

Colin Phillips

From: Jim Lawler <jlawler@groundwork.com.au>
Sent: Friday, 11 March 2016 7:12 PM
To: Michelle Kirkman
Cc: Colin Phillips; Terry Woods
Subject: SSD 7036 Coraki Quarry - Water Balance and Vegetation Matters
Attachments: 1837_20160311_Letter_BAAM Advice regarding sediment basin 2.pdf; 1837.DRG.027 - concept site layout v3-A3-L.pdf; 1837_20160311_Letter_Calibre Surface Water Management Assessment.pdf

Michelle,

Please find attached the following documentation:

- 1837 DRG 027 R1 Conceptual Site Layout Plan; and
- BAAM advice regarding sediment basin 2 location; and
- Calibre advice regarding water balance calculations

BAAM undertook further on ground assessment of the vegetation adjacent to the proposed location of Sediment Basin 2. That resulted in a recommendation that Sediment Basin 2 be setback a suitable distance from adjacent vegetation to the East and the North West. Subsequently Calibre have provided updated advice on the surface water management component of the development, including the revised footprint for Sediment Basin 2. Subsequently we have revised our Conceptual Site Layout Plan to account for this minor change.

With regards to the water balance, Calibre have also provided further clarification on the assumed inflows, outflows and management measures to be implemented. The model suggests that external water supply will be required to top up on-site reserves for 93 days (initial stage) and 110 days (final stage) per year. However, it is noted that these days directly coincide with significant rain fall events exceeding 60.2mm. Unfortunately the simulation is unable to incorporate this factor and assumes the worst case scenario that no rain occurs at all, resulting in a shortfall of water for use on site. Whereas in reality, these rain events would result in the sediment basins being replenished and in lower on site water demand for a number of days after the rain. Therefore it is expected that importation of water from external licensed suppliers would occur significantly less than what is shown in the model. On this basis it is expected that the Coraki Quarry will only require some importation of water in the scenario where on site water levels are reduced immediately prior to a forecast rain event but that rain event does not occur. This is consistent with the historical and current water management practices for the existing Petersons Quarry. Accordingly, we do not anticipate any significant adverse impacts on the demand for external water supplies as a result of the Coraki Quarry.

I will call you to discuss this further on Monday 14.3.16.

Kind regards,

Jim Lawler
Team Leader - Planning



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