

Submission
No 102

**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: 4 September 2023

Partially
Confidential

Thank you for the opportunity to submit to the NSW Government's inquiry into the current and potential impacts of gold, silver, lead and zinc mining on human health, land, air and water quality in NSW.

The terms of reference that we address in our submission are 1. d), e) h) and i).

Our family runs a cattle and sheep farm in the Mid-Western Regional Council and Bathurst Council areas. We are very concerned about the impacts of these forms of mining in this part of the Central West. The past 2 decades have seen an unprecedented number of new mines approved and we feel a tipping point has been reached where there has been overdevelopment in mining which needs to be scaled back significantly as it is now causing conflict with other land uses as well as detrimental impacts on human health, air quality, the health of our rivers and ground water systems, land resources and the environment.

It is of great concern that the recently documented, serious impacts of gold mining near Orange were not averted (and, by some reports, appear to still not have been adequately addressed) and that it was not until members of the community tested and reported the effects of the release of a range of highly toxic pollutants that there was any awareness that this was occurring. There is still no information that we can find about the more distant impacts of this toxic dust or what other damage may have already been caused. Media reports say: "The pollution is reported to have spread up to 50 kilometres across the region" and we are concerned as to what extent we are impacted but no testing, monitoring or comprehensive data has been made publicly available here as far as we are aware so we that can understand potential impacts on our land, air and water.

Like many in the Lithgow/Rylestone/Mid-Western Regional Council/Bathurst/Orange area we support a moratorium on gold, silver, zinc, lead and critical mineral mining in these important aquifer-rich, food production areas that are close to Sydney and are strongly opposed to any future exploration licenses or mines being approved. This area has already been exposed to too much heavy pollution which will now accumulate indefinitely.

We would like to offer the following comments and points for consideration:

- We feel that "the regulatory framework for heavy metals and critical minerals mining is not currently fit for purpose":
- We would like to see regulations around gold, zinc, silver and lead mining, as well as quarries and other extraction industries and critical minerals greatly improved with much higher protections, restrictions and exclusion zones devised and enacted to safeguard against their highly dangerous and potentially irreversible impacts on NSW surface and ground water systems, drinking water, air quality, human health, land and its long-term viability, biodiversity and the environment, land use conflicts and rehabilitation.
- There needs to be much stricter government monitoring of mining impacts: emissions, discharges, water extraction, long term land resource impacts and ongoing, regular assessment of short and long term affects on human and environmental health, water, air and biodiversity. We contend that monitoring needs to be regular, comprehensive, independently verified, reported promptly to the government and made available to the public. Testing results from both nearby and distant monitoring stations should be supplied to the relevant government agencies monthly to assess long distance and cumulative impacts.
- We feel that the current framework for risk assessment, risk management, compliance and monitoring regimes is clearly failing and, in some instances, have already caused significant damage and that this should be urgently addressed.
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- There needs to be more resources, staff and regulatory teeth given to the EPA, NSW WATER. and other government agencies that protect NSW water, air quality, land resources, human health, food production, biodiversity and the environment.
- Current frameworks should adopt much higher standards than are currently the case:
- The highest standards of water and air quality and other aspects important to human and environmental health should be adopted and required

- Comprehensive baseline data in regards to air, water, land quality required prior to any mining or quarry approval and made public.
- Mining impacts on ground water, aquifers and riparian areas need much stronger and more comprehensive assessment and protection with exclusion areas greatly increased and enlarged to protect important water, land and biodiversity resources.
- NSW "Fishing" should have better resourcing and "key" watercourse areas should also include headwaters.
- NSW legislation needs to be significantly improved to protect NSW air quality, river systems and riparian environments, biodiversity, rural and town water supply, quality and availability and a more balanced cost-benefit analysis with longer-term social, economic, amenity and environmental costs of mining factored in is needed.
- Stronger enforcement rules, much higher fines for breaches: the current fines are so low as to be ineffectual.
- If breaches occur, all mining operations should be halted immediately until appropriate mitigation measures are enacted and proven to be fully effective.
- The overall cumulative impact of all mining activities in a region needs to be taken to account to assess risk, air and water quality impacts, impacts on human health and land use and the safety of food production as well as land conflict ie. impacts on tourism, agriculture, land values and amenity, integrity and character of an area and its economic diversification.
- There has been an increase in quarry approvals in our area: quarries impose a range of pollution impacts and stronger regulation and oversight is needed and the various impacts of all these different types of extractive activities need to be carefully quantified to understand the real impacts that are occurring in a locale on human health, air, water and the environment in both the short and long term.
- There is an urgent need for silica dust exposure to be better regulated at mines and quarries and their cumulative impacts on rural communities and the environment to be better assessed and monitored.
- The dangers of newer mining techniques and smaller mining operations for these metals and minerals also pose a new range of serious risks that need specific and thorough investigation as to how or if, in fact, they should be permitted and whether they can be regulated and monitored effectively to prevent impacts on human and environmental health, leaks and pollution of ground water and aquifers, air and irreparable long term environmental damage given the range and extent of highly toxic substances utilised.
- Stronger rights for farmers and other land resource users should be enacted than exists in the current system. We believe that additional rights should be given to farmers, pre-existing land users and owners to have more input and to be able to restrict or stop mining leases and operations that will damage their businesses, livelihoods and the value of their land.
- More transparency and data made available from government and the Department of Health regarding the reporting and notification of local and cumulative mining impacts on human health, water, air and the environment.
- Rehabilitation poses particular challenges in regards to mining gold, lead, zinc and silver and critical minerals. The long term effects of the toxic metals released into the environment inherently pose uniquely high risks of causing irreversible long term damage to water systems, human and animal health, land resources and the environment. Many in this part of the Central West support a full moratorium to be introduced on gold, lead, silver, zinc and critical mineral mining. It has not been demonstrated that the risks can be adequately mitigated. Recent events demonstrate that the toxic impacts of gold mining have not been contained and people in the Central West are very concerned that they continue to be exposed to these toxic chemicals and heavy metals. The full extent and impact of these breaches on both nearby and more distant land, air and water resources should be comprehensively measured and monitored to establish the extent of the damage already done and urgent action taken to halt any further pollution.

The Precautionary Principle

- Gold, silver, lead, zinc and other so-called "critical minerals" mining are some of the most impactful and dangerous forms of mining to human health, land, air and water quality. Unfortunately, many of the processes and chemicals involved are so toxic that they may inevitably cause damage to land resources, air and water quality and can irreversibly destroy a stream or ecosystem and also accumulate in the environment causing irreparable, long-term damage and toxicity.
- It should be considered whether it is realistically possible for these forms of toxic mining to comply with the EPA Act, the Precautionary Principle, Land Use Conflict regulation and other NSW legislation, given the natural characteristics of NSW, its waterways, its population and its emphasis on food production and tourism.
- The long term health of humans, the environment, biodiversity and NSW air, water supply, food production is fundamental to NSW in the short and long term, whereas these forms of mining are not, and pose very significant, irreversible risks as well as a range of other negative impacts on rural communities.
- The inherent dangers of these forms of mining may not be able to be adequately mitigated given the unpredictability of climate change impacts and other factors and we request that the committee objectively assess and report on this.
- We request that the committee consider whether a moratorium should be placed on any new heavy metal mining projects, exploration licenses or expansions being approved in NSW or at least, in important water and food production zones like the Central Tablelands/Central West area.
- Many in the community feel that there has been a significant over-development of mining in Lithgow/Mid-Western Council/Bathurst/Orange which is now damaging the area's reputation and growth in tourism, boutique agriculture, farming, rural retreats, land values and the local economy. This area is a vital food production and tourism area, close to Sydney, with crucial waterways that feed drinking water catchments and the Murray Darling Basin and many feel that it is inappropriate for these forms of mining, as are other important food and water supply areas. The committee should consider whether these areas should be declared as exclusion zones for gold, silver, zinc, lead and critical mineral extraction. The full extent of current impacts still appears to be unknown and unreported.

Land Use Conflict and Risk Assessment

- We believe that "the regulatory framework for heavy metals and critical minerals mining" is **not** "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".
- We believe that the regulatory framework for these forms of mining needs to utilise a more balanced cost-benefit analysis with longer-term social, health, amenity and environmental costs of mining factored in and a more comprehensive assessment of the actual needs of specific local economies and communities.
- We contend that matters like the beauty and essential character of an area, its amenity, its biodiversity and visual appearance and potential for future economic diversification and the right to stability and long term land-use planning for farmers, tourism and other businesses should be included in cost-benefit analysis. The cumulative impacts of existent quarries and mining should also be considered.
- Mining can negatively impact local economies and employment. For example, in our area, like many, in addition to farming and food production, tourism (and its roll-on effects for employment in tourist hospitality, retail and servicing) boutique agriculture, recreational industries, special events, arts and industry festivals, conferences and short stays have become increasingly important employers and growth areas and mining is now damaging this and the area's reputation. In addition, there has been significant growth in land values with sub-divisions and hobby farms and rural retreats from nearby Sydneysiders also increasing population and employment. In the past, many rural areas had less employment options but in the past 20 or so years there has been great economic diversification in many rural locales: mining jobs are not needed and risk destroying this diversification which is based on amenity, beauty, clean air and water, biodiverse values and consistent quiet, rural character of an area which is what attracts people to these areas.
- In many areas mining has also created problematic labour shortages including for farm workers, tourism, tradespeople and Council workers to fix roads etc.

- We feel that if further mining of these minerals in NSW is considered it should be restricted to areas where there is no food production, agriculture, population or important water systems, aquifers, ground water or environmentally biodiverse areas.
- We feel that the long term health of NSW's waterways, air, land and communities is more important and it is not in the public interest for NSW to pursue these high risk-inherent forms of mining, particularly given the unpredictability of climate change and extreme weather events.
- Mining, quarries and extractive industries in the Lithgow/Mid Western Council/Bathurst/Orange areas have been permitted to expand at unprecedented levels over the past 2 decades. Like many, we feel that a tipping point has been reached in this part of the Central West where there are now so many mines approved that serious land use conflict problems are occurring as well as deleterious impacts on air, water, human health, the environment and biodiversity, the amenity and character of the area, traffic congestion, infrastructure and access to services. They are also impacting the well being of communities and farmers.
- The economic viability and potential for further economic diversification in this area is at risk of being permanently compromised. as mining over-development is now impacting the character, appearance, beauty and reputation of the area.
- Mining over-development in this area has caused:
 - visible environmental degradation, land clearing, impacts on threatened and endangered species and many of the air and water pollution events in this region have been widely reported, damaging the tourism, agricultural and general reputation of the area. Instead of its essential character being known as a picturesque, pristine rural area it is increasingly characterised as a "mining area", with toxic pollution incidents affecting air, waterways and human health. The government should act decisively to protect these important areas and their industries from any further impacts from mining than have already occurred. Food production and tourism are far more economically important and should be prioritised
 - Impacts on the beauty, consistency and unique, aesthetic value of these areas and their amenity, community wellbeing, cohesion and health, traffic congestion, truck accidents, road degradation and damage to land values.
 - We request that the inquiry address the current land use conflict problems that are now occurring in the this area as well as the impact that over-development of mining is having on its reputation and potential for future economic growth and diversification.

Inadequate infrastructure

- There is not enough infrastructure in many areas to be able to cope with the huge increase in mining that has been permitted over the past two decades. The increase in truck movements needed for mining on smaller highways like the Castlereagh Highway, which is largely one way, is causing increased traffic congestion and accident problems between Lithgow and Mudgee..
- Members of the local volunteer fire brigades are meant to attend these accidents but there are so many truck accidents now that this is becoming problematic and the government needs to address this. There are also inadequate health facilities in many of these local areas to cope with this.
- In terms of human health, the increase in mine-related truck accidents should also be relevant to this inquiry as well as the other requirements that these forms of mining have which impact human health and the environment.
- Road maintenance, health access, access to tradies and other workers for farm and tourism needs have become problems and these also have roll-on impacts on human and community health.
- Stronger regulations need to be introduced to take into account whether there is, in reality, enough local infrastructure to accommodate mining, quarry and other extractive impacts in an area and stronger assessment of potential deleterious impacts on communities. The assumption is that communities need more mining jobs, but many areas near us are geared for tourism and agriculture and do not need jobs in mining which often deplete local labour pools creating problems for these other industries.
- The social costs of mining and their health impacts should also be taken into account by the inquiry: the impacts of mining exploration licences and extraction activities on rural communities, their character and cohesion and the well being of farmers whose land and land values are threatened over decades.

Climate Change

- Current standards and regulations need to be comprehensively revised to take into account the impacts of Climate Change and its short and long-term impacts on water resources, their availability and protection, air quality, land preservation and human health.
- Climate change and the extreme weather events of the past years make risk management and protection from mining impacts far more problematic to mitigate and this will likely become worse over time. The regulatory and approval system needs to greatly increase its protective measures to protect the community and NSW water, air and land resources. In relation to gold, zinc, lead, silver and critical minerals mining, the risks are so great that the highest level of restrictions and standards should apply and many now contend that much of NSW should be declared an exclusion zone, given the degree of increased risk.
- Water extraction limits, dam sizes and a range of other older standards need to be updated and strengthened to cope with climate change. Many of the regulations set limits that do not reflect the severe rain and flooding events, bushfires, droughts, lack of water availability and other impacts that are experienced now. Our area has suffered two catastrophic bushfires in 3 years as well as severe storm and wet periods.
- Past discharge, emission, extraction and other approvals for all existing mines and quarries should be reviewed in the light of climate change and changes to regulation made so that they must fully comply going forward.
- NSW legislation needs to be significantly improved to protect NSW river systems and riparian environments, biodiversity, rural and town water supply, quality and availability in regards to climate change impacts long-term.
- ie. Increase in Droughts – significantly lower water extraction limits for mines are needed to ensure the viability of NSW water systems and ensure water supply and quality for drinking, the environment, food production and bushfire management.
- Storm events – dams and other mining operation requirements will need to have much larger catchments and higher storm protection standards applied
- Stricter and much larger exclusion zones should be enacted near water courses. Regions that are rich in groundwater, aquifers, riparian zones and headwaters and biodiverse areas should be exclusion zones for these forms of mining and stricter monitoring and enforcement procedures adopted in other areas.
- Much stronger Biodiversity and Environmental protection regulation is needed.

- Many of the above-mentioned problems are now occurring in the Lithgow/Mid-Western Regional Council/Bathurst/Orange council areas and these need to be urgently addressed as well as the more general problem of mining over-development in these areas.
- We support the community's call for the NSW Government to impose a moratorium on, or significantly restrict, any future mining approvals of these metals and minerals. We also support the instigation of large mining exclusion areas in NSW to protect the populace and important food production areas with crucial water and land resources.
- It has been demonstrated that residents near Orange have and are being exposed to a range of toxic chemicals due to these forms of mining. We request that the government take urgent action to stop this and to protect the public's health. There should be a thorough investigation into the full extent of these breaches and their impacts on water, air, land and human health including testing areas further afield up to 60 km or more away to identify how far an area has been affected, at what levels and appropriate action taken to stop this, ameliorate the damage and prevent any further toxic pollution infringements.
- The deeply concerning situation near Orange sets a precedent that appears to clearly demonstrate that these forms of mining are too dangerous and inappropriate to be permitted near populated, food production areas with crucial water, land and biodiversity value.
- Like many in this part of the Central West we are strongly against there being *any* further approvals of gold, silver, zinc or lead and "critical" mineral" mining in the Lithgow/Mid-Western Regional Council/Bathurst/Orange areas.
- The above-mentioned "boom" in mining approvals and expansions has already caused a range of serious impacts and problems which need to be addressed. We commend the NSW Government for holding this inquiry.