

MT. SHAMROCK QUARRY
ENVIRONMENT REVIEW COMMITTEE
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Meeting Summary

24th February 2021
(3.45pm - 5.30pm)

Committee Members Present:

	Matt Dodd	Holcim Australia
	Nathan Thomas	
	Rosemary Buczak	
	Joy Carberry	Local Community Representatives
	Don Petty	
Apologies:	Stewart Burton	Holcim Australia
	Barry Strong	Earth Resources Regulation
	Jeff Springfield	Cardinia Shire Council
	Council Rep	
Chairperson:	Lisa Barrand (Chairperson)	Possibilities Pty Ltd

Welcome

Lisa welcomed everyone to the meeting and noted the ongoing commitment of everyone to the work of the ERC, in particular the participation and accommodations made during 2020 which was particularly challenging due to zoom. Lisa also passed on apologies and noted that with Melanie leaving the Council, the Council was now not resourced to provide a person to attend the ERC meetings but have committed to do so once the position has been filled. Finally, Holcim was thanked for hosting the meeting and also arranging the site tour. It was pleasing to see all of the growth in the rehabilitation areas and the replanting that has taken in the Phase A planting areas.

Update on actions agreed at previous meetings

Person Responsible

Action 50.2 Groundwater and Springs

At this meeting (noting that not all members were present) there was further discussion regarding both the specific and also broader questions regarding the monitoring of the groundwater and springs.

Specifically, Nathan and Matt shared some of the actions that Holcim had initiated since the last meeting including additional (inhouse) monitoring of groundwater levels (which are proposed to be embedded in the revised EMP); installing a device to capture the RL of the pit as an additional data point, and also, making the spring water at one of the spring sites more useable by installing a pipe and a storage drum for collection.

There was discussion about the overall complexities of groundwater monitoring and the current questions from the community regarding the groundwater monitoring reports and assessments. The following dot points capture the key sentiments and

Matt Dodd

actions expressed at this meeting:

- The community members are of the view that AECOM's conclusion that there is no effect on groundwater at all due to the operations of the quarry is difficult to conceive as being true and are affronted, on principle, that this is still being held as a position.
Lisa noted that in relation to this item, a shared view and perspective may not be possible across the whole ERC. It is very important to formally note the deep concern of the community regarding this matter. It is also important to find a way to work through the issue so that the Committee can continue its good work and also dedicate time to work on the other important focus areas of the EMP.
- There is a need for a 'forward looking' view as to what real actions can be done, in good faith and a practical way, to respond to the situation. In relation to this, the helpful actions already mentioned by Holcim were noted. In addition, community members were asked to consider ideas that could be brought forward for discussion at the next meeting.
- The community would appreciate hearing a response to the 3 key points put forward (with agenda) and Holcim will action this. Broader discussion on this noted that the context for these questions/responses needs to be related to the quarry extension period commencing in 2007 which is when the EMP and ERC came into effect. It was also noted that even when these particular questions are responded to, the Committee might find itself in the same situation next year when reviewing the annual report and there could be a constant to and fro.

More broadly, and in response to the final dot point, Lisa also brought forward an idea to use the current EMP review process to request that the Cardinia Shire Council and the ERR as the regulatory authorities and experts in these matters to provide greater clarity in relation to the monitoring and reporting regime for groundwater/springs. As chair, Lisa expressed the view that this would be helpful for the effective functioning of the committee. For almost all other EMP requirements, there are clear thresholds for monitoring results as well as specified management actions, whereas there are none noted for groundwater and springs monitoring. The absence of clear advice about the best data to use, what thresholds are significant, and how to interpret meaning has made productive discussion as a committee difficult. There was general support for this approach however it was noted that the authorities had already been asked these questions in previous meetings.

In relation to the current report, there were questions about the delay between increasing levels of groundwater and the flow of the springs (difficult to know) and also an anecdotal comment noted in the report regarding the springs (Nathan/Matt to follow up).

Background information for reference:

Following a comprehensive discussion in February 2020 (attended by technical specialists from the ERR and SRW), the following actions were agreed:

1. Holcim to discuss with AECOM some more indepth review/analysis of existing and additional information such as quarry depth, sequencing and activity; for example; extraction, overburden placement, rehabilitation/revegetation, etc. and consideration of other potential explanations (e.g. quarry operations, groundwater catchment changes due to land use changes including a review of other local springs where possible to ascertain comparative flow changes, etc.). This will build confidence in the conclusions of the report.
2. Holcim to consider flow rate monitoring for springs as a means of providing a more comprehensive picture of the spring functioning.
3. Holcim to consider what 'good faith' actions might be taken (irrespective of further analysis) to provide increased water supply at spring sites.
4. On the request of ERC members ERR are available to come and look at any

relevant spring sites on private land in the next few weeks to better understand the context and any concerns.

At the May 2020 meeting, Nathan and Matt reported that internal discussions had commenced on all three of the Holcim actions but that due to the significant challenges with site access etc. (brought about by COVID-19) they were not yet ready to bring them to the Committee and therefore this item was held over. It was also agreed that AECOM attend the August meeting to help the discussion.

At the August meeting, Bryan Chadwick from AECOM shared a presentation for responding to action items 1 and 2 above and the intention was to also respond to the specific questions put forward, in this case by community representatives, prior to the meeting. Unfortunately, we ran out of time to look at the specific community questions however the complete presentation was attached as part of the meeting summary and it is hoped that will assist.

It was acknowledged that 'online' is a difficult forum for sharing detailed technical and visual data with a large group and that not all questions or comments were able to be heard in the time available. Everyone's patience and good will was appreciated in very difficult circumstances.

In summary, the Aecom presentation shared broad quarry event information and groundwater monitoring graphs specifically relating to MB01 and MB06 to assist explain the connection between rainfall (shown using AMRR) and groundwater levels. It was put forward that groundwater levels around the pit strongly mirror the rainfall trends and that there was no evidence that the quarry activities are influencing these groundwater levels. Bryan explained that the tightness or impermeability of the basalt formation is not allowing groundwater inflows and the recharge is instead coming from the Werribee formation (and therefore) from rainwater recharge. Shorter term changes showing in other bores inside the pit may have been influenced by the pit lake. It was noted that the quarrying operations themselves do not intercept with the Werribee formation.

There were a number of questions / points raised during the meeting and these are summarised below in no particular order.

- There was debate around AMRR data, its calculation and its use in linking changing groundwater levels to being just linked to rainfall.
- Questions were raised about how the conceptual model used for understanding and explaining the behaviour of the groundwater system at the site (developed some years ago) has been re-informed by the additional information collected and the changing quarry activities since 2006 and the events shown in the pictorial slide (slide 8?). For example, there may be local characteristics that need to be better understand, for example regional v radial flow?
- A lack of meaningful 'reference' groundwater measurements from outside the site makes it difficult to have comparison points and it may never be possible to fully understand the full dynamics at play. Would it be possible to find a bore in the old volcanics elsewhere that would make a useful comparison? AECOM have not been able to identify one that is suitable. Or perhaps springs in local areas not near the quarry? It was suggested that perhaps bores in the south and the north west may assist.
- Questions were raised about the springs that were not flowing in spite of the recent heavy rain.

Regarding the expected future functioning of the springs: It was discussed that if the conclusions of the AECOM analysis are correct, in that the groundwater is changing with rainfall recharge and not caused by the quarry operations, then it should follow that the current very wet conditions should see higher groundwater levels and discharge from the springs. Bryan noted that the flow from the springs would also depend upon flow through the colluvium layer.

In relation to the springs, it was explained by AECOM that the lower groundwater levels will have an impact the flow of the springs however not all the water discharged as groundwater is shown directly through the springs themselves and that it was a better and more accurate approach to measure the groundwater level via the monitoring

bores rather than measure spring flows which was difficult or not possible to do.

There are still questions in the ‘pre-questions’ that need to be looked at. (See note above).

It was clear that this is a complex topic and not easy to discuss in a large group environment over zoom. Lisa will work with all the parties offline prior to the next meeting to identify steps for assisting the Committee work through the key issues.

It was suggested by the Chairperson that this item be postponed for discussion until February 2021 when it is hoped that the committee can meet in person.

51.1 Action: Consolidation of report recommendations into quarterly EMP report

Matt to include the recommendations from the reports discussed at the September meeting; namely, Naturelinks Phase A & B Planting Report, LRMP Report and the Slope Inspection Report into a monitoring schedule within the quarterly EMP report for ongoing review by the ERC.

Matt talked the group through the draft document shared with the agenda and noted that a number of small non conformances from the recent audit still need to be included. Matt is was also talking with consultants about a couple of the recommendations that he felt needed refinement or were not appropriate. Where actions are not going to proceed as originally recommended by the consultants then these will be noted and the ERC will be informed for transparency. A final version of this document will be shared with the meeting summary and included ongoing as part of the agenda.

In relation to the annual audit, Matt reported on the very positive results, the report will be presented at the next meeting. There were only a small number of minor nonconformances.

This item is now considered closed.

51.3 EMP 5-year review

The Chair noted that it has now been 5 years since the last review of the EMP itself and that this process should be initiated soon.

Matt updated the Committee noting that a revised draft of the EMP is well on the way to being finalised and that he intends to have the document available for the ERC to review by the 5th of March. The Committee will then provide feedback prior to the end of March at which time Holcim will then submit to Cardinia Shire Council. As noted at the last meeting, the following alterations to the EMP are being proposed for inclusion:

- **Simplifying the report**

Nathan and Matt talked with the Committee about making the report simpler and more useable for ongoing management by separating out the ‘once – off’ and completed activities so that that are still able to be viewed but that these items do not clutter the reporting on ongoing management activities. Many of these ‘once off’ activities were completed more than 10 years ago.

- **Updating the document**

Legislative, equipment and other elements have been updated. Names have been replaced with titles for simplicity.

- **Greenhouse Gas Net Emissions**

As noted at the last meeting, the year on year % GHG emissions reduction target of 5% have been an increasing challenge that has been raised and discussed previously at this Committee. In looking at the EMP revision process, Holcim is exploring offset measures to assist meet the target (where onsite reductions were not feasible).

- **LRMP Review**

The LRMP review (happening at the same time as the EMP review) has also identified opportunities for further refinement and changes that Holcim expect will improve rehabilitation outcomes. Matt and Nathan outlined proposed adjustments to the species list and other improvements to processes (such as seeding and weed management) based on improvements in industry best practice and on-site learnings. These will be shared for review with the

Matt Dodd
(plus all
committee to
review)

Committee. It was also suggested that Rob at Cardinia Shire Council be consulted regarding the species list.

Environment Management Quarterly Report

The October – December 2020 report (distributed with the agenda) was overviewed by Matt with the following discussion points of note:

- The site has continued to deliver very good results with the only GHG emissions (which has already been discussed) as a noncompliance.
- There were no questions.

Other reports discussed

The following reports were also discussed.

6 monthly LRMP Report

This was presented from last year. There were no questions.

Naturelinks 2020 LRMP summary

There were no questions.

Donnazons dam 5 yearly integrity report

There were no questions.

Slope stability inspection report

There were no questions

Groundwater and beneficial use survey report and Summary of concerns

This was discussed during item 50.2

Other business

End use of the quarry

This item is raised each year for the update of the Committee. There was no further information to provide from either the Shire of Cardinia or from Holcim.

Appointment of Community Representatives

Lisa noted that the 3 year cycle for appointment / reappointment of Community Representatives was due last year but had been postponed due to Covid. When the Cardinia Shire Council appoints an appropriate officer then Lisa will communicate with them for this to take place this year.

Meeting Dates for 2021

The remaining meeting dates for 2021 are as follows:

26 th May 2021	Site tour at 2.30pm (Net Gain Offset Area) Meeting at site office, 4pm
25 th August 2021	Meeting at Cardinia Shire Council Offices 4pm
24 th November 2021	Site tour at 2.30 pm (if permitted) , followed by meeting at site office at 4pm

Items for consideration at next revision of EMP

Understory Plantings

Consider multi species plantings for understory areas where original revegetation / screening plantings only included a single species of tree. This should be done as soon as practicable after trees thin out to allow for successful planting.

Quarterly reporting of LRMP activities and outcomes

Should the LRMP report be quarterly, six monthly or annual?