Environmental Management Plan

March 2023

Punchs Creek Renewable Energy, Qld

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1. INTRODUCTION

This Environmental Management Plan (EMP) was produced by Echo Consultants for Punchs Creek Renewable Energy Pty Ltd for the proposed Project of the same name (hereafter referred to as Punchs Creek RE Project, or the Project, or the development). The Project land is identified as Lot 39 N25188, Lot 2 RP60015, Lot 1 RP22800, Lot 2 RP22800, Lot 11 ML72, Lot 144 ML72, Lot 145 ML72, and Lot 149 ML412, as shown on **Figure 1 Cadastral Plan**.

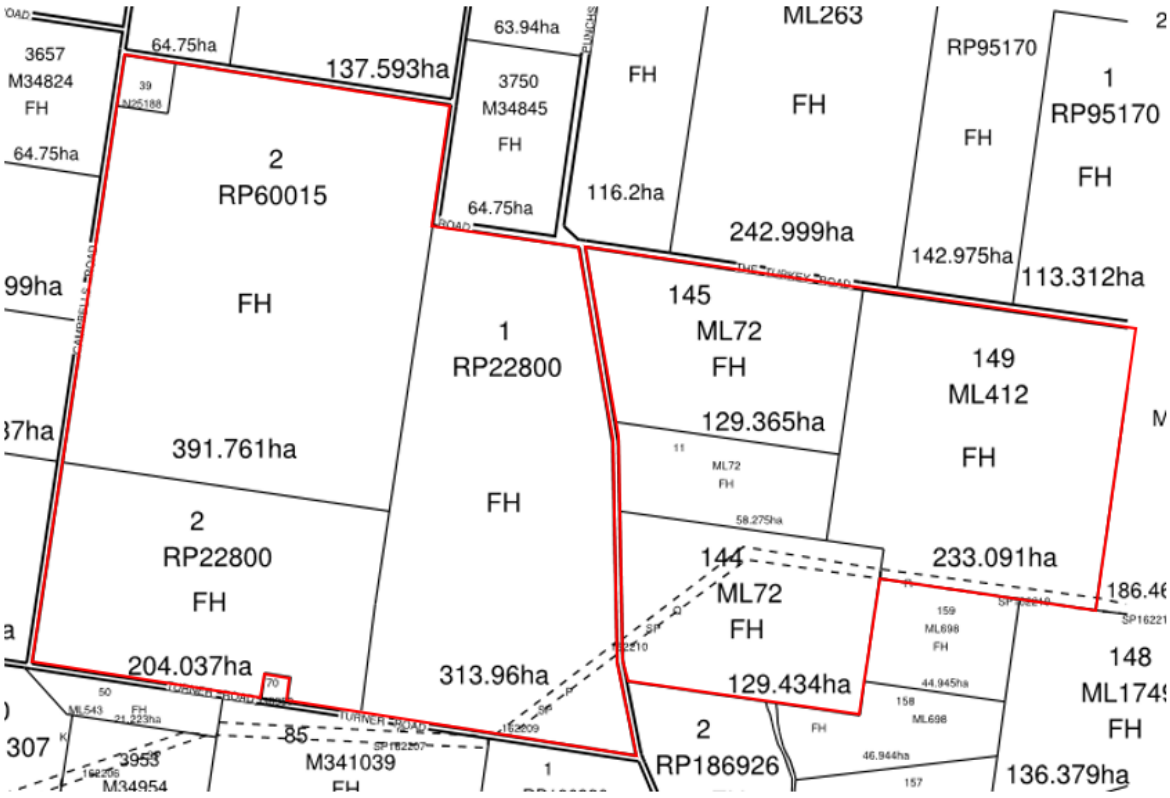

Figure 1 Cadastral Plan

The Project is located approximately 64 kilometres (km) south-west of Toowoomba and approximately 13km south-east of the township of Millmerran in South-west Queensland, as shown on **Figure 3 Site Location** and **Figure 4 Site Locality**

The proposed Project will comprise a Renewable Energy Facility of up to 800MW PV + 250MW Battery Energy Storage System (BESS), a 330/33kV substation and associated infrastructure. The development may be completed in stages, which are yet to be confirmed.

1.1 Purpose

This EMP has been prepared at this early stage of the proposed development, to provide a site based environmental management plan to accompany the Material Change of Use (MCU) application as recommended by Toowoomba Regional Council (TRC).

1.1 Objectives

The broad objectives of this EMP are to provide planning and management systems to:

- Facilitate achievement of environmental standards

- Ensure prevention and mitigation of environmental harm which may occur from the Project
- Facilitate appropriate and timely responses to equipment failure, emergencies or other unusual conditions that may cause environmental harm
- Provide a framework for documentation, communication and implementation of contingency plans
- Ensure that all personnel responsible for construction and operation of the facility are aware of their environmental responsibilities
- Ensure that environmental monitoring and review occurs to manage and respond to impacts of the Project and to ensure continual improvement in the EMP/s
- Ensure that relevant information is retained and is communicated throughout the organisation
- Ensure communication with regulatory authorities as required under legislation and approval conditions.

Project EMP/s shall be applicable to the Construction, Operational and Decommissioning phases of the Project. The Project shall be delivered via an Engineer, Procure, Construct (EPC) Contractor, and as such the technologies and construction systems to be deployed across the Project are still be confirmed at this time. This EMP document outlines the applicable framework herein, and may be used by the EPC contractor to prepare the relevant plans.

The nature of major Projects means there will commonly be contingent requirement for ongoing environmental response planning to key issues. This approach allows planning and management techniques to be representative of potential impacts and required response strategies. In the case of the Punchs Creek RE Project it is intended to commit to the preparation of environmental management plans for the construction, operational and decommissioning stages of the Project as indicated in the structure outlined below in **Figure 2**.

Figure 2 Environmental Management Structure

The core plans for the stages of the Project as indicated in Figure 4 will necessarily incorporate a number of sub-plans which may include:

- Soil and Water Management Plan
- Dust Management Plan

- Noise, Vibration Management Plan
- Weed Management Plan
- Waste Management and Reuse Management Plan
- Traffic Management Plan
- Flora and Fauna Management Plan
- Indigenous and Non-Indigenous Cultural Heritage Management Plan
- Hazardous Materials Management Plan

The principal content requirements for EMPs is provided in Table 1 below. The remainder of this document provides a CEMP that would be applicable to the Project. Prior to commencement of construction, it is expected further detailed content would be worked up in dialogue with relevant authorities and stakeholders in the Project, and with reference to the likely conditions that would be included in a potential development approval.

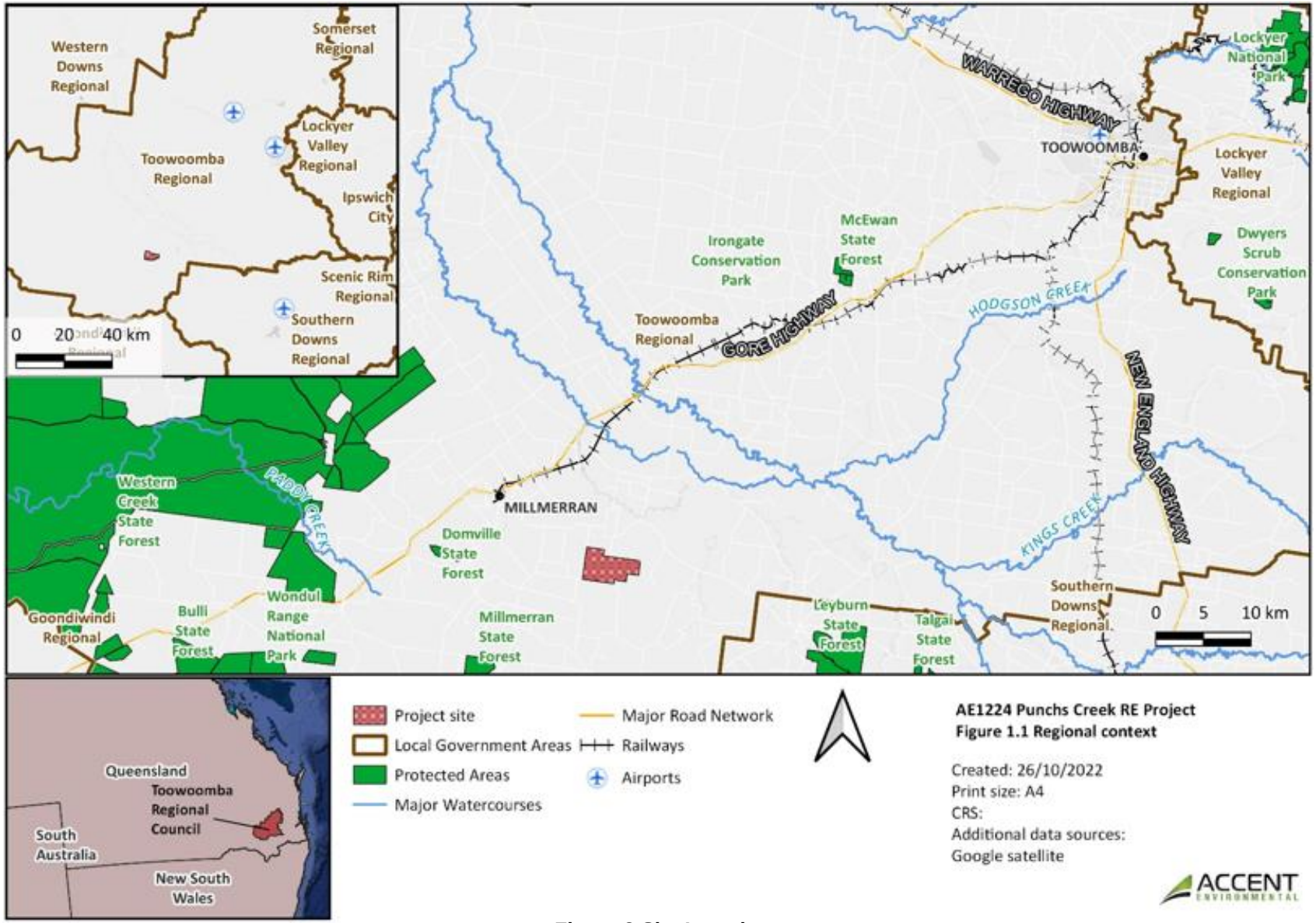

Figure 3 Site Location

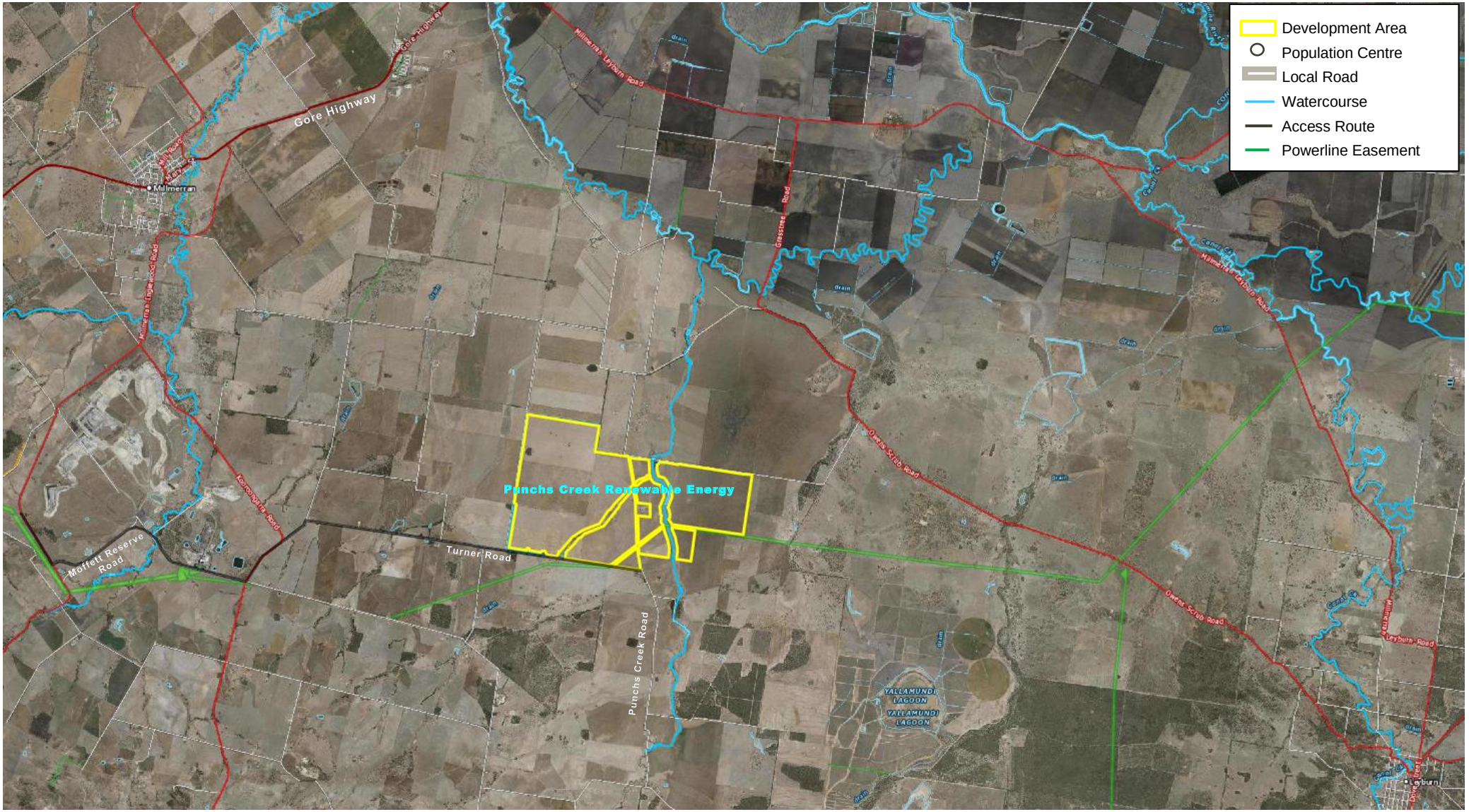

Figure 4 Site Locality

1.2 Outline of this CEMP

The outline of the CEMP is presented in Table 1.

Table 1 Outline of the CEMP

Section of Report	Description
Section 1 **Error! Reference source not found.**Introduction	Contains a brief introduction, identifies purpose and objectives, and lists relevant government regulations.
Section 2 Project Overview	Provides a description of construction works, construction timeframe and duration, working hours.
Section 3 Existing Environment	Contains a description of the site and existing environment.
Section 4 Implementation and Operation of the CEMP	Outlines the management arrangement for the site including the environmental policy, management system, roles and responsibilities, training and competency, stakeholder engagement and communication, complaints management and contractor management.
Section 5 Key Environmental Issues	Outlines the key environmental issues on the site.
Section 6 Environmental Management and Mitigation	Presents proposed environmental objectives and management actions.
Section 7 Incident Management	Contains incident and emergency procedures and relevant contacts.
Section 8 Environmental Performance and Reporting	Provides the environmental reporting requirements and the process for assessing environmental compliance and performance

1.3 Application of the CEMP

This CEMP applies to all personnel (staff and contractors) and activities associated with the construction of the Project and on land under the control of the managing entity.

The Site Supervisor is responsible for implementation of the CEMP.

The Site Supervisor shall ensure that all persons employed or sub-contracted to construct the Project are trained in environmental responsibilities as determined by this CEMP and as legislated by the *Environmental Protection Act 1994* (EP Act). Environmental duties of all personnel include the following:

- General Environmental Duty whereby a person in the performance of their duties shall not do so in a manner which will cause, or is likely to cause, environmental harm unless the person takes all reasonable and practical measures to prevent or minimise the harm; and
- Duty to Notify Environmental Harm whereby if a person in the performance of their duties becomes aware that serious or material environmental harm is caused or threatened, then the person must immediately contact the Site Supervisor who in turn must immediately notify the relevant authorities.

1.4 Applicable Legislation

The key legislative requirements for consideration in the CEMP are provided in Table 2.

Table 2 Applicable Legislation and Policy

Legislation	Objectives
Commonwealth	
Environmental Protection Biodiversity Conservation Act 1999 (EPBC Act)	The EPBC Act governs the protection of Matters of National Environment Significance, including the habitat

Legislation	Objectives
	for listed threatened species and Threatened Ecological Communities.
Queensland	
Environmental Protection Act 1994 (EP Act)	The EP Act protects environmental values through development and implementation of environmental protection policies and regulates environmentally relevant activities prescribed in the *Environmental Protection Regulation 1998* (EP Reg).
Environmental Protection (Water and Wetland) Policy 2019 (EPP Water)	The EPP Water administers the protection of environmental values from activities that may result in the release of contaminants to waterways.
Environmental Protection (Air) Policy 2019 (EPP Air)	The EPP Air governs the protection of ambient air quality and specifies indicators and air quality goals for the control of the release of airborne contaminants that are regulated through issued permits.
Environmental Protection (Noise) Policy 2019 (EPP Noise)	The EPP Noise specifies an acoustic quality objective for the protection of the well-being and amenity of individuals and the community in surrounding residential areas.
Aboriginal Cultural Heritage Act 2003	This act recognises and protects significant Indigenous cultural heritage in Queensland. The Aboriginal Cultural Heritage Act sets out requirements for the protection and management of Indigenous cultural heritage.
Waste Reduction and Recycling Act 2011 (WRR Act)	Contains a suite of measures to reduce waste generation and landfill disposal and encourage recycling.
Biosecurity Act 2014 (Biosecurity Act)	Is designed to ensure a consistent, modern, risk-based and less prescriptive approach to biosecurity in Queensland. The Act requires all people and organisations in Queensland to manage biosecurity risks under their control under the general biosecurity obligation.

2. PROJECT OVERVIEW

2.1 Facility

The Project will consist of solar panels mounted on a frame which tracks the sun to generate energy. The panels will be connected to inverter stations which convert the DC power to AC power, and using integrated transformers step the voltage up to 33kV. A medium voltage AC network will be installed in underground trenches to connect each inverter to a central switchgear. The switchboard is adjacent to the step-up substation, which is owned and operated by the network operator, Powerlink. This substation will step up the voltage to 330kV for injecting the green energy into the transmission network operated by Powerlink.

The development will contain the following infrastructure:

- Photovoltaic solar panels
- Tracking system
- Piled foundations
- Power conversion units (PCUs) on skids (including inverters, transformers and ring main units)
- Battery enclosures/modules
- High Voltage Switch room

- Internal access tracks
- Underground medium voltage network
- Operations & Maintenance (O&M) Building (including Site office/ warehouse)
- Car parks and temporary laydown area
- Security fencing
- Substation

Figure 5 provides an indicative layout plan or general arrangement of the Punchs Creek Renewable Energy Project.

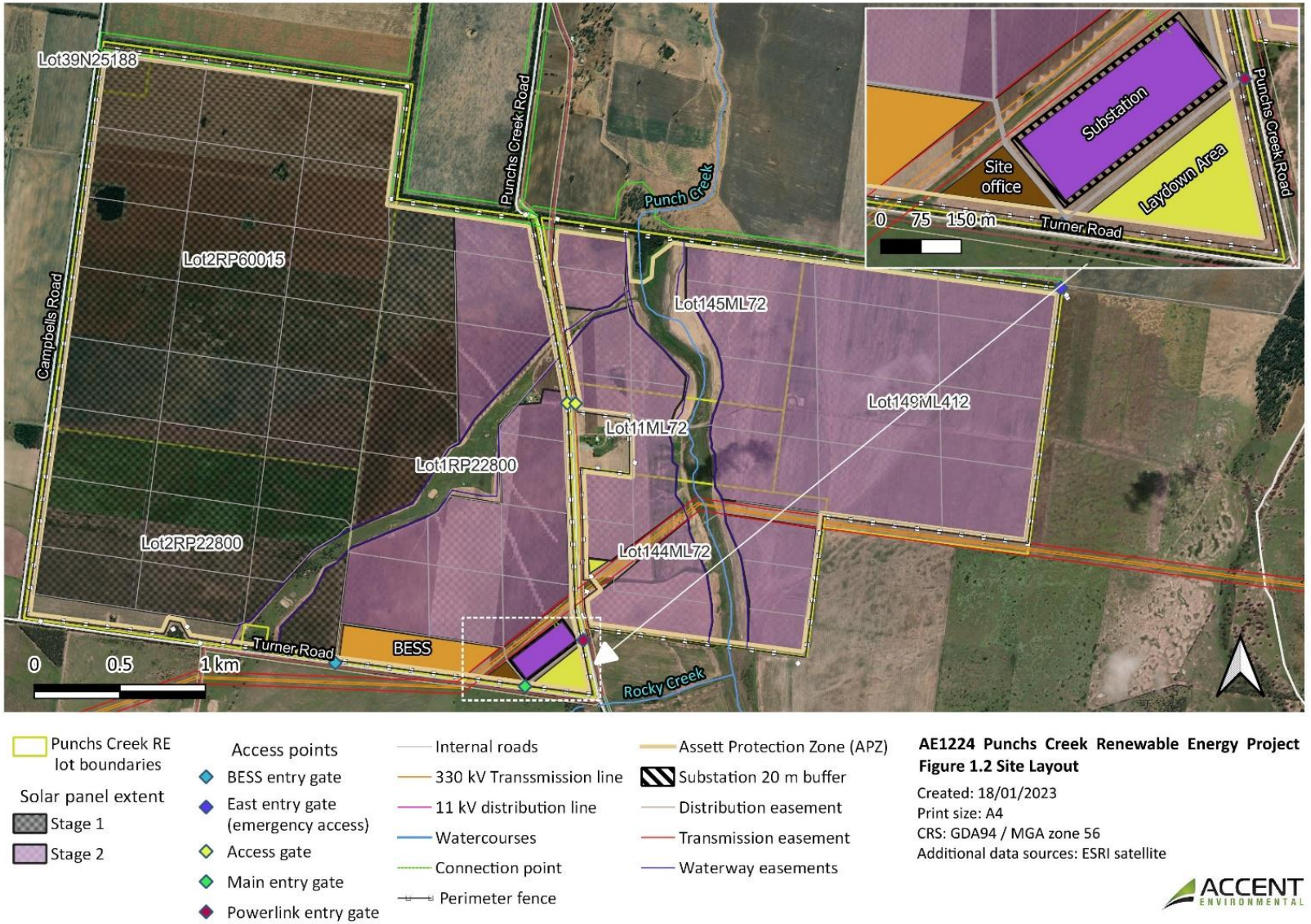

Figure 5 Indicative Layout Plan / General Arrangement

2.1.1 Solar Array and Technology

The development will consist of multiple solar array areas or blocks comprised of photovoltaic modules arranged in a series of long rows. The modules are mounted on frames which follow the sun to optimize energy generation. The frames are fixed to piles driven into the soil. The rows interconnect to form a single array block of either approximately 3.0MW (AC) or 6 MW (AC). In each block there will be a prefabricated, containerized/skid mounted inverter and integrated transformer to convert and step up the voltage level.

Electrical connections will also be constructed between the PV arrays, as well as associated monitoring and protection equipment and central inverters via underground or frame secured cabling. Row Spacings are generally between 6 & 7 meters apart.

The solar module frames and inverter stations will be installed on piles and sit above ground level. This ensures retention of existing grassland vegetation and habitats in situ with a minimal level of ground disturbance. Regrowth of vegetation will be enabled following temporary disturbance during installation.

2.1.2 Substation

A new electrical substation is proposed as part of the Project to ensure the voltage levels of the electricity generated by the solar farm inverters are able to feed into the electricity grid. The substation is likely to be located in the southern area of the middle section of the development area immediately adjacent to the existing 330kV Millmerran to Middle Ridge ETL, within Lots 149 ML412, 144 ML72 and 1 RP22800. The substation's exact location is subject to final detailed design. The approximate height of the substation will be 8m and an approximate area will be 24,000 m².

2.1.3 Battery Storage System

The Project has allowed for battery storage capabilities to be installed on site. As technology improves, it is anticipated that grid energy storage will be utilised to store electrical energy during times when production exceeds consumption and returned to the grid when production falls below consumption.

Current technology enables containerised or non-containerised systems to allow versatility with site placement. Refer to **Figure 5** for indicative siting of a battery storage area.

2.1.4 Operations & Maintenance (O&M) Building

There will be one O&M Building – combined site office and warehouse – located near the main entrance (Main Entry Gate) and near the proposed substation. The exact location of this building has not been confirmed, however approximate location is provided in **Figure 4**. Based on preliminary designs, the building will be single level and contain a control room, storage room for spare parts and staff facilities, such as toilets and a kitchenette. The approximate height of the building will be 4m and the approximate area will be 1500 m².

2.1.5 Vehicle Access & Parking

Access to the development area will be via access track/s and gate/s from Turner Road. Parking will be located at the main entrance to the site (Main Entry Gate), near the proposed site office, substation, and laydown areas.

Heavy machinery and vehicles will be required during construction. A Traffic Impact Assessment Report has been prepared to determine the existing road network capabilities to access the site. A Traffic Management Plan will be prepared during detailed design to ensure construction traffic is managed appropriately.

Access to the Project will be restricted to authorised personnel only with service vehicles for on-going maintenance and operation of the solar farm.

On site car parking will be provided with direct access to the Site Office, battery storage system and laydown area, with a separate access for PLQ to the new substation.

2.1.6 Fencing and Security

To ensure public safety, all sections of the proposed solar farm will be fenced around the perimeter of the development area as shown in **Figure 5**.

The security fence will be an approximate height of 2 metres and will feature CCTV security cameras at entrances for monitoring purposes.

2.1.7 Utility Services

No reticulated (council) water, sewerage or stormwater connections to the development area are proposed. Water requirements for the purposes of drinking (potable supply) may be trucked to site as it is expected that the usage will be minimal for the staff on site during operation. Non-potable water requirements (i.e. for fire-fighting purposes) may be sourced from rain water harvesting and/or from a bore. Water may be trucked to site during operations for the purpose of maintaining the solar panels. Supply of water to site will be determined at detailed design stage.

An on-site effluent disposal and treatment system will be provided for the development to meet the needs of the Project. Due to the expected on-site operations, it is anticipated that only a standard septic system would be required, therefore will not require an environmental permit for sewerage treatment. Full appraisal of the design and type of onsite treatment system will be determined at detailed design stage.

The Project will be serviced by electricity. Services will be connected to the operation and maintenance compound. Telecommunications will either be by mobile coverage or ADSL (yet to be determined).

2.2 Connection to Existing Transmission Infrastructure

The Project proposes connection to the existing 330kV Millmerran to Middle Ridge ETL, (likely within Lot 1 RP22800), within the development area. The connection point will be finalised with Powerlink, but will be in the vicinity of the substation.

2.3 Construction process

2.3.1 Pre-mobilisation

Pre-mobilisation activities for each area of development areas will typically occur over a 1-2 month period and include the following as required:

- Temporary fencing of site offices and facilities for construction.
- Fencing of areas for development. The fence will be compliant with the Development Consent.
- Removal of any non-remnant woody vegetation within the areas to be developed in accordance with the vegetation removal procedure.
- Laydown of temporary offices and facilities. These will be temporary prefabricated buildings used for construction Projects.

The current site works requirements include:

- Office facilities.
- Changing rooms.
- Toilets.
- Showers.
- First aid.
- Lunchrooms.
- Parking
- Lay down areas.
- Temporary Security building at the front gate for construction

The facility generates electricity using thousands of photovoltaic (PV) panels which capture and convert solar energy. Each PV panel captures the energy from sunlight which excites electrons within the panel (photoexcitation) and creates an electrical current.

The PV panels are wired in series to meet the minimum operating voltage of the inverter. The strings are connected in parallel and then combined and fed into the Power Conversion Stations (PCS).

2.3.2 Construction

Construction activities will include the installation of the PV arrays and supporting infrastructure.

The PV arrays and site office components will largely be built off-site and transported to the site in modulated sections. Construction on-site will be limited to the unloading and joining together of the modulated sections and trenching electrical and control cabling to the electricity grid and control room. Construction activities are planned to occur during daylight hours only.

Construction will consist of installing the following components:

- Arrays of solar PV modules arranged in a series of long rows (generally up to 90m) typically no higher than 2.5 m above the ground and supported by a steel and/or aluminium mounting structure including framing and piles which are either screwed or driven into the ground.
- A series of prefabricated, containerised/skid-based inverters distributed throughout the PV arrays.
- Electrical connections between PV arrays, associated monitoring and protection equipment, and central inverters via underground or frame secured cabling.
- A tracker actuation system.
- Network interconnection facilities to connect the Project to high voltage transmission network

Construction of the Project is anticipated to be staged, with indicative timeframes for each stage of construction activities for the PV arrays (there may be overlap in timing) to include:

- Pile driving or screwing mounting pylons (~6 months)
- Trenching or underground cabling connecting PV (~3 months)
- Mounting pre constructed PV modules (~4 months)
- Network interconnection (~6 weeks)
- Establishing revegetation as screening (~1-2 years)

To facilitate the future operational and maintenance activities on site the following infrastructure will be constructed:

- Site office and operations and maintenance facilities
- Site entry road, internal access tracks and car park
- Site fencing and associated security equipment

3. EXISTING ENVIRONMENT

3.1 Topography and Drainage

The site has favourable topography for hydrology with gently undulating land across the site, generally sloping from the southwest corner (approximately 420 m AHD) to northeast corner (approximately 390 m AHD). The fall of the site is generally from south to north, with flat grades in the range of 0.2% to 0.5% typically.

The development area has been setback to avoid the only mapped and named watercourse, Punch Creek, which traverses through the middle of the development area. Punch Creek is a watercourse defined by the *Water Act 2000* and is also mapped as a Regulated vegetation (defined watercourse), a Vegetation management watercourse (Stream order 4) and partly a Qld Waterway for waterway barrier works watercourse (Moderate). Punch Creek is not impacted by the footprint of the Project, other than the use of an existing bed level farm track across the creek.

There are two Drainage features defined by the *Water Act 2000*, which are also Vegetation management drainage lines (Stream order 1) in the central area of the development area, both of which are unnamed. One of these drainage lines does not appear to demonstrate any markings on the ground surface, indicating the mapping may not represent the ground conditions and current/recent overland flow of runoff. The development area shows the panel layout over this mapped drainage line, however panels will be at least 1.4m off natural ground level and the mounting structure will not impact overland flow of runoff water. The other drainage line does appear to be obvious on the landscape and has been avoided by the development footprint.

3.2 Ecology

The Project development footprint is located within Category X (non-remnant) Area.

The Project land does contain a minor transect of regulated vegetation (Cat B containing endangered regional ecosystems) along The Turkey Road (in the gazetted road reserve), which is along the north-eastern boundary, and around the south-western corner of the Project land (corner boundary of Lot 2 RP22800). However, the layout of the development area intentionally avoids and buffers off all areas of regulated vegetation, thus it will not be impacted.

4. IMPLEMENTATION AND OPERATION OF CEMP

4.1 Environmental Policy and Commitment

Punchs Creek Renewable Energy is committed to environmental protection and the management of adverse activities associated with the development. All employees and contractors have a responsibility to implement the overarching environmental objectives of the Project.

Punchs Creek Renewable Energy will continue to enact the highest environmental standards in Project work practices and onsite management of the environment.

The proposed Project site has been carefully selected and designed with a determined focus of avoiding environmentally significant and sensitive areas with an understanding that impacts associated with large-scale developments are often not seen for several years. will continue to work closely with Government to modify development features to reduce impacts to MNES to the greatest extent possible.

Punchs Creek Renewable Energy and their contractors maintain their high standards of environmental protection through the following measures:

- Setting objectives and targets to monitor performance aimed at the elimination or minimisation of work-related injury, illness, and environmental harm.
- Systematically identifying, assessing, and managing as far as reasonably practicable the health and safety risks and environmental impacts which may arise from our activities.

- Ensuring that health, safety and environmental responsibilities are clearly defined within management plans and procedures
- Engaging with employees, landowners and key stakeholders to identify critical environmental issues on land under Project control.
- Ensuring that the planning, design, construction, operation and maintenance of assets occur in accordance with Government approvals.
- Provide the resources required to achieve Project approval commitments
- Implement mitigation and management measures to minimise impacts to air, water, land and biota unless authorised under license or approvals to
- Complying with the requirements of environmental legislation and any Environmental Management Plan and Environmental Work Plan that applies to the property being accessed.
- Taking all reasonable actions to ensure that weeds, pests or pathogens are not spread.

4.2 Site Contacts

Relevant site contacts are detailed in Table 3.

Table 3 Site Contacts Details

Issue	Organisation	Person	Position	Contact Details
Implementation and management of the CEMP	Principal's Representative	To be appointed	Project Manager	To be appointed
Receiving the following reports; monitoring, remedial action, environmental complaints and emergencies	To be appointed	To be appointed	Site Supervisor	To be appointed
Ensuring measures/action plans are implemented	To be appointed	To be appointed	HSEO	To be appointed
Reporting and auditing	To be appointed	To be appointed	HSEO	To be appointed

4.3 Roles and Responsibilities

The roles and responsibilities for the Project will ultimately be defined by the Principal Contractor, however it is envisaged that they will align with the management arrangements detailed in **Figure** 6**6**.

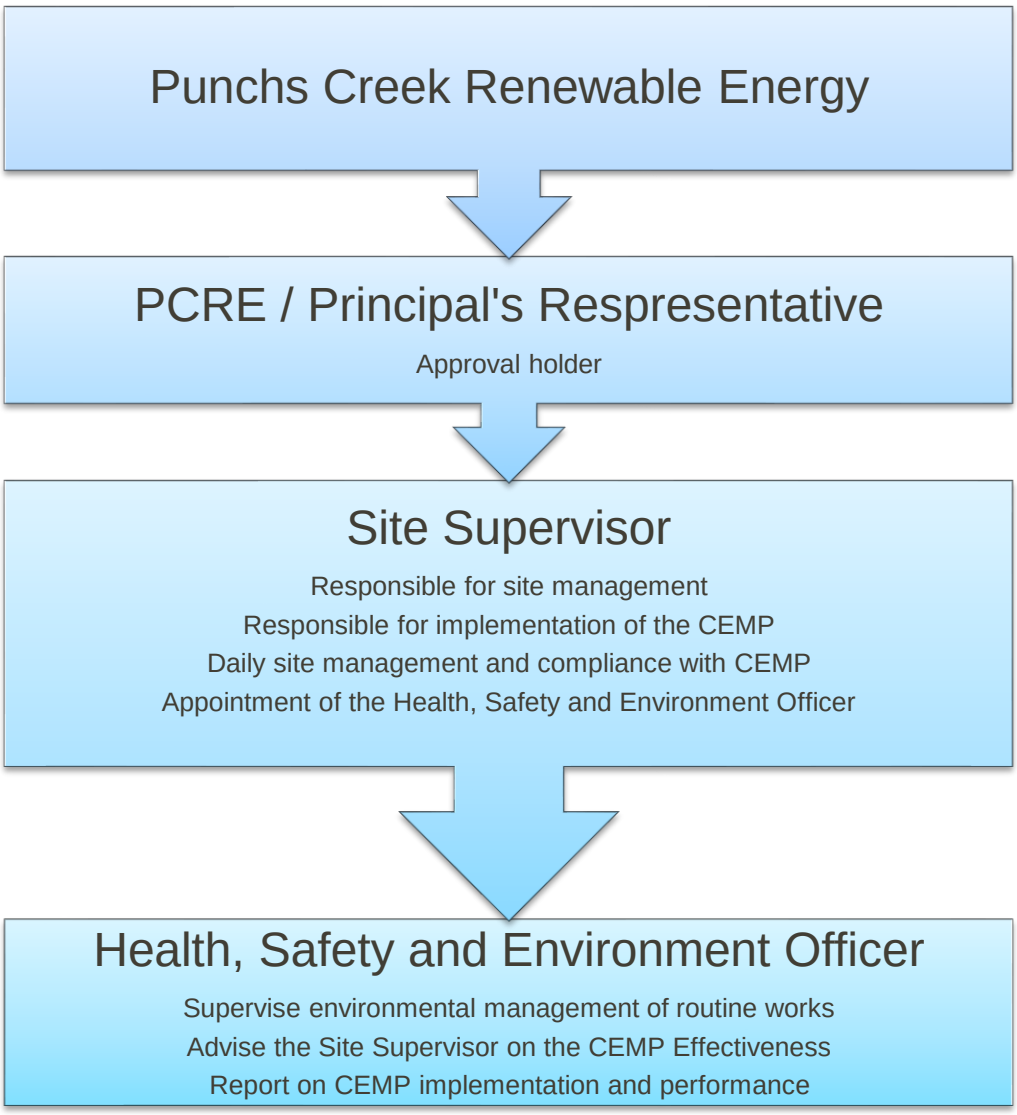

Figure 6 Site Construction Management Arrangements

The responsibilities and reporting structure for key environmental management roles at the facility are broadly outlined in Table 4.

Table 4 Roles and responsibilities

Role	Responsibilities	Reporting
Principal's Representative	▪ Provision of sufficient resources to support the implementation of the CEMP and ongoing environmental management activities required by the Project ▪ Ensure appropriate training (requirements of the CEMP) is undertaken by all site personnel ▪ Acquisition of all required permits and approvals ▪ Engagement and briefing of site staff and sub-contractors ▪ Review of monitoring outcomes and ensure corporate compliance ▪ Ensure environmental non-conformances are appropriately actioned and corrective and preventative measures are implemented ▪ Approval of CEMP revisions	▪ Reports to Toowoomba Regional Council and DCCEEW

Role	Responsibilities	Reporting
	▪ Community consultation and regulator liaison ▪ Appoint consultants to assist in overseeing works and monitoring compliance with conditions of relevant permits	
Site Supervisor/s	▪ Work with Punchs Creek Renewable Energy to address complainants, community groups and other stakeholders ▪ Ensure the site is compliant with provisions in this CEMP and with relevant approvals on a day-to-day basis ▪ Perform regular inspections ▪ Implement the CEMP for all environmental matters on site, with authority to direct compliance with the CCEMP ▪ Manage emergency responses ▪ Report on CEMP implementation and performance. ▪ Conduct daily visual inspections and weekly site checklists	▪ Reports to Principal's Representative
Health, Safety and Environment Officer (HSEO)	▪ Conduct site inspections or as requested by the Site Supervisor, and as triggered by any relevant permits or environmental incidents ▪ Review CEMP effectiveness (including for continuous improvement) ▪ Perform regular inspections ▪ Implement the CEMP for all environmental matters on site, with authority to direct compliance with the CCEMP ▪ Prepare written Corrective Action Reports within 24 hours of the identification of a need for corrective actions to be taken ▪ Maintain records of any complaints received and responses, investigate and (where appropriate) implement control measures ▪ Investigate and review non-conformances and identify, implement and monitor corrective and preventative actions for non-conformances ▪ Maintenance of training, non-conformance and complaints registers ▪ Conduct monthly internal audits ▪ Undertake or coordinate environmental monitoring events ▪ Approve chemicals entering the site ▪ Maintain complaints register ▪ Ensure the CEMP is made available to all staff, contractors and authorities ▪ Allocate resources for environmental management, staff training and CEMP duties ▪ Ensure all personnel and contractors have completed a site induction and orientation	▪ Reports to Site Supervisor/s
All Site Staff and Contractors	▪ Undertake site works as instructed by the Site Supervisor ▪ Undertake site works with a duty of care under the *Environmental Protection Act 1994* ▪ Undertake activities in compliance with this CEMP	▪ Reports to Project and Site Supervisor/s

Role	Responsibilities	Reporting
	▪ Report all concerns, complaints, incidents, near misses, spills or non-conformances with the CEMP to Site Supervisor	
Consultant	▪ Provide the Site Supervisor/ HSEO with specifications and certifications of specific works ▪ Prepare plans and specifications that comply with relevant conditions of approvals and the requirements of this CEMP ▪ Undertake required pre-construction surveys ▪ Develop specifications and plans that adequately address environmental issues ▪ Report to the Principal's Representative any areas of non-compliance with the specifications that may require corrective actions or modifications to the CEMP	▪ Reports to HSEO / Site Supervisor/s

4.4 Training and Competency

It will be the HSEO responsibility to ensure all employees and sub-contractors are fully formally inducted into the CEMP. An employee and sub-contractor training register is in **Appendix A**Error! Reference source n ot found..

Inductions will cover the following:

- Spill kit use and response
- Equipment and maintenance
- Cultural Heritage requirements
- Roles and responsibilities
- Environmental incident notification and reporting
- Location of conservation and buffer areas
- The CEMP requirements
- The general duty of environmental care

4.5 Communication

Regular Environmental, Health and Safety (EHS) meetings shall be held with the Principal Contractor to maintain an awareness of environmental issues. The EHS Meeting shall be a brief team meeting to discuss recent onsite incidents, results of inspections, relevant EHS topics including observed hazards and audit results.

Records of EHS Meetings shall be retained by the Principal Contractor.

4.6 Regulatory Authorities

Principal's Representative may occasionally schedule update meetings or have informal discussions with the Department of Environment and Science (DES), Department of Climate Change, Energy, the Environment and Water (DCCEEW) and Toowoomba Regional Council (TRC). DES and TRC are notified immediately of any significant incidents and updated with compliance reports required as per the Conditions of Approval and associated endorsed plans.

4.7 Complaints Management

The procedure provided in **Figure 7** will be adhered to following a complaint.

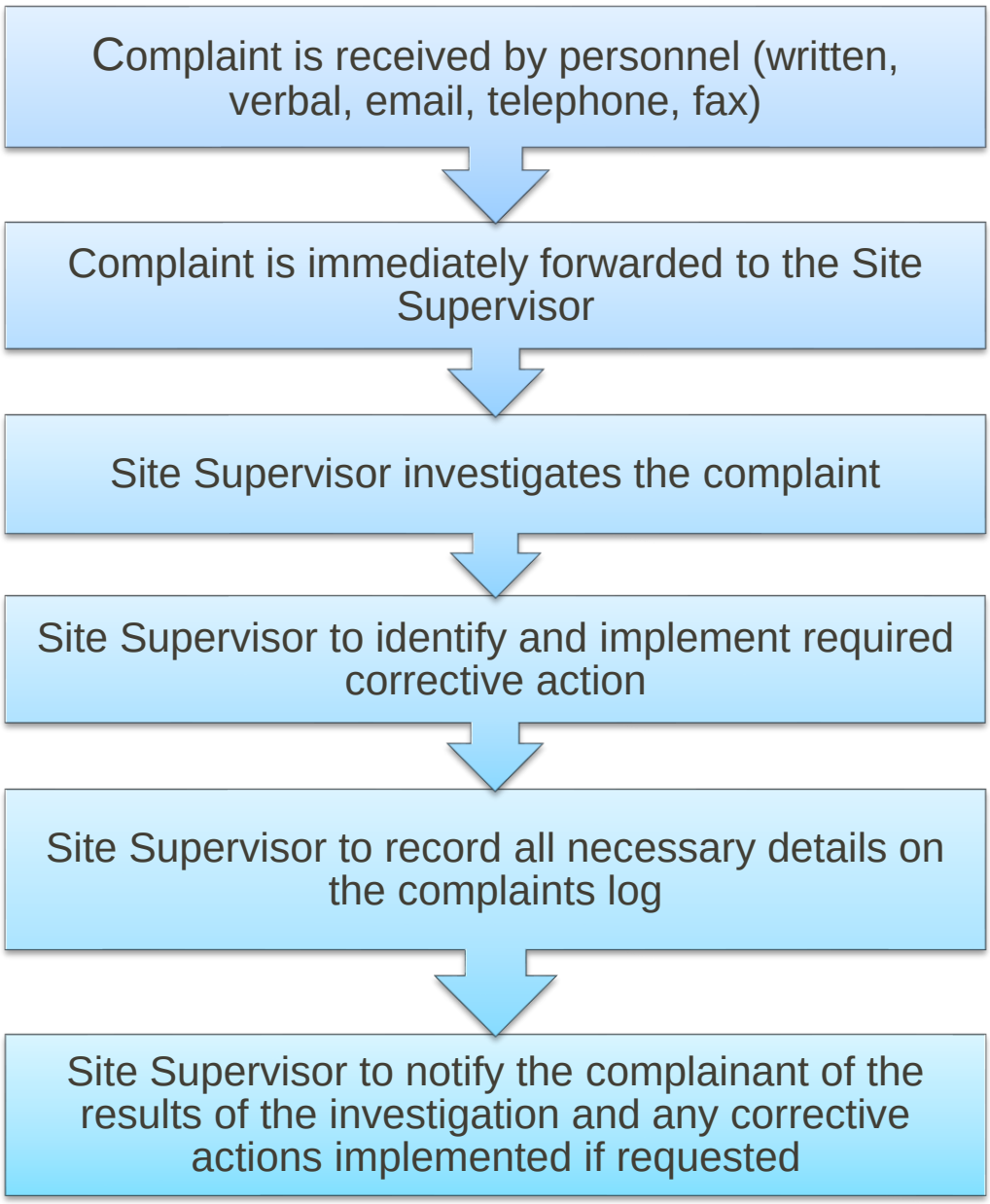

Figure 7 Complaints procedure

The HSEO will maintain and update a complaints log (Error! Reference source not found.). The following details must be recorded for all complaints received:

- Time, date, name and contact details of the complainant
- Reasons for complaint
- Any investigations undertaken
- Conclusions formed
- Any actions taken

The complaints log must be provided to the administering authority on request.

4.8 Contractor Management

4.8.1 Contractor Pre-qualification

Principal's Representative will assess all contractor competency in relation to Health, Safety and Environmental aspects of their operation to ensure that work carried out by third parties considers controls that prevent environmental harm.

4.8.2 Compliance with CEMP

The Site Supervisor must ensure that all contractors and sub-contractors are aware of their compliance requirements and supervised to monitor compliance within the provisions of this CEMP. Whilst contractors may develop and adhere to their own Environmental Plans and Management Systems, this CEMP provides the overarching framework.

4.9 Record Management

A copy of the CEMP shall be always kept in the site office.

Any record or document required as an outcome of this CEMP or requested by a regulatory authority must be kept at the Project office for a period of five years and be available to an authorised person upon request.

Records must be kept of monitoring results, corrective actions, environmental incidents and complaints, reports to management, and any records required by law such as regulated waste tracking.

5. Summary of Key Environmental Issues

Table 5 summarises the key environmental issue for the construction of the Project.

Table 5 Key Environmental Issues for the Project

Issue	Potential Impact/Hazard
Increased Traffic Movements	Road congestion
	Vehicle collision
	Animal strike
	Disturbance of residents
Air Quality and Dust	Impact on local amenity
	Impact on human health
	Impact on health of flora, fauna and ecosystems
Noise / Vibration	Impact on local amenity/disturbance of residents
Solar Panel Glare and External Lighting	Distraction of pilots (air traffic) / Disturbance of residents
Land and Soil Management	Erosion of soil from the site / increased sedimentation in watercourse / Loss of topsoil
	Compaction of soil
Stormwater Management	Altered runoff from site
	Contaminated runoff from site
Waste	Waste generation
	Impact on local amenity
	Wildlife accessing waste
	Contamination of downstream receiving environment
Chemical Storage and Spills (Chemical, Fuel, etc.)	Surface water contamination
	Groundwater contamination
	Soil contamination
Flora and Fauna Management	Grasses under solar panels – bushfire hazard
	Disturbance/harm to native fauna

	Loss of habitat for local fauna
	Disturbance of riparian buffer zones
	Loss of vegetation providing groundcover
	Loss of vegetation stabilising watercourse bed or banks
	Introduction and spread of weeds
	Introduction and spread of invasive fauna
Cultural Heritage	Loss of, or damage to, indigenous and non-indigenous cultural heritage.

6. ENVIRONMENTAL MANAGEMENT AND MITIGATION

6.1 Traffic Management

Traffic management measures are provided in the Traffic Management Plan – prepared by the Contractor.

6.2 Air Quality Management

The air quality and dust management actions to be implemented during construction of the Project are outlined in Table 6.

Table 6 Management Actions Relating to Ambient Air Quality

Air Quality and Dust			
Aim			
To construct the Project with minimal impacts to air quality where: ▪ No environmental nuisance is caused by the release of noxious or offensive airborne odours or contaminants – such as smoke and fumes from faulty equipment and fugitive dust emissions ▪ Aesthetics and amenity of the local environment is maintained ▪ Health of surrounding ecosystems and species is protected ▪ Human health and wellbeing are protected.			
Success Criteria			
No air quality complaints received from nearby sensitive places or from statutory authorities.			
Issues	**Management Actions**	**Responsibility**	**Frequency / Timing**
Air Quality	Adhere to speed limits across the site (i.e., 20km/h).	All site personnel	At all times
	Cover loads on trucks carrying material that would be easily dispersed by the act of normal driving.	All site personnel	At all times
	Visually monitor dust conditions at the site and implement appropriate mitigation procedures for the level of dust control required.	Site Supervisor	At all times
	Vehicle movement will be restricted to defined areas.	Site Supervisor	At all times
	All plant and equipment (e.g. haulage trucks, loading machinery) will be maintained and operated in accordance with Australian Design Rules and manufacture's specification.	Site Supervisor	As required
	Ensure machinery or plant is not left running idle when not in use.	All site personnel	At all times

Air Quality and Dust			
	Conduct works (e.g. earth works) that may produce excessive dust when the wind is favourable.	Site Supervisor	As required
	Water down trafficable areas.	Site Supervisor	As required
	Limit dust generating activities during windy or stormy conditions.	All site personnel	At all times
Routine Monitoring			
Report any malfunctioning equipment to the Site Supervisor.		All site personnel	As required
Visually inspect site and operations for smoke, fumes and dust.		Site Supervisor/ HSEO	Daily
Monitoring in Response to a Complaint			
When requested by the administrating authority, dust and particulate monitoring must be undertaken to investigate any complaints of environmental nuisance caused by particulate matter. Monitoring must be carried out at a place(s) relevant to the potentially affected odour sensitive place and at upwind control sites and must include: ▪ For complaint alleging dust nuisance, dust deposition monitoring shall be in accordance with AS3580.10.1 2016 or more recent editions; and ▪ For a complaint alleging adverse health effects caused by dust, the PM10 concentration suspended in the atmosphere over a 24hr averaging time shall be monitoring in accordance with AS3580.9.6 2015 (or more recent editions).			
Corrective Action			
If success criteria are not met, examples of corrective actions may include: ▪ Repair, service or replace faulty plant and equipment; and ▪ Implement dust mitigation measures (e.g. watering of roads).			
Reporting			
Record observations and actions.	Site Supervisor/ HSEO	As required	
Record and retain inspection notes and observations.	Site Supervisor/ HSEO	Weekly	
Results from complaint monitoring shall be forwarded to the administering authority.	Site Supervisor	Within 14 days of the completion of monitoring.	

6.3 Noise and Vibration Management

The noise and vibration management actions are outline in Table 7 will be implemented during construction of the Project.

Table 7 Management Actions Relating to Noise and Vibration

Noise and Vibration
Aim
To construct the Project with minimal noise and vibration where: ▪ No environmental nuisance is caused at a noise sensitive place by noise emissions from the site. ▪ Aesthetics and amenity of the local environment is maintained.
Success Criteria

Noise and Vibration			
Noise emissions do not exceed acoustic quality objectives stated in *Schedule 1* of the *Environmental Protection (Noise) Policy 2019*.			
Issue	**Management Actions**	**Responsibility**	**Frequency / Timing**
Noise	Liaise with/notify residents of work and intended construction times and the potential for increased noise levels during the works.	Site Supervisor	As required
	Locate accesses and Project facility areas as far away from sensitive receptors as possible	Site Supervisor	As required
	Adhere to speed limits on construction site and when accessing construction site.	All site personnel	At all times
	Adhere to approved hours.	Site Supervisor	At all times
	No unnecessary use of horns or other audible signals on mobile plant or equipment.	All site personnel	At all times
	No unnecessary revving or idling of engines on mobile and stationary machines and shut down any equipment not in use.	All site personnel	At all times
	Keep equipment well maintained to limit noise emissions.	Site Supervisor	As per manufacturers specifications
	Inform neighbours prior to creating excessive noise.	Site Supervisor	As required
	Schedule noisy activities that could cause vibration during times that will cause the public the least disturbance (e.g. middle of the day when most individuals are at work).	Site Supervisor	As required
Routine Monitoring			
Inspect site in relation to noise/vibration controls and operations.		Site Supervisor / HSEO	Daily
Monitor noise/vibration from plant and equipment.		All site personnel	At all times
Monitoring in Response to a Complaint			
When requested by the administering authority noise monitoring must be undertaken to investigate any complaint of noise nuisance and must include: ▪ LA 10, adj, 10mins ▪ LA 1, adj, 10mins ▪ The level and frequency of occurrence of impulsive or tonal noises ▪ Atmospheric condition including wind speed and direction ▪ Effects due to extraneous factors such as traffic noise ▪ Location, date and time of recording ▪ The contractor is responsible for engaging a suitably qualified and experienced acoustic consultant to undertake the monitoring. The method of measurement and reporting of noise levels must comply with the latest edition of the DES Noise Measurement Manual. All monitoring equipment used must be calibrated and appropriately operated and maintained.			
Corrective Action			
When criteria are not met, examples of corrective actions may include: 1. Review the use of any audible signals.			

Noise and Vibration		
2. Investigate feasible additional noise attenuation devices for plant or equipment.		
Reporting		
Record observations, actions and notifications from staff in diary.	Site Supervisor / HSEO	As required
Record inspection notes and observations.	Site Supervisor / HSEO	Weekly
Results from complaint monitoring shall be forwarded to the administering authority.	Site Supervisor	Within 14 days of the completion of monitoring.

6.1 Lighting Management

The solar panel glare and external lighting management actions are outline in Table 8 will be implemented during construction of the Project.

Table 8 Management Actions Relating to Solar Panel Glare and External Lighting

Solar Panel Glare and External Lighting			
Aim			
To minimise solar panel glare from PV solar modules shall: ▪ Maintain the aesthetics and amenity of the local environment. ▪ Protect the health of fauna.			
Success Criteria			
The Civil Aviation Safety Authority (CASA) requests that lights that may cause confusion, distraction or glare to pilots in the air be extinguished or modified in accordance with regulation 94 of the *Civil Aviation Regulations 1988* (CAR 1988). Night and outdoor lighting is designed, constructed and operated in accordance with Australian Standard AS4282 – Control of the obtrusive effects of outdoor lighting.			
Issues	**Management Actions**	**Responsibility**	**Frequency / Timing**
Glare	Solar panels, visible support structures, framing, cabling and other equipment and infrastructure shall be made of non-reflective materials or have a matte finish to minimise glare	Site Supervisor	Design stage
	Any glare or external lighting identified as hazardous to be modified if requested by the Civil Aviation Authority.	All site personnel	As required
Corrective Action			
When criteria are not met, examples of corrective actions may include: ▪ Investigation of feasible glare or external lighting modifications			
Reporting			
Record observations, actions and notifications from staff in diary.		Site Supervisor / HSEO	As required

6.1 Land and Soil Management

The land and soil management actions are outline in Table 9 will be implemented during construction of the Project.

Table 9 Land and Soil Management

Land and Soil Management			
Aim			
To minimise the impact to land and soil from construction activities, specifically: ▪ Compaction ▪ Erosion ▪ Sedimentation			
Success Criteria			
▪ Erosion is not exacerbated by construction activities. ▪ On-site and within site waterbodies do not receive excessive deposits of sediment			
Issue	**Management Actions**	**Responsibility**	**Frequency / Timing**
Erosion and Sedimentation	Ensure that un-impacted drainage (outside Project footprint) is diverted around impacted areas.	Site Supervisor	Pre-construction
	Prior to construction commencing, a detailed Erosion and Sediment Control Plan (ESCP) to manage the site during the Construction and Operation Periods will be finalised.	Site Supervisor	Pre-construction
	Conduct all major earthworks during the dry season and ensure that all bed and banks are stabilised prior to the onset of wet season.	Site Supervisor	Pre-construction
	Limit ground disturbance and vegetation clearing to the minimum extent necessary for safe construction of solar modules.	Site Supervisor	At all times during mobilisation and construction
	Minimise the amount of material exposed to potential erosion (e.g. exposed stockpiles)	Site Supervisor	At all times
	Store stockpiles or excavated material in appropriate locations (e.g. on level ground, away from stormwater drainage)	Site Supervisor	At all times
	Topsoil stockpiles are to be protected from sediment runoff by a catch drain constructed along uphill sides and a suitable silt fence/sediment trap constructed on the downhill sides.	Site Supervisor	At all times
	Install and maintain erosion and sediment control structures where necessary.	Site Supervisor	As required
	Backfill and compact any trenches or other excavations to a level consistent with surrounding soils.	Site Supervisor	As required
	In the event of rain and wet soils, movement of vehicles and equipment will be minimised or avoided.	All site personnel	As required during mobilisation and construction

Land and Soil Management			
	Ensure that all access tracks are constructed clear of riparian buffer zones except for waterway crossings.	Site Supervisor	At all times
	Disturbance to ground cover and soil must be effectively returned to a stable, non-eroding condition equal or better than the existing condition.	Site Supervisor	As soon as practicable following disturbance
	Roughen exposed surfaces and re-spread stockpiled topsoil in all areas not to be further disturbed	Site Supervisor	As soon as practicable following disturbance
Soil Compaction	Restriction of construction activities to defined areas.	Site Supervisor	At all times during mobilisation and construction
	Restrict vehicles from entering riparian buffers.	Site Supervisor	At all times during mobilisation and construction
Routines Monitoring			
Monitor construction and work practices.		Site Supervisor / HSEO	Daily
Monitor receiving surface water – no turbidity plume. Maintain downstream turbidity at comparable levels to upstream turbidity.		Site Supervisor / HSEO	At all times
Monitor accumulation of sediment against silt traps, fences and other erosion control measures.		Site Supervisor / HSEO	Regular monitoring and as required
Corrective Action			
If success criteria are not met, examples of corrective actions may include: ▪ If erosion occurs, carry out maintenance and/or repair ▪ Ensure erosion and sediment controls are appropriate and effective ▪ Ensure stormwater management measures are adequate and effective			
Reporting			
Record inspection notes and observations.		Site Supervisor / HSEO	Weekly Audit
Record site observations, actions and notifications in diary.		Site Supervisor / HSEO	As required

6.1 Water and Stormwater Management

The stormwater management actions are outline in Table 10 will be implemented during construction of the Project.

Table 10 Management Actions Relating to Stormwater

Stormwater Management
Aim
To minimise the impact of stormwater, specifically: ▪ Changes in the volume or path of runoff ▪ Inundation of the site with floodwaters or stormwater
Success Criteria

Stormwater Management

- Post construction stormwater volume and runoff is similar to pre-construction.
- No complaints are received in relation to stormwater issues.
- All stormwaters being discharged from the site meets the requirements of the Capricorn Municipal Development Guidelines and the *Queensland Water Quality Guidelines 2009*

No ponding of stormwater resulting from the development on adjacent properties

Contaminated water is not directly or indirectly released from the premises onto the ground or into groundwater at the premises

Releases of stormwater must not cause any visible oil/hydrocarbon slick or other evidence of oil or grease, nor contain visible grease, scum, litter or floating oil/hydrocarbon

Issue	Management Actions	Responsibility	Frequency / Timing
Altered Runoff from Site	Ensure appropriate vegetation is planted in and around the site to promote filtration of runoff.	Site Supervisor	As required
	Backfill and compact any trenches or other excavations to a level consistent with surrounding ground level.	Site Supervisor	As required during mobilisation and construction
	Avoid creating any new access tracks where possible.	Site Supervisor	As required
	Treat compacted soil appropriately and quickly to promote infiltrations of stormwater.	Site Supervisor	As required
	All pre-existing sheet flow and site drainage should be maintained	Site Supervisor	As required
	Panels will reduce rain splash erosion by acting as a barrier approximately 1.5 m above ground, where drip zones will be readily managed (i.e. gravel).	Site Supervisor	As required
	In storm events the trackers will automatically move to stow position and face panels directly skywards, meaning that rain splash/run off is further mitigated and reduced to drip zones that can be readily managed.	Site Supervisor	As required
	Where there is a slight gradient across the site and stormwater sheet flows towards the creek lines, water will be slowed before it enters the creeks with strategic placement of level spreaders and natural materials such as rocks and logs.	Site Supervisor	During construction and construction.
	Drainage associated with formed roads should include drainage channels constructed of compacted earth which will be hydroseeded with a suitable grass seed mix. Drainage channels will follow existing contours, maintaining pre-construction drainage and sheet flows.	Site Supervisor	During construction
	Where trench dewatering is required, ensure the dewatering effluent is dispersed on stabilised ground via a	Site Supervisor	As required

Stormwater Management			
	suitable dispersion method. Sediment traps are to be used where required.		
Routine Monitoring			
Monitor site for concentrated flows or evidence of soil erosion.		Site Supervisor / HSEO	At all times.
Corrective Action			
If success criteria are not met, examples of corrective actions may include: ▪ If concentrated flows or erosion occurs, implement stormwater controls. ▪ Ensure stormwater management measures are adequate and effective.			
Reporting			
Record inspection notes and observations.		Site Supervisor / HSEO	Weekly Audit
Record site observations, actions and notifications in diary.		Site Supervisor / HSEO	As required

6.1 Waste Management

The waste management actions are outline in Table 11 will be implemented during construction of the Project.

Table 11 Management Actions Relating to Waste

Waste			
Aim			
All solid and liquid wastes are stored, handled and transferred in a proper and efficient manner to minimise the risk of release to the environment.			
Success Criteria			
▪ No complaints received by the public in relation to waste issues ▪ All works are managed in accordance with Queensland WWR Act ▪ No improper storage, transport or disposal of wastes ▪ Minimise the amount of waste generated.			
Issue	**Management Actions**	**Responsibility**	**Frequency / Timing**
Waste Generation	Personnel will be inducted in the requirements for waste management	Site Supervisor	Prior to undertaking any construction activities
	All construction activities likely to generate waste will be recorded within the EMP (Construction) to allow specific management measures	Site Supervisor	Prior to undertaking any construction activities
	Characterise all waste streams and develop measures to: ▪ Minimise site waste generation ▪ Segregate waste groups	Site Supervisor / HSEO	As required

Waste			
	▪ Direct all recyclable/reusable wastes away from landfill wherever possible		
Proper Disposal	All regulated wastes are removed by a licensed waste management company. Examples of regulated wastes include tyres and waste oils.	Site Supervisor	As required
	General wastes are disposed of in accordance with local council directions and regulations at their nominated facilities.	Site Supervisor	As required
	Do not burn waste	All site personnel	At all times
	Construct a concrete washout area at the site Depot. Ensure the washout area is self-contained, lined with black plastic and located at least 200 m from any waterway/watercourse.	Site Supervisor	As required
	File substantial written evidence (dockets, invoices and receipts) for all waste disposals. Provide copies of records to the regulator when requested.	Site Supervisor	As required
Impact on Local Amenity	General wastes shall be stored in covered bins.	All site personnel	As required
	Good housekeeping should be practiced ensuring any loose waste materials are secured in appropriate collection containers.	All site personnel	At all times
	Cover all loads when leaving the site to prevent the loss of loose objects	All site personnel	At all times
Wildlife Accessing Waste	Ensure all bins and litter-receptacles at the site are bird/animal proof.	Site Supervisor	At all times
Routine Monitoring			
Regular inspections of on-site facilities shall be undertaken to ensure waste is being generated, stored, handled, disposed and transported in accordance with regulations. A periodic review of waste management will be undertaken during construction to identify efficiencies and deficiencies in management.		Site Supervisor	Daily
Corrective Action			
If success criteria are not met, examples of corrective actions may include: ▪ Retrain staff in correct waste management and disposal procedures ▪ Ensure appropriate storage and disposal facilities are available for regulated and general waste.			
Reporting			
If a regulated waste is removed from the site and disposed of in an unauthorised, improper or unlawful manner, this must be reported to the administering authority.		Site Supervisor	As soon as practicable

Waste		
Retain records of regulated waste disposal.	Site Supervisor	At all times
Record site observations, actions and notifications in diary.	Site Supervisor	As required

6.1 Chemical Storage and Spill Management

The chemical storage and spill management actions are outline in Table 12 will be implemented during construction of the Project.

Table 12 Management Actions Relating to Chemical Storage and Spills

Chemical Storage and Spill Management			
Aim			
To minimise the risk of adverse impacts of chemical and fuel spills on and around the Project site by implementing appropriate pollution controls at the site.			
Success Criteria			
▪ No adverse impacts to existing surface water, groundwater and land ▪ No oil, fuel or chemical spills ▪ Emergency spill response contacts displayed prominently at site office ▪ No complaints received from regulatory authorities or the community in relation to the storage and utilisation of fuel and hazardous material			
Issue	**Management Actions**	**Responsibility**	**Frequency / Timing**
Hazardous Substance (Handling and Storage)	All hazardous material, including hydrocarbons (fuels) will be securely stored in a designated storage area. All storage tanks to be secured and stored in such as manner to prevent spills. Wherever possible, tanks will be self-bunded or bunded with an impervious surface and a capacity to contain 110% of the largest storage tank capacity.	Site Supervisor	At all times
	Minimise the quantities of hazardous substances, fuel, oil and chemicals stored on site.	Site Supervisor	At all times
	All hazardous substances or dangerous goods procured for use on the Project will be accompanied with a: ▪ Safety Data Sheets (SDS) ▪ Risk assessment generated by the supplier; and ▪ Adequate labels Spill kits shall be available in all areas where hydrocarbons and chemicals are stored or used. Spill kits shall be adequately stocked with materials that are suitable for the hydrocarbons and chemicals stored on site.	Site Supervisor	At all times
	All dangerous goods (DG) and hazardous substances shall be stored in a dedicated DG storage container which is adequately ventilated and has adequate	Site Supervisor	At all times

Chemical Storage and Spill Management			
	bunding for the quantity of DG and hazardous substances being stored.		
	Smoking is not permitted within 5 metres of dangerous goods storage containers.	Site Supervisor	At all times
	DG storage will be fitted with an external fire extinguisher which is suitably mounted and sign marked. The fire extinguisher shall comply with AS2444 Portable Fire Extinguishers and Fire Blankets, be 3.5 kg minimum capacity and be Powder Type Class ABE.	Site Supervisor	At all times
	DG will be stored in accordance with the separation distances defined in AZ/NZS 3833:2007 The Storage and Handling of Mixed Classes of Dangerous Goods.	Site Supervisor	At all times
	Any bulk chemicals to be transported using an appropriately licensed and experience operator.	Site Supervisor	At all times
	Ensure that all personnel have received appropriate training in spill prevention, response and clean-up, including refuelling techniques and chemical storage and handling requirements.	Site Supervisor	As required
	Site workers are required to wear appropriate PPE which will limit contact with potentially hazardous substances.	All personnel	At all times
Spill Prevention	Prepare and implement a spill response and containment procedure in the event of a spillage or hazardous waste substance, including the immediate containment, clean-up and disposal to a licenced trade waste site.	Site Supervisor	At all times
	A spill kit will be provided and maintained on site and all operators trained in their use.	Site Supervisor	At all times
	Accidental leaks of oils etc (e.g. burst hydraulic hoses) will be cleaned up immediately using an on-site spill kit to minimise water contamination.	All site personnel	As soon as practicable
	All refuelling and maintenance activities to be more than 50m from a watercourse or drainage line	All site personnel	At all times
	All equipment is to be inspected at daily start up for fluid, oil or fuel leaks.	All site personnel	Daily
	Concrete trucks shall be washed out in designated bunded areas.	Site Supervisor	As required
	All maintenance activities for machinery are undertaken offsite.	Site Supervisor	At all times
	Vehicle wash down shall only be undertaken outside of the riparian buffers in a nominated wash down area.	Site Supervisor	As required

Chemical Storage and Spill Management		
Routine Monitoring		
Visual inspections of site to ensure no leaks, hydraulic leaks, fuel leak/spills or any other hazardous material	Site Supervisor / HSEO	At all times
Monitor receiving surface water – no sheen or slick on surface.	Site Supervisor / HSEO	At all times
Corrective Action		
If success criteria are not met, examples of corrective actions may include: ▪ Ensure refuelling and maintenance activities are undertaken in contained areas to minimise the risk of water contamination. ▪ Remove any contaminants from outside the site limits. ▪ Review maintenance activities undertaken on site and ensure that they are undertaken in approved areas only.		
Reporting		
Notify the Principal's Representative immediately if any of the following hazardous materials are found that have not been known to the site. These include, but are not limited to: ▪ UXO's ▪ Flammable or explosive liquids or gases ▪ Toxic, infectious or contaminated materials ▪ Noxious or explosive chemicals ▪ Tanks or containers that may have previously been used to store explosives or toxic substances.	Site Supervisor	Immediately following identification of any hazardous material
Environmental incidents involving spills shall be recorded including time of incident, persons involved, details of incident mitigation measures and actions taken to minimise the probability or reoccurrence.	Site Supervisor	At all times
Incidents involving large scale spills of hydrocarbons or chemicals likely to cause Serious or Material Environmental Harm are to be reported to Department of Environment and Science pollution hotline	Site Supervisor / HSEO	Within 24 hours following event
Record site observations, actions and notifications in diary.	Site Supervisor / HSEO	Daily as required
Record all water quality sampling results.	Site Supervisor / HSEO	As required

6.2 Biosecurity Management

The biosecurity management actions are outline in Table 13 will be implemented during construction of the solar Project.

Table 13 Management Actions for Biosecurity

Biosecurity Management

Aim

Prevent, eliminate, and minimise the biosecurity risks posed by invasive plants and animals.

Success Criteria

- Control infestations of invasive weeds listed under the *Biosecurity Act 2014*
- All plant and equipment entering the site provides a Weed Hygiene Declaration as evidence of vehicle washdown
- Weed zones are established and vehicle movement into these zones are restricted
- A weed management strategy and control program are implemented, and actions recorded
- No disturbance to vegetation and surface soils outside of the development footprint
- All sightings of invasive fauna are recorded and reported
- No increase in the presence of pest animals
- *All requirements associated with the Grape Phylloxera and Sugar Cane Zone 4 biosecurity zones are complied with.*

Issue	Management Actions	Responsibility	Frequency / Timing
Introduction and proliferation of weeds	Implement a weed and pest management plan	Site Supervisor	Pre-construction
	Minimise vegetation and soil disturbance to reduce rate of weed invasion.	Site Supervisor	At all times
	Minimise bare ground with mulch and revegetation to reduce or prevent rate of weed invasion.	Site Supervisor	At all times
	Stockpiles of native vegetation are to be inspected for weeds species and weeds removed prior to export off site/mulching.	Site Supervisor	At all times
	Prior to entering or leaving the site, all vehicles and equipment involved in clearing and weed removal works should be cleaned down to remove soil and plant material to prevent spreading of soil borne disease and weed seeds or plant material.	Site Supervisor	At all times
	Establish and construct wash-down areas at Project location to minimise the spread of weeds. All wash-down areas are to be constructed at least 200 m of any watercourse/waterway.	Site Supervisor	At all times
	Materials (e.g. gravel and sand) brought on to site will be obtained from weed-free sources.	Site Supervisor	At all times
	Equipment manufacturers shall be informed of Principal's Representative quarantine requirements. If packing materials are found to be contaminated during unpacking, they will be removed from the site for disposal at a licensed facility.	Site Supervisor	As required
	Control key weed species under the weed and pest management plan	Site Supervisor	At all times

Biosecurity Management			
	Monitor disturbed areas for new weed establishment and undertake control of key weed species under the weed and pest management plan.	Site Supervisor	At all times
Biosecurity Zones	If soil on which a banana plant has been growing, or machinery used in production of the plants is moved out of any banana biosecurity zone, or into the Northern Banana Biosecurity Zone, a biosecurity certificate will be required. If soil associated with grape plants, or machinery used in their production is moved into the state phylloxera exclusion zone a biosecurity certificate will be required.	Site Supervisor	As required
Pest fauna	All vehicles, machinery and equipment obtained from Fire Ant, Yellow Crazy Ant or Electric Ant regions are to be washed down and inspected prior to entering the Project area.	Site Supervisor	At all times
	Ensure all bins are covered and waste is removed from site in a timely manner.	Site Supervisor	At all times
	Ensure site offices and other fixtures are rodent-proof as far as practicable.	Site Supervisor	As required
	Regular site inspections undertaken to assess the presence of vermin on site.	Site Supervisor	At all times
	Any pest control work on site will be carried out by a professional pest control organisation, either from the local authority environmental health department, or from a pest control company which is a member of a recognised trade body.	Site Supervisor	At all times
Routine Monitoring			
All vehicles and equipment to be inspected for weeds		Site Supervisor / HSEO	Regular monitoring and as required
Maintain a wash-down and inspection register for all vehicles, machinery and plant.		Site Supervisor / HSEO	Regular monitoring and as required
Monitor disturbed areas for new weed establishment.		Site Supervisor / HSEO	Regular monitoring and as required
Corrective Action			
If success criteria are not met, corrective actions may include: ▪ Where investigations show restricted/declared weeds, and pests present, revision to management plans shall be undertaken and further controls implemented, as necessary. Controls may include use of contracted licensed weed eradicator or pest exterminator.			

Biosecurity Management		
Reporting		
Washdown logs for vehicles, plant and equipment entering the site	Site Supervisor / HSEO	At all times
Records of inspections, surveys and monitoring completed in accordance with the monitoring program	Site Supervisor / HSEO	At all times
Records of weed control activities including the activity, location and timing	Site Supervisor / HSEO	At all times
Any incidents of non-compliance	All personnel	As required

6.1 Flora and Fauna Impact Management

The flora and fauna management actions are outlined in Table 14 will be implemented during the construction of the Project.

Table 14 Management Actions for Flora and Fauna

Flora and Fauna			
Aim			
Ensure local and regional biodiversity is not affected because of the Project and that legislative requirements are met.			
Success Criteria			
▪ Control grass under solar panels to 200 mm ▪ Minimise negative impacts on biodiversity ▪ No loss of threatened species or communities ▪ No injury or death of native wildlife ▪ All vegetated areas outside of clearing footprint are not disturbed			
Issue	**Management Actions**	**Responsibility**	**Frequency / Timing**
Grass Control Under Solar Panels	Implement strategic grazing of stock or mechanical control to control grass height under panels to 200 mm	Site Supervisor	As required
Loss of Habitat	Site inductions to include awareness of significant vegetation or habitat	Site Supervisor	At all times
	Prior to any vegetation disturbance, the areas not to be cleared are to be clearly marked using temporary fencing (e.g. star picket fencing or orange barrier mesh) and declared as a 'no go zone'. Where fencing cannot be erected, other protection measures are to be implemented, i.e. trunk, branch and ground protection. Fencing must be provided in accordance with AS 4970-2009 – Protection of Trees on Development Sites (AS 4970-2009). Fencing design to be considered in relation to potential incidents of trapping fauna.	Site Supervisor	Pre-construction
	All trees identified as "to be retained" on any Project drawing shall be protected from damage and clearly marked with an easily visible non-injurious and removable means of identification.	Site Supervisor	Pre-construction

Flora and Fauna			
	Vegetation clearance to be limited to areas designated for vegetation removal.	Site Supervisor	At all times
	Except for hollow logs, any felled native trees are to be recycled (milled, chipped or mulched) and reused as mulch for landscape works and/or erosion or weed control.	Site Supervisor	At all times
	Do not stockpile dead fall. Timber should be mulched or cut into manageable pieces and removed form site.	All personnel	At all times
	Where significant habitat trees are identified (e.g. hollow-bearing trees with native fauna occupants), construction works will be scheduled wherever possible to avoid the breeding season of the hollow-roosting species. A licenced spotter-catcher will be present during all clearing activities.	Site Supervisor	At all times
	Nest boxes are to be installed on adjacent land to replace hollows with signs of occupation or known occupation.	Site Supervisor	As required during construction
	Vegetation is not to be burnt on site.	Site Supervisor	At all times
	Hierarchical clearing approach to be employed (e.g. understorey, then shrubs, then trees as a last resort).	Site Supervisor	At all times
	The option to trim branches will be favoured over clearing of the entire tree	Site Supervisor	At all times
Minimise Harm to Fauna	Any wildlife found injured and sick because of site activities will be taken immediately to a wildlife veterinarian or qualified wildlife carer for treatment / rehabilitation.	Site Supervisor	As required during construction
	A licenced fauna spotter/catcher will conduct a pre-clearing survey to identify the presence of breeding places and occupied habitat (e.g. hollow-bearing trees. Identified sites shall be clearly marked/flagged.	Site Supervisor	Directly prior to clearing works
	In the days prior to potential habitat trees being removed, these trees will be subjected to a series of bangs, knocks and other loud noises to encourage any wildlife to seek shelter elsewhere.	Site Supervisor	At all times
	If any animals are identified in trees marked for removal, work shall cease on that tree, and it is not to be damaged or interfered with until the animal has been allowed to move on freely of its own accord. Where fauna is identified within hollows, the hollows will be blocked at night to prevent animal return and the tree will be removed the following day. If inhabiting fauna is not breeding, a licenced Fauna Spotter Catcher will be present whereby the tree will be soft-felled in late afternoon and be left overnight for fauna to move on freely.	Site Supervisor	As required

Flora and Fauna			
	Sequential clearing is to be undertaken, with clearing works to be commenced from clear areas towards vegetated areas within or adjacent to the site to allow fauna to move off the site of their own accord.	Site Supervisor	At all times
	Ensure vehicle speeds within areas of high fauna activity are regulated to avoid collisions.	All personnel	At all times
	'Fauna Warning' signs are to be used in areas of high fauna activity.	Contractor's HSE Manager	At all times
	Minimise the time that trenches remain open. Where open for more than 24-hours, insulated shelters and trench ramps are to be placed every 50 m (ramps to provide an escape option for fauna).	Site Supervisor	At all times
Routine Monitoring			
Monitor vegetation clearing and ensure management strategies are adhered to.		Site Supervisor / HSEO	Regular monitoring and as required
Open trenches to be checked daily by a fauna spotter and any trapped fauna to be removed.		Site Supervisor / HSEO	Regular monitoring and as required
Corrective Action			
If success criteria are not met, corrective actions may include: ▪ Where investigations identify environmental nuisance or potential to harm fauna, revision to management plans shall be undertaken and further controls implemented, as necessary.			
Reporting			
Report any incident involving damage to flora or fauna to the Principal's Representative.		Site Supervisor / HSEO	As required
Any incidents of non-compliance to be recorded in an environmental diary		Site Supervisor / HSEO	As required

6.1 Cultural Heritage Management

The cultural heritage management actions are outline in Table 15 will be implemented during construction of the Project.

Table 15 Cultural Heritage Management Actions

Cultural Heritage			
Aim			
Prevent loss of, or damage to items of indigenous and non-indigenous cultural heritage due to construction of the Project.			
Success Criteria			
▪ No loss of or damage to indigenous and indigenous cultural heritage.			
Issue	**Management Actions**	**Responsibility**	**Frequency / Timing**
Cultural Heritage	Cultural Heritage Management Plan (CHMP) to be developed in consultation with the Gaangalu	Principal / Site Supervisor	Prior to construction

Cultural Heritage			
	Nation People (this may be provided by the Principal)		
	All staff to be inducted into the requirements of the CHMP, CEMP and the requirements of the ACH Act and the Duty of Care.	Site Supervisor	At all times
	Do not form new tracks, alter existing tracks, remove vegetation, cut fences or perform any activities not specified or indicated under the construction drawings or otherwise required under the contract without prior approval by the Principal's Representative.	Site Supervisor	At all times
	If cultural heritage material is unearthed during earthworks the below steps must be followed: ▪ Stop Work Immediately at the location of the cultural finds. ▪ Avoid disturbance of the area and adjacent area. ▪ Protect the finds by erecting a temporary barrier. ▪ Advise the Principal's Representation	All staff	At all times
Routine Monitoring			
Monitor excavations and ground clearing for potential signs of cultural heritage.		Site Supervisor	Weekly
Corrective Action			
If success criteria are not met, examples of corrective actions may include: ▪ Reviewing the effectiveness of the CHMP, CEMP and proposed mitigation measures for cultural heritage ▪ All complaints relating to cultural heritage management issues will be investigated promptly and appropriate actions taken.			
Reporting			
Principal's Representative to report incidents to the Cultural Heritage Unit of the Department of Aboriginal and Torres Strait Islanders Partnership (DATSIP).		Site Supervisor / HSEO	As required
Any incidents of non-compliance to be recorded in an environmental diary		Site Supervisor / HSEO	As required

7. INCIDENT AND EMERGENCY MANAGEMENT

An incident, in the context of this CEMP, refers to any circumstances that causes or threatens to cause serious or material harm to the environment. This may include but is not limited to:

- Major spills of hydrocarbons or chemicals
- Fire which spreads beyond the confines of the site
- Water contamination leading to mass fish kill
- Dusty, odorous or noisy conditions
- Unauthorised land clearing

- Unauthorised waste disposal
- Explosion

7.1 Incident Management Response

7.1.1 Immediate response

Following an incident, the personnel present at the incident site shall determine whether the area requires isolation. If isolation is required, the following steps should then be taken:

- Stop works around the area
- Implement containment measures to prevent the impact of the incident spreading
- Undertake internal notifications, and any external notifications as appropriate.

7.1.2 Internal notifications

Any incident must be reported to the Site Supervisor, and HSEO manager (i.e. the responsible person) immediately following the incident. The Project manager, senior Project manager and Project owner are also to be notified as soon as possible and no later than 1 hour following the incident. Site inductions will emphasise this obligation to all contractors and personnel working on-site.

The responsible person will investigate the incident to determine the next steps and undertake external notifications as appropriate. The following information will be documented by the responsible person:

- Nature, type, location and extent of the incident and the affected area
- Actual and/or potential environmental impacts of the incident (see below)
- Suspected cause of the incident
- Measures required to mitigate any further environmental harm
- Remedial measures required to correct any environmental harm
- Measures to be implemented to prevent a recurrence of the incident

The requirements for the environmental assessment of impacts of an incident shall be determined by an Environmental Consultant. The assessment may include environmental monitoring of contaminant releases in relation to land, water, noise, air and light (in addition to routine monitoring requirements). Based on the nature and type of the incident, the Environmental Consultant shall determine:

- Sampling and analytical requirements
- Applicable guidelines or levels to apply to data for assessing compliance and level of impact

Any monitoring shall be undertaken by a competent person and all monitoring equipment shall be appropriately maintained, calibrated and operated. Monitoring will be designed in consultation with DES, DCCEEW and/or Toowoomba Regional Council where required.

7.2 Incident Management Reporting

All personnel are responsible for reporting all incidents to the HSEO. The HSEO will be responsible for reporting environmental incidents to the Site Supervisor and appropriate agencies. All incidents are to be recorded on the Incident Report Form provided in Error! Reference source not found.. All persons attending t he site are required to sign in at security and provided with the contact details for emergencies (Table 16).

The HSEO shall telephone the DES pollution hotline as soon as practical after becoming aware of any release of contaminants not in accordance with the DES Permits. Following this, a written notice detailing the following information must be provided to DES within 14 days of the initial notification:

- The name of the operator, including their approval / registration number
- The name and telephone number of a designated contact person
- Quantity and substance released

- Vehicle and registration details
- Person/s involved (driver and any others)
- The location and time of the release
- The suspected cause of the release
- A description of the effects of the release
- The results of any sampling performed in relation to the release
- Actions taken to mitigate any environmental harm caused by the release; and
- Proposed actions to prevent a recurrence of the release.

Table 16 outlines the necessary contact details of the relevant person/agency in the event of an incident or emergency.

Table 16 Incident/Emergency Contact Details

Issue	Person/Organisation	Contact Person	Contact Details	Comments
Project Management				
Incident/Emergency/Spills	Project Manager	To be appointed	To be appointed	-
	Project Engineer	To be appointed	To be appointed	-
	Site Environmental Representative	To be appointed	To be appointed	-
Contractors				
Incident/Emergency/Spills	Contractor	To be appointed	To be appointed	-
	Environmental Officer	To be appointed	To be appointed	-
	First Aid Officer	To be appointed	To be appointed	-
Emergency Services / Authorities				
Incident/Emergency/Spills	Site Supervisor	To be appointed	To be appointed	-
	HSEO	To be appointed	To be appointed	-
Incident/Spills to the Environment	Department of Environment and Science or Toowoomba Regional Council	-	Pollution Hotline – **1300 130 372**	Outside of business hours the hotline is operated by non-DES staff. You will most likely be asked if it is an 'emergency incident'. This will be taken as does the incident pose a significant environmental issue – if you answer yes, the call will be forwarded to a DES incident response person for further clarification and consideration of the onsite response required. Please answer yes if you are unsure so that you

				can discuss the incident with the incident response officer.
Fire or Other Emergency	QLD Fire and Rescue	-	000 (112 from a mobile)	-
	QLD Ambulance	-	000 (112 from a mobile)	-
	QLD Police	-	000 (112 from a mobile)	-

7.3 Emergency Management

This section provides an overview of response requirements for emergencies that could potentially occur at the site. Table 16 outlines the necessary contact details of the relevant person/agency in the event of an emergency.

7.3.1 Spill Response

If a spill threatens the safety or health of people, creates a fire hazard or has the potential to cause or causes serious environmental harm then the site emergency procedure shall be followed.

7.3.1.1 Chemical Spills

Where a chemical spill occurs, consult the Safety Data Sheet (SDS) for spill procedures. If the SDS indicates a requirement for containment and clean up, then the following steps will also be considered:

a. Stop the source and spread of the spill if safe to do so:
   i. Check for danger
   ii. Contain the spill (turn off valves, block damaged tanks or pipes).
   iii. Use any suitable material or equipment to confine the spill by “damming it off” (e.g. use available spill response equipment such as booms or absorbent or if unavailable then use soil or other suitable material).

b. Clean up the spill:
   i. Once the spill has been contained, retrieve as much of the spilled liquid as possible and place in an appropriate container (e.g. 20 L drum or 1000 L pod) for disposal.
   ii. Absorb remaining spill with absorbent material and place used absorbent in the appropriate waste bin.
   iii. Where applicable, replenish equipment used from Spill Response Kit.

c. Report the spill:
   i. Investigate and report all spills in accordance with Incident Reporting and Analysis (Section 7.2).

7.3.1.2 Spill Kits

Spill kits and/or spill clean-up equipment will be available at the locations listed in Table 17.

Table 17 Spill Kit / Clean Up Equipment Location

Location	Responsible Person
Mobile Spill Response Kits to be carried on all service vehicles or any vehicle that carries more than 50 litres of substances.	Individual drivers
In workshop	Site Supervisor

Spill kits and/or spill clean-up equipment will be available on site for use in the event of a spill. Equipment contained in spill response kits shall be replenished upon use, equal to the specified list contained within the kit. The HSEO will ensure that Spill Response Kits are inspected regularly, and missing items replenished when necessary.

7.3.1.3 Treatment of Contaminated Soils

The preferred options for treatment of contaminated soils (hydrocarbon) are:

- On-site treatment of the soil so that the associated hazard is reduced to an acceptable level.
- Off-site treatment of excavated soil so that the contaminant is destroyed, or the associated hazard is reduced to an acceptable level.
- Should it not be possible to implement either of the above options, alternative options must be undertaken. Strategies can reduce the concentrations of contaminants to acceptable levels without necessarily excavating all affected soil and disposing of it off-site at a landfill.

Soil that is contaminated by hazardous substances including hydrocarbons shall be treated according to the following:

- For small volumes of contaminated soil (<1.0m3), soil must be collected and disposed of in a regulated waste bin (a soil disposal permit from DEHP shall be obtained prior to removal from the site);
- For large volumes of contaminated soil (>1.0m3), an Environmental Consultant shall be contacted to determine whether the contamination is best treated in-situ or excavated for appropriate disposal; and
- Temporary storage or treatment of contaminated soils shall only occur in a specially designated location.

7.3.1.4 Treatment of Contaminated Water

Any water that may have been contaminated by a spill shall be contained and tested as directed by the Site Supervisor to determine if it is contaminated. If the water is found to be contaminated it shall be removed by a licensed regulated waste transporter. If the water is not contaminated it shall be released to grade on site.

7.3.2 Fire Management

7.3.2.5 Potential Fire Sources

Fire scenarios on the site are likely to arise from:

- Combustion
- Bushfire
- Refuelling incidents

7.3.2.6 Fire Risk Minimisation

To minimise these risks the following measure are to be adopted for the site:

- Always maintain clear access for the fire extinguishers and hydrants
- Use of fire suppression systems on all equipment

7.3.2.7 Fire Response

In the event of a small fire at the site, a portable fire extinguisher shall be used to attempt to extinguish the fire. Small fire extinguishers shall always be carried on plant and equipment. If the initial response to a fire is unsuccessful or if there are any doubts as to the capability of the onsite firefighting resources, the Queensland Fire and Rescue Service shall be contacted immediately.

8. ENVIRONMENTAL PERFORMANCE AND REPORTING

Environmental inspections, monitoring and auditing will be undertaken to assess the effectiveness of management requirements specified in this CEMP and overall compliance with regulatory requirements.

8.1 Compliance Auditing and Monitoring

8.1.1 Daily Visual Inspection

The Site Supervisor will carry out daily visual inspections of all applicable work areas, noting potential environmental risk and incidents. Inspections should confirm that management options are complying with those outlined in this CEMP. Daily visual inspections should be recorded and be available for review during weekly site checks and monthly internal audits.

8.1.2 Weekly Site Checklist

The Contractor's Site Supervisor or Environmental Officer will carry out weekly site checklists to ensure compliance with environmental obligations, task and actions outlined in this CEMP. A weekly site checklist is provided in **Appendix D**.

8.1.3 Monthly Internal Audit

The HSEO will conduct monthly internal audits. The audit will focus on:

- Review of all environmental incidents and corrective actions
- Review of daily visual inspection records
- Review of weekly site checklists
- Implementation of sub-management plans as outlined in section 6.

Monthly audit reports will be submitted to the Contractor's Site Supervisor and will include the date of the audit and the timeframe that the Contractor has to complete any required action.

Following each audit, the CEMP shall be reviewed and updated where necessary.

8.1.4 Environmental and Cultural Heritage Auditing

The Principal's Representative will conduct audits at quarterly intervals (as a minimum) during the Project to confirm that the CEMP is effectively implemented. The audits should be timed to be undertaken alongside Project milestones, such as, commencement of early works, commitment of any major works, prior to the commencement of wet season, mid-term (during construction), prior to the commencement of dry season and upon completion of the Project.

Audits will be provided to the Contractor's Site Supervisor and include the date of the audit and the timeframe that the Contractor has to complete any required action. Corrective actions may be regulated between the Principal's Representative and the Site Supervisor.

8.2 Non-compliance and Corrective Action

The Site Supervisor shall assume responsibility for implementation of this CEMP. Where the Site Supervisor becomes aware of a condition that does not comply, a Corrective Action Report (CAR) form is to be completed and actioned. An example CAR form is provided in **Appendix E** of this CEMP. A CAR for any non-compliance is to be actioned within 24 hours of receiving confirmation of the non-compliance.

In some instances, further investigation or monitoring may be required to establish whether the CEMP has been adequately implemented, or whether the work is compliant with relevant legislation, guidelines and statutes. In these instances, an independent party, such as an Environmental Auditor, will carry out the investigation or monitoring.

The notification of any emergency or incident which results in the release of contaminants not in accordance with conditions of the relevant approval, must include, but will not be limited to the following information.

- The name of the holder of the approval
- The location of the emergency or incident.
- The number of the relevant approval.
- The name and telephone number of the designated contact person.
- The time of the release.

- The time the Site Supervisor became aware of the release.
- The suspected cause of the release.
- The environmental harm caused, threatened, or suspected to be caused by the release.
- Actions taken to prevent any further release and mitigate any environmental harm caused by the release.

8.3 Compliance Tracking

A compliance register will be maintained throughout the life of the Project, detailing all Project obligations and their status, including the DA Conditions, all mitigation measures and any other permitting and approval requirements.

APPENDIX A Environmental Site Induction / Training Register

Environmental Site Induction / Training Register					
Date	**Name**	**Company Name**	**Company Address**	**Signature**	**Training Provider Signature**

APPENDIX B Non-conformance and Complaints Register

Non-conformance and Complaints Register					
Date	**Issue / Complaint**	**Affected Neighbours**	**Activity Date**	**Follow-up/Complaints**	
				Action	**Date**

APPENDIX C Incident Report Form

Incident Report Form	
Date:	**Time:**
Incident reported by:	
Area where incident occurred:	
Details of Incident:	
Actions following incident: (date, method, personnel)	
Recommended for future actions (date, method, personnel)	
Relevant personnel informed (names and signatures)	
Site supervisor:	
If required: **Copy sent to Regulator (e.g. DES):** **(date and initial)**	

APPENDIX D Weekly Environmental Checklist

WEEKLY ENVIRONMENTAL CHECKLIST				
		COMPLIES	NEEDS IMPROVEMENT	DOES NOT COMPLY
PLANT AND EQUIPMENT				
1	No unnecessary use of horns or other audible signals on mobile plant or equipment.			
2	No unnecessary revving or idling of engines on mobile and stationary machines.			
3	Equipment is kept maintained.			
4	Equipment turned off when not in use.			
5	Review register of complaints.			
LAND AND SOIL MANAGEMENT				
6	Erosion and sediment control measures have been installed and maintained.			
7	Un-impacted drainage is diverted around impacted areas.			
8	Stockpiles or excavated material is stored in appropriate locations (e.g. level ground away from stormwater drainage)			
9	Trenches and other excavations have been backfilled to a level consistent with surrounding soils.			
10	All access tracks are cleared from riparian buffer zones except for waterway crossings.			
11	All construction activities are restricted to defined areas.			
WASTE				
12	All waste oils and fluids are stored appropriately.			
13	General wastes stored in bins (covered where appropriate).			
14	Regulated wastes only removed from site by a regulated waste contractor			
15	Review incident reports (product spills etc).			

WEEKLY ENVIRONMENTAL CHECKLIST				
		COMPLIES	NEEDS IMPROVEMENT	DOES NOT COMPLY
16	Good housekeeping is being practiced.			
17	All loads leaving the site are covered.			
CHEMICAL STORAGE AND SPILL MANAGEMENT				
18	All hazardous material including hydrocarbons are securely stored in a designated storage area.			
19	MSDS are available on site for all hazardous substances or dangerous goods stored on site.			
20	No evidence of spills, all spills cleaned up.			
21	Spill kits are provided and maintained on site and all operators are trained in their use.			
22	Review monitoring data, incident reports and complaints register.			
23	Concrete trucks are washed out in designated bunded areas.			
24	All maintenance activities for machinery are undertaken off site.			
FLORA AND FAUNA				
25	Vegetation clearance to be limited to areas designated for vegetation removal.			
26	Sequential clearing is being undertaken, with clearing works commencing from clear areas towards vegetated areas.			
27	Felled native trees (with exception of logs) are being recycled (milled, chipped or mulched) and reused as mulch for landscape works and/or erosion weed control			
28	Any felled non-native vegetation is disposed of at an appropriate waste disposal facility or mulched and reused provided that no seed bearing material is present.			
29	Stockpiling of trees only occurs within the construction footprint (ie. areas to be cleared). Stockpiling is not being undertaken within exclusion zones or adjacent vegetated areas.			

WEEKLY ENVIRONMENTAL CHECKLIST				
		COMPLIES	NEEDS IMPROVEMENT	DOES NOT COMPLY
30	Where significant habitat trees have been identified, construction works have been undertaken to avoid the breeding season of the hollow-roosting species.			
31	A spotter-catcher is present during clearing activities.			
32	Vegetation and soil disturbance is minimised during construction.			
33	Prior to entering or leaving the site, all vehicles and equipment involved in clearing and weed removal works are cleaned down to remove soil and plant material to prevent spreading of soil borne disease and weed seeds or plant material.			
DOCUMENTATION REVIEW				
34	Incident reporting and procedures - have all incidents have been documented on the “Incident Report Form” and correctly reported and investigated?			
35	Sight evidence of regulated wastes tracking paperwork and receipts.			
36	Review Site Supervisor has records of daily site observations, actions and notifications in diary.			
37	Sight evidence of staff training.			
38	Sight evidence that vehicle and equipment maintenance has been undertaken as per the manufactures instructions.			
OTHER				
39	Have any changes to daily operations have been made since last inspection – If Yes then are any updates to the CEMP required.			
40	Have any complaints been received? Does the complaints log need to be updated?			
41	Does DES need to be notified of any breaches of the licence?			
42	Does an audit report need to be completed following this audit?			

WEEKLY ENVIRONMENTAL CHECKLIST				
		COMPLIES	NEEDS IMPROVEMENT	DOES NOT COMPLY
LIST ADDITIONAL ISSUES FOR INSPECTION FROM AUDIT AND/OR INCIDENT INVESTIGATIONS				
43				
44				
45				

APPENDIX E Corrective Action Report

Corrective Action Report			
Report No:			
Date:			
Details of Non-conformance:			
Inspected by:			
Details of Recommended Corrective Action:			
Recommended completion date:			
Preventative/ Corrective Action to Prevent Issue Recurring			
Date action required by (if applicable):			
Signed (by Site Supervisor):		Date:	
Authority to Proceed			
Sign:		Date:	
Action Carried Out			
Sign:		Date:	
Element Re-inspected by			
Sign:		Date:	
Copy Issued to Site Supervisor			
Sign:		Date:	