

Submission
No 133

**INQUIRY INTO CURRENT AND POTENTIAL IMPACTS OF
GOLD, SILVER, LEAD AND ZINC MINING ON HUMAN
HEALTH, LAND, AIR AND WATER QUALITY IN NEW
SOUTH WALES**

Name: Name suppressed

Date Received: 5 September 2023

Partially
Confidential

Dear Committee Members,

Thank you for the opportunity to make a submission to the NSW Legislative Council's Portfolio Committee No. 2 – Health inquiry into the current and potential impacts of gold, silver, lead and zinc mining on human health, land, air and water quality in New South Wales.

This submission will use the recent approval of the Bowdens lead, zinc and silver project (SSD-5765) at Lue, near Mudgee in Central West NSW as a case study to demonstrate inadequacies and shortcomings in the current planning and regulatory framework for assessment and approval of base metal projects in NSW is not fit for purpose.

It relates to the inquiry Terms of Reference (a) through (c), and (i), specifically:

- a. the inadequacy of proposed acid mine drainage risk management;
- b. impacts to tourism and the visitor economy

Background

The Bowdens project is a greenfield development of an open cut lead, zinc and silver mine in the popular Mudgee-Rylstone tourist district, two kilometres from Lue village and primary school.

[Conditions of consent include routine blood lead level testing of surrounding community](#), including babies and children.

I live along the Lawson Creek, ten kilometres downstream from the proposed mine site, with my husband, three-year-old son and 1.5-year-old daughter. We run a cattle enterprise, supplying beef and high-quality Angus genetics to the region and interstate.

We rely solely on rainwater, and ground and surface water from the Lawson Creek for stock and domestic purposes.

Key issues

Fundamentally, at issue is the fact this project was approved by a caretaker government despite numerous key technical issues being unresolved.

In the case water supply and acid mine drainage management, this approval came against advice of the Department of Planning's own independent expert environmental consultancy, Earth Systems.

Water supply

On 8 June, 2022, Earth Systems sought clarification as to the water balance and predicted impacts of the project, as the EIS models impacts on surface water and groundwater on a 117 mL per annum rate, rather than the actual predicted rate of 856mL per annum.

It recommended the proponent re-assess impacts on local surface water, baseflow and groundwater based on removal of 856ML per annum. This was not done, and the project received approval anyway.

The surface and groundwater impacts of this project have not been adequately assessed. The reality is that there is not 856mL of water available each year, so any suggestion that impacts to other water users in the area can be managed in dry times is misguided.

Acid mine drainage

Key technical elements of the proposed management of acid mine drainage from both the waste rock emplacement and tailings storage facility are unresolved and/or inadequate.

As part of its approval process, in 2022 the NSW Department of Planning & Environment engaged Earth Systems to review Acid Mine Drainage and Surface Water impacts of the project.

Earth Systems concluded that Bowdens' proposed approach was technically unresolved and inappropriate for the management of acid mine drainage from potentially acid forming material in the waste rock emplacement (WRE) and tailings storage facility (TSF). Earth Systems stated:

- “It remains our advice that the design of these facilities will need to be updated, noting that GCL liners have a limited design life, store-and-release covers are not suitable for AMD control, and the longevity of AMD generation from PAF waste rock is unknown but may continue for hundreds of years.”¹
- **“The waste rock dump design is unproven and appears substantially problematic, with initial indications that the site could be establishing the need for water treatment in perpetuity.”**²
- “Store-and-release covers are used widely, but almost never in recent years for the purposes of AMD control. The proposed store-and-release cover systems are not considered an appropriate strategy for PAF waste rock or PAF tailings management.”³

In recommending the Bowdens Project for approval, the NSW DPE ignored the advice of its own independent experts, who conclude that Bowdens proposed acid mine drainage risk management strategy is technically unresolved and inappropriate.

These technical issues are not resolved in the proposed consent conditions put forward by the NSW DPE, which as a result has failed in its duty to provide adequate protection to stakeholders from the serious and intergenerational risks posed by inadequate acid mine drainage management.

Tourism

The reputation the Mudgee area has as a tourist destination is growing rapidly. We saw 691,000 people visit the Mudgee region in the four years ending 2019. In 2020-2021 alone, that number grew to 826,000.

931 jobs were directly created due to visitor spending in the area in 2020-21; with tourism and agriculture spending combined creating 12 times the number of jobs the Bowdens mine will.

The latest Mudgee Region Destination Management Plan 2020-2025 specifically addresses wellness tourism, identifying it as one of five primary experience themes. Wellness tourism is a growing sector globally, integrating sustainability as much as it does human health and wellbeing.

Our region is poised to capitalise on this opportunity, and clearly already is, but there is a clear conflict between attracting tourists interested in high-quality local wine and food and having a wellness focus and the risks of lead mining, including lead poisoning and acid mine drainage.

In its Assessment Report, the DPE attempted to paint a picture of an area in decline, with already degraded water systems, and little to no employment or employment prospects.

The DPE Assessment Report mentions the word tourism only three times over 115 pages. To exclude any meaningful mention or exploration of the role tourism plays in the region when considering the strategic context of the project is misleading. Even if this project had a 10% negative impact on tourism, that could be 93 jobs lost. How about 20%?

These impacts have not been assessed.

Agriculture

The Lawson Creek catchment that the DPE described as already degraded is in fact the lifeblood for numerous highly productive and highly profitable agricultural and food production businesses.

¹ [Earth Systems, Technical Memorandum - Acid and Metalliferous Drainage, 16th December 2022, page 1, paragraph 4](#)

² [Earth Systems, Update On Independent Review – Acid And Metalliferous Drainage, 23rd November 2022, page 6, table 5](#)

³ [Earth Systems, Update On Independent Review – Acid And Metalliferous Drainage, 23rd November 2022, page 6, table 5](#)

Landholders in the area run primary production businesses representing a benchmark earning value of over \$14.6 million per year which largely goes back into our community and region.

Lawson Creek water facilitates the production of thousands of kilograms of high quality, beef, lamb, fine wool, grain, oilseeds, elite animal genetics, award winning olives, olive oil, grapes and wine for international and domestic markets, and thousands of bales of hay along irrigated flats close to Mudgee.

What kind of damage will the reality or even the perception of lead contamination do to these industries?

What will happen to these producers when there is no water left in the catchment?

Who will buy our wine, our olive oil or our beef if Mudgee becomes synonymous with lead or heavy metal contamination?

These impacts have not been assessed.

Opportunity

As a new wave of mineral exploration and development comes online, as part of the NSW Government's Critical Mineral and High Tech Metal strategy, the current government has an opportunity to ensure regional and remote communities of New South Wales get a better deal than their predecessors.

Projects like the Bowdens' lead mine, and McPhillamy's gold mine at Blayney are the first cabs off the rank, and it's imperative the elevated risk profile of this type of mining project means they are held to the highest standard from the outset.

The current NSW government has inherited a lemon in the Bowdens project approval. Key, mine-viability determining issues were left unresolved and pushed to the post-approval stage to be resolved behind close doors between the proponent and the DPE. Approval of this project sets a low bar for future proponents, and a dangerous precedent for the state of NSW.

In the absence of an effective EPA, it will fall on the community to police the project. For the NSW Government, the cost of remediation, rehabilitation and health care for those impacted by chronic exposure to lead and lead contaminated dust will long outlast any benefits accrued in the short term.

It doesn't have to be political suicide to review this project approval, and make sure operations cannot commence until key technical issues (like water supply and acid mine drainage) are resolved prior to granting approval of a mining lease.