




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


*For internal project use only. Document not for external release or use.*

Date of Inspection	14 March 2018	Location of Inspection	Manildra Solar Farm
ER	Demelza Scott	Proponent Representative	Nil
Weather	Warm, sunny, moderate wind	Construction Contractor Representative	Don Martin
Inspection Summary	Improvement Opportunity – 0    Corrective Actions – 3 Open Corrective Actions: CA191217 – 02: Develop and implement a program for the installation of nest boxes in accordance with the FFMP. CA210218-02: Implement all practicable dust mitigation measures to cease emission of visible dust generated by the project. CA210218-03: Place additional rock to stabilise the internal road on the north-east perimeter from water flowing onto site. CA210218-04: On completion of construction, remove the access road from the array to the farm dam so as not to impede natural water flow.		
Comments / Observations	The earthworks contractor has finished on site. Drilling and pile driving of posts for the solar arrays was ongoing. Trenching is ongoing for cable installation. External fencing was being erected along the northern perimeter. Arrays and electrical installation is occurring across the site. Onsite inverter boxes have been constructed along arrays 6, 7 and 8 and were in the process of being back-filled. A minor environmental incident had occurred. No complaints have been received. The site presented a low environmental risk at the time of inspection.		

Signed:

**Environmental Representative**

Issue	Observations & Corrective Actions	Due Date	Photographic Record
<b>Dust</b>	<p>Localised generation of dust associated with vehicle movements on site roads and drill rig operation was observed.</p> <p>One water truck was operating on site during the inspection. Two water trucks were previously operating on site. The addition of a second truck would allow for wetting down of earthworks activities as well as the internal road network to further reduce dust generation.</p>		
<b>Waste</b>	<p>Mulching contractor has finished mulching stockpiled cardboard boxes and wooden pallets. The mulched material is currently stockpiled on site.</p> <p>RCR advised that a consultant has been engaged to assess the material for suitability for use in the mulch berm. Initial advice indicates that the wooden pallets are not suitable for use.</p> <p>Discussions are ongoing with MSM Milling regarding accepting the mulched wooden pallets.</p> <p>The mulched material was not inspected in detail at the time of audit. Some pieces of mulched cardboard appeared to still be very large.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
<b><i>Chemicals and Fuels</i></b>	<p>A small oil spill occurred at the onsite refuelling station / generator for the site offices on Monday 12 March.</p> <p>The spill was absorbed using the spill kit maintained at the refuelling station. An incident report was not available for review at the time of the ER Inspection. This is to be reviewed at the next ER Inspection in April.</p>		

---

***Flora and  
Fauna***

RCR advised that nest boxes are due to arrive on site the week of 19 March.

Trenching is almost complete.


Good regrowth was observed across the site.



Issue	Observations & Corrective Actions	Due Date	Photographic Record
			

<b>Noise</b>	<p>The CNMP gives noise criteria as rating background level (RBL) +10dBA for each of the receptors which gives receptor 2 44dBA and receptor 5 41dBA.</p> <p>The CoA defines work generating high noise impact as any work generating high noise levels that have impulsive, intermittent, low frequency or tonal characteristics, including jack hammering, line drilling, pile driving, rock hammering, rock breaking, saw cutting, sheet piling, vibratory rolling but excluding blasting, which exceeds 42dBA at any sensitive receiver, must only be undertaken:</p> <p>(a) between the hours of 8:00am and 6:00pm Monday to Friday;</p> <p>(b) between the hours of 8:00am and 1:00pm Saturday; and</p> <p>(c) in continuous blocks of no more than three hours, with at least a one hour respite between each block of work generating high noise impact, where the location of the work is likely to impact the same receivers; except as otherwise approved by the Secretary. For the purposes of this Condition 'continuous' includes any period during which there is less than a one hour respite between ceasing and recommencing any of the work the subject of this Condition.</p> <p>RCR conducted noise monitoring at the two receptors. At receptor 2 noise levels of 42dBA were detected before any construction activities had commenced on site. This then increased to 48dBA when drilling/pile driving commenced. Results for receptor 5 were not provided to the ER at the inspection.</p> <p>RCR have not reported any noise complaints from the project and have had discussions with the residents at the time of noise monitoring where they advised that the noise was not of concern to them.</p> <p>Based on the noise criteria in the CoA and CNMP, RCR are exceeding both the day time noise criteria and the work generating high noise impact criteria.</p> <p><b>Corrective Action 140318-01 – Implement respite periods as per CoA.</b></p>	23/03/2018
--------------	--	------------

Issue	Observations & Corrective Actions	Due Date	Photographic Record
	Corrective Action 140318-02 – Notify DPE that site monitoring has indicated exceedance of the noise criteria and that respite periods have been implemented, and discuss options for managing noise impacts.		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
<b>Soil and Water</b>	<p>RCR provided photos and a site plan for the installation of rock check dams across the site prior to the ER Inspection.</p> <p>Additional hay bales have been purchased for the site to be placed behind rock check dams and to be used within the main drainage line to break up the slope length. RCR advised that these will be installed by the end of the week (16/03/2018).</p> <p>Once array installation is complete, hay will be spread in high risk areas to provide temporary groundcover. Identified areas include between the northern road and arrays 6, 7 and 8, along the north-south road and around arrays 3, 4 and 5.</p> <p>Rill erosion was still evident on the batter approaching the O&amp;M building. RCR advised that they are currently seeking quotes from contractors to remediate the batter and stabilise it to prevent future erosion.</p> <p>A section of the sediment fence in the south-west corner of the site was observed to be down and required maintenance to ensure protection from offsite movement of sediment.</p> <p><b>Corrective Action 140318-03 – Conduct maintenance on sediment controls to ensure ongoing effectiveness.</b></p>	30/03/2018	
<b>Incident Management</b>	Refer to incident mentioned under Chemicals and Fuels.		
<b>Induction and Training</b>	<p>Induction records were reviewed for three contractors observed to be operating on site at the time of the ER Inspection – Sunset (fencing contractor), DRC Drilling and Trade Connex (labour hire company).</p> <p>Verification of competency for driving ATVs and LVs on site were observed for Don Martin and Joshua Houghton.</p>		



## 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	18/01/2017
111017 – 01	Fence rocky outcrops within the development envelope that are not to be disturbed	C	11/10/2017	RCR SCECO	14/11/2017

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
	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	20/12/2017
191217 – 02	Develop and implement a program for the installation of nest boxes in accordance with the FFMP.	C	19/12/2017	RCR SCECO	
210218 – 01	Repeat construction noise monitoring at the residences of receptor 2 and receptor 5 to confirm whether noise generated by the project is below the Assessment Criteria and Work Generating High Noise Impact Levels.	B	21/02/2018	RCR SCECO	12/03/2018

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
210218 – 02	Implement all practicable dust mitigation measures to cease emission of visible dust generated by the project.	B	21/02/2018	RCR SCECO	
210218 – 03	Place additional rock to stabilise the internal road on the north-east perimeter from water flowing onto site.	C	21/02/2018	RCR SCECO	
210218 – 04	On completion of construction, remove the access road from the array to the farm dam so as not to impede natural water flow.	D	21/02/2018	RCR SCECO	
140318 – 01	Implement respite periods as per CoA.	B	14/03/2018	RCR SCECO	
140318 – 02	Notify DPE that site monitoring has	B	14/03/2018	RCR SCECO	

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
	indicated exceedance of the noise criteria and that respite periods have been implemented, and discuss options for managing noise impacts.				
140318 – 03	Conduct maintenance on sediment controls to ensure ongoing effectiveness.	C	14/03/2018	RCR SCECO	