


**This is a subordinate management plan to be used in
conjunction with the Project Management Plan**

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

Customer: ElectraNet

Contract Number: EC 14171

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1 PURPOSE

This plan defines the environmental management principles, processes, procedures, systems, tools, and templates implemented for use throughout the duration of the project.

This plan is subordinate to the Project Management Plan (PMP) which has been developed to:

- satisfy the requirements of the contract; and
- support the project team in completing the requirements of the project.

2 DOCUMENT SCOPE

The scope of this management plan applies all Downer workers for ElectraNet Project EnergyConnect SA to NSW Interconnector 330kV and 275kV Transmission Lines .

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

The target audiences for this plan are all Downer workers, and any other relevant stakeholders.

Where additional management requirements are identified outside of the scope of this EMP and Sub-plans specific environmental controls will be identified, and documentation/procedures updated.

3 PROJECT MANAGEMENT FRAMEWORK

The Downer project management framework aligns and integrates the project functions which define the project's delivery methodologies and processes. The Project Management Plan (PMP), as a key element of the project management framework, is the integration document which identifies and details both the standard Downer project management practices, structure, and execution methods and any project specific requirements for the project.

The PMP incorporates a number of subordinate management plans which provide the specific functional detail required to successfully deliver the project. The relationship between the Downer IMS, the PMP and subordinate management plans is illustrated in the following figure.

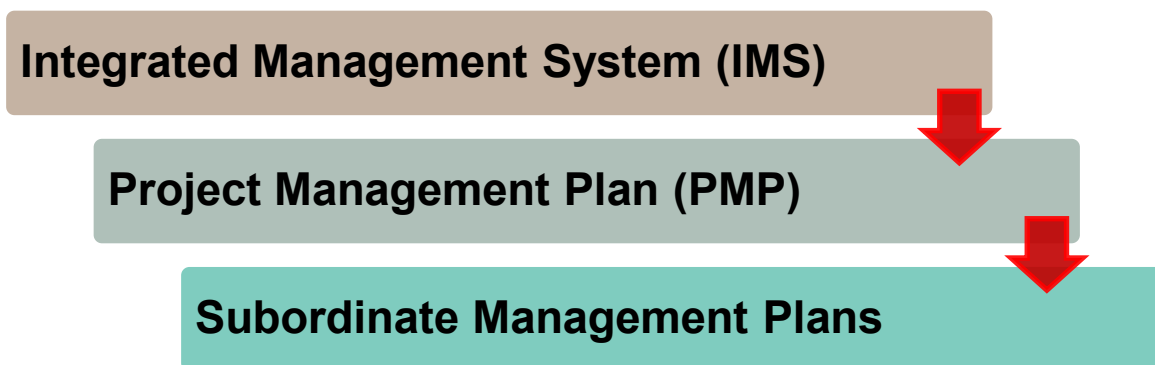


Figure 1: Project Management Plan Structure

The 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.

The PMP provides project specific details including, but not limited to, the following:

- Project information, i.e. background, project location, and project description
- Scope of work, i.e. scope of work narrative, basis of design, battery limits, and scope of services; and
- Project objectives and values, i.e. objectives, overarching principles, values, and key performance indicators (KPIs) for the project.

All positions in the project team have a clearly defined role and set of responsibilities that are included either in the PMP or relevant subordinate management plan. All members of the project team are made aware of and understand their responsibilities prior to commencing work on the project. Refer to *Annex A – Project Roles & Responsibilities* for the roles and responsibilities for environmental management.

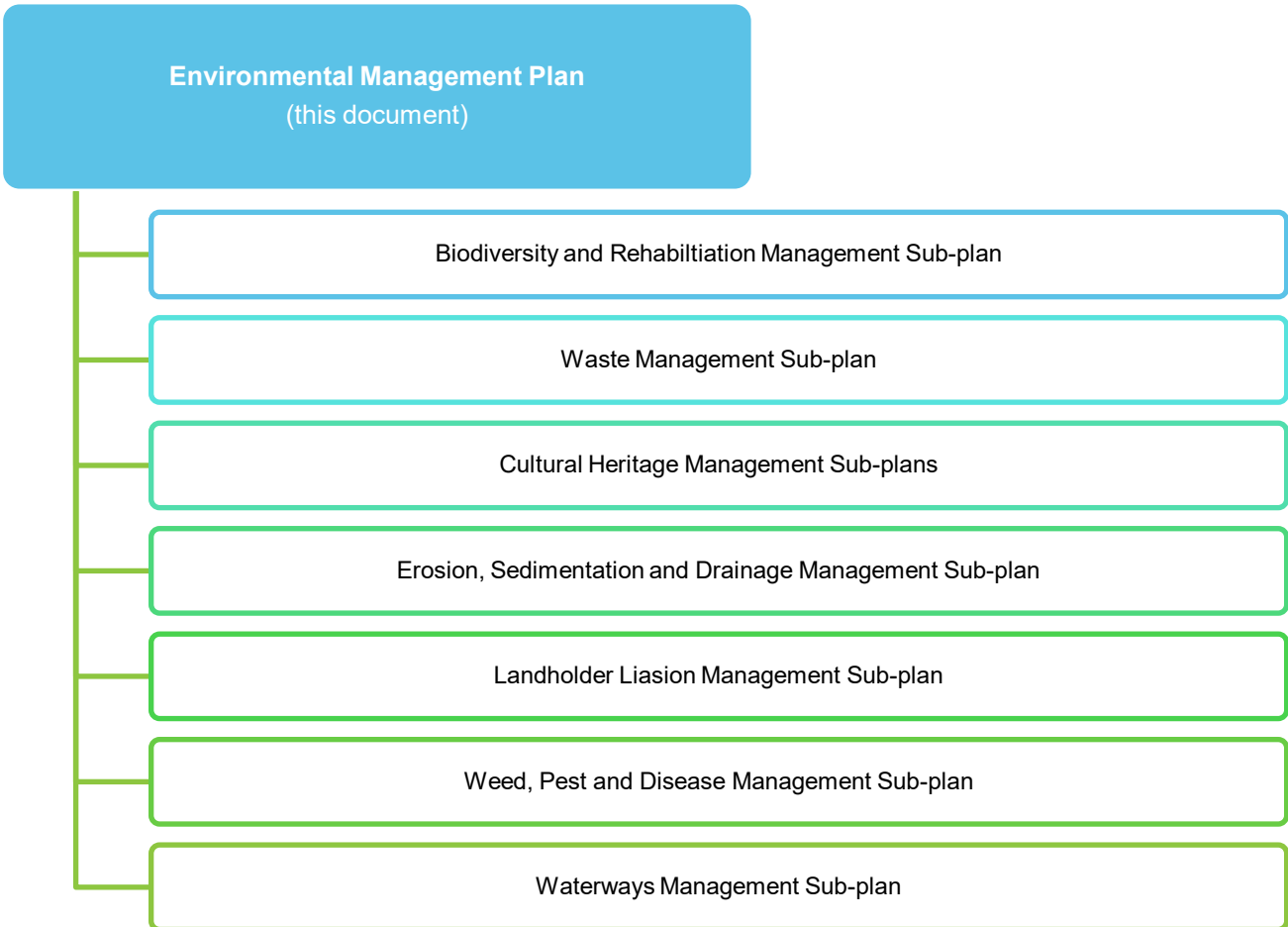
The PMP and subordinate management plans are audited throughout the duration of the project to maintain compliance and updated as required. Updates to the PMP and subordinate management plans are subject to the document review and approval process detailed in the project’s Document Control Plan.

3.1 Environmental Management Plan Structure

The Environmental Management Plan comprises two components:

1. The Environmental Management Plan (this document) which:
 - provides background information and strategic and broad environmental management considerations for the project; and
 - includes procedures and processes for environmental management during project delivery; and
2. A series of environmental management sub-plans, which detail current controls and mitigation measures to manage specific key project environmental risks or customer/ stakeholder concerns.

The sub-plans in the following figure form part of this Environmental Management Plan.



4 REFERENCED & ASSOCIATED DOCUMENTS

IMS DOCUMENTS

USE FOR PROJECT? *If No, see project specific documents.*

POLICIES

DG-ZH-PO200 Environmental Sustainability Policy Yes

PRINCIPLES

DG-ZH-PN002 10 Environmental Principles Yes

PROCEDURES

DG-DM-PR003 Operational Change Management Procedure Yes No

DG-QA-PR003 Internal Audits Procedure Yes No

DG-RM-PR003 Project Risk and Opportunity Management Yes No

DG-ZH-PR006 Incident Management Procedure Yes No

DG-ZH-PR007 Zero Harm Performance Monitoring and Reporting Procedure Yes No

DG-ZH-PR015 Emergency Management Procedure Yes No

DG-ZH-PR077.1 Sustainability Data Collection and Reporting Procedure Yes No

DG-ZH-PR116.1 Inspections Procedure Yes No

STANDARDS

DG-HR-ST013 Training & Competency Management Standard Yes No

DG-ZH-ST002 Legislative and Other Requirements Standard Yes No

DG-ZH-ST013 Zero Harm Worker Consultation Standard Yes No

REGISTERS

Definitions Register Yes

PROJECT SPECIFIC DOCUMENTS

PLANS

14171-DOW-PRM-PLN-0380	Waste Management Sub-Plan
14171-DOW-PRM-PLN-0381	Weed Pest and Disease Management Sub-Plan
14171-DOW-PRM-PLN-0552	Biodiversity and Rehabilitation Management Sub-Plan
14171-DOW-PRM-PLN-0383	Landholder Liaison Sub-Plan
14171-DOW-PRM-PLN-0384	Erosion, Sedimentation and Drainage Management Sub-Plan
14171-DOW-PRM-PLN-0385	Waterways Management Plan
14171-DOW-PRM-PLN-0526	RMMAC Cultural Heritage Management Sub-Plan
14171-DOW-PRM-PLN-0574	First Peoples #2 Cultural Heritage Management Sub-Plan
14171-DOW-PRM-PLN-0575	Ngadjuri Nation Cultural Heritage Management Sub-Plan

DOCUMENT TYPE

14171-ENET-PRM-CON-0316_3.0-PEC-SEMP Lines Scope for Environmental Management Plan (SEMP)

5 DEFINITIONS

The following terms are used in this document and are included in [Definitions Register](#).

CAZ Plans	<p>Construction Activity Zone (CAZ) Plans show all ground disturbing activities associated with the project, including</p> <ul style="list-style-type: none">- New tracks, pads and facilities- Maintenance of existing access tracks, including grading, widening or stabilisation- Areas of disturbance associated with demolition works <p>These CAZ plans will be available as spatial data and/or PDF maps for all workers.</p>
Downer Worker	<p>All individuals working for Downer or related entities, as employees, contingent labour hire, contractors, subcontractors, apprentices, trainees, work experience students, and casual labour.</p>
Integrated Management System (IMS)	<p>A document library controlled by Downer that:</p> <ul style="list-style-type: none">▪ is designated as the IMS repository(s) for the single source of truth for all business processes▪ is designed to provide consistent process controls, meet the requirements of external standards, and link and integrate core business processes; and▪ requires documents to be version controlled and identified by a document code and approved prior to releasing or removing from the document library.
INX	<p>The Zero Harm database used to record, investigate and follow-up events, including audits, hazards, incidents, inspections, meetings, observations, risk assessments, reviews, and suggestions.</p>
LAP	<p>A Land Access Permit (LAP) is a permit provided by ElectraNet to Downer to authorise the commencement of work on a property.</p>
Subcontractor	<p>An individual or organisation that signs a contract with Downer to perform part or all of the obligations of a Downer contract, including the performance of work, i.e. provision of labour and/ or labour services.</p> <p>Examples of subcontractors include contingent labour hire, independent contractors, consultants and cartage contractors.</p>
Task-based Risk Assessment	<p>A risk assessment for a specific task or work activity, e.g. Safe Work Method Statement (SWMS), Job Hazard Analysis (JHA), and Job Safety and Environmental Analysis (JSEA).</p>
Zero Harm (ZH)	<p>Health, safety and environment and community.</p>

6 STANDARDS & LEGISLATION

6.1 Legislation & Regulatory Requirements

Downer is aware of the importance of complying with all applicable environmental measures, and where practicable, exceeds the minimum legislative and regulatory requirements. Downer's obligations include conditions of regulatory approvals as well as the generally applicable Environmental Acts and their subsidiary legislation. Downer and the project team monitor changes to environmental legislation through monthly

updates on environmental law changes provided by EnviroLaw, and ensure compliance is maintained throughout the project's lifecycle.

The environmental authorisations, resource consents and permits in the following table are required for the project.

The table below details the approvals to be obtained by Downer.

Regulation / Approval	Authority	Requirement
Land Acquisition	TBC	Downer shall be responsible for acquiring landholder agreements, licenses and/or right of ways for infrastructure outside of the project site. ElectraNet will be responsible for lodging the final easement plans for any land that will part of the Transmission Line Corridor
Landholder Management Plan	ElectraNet	Downer shall prepare a landholder management plan in accordance with SEMP and ElectraNet landholder management plan
Landholder Notification (ongoing)	ElectraNet	Downer shall undertake property access notification in accordance with the ElectraNet landholder management plan and Downer landholder liaison sub plan
Land Access Permit	ElectraNet	Submission of CAZ drawings/spatial data for the works to be undertaken in accordance with landholder requirements, SEMP, CEMP and any other part of the contract
Micro-siting	ElectraNet	Downer shall undertake micro-siting surveys to minimise impact on ecology and cultural heritage prior to final designs being completed. Downer will engage a suitably qualified ecologist to undertake micro-siting (using a combination of spatial data and field inspections). ElectraNet will engage cultural heritage representatives
Additional Cultural Heritage Surveys	ElectraNet	Where required, Downer will request ElectraNet to undertake cultural heritage surveys where infrastructure is proposed outside of the extent of cultural heritage survey area
Native Vegetation Pre-Condition Survey	ElectraNet	Downer shall undertake a pre-condition survey of all Native Vegetation prior to clearance. The contractor shall engage a suitably qualified ecologist to undertake pre-condition survey of the native vegetation to determine the vegetation species composition, structure and density and habitat quality and condition for the purpose of comparing rehabilitation outcomes post construction. The survey can be representative in areas of homogenous vegetation type. On completion of survey, a report shall be supplied to ElectraNet for approval.
Development consent under the <i>Development Act 1993 (SA)</i> and <i>Planning, Development and Infrastructure Act 2016 (SA)</i>	Minister for Planning and Local Government.	Downer shall be responsible for compliance with conditions of development approval in the major development decisions notification form. The SEMP will be updated when the decision notification form is Available. Downer shall allow for the following expected conditions: <ol style="list-style-type: none"> 1. Prior to commencement of site works, final detailed plans – including relevant site plans, cross sections, floor plans, elevations, cut and fill details, access arrangements – of the development shall be submitted to the satisfaction of the Minister for Planning. 2. A construction environmental management plan shall be prepared in consultation with relevant State

Regulation / Approval	Authority	Requirement
		Government Agencies and local Councils and submitted to the satisfaction of the Minister for Planning prior to commencement of site works 3. A traffic management plan shall be prepared in consultation with the Commissioner of Highways and affected Councils. The plan shall be submitted for approval by the Minister of Planning prior to commencement of site works
Building Rules Certification	Building Code of Australia	Private certification will be required for assessment pursuant to Building code of Australia (BCA)
Road dilapidation survey	ElectraNet	Downer shall undertake a road dilapidation survey for all Local Government and State Government roads and landholder tracks that will be impacted by project activities and submit the report to ElectraNet
Works on Department for Infrastructure and Transport or Local Government Roads	ElectraNet	Downer will be responsible for the following to be completed and submitted to the relevant Approving Body in consultation with ElectraNet <ul style="list-style-type: none"> ▪ DIT Approval for works on roads (eg. Turnouts) ▪ Notification of works impacting DIT road (transition line crossing of public roads) ▪ Oversize/Over mass permit vehicles – contractors – transportation of construction materials
Bushfire and Emergency Management Plan	ElectraNet	Downer shall prepare and submit to ElectraNet a Bushfire and Emergency Management Plan
Fire Permits	Country Fire Service	Downer shall obtain, in consultation with ElectraNet, all relevant permits, notifications and approvals for works on fire ban days including liaison with Country Fire Services, SA and Local Council (where permitted by ElectraNet)
Native Vegetation Clearance Approval		Downer shall comply with the conditions of the native vegetation clearance approval
EPBC Act Approval		Downer shall comply with the conditions of the EPBC Act Approval
Amendments to Statutory Approvals		If Downer make a change that results in a need to amend an existing statutory approval obtained by ElectraNet, Downer will be responsible for preparing and obtaining the amendment including all costs
s.104 of <i>Landscape South Australia Act 2019 (SA)</i> - Water Affecting Activity Permit	Murraylands and Riverland Landscape Board (08) 8352 9100	Water affecting activities permit under s.104 of the Act and Murraylands and Riverland Landscape Board's Regional Landscape Plan for water affecting activities. This may include access tracks through ephemeral creek beds, removal of trees in or near watercourses or discharge of surface or underground water to a watercourse.
s.36 and Schedule 1 of <i>Environmental Protection Act 1993 (SA)</i>	EPA South Australia	Licence required if dewatering for project will exceed 100 kL
s.104 of <i>Landscape South Australia Act 2019 (SA)</i> - Well construction permit	Department for Environment and Water	Permit for the construction of groundwater wells under s.104 of the Act by a driller licensed under s.112 of the Act
<i>South Australian Public Health (Wastewater) Regulations 2013 (SA)</i>	SA Department of Health	Approval for installation of wastewater treatment plants in accordance with the Regulations and Prescribed Code: <i>On-site Wastewater Systems Code</i>
s.25 and Schedule 1 of <i>Environmental Protection Act 1993 (SA)</i>	EPA South Australia	Licence for mobile concrete batching plant/s where the plant has a capacity greater than 0.5 m ³ of concrete

Regulation / Approval	Authority	Requirement
		product per production cycle
s.36 and Schedule 1 of <i>Environmental Protection Act 1993</i> (SA)	EPA South Australia	Licence if extraction of borrow material exceeds 100,000 tonnes Note: additional authorisations may include <ul style="list-style-type: none"> ▪ Landholder agreement and compensation ▪ Native title agreement and compensation ▪ Cultural Heritage Clearance ▪ Native Vegetation Clearance
<i>Mining Act 1971</i> (SA) and <i>Mines and Works Inspection Regulations 2013</i> (SA)	Department of Energy and Mining	Approval, if required, for extraction of borrow in accordance with the Act and Regulations
Water		Downer shall be responsible for obtaining access to construction and potable water for the project
Camps, Office and Lay down facilities	<i>Planning, Development and Infrastructure Act 2016</i> (SA) – Where not covered by the EIS	Responsible for all aspects of planning, design, approvals, permits, establishment, operation, dis-establishment and rehabilitation of the camp, office and laydown sites
Nightworks		Downer is responsible for obtaining all statutory approvals relating to nightworks (works outside the hours of 7am to 7pm)
Cultural Heritage Management Plan	ElectraNet	Downer will prepare one Cultural Heritage Management Plan for each traditional owner group
Native Title		Downer shall provide ElectraNet final drawing, plans and spatial data to ElectraNet to include in notices to be issued to the River Murray Mallee Aboriginal Corporation pursuant to the Indigenous Land Use Agreement (ILUA)
Weed and Pest Management Plan	Murraylands and Riverland Landscape Board (08) 8352 9100	Downer to meet with Murraylands and Riverland Landscape Board prior to construction to determine the need / priority species management across the project area
Helicopter Pad Approvals	CASA	Downer is required to obtain all relevant approvals relating to the establishment and operation of helicopter landing pads including Local Government Approvals, EPA approvals and Case Approvals
Community and Engagement Communications Plan	ElectraNet	An ElectraNet Community Engagement and Communication Plan (CECP) will be completed by ElectraNet in consultation with support from the contractor. On completion, Downer will be responsible for providing a detailed operational plan articulating the specifics on how we will implement the CECP

6.2 Compliance Tracking

Compliance tracking is undertaken on a continuous nature during execution using Downer's compliance management system **INX**, which allows authorised users to:

- access the Compliance Tracking Database, Incident Reporting Database, and Complaints Register; and
- sort and evaluate the compliance status of all conditions at any time.

The Compliance Tracking Database includes a protocol to address:

- auditing requirements
- reporting requirements; and
- incident response mechanisms.

Project Specific Requirements

All environmental incidents and hazards will be verbally reported to ElectraNet within 1 hour of identification of the incident or hazard 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).

6.3 Australian & New Zealand Standards

The following standards relating to environmental management apply to the project:

- ISO 14001 Environmental Management Systems – Requirements with Guidance for Use
- AS 1940 The Storage and Handling of Flammable & Combustible Liquids
- AS 4326 The Storage and Handling of Oxidising Agents
- AS 3780 The Storage and Handling of Corrosive Substances (similar standards exist for other classes of dangerous goods).
- AS 2436 Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites
- AS/NZS 3833 The Storage and Handling of Mixed Classes of Dangerous Goods, in Packages and Intermediate Bulk Containers

6.4 Guidelines

The following guidelines relating to environmental management apply to the project:

- IECA 2008 Best Practice Erosion and Sediment Control
- ANZECC 1992 Australian Water Quality Guidelines for Fresh and Marine Waters.
- Environment Protection (Noise) Policy 2007
- Environmental Protection (Air Quality) Policy 2016
- Environment Protection (Waste to Resources) Policy 2010
- Environment Protection (Water Quality) Policy 2015
- Noise Information Sheet (South Australia EPA, 2013)
- Guidance on Preparing Construction Environmental Management Plans (Department of Defence, 2016)
- Guidelines for the assessment and remediation of site contamination (EPA South Australia, 2019)
- On-site Wastewater Systems Code (SA Health, 2013)
- Water Quality Guideline: Environmental management of dewatering during construction activities (SA EPA, 2018)
- Waste Disposal Information Sheet: Current criteria for the classification of waste including Industrial and Commercial Waste (Listed) and Waste Soil (EPA South Australia, 2010)
- The Environmental Protection Authority Bunding and Spill Management Guideline 2016
- Environmental Protection Authority Handbooks for Pollution Avoidance

7 PROJECT DESCRIPTION

To avoid duplication refer to the PMP for the project details relevant to all subordinate management plans, including but not limited to:

- Scope of Work
- Battery Limits/ Project Boundary
- Exclusions; and
- Location.

7.1 Environmental Sensitivities Control Map

The Environmental Sensitivities Control Map for the project is included in *Annex C – Environmental Sensitivities Control Map* and details the environmental sensitivity of the proposed project area, including but not limited to:

- Endangered and Threatened Ecological Communities
- known fauna habitat to be protected
- watercourses, wetlands and natural springs
- acid sulphate soils
- project boundaries and work locations
- environmental protection boundaries.

Environmental sensitivities and all No-Go areas for the project, including project boundaries and work locations are included on GIS mapping, that is available on tablets for work crews and viewable online. This is updated regularly and the latest versions are reflected online.

Project Specific Requirements

Further details regarding sensitive areas such as fauna habitats, flora or culturally sensitive sites are provided in the Environmental Sub-plans.

8 ENVIRONMENTAL MANAGEMENT OVERVIEW

8.1 Objectives & Targets

In consideration of *DG-ZH-PO200 Environmental Sustainability Policy*, the customer's contractual requirements, and any identified hazards and/ or risks for the project, Downer has developed a standard set of objectives and targets that are applicable to all projects, as per the following table. These objectives and targets are managed to ensure that all identified, as well as potential environmental impacts that could reasonably be expected to occur during the works, fall within acceptable and agreed limits. This is achieved through pro-active environmental management planning prior to carrying out particular elements of work.

Focus Area	Objective	Target
Legal Compliance	<ul style="list-style-type: none"> ▪ Compliance with all legal requirements. ▪ Undertake the project in accordance with environmental approvals. 	<ul style="list-style-type: none"> ▪ No regulatory infringements, including PINS and prosecutions. ▪ 100% compliance with statutory approvals.

Focus Area	Objective	Target
Monitoring	Complete internal environmental audits in accordance with the pre-planned audit schedule. Conduct regular inspections in accordance with Section 11.1.	Complete 100% of scheduled environmental audits and inspections.
Reporting	Promote a positive reporting culture. Ensure all environmental observations, hazards and near misses and incidents are entered into INX . Ensure actions are closed out by the nominated due dates.	0 actions arising from incident overdue >30 days.
Planning	Ensure that Downer workers are provided with regular and up-to-date information on environmental aspects for the duration of the project.	Review the content of the Environmental Management Plan prior to 25% of the scheduled project duration to maintain the currency of information provided to Downer workers and others.
Risk Management	Ensure that Downer workers are familiar with hazards and risks associated with the execution of the scope of work (work under contract).	The Project Risk & Opportunity Register, controls, and treatment plans are regularly reviewed and communicated to the project team in accordance with DG-RM-PR003 Project Risk and Opportunity Management .
Consultation	Ensure that Downer workers are regularly consulted on matters that affect the environment.	Conduct pre-start meetings (daily), and toolbox meetings (monthly).
Training	Ensure Downer workers are provided with training to enable work practices to be undertaken that are safe and minimise risk to the environment.	All Downer workers undertake, as a minimum, the two levels of induction training, i.e. project specific induction and Downer site specific induction.

Project Specific Requirements

Implement weed management measures which minimise the risk of weeds, weed infested soil or soil borne pathogens being brought onto properties.

Contractor to obtain LAPs (Land Access Permits) prior to the commencement of any ground disturbing works. All works are to be carried out in accordance with the conditions set out in the LAP.

Minimise impacts to species of significance by micro-siting of the infrastructure to reduce impacts to flora and fauna.

8.2 Risk and Opportunity Management

Throughout the duration of the project, environmental risks and opportunities are identified, assessed, and controlled in accordance with [DG-ZH-PR028 Zero Harm Risk Management](#).

Environmental risk and opportunities are also referred to as environmental aspects and impacts. The identification of environmental aspects and their potential impacts to the environment is determined following a review of:

- contract and its associated environmental conditions
- Development and/ or Environmental consent conditions as applied by the regulatory bodies and detailed in the associated Environmental Impact Assessment (EIA) document or similar; and
- actual scope of work and consideration of all applicable legislation, standards, and other conditions.

Taking into consideration the points above, environmental aspects and impacts are identified in the Risk Assessment Workshop and documented in the Project Risk and Opportunities Register.

A “significant environmental aspect” is one that has or can have one or more significant environmental impacts. Significant environmental aspects can result in risk or opportunity associated with adverse or beneficial impacts. Significant Environmental Impacts are those that are ranked A and B under Downer’s Risk and Opportunities risk rating matrix. Environmental Critical Risk is also deemed to be a significant environmental aspect and impact and management controls are documented in this plan.

Environmental risks are managed during the project’s phases (i.e. Handover & Kick-off; Plan Day 1 Readiness; Prepare Day 1 Readiness; Execute, Monitor & Control; and Close-out & Capture Lessons Learned) in accordance with the [Project Management Plan](#).

The Project Risk & Opportunity Register, DG-RM-FM003 Project Risk and Opportunity Register, is created and maintained as per [DG-RM-PR003 Project Risk and Opportunity Management Procedure](#) details the relevant environmental aspects, their associated impacts, the mitigation control, and a rating of their significance.

Project Specific Requirements

- Potential Environmental Critical Risks that could be encountered on this project include:

Critical Risk	Critical Controls
Unauthorised clearance of protected areas	<ul style="list-style-type: none"> ▪ Restrict access to protected areas with high visibility barriers and signage ▪ Ensure authorisation is completed prior to disturbing land or water ▪ Physically protect heritage artefacts/ buildings (barriers) (within striking distance) ▪ Travel on designated access tracks
Loss of control of contaminated fill	<ul style="list-style-type: none"> ▪ Identification of fill material composition ▪ Isolation of known sources of contaminated fill material
Release of contaminants to water	<ul style="list-style-type: none"> ▪ Ensure loads are secured during transport ▪ Ensure adequate controls such as containment dams/ bunds are installed ▪ Ensure controls are in place to isolate sources of contaminants from waterways
Spread of biosecurity threats by Downer operations	<ul style="list-style-type: none"> ▪ Vehicles and mobile plant to arrive on site clean and pest free ▪ Equipment clean down points are available at high risk locations ▪ Imported and exported equipment are checked to ensure they are clean and pest free ▪ Restrict access to high-risk areas with barriers and signage

- Prior to commencing works the Environmental Advisor will access GRAZER and ElectraNet Connect to ascertain if there are any known asset or site environmental hazards. Any known hazards will form part of the risk assessment.

Project Specific Requirements

8.3 Change Management

Zero Harm related changes in the workplace are managed using [DG-DM-PR003 Operational Change Management Procedure](#), which describes the change management process of:

- initiate and plan the change
- consult on the change
- approve the change
- implement the change; and
- review the change.

Project Specific Requirements

After review of the contract documents there are no project specific requirements.

8.4 Subcontractor Management

Subcontractors comply with the requirements of the subcontract agreement, which includes the details of all environmental requirements while performing works under the control and direction of Downer.

Subcontractor personnel adopt the same responsibilities as outlined for Downer personnel, inclusive of reporting all matters relating to health, safety, and the environment.

Pre-qualification evaluation and assessment, engagement, review and on-site management and monitoring of subcontractors is undertaken as per the project's Procurement & Supply Management Plan.

Project Specific Requirements

After review of the contract documents there are no project specific requirements.

9 TRAINING & 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.

Downer promotes the following:

- A person must not undertake an activity that pollutes, or might pollute, the environment unless the person takes all reasonable and practicable measures to prevent or minimise any resulting environmental harm.
- In determining what activities are required to be taken, the following are considered (amongst other things):
 - The nature of the pollution or potential pollution and the sensitivity of the receiving environment.
 - The current state of technical knowledge and likelihood of successful application of the activities that might be taken.
 - The financial implications of the activities that might be taken, as those implications relate to the class of person undertaking activities of the same or a similar kind.

Downer manages project activities in such a manner as to:

- minimise impact to the environmental; and

- educate personnel on their responsibilities relating to protecting the environment.

All personnel have environmental management responsibilities, and Downer ensures that these responsibilities are communicated to all personnel via appropriate environmental management training, including the initial environment induction.

Project Specific Requirements

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.

9.1 Environmental Principles

Downer has established [DG-ZH-PN002 10 Environmental Principles](#) that is a set of fundamental principles that all projects adhere to at all times. The Environmental Principles are prominently displayed on-site in communal areas, on notice boards and the Downer **IMS**.

Project Specific Requirements

After review of the contract documents there are no project specific requirements.

9.2 Inductions

Environmental awareness training is provided to all personnel involved with the project, including all subcontractors and visitors, via inductions, as per [DG-HR-ST013 Training & Competency Management Standard](#).

A project specific induction is delivered to all personnel and subcontractors highlighting the hazards specific to the site, and the controls necessary to manage them appropriately. Induction handbooks and associated training presentations may be used for the induction. Personnel are re-inducted annually. The environmental component of the induction is tailored for each group of inductees (as applicable) to ensure that specific components of work are adequately addressed. This method of environmental awareness training ensures that all personnel are aware of:

- the importance of conformance with environmental policy and procedures and the requirements of the Environmental Management Plan and associated sub-plans (if applicable)
- [DG-ZH-PN002 10 Environmental Principles](#)
- the significant environmental aspects of the project works and the environmental benefits of improved work performance
- their roles and environmental responsibilities for achieving conformance with environmental policy and procedures and with the Environmental Management Plan, including site emergency management and response requirements; and
- the potential consequences of departure from specified operating procedures.

All personnel, including subcontractors, attend inductions prior to commencing work on the project. Records of inductions are recorded in the project's training matrix.

Project Specific Requirements

- The following topics are covered by the induction with the aim of instilling an understanding of the environmental impacts of daily work practices and activities, and to encourage alternative practices, where feasible:
 - Regulations and compliance
 - Waste management
 - Hydrocarbon management
 - Heritage areas and cultural heritage monitoring requirements
 - Water management
 - Weed management
 - Hazardous substances
 - Event/ incident management; and
 - Any customer requirements.
 - Details of the EMP and Sub-plans
 - Land access requirements and protocols for behaviour on the easement, including CAZ Management
 - Fire season education, risks and restrictions

9.2.1 Visitor Inductions

Subcontractors that attend site on an intermittent basis, e.g. a delivery driver, are typically inducted on a visitor basis. Subcontractors are assessed by the relevant member of the project team on a case-by-case situation to determine if a subcontractor is required to undertake a visitor induction or full site induction.

A visitor induction is valid for a period of 2 weeks.

Project Specific Requirements

Short Term Access is required for any person needing access to the project that either:

- does not hold a current ElectraNet Access Authorisation; or
- is employed by a company who does not have current ElectraNet endorsed status; or
- is required to perform work at a level for which their current authorisation does not allow.

This access must be directly supervised and controlled at all times and will require induction training. Short Term Access can be done in advance and is valid for seven (7) days.

9.3 Training

Employee training and competency requirements are reviewed annually, or as an employee's role changes.

Downer maintains a database of training records and employee competencies that provides capabilities such as tracking expiry of time limited competencies and programming of training requirements.

Personnel who undertake activities with significant environmental risk complete specialist environmental training, which is conducted by Downer (with support of the customer), in addition to the environmental induction.

Project Specific Requirements

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.

Specific training for key operational staff prior to the commencement of works will be:

- cultural heritage awareness
- spill management

10 COMMUNICATIONS

10.1 General Communication

Achieving effective communication between all parties is critical to ensure that the requirements of this Environmental Management Plan are met.

Downer uses a number of methods to communicate with employees, subcontractors, and visitors. The requirements, frequency, information, and methods of recording communication are outlined in the project's Stakeholder & Communication Management Plan, [DG-ZH-ST013 Zero Harm Worker Consultation Standard](#), and project's Zero Harm risk management processes and procedures.

Typical methods of communication on site:

- pre-start meetings
- Zero Harm start-up (i.e. pre-commencement) toolbox talks
- Zero Harm inductions
- noticeboards
- toolbox talks; and
- environment alerts.

Pre-start and toolbox meetings include delivering key environmental messages and audit and inspection results and communicating environmental risks for the scheduled activities.

Pre-start meetings are minuted and the minutes reviewed and signed by the meeting chairperson, and made available to all Downer workers and visitors (if applicable) on site.

The Project Manager ensures that relevant documentation is filed electronically, and hard copies made available to personnel. Hard copy documentation made available to personnel typically includes:

- the project's Emergency Management Plan
- standard operating procedures
- work instructions
- customer procedures/ policies
- fatal risk control standards
- risk assessments
- minutes of meetings; and
- copies of pertinent legislation and codes of practice.

Project Specific Requirements

- After review of the contract and approval documents there are no project specific requirements.

10.2 Dispute Resolution

Downer's dispute resolution process meets the requirements of the Work Health and Safety Regulation 2011 and is included in [DG-ZH-ST013 Zero Harm Worker Consultation Standard](#).

Project Specific Requirements

After review of the contract and approval documents there are no project specific requirements.

10.3 External Communication

Direct communication with the media and general public is not permitted. Any requests from the media or general public are referred to the Project Manager who takes action in accordance with the project's Stakeholder & Communication Management Plan.

All direct communication with statutory authorities is approved by the Project Manager or the Safety Manager. The customer typically also has specific requirements relating to external communications.

Project Specific Requirements

The ElectraNet Project Manager will be notified for all non-landholder related external complaints (e.g. Regulator, NGO etc.) in the first instance, who may involve the ElectraNet Corporate Communications team as required.

11 MONITORING & CORRECTIVE ACTION

11.1 Audit & Inspection

Downer conducts internal environmental audits in accordance with [DG-QA-PR003 Internal Audits Procedure](#) to ensure the ongoing adequacy and effectiveness of the Environmental Management Plan and **IMS**, and to facilitate continuous improvement.

Environmental audits are planned and scheduled with all other project audits, and detail the type of audit, duration, auditors (including the Lead Auditor), and dates. Refer to the project's Quality Management Plan for further information.

The findings from internal audits on the implementation of the Environmental Management Plan and **IMS** for the project are provided to the Project Manager. Any customer requirements for audits are also defined in the project's Quality Management Plan.

Audits are conducted by personnel with the relevant expertise

In addition to planned internal audits, the project team verifies environmental conformance to the Environmental Management Plan as per the reviews in the following table and [DG-ZH-PR116.1 Inspections Procedure](#).

Type of Review	Goal	Frequency
Solid Wastes	<ul style="list-style-type: none"> ▪ Recycling where practical and economically feasible. ▪ Appropriate use of landfill site for disposal. ▪ Appropriate placement and use of site amenities. 	<ul style="list-style-type: none"> ▪ Spot checks of recycling facilities. ▪ Informal daily, formal fortnightly inspections using the Environmental Inspection Checklist Temporary Site.

Type of Review	Goal	Frequency
Flora and Fauna	Compliance with the project's Fauna Management Plan and Vegetation Management Plan.	Informal daily, formal fortnightly inspections using the Environmental Inspection Checklist Temporary Site.
Erosion and Sediment Control Measures	Implementation, monitoring, and maintenance of all soil erosion and sediment control measures defined in the Soil & Water Management Plan and associated documents.	Informal daily, formal fortnightly inspections using the Environmental Inspection Checklist Temporary Site.
Work Site Storage and Handling of Fuels, Oils, Chemicals, and Paints	Compliance with dangerous substances regulations and hydrocarbons and chemicals procedures defined in the project's Hydrocarbon & Chemical Management Plan.	Informal daily, formal fortnightly inspections using the Environmental Inspection Checklist Temporary Site.
Hydrocarbon and Oil Spills	Compliance with the project's Hydrocarbon & Chemical Management Plan.	Continuous monitoring by Environmental Advisor and/ or Site Supervisor. Spot checks of sites and fortnightly inspections using the Environmental Inspection Checklist Temporary Site
Air Quality and Dust Management	Compliance with the project's Air Quality Management Plan.	Continuous monitoring by Environmental Advisor and/ or Site Supervisor. Spot checks of sites and fortnightly inspections using the Environmental Inspection Checklist Temporary Site
Applicable Impact Mitigation Strategies	Compliance to task-based risk assessment requirements and the Environmental Management Plan and any relevant sub-plans.	Informal daily, formal fortnightly using the Environmental Inspection Checklist Temporary Site
Housekeeping	<ul style="list-style-type: none"> ▪ Tidy work site with no litter and all waste contained in appropriate containers. ▪ Containers to be emptied and disposed of at appropriate intervals. 	Informal daily, formal fortnightly inspections using the Environmental Inspection Checklist Temporary Site

Whenever practicable, personnel conducting an audit address identified deficiencies during the course of the inspection. In all other cases the Supervisor is responsible for ensuring action and a date for completion is assigned to each outstanding action. The Environmental Advisor monitors the progress of rectification of any outstanding corrective actions.

Results of all audits are made available to personnel via pre-start, and/ or toolbox meetings.

Project Specific Requirements

Results of inspections and formal environmental audits will be provided to ElectraNet and included in monthly reporting to ElectraNet.

11.2 Customer Audits

Any customer or third-party audit requirements to verify the effectiveness of the Environmental Management Plan are captured in the audit schedule.

Project Specific Requirements

After review of the contract documents there are no project specific requirements.

11.3 Subcontractor Audits

Subcontractors are required to undertake audits of their workspace, as communicated to the subcontractor through the Tenders and Contracts Committee (TCC). Compliance with this requirement is a contract deliverable and is defined in the Vendor Data Requirements. Refer to the project's Procurement & Supply Management Plan for further information. The environmental audit requirements are communicated to the procurement team for inclusion in the tender documents.

The reviews listed in the table in section *11.1 Audit & Inspection* also apply to subcontractor activities and workspaces.

Project Specific Requirements

After review of the contract documents there are no project specific requirements.

11.4 Environmental Non-compliance

Non-compliances raised by the customer and via internal project audits are registered and controlled in accordance with [DG-ZH-PR006 Incident Management Procedure](#)

Possible non-compliances include non-compliance with the management measures outlined in this Environmental Management Plan, and mitigation strategies/ management measures outlined in the Environmental Management Plan sub-plans.

Where detected, any non-compliance or environmental impact exceeding specified limits are investigated by the Environmental Advisor to determine the extent of possible non-conformance. The non-compliance is corrected as soon as possible with necessary action taken to prevent recurrence.

All non-compliances are reported to the customer and clearly identify the corrective/ preventative actions to be taken and the close-out date.

Project Specific Requirements

All environmental non-compliances will be verbally reported to ElectraNet within 1 hour of identification of the non-conformance outlining factual information.

An investigation report from INX will be provided to ElectraNet within 24 hours.

Environmental non-compliances will be reported through ElectraNet's online Incident Management System.

11.5 Environmental Complaints

In the event of a third-party environmental complaint the following steps will be taken:

- records complaints as an incident in **INX**
- investigates and verifies complaints, and assesses if excessive off-site impacts have occurred
- implements corrective measures including modification of execution methods and operational techniques to avoid recurrence or minimise ongoing adverse impacts
- completes monitoring/ additional investigations to verify the adequacy of the recommendations, as required

- notifies the complainant of actions taken; and
- continues to monitor activity, if required.

Project Specific Requirements

Review of the contract documents there are no project specific requirements.

11.6 Environmental Breach

Subcontractors found to be in breach of this Environmental Management Plan are managed in accordance with the subcontract under which they have been engaged.

Employees who breach the requirements of this Environmental Management Plan are managed in accordance with the project's Employee Relations Management Plan. Personnel found to be grossly negligent or commit an intentional environmental breach are removed from site and managed in accordance with the project's Employee Relations Management Plan.

Project Specific Requirements

After review of the contract documents there are no project specific requirements.

11.7 Reporting

Environmental performance is reported for the project in accordance with [DG-ZH-PR007 Zero Harm Performance Monitoring and Reporting Procedure](#).

Environmental performance is reviewed and documented via minutes of scheduled project meetings utilising inputs from the Environmental Advisor, Project Manager, and Safety Manager.

As per [DG-ZH-PR077.1 Sustainability Data Collection and Reporting Procedure](#), monthly reporting for Downer includes:

- greenhouse gas and energy data; and
- waste generation and water consumption data, gathered using the Subcontractor Envizi Data Collection Record described in [DG-ZH-PR077.1 Sustainability Data Collection and Reporting Procedure](#).

Project Specific Requirements

The following data (m²) will be provided to ElectraNet within a monthly report:

- area cleared during the previous reporting period (permanent disturbance)
- total project area cleared (permanent disturbance)
- area cleared during the previous reporting period (temporary disturbance)

total project area cleared (temporary disturbance).

12 INCIDENT MANAGEMENT

In accordance with [DG-ZH-PR015 Emergency Management Procedure](#), the project team establishes an Emergency Management Plan for the project which addresses all emergency response scenarios. Common types of environmental emergencies include:

- sewage spills (to land or to water)
- emulsion spills (to land or to water)
- hydrocarbon spills (to land or to water)
- sediment discharge (to land or to water)
- unexpected finds (cultural heritage); and

- damage to heritage items or protected flora and fauna.

In the event of an incident that may have resulted in a near miss or an impact to the environment or community, Downer employees are expected to respond appropriately in accordance with [DG-ZH-PR006 Incident Management Procedure](#).

Project Specific Requirements

Downer will obtain access to ElectraNet reporting systems - Incident Management System (ElectraNet IMS).

All incidents and near misses will be reported to the onsite ElectraNet supervisor immediately, and entry of the incident into ElectraNet IMS within 24 hours.

All project related incidents / near-misses / hazards will be communicated to ElectraNet via the agreed monthly reporting template.

For medium risk level or above as classified/assessed by ElectraNet, an environmental incident investigation report will be provided to ElectraNet within 28 days.

13 DOCUMENT CONTROL & MANAGEMENT REVIEW

All project documents are generated, numbered, approved, revised, transmitted, and stored in accordance with the project's Document Control Plan.

The Environmental Management Plan review ensures the suitability, effectiveness, and adequacy of the plan. The Environmental Management Plan is formally reviewed annually (as a minimum) and whenever the plan, risk, and/ or activities change from the scope/ content.

The review is conducted by a review team comprising the Project Manager (or delegate) and the Environmental Advisor/ Project Environmental Manager (or Safety Manager) and considers performance against the Environmental Management Plan with respect to incident trends and findings from internal and external audits.

The Project Manager (or delegate) ensures any changes to the Environmental Management Plan as a result of review/ change is communicated to personnel.

Project Specific Requirements

After review of the contract documents there are no project specific requirements.

14 MANAGING ENVIRONMENTAL ASPECTS

The following Sections detail the environmental aspects and controls for the project:

- Cultural Heritage Management
- Landholder Liaison
- Biodiversity and Rehabilitation Management
- Weed, Pest and Disease Management
- Erosion, Sedimentation and Drainage Management
- Hydrocarbon and Chemical Management
- Waterway Management
- Waste Management
- Environmental Noise and Vibration Management
- Air Quality Management

The following Sections provide the overarching commitments to managing environmental aspects associated with the project.

14.1 Cultural Heritage

The potential impacts from construction with respect to cultural heritage are:

- disturbance to culturally significant areas
- disturbance to cultural heritage sites
- strained relationships with traditional landholders.

Details on management measures to be implemented to prevent impacts on cultural heritage sites and areas are provided in the Cultural Heritage Management Sub-plans for the project. Three individual Cultural Heritage Sub-plans have been developed for the three traditional owner groups within the project Area.

A summary of the management and mitigation measures are provided in the Table below.

Management Measures & Mitigation Strategies	Responsibility
Pre-execution Phase	
A spatial layer that indicates the locations of No-Go Zones will be used for the project and made available to all project personnel.	Environmental Advisor
All personnel must be fully informed of their specific cultural heritage obligations through site inductions	Construction Manager
Detailed Cultural Heritage Management Plans will be implemented for each Traditional Owner	Construction Manager
Execution Phase	
No-Go Zones to be adhered to throughout the project.	Construction Manager
Maintain fencing, flagging and signage throughout the project.	Construction Manager
Monitoring of ground disturbance works by cultural heritage monitors throughout the project.	Construction Manager
In the event of identifying potential cultural heritage items or site, controls to be implemented to prevent disturbance.	Downer workers
Post-execution Phase	
All fencing, flagging and signage removed from site at completion of the project.	Construction Manager

Refer to RMMAC Cultural Heritage Management Sub-Plan, First Peoples #2 Cultural Heritage Management Sub-plan and Ngadjuri Nation Management Sub-plan for management measures for each of the groups.

14.2 Landholder Liaison

The project area extends through over 82 separate land parcels occupied by approximately 27 different landholders and land uses. Some of the other key land uses and landholder groups along the alignment include:

- energy Sector – renewable energy generators, other energy infrastructure operators
- mining and petroleum – tenement holders
- biodiversity and conservation management areas
- agriculture including cropping and grazing
- rural living
- traditional Owners / Native Title.

Details on landholders and management requirements are provided in the Landholder Liaison Sub-plan. A summary of the management and mitigation measures are provided in the Table below.

Management Measures & Mitigation Strategies	Responsibility
Pre-execution Phase	
The site induction will include land access and landholder obligations.	Construction Manager
Notification provided to landholders prior to access onsite	Landholder Liaison Advisor
Execution Phase	
Landholders to be contacted within prescribed notification periods to communicate key information such as commencement date, project scope, expected completion date etc.	Landholder Liaison Advisor
All reasonable measures to be implemented to minimise noise and limit noise activities to between 7am to 7pm Monday to Saturday. Noise mitigation and landholder notification procedures to be implemented for noise activities outside of these hours.	Landholder Liaison Advisor

Refer to Landholder Liaison Management Sub-Plan for further details.

14.3 Biodiversity and Rehabilitation Management

The potential impacts on biodiversity during construction include disturbance and clearing associated with:

- access tracks to each structure
- pads at each structure
- stringing pads and stringing corridor
- temporary transmission lines
- camps and laydown areas

Other construction impacts such vehicles movements and waste. Details on management requirements are provided in the Biodiversity and Rehabilitation Management Sub-plan. A summary of the management and mitigation measures are provided in the Table below.

Management Measures & Mitigation Strategies	Responsibility
Pre- execution Phase	
Land and/or vegetation disturbance will not occur without an approved ElectraNet Land Access Permit.	Construction Manager
Sensitive flora and fauna areas, including No Go areas, will be highlighted in the site induction and shown on GIS mapping.	Construction Manager
CAZ areas approved for clearance will be delineated with pegs and/or flagging/ribbons	Construction Manager
Execution Phase	
All clearing or disturbance of vegetation will be kept to a minimum and only with an approved Land Access Permit	Construction Manager
Undertake pre-clearance survey to ‘micro-site’ tower locations and other infrastructure to avoid occurrences of threatened plants or other significant features	Construction Manager
Personnel will not be permitted to intentionally feed, harass, harm, injure or kill fauna.	Construction Manager
Fauna will only be handled by approved and appropriately trained fauna handlers.	Construction Manager
No access outside of designated access, work and laydown areas and camps.	Construction Manager

Management Measures & Mitigation Strategies	Responsibility
No spoil or stockpiles will be placed outside of designated disturbance areas.	Construction Manager
Protective fencing (physical barriers) and appropriate signage will be installed around native vegetation and monitored/maintained appropriately.	Construction Manager
Flora and fauna management will be formally inspected fortnightly using the environmental inspection checklist.	Environmental Advisor
Facilities and camps will be located in areas with limited vegetation as far as practicable, avoiding areas of habitat for black-eared Miner	Construction Manager

14.4 Weed, Pest and Disease

The transport of plant, machinery and equipment to the project has the potential to introduce new weeds, pests or diseases. Construction activities have the potential to spread of weeds through the movement of soil and plant material on plant, machinery and equipment along the transmission line alignment. Further, construction activities involving clearing and disturbance increase the opportunities for weeds and pest animals to establish in new areas.

Details on management measures to be implemented to prevent impacts from weeds, pests and diseases are provided in the Weed, Pest and Disease Management Sub-plan. A summary of the management and mitigation measures are provided in the Table below.

Management Measures & Mitigation Strategies	Responsibility
Pre- execution Phase	
Establishment of entry/exit points to the project area. No additional access points to the site are to be established.	Construction Manager
Develop, implement, monitor and review a documented process that controls all aspects of the management of weeds, pests and pathogens in accordance with applicable legislation and good practice.	Environmental Advisor
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.	Construction Manager
Ensure all vehicles, plant and earthmoving equipment are clear of significant soil/ vegetative matter prior to site mobilisation. Pre-start inspections and maintain registers of relevant assets as a minimum.	Construction Manager
Execution Phase	
Removal of ground cover and exposure of soil to be minimised to reduce opportunities for weed establishment.	Construction Manager
Ensure waste is appropriately stored to discourage pest animals including covering putrescible and organic storages associated with crib rooms and offices.	Environmental Advisor
Vegetative matter consisting of declared weeds to be removed for disposed at a licenced green waste facility and not used on site for rehabilitation or provided to landholders.	Environmental Advisor
Biosecurity management will be formally inspected fortnightly using the environmental inspection checklist.	Environmental Advisor
Implement weed hygiene procedures such as vehicle wash downs and inspections where required	Environmental Advisor
Control weeds within work area in accordance with Landscape South Australia Act	Environmental Advisor
Post-execution Phase	

Management Measures & Mitigation Strategies	Responsibility
Disturbed areas to be progressively rehabilitated following construction work to reduce the opportunity for weed re/establishment.	Construction Manager
Post construction inspection to ensure appropriate weed control has been implemented and opportunities for weed establishment minimised.	Construction Manager

14.5 Erosion, Sedimentation and Drainage Management

During construction, there is an increased risk of erosion and sediment movement due to disturbance of vegetation and topsoil resulting in exposure of soils. Environmental Protection guidelines, EPA *Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry 1999 and Handbook for Pollution Avoidance* has been considered when identifying management procedures.

Details on erosion and sediment control measures are provided in the Erosion, Sedimentation and Drainage Management Sub-plan. A summary of the management and mitigation measures are provided in the Table below.

Management Measures & Mitigation Strategies	Responsibility
Pre-execution Phase	
Develop, implement, monitor and review a documented process that controls all aspects of the management of soil in accordance with applicable legislation and good practice.	Construction Manager
Develop an Erosion and Sediment Control Plan (ESCP) where a medium or higher risk is determined.	Environmental Advisor
Execution Phase	
The smallest possible area of disturbance will only be exposed for the shortest possible time by: <ul style="list-style-type: none"> ▪ rehabilitating disturbed areas as soon as operationally practicable ▪ limiting vehicle movement to existing tracks ▪ diverting clean water around disturbed areas ▪ managing stockpiles ▪ where possible, covering stockpiles or seed stockpiles with sterile seed. 	Construction Manager
Implement the requirements of the ESCP including inspection and maintenance	Construction Manager
Erosion and sediment controls will be formally inspected fortnightly using the project's environmental inspection checklist.	Environmental Advisor
Rectification of Erosion and Sediment Controls where required prior to next forecast rainfall event	Environmental Advisor

14.6 Hydrocarbon and Chemical Management

During the project the following types of hydrocarbons and chemicals are likely to be stored and used:

- diesel and unleaded fuels
- oils and other lubricants
- paints
- herbicides

It is not anticipated that Potentially Contaminating Activities will be impacted by the construction of the project. Fill and water used for the project will be sourced to reduce potential for spreading potentially contaminated materials. Dewatering of contaminated water is to be treated as waste. Refer to Waste Management Sub-Plan.

Details on the types of hydrocarbon and chemical management during the works, and mitigation and management requirements are provided in the Erosion, Sedimentation and Drainage Management Sub-plan. A summary of the management and mitigation measures is provided in the Table below.

Management Measures & Mitigation Strategies	Responsibility
Pre-execution Phase	
A spill response assessment form will be completed to determine appropriate spill response equipment needs.	Environmental Advisor
All personnel must be fully informed of their specific environmental obligations. Site personnel inductions to include appropriate hydrocarbon and chemical management.	Construction Manager
Execution Phase	
Hazardous chemicals will be stored in a bunded area ensuring the following requirements: <ul style="list-style-type: none"> ▪ bund constructed of impervious materials. ▪ located at least 50m from waterways or drainage channels. ▪ contains at least 25% of the total volume stored or at least 120% of the net capacity of the largest container. 	Construction Manager
A register and copy of SDS of all hazardous substances and hydrocarbons will be maintained.	Construction Manager
Disposal of hazardous chemicals and dangerous goods will be undertaken in a safe manner that complies with DG-ZH-ST063 Waste Management Standard .	Construction Manager
Removal of liquid from a bund will be completed in accordance with the flowchart provided in the Section below.	Construction Manager
Hazardous chemicals management will be formally inspected fortnightly using the project's environmental inspection checklist.	Environmental Advisor
Inspection of open storage facilities will be undertaken before and after significant (>10 mm) rainfall events to ensure adequate capacity remains.	Construction Manager
All spills greater than 5L will be reported to ElectraNet	Environmental Advisor
Spill kits will be available where potentially contaminating activities are undertaken	Construction Manager

14.6.1 Drainage from Bund

A collection sump should be provided in the bund floor to make it easy to remove accumulated liquids, and the floor is to be graded in a way that liquids collect in the sump. The sump is not to be connected to the stormwater sewer drainage systems. Accumulated liquids resulting from spills may be able to be collected and reused onsite, however where this is not possible or appropriate, the liquid should be collected and disposed of by an authorised liquid waste contractor.

If rainwater has collected within an open bund, this will typically evaporate from within an open bund. Accumulated rainwater may be contaminated and should not be disposed of to the stormwater drainage system. Offsite disposal of contaminated water is to be to an authorised liquid waste contractor (*Environment Protection Authority Bunding and Spill Management Guideline 2016*)

14.7 Waterway Management

Vehicle, machinery and equipment access is required to each structure along the transmission line during construction. It is not anticipated that access will require waterway crossings, however to allow safe access, maintenance or upgrades of waterway crossings may be required. The location of the new structures and any supporting temporary infrastructure, such as stringing corridors and pads, is not anticipated to impact on waterways.

The potential impacts during construction on waterways include:

- alteration of the waterway bed and banks including change in flow velocity
- increased potential for erosion and sedimentation
- impacts on aquatic or riparian flora and fauna
- effects of compaction on sub-surface flow
- effects on downstream users

14.7.1 Water Affecting Activities

Water Affecting Activities (WAA) are activities and works that can impact on the health and condition of water resources, water dependant ecosystems and other water users. Under the *Landscape South Australia Act 2019*, an approved permit is required to undertake a Water Affecting Activity. However, under the Planning, Development and Infrastructure Act 2016, a permit is not required from the Murraylands and Riverland Landscape Board, where a Development Application has been granted.

Prior to the commencement of ground disturbance works on waterway crossings, Proposed Plans are to be sighted and reviewed by the Murraylands and Riverland Landscape Board. All works within or adjacent to waterways will be undertaken in accordance with the principles of a WAA permit.

Details on the potential impacts on waterway during the works, and mitigation and management requirements are provided in the Waterways Management Sub-plan. A summary of the management and mitigation measures is provided in the Table below.

Management Measures & Mitigation Strategies	Responsibility
Pre-execution Phase	
Prior to site works, undertake a construction site inspection to ground-truth site conditions.	Environmental Advisor
Ensure a Water Affecting Activities (WAA) is obtained prior to commencing works on waterways.	Environmental Advisor
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.	Construction Manager
Execution Phase	
Ensure works are undertaken in a manner compliant with applicable WAA permit.	Environmental Advisor

14.8 Waste Management

During the project the following types of waste are likely to be generated:

- decommissioned equipment from the transmission line
- packaging from delivery of components
- surplus construction materials including spoil
- green waste
- domestic and putrescible waste from camp and onsite personnel
- domestic and office waste
- other recyclable waste

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

- sewerage
- waste hydrocarbons and chemicals including empty containers
- asbestos and asbestos containing material
- polychlorinated biphenyl (PCBs)
- tyres
- potentially contaminated materials

Details on the types of waste likely to be produced during the works, and mitigation and management requirements are provided in the Waste Management Sub-plan. A summary of the management and mitigation measures is provided in the Table below.

Management Measures & Mitigation Strategies	Responsibility
Pre-execution Phase	
Develop, implement, monitor and review a documented process that controls all aspects of the management of waste in accordance with applicable legislation and good practice.	Environmental Advisor
Approval from the SA Department of Health for installation of wastewater treatment plant/s.	Environmental Advisor
Site personnel inductions to include appropriate storage (including separation) and disposal/ recycling of waste.	Construction Manager
Execution Phase	
Waste generation will be minimised and managed in accordance with the Waste Hierarchy of Controls	Construction Manager
Suitable bins will be provided for waste, general waste and recycling. These bins provide adequate containment considering predicted amount of waste to be generated, fire safety, pest, odour and dust control and the protection of soil and water.	Construction Manager
Mixing of soil types to be avoided (i.e. contaminated/non-contaminated)	Construction Manager
Hazardous waste will be stored in appropriately sealed, marked containers and in a bunded area.	Construction Manager
A Safety Data Sheet (SDS) for each waste that has the potential to pose a risk to health or the environment will be available to personnel exposed to the waste.	Construction Manager
Waste will be removed as it accumulates and regularly from site.	Construction Manager
Any waste material that is unable to be recycled will be disposed of at licensed waste facility.	Construction Manager
A waste tracking system will be implemented for tracking waste.	Construction Manager
All waste will be contained or covered during transport to prevent spillage or loss.	Construction Manager
Listed wastes will be disposed of by a waste contractor licenced to remove such waste and include the generation and recording of appropriate transport and disposal dockets.	Construction Manager
Post-execution Phase	
All wastes will be removed from project area at the completion of the project.	Construction Manager

14.9 Environmental Noise and Vibration

The potential sources of noise and vibration during construction include:

- access by plant and vehicles to the location of the work sites
- noise generated from plant and machinery when working onsite
- rock breaking or piling of foundations if required

Noise and Vibration impacts are to be managed in accordance with the Environmental Protection (Noise) Policy 2007. Details on noise and vibration sources during the works, and mitigation and management requirements, are provided in the Landholder Liaison Sub-plan. A summary of the management and mitigation measures are provided in the Table below.

Management Measures & Mitigation Strategies	Responsibility
Pre- execution Phase	
Prior to commencement of works which may cause disturbance, such as noisy activities outside of normal working hours, potentially sensitive receivers to noise and vibration will be identified.	Environmental Advisor
Execution Phase	
Work will be completed in accordance with South Australian approved hours for construction works as detailed in the Section below.	Construction Manager
All plant and equipment will be adequately maintained, kept in good operating order and operated in an appropriate and efficient manner. Any unusually noisy equipment will be investigated and rectified.	Construction Manager
The hierarchy of controls will be followed to avoid/reduce noise and vibration, where possible.	Construction Manager
Vehicle reversing will be limited, where possible.	Downer workers
Environmental noise and vibration management will be formally inspected fortnightly using the project's environmental inspection checklist.	Environmental Advisor
Helicopter operations and routes will minimise disturbance to sensitive receptors	Construction Manager
SA Government approvals will be implemented if night works are required	Construction Manager
Ongoing communication with the community in regards to noise and vibration will be implemented where required	Environmental Advisor
Truck movements to be limited to freight routes in accordance with Traffic Management Plan	Construction Manager
All reasonable and practical operational steps to reduce offsite noise during construction shall be undertaken	Construction Manager
All trucks and forklifts will be fitted with reverse beepers.	Construction Manager

14.9.1 Approved Hours of Work

Construction hours for works in South Australia in accordance with the Environmental Protection (Noise) Policy 2007 is detailed below;

Time of Day	Comments
7.00 am to 7.00 pm Mon-Sat (excl. public holidays)	<ul style="list-style-type: none"> ▪ source noise level (continuous) doesn't exceed 45 dB(A) or BL if higher; or ▪ source noise level (maximum) doesn't exceed 60 dB(A) or BL if higher. Outside these hours or conditions, approval from the EPA is required.

14.10 Air Quality Management

Air Quality is to be managed throughout the duration of the construction as the use of vehicles, machinery and equipment will generate greenhouse gases. Local air quality may also be impacted from dust generation. Dust is likely to be generated from vehicles and machinery driving and working on unsealed structure pads, access tracks and roads. Management of Air Quality throughout construction will be implemented in Accordance with the Environmental Protection (Air Quality) Policy 2016.

Where required, dust suppression techniques will be implemented to minimise dust generation. Dust suppression techniques may include;

- Minimising traffic movement
- Slowing down traffic in particular in problematic locations or times
- Wetting access tracks and pads with a water cart
- Addition of wetting agents and polymer binders during wetting of access tracks and pads
- Covering or wetting of stockpiles
- Progressively rehabilitation and stabilising disturbed areas.

Potential sensitive receivers such as residences identified in proximity to project will be notified prior to works that have potential to generate dust or air polluting works. A summary of management and mitigation measures for Air Quality Management is provided in the table below.

Management Measures & Mitigation Strategies	Responsibility
Pre-execution Phase	
Areas or plant that can impact on air quality will be identified.	Construction Manager
The site induction will include dust management.	Construction Manager
Prior to works vehicles are to be inspected to ensure efficient operation	Downer Workers
Execution Phase	
Opportunities to reduce energy usage and associated greenhouse emissions will be identified.	Environmental Advisor
Daily pre-start inspection of vehicles and plant and regular servicing	Downer Workers
All plant and equipment will be maintained to ensure that maximum operating efficiency can be attained, engine idle times and queuing is to be minimised.	Construction Manager
Vegetation removal and topsoil stripping will be undertaken to reduce the area of exposed ground at any one time.	Construction Manager
Vehicles and plants will drive to conditions and remain on designated tracks	Construction Manager
Erosion controls implemented for stockpiled materials to reduce dust mobilisation	Environmental Advisor
Visual dust monitoring will be undertaken continuously, and additional controls implemented as required. Water carts will be prioritised in locations close to sensitive receptors (cultural heritage, flora and fauna, residential and commercial) and during high dust generating activities.	Construction Manager
Regularly monitor and treat/wet exposed surfaces, such as access tracks and stockpile areas	Construction Manager
Regularly monitor turnouts to public roads for potential material deposits and utilise a street sweeper or water cart where required.	Construction Manager
Energy usage will be reviewed in accordance with DG-ZH-PR077.1 Sustainability Data Collection and Reporting Procedure .	Environmental Advisor
Ensure water trucks on standby for water application where required	Construction Manager

14.10.1 Consideration of Weather

Consideration of weather forecasts when implementing air quality measures during construction is to be in line with the table below.

Weather		
Risk Level	Trigger	Action
Low Risk	Forecast of high temperatures (>30C); and/or Forecast of strong winds (>20km/h) from the work area in the direction of the nearest sensitive receptor.	Alert employees that dust potential is elevated at pre-start Ensure water truck is on standby to apply water to suppress dust Reassess locations of work fronts in proximity to sensitive receivers
Medium Risk	Forecast of high temperatures (>30C); and/or Forecast of strong winds (>25km/h) from the work area in the direction of the nearest sensitive receptor. Extended dry period indicated by <1mm of rain over the previous 20-day period	As above, plus additional watering where required
High Risk	Forecast of high temperatures (>30C); and/or Forecast of strong winds (>30km/h) from the work area in the direction of the nearest sensitive receptor. Extended dry period indicated by <1mm of rain over the previous 20-day period	As above, plus delay of high-dust generation potential activities
Onsite Observations		
Low Risk	General build-up of dust on non-worked areas	Inspect site to determine source Check dust management procedures
Medium Risk	Medium visible dust plume generated by activities above normal levels but not crossing CAZ Boundary	As above, plus Apply water and/or chemical binder to suppress dust movement If dust mitigation equipment unavailable, or at fault, investigate potential alternative management practices Repair faulty/ineffective dust mitigation equipment
High Risk	Highly visible dust plume crossing the CAZ Boundary	As above, Minimise activity rate of dust producing activity Apply water/suppressant immediately

14.10.2 Stockpile Management

Stockpiled materials are to be assessed and stabilisation measures implemented where stockpiled material is to be left for extended periods of time. Stockpiles are to be stabilised where required, including

- Diversion of clean water around stockpiles and install Erosion and sedimentation controls downstream of stockpiles
- Limiting the height of stockpiled materials to 2m
- Where required stockpiles can be covered to minimise dust

ANNEX A – PROJECT ROLES & RESPONSIBILITIES

The Project Manager works with the relevant functional managers and human resources personnel to ensure adequate resources are in place for the project, as per the project's Employee Relations Management Plan.

The Project Manager ensures that the specific roles, inter-relationships, and lines of reporting for the project are defined in the project's organisational structure, and may assign:

- an individual to a specific role
- the responsibilities for the specific role to themselves; or
- the responsibilities for the specific role to other project team members.

Refer to the PMP for further information.

Project Manager

Typical Responsibilities

- Visibly committing to and implementing environmental practices as defined in the Environmental Management Plan.
- Overseeing site occupation and project delivery compliance to the Environmental Management Plan, and ensuring environmental records are maintained and made available upon request to government agencies.
- Reporting project environmental status and environmental incidents to the Environmental Advisor and customer.
- Reviewing and participating in environmental incident investigations and nominated corrective measures.
- Attending project and environmental meetings.
- Participating in environmental audits.
- Initiating environmental reviews with the Environmental Advisor to facilitate continual improvement.
- Ensuring environmental works are carried out in accordance with the Environmental Management Plan and applicable sub-plans, and Downer procedures.
- Co-ordinating and facilitating task-based risk assessment activities for their area of responsibility.
- Ensuring all personnel, including subcontractors and visitors, undertake project defined induction and training, and are aware of any evacuation and emergency procedures.
- Ensuring daily and weekly environmental inspections are carried out and actions identified are implemented immediately.
- Ensuring environmental issues are raised at site toolbox meetings.
- Participating in emergency response as part of the Emergency Response Team.

Site Supervisor

Typical Responsibilities

- Ensuring environmental works are carried out in accordance with the Environmental Management Plan and applicable sub-plans, and Downer procedures.
- Reporting environmental incidents to the Project Manager and the Environmental Advisor as they are identified.
- Participating with the Environmental Advisor in the investigation of incidents in their area of responsibility.
- Ensuring environmental issues are raised at site toolbox meetings.

Environment and Sustainability Manager (Governance Role)

Typical Responsibilities

- Providing senior support to the Project Manager and Environmental Advisor/ Zero Harm Advisor to ensure environmental works are carried out in accordance with the Environmental Management Plan and the respective sub-plans, and Downer procedures.
- Conducting periodic reviews and audits to verify compliance with this plan.
- Providing technical support to site staff.
- Assisting in the investigation of any incidents.
- Consulting, as necessary, with the customer on environmental matters.

Project Environmental Manager or Safety Manager

The project team organisational structure will include a Project Environmental Manager or Safety Manager as defined in the Project Management Plan.

Typical Responsibilities

- Providing senior support to the Project Manager and Environmental Advisor to ensure environmental works are carried out in accordance with the Environmental Management Plan and applicable sub-plans, and Downer procedures.
- Providing technical support to site staff.
- Assisting in the investigation of any incidents.
- Consulting with the customer on environmental matters, as required.
- Maintaining effective Zero Harm systems in the field by developing maximum employee and subcontractor participation.
- Participating actively in project team Zero Harm meetings.
- Assisting in achieving zero environmental incidents for the project.
- Maintaining a useable library of environmental documentation.
- Undertaking weekly and monthly environmental inspections across all areas of the site and presenting alerts or findings at toolbox meetings.
- Undertaking regular system/ project environmental audits and producing high quality environment audit reports.
- Provide environmental guidance in resolving issues with a view to continuous improvement and elimination of any environmental incidents.
- Co-ordinating and delivering environmental training, including for environmental management, spill response, and spill prevention.
- Assisting field personnel in the development of project specific documentation, e.g. task-based risk assessments.
- Assisting in the preparation of the Project Risk & Opportunity Register and the environmental induction of project personnel.
- Monitoring and reporting on energy, greenhouse gas and waste management, including sewage disposal.
- Being familiar with and implementing the requirements of the customer's Environmental Management Plan, as required.
- Being familiar with and implementing the requirements of this Environmental Management Plan, as required.
- Complying with any regulations or statutory obligations for environmental management.

Environmental Advisor

Typical Responsibilities

- Visibly committing to environmental procedures and instruction, and maintaining environmental records defined within this Environmental Management Plan.
- Reporting to the Environmental Manager, Safety Manager, and Project Manager on environmental issues, as required.
- Providing environment planning (inclusive of impact mitigation measures) and discipline technical support to the Project Manager and project team.
- Assisting the Project Manager/ Environmental Manager in providing environmental training and inducting all site personnel, including subcontractors and visitors.
- Providing environmental input to the formulation of task-based risk assessments, as required.
- Consulting and liaising with the customer on environmental matters, including compliance with all regulatory requirements.
- Resolving and/ or facilitating solutions to site environmental issues and problems.
- Liaising with relevant regulatory authorities and stakeholders, as required.
- Reviewing and participating in environmental incident investigation and nominating corrective measures.
- Carrying out environmental inspections.
- Initiating environmental reviews with the Project Manager and facilitating continual improvement.
- Directing the workforce (in consultation with the Project Manager) to stop work in order to achieve compliance with the environmental requirements of the head contract, as covered in the Environmental Management Plan and applicable sub-plans, or to prevent environmental damage.

Downer Worker

Typical Responsibilities

- Visibly committing to environmental procedures and instruction.
- Completing required inductions as specified in this Environmental Management Plan.
- Participating in the formulation of task-based risk assessments.
- Implementing environmental controls as detailed in inductions, task-based risk assessments, all aspects of this Environmental Management Plan and applicable sub-plans, compliance documents, procedures, and standards.
- Reporting environmental incidents and issues to the relevant Supervisor or to the Environmental Advisor.
- Using equipment provided to reduce environmental hazards or emissions.
- Participating in daily and weekly environmental inspections.
- Contributing to the overall project goal for zero environmental impacts and incidents by making suggestions for improvement where identified.
- Complying with all aspects of this Environmental Management Plan and all associated compliance documents, permits, procedures, and standards.
- Conducting task-based risk assessments and providing to Downer prior to execution.
- Undertaking induction(s) as defined by this Environmental Management Plan and complying with project environmental instructions.
- Providing to Downer details of all hazardous substances, contained within Safety Data Sheets (SDS), proposed for use in subcontractor scope.

- Providing other environmental related data to Downer as defined by this Environmental Management Plan, including data for NGER, waste generation, and water consumption.
- Attending site meetings when requested.
- Reporting, investigating, and implementing corrective measures arising from associated environmental incidents.
- Attending environmental training and awareness sessions.

Safety Administrator

Typical Responsibilities

- Reporting to the Environmental Manager, Safety Manager, and Project Manager on environmental issues, as required.
- Visibly committing to environmental procedures and instruction, and maintaining environmental records defined within this Environmental Management Plan.
- Providing administrative support to the environmental team, specifically:
 - **INX** administration
 - inductions and registrations
 - audit and inspection results
 - incident reports; and
 - verification of competency (VOC) and training record updates.

ANNEX B – PROJECT RISK & OPPORTUNITY REGISTER EXCERPT

ANNEX C – ENVIRONMENTAL SENSITIVITIES CONTROL MAP

