



MEADOW CREEK SOLAR FARM

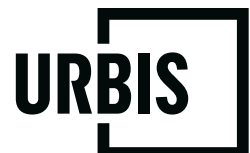
Environmental Management
Plan Framework

1033 Oxley-Meadow Creek
Road, Meadow Creek

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Prepared for
MEADOW CREEK SOLAR FARM PTY LTD
07 June 2024



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We acknowledge, in each of our offices, the Traditional Owners on whose land we stand.

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1. CLICK OR TAP HERE TO ENTER TEXT. PROJECT DESCRIPTION

1.1. OVERVIEW OF PROJECT

The following Environmental Management Plan Framework (EMPF) has been prepared for the Meadow Creek Solar Farm (the Project) by Urbis Ltd, on behalf of Meadow Creek Solar Farm Pty Ltd.

It is noted that given the early stage of the development process, this plan is a framework only and is subject to change. Further details will be provided following issue of a planning permit and confirmation with the construction team on the final detail of the Environmental Management Plan. This is expected to be addressed via condition on the Planning Permit.

The Project comprises of a 566ha, Rural City of Wangaratta Council, Northern Victoria. The proposed development will comprise approximately a 332 MW solar farm, a transmission line extension and a 1000MWh Battery Energy Storage System (BESS) that will contribute significantly to Victoria's renewable energy generation targets of 50% by 2030 and the reduction of greenhouse gas emissions (legislated to achieve net zero by 2050).

1.2. SUBJECT SITE

The site primarily used for agricultural uses with no built form located on the site. The site is located 23 kilometres south-east of Wangaratta forming part of a broader space used for rural and lifestyle farming, characterised by large-sized pastoral holdings. The site is cleared and defined by a flat topography. It is understood that the site is primarily used for livestock other non-intensive agricultural practices.

The site is located 23 kilometres south-east of Wangaratta and 28 kilometres east of Glenrowan. The site is bordered by Docker-Carboor Road to the north, Allan's Lane to the east, and Oxley –Meadow Creek Road to the west. A neighbouring farming lot borders the property to the south.

Below is a list of the immediate surrounds as set in Figure 1:

- A. Immediately north of the site is site is bordered by Docker-Carboor Road, a declared highway providing a single lane of vehicle traffic in each direction (east-west). Beyond this thoroughfare is an extensive agricultural area, consisting primarily of grazing and cropping land, with several dwellings scattered throughout. Beyond this grazing land is Hurdle Creek, which offshoots from the King River in the west
- B. To the east of the site is Allan's Lane, a single lane each traffic runs north south. Adjoining the property to the north east of the site is a property 686 Docker-Carboor Road, Bobinawarrah.
- C. To the south is an agricultural area used for grazing, whereby Sheep Station Creek intersects the site. In the southeast of the site, on the intersection of Allans Lane and Melville Forest-Vasey Road, a dwelling is situated on an individual lot.
- D. To the west is Oxley-Meadow Creek Road, a major thoroughfare running north-south connecting the Alpine National Park and Wangaratta more broadly

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Figure 1 Immediate Surrounds



Source: Urbis

1.3. SCOPE OF WORK

1.3.1. Construction and Operation Details

Given the early stage of the development process (at permit application stage), the following details are estimates only. It is noted that further updates will be made once this information is finalised.

Construction

- Approximately 350 workers during peak construction period
- Approximately 18-24 months construction period
 - Site Set-Up
 - Civil works (access track and hardstand construction)
 - Component Delivery and Installation
 - Substation Delivery and Installation
 - Testing
- There will likely be some overlap between the above stages. A total of 18 to 24 months from initial construction to commencement of commercial operations is anticipated with construction commencing in late 2024.
- It is anticipated that there will be a maximum of approximately 100 construction related vehicles per day during peak construction (start and end of work day).

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Operation

- Up to 37 full time employees for maintenance.

1.3.2. Decommissioning

At the conclusion of the Project's operational life, the Project site will be reinstated to its previous use, including the removal of all buildings and infrastructure.

The expected operational life of the Project is approximately 35 years and is anticipated to commence in 2026. Council and DTP will be notified within two (2) months of the solar farm permanently ceasing operation.

Following permanent cease of operation, all infrastructure, equipment, buildings, structures and works must be removed, and the site or the relevant part of the site must be rehabilitated and reinstated to the condition it was in prior to the commencement of development to allow it to be used for agricultural purposes (or any proposed alternative use). This includes, but is not limited to, all solar panels, power conversion units, operations and maintenance facility, control building, substation, switchyard, and above and below ground electrical infrastructure and equipment. Written consent of the responsible authority will be sought for the retention of any items of infrastructure or other works (such as access tracks or the control building) that are suitable for the ongoing agricultural use of the land (or proposed alternative use).

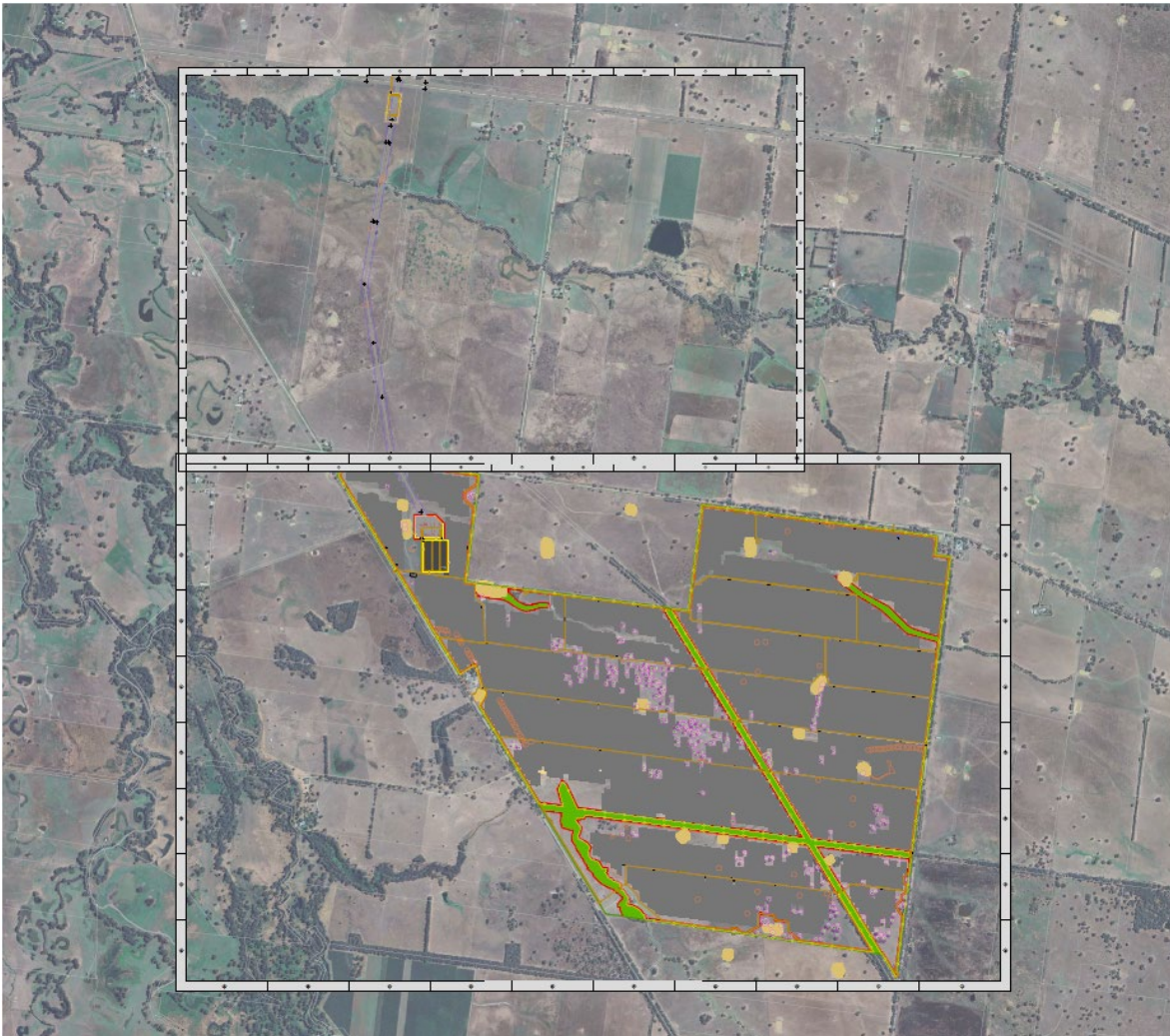
Within approximately three months of the solar energy facility permanently ceasing operation, a Decommissioning Management Plan (DMP) will be prepared by a suitably qualified and experienced person and will be submitted to, approved and endorsed by the responsible authority. The DMP will include, as a minimum:

- Identification of infrastructure, equipment, buildings and structures to be removed, and details of how these will be removed.
- Details of how the site will be rehabilitated.
- A Decommissioning Traffic Management Plan (DTMP), which will be submitted to, approved and endorsed by the responsible authority prior to decommissioning works starting. The DTMP must be approved by the relevant road management authority (or authorities) prior to submission to the responsible authority for endorsement. The DTMP must specify measures to manage traffic impacts associated with removing the infrastructure, equipment, buildings and structures from the site, to the satisfaction of the responsible authority.
- Details on how all infrastructure, plant, equipment and access tracks that are no longer required for the on-going use or decommissioning of the facility will be removed.
- Details on how any waste generation during decommissioning activities will be managed.
- Detailed measures to manage risk to the environment and human health associated to decommissioning activities, if required.
- Details on how the site, or the relevant part of the site, will be reinstated to the condition it was in prior to the commencement of development.
- Identify any other post-activity land uses, if necessary.
- A commitment that all decommissioning works identified in the DMP be completed to the satisfaction of the responsible authority as soon as practicable, but no later than approximately 12 months after the DMP is endorsed, or such other period approved by the responsible authority.
- Any other detailed measure to comply with any other relevant condition of the licence as required.

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1.4. SITE PLAN

Figure 2 Meadow Creek Solar Farm – Detailed Site Plan



Source: Urbis

1.5. TIMING OF WORKS

Works are expected to be conducted over five stages and are anticipated to commence in 2024. These stages and anticipated times are listed below:

- Stage 1: Site set up
- Stage 2: Civil works for access track and hardstand construction
- Stage 3: Component delivery and installation
- Stage 4: Substation delivery and installation
- Stage 5: Commissioning (Hold Point testing)

There will be some overlap between the above stages.

Work will be undertaken during 7:00am to 6:00pm Monday to Friday and 8:00am to 1:00pm on Saturdays. No work is proposed to be carried out on Sundays or Public Holidays. Timing of works will adjust to weather conditions and appropriate measures will be taken in accord to severe weather events, such as peak bushfire season, when required (Table 1).

Table 1 Weather Averages from Wangaratta Aerodrome (dated 6th February 2024)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean High (°C)	32.1	30.9	27.6	22.5	17.4	13.9	13.0	14.5	17.7	21.5	25.8	29.3
Mean Low (°C)	14.4	13.7	10.9	7.0	4.3	2.9	2.5	3.0	4.6	6.5	9.5	11.8
Mean Rain (mm)	47.1	41.2	42.2	39.3	55.8	65.8	62.4	57.4	53.1	52.1	51.2	45.1
Mean number of days of rain \geq 1 mm	4.4	3.5	4.0	4.6	6.8	9.2	10.1	9.5	7.4	6.2	5.4	4.9

1.6. SITE ACCESS

There will be eleven vehicle access points to the solar farm site in order to comply with the Country Fire Authority (CFA) requirements. There will be three access points for accessing the western portion of the site on Oxley-Meadow Creek Road, four access points for accessing the eastern portion of the site on Allan's Lane and four access points for accessing the northern portion of the site near Docker-Carboor Road. Another access point will be provided to the proposed substation through Whorouly-Bobinawarra Road. All the entry points will be designed to accommodate a CFA firefighting vehicle at a minimum.

1.7. DILAPIDATION SURVEY

Before works commence, the EPC contractor will prepare a dilapidation survey including a written report and photos of any existing damage to public infrastructure, which will be submitted to Rural City of Wangaratta Council. The condition of table drains, gravel road surfaces, seals, signs and other public infrastructure fronting the property and abutting at least two properties either side of the development will be included.

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2. PROJECT ROLES & CONTACTS

The following section outline the likely project roles and key accountabilities during the lifecycle of the project. In addition, the Project Team assigned to the project construction and operation by Meadow Creek Solar Farm Pty Ltd as the Applicant would also be responsible and accountable for the following actions:

- Prepare and submit the EMP and other relevant management plans and strategies required under the Planning Permit and conditions of consent and submit (as required) to the responsible authority for approval.
- Engage suitably qualified personnel to manage each phase of the development.
- Maintain website and communication channels including email, postal address, and phone line.
- Notify Council and DTP of commencement and finalisation of construction.
- Notify Council and DTP, and any other relevant agency, of an incident or non-compliance.
- Identify if an amendment to the Planning Permit is required.
- Review internal environmental audit report and ensure performance is maintained.
- Where necessary, revise this EMP and other management plans and submit amendments (as required) for approval to the relevant authority.

2.1. CONSTRUCTION

2.1.1. Project Manager

The appointed Project Manager will have overall responsibility and accountability for environmental performance on the project. The Project Manager is responsible for ensuring consistency with the relevant legislative standards of Australia, including the applicable Australian Standards, along with contractual obligations.

The Project Manager also has further responsibility to procure provision of appropriate resources to ensure the effective implementation of this EMP. The Project Manager is also responsible for ensuring the compliance with Planning Permits as set out in the EPC Contract, reviewing internal audit reports and notifying Council, DTP and any other relevant agency of commencement of construction, incident reporting and non-compliance.

2.1.2. Construction Site Manager

Reporting to the Project Manager, the appointed Site Manager will be accountable for the construction project team and contractors in respect to environmental performance on site through:

- Maintain a working knowledge of the management system and environmental management plans and monitor compliance for the requirements of this EMP.
- Coordinate incident response, including ensuring incident investigation is undertaken and corrective actions carried out.
- Ensure relevant training and qualifications are completed by personnel and maintain induction records.
- Ensure that communication and reporting systems are established and maintained during the development of the project.
- Ensure that complaints are received, registered, and responded to in a proper manner as per the Community Notification Strategy.
- Participate in Environmental Auditing and implement recommendations and corrective actions.

2.1.3. Health, Safety and Environment (HSE) Coordinator

The appointed Project EHS (Environmental Health and Safety) Advisor will report to the Site Manager. The HSE Advisor will perform a key role in the implementation, maintenance, and monitoring of compliance to

this EMP, of categorical importance for the health and safety of the employees on site during the construction lifecycle. Their main responsibilities are:

- Maintain a working knowledge of the environmental management system, environmental management plans, and be aware of all environmental legislative requirements.
- Maintain working knowledge of environmental risks and impacts of the development and measures required to be put in place.
- Undertake a HSE Risk Assessment for the development.
- Carry out site inspections and maintain monitoring of environmental performance.
- Develop a Corrective Action Register.
- Maintain records of compliance with the development consent and management plans.
- Maintain Complaints Register and respond to complaints or nominate a delegate to respond.
- Monitor the Complaints Register weekly to identify any trends in complaints.
- Investigate incidents and identify preventative actions.
- Prepare incident report and implement corrective actions.
- Participate in Independent Environmental Audits and implement recommendations.

2.1.4. EPC Contractors and Sub-contractors

- Undertake works in compliance with the EMP, other management plans and strategies.
- Complete required training and attend toolbox talks where relevant.
- Notify EPC Site Manager of any non-compliance or incidents.
- All personnel are responsible for undertaking activities in accordance with this EMP framework.

2.2. OPERATION

Due to the nature of the passive operation of the solar farm, significantly less environmentally sensitive activities are expected compared to the construction phase. Nevertheless, the operational phase of the project is still subject to the requirements of this EMP framework, and all operational personnel will be responsible for undertaking all the activities in accordance with it.

2.2.1. Operation and Maintenance Site Manager

- Ensure compliance with Integrated Management System of the company.
- Ensure this EMP and other management plans are implemented.
- Review and update the EMP and other management plans as required.
- Carry out site inspections and environmental monitoring.
- Maintain complaints register and respond to complaints.
- Manage incident response.
- Investigate incidents and identify preventative actions.
- Notify the company management of incidents and non-compliances.
- Participate in Independent Environmental Audit and implement recommendations.
- Responsible for overseeing HSE management of the operation activities.

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2.2.2. Operation and Maintenance Contractors

- Operating in compliance with the EMP and other management plans and the conditions of the Planning Permit.
- Notifying the Site Manager of any non-compliance and incidents.

2.3. PROJECT CONTACTS

Once appointed, the following table will provide the contact information for key personnel involved in the lifecycle of the project and is an integral part of the EMP compliance, monitoring and reporting. Key personnel are to be appointed following issue of the planning permit. Concrete details will be provided as part of the EMP prior to the commencement of the project.

Table 2 Project Roles & Contacts

Project Role	Name	Company	Contact Details
Project Manager			
EPC Project Manager			
EPC Site Manager			
EPC HSE Coordinator			
O&M Site Manager			

Table 2 is to be populated by Meadow Creek Solar Farm Pty Ltd following contract award and project resourcing prior to construction commencing and notification will be issued to DTP, Council and all relevant parties.

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3. ENVIRONMENTAL STRATEGY

3.1. SUMMARY OF STATUTORY LEGISLATION

The following table outlines the relevant State and Commonwealth legislation relevant to this EMP and associated management plans.

Legislation	Details
<i>Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)</i>	Works to progress in accordance with requirements in order to avoid impacts on Matters of National Environmental Significance (MNES). The project is highly unlikely to impact on any MNES and thus an EPBC referral is not required.
<i>Environment Effects Act 1978</i>	Requires certain public works to have an environmental impact assessment carried out before proceeding. The Project does not trigger the need for an EES Referral.
<i>Planning and Environment Act 1987</i>	Legislation under which the Project permit would be issued if approved.
<i>Flora and Fauna Guarantee Act 1988</i>	Key piece of Victorian legislation for the conservation of threatened species and communities and for the management of potentially threatening processes. Works to progress in accordance with biodiversity requirements in order to avoid unauthorised impacts on these matters.
<i>Wildlife Act 1975</i>	Framework for members of the community wishing to control, possess, display, breed, trade-in or interact with wildlife. An Authority to Control Wildlife (ATCW) authorisation will be required.
<i>Aboriginal Heritage Act 2006</i>	A chance finds protocol has been prepared to outline obligations under this Act.
<i>Climate Change Act 2017</i>	The Act outlines the State’s long-term carbon emission targets to achieve Net Zero. The proposal is consistent with the Act and would help achieve these objectives, as outlined in Section 4.11.
<i>Environment Protection Act 2017</i>	The Act defines how the Environment Protection Authority Victoria (EPA) works as an independent statutory authority. Subordinate legislation such as regulations sit under this Act.

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3.2. COMMUNICATIONS, REPORTING AND RESPONDING TO ENVIRONMENTAL COMPLAINTS

Urbis has been engaged to undertake consultation (on behalf of Meadow Creek Solar Farm Pty Ltd) with Council, relevant agencies and the local community including affected surrounding landowners.

Urbis informed adjacent property owners of scope of works, possible impacts and main mitigation measures. Further consultation by DTP will be undertaken via the public notice of the Planning Permit application. Ongoing matters raised by stakeholders will be assessed and responded to, as required.

Meadow Creek Solar Farm Pty Ltd will continue to keep direct neighbours, stakeholders and the community informed of the project approval process and pre-construction, construction, and operation phases by:

- Continuing to engage with the community about the project, its impacts, and the approval process.
- Providing information through a letterbox drop on how the community's views have been addressed.
- Enabling the community to seek clarification about the project through the two-way communication channels.

When the final EMP is approved, a complaints website and phone line will be enabled to receive any feedback from the local community if any environmental concerns are raised regarding construction or operational phases. All received complaints will be recorded to analyse possible non-compliance and will be responded, if possible, with mitigation actions to address any possible environmental and/or community impact.

3.3. MONITORING AND AUDITING

It is anticipated that a system of daily walkthrough inspections formulated for the Project will be undertaken by the responsible person from each contractor. The Site Manager would also participate routinely in walkthrough inspections, at least weekly.

This shall ensure daily visual inspections of all construction activities and work areas are conducted to monitor compliance with this EMP framework regarding operations, emergency, and risk management.

Environmental monitoring requirements are to be established prior to and during construction and during operation of the Solar Farm to include:

- Acoustic assessment to comply with operational noise criteria in accordance with *Part 2: Noise limits – Rural area method of EPA Publication 1826.4*.
- Cultural heritage finds.
- Dust generation monitoring.
- Water quality monitoring.
- Any other matters identified in the EMP.

3.4. ENVIRONMENTAL AWARENESS TRAINING

Project Managers and Project Contractors shall be responsible for ensuring that all Project personnel under their control receive both initial and ongoing environmental awareness training to ensure they are familiar with their environmental responsibilities under the EMP.

Project induction will provide all new site employees with an overview of the Project environmental management system and key aspects of the EMP prior to allowing access to the worksite. In addition, each individual contractor shall be required to provide all new employees with environmental induction training which addresses their own Integrated Management System and which at a minimum detail:

- Individual responsibilities under the plan.
- Risk management strategies for assessing potential environmental impacts and for developing appropriate management or control strategies for any activity perceived to pose an environmental risk.
- Key environmental concerns and associated control strategies.

- How hazardous or dangerous goods will be handled.
- Waste minimisation, recycling, and disposal guidelines.
- Incident and emergency response actions including reporting and recording guidelines.
- Complaint handling procedures.

The Induction Training program will be provided to the company's Project Manager for adequacy review prior to inductions taking place.

Project managers, contractors and the HSE Coordinator shall conduct ongoing environmental awareness training for key issues throughout the Project using targeted presentations at daily job pre-starts, toolbox meetings etc, and the use of targeted literature.

Project managers and contractors shall maintain a register of all environmental training provided which records the nature of the training, dates, the names of persons trained, and trainer details as well as any refresher training, if required, after any incident or non-compliance.

3.5. INCIDENT REPORTING

All employees will be required to report environmental incidents. A computerised database should be used for the reporting and recording of these incidents. All employees should have access to the system either directly or through their supervisor. The report would cover what happened, what was done immediately to rectify or control the situation, and corrective actions to be undertaken to prevent the recurrence of the incident.

All environmental incidents shall be investigated to determine the cause and the actions to be taken. Investigations are undertaken as per the procedure, and environmental incidents and corrective actions are reviewed at team meetings.

Throughout the lifecycle of the project, the EPC Site Manager and O&M Site Manager are responsible, during their respective project stages, for reporting any incident which causes or threatens to cause direct environmental harm or through the cumulative impacts and its interaction with previous existing conditions to Council, DTP or any other relevant agency.

3.6. ANNUAL REPORTING

Within 12 months of the approval and annually thereafter an Annual Environmental Management Report is to be submitted to DTP. The report must address the matters required by the project approval plus the matters identified below.

The annual report should additionally address the following matters:

- Identify the standards and performance measures that apply to the project.
- Describe the works carried out in the last 12 months.
- Describe the works that will be carried out in the next 12 months.
- Include a summary of the complaints received during the past year and compare this to the complaints received in previous years (if any).
- Include a summary of the monitoring results for the project during the past year.
- Include an analysis of these monitoring results against the relevant:
 - Impact assessment criteria/limits.
 - Monitoring results from previous years as per relevant management plans.
- Identify any trends in the monitoring results over the life of the project.
- Identify any non-compliance during the previous year.
- Describe what actions were, or are being, taken to ensure compliance.

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4. ENVIRONMENTAL RISK MANAGEMENT

4.1. AIR QUALITY

Objectives

The main objectives of this section of the EMP framework are to comply with Air Quality criterion, specifically dust risk criteria as per EPA legislation, and to perform the development in a manner that minimises dust generation, which could pose a health risk, and prevent dust affecting adjoining dwellings.

Management Strategies and Controls

To minimise impacts and potential emissions from vehicles, equipment or dust generation from work, the following mitigation measures are proposed:

- All equipment is to comply with EPA 1897 measures for machinery hygiene to reduce dust risk.
- All machinery is to be maintained and be in good working order.
- Vehicles and equipment are to be inspected prior to use daily.
- Set appropriate and site-specific speed limits to minimise generating dust.
- Unsealed roads are to be sealed or at a minimum covered with gravel, as soon as practicable.
- Truck loads are to be covered upon entering and exiting the site.
- Water tankers are to be used to control dust where required.
- Avoid dry sweeping of large areas.
- Rehabilitation and stabilisation through vegetation of surfaces left unsealed after the completion of works.
- Truck wheel washes or other dust removal measures to be adopted. However, if a large volume of wastewater is being generated, it should be treated as 'waste' and managed in line with the waste hierarchy, preferably capturing and reusing the waste for wetting exposed areas, if possible.
- Stockpiles to be covered or grass seeded if left unused for an extended period, as per EPA 1895.

Monitoring would be undertaken by visual observations where construction activities could generate fugitive dust emissions such as stockpiles, unsealed roads and any excavation and filling activities. The requirement for dust monitoring may be reviewed if complaints are received.

4.2. BIODIVERSITY

Objectives

The main objectives of this section of the EMP framework are to ensure protection of native vegetation related to the planning permit and limit impacts where possible. Noting that the majority of the subject site vegetation species are exotic, nine of these species are also considered Regionally Controlled weeds and one of them (Chilean Needle-grass) Restricted weed within the *Catchment and Land Protection Act 1994* and as such mitigation measures to avoid their propagation are also proposed. This section also relates to the landscape plan, to ensure management measures for newly planted vegetation.

Management Strategies and Controls

Subject to the final approval, it is anticipated that the following strategies and controls will be undertaken, as required:

- Before work begins, all personnel undertaking works relating to, or potentially impacting flora and fauna will be made aware of all relevant permit conditions and associated statutory requirements or approvals.
- In accordance with AS4970-2009, before any works start, including removal of native vegetation, temporary fences will be installed around areas of retained native vegetation to protect them from any accidental impacts. The fencing will be constructed of star pickets and plain wire, strong webbing, or other clearly visible and durable materials.

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- Where possible, construction stockpiles, machinery, internal roads, and other infrastructure should be placed away from areas supporting retained native vegetation.
- A minimum 15-metre buffer and up to 50 metres to Sheep Station Creek around areas of high-quality potential for Sloane's Froglet habitat.
- Installation of appropriate exclusion fencing and sediment controls around retained waterways, watercourses and wetlands vegetation. Sediment controls should be monitored weekly or after intense rainfall events.
- All retained wet areas, farm dams, and drainage lines should be fenced off to reduce the risk of persons or vehicles entering these areas and spreading chytrid fungus, in order to protect possible Sloane's Froglet populations. Strict vehicle and contractor hygiene protocols are to be present around these areas and other waterways. These should be monitored and enforced by the EPC Project Manager.
- Removal of any habitat trees or shrubs (particularly hollow-bearing trees or trees/shrubs with nests) should be undertaken between February and September to avoid the breeding season for most fauna species. If any habitat trees or shrubs are proposed to be removed, this should be undertaken under the supervision of an appropriately qualified zoologist to salvage and translocate any displaced fauna.
- Implementation of Tree Protection Zones (TPZs) to prevent indirect losses of native vegetation during construction activities.
- As indigenous flora provides valuable habitat for indigenous fauna, it is recommended that any landscape plantings that are undertaken as part of the proposed works are conducted using indigenous species sourced from a local provenance.
- Supplement the loss of hollows from the removed large trees by placing nesting boxes in the retained scattered trees in the north east.
- Installation of wildlife-friendly fencing should be provided for linear woodland patches.
- All construction personnel should be aware of ecologically sensitive areas to minimise the likelihood of inadvertent disturbance to areas marked for retention. Native vegetation (areas of sensitivity) should be included as a mapping overlay on any construction plans.
- A licenced wildlife salvage team should be on-site during tree removal to catch and relocate (if appropriate) any wildlife encountered in hollow-bearing trees or dams. If any native wildlife is found injured or stressed at the worksite, then the site supervisor should contact WIRES 1300 094 737.
- Ensure that vehicle wheels and machinery entering the site do not carry weed plant material or seeds.
- Ensure that areas with declared noxious weeds are properly cleared and treated if possible, avoiding accidental propagation of seedlings.
- Sterile exotic crops or native ground cover species should be considered, where practical if plantings are required beneath solar panels to minimise the impact of weed incursion into retained native vegetation.
- All material stockpiles, vehicle parking and machinery storage will be located within cleared areas or areas proposed for clearing, away from ecological sensitive areas.

4.3. FIRE AND HAZARDS

Objectives

The main objectives of this section of the EMP framework are to recommend measures to mitigate and respond to bushfires and on-site fire events complying with Country Fire Authority Guidelines 2023.

Management Strategies and Controls

Subject to the final approval and input from the CFA, it is anticipated that the following strategies and controls will be undertaken, as required:

- The Emergency Management Plan must be adhered to Preliminary Bushfire Risk Assessment and regard given to the CFA's Guideline for Renewable Energy Installations.
- Safe distances are to be maintained to electricity transmission lines.

- A 10-metre-wide fire break is shown on the concept plans for the collector substation and conservation areas. Additionally, a 10-metre-wide fire break is shown on all the boundary area, except a small portion of the south-western corner, where no panels are to be installed. This fire break incorporates a 4-metre-wide perimeter road. The fire breaks must be free of vegetation and obstacles at all times; no plant material or equipment of any kind is to be stored in the fire breaks.

4.4. HERITAGE

Objectives

The main objectives of this section of the EMP framework are to implement measures regarding unexpected heritage items being encountered and ensuring they are managed appropriately to protect their historical significance.

Management Strategies and Controls

Subject to the final approval, it is anticipated that the following strategies and controls will be undertaken, as required. These include a summary of the measures outlined in the Cultural Heritage Management Plan to identify and protect any Aboriginal Cultural Heritage Items that could exist on the site.

- Cultural Heritage Induction for all site contractors and sub-contractors prior to the commencement of any works. The induction must be facilitated by a representative of the Taungurung Land and Waters Council (TLaWC) and assisted by a Heritage Advisor. Details about the induction process should be followed as outlined in the CHMP.
- Prior to any works, TLaWC must be notified via email (careforculture@tlawc.com.au) at least 10 days prior to the commencement of works. Similarly, TLaWC must be notified in no later than 10 business days after all works have been completed.
- A copy of the approved CHMP must be available and present onsite for the duration of the works.
- Information regarding Aboriginal Cultural Heritage, including the CHMP should be treated as Sensitive Information and not be distributed in any way without TLaWC written permission.
- A total of 3 heritage inspections must be undertaken throughout the duration of the works. The RAP must provide at least 3 business days' notice prior to the time they wish to enter the Activity Area.
- All material collected during the preparation of the CHMP from the Activity Area must be returned to TLaWC within 3 months of the approval of the CHMP. The RAP will be the caretakers of the Aboriginal cultural heritage and may choose to rebury the artifacts within an agreed location, as outlined in the CHMP.
- Heritage Advisors have the opportunity to complete artifact analysis at the TLaWC office with assistance from the Field Services Officers (FSOs), this is preferential to TLaWC. TLaWC requires 5 days' notice to book the office space.
- When the design and construction methodology for the Meadow Creek Solar Farm are finalised, and before the commencement of the works, a meeting must be held between the Project Manager, Site Manager and the Registered Aboriginal Party. The purpose of the meeting is to discuss the location, nature and extent of any ground-disturbing works and determine the locations that will be either salvaged or avoided.
- No Works within Updated Areas of Potential and Registered Aboriginal Places should be undertaken as outlined in the CHMP. Fencing should be erected and these matters discussed during the induction session.
- If Salvage Zones as determined by the CHMP are to be impacted, archaeological salvaging will be undertaken following the methodology outlined in the CHMP.
- Prior to any tower construction north of Hurdle Creek an archaeological salvage must occur following the methodology in Condition 13 of the CHMP.
- Contingency Plans for unexpected discoveries of Aboriginal Cultural Heritage and dispute resolution will need to follow matters as outlined in the CHMP.

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- A non-compliance might trigger the requirement for a cultural heritage audit under Part 6 of the *Aboriginal Heritage Act 2006*. If non-compliance is identified, the following measures need to be undertaken:
 - Cease all works within the Activity Area.
 - Notify the RAP and FP-SR at compliance.aboriginalvictoria@dpc.vic.gov.au
 - Follow the contingency plans within the CHMP for discovery of unidentified Aboriginal Cultural Heritage during the works.
 - Prepare a program of remedial action in consultation with the RAP, Project Manager, Site Manager, and a Heritage Advisor if required.

4.5. NOISE & VIBRATION

Objectives

The main objectives of this section of the EMP framework are to take all necessary steps to ensure that no noise or other disturbance during construction or operation impact detrimentally to the amenity of adjoining receivers and to comply with relevant statutory requirements to noise limits.

Management Strategies and Controls

- Project noise limits must be kept in accordance with EPA 1826

Table 3 Applicable Project Noise Limits

Periods (as defined in EPA 1826)		dB level limit
Day	7:00-18:00 Monday-Saturday	46dB
Evening	18:00-22:00 Monday-Saturday 7:00-22:00 Sundays and public holidays	41dB
Night	22:00-7:00 All days	36dB

- Construction work will be undertaken, when scheduled, during 7:00am to 6:00pm Monday to Saturday. No work will be carried out on Sundays or Public Holidays unless separate approvals have been obtained.
- Within the first year of operational life after construction, a Post-Construction Acoustic Assessment will be prepared and submitted to the responsible authority.
- Consideration will be given during selection of equipment with a lower sound power level where possible. Use low-noise saw blades where possible.
- Connect to the electricity grid as early as possible to avoid the use of diesel generators.
- Sequencing operations so that vibration-causing activities do not occur simultaneously.

4.6. SOIL AND WATER

Objectives

The main objectives of this section of the EMP framework are to outline measures to manage potential flood, surface water quality and stormwater run-off impacts, enable appropriate site drainage without altering flooding regimes to surrounding sites and prevent unnecessary soil disturbance.

Management Strategies and Controls

Subject to the final approval, it is anticipated that the following strategies and controls will be undertaken, as required:

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- Gross pollutant traps may be installed at constructed culverts to maintain water quality levels downstream. This would also work as a sediment control protection measure, as a sediment trap.
- If possible, vegetation to be planted around the culverts to provide additional biological treatment for the stormwater runoff.
- Soil disturbance is to be avoided where possible, especially around water bodies, such as through the use of handheld machinery rather than heavy machinery. Where soil is disturbed stabilisation and rehabilitation is to be undertaken, for example through vegetation, rolled erosion control products or spray-on soil stabilisers.
- In all excavation activities, subsoil and topsoil are to be separated and replaced in their natural configuration to assist revegetation.
- Topsoil is to be stockpiled appropriately to minimise weed infestation, maintain soil organic matter, and to maintain soil structure and microbial activity.
- Tree felling must avoid soil disturbance where possible.
- Foundations for the photovoltaic arrays should be located away from areas that exceed flood depths of 0.5m and flow velocities greater than 1.0 m/s. Where this cannot be achieved, an increases maintenance frequency should be adopted to monitor possible erosion at the foundations.
- The lowest edge of the panel arrays shall maintain 300mm clearance to the 1% AEP flood level where possible. Maintaining this clearance will help mitigate any risk of flow redirection in large events as well and mitigate the risk of blockage with debris in the small openings under the panel arrays.

4.7. TRAFFIC AND TRANSPORT

Objectives

The main objective of this section of the EMP framework is to maintain the surrounding road network, avoid damage to existing infrastructure and to reduce impacts of potential traffic increases and maintain a safe road network.

Management Strategies and Controls

The strategies and specific controls will be outlined in a Traffic Management Plan (TMP) prepared for the project as a condition of consent and in consultation with Council, VicRoads and any other relevant stakeholders. It is expected to include, as a minimum, measures to ensure that:

- Internal site access roads are to be constructed to the requirements of the CFA.
- Vehicle maintenance and monitoring controls to be undertaken by the EPC contractors and sub-contractors.
- Noise controls to be installed where reasonable and practicable.
- Schedule for construction vehicle movements to be consistent with the allowed working hours (7:00 and 18:00 Monday to Saturday) for all stages. Any site access required during operational period will generally be Monday to Friday between 6:00 and 16:00 but may occasionally take place on Saturdays if necessary.
- Consultation plans with the local community and monitoring of related traffic complaints (if received).
- Confirmation of expected traffic volumes generated by the solar farm for all work stages.
- Identification of all Heavy Vehicle (HV) and Over-Dimensional (OD) vehicle haulage routes for all work stages.
- A mechanism to review identified haulage route road conditions prior to the commencement of works.
- Mechanisms/agreements (if deemed necessary) to maintain haulage route roads and road infrastructure, including local public roads used by site traffic, during construction works and to reinstate roads to at least pre-construction conditions.
- Qualify any requirement for specific work stage construction traffic management plans.

- Qualify and identify any relevant mechanisms for OD vehicle permits and traffic management requirements.
- Confirm on-site the adequacy of available sight distances along all proposed site access locations and intersections.

4.8. VISUAL AMENITY & LIGHT SPILL

Objectives

The main objectives of this section of the EMP framework are to minimise glint and glare impacts to surrounding land uses during operation, minimise negative visual amenity impacts on neighbouring sites and to address any light spill impacts on adjacent sites.

Management Strategies and Controls

Subject to the final approval, it is anticipated that the following strategies and controls will be undertaken, as required:

- Urgent maintenance works during hours of darkness may have external security lights. Any operation during darkness hours should have consideration to lighting impacts on adjacent receivers when possible.
- All lighting installed and operated at the site must comply with AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting.
- Landscaping will be implemented in accordance with the Landscaping Strategy to ameliorate any possible visual and glint and glare impacts on adjacent receivers.
- Using non reflective or muted toned materials for the transmission towers, if possible.

4.9. WASTE

Objectives

The main objective of this section of the EMP framework is to ensure that generated waste during construction, operation and decommission is disposed responsibly and lawfully in accordance with EPA legislation.

Management Strategies and Controls

A Waste Management Plan is to be prepared as a condition of consent, detailing all measures to be taken through the lifecycle of the project, these could include, but are not limited to:

- Any waste material that is unable to be reused, re-processed or recycled will be disposed at a facility approved to receive that type of waste.
- Site induction to include waste management information.
- Recording of all waste by contractors.
- Use of pre-order and prefabricated material where possible.
- Waste recycling through separation and storage of recyclable and non-recyclable materials. Separate storage for putrescible, cardboard, and mixed recycling waster.
- Collection of waste by a licensed contractor.
- Green waste (including compost from the onsite) and topsoil is to be recycled for use in site landscaping if possible.
- Waste collection must only take place during working hours and days only.
- Any hazardous waste is to be segregated from other waste types and stored in banded areas and managed to prohibit spills or washing off.

4.10. ENVIRONMENTAL MANAGEMENT SYSTEMS

The construction and operation of the Project must be in accordance with environmental management systems that are consistent with AS/NZS ISO 14001. This is to be undertaken by the construction team during the development of its construction methodology. Environmental management systems provide organisations with a framework and systematic approach to achieving their organisation level objectives for environmental management and sustainability and driving continuous improvement.

Environmental management systems for the Project must be consistent with the parent company organisation level policies, plans, procedures, Project-specific management plans, and activities to provide a systematic method of managing the environmental aspects of the Project that are within each organisation's control or influence. Key components must include:

- Leadership and commitment.
- Environmental policy.
- Responsibilities and authorities for environmental management.
- Environmental risk and opportunity assessment and actions to address these.
- Requirements for setting and achieving objectives and achieving compliance with environmental legislation.
- Requirements for competency and awareness.
- Communication and reporting.
- Management of documentation and records.
- Operational control including emergency preparedness and response.
- Monitoring procedures and internal and external audit program.
- Processes for responding to incidents and non-conformance and implementing corrective and preventative action.
- Review and continuous improvement.

Contractors must develop and implement an environmental management system that is certified to AS/NZS ISO 14001. The environmental management system must be appropriate to the contractor's activities for the Project and be reviewed by Meadow Creek Solar Farm Pty Ltd.

4.11. SUSTAINABILITY AND CLIMATE

The proposed Solar Farm would greatly contribute towards achieving Victoria's climate targets for 2030 and net zero by 2050. With approximately 332 MW of installed peak PV power, the proposal would help reducing up to circa 0.5% operational emissions reduction (based on 80,064,500 tCO₂e 2021 electricity source emissions) and up to 1% operational emissions reduction from electricity as energy source within the State.

This would also allow Victoria to meet around 11% of the 2030 Renewable Energy Storage Target of 2.6 GW for 2030 and 5% of the 2035 target of 6.3 GW. Moreover, the proposed project would allow Council to meet its operational emissions reduction target from electricity as energy source, as per Council's Environmental Sustainability Strategy 2021-2026. This would power the target of Council to reduce their emissions by 50% compared to 2015/2016 levels by 2025 and their target to source at least 50% of their electricity demand by 2025.

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5. DISCLAIMER

This report is dated 07 June 2024 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Ltd (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Meadow Creek Solar Farm Pty Ltd (**Instructing Party**) for the purpose of EMPF (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

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This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

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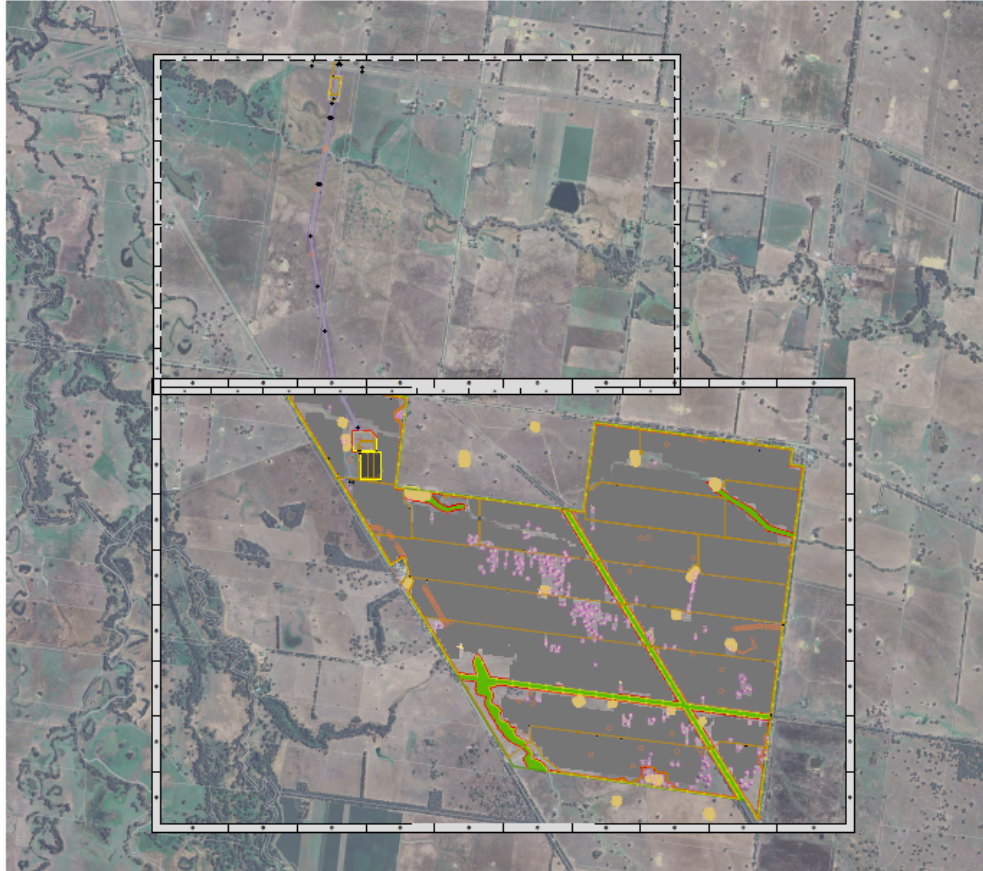
APPENDIX A

SITE PLAN

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MEADOW CREEK SOLAR FARM DETAIL SITE PLAN



GENERAL NOTES

- DESIGN IS CONCEPT ONLY. NOT FOR CONSTRUCTION.
- CONCEPT DESIGN WILL COMPLY WITH THE CFA DESIGN GUIDELINES AND MODEL REQUIREMENTS RENEWABLE ENERGY FACILITIES V4 (2023).
- OPERATION OF THE FACILITY TO ENSURE ADHERENCE TO FIRE DANGER PERIODS, HIGH FIRE DANGER AND TOTAL FIRE BAN DAYS.
- BESS & PV SYSTEM AND ASSOCIATED EQUIPMENT SHALL HAVE SET-BACK FROM SECURITY FENCE OF MINIMUM 100M.

BESS LAYOUT AND DESIGN

- REFER TO MEADOW CREEK SOLAR FARM BESS GENERAL ARRANGEMENT DRAWING SOLAR PANEL BANK LAYOUT AND DESIGN.
- ACCESS OF A MINIMUM SIX (6) METRE SEPARATION BETWEEN SOLAR PANEL BANKS AS PER CFA GUIDELINES.
- UNBROKEN SOLAR PANEL BANK AREAS TO BE UNDER 125M AS PER CFA GUIDELINES.
- PV MODULES TO INCLUDE ANTI-REFLECTIVE COATING (ARE) LOW/NO/VEGH TRANSMISSION (L/N/V) PV GLASS OR EQUIVALENT AND ANODISED PV FRAMES OR EQUIVALENT.
- SOLAR PANEL BANK AREAS TO HAVE GRASS/VEGETATION MAINTAINED TO 100MM UNDER THE ARRAY INSTALLATION OR NON-COMBUSTIBLE MULCH SUCH AS STONE. VEGETATION MANAGEMENT CAN BE ACHIEVED THROUGH GRAZED PADDOCKS.
- NO EXTERNAL LIGHTING IS PROPOSED.

FIRE BREAKS

- DESIGN ADHERES TO CFA REQUIREMENTS FOR FIRE BREAKS. FIRE BREAKS TO BE ESTABLISHED AND MAINTAINED IN LINE WITH THE FOLLOWING:
 - AROUND THE PERIMETER OF THE FACILITY, COMMENCING FROM THE BOUNDARY OF THE FACILITY OR FROM THE VEGETATION SCREENING INSIDE THE PROPERTY BOUNDARY.
 - AROUND THE PERIMETER OF CONTROL ROOMS, ELECTRICITY COMPOUNDS, SUBSTATIONS AND ALL OTHER BUILDINGS ON-SITE.
 - BE A MINIMUM OF 10M, AND AT LEAST THE DISTANCE WHERE RADIANT HEAT FLUX (OUTPUT) FROM THE VEGETATION DOES NOT CREATE THE POTENTIAL FOR IGNITION OF ON-SITE INFRASTRUCTURE.
 - FIRE BREAK TO BE VEGETATION FREE AT ALL TIMES AND TO BE NON-COMBUSTIBLE. CONSTRUCTED USING EITHER MINERAL EARTH OR NON-COMBUSTIBLE MULCH SUCH AS CRUSHED ROCK.
 - FIRE BREAK TO BE FREE OF OBSTRUCTIONS AT ALL TIMES. NO PLANT OR EQUIPMENT OF ANY KIND IS TO BE STORED IN FIRE BREAKS.

VEGETATION MANAGEMENT AND LANDSCAPING

- THERE IS TO BE NO LONG GRASS OR LEAF LITTER IN AREAS WHERE PLANT AND HEAVY EQUIPMENT WILL BE WORKING.
- SOLAR PANEL BANKS ARE TO HAVE GRASS/VEGETATION MAINTAINED TO 100MM UNDER THE ARRAY INSTALLATION OR NON-COMBUSTIBLE MULCH SUCH AS STONE. VEGETATION MANAGEMENT CAN BE ACHIEVED THROUGH GRAZED PADDOCKS.
- GRASS TO BE MAINTAINED BELOW 100 MM IN HEIGHT DURING DECLARED FIRE DANGER PERIODS.

EMERGENCY SERVICE ACCESS

- ACCESS ROADS TO BE TO BE OF ALL-WEATHER CONSTRUCTION AND CAPABLE OF ACCOMMODATING A VEHICLE OF 15 TONNES. ACCESS ROADS TO COMPLY WITH CFA REQUIREMENTS & PLANNING PERMIT.
 - CONSTRUCTED ROADS TO BE A MINIMUM OF 6M IN WIDTH WITH A 4M VERTICAL CLEARANCE FOR THE WIDTH OF THE FORMED ROAD.
 - PARKING BAYS TO BE INCORPORATED EVERY 600M AND AT LEAST 20M IN LENGTH, WITH A MINIMUM OF 6M IN WIDTH, WHERE ROADS ARE LESS THAN 600M LONG, AT LEAST ONE PARKING BAY IS TO BE INCORPORATED.
 - THE AVERAGE GRADE MUST BE NO MORE THAN 1 IN 7 (14.4% OR 6.1°) WITH A MAXIMUM OF NO MORE THAN 1 IN 5 (20% OR 11.3°) FOR NO MORE THAN 10M.
 - RODS IN THE ROAD MUST HAVE NO MORE THAN 8 IN 8 (12.5% OR 7.1°) ENTRY AND EXIT ANGLE.
- ACCESS ROADS AND HARDSTANDS TO BE KEPT CLEAR AT ALL TIMES.

FENCING

- BLACK PVC COATED CHAIN WIRE SECURITY FENCING TO BE 2.3M WITH 300MM OF BARBED (OR EQUIVALENT WIRE) FOR A TOTAL MAXIMUM HEIGHT OF 3.5M, IN ACCORDANCE WITH PLANNING PERMIT.
- GATES TO BE INSTALLED AT APPROPRIATE INTERVALS TO ALLOW ACCESS FOR LANDSCAPING MAINTENANCE ACTIVITIES INSIDE THE SITE.

WATER SUPPLY

- FOR THIS FACILITY, WITH A BATTERY ENERGY STORAGE SYSTEM AND WITH NO RETICULATED WATER AVAILABLE, THE FIRE PROTECTION SYSTEM MUST INCLUDE A FIRE WATER SUPPLY IN STATIC WATER STORAGE TANKS, WHERE THE STATIC WATER TANKS ARE TO (SIGNAGE TO COMPLY WITH CFA GUIDELINES):
 - COMPLY WITH AS 2419.1 AUSTRALIAN STANDARD FIRE INDEMNANT INSTALLATIONS.
 - SHALL BE OF NOT LESS THAN 288,000L EFFECTIVE CAPACITY, OR AS PER THE PROVISIONS FOR OPEN YARD PROTECTION OF AS 2419.1-2005 FOR A PERIOD OF NO LESS THAN FOUR HOURS AT 20L, WHICHEVER IS THE GREATER.
 - THE QUANTITY OF STATIC FIRE WATER STORAGE IS TO BE CALCULATED FROM THE NUMBER OF FIREBRANTS REQUIRED TO FLOW FROM AS 2419.1-2005, TABLE 3.1.
 - FIRE INDEMNANTS MUST BE PROVIDED AND LOCATED SO THAT EVERY PART OF THE BATTERY ENERGY STORAGE SYSTEM IS WITHIN REACH OF A 10M HOSE STREAM ISSUING FROM A NOZZLE AT THE END OF A 60M LENGTH OF HOSE CONNECTED TO A FIRE INDEMNANT OUTLET.
 - THE FIRE WATER SUPPLY MUST BE LOCATED AT VEHICLE ENTRANCES TO THE FACILITY, AT LEAST 10M FROM ANY INFRASTRUCTURE (ELECTRICAL, SUBSTATIONS, INVERTERS, BATTERY ENERGY STORAGE SYSTEMS, BUILDINGS).
 - THE FIRE WATER SUPPLY MUST BE REASONABLY ADJACENT TO THE BATTERY ENERGY STORAGE SYSTEM AND SHALL BE ACCESSIBLE WITHOUT UNDOE CHANGES IN AN EMERGENCY, I.E.G. FIRE WATER TANKS ARE TO BE LOCATED CLOSER TO THE SITE ENTRANCE THAN THE BATTERY ENERGY STORAGE SYSTEM.
 - STATIC WATER TANK SHALL BE AN ABOVE-GROUND WATER TANK CONSTRUCTED OF CONCRETE OR STEEL.
 - THE STATIC WATER STORAGE TANKS MUST BE CAPABLE OF BEING COMPLETELY REFILLED AUTOMATICALLY OR MANUALLY WITHIN 24 HOURS.
 - HARDSTAND AND ACCESS ROAD TO BE KEPT CLEAR AT ALL TIMES.
 - THE HARD-SUCTION POINT MUST BE PROVIDED, WITH A 150MM FULL BORE ISOLATION VALVE EQUIPPED WITH A STORZ CONNECTION, SIZED TO COMPLY WITH THE REQUIRED SUCTION HYDRAULIC PERFORMANCE ADAPTERS THAT MAY BE REQUIRED TO MATCH THE CONNECTION ARE 125MM, 100MM, 50MM, 30MM, 25MM, 20MM STORE TREE ADAPTERS WITH A MATCHING SLANK END-CAP TO BE PROVIDED.
 - THE HARD-SUCTION POINT MUST BE POSITIONED WITHIN FOUR (4) METRES TO A HARDSTAND AREA AND PROVIDE A CLEAR ACCESS FOR EMERGENCY SERVICE PERSONNEL.
 - ALL-WEATHER ROAD ACCESS AND HARDSTAND SHALL BE PROVIDED TO THE HARD-SUCTION POINT. THE HARDSTAND SHALL BE MAINTAINED TO A MINIMUM OF 15 TONNES GVM, 8M LONG AND 5M WIDE OR TO THE SATISFACTION OF THE RELEVANT FIRE AUTHORITY.
 - THE HARD-SUCTION POINT MUST BE PROTECTED FROM MECHANICAL DAMAGE WHERE NECESSARY.
 - AN EXTERNAL WATER LEVEL INDICATOR MUST BE PROVIDED TO THE TANK AND BE VISIBLE FROM THE HARDSTAND AREA.

CAR PARKING

- CAR PARKING AREA IS LOCATED WITHIN PROXIMITY TO THE ENTRANCE TO THE SITE WITH A TOTAL CAPACITY OF SEVEN (7) VEHICLES. DIMENSIONS TO BE CONFIRMED WITH ROAD DESIGNER TO BE IN ACCORDANCE WITH CAR PARKING DESIGN GUIDELINES GAUSE 52.06.

HYBRID SOLAR FARM & ACCOUPLED BESS SPECIFICATIONS	
GRID TRANSFER LIMIT	200 MW
BETA AREA (ha)	588.1 ha
SOLAR FARM	
SOLAR PV DC CAPACITY	200 MW
SOLAR PV AC CAPACITY	300 MW
INVERTER RATIO CAPACITY	300 MW @ 11:1 RATIO
TOTAL SYSTEM ACDC CAPACITY	500 MW
TRANSFORMER CAPACITY	1.1 MW @ 20% OVERLOAD
TOTAL SOLAR TRANSFORMERS	18
PV MODULE TYPE	MONO CRYSTALLINE PERC
AVAILABLE CAPACITY	410 MW
MODULE DIMENSIONS	2.08M x 1.05M x 0.35M
MODULES PER STRING	24
PV FRAMEWORK	3000L X 6000L TRACKER
TRACKING RANGE	+/- 60 DEGREE TRACKING
PIVOT	180
BATTERY ENERGY STORAGE SYSTEM	
BATTERY ENERGY STORAGE CAPACITY	100 MWh @ 300V
MAXIMUM CHARGE RATE (C-RATE)	0.5 C-RATE
MAXIMUM DISCHARGE RATE (C-RATE)	0.5 C-RATE
MAXIMUM POWER OUTPUT (MW)	100 MW @ 300V
MAXIMUM ENERGY STORAGE CAPACITY (MWh)	100 MWh @ 300V
MAXIMUM POWER OUTPUT (MW)	100 MW @ 300V
TRANSFORMER CAPACITY	1.1 MW @ 20% OVERLOAD
TOTAL BESS TRANSFORMERS	18

GENERAL LEGEND

[Symbol]	DEVELOPMENT BOUNDARY
[Symbol]	BOUNDARY FENCE
[Symbol]	OVERHEAD CABLE 22KV
[Symbol]	INTERNAL ROAD
[Symbol]	EXTERNAL VEGETATION BUFFER 8M
[Symbol]	FIRE SAFETY BUFFER 10M
[Symbol]	CLASH RETAINED
[Symbol]	EASMENT
[Symbol]	CULTURAL SENSITIVITY AREA
[Symbol]	PARKING BAY
[Symbol]	TRANSFORMER LINE TOWER
[Symbol]	GATE
[Symbol]	CULVERT
[Symbol]	SOLAR SUBSTATION
[Symbol]	VEGETATION - REMOVED
[Symbol]	VEGETATION - RETAINED
[Symbol]	TRANSFORMATION 200M 10M
[Symbol]	SOLAR TRACKER (170)
[Symbol]	STAFF PROTECTION 200M 10M
[Symbol]	TO STAFF PROTECTION (160)
[Symbol]	SEWERING TRACKER (160)

PROJECT

MEADOW CREEK SOLAR FARM

1023 OXLEY-MEADOW CREEK RD, MEADOW CREEK
VICTORIA, AUSTRALIA

Level 10, 477 Collins Street | Melbourne VIC 3000 AUSTRALIA | +61 3 9863 4666 | URBIS Pty Ltd | ABN 50 106 296 228



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REV	DESCRIPTION	DWN	CHK	DATE	PROJECT DIRECTOR: BRENTON BEGGS
C	ROR REVIEW	AF	MB	21.08.2024	
B	ROR REVIEW	AF	MB	15.04.2024	
A	ROR REVIEW	AF	MB	25.03.2024	
	ROR REVIEW - DRAFT	AF	MB	28.03.2024	

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CLIENT

MEADOW CREEK SOLAR FARM

SCALE

AS SHOWN

DRAWING TITLE

COVER SHEET

ISSUE

SCALE

AS SHOWN

DRAWING NO.

001-CS

PROJECT NO.

P0050228

NORTH

↑

REVISION

C

ADVERTISED PLAN



PART 1: SITE PLAN
 PART 2: ELECTRICAL PLAN
 PART 3: CIVIL PLAN
 PART 4: ENVIRONMENTAL PLAN
 PART 5: WATER MANAGEMENT PLAN
 PART 6: ROAD PLAN
 PART 7: UTILITIES PLAN
 PART 8: LEGEND
 PART 9: INDEX MAP

GENERAL LEGEND

- DEVELOPMENT BOUNDARY
- BOUNDARY FENCE
- OVERHEAD CABLE ZONE
- INTERNAL ROAD 6M
- EXTERNAL ROAD 6M
- EXTERNAL VEGETATION BUFFER 6M
- FIRE SAFETY BUFFER 10M
- DAM EFTANED
- FENCEMENT
- CULTURAL HERITAGE AREA
- FENCED MAT
- TRANSMISSION TOWER
- GATE
- CLUSTER
- SOLAR INVERTER
- VEGETATION - REMOVED
- VEGETATION - RETAINED
- TREE PROTECTION ZONE 6M
- SOLAR TRACKERS (170)
- BATTERIES TRACKERS (100)
- TRANSFORMERS (10)
- BATTERIES TRACKERS (100)

PROJECT
MEADOW CREEK SOLAR FARM
 10233 ORLEY-MEADOW CREEK RD, MEADOW CREEK
 VICTORIA, AUSTRALIA
 Level 10, 477 Colina Street | Melbourne VIC 3000 AUSTRALIA | +61 3 8983 4668 | URBIS Pty Ltd | ABN 50 105 296 228



REV/DESCRIPTION	DWN/CHK	DATE	PROJECT DIRECTOR: BRENTON SEGGS
C FOR REVIEW	AP	21.05.2024	
B FOR REVIEW	AP	15.04.2024	
A FOR REVIEW	AP	26.03.2024	
FOR REVIEW - DRAFT	AP	08.03.2024	

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CLIENT
MEADOW CREEK SOLAR FARM
DRAWING TITLE
 DETAIL PLAN 01

ISSUE
 SCALE
 1:3000 @ A3
DRAWING NO.
 201-F1
PROJECT NO.
 P0050228
REVISION
 NORTH
 C

ADVERTISED PLAN



HYBRID SOLAR FARM & ACCOMPANYING BESS SPECIFICATIONS	
GRID TRANSFORMER RATING	200 MVA
INVERTER RAY	500 MW
SOLAR FARM	
SOLAR PV DC CAPACITY	532 MW
SOLAR PV AC CAPACITY	208 MW
SUBSTATION NAME CAPACITY	500 MVA (UP TO 2 MW)
TOTAL QUANTITY BESS	50000
TRANSMISSION CAPACITY	15 MW @ 110KV (3000A)
TOTAL SOLAR TRANSMISSION	50
PV MODULE TYPE	MONO CRYSTALLINE PERC
PV MODULE CAPACITY	3100 W
PV MODULE DIMENSION	1.70M x 1.10M x 30MM
MODULES PER STRING	24
PV FRAMEWORK	STEEL & ALUMINUM
TRACKING RANGER	11 800 000 000 000 000 000
PIVOT	360
MULTI-PURPOSE STORAGE SYSTEM	
MINI UC BATTERY CAPACITY & SYSTEM EFFICIENCY	100 MWH @ 90%
SUBSTATION NAME CAPACITY	500 MVA (UP TO 2 MW)
TOTAL QUANTITY BESS	50
TRANSMISSION CAPACITY	3.0 MW @ 110KV (3000A)
TOTAL BESS TRANSMISSION	50

GENERAL LEGEND	
[Red Line]	DEVELOPMENT BOUNDARY
[Yellow Line]	BOUNDARY FENCE
[Orange Line]	OVERHEAD CABLE DRAIN
[Light Green Line]	INTERNAL ROAD (M)
[Dark Green Line]	EXTERNAL VEGETATION BUFFER (M)
[Red Area]	ROAD SAFETY BUFFER (M)
[Yellow Area]	DRAIN RETAINERS
[Purple Area]	BURNING
[Light Blue Area]	CULTURAL HERITAGE AREA
[Light Green Area]	PARKING BAY
[Black Line]	TRANSMISSION LINE TOWER
[Black Line]	GATES
[Black Line]	COURTY
[Black Line]	SOLAR SUBSTATION
[Red Circle]	VEGETATION - RETAINED
[Green Circle]	VEGETATION - RETAINED
[Blue Circle]	TRAIL PROTECTIVE COAT (M)
[Black Circle]	SOLAR TRACKERS (170)
[Black Circle]	ADDRESS TRACKERS (130)
[Black Circle]	25 METRE TRACKERS (100)
[Black Circle]	30 METRE TRACKERS (100)

PROJECT
MEADOW CREEK SOLAR FARM
 1032 OXLEY-MEADOW CREEK RD, MEADOW CREEK
 VICTORIA, AUSTRALIA
 Level 10, 477 Collier Street | Melbourne VIC 3000 AUSTRALIA | +61 3 8963 4088 | URBIS Pty Ltd | ABN 50 105 296 228



REV	DESCRIPTION	DWN/CHK	DATE
1	ISSUE FOR PERMIT	AP	21.03.2024
2	FOR REVIEW	AP	15.04.2024
3	FOR REVIEW	AP	25.03.2024
4	FOR REVIEW - DRAFT	AP	28.02.2024

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PROJECT DIRECTOR BRENTON BEGGS

CLIENT
MEADOW CREEK SOLAR FARM

ISSUE
 SCALE
 1:5000 @ A3

DRAWING TITLE
DETAIL PLAN 02

DRAWING NO.
202-FI

PROJECT NO.
P0050228

NORTH

REVISION
C





ADVERTISED PLAN