



Review of Environmental Assessment

**Chain Valley Colliery Modification  
To Mining Extension 1**

Submission

Construction, Forestry, Mining & Energy Union  
(Mining and Energy Division)  
Northern Mining & NSW Energy District

June 2014

On 24 April 2014, LakeCoal Pty Ltd applied to the Minister, Department of Planning seeking approval to modify SSD-5465. This Project is sought under Section 96 of the EP&A Act, 1979.

A separate application to modify Mannering Colliery's project approval, MP06-0311, has been lodged under Section 75W of the EP&A Act to enable the construction of the underground linkage within Mannering Colliery leases and should be assessed concurrently with this application.

The Director General made the Environmental Assessment publicly available on the 22 May 2014 and the opportunity for public submissions is available.

The Union is pleased to take the opportunity to comment on the Chain Valley Colliery Modification Project and related activities Environmental Assessment.

The Mining and Energy Division is a Division of the CFMEU under the Federal Workplace Relations Act 1996, with over 120,000 members, one of the largest in Australia. The Division covers several industries including the coal industry, coal ports, metalliferous mining industries, electrical power generation, oil and gas and the Nation's small coking industry.

The Northern Mining & NSW Energy District of the CFMEU Mining and Energy Division, being the branch that on behalf of the organisation which is making the submission, is the principal Union representing coal miners in the Northern District Coalfields of New South Wales. The Chain Valley Colliery located at the southern end of Lake Macquarie, approximately 60 kms south of Newcastle is wholly within the State's Northern District Coalfields.

The Union is familiar with these facilities and has engaged the services of an Environmental Consultant with extensive experience in local government and environmental assessments on coal mining related projects.

After reviewing all the material and taking advice, the Union supports these application to enable the replacement of routine road transportation as proposed.

#### **Project Overview**

- the development and use of up to four first working headings within the Fassifern Seam to connect the Mannering Colliery (MC) and Chain Valley Colliery (CVC);
- the installation and use of an underground conveyor belt system and ancillary services, enabling ROM coal to be transferred between CVC's and the MC's conveyors; and
- the use of existing MC infrastructure to transport coal from the CVC underground workings to the VPPS at a rate not greater than 1.1 mtpa (as currently approved under MP06\_0311)

The construction of the underground linkage will necessitate a minor adjustment to the development consent and project approval boundaries for CVC and MC as identified in SSD-5465 and MP06\_0311, respectively. All other components of the CVC, as approved under SSD-5465, will remain unchanged.

#### **Stakeholder engagement**

During development of the proposed modification, consultation was undertaken by LakeCoal in accordance with its Environment and Community Policy. LakeCoal consulted with relevant State and local government agencies, special interest groups, local landholders and members of the

local community.

Relevant government agencies and special interest groups were sent a letter briefing them on the proposed modification and inviting them to meet with LakeCoal to discuss the project further. Feedback was incorporated into the project design and environmental impact assessment.

Consultation with local landholders and members of the local community is ongoing and has, to date, included the presentation of information specific to the project on CVC's and MC's websites and presentations made to CVC's and MC's community consultative committees. The community will be notified of the project through an advertisement placed in a local newspaper following lodgement and through the public exhibition process where community members will be invited to comment on the proposed modification.

### **Subsidence**

A subsidence assessment of the proposed modification was prepared by Ditton Geotechnical Services (DGS). The proposed workings underlie several significant features including the Lake Macquarie foreshore and high voltage transmission towers. The proposed headings will also pass beneath mapped seagrass beds, the Seagrass Protection Barrier, and High Water Mark Subsidence Barrier, and an area of dry sclerophyll woodland and lake foreshore vegetation. A small portion of the proposed workings are located within the Notification Area for the Mannering Creek Ash Dam, a prescribed dam under the *Dams Safety Act 1978*. Consultation with the Dams Safety Committee, Delta Electricity and TransGrid occurred during assessment preparation. The outcomes of consultation are reflected in the DGS assessment. The proposed first workings have been designed to limit additional subsidence to less than 20 mm. However, due to prior mining in the area completed in the 1970s, including above the proposed workings, a consideration in the subsidence assessment was the interaction of existing and proposed workings to determine potential cumulative impacts. Historical vertical subsidence within these areas is predicted to have ranged between 20 mm and 33 mm and 88 mm to 106 mm above the first and second workings panels, respectively.

The outcomes of the modelling undertaken by DGS indicate that vertical subsidence from the proposed underground linkage will range from 5 mm to 20 mm where first and second workings in the Great Northern Seam occur, respectively. When added to the predicted historic subsidence levels described above, total (cumulative) subsidence is predicted to range from 25 mm to 38 mm above areas of first workings and 113 mm to 126 mm above areas of second workings. Vertical subsidence in the vicinity of the SPB will increase by up to 5 mm, resulting in cumulative vertical subsidence with the areas of historic workings of up to 31 mm.

It is considered unlikely that the proposed first workings will impact upon surface features. Minor cracking may develop in the Vales Point Power Station hardstand areas and concrete slabs which would be readily repairable. A number of measures to confirm assessment results and manage potential subsidence impacts were recommended by DGS and these will be implemented as part of the proposed modification.

### **Groundwater**

Groundwater modelling of CVC's approved operations was previously undertaken by Geoterra (2013). The median annual groundwater inflow to the Fassifern workings is predicted to

ultimately increase to 3,832 mega litres (ML) once mini wall mining in Area 1 is approaching its fullest lateral extent. CVC's licence under the Water Act 1912 allows for extraction of 4,443 ML/year for the purposes of mine dewatering and industrial use.

The underground linkage between the two collieries through a series of roadways necessitates a limited amount of additional first workings within the Fassifern Seam. Considering the low permeability of the strata, the minimal additional predicted subsidence (5 to 20 mm), the relatively small additional area to be mined and the narrow width (5.4 m) of the roadways, it is concluded that any additional groundwater inflow as a result of this proposed modification will be negligible and within the uncertainty margin of current estimates for the approved operations. The negligible groundwater inflow associated with the underground linkage is to be managed under CVC's existing Water Act 1912 licence.

Negligible impacts on local groundwater users and groundwater dependent ecosystems are anticipated from the approved CVC operations due to the very limited lateral drawdown impacts. Construction of the underground linkage is similarly anticipated to have negligible impact.

Groundwater impacts associated with the CVC are managed under LakeCoal's Water Management Plan, which includes a commitment that all groundwater extracted will be metered and accounted for within its licensed entitlement and requires annual reporting of groundwater inflow volumes against model predictions and licensed volumetric limits. No additional management or monitoring measures are warranted as a result of the proposed modification.

### **Other environmental aspects**

An assessment of other environmental, social and economic aspects was completed commensurate with the outcomes of a risk assessment undertaken for the proposed modification and the negligible levels of projected impacts on each of these aspects.

The proposed modification does not involve any intensification of activities or above ground surface disturbance and, therefore, impacts to land based aspects including terrestrial biodiversity, Aboriginal and historic heritage, visibility, waste, hazards, rehabilitation, geology and soils are unlikely.

The assessment of surface water impacts found that inflows to the underground linkage will be managed under CVC's water management system. Mine water inflows are currently pumped to the CVC pit top area and discharged at a licensed discharge point on Swindles Creek, a tributary of Lake Macquarie. The negligible inflow associated with the underground linkage is not projected to materially change the volumes of water discharged and be within the bounds of historic variations.

The assessment of aquatic biodiversity considered the potential impacts resulting from subsidence. Vertical subsidence of 5 mm above the underground linkage in the vicinity of the SPB is predicted as a result of the proposed modification. This is within natural variations in ground level and is highly unlikely to adversely impact seagrasses. Further, surveys of this area have recorded no seagrasses are present. Benthic communities and threatened turtle species, which have the potential to occur in the area, are also unlikely to be impacted by the predicted

levels of subsidence.

Approval of the proposed modification will enhance the economic viability of the CVC. The proposed modification will also result in a reduction in transport related noise, dust and greenhouse gas emissions, through the reduction of coal haulage by trucks to VPPS, which will generally result in approved amenity.

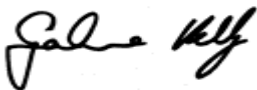
#### **Justification and conclusion**

LakeCoal is seeking approval to develop an underground linkage between the CVC and MC, which LakeCoal has an agreement to operate until 2022, and use existing MC infrastructure to transport coal from the underground workings to the VPPS. All other components of the CVC, as approved under SSD-5465, will remain unchanged.

The modification is a minor alteration to the approved CVC operations which will result in improved amenity outcomes (noise, dust and greenhouse gas emissions) in the local area due to changes in CVC operations and operational cost savings that can be achieved with little to no adverse environmental impact and is aligned with the principles of ecologically sustainable development.

#### **In Summation**

The Union considers that this Modification consistent with currently approved Development Consent objectives of the EP&A Act, and therefore supports the proponent's applications.

A handwritten signature in black ink, appearing to read 'Grahame Kelly'.

**Grahame Kelly**  
**DISTRICT SECRETARY**