



Central Coast Sand Quarry

Action Plan Compliance Response 2018

Task Number	Comments	Hanson Action Details	Dates/Justification
N1.	<p>Noise monitoring conducted by VMS Australia in April and June 2018. Noise monitoring conducted on 30 November 2016.</p> <p>April 2018 – Noise monitoring at Location B exceeded criteria by 4dBA. No actions were identified to address the non-compliance.</p> <p>Recommendation: Implement process to review Noise Monitoring Reports and undertake investigation where non-compliance with site criteria is identified. Consider raising as within the site corrective action management system.</p>	<p>Noise monitoring has been undertaken 5 April 2018 (Q1), 8 June 2018 (Q2) and 19-21 September 2018 (Q3) with Q4 monitoring due at the end of the year.</p> <p>Noise monitoring occurring 19-21 September 2018 covered EPL noise monitoring requirements.</p> <p>Structure is in place where the Environmental Compliance Coordinator will review noise monitoring reports and immediately contact relevant managers (Risk Manager, Development Manager and Quarry Manager) of the breach in noise criteria.</p> <p>Additionally, a request to the noise monitoring technicians to report any exceedance immediately to the Quarry Manager as well as the Environmental Compliance Coordinator.</p>	<p>Processes are in place requiring noise monitoring reports to be immediately reviewed by the Environmental Compliance Coordinator.</p> <p>Noise monitoring technicians will contact the Quarry Manager and Environmental Compliance Coordinator immediately after monitoring to report on any exceedances.</p>
N2.	<p>Noise management plan prepared which includes management practices to minimise noise impacts. Noise monitoring conducted. 1000 hour service on equipment was reported to include checks on noised emissions and equipment. Acoustic bund installed.</p> <p>No noise monitoring was conducted in 2017.</p> <p>Noise monitoring conducted on 30 November 2016. Noise monitoring conducted by VMS Australia in April and June 2018. April 2018 – Noise monitoring at Location B exceeded criteria by 4dBA.</p>	<p>Noise monitoring occurring 19-21 September 2018 covered EPL noise monitoring requirements.</p> <p>Structure is in place where the Environmental Compliance Coordinator will review noise monitoring reports and immediately contact relevant managers (Risk Manager, Development Manager and Quarry Manager) of the breach in noise criteria.</p> <p>Additionally, a request to the noise</p>	<p>Monitoring has now become an established process within the site corrective action management system in 2018 and continues to be monitored on a quarterly basis.</p>

	Recommendation: Implement program to track compliance monitoring and ensure that required monitoring is conducted.	monitoring technicians to report any exceedance immediately to the Quarry Manager as well as the Environmental Compliance Coordinator.	
N3.	Noise monitoring conducted in April 2018 showed exceedance of noise quality criteria at Location B by 4dBA. No actions were identified to address the non-compliance. No evidence that the landowners were notified. Recommendation: Implement process to review Noise Monitoring Reports and undertake investigation where non-compliance with site criteria is identified. Consider raising as within the site corrective action management system	Noise monitoring occurring 19-21 September 2018 covered EPL noise monitoring requirements. Structure is in place where the Environmental Compliance Coordinator will review noise monitoring reports and immediately contact relevant managers (Risk Manager, Development Manager and Quarry Manager) of the breach in noise criteria. Additionally, a request to the noise monitoring technicians to report any exceedance immediately to the Quarry Manager as well as the Environmental Compliance Coordinator.	Processes are in place requiring noise monitoring reports to be immediately reviewed by the Environmental Compliance Coordinator. Noise monitoring technicians will contact the Quarry Manager and Environmental Compliance Coordinator immediately after monitoring to report on any exceedances.
N4.	Weather station set up adjacent to the site Office. Wind speed and temperature not measured at 10m. Recommendation: Install wind speed and temperature sensors at 10m above ground level.	Discuss with EPA feasibility of sensors being 10m above ground level.	In discussion with EPA on specific requirements of the wind speed and temperature gauge height. There is concern around accessibility to monitoring equipment for maintenance or repair at such a height.
N5.	Attended noise monitoring conducted in April and June 2018. April monitoring event included all required noise monitoring locations. No monitoring conducted during the evening period as no work is conducted after 6pm at night. Monitoring conducted on one day or 15 minute intervals during all periods. Monitoring has not been conducted for:	Organise next quarter noise monitoring to be compliant with EPL annual monitoring conditions. Ongoing all third quarter noise monitoring is to be compliant with EPL annual monitoring conditions.	EPL annual noise monitoring requirement had been completed at the Quarry for 2018. The next round of EPL annual noise monitoring is planned for the third quarter of 2019.

	<ul style="list-style-type: none"> • 1.5 hours during the day; • 30 minutes during the evening; and • for three consecutive operating days. <p>Recommendation: Instruct noise consultant to undertake monitoring in accordance with the requirements of the licence.</p>		
N6.	<p>Noise monitoring conducted in April 2018.</p> <p>Noise compliance assessment report not prepared and submitted to EPA.</p> <p>Recommendation: Review process for managing compliance with the site EPL and include process to ensure noise compliance assessments are completed.</p>	Noise compliance assessment report to be prepared and submitted to EPA annually, within 30 days of the completion of the annual noise monitoring required under the EPL.	2019 annual noise monitoring report will be submitted to EPA within 30 days of the completion of the monitoring.
N7.	<p>No investigation or assessment to determine sound power levels of the loader has occurred.</p> <p>Recommendation: Undertake sound power level assessments of the loader. Undertake sound suppression works to reduce the sound power level if greater than 100 dBA.</p>	<p>VMS to undertake sound power levels of all equipment, including the loader as soon as possible.</p> <p>Undertake investigation on (if greater than 100dBA) how to reduce the sound power level of the loader.</p>	<p>VMS have undertaken sound power level monitoring on all equipment in Q4 2018 noise monitoring.</p> <p>Quarry Manager in discussion with supplier on options in lowering noise output for mobile equipment.</p>
N8.	<p>No monitoring of crystalline silica has been conducted to date. Reported that a PM10 HVAS was being arranged for the site.</p> <p>Recommendation: Install PM10 HVAS and undertake monitoring for crystalline silica.</p>	As soon as possible, organise crystalline silica monitoring – as detailed in the CCS AQMP.	VGT have completed crystalline silica monitoring. Hanson to provide results in Annual Review. There were no exceedances.
N9.	<p>Audit completed in February 2018.</p> <p>Formal observations of compliance had not been conducted at three monthly intervals.</p> <p>Recommendation: Implement process to undertaken formal observations of compliance with the Traffic Management Plan.</p>	<p>Develop an observation checklist for formal observations of compliance.</p> <p>Implement process to undertake formal observations of compliance with the Traffic Management Plan.</p>	<p>Observation checklist for formal observations of compliance is currently being developed and will be undertaken in 2019 at three monthly intervals.</p> <p>Originally this was a visual observation undertaken by quarry management.</p>
N10.	<p>Induction includes generic information on environmental requirements.</p> <p>The induction does not include specific information on environmental</p>	Develop site induction to include specific information on environmental management	Site induction has been updated to include specific information on

	<p>management requirements for the site.</p> <p>Recommendation: Update site induction to include site specific environmental requirements.</p>	(water, dust, noise) requirements for the site.	environmental management requirements of the site.
N11.	<p>4 Water Access Licences obtained for the project. WAL17470 – For Unregulated water sources.</p> <p>Hanson has not established the requirements of the licence and how it complies with licence requirements.</p> <p>Recommendation: Review water access licence conditions and implement process(s) to ensure compliance with licence requirements.</p>	Hanson to undertake a review of the water access licence conditions.	<p>The take of water is not accessed through the approved works as they no longer exist on the previous owner’s property (as it is now the pit).</p> <p>Please note that this water licence is an unregulated river source WAL.</p>
N12.	<p>Current extraction from stage 2.</p> <p>A Macrophyte zone has not been installed.</p> <p>Recommendation: Install macrophyte zone at the outlet of the dam.</p>	Discuss with DPE the feasibility of the installation of a macrophyte zone at the outlet of the dam to the specifications noted within the WMP.	A macrophyte zone will be installed in 2019 during favourable weather conditions for planting to succeed.
N13.	<p>Annual Groundwater Inflow estimate has not been conducted.</p> <p>Recommendation: Undertake assessment to determine the annual groundwater inflow to the quarry.</p>	Hanson to organise for an annual groundwater inflow estimate to be undertaken for 2019.	<p>Hanson is currently working with Martens to finalise an Annual Groundwater Inflow estimate.</p> <p>The report will be submitted to the DPE and NRAR once finalised.</p>
A1.	<p>Previous development consent sent to Council April 2016. Confirmation received from Council 11 October 2016.</p> <p>Development Consent not surrendered by the end of December 2015.</p> <p>Recommendation: No further action required.</p>	N/A	N/A
A2.	<p>Records of truck movements maintained in SAP. Information provided from the Sales and allocation delivery monitor (SAP).</p> <p>Records did not always show the time that trucks left the site.</p> <p>Loads which leave the site during work hours but are delivered after hours are ticketed at the time of arrival at the destination.</p> <p>Recommendation: Review process for recording of truck movements to determine if the time of time of despatch from site can be recorded (e.g. from weighbridge records).</p>	Hanson to review process for recording of truck movements to determine if rules can be updated to prevent incorrectly timed truck movements to be recorded.	<p>Hanson has reviewed the process and made improvements in regards to pre-loads (This can be seen in the 2018 transport movement records).</p> <p>It’s important to note that the Quarry Manager investigates all movements that have been recorded outside of transport</p>

			hours and recorded what has actually occurred within the system. This is generally due to allocation of the delivery being done by the sales department.
A3.	<p>Anderson Environment & Planning (AEP) have prepared a Groundwater Dependant Ecosystem Monitoring & Management Program, December 2016 6 sites identified. Annual survey completed 2018.</p> <p>The program recommended that annual surveys be conducted. No survey had been conducted in 2017.</p> <p>Recommendation: Ensure annual surveys of Groundwater Dependent Ecosystems are completed.</p>	<ul style="list-style-type: none"> Organise and implement the GDE annual survey, as specified in the Groundwater Dependant Ecosystem Monitoring & Management Program. Implement steps within SAP to include a reminder of the requirement for quarry and environmental compliance staff. 	<p>Fiona Iolini of SLR undertook the survey on the 24th and 25th of September 2018 with the report available on the Hanson website.</p> <p>Report findings are to be available in the 2018 Annual Review.</p>
A4.	<p>Reviewed previous audit. Two administrative non-compliances were raised in relation to the provision of baseline data and a periodic review process for the noise management plan. Baseline data was addressed as follows: Section 5 of the AQMP. Section 4 of the LRMP Section 4 of the TMP Sections 5 and 6.1.2 of the Water Management Plan.</p> <p>Baseline data, or a process for periodic review, had not been included in the NMP.</p> <p>Recommendation: Update NMP to include baseline data.</p>	Update the NMP to include baseline data.	Hanson is following this up with the NIA and NMP authors to include the required information within the management plan.
A5.	<p>Annual review for 2016 submitted 20/06/17. Not submitted within the required timeframe. Annual review for 2017 submitted 31/03/18.</p> <p>Recommendation: Ensure annual reviews are submitted within the required timeframe.</p>	Implement steps within SAP to include a reminder of the requirement for quarry and environmental compliance staff.	Steps have been implemented for reminders of the requirements of the Annual Review resulting in no delay in 2017 and going forward.
A6.	<p>Could not verify review of plans following submission of the 2016 Annual Review. Noted that a letter received from DP&E 21/07/17 included comment re review of plans, as well as requesting the Noise and Air Quality management plans No change as a result of the 2017 Annual Review.</p> <p>Plans had not been reviewed within 3 months of submission of the</p>	<p>Implement steps within SAP to include a reminder of the requirement for quarry and environmental compliance staff.</p> <p>Contact DPE on any changes of the management plans/if not changes have been required.</p>	Management plans were reviewed within 3 months of the Environmental Audit submission.

	<p>annual review.</p> <p>Recommendation: Undertake reviews of management plans strategies and programs as required. Record outcomes of reviews.</p>	Create a tracking folder on the shared folder system to allow access in future years.	
A7.	<p>Air quality and water quality monitoring records available on the project website.</p> <p>Noise monitoring results have not been provide on the website.</p> <p>Recommendation: Provide noise monitoring data on the company website.</p>	Noise monitoring results to be included on the Central Coast Sands Quarry website	Past noise monitoring reports have been uploaded onto the CCS website with future reports to be uploaded as completed.
A8.	<p>Source of meteorological data not identified in the noise reports from VMS Australia.</p> <p>Recommendation: Instruct noise consultant to include the source of meteorological data in the noise reports.</p>	Notify VMS on monitoring requirements to be included within their noise monitoring reports.	VMS have been notified of this requirement and will be implementing in future noise monitoring reports.
A9.	<p>The Complaints Register does not include the personal details of the complainant or, if no such details were provided, a note to that effect. It was reported that the register does not include personal details because it is published to the Hanson website.</p> <p>Recommendation: Update complaints register to include personal details of the complainant or, if no such details were provided, a note to that effect.</p>	<p>Update the complaints register to include a column for personal details.</p> <p>Have the quarry staff member who is taking the complaint to ask for personal details.</p> <p>If complainant refuses to provide details, note it within the complaints register.</p>	The complaints register has been updated to reflect this requirement.
A10.	<p>Dust deposition rates of greater than 4 g/m2/month were recorded at D2A and D3 on several occasions.</p> <p>No record of further assessment to determine key contributors to these exceedances.</p> <p>Recommendation: Implement process to review monitoring and identify exceedances. Where exceedances occur, undertake an investigation to determine the cause of the exceedance. Maintain records of the review process.</p>	<p>Develop a monthly review process where assessment can be completed on potential exceedances and documented with findings and potential changes to operations to prevent further exceedances.</p> <p>The review is to document: where exceedances occur, investigation to determine cause of exceedance.</p> <p>Create a tracking folder on the shared folder system to allow access in future years. This should be incorporated into the monthly BAM PM10 monitoring reports.</p>	An annual rolling average of dust deposition has been established and will be incorporated within the monthly Air Quality monitoring reports that are available through the Hanson website.
A11.	While it was reported that the daily inspections include items listed, no	Update the daily inspections to include	Daily site inspections have been

	<p>records were available to verify all items had been assessed on a daily basis.</p> <p>Recommendation: Maintain records of daily inspections. Consider providing a checklist to complete for daily inspections.</p>	<p>documentation with a checklist for required environmental items that require daily inspection.</p>	<p>updated to include a checklist and review of the following:</p> <ul style="list-style-type: none"> • Visual inspection of airborne dust • Ensure roads leaving the site are free of soil/sand, and prevention of soil/sand tracking onto the road network • Inspection of erosion and sediment controls • Inspection of the waste storage areas • Inspection of any rehabilitated areas • Ensure all hazardous goods, including fuel and oil, are adequately stored or banded • Ensure spill kits are appropriately located and stocked.
A12.	<p>Average dust levels monitored have not exceeded criteria. One complaint received for dust generation in October 2016 during construction of the bund wall. Response to complaint included in the Complaints register. Controls implemented included additional water cart usage and mesh screening.</p> <p>Note – Complaints not reported to the secretary or written report provided.</p> <p>Recommendation: Complaints received should be reported to the Secretary, investigated and a written report provided to the Secretary.</p>	<p>Improve processes when a complaint is received – Environmental Compliance Coordinator to procure a written report to be submitted to the Secretary that includes the complaint received the investigation into the complaint and resolution.</p>	<p>Process to report on complaints received to the Secretary has now been implemented.</p>
A13.	<p>Posted speed limits within the quarry were up to 40kph. Speed limit for delivery trucks was posted at 15kph.</p> <p>Quarry speed limits were not consistent with the requirements of the Traffic Management Plan.</p>	<p>Traffic Management Plan to be updated once the IEA has been submitted to the DPE.</p>	<p>Traffic Management Plan has been updated to reflect the correct speed limits.</p>

	Recommendation: Review speed limits for the site and in the Traffic Management Plan. Update Traffic Management Plan to reflect site speed limits.		
A14.	No records of review were available. Recommendation: Review the Traffic Management Plan and Driver Code of Conduct.	Traffic Management Plan to be updated once the IEA has been submitted to the DPE.	The Traffic Management plan has been reviewed and updated.
A15.	Fencing is provided along the eastern, southern and part of the northern boundary of the site. Fencing has not been provided on the western side which abuts the national park. Recommendation: Determine suitability of providing fencing on the western boundary. Provide fencing or update the LRMP to reflect actual fencing requirements.	Suitability of fencing along the western boundary to be undertaken.	Providing fencing along the western boundary is not suitable due to land ownership and potential accessibility issues in relation to bush fire management. The LRMP is to be updated to reflect actual fencing requirements and will be submitted for review to DPE within three months of the 2018 annual review submission.
A16.	No records of feral animal sightings were maintained by quarry personnel. Recommendation: Maintain documented records of feral animal sightings.	A register is to be developed that will document occurrences of feral animal sightings on-site.	Register has been developed and made available to Quarry personnel.
A17.	Jute matting recommended to be installed as part of the erosion and sediment control plan. Jute matting had not been installed as identified in the Erosion and Sediment Control Plan. Recommendation: Install jute matting in accordance with the requirements of the Erosion and Sediment Control Plan.	Jute matting is to be installed in accordance with the requirements of the Erosion and Sediment Control Plan.	Jute matting is to be installed by end of April 2019.
A18.	While it was reported that visual inspections were conducted, no records of monthly monitoring of site easements and boundaries were available. Recommendation: Maintain documented records of inspections of site easements.	Develop a monthly attachment to the daily inspections to include site easement and boundary visual inspections.	A monthly site inspection checklist has been formulated to be undertaken by Hanson personnel which incorporates site easement and boundary visual inspections.

A19.	<p>No risk assessment was conducted during adverse weather conditions to decide whether to continue production or delay to a later time.</p> <p>Recommendation: Undertake risk assessments during adverse meteorological conditions to decide whether to continue production or delay to a later time. Document risk assessments.</p>	<p>Documented risk assessment is to be undertaken during adverse meteorological conditions</p>	<p>Quarry Manager is to document the risk assessment undertaken during adverse meteorological conditions and provided to Environmental Compliance Coordinator for management of documentation and included within the Annual Review.</p> <p>From inclusion of this requirement within the updated Noise Management Plan at the end of 2017 to the day of the audit – there were no adverse weather conditions experienced at the site that required the need to perform a risk assessment.</p>
A20.	<p>Operator noise monitoring conducted. Report does not include L_{Amax}, LA₁₀, LA₅₀, LA₉₀, LA₉₉, L_{Amin}.</p> <p>Recommendation: Request noise consultants record and include all variables in the noise reports.</p>	<p>Notify VMS on monitoring requirements to be included within their noise monitoring reports.</p>	<p>VMS have been notified of monitoring requirements and will now be included within the noise monitoring reports.</p>
A21.	<p>Not applicable at this stage.</p> <p>Surface water management has not been upgraded to include all controls identified in the SWMP.</p> <p>Dam inspections are conducted daily, although sediment accumulation is not specifically monitored.</p> <p>Noted that overflow from the Make-up and pump dam flows back into the pit, hence onsite accumulation of sediment in the dams will not result in offsite impacts.</p> <p>Recommendation: Update the Water Management plan to reflect the site practices for managing stormwater and sediment accumulation.</p>	<p>The Water Management Plan is currently being updated and at the consultation phase with NRAR.</p>	<p>The Water Management Plan will be updated to reflect site practices for managing stormwater and sediment accumulation. It is currently in the process of being updated with NRAR currently reviewing the document.</p>
A22.	<p>One exceedance of criteria since the previous audit occurred in February 2016.</p> <p>Records showed that EPA had been informed of the result, with an investigation identifying a significant discrepancy between onsite pH and laboratory pH.</p>	<p>EPA and DPI-Water/NRAR will both be notified in the event of surface water trigger has been exceedance (in accordance with the Contingency Response Plan).</p>	<p>N/A</p>

	<p>Consultation with DPI did not occur as required by the Contingency Response Plan.</p> <p>Recommendation: Ensure that DPI is consulted when surface water triggers are exceeded in accordance with the Contingency Response Plan.</p>		
O1.	<p>Report shows that calibration was checked with no drift in calibration noted. Does not show that the variation in calibrated levels did not to exceed ± 0.5 dB.</p> <p>Recommendation: Record actual measurement when checking calibration.</p>	Notify VMS on monitoring requirements to be included within their noise monitoring reports.	VMS have been notified and this will be included within the Site's noise monitoring reports.
O2.	<p>Sediment fence installed. No regular inspection of the sediment fence.</p> <p>Recommendation: Consider including inspection of the sediment fence in site inspections.</p>	Include the sediment fence inspection on the monthly attachment of the daily inspection checklist.	A monthly site inspection checklist has been formulated to be undertaken by Hanson personnel which incorporates a sediment fence inspection.
O3.	<p>Investigation of installation of an appropriate flowmeter on the Make-up Dam overflow pipe (LDP2) to monitor discharge volumes had not been conducted.</p>	N/A	Investigation to be completed April 2019.
O4.	<p>Emergency response plan prepared for the project. Emergency drill training completed</p> <p>Doesn't identify the Quarry Manager as the site contact.</p> <p>Recommendation: Update the Emergency Response plan to identify the Quarry Manager as the site contact.</p>	Update the Emergency Response Plan to correctly identify the Quarry Manager as the site contact.	Emergency Response Plan has been updated with up-to-date site contact information.