

MT. SHAMROCK QUARRY  
ENVIRONMENT REVIEW COMMITTEE  
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## Meeting Summary

7<sup>th</sup> July 2021 (4.00pm – 5.15pm)

### Committee Members

#### Present:

Matt Dodd Nathan Thomas	Holcim Australia
Barry Strong	Earth Resources Regulation
Rosemary Buczak Joy Carberry Don Petty	Local Community Representatives
Cr Jeff Springfield Dean Haeusler	Cardinia Shire Council

#### Apologies:

Stewart Burton Holcim Australia

#### Chairperson:

Lisa Barrant Possibilities Pty Ltd

## Welcome

Lisa welcomed everyone to the meeting and thanked Matt, Nathan, and Holcim more broadly for arranging the site tour of the Net Gain Offset Area. It was a very informative to be able to walk around the key NGOM areas. The Committee noted the health and substantial growth of the flora (and kangaroos) in these areas since the last visit.

Lisa also welcomed Dean Haeusler to the Committee as the newly appointed Council representative and also Barry Strong from the ERR who was meeting the committee 'in person' for the first time.

## Update on actions agreed at previous meetings

### Person Responsible

#### *Action 50.2 Groundwater and Springs*

At this meeting, and after substantial conversation, the Committee agreed to put this item 'on hold' until the same meeting next year when additional data (see below) will be available for review. This additional data, when combined with the current monitoring regime, will provide more insights into changing groundwater levels and spring functioning. The Committee understands that, as a minimum, a full seasonal cycle of data (spring, summer, autumn and winter) are needed for a meaningful discussion and that in fact longer data collection may be necessary.

The following points capture the key discussions from this meeting.

- Lisa shared with the Committee correspondence to the ERR on behalf of the ERC (as foreshadowed after the last meeting) and noted that Barry's intention is to respond in writing however he had wanted to talk with the Committee personally prior to doing so.
- The Committee heard in more detail from Matt/Nathan as operator, and Barry as regulator, about the additional monitoring that Holcim has in place (since October 2020) and how this monitoring will add further information to deepen

Matt Dodd /  
Lisa Barrant

our understanding on the nature of the groundwater flows in and from the pit. The additional monitoring is designed to capture the actual level of the water in the two pit reserves and also the inflows (rain) and outflows (water pumped out). Although this had been explained at the last meeting, the nuanced difference in the nature of the data was perhaps missed in the meeting summary as it is not just more data, it is different data.

- It was recognised that even with this additional monitoring data, it still may not be possible to resolve the question of what effect, if any, the quarry operations, (since the extension permit was granted) are having on groundwater levels and spring functioning. Barry also noted that introducing trigger levels (mentioned in Lisa's correspondence above) was not a good idea as there were other reasons why groundwater levels might change, outside of quarry operations.
- The Community asked if it were possible (as a good faith action on behalf of Holcim) that some mechanism be put implemented by which ongoing water supply be assured for Don's property. Dean will look into this from the Council's perspective and respond when the issue is next brought forward however noted that such agreements were usually only possible on land over which there were active permits. The intention of this request would be for it to apply after the conclusion of operations.
- It was noted that the key questions raised by the Community had not, as yet, been responded to by Aecom. Rather than address this now, and given the additional monitoring in place, Holcim will ask Aecom to incorporate a response as part of their next annual report, due in early 2022.

#### **Other background**

At the February 2021 meeting, Nathan and Matt shared some of the actions that Holcim had initiated since November 2020 including additional (inhouse) monitoring of groundwater levels (which will now 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 actions expressed at this February 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 it's 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).

**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 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.

### **51.3 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 regarding the progress of the EMP review. As requested, the Committee has reviewed the proposed list of amendments to the current EMP and not suggested any changes.

Matt is now updating the original EMP document and will provide to the ERC for final review and discussion at the next ERC in August. After that time, the document will be forwarded to the Cardinia Shire Council (as the primary authority) for consideration.

For reference, the following alterations to the EMP are being proposed:

- **Simplifying the report**  
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

Matt Dodd

more than 10 years ago.

- **Updating the document**

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

- **Greenhouse Gas Net Emissions**

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. 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 identified opportunities for further refinement and changes that Holcim expect will improve rehabilitation outcomes. Adjustments to the species list are proposed as well as 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 Committee.

## Environment Management Quarterly Report

The January – March 2021 Environmental Management Report (distributed with the agenda) was overviewed by Matt with the discussion relating to the recent upgrades to equipment that are having a positive impact on fuel burns, efficiency overall and therefore GHG net emissions.

## Other business

### **Audit: ERC engagement with Auditor**

It was agreed that as part of the brief for this coming years annual audit, special note would be made of the process whereby members of the ERC are invited to talk with the auditor.

### **Community**

Nathan and Matt once again reiterated Holcim's commitment to providing support for local community projects (recent horse trials / Locky's Legacy as examples), both in terms of labour and also materials.

## Meeting Dates for 2021

The remaining meeting dates for 2021 are as follows:

25 <sup>th</sup> August 2021	Meeting at Cardinia Shire Council Offices 4pm
24 <sup>th</sup> 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?