





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


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Date of Inspection	13/09/2017	Location of Inspection	Manildra Solar Farm
ER	Demelza Scott	Proponent Representative	Bjorn Schultz Aaron Hawkins
Weather	Fine and partly overcast	Construction Contractor Representative	Baz Tuppin
Follow up from previous inspection	<p>Corrective Actions:</p> <p>CA 170810 - 01: Maintain spill kits in areas that are readily accessible in the event of a spill. <i>Sighted spill kit in main RCR site compound and on refuelling trailer.</i></p> <p>CA 170810 - 02: Manage trenches in accordance with Protocol 4: Trenching to minimise trap hazard for fauna. <i>RCR SCECO reported that the trench was dewatered immediately and covered with pallets to prevent fauna being trapped.</i></p>		
Inspection Summary	Improvement Opportunity – 0	Corrective Action – 1	
	<p>Open Corrective Actions:</p> <p>CA 130917 – 01: Conduct appropriate checks and inductions on subcontractors, their staff and plant/equipment prior to conducting any work on the project.</p> <p>Appendix A Corrective Action Register to track identification and close out of corrective actions.</p>		
Comments / Observations	<p>The site was still in the pre-construction phase at the time of inspection. Site buildings have been connected to a self-bunded diesel generator. The internal main access road has been completed up to the site buildings. The laydown area has been completed.</p> <p>The site was tidy at the time of the inspection. Erosion and sediment controls for stockpiles and earthworks were implemented and managing erosion and sediment risk well, although they are yet to be tested with significant rainfall.</p> <p>The site presented a low environmental risk at the time of the inspection.</p>		

Signed:

Demelza Scott, Environmental Representative

Issue	Observations & Corrective Actions	Due Date	Photographic Record
<p>Site Compound</p>	<p>Laydown area, private vehicle and bus parking, and main access road to laydown area and site compounds have been completed since the last inspection.</p> <p>On the day of the inspection, temporary barrier fencing was being installed around the laydown area, and the newly engaged civil contractor Brefni was on-site for the inception meeting.</p>		 

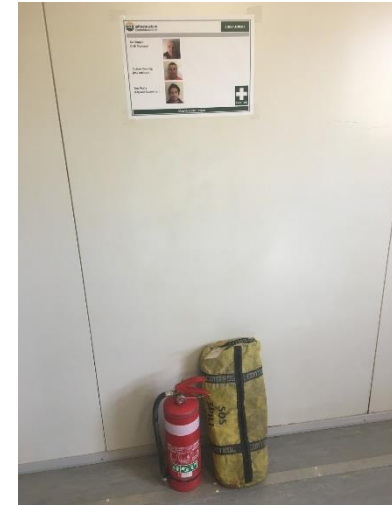
Issue	Observations & Corrective Actions	Due Date	Photographic Record
	<p>The on-site sewage treatment system has been installed and connected. The trench has been filled. The irrigation area (pictured) has been seeded and erosion and sediment controls were in place.</p> <p>Rainwater tanks have been installed including connection for Rural Fire Service, if required.</p>		
Dust	<p>Minimal dust was observed to be generated across the site.</p> <p>Some small amounts of dust were observed to be generated by vehicles entering and exiting the car park adjacent to the site buildings.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Waste	<p>RCR have engaged Remondis for waste management and transport for the project. Two waste skips have been provided for co-mingled recyclables and general waste.</p> <p>Remondis were on-site conducting the project's first waste collection at time of the inspection. RCR are yet to induct the driver and review Remondis' plant and equipment to determine if it satisfies RCR's acceptance requirements for general mobile plant.</p> <p>Other waste materials e.g. wooden pallets have been stockpiled in the laydown area for potential reuse or later recycling/disposal.</p> <p>Corrective Action 130917 – 01: Conduct appropriate checks and inductions on subcontractors, their staff and plant/equipment prior to conducting any work on the project.</p>	N/A	
Chemicals and Fuels	<p>A diesel generator has been installed adjacent to the site buildings to power the site compound during construction of the project. RCR advised that the generator is self-bunded. A fire extinguisher is available at the generator.</p>		

Issue**Observations & Corrective Actions****Due Date****Photographic Record**

The Rural Fire Service (RFS) have conducted an audit of fire extinguishers for the project in late August. The audit findings required installation of additional fire extinguishers and signage. These additional fire extinguishers and signage have been ordered however are yet to be received and erected. This is to be monitored at the next ER inspection to confirm that appropriate action has been taken.

Spill kits were available observed in the RCR site compound and on the refuelling trailer.



RCR maintain a refuelling trailer on site. RCR advised that the trailer is double banded and a spill kit is available in the trailer. RCR plan to set up designated refuelling locations across the project site however this is yet to happen. Refuelling is occurring on a gravel pad adjacent to the site buildings. A fuel register is maintained and was sighted at the inspection.



Issue	Observations & Corrective Actions	Due Date	Photographic Record
<i>Flora and Fauna</i>	<p>The Biodiversity Offset Area has been fenced by RCR at the project boundary and signage is on order.</p> <p>Geolyse have conducted weed mapping (including a register) for the project site. RCR are developing a plan to manage the identified weed infestations in accordance with the Groundcover Management Plan.</p> <p>Geolyse have conducted a pre-clearing vegetation survey including marking trees, mapping and a register for the project. No tree clearing has been conducted to date.</p> <p>RCR advised that they have agreed, in conjunction with the landholder, to donate the trees to be removed for the project to the local Lions Club for use as firewood in Manildra's retirement village.</p>		
<i>Traffic</i>	<p>Reduced speed limit signage was observed on Packham Drive on approach to the project main access.</p> <p>Speed limit signage was observed on the main access road into the project site.</p> <p>Internal access roads were observed to be pegged and are yet to be constructed.</p> <p>Packham Drive intersection upgrade is to be completed by the civil contractor.</p> <p>Brefni are to operate in accordance with the CEMP and approved Traffic Management Plan. A Vehicle Management Plan is to be developed by Brefni for review and approval by RCR for construction of on-site access roads.</p> <p>RCR are currently reviewing Brefni's Project Management Plan.</p>		


Soil and Water

The topsoil stockpile sediment fences were observed to be maintained in good condition. The stockpile has been seeded and groundcover growth was evident.

The effluent irrigation area sediment controls were observed to be maintained in good condition. The area had been seeded, no groundcover growth was evident.

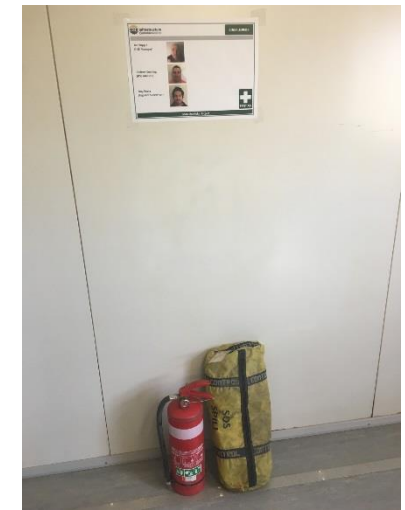
No other soil disturbance has occurred across the site.



Issue	Observations & Corrective Actions	Due Date	Photographic Record
Complaints	RCR maintain a register for community complaints and enquiries. No complaints have been received to date. Majority of calls were for enquiring about sponsorship and work opportunities from labour hire companies.		
Performance Monitoring	RCR are developing a compliance tracking program, it is currently in draft. Completed weekly inspections were sighted since the previous ER Inspection.		
Induction and Training	Training packages for role-specific incident response training are currently under development. Sighted induction records for forklift operator Wes Roweth dated 11/09/2017 including Verification of Competency for forklift operation, forklift licence and construction induction (white card).		

Appendix A Corrective Actions Register

Reference	Action	Category	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



Reference	Action	Category A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	Date Opened	Responsibility	Date Closed
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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
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130917 – 01	Conduct appropriate checks and inductions on subcontractors, their staff and	C	13/09/2017	RCR SCECO	
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Reference	Action	Category	Date Opened	Responsibility	Date Closed
	plant/equipment prior to conducting any work on the project.	<i>A: Stop Work</i> <i>B: Immediate Action</i> <i>C: Closed within 2 weeks</i> <i>D: Non-critical</i>			




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Date of Inspection	10 August 2017	Location of Inspection	Manildra Solar Farm
ER	Demelza Scott	Proponent Representative	Bjorn Schultz
Weather	Fine and sunny	Construction Contractor Representative	Jeff Drummond Baz Tuppin
Inspection Summary	Improvement Opportunity – 0 Corrective Action – 3		
Comments / Observations	<p>The site was in its third week of pre-construction activities at the time of the inspection. Temporary site buildings had been placed on site until the construction site compound is completed. The internal main access road was under construction and earthworks were underway for the construction site compound.</p> <p>The site was tidy at the time of the inspection. Erosion and sediment controls for stockpiles and earthworks were implemented and managing erosion and sediment risk well.</p> <p>A number of controls were awaiting implementation including erection of speed signage, waste receptacles and development of registers including complaints, incidents and waste.</p> <p>The site presented a low environmental risk at the time of the inspection.</p>		


Signed:


Demelza Scott, Environmental Representative


Issue	Observations & Corrective Actions	Due Date	Photographic Record
Waste	<p>Minimal waste has been generated at site to date. General solid waste from crib room is taken to Manildra Waste Facility twice weekly.</p> <p>Waste receptacles for segregation of construction waste have not been set up on site. Sighted Contractor's Weekly Environmental Site Inspection Checklist that included an improvement opportunity to order waste bins and have them in place prior to commencement of the construction program.</p>		
	<p>Spoil and topsoil observed to be stockpiled separately.</p>		
	<p>Old farm fencing has been removed from the majority of the development envelope. Temporary stockpiles of timber fence posts and wire are located across the site.</p> <p>Old fencing to be transported to MWF for recycling.</p>		
	<p>No greenwaste has been generated to date.</p>		


Issue	Observations & Corrective Actions	Due Date	Photographic Record
	<p>Contractors for transport of waste are currently undergoing contractor engagement processes.</p> <p>This was acknowledged in the Contractors' Weekly Environmental Site Inspection Checklist to engage waste transport contractor prior to commencement of the construction program.</p>		
	<p>Waste register is yet to be developed. Records of general solid waste have not been maintained to date.</p> <p>This was acknowledged in the Contractors' Weekly Environmental Site Inspection Checklist for the waste register to be developed prior to commencement of construction program.</p>		
<p>Chemicals and Fuels</p>	<p>No chemicals or fuels are currently stored on site.</p> <p>All light vehicles and plant are refuelled and serviced offsite. Sighted records for light vehicle 217.</p>		
	<p>Spill kit in temporary crib room was being stored in an office that could not be opened at the time of inspection.</p> <p>Corrective Action 170810 - 01: Maintain spill kits in areas that are readily accessible in the event of a spill.</p>	<p>Advised at time of audit to correct immediately.</p> <p>17/08/2017</p>	

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Flora and Fauna	<p>A trench under the main access road for services and effluent reuse has been open for two days. Protocol 4: Trenching from the Flora and Fauna Management Plan (FFMP) had not been implemented.</p> <p>Water truck operating on the adjacent main access road had filled the trench with water.</p> <p>Corrective Action 170810 - 02: Manage trenches in accordance with Protocol 4: Trenching to minimise trap hazard for fauna.</p>	<p>Advised at time of audit to correct immediately.</p> <p>17/08/2017</p>	


Issue	Observations & Corrective Actions	Due Date	Photographic Record
	<p data-bbox="443 411 1335 539">Ecologist (Geolyse) on site at time of ER inspection conducting pre-clearing surveys and identification of trees to be retained and those to be removed. Stands of remnant vegetation to be retained have been flagged as 'no go zones'.</p> <p data-bbox="443 555 1055 587">Clearing to be conducted no earlier than 21 August.</p>		
	<p data-bbox="443 1241 1335 1299">Ecologist (Geolyse) to conduct weed mapping. This is yet to be completed.</p>		



Issue	Observations & Corrective Actions	Due Date	Photographic Record
	No rocky outcrops have been required to be cleared for the pre-construction activities, as per the predictions in the Pre-Construction Activities Plan.		 The first photograph shows a grassy field with a prominent rocky outcrop in the center. The second photograph shows a wider view of a grassy field with several smaller rocky outcrops scattered across it.


Issue	Observations & Corrective Actions	Due Date	Photographic Record
Traffic	<p>Main access road and site compound were under construction at the time of the inspection.</p> <p>A grader, roller and water truck were operating. Trucks were delivering road construction materials at the time of ER inspection.</p>		
	<p>Traffic control is via UHF Channel 10 including pedestrian movements.</p>		
	<p>Designated parking areas were separated from construction traffic movements.</p>		
	<p>Advised that site speed limit is 20 km/hr. No speed limit signage has been erected at site. Sighted Weekly Site Inspection Checklist that identified this as an Improvement Opportunity. Speed limit signage has been ordered and will be erected prior to commencement of the construction program.</p>		
Heritage	<p>Cultural heritage awareness including the presence of the stone ruin are included in induction material.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
	<p data-bbox="443 411 1335 475">Sites of potential Aboriginal scatter and stone ruin were identified on site by flagging and signage.</p> <p data-bbox="443 491 1335 616">Archaeologist (NSW Archaeology) confirmed that the scatter is of low significance and does not require any specific management protocols. RCR have committed to protecting the scatter and on completion of perimeter fencing, it will be outside of the construction footprint.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Noise	<p>Induction material stated that construction hours are 6.30am-5pm Monday to Friday, and that there is the provision for Saturday works during the construction hours of 6.30am-2pm however Saturday work has not been conducted to date and requires prior approval of the Construction Manager.</p> <p>RCR advised that the site is opened at 6.30am with pre-start at 6.45am and no work is conducted prior to 7am. Work is not currently conducted after 5pm due to restrictions on available daylight.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Soil and Water	<p>Two stockpiles were constructed at the time of ER inspection.</p> <p>Aerated Wastewater Treatment System (AWTS) was in the process of being installed. Temporary stockpile of spoil was protected by a sediment fence on the downslope side.</p> <p>Topsoil stockpile was located behind the temporary site compounds and car park. It was protected by a sediment fence on the downslope side.</p>		
<p>Weekly site inspections are being conducted that include erosion and sediment controls. Sighted records of completed inspections conducted by SCECO.</p>			

Issue	Observations & Corrective Actions	Due Date	Photographic Record
	<p>Water cart operating for construction of main access road.</p> <p>Road construction methodology involves completing small sections of road at a time to minimise areas of disturbance and reduce dust generation.</p>		
	<p>Stabilised entry consisted of a rumble grid, hay bales reinforced with large rocks.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
	Site has received some wet weather since pre-construction works commenced (30 mm over 3 days). The site has not received 20 mm in 24 hrs to trigger wet weather inspections and additional erosion and sediment controls.		
	While the construction site compound is being developed, site amenities are port-a-loos. SCECO advised that these are double skinned to provide protection against spills of raw sewage.		
Community Consultation	Community information day was held prior to commencement of construction. Details provided to community e.g. construction start dates to be reviewed at next ER inspection.		
Complaints	<p>Contact information is displayed on the sign at the entrance to the construction site.</p> <p>Manildra Solar Farm website has been updated with complaints contact details.</p> <p>No complaints have been received to date. A complaints register is yet to be established.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
<i>Incident Management</i>	No environmental incidents have occurred to date. An incident register is yet to be established.		
<i>Permits and Approvals</i>	No permits or approvals have been required for the pre-construction activities underway at site.		
<i>Performance Monitoring</i>	<p>Weekly site inspections are being conducted.</p> <p>Monthly environmental compliance audits and monthly compliance meetings will commence with the start of construction.</p> <p>Corrective actions register is yet to be set up. Actions are being managed via the inspection record.</p>		
<i>Induction and Training</i>	<p>All construction staff and contractors are required to be inducted.</p> <p>Induction package was reviewed and includes heritage (including specific awareness of the stone cottage ruin), does not mention identified Aboriginal heritage sites within the construction boundary.</p> <p>Sighted induction records including completed induction questionnaire for Graeme Campbell.</p> <p>Role specific training packages are still under development and will be rolled out as required. This will include a training matrix identifying roles and training needs.</p>		



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

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Date of Inspection	11/10/2017	Location of Inspection	Manildra Solar Farm
ER	Demelza Scott	Proponent Representative	Bjorn Schultz
Weather	Fine and sunny	Construction Contractor Representative	Baz Tuppin Andrew Conning
Follow up from previous inspection	Corrective Actions: CA 130917 – 01: Conduct appropriate checks and inductions on subcontractors, their staff and plant/equipment prior to conducting any work on the project.		
Inspection Summary	Improvement Opportunity - 2	Corrective Action - 1	
	Open Corrective Actions: CA 130917 – 01: Conduct appropriate checks and inductions on subcontractors, their staff and plant/equipment prior to conducting any work on the project. CA 111017 – 01: Fence rocky outcrops within the development envelope that are not to be disturbed including a 2.5m buffer as per FFMP or provide justification for not fencing. Appendix A Corrective Action Register to track identification and close out of corrective actions.		
Comments / Observations	Construction has commenced with the following activities being conducted at the time of audit; construction of the BAR on Packham Drive, cut and fill earthworks, stockpiling of materials, fencing and chipping of vegetative materials. The site was tidy at the time of inspection. Erosion and sediment controls for the cut and fill earthworks were in place and managing sediment risk well. The site presented a low environmental risk at the time of inspection.		

Signed:

Demelza Scott, Environmental Representative

Issue

Observations & Corrective Actions

**Due
Date**

Photographic Record


***Site
Compound***

Site access control has been set up since the last inspection and contractors were on site constructing the BAR on Packham Drive.

The sides of the main access road have been formed and seeded as part of progressive rehabilitation.

The main access road appears to be in good condition and handling the movement of heavy vehicles for delivery of plant and materials to site.



Issue	Observations & Corrective Actions	Due Date	Photographic Record
<i>Dust</i>	<p>At the time of the inspection, two water trucks were operating on site to manage dust for the works on Packham Drive and the earthworks on Arrays 7 and 8. There was minimal dust being generated as part of the works.</p> <p>Heavy vehicles were observed to be using designated temporary tracks.</p> <p>There were no deliveries to site during the site inspection.</p>		

Issue

Observations & Corrective Actions

Due Date

Photographic Record

Waste

Waste and recycling bins were observed on site and waste was observed to be segregated. RCR have not received a waste docket for the first removal yet. RCR have not inducted the waste collection driver and he attended site on the day of the inspection and did another waste collection.

Refer to CA 130917.



Issue	Observations & Corrective Actions	Due Date	Photographic Record
Chemicals and Fuels	<p>The CEMP states that the main construction compound will include a dedicated refuelling station that is bunded, with topsoil stripped, overlain with heavy plastic sheet and material placed and compacted on top. RCR advised that they are conducting onsite refuelling however are yet to set up a designated, lined and bunded refuelling area. Refuelling is conducted in accordance with an SWMS (as is required by the CEMP), which was sighted. SWMS includes pre-start checks, spills, fire and training. The copy of the SWMS provided appears to be in draft and has not been approved or signed onto by any site personnel.</p> <p>A contractor is going to be engaged to refill the refuelling trailer at site although this hasn't commenced yet.</p> <p>Spill kits and fire extinguishers are maintained on site at the generator and refuelling trailer.</p> <p>Andrew Conning, HSE Advisor has conducted Dangerous Goods / Hazardous Substances training, sighted statement of attainment from PeopleSafe Australia.</p> <p>Brefni maintain a fuel truck and have been conducting refuelling of their plant on site.</p>	26/10/17	
	<p>Improvement Opportunity 111017 – 01: Finalise Refuelling SWMS, and induct and sign on all relevant construction personnel to the SWMS.</p>		

Flora and Fauna

All trees to be cleared as part of the project have been felled and Geolyse have provided a draft Post Clearing Report. Protocol 7: Hollow Bearing Tree Removal appears to have been followed. Trees identified for removal were marked, pre-clearing survey was conducted by a qualified ecologist, the ecologist was present during tree felling and conducted a post clearing inspection and report. The post clearance report did not make reference to the placement of nestboxes as per the FFMP. This is to be reviewed at the next ER Inspection.

Tree trunks have been taken offsite for firewood for the local aged care units as per an agreement with the landholder. Stumps have been ground and a contractor is operating on site to chip other vegetative material. Mulch has been used in the pedestrian walkway and will be used for the mulch berm.

To date, rocky outcrops have been left insitu where they are not in the vicinity of trees to be removed. The FFMP Protocol 2 requires that rocky outcrops within the development envelope are fenced with a 2.5m buffer, wherever possible. This was not observed to be occurring on site.

Where rocky outcrops were in the vicinity of trees to be removed and posed a risk to personnel, individual rocks were moved to an area immediately adjacent to their original location. This is consistent with the FFMP Protocol 6.

AWTS irrigation area is showing some signs of growth with irrigation of treated effluent from site facilities.

FFMP states that, where security considerations permit, perimeter fencing will not contain barbed wire, particularly the top strands. Perimeter fencing was observed to be constructed with three top strands of barbed wire.

Corrective Action 111017 – 01: Fence rocky outcrops within the development envelope that are not to be disturbed including a 2.5m buffer as per FFMP or provide justification for not fencing.

26/10/17

Improvement Opportunity 111017 – 02: RCR to provide copy of Australian Standard for Power Station Security and correspondence from First Solar that requires the top strand barbed wire in perimeter fencing.

26/10/17



Issue

Observations & Corrective Actions

**Due
Date**

Photographic Record



Issue

Observations & Corrective Actions

Due Date

Photographic Record

Traffic

Plant and vehicle drivers were observed to be actively using the UHF network to communicate traffic movements around site.

Sighted Council Works Permit for activity on a public road (Packham Drive BAR construction) and RCR plant acceptance documentation for Pad Foot Roller that was working on Packham Drive.



Issue

Observations & Corrective Actions

**Due
Date**


Photographic Record

Noise

RCR have been conducting test pile driving in an area adjacent to the site compound to determine noise levels and test mitigation measures. Once this activity commences it will constitute 'High Noise Activity'.

RCR have not applied for Out of Hours Work approval yet.



Issue	Observations & Corrective Actions	Due Date	Photographic Record
Soil and Water	<p>RCR have cleaned out the former farm dam, and formed and seeded the batters. The dam receives water from catchment runoff and a supply from the landholder. Sediment fencing has been installed upslope and downslope of the dam as an erosion and sediment control measure and encourage access at the designated point. A pump and standpipe have been commissioned this week for filling site water trucks. RCR had laid rock at the fill point however it has not been sufficient to prevent muddying of the access way. RCR have identified this as an issue in their Weekly Environmental Inspection and plan to lay additional rock to stabilise the area.</p> <p>The site received 16mm in 36hrs over the weekend. Although this did not trigger a wet weather inspection as per the CEMP, RCR conducted a Wet Weather Inspection to check the effectiveness of erosion and sediment controls.</p>		
Community Consultation	<p>RCR have notified Council directly of the commencement of works on Packham Drive and notified the community through the Community Information Sessions.</p>		
Complaints	<p>There have been no complaints reported to date.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
<i>Incident Management</i>	<p>There have been no incidents reported to date.</p> <p>RCR have not delivered any specific training for incident management/response. A training plan including incident training required for specific roles is yet to be developed.</p>		
<i>Permits and Approvals</i>	<p>RCR obtained a Works Permit from Council for the works on Packham Drive.</p>		
<i>Performance Monitoring</i>	<p>RCR have developed a Compliance Tracking spreadsheet and are starting to populate it with actions from the Weekly Environmental Inspections and ER Inspections. RCR will provide a copy prior to the next ER Inspection.</p> <p>The Weekly Environmental Inspections are proactively identifying environmental issues and implementing corrective actions to address.</p> <p>RCR and First Solar are conducting Monthly Meetings and environment is on the agenda. Actions from the meetings will be recorded in the Compliance Tracking spreadsheet.</p>		
<i>Induction and Training</i>	<p>Sighted induction documentation for Ethan Lewin who is one of the fencing contractors working on site on the day of the inspection. It included all relevant documentation including completed induction checklist, drivers licence and construction induction.</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	
111017 – 01	Fence rocky outcrops within the development envelope that are not to be disturbed	C	11/10/2017	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
	including a 2.5m buffer as per FFMP or provide justification for not fencing.				





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


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Date of Inspection	18/01/2018	Location of Inspection	Manildra Solar Farm
ER	Demelza Scott	Proponent Representative	Bjorn Schultz
Weather	Fine and sunny	Construction Contractor Representative	Don Martin
Inspection Summary	Improvement Opportunity - Corrective Actions – Open Corrective Actions: CA191217 – 02: Develop and implement a program for the installation of nest boxes in accordance with the FFMP.		
Comments / Observations	Pile driving and rock driving of posts for the solar arrays was ongoing. Installation of modules was underway with some completed modules in the north-east portion of the site. Post installation and cut and fill earthworks to level the site was occurring in the north-west portion of the site. Works around the O&M building were ongoing. No environmental incidents have occurred and no environmental complaints have been received since the last inspection. The site continued to present a low environmental risk at the time of inspection.		

Signed:

Environmental Representative

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Dust	<p>As during previous inspections, water trucks were operating on site. Generation of dust was not observed to be an issue despite the number of vehicles operating across the site and the significant area of disturbed land.</p>		
Waste	<p>RCR have determined, under their traffic management procedures, the waste contractor trucks do not need to undergo plant acceptance checks as they are not conducting work on site. This closes out CA 130917-01.</p> <p>Waste cardboard boxes and wooden pallets continue to be stockpiled on-site while reuse and recycling options are being finalised. RCR advised that a sample of the material has been taken offsite to test it for suitability to mulch. RCR should ensure MSM Milling's licence and/or approval allows for the receipt of waste materials from off-site.</p>		
Flora and Fauna	<p>RCR are considering the suitability of nest boxes versus carved hollows for the site and seeking proposals from ecologists to inform the decision, including the potential locations and number of carved hollows. Following consultation with GHD's ecologists, we recommend prompt consultation with the Office of Environment and Heritage to discuss the alternative approach.</p> <p>Once a proposed program of nest boxes or carved hollows is developed, the ER expects to review for consistency with the Flora and Fauna Management Plan and Project Approval.</p> <p>Please note the FFMP required nest boxes to be installed within three months (by mid December 2017) after removal of the hollow bearing trees.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Noise	<p>RCR have purchased noise monitoring equipment and are developing a noise monitoring program to assess the risks for personnel on-site as well as the noise impacts for neighbouring sensitive receptors. Noise monitoring is proposed to be conducted at the school and nearest sensitive receptor during the week ending 26/01/2018, subject to weather conditions. Results from the monitoring will be provided to the ER for review.</p>		
Soil and Water	<p>RCR have been in discussions with Local Land Services (LLS) regarding rehabilitation of disturbed areas. LLS advised the existing program of re-seeding within seven days of handover from the earthworks contractor was not appropriate during the summer months.</p> <p>RCR are reviewing their erosion and sediment control measures for disturbed areas, particularly the main drainage line through the site and the on-site dam. Options being considered include geotextile in the main drainage line, seeding with millet (which can survive the hot and dry summer conditions) and rolling out round hay bales. For the areas under the solar modules, seeding will be conducted in autumn as per the Groundcover Management Plan.</p>		
Hot Works	<p>RCR have been liaising with the local Rural Fire Service regarding changes to hot works protocols to provide water from the on-site dam in place of fire water tanks, and to allow for hot works in the field rather than just within the site compound. Sighted correspondence (email dated 10/01/2018) with RFS confirming their agreement with these changes.</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 A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	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	



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


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Date of Inspection	21/02/2018	Location of Inspection	Manildra Solar Farm
ER	Demelza Scott	Proponent Representative	Bjorn Schultz
Weather	Fine and sunny	Construction Contractor Representative	Don Martin
Inspection Summary	Improvement Opportunity - Corrective Actions – Open Corrective Actions: CA191217 – 02: Develop and implement a program for the installation of nest boxes in accordance with the FFMP.		
Comments / Observations	<p>Pile driving and rock driving of posts for the solar arrays was ongoing. A drilling rig subcontractor has been engaged to pre-drill post holes. Installation of modules was underway in the north-east, east and north-west portions of the site. Rock placement was occurring for installation of rock-check dams and rock stabilisation in the drainage line adjacent to the farm dam. Trenching was ongoing alongside the north-south road for cable installation. A mulching subcontractor had mobilised to site to commence mulching of packaging waste (cardboard and pallets).</p> <p>DPE representatives had conducted an inspection on the previous day to review erosion and sediment controls and raised concerns about dust generation from the project.</p> <p>No environmental incidents have occurred and no environmental complaints have been received since the last inspection.</p> <p>The site presents a low environmental risk at the time of inspection.</p>		

Signed:

Environmental Representative

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Waste	<p>A range of waste types were stored across the site in designated areas including construction wastes, packaging, mulched vegetation and concrete washout.</p> <p>RCR are reviewing the option to mulch the waste cardboard and wooden pallets for use on site. Samples of the material have been sent to the laboratory for testing to determine if it is fit for purpose as mulch. On receipt of results, RCR and First Solar will review and determine if they submit an application to the EPA for approval to use the material as mulch.</p> <p>The mulching contractor arrived on site on the day of the ER inspection. First Solar have stipulated specifications for mulching pallets and cardboard packing including removal of nails and other extraneous materials and sizing of final mulched product.</p> <p>If approval is obtained from the EPA, RCR intend to use the product for construction of the mulch berm on the western perimeter of the site as detailed in the SWMP. The CEMP should also be updated to reflect the specifications for the mulch, the approval and its intended use.</p> <p>RCR asked about the approved disposal method for concrete washout waste. A review of the CEMP did not identify concrete washout as a waste type to be generated by the project however the Statement of Commitments (which is included as a table in the CEMP) specifies that concrete washout would be deposited in an excavated area, below the level of topsoil, or in an approved landfill site. Where possible, wastewater and solids would be reused on site. The CEMP Waste Management section specifies that no waste is to be buried on site. It is the ER's preference that no waste is buried on site.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
<i>Chemicals and Fuels</i>	A representative from Western Petroleum was observed on site inspecting the bulk diesel refuelling station.		
<i>Flora and Fauna</i>	<p>RCR met with Geolyse to discuss the option for carved hollows instead of nest boxes. Geolyse advised that RCR could use carved hollows to satisfy the requirements for medium hollows however they would still require nest boxes to satisfy the requirements for small and large hollows. RCR have decided to use nest boxes only and require approximately 56 in total. Approval has been sought from the landholder to install a portion of the nest boxes in woodland areas on his land (adjacent to the solar farm), the remainder will be in the woodland area onsite and the biodiversity offset area. Nest boxes are on order.</p> <p>Trenching for cabling is ongoing. RCR are continuing to construct trenches with ramps to allow fauna to escape, are inspecting trenches daily and minimising the time that trenches are open.</p> <p>RCR have provided First Solar with a plan for vegetation screening of the site as part of requirements of Project Approval and Construction Contract. The plan includes vegetation planting along the northern and western boundaries of the site to minimise visual impact on neighbours and road users along the Molong-Manildra Rd.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Traffic	<p>It was observed that roadwork speed limit signs were still in place despite RCR advising previously that works on the BAR intersection were complete and they were in the process of handing the road back to Council. RCR advised that they have received verbal confirmation of handover from Council however they are waiting for the written confirmation.</p> <p>Signs have been made, and are ready to install, for a reduction in the speed limit during construction hours to 80km/hr. RCR have bags to put over the signs so that the highway speed limit of 100km/hr remains outside construction hours.</p> <p>It was observed that the designated staff and contractor car park was full and a number of vehicles were parking along the verge of the entrance road. RCR advised that buses are being provided from Parkes and Orange however site staff from other local towns were driving themselves to site. RCR advised that Brefni finishing their engagement would free up parking spaces.</p>		
Noise	<p>RCR have purchased noise monitoring equipment and conducted noise monitoring on the roadside near receptor 2 and Manildra Public School. The CNMP requires that noise monitoring be conducted at the residences, a minimum of 3 m from the nearest façade and/or solid fence/wall. Results must be compared to the Rating Background Levels and Assessment Criteria specified in the CNMP.</p> <p>Corrective Action 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.</p>	9/03/2018	

Soil and Water

First Solar/RCR have increased the area of cut and fill from 13ha in the original approval to 34ha. The Soil and Water Management Plan and associated Erosion and Sediment Control Plan were provided to DPE in September 2017. DPE have since conducted two site inspections (the most recent one being 20/02/2018) to inspect the earthworks and the ESCs that have been implemented. DPE were concerned that the ESCs were not enhanced sufficiently with the significant increase in cut and fill area.

RCR have been consulting with a representative from Soil Conservation Service who recommended:


- changing the downstream sediment control from sediment fences to hay bales in areas of active earthworks to allow them to be removed and reinstated as required
- installing additional sediment fences across the site to break up the slope length
- spreading straw more sparsely to provide groundcover protection but to not inhibit regrowth.

RCR have ordered hay bales however they are yet to be installed. Sighted stockpile of initial hay bales during inspection. Sighted additional sediment fences installed across arrays. Sighted straw used as groundcover, RCR advised that straw spreading is conducted when there is a delay in other works.

RCR advised that the bulk of the earthworks have been completed and Brefni are due to finish up at site this week. Brefni are completing the installation of rock check dams and rock stabilisation in identified areas across the site.

First Solar requested that additional rock be placed to stabilise the road on the eastern boundary where the natural drainage line flows onto site, and that, on completion of works, the access road to the



Issue	Observations & Corrective Actions	Due Date	Photographic Record
	<p>standpipe and farm dam be removed so as not to impede natural water flow.</p> <p>Topsoil spreading was underway during the inspection and was generating localised dust. RCR could consider options for pre-treating topsoil with a binding agent prior to spreading and establishing procedures that prohibit spreading of topsoil where wind conditions would exacerbate dust generation.</p> <p>Drilling, pile driving and traffic movements on site roads were all observed to be generating localised dust. RCR advised that two water trucks were still maintained however these were not observed to be operating during the inspection. No dust was not observed to be travelling over site boundaries or impacting on neighbours and no dust complaints have been received, however the CoA requires that there are no visible dust emissions from the project.</p> <p>Corrective Action 210218-02 – Implement all practicable dust mitigation measures to cease emission of visible dust generated by the project.</p> <p>Corrective Action 210218-03 – Place additional rock to stabilise the internal road on the north-east perimeter from water flowing onto site.</p> <p>Corrective Action 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.</p>		

Issue

Observations & Corrective Actions

Due Date

Photographic Record






Issue

Observations & Corrective Actions

Due Date

Photographic Record



Issue	Observations & Corrective Actions	Due Date	Photographic Record
Complaints	RCR reported that no complaints have been received since the last inspection.		
Incident Management	RCR reported that no environmental incidents have occurred since the last inspection.		
Permits and Approvals	Refer to Waste section.		

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 A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	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	

Reference	Action	Category A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	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	




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


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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	<p>Improvement Opportunity – 0 Corrective Actions – 3</p> <p>Open Corrective Actions:</p> <p>CA191217 – 02: Develop and implement a program for the installation of nest boxes in accordance with the FFMP.</p> <p>CA210218-02: Implement all practicable dust mitigation measures to cease emission of visible dust generated by the project.</p> <p>CA210218-03: Place additional rock to stabilise the internal road on the north-east perimeter from water flowing onto site.</p> <p>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.</p>		
Comments / Observations	<p>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.</p>		

Signed: 

Environmental Representative

Issue	Observations & Corrective Actions	Due Date	Photographic Record
<i>Dust</i>	<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>		
<i>Waste</i>	<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
<i>Chemicals and Fuels</i>	<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



Noise

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. 23/03/2018

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:

(a) between the hours of 8:00am and 6:00pm Monday to Friday;

(b) between the hours of 8:00am and 1:00pm Saturday; and

(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.


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.

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.

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.

Corrective Action 140318-01 – Implement respite periods as per CoA.

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
Soil and Water	<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&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>Corrective Action 140318-03 – Conduct maintenance on sediment controls to ensure ongoing effectiveness.</p>	30/03/2018	
Incident Management	<p>Refer to incident mentioned under Chemicals and Fuels.</p>		
Induction and Training	<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 A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	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 A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	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 A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	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	




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

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Date of Inspection	18/04/2018	Location of Inspection	Manildra Solar Farm
ER	Demelza Scott Maurice Pignatelli	Proponent Representative	Bjorn Schultz
Weather	Fine and sunny	Construction Contractor Representative	Don Martin
Inspection Summary	<p>Improvement Opportunity – 1 Corrective Actions – 2. Open Corrective Actions are:</p> <p>CA191217-02: Develop and implement a program for the installation of nest boxes in accordance with the FFMP</p> <p>CA210218-01: 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.</p> <p>CA210218-03: Place additional rock to stabilise the internal road on the north-east perimeter from water flowing onto site.</p> <p>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.</p>		
Comments / Observations	<p>Pile driving, rock driving and drilling of posts for the solar arrays was ongoing. Installation of modules was underway across the southern arrays. Installation of rock check dams is complete. Trenching has also been completed.</p> <p>No environmental incidents have occurred and no environmental complaints have been received since the last inspection.</p> <p>The site presents a low environmental risk at the time of inspection.</p>		

Signed: 

Environmental Representative

Issue	Observations & Corrective Actions	Due Date	Photographic Record
<i>Dust</i>	<p>RCR advised that dust hasn't been an issue despite the dry conditions. Bulk earthworks are complete and with the demobilisation of the earthmoving contractors the traffic movements around site have reduced.</p> <p>Some dust was observed during the site inspection associated with vehicle movements and drilling/pile driving. This dust was localised in nature and not causing any harm or nuisance to neighbouring properties.</p>		
<i>Waste</i>	<p>RCR advised that the mulching contractor is to be mobilised three times to progressively mulch the cardboard and NEXTracker waste. RCR advised that negotiations with Cabonne Council to take the NEXTracker waste are ongoing. RCR are proposing to use the mulched cardboard to construct a mulch berm on the south-western boundary in accordance with the Soil and Water Management Plan (SWMP). RCR advised that it would be covered with jute matting to prevent windblown rubbish onto neighbouring properties.</p> <p>The mulch stockpiles were inspected. As previously reported, First Solar had stipulated specifications for mulched material including removal of nails and other extraneous materials and sizing of the final mulched product. The mulch pieces were observed to be very large and there were significant amounts of plastic wrap and other extraneous materials in the final product. The ER is concerned that the use of this mulched product to construct a mulch berm would result in an ongoing source of litter from the development as the jute matting breaks down.</p> <p>On review of the SWMP, there is no timing specified for construction of the mulch berm. Given that the SWMP states that the mulch berm was intended to prevent sediment movement offsite, it should have been installed prior to commencement of bulk earthworks and would provide little additional protection if installed on completion of construction.</p> <p><i>Corrective Action 110418-01 – Implement stricter quality control on mulching of cardboard including smaller sizing, removal of plastic, nails and staples.</i></p>	4/05/2018	

***Flora and
Fauna***

Nest boxes have been delivered but were yet to be erected at the time of the inspection.



Issue

Observations & Corrective Actions

Due Date

Photographic Record



Issue	Observations & Corrective Actions	Due Date	Photographic Record
Noise	<p>First Solar advised that they had notified DPE of the noise exceedances however had not had a response.</p> <p>Pile driving and drilling is planned to be finished by 18/04/2018.</p> <p>RCR have not received any complaints regarding noise associated with the development.</p> <p>Improvement Opportunity 110418-01 – Notify DPE of cessation of pile driving.</p>		
Soil and Water	<p>RCR have commenced with groundcover establishment in areas where works have been completed including spreading seed and covering the seed with a thin layer of hay to protect the seed, trap moisture and reduce the potential generation of windblown dust. RCR have received advice to not water the seed prior to demobilising from site as, without follow up rainfall, the germinated seed will die. A contractor has been engaged to spread the hay. This is to be reviewed at the next ER inspection.</p> <p>The batter along the southern boundary near the O&M building is yet to be rehabilitated. Rill erosion is evident and there has been no regrowth on this batter.</p> <p>Sediment fences along the south-western boundary were dilapidated and in need of maintenance.</p> <p>Refer to Waste section for discussion on mulch berm.</p> <p>Corrective Action 110418-03 – Conduct maintenance on sediment fences across the site, particularly on the south-western boundary.</p>		
Incident Management	<p>Sighted Incident Notification Form for engine oil spill dated 13/03/2018 as discussed at the previous inspection. The incident report includes relevant information for the incident including investigation, identification of actions and close out.</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 including a 2.5m buffer as per FFMP or	C	11/10/2017	RCR SCECO	14/11/2017

Reference	Action	Category	Date Opened	Responsibility	Date Closed
	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	
210218 – 02	Implement all practicable dust mitigation measures to cease emission of	B	21/02/2018	RCR SCECO	11/04/2018

Reference	Action	Category	Date Opened	Responsibility	Date Closed
	visible dust generated by the project.				
		<i>A: Stop Work</i> <i>B: Immediate Action</i> <i>C: Closed within 2 weeks</i> <i>D: Non-critical</i>			
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	
110418-01	Implement stricter quality control on mulching of cardboard including smaller sizing, removal of plastic, nails and staples.	C	11/04/2018	RCR SCECO	
110418-03	Conduct maintenance on sediment fences across the site, particularly on the	B	11/04/2018	RCR SCECO	

Reference	Action	Category	Date Opened	Responsibility	Date Closed
	south-western boundary.	<i>A: Stop Work</i> <i>B: Immediate Action</i> <i>C: Closed within 2 weeks</i> <i>D: Non-critical</i>			



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


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Date of Inspection	23/05/2018	Location of Inspection	Manildra Solar Farm
ER	Demelza Scott	Proponent Representative	Bjorn Schultz
Weather	Fine and Sunny	Construction Contractor Representative	Danny Dyson and Natalija Baban
Inspection Summary	Improvement Opportunity – 2 Corrective Actions – 3 Open Corrective Actions: 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. CA110418-01: Implement stricter quality control on mulching of cardboard including smaller sizing, removal of plastic, nails and staples. CA110418-03: Conduct maintenance on sediment fences across the site, particularly on the south-western boundary. CA230518-01: Manage wind-blown litter on site and on neighbouring properties including covering the mulch stockpiles with netting. CA230518-02: Install temporary sediment controls along the southern boundary that can be moved and reinstated as works are conducted in the area. CA230518-03: Confirm that the contractor will reshape the batter, spread topsoil and seed as well as secure jute matting or equivalent.		
Comments / Observations	Site demobilisation is now underway with infrastructure being decommissioned and removed from site. No environmental incidents have occurred and no environmental complaints have been received since the last inspection. The site presents a low environmental risk at the time of inspection.		


Signed:

Environmental Representative

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Dust	<p>RCR has advised that there has been a reduction of vehicle movement's onsite, though lack of rainfall events means that dust remains an issue of concern.</p> <p>Some dust was observed during the site inspection associated with vehicle movements. This dust was localised in nature, mainly isolated to the areas in which vehicles were travelling and not causing any harm or nuisance to neighbouring properties. RCR advised there was a water cart still operating on site however it wasn't observed during the inspection.</p> <p><i>Improvement Opportunity 230518-01: RCR to continue operating the water cart to manage dust.</i></p>	08/06/2018	

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Waste	<p>Wind-blown litter from the mulched cardboard and pallets was an issue on site and on the neighbour's property. Waste packaging was also observed scattered across site, yet to be picked up.</p> <p>First Solar and RCR advised that mulched cardboard and pallets will not be used in a mulch berm as previously discussed. Discussions are underway for the mulched material to be taken to Molong waste management facility where it will be mixed with general household waste to aid in compaction of waste. First Solar and RCR are in discussions with VISY regarding accepting the module boxes for recycling.</p> <p><i>Corrective Action 230518-01: RCR to manage wind-blown litter on site and on neighbouring properties including covering the mulch stockpiles with netting.</i></p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Flora and Fauna	<p>Nest box installation was well underway, with 50 out of the 60 proposed nest boxes installed. The remaining 10 were planned to be installed later in the week. A map is to be created showing the location of nest boxes.</p> <p>First Solar is still reviewing the proposal from RCR to amend the proposed screen planting plan to allow for roadside planting. First Solar have requested that the consultant who prepared the original visual impact assessment review the revised plan for consistency with the EA and Project Approval.</p> <p>Weeds are appearing to establish themselves across site. RCR advised that they are waiting until the majority of personnel have demobilised from site before commencing weed spraying.</p> <p><i>Improvement Opportunity 230518-02: RCR to commence weed spraying for listed priority weeds once personnel numbers have reduced on site.</i></p>		
Traffic	<p>As the site is being demobilised, there has been an increase in heavy vehicle movements in removing demountable infrastructure such as crib rooms, construction sheds etc.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Soil and Water	<p>Sediment fences along the south-western boundary were dilapidated and are in need of maintenance. RCR were reluctant to reinstate the sediment fences as there is still work to be done in that area including additional gravel top up on the road and planting screening trees along the boundary fence, which would further damage the sediment fences. RCR have advised they would be inclined to install temporary controls such as straw bales in place of sediment fences following works.</p> <p>Good progress in regeneration was observed with noticeable seed strike in areas spread with topsoil and seeded. RCR have been in discussion with a local agronomist who advised that rain is forecast in July and seeding should be scheduled for then. RCR advised that 25% of the site is yet to be seeded. Some areas showed signs of compaction and will require ripping in preparation for seeding.</p> <p>The batter in the south-western part of the site near the operations and management buildings was reported as eroding a number of months ago with rill erosion evident and no regrowth on this batter. RCR advised that the contractor is to reshape the batter, spread topsoil, secure jute matting and seed. However the drawing provided by RCR did not provide sufficient information to confirm that this had been agreed with the contractor.</p> <p>Corrective Action 230518-02: RCR to install temporary sediment controls along the southern boundary that can be moved and reinstated as works are conducted in the area.</p> <p>Corrective Action 230518-03: RCR to confirm that the contractor will reshape the batter, spread topsoil and seed as well as secure jute matting or equivalent.</p>	08/06/2018	

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 A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	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	25/05/2018
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	25/05/2018*

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	11/04/2018
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	
110418-01	Implement stricter quality control on mulching of cardboard including smaller sizing,	C	11/04/2018	RCR SCECO	

Reference	Action	Category A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	Date Opened	Responsibility	Date Closed
	removal of plastic, nails and staples.				
110418-03	Conduct maintenance on sediment fences across the site, particularly on the south-western boundary.	B	11/04/2018	RCR SCECO	
230518-01	Manage wind-blown litter on site and on neighbouring properties including covering the mulch stockpiles with netting.	C	23/05/2018	RCR SCECO	
230518-02	Install temporary sediment controls along the southern boundary that can be moved and reinstated as works are conducted in the area.	C	23/05/2018	RCR SCECO	

Reference	Action	Category A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	Date Opened	Responsibility	Date Closed
230518-03	Confirm that the contractor will reshape the batter, spread topsoil and seed as well as secure jute matting or equivalent.	C	23/05/2018	RCR SCECO	

* DPE confirmed in an email on 10/05/2018 that they were satisfied with the action taken by RCR and First Solar.




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

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Date of Inspection	14/06/2018	Location of Inspection	Manildra Solar Farm
ER	Demelza Scott	Proponent Representative	Bjorn Schultz
Weather	Fine and sunny	Construction Contractor Representative	Glenn Tilley
Inspection Summary	Improvement Opportunities – 0 Corrective Actions – 2 CA140618-01 Remove all litter from site and offsite before handover from RCR to First Solar. CA140618-02 Reinstate sediment fencing along southern boundary of MSF prior to handover from RCR to First Solar. Outstanding corrective actions are summarised in Appendix A.		
Comments / Observations	A number of contractors were on site at the time of the audit: <ul style="list-style-type: none">• Moving the power line alignment around the solar arrays• Mulching cardboard and pallets• Loading and transporting mulched material off site• Electrical connection of remaining solar arrays. The site is well into demobilisation with the site entry, storage facilities in the site compound and a number of the site buildings removed. RCR advised that the remaining site buildings would be removed from site before the next inspection. Remediation of the site compound area is to commence including stripping rock base, spreading topsoil and constructing a road on the neighbour's side of the boundary fence for access to the farm dam in the northeast corner. First Solar advised that handover is expected by the end of July.		

Signed:  Environmental Representative

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Waste	<p>Wind-blown litter from the mulched cardboard and pallets continued to be an issue on site and on the neighbour's property. RCR advised that the majority of litter was generated during loading of the mulched material onto trucks for transport to the Molong waste management facility. RCR advised that staff have been conducting daily pickups of plastic waste from the neighbour's property and across site.</p> <p>The mulching contractor and the waste transport contractor were on site at the time of the inspection (refer photos). One truck was observed leaving the site and the load was covered. RCR advised that all mulched material will be removed from site prior to the next inspection.</p> <p>Corrective Action 140618-01: Remove all litter from site and offsite before handover from RCR to First Solar.</p>		 <p>The top photograph shows a blue excavator with a long boom and a red truck at a site with a large pile of mulched material. The bottom photograph shows a white truck with a covered load and a yellow tractor on a dirt road next to a field covered in white plastic mulch.</p>

Issue	Observations & Corrective Actions	Due Date	Photographic Record
<i>Flora and Fauna</i>	<p>RCR and First Solar reported that all nest boxes have been installed.</p> <p>First Solar engaged Moir Landscapes to review the proposal by RCR to move the screening planting from the boundary of the solar farm to the boundary of the biodiversity offset area and Packham Drive, this planting would then go along the southern boundary of the biodiversity offset area and solar farm down to the O&M buildings. First Solar are waiting on delivery of the report.</p>		

Soil and Water

The sediment fence along the southern boundary is still dilapidated and no temporary erosion and sediment controls have been installed.

Rehabilitation of the batter along the southern boundary of the site, near the O&M building has been completed including jute mesh, mulching, tree planting, rock protection and drip irrigation. An additional batter is currently undergoing rehabilitation by the same contractor.

Germination across the site is very patchy as shown in the photos. Areas that weren't disturbed have a good cover of Lucerne, areas that were mulched with straw or woodchip show good signs of germination, weeds are establishing in some areas, some areas are yet to be seeded. RCR are still developing a plan for seeding the remaining areas of the site.

Corrective Action 140618-02: Reinstate sediment fencing along southern boundary of MSF prior to handover from RCR to First Solar.



Issue Observations & Corrective Actions

Due Date

Photographic Record



Issue Observations & Corrective Actions

**Due
Date**

Photographic Record



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	25/05/2018
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	25/05/2018*

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	11/04/2018
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	
110418-01	Implement stricter quality control on mulching of cardboard including smaller sizing,	C	11/04/2018	RCR SCECO	

Reference	Action	Category A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	Date Opened	Responsibility	Date Closed
	removal of plastic, nails and staples.				
110418-03	Conduct maintenance on sediment fences across the site, particularly on the south-western boundary.	B	11/04/2018	RCR SCECO	
230518-01	Manage wind-blown litter on site and on neighbouring properties including covering the mulch stockpiles with netting.	C	23/05/2018	RCR SCECO	
230518-02	Install temporary sediment controls along the southern boundary that can be moved and reinstated as works are conducted in the area.	C	23/05/2018	RCR SCECO	

Reference	Action	Category A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	Date Opened	Responsibility	Date Closed
230518-03	Confirm that the contractor will reshape the batter, spread topsoil and seed as well as secure jute matting or equivalent.	C	23/05/2018	RCR SCECO	14/06/2018
140618-01	Remove all litter from site and offsite before handover from RCR to First Solar.	B	16/08/2018	RCR SCECO	
140618-02	Reinstate sediment fencing along southern boundary of MSF prior to handover from RCR to First Solar.	C	16/08/2018	RCR SCECO	


* DPE confirmed in an email on 10/05/2018 that they were satisfied with the action taken by RCR and First Solar.



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

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Date of Inspection	14/11/2017	Location of Inspection	Manildra Solar Farm
ER	Demelza Scott Maurice Pignatelli	Proponent Representative	Nil
Weather	Fine, partly cloudy	Construction Contractor Representative	Baz Tuppin John Sharman
Follow up from previous inspection	CA 111017-01 is no longer applicable as all rocky outcrops are to be removed for the installation of the solar arrays. IO 111017-01 remains outstanding. Refer to waste. CA 130917-01 remains outstanding. Refer to chemicals and fuels.		
Inspection Summary	Improvement Opportunity - 0 Corrective Action - 0 Open Corrective Actions: CA 130917 – 01: Conduct appropriate checks and inductions on subcontractors, their staff and plant/equipment prior to conducting any work on the project. Appendix A Corrective Action Register to track identification and close out of corrective actions.		
Comments / Observations	Pile driving of posts for the solar arrays has commenced on Array 7 and 8, earthworks have extended across the site and gravel was being delivered and more permanent access roads formed across the site. Erosion and sediment controls were in place and managing sediment risk well. The site continued to present a low environmental risk at the time of inspection.		

Signed: 

Demelza Scott, Environmental Representative

Issue

Observations & Corrective Actions

Due Date

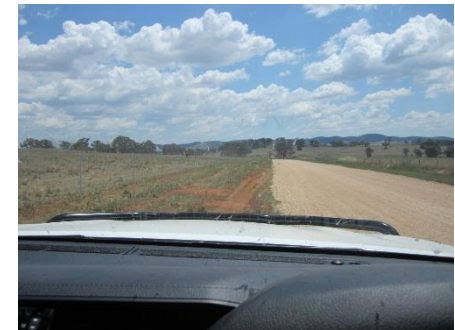
Photographic Record

Site Compound

BAR on Packham Drive has been completed.

Site access control now includes boom gate.

Sides of the main access road were showing good growth following seeding.



Issue

Observations & Corrective Actions

Due Date

Photographic Record

Dust


Three water trucks were operating at the time of inspection to manage dust for the earthworks across the site.

Disturbed areas of the site are being seeded within seven days of handover from the earthworks contractor, and watered to achieve groundcover targets.

Deliveries of gravel for the access roads across the site were occurring during the inspection. Loads were not contributing to dust generation.



Issue	Observations & Corrective Actions	Due Date	Photographic Record
Waste	<p>RCR are yet to induct the waste collection driver and conduct a plant acceptance check on the waste truck. Refer to CA 130917.</p> <p>RCR have set up a Manildra Fuel and Waste register and are recording deliveries of water (potable and drinking water) and fuel deliveries, and scrap metal, general waste and recyclables removal.</p>		
Chemicals and Fuels	<p>RCR are in the process of finalising the SWMS and training material for onsite refuelling in accordance with the CEMP. Refer to IO 111017. Only static plant would be refuelled on site. RCR are replacing the refuelling trailer with a pod that would be installed in accordance with the CEMP.</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Flora and Fauna	<p>RCR advised that no rocky outcrops will remain in situ therefore CA111017 is no longer applicable. Rocky outcrops were observed to be removed in the vicinity of earthworks with rocks stockpiled.</p> <p>Topsoil stockpile has been relocated from site adjacent to main site compound, to AWTS irrigation area.</p> <p>RCR advised that nest boxes to replace hollows from trees removed on the project are still under construction.</p>		
Traffic	<p>RCR are maintaining ATVs on site. Sighted plant acceptance check sheet for ATO 095 and verification of competency assessment for Oliver Frith on the Polaris Ranger dated 14/11/2017.</p> <p>RCR conducted toolbox on 14/11/2017 regarding working around mobile plant of different sizes (ATVs vs large plant like scrapers).</p>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
Noise	Pile driving for solar array posts was occurring at time of inspection. Three pile drivers were operating on site. Noise testing to be conducted in coming weeks to assess insitu noise levels for consideration of works closer to sensitive receptors.		
Complaints	RCR have not received any complaints since the last inspection.		
Incident Management	RCR have not had any environmental incidents since the last inspection.		
Performance Monitoring	RCR are proactively identifying corrective actions and opportunities for improvement through their program of environmental inspections.		

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

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.				




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	Improvement Opportunity – 1	Corrective Actions – 2	
	<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
<i>Dust</i>	<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>		

Issue	Observations & Corrective Actions	Due Date	Photographic Record
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	

Issue	Observations & Corrective Actions	Due Date	Photographic Record
<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

Reference	Action	Category A: Stop Work B: Immediate Action C: Closed within 2 weeks D: Non-critical	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	
191217 – 02	Develop and implement a program for the installation of nest boxes in accordance with the FFMP.	C	19/12/2017	RCR SCECO	