

Fingerboards Mineral Sands Project Inquiry and Advisory Committee

Technical note

TN No: TN 029

Date: 4 June 2021

Subject: Response to the IAC's third request for information (10 May 2021, Tabled Document 294), questions 6-8 relating to rainfall and runoff

Questions and responses

Following the evidence of Mr Muller (EMM) and Mr McAlister (WT) in Week 1 of the Hearing, can the following matters be clarified for the IAC:

6. Have the rainfall, runoff, erosion and sediment transfer models been run taking into account climate change impacts expected over the mine life and at least 20 years after mine closure?

EMM took account of climate change projections set out in DELWP (2016) *Guidelines for Assessing the Impact of Climate Change on Water Supplies in Victoria* in the water balance modelling conducted for mine year 15. This modelling applied the 'Medium' projections for the Mitchell Basin in Year 2040, namely:

- evaporation rates increased by 4.7%;
- annual rainfall totals reduced by 2.3%; and
- Mitchell River streamflow decreased by 11%.

The updated version of the guidelines¹ use these same projections for the Mitchell Basin under the high greenhouse gas emission pathway - described as 'RCP8.5' - for Year 2040.

Climate change impacts were not otherwise accounted for in the other modelling done for the Project.

7. Have the models on expected rainfall and runoff been run consistently with the Guidelines for Assessing the Impact of Climate Change on Water Availability in Victoria (November 2020) (Guidelines) on how climate impacts should be assessed in making water allocation decisions?

No, these guidelines were published after the modelling was undertaken and the EES was published.

8. If the model is not consistent with the Guidelines, can it be run using the baseline data period as specified in the current guidelines (1997-present) and the results, together with interpretation of them, provided to the IAC.

Yes, this work is currently underway and is expected to be completed in around 3 weeks. The results and the interpretation of them will be provided to the IAC as soon as possible before the end of the hearing.

¹ DELWP (2020) *Guidelines for Assessing the Impact of Climate Change on Water Availability in Victoria*.