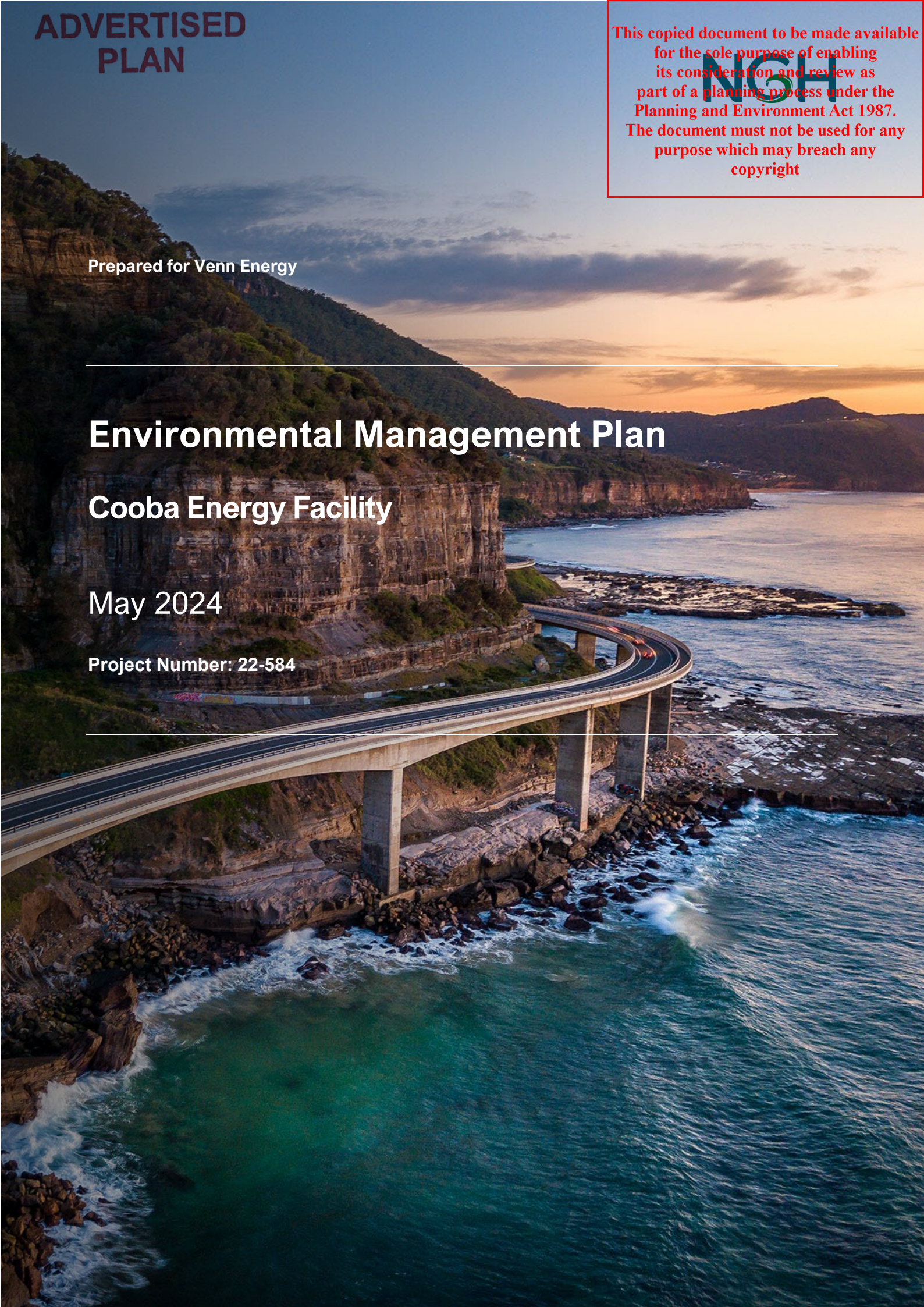

Prepared for Venn Energy

Environmental Management Plan

Cooba Energy Facility

May 2024

Project Number: 22-584

Document verification

Project Title:	Cooba Energy Facility
Project Number:	22-584
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Table of contents

Figures

Tables

Appendices

Acronyms and abbreviations

ACH Act	*Aboriginal Cultural Heritage Act 2006*
AHIMS	Aboriginal Heritage Information Management System
AHIP	Aboriginal Heritage Impact Permit
ASL	Above sea level
AWS	Automatic weather station
BOM	Australian Bureau of Meteorology
CaLP Act	*Catchment and Land Protection Act 1994*
CE	Critically endangered
CEMP	Construction environmental management plan
CMA	Catchment management area
CWD	Coarse woody debris
Cth	Commonwealth
DBH	Diameter at breast height
DCCEEW	Department of Climate Change, Energy, the Environment and Water (formerly DAWE)
DELWP	Department of Environment, Land, Water and Planning
DTP	Department of Transport and Planning
DSWP	Drainage and Stormwater Plan
E	Endangered
EEC	Endangered ecological community – as defined under relevant law applying to the proposal
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cwth)
ESD	Ecologically Sustainable Development

EVC	Ecological vegetation class
FFG Act	*Flora and Fauna Guarantee Act 1988* (Vic)
GDA	Geographic Datum of Australia
GIS	Geographic information system
GPS	Geographical positioning system
ha	hectares
KFH	Key Fish Habitat
km	kilometres
LALC	Local Aboriginal Land Council
LEP	Local Environment Plan
LGA	Local government area
m	metres
MW	Megawatt
MNES	Matters of national environmental significance
NC Act	*Nature Conservation Act 1992*
NVR	Native vegetation risk
P&E Act	*Planning and Environment Act 1987*
PMST	Protected matters search tool
REF	Review of Environmental Factors
REP	Regional Environmental Plan (Vic)
Sp/spp	Species/multiple species
TEC	Threatened ecological community
The guidelines	Guidelines for the removal, destruction or lopping of native vegetation
VBA	Victorian biodiversity atlas

VIC	Victoria
VM Act	*Vegetation Management Act 1999*
VQA	Vegetation quality assessment
V	Vulnerable

1. Introduction

1.1. Background

A Planning application for a Solar Energy Facility at 124 CORNELLA CHURCH ROAD COLBINABBIN VIC 3559 is being lodged with the Department of Transport and Planning (DTP) Renewables Team .The application is for the use and development of the land for the purpose of a solar farm and BESS, removal of native vegetation and alternation of access to roads.

Clause 53.13-2 states:

An application must be accompanied by the following information, as appropriate.

- Written report and assessment, including:

  An environmental management plan including, a construction management plan, any rehabilitation and monitoring.

This document provides for a high level EMP and CEMP for the project suitable for this pre-approval stage of the project. It has been prepared to support the planning application and provide an example of what measures are likely to be included in any C/EMP document. A final EMP and a more detailed CEMP will be prepared by the project owners/appointed Engineering & Procurement Contractor (EPC) once the latter have been appointed. The content of these plans may change based on the specific conditions of any permit that may issue, and the organisational requirements of the project owner and EPC.

1.2. Purpose of this EMP

This EMP presents the framework for the environmental management of the Project. It has been prepared to outline how the Proponent may comply with the environmental management requirements of any Permit that may issue.

The EMP has been prepared in accordance with:

- Planning permit application documents
- Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004)
- AS/NZS ISO 14001: 2016 Environmental Management systems
- GRS Management System Requirements
- Applicable Federal and State Legislation and other regulations
- AS/NZS ISO 31000:2009 Risk management.

The purpose of this EMP is to provide a structured approach to the management of environmental issues during all stages of the Project. The EMP outlines the requirements, controls and management procedures that direct the Project team and provides an overall approach to the Project. It also provides requirements for contractors and suppliers for the Project and directs them to comply with specific measures for their own work with the Project.

Implementing this EMP effectively will ensure that the Project team will meet regulatory and policy requirements in a systematic manner and continually improves environmental performance.

This EMP:

- Describes the Project in detail including activities to be undertaken
- States obligations, objectives and targets for issues that are important to the environmental performance of the Project
- Identifies the approvals, licences, and permits that relate to the Project
- Describes the strategic framework for environmental management of the Project
- Describes the environmental management related roles and responsibilities of personnel
- Outlines training and induction requirements for employees, contractors, and sub-contractors, in relation to environmental and compliance obligations with applicable policies, approvals, licences, permits, consultation agreements and legislation
- Describes the procedures that will be implemented for community consultation and notification, and complaints management
- Includes protocols for managing and reporting incidents and non-compliances with applicable policies, approvals, licences, permits, consultation agreements and legislation
- Outlines a monitoring regime and inspection program to check the adequacy of controls as they are implemented during construction.

This EMP is the overarching document in the environmental management system for the Project that includes several other subplans, including the Construction Environment Management Plan (CEMP), Drainage and Stormwater Management Plan (DSMP), and Native Vegetation Management Plan (NVMP). It is applicable to all staff and subcontractors associated with the Project.

Note: The relevant Appendices documents will be prepared by the EPC/Proponent following approval and pre-construction.

2. The proposal

It is proposed to construct the Cooba Solar Project, a 350MW AC/500MW DC solar energy facility and 300MW/1,200MWh BESS. The Project includes the following elements:

- **Approximately 700,000 solar photovoltaic (PV) panels** with a low reflectivity single axis tracking proposed with panels attached to mounting structures. Permission is sought for a maximum height of 8m above ground when the panels are at their steepest 60° incline, The panels will rotate to follow the sun's trajectory, with the tracking angle ranging 120° from +60 to -60°.
- **Approximately 100 solar power conversion units (PCUs)** housing transformers and inverters and sited throughout the site on access tracks between the panel arrays – away from property boundaries.
- **BESS** options include a centralised system concentrated in the electrical infrastructure area and a distributed BESS option with BESS modules located adjacent to inverters around the site.
- **Operations and maintenance facility** including offices, work areas, storage, and amenities as well as a yard for carparking, septic, water tanks, and further storage.
- **Substation** to suit the grid connection arrangement located within the concentrated electrical infrastructure area.
- **Switchyard** consisting of high voltage switching equipment to be located alongside the substation.
- **Grid connection** is proposed via the switchyard and substation, connecting directly to the existing 220 kilovolt (kV) overhead powerline that runs through the Project site.
- **New 33kV overhead powerlines (OHL)** throughout the Project site to the electrical infrastructure area.
- **Underground cabling** to extend throughout the layout, generally following the panel array, access tracks and power conversion stations.
- **Overhead powerline and underground cable crossings** of roads and watercourses (multiple).
- **External access points** for access/egress to maximise safety and for efficient movement (multiple).
- **Internal access tracks** for both construction and operation and located throughout the Project site to minimise road traffic. Tracks will be approximately 4m wide and constructed of locally sourced crushed gravel. This includes a perimeter track around the entirety of the Project.
- **Firefighting water tanks** to be located throughout the Project site (multiple).
- **Car parking** will be provided through the life of the Project but will be minimal and limited to maintenance and operations staff. Car parking will be provided in the operations and maintenance facility area.
- **Temporary compound areas** throughout the site to be used during construction to store equipment, materials, vehicles and the like.
- **Native vegetation removal** consisting of an extent of 7.546 ha, inclusive of 94 large trees (scattered and in patches) and patches of native vegetation.
- **Landscaping**. the Project includes future on-site landscaping at relevant locations surrounding the layout to mitigate visual impacts.
- **Security fencing** around the entire Project site to a minimum height of 1.8m to 2.5m (chain link design). This includes gates to allow vehicle and pedestrian access.
- **CCTV and lighting**. A CCTV security system may be installed with infrared lighting, which is not visible to the human eye. Further lighting is proposed for the operations and maintenance facility, temporary compound, substation and switchyard area.

- **Business identification signage (multiple signs)** to a maximum of 3m^2 in area each sign, for site entrance identification and safety information purposes to comply with Australian Standards.

The layout of the Project is shown on Figure 2-1 proposed layout below.

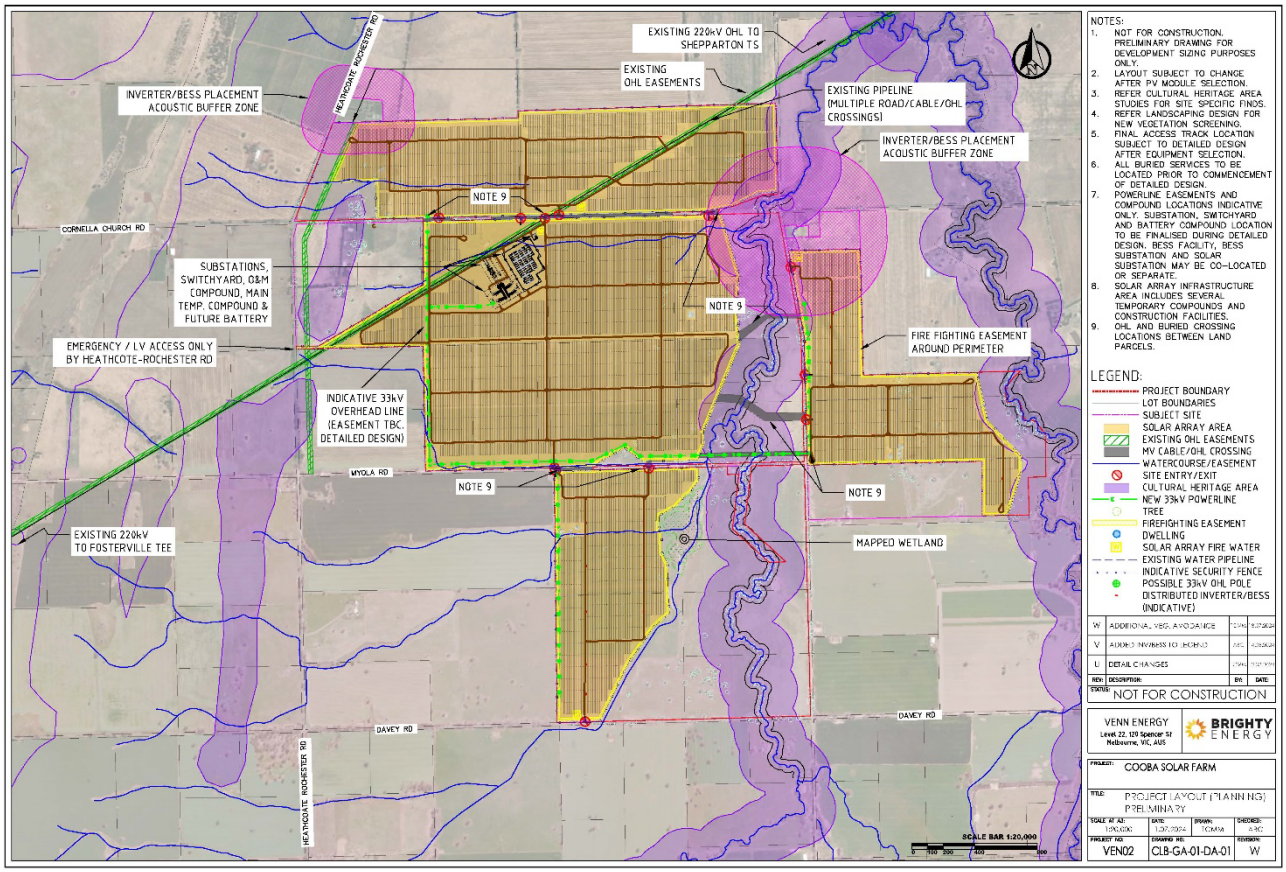

Figure 2-1 Layout plan

Based on the characteristics of the Project site and surrounds the location is suitable for a solar energy facility.

The Project has the potential to generate enough renewable energy to power 180,000 average Victorian homes. On an annual basis, the calculated greenhouse benefits of this generation are equivalent to avoiding 303,030 tonnes of coal being burned or 733,333 tonnes of carbon dioxide being emitted.

3. Planning

3.1. Project environmental obligations

All personnel working on the Project have the following general environmental obligations in addition to taking all feasible and reasonable steps to comply with the requirements of this EMP:

- Construct and operate the Project in accordance with the EMP and its subplans and comply with all conditions of the Permit
- Minimise pollution of land, air, and water
- Use pollution control equipment maintained in working order
- Preserve the natural and cultural heritage environment
- Notify relevant state authorities of a non-Aboriginal or Aboriginal heritage discovery
- Minimise the occurrence of offensive noise
- Be a good neighbour to surrounding land users
- Keep the community informed of Project milestones, upcoming activities, and duration of relevant aspects of the works
- Use equipment with noise dampeners where available and ensure it is maintained.

3.2. Legislative and regulatory context

All construction and operational activities on site must comply with the appropriate legislation and regulatory guidelines. The following contains a list of legislation and guidelines that may be applicable to the site activities.

3.2.1. Commonwealth

- Environment Protection and Biodiversity Conservation (EPBC) Act 1999
- Environment Protection and Biodiversity Conservation (EPBC) Regulations 2000
- National Environment Protection Measures (NEPM)
- Aboriginal and Torres Strait Islander Heritage Protection Act 1984
- Protection of Movable Cultural Heritage Act 1986
- Native Title Act 1993.

3.2.2. Victoria

- Environment Protection Act 2017 (the 2017 Act)
- Environment Protection Regulations 2021
- Pollution of Waters by Oils and Noxious Substances Act 1986
- National Environment Protection Council (Victoria) Act 1995
- Planning and Environment Act 1987
- Environment Protection (Industrial Waste Resource) Regulations 2009
- Dangerous Goods Act 1985
- Dangerous Goods (Storage and Handling) Regulations 2012
- Heritage Act 2017

- Aboriginal Heritage Act 2006
- Aboriginal Heritage Regulations 2007
- Flora and Fauna Guarantee Act 1988
- Catchment and Land Protection Act, 1994
- Water Act 1989
- Country Fire Authority Act 1958
- State Environment Protection Policy (Prevention and Management of Contaminated Land)
- State Environment Protection Policy (Groundwaters of Victoria)
- State Environment Protection Policy (Waters of Victoria)
- State Environment Protection Policy (Ambient Air Quality)
- State Environment Protection Policy (Air Quality Management)
- Environment Protection (Vehicle Emissions) Regulations 2013
- State Environment Protection Policy (Control of Noise from Commerce, Industry and Trade)
- Water (Trade Waste) Regulations 2014.

3.2.3. State Policies, guidelines and standards

- EPA Publication 480 – Environmental Guidelines for Major Construction Sites
- EPA Publication 275 – Construction Techniques for Sediment Pollution Control
- EPA Publication 1254 – Noise Control Guidelines
- EPA Publication 347 – Bunding Guidelines
- EPA Publication 655 – Acid Sulfate Soil and Rock
- EPA Publication IWRG621, Soil Hazard Categorisation and Management
- EPA Publication IWRG701, Sampling and Analysis of Waters, Wastewaters, soils and wastes.
- EPA Publication IWRG631 Solid Industrial Waste Hazard Categorisation and Management
- Industrial Waste Management Policy (Waste Acid Sulfate Soils)
- EPA Publication 1411, Noise from industry in regional Victoria (NIRV).

3.3. Standard permit conditions

As no permit has issued as yet the permit conditions found in the Solar Energy Facilities Designs and Development Guideline – 2022 and the Solar energy facilities Design and Development Guidelines – Example planning permit conditions are used.

> ***ENVIRONMENTAL MANAGEMENT***
>
> ***Construction Management Plan***
>
> *1.Before development starts, an Environment Management Plan must be submitted to, approved and endorsed by the responsible authority. The plan must be prepared in consultation with DELWP. When endorsed, the plan will form part of this permit. The Environmental Management Plan must:*
>
> > *a. describe measures to minimise any amenity and environmental impacts of the construction, operation and decommissioning of the facility.*
> >
> > *b. be generally in accordance with [insert details of plan submitted with application]*

c. Include organisational responsibilities, and procedures for staff training and communication

2. The endorsed Environmental Management Plan must be implemented to the satisfaction of the responsible authority. Construction Management Plan

3. The Environment Management Plan must include a Construction Environment Management Plan, which must include:

a. procedures to manage noise emissions generally in accordance with the requirements of the Noise Control Guidelines (EPA Publication 1254) and the Environmental Guidelines for major construction sites (EPA Publication 480)

b. erosion and sediment control measures to ensure that no polluted and/or sediment laden run-off is discharged directly or indirectly into drains or watercourses. Straw or hay must not be used for these measures

c. procedures to manage dust emissions, including ensuring that any on-site blasting or crushing of rocks is appropriately located within the site to manage amenity impacts on surrounding properties

d. procedures and measures to identify and protect native vegetation and fauna habitat to be retained during works

e. vehicle and equipment hygiene measures to prevent the spread of weeds and pathogens to and from the site

f. procedures to remove temporary works, plant, equipment, buildings and staging areas, and reinstate the affected parts of the land, and to rehabilitate construction zones with appropriate species (i.e. pasture), when construction is complete

g. the persons responsible for implementing the above measures Wildlife Management Plan

Wildlife Management Plan

4. The Environment Management Plan must include a Wildlife Management Plan, which must outline how the possible impact [specify animal/species] on the solar panels or any other infrastructure would be mitigated by use of non-lethal control methods. Drainage and Stormwater Plan

Drainage and Stormwater Plan

5. The Environment Management Plan must include a Drainage and Stormwater Plan, which must include:

a. details (and computations) of how the works on the land are to be drained including drains conveying stormwater to the legal point of discharge

b. details of how the drainage design allows for the continuation of existing overland flow paths across the land

c. assessment of impacts of the development on onsite infiltration and surface flow patterns and downstream environments, wetlands, and adjacent landholders

Glare, Glint Light Spill Management Plan

6. The Environment Management Plan must include a Glare, Glint and Light Spill Management Plan, which must: a. demonstrate how glare, glint and light spill from the facility, in particular the solar panels, will be managed to minimise impacts on the surrounding area

b. include details of how any lighting within the site is designed and located to effectively illuminate all pertinent public areas without spilling onto road reserves or adjoining land

c. require lighting to be connected to a time switch or other approved system to the satisfaction of the responsible authority

COMPLAINTS Complaint Investigation and Response Plan

7. Before development starts, a Complaint Investigation and Response Plan must be submitted and approved and endorsed by the responsible authority. When endorsed, the plan will form part of this permit. The Complaint Investigation and Response Plan must:

a. respond to all aspects of the construction and operation of the solar energy facility

b. be prepared in accordance with Australian/New Zealand Standard AS/NZS 10002:2014 – Guidelines for complaint management in organisations Solar Energy Facilities Design and Development Guideline Example planning permit conditions 6

c. include a process to investigate and resolve complaints (different processes may be required for different types of complaints)

8. The endorsed Complaint Investigation and Response Plan must be implemented to the satisfaction of the responsible authority. Publishing information about complaints handling

9. Before development starts, the following information must be made publicly available and readily accessible from the solar energy facility project website, or another publicly available resource to the satisfaction of the responsible authority:

a. a copy of the endorsed Complaints Investigation and Response Plan

b. a toll-free telephone number and email contact for complaints and queries to the facility operator Complaints Register

10. Before development starts,

a Complaints Register must be established which records: a. the complainant's name and address (if provided)

b. a receipt number for each complaint, which must be communicated to the complainant

c. the time and date of the incident, and the prevailing weather and operational conditions at the time of the incident

d. a description of the complainant's concerns

e. the process for investigating the complaint, and the outcome of the investigation, including the actions taken to resolve the complaint

11. All complaints received must be recorded in the Complaints Register.

12. A complete copy of the Complaints Register along with a reference map of complaint locations must be provided to the responsible authority on each anniversary of the date of this permit, and at other times on request.

3.4. Approvals, permits and licensing

The Project will be undertaken in accordance with the following:

- The Project Planning Assessment Report (NGH, 2023)
- This EMP
- The Project CEMP (NGH, 2023)
- The Project NVMP - TBA
- The Project Glint and Glare Management Plan (Chiron 2023)
- The Project Landscaping Plan (CDP,2023)
- The Project Traffic Management Plan (TMP) (Traffic Impact Engineers, 2023)
- The Project Complaints Investigation and Response Plan (CIRP – This plan)
- The Project Wildlife Management Plan (WMP) - TBA

Additionally, the Project may require the following permits and licences:

- Works on Waterways permit is likely to be required (North Central Catchment Management Authority)
- A permit may be required under the *Flora and Fauna Guarantee Act 1988* (FFG Act).
- Before any works commence, a permit(s) may be required under the *Wildlife Act 1975* for the destruction of wildlife habitat.

Should any additional environmental or planning approvals, permits or licences be required the following procedure would be implemented:

- Approval, licence or permit need is identified
- The Project Manager will identify impacts to the Project in relation to the approval (e.g. stop work)
- The Project Manager will complete the necessary work to apply for the approval, licence, or permit
- If changes are necessary to the EMP, the procedure in would be followed
- The Project Manager would notify the Proponent in writing of the outcome of the application.

4. Environmental Management System

4.1. Environmental policy

Construction will be undertaken in accordance with the appointed EPC's Environmental Policy, which should describe their commitment to managing their environmental and community impact and deliver sustainable development and investment outcomes.

The Environmental Policy will be displayed at the site office and communicated to staff and other interested parties via induction and ongoing awareness programs.

4.2. Objectives and targets

As a means of assessing environmental performance over the life of the Project, environmental objectives and targets have been established. These objectives and targets have been developed with consideration of key issues identified through the environmental assessment and risk assessment process. The objectives and targets are consistent with the Project environmental policy and will assist in monitoring whether the commitments of the Environmental Policy are being met.

The targets are incorporated into relevant environmental management subplans.

The performance of the Project against the objectives and targets will be documented in the Project compliance reports and at least on an annual basis as part of the management review.

Environmental objectives and targets for the Project are provided in Table 4-1.

Table 4-1 Environmental objectives and targets

Objective	Target	Measurement Tool
Construction of the Project in accordance with planning and environmental approvals.	Compliance with statutory approvals.	Audits, construction compliance reporting, management review.
Construction of the Project in accordance with approved management plans.	Compliance with all procedures in EMP and associated subplans.	Audits, construction compliance reporting, management review.
Compliance with all legal requirements.	No regulatory warnings, infringements, or prosecutions.	Audits, construction compliance reporting, management revie w (construction and operation).
Implement rigorous and comprehensive EMS that meets the requirements of AS/NZS ISO 14001.	Address non-conformances and corrective actions within specific timeframes.	Audits, management review.
Engage with the affected and broader community, minimise complaints and respond to any complaints within a suitable timeframe	Disseminate regular Project updates and other information through the Project website and other tools. Record and respond to complaints in accordance with timeframes specified in the	Review complaints register, construction compliance report, audits

	CIRP.	
Continuously improve environmental performance.	Develop and maintain a program of ongoing environmental training. Capture lessons learnt from environmental incidents to minimise repeat issues. Encourage and reward innovation and effort throughout the works force.	Construction compliance report, management review, construction, and operational audits.

4.3. Environmental management system

This EMP provides the system to manage and control the environmental aspects during Project delivery. It identifies all requirements applicable to activities described in Section 2. The EMP provides the overall framework, system, and procedures to ensure the potential for environmental impacts are avoided and minimised and that legislative requirements are fulfilled. The system and procedures in this EMP have been developed with consideration of the environmental and planning assessment documents and all relevant licences, permits and approvals for the Project. This EMP establishes the system for implementation, monitoring and continuous improvement to minimise impacts from the Project on the environment.

4.4. Environmental subplans and strategy

The EMP and any subplans are prepared to identify requirements and processes applicable to specific impacts or aspects of the activities described in Section 2. They address the measures identified in any Permit, with all being to the satisfaction of the Minister for Planning. These subplans will be prepared following issue of any permit.

4.5. Environmental work method statements

Environmental Work Method Statements (EWMSs)Construction Method Statements (CMSs) will be prepared for all activities that carry an inherent level of environmental risk. EWMSs or CMSs will be prepared prior to the commencement of relevant construction activities on site and will incorporate relevant mitigation measures and controls from management subplans. EWMSs / CMSs will be prepared to identify risks, ensure sound environmental practices are implemented, and to minimise the risk of environmental incidents or system failures. EWMSs / CMSs are to be designed to communicate requirements, actions, processes, and controls to construction personnel using plans, diagrams, and simply written instructions.

EWMSs / CMSs will be developed for at least the following activities:

- Pre-construction activities including topsoil stripping and earthworks
- Activities that impact on environmentally sensitive areas
- Vegetation clearing and grubbing
- Working in or near waterways
- Temporary waterway crossings
- Site compound and other ancillary facilities establishment

- Dewatering
- Topsoil stripping
- Concreting activities (where required)
- Drainage works.

All Project personnel and subcontractors undertaking a task governed by an EWMS must participate in training on the EWMS and acknowledge that they have read and understood their obligations prior to commencing work.

Regular monitoring, inspections, and auditing against compliance with the EWMS will be undertaken by Project management, quality, and environmental personnel to ensure that all controls are being followed and that any non-conformances are recorded, and corrective actions implemented.

4.6. Sensitive area plans

Sensitive area plans will be prepared following issue of the permit. The sensitive area plans will rely on information from the CHMP and Biodiversity assessment, amongst other plans.

4.7. Roles and responsibilities

The key environmental management roles and responsibilities for the construction phase of the Project are described below. An organisational structure will be required from the EPC and then will form an Appendix to this document.

The project owner shall ensure specific responsibilities are communicated to all personnel via appropriate environmental management training (part of the initial safety and environment induction).

4.7.1. Environmental Management Team

Key personnel involved in implementing the EMP, including a description of their responsibilities, are outlined in Table 4-2 below. This is subject to the detailed CEMP.

Table 4-2 EMP Implementation Team

Role	Responsibility
EPC/Relevant Construction Manager	• Directly responsible for ensuring the Principal Contractor fulfils. The commitments contained in the detailed CEMP. • Assesses environmental compliance through regular inspections and / or audits. • Reports regarding the Project's environmental performance and due diligence. • Reports to project owner. • Community liaison.
EPC Project	• Directly responsible for ensuring relevant resources are available to comply with

Manager	project and regulatory requirements. • Directly responsible for executing the engineering, procurement and construction works. • Ensure works comply with relevant project and regulatory requirements. • Ensures all personnel understand and accept their responsibility in relation to environmental protection. • Seek any additional approvals for works outside the approved scope and permits. • Responsible to report near misses and accidents • Assist with environmental compliance audits and incident investigations as required
EPC HSE Advisor	• Conducts periodical inspections of environmental control systems. • Provides instruction and training to workforce on environmental requirements. • Disseminates communication information on legal updates, environmental alerts. • Coordinates environmental monitoring, reviews and compliance audits as required. • Ensure works comply with all relevant regulatory and project requirements. • Exercises a duty of care in relation to environmental, cultural heritage and biodiversity matters. • Reports to Construction Manager.
EPC Site Supervisor	Responsible for ensuring all matters relating to environmental management during construction are managed in accordance with the detailed CEMP, legal and other requirements. • Shall be or nominate the client's 'first point of contact' for all matters relating to environmental management. • Shall ensure that an appropriate organizational structure is established for the construction works and that all roles and responsibilities are defined and communicated. • Day to day oversight of site works and scheduling. • Conducts site induction, including environmental provisions.
EPC works and Subcontractors	Implement and comply with relevant control measures. • Report any environmental incidents within the specified timeframe.

	• Participate in reviews and compliance audits as required. • Ensure all relevant works comply with applicable regulatory and project requirements. • Provide relevant environmental documentation and records to Contractor HSE Advisor.

4.7.2. Sub-contractors and sub-contractor management

Sub-contractors and their employees are required to fully comply with the requirements of the EMP and relevant environmental requirements as it applies to site environmental management and control. Sub-contractors' personnel are considered equivalent to the EPC Project personnel in all aspects of environmental management and control.

In accordance with Subcontractor HSE Document Approval Process, Subcontractors are appointed and reviewed to determine suitability. Specifically, this process ensures that subcontractors' Safe Work Method Statements (SWMS) and Work Method Statements (WMS) have been assessed and are appropriate for the tasks being conducted.

The Project Manager is responsible to ensure the subcontractor documentation, plant and equipment has been approved prior to commencing on site.

Sub-contractors working on the Project will be required to:

- Undertake environmental awareness training (refer to Section 8)
- Observe sub-contract and statutory requirements relating to environmental protection and other environmental legislation and to follow instructions issued by project owner and EPC management, supervisory personnel
- Nominate site representatives to liaise with EPC representatives with respect to environmental requirements for the site activities
- Adhere to the EPC's environment management system as it applies to their operations on the site
- Undertake weekly environmental inspections of their work areas
- Cooperate fully with the site emergency incident procedures and consultative arrangements.
- Follow procedures incorporated in the EMP.

All Subcontractors are monitored on site by the site supervisor and are required to work in accordance with their SWMSs/Work methods at all times. All subcontractors are monitored on site for compliance in the same manner as the EPC. Monitoring will include but is not limited to:

- Undertaking daily checks of environmental controls in high-risk sites or in environmentally sensitive environments
- Documenting findings on daily checks
- Completing checklist as required.

Observations will be made by the HSE Manager to assess the effectiveness of environmental protective measures being used onsite by the sub-contractor and to determine compliance with the requirements of the EMP.

Internal audits will also be conducted by the EPC to assess:

- Communication with subcontractors
- Compliance with contractual requirements
- Knowledge of and compliance with the EMP
- Work procedures and environmental management controls on site.

5. Environmental risk assessment

The management of environmental impacts for the Project would follow a risk-based approach to determine the severity and likelihood of an activity's impact on the environment and to prioritise its significance. This process considers potential regulatory and legal risks also taking into consideration the concerns of community and other stakeholders.

Risk assessments are undertaken at various stages of the Project and documented in management plans, EWMS and other Project documents. The objectives of these risk assessments are to:

- Identify activities, events or outcomes that have the potential to adversely affect the local environment and/or human health/property
- Qualitatively evaluate and categorise each risk item
- Assess whether risks can be managed by environmental protection measures
- Qualitatively evaluate residual risk with implementation of measures.

An environmental risk assessment will be undertaken for the Project. The risk assessment will detail the environmental aspects identified for the Project, the initial risk category prior to appropriate management strategies, and reference to the appropriate document which details proposed mitigation strategies. Risk assessments for the Project will be based on AS/NZS 4360:1999, the Australian Standard for risk assessments and in accordance with CFA's Design Guidelines and Model Requirements for Renewable Energy Facilities 2023.

The project owner will maintain the environmental risk register to address risks specific to the scope. Risks will be required to be reviewed on a regular basis and will also be reviewed in response to incidents, changes in legal requirements, change in Project scope, findings of inspections and audits and management reviews.

6. Environmental impacts

6.1. Construction activities

Key aspects of the Project that could result in adverse impacts to the environment include:

- Site access including movement of heavy vehicles
- Clearing and grubbing of vegetation
- Removal of fencing
- Bulk earthworks and receiving of fill
- Drainage works and supply services
- Construction of walking paths, lighting, and fencing
- Compounds operation including fuel and chemical storage, refuelling and chemical handling

- Material stockpiles
- Noise generating works
- Management of materials and waste
- Landscaping works.

6.2. Impacts

The potential for impacts on the environment will depend on a number of factors. Primarily impacts will be dependent on the nature, extent and magnitude of construction activities and their interaction with the natural environment. Potential impacts attributable to construction might include:

- Direct and indirect impacts to vegetation, fauna and habitat from vegetation clearing, earthworks, use of machinery and contamination, including:
  - The native vegetation permitted to be removed, destroyed or lopped as part of the Project is 7.546 hectares of native vegetation, which comprises 94 scattered large trees and nine small trees
- Exposure of soils during earthworks, creating the potential for offsite transport of eroded sediments and pollutants
- Increased turbidity of waterway due to exposure, erosion, runoff, and dust propagation
- Contamination of soils, and surface and groundwater from accidental spills or oil leaks. This might include grease or fuel from machinery and vehicles, construction sites or compounds, or spills of other chemicals that may be used during the course of construction
- Disturbance of contaminated land and subsequent generation of contaminated runoff
- Introduction and spread of priority weeds
- Impacts to unexpected threatened flora and fauna
- Impacts to unexpected heritage finds
- Generation of dust and increase exhaust emissions
- Construction noise and vibration from use of machinery and presence of workers onsite.

Section 7 provides a suite of mitigation measures that will be implemented to avoid or minimise those impacts.

7. Environmental management measures

ID	Measure/Requirement	Resources needed	When to implement	Responsibility	Reference
General					
EMP1	Training will be provided to all Project personnel, including relevant subcontractors on this EMP and the requirements from this plan through inductions, toolboxes, and targeted training.	Induction materials Toolbox training material	Pre-construction Construction	Contractor Proponent	Best practice CEMP
EMP2	Implement EMP	EMP (this plan)	Pre-construction Construction Post-construction	Contractor Proponent	
EMP3	Implement CEMP, DSMP and NVMP	CEMP, DSMP and NVMP	Pre-construction Construction Post-construction	Contractor Proponent	

Pre-construction					
EMP4	The site will have signage to warn and exclude the public from entering the site during the construction phase	Signage	Pre-construction Construction	Contractor Proponent	Best practice
EMP5	The site will have signage and appropriate markers to warn and exclude the public and workers from entering any tree or vegetation protection zone	Signage NVMP	Pre-construction Construction	Contractor Proponent	
EMP7	Implement Landscape Plan	Landscaping Plan	Pre-construction Construction Post-construction	Contractor	

Water Quality/Erosion and Sediment Control

Objectives

- **Minimise impacts to stormwater run-off, water quality and drainage infrastructure.**
- **Only clean stormwater run-off disposed to surface drains.**
- **Minimise erosion impacts to the site and surrounding areas.**
- **To minimise the impact on the receiving environment and surrounding waterways due to construction works.**
- **Reduce quantity of topsoil and silt material leaving the site and entering the surrounding area.**
- **Minimise the transfer of mud onto Council roads.**

Guidance

- **EPA Publication 480 – Environmental Guidelines for Major Construction Sites, Section 4: Land Disturbance**

• EPA Publication 275 – Construction Techniques for Sediment Pollution Control • *Environment Protection Act 2017* • DSMP					
EMP10	Sediment and erosion control devices are to be installed prior to commencement of works in each area and maintained in accordance with the DSMP	Any DSWP	Pre-construction Construction	Contractor	Best practice
EMP12	All sediment control devices are to be inspected, maintained and cleaned weekly and prior to forecast rain to ensure the device is operating effectively	Any DSWP	Pre-construction Construction	Contractor	Best practice
EMP13	Notify Supervisor if sediment control devices are found to be defective or damaged. They must be rectified as soon as practicable \	Any DSWP	Pre-construction Construction	Contractor	Best practice
EMP15	Sediment-laden waters must be prevented from leaving the site. Any observed discharges must be reported to the Supervisor	Any DSWP	Pre-construction Construction	Contractor	Best practice
EMP16	Direct pumping of water to waterways is not permitted.	Any DSWP	Pre-construction Construction Operation	Contractor	Best practice
EMP17	All plant and equipment are to be inspected for fuel/oil leaks as part of daily pre-start checks or similar (if applicable).	Pre-start	Pre-construction Construction	Contractor	Best practice
EMP18	All vehicles and equipment with mud build up are to have their wheels cleaned prior to leaving the site. No vehicles to leave site with excessive mud on wheels.	Any DSWP	Pre-construction Construction	Contractor	Best practice
EMP19	Implement DSMP	Any DSWP	Pre-construction Construction	Contractor	CoA10
EMP22	Manage potential pollutants from entering waterways by:	Any DSWP	Pre-construction	Contractor	Best practice

	• Spills risk assessment and response plan, incorporating measures for the use. Storage, transfer and disposal of hydrocarbons and chemicals (in accordance with EPA Victoria Publication 1698: Liquid storage and handling guidelines) • Storage of liquid fuels and chemicals within containment facilities (e.g. bunded areas) more than 100 metres from waterways in designated areas within the project site • Spill response kit, to be located at waterway crossings, at locations where machinery/plant are operating and refuelling and fuel/chemical storage areas during construction • Incorporation of spill containment measures into the drainage design		Construction Operation		
Wastewater Management **Objectives** **• No release or loss of wastewater to the environment** **Guidance** **• Water (Trade Waste) Regulations 2014** **• Environment Protection (Industrial Waste Resource) Regulations 2009** **• EPA (Vic) Publication 1287: Guidelines for Risk Assessment of Wastewater Discharges to Waterways** **• ANZECC Publication: Guidelines for Fresh and Marine Water Quality (http://www.waterquality.gov.au/guidelines/anz-fresh-marine)** **• Drainage and Stormwater Management Plan**					
EMP24	Regular checks and management of wastewater storage systems liquid and sludge volumes to ensure there is no risk of overflow.		Construction	Contractor	Best practice
EMP26	Unless agreed otherwise with the Proponent, Contractors are to provide sufficient self-contained toilets and lunch/rest areas. Solid waste from these is to be regularly pumped out and disposed at a suitably licensed off-site wastewater treatment facility.		Construction	Contractor	Best practice
Waste **Objectives**					

• Minimise waste and encourage environmental accountability.
• Minimise risk of contamination, particularly stormwater.
• Ensure that waste is managed in accordance with EPA requirements.
• Manage waste using the principles of avoidance and minimisation and following the waste management hierarchy.

Guidance
• Environment Protection (Industrial Waste Resource) Regulations 2009
• EPA Victoria (Online) - Your environment – Waste webpage, EPA Victoria (http://www.epa.vic.gov.au/your-environment/waste)
• EPA Victoria (Online) - Prescribed industrial waste classifications (http://www.epa.vic.gov.au/business-and-industry/guidelines/waste-guidance/prescribed-industrial-waste-classifications)

EMP27	Worksites are to be kept tidy and free of rubbish.		Construction	Contractor	Best practice
EMP28	All waste generated on site is to be segregated in appropriately labelled bins, i.e. scrap metal, paper, glass and plastics, and ensure recycling of recyclable streams. NOTE: Regulated waste to be segregated from other waste types.		Construction	Contractor	Best practice
EMP29	On-site storage of Regulated waste must be in designated covered bunded areas, managed to prevent spills or washing off contaminants to the environment.		Construction	Contractor	Best practice
EMP30	All regulated waste is to be transported in accordance with EPA requirements.		Construction	Contractor	Best practice

Flora and Fauna

Objectives
• Protect flora and fauna on-site

Guidance
• *Environment Protection and Biodiversity Conservation Act 1999*
• Environment Protection and Biodiversity Conservation Regulations 2000
• *Wildlife Act 1976*

• *Flora and Fauna Guarantee Act 1977* • Guidelines for the removal, destruction or lopping of native vegetation (Department of Environment, Land, Water and Planning (DELWP) 2017) • Native Vegetation Management Plan					
EMP31	Location of all native vegetation on site and adjoining land permitted to be removed or retained under the permit will be clearly mapped.	Any NVMP	Pre-construction Construction	Contractor	CoA1(h)
EMP32	Implement NVMP	Any NVMP	Pre-construction Construction Operation	Contractor	
EMP36	All construction works are to be contained within designated areas		Construction	Contractor	Best practice
EMP38	Inspect any open trenches and pits regularly for the presence of wildlife		Construction	Contractor	Best practice
EMP39	Salvage and relocate any fauna found on site in line with best practice.		Construction Operation	Contractor	Best practice
EMP40	Where works occur in proximity to trees, ensure Tree Protection Zones (TPZ) are delineated and signed before works commence in the area.		Construction	Contractor	Best practice
EMP41	Ensure soil stockpiles are kept away from root zone of all retained trees and vegetation.		Construction	Contractor	Best practice
EMP42	When driving at dusk and dawn, drive to the conditions and be aware of kangaroos, wombats, deer and other wildlife		Construction Operation	Contractor	Best practice
EMP43	Revegetation of disturbed areas as per any agreed Landscape Plan	Any Landscape Plan	Construction Operation	Contractor	COA3 Best practice
Heritage **Objectives** **• Protect and respect items of Aboriginal cultural heritage**					

Guidance • ***Aboriginal Heritage Act 2006*** • ***Aboriginal Heritage Amendment Act 2016*** • **Aboriginal Heritage Regulations 2018** • ***Heritage Act 2017*** • **Heritage Regulations 2017** • **Heritage Council Publication: Works and Alterations to Registered Heritage Places and Objects** • **Aboriginal Victoria Webpage: Reporting a Possible Aboriginal Place or Object (https://www.vic.gov.au/aboriginalvictoria/heritage/protection-of-aboriginal-places-and-objects/report-and-protect-a-possible-aboriginal-place-or-object.html)** • **Aboriginal Victoria Webpage: Aboriginal Heritage Protection Declarations. (https://www.vic.gov.au/aboriginalvictoria/heritage/protection-of-aboriginal-places-and-objects/aboriginal-heritage-protection-declarations.html)**					
EMP44	If any potential human remains, non-Aboriginal or Aboriginal Cultural Heritage is discovered during construction, cease works in that area immediately and advise the site Supervisor and HSE Advisor. The area and a 10-metre buffer must be protected from harm (e.g. with bunting) until the discovery has been examined by the appropriate parties. For potential Aboriginal Cultural Heritage items, work cannot re-commence in the area until a Cultural Heritage Permit is obtained from a relevant RAP.		Pre-construction Construction Post-construction	Contractor	Best practice

Air Quality, Dust and Light

Objectives

- **Minimise potential for unplanned emissions to the atmosphere including dust.**
- **To ensure there is no health risk or loss of amenity due to emission of dust to the environment.**
- **Prevent the generation of dust in preference to applying dust suppression measures.**
- **Minimise light pollution impacts (i.e. limit works to day hours where possible and notify applicable landowners where night work is planned).**

Guidance

- **National Environment Protection (Ambient Air Quality) Measure**
- **National Environment Protection (Air Toxics) Measure**
- ***Environment Protection Act 2017***
- **Environment Protection (Vehicle Emissions) Regulations 2013**
- **State Environmental Protection Policy (SEPP) Air Quality Management**
- **SEPP Ambient Air Quality**
- **EPA Publication 480 – Environmental Guidelines for Major Construction Sites, Section 8.2: Air Quality**
- **EPA Victoria (Online) - Your environment – Air webpage, EPA Victoria (http://www.epa.vic.gov.au/your-environment/air)**

EMP45	All lighting installed and operated at the site will comply with Australian Standard 4282 Control of the obtrusive effects of outdoor lighting		Construction	Contractor	Australian Standard 4282 Control of the obtrusive effects of outdoor lighting
EMP46	Use dust suppression such as water sprays, sprinklers and/or water carts on dust-generating surfaces such as roads when conditions require it. Ensure run-off does not impact on waterways.		Construction	Contractor	Best practice
EMP48	Regularly remove silt from sediment fences to reduce potential for dust generation (as well as breakthrough / loss to waterways).		Construction	Contractor	Best practice
EMP50	Stockpiles must be managed to prevent dust generation as well as erosion and sedimentation. Additional management measures may include: Locating stockpiles away from drainage lines and where they are protected from wind. Minimising the number and size of		Construction	Contractor	Best practice

	stockpiles. Mulching, roughening and seeding with sterile grasses any batter or topsoil stockpile which is to be maintained for longer than 28 days. Circling all unstabilised stockpiles and batters with silt fences or a drainage system that will collect and correctly dispose of contaminated water in accordance with sediment control plan. Watering to suppress dust from unstabilised stockpiles and batters.				
EMP52	Ensure plant is checked and maintained regularly.		Construction	Contractor	Best practice
EMP53	Limit vehicle movements in sensitive areas. Restricted areas are to be signposted.		Construction	Contractor	Best practice
EMP54	Comply with speed limit signage. Speed limits are to be reduced in accordance with the TMP to minimise dust and noise generated from vehicles.		Construction	Contractor	Best practice
EMP55	If lighting is required for construction, it will be designed to minimise overspill, and switched off where works are not being undertaken prior to leaving the site at night.		Construction	Contractor	Best practice

Noise

Objectives

- **Minimise noise impact on surrounding residents and undertake consultation with potentially impacted residents.**
- **Maintain a good relationship with the nearby community**

Guidance

- ***Environment Protection Act 2017***
- **EPA Publication 480 – Environmental Guidelines for Major Construction Sites (Section 5: Noise and Vibration)**
- **EPA Publication 1254 – Noise Control Guidelines (Section 2: Construction and Demolition Site Noise)**
- **EPA (Vic) Publication 1411: Noise from Industry in Regional Victoria**
- **EPA (Vic) Publication IBN3-89: Interim Guidelines for Control of Noise from Industry in Country Victoria**
- **EPA (Vic) Publication 1412: SEPP N-1 and NIRV Explanatory Notes**
- **EPA (Vic) Publication 1467: Noise**
- **EPA (Vic) Publication 1517.1: Demonstrating Best Practice**
- **EPA Victoria (Online) - Your environment – Noise webpage, EPA Victoria (http://www.epa.vic.gov.au/your-environment/noise)**

EMP57	All construction equipment shall comply with the manufacturer's guidelines.		Construction Operation	Contractor	Best practice
EMP58	All site buildings, access roads, plant and equipment should be positioned in a manner that creates minimal disturbance to the amenity of the local environment and community.		Construction Operation	Contractor	Best practice
EMP59	All mechanical plant is to be well maintained and silenced by the best practical means using current technology.		Construction Operation	Contractor	Best practice
EMP60	All plant and equipment are to be turned off when not in use.		Construction Operation	Contractor	Best practice
EMP63	If complaints are received regarding construction noise, follow the CIRP procedure	CIRP	Construction Operation	Contractor	Best practice
Visual Amenity **Objectives** **• The proposal should not give rise to significantly adverse visual amenity impacts** **• Glint and glare from the solar farm should not have an impact on road safety, or the reasonable amenity of residents of the surrounding dwellings** **Guidance** **• Landscaping Plan** **• Glint and Glare Management Plan**					
EMP65	Implement Landscaping Plan and GGMP	Landscaping Plan and GGMP	Pre-construction Construction Post-construction Operation	Contractor Proponent	
Traffic and Transport **Objectives**					

• Minimise disruption to traffic (vehicles, pedestrians and cyclists) caused by construction activities to ensure the safety of all road users. • To implement Traffic Management Plan. • To maintain Council roads to the required standard. Guidance • *Road Management Act 2004* • TMP					
EMP66	Implement TMP	TMP	Pre-construction Construction	Contractor	
EMP67	All local road and site speed limits established are to be adhered to.	TMP	Pre-construction Construction	Contractor	Best Practice
EMP69	Impacts to local road users and pedestrians will be minimised by using appropriate traffic control methods, which may include traffic controllers at certain times.	TMP	Pre-construction Construction	Contractor	Best Practice
EMP70	Delivery of equipment and building materials should be staged where possible to minimise disruption to normal traffic flow.	TMP	Pre-construction Construction	Contractor	Best Practice
EMP71	All vehicle operators that access the site will be acquainted with prescribed vehicle routes, entry and exit points, speed limits, and any other relevant vehicle safety requirements.	TMP	Pre-construction Construction	Contractor	Best Practice

Management of Fuels, Oils and Chemicals

Objectives

- **Prevent release of fuels, oils or chemicals to the environment.**

Guidance

- **Environmental Protect (Industrial Waste Resource) Regulations 2009**
- **SEPP Prevention and Management of Contaminated Land in Victoria**
- **EPA Publication 347 'Bunding Guidelines'**
- **AS 1940:2017 - The storage and handling of flammable and combustible liquids**
- **Dangerous Goods (Explosives) Regulations 2011 – Victorian**

EMP74	Adherence to dangerous goods storage and handling requirements		Construction	Contractor	dangerous goods regulatory framework and any relevant Australian Standards CoA42
EMP75	Contractors to provide Safety Data Sheets and hazardous chemical risk assessments for all materials brought onto site.		Construction	Contractor	Best practice
EMP76	Store all large volumes of fuels, oils and chemicals onsite in designated bunded, sealed and covered areas		Construction Operation	Contractor	Best practice
EMP78	Spilt material and rainfall must be regularly removed from bunds to retain volume and minimise risk of overflow		Construction Operation	Contractor	Best practice
EMP81	Use separate storage for different classes of dangerous goods where practical, e.g. flammable gases and liquids, combustible liquids and corrosive liquids.		Construction	Contractor	Best practice
EMP82	Fully stocked labelled spill kits containing suitable clean up material are to be provided in all chemical, fuel and other		Construction Operation	Contractor	Best practice

	liquid material storage and handling areas. Ensure location is obvious and accessible.				
EMP83	All workers to be familiar with spill response requirements in Contractor specific inductions.		Construction Operation	Contractor	Best practice
EMP84	Any release of a liquid must be reported, and containment / clean-up affected, provided it is safe to do so.		Construction Operation	Contractor	Best practice
EMP87	Regular site inspection for good housekeeping, bund use and maintenance, spill kit stock levels and visible spills.		Construction Operation	Contractor	Best practice
Pest Management and Weed Control					
EMP89	If necessary to ensure weed-free status, vehicles, machinery and equipment entering site shall be washed down in adequately bunded wash-down area to remove weeds/seeds on wheels, worker boots, etc.		Construction Operation	Contractor	Best practice
EMP92	On-site areas are to be kept free of weeds. Contractor to manage construction footprint area		Construction Operation	Contractor	Best practice

Fire Risk and Emergency Management

Objectives:

- **Prevent, minimise, and manage any emergency responses during construction activities to ensure no impact to the environment and human health.**

Guidance:

- **CFA's Design Guidelines and Model Requirements for Renewable Energy Facilities 2022**
- ***Country Fire Authority Act 1958***
- ***Occupational Health and Safety Act 2004***
- **Dangerous Goods Act 1985**
- **Dangerous Goods (Storage and Handling) Regulations 2012**
- **Electric Safety (Bushfire Mitigation) Regulations 2013**
- **Electricity Safety (Registration and Licensing) Regulations 2010**

EMP93	The operator of the facility must undertake a comprehensive risk management process for the facility in accordance with CFA's Guidelines for Renewable Energy Installations 2023.	Emergency Information Book	Pre-construction Construction Operation	Contractor Proponent	CFA's Guidelines for the Provision of Emergency Information 2023
EMP94	Prior to the commencement of operation of the facility, the operator must develop an Emergency Information Book, and provide this in an Emergency Information Container at site entrances, as per CFA's Guidelines for Renewable Energy Installations 2023.	Emergency Information Book	Post Construction Operation	Contractor Proponent	CFA's Guidelines for the Provision of Emergency Information 2023
EMP95	If applicable to the installation, adherence to dangerous goods storage and handling requirements, as per the dangerous goods regulatory framework and any relevant Australian Standards.		Pre-construction Construction Operation	Contractor Proponent	
EMP98	Constructed roads should be a minimum of four (4) metres in trafficable width with a four (4) metre vertical clearance for the width of the formed road surface.		Design Construction	Contractor Proponent	
EMP102	Road networks must enable responding emergency services to access all areas of the facility.	Any TMP	Design Pre-construction Construction Operation	Contractor Proponent	
EMP103	Two but preferably more access points to the site, to ensure safe and efficient access to and egress from areas that may be impacted or involved in fire. The number of access points is to be informed through a risk management process.	Any TMP	Design Pre-construction Construction Operation	Contractor Proponent	
EMP104	Static water storage tank installations are to comply with AS 2419.1 and any Permit conditions		Pre-construction Construction Operation	Contractor Proponent	

EMP108	The site operator will adhere to restrictions and guidance during the Fire Danger Period, days of high fire danger and Total Fire Ban days		Pre-construction Construction Operation	Contractor Proponent	
EMP109	All plant and heavy equipment will carry at least a 9-litre water stored-pressure fire extinguisher with a minimum rating of 3A, or firefighting equipment as a minimum when on-site during the Fire Danger Period		Construction Operation	Contractor	CoA56
EMP110	There will be no long grass or deep leaf litter in areas where plant and heavy equipment will be working		Construction Operation	Contractor	
EMP111	Solar facilities will aim to have separation between banks of solar panels. The separation distance would be determined by advice from CFA's State Infrastructure and Dangerous Goods Unit (sidgu@cfa.vic.gov.au).	Follow CFA instruction sidgu@cfa.vic.gov.au	Design Construction Operation	Contractor	
EMP112	Specifications for safe operating conditions for temperature and the safety issues related to electricity generation, including isolation and shut-down procedures if solar panels are involved in fire is provided within the content of the Emergency Information Book at the entrances to the facility	Emergency Information Book	Design Construction Operation	Contractor	
EMP113	Under solar array installations, ensure only mineral earth; non-combustible mulch such as stone; or grass or other vegetation maintained to no more than 100mm are used. This includes localised crops of root vegetables or other plants with low flammability, planted to ensure that no part of the plant extrudes from underneath panel banks.		Construction Operation	Contractor	CFA best practice
EMP114	A risk management will be undertaken to determine distance of visual screening of vegetation from solar panel installations which takes into consideration radiant heat from a bank of solar panels fully involved in fire as an ignition source.		Design Pre-construction	Contractor Proponent	Best practice
EMP115	Containers/infrastructure for battery installations are to be located so as to be directly accessible to emergency responders (e.g., provided with a suitable access road).		Design Construction	Contractor	Best practice

			Operation		
EMP118	Battery installations that contain dangerous goods may have to comply with the requirements of the *Dangerous Goods Act 1985*; the Dangerous Goods (Storage and Handling) Regulations 2012; and relevant Australian Standards.		Construction Operation	Contractor	Best practice
EMP119	Battery storage manufacturers must provide specifications for safe operating conditions for temperature and the effects on battery storage if involved in fire. This information must be provided within the content of the Emergency Information Book at the main entrance of the facility.		Pre-construction	Contractor	Best practice
EMP121	Battery installations are to be serviced/maintained as per the manufacturer's requirements.		Operation	Contractor	
EMP122	Containers/infrastructure for battery installations must be clear of vegetation for ten (10) metres on all sides, including grass. CFA requires non-combustible mulch such as stone or mineral earth within this ten (10) metre area.		Design Construction Operation	Contractor Proponent	
EMP123	Hot works are not permitted to be carried out on total fire ban days. It is noted the Construction Contractor may seek exemption for this from CFA.	CFA	Construction Operation	Contractor	Best practice
EMP124	Smoking is only permitted in designated area. Cigarette butts must be fully extinguished and disposed in a non-combustible container.	CFA	Construction Operation	Contractor	Best practice
EMP127	Fire extinguishers are to be available and in use for any activities or equipment that have a potential to create an ignition and subsequent fire.	CFA	Construction Operation	Contractor	Best practice
Compliance Management					
EMP128	When required, implement any CIRP	CIRP	Pre-construction Construction Post-construction Operation	Contractor Proponent	

8. Training, awareness, and competence

To ensure that this EMP is effectively implemented, each level of management is responsible for ensuring that all personnel reporting to them are aware of the requirements of this EMP. The HSE Manager will coordinate the environmental training in conjunction with other training and development activities (e.g. safety).

8.1. Environmental induction

Prior to working on site, all personnel and sub-contractors will undertake an environmental induction as part of the site induction. This is done to ensure all personnel involved in the Project are aware of the requirements of the EMP and to ensure the implementation of environmental management measures.

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

The Project Manager is responsible to ensure that all employees and contractor employees attend an induction prior to starting work.

Records of all inductions and copies of relevant qualifications and or licences will be retained for the life of the Project.

All staff attending site will be required to attend a health and safety, quality and environment induction prior to starting work on the Project. The environment section covers core issues including (but not limited to):

- Relevant details of the EMP including purpose and objectives
- Requirements of due diligence and duty of care
- Conditions of environmental licences, permits and approvals
- Potential environmental emergencies on site and the emergency response procedures
- Reporting and notification requirements for pollution and other environmental incidents or reportable events, including identification of contaminated land and damage and maintenance to environmental controls.
- High risk activities and associated environmental safeguards
- Controls when working in or near environmentally sensitive areas
- Specific environmental management requirements and responsibilities
- Mitigation measures for the control of environmental issues
- Incident response and reporting requirements
- The existence of EWMS for high-risk activities
- Information relating to the location of environmental constraints
- Site specific issues including:
  - Site flagging protocol
  - Erosion and sediment controls, water quality controls and sediment basin management
  - Management of contaminated material
  - Groundwater and surface water management and controls
  - Obligations under the Biosecurity Act 2015 to prevent the spread of weeds during construction
  - Responsibilities under the following legislation and permits:

    - *The Planning and Environment Act (PE Act)*
    - *The Victorian Heritage Act 1995*
    - *The Aboriginal Heritage Act 2006*
    - *Wildlife Act 1975*
    - *Catchment and Land Protection Act 1994 (CaLP Act)*
    - *Flora and Fauna Guarantee (FFG) Act 1988*
    - Works on Waterways permit (West Gippsland Catchment Management Authority)
  - Noise, vibration and air quality management controls
  - Requirement to maintain surrounding property access for residences, business owners, and their visitors, and to minimise disruptions to these properties for the duration of construction
  - Location of refuse bins, washing, refuelling and maintenance of vehicles, plant and equipment
  - Waste minimisation and disposal protocols
  - Boundaries for vegetation clearing, fauna and fauna habitat management, including awareness of threatened fauna species and fauna rescue
  - Incident management processes
  - Environmental emergencies including pollution incidents, floods and bushfires.
- Key environmental issues
- Site-specific training will be provided to personnel engaged in activities or areas of higher risk, including but not limited to:
  - Working in and near waterways
  - Construction noise management
  - Areas of Aboriginal heritage sensitivity.

The site induction will also include communications training including:

- How to respond to community queries
- Aware and abide by the requirements for the release of information
- Understand the identity of the community.

A record of all environment inductions will be maintained and kept on-site in hard copy or in database. The HSE Manager may authorise amendments to the induction at any time. Possible reasons for changes to the induction may be Project modifications, legislative changes or amendments to this EMP or related documentation.

An induction register is kept on site as part of Project Quality System to demonstrate compliance with EMP activities.

8.2. Toolbox talks, training and awareness

The HSE Manager is responsible to ensure that all Project personnel are competent to perform tasks that affect the performance and effectiveness of the environmental management system.

Specific consideration shall be given to those personnel who are promoted or placed in supervisory positions during the course of the Project that they are provided with suitable training to manage their Environmental responsibilities.

Toolbox talks will be one method of raising awareness and educating personnel on issues related to all aspects of construction including environmental issues. The toolbox talks are used to ensure environmental awareness continues throughout construction.

Toolbox talks will include, but not be limited to:

- A description of the activity and the area
- Identification of the environmental issues and risks for the area
- Outline the mitigation measures for the works and the area
- Details of EWMS for relevant personnel.

Toolbox talks will also be tailored to specific environmental issues relevant to upcoming works.

Relevant environmental issues include (but are not limited to):

- Erosion and sedimentation controls
- Working hours
- Emergency and spill response
- Weed management
- Water management
- Construction noise management
- Working in or near waterways
- Dust control
- Vegetation trimming and clearing
- Waste storage and segregation
- Management of identified heritage items.

Toolbox attendance is mandatory, and attendees of toolbox talks are required to sign an attendance form and the records maintained.

As required, targeted environmental training will be provided for nominated personnel.

All environmental monitoring and testing is to be conducted by persons who are appropriately qualified and trained.

8.3. Environmental awareness training

Staff and sub-contractors working on site will be provided with environmental training that will incorporated into ‘toolbox’ and inductions. Formal qualifications for specialist staff may be required in relation to activities such as animal handling and the design of erosion and sedimentation control plans. The aim will be to achieve a level of awareness and competence appropriate to their assigned activities.

Targeted environmental awareness training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking an activity with a high risk of environmental impact.

This training will generally be prepared and delivered by the HSE Manager. The target groups and suggested topics for this training are detailed in Table 8-1.

Another way to inform construction personnel will be through the development and distribution of awareness notes. These will typically take the form of a poster, booklet, or similar and will be distributed to engineers,

leading hands, foreman and others with a responsibility for managing specific work locations or activities. This documentation will be used to inform the broader workforce through either daily pre-start meeting (see section below) or provision in worker crib sheds/break facilities.

Refresher environmental awareness training will be undertaken as required, but not less than 6 monthly intervals, based on environmental risks and turnover of personnel. Refresher environmental awareness training will be recorded on the Environmental Training Register.

A training register is kept on site as part of Project Quality System to demonstrate compliance with EMP activity training records.

Table 8-1 Example Environmental Training Schedule

Training	Senior Managers	Superintendents	Engineers	Environmental Staff	Foreman	Leading Hands	Sub-Contractors	Administrative Staff
Project Inductions	✓	✓	✓	✓	✓	✓	✓	✓
Biodiversity Awareness (Induction and Toolbox talks)	✓	✓	✓	✓	✓	✓	✓	
Heritage Awareness (Induction and toolbox talks)	✓	✓	✓	✓	✓	✓	✓	
Noise, Dust, Erosion & Sediment Control (Induction and Toolbox talks)	✓	✓	✓	✓	✓	✓	✓	
Spill Response (Induction and toolbox talks)	✓	✓	✓	✓	✓	✓		
Erosion and sedimentation controls (including leachate drainage	✓	✓	✓	✓	✓	✓	✓	
Emergency procedures	✓	✓	✓	✓	✓	✓	✓	✓

8.3.1. Daily pre-start meetings

The pre-start meeting is a tool for informing the workforce of the day's activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the works, coordination issues with other trades, hazards and other information that may be relevant to the day's work.

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

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

Pre-start topics, dates delivered, and a register of attendees will be recorded and kept on site as part of Project Quality System to demonstrate compliance with EMP activities.

9. Communication

Clear lines of communication through all levels and functions (e.g. management, staff and sub-contractors), is key to minimise environmental impacts and achieving continual improvements in environmental performance.

The methods of communication on site will include:

- Pre-start meetings
- Inductions
- Toolbox talks
- Alerts, bulletins and / or initiatives
- EWMS.

The HSE Manager will meet as part of Project meetings to discuss any issues with environmental management onsite, any amendments to plans that may be required or any new/ changes to Project activities.

Fortnightly environmental inspections will be scheduled with the HSE Manager and relevant Project staff. The purpose of these inspections will be to communicate ongoing environmental performance and to identify any issues to be addressed.

In addition, the HSE Manager will participate in toolbox talks on at least a weekly basis. This forum will provide an opportunity for the environment team members to communicate on environmental performance, to advise on any upcoming sensitive environmental matters for future work areas and receive feedback from onsite personnel.

Further internal communication regarding environmental issues and aspects will be through awareness training as described in Section 8.3.

9.1. External communication

9.1.1. Agencies and authorities

The HSE Manager has the responsibility to report on the ongoing environmental performance of the Project to the Proponent, DTP and any other relevant authorities.

The Project Manager, and the HSE Manager are the two 24-hour contacts. They have the authority to halt the progress of the works if necessary. They are the key emergency response personnel during an environmental site emergency.

The HSE Manager is the authorised contact person for communications with the Proponent, DTP, EPA, and any other relevant authorities on environmental matters. The Proponent will be included in all correspondence with any regulatory authorities, unless agreed otherwise.

A report will be prepared on each occasion the site is visited by EPA and any other relevant authorities, and the Proponent will be immediately notified. The report will be provided to the Proponent within 1 working day of the visit.

10. Incidents and emergencies

10.1. Emergency and incident preparedness

The following plans relating to emergency and incident response will be prepared for the Project:

- Emergency Information Book.
- CIRP.

During the course of the Project, the following preventative strategies will be implemented onsite:

- Daily inspections of active work sites.
- Completion of Environmental Inspection Checklist (weekly).
- Issue and quick close-out of non-compliance notices (as required).
- Prompt maintenance and repairs.
- Ongoing environmental training.
- Access for emergency services vehicles will be maintained throughout the site at all times.
- Environmental audits of worksites, subcontractors, and general compliance.

Spill kits will be available at the main site office and where liquid substances are to be stored. Spill kits and other emergency supplies (e.g. silt fences, pumps) will also be located at site compounds, machinery park up areas and on refuelling vehicles.

Personnel involved in emergency response activities will be provided with specific training. As a minimum for environmental response, all light vehicles and light trucks/heavy vehicles shall carry a vehicle spill kit to provide immediate response to an event. Hydrocarbon spills are noted as the most likely type of occurrence on the works.

Consulting with emergency services and VIC Police as required throughout construction to ensure that any potential impacts to emergency services are identified and appropriately managed.

An up-to-date list of emergency response personnel and relevant organisations (emergency services, EPA, etc.) will be maintained at the main office and site compounds.

10.2. Environmental incidents

An Environmental Incident is defined as an unplanned event impacting or potentially impacting the environment with consequences.

Various environmental incidents may have the potential to occur on site, which may include but not be limited to the following:

- Spills of fuels, oils, chemicals and other hazardous materials.
- Unauthorised discharge from sediment basins or other containment devices.
- Unauthorised clearing or clearing beyond the extent of the Project boundary or premises.
- Inadequate installation and subsequent failure of temporary erosion and sediment controls.
- Unauthorised damage or interference to threatened species, threatened ecological communities or critical habitat.
- Unauthorised harm or desecration to Aboriginal objects and Aboriginal places.
- Unauthorised damage or destruction to any State or locally significant relic or Heritage item.
- Unauthorised dredging or reclamation works within a watercourse.
- Potential contamination of waterways or land.
- Accidental starting of a fire or a fire breaking out of containment.
- Any potential breach of legislation, including a potential breach of a condition of: An environment protection licence, approval, or any agency permit condition.
- Works done that are not covered by the Project approval, or not found to be consistent with the approval, or done without a modification of the approval.
- Works undertaken that are not in accordance with the Environmental Assessment documents.
- Unauthorised dumping of waste.

Should an incident occur, the Supervisor will ensure that work ceases in that area and that the site is not disturbed until the appropriate level of investigation is conducted to ensure that any potential evidence is preserved.

10.3. Incident reporting

All workers (employees and contractors) are responsible for ensuring timely and effective initial internal reporting of Incidents that they are involved with or witness.

The Proponent is to be informed of any environmental incidents immediately verbally and within 24 hours in writing. Incident reports will include lessons learnt from each environmental incident occurring. Including lessons learnt from each environmental incident and proposed measures to prevent the occurrence of a similar incident. All efforts will be undertaken immediately to avoid and reduce impacts of incidents and suitable controls put in place. Incidents will be closed out as quickly as possible, taking all required action to resolve each environmental incident.

GRS must liaise with the Proponent prior to notifying any agencies of any incident on site (i.e. EPA). Within 7 days of the date of the incident, GRS must provide the client and/or any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Where an incident involves an Aboriginal site, relevant authorities such Heritage Victoria and Registered Aboriginal Parties will be notified, and their input sought in closing out the incident.

10.4. Incident reporting in accordance with the conditions

The project owner will immediately notify the Proponent of an incident which arises through the Permit.

Environmental incidents causing or threatening serious or material harm under the Environment Protection Act 2017 must be reported to the EPA. The EPA require notification as soon as reasonably practical, in most cases within two hours of becoming aware of an incident which results in the release of solid, liquid or gas (or a combination thereof) that is not specifically authorised by an environmental authorisation and is not trivial. The EPC is required to report relevant incidents which arise out of any work concerned with the project or associated facility to the relevant EPA Departmental Officer. These reports will be made by the EPC in accordance with agreed EPC notification protocols.

An Emergency Information Book will be available to emergency responders. Emergency Information Books are located in Emergency Information Containers, provided at each vehicle entrance the facility.

10.5. Complaints process

As part of the CoA a CIRP will be developed which respond to all aspects of the construction and operation of the Project. The CIRP will outline complaint procedures including a process to investigate and resolve complaints. As part of the CIRP and before development starts, including the removal of native vegetation, a copy of the endorsed CIRP and a toll-free telephone number and email contact for complaints and queries to the Project operator will be made publicly available and readily accessible from the Project website, or another publicly available resource to the satisfaction of the responsible authority.

External complaints are defined as complaints received from parties outside of the normal lines of communication.

Complaints and enquiries regarding the works would be received through the contact details provided on the Project website. All other complaints received are reportable incidents and shall be immediately reported to the project owner.

A complaints register has also been developed which records:

a. The complainant's name and address (if provided).

b. A receipt number for each complaint, which must be communicated to the complainant.

c. The time and date of the incident, and operational conditions at the time of the incident.

d. A description of the complainant's concerns.

e. The process for investigating the complaint, and the outcome of the investigation, including the actions taken to resolve the complaint.

All complaints received will be recorded in the complaints register. The complete copy of the complaints register will be provided, along with a reference map of complaint locations, to the responsible authority annually and at other times on request.

10.6. Environmental management reporting requirements

The following environmental management reporting requirements will be implemented.

Item	Requirement
Weekly Progress	During the construction phase, weekly progress reports will detail all environmental issues including but not limited to any environmental related non-conformances, incidents and complaints.
Monthly Progress	During the construction phase, monthly progress reports will detail the outcomes of all environmental related non-conformance, incident and complaint reporting.
Incidents	Within seven days of an incident occurring, the EPC Project Manager is responsible for providing the relevant authorities a detailed report on the incident, and any additional requested reports.
Complaints	The Contractor HSE Advisor is required to regularly report any complaints to the EPC Project Manager and site personnel.
Traffic Management	There are no specific environmental reporting requirements.
Landscaping	Annual review of landscape requirements.
Biodiversity Management	There are no specific environmental reporting requirements.
Stormwater	There are no specific environmental reporting requirements.
Emergency Response	If an environmental-related evacuation drill is undertaken at the site, it will be recorded and reported using the relevant tools.

11. Monitoring, auditing and review

11.1. Site inspections and document checks

To ensure effective management of potential environmental impacts during the construction project, auditing of site activities against the EMP will be undertaken. Auditing will be conducted in the form of regular site inspections of environmental control measures specified in the detailed CEMP. Additional checks will be made by the EPC of contractor documentation to ensure that appropriate risk management measures are being followed and records correctly retained.

The site inspections will be conducted visually at regular intervals, prior to commencement of the days' work and where appropriate during the working day. Inspection of areas related to specific issues or activities of increased risk may require more frequent inspection. Inspections will be undertaken by the relevant Construction Manager, HSE Advisor and the Principal Contractor Site Supervisor as appropriate.

Items to be inspected include (but are not limited to):

- Site fencing (internal and boundary)
- Silt fencing, bunding, and other erosion and sedimentation controls
- Stockpiles
- Open excavations
- Dangerous Goods storage and spill containment
- Wastewater management
- Waste management
- Dust suppression measures
- Vehicle and equipment hygiene.

Where necessary any damage to or reduced capacity of environmental control measures will be corrected. If required, environmental control measures may be upgraded. Reporting of environmental issues observed as part of regular inspections are to be included as part of regular reporting to the relevant Project Manager.

12. Record Documentation

Records shall be retained and disposed of in accordance with the EPC requirements. Records of the following environment-related documents must be retained onsite:

- Environmental (project) induction attendance
- Environmental incidents
- Environment Inspection Reports
- Waste disposal receipts
- Weed and pathogen vehicle/machinery certificates
- Certified clean fill (as required)
- Soil and water sampling results
- Noise monitoring results (if required)
- Community complaints
- Stakeholder engagement / notices

- Correspondence to and from the EPA and Council
- Evidence of HSE qualifications and training relevant to scope of work

Copies of the detailed EMP must be kept on-site.

NOTE: Appendices to be added by EPC/Proponent post approval and pre-construction.

Appendix A Environmental Policy

Appendix B Organisational Structure

Appendix C Environmental Risk Matrix

Appendix D Various

To be included in when finalised:

Construction Environment Management Plan

Drainage and Stormwater Management Plan

Native Vegetation Management Plan

Glint and Glare Management Plan

Landscaping Plan

Traffic Management Plan

Complaints Investigation and Response Plan

Wildlife Management Plan

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