

ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

This is a sub-plan to be used in conjunction with the Environmental Management Plan

ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines

Customer: ElectraNet

Contract Number: EV 14171

Document Preparation and Control	Document Review		
Dayna Chapman – Environmental Advisor	Matt Hunter – Group Manager Environment & Sustainability		
Document Approval	Signature		
Matthew Park – Project Director	Ull-		

Project Document Code	Latest Version Number	Latest Version Date
14171-DOW-PRM-PLN-0380	1	26/04/2023

Document Version History			
Version No.	Date	Document Status	Brief Description of Change(s) from Previous Version
А	02/08/2021	For Review	Submission for ElectraNet review
В	05/11/2021	For Review	Construction Phase
С	21/01/2022	For Review	Minor Updates for Draft Submission
D	24/01/2022	For Review	Submission to ElectraNet for Review
E	18/02/2022	For Review	Update from ElectraNet Review Comments
0	01/03/2022	Approved	Approved for Construction
1	26/04/2023	For Review	Annual Review

DG-DM-TP047 Downer Internal Use Only © Downer 2020. All Rights Reserved



ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

TABLE OF CONTENTS

ElectraNet

1	PUF	RPOSE	3
2	DOC	CUMENT SCOPE	3
3	EN∖	/IRONMENTAL MANAGEMENT PLAN STRUCTURE	3
4	REF	FERENCED & ASSOCIATED DOCUMENTS	3
	4.1	Legislation	3
	4.2	Standards and Guidelines	4
	4.3	Downer Documents	4
	4.4	Approvals and Client Documents	5
5	DEF	FINITIONS	5
6	WAS	STE SOURCES	6
	6.1	General Sources	6
	6.2	Listed or Hazardous Wastes	6
7	CO	NSTRUCTION IMPACTS	7
8	WAS	STE MANAGEMENT	7
	8.1	Waste Management Hierarchy	7
	8.2	Storage and Disposal	8
	8.2.	1 Contaminated Waste	8
	8.2.2	2 Wastewater	8
	8.2.3	3 Concrete Washout Pits	8
	8.3	Dewatering	9
	8.4	Surplus Spoil and Soil Management	9
	8.4.	1 Disposal of Excess Spoil	0
	8.5	Potentially Contaminated Materials	.11
	8.6	Training and Awareness	.11
	8.7	Mitigation and Management Measures	.11
9	MOI	NITORING & REPORTING	.15



ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

1 PURPOSE

The purpose of this sub-plan is to describe how waste will be managed throughout the duration of the project. Works will be implemented in accordance with the management measures and strategies contained in this sub-plan.

2 DOCUMENT SCOPE

The scope of this plan applies to all Downer workers for ElectraNet's Project EnergyConnect (PEC). This plan incorporates the requirements in ElectraNet's project relevant documents including Scope for Environmental Management Plan EC.14171 – Project EnergyConnect Major Works Contract – Design and Construct (March 2021); Safety and Sustainability Standards; and Engineering Contract Specifications .

This plan applies to all aspects of environmental management for the project.

ElectraNet

Where additional management requirements are identified outside the scope of the Environmental Management Plan (EMP) and this sub-plan specific environmental controls will be identified and documentation/procedures updated.

3 ENVIRONMENTAL MANAGEMENT PLAN STRUCTURE

A series of environmental sub-plans, as referenced in the project's environmental management plan, aim to identify environmental risks and opportunities, and provide mitigation controls to manage those risks with an emphasis on the critical risks and controls.

As with the environmental management plan, sub-plans reference any IMS documents (including but not limited to, procedures, work instructions, and forms), customer specific requirements, and project specific documents required to execute the project.

Updates to sub-plans are subject to the document review and approval process detailed in the project's document control plan.

4 REFERENCED & ASSOCIATED DOCUMENTS

4.1 Legislation

In administering the *Environment Protection Act 1993* (EP Act), the Environmental Protection Authority implements the requirements of waste management in South Australia including:

- regulating all aspects of waste management, and activities and products that cause environmental harm through the production of waste
- applying the waste management hierarchy
- promoting the circulation of materials or circular economy
- supporting a strong market for recovered resources.

Schedule 1 of the EP Act has 'listed wastes' include asbestos and pesticides. Listed wastes must be transported by a waste transporter that is authorised to transport that type of waste.

Under the *Environment Protection (Waste to Resources) Policy 2010* different types of waste are prohibited from disposal at landfill including hazardous wastes, liquid waste, oil and tyres. Also under the policy, cardboard and paper, glass, metals, plastic packaging and vegetative matter that can be recovered should not be sent to landfill for disposal.



ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

Approval from SA Health will be required for the installation of wastewater treatment plant/s at the camp/s in accordance with the *South Australian Public Health (Wastewater) Regulations 2013 (SA)* and *On-site Wastewater Systems Code* (SA Health, 2013).

4.2 Standards and Guidelines

The standards and guidelines applicable to waste management are listed in the following table.

Australian Standards and Guidance Material

AS 1940 (2017) The storage and handling of flammable and combustible liquids

AS 4482.1 (2005) Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1, Non-Volatile and Semi-Volatile Compounds

AS 4482.2 (1999) Guide to the investigation and sampling of sites with potentially contaminated soil, Part 2, Volatile Substances

Guidelines for the assessment and remediation of site contamination (EPA South Australia, 2019)

On-site Wastewater Systems Code (SA Health, 2013)

Waste Disposal Information Sheet: Current criteria for the classification of waste including Industrial and Commercial Waste (Listed) and Waste Soil (EPA South Australia, 2010)

Water Quality Guideline: Environmental management of dewatering during construction activities (SA EPA, 2018)

4.3 Downer Documents

DOWNER DOCUMENTS

POLICIES			
	POLICIES		
DG-ZHAN-PO200 Envi	Environmental Sustainability Policy		
PRINCIPLES			
DG-ZH-PN002 10 E	Environmental Principles		
PROCEDURES			
DG-DM-PR003 Ope	erational Change Management Procedure		
DG-QA-PR003 Inter	rnal Audits Procedure		
DG-RM-PR003 Proj	ect Risk and Opportunity Management		
DG-ZH-PR006 Incid	dent Management Procedure		
DG-ZH-PR007 Zero	Zero Harm Performance Monitoring and Reporting Procedure		
DG-ZH-PR116.1 Insp	Inspections Procedure		
STANDARDS			
DG-HR-ST013 Train	Training & Competency Management Standard		
DG-ZH-ST002 Legi	Legislative and Other Requirements Standard		
DG-ZH-ST013 Zero	Zero Harm Worker Consultation Standard		
DG-ZH-ST063 Was	Waste Management Standard		
DA-ZH-ST086 Asb	Asbestos Management		
PROJECT SPECIFIC DOCUMENTS			
PLANS			
14172B-DOW-PRM-PLN-0004 Quality Management Plan			
14172B-DOW-PRM-PLN-0015 Emergency Preparedness Management Plan			

DG-DM-TP047

Downer Internal Use Only © Downer 2020. All Rights Reserved





Management Sub-plan

Waste

ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

14172B-DOW-PRM-PLN-0022	Environmental Management Plan
14172B-DOW-PRM-PLN-0024	Weed Pest and Disease Management Sub-plan
14172B-DOW-PRM-PLN-0025	Biodiversity and Rehabilitation Management Sub-plan
14172B-DOW-PRM-PLN-0026	Landholder Liaison Sub-plan
14172B-DOW-PRM-PLN-0027	Sedimentation, Erosion and Drainage Management Sub-plan
14172B-DOW-PRM-PLN-0029	Waterway Management Sub-plan
14172B-DOW-PRM-PLN-0030	Cultural Heritage Management Sub-plan
14172B-DOW-PRM-PLN-0031	Bush Fire Management Plan
14172B-DOW-PRM-PLN-0032	Safety Management Plan (Construction)

4.4 Approvals and Client Documents

PROJECT APPROVALS AND CLIENT DOCUMENTS		
DA	ТВС	
ECS	ElectraNet Section 3 - Engineering Contract Specification (December 2020) Section 3.2a: Transmission Lines - Detailed Design Section 3.2b: Transmission Lines - Construction	
SEMP	Scope for Environmental Management Plan EC.14171 – Project EnergyConnect Major Works Contract – Design and Construct (March 2021);	
S&S	ElectraNet Safety and Sustainability Standards (October 2020)	

5 DEFINITIONS

The following terms are used in this document.

CAZ Plans	Construction Activity Zones (CAZ) include all ground disturbing activities, access routes and work areas associated with the project including:				
	 new tracks, pads and facilities 				
	 maintenance of existing access tracks including grading, widening or stabilisation 				
	 areas of disturbance associated with demolition works. 				
	These designated CAZ will be available as spatial data and/or PDF maps for all workers.				
Downer Worker	All individuals working for Downer as: employees, contingent labour hire, contractors, subcontractors, apprentices, trainees, and work experience students.				
INX	Zero Harm database used to record, investigate and follow-up events, including audits, hazards, incidents, inspections, meetings, observations, risk assessments, reviews, and suggestions.				
NATA	National Association of Testing Authorities				
PCA Site	Location/s with potentially contaminating activities (PCA) such as Cultana Defence Area, ElectraNet Substations and Switching Yards				
PCB	Polychlorinated biphenyl				



ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

6 WASTE SOURCES

For construction, the various types of waste that could be produced is detailed in the sections below.

6.1 General Sources

During the project the following types of general solid and liquid waste could be generated:

Sources of waste	Project Activity	
General construction	Tower footings, land clearance for access and stringing tracks, substation and ancillary infrastructure, laydown areas, construction camp	
Spoil	Excess excavated material	
Potentially contaminated material	Tower footings, land clearance for access and stringing tracks, substation and ancillary infrastructure, laydown areas, construction camp	
Clean fill material	Tower footings, land clearance for access and stringing tracks, substation and ancillary infrastructure, laydown areas, construction camp	
Vegetation and organic material	Tower footings, land clearance for access and stringing tracks, substation and ancillary infrastructure, laydown areas, construction camp	
Waste water	Construction camp, concrete batching	
Waste concrete	Tower footings, substation and ancillary infrastructure	
Conductor drums	Tower components, substation and ancillary infrastructure	
Electrical conductors and insulators	Tower components, substation and ancillary infrastructure	
Steel	Tower components, tower footings, substation and ancillary infrastructure	
Domestic waste	Construction camp waste / office waste	
Timber	Tower footings, land clearance for access and stringing tracks, substation and ancillary infrastructure, laydown areas, construction camp	
Hazardous materials and chemicals	Tower footings, land clearance for access and stringing tracks, substation and ancillary infrastructure, laydown areas, construction camp	

6.2 Listed or Hazardous Wastes

During the project the following types of listed or hazardous could be generated:

Types of waste	Examples		
Sewerage	Septic systems at camps and substations; and portaloos		
Waste hydrocarbons	Waste materials from onsite maintenance such as waste hydraulic oil, spent oil filters and rags as well as clean-up of any spills		
Waste chemicals	Waste chemicals		
Empty containers	Containers that may be contaminated with residue of hazardous substances such as fuel and hydraulic oil, chemicals (including herbicides) and paints		
Polychlorinated biphenyl (PCBs)	To be confirmed as potential for oil filled plant in the substation to contain PCBs		
Sulphur Hexafluoride (SF ₆) gas	Waste SF ₆ from filling of circuit breakers		
Tyres	Waste tyres from onsite maintenance or damage		
Potentially contaminated materials	Any materials, such as spoil, that has the potential to be contaminated such as hydrocarbons and PCB's		



ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

7 CONSTRUCTION IMPACTS

Inappropriate handling and disposal of waste can impact on soil and water quality as well as lead to litter onsite and potentially offsite. Prior to commencing onsite works, the following will be considered for effective waste management:

- identification and classification of all waste streams
- assessment of waste streams based on the waste hierarchy
- waste segregation, handling and storage arrangements
- waste transport methods and disposal locations
- permits/licenses required to store, transport or dispose of waste; and
- waste transporters and receiving facilities licenses.

8 WASTE MANAGEMENT

The following mitigation and control strategies will be undertaken to mitigate the potential impacts associated with waste.

8.1 Waste Management Hierarchy

The waste management hierarchy prioritises various waste management approaches. Under the hierarchy, avoiding waste generation is most preferable. Disposal of waste is the least preferable. Disposal should therefore only occur where other waste management options, such as recycling, are not possible.

In applying the waste management hierarchy, Downer seeks to:

- promote the best and safest use of recovered resources, and
- reduce the amount of waste going to landfill and ending up in our environment.

Implementation of the waste hierarchy for the Project is summarised in the Table below and detailed in the mitigation table.

	Avoid	The production of waste will be avoided through measures such as effective ordering of supplies		
Most Preferable	Reduce	The production of waste will be reduced through measures such as using best practice work methods to avoid materials and supplies wastage		
AVOID	Reuse	Where possible, potential waste streams will be reused onsite		
REDUCE		This will include use of excess soil and vegetation onsite for remediation		
		of disturbed areas (see next Section for details on surplus soil management)		
REUSE	Recycle	Recycling of waste will be implemented through onsite separation of		
RECYCLE	5	waste into appropriate bins and containers		
RECOVER		The types of recycling to be implemented will include paper and cardboard; metals; and containers.		
TREAT DISPOSE	Recover	Where possible, opportunities to recover energy from waste will be identified		
DISPOSE	Treat	Waste will be treated onsite, where appropriate		
Least Preferable		This will include onsite treatment of sewerage waste from the camp		
	Dispose	Waste streams with no other effective use will be removed offsite for disposal at a licensed waste disposal facility		
Table 1 - Implementation of the waste hierarchy				

DG-DM-TP047 Downer Internal Use Only © Downer 2020. All Rights Reserved



ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

8.2 Storage and Disposal

Waste storage facilities will be set-up at the camp, laydown and substation locations as required. This will include appropriate containers/bins for segregation and storage of different waste streams.

The types of waste to be segregated where there is an opportunity for recycling include:

- paper/cardboard
- wood (crates and pallets)
- plastics (drink containers refund)
- steel (rebar, bolt drums, tower components)
- aluminium (conductor and earth wire/OPGW)
- concrete (concrete footings and concrete from sump)

Other waste, that cannot be reused or recycled, will be segregated for disposal such as:

- general waste: insulators; other waste packaging and containers that cannot be recycled; declared weeds with viable seeds will be securely bagged to prevent dispersal
- food waste in bins with lids/covers to discourage scavenging by fauna/pests and windblown litter
- tyres

Waste will be regularly removed from the project area by waste transporters to licensed waste disposal facilities. Records waste disposal to be kept and recorded into the Waste Register.

8.2.1 Contaminated Waste

Listed/hazardous wastes will be stored in designated and bunded areas at least 50 m from drainage lines or watercourses. Spill kit located at listed/hazardous wastes storage area. A SDS will be available for each waste type. Types of listed/hazardous waste may include:

- containers (oil filters, chemical containers)
- waste hydraulic oil and rags
- waste chemicals
- contaminated waste (spill clean-up)

A waste transporter that is authorised to transport the type of listed/hazardous waste will be engaged to transport the waste a licensed waste disposal facility. Electronic copies of waste tracking/disposal forms will be kept throughout the project and provided to ElectraNet on request.

8.2.2 Wastewater

Septic and other wastewater treatment plant/s will be installed and operated at the Morgan camp in accordance with the *South Australian Public Health (Wastewater) Regulations 2013 (SA)* and *On-site Wastewater Systems Code* (SA Health, 2013). Following the completion of the works, temporary wastewater treatment systems will be decommissioned and removed from site.

8.2.3 Concrete Washout Pits

After each foundation pour there will be excess concrete left within the concrete truck agitator. This waste concrete will be returned to the batching plants. However smaller amounts of concrete on the concrete truck chutes will be washed out onsite using one of the following processes:

1000L IBC Washout

lower the chute over the IBC



ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

- wipe then wash off the concrete on the chute using water and direct all waste concrete into the dedicated receptacle
- concrete allowed to dry within the concrete disposal sump

The dedicated waste concrete IBC's will be strategically placed along the transmission line corridor (approximately every five structures). These IBC's will be utilised for waste concrete until they are ½ full and left for the concrete to cure and excess water to evaporate. No other wastes to be placed into the dedicated waste concrete IBC's.

The ½ full IBC's will be transported back to the Yard and stockpiled till there are enough waste concrete IBC's for a load to be organised to an approved re-use or recycling company.

Concrete Disposal Sumps

Where IBC's are unavailable concrete on the concrete truck chutes will be washed off into a concrete disposal sump as per the following process:

- lower the chute over the concrete disposal sump
- wipe then wash off the concrete on the chute using water
- concrete allowed to dry within the concrete disposal sump

The concrete disposal sumps will be established approximately every five structures along the line. These sumps will comprise of an approximately 3m x 3m and 0.5m deep excavation located within the Construction Activity Zone. The concrete disposal sumps will be lined with plastic. No other wastes to be placed in concrete washout pits.

Concrete washout pits will be emptied when they are full and/or no longer required for construction and the concrete has dried. All concrete waste will be removed offsite for reuse or disposal at a licensed waste disposal facility. All concrete washout pits will be decommissioned and remediated following the completion of the works as part of the rehabilitation works.

8.3 Dewatering

Dewatering will be undertaken in accordance with the **DA-ZH-ST064 Soil and Water Management Standard**. Prior to dewatering, the water in from open excavations, the water will be tested for pH, using pH test strips, and turbidity, using a turbidity tube.

The pH and turbidity levels will determine if the water is suitable for pumping out or if further controls are required prior to dewatering. The dewatering discharge limits for south central Australia are 6.5-9.0 pH units and 50 mg/L or 150 NTU for and turbidity. Management measures for high levels of turbidity may include passing water through a filtration system such as a filter tube. Management measures for pH may include increasing pH levels through the addition of lime.

A **DA-ZH-FM064.1 Dewatering Permit** will be developed and authorised by the Environmental Advisor and Supervisor prior to commencing dewatering. During dewatering, the water will be pumped onto an area adjoining to the construction activity zone while minimising the potential for erosion (i.e. onto grassed/ vegetated/rocky area where possible). Water from dewatering will not be pumped directly into a waterway or drainage line and must be in accordance with 5.13 Safety and Sustainability Standard 9.28 – Water Management

Details on the management of water or other liquids with a bunded area is provided in the sedimentation, erosion and drainage management sub-plan.

8.4 Surplus Spoil and Soil Management

Surplus spoil will be generated during the excavation of foundations and excess subsoil may be generated from levelling of construction areas. Where possible, excess spoil or surplus subsoil will be reused on the same land parcel as it originated. Excess spoil may be spread on permanently cleared land as follows:

permanent Structure Pads – up to 100mm deep underneath the structure on the permanent pad. Spoil
should be contoured away from the centre of the tower to avoid pooling water. Centre height should not

DG-DM-TP047 Downer Internal Use Only © Downer 2020. All Rights Reserved



ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

exceed 250mm. Contractor should consider the use of geofabric as a way of stabilising the spoil under the tower to avoid the risk of erosion

- spurs to tower locations up to 100mm deep
- local access stacks depth and frequency to be determined by contractor.

The spoil shall be suitable for the task to be undertaken and must meet the physical characteristics of the waste fill criteria (ie. consisting of clay, concrete, rock, sand, soil or other inert mineralogical matter in pieces not exceeding 100millimetres in length) and must comply with the Mining Act 1971 and Environmental Protection Act 1993.

Any excess spoil required for the ongoing upgrade of access tracks shall be stored on previously cleared areas and shall be removed once work are complete on that parcel of land. A risk assessment shall be undertaken in consultation with ElectraNet's Environmental Advisor to determine appropriate storage location. Land will be remediated, to the condition it was before the storage of spoil, as soon as possible after the removal of the spoil.

Spoil generated during construction **must not** be spread on temporary clearance areas, including but not limited to:

- structure pad CAZ, other than permanent structure pad
- stringing tracks
- laydown areas
- staging areas

8.4.1 Disposal of Excess Spoil

Spoil is not to be transferred between different land titles without the consent of each landholder and ElectraNet. If spoil is to be transferred between different land titles it must meet the waste fill criteria (as defined in Part 1 of the Environmental Protection Regulations).

Where there are no beneficial reuse options on the same land parcel available, the following will be implemented for the following sites:

- 1. Non-Potentially Contaminating Activities (PCA) Sites:
 - Surplus spoil <100 tonnes from a given land parcel can be provided to adjoining landholders, without the need for sampling, testing, analysis and waste characterisation.

Note disposal to a landfill can be negotiated with local, licensed facilities without the need for a Waste Classification Report.

• Surplus Spoil >100 tonnes from a given land parcel can be provided to adjoining landholders however sampling, testing, analysis and waste characterisation is required.

Note disposal to a landfill will require a Waste Classification Report to be supplied.

- 2. Potentially Contaminating Activity Site
 - All surplus spoil must be sampled, tested, analysed and characterised in accordance with Waste Disposal Information Sheet: Current criteria for the classification of waste including Industrial and Commercial Waste (Listed) and Waste Soil (EPA South Australia, 2010) and taken offsite for disposal at a suitably licensed landfill (irrespective of mass/volume) with a supplied Waste Classification Report.

Further Information on testing of potentially contaminated materials is provided in the following section.



ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

8.5 Potentially Contaminated Materials

For any potentially contaminated materials, the following will be implemented in accordance with AS 4482.1 and AS 4482.2 and *Guidelines for the assessment and remediation of site contamination* (EPA South Australia, 2019):

- sample: Collect samples from stockpiled material.
- test: Samples sent to a NATA accredited laboratory and tested for contaminated waste criteria in accordance with the Waste Disposal Information Sheet: Current criteria for the classification of waste including Industrial and Commercial Waste (Listed) and Waste Soil (EPA South Australia, 2010). Soil must not to be removed from site until results are available.
- analysis: Results will be assessed by a suitably qualified person and classified appropriately.
- transport and disposal: A licenced waste transporter will be engaged to transport all contaminated materials with Waste Tracking Certificates (WTCs) generated. All contaminated materials to be disposed at an appropriately licenced waste facility.

8.6 Training and Awareness

Downer recognises the importance of employee training and induction, and the critical role it plays in supporting the safe and environmentally responsible conduct of project operations. All personnel must be fully informed of their specific environmental obligations and are suitably trained and competent to undertake works in accordance with ElectraNet and Downer requirements.

The site induction for all staff, sub-contractors and visitors will include waste management.

8.7 Mitigation and Management Measures

The following table outlines the mitigation and management measures that will be implemented as far as practicable throughout the project to prevent potential impacts of waste.





ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

Ref	Mitigation Strategy	Location / Activity	Downer Procedure	Responsibility	Management Measure & Monitoring of Controls	
Pre-exe	cution Phase					
SEMP	Approval from the SA Department of Health for approval of installation of wastewater treatment plant/s.	Planning Phase	This sub-plan	Environmental Advisor	Approval from SA Department of Health in accordance with South Australian Public Health (Wastewater) Regulations 2013 and On-site Wastewater Systems Code will be obtained prior to installation of wastewater treatment plant/s.	
SEMP	Removal and disposal of all rubbish and wastes on the easement at the commencement of construction, even where the rubbish or waste is historical waste resulting from landholder activities or illegally dumped waste.	Prior to commencing onsite	This sub-plan	Construction Manager	Prior to undertaking the works, any rubbish and wastes on the easement will be removed for disposal at an appropriate waste disposal facility.	
S&S	Develop, implement, monitor and review a documented process or management plan that controls all aspects of the management of waste in accordance with applicable legislation and good practice.	Prior to commencing onsite	This sub-plan	Environmental Advisor	 This sub-plan has been developed to include: a risk assessment process identification of activities resulting in waste production identification and management of all waste types and streams in accordance with the hierarchy of waste detailing testing, treatment and disposal arrangements describe surplus soil and liquid wastes are managed and documented detailing assurance measures for verifying appropriate licencing of receiving facilities 	
SEMP	All personnel must be fully informed of their specific environmental obligations. Site personnel inductions to include appropriate storage (including separation) and disposal/	Prior to commencing works onsite	Project Induction	Construction Manager Environmental Advisor	All personnel are required to undertake the Project Induction which includes waste management prior to commencement onsite.	
	recycling of waste.					
Execution	Execution Phase					
SEMP	Ensure wastes are minimised.	Throughout the works	DA-ZH-ST063 Waste Management	Construction Manager	Wastes will be minimised through measures such as effective ordering of supplies. Where possible wastes will be reused such as spoil and green waste will be used for remediation of disturbed areas; conductor drums and any excess supplies will be returned to supplier or used on other projects.	



ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

Ref	Mitigation Strategy	Location / Activity	Downer Procedure	Responsibility	Management Measure & Monitoring of Controls	
SEMP	Excess soil removed from site to landfill, or for reuse at another site, will be undertaken in accordance with SA EPA regulatory requirements, such as a Waste Soil Assessment on surplus soils.	Throughout the works	DA-ZH-ST063 Waste Management	Environmental Advisor	See Section 8.4 for details for details on management of surplus soils and spoil from excavations including sampling, testing, analysis, transport and disposal of potentially contaminated materials.	
SEMP	Ensure wastes are segregated with appropriate storage strategies. Co-mingling of recyclable wastes must not occur.	Throughout the works	DA-ZH-ST063 Waste Management DA-ZH-FM116.9 Environmental Inspection Checklist	Construction Manager Environmental Advisor	 Waste storage facilities will be set-up at the camp, laydown and substation locations as required. This will include appropriate containers/bins for segregation and storage of different waste streams. Types of waste to be segregated where there is an opportunity for recycling of the materials: paper/cardboard wood (crates and pallets) plastics (drink containers refund) steel (rebar, bolt drums, tower components) aluminium (conductor and earth wire/OPGW) concrete (concrete footings and concrete from sump) Other waste, that cannot be reused or recycled, will be segregated for disposal such as: general waste: insulators; other waste packaging and containers that cannot be recycled; declared weeds with viable seeds will be securely bagged to prevent dispersal food waste in bins with lids/covers to discourage scavenging by fauna/pests and windblown litter Inspection of waste management through Environmental Inspection Checklist. 	
SEMP	Segregate listed/hazardous wastes from other waste streams and ensure tracking of requirements are met.	Throughout the works	DA-ZH-ST063 Waste Management	Construction Manager Environmental Advisor	Listed/hazardous wastes will be stored in designated and bunded areas at least 50 m from drainage lines or watercourses. This will include: containers (oil filters, chemical containers) waste hydraulic oil and rags waste chemicals contaminated waste (spill clean-up) Spill kit located at listed/hazardous wastes storage area. A SDS will be available for each waste type.	



ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

Ref	Mitigation Strategy	Location / Activity	Downer Procedure	Responsibility	Management Measure & Monitoring of Controls		
					A waste transporter will be engaged that is authorised to transport the type of listed/hazardous waste to a licensed waste disposal facility.		
SEMP	Mixing of soil types to be avoided (i.e. contaminated/non-contaminated)	Throughout the works	DA-ZH-ST063 Waste Management	Environmental Advisor	Contaminated or potentially contaminated soil will be stockpiled and managed separately to non-contaminated soil. Management of contaminated soil in accordance with Section 8.4.		
SEMP	Regularly remove all wastes from the project site. Dispose of wastes to duly authorised landfills or recycling facilities.	Throughout the works	DA-ZH-ST063 Waste Management	Construction Manager	Regular removal of waste from the project area by waste transporters to licensed waste disposal facility. Records waste disposal to be kept and recorded into the Waste Register.		
SEMP	Ensure that procedures are in place should any asbestos or asbestos containing material be encountered.	Throughout the works	DA-ZH-ST086 Asbestos Management Safety Management Plan	Zero Harm Manager	Asbestos and asbestos containing materials will be removed and transported in accordance with the licensing and permitting requirements under the <i>Environment Protection Act</i> <i>1993.</i> Further information on asbestos management is detailed in the Safety Management Plan.		
SEMP	Work areas to be maintained in a neat and orderly manner.	Ongoing throughout works	DA-ZH-FM116.9 Environmental Inspection Checklist	Environmental Advisor	Ongoing housekeeping of works sites including waste management. Inspection of waste management through Environmental Inspection Checklist.		
S&S	All environmental incidents and hazards identified during the project must be recorded, reported and managed effectively.	Ongoing throughout project	INX	Construction Manager Environmental Advisor	All environmental incidents and hazards will be verbally reported to ElectraNet within 1 hour of identification outlining factual information. An investigation report from INX will be provided to ElectraNet within 24 hours. Environmental incidents and hazards will be reported through ElectraNet's online Incident Management System (IMS).		
Post-ex	Post-execution Phase						
SEMP	All wastes will be removed from site at the completion of the project	Project area	DA-ZH-ST063 Waste Management	Site Manager	Following completion of works, inspection of the works area for waste through the Post Construction Checklist.		



ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines, 14171-DOW-PRM-PLN-0380, 1

9 MONITORING & REPORTING

In addition to the requirements outlined in the Environmental Management Plan, the following table outlines the monitoring and reporting to be undertaken during the pre-execution, execution, and post-execution phases of the project relating weed, pest and disease management.

Monitoring & Reporting Requirements	Responsibility	Reference				
Pre-execution Phase						
Undertake pre-construction survey to identify presence of waste within the project area	Environmental Advisor	SEMP				
 Obtain relevant licences and permits prior to the commencement of works: obtain SA Department of Health approval for installation of wastewater treatment plant/s check licences for nominated waste disposal facilities including acceptance of different waste types check licences of nominated waste transporters including types of waste they are licensed to transport 	Environmental Advisor	SEMP S&S				
Execution Phase						
Fortnightly environmental inspections through Environmental Inspection Checklist	Environmental Advisor	SEMP				
 Hazardous/regulated waste tracking documentation to be completed and provided to ElectraNet within 3 business days for: all waste tracking certificates from disposal of hazardous substance and spill clean-up activities all completed waste tracking certificates for controlled any regulated (listed) waste 	Environmental Advisor	S&S				
Post-execution Phase						
Following completion of works, inspection of the works area for waste through the Post Construction Checklist	Environmental Advisor	SEMP				