

Submission
No 165

**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: Mrs Sarah Inglis
Date Received: 5 September 2023

Partially
Confidential

NSW Upper House Inquiry into the Potential Impacts of Gold, Lead, Silver & Zinc Mining on human health, land, air and water quality.

Submitted by:

Sarah Inglis

Date: 5th September 2023

I am a farmer 5kms downstream from the Bowdens Mine Site on Lawsons Creek. My husband and I produce premium grass-fed cattle for supermarkets. My family has farmed this land since the 1870's. We rely on Lawsons Creek for all our stock and domestic water and without this creek during the drought of 2017- 2019, we would have had to totally destock including all our breeders. Lawsons Creek is the lifeblood of our farm.

Recommendations

1. **Suspend** the IPC's approval of Bowdens Silver Mine at Lue until the outcome of this Parliamentary Inquiry is available to ensure that heavy metal mining is not putting the health and economy of the Central West of NSW at risk.
2. **Note** that the approval of a mine without comprehensive Management Plans available for review to confirm exacerbates the risk to the health of the community and
3. **Note** that Cadia Gold Mine near Orange has breached air quality guidelines many times and now those living nearby are testing with heavy metals in their blood and water. Management Plans appear to have failed to adequately protect the community.
4. **Note** that the NSW Department of Planning misinformed the IPC in assessing Lawsons Creek as damaged, degraded or ephemeral. No evidence was provided to support this claim, no landowners on Lawsons Creek were approached for testing.
5. **Restore** Merit Appeal Rights for all minerals mining projects approved during the caretaker period of the previous Government.
6. **Recommend** that State Significant Developments SSD provide evidence they have a high security water supply to meet water demands of their project prior to SEARS being issued. Any changes to the water source must result in a reissue of the SEARS.
7. **Recommend** the SSD's are prohibited from employing any Councillor, employee or contractor of the local Council before during and after the approval process.
8. **Recommend** Greenfields developments be required to evaluate the health and economic impacts to all businesses and land uses within a 5 kilometre radius of a proposed mine.
9. **Recommend** the Natural Resources Commission NRC review the allocation of water licences and exemptions from licencing in NSW.

10. **Recommend** Harvestable Rights Dams HRD used for purposes other than basic stock and domestic needs must be licenced and metered with an annual fee.
 11. **Recommend** Harvestable Rights Dams cannot be larger than is allowed to be caught on the minimum subdividable area.
 12. **Recommend** Excluded Works must be charged a substantial amount to discourage the contamination of water.
 13. **Recommend** SSD's must not rely on exemptions or excluded works for any amount of their water supply.
 14. **Recommend** Tailings Storage Facilities TSF must not be located on, near or within 1 kilometre of a water course, stream or spring of any order.
 15. **Recommend** that no seepage is acceptable from any TSF.
 16. **Recommend** that all tailings for minerals mining be dry stacked.
 17. **Recommend** that all mine sites be rehabilitated.
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Purpose

- The NSW Government produced the Orana and Central West Strategic Plan 2041 Part 2 with the following objectives;¹
 1. Identify, protect and connect important environmental assets
 2. Support connected and healthy communities
 3. Secure resilient regional water resources
 4. Ensure site selection and design embraces and respects the region's landscapes, character and social heritage
 5. Protect Australia's Dark Sky Park

None of these objectives were met when the IPC approved Bowdens Mine and silver is not even a critical mineral according to the Australian Government Critical Minerals List.

Background

- Bowdens Silver Mine was approved by Independent Planning Commission in an environmentally sensitive location at the headwaters of the Macquarie River Catchment upstream from Mudgee and the Cudgegong River and within 100 metres of Lawsons Creek.
- Lawsons Creek is essential for this prosperous Valley with its diverse economy. The Creek provides all our stock and domestic water. During very dry times such as the drought from 2017 to 2019, the Creek went back to holes but still provided us with enough water for our stock and household needs. Without it we would have been forced to sell the foundation of our business, our breeding herd of Angus cattle.
- Our family has lived with the prospect of this mine for 30 years and at least four prior owners sold their lease as they could not get enough water or power to operate safely and profitably.
- Mudgee Region Action Group of which I am a member has expert report to prove that water shortage is still the major reason why this project is dangerous for our community.

¹ <https://www.planning.nsw.gov.au/plans-for-your-area/regional-plans/central-west-and-orana-regional-plan-2041>

Key statistics:

The Lue community around the Bowdens Mine

- Mudgee Region Action Group MRAG (of which I am a member) have stewardship of over 20,000 hectares of productive agricultural and tourism land around the mine site, representing a benchmark earning value of over \$14.6 million per year, which largely goes back into our community and region.
- More than 150 properties near the mine site, 55 of which are homes and properties in Lue village. Range from large agricultural enterprises, family farms, homes, rural residential blocks, farm stays, tourism accommodation, and a public school.

Water Quality & Quantity

- 1.6 megalitres of contaminated water to be released by seepage every day from Bowdens TSF into Lawsons Creek.
- Contaminants include arsenic zinc, lead, acid cyanide, copper, phosphorus.
- Lawsons Creek is 100m downstream from the mine site.
- Lawsons Creek is not currently degraded, or damaged.
- Lawsons Creek has 47 water access licences WAL, 1496 megalitres of water is approved to be extracted from Lawsons Creek – all are threatened by Bowdens Silver Mine.²
- The DPE (Jacobs) stated in its assessment of Bowdens Silver that Lawsons Creek is already degraded, and that seepage from the TSF would not lower the beneficial use of the creek without any evidence to support his statement.
- With seepage the creek will not be suitable for stock and domestic use and will affect local creek users, Mudgee town water supplies and aquatic biodiversity.
- Modelling to determine water flow rates on Lawsons Creek uses data from a flow meter on Cudgegong River at Rylstone. Private gauges near the dam show flow rates 2% of those registered by the Cudgegong River gauge.
- Lawsons Creek valley has a history of intense and highly localised rainfall events which will exceed the 1 in 100 year 72 storm event that Bowdens TSF has been designed to contain without overflowing into Lawsons Creek have not been considered by the DPE in the assessment. Local landowners have records of these events.
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Impact on Tourism and Agriculture and Property Values

- 691,000 visitors to the Mudgee region per annum in the four years ending 2019. 826,000 in 2020-21.³
- 931 jobs directly due to visitor spending in 2020-21. Tourism spending in 2020-21 provided six times, and when combined with agriculture, 12 times, the expected number of jobs from the Bowdens' project.⁴

²

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³ Flowers was Tourism and Aviation Economist at Tourism Australia for seven years, Director Tourism Investment in the Commonwealth Department of Tourism for six years and General Manager, Policy and Research at Australia's largest tourism industry association (TTF Australia) for six years, after starting his career with Federal Treasury.

Flowers, K, Mid-Western Regional Council Area Visitation and Economy, 2023

⁴ Flowers K, p1

- Bylong Valley Coal Project provides a useful case study of market impact from mining in a rural, greenfield area. Negative price impact on property value of between 20 – 30 percent.⁵
- Local farmers produce beef cattle, fodder crops and sheep for wool and meat.
- The Livestock Production Assurance (LPA) program is the on-farm assurance program that underpins market access for Australian red meat. Lead is one of the four contaminants specifically listed in the [Livestock Property Assurance factsheet](#).
- Property risk assessments ensure the integrity of the meat we produce, guaranteeing it's safe and of high quality. Contamination of feed and water threatens the livelihood of all livestock producers in the Lawson Creek Valley (\$14.6 million per annum that goes almost entirely back into the local economy).⁶

Risks and Financial Implications

Minerals mining is dangerous and polluting if not managed properly. About Bowdens Silver Mine in particular, these are the risks and costs. In the event of long-term contamination of Lawsons Creek (possibly for hundreds of years), the cost to society would be enormous; the financial cost of supplying make up water to Lawson Creek water users; cost of supplying clean water to Mudgee from other sources and the cost of rehabilitation of Lawsons Creek.

Risk 1: Lawson Creek will be contaminated & unsuitable for stock & domestic purposes forever.

Implication: Loss of income for all agriculture in the Lawson Creek Valley. **-\$14,500,000 pa**

Risk 2: Decline in property values by up to 30%

Implication: Huge loss for all property owners near mine site. **up to 30% decline**

Risk 3: If DPE flow models of Lawsons Creek are incorrect and flows indicated by private gauges on Lawsons Creek prove accurate (2% of models used in DPE Assessment) all 47 Lawsons Creek Water Access Licence holders will be disadvantaged and their businesses and households ruined.

Implication: Destruction of all farming businesses in the Lawsons Creek Valley and severe disadvantage for current landowners on Lawsons Creek who use it for their farming businesses and households. **-\$14,500,000 pa**

Risk 4: If a highly intensive and localised storm event hit the mine site as it did 6 kilometres downstream of the mine site on 22nd February 2022 (when 220mm fell over nine hours on Haviilah), the TSF would overflow into Lawsons Creek.

Implication: Permanent contamination of Lawsons Creek and all waterways downstream of Lue including contamination of Gulgong water supply, possible flooding of at least ten low lying houses on Lawsons Creek, severe economic hardship to all those who rely on the Creek for their water needs. **-\$30,000,000pa**

Risk 5: Lead contamination is found in residents' blood, in the blood of livestock produced in the Lawsons Creek valley or on crops from the Valley.

Implication: The destruction of the Mudgee tourist industry **Loss of 931 jobs possible**
 Implication: Livestock condemned and unable to be sold. **\$2000 per cow & \$150 per sheep**

Implication: Crops unable to be sold **Hard to estimate**

Implication: Children suffer permanent effects of irreversible lead poisoning and adults suffer terrible side effects from lead poisoning. **Enormous cost to society**

⁵ Druitt P, Submission to the IPC on Property Values February 2023

⁶ Parry Okeden, D Veterinarian Mudgee Expert Report on Implication of Lead Poisoning in Livestock & Bees February 2023

Risk 6: A B double truck carrying chemicals for processing Silver such as cyanide and arsenic has an accident (or even worse a collision with a school bus) on the winding and narrow road between Mudgee and the mine site.

Implication: Possible deaths, contamination of roadways and nearby farms and waterways, difficult to remediate or mitigate. **Enormous cost**

Risk 7: More heavy vehicles on an already busy commuter road increases risks of accidents.

Implication: More potholes, uneven edges, more accidents as people get impatient sitting behind a truck on a road with few areas where you can safely pass. **Cost to health & roadworks**

Risk 8: More social dislocation and severe disadvantage for those who cannot afford to move from houses only 2kms from the mine site.

Implication: When mining begins only those who can't afford to move remain, social and health problems increase & social disadvantage is magnified. **Cost to social services**

Attachments

1. Sarah Inglis, Submission to the Independent Planning Commission 24 February 2023
2. Peter Druitt – Property Values Around Mines. February 2023
3. David Parry Okeden – Lead Poisoning in Livestock and Bees February 2023
- 4.
- 5.
6. Karl Flowers, Mid Western Regional Council area Visitation and Economy at Risk from Proposed Bowdens Mine Impacts on the Local Tourism Industry 10 February 2023
- 7.