Appendix L

Framework Environmental Management Plan

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Goorambat East Solar Farm
Neoen Australia Pty Ltd
16-Aug-2019

Framework Environmental Management Plan

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Goorambat East Solar Farm

Client: Neoen Australia Pty Ltd

ABN: 57 160 905 706

Prepared by

AECOM Australia Pty Ltd
Level 10, Tower Two, 727 Collins Street, Melbourne VIC 3008, Australia
T +61 3 9653 1234 F +61 3 9654 7117 www.aecom.com
ABN 20 093 846 925

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Abbreviations

CEMP	Construction Environmental Management Plan
CHMP	Cultural Heritage Management Plan
CHSMP	Construction Health Safety Management Plan
DELWP	Department of Environment Land Water and Planning
EPA	Environment Protection Authority
ERP	Emergency Response Plan
Framework EMP	Framework Environmental Management Plan
HSE	Health, Safety & Environment
JHEA*	Job Hazard and Environmental Analysis
NIRV	Noise from Industry in Regional Victoria
OEMP	Operational Environmental Management Plan
PIW	Prescribed Industrial Waste (referred to as Regulated wastes in this Framework EMP)
SECP	Sediment and Erosion Control Plan
SWMS*	Safe Work Methods Statement
VOC	Verification of Competency

Key Definitions

A further explanation of key Health, Safety and Environment (HSE) risk management tools listed above is provided as follows:

- **Job Hazard and Environmental Analysis**

  Job Hazard and Environmental Analysis (JHEA) shall be conducted on all work activities where specified or where extreme, high or medium risk is present. Work activities shall be broken down into their discrete stages and steps and the risk assessment process applied to each step and documented. JHEA documents shall include site-specific hazards, risks and their controls that are additional to the content of (any) Safe Work Methods Statement (SWMS) applicable to the site work.

- **Safe Work Method Statement**

  Safe Work Method Statement is a document that sets out the high-risk construction work activities to be carried out at a workplace, the hazards arising from these activities and the measures to be put in place to control the risks.

1.0 Scope of Plan

1.1 Context of Document

This Framework Environmental Management Plan (Framework EMP) has been prepared by AECOM Australia Pty Ltd (AECOM) on behalf of Neoen Australia Pty Ltd (Neoen) to accompany the planning permit application for the development and use of a Renewable Energy Facility (solar) within the district of Goorambat, Victoria. The site is located approximately 215 kilometres to the northeast of Melbourne Central Business District within the Rural City of Benalla and is referred to as the Goorambat East Solar Farm (the Project).

In accordance with **Clause 53.13** (*Renewable Energy Facility (other than Wind Energy Facility and Geothermal Energy Extraction)* of the Benalla Planning Scheme, a planning permit application must include *'an environmental management plan including, a construction management plan, any rehabilitation and monitoring'*. The Framework EMP will detail environmental objectives, potential impacts, monitoring and management measures that are propose during construction to protect and mitigate impacts on the environmental and heritage values of the site.

The scope of this Framework EMP has been developed to inform construction contractors of the construction-phase environmental risks, management measures, standards and monitoring requirements stipulated for the development and use of the Project at a high level. It is noted a detailed Construction Environmental Management Plan (CEMP) will be prepared by the construction contractor once appointed.

This Framework EMP forms part of a hierarchy of environmental management documents that will be prepared for the Project.

1.2 Framework EMP Objectives

The objectives of this Framework EMP are to:

- Describe the overall approach to environmental management which will be applied by Neoen and all contractors during project work;
- Set the environmental management performance requirements for activities;
- Describe the relationship between Neoen's environmental management systems, this Framework EMP and subordinate procedures;
- Identify the emergency response requirements; and
- Identify and assign responsibilities for environmental management and activities.

1.3 Roles and Responsibilities

Proposed key personnel involved in implementing the Framework EMP including a description of their responsibilities are outlined in Table 1 below subject to the detailed CEMP to be prepared at a later date.

Table 1 Duties of Key Project Personnel

Role	Responsibility
Neoen 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 Neoen Management. • Community liaison.
Neoen Construction Representative	• Construction contractor interface. • Support to Construction Manager.
Contractor Project Director	• Directly responsible for ensuring relevant resources are available to comply with project and regulatory requirements.
Contractor Project Manager	• Directly responsible for executing the engineering, procurement and construction works. • Ensure works comply with relevant project and regulatory requirements. • Liaise with Neoen and regulatory authorities. • 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 to Neoen • Assist with environmental compliance audits and incident investigations as required.
Contractor 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 Neoen Construction Manager.
Contractor Site Supervisor	• The Principal Contractor Site Supervisor is responsible to ensure all matters relating to Environmental Management during construction are managed in accordance with the detailed CEMP, Neoen's environmental procedures, the Principal Contractor's own CEMP, legal and other requirements. • The Contractor Site Supervisor shall be or nominate the client's 'first point of contact' for all matters relating to Environmental Management. • The Contractor Site Supervisor 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 for Neoen. • Conducts site induction, including environmental provisions.

Role	Responsibility
	• Assist with environmental compliance audits and incident investigations. • Notify Project Manager of any required works to changes to site conditions that may trigger additional approvals.
Contractor 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.

Table 2 (below) describes the division of responsibilities between Neoen and the Principal Contractor, of who form the two main parties responsible for the implementation of the Framework EMP.

Table 2 Division of Framework EMP Responsibilities

Neoen	Contractor
Communication of site and project induction requirements.	Preparation of Project HSE Induction Materials. Ensuring all workers attend all required site and project inductions. Provision of contractor company HSE site-specific induction to all workers under contractor company control.
Setting environmental performance objectives. Communicating typical control measures.	Developing and implementing controls to manage the construction environmental risks and meet performance objectives.
External communications, stakeholder engagement, external incident and other reporting.	Identifying and reporting HSE Incidents and near misses to Neoen.
Provision of monitoring performance requirements.	Monitoring of Stormwater Discharge Quality from Contractor works. Monitoring of Surface Water Quality (Note: a single designated contractor to perform).
Assessment of Monitoring Data and reporting to Environment Protection Authority (EPA).	Communication of monitoring data results to Neoen within timeframes. Initiation of corrective actions.
Auditing of contractor compliance with detailed CEMP.	Regular site inspections to assess performance of detailed CEMP controls, and initiate corrective actions.
	Regular inspection of sediment and erosion control measures for required maintenance and performance. Additional inspection before and after forecast rain (>5mm in 24 hours).
Review records of toolbox meetings.	Facilitation of and attendance at weekly toolbox meetings. Complete daily pre-start assessments.
Review of JHEAs and SWMSs.	Preparation of JHEAs and SWMSs. Adherence to Permits to Work.

2.0 Description of the Activity

2.1 Site Investigation Area

The site investigation area (site) is located approximately 215 kilometres to the northeast of the Melbourne Central District. The site is situated within the Rural City of Benalla, which forms part of the Hume Region in North-Eastern Victoria. The site is located 12 kilometres to the north of Benalla and approximately 500 metres to the south of the Goorambat Township. The site is generally bound by Goorambat-Thoona Road to the northwest, Hooper Road to the northeast, adjoining agricultural land and associated dwellings to the southeast, and Benalla-Tocumwal Road to the southwest. The site has an approximate total area of 630 hectares.

2.2 Proposed Works

It is proposed to develop a renewable energy facility (solar) to supply electricity generated from solar radiation into the National Energy Market. The Project is expected to have a network capacity of up to 250 Megawatts (MW) provided by approximately 500,000 solar photovoltaic (PV) panels/modules mounted on a single axis tracking mounting frames. Refer **Appendix A** for an indicative design response layout of the site.

A range of associated infrastructure will also be required including:

- A connection to the electricity grid, including a new terminal substation;
- Underground electrical cabling;
- Approximately 120 inverters (container solution)
- Operations and maintenance areas;
- Security features (including fencing and CCTV security system);
- Lighting;
- Landscaping;
- Site access and internal access roads including upgrades to existing site access points to make them suitable for use by construction and operations vehicles; and
- Business identification signage.

It is noted the general layout and associated infrastructure are a concept design layout and may be subject to change following planning approval and the detailed design process.

2.2.1 Vegetation Removal

The Project has been designed to retain existing native vegetation where possible however, native vegetation removal will be required to provide an efficient and effective solar farm layout and ensure overshadowing does not detrimentally impact the operation of the solar panels. It is noted the concept design has consider the existing vegetation on-site and has been designed in an iterative approach to ensure an effective layout whilst avoiding and minimising existing vegetation where practicable.

To allow for the efficient and viable operation of the solar farm, it is proposed to remove 67 scattered trees (including 66 large scattered trees).

It is noted the concept design layout seeks to retain all large trees in patches.

2.3 Program Details

2.3.1 Construction

The construction of the Project will occur over several stages as follows:

1. **Civil works** including (but not limited to) land clearing, levelling and earthworks, internal road construction, drainage installation (if required), laydown area preparation, fencing installation and vegetation screening.
2. **Mechanical works** including (but not limited to) foundation piling, and tracker and module delivery and installation.
3. **Electrical works** including (but not limited to) cabling, module connection, connection to the grid, testing and commissioning.

It is anticipated construction will occur over an approximate 12-month period however this will be refined subject to the construction methodology developed by the appointed Contractor. The commencement of the Project will be subject to the outcome of the planning approvals process and grid connection agreements. Construction activities will be undertaken during standard hours for buildings and works with the exception of the following works, of which may need to occur outside standard working hours for safety and operability reasons:

- The delivery of plant, equipment and materials which is required outside of these hours as requested by police or other authorities for safety reasons; or
- Emergency works to avoid the loss of lives, property and/or to prevent environmental harm.

It is proposed that no construction works are undertaken on Public Holidays.

During construction, car parking will be provided on-site in designated car parking areas (to be determined during the detailed design phase). If required, a shuttle bus will be arranged at the discretion of the construction contractor during peak construction periods to shuttle staff to and from local accommodation to manage on-site parking demands.

2.3.2 Operation

The solar farm is anticipated to operate for up to 30 years. It is anticipated six to 11 staff are likely to be required on-site during operation of the facility. Once the solar farm is commissioned, vehicle movements are likely to be within the site daily for maintenance purposes.

On-site operational activities may include:

- Cleaning of the modules on an as needs basis.
- Full servicing of equipment.

Monitoring is generally undertaken remotely. It is expected that hazardous or dangerous goods or materials will not be stored on-site during operation.

2.3.3 Decommissioning

The project would either be decommissioned or repowered at the end of its expected economic life (around 30 years). If the project is decommissioned, this will include the removal of all above ground infrastructure and rehabilitation of the site such that previous or improved agricultural uses can resume. This objective is supported by the opportunities for the dual-use of agricultural activities and solar energy generation which can assist in maintaining the value of the underlying natural capital of the land.

It is anticipated the decommissioning stage will occur over approximately six-month period and include the following key activities:

- The solar farm’s generator will be disconnected from the AusNet Services metering point;
- Solar panels, trackers including foundation piles and inverters will be removed with materials to be reused or recycled where possible;

- All site amenities and equipment will be removed, and materials recycled or reused where possible;
- Cabling down to 800 millimetres will be removed and recycled;
- Fencing and signage will be removed; and
- The site will be rehabilitated.

Traffic required for decommissioning will be undertaken in consultation with the relevant authorities.

In the relevant lease documentation where the proponent does not own the land, the abovementioned decommissioning activities will be undertaken. In this instance, the lessor retains responsibility to return the land to its original condition.

Benalla Rural City Council will be advised of planned decommissioning activities in advance and provided with a Decommissioning Environmental Management Plan including (but not limited to) responsible authorities, timelines and the disposal location of panels and other equipment (including if any infrastructure can be recycled).

3.0 Inductions and Training

3.1 Contractor Training Requirements

Prior to commencing work at the site, all contractor staff must provide evidence of the following:

- Driving License;
- Plant, equipment and machinery Verification of Competency (VOC) certificate/ticket; and
- Any formal HSE training and industry tickets stipulated in Contract Scope of Works document.

It is noted this list of training does not include all requirements for the job (for example, training required under the Health and Safety Management Plan).

Neoen may require further evidence of competency, which will be communicated on an as needs basis.

3.2 Site Inductions

A Project Construction Induction will be prepared for the construction works, and includes details of Neoen expectations in the following topics:

- General Health and Safety
- Emergency Response Procedures
- Risk Management
- Environmental Management
- Cultural Heritage

Completion of the Construction Induction is mandatory for all construction workers, prior to commencement of work on site.

4.0 Legislative and Regulatory Context

All construction 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.

4.1 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*

4.2 Victorian Acts and Regulations

- *Environment Protection Act 1970*
- *Environment Protection Act 2017 (the 2017 Act)*
- *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*

4.3 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)

4.4 Local Planning Policy

- Benalla Planning Scheme
  - Farming Zone (**Clause 35.07**)
  - Rural Floodway Overlay (**Clause 44.03**)
  - Native Vegetation (**Clause 52.17**)
  - Signs (**Clause 52.05**)
  - Car Parking (**Clause 52.06**)

5.0 Description of the Surrounding Environment

The immediate surrounds respective to the project site can be described as follows:

- To the **north** of the site is land used for agricultural purposes. Approximately 500 metres north of the site is the Goorambat Township. Land within the Goorambat Township is generally located within the Township Zone and Low Density Residential Zone. Extending beyond the Goorambat Township, land is generally located within the Farming Zone.
- To the **east** of the site is generally agricultural land and dwellings located within the Farming Zone.
- To the **south** of the site is generally agricultural land and dwellings located within the Farming Zone. The railway line continues further south of the site towards Benalla.
- To the **west** of the site is generally agricultural land and dwellings located within the Farming Zone. In addition, Broken Creek is located to the west and extends generally north to south.

Construction activities will be contained within the identified works boundary that will be defined in the CEMP to be prepared for the project to protect and maintain the surrounding environment.

6.0 Environmental Issues, Objectives and Risk Management Measures

Environmental objectives, targets and risk management measures have been developed for the environmental and cultural heritage issues identified for the Goorambat East Solar Farm Project. These have been informed by applicable legislation, policy and other relevant requirements and comprise:

- **Section 6.1:** Waste Management
- **Section 6.2:** Water Quality / Erosion and Sediment Control
- **Section 6.3:** Air Quality, Dust and Light
- **Section 6.4:** Noise
- **Section 6.5:** Management of Fuels, Oils and Chemicals
- **Section 6.6:** Pest Management and Weed Control
- **Section 6.7:** Protection Flora and Fauna
- **Section 6.8:** Cultural Heritage
- **Section 6.9:** Traffic Management and Offsite Roadworks
- **Section 6.10:** Contaminated Land Management
- **Section 6.11:** Wastewater Management
- **Section 6.12:** Fire Risk and Emergency Management

The management of abovementioned environmental issues is described using the following framework:

- **Issue:** Summary of the environmental management issue and the relation to site activities during the construction of the project.
- **Objectives:** Definition of issue-specific objectives and targets that should be met during construction.
- **Guidance:** Identify relevant regulations, standards, or guidance documents which describe methods, tools or processes that enable the achievement of the construction requirements and approvals.
- **Risk Management Measures:** Details of potential environmental management measures that will enable the prevention or mitigation of potential impacts to ensure that issue specific environmental objectives and targets can be achieved.
- **Site Inspection:** Details whether the Risk Management Measure is subject to regular inspection requirements either as part of the Approval documents Environmental Management Procedures or other legal requirements.
- **Responsibility:** Defines the principal stakeholder(s) where accountability lies for the management of the identified issue.
- **Monitoring:** Identifies physical data collection requirements and the key performance indicators (KPIs) used to monitor the success of the strategies being implemented, to support reporting against EPA Works Approval Conditions.

6.1 Waste Management

6.1.1 Issue

Waste produced during construction activities could adversely impact the environment through inappropriate storage and / or disposal. Inappropriate management can also result in legislative non-compliance. Waste can be described as general solid waste and recycling or as Regulated wastes. Regulated wastes are also referred to as Prescribed Industrial Wastes (PIW) in EPA Guidance documents.

The following wastes are likely to be produced during construction activities (but not limited to):

- Building waste such as timber, plastic and concrete rubble
- Putrescible wastes such as vegetation cleared from construction area
- Waste oils and oily materials from maintenance activities
- Used empty cable drums
- Packaging from chemical products
- General waste from site office, break out area

Poorly managed waste can have negative impact to surrounding amenity if not stored appropriately and disposed of in a responsible manner. Issues associated with poor management of waste during construction activities include potentially contaminated land and waterways, odour and vermin.

6.1.2 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.

6.1.3 Guidance

- *Environment Protection (Industrial Waste Resource) Regulations 2009*
- EPA Victoria Works Approval (2016). WA126632
- 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)

6.1.4 Risk Management Measures

Measure	Regular Site Inspection	Responsibility
All contractors are to prepare a waste management plan for Neoen review prior to commencement of construction.		Contractor
Worksites are to be kept tidy and free of rubbish	✓	Contractor
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. Bins are to be appropriately covered. NOTE: Regulated waste to be segregated from other waste types.	✓	Contractor
On-site storage of Regulated waste must be in designated covered bunded areas, managed to prevent spills or washing off	✓	Contractor

Measure	Regular Site Inspection	Responsibility
contaminants to the environment.		
All regulated waste is to be transported in accordance with EPA requirements.	✓	Contractor
Classification and tracking of any soil removed from site is required. Refer to S7.10 - Contaminated Land Management.		Contractor

6.2 Water Quality / Erosion and Sediment Control

6.2.1 Issue

Contaminated run-off from the construction site could have a direct impact on water quality in the surrounding waterways. Stormwater run-off from the construction site may be contaminated with silt, clays and other construction materials. There is a risk of turbid water leaving the site and entering the nearby sensitive habitats and waterways because of earthworks and/or de-watering operations.

The following aspects of the Project construction activities require management:

- Oil and grease being deposited on roads and other surfaces from trucks and other earth-working equipment.
- Debris and litter from site.
- Spills of chemicals and other hazardous materials such as diesel fuel may impact upon soil and run-off.
- Dust from roadways, sediments from erosion caused by construction activities and vehicles and stormwater runoff impacting water quality.
- Channelling of stormwater run-off may cause erosion of drainage channels. Stormwater run-off causing erosion leading to scouring of land and loss of topsoil. Subsequent increased sediment deposition in on-site drainage systems and receiving water bodies.

6.2.2 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 top soil and silt material leaving the site and entering the surrounding area.
- Minimise the transfer of mud onto Council roads.

6.2.3 Guidance

- WA_W16 During construction, stormwater discharged from the premises must not be contaminated with waste
- EPA Publication 480 – Environmental Guidelines for Major Construction Sites, Section 4: Land Disturbance
- EPA Publication 275 – Construction Techniques for Sediment Pollution Control
- EPA Victoria Works Approval (2016). WA126632
- *Environment Protection Act 1970*

6.2.4 Risk Management Measures

Measure	Regular Site Inspection	Responsibility
Sediment and erosion control devices are to be installed prior to commencement of works in each area and maintained in accordance with the Sediment and Erosion Control Plan (SECP).	✓	Contractor
Existing sediment and erosion controls must be checked for adequacy prior to works in the area (if applicable).	✓	Contractor
An erosion and sediment control register is to be maintained during construction works to facilitate inspection.		Contractor
All sediment control devices are to be inspected, maintained and cleaned weekly and prior to forecast rain to ensure the device is operating effectively.	✓	Contractor
Notify Supervisor if sediment control devices are found to be defective or damaged. They must be rectified immediately.		Contractor
Sediment control devices must be fitted to stormwater pits and drains where required to prevent sediment accumulation in drain and blockages.	✓	Contractor
Stockpiles and collected sediment must not be placed within 20 metres of a waterway, or 10 metres of tree drip lines.	✓	Contractor
Sediment-laden waters must be prevented from leaving the site. Any observed discharges must be reported to Supervisor / Neoen.	✓	Contractor
Stormwater collected in sediment basins or similar, must be tested prior to off-site release, and treated if necessary to meet site discharge turbidity criteria.		Contractor
Direct pumping of water to waterways is not permitted.	✓	Contractor
All plant and equipment are to be inspected for fuel/oil leaks as part of daily pre-start checks or similar (if applicable).	✓	Contractor
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.	✓	Contractor

6.3 Air Quality, Dust and Light

6.3.1 Issue

Potential sources of air emissions from construction activities onsite include the generation of dust from civil works and construction traffic. Given the site is surrounded by agricultural activities it is noted that high levels of seasonal dust exposure already exist. Dust can pose a direct hazard to human health and the surrounding environment and cause a nuisance to the community. Vehicle exhaust and generator emissions may also cause a nuisance if poorly maintained.

Temporary construction lighting may be required for safe onsite activities in low light periods. This has the potential to cause a nuisance to nearby residents.

6.3.2 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).

6.3.3 Guidance

- National Environment Protection (Ambient Air Quality) Measure
- National Environment Protection (Air Toxics) Measure
- *Environment Protection Act 1970*
- *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)

6.3.4 Risk Management Measures

Measure	Regular Site Inspection	Responsibility
Dust control will be undertaken in accordance with the risk management measures below, Neoen procedures and any other actions necessary to minimise dust emissions from the site.		Contractor
Use dust suppression such as water sprays, sprinklers and/or water carts on dust-generating surfaces such as roads. Ensure run-off does not impact on waterways.	✓	Contractor
Modify construction activities during high or unfavourable wind conditions, to minimise dust generation.		Contractor
Regularly remove silt from sediment fences to reduce potential for dust generation (as well as breakthrough / loss to waterways).	✓	Contractor
All road vehicles carrying material that has the potential to generate dust must be covered.	✓	Contractor
Stockpile Management 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 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. Hand watering or installing temporary sprinklers to suppress dust from unstabilised stockpiles and batters.	✓	Contractor
There is to be no burning of vegetation, construction materials or any other waste material on site.	✓	Contractor
Ensure plant is checked and maintained regularly.	✓	Contractor
Limit vehicle movements in sensitive areas. Restricted areas are to be signposted.	✓	Contractor
Comply with speed limit signage. Speed limits are to be reduced in accordance with the Traffic Management Plan to minimise dust and noise generated from vehicles.	✓	Contractor

Measure	Regular Site Inspection	Responsibility
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.	✓	Neoen

6.4 Noise

6.4.1 Issue

Noise produced during construction activities could adversely impact on the amenity of the surrounding residents and land uses. Noise can have a negative impact to the surrounding amenity if it is not appropriately managed and construction occurs outside the permitted hours of operation.

Construction activities likely to produce the highest noise emissions on site include:

- Equipment deliveries
- Concrete pouring
- Crane operations

6.4.2 Objectives

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

6.4.3 Guidance

- *Environment Protection Act 1970*
- 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)

6.4.4 Risk Management Measures

Measure	Regular Site Inspection	Responsibility
All construction equipment shall comply with the manufacturer's guidelines.	✓	Contractor
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.	✓	Contractor
All mechanical plant is to be well maintained and silenced by the best practical means using current technology.	✓	Contractor
All plant and equipment are to be turned off when not in use.	✓	Contractor

Measure	Regular Site Inspection	Responsibility
Regularly communicate the following guidance through Contractor company site inductions and Toolbox meetings: Drive slowly on site and keep revs to a minimum. Keep stereos at a low noise level and do not slam doors. No shouting or swearing on site. Either walk over and talk to somebody or use a radio/phone. Be careful with tools and equipment. Do not drop them. Do not drag materials on the ground. When loading trucks try not to drop material from a height. Load softer material at the bottom where possible. Noise enclosures should always have all doors/hatches closed when the equipment is in use. If you see anything/anyone making unnecessary noise then stop it/them. If the source cannot be stopped then it should be reported	✓	Contractor
All potentially affected residents are to be informed by way of letter drop and/or consultation prior to commencement of noise intensive construction works.	✓	Contractor
If complaints are received regarding construction noise, undertake consultation and if required implement mitigation measures and if required conduct monitoring at the affected residence.	✓	Contractor

6.5 Management of Fuels, Oils and Chemicals

6.5.1 Issue

Fuels, oils and chemicals are likely to be stored onsite for the purposes of refuelling and maintaining construction plant and equipment. Spills of these liquids are a hazard that can lead to the contamination of soils and groundwater at the site and the surrounding waterways and receiving environment.

6.5.2 Objectives

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

6.5.3 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

6.5.4 Risk Management Measures

Measure	Regular Site Inspection	Responsibility
Contractors to provide Safety Data Sheets and hazardous chemical risk assessments for all materials brought onto site.		Contractor
Store all fuels, oils and chemicals onsite in designated bunded, sealed and covered areas. These must be more than 100 metres from a water way.	✓	Contractor
Bunds must be capable of containing 110% of the volume stored.	✓	Contractor
Any generators brought to site must have double bunded fuel compartments.	✓	Contractor

Measure	Regular Site Inspection	Responsibility
Spilt material and rainfall must be regularly removed from bunds to retain volume and minimise risk of overflow.	✓	
Only bring the minimum quantity of liquid chemicals / fuels on site that is required for the job.	✓	Contractor
Ensure all chemicals and fuels are stored in fully labelled containers in good condition, with lids on.	✓	Contractor
Use separate storage for different classes of dangerous goods, e.g. flammable gases and liquids, combustible liquids and corrosive liquids.	✓	Contractor
Fully stocked labelled spill kits containing suitable clean up material are to be provided in all chemical, fuel and other liquid material storage and handling areas. Ensure location is obvious and accessible.	✓	Contractor
All workers to be familiar with spill response requirements in Contractor specific inductions. Contractor to provide spill response procedures for Neoen review.		Contractor
Any release of a liquid must be reported to Neoen and containment / clean-up affected, provided it is safe to do so.		Contractor
Refuelling is only to occur load out area. Dedicated spill kit to be located at refuelling areas.	✓	Contractor
Bund contents to be disposed as regulated waste unless demonstrated clean. Used spill material must be disposed as regulated waste.		Contractor
Regular site inspection for good housekeeping, bund use and maintenance, spill kit stock levels and visible spills.	✓	Neoen Contractor

6.6 Pest Management and Weed Control

Neoen has committed to managing the Project site as a responsible land manager, from prior to construction, through to full commissioning and running of the site. A key point in responsible land management is the proactive management of weeds.

The *Flora and Fauna Assessment Report* for the Project (prepared by AECOM) (refer **Appendix E** of the Planning Permit Application submission) concluded there was evidence of one high threat environmental weed observed within the site. This is referred to as the Horehound *Marrubium vulgara* which is listed as a Regionally Controlled Weed within the Gould Broken Catchment Management Authority (CMA). In addition, these reports concluded no *weeds of national significance* (WoNS) were recorded within the site.

6.6.1 Objectives

- Prevent the introduction and spread of pest flora and fauna
- Effectively control and manage weeds on-site.

6.6.2 Guidance

- *Victorian Catchment and Land Protection Act 1994*
- *Flora and Fauna Guarantee Act 1977*

6.6.3 Risk Management Measures

Measure	Regular Site Inspection	Responsibility
All plant, machinery and construction materials to arrive to site weed-free and present a 'weed and pathogen free vehicle certificate / declaration'. Contractor to retain records.	✓	Contractor
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.	✓	Contractor
Only access the site using approved sealed and gravelled access tracks, and do not go 'off-road' (this is also applicable for protection of cultural heritage).	✓	Contractor
All construction works and laydown areas to be contained within established cleared site areas. No further clearing of vegetation or cutting of tree branches, unless specifically directed in writing by Neoen.	✓	Contractor
On-site areas are to be kept free of weeds. Contractor to manage construction footprint area.	✓	Contractor
*Develop and implement robust weed management and monitoring procedures.		Contractor
*Prevent introduction and spread of pest flora and fauna.	✓	Contractor
*Appropriate weed control to be carried out in disturbed areas after construction to control any weed outbreaks and prevent invasion of adjacent farm land.		Contractor
Construction contractors will be inducted into an environmental management program for construction works.		Contractor

6.6.4 Risk Management Details

Further information has been provided in relation to the abovementioned Risk Management Measures for inclusion in the Construction Management Plan (*) as follows:

- ***Develop and implement robust weed management and monitoring procedures***
  - Efforts will be made to manage weed control on site through the establishment of productive agricultural plants which can actively compete with weeds and maintain high levels of groundcover, as weeds thrive in exposed soil. If required and practically possible plant nutrition will also be maintained through fertiliser application prior to or after construction activities (but not during) to ensure that the productive plants can grow well and develop a competitive advantage against the weed species.
  - The selection of these agricultural plants (apart from otherwise authorised) will be undertaken in consideration of the ability to maintain chemical weed control through use of selective herbicides, which can kill the weed species without killing the plants of value. For example, if the weeds are primarily broadleaf species, the selected plant to seed the site down to may be a vigorous prostrate grass species, as selective broadleaf herbicides do not kill grasses.
  - Records of herbicide usage will be retained to ensure that different herbicide chemistry is rotated, decreasing the chance that weeds on site will develop resistance to different types of herbicides.
  - A survey of weeds will be done regularly across the site, reporting on both the quantity of weeds and the dominant species present. This will enable clear reporting on the effectiveness of the weed control program.

- ***Prevent introduction and spread of pest flora and fauna***
  - Where possible agricultural machinery will be inspected for visual mud or plant contamination prior to site entry.
  - Any new weeds identified will be reported and reviewed by Neoen.

6.7 Protection Flora and Fauna

Vegetation will be required to be removed to allow for the construction works and associated infrastructure such as roads and laydown areas to be developed. Vegetation removal has been minimised through design as much as practical.

The *Flora and Fauna Assessment Report* for the Project (prepared by AECOM) (refer **Appendix E**) identified and recorded the following flora and fauna values within the Project site:

Table 3 Identified Flora and Fauna Values

	Goorambat East Solar Farm
Habitat Zones	22 Habitat Zones of EVC 803 Grassy Woodland recorded equating to 7.871 hectares (2.61 habitat hectares)
Mapped Wetlands	None
Scattered Trees	203 scattered trees (194 large trees and 9 small trees)
FFG Act Listed Species	1 recorded (Buloke)
FFG Act Listed Ecological Community	1 considered present (Victoria Temperate Woodland Bird Community)
EPBC Act listed Species and Communities	No EPBC Act listed Species and Communities are considered likely to have a greater than 'possible' likelihood of occurrence within the site

6.7.1 Objectives

- Protect flora and fauna on-site.

6.7.2 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)

6.7.3 Risk Management Measures

Measure	Regular Site Inspection	Responsibility
Only access the site using approved sealed and gravelled access tracks, and do not go 'off-road' (this is also applicable for protection of cultural heritage).	✓	Contractor
All construction works are to be contained within designated areas. No further clearing of vegetation or cutting of tree branches, unless specifically directed in writing by Neoen.	✓	Contractor
For any activities that require open trenches, trench plugs or ramps are to be installed to provide wildlife egress if the trench is left open overnight.	✓	Contractor

Measure	Regular Site Inspection	Responsibility
Inspect any open trenches and pits regularly for the presence of wildlife.	✓	Contractor
Use suitably qualified zoologist/ or DELWP trained person to salvage and relocate any fauna found on site.		Contractor
Where works occur in proximity to trees, ensure Tree Retention Zones (TRZ) are delineated and signed before works commence in the area.	✓	Contractor
Ensure all vehicles and soil stockpiles are kept away from root zone of all retained trees and vegetation.	✓	Contractor
When driving at dusk and dawn, drive to the conditions and be aware of kangaroos, wombats, deer and other wildlife.		Contractor

6.8 Cultural Heritage

6.8.1 Issue

The site does not contain an area of cultural heritage sensitivity as defined under the Aboriginal Heritage Regulations 2018 (Vic). There is the potential that construction activities may have the potential to impact on Aboriginal cultural heritage due to proximity to existing waterbodies. If Aboriginal cultural heritage is discovered, management practices need to be employed to mitigate further impacts. In accordance with the *Aboriginal Heritage Act 2006*, 'harm' to Aboriginal artefacts includes to *'damage, deface, descrate, destroy, disturb, injure or interfere with'.*

6.8.2 Objectives

- Protect and respect items of Aboriginal cultural heritage.

6.8.3 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)

6.8.4 Risk Management Measures

Measure	Regular Site Inspection	Responsibility
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 Neoen 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.	✓	Contractor

6.9 Traffic Management and Offsite Roadworks

6.9.1 Issue

An increase in traffic movements to and from the site during construction phase has the potential to cause an impact on the amenity, health and safety of the local community and environment. A Traffic Management Plan is to be developed for the proposed works that highlights the requirements for the management of local and site vehicular traffic to ensure the protection of property and personnel and to comply with relevant traffic legislation.

6.9.2 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.

6.9.3 Guidance

- *Road Management Act 2004*
- Traffic management plan to be developed.

6.9.4 Risk Management Measures

Measure	Regular Site Inspection	Responsibility
An approved Traffic Management Plan is to be followed by all staff accessing the site.		Contractor
All local road and site speed limits established are to be adhered to.		Contractor
Vehicle movements are to be restricted to the approved and constructed access roads and designated entry and exit points.		Contractor
A risk assessment will be carried out that demonstrates a delivery is safe to be carried out after hours.		Contractor
Impacts to local road users and pedestrians will be minimised by using appropriate traffic control methods, which may include traffic controllers at certain times.		Contractor
Delivery of equipment and building materials should be staged where possible to minimise disruption to normal traffic flow.		Contractor

Measure	Regular Site Inspection	Responsibility
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.		Contractor
All vehicles associated with the redevelopment must be parked or stored within the boundaries of the site and/or a suitable alternative location within the immediate vicinity.		Contractor
Over-dimensional vehicle transport will only occur via an approved VicRoads permit.		Contractor

6.10 Contaminated Land Management

6.10.1 Issue

Contaminated land is an important issue because of the risks it can pose to the environment, communities and land uses. Contaminated soil may smell or look different to normal soil conditions. Potential sources of contaminated land that may be discovered or occur during construction activities include:

- Soil impacted from historical land uses;
- Contaminated fill material imported to site;
- Sludge excavated from temporary wash-down area collection pit;
- Soil contaminated from chemical or fuel spills or incidents from decommissioning of plant that may contain hazardous substances; and
- Disturbance of naturally occurring acid sulfate soils.

Any soil deemed to be potentially contaminated must be treated as though it is contaminated.

6.10.2 Objectives

- Management of contaminated soil and ASS in accordance with EPA and Neoen requirements.

6.10.3 Guidance

- State Environment Protection Policy (Prevention and Management of Contamination of Land)
- *Environment Protection (Industrial Waste Resource) Regulations 2009*
- Prescribed Industrial Waste – Contaminated Soil – Classification with Management Options, 2011
- Industrial Waste Management Policy (Waste Acid Sulfate Soils)
- 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.

6.10.4 Risk Management Measures

Measure	Regular Site Inspection	Responsibility
Construction Supervisors are to be familiar with the procedures for the identification and management of contaminated soil and potential Acid Sulfate Soils.		Contractor Neoen
Any excess soil from site preparation earthworks and levelling is to be tested to confirm soil classification in accordance with EPA guidance, prior to transporting off-site.		Contractor
If any potentially contaminated soils are encountered, works in the immediate vicinity must cease and Neoen HSE Advisor advised of findings.		Contractor
Areas that are suspected to be contaminated are to be clearly marked and not disturbed until classification of soil has been undertaken.		Contractor
Any potentially contaminated soils must be sampled and classified in accordance with EPA guidance, prior to offsite disposal.		Contractor
Sampling of soils must be designed to provide representative data of the whole volume of soil to be disposed. Analysis should include a combination of targeted contaminants and EPA waste screens. Samples must be collected in a manner that avoids cross-contamination, and samples must be preserved, stored and transported under chain of custody to a NATA accredited laboratory.		Contractor
Any contaminated soils are to be disposed of off-site using an EPA licensed waste transporter and disposed to an EPA licensed landfill and waste tracking receipts provided to Neoen.	✓	Contractor
Any fill material imported to the site must be certified as clean fill, and be free from contamination.	✓	Contractor
There is to be no reuse of potentially contaminated soil on site, except with express written permission from Neoen.		Contractor
A Preliminary Geotechnical Assessment has been undertaken by AECOM and it was determined in accordance with the Australian Atlas of Acid Sulphate Soils Map (1:250,000), the site has been classified as having a low probability of Acid Sulphate Soils (ASS) occurrence. However, if potential or suspected ASS is identified during excavation works, stop work and immediately inform Neoen HSE Advisor. • Potential or Actual ASS must be managed in accordance with EPA guidance • Testing will be required to determine if the soil is Potential or Actual ASS. A suitably experienced consultant should be engaged to advise on testing and ASS management measures. • The aim is to minimise disturbance and oxidation (exposure to air) of the soils. Should disturbance and oxidation occur, containment and treatment (neutralization) of the acid soils and water generated is required.		Contractor

6.11 Wastewater Management

6.11.1 Issue

Wastewater must be contained, treated and disposed so as to not impact the environment. Liquid wastes including wastewater must not be disposed to land, surface water or the environment except in accordance with an EPA license.

Sources of wastewater requiring management include:

- Rainwater and spilt material collected in chemical and fuel bunds
- Wash-water from cleaning of construction equipment at any temporary bunded wash-down areas
- Water impacted with debris and/or fire-fighting foams from emergency response.
- Domestic style wastewater from portable toilets, showers and lunch rooms.

6.11.2 Objectives

- No release or loss of wastewater to the environment.

6.11.3 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)

6.11.4 Risk Management Measures

Measure	Regular Site Inspection	Responsibility
Wastewater generated from construction and ancillary activities will be contained in an impervious tank, bund or system, and regularly consigned for off-site disposal via licensed liquid waste transporter / receiver.	✓	Contractor
Regular checks and management of wastewater storage systems liquid and sludge volumes to ensure there is no risk of overflow.	✓	Contractor
Work areas including construction and setup of office, toilet or service facility are not to be established within 30m of creek, channel or drainage line.	✓	Contractor
Unless agreed otherwise with Neoen, Contractors are to provide sufficient self-contained toilets and lunch/rest areas. Wastewater from these is to be regularly pumped out and disposed at a suitably licensed off-site wastewater treatment facility.	✓	Contractor

6.12 Fire Risk and Emergency Management

6.12.1 Issue

If an emergency was to occur on-site during construction activities such as fire (bush, grass or process fire), flooding and hazardous substance leaks and spills, there is a potential to cause harm to the environment and community through emissions to air, land, surface water and groundwater. Good management practices and following adopted procedures are required by all contractors to minimise the risk of an emergency occurring and the potential impact to the environment and health.

The Principal Contractor is responsible to ensure that potential sources of fire and ignition risk on the project are managed. This will include establishing a Fire Prevention and Control Plan to detail how they will manage this risk in regards to:

- Using plant and equipment (diesel and petrol)
- Bush and grass fire
- Hot works
- Smoking
- Hazardous substances and dangerous goods
- High Fire danger and Total Fire Ban days

It is noted the Construction Contractor may seek an exemption from CFA to allow hot works on total fire ban days.

An Emergency Response Plan is to be prepared for the Project by the Contractor as part of the CEMP and Operational Environmental Management Plan (OEMP).

6.12.2 Objectives

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

6.12.3 Guidance

- *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*

6.12.4 Risk Management Measures

Measure	Regular Site Inspection	Responsibility
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.		Contractor
Smoking is only permitted in designated area. Cigarette butts must be fully extinguished and disposed in a non-combustible container.	✓	Contractor
Petrol vehicles are not to be driven in areas of long grass or vegetation.	✓	Contractor
Contractors are to prepare and implement a Fire Prevention and Control Plan prior to the commencement of construction activities. All contractor staff are to be trained and inducted into the plan.	✓	Contractor
All emergencies are to be reported to Neoen immediately.	✓	Contractor
All vehicles and plant are required to have a fire extinguisher fitted that is in good working order and has an up to date tag test.	✓	Contractor
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.		

7.0 Emergency Response Requirements

An Emergency Response Plan (ERP) will be developed and communicate to all site personnel through site inductions. The ERP will detail potential environmental emergencies that apply to the Project site such as a transformer fire at the proposed substation or a fuel spill into a nearby creek.

The ERP will include (but not limited to) the following:

- A site plan;
- Roles and responsibilities associated with emergency response;
- Internal and external emergency notification procedures;
- Training requirements;
- Information regarding the location of equipment on-site of relevance to emergency services;
- Response procedures;
- Safe evacuation paths;
- A log of emergency events (including response adequacy, communication procedures and improvements);
- Action plan for the recommencement of operation following an event; and
- Control plan of remaining hazards.

The Contractor HSE Advisor will assist in developing and implementing the ERP with a specific focus on emergency responses in relation to environment events. In addition, the Contractor Project Manager will be responsible for the development, implementation and monitoring the ERP. Furthermore, the Contractor HSE Advisor and Contractor Project Manager will prepare an emergency contact list.

8.0 Environmental Incidents and Complaints

8.1 Environmental Incident Reporting

The Principal Contractor is responsible to ensure all environmental Incidents and hazards are reported to Neoen by the relevant contractor and recorded on an incident report form. Neoen personnel will ensure that all incidents and hazards are recorded in the incident reporting system. All incidents must be reported as soon as reasonably practicable to a supervisor, and serious incidents and near misses must be reported immediately. All incidents will be investigated, with feedback on outcomes and corrective actions distributed to personnel.

An incident includes actual or potential impact on:

- People
- Environment
- Plant and property
- Community / Stakeholders / Reputation

Environmental Incidents or Hazards can be classified into three general types:

- Visible: Can be readily seen (e.g. spill or leak)
- Hidden: Not readily seen (e.g. vapours, gases and buried objects)
- Developing: Deteriorating over time increasing in consequence (e.g. rust, vibration and noise)

When identified, assess the risk to yourself and / or the environment. If safe, implement controls to mitigate the hazard. If you cannot control the hazard stop work and report the incident and your observations to a supervisor.

Procedures will be developed as part of the detailed CEMP and OEMP.

Environmental incidents may require reporting to the Environment Protection Authority (EPA). Incidents causing or threatening serious or material harm under the *Environment Protection Act 1970* 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. Neoen will 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 Neoen in accordance with existing Neoen notification protocols.

8.2 External Communications and Complaints Process

It is a goal of Neoen, to conduct construction operations in such a manner that no reasonable community complaints are received. Any complaints received by members of the community due to or during the construction phase must be reported to the Neoen Construction Manager as soon as possible. Neoen will maintain a record of any community complaints.

8.3 Environmental Management Reporting Requirements

The following environmental management reporting requirements will be implemented:

Table 4 Environmental Management Reporting Requirements

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 Neoen 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 Neoen 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.

9.0 Monitoring, Auditing and Review

9.1 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 Neoen 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 Neoen's 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 Neoen Project Manager.

10.0 Record Documentation

Records shall be retained and disposed of in accordance with Neoen's requirements.

Records of the following environment-related documents must be retained onsite:

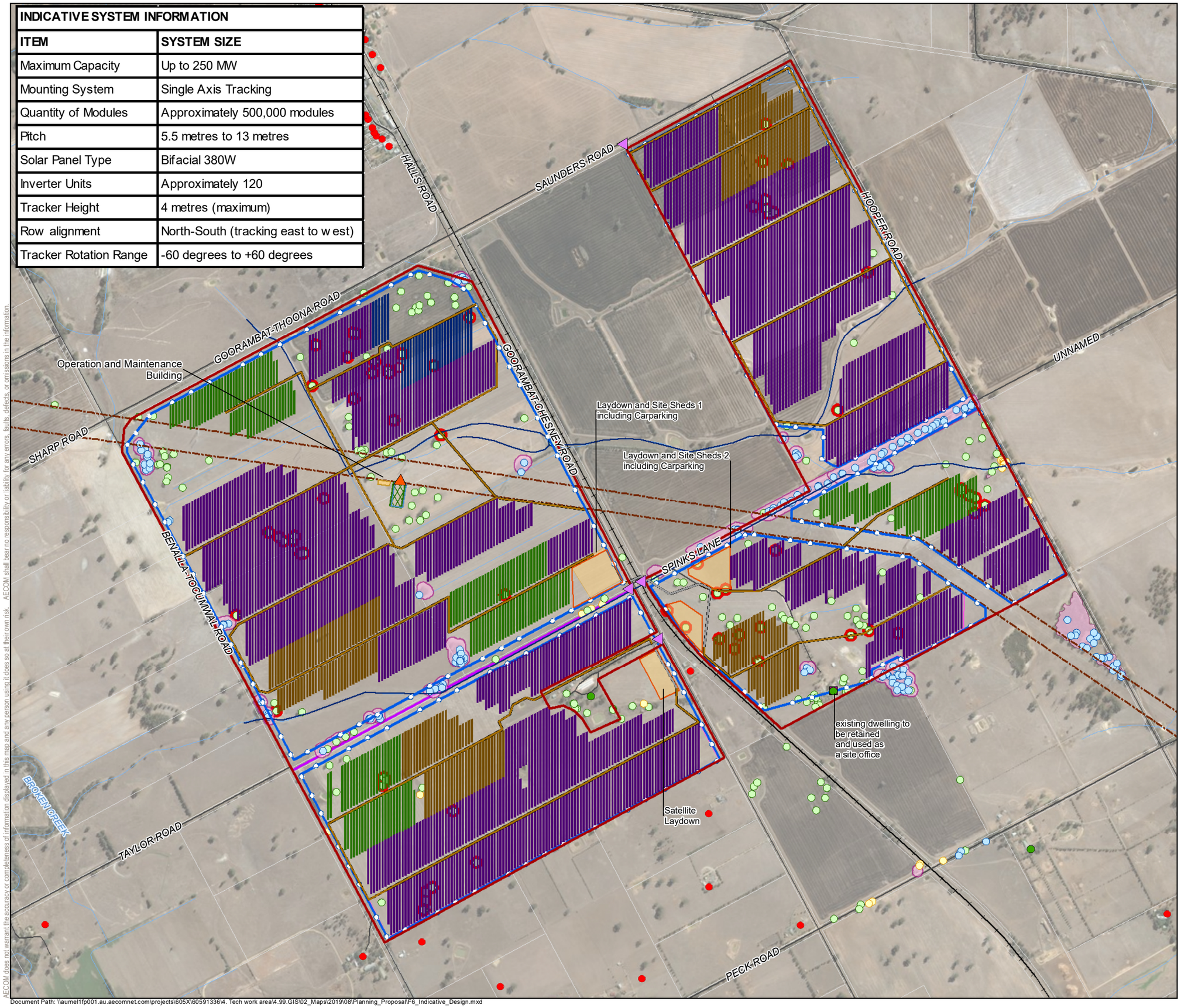
- Environmental (project) induction attendance
- Environmental incidents
- Environment Inspection Reports
- Waste disposal receipts
- Weed and pathogen vehicle/machinery certificates
- Certified clean fill (as required)
- Soil and water sampling results
- Noise monitoring results (if required)
- Community 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 CEMP and OEMP must be kept on-site.

Appendix A

Design Response

INDICATIVE SYSTEM INFORMATION	
ITEM	**SYSTEM SIZE**
Maximum Capacity	Up to 250 MW
Mounting System	Single Axis Tracking
Quantity of Modules	Approximately 500,000 modules
Pitch	5.5 metres to 13 metres
Solar Panel Type	Bifacial 380W
Inverter Units	Approximately 120
Tracker Height	4 metres (maximum)
Row alignment	North-South (tracking east to w est)
Tracker Rotation Range	-60 degrees to +60 degrees



NEOEN AECOM

Coordinate System: GDA 1994 MGA Zone 55

0 0.25 0.5

Kilometers

1:15,000 (when printed at A3)

Legend

- Site Investigation Area
- Grid Connection
- Site Access
- Dwelling (Non-Participating Landowner)
- Dwelling (Participating Landowner)
- Fence
- External Road - 7 metres wide
- Internal Road - 4 metres wide
- Single Axis Tracking Solar Array
- Existing 220kV Overhead Transmission Lines
- Operation and Maintenance Facilities
- Designated Terminal Substation
- Large Scattered Trees (15 metre maximum tree protection zone buffer)
- Small Scattered Trees (15 metre maximum tree protection zone buffer)
- Large Tree in Patches (15 metre maximum tree protection zone buffer)
- Remnant Patches (including 15 metre buffer)
- Native Vegetation Proposed for Removal
- Designated waterways
- Watercourses
- Roads
- Unused Government Road
- Railway
- Cadastre

Note:
Design layout is indicative only and the final design layout will be determined during the detailed design phase

Goorambat East Solar Farm

INDICATIVE DESIGN

PROJECT #:	60591336
CREATED BY:	JB
LAST MODIFIED:	brierej: 16/08/2019
VERSION:	1

Figure 6

A3 size

Document Path: \\aumel1fp001.au.aecomnet.com\projects\605X\60591336\4. Tech work area\4.99.GIS\02_Maps\2019\08\Planning_Proposal\F6_Indicative_Design.mxd