Adani Infrastructure Pty Ltd

Adani Whyalla Solar Project
Draft Environmental Management Plan

CDM Smith

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Draft Environmental Management Plan

26 March 2017

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Section 1 Introduction

1.1 Purpose and Scope

This Draft Environmental Management Plan (EMP) applies to the Whyalla Solar Project (the Project). This includes Adani Infrastructure Pty Ltd's (Adani) overarching environmental management process and measures that will be implemented during construction and operation of the Project.

The purpose of this Draft EMP is to guide Adani's environmental management actions for the construction and operational phases of the Project. This Draft EMP identifies the level of environmental performance, mitigation measures and recommended controls required to address the environmental impacts. The Draft EMP scope is limited to the works to be undertaken at the Project.

The Draft EMP will be used as the basis to develop and implement a more detailed Construction Environmental Management Plan (CEMP) and Operational Environmental Management Plan (OEMP) prior to the commencement of works. The content of this Draft EMP will be considered by the South Australia Development Assessment Commission (DAC) as part of the Project Development Application. The detailed CEMP and OEMP will account for activities/actions conditioned as part of the development approval

1.2 Overview of the Project

The Project is located approximately 10 kilometres (km) to the north of Whyalla in the Eyre Peninsula of South Australia (Figure 1-1). The Project is located on a portion of Plan/Parcel D79748 AL1000 (Figure 1-2) and is bound by the Whyalla Conservation Park to the north, Lincoln Highway to the east, Mount Laura Conservation Reserve to the west and industrial areas to the south. The residential portion of Whyalla is bound to the north by Iron Knob Road and the majority of uses between this road and the Project site are industrial. Land to the east of the Lincoln Highway and the Port Augusta-Whyalla railway is utilised for Arrium Steel Works and Olsson Salt Works. Current vacant land east of the site (adjacent the salt works) was previously the site of the now defunct Arafura Rare Earths Industrial Complex. The Project area, which is approximately 396.5 hectares (ha) in size, is located in an area wholly zoned as industrial under the *Whyalla Development Plan 2016* (the Development Plan).

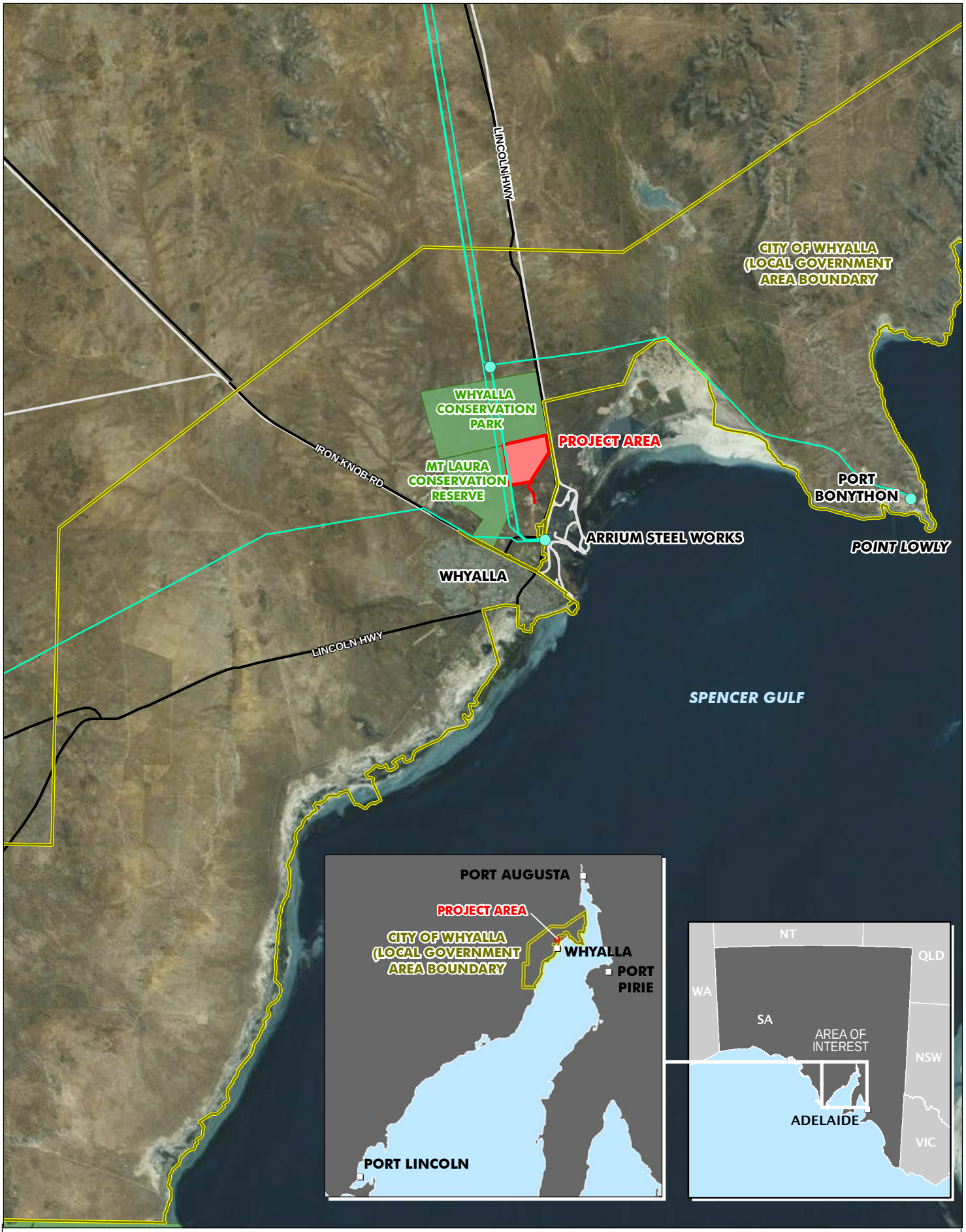
The Project will primarily consist of photovoltaic (PV) solar panels rows (set in large blocks), access tracks, inverters, a maintenance shed substation, electricity grid connection site office and ablution facilities. The block dimensions for a 2.25 MW tracker array block will be approximately 229 by 233 meters (m) and for a 4.5 MW tracker array block will be approximately 233 by 433 m. A block of solar panels consists of approximately 65 north/south rows and inverter stations.

1.3 Project Schedule

The anticipated Project Schedule is outlined in Table 1-1. The Project's construction phase is expected to last for approximately one year, with operations scheduled to commence in early 2019.

Table 1-1 Project Schedule

Activity	2017			2018				2019	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Approvals									
Contracting and Design									
Construction									
Practical Completion									
Commercial Operation									



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Date: 12/12/16
Drawn: Gayle B.

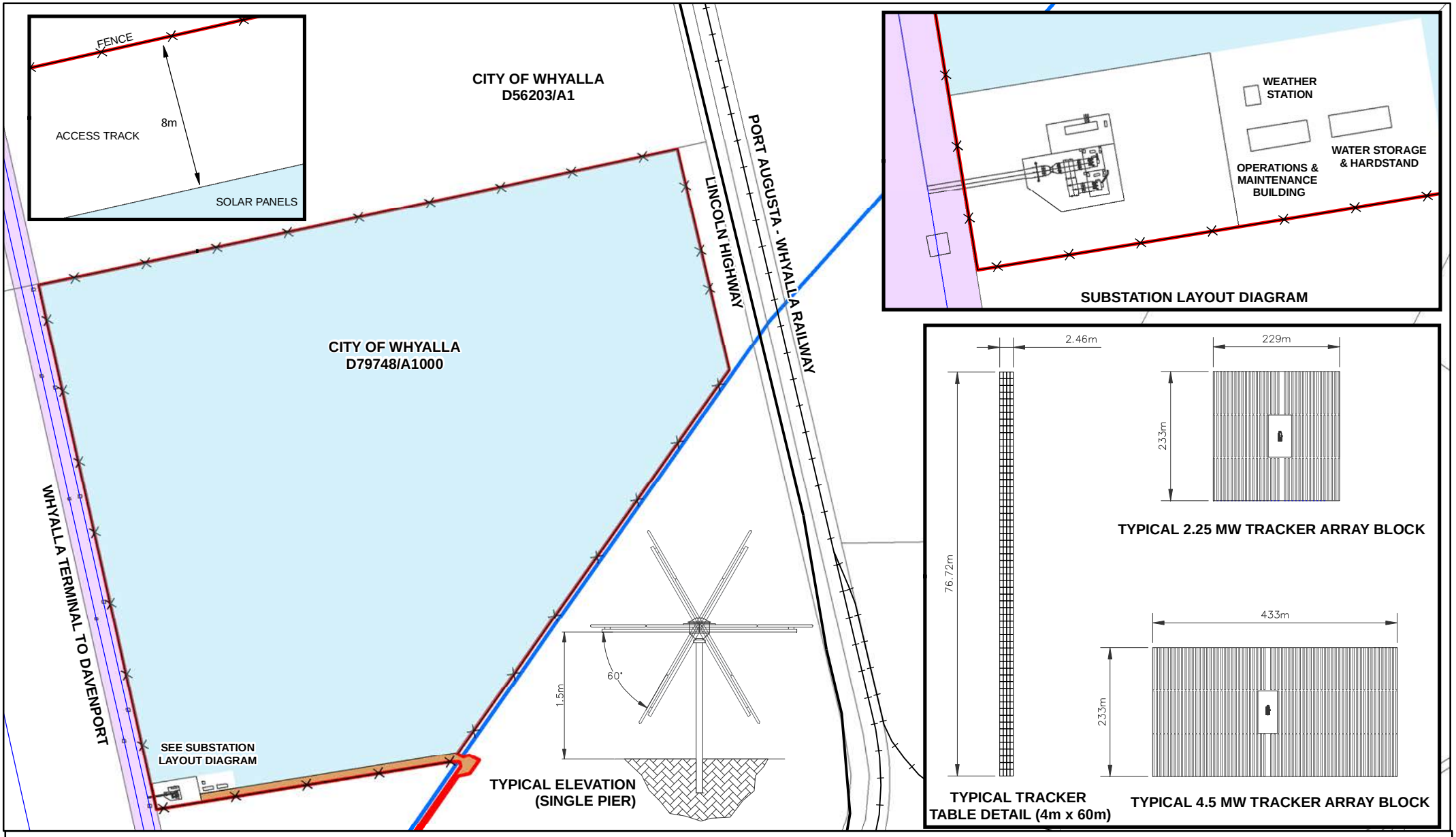
Legend

- Project Area
- City of Whyalla (Local Government Area Boundary)
- Electricity line
- Electricity substation
- Road
- Railway

DATA SOURCE
Geoscience Australia
SA Govt. publicly available data, 2016
Adani, 2016

Figure 1-1
Project Location

BRUGGEMANNGD B:\BES160233_Solar\GIS\DATA\MXD\FINAL\016-R1project location.mxd 12/12/2016



N

0 200 400

Metres

Scale @ A4 1:20,000
Date: 24/01/17
Drawn: APS

Legend

- Project Area
- Solar Panel Area
- Access Road Leading to Solar Farm
- Cadastre
- ElectraNet Easement
- Utility Easement (Overhead Powerline and Water Pipeline)
- Overhead Powerline
- Fence
- Road
- Rail

Figure 1-2
Conceptual Project Layout

DATA SOURCE
SA Open Source Data, 2015;
Geofabric Product Suite V2.1.1 Bureau of Meteorology (BoM) 2011;1 Second SRTM v1.0 © Commonwealth of Australia (Geoscience Australia) 2011.

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BRUGGEMANNGD \\brbsvr1\PRO\Project\BES160233.01-Adani-Whyalla-Solar Plant Approvals\7Work\3GIS\DATA\MXD\FINAL\002-R2_Conceptual Project_Layout.mxd 1/24/2017

Section 2 EMP Framework

2.1 Project Roles and Responsibilities

All personnel involved in the Project including Adani employees, contractors and sub-contractors are required to undertake work in accordance with this Draft EMP and the subsequent detailed and approved CEMP and OEMP. Key roles and responsibilities are included in Table 2-1.

Table 2-1 Project Roles and Responsibilities

Position	Responsibilities
Senior Project Manager	▪ Ensure employees and contractors understand their obligations under the approved relevant EMP; ▪ Monitoring compliance; ▪ Maintenance and inspections; ▪ Reporting; and ▪ Ensure that all the on-site safeguards and controls are in place.
Environmental Representative	▪ Monitor compliance; and ▪ Reporting to regulatory agency (if required).
Engineering Representative	▪ Design advice.
All Staff and Contractors	▪ Understand and comply with the requirements of the Draft EMP; ▪ Undergo inductions where necessary; and ▪ Be aware of emergency procedures and responses.

2.2 Training, Awareness and Competence

Effective implementation of all management plans will require all staff and contractors to receive appropriate training. The competency needs of all personnel performing activities affecting the environment during construction and operation shall be identified and documented. All Project personnel will undergo a site induction covering the key environmental issues and measures relating to the Project. All records of training and competencies will be kept and maintained.

2.3 Communication

Environmental requirements and controls necessary at the site, shall be communicated through the following:

- Site environment induction;
- Daily pre-start meetings;
- Environmental toolbox talks;
- Incident bulletins;
- Sub-contractors kick-off meeting; and
- Contractor and client site kick-off meeting.

2.4 Monitoring and Inspections

The Senior Project Manager must ensure that environmental protection measures are working effectively on-site through a system of self-checking. The self-check system should comprise inspections of:

- Localised status of the impact (e.g. has there been rain or events contributing to impacts);
- Environmental protection measures (e.g. are appropriate measures in place); and
- Receptors of the effects of the impact (e.g. residents, stormwater drains).

2.5 Records and Reporting

Adani will to retain records sufficient to demonstrate compliance. These records will populate a compliance register. Documents may include flora investigations, surveys, inspection, emergency procedures, incident report forms, inspection test plans, work procedures and induction checklists.

Incident reporting requirements are to be followed. Reporting requirements may involve weekly, monthly and bi-annual reporting.

2.6 Emergency Response Plan

A site Emergency Response Plan (ERP) for the Project will be developed. The ERP will reflect Government and Adani requirements for the Project. Management of the potential for environmental harm will be included in the ERP.

The ERP will have regard to the potential risks associated with the Project construction and operation, identify emergency services, measures to undertake consultation with local emergency services and a protocol for notifying appropriate authorities following the occurrence of an incident or emergency, and detailed incident and emergency procedures.

All Project personnel will receive basic training, which will be incorporated into the Project induction, regarding the prevention, the communication activities and the escalation, planning, response to and recovery from incident or emergency.

Section 3 Environmental Management

3.1 Environmental Impact Assessment

The Project's environmental impact assessment was completed as part of the development application preparation (refer to Section 8 of the development application for further details on impacts and management measures). The impact assessment was prepared to assess environmental values, potential impacts and to propose appropriate management strategies aimed at mitigating potential impacts. A number of technical studies were conducted and relevant technical reports are provided as appendices to the development application, including:

- Ecological Report;
- Cultural Heritage Report; and
- Aviation Impact Assessment Report.

The environmental impact assessment was used to inform the objectives and management measures outlined in the below sections.

3.2 Geology, Topography and Soils

Construction works will involve clearing and minor earthworks for the erection of the solar panels, the substation, buildings, access roads and ancillary works. The site is generally flat, with only minor earthworks required for construction of the solar panels arrays and other infrastructure. Construction and operational works can lead to physical degradation of the soil and soil contamination. During operation, primary land management activities will likely relate to erosion and sediment control. Relevant objectives and management measures for the construction and operations phases of the Project are outlined in Table 3-1.

Table 3-1 Geology, Topography and Soils Objectives and Management Measures

Objective	Management Measures	Phase		Responsibility
		C	O	
Reduce accumulation of contaminants leading to land and water contamination	▪ Landscaping, drainage and future maintenance of the site will be in accordance with AS2870	X		Engineering Representative
Ensure soil and sediment transport do not significantly impact on the receiving environment	▪ Erosion and sediment control devices installed as per the certified Erosion and Sediment Control Plan	X	X	Senior Project Manager
	▪ Inspect erosion and sediment control devices during construction and immediately after rainfall events to ensure good working order	X	X	Environmental Representative
	▪ Dust suppression using water where necessary	X		All Staff and Contactors
	▪ Maintenance of the roads and access tracks	X	X	All Staff and Contractors

Objective	Management Measures	Phase		Responsibility
		C	O	
	▪ Vehicles cleaned prior to offsite movement if soil release is considered likely	X		All Staff and Contractors
	▪ Maintenance of site roads	X		Senior Project Manager
	▪ Visual monitoring of construction vehicles	X		All Staff and Contactors
Prevent spill or leakage of chemicals and fuel	▪ Spill kit(s) to be located at the construction and operation site	X	X	All Staff and Contactors
	▪ Spills will be immediately cleaned	X	X	All Staff and Contractors
	▪ Handling and storage of combustible and flammable liquids is to be done in accordance with AS1940:2004	X	X	All Staff and Contractors
Prevent infiltration of chemicals to groundwater as a result of spills and leaks.	▪ Use of appropriately designed laydown areas	X	X	All Staff and Contractors
	▪ Spill kit(s) to be located at the site	X	X	Project Manager
	▪ Spills will be immediately cleaned	X	X	All Staff and Contractors
	▪ Staff made aware of spill response procedure and reporting requirements	X	X	Project Manager
	▪ Regular maintenance and checks of plant and equipment	X	X	Project Manager
	▪ Fuel, oil and chemical storage and handling in accordance with Australian Standards	X	X	All Staff and Contractors

3.3 Surface Water and Hydrology

A single waterway intersects the southern boundary of the Project area near the proposed location for the substation. This is a minor drainage line and not a watercourse (i.e. with a defined bed and bank). This feature will only convey flow during high rainfall events and was generally indistinguishable from the surrounding landscape. Two unnamed and ephemeral waterways are located south-west of the Project area with both flowing in an easterly direction towards the industrial estate. Adverse impacts to water quality and water features as a result of the Project have the potential to occur and objectives and management measures are outlined in Table 3-2.

Table 3-2 Surface Water and Hydrology Objectives and Management Measures

Objective	Management Measures	Phase		Responsibility
		C	O	
Prevent reduction to surface water quality and sedimentation.	▪ Implement an Erosion and Sediment Control Plan	X	X	Senior Project Manager
	▪ Clearing the minimum amount of land for the Project	X		All Staff and Contractors
	▪ Avoid earthworks and earthmoving during intense rainfall events	X		
	▪ Install Erosion and Sediment Control devices as per the Project Erosion and Sediment Control Plan	X		
	▪ Implement and maintain appropriate dust control measures	X		
	▪ Bulk quantities of chemicals stored in double skinned tanks (self-bunding)	X	X	
	▪ Regular inspections of tanks, bunds and storage areas to ensure integrity	X	X	Environmental Representative
	▪ Onsite wastewater treatment and disposal system designed, installed and maintained as per Whyalla City Council requirements		X	Senior Project Manager Engineering Representative
Prevent disturbance and degradation to surface water features and prevent erosion and scouring	▪ Implement Erosion and Sediment Control Plan	X	X	Senior Project Manager
	▪ Construction to be north of unnamed waterways	X		
	▪ Culvert installed under access road	X		Engineering Representative
	▪ Appropriate scour protection around culvert headwalls		X	
	▪ Appropriate scour protection in open roadside drains		X	
	▪ Gravel strips or chemical binders along panel driplines where erosion is identified		X	Environmental Representative
	▪ Implement measures to control flow velocities along drainage paths and at the entrance and exit of all drains		X	Engineering Representative
	▪ Gravel covering high trafficked areas		X	
	▪ Sediment traps appropriately used	X	X	Environmental Representative
	▪ Monitor control measures regularly for effectiveness	X	X	
Prevent fatalities to flora or fauna from release of pollutants	▪ Design and operate flammable and combustible liquid storages in accordance with AS1940-2004	X	X	Senior Project Manager
	▪ Waste products contained within waterproofed, sealed and bunded areas	X	X	
	▪ Smaller quantity of chemicals stored in self-bunded pallet	X	X	

3.4 Ecology

The potential impacts to ecological values during the construction and operation phases of the Project have been considered based on the existing environmental values and the activities to be undertaken. No vegetation communities of conservation significance were observed during the baseline field survey. The Western Grasswren (*Amytornis textilis myall*), which is listed as a vulnerable threatened species under the EPBC Act, was observed in the site during field observations. Habitat for this threatened fauna species is located onsite. Objective and management measures related to ecology are identified in Table 3-3 below.

Table 3-3 Ecology Objectives and Management Measures

Objective	Management Measures	Phase		Responsibility
		C	O	
Minimise destruction to surrounding habitat and loss of potential habitat species	▪ Define clearing limits on plans and on the ground	X		Environmental Representative
	▪ Minimise vegetation clearance, which may be required as part of maintenance, as much as practically possible		X	Senior Project Manager
	▪ Environmental awareness training aimed at ecological issues as part of site induction	X		Environmental Representative
	▪ Monitor impacts during construction and operation	X	X	Environmental Representative
	▪ Record observations, incidents and associated details of ecological related issues	X	X	
	▪ Before clearing vegetation, Adani to contact local seed collectors to offer the opportunity to collect seeds	X		
	▪ Prior to any vegetation/earthwork disturbance, a suitably qualified fauna spotter/handler will be on-site to identify and remove fauna	X		
	▪ No infrastructure activities occur within 10 m of all watercourses (except the noted creek crossing), the bases of all hills, the bases of stone outcrops, or salt/clay pans	X		Senior Project Manager
	▪ Erect fencing prior to clearing	X		
	▪ Fauna crossing signs will be erected in trafficked zones where fauna crossing/utilisation areas have been identified to warn drivers			
Ensure no habitat degradation arises from the introduction and or	▪ Staff will be informed as part of site inductions of the species of weeds likely to be encountered on the Project site and what to do if identified	X	X	Environmental Representative
	▪ The location of known weed infestations will be monitored	X	X	

Objective	Management Measures	Phase		Responsibility
		C	O	
spread of weeds and pests	▪ Implement weed hygiene practices such as cleaning of equipment and vehicles before and after access to known areas infested with weeds	X	X	
	▪ Implement rehabilitation and revegetation program as per Construction EMP	X		
	▪ Monitor and record instances of identified feral animals or potential predators of species during construction	X		
Ensure activities from construction and operational phases does not disrupt the breeding cycle of threatened species	▪ If there is evidence of breeding by threatened species within the development area, the affected area should be fenced off and not entered until the breeding cycle is complete	X	X	

Specific management measures for the Western Grasswren are included in Table 3-4.

Table 3-4 Western Grasswren Objectives and Management Measures

Objective	Management Measures	Phase		Responsibility
		C	O	
Prevent impact to surrounding habitat and loss of potential habitat for the Western Grasswren	▪ Record opportunistic observations, incidents and associated details with the aim of collating specific data for Western Grasswren (Gawler Ranges)	X	X	Environmental Representative
	▪ Minimising the disturbance footprint, where feasible, during the detailed Project design phase	X		Senior Project Manager
	▪ Prevent disturbance from Project construction and operations to adjacent habitat, outside the Project area, suitable for Western Grasswren	X	X	
	▪ clearing will be undertaken a way that directs any resident Western Grasswren away from clearing activities	X		
Ameliorate threats and direct species mortality to the Western Grasswren	▪ During construction earthworks a qualified fauna spotter will be present at all times. If individuals or populations are discovered, they will be relocated to areas of suitable habitat	X		Environmental Representative
	▪ Monitoring of feral populations or potential predators of the species during construction, and implementation of a control program if necessary	X		
	▪ Implement weed and pest control measures	X	X	

3.5 Landscape and Visual Amenity

The Project is to be located in a sparsely developed area north of the Whyalla Industrial Estate and the north-west of the Arrium Steel Works. Elevated topography north of Iron Knob Road prevents direct lines of sight from residential areas of the Whyalla township. Primary viewpoints of the Project occur throughout the surrounding conservation area, industrial sites and publicly accessible roads. Impacts to the existing landscape and visual amenity of the general public from roads have the potential to occur as a result of the Project. Refer to Table 3-5 for relevant objectives and management measures.

Table 3-5 Landscape and Visual Amenity Objectives and Management Measures

Objective	Management Measures	Phase		Responsibility
		C	O	
Ensure the surrounding landscape character and visual amenity is not significantly altered.	▪ With approval from the City of Whyalla, further planting of Western Myall seeds in the 100 m vegetation buffer along the west of the site	X	X	Senior Project Manager
	▪ Use of material/paint colours that blend with the environment	X	X	
	▪ Retention of ground cover where possible	X	X	
	▪ Wind erosion control measures	X	X	Environmental Representative
	▪ Protection of neighbouring vegetation health through preventing access	X	X	
	▪ Limit of tall structures to substation only		X	Senior Project Manager
Ensure visual impacts and glare emissions from the Project do not provide a distraction to drivers.	▪ With approval from the City of Whyalla, further planting of Western Myall seeds in the 100 m vegetation buffer along the west of the site between the Project and the Lincoln Highway	X	X	Senior Project Manager
Prevent light spill to the environment	▪ Only essential lighting to be used	X	X	Senior Project Manager
	▪ Lighting methods to avoid spill	X	X	
Reduce visual impact of earth moving and construction vehicles	▪ Laydown area in southern portion of site	X		Senior Project Manager
	▪ Implement wind erosion control measures including: - Watering of exposed areas - Physical barriers (e.g. covering of exposed soil piles) if required	X		Environmental Representative

3.6 Cultural Heritage

The Project will have no impact on known physical heritage values of significance, either Indigenous or non-Indigenous. The review of the Register of Aboriginal Sites and Objects concluded that no Indigenous cultural heritage sites have been recorded within the Project area. The Project involves minimal earthworks, therefore limiting the likelihood of disturbance and damage to undiscovered sites or objects of cultural significance. A number of general recommendations were developed in consultation with Barngarla Aboriginal Corporation (BAC) representatives. These and other management measures are identified in Table 3-6.

Table 3-6 Cultural Heritage Objectives and Management Measures

Objective	Management Measures	Phase		Responsibility
		C	O	
Prevent accidental disturbance to Indigenous heritage sites or object of significance.	▪ Implement the requirements of the Heritage Clearance Agreement	X	X	Senior Project Manager
	▪ In the event that items of Aboriginal cultural heritage values are identified during works, all works must cease, the area fenced off and the Barngarla Aboriginal Corporation and Department of State Development Aboriginal Affairs and Reconciliation Division (AARD) contacted	X	X	
	▪ BAC are to be consulted prior to any Adani activities which might impact rock outcrops, hills or clay pans and the immediate area surrounding these places	X	X	
	▪ Road or track use is restricted to existing alignments wherever possible	X	X	
	▪ No infrastructure activities occur within 10 m of all watercourses (except the noted creek crossing of the access road), the bases of all hills, the bases of stone outcrops, or salt/clay pans	X	X	
	▪ Any proposed activities that occur outside the Project area are to be surveyed and cleared by both male and female representatives of the BAC, following similar methodologies to those presented in the Heritage Clearance Report	X	X	
	▪ Any additional activities associated with the Project, other than those already described, are to be cleared by both male and female representatives of the BAC	X	X	
Prevent accidental disturbance to non-Indigenous heritage sites or object of significance.	▪ Implement the requirements of the Heritage Clearance Agreement	X	X	
	▪ In the event that items of heritage significance are identified during the Project works, fence off the area and contact the Department of Environment, Water and Natural Resources' (DEWNR) State Heritage Unit (SHU) and the Heritage Council	X	X	

3.7 Social and Economic

The Project has the potential to provide direct and indirect employment opportunities for the region. Refer to Table 3-7 for relevant objectives and management measures.

Table 3-7 Social and Economic Objectives and Management Measures

Objective	Management Measures	Phase		Responsibility
		C	O	
Maximise local involvement/ opportunities in the workforce and help contribute to the economic investment of the region	▪ Work with subcontractors to ensure recruitment to maximises local employment	X	X	Senior Project Manager
	▪ Develop and maintain a register of business that are interested in supplying goods and services	X	X	
	▪ Actively work with local and regional businesses	X	X	
Enable community utilisation of site resources removed due to the Project	▪ Vegetation and timber removed due to clearing will be offered to the local community	X		
	▪ Before clearing vegetation, contact local seed collectors to offer the opportunity to collect seeds	X		
Minimise temporary pressures on property demand during construction	▪ Work with subcontractors to minimise non-local employment via recruitment strategies that maximise local employment	X		Senior Project Manager
Reduce increased risk of traffic incidents and disruption to community amenity	▪ Arthur Glennie Drive and Industry Drive Intersection upgrade (line marking) prior to construction	X		Engineering Representative
	▪ Heavy vehicle access will to be staged where possible	X		
	▪ Buses to transport workers to site	X		Senior Project Manager
Minimise increased pressure on public health facilities and services	▪ Development and implement an emergency response plan	X	X	
	▪ Ensure workers have up to date first aid training	X	X	

3.8 Traffic

The Project will result in increased vehicle use on the surrounding road network. This may result in disruption to flow and delays as well minor impacts to the overall road condition. It is predicted that the increased vehicle traffic can be accommodated during the construction and operational phases. Industry Drive is currently only accessibly by general access vehicles, with an upgrade of the line marking to the Industry Drive and Arthur Glennie Drive intersection expected to improve access. Relevant objectives and management measures are outlined in Table 3-8.

Table 3-8 Traffic and Transport Objectives and Management Measures

Objective	Management Measures	Phase		Responsibility
		C	O	
Prevent disruption and delays and decrease in overall road performance	▪ Heavy vehicles accessing the site will be staggered during the day to minimise traffic impacts, where possible	X	X	Senior Project Manager
	▪ Heavy vehicle haulage permits will be obtained where required	X	X	Contractors
	▪ Workers will be educated on fatigue and safety management	X	X	Senior Project Manager
Operational safety of Industry Drive and Arthur Glennie Drive Intersection	▪ Intersection to be upgraded prior to construction commencing (line markings and changes to lanes)	X		State Government
Prevent accidents occurring on the road network and the Project access road	▪ Access road will be appropriately designed to ensure road safety	X	X	Engineering Representative
	▪ Access (road width and condition) is to be appropriately designed and constructed	X		
	▪ Proposed access road to be signed as a restricted access road not suitable for public access	X	X	Senior Project Manager

3.9 Aviation

The main potential impact on aviation is likely to be reflected glare, which could impact on pilot vision. However, chances of this are only likely between 7:00 am and 7:30 am from mid-November to January. There will not be any penetration of the Whyalla Aerodrome OLS, PANS-OPS surfaces or lowest safe altitudes by the Project. The Civil Aviation Safety Authority (CASA) does not consider the solar farm to be a hazard to aviation. Refer to Table 3-9 for relevant objectives and management measures.

Table 3-9 Aviation Objectives and Management Measures

Objective	Management Measures	Phase		Responsibility
		C	O	
Operational safety of aviation aircraft, operators and the surrounding environment.	▪ Building and construction equipment to be kept under 160.5 m AHD (the most conservative height)	X	X	Senior Project Manager
	▪ If glare impacts are raised by aircraft operators, liaise further with the Department of Defence regarding the D261 airspace		X	

3.10 Air and Noise

The Project may result in minor impacts including noise and air pollution and relevant management measures to address these impacts are identified in Table 3-10.

Table 3-10 Air and Noise Objectives and Management Measures

Objective	Management Measures	Phase		Responsibility
		C	O	
Airborne dust particles are to be minimised as far as possible during the construction and operation phases	▪ Implementation of dust suppression measures, if dust is visible, including; - Watering of exposed areas - Physical barriers (e.g. covering of exposed soil piles). The aim of measures is to prevent an increase of particulates (PM^{10} and $PM^{2.5}$) above the current baseline conditions. Further, particulate emission from the Project must not contribute to an exceedance of ground level concentration limits specified in Schedule 2 of the *Environment Protection (Air Quality) Policy 2016*[1]	X		Senior Project Manager
	▪ Suspension of earthworks during high wind conditions	X		
	▪ Maintain suitable surfacing (for example, gravel) of high traffic areas	X	X	

[1] Limit is 0.05 mg/m^3 over 24 hrs for PM^{10} and 0.025 mg/m^3 over 24 hrs for $PM^{2.5}$.

Objective	Management Measures	Phase		Responsibility
		C	O	
	▪ Monitor dust control measures regularly for effectiveness	X	X	Environmental Representative
Reduce the impact on surrounding sensitive receptors as a result of noise	▪ Machinery and equipment will be switched off when not required	X	X	Senior Project Manager
	▪ Sources of significant noise will be switched off when not required and where possible	X	X	
	▪ All machinery is to be maintained and serviced in accordance with manufactures guidelines	X	X	
	▪ All vehicles are fitted and equipped with mufflers	X	X	

3.11 Waste

Adani will be required to address waste disposal concerns. Relevant management measures to address these impacts are identified in Table 3-11.

Table 3-11 Waste Objectives and Management Measures

Objective	Management Measures	Phase		Responsibility
		C	O	
No unnecessary production or improper waste disposal	▪ Waste disposal undertaken by a licenced contractor	X	X	Environmental Representative
	▪ Any waste will be disposed of safely in accordance with South Australian regulations and spill kits will be provided in hazardous material storage areas	X	X	
	▪ Material moving to and from site, will be tracked using dockets and receipts	X	X	
	▪ Waste management arrangements to be implemented in accordance with the waste hierarchy	X	X	

3.12 Health and Safety

Adani will be required to address health and safety concerns, particularly in relation to bushfires. Relevant management measures to address these impacts are identified in Table 3-12.

Table 3-12 Health and Safety Objectives and Management Measures

Objective	Management Measures	Phase		Responsibility
		C	O	
Ensure human health and safety of the workforce and public is not adversely affected	▪ All site staff will be trained and have access to the appropriate emergency and safety equipment in the event of an emergency at the facility	X	X	Senior Project Manager
	▪ Visitors will undertake a site induction prior to entering the facility	X	X	
	▪ An Emergency Response Plan (ERP) will be developed prior to construction	X		
	▪ Smoking will not be permitted on site, other than in designated smoking areas	X	X	
	▪ Fire extinguishers will be provided in all buildings and construction vehicles	X	X	
	▪ An 8 m wide buffer between the perimeter fence and any significant infrastructure will be maintained		X	
	▪ A track will be provided to enable maintenance and emergency vehicular access if required		X	
	▪ Prohibition of onsite burning	X	X	
	▪ Regular maintenance of onsite fire-fighting equipment and staff training.	X		

Appendix A - Disclaimer and Limitations

This report has been prepared by CDM Smith Australia Pty Ltd (CDM Smith) for the sole benefit of Adani Infrastructure Pty Ltd for the sole purpose of providing a general Draft Environmental Management Plan (high-level) that will support a development application for the Whyalla Solar Project.

This report should not be used or relied upon for any other purpose without CDM Smith's prior written consent. CDM Smith, nor any officer or employee of CDM Smith, accepts no responsibility or liability in any way whatsoever for the use or reliance of this report for any purpose other than that for which it has been prepared.

Except with CDM Smith's prior written consent, this report may not be:

(a) Released to any other party, whether in whole or in part (other than Adani Infrastructure Pty Ltd's officers, employees and advisers);

(b) Used or relied upon by any other party; or

(c) Filed with any Governmental agency or other person or quoted or referred to in any public document.

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