

Subsidence Advisory

16 December 2020

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Melissa Anderson Environmental Assessment Officer Resource Assessments NSW Department of Planning, Industry and Environment

Via email: Melissa.Anderson@planning.nsw.gov.au

Dear Melissa,

Modification Application and Statement of Environmental Effects (SEE) for the Chain Valley Colliery - Modification 4 (SSD-5465) – EMIN20-00012

I refer to your request through the portal dated 26 November 2020 inviting Subsidence Advisory NSW (SA NSW) to provide comment on the Statement of Environmental Effects (SEE) for the Chain Valley Colliery (CVC) - Modification 4 (SSD-5465).

SA NSW notes that the application involves an extension of CVC's mining operations under the Lake Macquarie foreshore and the residential suburbs of Brightwaters, Mirrabooka and Sunshine. The application includes an assessment of pillar stability by Strata Engineering 2 "Proposed Extension to the Northern Mining Area – Panel Design Criteria for Negligible Surface Effects" dated March 2020.

SA NSW also understand that previous conditions of consent in the proposed extension area restrict surface subsidence impacts to 20mm total vertical subsidence. Due to the impact to residential development should an unplanned subsidence event occur, SA NSW recommend that both the proposed mine layout and the accompanying assessment of pillar stability be reviewed by a suitable industry recognised expert.

It is recommended that the review include an assessment on whether the following has been adequately addressed;

- The potential for bearing capacity failure of the roof or floor causing additional/unplanned subsidence.
- Whether the pillar plan dimensions on which the assessment is based, accurately reflect the dimensions that can be achieved operationally using standard mining equipment (continuous miner).
- Whether long-term stability of the proposed pillar system has been adequately considered, taking into account spalling and flooding of the workings over time.

Please contact me on (02) 4908 4300 or at subsidencedevelopment@customerservice.nsw.gov.au if you have any questions or wish to discuss.

Yours sincerely

John Johnston

Manager, Subsidence Risk Evaluation and Regulation