

31 January 2020

Glendell Continued Operations submission

Lock the Gate Alliance objects to this proposal. The proposed extension of the current open cut mining operations at Glendell pit would extract an additional approximately 135 million tonnes (Mt) of run-of-mine coal and continue mining operations at the site to 2044, more than doubling the rate of production at the Glendell operation, from 4.5mtpa to 10mtpa, and worsening cumulative environmental harm to air quality, water resources and the global climate. Under the current consent, mining in Glendell pit would wrap up in 2024. Glencore should be putting in place transition and support arrangements for its workforce over the next five years to allow for orderly closure and rehabilitation of the Glendell pit.

Water

The groundwater assessment shows that dramatic drawdown of the coal seam under the Bowman's Creek alluvium propagates upward into the alluvium and causes drawdown. The model predicts this to be less than 1m but also says "The zone of drawdown is relatively limited because the average rainfall recharge rate calibrated for the alluvium exceeds the losses induced by mining and therefore buffers the drawdown generated by the model." We suspect this means that in low rainfall years, as in the current situation, the effects of this drawdown are no longer offset by rainfall and have a greater impact.

The groundwater assessment also states that, "The model predictions indicate that the maximum drawdown of less than 1 m is relatively limited when compared with the climatic fluctuations that have recorded water level changes between 1 m and 4 m within the Bowmans Creek alluvium." The groundwater assessment in shows that *cumulative* draw down of exceeds 2m in the alluvium during the proposed mining operations (Figure 7-6), which is equivalent to 50% of the observed fluctuations. As the EIS shows, this is a continuation of drawdown caused by mining in the area over the last ten years. The depressurisation of the aquifers is expected to result in a peak take of 10ML per year from the Bowman's Creek alluvium.

The EIS does not correctly apply the Aquifer Interference Policy. It presents drawdown only at "private bores." The policy requires the minimal impact considerations to be applied "at any water supply work" regardless of who owns the land on which that water supply work is situated. The Independent Planning Commission, which is likely to be the consent authority for this project, has clarified and established this in its Bylong Coal Project Statement of Reasons (see paragraphs 242-244). Revision of the groundwater impact assessment is necessary to apply the minimal impact considerations to mine-owned land as well as land owned by non-mining entities.

The operation proposes to significantly increase its capture of rainfall and catchment run off compared to the approved conditions. In Year 6, the mine water balance shows the capture of 3,329ML of run-off in addition to direct extraction from Glennies Creek section of the Hunter Regulated River of 412ML. Together, this is the equivalent of a third of the total entitlements in the Jerrys Water Source. This is a large take of surface water compared to the net harvestable right

calculated for the project of 434ML (Surface Water page 90). The Surface Water Assessment's treatment of this issue is confusing and needs further elucidation. It is stated that "the interception of the remnant downstream reach of Yorks Creek (downstream of the Yorks Creek Realignment) will result in a temporary and diminishing take from the Jerrys Water Source." This volume is estimated to peak at 172ML in Year 10, calculated by applying the implied run-off rates in the harvestable rights calculator to the affected area of the catchment. It appears from the Surface Water assessment that the proponent does not hold licences to account for this removal of surface water in the Jerrys Water Source, not to mention the much larger figure to be harvested from rainfall and run-off. The EIS states instead that, "The Jerrys Water Source allocation is likely to be readily sourced given the volume of entitlement available and the nature of land use in this water source." We note that the Natural Resources Access Regulator is currently considering what legal action to take against Whitehaven Coal for its unlawful unlicensed take of large volumes of surface water over three years at the Maules Creek coal mine. The proponent needs to provide an intelligible outline of how it will obtain licences to account for the surface water it intends to capture and use at this mine site.

We also note that the Hunter Subregion Bioregional Assessment predicted that loss of baseflow as a result of interception by mining could result in a reduction in water availability in the Jerrys Water Source of up to 3.6GL a year between now and 2042 and an increase in cease-to-pump days. The assessment was not specific about streams suffering this drawdown in the Jerrys Water Source, which has many streams that are highly impacted by mining, but this is contextual work that the surface water assessment needs to consider.

Air pollution

This project is going to worsen already-unacceptably poor air quality in the central part of the Hunter Valley. Instead of measuring the mine's air pollution impact on present air quality, the environmental assessment chose 2014 for its base year, stating that "Conditions in 2014 were representative of the longer-term air quality and meteorological conditions." No evidence is presented for this, but the assessment mentions bushfires and drought as contributors to poor air quality in 2013 and 2017-19 without acknowledging how much the extent of open cut mining in the district has changed in the same period. The bushfires and droughts that have added to the air pollution burden in the Hunter are not aberrations that can fairly be ignored. Rather, they are environmental conditions that the community has to live with and are in fact fuelled by the climate change that this mine will further exacerbate. Bushfire and drought are part of the environmental context for the project and the purpose of the air quality assessment is to predict the environmental impacts of the project in its context. These predictions will not be accurate if they ignore the environmental conditions affecting the region.

As a result of this choice, the model assumptions in Table 11 of the air quality assessment include background levels of PM₁₀ that are less than half of what was actually experienced in the area last year. This is unacceptable and needs amendment so that the assessment actually reflects what people in the district will experience. We refer the proponent to the Approved Methods for assessment of air quality impacts, which specifies that "the existing background concentrations of the pollutants in the vicinity of the proposal" must be used in the assessment. There is no basis for the proponent to select five-year-old background concentrations except to underestimate the number of exceedances of air pollution thresholds that this project will cause. The Approved Methods notes that "In some locations, existing ambient air pollutant concentrations may exceed the impact assessment criteria from time to time. In such circumstances, a licensee must demonstrate that no additional exceedances of the impact assessment criteria will occur as a result

of the proposed activity...” We urge the EPA and the Department to ensure the proponent revises the air quality assessment so that its baseline reflects the current environment of the district in which the project is proposed. If the project will contribute to worsening air quality, then that is grounds for it to be refused consent.

Aboriginal heritage

We are concerned about the conflicting information about the massacre site at Ravensworth estate and are not satisfied that the proponent has addressed this issue adequately. Evidence of a massacre at Ravensworth has been furnished and it is not appropriate for the proponent to dismiss this issue. We urge the Department to independently investigate and to accept the evidence being presented by Wonnarua people about the history of the site.

Greenhouse gases and climate change

This project will contribute 230.8 million tonnes of greenhouse gases over its twenty years of operation. This is in addition to the roughly 220 million tonnes of greenhouse pollution from the rest of the Mount Owen complex.

The proponent’s Greenhouse Assessment presents the contribution of the project to global greenhouse emissions only in terms of its Scope 1 emissions, stating that “The Scope 2 and 3 emissions associated with the Project should not be considered, as global projections only represent Scope 1 emissions (i.e. the sum of all individual emission sources) as Scope 2 and 3 emissions of the Project are the Scope 1 emission of other parties.” Given that the Scope 2 and 3 emissions of the Project will be part of the global emissions inventory this comment makes no sense. Further, it directly contradicts NSW statute which clearly requires the assessment of the impact of downstream greenhouse gas emissions as part of a comprehensive understanding of the project’s environmental impact.

Nevertheless, the assessment admits that the project is consistent with the IPCC’s “high emissions A2 emission trajectory scenario.” This is a shocking admission and all the more shocking that it did not prompt the company to withdraw the proposal. The A2 scenario is projected to result in warming by approximately 3.4C by 2100. As the greenhouse assessment outlines, this scenario is associated with increased maximum temperatures, hot days and severe fire danger days. A resource project consistent with this scenario is clearly inconsistent with NSW’s commitment to the Paris Agreement and its goal of keeping global warming well below 2 degrees. The proponent claims that this mine will fill “existing demand” but if existing coal fired power stations run to the end of their commercial lives, the Paris Agreement temperature goals will not be met and far worse climate change will be visited upon the people of NSW.

The UNEP *Production Gap* demonstrates that coal producing nations are together on track to produce 150% more coal in 2030 than would be consistent with limiting warming to 2°C, and 280% more than would be consistent with limiting warming to 1.5°C. This project is part of that overshoot. With devastating bushfires wreaking havoc and taking lives across regional New South Wales, it is time for the Department of Planning Industry and Environment to connect its decisions and assessments of coal mining projects with the consequences of global warming and climate change. This state cannot afford to participate in pushing the world beyond 2°C and has a clear interest in working cooperatively to prevent warming over 1.5°C.

We urge the Department to refuse this project and work with the proponent and the people of the Hunter Valley on a plan for the future of the region beyond coal.