NSW GOVERNMENT | Department of Primary Industries

22 OCT 2013

OUT13/31341

Ms Sophie Butcher
Mining Projects
NSW Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Sophie.Butcher@planning.nsw.gov.au

Dear Ms Butcher,

Springvale Colliery Modification 4 (DA 11/92)
Proposed Modification (Mod.4)

I refer to your email dated 16 September 2013 requesting advice from the Department of Primary Industries (DPI) in respect to the above matter.

Comment by Fisheries NSW
Fisheries NSW advise no issues.

For further information please contact David Ward, Fisheries Conservation Manager (Tamworth office) on 6763 1255, or at: david.ward@industry.nsw.gov.au.

Comment by Agriculture NSW
Agriculture NSW advise no issues.

For further information please contact Mary Kovac, Resource Management Officer (Dubbo office) on 6881 1250, or at: Mary.Kovac@industry.nsw.gov.au.

Comment by NSW Office of Water
The NSW Office of Water advises the key issues related to water management listed below. Attachment A includes detailed advice on groundwater issues, a summary of licences and approvals required under the *Water Management Act 2000* and the *Water Act 1912*, and recommended conditions should the application be approved.

(i) The project falls within Level 1 of the minimal impact considerations of the NSW Aquifer Interference Policy
(ii) The proponent currently holds sufficient water access licences to implement the activities proposed.

(iii) The monitoring and reporting is commensurate with the risk posed, with the exception of:
   (a) establishment of triggers and contingency measures for managing impacts on surface and groundwater in accordance with Aquifer Interference Policy
   (b) proposed frequency of groundwater level monitoring is quarterly however data logger time series would provide a better indication of water level behaviour with respect to the project activities.

For further information please contact Hemantha Desilva, Senior Water Regulation Officer (Newcastle office) 4904 2525, or at: hemantha.desilva@water.nsw.gov.au

State Forest matters

It is noted the subject mine underlies State Forest, formerly managed by Forestry NSW within DPI. However Forestry NSW became Forestry Corporation NSW, a separate government agency, on 1 January 2013. Separate direct contact should be made with Forestry Corporation NSW regarding this application.

For further information please contact Melanie Dyne, Stewardship Forester (Bathurst office) on 6330 1025, or at: melanie.dyne@fcnsw.com.au.

Yours sincerely

Tony Heffernan
A/Executive Director Business Services

Attachment A

Springvale Colliery (DA 11/92)
Proposed Modification (Mod.4)
Additional comments by NSW Office of Water (NOW)

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1. Potential Impacts on Groundwater

Groundwater Modelling

Predictive analytical modelling has indicated that groundwater inflow to the DML and Cooks Dams will increase slightly from 81 m3/day (29.6 Ml/y) to 88 m3/day (32.1 Ml/y) when the site ceases operation in 25 years. The minor increase will most likely occur with the slight change in soil permeability expected when land on the Site is developed as the REA. It is also predicted that the same volume will be lost from the DML and Cooks Dams as a result of leakage and evaporation.

No groundwater inflow control strategies are required as a result of the Project as any increase in contribution to the DML and Cooks Dams will be used within the water management circuit.
The DML and Cooks Dams will receive treated water from other pollution control storages prior to reuse within the Washery. Predicted groundwater levels in the shallow aquifer and the Lithgow Seam indicate negligible impact from the Project.

Groundwater Monitoring

On-ground protection measures and management practices during the construction, operation and decommissioning stages of the Project will be based on the Current Recommended Practices (CRPs) and Standards (where applicable) endorsed by the SCA. The CRPs relevant to this Project protection measures and management practices during all Project stages would be based on the NSW State policies and national guidelines for Water management.

To complement the existing 3 monitoring bores, additional bores will be installed at 4 locations in shallower formations to assess potential surface water / groundwater interaction as well as establish up-gradient baseline conditions.

Existing bores BH1, BH2 and BH3 will be continued to be monitored. A baseline groundwater monitoring program will be undertaken as follows:

- Quarterly monitoring of water levels from the network of monitoring bores following the completion of construction; and
- Six monthly sampling of monitoring bores for field analysis of pH, EC and temperature and laboratory analysis on major ions, pH, EC, TDS, dissolved arsenic, cadmium, chromium, copper, iron, lead, manganese, nickel and zinc.

The water quality levels will be compared against values provided in the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC, 2000) as default criteria.

Licensing and Water Sharing Plans

The location of the Project falls within the bounds of the *Water Sharing Plan for the Greater Metropolitan Region Unregulated River Water Sources (2011)*. The Washery upgrade aims to make use of worked water, giving preference to seepage water which is intercepted in the DML and Cooks Dams and supplemented with worked water contained in pollution containment ponds below the new REA and the Washery. The seepage water is thought to originate from old mine workings, reject emplacements and shallow aquifers. Prioritising the use of this worked water will help reduce the amount of worked water discharged from the Springvale Coal Services Site.

The interception and extraction of groundwater from any of the aquifer systems will be subject to conditions and management in accordance with the *Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources (2011)*, with this development mainly covering the

Sydney Basin Cox's River Groundwater Source. As detailed in the Groundwater Assessment, there is no interception of aquifers as a result of current site operations and open cut voids are dry.

Licences held by the proponent include a total of 3885 shares of aquifer category access licences from the Sydney Basin Cox's River Groundwater Source of the *Water Sharing Plan for the Greater Metropolitan Region Groundwater Sources 2011*. The application states that "During and post operations, there is negligible change to groundwater that is reporting to down-gradient dams and therefore no additional licences will be required".

Aquifer impact assessment
The NSW Aquifer Interference Policy (AIP) establishes and objectively defines minimal impact considerations as they relate to water-dependent assets. The proposed development is for the installation ancillary features relating to coal processing and transportation. As such, it is not proposed to increase groundwater extraction as a result of the proposed activities.

Investigations undertaken suggest an additional 8ML / year will be added to the groundwater system (being the Cox's River Porous rock aquifer, part of the Sydney Basin) through increased recharge mechanisms. Yields are expected to be low and salinities are reported to be 800 – 2000uS/cm. This aquifer would therefore satisfy the criteria for being categorised as a "less productive" groundwater source which correlates with the NSW Office of Water map, "Groundwater Productivity in NSW", which is used for the purpose of the aquifer interference assessment.

The proposed development does not involve any further extraction from the groundwater system and will slightly increase recharge, therefore, it is expected that the proposed development would fall within Level 1 of the minimal impact considerations within the Sydney Basin Porous Rock Aquifer.

The installation of monitoring bores will also occur within the project area to complement existing bores. The purpose of these bores is to provide an early warning for water level and quality issues associated with the development. It is not expected that aquifer impacts will arise as a result of the proposal, however a water management plan for the development will be implemented.

In summary, the proposal meets level 1 of the minimal impact considerations outlined in the AIP, which is defined as acceptable.

2. Licence requirements

Water Act 1912

- Monitoring bores may require licensing under Part 5 of the *Water Act 1912* unless the bores meet the criteria for exempt monitoring bores as defined in the *Water Management (General) Regulation 2011*.
- Flood control works will require licensing under Part 8 of the *Water Act 1912*.

Application forms for licences and approvals are available on the Office of Water website at www.water.nsw.gov.au.

Water Management Act 2000 (WMA)

- Water Access Licences are required to take water from any water source managed under the WMA.
- Exemptions for access licences are provided in Clause 18 and the Schedule 5 of the *Water Management (General) Regulation 2011*.
- Section 54 of the WMA provides details on harvestable rights.
- Requirements for access licence dealings are provided in the following documents:

- Section 71 of WMA
- Access Licence Dealing Principles
  www.legislation.nsw.gov.au/maintop/view/inforce/subordleg+433+2004+cd+0+N
- Access licence dealing rules of water sharing plans.

Application forms for access licence and access licence dealings are available on the Office of Water website at: www.water.nsw.gov.au.

3. Recommended Conditions of Approval

1. The proponent must revise the groundwater management plan to include arrangements to give consideration to the Aquifer Interference Policy.

2. The proponent must include a validation of the groundwater model using the latest monitoring results as part of AEMR. The groundwater management plan should include trigger levels, contingency measures and reporting of incidents when adverse impacts are detected. This should be supplied to NOW for review against the requirements of the AIP.

3. The proponent must establish trigger levels for activating contingency measures for groundwater and surface water, in consultation with NOW.

4. The proponent must install data loggers within all monitoring bores.
   Note: The purpose of this condition is to provide better correlation of project activities with groundwater levels.

End Attachment A

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