Construction Environmental Management Plan

Wyalong Solar Farm

PLAN

MYT-AU-PL-PRO-EV-0004

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1 PURPOSE

Environmental management plans (EMPs) describe how actions might impact on various aspects of the environment (biophysical, social, economic) in which they occur and set out clear commitments from the person or entity taking the action on how those impacts will be avoided, minimised and managed. EMPs also consider the impacts of other projects that may be occurring at the same time (i.e. cumulative impacts).

This CEMP sets out the framework for environmental management to enable MYT to meet its environmental obligations and, along with its contractors, to implement environmental management best practices to identify, manage and mitigate environmental impacts during the construction of the Wyalong SF.

2 SCOPE

The CEMP enables the construction team to demonstrate to the regulator that the construction activities will be managed appropriately.

The CEMP presents tables of conditions and commitments (Tables 7.2 and 7.3), general management procedures for the site (Section 8), a summary of site characteristics (Section 9), the environmental management system (Section 10), the inspection and auditing regime (Section 11), the environmental context (Section 12), the environmental management measures (Section 13) and the monitoring regime (Section 14).

The management measures presented in Section 13 are for environmental aspects for which specific management plans (listed below) have not been created.

The following management plans are stand-alone plans and are not attached to this CEMP:

- the Aboriginal Cultural Heritage Management Plan (ACHMP)
- the Biodiversity Management Plan (BMP)
- the Traffic Management Plan (TMP)
- the Waste Management Plan (WMP)

The following management plans are attached to this CEMP:

- the Erosion and Sediment Control Plan (ESCP) – Appendix D
- the Noise Management Plan (NMP) – Appendix H
- the Spill Response Plan (SRP) – Appendix E
- the Weed and Pest Management Plan (WPMP) – Appendix C

The Environmental Monitoring Plan, attached as Appendix B, summarises the monitoring measures and the management plans listed above. This is done to consolidate the monitoring information. However, the plans listed above are the primary source of this monitoring information and should be consulted if they are more recently updated than this CEMP.

3 DEFINITIONS

Term	Definition
Contractor	Any independent contractor engaged directly by MYT to work on one of its Workplaces
HammerTech	HammerTech is a cloud-based software platform that MYT uses to support their HSE systems, processes, and daily field management into one paperless, integrated workflow that is used across all MYT operations
Non-conformance	A failure to meet one or more of the existing requirements
Procore	A 3rd Party management platform used by MYT that is designed to connect all stakeholders throughout the construction lifecycle.
Project	Wyalong Solar Farm
Site	Newll Highway, Wyalong
Sub-contractor	An entity engaged by a MYT contractor, who engages its own employees to complete activities/works on MYT sites

4 ABBREVIATIONS

Abbreviation	Definition
AHIMS	Aboriginal Heritage Information Management System
Accent	Accent Environmental Pty Ltd
AES	Accommodation and Employment Strategy
ALARP	As low as reasonably practicable
AHD	Australian Height Datum
AS	Australian Standards
BoP	Balance of Plant
BAL	Basic Left Turn
BAR	Basic Right Turn
BESS	Battery energy storage system
BAM	Biodiversity Assessment Method
BC Act	Biodiversity Conservation Act 2016
BC Regulation	Biodiversity Conservation Regulation 2017
BDAR	Biodiversity Development Assessment Report
BMP	Biodiversity Management Plan
BFMP	Bushfire Management Plan
BSC	Bland Shire Council
C&SEP	Consultation and Stakeholder Engagement Plan
Cwlth	Commonwealth
CIRP	Complaint Investigation and Response Plan
CoCs	Conditions of consent
CEMP	Construction Environmental Management Plan

DECCW	Department of Environment, Climate Change and Water
DoEE	Department of the Environment and Energy
DPE	Department of Planning and Environment
DPIE	Department of Planning, Industry and Environment
DC	Development Consent
ERP	Emergency Response Plan
EPC	Engineering, procurement and construction
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EIA	Environmental impact assessment
EIS	Environmental impact statement
EMP	Environmental management plans
EMS	Environmental Management Strategy
EP&A	Environmental Planning and Assessment
ESCP	Erosion and Sediment Control Plan
ESCO	ESCO Pacific Australia Pty Ltd
GIS	Geographic information system
ha	Hectare
HESQ	Health, safety, environment and quality
HMP	Heritage Management Plan
HTE	High-threat exotic
JSEA	Job safety environmental analysis
km	Kilometre
LALC	Local Aboriginal Land Council
LP	Landscaping Plan
LEP	Local Environmental Plans
LGA	Local Government Area
MNES	Matters of National Environmental Significance
MW	Megawatt
MYT	Mytilineos-RSD Australia
NC Act	Nature Conservation Act 1992
NSR	Nearest sensitive receivers
NSW	New South Wales
NMP	Noise Management Plan
O&M	Operations and Maintenance
OEH	Office of Environment and Heritage
OEMP	Operational Environmental Management Plan
PCT	Plant Community Type
PW	Priority weeds
PoEO Act	Protection of the Environment Operations
RE	Regional ecosystems
RAP	Registered Aboriginal Party
TfNSW	Transport for NSW
RFS	Rural Fire Service
SWMS	Safe work method statements
SDS	Safety data sheet

km2	Square kilometre
SES	State Emergency Service
SEPP	State Environmental Planning Policy
TMP	Traffic Management Plan
TPZ	Tree Protection Zone
WMP	Waste Management Plan
WPMP	Weed and Pest Management Plan
WoNS	Weeds of National Significance
WH&S	Workplace health and safety
Wyalong SF	Wyalong Solar Farm

5 ORGANISATIONAL STRUCTURE, ROLES AND RESPONSIBILITIES

5.1 Key project stakeholders

A range of stakeholders are associated with the Wyalong WF project and these include regulators, direct project stakeholders and community stakeholders. Table 5.1 lists the key project stakeholders.

Table 5.1 Project stakeholders

Regulators	Project stakeholders	Community stakeholders
• **DPIE** • **Bland Shire Council** • **Registered Aboriginal Parties (RAPs)** • **NSW Rural Fire Service** • **Dept of the Environment and Energy (DoEE)** • **Transport for NSW (or TfNSW)** • **SafeWork NSW** • **Essential Energy**	• ESCO Pacific • MYT • Balance of Plant (BoP) Civil Contractor • BoP Electrical Contractor • Operations and Maintenance (O&M) Contractor • Specialist subcontractors • Specialist consultants • Transport and logistics companies • Project financiers/ investors	• The Host farm • Non-host farms • Other neighbours • Local business owners • Local employers • Local suppliers • Local employees • Local accommodation providers

5.2 Project organisational structure

The organisational structure of the project is important when it comes to understanding the roles and responsibilities of the various project stakeholders. A high-level, generalised depiction of the project's organisational structure is shown in Figure 5.1

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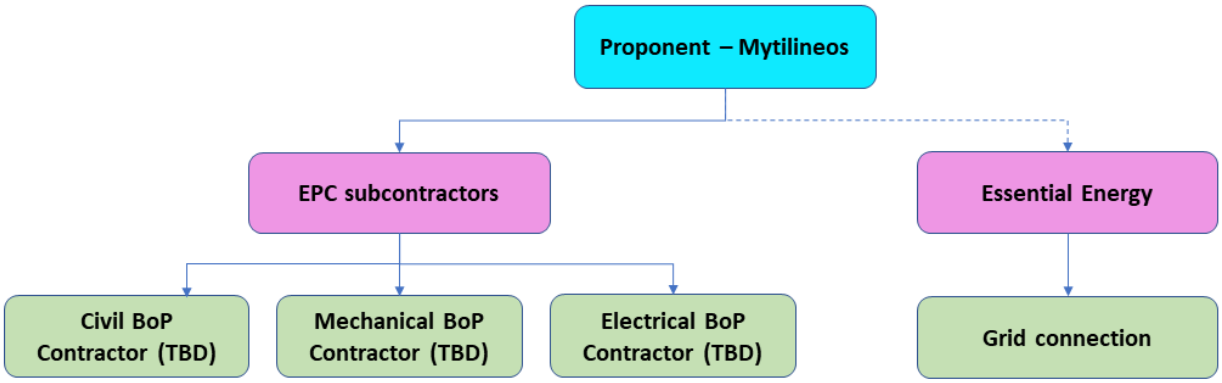

Figure 5.1 Project organisational structure

5.3 CEMP roles and responsibilities

Roles and responsibilities of project stakeholders must be described clearly. All personnel have responsibility for their own actions and impacts on the environment.

Figure 5.2 shows Project roles and their relationships the Table 5.2 details the roles and responsibilities for management and team members throughout the construction of the project with respect to the CEMP

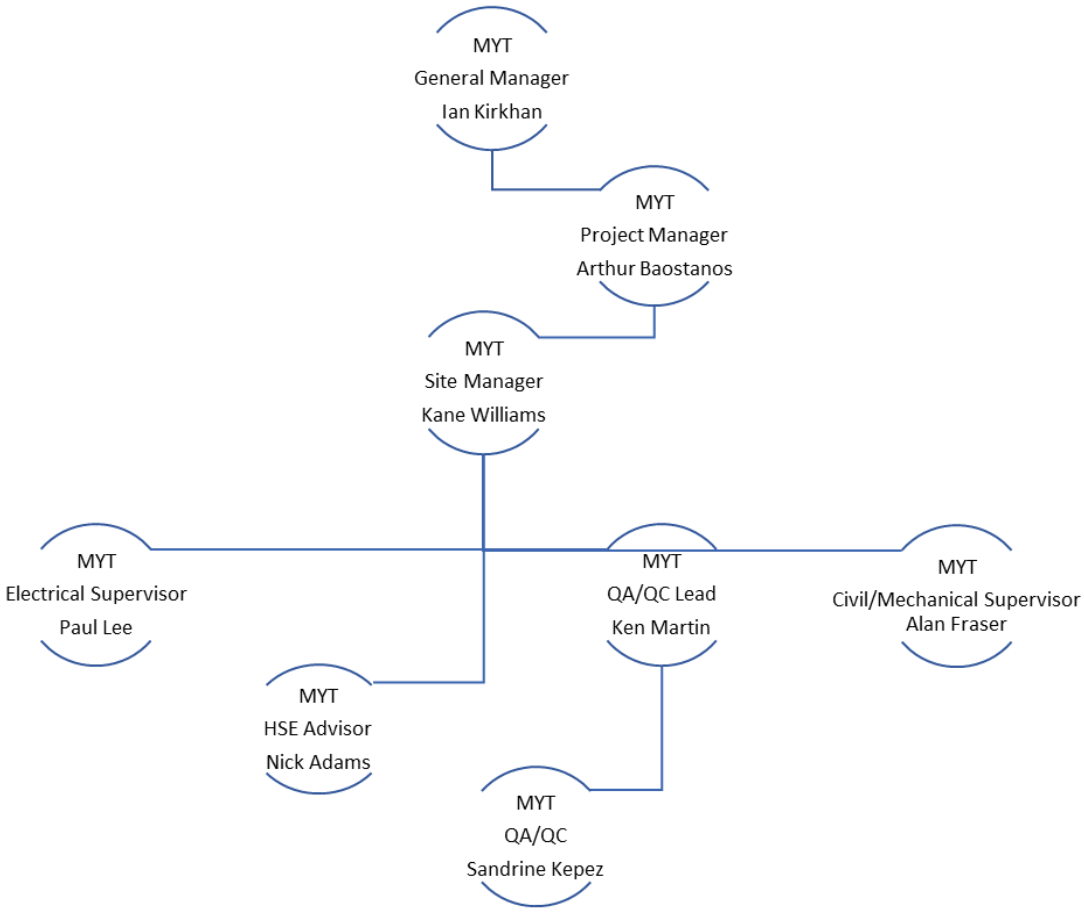

Figure 5.2 Project roles and their relationships

Table 5.2 CEMP roles and responsibilities

Position title	Responsibilities
MYT Project Director	responsible for project delivery with ultimate responsibility for ensuring the project meets regulatory requirements
MYT Project Manager	• hold overall responsibility for environmental management at the site • provide general support to the Community Liaison Manager, the Construction Manager and health, safety, quality and environmental (HSQE) management team and for ensuring the Project Director is informed on all major project developments • manage environmental risks during construction • review, understand, approve and support implementation of the CEMP

Position title	Responsibilities
	• ensure adequate resources are provided for the implementation of the CEMP • minimise environmental impact by implementing appropriate systems of work and ensuring appropriate products and equipment is used • ensure resources and procedures in place for maintenance of the workplace, plant, machinery and hazardous substances • provide adequate information, training, instruction and supervision of workers • monitor the site to assist with preventing environmental impact.
MYT Site Manager	• responsible for the general supervision and day-to-day coordination of works on the Project site • ensure all site works are completed in accordance with the contractor and subcontractor scopes of works • review, understand, approve and support implementation of the CEMP • ensure adequate resources are provided for implementation of the CEMP • minimise environmental impact by Implementing appropriate systems of work and ensuring appropriate products and equipment are used • ensure the workplace, plant, machinery and hazardous substance storages are maintained appropriately • implement training, instruction and supervision of workers • identify and control potential environmental hazards/risk management associated with environmental emergencies • report non-compliances to the Project Manager • provide support to the Site Engineer, Superintendent and HSQE management team and ensure the Project Manager is informed of all major project developments • oversee completion of emergency response exercises annually • assess emergency response capabilities • ensure compliance with all relevant environmental legislation • promote environmental awareness in the workplace • maintain consultative mechanisms.
MYT HSE Advisor	• provide safety advice to the project team. • implement all environmental, fire protection, and safety plans • ensure subcontractor EMPs are consistent with the CEMP • ensure construction works are conducted in accordance with the CEMP • ensure MYT staff and subcontractors are adequately trained and instructed in their environmental obligations and requirements, as outlined in the CEMP • identify and control potential environmental hazards/risks • routinely liaise with MYT Project Manager and Construction Manager regarding environmental issues • report environmental incidents to the Project Manager and Construction Manager in accordance with CEMP requirements • routinely liaise with the Community Engagement representative • routinely report landowner or community complaints or suggestions to the Community Engagement representative

Position title	Responsibilities
MYT Community Liaison Manager	• liaise with Council (BSC) regarding accommodation • liaise with landholders, community representatives, traditional owners, contractors, council representatives, planning and local government authorities as well as utilities and infrastructure owners on land management and environmental matters as required • ensure stakeholders are informed prior to the commencement of project activities that may affect them or cause them concern • implement and maintain system for tracking and responding to stakeholder complaints, concerns and suggestions.
All Wyalong SF personnel	• understand and implement the control measures detailed within the CEMP, as appropriate • undertake all activities in accordance with the CEMP and associated agreed and approved procedures • be aware of the appropriate contact person for environmental matters • attend site induction training and any environmental training provided • report any activities, observed incidents, hazards and near misses that may result or has resulted in an environmental incident or breach of the relevant Planning Permit conditions to a supervisor • report all observed non-compliances • continually seek to identify areas for improvement of environmental management.
Visitors	• undertake a visitor's induction prior to entering on to site • be accompanied by an inducted project representative at all times on site • follow environmental procedures • report all environmental incidents and hazards • participate in any additional training as required

Note. The HSQE management team mentioned above includes the Safety and Environment Advisor, Quality Lead and the Quality Inspector

5.3.1 Mytilineos

MYT has overall responsibility for environmental management during project construction as defined in the EPC scope of works. This includes ensuring adequate resources are provided for implementation of the CEMP.

All staff (including subcontractors) are responsible for the environmental performance of their activities and for reporting any environmental hazards and incidents. Environmental responsibilities for project personnel (including subcontractors) are contained within position descriptions, relevant procedures and work instructions.

MYT will ensure that contractors and subcontractors implement the established environmental controls by:

- clearly identifying the respective responsibilities of MYT and the subcontractors for the controls within the CEMP and each sub-plan included in the CEMP

- reviewing and approving the subcontractors' management plans to ensure that the controls implemented by the subcontractors' through their management plans are consistent with, and support, the CEMP for the project.
- ensuring that lines of responsibility and supervision between MYT and the subcontractors are clearly defined
- clearly identifying the environmental responsibilities for MYT staff and the subcontractors with position descriptions, relevant procedures and work instructions (the overarching roles are set out in Table 5.2)
- ensuring that the contractors and subcontractors understand that implementing the project environmental controls will be critical to achieving the performance objectives and targets established in this CEMP (and other EMPs).

5.3.2 Others

Essential Energy

Essential Energy will conduct grid connection works under this CEMP.

Other contractors and subcontractor responsibilities

All contractors and subcontractors are responsible for their activities and ensuring that these activities minimise adverse impact on the environment. To manage their environmental impacts, contractors and subcontractors should prepare a CEMP which assesses the potential impacts of their activities and the measures they would take to minimise impacts. Other contractors include:

- Civil BoP Contractor – responsible for the design and construction of all civil works
- Mechanical BoP Contractor – responsible for the design and construction of all mechanical works

Electrical BoP Contractor – responsible for the design and construction of all electrical component

6 PROJECT OVERVIEW

The Wyalong Solar Farm (Wyalong SF) is a circa 70 megawatt (MW) solar farm development. ESCO Pacific Australia Pty Ltd (ESCO) submitted the development application in 2018 to the Department of Planning, Industry and Environment NSW (DPIE). Mytilineos-RSD Australia (MYT) acquired the project from ESCO and is now the owner and the engineering, procurement and construction (EPC) contractor and is responsible for these aspects of the project.

The project site is located approximately 100 km southwest of Forbes in Central West New South Wales (NSW) and approximately 350 km west of Sydney.

The development is an area of approximately 260 ha and is located predominantly on agricultural (cropping) land.

MYT engaged Accent Environmental Pty Ltd (Accent) to provide this Construction Environmental Management Plan (CEMP).

The environmental commitments made under the Development Consent (DC) - Application Number: SSD-9564 - requires the preparation, approval and implementation of a CEMP and subordinate environmental management plans (EMPs). The DC is attached to the CEMP as Appendix A.

6.1 The project

6.1.1 Project Location

The Wyalong SF is a solar energy project approximately 100 km southwest of Forbes in Central West NSW and approximately 350 km west of Sydney. Wyalong SF will occupy approximately 260 ha and is located predominantly on agricultural (cropping) land.

The closest town is West Wyalong, which is approximately 7.5 km to the southwest. The Wyalong SF site is located within the Rural (General Rural) and Rural (Agricultural) zones of the Bland Shire Council (BSC). Electricity would be connected to the National Energy Market (NEM) via existing 132 kilovolt (kV) transmission line, which crosses the project area

The locality of the solar farm is shown below in Figure 6.1 and the layout of the solar farm is shown in Figure 6.2.

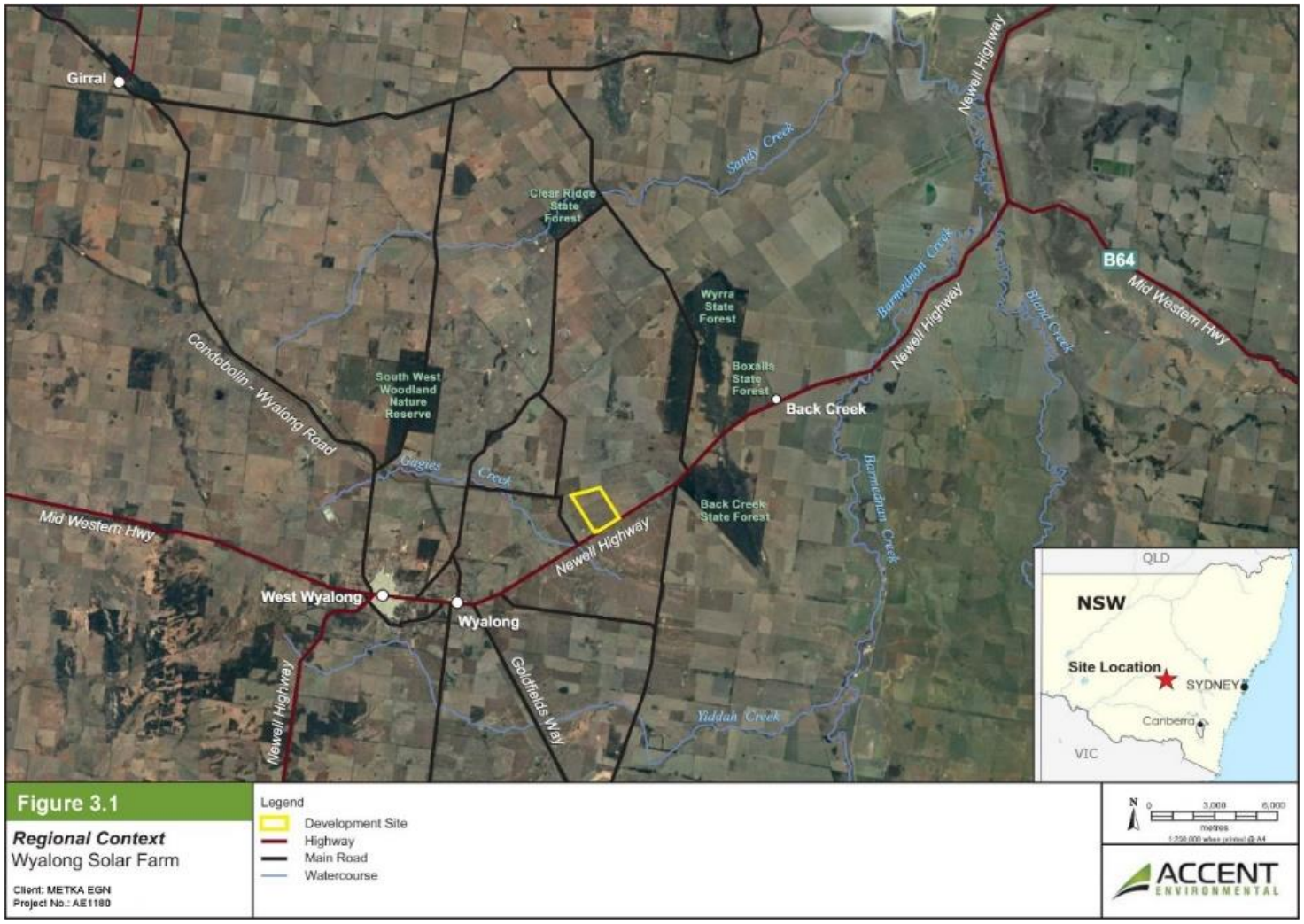

Figure 6.1 Locality map

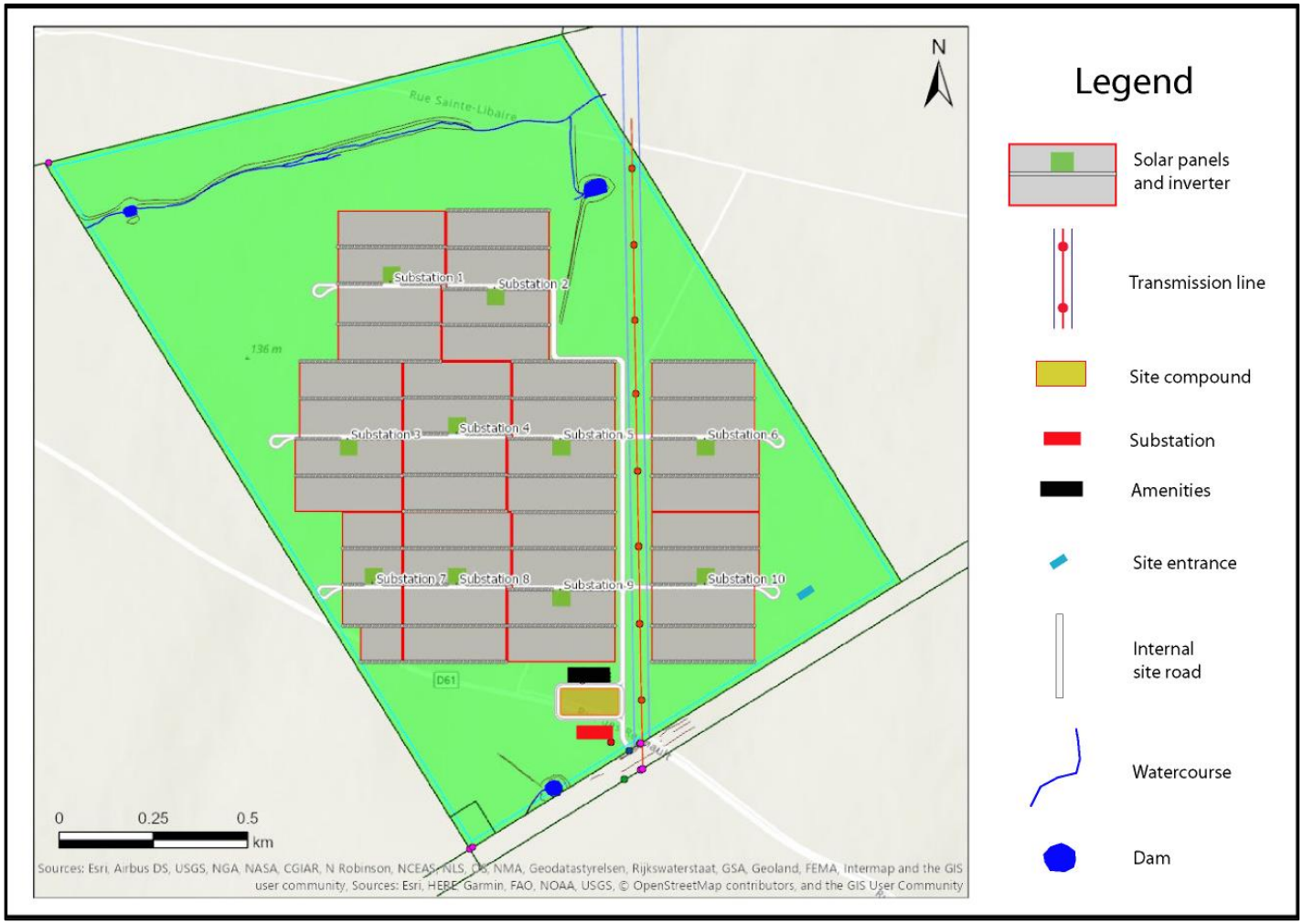

Figure 6.2 Site layout plan

6.1.2 Project Works

The components of the solar farm project include:

- solar panels in regular arrays
- metal mounting structures (up to 4 m in height)
- aboveground and underground DC cabling (low voltage)
- central inverters, step-up transformers, and switchgear power conditioning unit (PCUs) located in 40-foot containers or container skid pads (up to 26 PCUs, 3 m in height)
- battery storage area
- underground AC cabling that will run from the PCUs to the solar farm substation (high voltage)
- a main step-up transformer and associated equipment
- a synchronous condenser to adjust conditions on the electrical power transmission grid
- perimeter safety fencing and a fixed, closed-circuit television (CCTV) system
- supervisory control and data acquisition (SCADA) control systems
- site office and staff amenities
- maintenance shed
- permanent staff and contractor car parking area
- permanent all-weather site access and access road leading to office and substation (shared access with Essential Energy)
- internal vehicle access tracks (4 m) leading to solar arrays and PCUs
- temporary site compound, laydown area, and equipment storage areas during construction.

6.1.3 MYT's Environmental management documentation

MYT has developed an Environmental Management Strategy (EMS) for the Project, which is the overarching document in MYT's environmental management system. The EMS includes a number of plans and strategies that that have been put in place to manage environmental impacts that may arise from the construction and/or operation of the project – including this CEMP. Figure 6.3 shows the CEMP and the other management plans. Note that in the context of this CEMP, EMS refers to the environmental management strategy rather than the more conventional Environmental Management System.

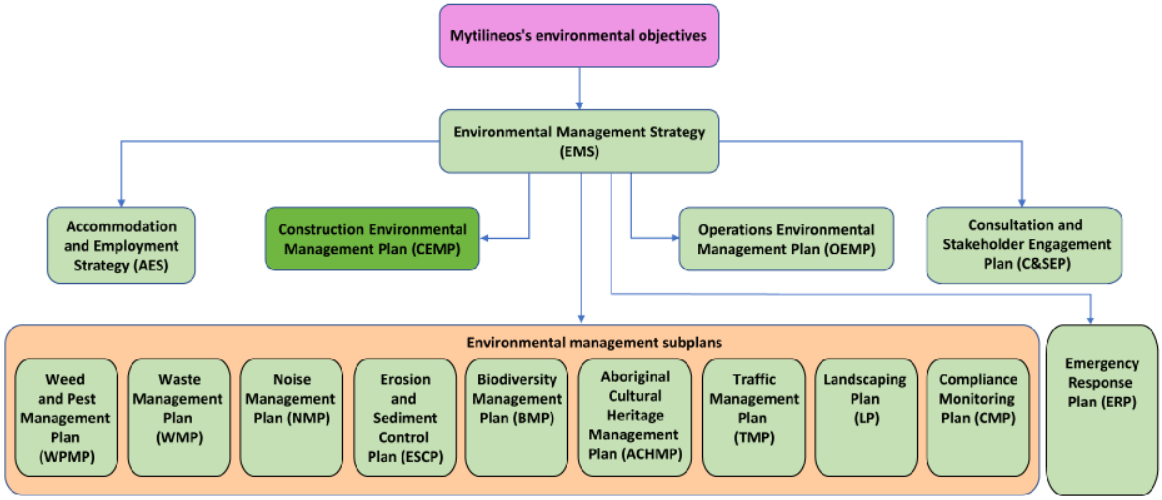

Figure 6.3 Main project environmental management documentation

6.2 Scheduled program overview

Table 6.1 provides a list of key construction milestones.

Table 6.1 Key construction milestones

No.	Milestone	Date
1	Civil Works completion	December 2021
2	Solar Farm Electrical and Mechanical Works completion	April 2022
3	High Voltage Works completion	April 2022
4	Testing and Commissioning	June 2022
5	Registration Stage R1 (GPS studies, compliance reporting, Releasable User Guides, Benchmarking, Test Plans) & Registration Stage R2 (Model Validation)	October 2022

6.3 Statutory role of this CEMP

DPIE issued a Development Consent (DC) (SSD-9564) on 7 May 2019 to ESCO Pacific for the construction and operation of the solar farm. DPIE issued the DC following submission of an environmental impact statement (EIS). The EIS listed a number of commitments that were accepted by the regulator (DPIE) when the EIS was approved. Therefore, the developer (and its contractors) have an obligation to implement the mitigation measures, monitoring activities and management strategies described in the EIS. A number of these are addressed in the DC conditions (as listed below in Table 7.3). However, a number of those commitments are not specified in the DC conditions. These include:

- a Construction Environmental Management Plan (CEMP)
- an Erosion and Sediment Control Plan (ESCP)
- a Noise Management Plan (NMP)

- a Weed and Pest Management Plan (WPMP)
- a Waste Management Plan (WMP).

6.4 Distribution of CEMP

The CEMP will be submitted to DPIE and once approved, will be made available to MYT and subcontractors. A paper copy and electronic copy will be available in the site office.

7 APPROVAL CONTEXT

7.1 Key Legislation

Key legislation and codes used to develop this CEMP are listed in Table 7.1. The EMS presents and more fully describes additional legislation, guidelines and guidance materials of relevance to the environmental management of the solar farm (in Appendix A of the EMS) and is not represented here.

Table 7.1 Key legislation

Document Name
Commonwealth
Aboriginal and Torres Strait Islander Heritage Act 2005 (Cwlth)
Aboriginal and Torres Strait Islander Heritage Protection Amendment Act 2005
Biosecurity Act 2015
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)
State
Biodiversity Conservation Act 2016 (BC Act)
Biodiversity Conservation Regulation 2017 (BC Regulation)
Biosecurity Act 2015 (Biosecurity Act)
Environmental Planning and Assessment Act 1979 (EP&A Act)
Environmental Planning and Assessment Regulation 2000
Local Land Services Amendment Act 2016
SEPP (Infrastructure) 2007
Waste Avoidance and Resource Recovery Act 2001
Other
AS 2436 2010 Guide to noise and vibration control on construction, demolition and maintenance sites
Interim Construction Noise Guideline

Managing Urban Stormwater: Soils and Construction
AS 1940:2017 - The storage and handling of flammable and combustible liquids
Interim Construction Noise Guideline

7.2 Conditions of approval

This CEMP has been developed to comply with the relevant conditions set out in DC Application Number: SSD-9564. The conditions of consent (CoCs) and commitments from the EIS as they relate to construction management are presented in Table 7.2 and Table 7.3, respectively.

The DC is provided in Appendix A.

Table 7.2 Conditions of consent reference table

Condition No.	Condition Description	Reference
Schedule 3: Environmental Conditions - General		
1	*The Applicant must ensure that the:* *(a) development does not generate more than:* *- 25 heavy vehicle movements a day during construction, upgrading or decommissioning;* *- 10 over-dimensional vehicle movements during construction, upgrading and decommissioning; and* *- 2 heavy vehicle movement a day during operations;* *on the public road network; and* *(b) length of any vehicles (excluding over-dimensional vehicles) used for the development does not exceed 26 metres,* unless the Secretary agrees otherwise	Traffic Management Plan (TMP) – not attached to the CEMP
2	*The Applicant must keep accurate records of the number of over-dimensional and heavy vehicles entering or leaving the site each day.*	TMP
3	*over-dimensional and heavy vehicles associated with the development must travel to and from the site via the Newell Highway and use the approved site access point, as identified in the figure in Appendix 1.* *The Applicant is required to obtain relevant permits under the Heavy Vehicle National Law (NSW) for the use of over-dimensional vehicles on the road network.*	TMP
4	*Prior to commencing construction, the Applicant must:* *(a) upgrade the intersection of the site access point and the Newell Highway, including a Basic Right Turn (BAR) and Basic Left Turn (BAL) intersection treatment to be able to cater for the largest vehicle accessing the site;* *(b) construct the site access point to be a minimum of 50 metres from its intersection with the Newell Highway, to a standard that allows two-way heavy vehicle traffic in all-weather conditions;*	TMP

Condition No.	Condition Description	Reference
	These upgrades must comply with the AustRoads Guide to Road Design (as amended by RMS supplements), and be carried out to the satisfaction of the relevant roads authority.	
5	*The Applicant must ensure:* *(a) the internal project site roadways are constructed as all-weather roadways* *(b) there is sufficient parking on site for all vehicles, and no parking occurs on the public road network in the vicinity of the site;* *(c) the capacity of the existing roadside drainage network is not reduced;* *(d) all vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction; and* *(e) development-related vehicles leaving the site are in a clean condition to minimise dirt being tracked onto the sealed public road network.*	TMP
6	*Prior to commencing the road upgrades required by condition 5 of Schedule 3 of this consent, the Applicant must prepare a Traffic Management Plan for the development in consultation with RMS and Council, and to the satisfaction of the Secretary. This plan must include:* *(a) details of the transport route to be used for all development-related traffic;* *(b) details of the road upgrade works required by condition 4 of Schedule 3 of this consent;* *(c) details of the measures that would be implemented to minimise traffic impacts during construction, upgrading or decommissioning works, including:* • *temporary traffic controls, including detours and signage;* • *notifying the local community about project-related traffic impacts;* • *procedures for receiving and addressing complaints from the community about development-related traffic;* • *minimising potential for conflict with school buses and other motorists as far as practicable;* • *scheduling of haulage vehicle movements to minimise convoy length or platoons;* • *responding to local climate conditions that may affect road safety such as fog, dust, wet weather and flooding;* • *responding to any emergency repair or maintenance requirements; and* • *a traffic management system for managing over-dimensional vehicles;* *(d) a driver's code of conduct that addresses:* • *travelling speeds;* • *driver fatigue;*	The TMP

Condition No.	Condition Description	Reference
	• *procedures to ensure that drivers adhere to the designated transport routes; and* • *procedures to ensure that drivers implement safe driving practices;* *(e) a program to ensure drivers working on the development receive suitable training on the code of conduct and any other relevant obligations under the Traffic Management Plan.* *Following the Secretary's approval, the Applicant must implement the Traffic Management Plan.*	
7	*The Applicant must establish and maintain a mature vegetation buffer and infill planting (landscape screening) at the locations outlined in the figure in Appendix 1 to the satisfaction of the Secretary. This vegetation buffer must:* *(a) be planted prior to commencing operations;* *(b) be comprised of species that are endemic to the area;* *(c) within 3 years of commencing construction, effectively screen views of the solar panels and ancillary infrastructure on-site from the Newell Highway; and* *(d) be properly maintained with appropriate weed management.*	Landscaping Plan (LP) – not attached to the CEMP
8	*Prior to commencing construction, the Applicant must prepare a detailed Landscaping Plan for the development to the satisfaction of the Secretary. This plan must include:* *(a) a description of measures that would be implemented to ensure that the vegetated buffers achieve the objectives of condition 7 (a) – (d) above;* *(b) a program to monitor and report on the effectiveness of these measures; and* *(c) details of who would be responsible for monitoring, reviewing and implementing the plan, and timeframes for the completion of actions*	The LP
9	*Following any construction or upgrading on the site, the Applicant must:* *(a) restore the ground cover of the site as soon as practicable;* *(b) maintain the ground cover with appropriate perennial species; and* *(c) manage weeds within this ground cover.*	Section 13.4
10	*Within two years of commencing construction under this consent, unless the Secretary agrees otherwise, the Applicant must retire biodiversity credits of a number and class specified in Table 1 and Table 2 below to the satisfaction of OEH.* *The retirement of these credits must be carried out in accordance with the NSW Biodiversity Offsets Policy for Major Projects and can be achieved by:* *(a) acquiring or retiring 'biodiversity credits' within the meaning of the Biodiversity Conservation Act 2016;* *(b) making payments into an offset fund that has been developed by the NSW Government; or*	Biodiversity Management Plan (BMP) – not attached to the CEMP

<table>
<tr><th>Condition No.</th><th>Condition Description</th><th>Reference</th></tr>
<tr><td></td><td>
(c) funding a biodiversity conservation action that benefits the threatened entity impacted by the development, consistent with the 'Ancillary rules: Biodiversity conservation actions'.
Table 1: Ecosystem Credit Requirements
<table>
<tr><th>Vegetation Community</th><th>PCT ID</th><th>Credits Required</th></tr>
<tr><td>Western Grey Box tall grassy woodland on alluvial loam and clay soils in the NSW South Western Slopes and Riverina Bioregions</td><td>78</td><td>38</td></tr>
</table>
Table 2: Species Credit Requirements
<table>
<tr><th>Species Credit Species</th><th>Credits Required</th><th>Total</th></tr>
<tr><td>Glossy Black-Cockatoo (Calyptorhynchus lathami)</td><td>2</td><td rowspan="4">9</td></tr>
<tr><td>Swift Parrot (Lathamus discolor)</td><td>2</td></tr>
<tr><td>Masked Owl (Tyto novaehollandiae)</td><td>3</td></tr>
<tr><td>Sloane's Froglet (Crinia sloanei)</td><td>2</td></tr>
</table>
</td><td></td></tr>
<tr><td>11</td><td>
Prior to the commencement of construction, the Applicant must prepare a Biodiversity Management Plan for the development in consultation with OEH, and to the satisfaction of the Secretary. This plan must:
(a) include a description of the measures that would be implemented for:
• managing the remnant vegetation and fauna habitat on site;
• minimising clearing and avoiding unnecessary disturbance of vegetation that is associated with the construction and operation of the development;
• minimising the impacts to fauna on site and implementing fauna management protocols;
• avoiding the removal of hollow-bearing trees during spring to avoid the main breeding period for hollow-dependent fauna;
• rehabilitating and revegetating temporary disturbance areas with species that are endemic to the area;
• maximising the salvage of vegetative and soil resources within the approved disturbance area for beneficial reuse in the enhancement or the rehabilitation of the site; and
• controlling weeds and feral pests;
(b) include details of who would be responsible for monitoring, reviewing and implementing the plan, and timeframes for completion of actions.
Following Secretary's approval, the Applicant must implement the Biodiversity Management Plan.
</td><td>BMP</td></tr>
</table>

Condition No.	Condition Description	Reference
12	*Unless the Secretary agrees otherwise, the Applicant may only undertake construction, upgrading or decommissioning activities on site between:* *(a) 7am to 6pm Monday to Friday;* *(b) 8am to 1pm Saturdays; and* *(c) at no time no Sundays and NSW public holidays.* *The following construction, upgrading or decommissioning activities may be undertaken outside these hours without the approval of the Secretary:* *- the delivery of materials as requested by the NSW Police Force or other authorities for safety reasons; or* *- emergency work to avoid the loss of life, property and/or material harm to the environment.*	Section 8.9
13	*The Applicant must minimise the noise generated by any construction, upgrading or decommissioning activities on the site in accordance with the best practice requirements outlined in the Interim Construction Noise Guideline (DECC, 2009), or its latest version.*	see Section 13.5
14	*The Applicant must minimise the dust generated by the development.*	Section 13.3
15	*The Applicant must:* *(a) minimise the off-site visual impacts of the development, including the potential for any glare or reflection from the solar panels;* *(b) ensure the visual appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape; and* *(c) not mount any advertising signs or logos on site, except where this is required for identification or safety purposes.*	see Section 13.11
16	*The Applicant must:* *(a) minimise the off-site lighting impacts of the development; and* *(b) ensure that all external lighting associated with the development:* *- is installed as low intensity lighting (except where required for safety or emergency purposes);* *- does not shine above the horizontal; and* *- complies with Australian Standard AS4282 (INT) 1997 - Control of Obtrusive Effects of Outdoor Lighting, or its latest version.*	Condition is listed in Environmental Management Strategy (EMS) with reference to project design documentation
17	*The Applicant must ensure the development does not cause any direct or indirect impacts on the Aboriginal heritage items identified in Table 1 of Appendix 3 or located outside the approved development footprint.*	Aboriginal Cultural Heritage Management Plan (ACHMP) – not attached to the CEMP

Condition No.	Condition Description	Reference
18	*The Applicant must ensure the development that could directly or indirectly impact the heritage items identified in Table 2 of Appendix 3.* *If impacts on these items cannot be avoided, the Applicant must salvage and relocate the item/s that would be impacted to a suitable alternative location on site, in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010), or its latest version.* *Note: The location of the Aboriginal heritage items referred to in this condition are shown in the figure in Appendix 3.*	ACHMP
19	*Prior to commencing construction, the Applicant must prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:* *(a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;* *(b) be prepared in consultation with OEH and Aboriginal Stakeholders;* *(c) include a description of the measures that would be implemented for:* *• protecting the Aboriginal heritage items identified in Table 1 in Appendix 3 or outside the approved development footprint, including fencing off the Aboriginal heritage items prior to commencing construction;* *• salvaging and relocating the Aboriginal heritage items located within the approved development footprint, as identified in Table 2 of Appendix 3, if impacts to these items cannot be avoided;* *• a contingency plan and reporting procedure if:* *- previously unidentified heritage items are found; or* *- Aboriginal skeletal material is discovered;* *• ensuring workers on site receive suitable heritage inductions prior to carrying out any development on site, and that records are kept of these inductions; and* *• ongoing consultation with Aboriginal stakeholders during the implementation of the plan;* *(d) include a program to monitor and report on the effectiveness of these measures and any heritage impacts of the project.* *Following the Secretary's approval, the Applicant must implement the Heritage Management Plan.*	ACHMP
20	*The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of the development to match its available water supply.* *Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Applicant is required to obtain the necessary water licences for the development.*	Condition to be listed in EMS with reference to project design documentation

Condition No.	Condition Description	Reference
21	*The Applicant must ensure that the development does not cause any water pollution, as defined under Section 120 of the Protection of the Environment Operations (PoEO) Act 1997.*	Section 13.10 and the Erosion and Sediment Control Plan (ESCP)
22	*The Applicant must:* *(a) minimise any soil erosion associated with the construction, upgrading or decommissioning of the development in accordance with the relevant requirements in the Managing Urban Stormwater: Soils and Construction (Landcom, 2004) manual, or its latest version;* *(b) ensure all works (including watercourse crossings) are undertaken in accordance with the:* • *Guidelines for Controlled Activities on Waterfront Land (NRAR, 2018), or its latest version; and* • *Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (2004), or its latest version.*	Section 13.10 and the ESCP
23	*Prior to commencing construction of the battery storage facility, unless the Secretary agrees otherwise, the Applicant must prepare a Final Hazard Analysis to the satisfaction of the Secretary. The study must:* *(a) describe the final design of the battery storage facility (including associated plant and equipment) and identify any significant design variations between the final design and the designs considered in the EIS; and* *(b) verify and confirm the analysis in the EIS and report on the implementation of recommendations and safeguards detailed in this section.* *Following the Secretary's approval, the Applicant must implement the measures described in the Fire Safety Study.*	Final Hazard Analysis required to prepare Hazard Management Plan *(will be completed in the future if a battery energy storage system (BESS) is to be constructed)*
24	*If the final design of the battery storage facility varies significantly from the designs considered in the EIS, the Final Hazard Analysis must be prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis' and Multi-level Risk Assessment.*	Final Hazard Analysis will be completed in the future if a battery energy storage system (BESS) is to be constructed)
25	*Prior to commencing construction of the battery storage facility, unless the Secretary agrees otherwise, the Applicant must prepare a Fire Safety Study of the development, to the satisfaction of the Secretary. The study must:* *(a) be consistent with the:* • *Department's Hazardous Industry Planning Advisory Paper No. 2 'Fire Safety Study' guideline; and*	Final Hazard Analysis will be completed in the future if a battery energy storage system (BESS) is to be constructed)

Condition No.	Condition Description	Reference
	• *NSW Government's Best Practice Guidelines for Contaminated Water Retention and Treatment Systems; and* *(b) describe the final design of the battery storage facility.* *Following the Secretary's approval, the Applicant must implement the measures described in the Fire Safety Study.*	
26	*The Applicant must store and handle all chemicals, fuels and oils used on-site in accordance with:* *(a) the requirements of all relevant Australian Standards; and* *(b) the NSW EPA's Storing and Handling of Liquids: Environmental Protection – Participants Handbook if the chemicals are liquids.* *In the event of an inconsistency between the requirements listed from (a) to (b) above, the most stringent requirement must prevail to the extent of the inconsistency.*	Section 13.6
27	*The Applicant must:* *(a) minimise the fire risks of the development;* *(b) ensure that the development:* • *includes at least a 10 metre defendable space around the perimeter of the solar array area and battery storage areas that permits unobstructed vehicle access;* • *manages the defendable space and solar array areas as an Asset Protection Zone;* • *complies with the relevant asset protection requirements in the RFS's Planning for Bushfire Protection 2006 (or equivalent) and Standards for Asset Protection Zones; and* • *is suitably equipped to respond to any fires on site including provision of a 20,000 litre water supply tank fitted with a 65mm Storz fitting located adjacent to the internal access road;* *(c) assist the RFS and emergency services as much as practicable if there is a fire in the vicinity of the site; and* *(d) notify the relevant local emergency management committee following construction of the development, and prior to commencing operations.*	Fire and Emergency Management Plan *(not required prior to construction - included in the Deferred or Provisional scope)*
28	*Prior to commissioning operations, the Applicant must develop and implement a comprehensive Emergency Plan and detailed emergency procedures for the development, to the satisfaction of Fire and Rescue NSW and the RFS. The Applicant must keep two copies of the plan on-site in a prominent position adjacent to the site entry points at all times.* *The plan must:* *(a) be consistent with the Department's Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning';* *(b) identify the fire risks and controls of the development; and* *(c) include procedures that would be implemented if there is a fire on-site or in the vicinity of the site.*	Fire and Emergency Management Plan *(not required prior to construction - included in the Deferred or Provisional scope)*

<table>
<tr><th>Condition No.</th><th>Condition Description</th><th>Reference</th></tr>
<tr><td></td><td>Following approval, the Applicant must implement the Emergency Plan.</td><td></td></tr>
<tr><td>29</td><td>The Applicant must:
(a) minimise the waste generated by the development;
(b) classify all waste generated on site in accordance with the EPA's Waste Classification Guidelines 2014 (or its latest version);
(c) store and handle all waste on site in accordance with its classification;
(d) not receive or dispose of any waste on site; and
(e) remove all waste from the site as soon as practicable, and ensure it is sent to an appropriately licensed waste facility for disposal.</td><td>Waste Management Plan (WMP) – not attached to the CEMP</td></tr>
<tr><td>30</td><td>Prior to commencing construction, the Applicant must prepare an Accommodation and Employment Strategy for the development in consultation with Council, and to the satisfaction of the Secretary. This strategy must:
(a) propose a strategy to ensure there is sufficient accommodation for the workforce associated with the development;
(b) investigate options for prioritising the employment of local workers for the construction and operation of the development, where feasible; and
(c) include a program to monitor and review the effectiveness of the strategy over the life of the development.
Following the Secretary's approval, the Applicant must implement the Accommodation and Employment Strategy.</td><td>Accommodation and Employment Strategy (AES) – not attached to the CEMP</td></tr>
<tr><td>31</td><td>Within 18 months of the cessation of operations, unless the Secretary agrees otherwise, the Applicant must rehabilitate the site to the satisfaction of the Secretary. This rehabilitation must comply with the objectives in Table 3.
Table 3: Rehabilitation Objectives
<table>
<tr><th>Feature</th><th>Objective</th></tr>
<tr><td>Site</td><td>• Safe, stable and non-polluting</td></tr>
<tr><td></td><td>• Minimise the visual impact of any above ground ancillary infrastructure agreed to be retained for an alternative use</td></tr>
<tr><td>Solar farm infrastructure</td><td>• To be decommissioned and removed, unless the Secretary agrees otherwise</td></tr>
<tr><td>Land use</td><td>• Restore land capability to pre-existing use</td></tr>
<tr><td>Community</td><td>• Ensure public safety</td></tr>
</table></td><td>Not discussed in this document (not relevant to construction)</td></tr>
<tr><td colspan="3">Schedule 4: Environmental Management and Reporting</td></tr>
</table>

Condition No.	Condition Description	Reference
1	*Prior to commencing the development, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:* *(a) provide the strategic framework for environmental management of the development;* *(b) identify the statutory approvals that apply to the development;* *(c) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;* *(d) describe the procedures that would be implemented to:* *• keep the local community and relevant agencies informed about the operation and environmental performance of the development;* *• receive, handle, respond to, and record complaints;* *• resolve any disputes that may arise;* *• respond to any non-compliance;* *• respond to emergencies; and* *(e) include:* *• references to any plans approved under the conditions of this consent; and* *• a clear plan depicting all the monitoring to be carried out in relation to the development.* *Following the Secretary's approval, the Applicant must implement the Environmental Management Strategy.*	Environmental Management Strategy (EMS) – not attached to the CEMP
6	*Prior to commencing the construction, upgrading and decommissioning of the development, the Applicant must submit a compliance report to the Department in accordance with the relevant Compliance Reporting Post Approval Requirements (DPE 2018), or its latest version.*	Compliance Report – not attached to the CEMP
7	*Within 6 months of commencing construction, or as directed by the Secretary, the Applicant must commission and pay the full cost of an Independent Environmental Audit of the development. The audit must:* *(a) be prepared in accordance with the relevant Independent Audit Post Approval requirements (DPE 2018);* *(b) be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;* *(c) be carried out in consultation with the relevant agencies;* *(d) assess whether the development complies with the relevant requirements in this consent, and any strategy, plan or program required under this consent; and* *(e) recommend appropriate measures or actions to improve the environmental performance of the development and any strategy, plan or program required under this consent.* *Within 3 months of commencing an Independent Environmental Audit, or unless otherwise agreed by the Secretary, a copy of the audit report must be submitted to the Secretary, and any other NSW agency that*	Section 11.3.3

Condition No.	Condition Description	Reference
	requests it, together with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. *The recommendations of the Independent Environmental Audit must be implemented to the satisfaction of the Secretary*	

7.3 Construction-phase commitments

In addition to the CoCs, a number of commitments were made in the EIS and, as the EIS was the basis for DC, are commitments which must be adhered to. The commitments that pertain to the construction phase are presented in Table 7.3.

Table 7.3 Construction-phase commitments reference table

Comm. No.	Commitment Description	Reference
9.1	**Biodiversity**	
B.1	Site access for construction and operation will be selected to minimise vegetation removal and impacts to threatened fauna species	Section 8.2 and BMP
B.2	Use of ecosystem credit offsets to minimise impacts to flora and fauna	BMP
B.3	EMPs will be developed to mitigate potential impacts to biodiversity, including:	
B.3.1	unless otherwise agreed by the Responsible Authority, the removal of hollow-bearing trees will be undertaken outside of the spring to early summer period to avoid the main breeding period for hollow-dependent fauna	BMP
B.3.2	pre-clearance surveys will be undertaken to ensure that nests and hollows identified in paddock trees are inactive	BMP
B.3.3	where an active hollow is identified, a licenced wildlife salvage team will be on-site during vegetation removal to catch and relocate (if appropriate) any wildlife encountered in vegetation or hollow-bearing trees	BMP
B.3.4	demarcation and exclusion fencing will be installed around trees and vegetation to be retained in, or directly adjacent to (within the radius of an applicable tree protection zone (TPZ)), the development site, as follows:	BMP and Section 8.2 in this CEMP
B.3.4.1	TPZs will be clearly defined	BMP
B.3.4.2	the radius of the TPZ will be calculated for each tree by multiplying its diameter at breast height (DBH) by 12 (i.e. TPZ = DBH x 12) in accordance with the Australian Standard – Protection of trees on development sites	BMP

B.3.4.3	a TPZ will be not less than 2 m or greater than 15 m, except where crown protection is required	BMP
B.3.4.4	appropriate signage such as 'No Go Zone' or 'Environmental Protection Area' will be installed around retained trees and vegetation	BMP
B.3.4.5	the location of any 'No Go Zones' will be identified in site inductions	BMP
B.3.4.6	fencing will comprise star pickets with high visibility bunting	BMP
B.3.5	all material stockpiles, vehicle parking and machinery storage will be located within cleared areas or areas proposed for clearing, and not in areas of retained native vegetation	ESCP – Appendix D
B.3.6	where practical, all paddock and hollow-bearing trees to be removed will be placed in areas of retained vegetation to provide additional fauna habitat	BMP
B.3.7	where appropriate, native vegetation cleared from the development site will be mulched for re-use on the site, to stabilise bare ground	ESCP
B.3.8	sediment and erosion control measures will be implemented prior to construction works commencing, to protect drainage channels and any downgradient habitat. These will be in accordance with the measures outlined in the *Soil, landuse and agriculture* section	ESCP
B.3.9	standard noise controls should be implemented during construction as outlined in the *Noise* section to minimise disturbance to fauna	NMP – Appendix H
B.3.10	barbed wire for site fencing will be avoided, where possible	Section 8.2 in this CEMP
B.3.11	boundary fences and laydown areas will be located in cleared areas	Section 8.2 in this CEMP
B.3.12	the site rehabilitation plan will be implemented to progressively rehabilitate disturbed areas	ESCP
B.3.13	following construction, revegetation of areas of the development site with groundcover plant species compatible with the existing native species composition will be undertaken	BMP, ESCP Section 11.11 and the Landscaping Plan (LP)
B.3.14	a Weed and Pest Management Plan (WPMP) will be prepared prior to construction as outlined in the *Soil, landuse and agriculture* section. This should include:	WPMP – Appendix C
B.3.14.1	identification of areas on the development site which have environmental weeds	WPMP
B.3.14.2	methods for controlling weeds e.g. herbicides, physical removal, grazing, etc.	WPMP and LP – LP not attached to the CEMP
B.3.14.3	ongoing monitoring of weeds	WPMP

B.3.15	in areas where cropping is not to occur, revegetation with groundcover plant species compatible with the existing native species composition will occur	BMP and LP – not attached to the CEMP – and ESCP
9.2	**Aboriginal cultural heritage**	
AH.1	ESCO Pacific (now MYT) and its Contractors will adhere to the following Statement of Commitments:	
AH.1.1	The Aboriginal Cultural Heritage Management Plan (ACHMP) will be developed in consultation with the RAPs and the recommendations of the ACHAR (Appendix D). Impacts to aboriginal heritage will be managed in accordance with the ACHMP	ACHMP – not attached to this CEMP
AH.1.2	As project design is finalised all efforts will be made to conserve Aboriginal sites in the development site	ACHMP
AH.1.3	The location of Glenroy-OS1 and OS2; Glenroy-IF2; Glenroy-IF6; and Glenroy-IF9, will be noted and efforts made to avoid these sites as they are located near the perimeter of the development site in a landform that will be subject to less disturbance than adjacent landforms	ACHMP
AH.1.4	The impacted isolated finds (Glenroy-IF1; Glenroy-IF3 to IF5; Glenroy-IF7 to IF8; and Glenroy-IF10), that have been recorded within the development site will be salvaged, along with any located near the perimeter of the development site that are unable to be avoided	ACHMP
AH.1.5	The salvaged artefacts will be reburied at a location outside of the development site, but within the lot boundary where no future developments are planned. The manner of reburial will be detailed in the ACHMP following RAP consultation. A site card will be submitted to the Aboriginal Heritage Information Management System (AHIMS) to register the location of any reburied artefacts	ACHMP
AH.1.6	An Aboriginal Site Impact Recording Form will be submitted to AHIMS recording the results of the salvage of any sites associated with the Project	ACHMP
AH.1.7	Should any sites within the development site (Glenroy-OS1 and OS2; Glenroy-IF2; Glenroy-IF6; and Glenroy-IF9) be able to be avoided, those sites will be clearly and permanently demarcated to avoid inadvertent impacts. The demarcation will include permanent signage. ESCO Pacific (now MYT) and its Contractors will consider permanently fencing these sites to avoid inadvertent impacts	ACHMP
AH.2	All land-disturbing activities will be confined to the assessed area within the lot boundary. Should the parameters of the proposed work extend beyond the assessed area, then further archaeological assessment may be required	ACHMP
AH.3	Inductions for staff undertaking the proposed activity shall include the legislative protection requirements for Aboriginal	ACHMP

	sites and items in NSW and the relevant fines for non-compliance	
AH.4	If any Aboriginal object is discovered and/or harmed (in, or under the land), while undertaking the proposed development activities, ESCO Pacific (now MYT) and its Contractors will:	ACHMP
AH.4.1	not further harm the object	ACHMP
AH.4.2	immediately cease all work at the particular location	ACHMP
AH.4.3	secure the area so as to avoid further harm to the Aboriginal object	ACHMP
AH.4.4	notify OEH as soon as practical on 131 555, providing any details of the Aboriginal object and its location	ACHMP
AH.4.5	not recommence any work at the particular location unless authorised in writing by OEH	ACHMP
AH.5	In the event that Aboriginal burials are unexpectedly encountered during the activity, work must stop immediately, the area secured to prevent unauthorised access, and NSW Police and OEH contacted	ACHMP
AH.6	ESCO Pacific (now MYT) will cooperate with the appropriate authorities and relevant Aboriginal community representatives to facilitate:	ACHMP
AH.6.1	the recording and assessment of the find(s)	ACHMP
AH.6.2	the fulfilment of any legal constraints arising from the find(s) including complying with OEH directions	ACHMP
AH.6.3	the development and implementation of appropriate management strategies, including consultation with stakeholders and the assessment of the significance of the find(s)	ACHMP
AH.7	Where the find(s) are determined to be Aboriginal object(s), recommencement of work in the area of the find(s) can only occur in accordance with any consequential legal requirements and after gaining written approval from OEH (normally an Aboriginal Heritage Impact Permit	ACHMP
9.3	**Historic heritage**	
HH.1	If it is identified that ground disturbance activities will occur beyond the assessed area, then further archaeological assessment may be required	Section 13.8.4
HH.2	Should any items suspected of having historic heritage significance be uncovered, all work will stop and the Historic Heritage Unanticipated Finds Protocol (below) will be followed	Sections 13.8.4 and 13.8.5
HH.3	Inductions for staff undertaking the proposed activity will include the legislative protection requirements for historic sites and items in NSW and the relevant fines for non-compliance	Section 13.8.4

HH.4	The protocol to be followed in the event that previously unrecorded or unanticipated historic objects are encountered is as follows:	Section 13.8.5
HH.4.1	All ground surface disturbance in the area of the finds should cease immediately the finds are uncovered	Section 13.8.5
HH.4.2	The discoverer of the find(s) will notify machinery operators in the immediate vicinity of the find(s) so that work can be halted	Section 13.8.5
HH.4.3	The site supervisor will be informed of the find(s)	Section 13.8.5
HH.5	If finds are suspected to be human skeletal remains, then NSW Police must be contacted as a matter of priority	Section 13.8.4
HH.6	If there is substantial doubt regarding the historic significance for the finds, then a qualified opinion from an archaeologist will be obtained as soon as possible. This can circumvent proceeding further along the protocol for items which turn out not to be significant. If a quick opinion cannot be obtained, or the item is considered likely to be significant, then proceed to the next step:	Section 13.8.4
HH.6.1	Immediately notify OEH (Heritage Division) at 131 555 of the find(s)	Section 13.8.4
HH.6.2	Facilitate, in co-operation with the appropriate authorities:	Section 13.8.4
HH. 6.2.1	the recording and assessment of the finds;	Section 13.8.4
HH. 6.2.2	fulfilling any legal constraints arising from the find(s). This will include complying with OEH directions	Section 13.8.4
HH. 6.2.3	the development and conduct of appropriate management strategies. Strategies will depend on consultation with stakeholders and the assessment of the significance of the find(s)	Section 13.8.4
HH.6.3	Where the find(s) are determined to be significant historic items, any re-commencement of construction related ground surface disturbance may only resume in the area of the find(s) following compliance with any consequential legal requirements and after gaining written approval from OEH	Section 13.8.4
9.4	**Hydrology and water resources**	
H.1	The following management and mitigation measures will be implemented during construction to limit the impacts of the project on hydrology and water resources:	
H.1.1	ensuring any high-risk site facilities (such as the substation) are located away from areas of potential flood risk	Section 13.14.4
H.1.2	implementing erosion and sediment control measures during construction as outlined in *soil, land-use and agriculture* section, including minimising areas of disturbance and rehabilitating disturbed areas as soon as possible	ESCP

H.1.3	installing effective stormwater management and control measures during construction, in accordance with the erosion and sediment control plans for the site	ESCP
H.1.4	developing and implementing procedures for the testing and management of construction wastewater if disposal is required	WMP – not attached to the CEMP
H.1.5	refuelling plant and machinery in an impervious bunded area at least 50 m away from water bodies and drainage lines	ESCP
H.1.6	storing fuel and chemicals in an impervious bunded area at least 50 m away from water bodies and drainage lines as outlined in *soil, land-use and agriculture* section	Section 13.6.4 and ESCP
H.1.7	implementing a spill response plan (to be prepared as part of the CEMP) which will include containment and remediation procedures, placement of spill kits and material safety data sheets, and training requirements for staff as outlined in *soil, land-use and agriculture* section	Section 13.6.4 and Spill Response Procedure (SPR) attached as Appendix E
H.1.8	disposing of all hazardous chemicals and waste offsite in accordance with relevant NSW government regulations and guidelines as outlined in *soil, land-use and agriculture* section	see WMP
H.1.9	daily inspection of all machinery, plant, equipment and facilities to ensure no leakage of fuels, lubricants or other liquids	Section 13.10.5
H.2	Maintaining vegetation cover under all solar panel arrays to maximise water infiltration	Operations-phase – not addressed in the CEMP
H.3	Undertaking regular inspection of equipment and facilities to identify any spills or leaks	see Section 13.10.5
H.4	Implementing a spill response plan (also used for the CEMP)	Section 13.6.4 and SPR
H.5	Treating sewage by an onsite bio-cycle system installed to comply with Building Code of Australia requirements	WMP
H.6	Ensuring the Emergency Response Plan for the project includes procedures to be followed in the event of flooding within the development site or surrounding area, including information on safe evacuation routes	ERP
9.5	**Soil and land-use**	
S.1	Development of EMPs to mitigate potential impacts to soils, land-use and agricultural land. The plans will be developed with the following guidelines to address potential erosion and sedimentation impacts, including:	This CEMP, LP not attached to the CEMP – and ESCP
S.1.1	Managing Urban Stormwater: Soils and Construction, Volume 1, 4th Edition (also known as the Blue Book)	ESCP
S.1.2	Volume 2A Installation of Services	ESCP
S.1.3	Volume 2C Unsealed Roads	ESCP

S.2	Environmental management plans will include measures such as:	
S.2.1	designing internal access roads, tracks and the site carpark with adequate runoff controls to prevent erosion from concentrated flows	Preconstruction-phase - not addressed in CEMP
S.2.2	constructing and/or installing erosion and sediment control structures, and regular inspection of them, particularly following rainfall events	ESCP
S.2.3	lining drains with geotextile or plastic, to reduce erosion	ESCP
S.2.4	maintaining a register of erosion and sediment control activities, including records of inspection and maintenance	ESCP
S.2.5	minimising areas of disturbance and rehabilitating disturbed areas as soon as possible with appropriate plant species	ESCP
S.2.6	separating topsoil and subsoil and ensuring that soils are reinstated in the correct order	Section 13.10.4
S.2.7	filling trenches progressively after placement or removal of underground cabling	Section 13.10.4
S.2.8	implementing a WPMP to be developed prior to construction, to reduce the spread of weeds and pathogens and control pest animals. This should include:	WPMP
S.2.8.1	identification of areas on the development site which have environmental weeds	WPMP
S.2.8.2	methods for controlling weeds e.g. herbicides, physical removal, grazing, etc.	WPMP and LP
S.2.8.3	ongoing monitoring of weeds	WPMP
S.2.9	implementing a vehicle hygiene protocol when entering and leaving the site to ensure vehicles and earthmoving machinery are free of debris, sediment and weeds	WPMP
S.2.10	ensuring any fill brought to site is weed and pathogen free	WPMP
S.2.11	implementing a TMP to ensure vehicles adhere to speed limits and keep to designated roads, to reduce generation of dust	TMP
S.2.12	ensuring appropriate stockpile management to reduce dust, erosive runoff and potential contamination (where relevant)	ESCP
S.2.13	implementing a contamination procedure (to be developed as part of the CEMP) outlining appropriate steps and authorities to be notified in the event buried contamination is uncovered	Section 8.8
S.2.14	refuelling plant and machinery in an impervious bunded area at least 50 m away from water bodies and drainage lines	see Section 13.6.4
S.2.15	storing fuel and chemicals in an impervious bunded area at least 50 m away from water bodies and drainage lines	Section 13.6.4
S.2.16	implementing a spill response plan (to be prepared as part of the CEMP) which will include containment and remediation	SMS-SAF-FRM-49 – attached to the

	procedures, placement of spill kits and SDSs, and training requirements for staff	CEMP as Appendix E
S.2.17	disposing of all hazardous chemicals and waste offsite in accordance with relevant NSW government regulations and guidelines	WMP
S.2.18	revegetating any residual areas still disturbed following construction (where no longer active) with appropriate plant species	LP
S.2.19	maintaining vegetation cover across the development site to reduce potential erosion impacts	ESCP
9.6	**Traffic and transport**	
T.1	Development of EMPs, including traffic management measures, will be put in place to mitigate any potential impacts	TMP – not attached to the CEMP
T.2	Development of a traffic management plan (in consultation with Bland Shire Council, RMS and any other relevant stakeholders), which will include:	TMP
T.2.1	confirmation of the project construction timeframe and work stages	TMP
T.2.2	confirmation of expected traffic volumes generated by the project for all work stages	TMP
T.2.3	identification of all heavy vehicle and over-dimensional vehicle haulage routes for all work stages	TMP
T.2.4	a mechanism to review identified haulage route road conditions prior to the commencement of works	TMP
T.2.5	any additional relevant mechanisms for over-dimensional vehicle permits and traffic management requirements	TMP
T.2.6	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	TMP
T.2.7	any additional requirements for specific work stage construction traffic management plans	TMP
T.2.8	confirmation of the adequacy of available sight distances along the Newell Highway from the site access (trimming will be undertaken if required)	TMP
T.2.9	assessment of the need for 'trucks crossing' signs to be placed along Newell Highway in the vicinity of the site	TMP
T.3	Traffic-related impacts to amenity during construction (such as noise and dust) will be addressed in the EMP with management measures proposed to mitigate these	Sections 13.3 and 13.5
9.7	**Noise**	
N.1	The noise assessment undertaken for the Wyalong SF was conservative. However, it is proposed that noise monitoring be	

	undertaken during construction to confirm predictions and determine any need for noise management measures. In particular, the use of a mulcher on site will be subject to noise monitoring and, if noise management levels are exceeded at the two nearest sensitive receivers (NSRs), management measures such as the following will be implemented to achieve compliance:	
N.1.1	locating the mulcher within the site so as to maintain a specified minimum distance to the nearest sensitive receivers	NMP and Section 13.5.2
N.1.2	operating the mulcher within designated time periods rather than in an ad hoc manner to minimise the frequency of intrusion	NMP and Section 13.5.2
N.1.3	positioning the mulcher to make use of any natural shielding	NMP and Section 13.5.2
N.1.4	application of noise shielding or noise suppression measures at the mulcher	NMP and Section 13.5.2
N.1.5	consultation with the landholders at R3, R4 and R5 to agree on measures	NMP and Section 13.5
N.2	The noise impact assessment has shown that construction noise may exceed applicable criteria at three of the NSRs and therefore, as per DPE's requirement, a noise management plan must be prepared prior to construction to manage construction noise. The noise management plan will be prepared as part of the CEMP	NMP
N.3	Final design and layout of equipment will consider noise attenuation measures such as setbacks, orientation, shielding or other treatments on plant and equipment in relation to the sensitive receptors	NMP and Section 13.5.2
N.4	Should a synchronous condenser installation be confirmed, measures to reduce its potential operational noise impacts on NSRs, which may include positioning, orientation, enclosures or sound barrier screening, will be provided in the noise management plan to be developed and provided as part of the OEMP	Operations-phase – not addressed in the management plans
9.8	**Visual amenity**	
V.1	Apply urban design principles and objectives during detailed design phase	Design-phase – not addressed in the management plans
V.2	Investigate colour combinations for infrastructure items to aid visual obscurity	Design-phase – not addressed in the management plans
V.3	Minimise reflective surfaces with a preferred use of muted colours for ancillary structures	Design-phase – not addressed in the management plans

V.4	Development of EMPs, including visual amenity management measures, will be put in place to mitigate any potential impacts. These measures will include:	Section 13.11
V.4.1	demarcation and exclusion fencing will be installed around trees and vegetation to be retained as described in the *Biodiversity* and *Soil and landuse* sections	Section 13.11
V.4.2	limiting disturbance and rehabilitating disturbed areas, as described in the *Biodiversity* and *Soil and landuse* sections	Section 13.11
V.4.3	minimise light spill from the development into adjacent visually sensitive properties by directing construction lighting into the construction areas and ensuring the site is not over-lit. This includes the sensitive placement and specification of lighting to minimise any potential increase in light pollution	Section 13.11
V.4.4	temporary hoardings, barriers, traffic management and signage should be removed when no longer required	Section 13.11
V.4.5	keeping the site tidy and well maintained, including removal of all rubbish at regular intervals. There should be no storage of materials beyond the construction boundaries	Section 13.11
V.5	Restricting external lighting to the area where the maintenance shed, permanent site office, and switch yard are located	Section 13.11
V.6	All external lighting around buildings to be faced downwards and inwards to minimise impacts to neighbouring properties	Section 13.11
9.9	**Air quality and dust**	
AQ.1	Development of EMPs which will contain procedures to prevent and control dust and will include:	Section 13.3
AQ.1.1	grading and ongoing maintenance of internal access roads to increase stabilisation of soil, where possible	Section 13.3
AQ.1.2	wetting down the internal access roads and other exposed surfaces, particularly during dry and windy conditions	Section 13.3
AQ.1.3	minimising vehicle movements on unsealed roads	Section 13.3
AQ.1.4	limiting the extent of vegetation clearance and excavation	Section 13.3
AQ.1.5	minimising the number of stockpiles on site	Section 13.3
AQ.1.6	enforcing on-site speed limits	Section 13.3
AQ.1.7	clearly defining access and travel routes	Section 13.3
AQ.2	Implementation of an EMP with procedures to prevent and control vehicle, plant and equipment emissions and will include:	Section 13.2
AQ.2.1	regularly inspecting and maintaining vehicles, plant and equipment to ensure they are operating efficiently, and in accordance with the manufacturer's requirements	Section 13.3
AQ.2.2	ensuring that vehicles, plant and equipment meet relevant standards for emissions	Section 13.3

AQ.2.3	switching off vehicles, plant and equipment when not in use	Section 13.3
AQ.3	Development of a TMP to assist with management of vehicle generated dust and emissions	TMP
AQ.4	Development of a complaints procedure to respond to issues raised by project staff and the local community regarding air quality impacts	see Section 11.5.3
9.10	**Bushfire and electrical fire**	
F.1	Development of a BFMP prior to construction, to include the following:	BFMP – not attached to the CEMP
F.1.1	on-site firefighting equipment required	BFMP
F.1.2	management of asset protection zones	BFMP
F.1.4	measures for reducing fuel loads on the site (e.g. grazing regime, slashing, ploughing and weed control, etc.)	BFMP
F.1.5	location of hazards and procedures to manage the hazards prior to and during firefighting operations	BFMP
F.1.6	site access and internal road plan	BFMP
F.1.7	management arrangements for the development of an Emergency Response Plan	BFMP
F.1.8	procedures to update and review the BFMP	BFMP
F.1.9	24 hour, 7 days per week contact details	BFMP
F.2	Development of a comprehensive ERP, addressing on-site and off-site fire events and detailing appropriate risk control measures to mitigate potential risks to health and safety of firefighters and other first responders, including:	ERP
F.2.1	appropriate personal protective clothing required to be worn	ERP
F.2.2	minimum level of respiratory protection required	ERP
F.2.3	decontamination procedures	ERP
F.2.4	minimum evacuation zone distances	ERP
F.2.5	a safe method of shutting down and isolation the photovoltaic system	ERP
F.2.6	emergency evacuation procedures	ERP
F.3	Two copies of the ERP will be stored in a prominent 'Emergency Information Cabinet', to be located directly adjacent to the site's main entry point	ERP
F.4	Provide the fire station at West Wyalong, the RFS, Fire and Rescue NSW with the BFMP and ERP, including plans of the development site	BFMP and ERP
F.5	Electrical components, including solar panels, will be designed to minimise the risk of ignition, in accordance with relevant Australian Standards	Design-phase – not addressed in the management plans

F.6	Buildings will be designed in accordance with relevant NSW RFS standards	Design-phase – not addressed in the management plans
F.7	Access site and internal roads will be designed and constructed in compliance with RFS standards. Emergency access to vehicles will be provided across the entire development site	TMP, BFMP and ERP
F.8	Chemicals will be stored in accordance with SDS requirements	Sections 8.1.2 and 13.6
F.9	The battery storage facility, if constructed, would be monitored and maintained regularly to avoid leaks from the lithium-ion batteries or overheating	Operations-phase – not addressed in the CEMP
F.10	The interior of any buildings will contain the necessary fire safety provisions, in accordance with the relevant Australian Standards and legislation (e.g. Fire extinguishers, smoke alarms, sprinklers)	BFMP and ERP
F.11	If required, a non-combustible dedicated 20,000 L water tank with a 65 mm Storz outlet will be located adjacent to the site office. Water from this tank will only be used for fire-fighting. A petrol, diesel or solar powered fire-fighting pump and 30 m hose reel with a steel nozzle will be available onsite, suitable for mounting on a 4WD with water tank, and used for grass fire / ember attacks by the applicant in the event of a fire	BFMP and ERP
F.12	If required, to allow emergency service personnel to undertake property protection activities, a 10 m Asset Protection Zone (APZ), allowing for unobstructed access by a 4 m-wide vehicle will be provided around the perimeter of the development site and associated infrastructure. The development site is to also be serviced by a graded road, offering direct access to the centre of the site	BFMP and ERP
F.13	Development of an Environmental Management Plan that will provide safety protocols including:	
F.13.1	storage of hazardous and flammable chemicals	Sections 8.1.2 and 13.6
F.13.2	daily monitoring of the Fire Danger Rating for the area, during the Fire Danger Period	Section 8.1.3
F.13.3	smoking on-site	Section 8.1.4
F.13.4	basic fire-fighting by on-site staff and use of fire-fighting equipment	Section 8.1.5
F.14	Project staff and contractors will be informed or fire risks and evacuation procedures. Staff will be trained in emergency response procedures	Section 8.1.6
9.12	**Socio-economic**	
SSE.1	Development of a Consultation and Stakeholder Engagement Plan (C&SEP) to reduce adverse impacts on the Bland Shire community. The plan will include procedures for:	C&SEP – not attached to this CEMP

SE.1.1	managing community expectations	C&SEP
SE.1.2	informing stakeholders of potential impacts	C&SEP
SE.1.3	providing project-related updates	C&SEP
SE.1.4	registering and responding to managing complaints and feedback	C&SEP
SE.2	The applicant will liaise with the appropriate local community representatives to help ensure accommodation of construction workforce does not adversely impact on local services or events. Where possible, local contractors, manufacturing facilities, and materials and services will be used.	Accommodation and Employment Strategy (AES) – not attached to this CEMP
SE.3	Ongoing engagement with Bland Shire Council will be undertaken to discuss and resolve any concerns	C&SEP
9.13	**Waste management**	
WM.1	Preparation of a Waste Management Plan (WMP) that meets the waste management classification as set out in EPA Waste Classification Guidelines and EPA's waste management hierarchy. The WMP will be incorporated into the EMPs and will include:	WMP – not attached to the CEMP
WM.1.1	waste transportation protocols	WMP
WM.1.2	procedures for ordering materials	WMP
WM.1.3	classification of waste to be generated during construction	WMP
WM.1.4	procedures for identifying opportunities to avoid, reuse, recycle, recover, or treat waste	WMP
WM.1.5	method of tracking all waste entering and leaving the site	WMP
WM.1.6	procedures for managing waste generated during maintenance of plant and equipment	WMP
WM.1.7	procedures for waste monitoring, inspection and reporting	WMP
WM.1.8	use of dedicated waste management areas on-site (e.g. skips and recycling bins)	WMP
WM.1.9	commercial reuse opportunities for generated waste	WMP
WM.2	A review of Bland Shire Councils seven landfills will be undertaken in preparation of the CEMP to understand capacity, the types of materials acceptable and accessibility of each site considering the location and requirements of the Wyalong SF	WMP

8 SITE MANAGEMENT

8.1 Site safety and emergency management

8.1.1 Emergency Response Plan and Bushfire Management Plan

MYT has developed an Emergency Response Plan (ERP) and a Bushfire Management Plan (BFMP) for the site.

The ERP addresses on-site and off-site fire events and details appropriate risk control measures to mitigate potential risks to health and safety of firefighters and other first responders.

The BFMP details aspects such as on-site firefighting equipment required, management of asset protection zones, measures for reducing fuel loads on the site, location of hazards and procedures to manage the hazards prior to and during firefighting operations, and site access and internal road plan.

8.1.2 Storage of hazardous and flammable chemicals

All hazardous and flammable chemicals will be stored in accordance with SDS requirements and in appropriate bunded and contained areas. The measures that will be implemented to mitigate risks from this are detailed in Section 13.6.

8.1.3 Fire risk and fire danger monitoring

All project staff and contractors will be informed of fire risks and evacuation procedures.

Daily monitoring of the Fire Danger Rating for the area will be undertaken during the Fire Danger Period. This monitoring is the responsibility of the Site Manager (see Monitoring Table in Appendix B).

8.1.4 Smoking on site

Smoking on site is prohibited, unless in designated areas at the amenities area.

8.1.5 Fire-fighting

MYT will ensure the site management team and appropriate on-site staff are trained in basic fire response procedures, including the location and use of on-site fire-fighting equipment.

8.1.6 Emergency response and site evacuation

MYT has developed an ERP to manage emergency response, which includes site evacuation. All staff will be trained in emergency response procedures.

8.2 Access, security and internal fencing

8.2.1 Access

Site access for construction and operation will be selected to minimise vegetation removal and impacts to threatened fauna species. Access to the site will occur only via designated gates.

8.2.2 Perimeter fence

As a security and safety measure, a security fence will be constructed prior to the installation of the trackers and solar panels. The perimeter fence will be:

- chainlink, potentially with other deterrents where required

- 2.4 m high.

Where possible, boundary fences and laydown areas will be located in previously-cleared areas and barbed wire will be avoided.

8.2.3 Internal no-go zones

No-go zones will be established within the site to protect:

- Aboriginal cultural heritage
- ecological values.

Aboriginal cultural heritage

Aboriginal cultural heritage artifacts identified as “Sites Requiring Management” in the Heritage Management Plan (HMP) as requiring protection will:

- be demarcated with permanent exclusion fencing prior and during the course of development
- be appropriately demarcated with signage such as 'No Go Zone' or 'Environmental Protection Area'
- have the location identified in site inductions

Ecological values

Trees and areas of vegetation that are identified in the Biodiversity Management Plan (BMP) as requiring protection will have a Tree Protection Zone (TPZ) declared around them. TPZs will:

- be demarcated with an exclusion fence
- be fenced using star pickets with high visibility bunting
- be not less than 2 m or greater than 15 m in height, except where crown protection is required
- be appropriately demarcated with signage such as 'No Go Zone' or 'Environmental Protection Area'
- have the location identified in site inductions

8.3 Traffic management and parking

The main access corridor for construction vehicles will be via Newell Highway and most vehicles are likely to approach from the northeast (and right turn into the site). However, some vehicles may need to approach the site from the southwest (particularly if sourcing aggregate from this direction).

To minimise dust/debris from being tracked off-site and onto the Newell Highway, the internal road network will be constructed under an "all weather" road type pavement.

A Traffic Management Plan (not attached to this CEMP) has been prepared for the project and the measures proposed in that plan to manage traffic impact will be followed.

8.4 Construction compound facilities

The construction laydown area located in the southern boundary of the site will be accessed by heavy vehicles making deliveries of equipment and machinery from the temporary construction

entrance approximately 600 m northeast of the intersection of Newell Highway and Quandialla Road.

In general, site drainage will be designed and maintained to prevent surface runoff ponding next to any footings or on or adjacent to the access roads, as this may cause excessive softening of subgrade material.

Grading the ground surface may be required away from footings and pavements and swales or surface V-drains may be used to direct surface water to suitable disposal areas.

8.5 Dust management

See Section 13.3, which covers air quality management procedures during construction in detail.

8.6 Waste management

MYT has developed a Waste Management Plan (WMP) to manage waste at the site. The WMP is a stand-alone document and is not attached to the CEMP.

8.7 Buried waste management

Buried waste may be encountered during project construction. In the event buried contamination is uncovered, the following process (Steps 1 to 13) should be undertaken:

Step 1. Stop work in the potentially contaminated area as soon as it is safe to do so and move to a designated meeting point or safe area. Excavation will cease in the vicinity of the discovery

Step 2. Contact the Person in control of the workplace

Step 3. Assess the potential risk to human health and the environment posed by the buried waste. A suitable person must assess this and assess whether evacuation or emergency services need to be contacted.

Step 4. Delineate an exclusion zone around the area using fencing and/or appropriate barriers and signage

Step 5. If required, Construction Foreman to arrange inspection by environmental officer/ external environmental consultant to assess the unexpected find and provide advice as follows:

- preliminary assessment of the find and need for immediate management controls (if any)
- what further assessment and/or remediation works are required and how such works are to be undertaken in accordance with contaminated site regulations and guidelines
- preparation of a remedial action plan for large-scale contamination or specification for smaller or minor volumes of material (if necessary)
- Remediation works required (where applicable)
- Validation works required following remediation works (if applicable).

Step 6. Works are not to recommence in the affected area until appropriate advice has been obtained from the environmental consultant or suitably qualified person and they have provided clearance. Excavation will not recommence until the extent of the contamination has been assessed and, if necessary, a remedial action plan has been prepared

Step 7. Air monitoring requirements are to be advised by an environmental consultant

Step 8. If it is deemed safe to do so, the environmental consultant will provide clearance for works to proceed in the affected area. If it is not considered to be safe, works must remain on hold until appropriate assessment, remediation and/or validation measures have been actioned

Step 9. Excavated material from remedial activities will be separated from other materials and stockpiled for assessment. Sampling of the materials will be undertaken in accordance with the relevant guidelines or professional judgement. Samples will be analysed for a range of analytes as required for beneficial reuse or off-site disposal

Step 10. For materials requiring off-site disposal, laboratory results will be assessed to determine the appropriate waste classification of the material in accordance with the *NSW EPA Waste Classification Guidelines (2014)* (or more recent edition if available) Depending on the classification, materials will be transported to an appropriate waste facility that is licensed to accept waste of the relevant classification or beneficially reused if appropriate

Step 11. A waste tracking system recording the volume of material, waste classification/ beneficial re-use status, removal documentation and truck and receiving landfill facility details must be recorded to ensure all waste is accounted for and disposed of appropriately in accordance with NSW EPA requirements – see Waste Management Plan

Step 12. Any unexpected waste finds must be documented, and records of volumes and types of materials identified removed from the site must be kept on file

A record of the unexpected waste find must be kept. The record must include exact location/GPS coordinates of the find. Documentation concerning the removal of any contaminated materials from the site must be kept on file. This will include the volume of material removed, the type (classification) of material, the licensed facility that the material was disposed to and receipt documentation from the licensed facility confirming volume received.

It must also be ensured that implemented procedures are in accordance with other adopted site documentation, such as the contractors EMPs, Health and Safety Guidance, etc.

8.8 Pre-clearance surveys and registers

8.8.1 Aboriginal cultural heritage

Based on the approved disturbance footprint of the Project, five sites are within impact areas. Seven sites occur in non-impact areas although they will require additional management to ensure that they are not harmed. Management of these sites falls under two management groups, namely:

Group 1: Sites Requiring Salvage. This group includes sites directly within or adjacent to impact areas. Sites within this group will be subject to surface collection.

Group 2: Sites Requiring Management. This group includes sites not to be impacted by the Project but require fencing to ensure they are not inadvertently impacted. These sites should be demarcated with permanent fencing prior and during the course of development. Information signs should also be placed at the sites.

Prior to any ground-breaking activities that may impact Aboriginal heritage grouped as described above, the protocols described in the ACHMP must be followed.

All employees, contractors and sub-contractors of the Project have a responsibility to ensure that the appropriate Aboriginal heritage salvage has been conducted prior to or in association with their activities which impact Aboriginal objects.

8.8.2 Flora and fauna

Prior to vegetation clearance and ground-breaking activities, a pre-clearance survey will be undertaken to ensure vegetation and fauna are properly identified, retained, treated or relocated. The BMP includes procedures that are to be followed for clearing vegetation, including:

- Protocol 1 – Vegetation Clearing Procedure
- Protocol 2 – Habitat Tree Removal
- Protocol 3 – Management of Displaced Fauna
- Protocol 4 – Habitat Box Procedure

The results of pre-clearance surveys will be recorded on the Inspection checklist form with photographs attached as evidence.

A pre-clearing survey is to be undertaken by project ecologist or suitably qualified environmental personnel. The Vegetation Clearing Procedure will be incorporated into the induction process for the project.

8.8.3 Weeds and pests

A Weed and Pest Management Plan (WPMP) has been developed for the site, the results of which are summarised in Section 13.4. The WPMP is attached as Appendix C.

Prior to construction activities, a survey will be undertaken to record the presence of weeds and pests. During the construction phase, the site will be inspected for weeds and pests and results checked against the pre-construction baseline and management actions taken as necessary.

The site inspection for weeds and pests will be recorded on the Site Inspection Checklist form (included in Appendix F) with photographs attached as evidence.

8.9 Working hours

Unless approval has been given by the regulator (DPIE), construction, upgrading or decommissioning activities will only be undertaken on site between:

a. 7am to 6pm Monday to Friday
b. 8am to 1pm Saturdays, and
c. at no time no Sundays and NSW public holidays.

The following construction, upgrading or decommissioning activities may be undertaken outside these hours without the approval of DPIE:

- the delivery of materials as requested by the NSW Police Force or other authorities for safety reasons; or
- emergency work to avoid the loss of life, property and/or material harm to the environment.

9 SITE CHARACTERISTICS

In order to manage the impacts of the project on the environment, it is important to understand the site characteristics. These are described below in terms of physical (topography, hydrology, groundwater, geology and soils), ecological (flora and fauna and weeds and pests), heritage (Aboriginal and non-Aboriginal) and social (land ownership, land-use and sensitive receivers) characteristics, and are sourced from the EIS (Accent 2018).

9.1 Physical characteristics

9.1.1 Topography

The site is relatively flat with elevations ranging from approximately 232 m above the Australian Height Datum (AHD) in the southeast to approximately 236 m AHD in the northwest.

A low, north to south trending ridgeline (the Booberoi Hills) is approximately 5.6 km to the east of the site. The southern part of the Booberoi Hills traverses Back Creek State Forest (a parcel of land of approximately 1000 ha).

9.1.2 Hydrology

The site is located within the Murray-Darling Basin between the Murrumbidgee River to the southwest and the Lachlan River to the northeast. The closer of these rivers is the Lachlan River, which is approximately 70 km from the site, with the site being in the Lachlan catchment.

Waterways in the immediate vicinity of the site include Gagies Creek, approximately 1.2 km to the west, an ephemeral tributary of Gagies Creek, approximately 550 m to the west, and two ephemeral drainage lines that cross the site.

9.1.3 Groundwater

Groundwater is a vital source of water for a number of communities throughout the Lachlan catchment. However, at the site, groundwater is not a source of irrigation water.

NSW records for groundwater bores show nine bores within a 10 km radius of the site. However, eight of these were drilled for mineral exploration purposes and only one (Bore ID No. GW056453) was drilled for water supply purposes. This bore is located approximately 4.4 km south of the site. The total depth of the bore is 45.7 m, suggesting that the depth to groundwater in this area may be approximately 40 m below the ground surface.

9.1.4 Geology and soils

The geology at the site consists of both undifferentiated Cainozoic sediments and Quaternary alluvial deposits.

The main soil type in the area is classed as a vertosol under the Australian Soil Classification.

9.2 Ecological characteristics

The site is highly modified due to its history of agriculture and grazing, and apart from scattered paddock trees, native vegetation is largely absent except along fence-lines and next to the southwestern corner of the development site. The wider landscape consists largely of land historically cleared for agriculture.

Biodiversity values within the site include hollow-bearing paddock trees and threatened species.

The vegetation within the site is identified as Plant Community Type (PCT) 76, belonging to the endangered Inland *Grey Box Woodland* in the Riverina, *NSW South Western Slopes*, *Cobar Peneplain*, *Nandewar and Brigalow Belt Bioregions* community. However, the vegetation does not qualify as the nationally-significant *Grey Box Grassy Woodlands* and *Derived Native Grasslands of South-eastern Australia* community.

9.2.1 Hollow-bearing trees

The vegetation ear-marked to be cleared comprises up to 45 paddock trees, including up to 13 hollow-bearing trees.

9.2.2 Threatened species

Two threatened species, the grey-crowned babbler and white-fronted chat, were identified during the site assessments. Other species assumed to occur on site under the Biodiversity Assessment Methodology (BAM) include the glossy black cockatoo, swift parrot (also EPBC-listed), masked owl and Sloane's toadlet.

The site assessments identified that the development is unlikely to significantly impact on any Matters of National Environmental Significance (MNES).

9.2.3 Weeds and pests

The EIS described the weeds in the two vegetation zones as follows:

- Cleared Land Vegetation Zone. In this zone dominated by crops and pasture grasses, weeds such as lucerne *Medicago sativa*, prickly lettuce *Lactuca serriola* and the high-threat weed African lovegrass *Eragrostis curvula* are present.
- Road Reserves Vegetation Zone - area of the Newell Highway road reserve. The dominant weed species in this vegetation zone were the crop species from the surrounding landscape (barley, canola and perennial rye-grass), as well as onion grass *Romulea rosea*.

9.3 Heritage characteristics

9.3.1 Aboriginal heritage

Three Registered Aboriginal Parties (RAPs) (one individual and two Local Aboriginal Land Councils (LALCs)) were identified from the Wiradjuri people as part of the consultation process. Representatives of the RAPs accompanied the survey team during the archaeological survey of the site, during which a total of 12 Aboriginal cultural heritage sites were identified, comprising two artefact scatters and ten isolated finds. All recorded sites were assessed as having low historical value.

9.3.2 Non-Aboriginal heritage

No known places of historical heritage value or significance were identified within, or intersecting, the development site.

9.4 Social characteristics

9.4.1 Land ownership

The development site is located within Lot 160 on Plan DP750615 (259 ha) and landholder's consent was obtained for the project prior to the lodgement of the DA and the supporting EIS.

9.4.2 Land-use

The Site

The development site has a long history of agriculture and grazing, and vegetation is comprised largely of canola, barley and pasture grasses.

The allotment on which the site is located is divided into three cropped paddocks of roughly equal size. Crops including canola and barley are grown in rotation, interspersed with years in which the paddocks are sowed with nitrogen fixing crops and grazed to keep the biomass low.

The Surrounds

The project is located within the Bland Local Government Area (LGA) located in the Riverina region of southwestern NSW. This rural region consists predominantly of irrigated land, with the agricultural, forestry and fishing industries being the main employers.

The land-use immediately surrounding the development site is similar to that of the site (i.e. primarily cropping paddocks).

There are no current extractive industry operations in the vicinity of the site. However, the Cowal Gold Mine is located approximately 30 km north of the site.

Areas used for recreation in the surrounding region include:

- Back Creek State Forest, located 3.2 km east of the site
- Wyrra State Forest, located 4 km to the northeast of the site
- Boxalls State Forest, located 6.4 km to northeast of the site
- Southwest Woodland Nature Reserve – Hiawatha Precinct, located 7.3 km southwest of the site.

9.4.3 Sensitive receivers

Sensitive receivers comprise rural residential dwellings, as shown on Figure 9.1.

Five residences are located within 2 km of the site, as listed below:

- R1: Site landholder residence, 1.4 km east
- R2: Residence 0.3 km west (owned by the landholder and leased)
- R3: Residence 0.6 km southwest
- R4: Residence 0.8 km southeast (unoccupied at the time of assessment)
- R5: Residence 1.0 km north

Those within 2 km of the site are considered to be sensitive receivers for statutory assessment purposes, excluding the two owned by the landholder (R1 and R2) which are considered part of the commercial development of the project.

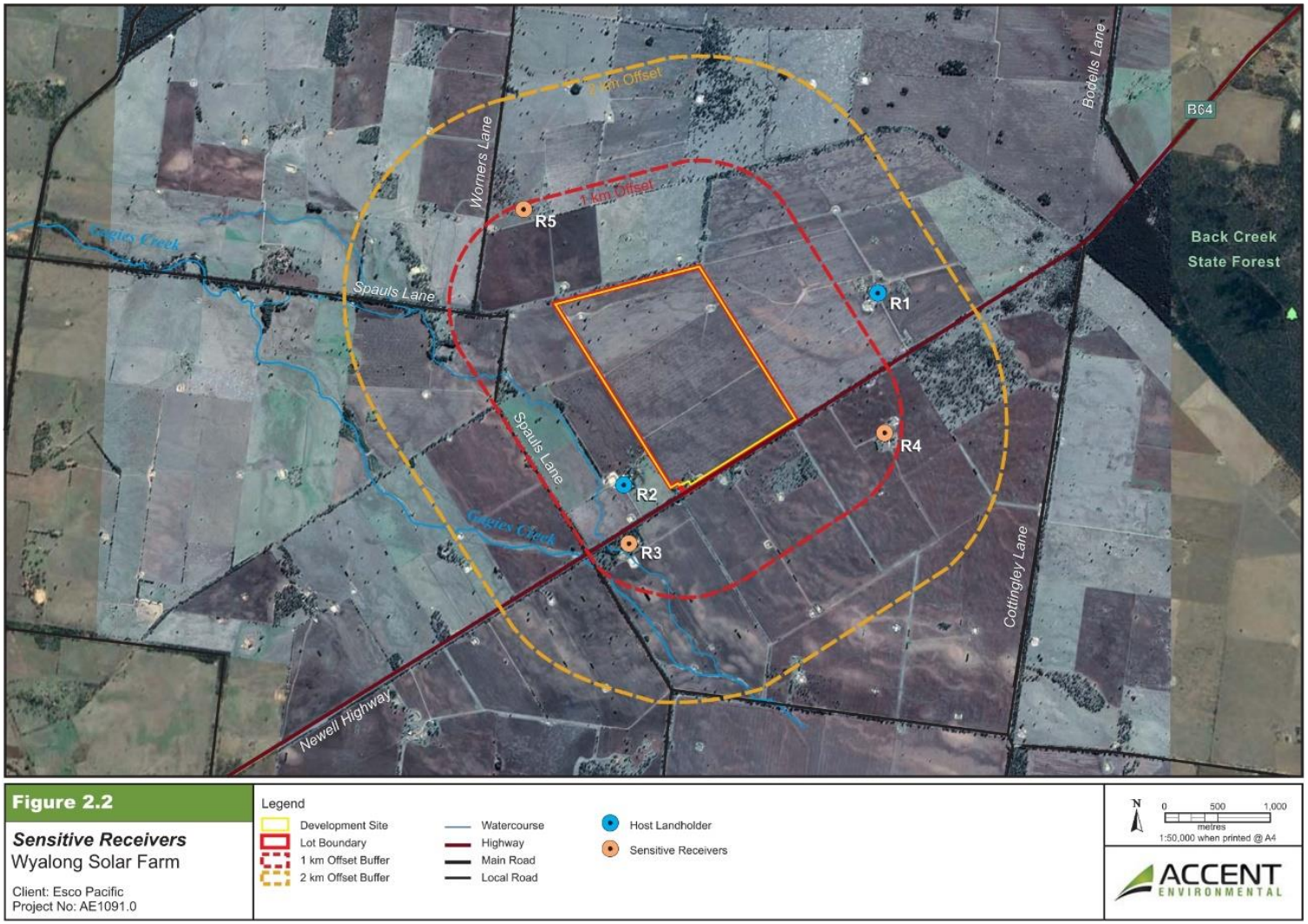

Figure 9.1 Sensitive receivers (from the EIS (Accent 2018)

10 ENVIRONMENTAL MANAGEMENT SYSTEM

A well designed and carefully implemented environmental management system provides an important framework for environmental management activities. This framework comprises the documented systems and processes used for the safe construction, operation and decommissioning of the Project. If implemented effectively, the system enables hazards to be identified and assessed to eliminate or minimise the risk of impact to the environment to a level that is as low as reasonably practicable (ALARP) throughout construction of the project.

The main components of MYT's environmental management system are described in the environmental management strategy (EMS) document and are shown diagrammatically in Figure 10.1.

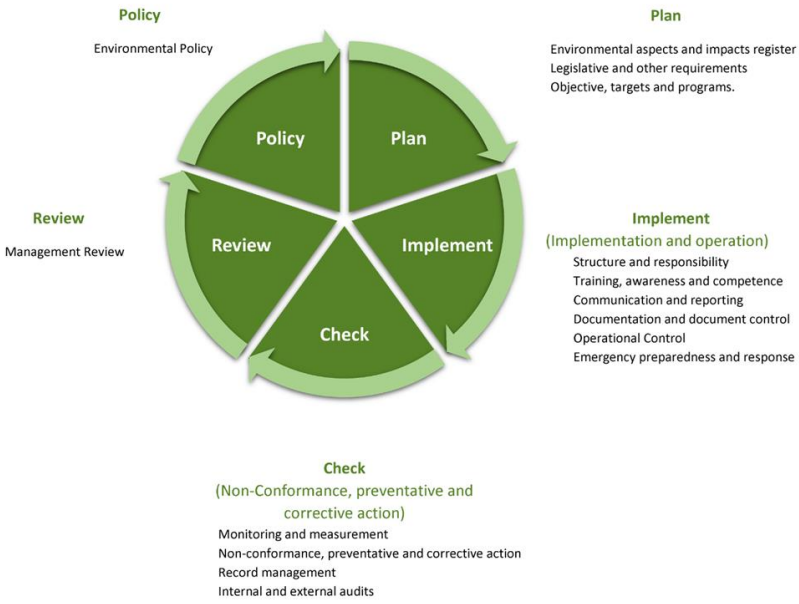

Figure 10.1 Environmental management system process

10.1 MYT environmental statement

MYT, with the development of its environmental management system in accordance with ISO14001 and by acknowledging its responsibilities and obligations towards people and the environment, is committed to:

- continual improvement of its environmental performance
- prevention and reduction of pollution derived from its activities
- compliance with applicable national and NSW legal requirements, as well as with other regulatory requirements

A copy of MYT's environmental policy is attached to the EMS.

10.2 Induction, training and awareness

10.2.1 Environmental induction processes

Site environmental inductions are to be provided by the contractor for all MYT staff, contractor employees and subcontractor employees entering the site to inform them of their general environmental responsibilities, site-specific values and expectations (on-site and off-site) and environmental management controls, particularly in relation to flora and fauna, water quality, dust management and erosion and sediment controls. Inductions will include the use of spill kits.

- General Environmental Duty and General Biosecurity Duty
- flora and fauna management
- cultural heritage management (aboriginal and non-aboriginal), including encountering aboriginal artefacts (unexpected finds)
- noise and vibration minimisation including approved construction hours
- surface water (including stormwater) management
- erosion and sediment control
- traffic management including air quality
- waste management
- weed and pest management
- fuel and chemical management, including chemical spill response
- minimising impacts to agricultural practice
- incident management
- bushfire management
- emergency response
- complaints management
- stakeholder and community relations management.

All visitors are to receive a site-specific induction appropriate in length and content for the type of work being undertaken. All inductions including visitors' inductions shall be recorded in Site Induction and Visitor Register document kept at the site office.

Environmental requirements discussed in the induction are reinforced during daily pre-start meetings and also during Toolbox meetings.

10.2.2 Training and awareness program

Pre-activity meetings

Environment-themed meetings will be undertaken by MYT and its contractors when new phases of activity commence. The meetings with staff and personnel will discuss issues associated with the scheduled work. The discussions will highlight relevant environmental issues as required and keeping records of agendas and outcomes.

Weekly toolbox meetings

Weekly toolbox talks with all construction staff and personnel involved in the particular type of work (i.e. cabling, panel mount installation, etc.) will be undertaken by MYT and its contractors to discuss issues associated with the schedule of work for the week. These discussions will

highlight relevant environmental issues as required and keeping records of Toolbox Talk agendas and outcomes.

Daily pre-start meetings

Prior to the commencement of work tasks each day, the Safety and Environment Advisor (or delegate) will undertake a daily pre-start with site personnel. The objective of pre-starts is to communicate the tasks for the day and highlight any potential environmental, safety or quality issues or lessons learned. Daily weather conditions will be discussed and impacts on the work noted.

10.3 Risk assessment

Risk assessment is a key tool that enables management of environmental impacts. This assists with identification of the higher risk/greater impact activities and where management and mitigation efforts should be focused. Risk assessment will be undertaken using a risk-based approach, based on international standards such as AS/NZS ISO 31000:2018: Risk management - Guidelines (Standard).

AS/NZS ISO 31000:2018 includes a diagram that shows the risk assessment process conceptually. This is presented in Figure 10.2.

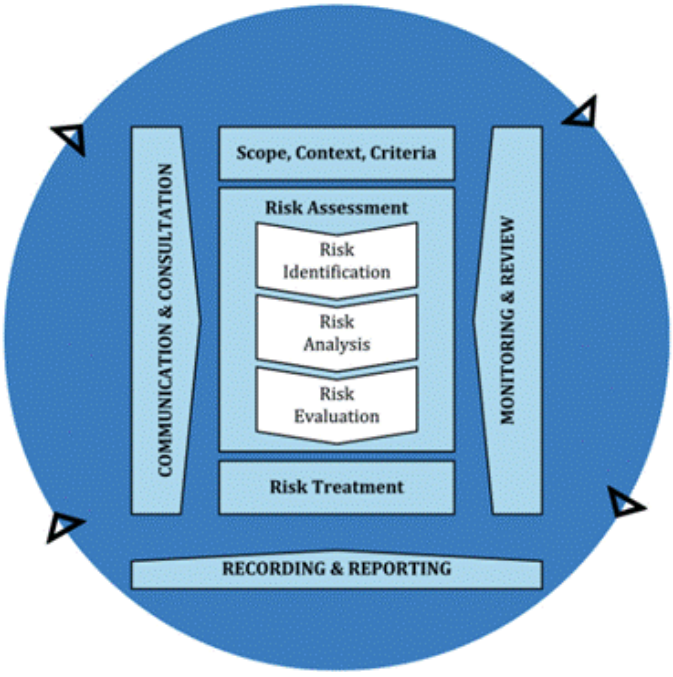

Figure 10.2 The risk assessment process overview (from AS/NZS 2018)

10.3.1 Methodology

Risk assessment is the process of identifying, evaluating and controlling risks associated with hazards within the site, including identifying a clear pathway to one or more receptors, and assessing the potential impacts on the receptors as a result of the hazard.

The risk assessment process can be summarised as follows:

Step 1. Identify the risk hazards and risk sources that are applicable.

Step 2. Identify the sensitive receivers.
Step 3. Apply a risk rating to the risk sources identified within each category of risk hazard, using a risk matrix such as the standard matrix shown below (Figure 10.3). Risk ratings are applied both before (inherent risk) and after (controlled risk) the application of standard controls, by assigning a likelihood and consequence of the event occurring. Likelihoods and consequences have been defined using standard industry definitions, as shown in Tables 10.1 and 10.2.
Step 4. Assess whether the controlled risk is acceptable or whether a further management is required to further reduce the risk – see Table 10.3.

Likelihood	nsignificant (1)	Minor (2)	Moderate (3)	Major (4)	Critical (5)
Almost Certain (5)	Medium	High	High	Very High	Very High
Likely (4)	Medium	Medium	High	High	Very High
Possible (3)	Low	Medium	Medium	High	High
Unlikely (2)	Low	Low	Medium	Medium	High
Rare (1)	Low	Low	Low	Medium	Medium

Consequence

Figure 10.3 Risk Assessment Matrix

Impact Categorisation

Impacts will be categorised based on their severity, duration and cost to remediate the impact, as shown in Table 10.1, and their probability of occurrence as shown in Table 10.2.

Table 10.1 Consequence categories and description

Category	Definition
Critical	Hazard has critical impact, in terms of severity and/or duration. Mitigation or remediation effort is required, although some effects may be irreversible Remediation of environmental impact would require significant private and public resources Hazard event would be the subject of widespread community outrage
Major	Hazard has major impact, in terms of severity, duration and/or frequency of occurrence. Treatment or remediation effort is required. Some effects may be irreversible Remediation of environmental impact would require significant private and public resources Hazard event would be the subject of widespread community concern
Moderate	Hazard has moderate, noticeable impact, in terms of severity, duration and/or frequency of occurrence. Moderate treatment or remediation effort may be required Hazard event would be the subject of limited community concern
Minor	Hazard is perceived, but has minor and typically temporary effects. Some remediation may be required

Insignificant	Impacts are barely recognised and/or quickly recovered from. No specific remediation required

Table 10.2 Likelihood categories and description

Category	Definition
Rare	Highly unlikely, but the risk event may occur in exceptional circumstances (likelihood <5%)
Unlikely	The risk event could occur at some time (likelihood 5% to 30%)
Possible	The risk event might occur at some time (likelihood >30% to 70%)
Likely	The risk event will probably occur in most circumstances (likelihood >70% to 90%)
Almost certain	The risk event is expected to occur in most circumstances (likelihood >90%)

Prioritising Environmental Risks

Risks will be prioritised and managed based on the Residual Risk Level rating shown in Table 10.3

Table 10.3 Risk rating acceptability

Residual Risk Level	Definition	Action required	Suggested timing	Authority for reporting to and prioritising and managing of residual risk
Very High	Totally unacceptable level of risk. Controls must be put in place to reduce the risk to lower levels i.e. to medium or low	Immediately cease the activity	Immediate	MYT Director/Country Manager
High	Generally unacceptable level of risk. Controls must be put in place to reduce the risk to lower levels i.e. to medium or low	Immediately cease the activity	Immediate	MYT Director/MYT Project Manager
Medium	May be acceptable provided the risk has been minimised as far as reasonably practicable	Initiate steps to further control the risk	Immediate	Construction Manager
Low	Acceptable level of risk provided the risk cannot be eliminated	Review for improvement opportunities Closely monitor the effectiveness of existing risk controls Monitor the effectiveness of risk controls. Reduce the risk further if practical	Normally within 1 month Ongoing control as part of a management system	Superintendent / Safety and Environmental Advisor

Risk Controls / Treatment

Responsible Managers shall ensure risk controls are selected in accordance with the relevant hierarchy of control detailed in Figure 10.4.

	Examples of control measures	
Elimination/ avoidance	Eliminate or avoid the risk altogether e.g. stop the activity entirely; avoid disturbance to a cultural heritage site.	**Most preferable**
Substitution	Substitute a hazardous item with a safer alternative e.g. use water-based chemicals rather than solvent-based chemicals.	
Isolation/ Engineering	Isolate the hazard from the environment and/or install equipment to counteract the hazard e.g. safe storage of hazardous materials; treatment of process waters.	
Mitigation	Minimise the level of environmental harm e.g. watering access roads to minimise dust.	
Rehabilitation	Remediation of harm through rehabilitation e.g. removal/ treatment of contaminated soil; revegetation of disturbed area.	
Offsetting/ compensation	Offset the environmental harm or provide compensation (where harm is unavoidable) e.g. off-site planting of native vegetation to offset on-site clearance; payment of money to landholder for impacts on land use.	**Least preferable**

Figure 10.4 Hierarchy of control for environmental impacts

10.3.2 Risk management: steps and processes

The risk assessment process shown in Figure 10.2 is collaborative and iterative and will be undertaken prior to the commencement of construction and reviewed regularly.

The risk assessment process will include:

- development and regular update of a detailed Project Risk Register (potentially as part of a Risk Workshop)
- development of safe work method statements (SWMS) or job safety and environmental analysis (JSEAs) or similar, particularly for high-risk activities
- development of work instructions to enable work to be carried out methodically
- weekly toolbox meetings to discuss the upcoming work and the potential environmental risks
- daily pre-start meetings to focus on the day's activities and the potential environmental risks
- use of the Permit to Work systems
- regular periodic inspections by the site project team
- periodic audits by external personnel.

The Project Risk Register will be reviewed in response to:

- monitoring program results
- any major changes to project configuration, equipment or operation
- new or changed legislation or changes to permit conditions
- the identification of new or previously unforeseen risks or impacts
- the occurrence of major environmental incidents or emergencies.

10.3.3 Task-specific risk assessments

Safe work method statement

The SWMS is a standard industry tool to manage work in a safe and environmentally responsible manner. SWMSs will be prepared by project personnel for each new work area and activity, ensuring that each SWMS is location- and activity-specific.

Daily pre-start meetings

Daily pre-start meetings will be undertaken and attended by all workers. Attendance registers will be maintained with all workers required to sign in. The pre-start meetings will be held for combined groups of Wyalong SF workers, contractors and subcontractors working on a specific aspect of the project. During the meetings, the day's activities and the associated environmental and safety risks will be discussed. Lessons or observations regarding environmental and safety risks from previous days will be discussed and incorporated, as appropriate, into the JSEAs.

Weekly toolbox meetings

All contractors will hold weekly toolbox meetings to discuss key safety and environmental topics relevant to the current scope of works. This is a more detailed discussion than that held during pre-start meetings. Attendance records will be maintained and will be considered as part of the site training program.

Job safety environmental analysis

JSEAs set out how a task is to be performed. All contractors are required to complete JSEAs and ensure that their team of workers read and understand the safety and environmental requirements.

JSEAs are a standard industry tool that an individual or sub-team would undertake prior to commencing a task to analyse the hazards and risks involved in completing that task safely.

The JSEA will identify the specific safety and environmental objectives and hazards associated with the activities and be approved by the individual responsible for completion of the task.

Environmental triggers to be noted in the preparation of a JSEA may include:

- ground disturbance
- native vegetation clearing
- welding, grinding and other hot works
- weed control
- excavation and back-filling of trenches
- handling of hazardous materials (including wastes).

JSEAs will be used to identify the specific environmental (and safety) objectives and hazards associated with the activity and be approved by the individual responsible for completion of the task.

The JSEA relevant to each daily pre-start meeting will be signed each day by Wyalong SF workers, contractors and subcontractors attending the meeting.

All completed JSEAs will be retained and electronic copies provided to the MYT at the completion of the activity covered by the JSEA.

10.4 Incident management, emergency response and spill response

10.4.1 Incident management

During the construction phase, each contractor will be responsible for managing the environmental impacts caused by incidents that occur on site during construction works.

All incidents and actions to control environmental risks will be reported to MYT.

10.4.2 Emergency preparedness, response and contacts

An Emergency Response Plan (ERP) has been prepared by MYT and considers:

- site access
- water supply
- fire risks during construction
- awareness and training for Emergency Services
- fuel/vegetation management
- high angle rescue
- evacuation procedures
- training for facilitator staff
- aerial firefighting.

The ERP is a stand-alone document and is not attached to the CEMP.

Relevant phone numbers in case of an environmental emergency are shown in Table 10.4.

10.4.3 Spill response

In the event that accidental release of material occurs at the site, the following actions will be implemented:

- staff shall take steps to contain the released material, if possible, until remedial measures are fully implemented.
- The Safety and Environmental Advisor shall be notified to make an initial assessment of the severity of the accidental release and the nature of the material
- The Site Manager shall notify the MYT Project Manager and Director
- The MYT Project Director will notify the relevant regulatory authority as appropriate
- MYT, in consultation with the relevant regulatory authority as appropriate, shall take the necessary steps to treat, remove or otherwise manage the released material

- appropriately qualified personnel shall make an assessment of the area to confirm the success of the actions and whether additional works are required
- appropriately qualified personnel shall assess the work procedures or cause of the failure and MYT shall implement any changes deemed to be appropriate to prevent reoccurrence of a similar incident in the future
- following completion of remedial actions, the MYT HSEQ Manager shall provide an incident report to the MYT Project Manager detailing the nature of the incident and the corrective actions implemented.

A site-specific Spill Response Plan is attached to the CEMP as Appendix E.

Table 10.4 Emergency contacts

Response agency	Contact details
Police	000
West Wyalong Police Station	02 6972 2444 **(n**ot open 24 hours**)**
Ambulance	000
Fire (Fire and Rescue NSW)	000 (or, for mobiles only, 112)
Environment Protection Authority NSW (EPA NSW)	131 555 or (02) 9995 5555
Bland Shire Council	(02) 6972 2266 (or, outside office hours, on 0418 402 350)
Rural Fire Service Bland Temora Region	(02) 6977 4737
Wildlife Carers Network Central West (Mudgee)	0408 966 228
RSPCA NSW Orange Shelter	(02) 6362 6171
West Wyalong Veterinary Clinic	(02) 6972 2863
Temora Veterinary Hospital	(02) 6977 1451

11 INSPECTIONS, MONITORING AND AUDITING

11.1 Site Inspections

During the construction phase, MYT and its contractors will conduct regular inspections to confirm compliance with the CEMP. Inspection records will be maintained by the contractors and reported to MYT on a regular basis. Table 11.1 summarises the inspection program and the Environmental Monitoring Plan is attached as Appendix B.

11.2 Environmental monitoring and reporting

Environmental non- compliances, incidents and complaints will be reported to the Site Construction Manager.

The Safety and Environmental Advisor will record all environmental non-compliances, incidents and complaints in an Environmental Incidents Register which will include the following information:

- time, date and location of incident
- nature of incident
- personnel and machinery involved in incident
- corrective measures taken in response to incident
- date of incident close-out.

MYT will maintain the environmental incident register for the project and will make this available to the Responsible Authority upon request.

11.3 Auditing

11.3.1 Overview

Audits are an essential means by which the project proponent and the regulatory authorities ensure a project's compliance with environmental objectives.

Project and internal audits are to be conducted during mobilisation, construction and de-mobilisation in accordance with the audit program. The importance of environmental risks and the results of previous audits shall be considered when compiling the schedule. The schedule should also consider other management plans and the frequency of auditing required for each discipline.

Table 11.1 Indicative inspection program

Inspection type	Purpose	Responsibility	Compliance indicator/s and records/actions	Timing/frequency
Consistency with design footprint	Ensure all construction footprints are compliant with approved development plans	MYT Safety and Environmental Advisor	No non-compliances. Maps and geographic information system (GIS) outputs	Weekly or during clearance activities
Compliance with air quality objectives	Ensure air quality objectives are met	MYT Safety and Environmental Advisor	Record of completed inspection and, if necessary, corrective action lodged. Visual inspection until complaint is raised	Weekly and immediately after any complaint is raised
Compliance with noise and vibration objectives	Ensure noise and vibration objectives are met	MYT Safety and Environmental Advisor	Record of completed inspection and, if necessary, corrective action lodged Visual inspection until complaint is raised	Weekly and immediately after any complaint is raised
Compliance with biosecurity objectives	Ensure biosecurity objectives are met	MYT Safety and Environmental Advisor	Record of completed inspection and, if necessary, corrective action lodged	Fortnightly
Compliance with vegetation clearing objectives	Ensure vegetation clearing objectives are met	MYT Safety and Environmental Advisor	Record of completed inspection and, if necessary, corrective action lodged	Fortnightly or during clearance activities
Compliance with soil management objectives	Ensure soil management objectives are met	MYT Safety and Environmental Advisor	Record of completed inspection and, if necessary, corrective action lodged	Fortnightly or daily during excavation activities
Compliance with water management objectives	Ensure water management objectives are met	MYT Safety and Environmental Advisor	Record of completed inspection and, if necessary, corrective action lodged	Fortnightly and after any significant (>50 mm) rainfall event
Compliance with traffic management objectives	Ensure traffic management objectives are met	MYT Safety and Environmental Advisor	Record of completed inspection and, if necessary, corrective action lodged	Daily during delivery of oversize components (e.g.BESS) containers). Weekly during normal construction activity

Inspection type	Purpose	Responsibility	Compliance indicator/s and records/actions	Timing/frequency
Compliance with waste objectives	Ensure waste management objectives are met	MYT Safety and Environmental Advisor	Record of completed inspection and, if necessary, corrective action lodged	Fortnightly
Rehabilitation	Ensure timely and effective progressive rehabilitation of disturbed areas	MYT Safety and Environmental Advisor	Records of comparison of conditions before and after rehabilitation	Fortnightly

11.3.2 Internal audits

MYT will conduct regular audits of management controls to monitor compliance with this CEMP. All audit actions will be resolved by the responsible entity/contractor providing evidence that the action has been completed. If subcontractors are conducting the audits, they will communicate the results of audits to MYT on a regular basis. Table 10.2 summarises the audit program.

Table 11.2 Indicative internal audit program

Timing	Type	Objective
Within three months start of construction	Internal	Establish that all management controls are being implemented, and compliance with environmental performance objectives is being achieved
Every six months subsequent to the initial internal audit	Internal	Establish that all management controls are being implemented, and compliance with environmental performance objectives is being achieved. Ensure any prior non-compliances have been addressed

11.3.3 External audits

MYT will engage independent parties to conduct external audits as required. As per CoC 7 of Schedule 4, an independent audit is required within 6 months of the commencement of construction. This required audit will:

- be prepared in accordance with the relevant Independent Audit Post Approval requirements (DPE 2018)
- be led and conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary of DPIE
- be carried out in consultation with the relevant agencies
- assess whether the development complies with the relevant requirements in this consent, and any strategy, plan or program required under this consent
- recommend appropriate measures or actions to improve the environmental performance of the development and any strategy, plan or program required under this consent

Within 3 months of commencing the required audit, or unless otherwise agreed by the Secretary, a copy of the audit report will be submitted to the Secretary, and any other NSW agency that requests it, together with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations.

The recommendations of the required audit will be implemented to the satisfaction of the Secretary of DPIE.

11.3.4 Indicative inspection program

During construction, weekly site inspections will be completed by MYT. Table 11.1 summarises the broad inspection program and its objectives. The program outlined in this table is intended to complement the Environmental Monitoring Plan that is attached as Appendix B.

11.4 Non-compliance and incident management

11.4.1 Definitions

Any incident or accident that results in harm to the environment and/or off-site receptors is to be regarded as an environmental incident. Where an incident results from a failure of a system process, or requirements of contractor CEMPs, the incident shall also be regarded as a non-compliance.

An **incident** is a set of circumstances that causes or threatens to cause material harm to the environment

Material harm is harm that:

- involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial; or
- results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment

Non-compliance is an occurrence, set of circumstances or development that is a breach of this consent but is not an incident

11.4.2 Overview

It is a mandatory requirement for any personnel working for or on behalf of MYT to respond to all hazards and events that have affected or have the potential to adversely affect the environment.

Examples of events include:

- fauna mortality
- fuel spillage
- excessive noise incidents
- chemical spills
- bushfire
- complaint from a neighbour.

The first line of response is to take immediate actions to minimise risks to persons, plant, equipment and the environment. These actions may include:

- stop work
- assess site and make the area safe
- notify other parties that may be affected by the hazard/event.

11.4.3 Record keeping

All incidents (including near misses) and non-compliances and the associated corrective actions are to be recorded in the project incident management system. This will document, record, track, manage and report all environmental-related incidents and observations.

11.4.4 Reporting

The conditions of the DC require a report summarising complaints, investigations and responses be submitted to DPIE (compliance@planning.nsw.gov.au).

Where an exceedance of environmental levels/criteria has occurred, or a validated complaint is received, an incident report and set of corrective actions will be raised by the construction contractor and immediately reported to the Construction Manager for inclusion in the incident register. MYT is responsible for submitting reports to DPIE, as required.

11.4.5 Corrective actions

Once an incident has been reported, a set of appropriate corrective actions will be raised by the contractor. Measures already implemented, additional measures to be implemented as a result and any corrective actions will be reported to the Site Construction Manager. Actions will be implemented to the satisfaction of the Site Construction Manager and their effectiveness confirmed to demonstrate appropriate measures have been implemented to prevent reoccurrence of impacts, as far as practical.

11.5 Communication

11.5.1 Internal communications

Communications within the project will be managed by MYT, who will ensure internal communications are documented, able to be tracked and accessible.

11.5.2 External communications

External communications will be undertaken in accordance with MYT's Consultation and Stakeholder Engagement Plan.

MYT will notify the relevant authority in a timely manner of any instances of statutory non-compliance.

11.5.3 Complaint investigation and response

MYT recognises that complaint investigation and response is an important part of their quality management system. MYT will set up a website, email address and contact phone number for feedback and complaints.

11.6 Documentation and Records Management

11.6.1 Requirements

MYT's contractors will document, implement and maintain this CEMP. This will be done by:

- maintaining site inductions and recording attendances
- ensuring workers are trained and competent to undertake their activities
- ensuring control measures are implemented, fit-for-purpose, and where relevant inspected and maintained regularly
- ensuring, when noted, non-compliances are reported appropriately
- ensuring appropriate corrective actions are implemented in a timely manner
- auditing performance against requirements regularly.

Each contractor is responsible for maintaining their environmental management system documents, ensuring the records are up-to-date and regularly reviewed.

11.6.2 Document Control

Document control is an important part of the environmental management system and documents must be readily available to ensure all employees have easy access to them. The accessible documents must be the current versions and obsolete or superseded documents must be made inaccessible and withdrawn from all points of use.

Each contractor will have a system to share controlled documents. The system will allow all employees to access the documents.

11.6.3 Records management

To ensure this CEMP is implemented effectively, the records of inspections, incidents, management actions and similar will be appropriately managed. Examples of the records that will be kept include:

- relevant correspondence from regulators
- minutes of environmental management-related meetings
- surveys of project site footprint to ensure consistency with approved design
- staff training records
- records of dangerous goods/hazardous substances brought on to site or taken off site
- environmental monitoring results (e.g. water samples, groundwater samples, noise monitoring, etc.)
- records of complaints and incidents and the resulting responses
- records of non-compliances and the resulting corrective actions
- audit reports (internal, external)
- site inspection records (including photographs) and action requests arising from inspections
- photographic and video records (e.g. pre-construction site conditions, such as stream condition, vegetation condition, etc.).

Where records are related to certain events or locations on site, the record will be tied to GPS coordinates.

11.6.4 Review and improvement

MYT's contractors will undertake on-going review and improvement of existing systems and controls.

Review is a critical element of the environmental management system and involves a formal evaluation of the adequacy of the system – taking into account any new environmental issues, legislation, changing circumstances and the need for continual improvement.

In order to ensure a rigorous, all-encompassing review process, the contractors will conduct regular management review meetings. These meetings should be attended by individuals with either executive or specialist responsibility. At the Wyalong SF this may include:

- the MYT Project Director
- the MYT Project Manager
- the MYT HSE Advisor

- the subcontractor management representatives, as appropriate.

12 ENVIRONMENTAL CONTEXT

EMPs consider how actions might impact on various aspects of the environment (biophysical, social, economic). During the construction phase of the project, the following aspects need to be considered:

- Aboriginal cultural heritage
- Air quality
- Biosecurity (pests and weeds)
- Flora and fauna
- Historic heritage
- Land and water
- Noise and vibration
- Socio-economic environment
- Visual amenity

These are described below.

As part of the planning process, ESCO Pacific commissioned Accent to complete an environmental impact assessment (EIA) of the site which resulted in an EIS. That EIS – *Wyalong Solar Farm: Environmental Impact Statement (Accent 2018)*, – was accepted by the regulator (DPIE), and provided the basis for the DC –and, where relevant, provides the basis for the following subsections.

Residents that may be impacted by the project are considered sensitive receivers and during construction, the potential impacts considered will include air quality, noise and vibration and visual amenity. The sensitive receivers are discussed in those sections.

12.1 Aboriginal cultural heritage

The history of past land-use in a given area, particularly the European settlement and associated agricultural practices, is crucial for the preservation of archaeological deposits is. Satellite imagery of the site shows that the immediate landscape, including surrounding areas, have been subject to extensive historical clearing and agriculture, with many of the surrounding areas being cultivated paddocks.

The flat landforms which dominate the site would not have been an impediment to use of the area by Aboriginal people in the past. However, the occupation of the area by Aboriginal people would most likely have been limited to transient inhabitation resulting from movement across the landscape to other areas which provide more stable resources. Such resources would have included the ephemeral tributary of Gagies Creek on the western boundary of the site at a distance of approximately 550 m and Barmedman Creek approximately 12 km to the east.

Desktop search

Prior to European occupation, the site and wider region was inhabited by the Wiradjuri People. A desktop search (including an AHIMS search) was undertaken for the area within the lot boundary, and found:

- no places listed on either the National or Commonwealth heritage lists
- no Native Title Claims
- no recorded Aboriginal sites
- no places listed on the Bland LEP (including areas adjacent to the area within the lot boundary).

The AHIMS search identified:

- no Aboriginal sites or places within 5 km of the site
- no Aboriginal cultural heritage studies undertaken within 5 km of the site
- records for Aboriginal heritage sites within a 30 km x 30 km search area:
  - one artefact (generally located near watercourses but can occur anywhere in the landscape – potential to occur on the site)
  - one burial-artefact (generally uncommon and recorded in areas with less ground disturbance and generally found in elevated sandy contexts or in association with rivers and major creeks -–unlikely to occur within the site)
  - 10 scarred trees (generally located in areas where native vegetation has not been cleared – potential to occur in the site).

Archaeological survey

A total of 12 Aboriginal cultural heritage sites were recorded within the site. The results of the current assessment conform closely to the predictive model with two artefact scatters and ten isolated finds being identified. All recorded sites are assessed as having low historic value. There were no identified constraints which prevented the successful completion of the archaeological assessment, which was conducted by up to four surveyors per day, including two qualified archaeologists. All values of the Burra Charter were considered when assessing the significance of the sites.

The two artefact scatters are of a low density and are located on the fenceline boundary of the site (Figure 12.1):

- Glenroy-OS1 is a low-density artefact scatter comprising flakes (including broken flakes) and one core manufactured from silcrete.
- Glenroy-OS2 is a very low-density artefact scatter comprising flakes manufactured from quartz and silcrete.

The 10 isolated finds (Glenroy-IF1-10) were identified at the locations shown in Figure 12.1 and consisted of single pieces of quartz flake or silcrete flake/blade/core. The high number of identified isolated find sites is not unexpected given the high levels of ground exposure across the site.

The recorded low-density artefact scatters and isolated artefacts highlight the limited availability of resources within the site that would generally have only supported sporadic visits in the past.

The potential for the presence of further subsurface archaeological deposits at each of the sites was assessed as negligible.

Significance of the sites

All values of the Burra Charter were considered when evaluating the significance of sites in the development site. OzArk assessed that the cultural material identified within the development site was of:

- low scientific/archaeological significance
- no aesthetic value
- low historic value.

Cultural heritage significance is assessed by the Aboriginal community and is typically based on traditional and contemporary lore, spiritual values, and oral history, and may also take into account scientific and educational value.

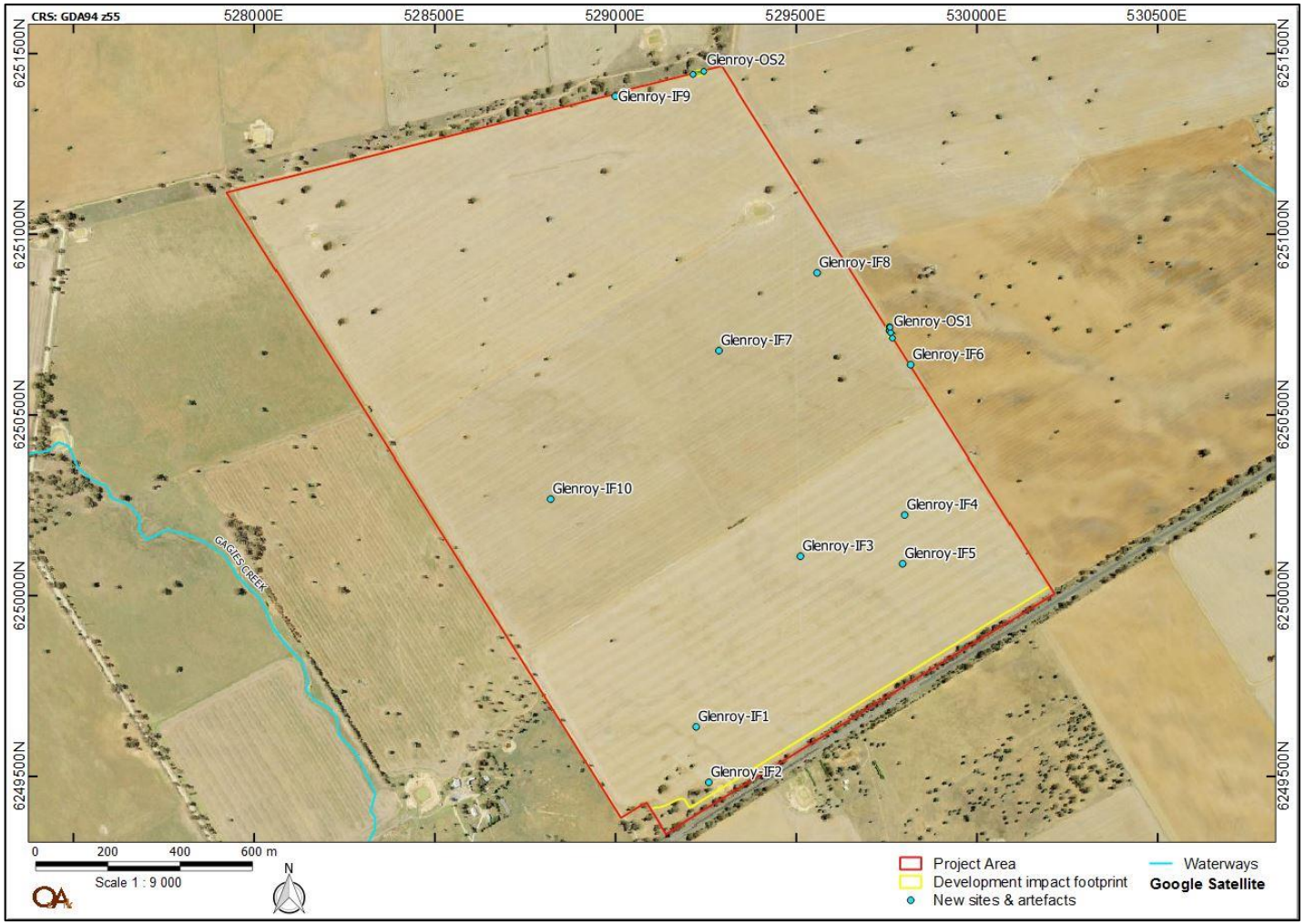

Figure 12.1 Location of newly-recorded Aboriginal heritage sites within the development site

12.2 Air quality

Accent (2018) noted that local air quality could be impacted by exhaust emissions and dust generation.

Exhaust emissions

Air emissions will be generated from vehicles, plant and equipment, including:

- earthmoving machinery and equipment, including excavators, scrapers and loaders
- material handling equipment, including forklifts and cranes
- vehicles travelling to and from the site, including light vehicles transporting construction personnel and heavy vehicles delivering construction materials
- water trucks for dust suppression.

Fugitive dust emissions

Dust generation as a result of surface disturbance works, including earthworks and vehicle movements on unsealed roads, will be expected to occur as a result of the project.

Surface disturbance works are relatively minor for solar farm projects. However, works will include:

- site vehicles such as 4WDs driving on tracks around the site to access work areas
- earthmoving machinery conducting excavation, grading, stockpiling, etc.
- machinery moving around the work area
- stockpiled soil and rock

12.3 Biosecurity (pests and weeds)

12.3.1 Weeds

Weeds in the two vegetation zones can be described as follows:

- Cleared Land Vegetation Zone. This zone is dominated by crops and pasture grasses, and weeds such as lucerne *Medicago sativa*, prickly lettuce *Lactuca serriola* and the high-threat weed African lovegrass *Eragrostis curvula* are present.
- Road Reserves Vegetation Zone - area of the Newell Highway road reserve. The dominant weed species in this vegetation zone were the crop species from the surrounding landscape (barley, canola and perennial rye-grass), as well as onion grass *Romulea rosea*.

As part of the Biodiversity Management Plan and WPMP development, OzArk conducted a 1-day site assessment of the current weed and pest populations and extents at the site. This assessment found 30 exotic weeds within the boundaries of the site. Of these, five were deemed especially significant owing to their listing as Weeds of National Significance (WoNS) or high-threat exotic species (HTE), or due to their inclusion on the list of priority weeds (PW) for the Riverina (including the Bland Shire):

- African boxthorn (*Lycium ferocissimum*) – WoNS, PW
- khaki weed (*Alternanthera pungens*) – HTE

- umbrella sedge (*Cyperus eragrostis*) – HTE
- Bathurst burr (*Xanthium spinosum*) – HTE
- Rhodes grass (*Chloris gayana*) – HTE.

12.3.2 Pest species

Surveys have not identified any pest species at the site. However, animals such as rats, foxes and rabbits are common pests and likely to occur.

12.4 Flora and fauna

The site is divided into three paddocks. Each of these paddocks, at the time of the assessment in 2018, was growing either Barley (*Hordeum* spp) (southern paddock) or Canola (*Brassica napus)* (northern two paddocks). The current land manager has rotated these crops, with other nitrogen fixing species, for the last eight years, and the paddocks have been similarly managed under previous land managers.

Native vegetation is largely absent from the site, with scattered paddock trees being the most obvious remnants of the historic vegetation communities that once covered the area. Despite this, some areas of native vegetation remain in the south of the site and in the adjoining road reserves.

As noted in the BMP (OzArk 2021), a biodiversity development assessment report (a BDAR) was prepared by Ecolink Consulting and EnviroKey to support the EIS for the Project and found the following:

- No mapped waterways occur within the Project Site and no aquatic habitat or obvious drainage channels are present
- Three constructed dams are present. However, all lack aquatic and emergent vegetation. One dam is within the development area
- Extensive vegetation clearing has (evidently) occurred for agricultural development. At the time of the BDAR the site was planted to Barley and Canola. The remaining native vegetation prior to development consists principally of isolated paddock trees: Grey Box (*Eucalyptus macrocarpa*), Yellow Gum (*Eucalyptus leucoxylon*), Sally Wattle (*Acacia salicina*), Black Cypress-Pine (*Callitris endlicheri*), White Cypress-Pine (*Callitris glaucophylla*), and Buloke (*Allocasuarina leuhmannii*). There is some additional vegetation retained in the south of the development area in the vicinity of a historic school site. Native vegetation (PCT 76) also remains in the roadside reserves adjacent to the development site
- A total of 37 plant species were identified. These comprise 28 native and 9 exotic species
  - no threatened plants listed under the *BC Act* or *EPBC Act* were detected
- Native vegetation comprises one plant community type (PCT), namely PCT 76: Western Grey Box Tall Grassy Woodland on alluvial loam and clay soils in the NSW South Western Slopes and Riverina Bioregions
- PCT 76 is listed as 'endangered' under the EPBC and BC Acts as Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions. The vegetation within the Project site was considered to qualify as the BC Act-listed community but did not meet the threshold to be considered the EPBC Act-listed community. This community occurred principally as standing paddock trees (45 in total,

with 13 bearing hollows); however, an additional 0.156 ha of this community in the adjacent road reserve will be impacted

- The only fauna species recorded in the BDAR are birds, two of which are threatened:
  - the Grey-crowned Babbler (*Pomatostomus temporalis temporalis*) is listed as Vulnerable under the *BC Act*. This species was regularly observed in and around the development site and a number of roosting nests were observed in the road reserve close to the development site
  - the White-fronted Chat (*Epthianura albifrons*) is listed as Vulnerable under the *BC Act*; two were observed feeding in Canola crops within the site
- Important habitat features for fauna species within the site included:
  - habitat trees containing hollows
  - habitat trees containing nests
  - dams providing potential habitat for waterfowl passing through the site.

12.5 Historic heritage

The historic (non-aboriginal) heritage assessment conducted as part of the EIS noted the following:

- The district was initially settled in 1833, recognising the area's agricultural potential. Vast sheep and cattle runs were introduced and the area became known as "The Blands" after a Sydney doctor, leading to the name Bland Shire. It was not until John Neeld discovered gold in 1893 that a centralised settlement was developed. Concurrent with the goldrush, the large pastoral holdings in the district were divided up and mixed farming developed. This resulted in West Wyalong becoming the largest cereal growing centre in NSW
- **National and Commonwealth Heritage Listings** - no places listed on either the National or Commonwealth heritage lists are located within the site
- **NSW State Heritage Register** - no places of state historic heritage significance are registered within the site
- **Australian Heritage Database** - no places listed in the Australian Heritage Database are located within the site
- **Bland LEP** - no places listed as being of state historic heritage significance are located within the development site
- **Archaeological survey** - no historic heritage items or sites were recorded during the archaeological survey of the site; therefore, there are likely to be no impacts on historic heritage from project activities.

12.6 Land and water

12.6.1 Land use

The site is located in the Riverina region of southwestern NSW, which consists predominantly of irrigated land, with agriculture, forestry and fishing being the main industries.

The site

The site is highly modified due to its history of agriculture and grazing, and is currently comprised largely of crops. The site is generally flat and is crossed by two ephemeral drainage lines.

The single allotment on which the site is located consists of three cropped paddocks. Crops include canola (Brassica napus) in the northern paddock and barley (Hordeum spp.) in the middle and southern paddocks. Both of these crops are grown in rotation, interspersed with years in which the paddocks are sowed with crops that are nitrogen fixing, returning nutrients to the soil, but are also suitable for grazing. In those years, cattle graze the paddocks keeping the biomass low. Due to the long history of grazing and cropping activities in the area, significant disturbance of the natural environment has occurred, and native vegetation is largely absent.

Three dams are present on the site. However, these will be infilled during construction. No building structures or distinct tracks are present on the site.

Surrounding land-use

The land-use immediately surrounding the site is similar to that of the site itself (i.e. mainly cropping paddocks). The wider landscape also consists largely of land historically cleared for agriculture, with vegetation cover occurring along road reserves and waterways such as the ephemeral tributary to Gagies Creek, located approximately 550 m west of the site.

North: The land immediately to the north is divided into three paddocks, one which is cropped land and the other two are grazed paddocks. A fenced strip of sparsely treed land approximately 50 m wide separates these three paddocks from the site.

East: The land immediately to the east appears to be used for cropping. This cropped paddock is bounded by farmland to the north and to the east and by the Newell Highway to the south.

West: The land immediately to the west appears to be used for cropping. This cropped paddock is bounded by farmland to the north and to the west and by the Newell Highway to the south.

South: immediately south of the site is Newell Highway. South of the highway, the land appears to be used for cropping.

12.6.2 Water

The development site is located within the Murray-Darling Basin, a catchment that drains approximately one-seventh of Australia's landmass.

Surface water

The site is located between the Murrumbidgee River to the southwest and the Lachlan River to the northeast. The closest river is the Lachlan River, approximately 70 km from the site. Other waterways in the vicinity of the site include:

- Gagies Creek, approximately 1.2 km to the west
- an ephemeral tributary of Gagies Creek, approximately 550 m to the west
- Barmedman Creek, approximately 11.6 km to the east
- Warralonga Creek, approximately 15.3 km to the east
- Bland Creek, approximately 20.6 km to the east.

The ephemeral tributary of Gagies Creek flows from northwest to southeast into Gagies Creek and then Barmedman Creek which, in turn, joins Bland Creek 23 km northeast of the site. Bland Creek flows north into the largely ephemeral Lake Cowal which in district-wide flooding events is connected to the Lachlan River.

The site is drained by an unnamed and ephemeral tributary to Gagies Creek and an unnamed and ephemeral tributary to Barmedman Creek. The northern part of the site drains to the east to Barmedman Creek and the southern part drains into Gagies Creek.

Two constructed farm dams are located along the ephemeral drainage lines within the northern part of the site and one constructed dam is in the southern part of the site.

The site is not located within a flood planning area as designated under the Bland Local Environment Plan (LEP) 2011.

Potential for flooding to impact at the site

The EIS considered:

- flood risks posed by the project
- flood risks posed to the project.

Flood risks posed by the project

There are two main potential impacts the Wyalong project could have on flooding and runoff external to the site:

- impacts on riverine flood levels due to the project being an obstruction to flow
- impacts on flood levels due the development producing extra runoff.

The results of the flood modelling showed that runoff through, and adjacent to, the proposed solar farm site was shallow and of an overland nature. Significant creek or riverine flooding did not develop due to the flat nature of the terrain and relatively low runoff volumes. Therefore, the potential for the solar farm to obstruct the very shallow overland flow observed in the catchment would be negligible.

The site was not expected to have any impact on existing community emergency management arrangements and was not expected to place any burden on Council or State Emergency Service (SES) staff. Consultation with Council and SES has been initiated and will be considered in detail during the development of internal workplace health and safety (WH&S) procedures at a later date. Normal emergency management procedures should be employed with respect to flooding. Flood warning times are reasonable, and staff would not be required to be on site during flood conditions.

The site experiences shallow overland sheet flow and low hazard ratings, and is not expected to sustain flood damage during major flooding. Social and economic consequences due to the impact of flooding on the site were expected to be negligible.

The potential for the solar panels to generate additional local stormwater runoff was considered and it was concluded that, so long as the site vegetation conditions were maintained to pre-development conditions, and that impervious areas are not increased substantially, additional runoff as a result of the project was unlikely to occur.

Risks posed to the project

The investigation of flooding hazard showed the majority of the site is of low risk with the exception of the drainage line in the northwest corner (including the dam in that drainage line), the dam in the southwestern corner and the dam near the northern part of the eastern boundary (Figure 12.2). However, these dams will be filled to match the surrounding ground level, which would reduce the risk of flooding.

The conceptual design shows that the substation and office buildings are located away from drainage lines and outside the flooding zone. If these facilities were moved to a different location along the transmission line as part of detailed design, MYT would ensure that the new location was also located away from drainage lines and flooding zones.

Groundwater

Groundwater impacts are expected to be unlikely as excavation will not be required to erect the solar panels, and trenches for underground cables will be up to 1.2 metres depth. Earthworks will mostly occur within 1 m of the ground surface and are therefore highly unlikely to intercept the groundwater table.

Figure 12.2 Flood hazard mapping of the development site for a 100-year ARI (1% AEP)

12.6.3 Erosion and sediment

Accent (2018) noted evidence of soil erodibility – the soils and subsoils used to create the farm dam embankments at the site displayed eroded surfaces. However, no significant evidence of vegetation recolonisation was noted, indicating that the dam embankment may be comprised of subsoil of limited fertility and that erosion is occurring at a faster rate than revegetation. No other evidence of erosion was noted.

12.7 Noise and vibration

The site is located approximately 50 m north of Newell Highway. The highway is the nearest major road, is used by light and heavy vehicles, and is expected to be the main external noise source.

Land-use in the vicinity of the site is predominantly cropping and grazing, therefore the operation of noise generating machinery and equipment such as harvesters, boom sprayers and tractors are a further source of external noise.

Residences in the area are sparse. These residences would be expected to generate low levels of noise as a result of equipment such as generators or on-site water pumps. Three of the five residences that are located within 2 km of the development site (R3, R4 and R5 – see Figure 9.1) have been identified as nearest sensitive receivers (NSRs) for the purpose of statutory noise assessment.

Noise from insects and wind through trees and vegetation would also contribute to background noise levels.

Construction activities have the potential to impact on the amenity of residents in the community by:

- Fixed noise sources such as compressors and generators
- mobile equipment such as pneumatic hammers, etc.
- vehicle moving about and to the site

12.8 Socio-economic environment

Socio-economic impacts on local communities, both positive and negative, have the potential to occur as a result of large-scale developments such as the construction of a solar farm. The social aspects that may be affected include increases in:

- nuisance noise and dust
- waste and litter contaminating crops and/or impacting livestock
- traffic
- mud and sediment tracked from the project site onto local roads by site vehicles.
- The economic aspects that may be affected include an increased:
- use of local businesses
- spend within the community by construction workers
- use of accommodation leading to shortages for other interested parties
- use of equipment and services leading to shortages for other interested parties.

The Wyalong SF is located approximately 7.5 km northeast of the West Wyalong township, and 136 km north of Wagga Wagga, within the Bland LGA. The LGA is located in the Riverina region of southwestern

NSW, covering an area of 8,482 km^2, and is crossed by the Newell and Midwestern Highways and Goldfields Way.

The Bland LGA has a population of 5,955 people, a 1.5% increase since 2011, with a median age of 43 years (significantly higher than the national average of 38 years). Of this, 50.1% are female and 49.9% are male. Aboriginal and Torres Strait Islander people make up 4.4% of the population, which is high compared to the national average of 2.8%. Approximately 80.2% of people were born in Australia.

The LGA's primary land-use is rural and consists predominantly of irrigated land. Agriculture and mining are the main employers in the LGA, with 9.1% of people working in grain-sheep or grain-beef cattle farming, 7.4% in gold ore mining, 7.3% in other grain growing, and 4.0% in sheep farming (specialised). Other important sectors include public administration and healthcare. The unemployment rate for the Bland LGA based on the 2016 census was 3.6%, which was lower than the national rate of 6.9%.

The Bland LGA forms part of the Riverina region where manufacturing, agriculture, forestry and fishing are the key drivers of the Riverina's economy. Between 2015 and 2016, the number of registered businesses in Riverina increased by 0.8% to 18,413.

A number of educational facilities are located within the LGA, including the TAFE NSW West Wyalong, which is known for its delivery of training in sport and recreation, administration, community services and forestry. The TAFE could potentially be used for training of construction and operation staff.

The LGA also provides health and wellbeing support to the community, including providing services in aged and disability care, and offering key medical and business facilities, and sporting and recreation facilities.

12.9 Visual amenity

As described previously, the dominant character of the site and its surrounding area is a rural landscape, characterised by a patchwork of extensive agricultural land and vast open spaces, predominantly focused on cropping and livestock grazing.

The surrounding properties are generally partitioned and have varying types of rural infrastructure, such as generally unsealed roads, tree plantings and fencing. At various locations in the vicinity of the site, farm sheds and other structures are present. Most vegetation within the area is located along road reserves, including the Newell Highway.

The visual impact assessment concluded that a number of activities are likely to occur in the construction (or pre-construction) phase of the development that may be visible from areas surrounding the development envelop. These include:

- ongoing detailed site assessment including technical investigations
- various minor civil works at the site access point
- construction facilities, including portable structures and laydown areas
- various construction and directional signage
- vegetation clearing, excavations and earthworks
- construction related vehicles and equipment gaining access to site from widened shoulders and left- and right-hand turning treatments on the Newell Highway
- various construction activities including erection of solar panels with associated electrical infrastructure works, including power conversion blocks
- the use of lighting at night to assist with construction activities and/or site security.

13 MANAGEMENT MEASURES

The management measures listed below provide direction and guidance for operational controls to the contractor and its subcontractors undertaking activities that may have potential for environmental impacts.

The key legislation, guidelines and guidance documents for management of each of the environmental aspects addressed below are presented and more fully described in the EMS (Appendix A of the EMS).

Monitoring (as summarised in Appendix B) will be undertaken to demonstrate compliance with the requirements of this CEMP and the Conditions of Consent.

13.1 Aboriginal cultural heritage management

The construction of the Wyalong SF will impact the land surface and subsurface and clearing of native vegetation may impact significant Aboriginal cultural heritage values.

The management measures necessary to control project construction impacts to Aboriginal cultural heritage are described in the plan:

- Aboriginal Cultural Heritage Management Plan (ACHMP)

The above plan includes the monitoring regime necessary to confirm that the management measures are effective. The monitoring measures outlined in the ACHMP have been summarised in Appendix B – Environmental Monitoring Program.

Note that the ACHMP is a stand-alone document and not attached to the CEMP.

13.2 Agricultural practice

13.2.1 Potential impacts

There is potential for project construction to reduce agricultural productivity or impact other productive land uses.

13.2.2 Objectives

The management objective is to:

- manage construction activities so as to minimise impacts to agricultural productivity or other productive land uses

13.2.3 Legislation relating to agricultural practice management

Consent requirements

DC conditions – no specific requirement.

The EIS Statement of Commitments commits MYT to:

- develop management plans to mitigate potential impacts to soils, land-use and agricultural land (Commitment S.1).

Legislation and guidance documents

Legislation and guidance documents considered include:

- The EP&A Act 1979

13.2.4 Management measures

To minimise the impacts to agricultural practices by the development, MYT will implement the following controls:

- soil management measures and stormwater management measures as listed in Section 13.10 'Watercourses and Soil Protection' which describe measures necessary to minimise impacts of those aspects to agricultural productivity
- all vegetation clearing activities will be in accordance with the relevant project vegetation clearing permit conditions and approval requirements
- vegetation clearing will be minimised as far as possible (by trimming branches, retention of large/mature trees) in preference to the removal of entire trees
- MYT and landholder permissions and approvals will be obtained prior to entry into any property
- all land access rules and landowner entry/exit protocols will be adhered to at all times
- only approved access tracks, entry/exit points and boundaries will be utilised during all construction activities
- property fences and gates will be installed, maintained and reinstated to a condition equal to or better than the pre-existing condition, as per landowner requirements. Instructions displayed on gates will be adhered to
- pre-existing livestock access points and crossings will not be altered in any form during construction works, unless authority has been given by the landowner and MYT
- care will be undertaken at all times while working in proximity to livestock and in areas containing livestock
- livestock will be given right-of-way at all times and speeds minimised when passing livestock
- livestock will not be fed, handled, mustered or disturbed in any manner
- no toxic edible material will be used and instead will be replaced with biodegradable/non-toxic materials where paddocks are stocked with livestock
- waste materials will be appropriately removed and disposed in accordance with Section 8.12 'Waste management'
- stocked paddocks and high-risk areas will have fencing or barricading installed next to open excavations and trenches in accordance with MYT and landholder requirements so as to restrict and/or prevent any livestock movement within these areas
- MYT and the landowner will be immediately notified regarding any sick, injured or dead livestock.

13.2.5 Monitoring

Monitoring of the site and the effectiveness of the control measures is necessary to ensure stock from adjoining properties is not significantly impacted. The monitoring measures include:

- observing impacts on livestock near the site
- inspecting fences and gates, documenting and repairing any damage.

The Monitoring Plan is attached as Appendix B.

13.3 Air pollution and dust generation control

13.3.1 Potential impacts

Construction activities have the potential to cause air pollution through the combustion of fuel in plant, equipment and generators, and dust generated during earthworks and trafficking plant and vehicles over unsealed surfaces. Poor air quality and dust has the potential to impact the health of vegetation

by coating leaves with residues and potentially impact humans and fauna through inhalation of dust and pollutants.

13.3.2 Objectives

The objective of air quality management is to protect the beneficial uses of air quality. This will be done by ensuring:

- works that have the potential to generate dust and/or emissions are planned and designed appropriately
- adequate provisions are provided to protect site personnel and members of the public
- the impacts on air quality are acceptably minimised.

13.3.3 Legislation relating to air quality and dust management

Consent requirements

DC condition 14 of Schedule 3 states that the Applicant must minimise the dust generated by the development.

The EIS Statement of Commitments commits MYT to:

- develop management plans to prevent and control dust (Commitment AQ.1).
- develop management plans to prevent and control vehicle, plant and equipment emissions (Commitment AQ.2).

Legislation and guidance documents

The National Environment Protection (Ambient Air Quality) Measure 1998 (the Air Quality NEPM) establishes national standards for six key air pollutants: carbon monoxide, ozone, sulfur dioxide, nitrogen dioxide, lead and particles.

If complaints regarding dust generation or vehicle/plant emission generation are received, the Air Quality NEPM should be consulted.

13.3.4 Management measures

To minimise the dust generated by the development (including limiting dust on retained vegetation), MYT will implement the following air pollution and dust generation controls:

- avoiding, where possible, vegetation removal, earthworks and trafficking plant and vehicles over unsealed surfaces during dry and/or windy conditions
- grading and ongoing maintenance of internal access roads to increase stabilisation of soil, where possible
- wetting down the internal access roads and other exposed surfaces, particularly during dry and windy conditions
- minimising vehicle movements on unsealed roads
- minimising the number of stockpiles on site
- vegetating and/or rehabilitating disturbed land surfaces and stockpiles as soon as practicable
- enforcing on-site speed limits
- clearly defining access and travel routes
- covering soil and aggregates transported on public roads

To prevent and control vehicle, plant and equipment emissions by the development, MYT will implement the following:

- regularly inspecting and maintaining vehicles, plant and equipment to ensure they are operating efficiently, and in accordance with the manufacturer's requirements
- ensuring that vehicles, plant and equipment meet relevant standards for emissions
- switching off vehicles, plant and equipment when not in use

13.3.5 Monitoring

Monitoring of the site and the effectiveness of the control measures is necessary to ensure air pollution (particularly dust) is not posing unacceptable risks to the environment. The monitoring measures include:

- inspection of the site (particularly access roads) for vehicle-generated dust
- inspection of the site for dust generated by earthworks, etc.
- inspection of the site for dust generated by exposed/bare ground.

The Monitoring Plan is attached as Appendix B.

13.4 Biosecurity (weeds and pests) management

The construction of the Wyalong SF may impact biosecurity at the site by:

- bringing weeds and/or pests into the area
- increasing the spread of existing weeds and/or pests

To manage these potential impacts, MYT has developed a Weed and Pest Management Plan (WPMP). This plan describes the management practices necessary to control project construction impacts. The WPMP is attached as Appendix C.

The above plan includes the monitoring regime necessary to confirm that the management measures are effective. The monitoring measures outlined in the WPMP have been summarised in Appendix B – Environmental Monitoring Program.

13.5 Construction noise and vibration control management

In accordance with Condition 13, MYT will minimise the noise generated by any construction, upgrading or decommissioning activities on the site in accordance with the best practice requirements outlined in the Interim Construction Noise Guideline (DECC, 2009), or its latest version.

13.5.1 Potential impacts

There is the potential for construction noise to disturb the amenity of local residents. Activities may include vegetation clearance and earthworks, delivery of solar panels and mounting systems by road transport, installing the infrastructure, and reversing beepers on large vehicles and other plant.

There is also the potential for vibration from construction activities to disturb the amenity of local residents. Activities may include delivery of components by road transport, installing the panels and mounting system, and using earthmoving machinery.

The management practices necessary to control project construction impacts are described in the plan:

- Noise Management Plan (NMP)

The above plan includes the monitoring regime necessary to confirm that the management measures are effective. The monitoring measures outlined in the NMP have been summarised in Appendix B – Environmental Monitoring Program.

Note that the NMP is attached to the CEMP as Appendix H.

13.5.2 Measures

Measures to limit impacts of noisy equipment, such as a mulcher, will include:

- final design and layout will consider noise attenuation measures such as setbacks, orientation, shielding or other treatments on plant and equipment in relation to the NSRs
- the equipment will be:
  - positioned within the site so as to maintain a specified minimum distance to the NSRs such that noise will not unduly impact the NSRs
  - positioned to make use of natural shielding
  - orientated so that noise will not be directed towards NSRs
- the equipment will be:
  - fitted with noise shielding and noise suppression measures
  - operated within designated time periods rather than in an ad hoc manner to minimise the frequency of intrusion

MYT will consult with the landholders at R3, R4 and R5 to agree on measures.

13.5.3 Monitoring

Monitoring of the site will confirm EIS predictions and determine the need for noise management measures. In particular, monitoring will include:

- noise levels of noisy equipment (such as mulchers)
- if noise management levels are exceeded at the three NSRs, management measures such as those listed above will be implemented

The NMP plan includes the monitoring regime necessary to confirm that the management measures are effective. The monitoring measures outlined in the NMP have been summarised in Appendix B – Environmental Monitoring Program.

13.6 Dangerous goods/hazardous materials management

13.6.1 Potential impacts

Construction activities, such earthworks, the supply and installation of solar panels and BESS systems and operation of site generators, may result in hazardous materials spills that have the potential to contaminate land, surface water and groundwater resources. This may occur from the use of chemicals (e.g. cleaning, preserving, servicing, paints, solvents), hydrocarbons (e.g. fuels, oils, lubricants), compressed gases (e.g. acetylene and nitrogen), on site re-fuelling of plant and machinery, bulk storage of fuels and other hazardous substances, and accidents during transportation.

13.6.2 Objectives

The management objectives are to:

- minimise the on- and off-site impacts to land and water quality caused by the storage and handling of dangerous goods and hazardous materials
- comply with regulatory requirements

13.6.3 Legislation relating to dangerous goods/hazardous materials management

Consent requirements

DC condition 26 of Schedule 3 states that the Applicant must store and handle all chemicals, fuels and oils used on site in accordance with:

(a) the requirements of all relevant Australian Standards; and

(b) the NSW EPA's *Storing and Handling of Liquids: Environmental Protection – Participants Handbook* if the chemicals are liquids.

In the event of an inconsistency between the requirements listed in (a) and (b) above, the most stringent requirement must prevail to the extent of the inconsistency.

The EIS Statement of Commitments commits MYT to:

- refuel plant and machinery in an impervious bunded area at least 50 m away from water bodies and drainage lines (Commitment H.1.5)
- store fuel and chemicals in an impervious bunded area at least 50 m away from water bodies and drainage lines (Commitment H.1.6)
- implement a spill response plan (to be prepared as part of the CEMP) which includes containment and remediation procedures, placement of spill kits and safety data sheets (SDSs), and training requirements for staff (Commitment H.1.7)
- dispose of all hazardous chemicals and waste off site in accordance with relevant NSW government regulations and guidelines (Commitment H.1.8)
- undertake regular inspection of equipment and facilities to identify any spills or leaks (Commitment H.3)
- implement a spill response plan (Commitment H.4)
- store chemicals in accordance with SDS requirements (Commitment F.8)
- develop an EMP that will provide safety protocols for storage of hazardous and flammable chemicals (Commitment F.13.1).

Legislation and guidance documents

All fuel, oil and chemicals will be stored, separated, handled, transported and signed in accordance with the applicable Australian Standards (ASs) and guidelines. These include:

- AS1216:2006 - Dangerous Goods
- AS1940:2017 - The storage and handling of flammable and combustible liquids
- AS3780:2008 - The storage and handling of corrosive substances
- Storing and Handling of Liquids: Environmental Protection – Participants Handbook (NSW EPA)

13.6.4 Management measures

MYT will implement the following controls:

- hazardous materials will be stored at a designated location, away from drainage lines, groundwater bores and highly trafficked locations
- refuelling plant and machinery will be conducted in an impervious bunded area at least 50 m away from water bodies and drainage lines
- volumes of diesel delivered to the site and used at the site will be tracked
- the volume of hazardous substances will be minimised where possible. The use of environmentally-friendly fuel, oil and chemical products will be considered

- all storage facilities for explosives, fuel, oil and chemicals will be designed in accordance with applicable standards and signs will be displayed in accordance with *AS1216:2006: Dangerous Goods*
- storage and handling of hazardous substances will be in accordance with SDSs. MYT and its subcontractors will maintain an up-to-date SDS Register, including a risk assessment, and copies will be kept at all storage locations and at the first aid facilities. All hazardous substances will be labelled. Incompatible materials will not be stored together
- temporary fuel storages and refuelling areas will:
  - comply with *AS1940:2017 Flammable Liquids Storage and Handling*
  - include double-skinned self-bunded tanks providing 110% containment of material to prevent pollution in the event of a breach of primary containment
  - be located at least 50 m away from water bodies and drainage lines
- where bunds hold multiple storage containers, bunding shall be capable of holding no less than 120% of the volume of the largest container and at least 25% of the total volume of all substances stored
- stormwater and spills within bunds shall be removed before any rain events where practical
- all hydrocarbon and chemical transfer points shall be secondarily contained (e.g. drip/spill tray) and decanting undertaken within a bunded area
- all hazardous chemicals and waste will be disposed of off site in accordance with relevant NSW government regulations and guidelines. These are described in the Waste Management Plan (WMP). Note that the WMP is a stand-alone document and is not attached to the CEMP
- a spill response procedure has been developed and will be implemented and personnel will be trained in relation to spill management actions
- the measures in the Spill Response Plan (Appendix E) will be implemented, which include:
  - all spills will be immediately controlled, contained, cleaned up and reported as an incident, with adequate spill kits available to be used in accordance with SDS recommendations
  - a plan showing appropriately-positioned spill kit locations
- all servicing of equipment and plant must be conducted over an impervious surface to prevent any oil or fuel drips to the land surface causing soil contamination
- absorbent material used for clean-up must be placed in a suitable waste receptacle for disposal and managed in accordance with state waste management requirements
- emergency response equipment, including firefighting equipment, will be maintained at chemical, fuel and oil storage locations, as required by the ERP. Note that the ERP is a stand-alone document and is not attached to the CEMP.

13.6.5 Monitoring

Monitoring of the site and the effectiveness of the control measures is necessary to confirm that dangerous goods/hazardous substances are stored appropriately and that spills do not pose unacceptable risks to the environment. The monitoring measures include:

- inspection of chemical bunds and containment structures
- inspection of other chemical storage areas
- inspection of site for chemical spills.

The Monitoring Plan is attached as Appendix B.

Additionally, MYT will track volumes of diesel that are delivered to the site and are used at the site by completing the Diesel Tracking Register (Appendix G).

13.7 Flora and fauna impact management

The construction of the Wyalong SF will require clearing of native vegetation which may impact significant flora and fauna, including protected communities and species.

The project may also introduce or exacerbate weed growth and pest proliferation, which may impact on native flora and fauna. Management of weed and pest aspects are described in Section 9.4 above.

The management practices necessary to control project construction impacts to native flora and fauna are described in the Biodiversity Management Plan (BMP).

13.7.1 Native flora

The management practices necessary to control project construction impacts to native flora are described in the BMP.

The plan includes the monitoring regime necessary to confirm that the management measures are effective. The monitoring measures outlined in the BMP have been summarised in Appendix B – Environmental Monitoring Program.

Note that the BMP is a stand-alone document and not attached to the CEMP.

13.7.2 Native fauna

Clearing of native vegetation can impact significant native fauna, including protected fauna species. The management practices necessary to control project construction impacts are described in the BMP.

The plan includes the monitoring regime necessary to confirm that the management measures are effective. The monitoring measures outlined in the BMP have been summarised in Appendix B – Environmental Monitoring Program.

Note that the BMP is a stand-alone document and not attached to the CEMP.

13.8 Historic heritage

The construction of the Wyalong SF will impact on the land surface and subsurface and will require clearing of native vegetation, which may impact historic heritage values.

13.8.1 Potential impacts

There is potential for construction of the project to impact historic heritage.

13.8.2 Objectives

The management objective is to:

- manage construction activities so as to minimise impacts to historic heritage values

13.8.3 Legislation relating to historic heritage management

Consent requirements

DC conditions – no specific requirement.

The EIS Statement of Commitments commits MYT to the following:

- if it is identified that ground disturbance activities will occur beyond the assessed area, then further archaeological assessment may be required (Commitment HH.1).
- should any items suspected of having historic heritage significance be uncovered, all work will stop and the Historic Heritage Unanticipated Finds Protocol (below) will be followed (Commitment HH.2).
- inductions for staff undertaking the activity will include the legislative protection requirements for historic sites and items in NSW and the relevant fines for non-compliance (Commitment HH.3).
- the protocol to be followed in the event that previously unrecorded or unanticipated historic objects are encountered is as follows (Commitment HH.4):
  - all ground surface disturbance in the area of the finds should cease immediately the finds are uncovered.
  - the discoverer of the find(s) will notify machinery operators in the immediate vicinity of the find(s) so that work can be halted.
  - the site supervisor will be informed of the find(s).
- if finds are suspected to be human skeletal remains, then NSW Police must be contacted as a matter of priority (Commitment HH.5).
- if there is substantial doubt regarding the historic significance for the finds, then a qualified opinion from an archaeologist will be obtained as soon as possible. This can circumvent proceeding further along the protocol for items which turn out not to be significant. If a quick opinion cannot be obtained, or the item is considered likely to be significant, then proceed to the next step (Commitment HH.6):
  - Immediately notify OEH (Heritage Division) at 131 555 of the find(s)
  - facilitate, in co-operation with the appropriate authorities:
    - the recording and assessment of the finds
    - fulfilling any legal constraints arising from the find(s). This will include complying with OEH directions
    - developing and conducting appropriate management strategies. Strategies will depend on consultation with stakeholders and the assessment of the significance of the find(s)
  - where the find(s) are determined to be significant historic items, any re-commencement of construction related ground surface disturbance may only resume in the area of the find(s) following compliance with any consequential legal requirements and after gaining written approval from OEH

Legislation and guidance documents

Legislation and guidance documents considered include:

- The Heritage Act 1977

13.8.4 Management measures

To minimise the impacts to historic heritage by the development, MYT will implement the following controls:

- If it is identified that ground disturbance activities will occur beyond the assessed area, MYT will consider if further archaeological assessment are required
- if any items suspected of having historic heritage significance are uncovered, all work will stop and the Historic Heritage Unanticipated Finds Protocol (below) will be followed

- inductions for staff undertaking the activity will include the legislative protection requirements for historic sites and items in NSW and the relevant fines for non-compliance
- if finds are suspected to be human skeletal remains, then NSW Police (West Wyalong Police on (02) 6972 2444) will be contacted as a matter of priority
- if there is substantial doubt regarding the historic significance for the finds, then a qualified opinion from an archaeologist will be obtained as soon as possible. This can circumvent proceeding further along the protocol for items which turn out not to be significant. If a quick opinion cannot be obtained, or the item is considered likely to be significant, then proceed to the next step:
  - immediately notify OEH (Heritage Division) on 131 555 of the find(s)
  - facilitate, in co-operation with the appropriate authorities, the following:
- recording and assessment of the finds
- fulfilling any legal constraints arising from the find(s). This will include complying with OEH directions
- developing and conducting appropriate management strategies. Strategies will depend on consultation with stakeholders and the assessment of the significance of the find(s)
- where the find(s) are determined to be significant historic items, any re-commencement of construction related ground surface disturbance will only resume in the area of the find(s) following compliance with any consequential legal requirements and after gaining written approval from OEH.

13.8.5 Historic Heritage Unanticipated Finds Protocol

The protocol to be followed in the event that previously unrecorded or unanticipated historic objects are encountered is as follows:

- all ground surface disturbance in the area of the finds will cease immediately the finds are uncovered
- the discoverer of the find(s) will notify machinery operators in the immediate vicinity of the find(s) so that work can be halted
- notify the site supervisor of the find(s)
- if finds are suspected to be human skeletal remains, then NSW Police (West Wyalong Police on (02) 6972 2444) will be contacted as a matter of priority

13.8.6 Monitoring

Monitoring of the site and the effectiveness of the control measures is necessary to ensure historic heritage is not impacted. The monitoring measures include:

- inspection of excavations, documenting finds and notifying the appropriate authorities.

The Monitoring Plan is attached as Appendix B.

13.9 Socio-economic environment

13.9.1 Potential impacts

The construction of a solar farm has the potential to impact on the social and economic activity of nearby landholders, industry and roads users.

13.9.2 Objectives

The management objectives are to:

- maximise the positive impacts of the project on the local socio-economic environment
- minimise the negative impacts of the project on the local socio-economic environment

13.9.3 Legislation relating to Socio-economic impact management

Consent requirements

DC conditions – no specific requirement.

The EIS Statement of Commitments commits MYT to:

- develop a Consultation and Stakeholder Engagement Plan to reduce adverse impacts on the Bland Shire community (Commitment SSE.1)
- liaise with the appropriate local community representatives to help ensure accommodation of construction workforce does not adversely impact on local services or events and, where possible, use local contractors, manufacturing facilities, and materials and services (Commitment SE.2)
- undertake ongoing engagement with Bland Shire Council to discuss and resolve any concerns (Commitment SE.3).

Legislation and guidance documents

The EIS Statement of Commitments commits MYT to:

- The Bland Shire Community Strategic Plan 2017 – 2027: Your Vision, Our Future
- Riverina Murray Regional Plan 2036
- The 20-Year Economic Vision for Regional NSW

13.9.4 Management measures

MYT will implement the following socio-economic controls:

- all work shall be carefully planned to minimise disturbance to landholders and the local community to observe the requirements of any landholder or local community agreements
- as outlined in Sections 9.3 and 9.5, nuisance noise and dust shall be monitored and minimised.
- the site will be maintained free of waste and litter so as to not contaminate crops or impact livestock. Any complaints from landholders or local residents will be promptly investigated, showing respect for the community's concerns (see Section 7.5.3)
- the road transport of components including the solar panels and mounting system will comply with controls listed in the project approvals to minimise impacts on local residents and road users. These controls are detailed in the TMP for the project, which is a stand-alone document and not attached to the CEMP
- mud and sediment that is tracked from the project site onto local roads by site vehicles will be regularly removed. The project will explore opportunities to minimise mud and loose sediment being generated on site by measures such as top-dressing access roads and placing rumble grids at exit locations.

13.9.5 Monitoring

Monitoring of the site surrounds will confirm that noise, dust, litter and muddy vehicles are not impacting the environment. The monitoring measures include:

- monitoring noise and dust emissions to confirm that sensitive receptors are not significantly impacted (see Sections 13.3 and 13.5)
- monitoring adjacent properties to ensure waste and litter from the site is not contaminating adjacent crops, impacting adjacent livestock or causing visual pollution
- monitoring surrounding roads (particularly near site access points) to identify whether vehicles from the site are muddying the local road network.

The Monitoring Plan is attached as Appendix B.

13.10 Watercourse and soil protection

13.10.1 Potential impacts

There is the potential for local waterways to be impacted through the off-site migration of sediment from exposed areas and fuel, oil and chemicals spills which may mobilise during extended rain periods or following spills direct to waterways.

Activities such as excavation, trenching, concrete pouring, etc. have the potential to impact on soils and water quality during the construction phase of the project

13.10.2 Objectives

The management objectives are to:

- manage sediment, erosion and water quality to the satisfaction of the DC and Council requirements
- minimise the on- and off-site impacts to land and water quality caused by erosion
- minimise the duration and extent of soil disturbance
- minimise erosion by water, wind, machinery and traffic
- drain run-off from all disturbed areas into sediment control structures
- minimise modification to existing drainage patterns
- prevent, as far as practicable, sediment transport to adjacent watercourses.

13.10.3 Legislation relating to watercourse and soil protection management

Consent requirements

DC condition 21 of Schedule 3 states that the Applicant must:

- ensure that the development does not cause any water pollution, as defined under Section 120 of the *PoEO Act 1997*

DC condition 22 of Schedule 3 states that the Applicant must:

- minimise any soil erosion associated with the construction, upgrading or decommissioning of the development in accordance with the relevant requirements in the *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004) manual, or its latest version; and
- ensure all works (including watercourse crossings) are undertaken in accordance with the:
  - Guidelines for Controlled Activities on Waterfront Land (2018), or its latest version; and
  - Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (2004), or its latest version, unless otherwise agreed by DoI – L&W.

The EIS Statement of Commitments commits MYT to:

- developing EMPs to mitigate potential impacts to soils, land-use and agricultural land. The plans will be developed with the following guidelines to address potential erosion and sedimentation impacts (Commitment S.1)
- implementing the following management and mitigation measures during construction to limit the impacts of the project on hydrology and water resources (Commitment H.1), including:
  - ensuring any high-risk site facilities (such as the substation) are located away from areas of potential flood risk

- implementing erosion and sediment control measures during construction as outlined in *soil, land-use and agriculture* section of the EIS, including minimising areas of disturbance and rehabilitating disturbed areas as soon as possible
- installing effective stormwater management and control measures during construction, in accordance with the erosion and sediment control plans for the site
- developing and implementing procedures for the testing and management of construction wastewater if disposal is required

Legislation and guidance documents

Legislation and guidance documents considered include:

- Managing Urban Stormwater: Soils and Construction. Landcom (2004)
- Guidelines for Controlled Activities on Waterfront Land (2018)
- Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (2003)

13.10.4 Management measures

Soil

MYT will implement the following controls to manage soil impacts, including:

- when soil is stockpiled for later re-use, separating and reinstating topsoil and subsoil in the correct order (i.e. subsoil will be reinstated before topsoil)
- progressively filling trenches after placement of underground cabling

Erosion and sediment control

MYT will implement the following controls to manage erosion and sedimentation, including:

- designing internal access roads, tracks and the site car park with adequate run-off controls to prevent erosion from concentrated flows
- constructing and/or installing erosion and sediment control structures
- conducting regular inspections of control structures, particularly following rainfall events
- where required, lining drains with geotextile or plastic to reduce erosion
- maintaining on site a register of erosion and sediment control activities, including records of inspection and maintenance activities
- minimising areas of disturbance and rehabilitating disturbed areas as soon as possible with appropriate plant species

MYT has developed an ESCP to effectively manage these impacts and the measures above are described in more detail. This subplan provides guidance for the types of erosion and sediment control structures that are appropriate for site management. The ESCP is attached to the CEMP as Appendix D.

Stormwater management

MYT will implement the following controls to manage stormwater, including:

- installing effective stormwater management and control measures during construction, in accordance with the erosion and sediment control plans for the site. Examples of these measures include, catch drains, sediment ponds and culverts

MYT has developed an ESCP to effectively manage stormwater impacts and the measures above are described in more detail. The ESCP provides additional guidance for the types of stormwater management and control structures that are appropriate for site management.

Other issues management

General management measures include:

- temporary ablutions will be serviced in accordance with the manufacturer recommendations to prevent potential overflows. Wastewater transport and disposal records will be maintained
- spill control, identification and management procedures as outlined in Section 13.6 will be implemented
- weather forecasts will be monitored for rainfall events and activities scheduled to minimise risk of erosion or uncontrolled stormwater discharge
- plant, vehicles or equipment wash-water will be contained within an impervious basin. All wash-waters will be contained and managed appropriately, noting that wash-waters may contain detergents, oil and grease

Vehicles and plant will use access roads to minimise disturbing the land surface and mobilising sediment during rain events.

13.10.5 Monitoring

Monitoring of the site and the effectiveness of the control measures is necessary to ensure erosion and sediment control structures are functioning correctly. The monitoring measures include:

- inspection of site for erosion
- inspection of control structure integrity
- inspection of temporary flow diversion and drainage works prior to anticipated rainfall events to ensure they are not compromised and undertake necessary repairs
- inspection of temporary flow diversion and drainage works after rainfall events to ensure they have not been compromised and undertake necessary repairs
- daily inspection of all machinery, plant, equipment and facilities to ensure no leakage of fuels, lubricants or other liquids has occurred.

The Monitoring Plan is attached as Appendix B.

13.11 Visual impact management

The construction of the Wyalong SF will create visual impacts at and around the site, which will need management.

13.11.1 Potential impacts

There is potential for construction of the project to impact on the surrounding environment by:

- excessive glare and/or reflection
- the colour of infrastructure not blending in with the environment
- excessive displays of advertising signs or logos on site.

13.11.2 Objectives

To minimise the visual impact of the project on the surrounding environment.

13.11.3 Legislation relating to visual impact management

Consent requirements

DC condition 15 of Schedule 3 states that the Applicant must:

(a) minimise the off-site visual impacts of the development, including the potential for any glare or reflection

(b) ensure the visual appearance of all ancillary infrastructure (including paint colours) blends in as far as possible with the surrounding landscape; and

(c) not mount any advertising signs or logos on site, except where this is required for identification or safety purpose.

The EIS Statement of Commitments commits MYT to:

- developing EMPs including visual amenity management measures, to be put in place to mitigate any potential impacts (Commitment V.4), including:
  - installing demarcation and exclusion fencing around trees and vegetation to be retained
  - limiting disturbance and rehabilitating disturbed areas
  - minimising light spill from the development into adjacent visually sensitive properties by directing construction lighting into the construction areas and ensuring the site is not over-lit, including sensitive placement and specification of lighting to minimise potential increase in light pollution
  - removing temporary hoardings, barriers, traffic management and signage when no longer required
  - keeping the site tidy and well maintained, including removal of all rubbish at regular intervals, including no storage of materials beyond the construction boundaries
  - restricting external lighting to the area where the maintenance shed, permanent site office, and switchyard are located
  - ensuring all external lighting around buildings are faced downwards and inwards to minimise impacts to neighbouring properties.

Legislation and guidance documents

Legislation and guidance documents considered include:

- Guideline for landscape character and visual impact assessment. Transport for NSW (2020)

13.11.4 Management measures

To manage the visual impact of the project, MYT will:

- where practicable, position solar panels to minimise off-site glare and reflection
- where practicable, position and paint ancillary infrastructure so that it blends in as far as possible with the surrounding landscape
- not mount any advertising signs or logos on site, except where this is required for identification or safety purposes
- install demarcation and exclusion fencing around trees and vegetation to be retained
- limit disturbance and rehabilitate disturbed areas
- minimise light spill from the development into adjacent visually sensitive properties by direct construction lighting into the construction areas and ensuring the site is not over-lit, including sensitive placement and specification of lighting to minimise potential increase in light pollution
- remove temporary hoardings, barriers, traffic management and signage when no longer required
- keep the site tidy and well maintained, including removal of all rubbish at regular intervals, including no storage of materials beyond the construction boundaries

- restrict external lighting to the area where the maintenance shed, permanent site office, and switchyard are located
- ensure all external lighting around buildings are faced downwards and inwards to minimise impacts to neighbouring properties.

13.11.5 Monitoring

Monitoring of the site and the effectiveness of the control measures is necessary to ensure the site does not significantly impact the sensitive receivers, including neighbouring properties. The monitoring measures include:

- checking that temporary hoardings, barriers, traffic management and signage have been removed when no longer required
- regularly checking the site to ensure it is kept tidy and well maintained
- checking the light spill of the external lights after they are installed to ensure impacts to neighbouring properties are minimised.

13.12 Waste management

The construction of the Wyalong SF will generate waste, which will need management. The management practices necessary to control project construction impacts are described in the plan:

- Waste Management Plan (WMP)

The WMP includes the monitoring regime necessary to confirm that the management measures are effective. The monitoring measures outlined in the WMP have been summarised in Appendix B – Environmental Monitoring Program.

Note that the WMP is a stand-alone document and not attached to the CEMP.

13.13 Wildfire prevention and emergency response management

There is a potential of fire ignition from construction activities that may result in impacts to landholder property and natural habitat.

Controls to manage the risk from fires are shown in the Bushfire Management Plan (BFMP), which is an appendix to the Emergency Response Plan (ERP). Note that neither the BFMP nor ERP are attached to the CEMP and are separate, stand-alone documents.

13.14 Flood impact management

The potential for flooding to impact the Wyalong SF needs to be considered and managed.

13.14.1 Potential impacts

Site facilities that are deemed to be high-risk (such as the substation and office buildings) may be impacted by floodwaters.

13.14.2 Objectives

To ensure impacts from flooding on site infrastructure are minimised.

13.14.3 Legislation relating to flood impact management

Consent requirements

The EIS Statement of Commitments commits MYT to:

- the following management and mitigation measures will be implemented during construction to limit the impacts of the project on hydrology and water resources:
  - ensuring any high-risk site facilities (such as the substation) are located away from areas of potential flood risk

Legislation and guidance documents

Legislation and guidance documents considered include:

- The EP&A Act 1979

13.14.4 Management measures

To manage the flood impact of the project, MYT will:

- position high-risk site facilities (such as the substation) away from areas of potential flood risk
- fill dams to match the surrounding ground level, including:
  - the dam in the southwestern corner and the dam near the northern part of the eastern boundary
  - the drainage line in the northwest corner (including the dam in that drainage line)

13.14.5 Monitoring

Monitoring of the site and the effectiveness of the control measures is necessary to ensure flooding does not impact on site infrastructure. The monitoring measures include:

- checking that high-risk site facilities (such as the substation) away from areas of potential flood risk
- checking that at-risk dams are back-filled to match the surrounding ground level.

14 MONITORING OF IMPACT MITIGATION AND MANAGEMENT

Routine and non-routine monitoring will be undertaken during construction to determine whether impact mitigation and management measure are effective and to identify and resolve unforeseen impacts.

All instruments and devices used for measuring or monitoring any parameter under any condition of the CEMP will be calibrated in accordance with relevant standards, and appropriately operated and maintained. Records of calibration will also be maintained.

The results of environmental monitoring will be recorded and maintained by MYT.

The measures for monitoring impact mitigation outlined in Section 13 are listed in the Monitoring Plan attached as Appendix B, together with frequency of action and responsibilities.

The monitoring measures from plans for vegetation and fauna, erosion and sediment control, aboriginal heritage, noise, landscaping, traffic impact, waste and weeds and pests (i.e. in the BMP, ESCP, ACHMP, LP, NMP, TMP, WMP and WPMP) have also been included in Appendix B for convenience. However, note that these plans are the primary source of this monitoring information and should be consulted if they are more recently updated than this CEMP.

15 REFERENCES

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Appendix A Development Consent SSD-9564

Appendix B Environmental Monitoring Plan

Appendix C Weed and Pest Management Plan

Appendix D Erosion and Sediment Control Plan

Appendix E Spill Response Plan

Appendix F Site Inspection Checklist

Appendix G Diesel Tracking Register

Appendix H Noise Management Plan