservation Council (ANZECC) guidelines and local standards under the Airports (Environment Protection) Regulations 1997 if applicable. Where water is being discharged to land or used in dust suppression, water shall be treated to meet the following requirements: <ul style="list-style-type: none"> • Total suspended solids - ≤50 mg/l • No visual oil or grease • pH 6.5 to 8.5. As in-situ field tests for total suspended solids can be difficult, an empirical correlation should be established during the initial works between the in-situ measured turbidity and laboratory total suspended solids samples to confirm a Nephelometric Turbidity Units (NTU) measurement that will achieve 50mg/L.	Construction	Construction Contractor
HW5	Draining and filling of dams would also be carried out in accordance with the Erosion and Sedimentation Control Plan (as per environmental issue GS1).	Construction	Construction Contractor
HW6	Prior to draining of dams the agreement of any downstream properties who rely upon water flowing through dams to be impacted would be obtained by Construction Contractor with the	Construction	TransGrid/Construction Contractor

Environmental issue	Mitigation measure	Timing	Responsibility
	<p>support of TransGrid. The agreement with affected downstream properties would include agreement on any alternative water supply during the period in which flows are impacted. The following steps would be undertaken with affected downstream properties as part of the agreement process:</p> <ul style="list-style-type: none"> • All potentially affected landholders would be notified in writing at least two weeks prior to the draining of each dam seeking consent to undertake the dewatering works. The notification should clearly indicate how the landholder would be compensated in terms of replacing flows with alternative water supplies during the period where flows are affected. • No drainage of dams shall commence until the written consent of all potentially affected landholders is obtained. • In the event that consent from landowners is not provided, then TransGrid will use other methods to construct the causeways that would not affect downstream properties. 		
Noise and vibration			
NV1	<p>Noise generating works shall be in accordance with the Interim Construction Noise Guideline (DECC, 2009):</p> <ul style="list-style-type: none"> • 7:00am – 6:00pm Monday to Friday. • 8:00am – 1:00pm Saturdays. • No work on Sundays or Public Holidays. 	Construction	Construction Contractor

Environmental issue	Mitigation measure	Timing	Responsibility
NV2	<p>Work outside normal hours, on Sundays and public holidays, shall only comprise:</p> <ul style="list-style-type: none"> • The delivery of materials outside normal hours requested by police or other authorities for safety reasons (i.e. drums of conductor). • Emergency work to avoid the loss of lives and/or property. • Outages to connect the underground section to the overhead transmission line. • Works crossing The Northern Road in line with any requirements of the Traffic Management Centre and Roads and Maritime Services, this includes both trenching and de-stringing activities. 	Construction	Construction Contractor
NV3	<p>Other noise generating works outside of the standard construction hours shall require the formal written consent of the DIRD and require justification in accordance with the Interim Construction Noise Guideline (DECC, 2009). Any out of hours works would be undertaken to ensure that:</p> <ul style="list-style-type: none"> • All feasible and reasonable noise mitigation and management measures are implemented to minimise noise impacts on nearby residences; • No residence is subject to noise impacts arising from the proposed activity on more than 2 nights during any single week; • The noisiest works (example: saw cutting, jack hammering, rock breaking and vibratory rolling) during any night of works would be undertaken early in the night and prior to an 11.00 pm curfew (or midnight where road occupancy is unavailable until after 8.00 pm); where residences along the cable route are affected by noise from night works associated with other infrastructure projects in the locality, transmission cable night works are co-ordinated with those other night works; • Residences likely to be affected by night works are notified of upcoming night works not less than 5 days nor more than 14 days before those works are undertaken; • A telephone complaints line operated by appropriately trained staff is available during all times at which work is being undertaken to receive complaints from members of the public who may have concerns about the manner in which the proposed activity is being 	Construction	Construction Contractor

Environmental issue	Mitigation measure	Timing	Responsibility
	<p>undertaken; and</p> <ul style="list-style-type: none"> Community communication, consultation, and complaints investigation protocols and procedures are developed prior to any works. 		
NV4	Neighbouring properties to the north of the airport site shall be notified as to the timing and duration of the construction works and at least 7 days prior to commencing work.	Construction	Construction Contractor
Air quality and climate change			
AQ1	If necessary, dust suppression techniques shall be implemented and incorporated into the ESCP as per the techniques outlined in the "Blue Book", such as water spraying of surfaces and covering stockpiles. Non-potable water sources are to be utilised where possible, this could include using water from dewatered dams.	Construction	Construction Contractor
AQ2	All surplus soils and materials from excavations, which cannot be reused on site, shall be removed from site by covered trucks.	Construction	Construction Contractor
AQ3	Vehicles and equipment shall be maintained in accordance with the manufacturer's specifications.	Construction	Construction Contractor
AQ4	Residual raw materials shall be returned to the supplier, resold or reused at another site at the end of the project or recycled.	Construction Post-construction	Construction Contractor
AQ5	Materials shall be sourced from local suppliers, where feasible, to reduce the distance that materials need to be transported to the site.	Construction	Construction Contractor
AQ6	<p>Air quality mitigation and management strategies shall be documented and implemented in accordance with the CEMP. This shall include:</p> <ul style="list-style-type: none"> Reducing vehicle speeds when in the vicinity of residences to minimise the generation of nuisance dust. Progressively revegetating or otherwise rehabilitating disturbed areas as works are completed. 	Construction	Construction Contractor

Environmental issue	Mitigation measure	Timing	Responsibility
AQ7	Minimising drop heights of equipment and materials and using fine water sprays during such activities wherever appropriate.	Construction	Construction Contractor
AQ8	Emissions from vehicles would be managed through implementation the following measures wherever possible: <ul style="list-style-type: none"> • vehicles on site are to be switched off when not in use • avoid the use of diesel or petrol powered generators and instead use main electricity or battery powered equipment, where possible • consider appropriate vehicle speeds on sealed and unsealed roads. 	Construction	Construction Contractor
Visual amenity			
VA1	All construction plant, equipment, waste and excess materials shall be contained within the designated boundaries of the work site and the construction laydown area and shall be removed from the site following the completion of construction.	Construction	Construction Contractor
VA2	Any night lighting required for construction works will be located as far as practicable from sensitive receivers with appropriate screening as required.	Construction	Construction Contractor
Waste			
WA1	Waste mitigation and management strategies shall be documented and implemented in accordance with the construction environmental management plans which would be developed in accordance with the TransGrid Relocation Plan, TransGrid Waste Procedures and associated Work Instructions. This shall include: <ul style="list-style-type: none"> • Waste management facilities on-site including their set-up, use, management removal and waste tracking documentation. • Waste hierarchy application including information demonstrating the reduction of the amount of waste produced and the maximised reuse and recycling opportunities utilised. • Appropriate waste management across all possible waste items produced. 	Construction	Construction Contractor
WA2	Soil to be reused onsite would be tested for contamination in accordance with the National Environment Protection (Assessment of Site Contamination) Measure.	Construction	Construction Contractor

Environmental issue	Mitigation measure	Timing	Responsibility
WA3	All waste, including surplus and contaminated soils, which cannot be reused shall be classified in accordance with the Waste Classification Guidelines (EPA, 2014), removed from the site and disposed of at a facility that can lawfully accept the waste in accordance with the POEO Act and POEO Waste Regulation.	Construction	Construction Contractor
WA4	Concrete trucks shall be permitted to flick wet wipe their discharge chutes with the effluent discharged into prepared bored holes, prepared excavations/formwork or a watertight receptacle for disposal (to be shown on the ESCP). No concrete washout is permitted. All surplus concrete shall be returned to the concrete suppliers for recycling and not be discharged on site.	Construction	Construction Contractor
WA5	Prior to the demolition of the transmission structures, each tower shall be tested for the presence of asbestos and lead based paint by a NATA accredited laboratory. Should asbestos and/or lead be identified on any of the towers, the redundant steel towers shall be handled by a suitably qualified contractor and disposed of at a facility licenced to receive those waste types.	Construction	Construction Contractor
Electric and magnetic fields			
EF1	All designs shall be in accordance with the <i>International Commission on Non-Ionizing Radiation Protection (ICNIRP) Guidelines for limiting exposure to EMF (ICNIRP 2010)</i> .	Pre-construction	TransGrid
Socio-economic			
-	No mitigation measures proposed.	NA	NA