

Submission  
No 122

**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**

**Organisation:** Mudgee Wine Association

**Date Received:** 4 September 2023

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Partially  
Confidential



MUDGEE WINE ASSOCIATION SUBMISSION

Regarding the

BOWDENS SILVER MINE

Submitted by: Deborah Clear, President Mudgee Wine Association

Date: 3<sup>rd</sup> September 2023

NSW Upper House Portfolio No 2 Committee

Enquiry into and report on current and future impacts of Gold, silver, lead and zinc mining on human health, land, air and water quality in NSW

TERMS OF REFERENCE

(b) the impact on catchments and waterways, affecting both surface and groundwater destined for, local and town water supplies, including rainwater tanks, and on aquatic biodiversity

(c) the impact on land and soil, crops and livestock, including through biomagnification and bioaccumulation

(e) the effectiveness of the current regulatory framework in terms of monitoring, compliance, risk management and harm reduction from mining activities

(f) the effectiveness of current decommissioning and rehabilitation practices in safeguarding human health and the environment,

(g) the effectiveness of New South Wales Government agencies to regulate and improve outcomes including:

(i) the measurement, reporting and public awareness

(ii) the provision of various protective materials

(iii) the ability to ensure the health of at-risk groups

(iv) the suitability of work health and safety regulations, and

(v) the capacity to respond within existing resources

(vi) the adequacy of existing work, health and safety standards for workers

(h) whether the regulatory framework for heavy metals and critical minerals mining is fit for purpose and able to ensure that the positive and negative impacts of heavy metals and critical minerals mining on local communities, economies (including job creation) and the environment are appropriately balanced

Thank you for the opportunity to provide a submission in relation to the Bowdens Silver mine in Lue NSW.

The Mudgee Wine Association (MWA) is a not-for-profit organisation located within the Mid-Western Regional Council. We have a total of 66 members consisting of 35 Full Members, all are wineries. The remaining Associate Members – consist of beverage and food producers, restaurants and accommodation providers.

Our organisation with just its Full Members employs 857 people in various facets of the grape growing, manufacturing and wine distribution. These include owners, managers, cellar door staff, direct sales, vineyard employees and contractors for spraying, harvesting, pruning, transport, winery production staff plus staff for events run by MWA.

These figures do not include any jobs in other tourism industries nor our Associate Members.

Bowdens have stated they will provide 230 jobs over the extended period of 23 years.

Our question is “at what cost to the jobs that already exist in our already thriving industry, the wine Industry.”

Any negative impact on human health, land, air or water will have a direct impact on the viability of the Mudgee wine and tourism industries.

The possible impact on human health in relation to lead toxicity has been well documented. The World Health Organisation states any lead level in the blood may be hazardous. Research shows even low levels of lead in children’s blood can lead to reduced growth, learning difficulties and behavioural problems. It’s not just children and pregnant mothers who are at risk.

Dr Bruce Brew Professor of medicine at UNSW states that there is compelling evidence that “chronic exposure to even mildly raised lead concentrations can accelerate Alzheimer’s disease.”

If this mine goes ahead the stress and anxiety among wine grape growers will be exacerbated. Consider the following:

- Grape growers will need to have a soil contamination test carried out before planting vines.
- Grapes will need to be tested for contaminants prior to harvest and/or sale.
- Irrigation water will need to be tested regularly for contaminants.
- Once grapes are processed into wine, do we need to test the wine for contaminants?
- Who pays for the cost of this testing?
- What do we do with fruit or wine that is found to be contaminated?
- Do I take the chance to harvest this fruit, this year?
- Can I afford to take the chance of trying to make good wine with suspect fruit?
- Are my vines permanently damaged?
- If so to what extent, will they recover next year or will this repeat again next harvest?

- Can we continue to go on producing wine with this potential, ongoing threat continuously hanging over us?

With these sort of issues hanging over grape growers heads there is bound to be a detrimental affect to their well being. What impact on their psychological health will a constant testing regime create? Not knowing from year to year whether they will have a product to sell, an income stream or that their family is healthy, must impact their mental health.

There is so much unknown around the potential high risk of contamination. Yes dust particles will be monitored, they will contain a portion of lead and other heavy metal contaminants at so called approved levels. However what will these levels of contaminants do to raise the current background levels existing in our soils and water ways? How quickly will these approved levels change the background levels to the extent they will create increased health risk and have the ability to shut down the agricultural, viticultural and tourism industries of this region along with further expansion of this region.

“Monitoring dust and water waste after the mine is operational without having the existing contaminants accurately known throughout the region and the effect this will truly have on the region is fraught with danger as the risk of greater contamination is very real”.

Agricultural Consultant

It is well documented that fine lead dust can and does travel 1,000's of kilometres. Lead dust from both Port Pirie and Mount Isa can be identified by their 'DNA' and it has been found in the Antarctic. So a mere 40 kms into Mudgee and beyond is nothing.

This fine lead dust can and will settle on the vine leaves.

This can and will inhibit photosynthesis.

This can and will affect general vine health - vines will fail to thrive.

This can and will impede fruit set.

Lead can and will be absorbed into the fruit.

This can and will impact overall production of wine across our region.

This mine sits near Lawson Creek and feeds into the Cudgegong River and then onto the Burrendong Dam. This is the main source of irrigation water for a substantial number of wineries along the catchment from Lue to Gulgong and beyond.

We also have some very serious concerns regarding the effects of potential Acid Mine Drainage. Acid mine drainage, acid and metalliferous drainage (AMD), or acid rock drainage (ARD) is the outflow of acidic water from metal mined from this mine, being lead, zinc and silver.

Acid rock drainage occurs naturally within some environments as part of the rock weathering process but is exacerbated by large-scale earth disturbances characteristic of mining and other large construction activities, usually within rocks containing an abundance of sulphide minerals. Areas where the earth has been disturbed may create acid rock drainage. In many localities, the liquid that drains is highly acidic, and in such cases it is treated as acid rock drainage. This liquid often contains highly toxic metals, such as copper or iron. These, combined with reduced pH, have a detrimental impact on the streams aquatic environments.

Acidic drainage can be detected within 2–5 years after mining begins, whereas at other mines, it is not detected for several decades. Content testing is required to determine the leaching. In addition, acidic drainage may be generated for decades or centuries after it is first detected. For this reason, acid mine drainage is considered a serious long-term environmental problem associated with mining.

The leaching from this rock when the lining is compromised will go into Lawson Creek and into the Mudgee water system down stream. No irrigation can be drawn from the river as it will be a toxic stream.

Who will supply us with fresh water for producing and processing some of Australia's finest wines?

Bowdens have stated that once mining has ceased they will cover the waste rock with a 1.5 mm plastic tarp covering or Geotech and then a thin layer of soil. No trees can be planted on this site as this could compromise and penetrate the lining.

We are not experts, just simple grape and wine producers, but the experts have told us this proposed mine has the potential to have a huge effect on the Mudgee Wine and Visitor economy especially as some aspects are trial systems, not yet proven.

There is no doubt the proposed mine in it's current format will have an impact on the mental well being of our members and the wider community. It will also greatly impact the quality of our air and water, not to mention the possible land degradation.

The regional visitor economy has been building rapidly in recent years with Mudgee named Top Tourist Town in Australia for two years running – in both 2021 and 2022. These visitors come for the incredible local wine, some of the best foodie experiences in the state, heritage sites and to enjoy the regions natural beauty, which is perceived to being clean and green.

Visitation to the region has increased from 691,000 in 2016-'19 to 826,000 in 2020-'21 this has resulted in considerable growth in spending in our region. Using figures supplied by Mudgee Regional Tourism Inc. (on their website) the average spend per person is \$398, this includes accommodation, entertainment, food and wine. This brings upwards of \$300 million for the Mid-Western Regional Council's economy.

Mudgee Regional Tourism Inc. has just launched their new Wellness Tourism Strategy featuring nature, healthy activities, good food and wine experiences - this is one of the fastest growing tourism sectors globally.

Visitors are looking for sustainability in the products they consume, human health and wellbeing. They want to relax in a clean healthy environment, drink beautiful wines, eat wholistic, locally grown food - also known as the 'Paddock To Plate' experience. They love the story Mudgee Region brings to their experience, how the grapes are grown, how the wine is made, who made the wine and especially how it tastes. They love to experience everything from simple cellar doors located on back roads to beautiful meals in stunning surrounds with all the trimmings.

All of our wine businesses are family run enterprises, even the largest ones. Along with this aspect, many are either accredited or practising organic grape growers and wineries. Our visitors love to meet the people behind the brand and feel they have a part to play in the success of our small businesses, which is what they take home. Mr Huon Hook can't be wrong, we are a region that has the 'best of the best' and that can't be put into a dollar figure. We strive for perfection in all our operations and endeavours.

Some may say we are overly exaggerating the situation.

Those that suggest we are overstating the imposed risk associated with this Lead Mine project don't have the collective lived experience we do.

In our very recent wine history (2020) we have had a whole of region vintage wiped out due to smoke taint. This contamination of our grapes and subsequent cancellation of production has caused an ongoing financial burden to many, especially the smaller producers. All of this occurred due to a bush fire located over 127 kms away. So a lead mine on our doorstep is of great concern to all with future consequences and a source of financial insecurity.

We have a large number of organic growers; this process takes years to become certified. What will happen to their livelihood, who will compensate them or other growers for loss of income?

We, the Mudgee Wine Association, are strongly opposed to the Bowdens Silver Mine proceeding in the proposed current format.