



Jessie Giblett
Mining Projects
NSW Planning & Environment
GPO Box 39
Sydney NSW 2001
E-mail: jessie.giblett@planning.nsw.gov.au

Date: 14 May 2014
Your reference: MP 10_0046 Mod 2
Our reference: EF14/3853
Contact: Calvin Houlison
(02) 4224 4179

RE: RUSSELL VALE COLLIERY MP10_0046 MOD 2 – LONGWALL 6

Dear Jessie

Thank you for the opportunity to provide comment on the proposed modification to the approval for the abovementioned project. OEHL has previously provided comments on this project when formerly Gujarat NRE and understands that the proponent is currently in the process of responding to submissions. Development of the main gate for Longwall 6 (LW6) was part of a larger Preliminary Works Approval for Russell Vale Colliery (MP10_0046).

The proposed modification to the Preliminary Works Approval comprises extraction of coal from a small section of LW6. Extraction of sections of LW4 and LW5 has been approved previously through the same process (MP 10_0046 Mod 1). The proposed modification would allow for extraction of coal from the first 400 metres of LW6 and continued operation of the site until 30 June 2015.

OEHL has a number of concerns with the proposal, which are summarised below:

1. This is the third longwall for which the proponent has sought mining as a variation to the Preliminary Works Approval. OEHL considers this modification to be a continuation of the piecemeal approach to planning and approvals which fails to consider the cumulative impacts of this activity.
2. OEHL believes that proposed extraction of LW6 will not meet a performance measure of negligible environmental consequence for the upland swamps CCUS4 and CRUS1 on the Woronora Plateau, as significant impacts to both swamps are likely. If amendments to the mining layout to avoid or minimise impact are not considered feasible, a biodiversity offset strategy should be prepared.
3. Potential for surface to seam fracturing and aquifer drainage has not been adequately assessed. OEHL previously recommended that this is required for the PPR, yet there is no discussion of how the mine will interact with CCUS4 and CRUS1 and other aquifers. Until this has been completed, OEHL does not recommend that the modification for LW6 be approved.
4. OEHL has previously recommended that a survey for the threatened Giant Dragonfly (*Petalura gigantea*) be undertaken and, as this has not to date occurred, the recommendation is reiterated.
5. OEHL suggests that Wollongong City Council be consulted to ensure consistency with Council's current and forthcoming floodplain risk management studies. The proposed modification should incorporate measures to reduce potential adverse flood impacts and downstream flood risk.

6. OEH has reviewed the proposal and concurs with the management and mitigation strategy for Aboriginal cultural heritage included within the Environmental Assessment.

Detailed comments in relation to each of these matters are provided at Attachment 1. Please do not hesitate to contact Calvin Houlison, Conservation Planning Officer on 4224 4179 or email calvin.houlison@environment.nsw.gov.au should you require any further information.

Yours sincerely



CHRIS PAGE
A/ Regional Manager (Illawarra)
South Branch

ATTACHMENT 1 –
DETAILED COMMENTS ON MP 10_0046 MOD 2 – RUSSELL VALE COLLIERY

1. Repeated Modifications of the Preliminary Works Approval

OEH has concerns about due process, given this is the third variation sought to a Preliminary Works Approval that did not identify any such extraction in the first place. The Planning Assessment Commission stated in its determination for Longwall 5 that this approach “*could lead to a lack of public confidence in the NSW Assessment and Regulatory systems and must be considered undesirable*”. This modification is a continuation of the piecemeal approach to planning and approval of this mine, which fails to consider the cumulative impacts of this activity. It is recommended that this variation be refused and the work sought be assessed as part of the Preferred Project Report for the Underground Expansion Project.

2. Impacts to Coastal Upland Swamps Endangered Ecological Community

The modification proposal to permit mining of the first 400m of Longwall 6 will directly undermine swamps CCUS4 and CRUS1, which the company has identified as being of special significance in line with the methodology contained in OEH's draft *Upland Swamp Environmental Assessment Guidelines*. The risk assessment for Wonga East shows that swamps CCUS4 and CRUS1 will undergo maximum tensile and compressive strains and tilts of between 5 and 18 times the thresholds above which swamps may be at risk of negative environmental outcomes identified (Bulli Seam PAC 2010).

Extraction of Longwall 6 will not meet a performance measure of negligible environmental consequence for these two swamps – significant impacts to both upland swamps are likely. If amendments to the mining layout to avoid or minimise impact are not considered feasible, a biodiversity offset strategy should be prepared.

3. Potential loss of surface catchment water to deeper storage

Potential for surface to seam fracturing and aquifer drainage has not been adequately assessed. OEH previously recommended that this is required for the PPR, yet there is no discussion of how the mine will interact with CCUS4 and CRUS1 and other aquifers. Until this has been completed, OEH does not recommend that the modification for Longwall 6 be approved.

There appears to be a common, widespread perception in the coal mining industry in the Southern Coalfields that a surface to seam connection will not or cannot occur. There is mounting scientific evidence to suggest that surface and rain water is being lost from upland swamps and streams as a result of mining, and is potentially making its way into Southern Coalfield mines or lower aquifers. The independent review commissioned by Department of Planning and Infrastructure into this proposal (Coffey 2013) is the latest report to highlight the risk of a surface to seam connection. Other evidence includes:

- Ziegler and Middleton's (2011) analysis of algae in mine and tritium levels in mine inflow water
- Heritage Computing's (2012) study of the correlation between rainfall and lagged inflows
- Coffey Geotechnics' (2012) study of the potential complete drainage of aquifers above the longwalls.

All of these reports suggest a loss of surface water to the mine network. BHP Billiton Illawarra Coal have recently suggested that approximately 3.2% of total precipitation has moved into 'deep storage'. This can move into the mine if 'deep storage' equates to or is connected to the highly fractured goaf areas. OEH is concerned that the general lack of investigation into the phenomenon in NSW may have led to insufficient consideration of the potential risks in recent mining proposals.

4. Impacts to the threatened Giant Dragonfly

OEH has twice previously recommended that survey for the threatened Giant Dragonfly (*Petalura gigantea*) be undertaken. This has still not occurred. Despite the revised mine plan, CRUS1 is still predicted to experience levels of subsidence which will have the potential to result in bedrock fracturing and loss of shallow groundwater. OEH believes that the species may occur in other swamps and targeted surveys are appropriate to understand the spatial distribution of the species in the area, so that impacts can be identified and avoided.

5. Flooding and Water Quality

In reviewing the current proposal it is unclear as to whether adequate consideration has been given to the potential adverse impacts associated with flooding. As identified in the Combined Catchments of Whartons, Collins and Farrahars Creeks, Bellambi Gully and Bellambi Lake Flood Studies (2011) significant downstream flood risk exists with the site potentially increasing risk to life and property as evident in the August 1998 flood event. NSW Planning and Environment as approval authority should therefore ensure that it appropriately satisfies itself that the proposal will not cause adverse flood impacts to existing development over the full range of flood events.

It should also be noted given the location of the site, opportunity exists for the proponent to consider options which can reduce downstream flood risk. As identified in the Combined Catchments of Whartons, Collins and Farrahars Creeks, Bellambi Gully and Bellambi Lake Flood Risk Management Study and Plan (due for completion June 2014) the conversion of the existing settling pond on site into a dual purpose water quality pond/flood retarding basin and an additional basin has the potential to improve water quality and prevent floodwater from discharging through 22 residential properties in a 100 year ARI event, prevent above-floor inundation from being experienced in 11 residential and 4 commercial properties during a 100 year ARI flood event.

Given the above, OEH suggests that the NSW Planning and Environment consults with Wollongong City Council specifically with regard to consistency with Council's flood study, floodplain risk management study and plan (currently being finalised) and potential options to incorporate measures as part of this proposal to reduce potential adverse flood impacts and downstream flood risk.

6. Aboriginal Cultural Heritage

OEH has reviewed the proposal and concurs with the management and mitigation strategy included in section 4.4.4 of the Environmental Assessment prepared by Aecom:

- Sites 52-3-0320 and 52-3-0325 should be monitored during extraction of the first 400 metres of LW6, to ensure that predicted negligible impacts at these sites are achieved in practise and to inform an adaptive management approach should early signs of impacts be detected.
- If any identified Aboriginal cultural heritage sites show adverse impacts during the monitoring period, additional management and mitigation measures should be determined by a qualified archaeologist.

Additionally, consultation with the Aboriginal community should be continued throughout this process.