

MT. SHAMROCK QUARRY
ENVIRONMENT REVIEW COMMITTEE
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Meeting Summary

25th November 2020
(4.00pm - 5.00pm)

Via Zoom

Committee Members

Present:

| | |
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| Matt Dodds | Holcim Australia |
| Nathan Thomas | |
| Rosemary Buczak | Local Community Representatives |
| Joy Carberry | |
| Barry Strong | Earth Resources Regulation |
| Melanie Wright | Shire of Cardinia |
| Cr Jeff Springfield | |

Apologies:

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| Stewart Burton | Holcim Australia |
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Chairperson:

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| Lisa Barrant (Chairperson) | Possibilities Pty Ltd |
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Guests

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| Neville Bassett | Community (Standing in for Don Petty) |
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Welcome

Lisa welcomed everyone to the meeting and thanked Neville for standing in (at short notice) for Don who was unable to attend.

Update on actions agreed at previous meetings

Person Responsible

Action 50.2 Groundwater and Springs

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 in depth 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.

Matt Dodd

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 understood, 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.

At this meeting, Matt advised that he is still working on incorporating the recommendations into the standard quarterly report (there are quite a few) and will have this ready to send when the meeting summary is distributed. There was nothing of particular note to update the Committee on regarding actions in relation to these items.

Matt Dodd

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 and Melanie updated the Committee noting that a revised EMP is well on the way to being prepared and will be available for the Committee to review/comment at the February 2021 meeting. The Council will also distribute the draft to other authorities for input as part of the process. Of particular note:

- **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 are now in excess of 10 years old.

- **Updating the document**

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

- **Greenhouse Gas Net Emissions**

The year on year % GHG emissions reduction target of 5% has been an increasing challenge that has been raised and discussed previously at this Committee. In looking at the EMP revision process, Nathan and Matt talked with the Committee about the possibility of using offset measures to assist meet the target (where onsite reductions were not feasible). In discussion, there was agreement with both the idea of having and retaining a target and also that offset options are appropriate in this situation. Holcim were encouraged to consider local offset opportunities (subject to regulatory requirements).

- **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) based on improvements in industry best practice and on-site learnings. These will be shared for review with the Committee. It was also suggested that Rob at Cardinia Shire Council be consulted regarding the species list.

Melanie Wright
and Matt Dodd

56.1 Action: Review of Annual EMP Audit Scoping Document

Matt shared the draft audit scope with the Committee as part of the agenda. The audit will take place in mid to late February 2021. There were no additional comments and so this item is considered complete.

Environment Management Quarterly Report

The July – September 2020 report (shared with agenda) was overviewed by Matt with the following discussion points of note:

- 5 year review of Donnazans Dam Integrity to take place with Aecom to be the appointed contractor.
- Additional photos of Phase A and B plantings to be shared with committee.
- Holcim is undertaking additional monthly (managed by Holcim internally) groundwater measurements to provide additional data. These are shown in the report.
- The relatively high (but not outside limits) water turbidity results were discussed and it was explained that this was attributed to the high rainfall experienced.
- The CFA have reviewed and the sites bushfire management plan and were very happy with the approach.
- The very good results in terms of monitoring data were noted and acknowledged!

Meeting Dates for 2021

The proposed meeting dates for 2021 were discussed and agreed as follows:

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| 24 th February 2021 | Site tour at 2.30pm Meeting at site office, 4pm |
| 26 th May 2021 | Site tour at 2.30pm 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

Understorey Plantings

Consider multi species plantings for understorey 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?