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10 April 2017

Ms Abigail Goldberg
Chair
Planning Assessment Commission
Level 3, 201 Elizabeth Street
Sydney NSW 2000

Dear Ms Goldberg

Springvale Mine Extension Project – Mod 1 (DA459/17)

Introduction

Springvale Coal is seeking to modify the development consent for the Springvale Mine Extension Project (SSD 5594) to increase the mine's ROM coal production from 4.5 Mtpa to 5.5 Mtpa, increase the mine's workforce from 310 to 450 personnel and increase the capacity of the ROM coal stockpile from 85,000 tonnes to 200,000 tonnes in order to handle the additional coal produced.

ROM Coal Production

The approval for Springvale Coal to increase production to 5.5 Mtpa is required to facilitate forecast increased production rates in the future as the Springvale Mine progresses. The increased production affords Springvale Mine operational flexibility to respond to favourable market opportunities that may present themselves. The increase in production will be achieved through:

(i) The proposed increase in workforce;

(ii) The installation and operation of additional underground mining equipment; and

(iii) Improved equipment utilisation and availability.

Underground Mining Equipment

Since the placement of the Angus Place Colliery into care and maintenance in 2015, additional mining equipment has been transferred from the Angus Place Colliery to the Springvale Mine including two additional development units. A second longwall has been proposed to be installed at the Springvale Mine however is not proposed to be introduced in the short term due to:

- Longwall compatibility issues that require additional capital investment;
- Uncertainty with timing of Extraction Plan approvals that would allow improvements in longwall change over; and
- Changes in the mine design to minimise the potential for impact to swamps requiring additional development driveage to facilitate longwall extraction.

The introduction of a second longwall was just one of three measures proposed to be introduced that would increase production at the Springvale Mine. Two sets of longwall equipment are not required for Springvale Coal to exceed the current production limit of 4.5 Mtpa however Springvale Coal will continue working towards having two complete sets of longwall equipment in the future.

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Adaptive Management and the Mine Plan

Recent investigations undertaken by Springvale Coal have improved the understanding of how underground mining operations can influence standing water levels in shrub swamps. As a result of this understanding, Springvale Coal has implemented an adaptive management approach to minimise the potential for impacts to standing water levels in swamps located beyond the current approved project application area (Carne Central and Barrier Swamps).

As presented to the Planning and Assessment Commission on 6 April 2017 and shown on **Figure 1,** the following adaptive management measures will be adopted by Springvale Coal:

Longwall 423

No extraction of longwall 423 due to the proximity of Carne Central and Barrier Swamp, resulting in a reduction in coal reserves of 1,381,505 tonnes.

Longwall 421

Shortening of Longwall 421 by 288 metres (from the approved 19C/T face position to 17C/T face position resulting in a reduction in coal reserves of 356,778 tonnes) to avoid mining through a significant linking fault with intersects the lineament underlying Carne Central Swamp.

Longwall 422

Relocation to longwall 425 following the completed extraction of longwall 421, delaying the extraction of longwall 422 to allow monitoring data from longwall 420 and 421 to be collected, analysed and understood. In the event that a decision not to mine Longwall 422 is made in the future, a further reduction in coal reserves of 2,346,595 tonnes would be incurred.

Longwall 424

It is currently planned to mine Longwall 424 later in the southern mining area extraction sequence, and if required, will be dealt with in a later Extraction Plan application.

As a result of these changes, the closest proximity of longwall mining to Carne Central Swamp is approximately 1000 metres, and the distance along identified possible change causal pathways is significantly greater than that which has caused changes to standing water levels in the past. It is considered that these changes represent a very conservative mine design with the specific intention of preventing changes to standing water levels in Carne Central Swamp and Barrier Swamp, based on the latest data and interpretation.

Notwithstanding the above, Springvale Coal is not proposing to alter the approved mine plan in SSD 5594 or the life of the consent in the proposed modification.

Groundwater Inflows

The Springvale Mine and Angus Place Colliery's numerical hydrogeological model developed in 2013 by CSIRO for the Springvale Mine Extension Project EIS (CSIRO (2013)) was re-run after the SEE was submitted for the full approved mine plan and 5.5 Mtpa production rate at Springvale Mine (CSIRO (2016)). It is noted the mine inflow simulation (CSIRO (2015)) included in the SEE excluded four longwalls from Springvale's approved mine plan, however was for a production limit of 5.5 Mtpa.

This revised modelling in CSIRO (2016) identified that predicted mine inflows (maximum at 19 ML/day in 2022) remains consistent with those presented at part of the Springvale Mine Extension Project EIS, and approved in SSD 5594. Given the consistency in mine inflows between CSIRO (2016) and CSIRO (2013) simulations, the potential groundwater impacts to watercourses including shrub

swamps for the 5.5 Mtpa production rate is consistent with the 4.5 Mtpa rate and approved in SSD 5594.

Mine Water Discharges

An uncertainty analysis for mine water discharges to the Coxs River catchment and Lake Burragorang was undertaken using the previously developed regional water quality impact assessment modelling as part of the Response to Submissions. The uncertainty analysis was designed to assess the impacts of possible short-term (daily to weekly) fluctuations in mine water inflows underground (and hence fluctuations in mine water discharges to the catchment) on the receiving environment. The results of the uncertainty analyses for the increasing mine water discharges undertaken are conservative as they represent discharges in excess of the 30 ML/day volumetric limit that Springvale Mine is approved to discharge on its EPL 3607 at Licensed Discharge Point LDP009. Despite this, the results show an insignificant change to the water quality in Lake Burragorang compared to that predicted and approved under the Springvale Mine Extension Project.

Springvale Mine is currently approved to discharge up to 30 ML of mine water a day through its Licensed Discharge Point LDP009. Springvale Coal is not proposing to increase the daily maximum discharge limits through LDP009 as part of this modification.

Additionally, Springvale Coal in partnership with EnergyAustralia is progressing a project (Springvale Water Treatment Project (SSD 7592)) to have all mine water currently discharged through LDP009 treated through a Water Treatment Plant to be located at the Mount Piper Power Station (MPPS). Treated water will be utilised in the MPPS's cooling water system. Treated water surplus to MPPS's requirements will be transferred to the Thompsons Creek Reservoir for storage subsequent beneficial reuse in the MPPS cooling water system. The Springvale Water Treatment Project will be operational by 30 June 2019 and will meet Springvale Mine's final water criteria of 500 µS/cm (90th percentile) stipulated in Schedule 4 condition 12 of SSD 5594. The Springvale Water Treatment Project is designed to be a nil discharge development and will achieve better environmental outcomes than originally required by the Planning Assessment Commission through the conditions of consent for the Springvale Mine Extension Project.

If you have any questions on the above, or require any additional information, please contact me on my mobile 0407 207 530 or email james.wearne@centennialcoal.com.au.

Yours sincerely

James Wearne
Group Approvals Manager

Figure 1 – Adaptive Management Mine Design Changes