

HOLCIM EMP CONSULTANT RECOMMENDATIONS

Document	Consultant	Item #	Nonconformance (NC) /Opportunity for improvement (OFI)/Business as Usual (BAU)	Recommendation description	Comments by Holcim	Status
2024 EMP Audit	Envirorisk Management	1	OFI	Update the EMP review procedure to include a mechanism to allow for updates of procedures/processes identified as a result of new legislation or identified risks within the annual LRMP review and the 5 year EMP review period. These could be presented to the ERC as there is regulatory representation at those meetings and then attached as appendices to the current EMP and LRMP, and to be included in future update of the EMP and LRMP.	Draft wording distributed for August ERC Meeting	In-progress
2024 EMP Audit	Envirorisk Management	3	OFI	Include a summary of PM10 monitoring results in the quarterly update provided to the ERC.	Under consideration.	
2024 EMP Audit	Envirorisk Management	4	OFI	PM10 monitoring targets and equipment need to be updated to meet the standard in the Environment Reference Standard 2021 of 50 ug/m3 1 day average. Suggest engaging an air specialist to assist in determining a real time action threshold to assist with compliance on this limit.	50 ug/m3 1 day average added to Blue Atmosphere dust report	Complete
2024 EMP Audit	Envirorisk Management	5	OFI	Set up of instantaneous PM10 data notification in the plant operators office to allow for immediate response to any dust exceedance at the boundary.	Agreed - to be actioned	In-progress
2024 EMP Audit	Envirorisk Management	6	OFI	Advise Blue Atmosphere to update monitoring location identifiers in the figure in their reports to align with those in Figure 1, Appendix 11 of the EMP.	Corrected	Complete
2024 EMP Audit	Envirorisk Management	7	OFI	Update the Noise Section of the EMP to reflect the Noise Management Plan in Appendix 11 or reference the Noise Management Plan to avoid double up of processes.	Agreed - to be actioned	In-progress
2024 EMP Audit	Envirorisk Management	8	OFI	Consider adding process for the activation of pumps to manage water discharge from dams in a severe weather event to the site specific work procedure 'Management of severe weather event PAKSWP87 Rev2 Reviewed 06/10/22'.	Under consideration	
2024 EMP Audit	Envirorisk Management	10	OFI	Progress the additional recommendations in the Hydrogeological Review of collecting continuous flow data for the springs. This data could be very valuable should the quarry extension proceed that is being investigated in the north east corner quarry	Agreed. Actions to be monitored via EMP consultant action sheet (this sheet)	In-progress
2024 EMP Audit	Envirorisk Management	11	OFI	The recommendations from the AECOM, Mt. Shamrock Quarry - Toomuc Valley Slope Inspection, letter report dated January 2024 should be implemented through the ICARE system.	Agreed. Actions to be monitored via EMP consultant action sheet (this sheet)	In-progress
2024 EMP Audit	Envirorisk Management	12	OFI	Consider including the checking and completion of records for overburden, crushed stockpiles in the slope stability inspection as a form already exists for recording this data.	Under consideration	
2024 EMP Audit	Envirorisk Management	13	OFI	Progress recommendations in 2023 Naturelinks report.	Agreed. Actions to be monitored via EMP consultant action sheet (this sheet)	In-progress
2024 EMP Audit	Envirorisk Management	15	OFI	Include appropriate waste management target(s) in the EMP after submission to ERC for comment, and Council for approval, as provided for in s.8.3 EMP Variation and Appendix 3 of the EMP, 2021.	Draft wording distributed for August ERC Meeting	In-progress
2024 EMP Audit	Envirorisk Management	16	OFI	Include reporting against quantifiable waste management targets in the ERC Quarterly Report to demonstrate improvement in waste reduction.	Under consideration	
2024 EMP Audit	Envirorisk Management	17	OFI	Update the EMP to include a form of words that best reflects a credible and effective waste minimisation and disposal strategy that aligns with the waste hierarchy and the circular economy principles of sustainable resource management.	Draft wording distributed for August ERC Meeting	In-progress
2024 EMP Audit	Envirorisk Management	19	OFI	Update the LRMP to include the amended complying plans to reflect changed thinking in relation to EVCs applicable to the quarry site and in particular the southern faces currently being rehabilitated.	Under consideration	
2024 EMP Audit	Envirorisk Management	20	OFI	Update EMP to reflect correct reporting timing to align with LRMP or vice versa – 3 monthly to ERC, annually for rehab report and monthly for inspection checks.	Agreed - to be actioned	In-progress
2024 EMP Audit	Envirorisk Management	22	OFI	Include in the next EMP and LRMP update undertaking a preliminary site investigation at completion of works and in accordance with the Holcim Pakenham Quarry EMP Audit – February 2024 National Environment Protection Measure (Assessment of Site Contamination 1999 (as amended).	Under consideration	
2023 Rehab Report	Naturelinks	4	OFI	South-East Extraction Area - Add additional dry-tolerant species used for in-fill plantings to expand diversity and reduce weed coverage (Table 2).		Complete
2023 Rehab Report	Naturelinks	5	OFI	South-East Extraction Area - Continue to monitor rabbit activity and report any suspected rabbit burrows to quarry management.	Inline with current practices	Complete
2023 Rehab Report	Naturelinks	10	OFI	Southern Extraction Area - Plant additional drought-tolerant shrub species (Table 4).		Complete
2023 Rehab Report	Naturelinks	18	OFI	Phase A & B Site - Planting of additional trees to bolster screening for nearby stakeholders (Table 8).	Agreed - planned for 2024 planting	
2023 Rehab Report	Naturelinks	29	OFI	0.8 Hectare Revegetation Site - Continue expanding species diversity in particular shrub species more adapted to stabilised conditions (Table 12).		Complete

Recommendations are removed from sheet once shown as complete

Document	Consultant	Item #	Nonconformance (NC) /Opportunity for improvement (OFI)/Business as Usual (BAU)	Recommendation description	Comments by Holcim	Status
2023 Rehab Report	Naturelinks	30	OFI	Landslip Sites - Replacement planting at such a time that deer can be excluded from site.	Agreed - planned for 2024 planting	
2023 Rehab Report	Naturelinks	33	OFI	Net Gain Site - Increasing species diversity by planting a of trees and shrubs in northern and southern zones (table 15).		Complete
2023 Rehab Report	Naturelinks	36	OFI	1.2 Hectare Revegetation Site - Continue planting with additional species to expand diversity.		Complete
2023 Rehab Report	Naturelinks	37	OFI	Paddock Replacement - Monitor plant survival and replace any dead plantings. Notify quarry management if any additional quadrants are in need of repair.	Inline with current practices	Complete
2023 Rehab Report	Naturelinks	39	OFI	2023 Planting Area - Undertake year 2 planting with species selection favouring trees and shrubs that are tolerant of both wet and dry conditions.		Complete
2023 Rehab Report	Naturelinks	44	OFI	South East Extraction Backslope - Undertake additional plantings prioritising species that are well suited to moist deep soils with high fertility		Complete
2023 Rehab Report	Naturelinks	49	OFI	Southern Hillside - Undertake additional plantings prioritising species suited fertile deep soils		Complete
2023 Rehab Report	Naturelinks	50	OFI	Chilean Needle Grass monitoring and control - Naturelinks recommends the use of the herbicide Tussock (active ingredient Flupropanate), this chemical will kill plants and prevent germination from existing seed for a number of years. This chemical has been engineered to specifically target the genus of grasses which Chilean Needle Grass belong (Nassella)	Under consideration	
2023 Toomuc Valley Slope Inspection	AECOM	2	OFI	7.1 Land surface stability - Relating to the observed backscarps within Mass 8 and south of Mass 5, it is recommended to revegetate the backscarps to provide increased surface resistance to erosion by water, as follows: <ul style="list-style-type: none"> • Revegetate behind the observed backscarps with deep root (but small canopy) shrubs/bushes and grasses. • Revegetate the backscarps surface with grasses. • Continue to monitor the vegetation to ensure that possible washouts by surface water do not inhibit re-vegetation progress. 	Agreed - to be actioned	
2023 Toomuc Valley Slope Inspection	AECOM	5	OFI	8.0 Supplementary Comments – Presence of Farm Dams As part of the January 2024 inspection, the AECOM inspecting personnel was escorted by Holcim to three farm dams for inspection – the dam at the base of Mass 6, the dam southwest of Mass 5 and the dam immediately west of Mass 13. Attachment 3 shows the location of the three dams. It is noted that the presence of dams within landslide-prone slopes presents risks, including: <ul style="list-style-type: none"> • Water infiltration from standing water in dams increases the risk of landslide re-mobilisation. • Movement of the slope may have adverse effects on the performance of the dam to effectively retain water. • Deposition of re-mobilised landslide debris into the dam. These risks and related considerations are best informed by a site-specific assessment of the dam. When considering the risks associated with dam failure, the downslope consequences need to be assessed. This is particularly the case when there is a possibility of dam failure impacting people and property beyond the Holcim site. Aerial photos indicate that there is at least one location where a house is located downslope of a landslide mass and accompanying dam. It is our understanding that the monitoring requirements of Sub-section 2.5.4 of the EMP, which this report is intended to address, do not include inspection of the farm dams. The risks associated with the impacts of dam failure should be investigated by Holcim. We draw your attention to the DELWP publication “Your dam: Your responsibility. A guide to managing the safety of small dams” for further details (https://www.water.vic.gov.au/__data/assets/pdf_file/0027/668610/yourdam-your-responsibility.pdf).	Under consideration	
Pakenham Quarry Hydrogeological Review	GHD	1a	OFI	Improve the monitoring technique for the springs to allow a more quantitative and consistent measurements: <ul style="list-style-type: none"> • Establishment of v-notches and/or gauge boards / stilling wells at all sites (subject to ground truthing) is recommended, or at a minimum, two priority springs of flow and /or levels 	Basic mechanical metering devices to be fitted to piped Springs SP01, SP02 and SP03. Survey pegs installed in standing water levels associated with SP04 and SP06 to measure level. SP08 and SP09 are large systems that will require capital works to install metering devices which are not being pursued at this point in time. SP05 and SP11 (new spring) have no free standing water. SP07 and SP10 are reclassified as a seeps.	In-progress
Pakenham Quarry Hydrogeological Review	GHD	3	OFI	Update the understanding of the estimated radius of influence of the quarry. This should be supported with site specific hydraulic conductivity data (slug testing), an update of the quarry water balance, and bore network recommendations noted above.	Slug testing completed Dec 2023. This is an ongoing action that should be captured as a part of the annual report.	In-progress

HOLCIM EMP CONSULTANT RECOMMENDATIONS

Document	Consultant	Item #	Nonconformance (NC) /Opportunity for improvement (OFI)/Business as Usual (BAU)	Recommendation description	Comments by Holcim	Status
2023 EMP Audit	Envirorisk Management	3	OFI	Prepare an EMP variation to pick up on items not corrected in the most recent 5 year review (e.g. some of the changes to EPA's legislation).	Agreed	In-progress
2023 EMP Audit	Envirorisk Management	13	OFI	As part of the EMP variation referenced in iii above, Holcim should draft appropriate waste management target(s) and submit to ERC for comment, and Council for approval, as provided for in s.8.3 EMP Variation and Appendix 3 of the EMP, 2021.	Draft wording distributed for August ERC Meeting	In-progress
2023 EMP Audit	Envirorisk Management	15	OFI	As part of the EMP variation referenced in iii above, Holcim should revise the annual waste survey requirements of the EMP to a form of words that – a. best reflects a credible and effective waste minimisation and disposal strategy that aligns with the waste hierarchy and the circular economy principles of sustainable resource management, and b. provides a means of achieving the waste management targets.	Draft wording distributed for August ERC Meeting	In-progress
2023 EMP Audit	Envirorisk Management	16	OFI	Progress all outstanding recommendations from the 5 yearly Dam integrity report that were contingent on completion of the consequence category assessment.	All actions in Donazzan's Dam report dated 08-Jan-2021 complete.	Complete
2022 Slope stability review	AECOM	4	OFI	Remedial treatment of Mass13 and Mass06 Dam with reinstatement of the dam crest	Agreed will complete when ground conditions permit	In-progress
2020 Die Back Report	Naturelinks	5	OFI	Access track provided through site to ensure access for future management vehicles, to ensure effective and efficient watering and weed control.	Agreed will complete when ground conditions permit	In-progress