Our ref: DOC20/987108
Your ref: MP06_0021-Mod 6

Andrew Rode
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Dear Mr Rode

Angus Place Coal Mine - MOD 6 - Water Transfer System (MP06_0021-Mod-6)

Thank you for your email dated 26 November 2020 to the Biodiversity, Conservation and Science Directorate (BCS) requesting advice on the Angus Place Coal Mine and Springvale Water Transfer System Modification 6.

BCS's biodiversity recommendations are provided in **Attachment A** and detailed comments are provided in **Attachment B**.

If you require any further information regarding this matter, please contact Liz Mazzer, Conservation Planning Officer, via liz.mazzer@environment.nsw.gov.au or (02) 6883 5325.

Yours sincerely

Samantha Wynn

Samantha Wynn
Senior Team Leader Planning North West
Biodiversity, Conservation and Science Directorate

10 December 2020

BCS Recommendations

Angus Place Coal Mine - MOD 6 - Water Transfer System (MP06_0021-Mod-6)

1.1 The proponent should advise whether there will be any additional clearing of native vegetation associated with the water softening plant. If so, a BDAR will be required for both the additional area to be cleared for the water softening plant and for the 0.0005 hectares of PCT 804 to be cleared for the water pipeline.

2.1 Further information be provided to justify the modification and quantify how the proposed water softening plant will change water quality.

2.2 The consent authority should use the Neutral or Beneficial Effect on Water Quality Assessment Guideline (NorBE) as a framework for assessing the proposal.

3.1 Information be provided quantifying the amount of salt that would be produced compared with the current operation.

3.2 Detail be provided regarding whether the salt remains in the ash emplacement, or whether it moves into groundwater.

BCS review

Angus Place Coal Mine - MOD 6 - Water Transfer System (MP06_0021-Mod-6)

1 A biodiversity development assessment report may be required

BCS notes that biodiversity information for the proposal has been presented as a Biodiversity Development Assessment Report (BDAR) waiver.

The *Biodiversity Conservation Act 2016* (BC Act) does not prescribe or identify a formal process for a proponent to 'waive' the requirement to prepare a BDAR for a modification application. The BDAR waiver provision is applicable to new development applications. A BDAR is required with a modification application, unless the determining authority is satisfied that that the modification will not increase the impact on biodiversity values.

Water pipeline

The proposal has almost completely avoided the need to clear native vegetation by utilising existing disturbance corridors. The BDAR waiver document identifies an area of 0.5 m^2 of PCT 804 *derived grasslands of the South Eastern Highlands Bioregion and South East Corner Bioregion – lower slopes and flats of upper Cox's and Tuglow River catchments*.

While there is an increase in impact on biodiversity values of 0.0005 hectares of PCT 804, the small size of the area would return a zero biodiversity credit requirement in the Biodiversity Assessment Method Calculator for this small area.

Water softening plant

The water softening plant is to be constructed within the existing footprint at the Angus Place pit top. Section 6.1.2 of the modification report states that the proposed water softening plant would result in 'minimal additional construction footprint'. Figure 4.2 of the modification report indicates that the footprint for the water softening plant may extend into surrounding forest, potentially requiring removal of trees.

Recommendation

1.1 The proponent should advise whether there will be any additional clearing of native vegetation associated with the water softening plant. If so, a BDAR will be required for both the additional area to be cleared for the water softening plant and for the 0.0005 hectares of PCT 804 to be cleared for the water pipeline.

2 The proposal requires further justification

The modification report states,

> *The reduced flow condition can potentially restrict the capacity to transfer water from the mine's underground storages, potentially leading to the flooding of the mine and sterilisation of coal reserves. There have been regular instances where the Springvale water treatment facility has been requested to operate with a reduced flow condition*

There is no indication of who has requested operation with a reduced flow condition. Additionally, the report does not provide data to substantiate the stated need, or provide detail on flow volumes and waste water quality generated either currently or as a result of the proposed changes.

The report does not provide any details on the final water quality that would be achieved if the modification is approved. There is potential (through the water softening process) that the pH of the treated water could be raised and the equilibrium of carbonate species in the water changed. This can cause issues with bicarbonate toxicity to aquatic biota.

The modification report states that the Neutral or Beneficial Effect on Water Quality Assessment Guideline (NorBE) test does not apply to a modification in the same way as it does to the granting of consent. However, BCS considers that NorBE provides an appropriate framework to assist with

assessment of the modification. Adequate information needs to be contained within the modification report to enable a NorBE assessment to guide the determination.

Recommendations

2.1 Further information be provided to justify the modification and quantify how the proposed water softening plant will change water quality.

2.2 The consent authority should use the Neutral or Beneficial Effect on Water Quality Assessment Guideline (NorBE) as a framework for assessing the proposal.

3 further information is required regarding brine disposal

The modification proposes to use the brine produced from treating the mine water to condition ash prior to emplacement in the existing approved ash repositories in accordance with existing brine disposal practices.

No details are provided on how much salt the modification will produce and how this compares to the current operation.

Additionally, no information is provided regarding whether the salt remains in-situ (in the ash emplacement) or whether it moves into the groundwater.

Recommendations

3.1 Information be provided quantifying the amount of salt that would be produced compared with the current operation.

3.2 Detail be provided regarding whether the salt remains in the ash emplacement, or whether it moves into groundwater.