



Protecting our Children's Legacy

Objection to the Chain Valley Colliery Consolidation Project

The Lake Macquarie community environmental group, Keep Lake Macquarie Clean (KLMC) opposes the current proposal for Delta Coal to extend its mine under Lake Macquarie as stated in its Environmental Impact Statement (EIS), released 18 Nov 2022.

KLMC is *NOT* anti-coal. Rather, KMLC supports the need for a workable, yet enthusiastic transition from fossil fuels to renewables.

KLMC assesses this EIS as more notable for what it doesn't say than for what it does say. KLMC believes it lacks the sense of enquiry and urgency expected in a world struggling against the inertia to efficiently replace fossil fuels with less destructive alternatives.

General

The EIS is flawed in that it does not comply with the *Planning Secretary's Environmental Assessment Requirements* (SEAR).

More generally, we note that the NSW Planning Portal describes the purpose of an EIS as follows:

The EIS provides information on the economic, environmental, and social impacts of the project. It helps the community; government agencies and the approval authority make informed submissions or decisions on the project.

The EIS must be easy to understand, rigorous and as succinct as possible.¹

The EIS states in its executive summary “This assessment has indicated that while the Project, like most large-scale development, will have impacts, these impacts will be largely the same as those of the existing approved operations and do not involve a significant increase in impacts. The assessment therefore concludes that the Project is consistent with the principles of ecologically sustainable development.” To base this conclusion on the previous sentence is absurd, to say the least.

Unfortunately, the EIS fails to provide any details of what the impacts are. This is completely unacceptable. What would be acceptable is a comparison of the current state of the environment affected by the mines with the state of that environment prior to commencement of mining using monitoring data collected to meet licence conditions and pre-development baseline studies. For this reason alone, the EIS contains insufficient information to enable the public and the approval authority to make informed submissions or decisions on the project.

The uncertainty resulting from the above-mentioned deficiencies characterises the many pages of the Chain Valley Colliery Consolidation Project EIS. That EIS cannot disguise the many unknowns that present disastrous risks to the mine's immediate and further environs. There are so many powerful arguments against the project that outweigh the inadequate and flawed data supporting it. We fear that extending the life of these mines would continue to cause significant damage to Swindles Creek and Lake Macquarie and continue to damage to the health of residents of nearby suburbs of Central

¹ *Prepare EIS Assessing the impacts of a project with community engagement.* [NSW Planning Portal](#) (viewed 16 December 2022)

Coast and Lake Macquarie city. To allow this proposal to proceed would be nothing short of environmental vandalism.

Lake Macquarie is still smarting from years of environmental abuse. Heavy metals limit the fish and seafood that can be safely consumed, doctors confirm power station air pollution to be a health hazard and large expanses of toxic ash dams close to the shores pose a constant threat of contamination.

Delta Coal might argue that most of the environmental concerns apply to Vales Point Power Station, not the mine. KLMC'S response is that the mine and the power station are under common ownership and are intrinsically linked. The EIS fails to address the cumulative impacts of the mine and the power station.

KLMC is concerned how little residents know about the future of both the mine and the power station.

[Subsidence](#)

The discussion in the EIS of the potential impacts of subsidence is inadequate:

- It relies entirely on past predictions of subsidence and existing performance measures and monitoring and does not include a new subsidence assessment for the Project;
- A review of the graphical representations of subsidence indicates that subsidence is generally increasing over time for the shoreline monitoring locations;
- It appears that sea floor surveys over Zone B mining areas will be discontinued 3 years after mining in the underlying area is complete. However, no justification provided and this may not be appropriate given that the highest levels of subsidence as measured by the surveys that occurred in 2020 took place over areas mined in 2017;
- The EIS fails to give adequate consideration to the considerable uncertainty associated with predicting subsidence associated with underground coal mining.

[Air quality](#)

The impact on the community must not be underestimated after enduring yearly toxic air belched out into the skies above Lake Macquarie and blown into the homes of its 210,000 residents.

The proposed sale by Delta Energy of Vales Point power stations to the Czechoslovakian company, Sev-en Energy, a company that operates some of the dirtiest coal fired power stations in the world, is beyond belief. Vales Point power station is already old, dirty and poorly maintained. Every year the company faces fines of up to two million dollars for pumping toxic Nitrogen oxides and particulates into the air above Lake Macquarie impacting the health and social impact of its 210,000 residents.

[Impacts on surface water quality](#)

The water quality assessment has analysed the impacts on Swindles Creek which discharges directly into Lake Macquarie. It does not assess the impacts of discharge from either Chain Valley Coal or Mannering Coal on the aquatic ecosystems which are so critical to the health of the lake.

Existing licences allow for a total of 16.6ML/day into the lake with varying quantities of contaminants identified in the EIS. The EIS adopts a set of Default Guideline Values (DGV) for Swindles Ck based on Freshwater and Marine DGVs. As Swindles Ck discharges into Lake Macquarie it is paramount that the EIS considers the impact of this development on the lake, by adopting more appropriate guideline values. The EIS (Table 7.3, Appendix 10) acknowledges that there are high

counts of electrical conductivity, high NOx, and high concentrations of several metals. However, there has been no analysis of the impact of these analytes on the lake itself.

ANZECC 2000 water quality guidelines² state “Aquatic ecosystems comprise the animals, plants and micro-organisms that live in water, and the physical and chemical environment and climatic regime with which they interact. It is predominantly the physical components (e.g., light, temperature, mixing, flow, habitat) and chemical components (e.g., organic and inorganic carbon, oxygen, nutrients) of an ecosystem that determine what lives and breeds in it...”. The guidelines list a number of default trigger values to assess adverse effects. A comparison of some of these with the EIS figures demonstrates a substantial issue with surface water discharge.

Analyte	ANZECC 2000 (µg/L)	Site RW1 (µg/L)
NH3	15	27.5
NOx	15	370
DO	80-110	Not recorded

Not only is the EIS deficient in this regard, it does not investigate or analyse the effects of the discharge on Swindles Creek or the cumulative effects from these mines and Vales Point Power Station on lake sediment. Based on the figures provided in the EIS, these two mines are licensed to discharge up to 146 tonnes of suspended solids into Swindles Creek the lake each year. While perhaps half of the average amount of suspended solids discharged each year is deposited in Swindle Creek before reaching the lake (based on a mass balance analysis using data in table 7.3, Appendix 10), there is no analysis of the cumulative effect of this with other discharges into the lake such as discharges of suspended solids from Vales Point Power Station and the ash dam and an environmental issue of some magnitude starts to emerge.

Biodiversity

The EIS proposes an unsatisfactory treatment process for groundwater and surface water discharge generated by the mine, and contrary to the SEAR for biodiversity, it does not address, the impact of these large volumes of groundwater and surface water on the biodiversity of Swindles Creek or Lake Macquarie.

In a locality where several fish kills have been reported in the last year with nonconclusive reasons for the occurrence and many hectares of seagrass having been destroyed by discharges from mines and ash dams, it is critical that the cumulative effects of these activities be addressed. This critical situation has been recognized in the SEAR for cumulative effects which the EIS has completely ignored.

Greenhouse

The EIS acknowledges an increase in greenhouse gases due to the mining of particular coal seams under Lake Macquarie but does not address any methods of reducing these emissions.

The EIS fails to take account of the greenhouse gases emitted by the Vales Point Power Station, despite those emissions being a direct consequence of the operation of the Chain Valley and Mannering coal mines.

² Australian and New Zealand Guidelines for Fresh and Marine Water Quality (Vol 1). ANZECC & ARMCANZ October 2000

Road Traffic

The analysis in the EIS is completely inadequate, failing to describe any road improvements required to allow the huge increase in heavy vehicle movements required to transport the amount of coal allowed for export between the mine and the port of Newcastle.

Economic impacts

The proposed development of a new underground mine at Chain Valley is said to be required for economic reasons. That is, the high cost of extending the development of the existing Western underground mine would make the Vales Point power station unviable. It will be demonstrated by other people and organisations making submissions against this new proposal that creating a new underground mine and extending the life of the power station for an additional two years and selling excess coal to recover the additional cost of development of a new mine will cause massive environmental damage and serious damage to peoples' health that is not accounted for in this flawed and biased Cost Benefit Analysis.

The cost benefit analysis (CBA) report (Appendix 16 of the EIS) almost totally excludes recognition of, and any attempt to calculate, the cost to NSW and Australia of the massive damage to the environment and to human health. Damage to the environment, especially contaminated water leaching and flowing into Lake Macquarie and the consequent damage to ecological and human health would greatly exceed the very small alleged net benefit to NSW of \$89M. This amount is trivial to the NSW budget. In the conclusion on page 61 the CBA states net social benefits to NSW of \$85M when potential employment benefits are excluded and \$155m when potential employment benefits are included. The bias of this report shows clearly when it reports potential employment benefits but does not report potential costs of cleaning up environmental damage nor the potential cost of managing damage to peoples' health.

The risk and sensitivity analysis on p40 of Appendix 16 states that "any risk that the Project may commence and then cease operation for financial reasons leaving unmet rehabilitation liabilities is mitigated by the fact that Delta is required to pay a rehabilitation deposit to the NSW Department NSW – Resources Regulator". The amount of that deposit is not stated, nor is there any indication that the deposit will be 'topped up' regularly to take account of inflation or other escalation in rehabilitation costs. Therefore there is no assurance that the deposit will be adequate to reinstate all environmental damage caused by the mining activity.

Page 20 of Appendix 16 states that: "Even when no quantitative valuation is undertaken of the environmental, social, and cultural impacts of a project, the threshold value approach can be utilised to inform the decision-maker of the economic efficiency trade-offs." In this approach (as we understand it), the 'threshold value' is the value that the environmental, social, and cultural costs of a project would need to reach to exceed the net production benefit of the project. Given the very small net benefit to NSW calculated for this project, KLMC believes that it is highly likely that the health costs of this project alone will indeed exceed its net production benefit. Perhaps that is why there has been no serious attempt to calculate those costs.