





Manildra Solar Farm Construction – Environmental Representative (ER) Inspection Report


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Date of Inspection	19/12/2017	Location of Inspection	Manildra Solar Farm
ER	Demelza Scott	Proponent Representative	Bjorn Schultz (FS)
Weather	Hot and windy	Construction Contractor Representative	Glenn Tilley (RCR)
Follow up from previous inspection	CA130917-01 remains outstanding.		
Inspection Summary	<p>Improvement Opportunity – 1 Corrective Actions – 2</p> <p>Open Corrective Actions:</p> <p>CA130917 – 01: Conduct appropriate checks and inductions on subcontractors, their staff and plant/equipment prior to conducting any work on the project.</p> <p>CA191217 – 01: Conduct maintenance on sediment fencing.</p> <p>CA191217 – 02: Develop and implement a program for the installation of nest boxes in accordance with the FFMP.</p> <p>Appendix A - Corrective Action Register tracks identification and close out of corrective actions.</p>		
Comments / Observations	<p>Pile driving and rock driving of posts for the solar arrays was underway in the western portion of the site. The internal road network was under construction with gravel deliveries occurring. Construction was underway for the O&M building including aerated wastewater treatment system and photovoltaic interconnecting switchgear.</p> <p>The site continued to present a low environmental risk at the time of inspection.</p>		

Signed:

Environmental Representative

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Site Compound	<p>Construction of the O&M building is underway including installation of the aerated wastewater treatment system (AWTS) and concrete pouring of the walls of the Photovoltaic Interconnection Switchgear (PVIS). Sediment fencing downslope of the disturbed area at this location requires some maintenance, as soil had been pushed up against the sediment fence during earthworks and a section of sediment fence had been removed.</p> <p>Sediment fencing in some other areas also require maintenance to reattach posts etc.</p> <p>RCR advised the sediment fence contractor was due on site 20/12/2017 to install some additional fencing before the Christmas period when they will be operating with limited staff.</p> <p>Corrective Action 191217 – 01: Conduct maintenance on sediment fencing.</p>	29/12/2017	 

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Dust	<p>Significant areas of cut and fill are currently exposed on the site. Construction of the main internal access roads were underway. Two water trucks were operating on site at the time of the inspection focussing on the road construction.</p> <p>Despite the hot and windy conditions, minimal dust generation was observed and it was isolated to the immediate area around the vehicle movements and rock driving.</p> <p>Regrowth of groundcover was observed below the arrays under construction.</p> <p>RCR advised a structured groundcover monitoring program is being developed and is expected to commence in February 2018.</p>		

***Chemicals and
Fuels***

RCR have installed a double bunded permanent fuel tank adjacent to the main site offices. This refuelling station includes a plastic lined area for vehicles to park on during refuelling. The refuelling station is primarily used for refuelling ATVs. RCR advised two personnel have been trained for refuelling, however evidence to confirm this was not provided.



**Flora and
Fauna**


Nest boxes are yet to be installed to mitigate the impact of the removal of hollow bearing trees for the construction of the solar farm. The Flora and Fauna Management Plan (FFMP) requires nest boxes to offset hollow bearing trees be installed within three months of removing the hollow bearing tree. The Post Clearing report (Geolyse, October 2017) states clearing of habitat trees occurred on 14 and 15 September 2017.

Trenching is underway across the site for installation of cables, construction of the PVIS and works in the vicinity of the substation. RCR advised they have initiated a program of morning inspections of trenches for trapped fauna, and the cabling trenches are being constructed with ramps to allow trapped fauna to escape. This is consistent with the protocols in the FFMP.


Corrective Action 191217 – 02: Develop and implement a program for the installation of nest boxes in accordance with the FFMP.

31/01/2018



Issue	Observations & Corrective Actions	Due Date	Photographic Record
			

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Traffic	<p>Construction works are complete on the intersection upgrade at Packham Drive including access to the neighbouring property. RCR are in the process of organising a meeting with Council to transfer management of the road back to them.</p> <p>A number of trucks were observed delivering plant and road construction materials to site during the inspection. These trucks appeared to be operating in accordance with site traffic management controls.</p> <p>RCR advised the truck drivers from the Molong quarry supplying road construction gravel have been inducted to site. Copies of truck driver inductions were sighted. However, RCR have not conducted Plant Acceptance Checks for the quarry trucks.</p> <p>RCR provided the contractor inductions for John Barrie and Lloyd Morgan from Remondis to partially close out CA130917-01, however, Plant Acceptance Checks have not been completed on waste trucks to date either.</p>		
Waste	<p>First Solar advised they expect to generate 630 tonnes of waste cardboard and pallets from the supply of modules to the site, which will be mulched for reuse. These are reportedly being stockpiled in a designated area on site, however the area was not able to be sighted during the inspection due to road construction works. Negotiations are underway with MSM Milling for supply of the mulched material for use in commissioning a new boiler at their facility or in the biofilter.</p>		

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Noise	<p>Pile driving and rock driving for installation of posts for the solar modules is underway across the western portion of the site. The Project Approval and Construction Noise Management Plan include restrictions for any work generating high noise impacts as <i>'impulsive, intermittent, low frequency or tonal characteristics, including jack hammering, line drilling, pile driving, rock hammering, rock breaking, saw cutting, sheet piling, vibratory rolling'</i> which exceeds 42dBA at any sensitive receiver. The pile driving and rock driving would constitute 'work generating high noise impact', however, the CNMP predicts a maximum of 38dBA at nearby sensitive receptors during pile driving and RCR have not conducted noise monitoring during pile driving/rock driving to confirm noise levels at sensitive receptors.</p> <p>During the site inspection, RCR and First Solar discussed conducting noise monitoring to understand the potential impacts on sensitive receivers now and as works move east across the site towards the neighbouring properties. RCR has reportedly ordered noise monitoring equipment and plan to develop and implement a noise monitoring program including at some offsite locations.</p> <p>No complaints have been received regarding noise generated by the project.</p> <p><i>Improvement Opportunity 191217 – 01: RCR to develop and implement a noise monitoring program, including assessment of work generating high noise impact at sensitive receivers.</i></p>	31/01/2018	

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<i>Soil and Water</i>	RCR and First Solar advised the site had received two high rainfall events since the last ER inspection and erosion and sediment controls were performing well. Erosion and sediment controls are inspected as part of the weekly environmental inspection by the RCR SCECO, however, copies of completed inspection reports to demonstrate this have not been sighted. RCR have developed a specific erosion and sediment control inspection report to use prior to and following rainfall events.		
<i>Performance Monitoring</i>	RCR have prepared a Compliance Tracking Program progress report for the period 1 September 2017 to 30 November 2017.		

Appendix A Corrective Actions Register

Reference	Action	Category <i>A: Stop Work</i> <i>B: Immediate Action</i> <i>C: Closed within 2 weeks</i> <i>D: Non-critical</i>	Date Opened	Responsibility	Date Closed
170810 – 01	Maintain spill kits in areas that are readily accessible in the event of a spill.	B	10/08/2017	RCR SCECO	13/09/2017
170810 – 02	Manage trenches in accordance with Protocol 4: Trenching to minimise trap hazard for fauna.	B	10/08/2017	RCR SCECO	13/09/2017
130917 – 01	Conduct appropriate checks and inductions on subcontractors, their staff and plant/equipment prior to conducting any work on the project.	C	13/09/2017	RCR SCECO	
111017 – 01	Fence rocky outcrops within the development envelope that are not to be disturbed	C	11/10/2017	RCR SCECO	14/11/2017

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	including a 2.5m buffer as per FFMP or provide justification for not fencing.				
191217 – 01	Conduct maintenance on sediment fencing.	C	19/12/2017	RCR SCECO	
191217 – 02	Develop and implement a program for the installation of nest boxes in accordance with the FFMP.	C	19/12/2017	RCR SCECO	