



Our ref: DOC21/865468-4

Your ref: MP 06\_0261 MOD 7

Ms Tegan Cole

Senior Environmental Assessment Officer  
Energy Resource Assessment  
Planning and Assessment Group  
Department of Planning, Industry and Environment  
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Dear Ms Cole

**Hunter Valley Operations South - Lemington Underground Mine Water Storage Project (MP 06\_0162 MOD 7)**

I refer to your e-mail dated 1 October 2021 in which the Planning and Assessment Division (P&A) of the Department of Planning, Industry and Environment (the Department) invited Biodiversity and Conservation Division (BCD) for advice in relation to the Hunter Valley Operations South Modification Project (MP 06\_0162 MOD 7).

BCD have reviewed the Modification Report, including relevant appendices, in relation to impacts on biodiversity and flood risk assessment.

BCD's 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 Robert Gibson, Regional Biodiversity Conservation Officer, on 4927 3154 or via email at [huntercentralcoast@environment.nsw.gov.au](mailto:huntercentralcoast@environment.nsw.gov.au)

Yours sincerely

**STEVEN CRICK**  
Senior Team Leader Planning  
Hunter Central Coast Branch  
**Biodiversity and Conservation Division**

**Date: 18 October 2021**

Enclosure: Attachments A and B

## BCD's recommendations

### Hunter Valley Operations South Modification Project

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1. BCD recommends that any impacts to biodiversity caused by the project are assessed by the Biodiversity Assessment Method and are offset in accordance with the Biodiversity Offsets Scheme, if the Biodiversity Offsets Scheme is triggered.
2. BCD recommends that the proponent assess the subsidence risks associated with using the bord and pillar mining voids to store water.

## BCD's detailed comments

### Hunter Valley Operations South Modification Project

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#### Biodiversity

1. BCD recommends that any impacts to biodiversity as assessed by the BAM and offset in accordance with the BOS

Section 6.3.1 'Biodiversity' of the MTW / HVO Lemington Underground Mine Water Storage Report (Main text) by Hunter Valley Operations describes the proposed water management infrastructure for the project as being located on previously disturbed land and that no clearing of native vegetation would be required. BDC therefore recommends a precautionary condition that if the project causes any impact to biodiversity that it is assessed in accordance with the Biodiversity Assessment Method to determine if it triggers the application of the Biodiversity Offsets Scheme; and if it does that any impacts are appropriately offset.

#### Recommendation 1

BCD recommends that any impacts to biodiversity caused by the project are assessed by the Biodiversity Assessment Method and are offset in accordance with the Biodiversity Offsets Scheme, if the Biodiversity Offsets Scheme is triggered.

#### Flooding and flood risk

2. The proponent has not considered the impacts of repeated wetting and drying cycles on the stability of the bord and pillar mine workings

Surface disturbance from the subsidence of the old Lemington Underground Mine has the potential to expose the Hunter River, Redbank Creek and Wollombi Brook to an increased frequency of flooding or to flood risks that may not have existed previously.

It is proposed to temporarily store surplus surface water in the existing Lemington Underground bord and pillar mining void. As this water is reused in mining operations, the coal pillars will be subject to repeated wetting and drying cycles. Degradation effects due to the cycles of wetting and drying may cause flaking and the long-term reduction in the supporting areas of the pillars. Failure of the coal pillars may result in damaging subsidence of the ground surface.

The Lemington Underground Mine extends beneath the Hunter River, Redbank Creek and Wollombi Brook. Surface disturbance of the workings can impact these river courses, including changing the longitudinal stream profile gradient and streambed cracking.

#### Recommendation 2

BCD recommends that the proponent assess the subsidence risks associated with using the bord and pillar mining voids to store water.