

**Submission
No 108**

**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**

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Chair
Portfolio Committee 2 – Health
Legislative Council
Submission

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

Thank you for the opportunity to contribute to the above inquiry.

We are extremely alarmed about the poor performance and regulation of the Cadia goldmine near Orange and the inadequate assessment and approvals process for the Bowden's lead and silver mine near Mudgee and the McPhillamys goldmine at Kings Plains.

We will be responding to the following Terms of reference.

(a) the impact on the health of local residents and mine workers, including through biomagnification and bioaccumulation

(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

(d) the adequacy of the response and any compliance action taken by the regulatory authorities in response to complaints and concerns from communities affected by mining activities

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

We write this as a joint submission being members of the Belubula Headwaters Protection Group and also as individuals who have been working to oppose the McPhillamys Gold Mine and pressure Regis Resources, the Department of Planning and Environment and the Independent Planning Committee to ensure protection of Country and Aboriginal Culture.

Tony Newman a local Kings Plains resident who has been connected to this land for almost 30 years, he is directly impacted by the proposed McPhillamys Gold Mine being 400 metres from the waste rock emplacement. Tony has an interest in creating living systems for animals, biodynamics and radionics, alternative therapies including Australian Bush Flower essence, acupressure massage and emotional processing and Aboriginal culture. Tonys property was setup as a biodynamic property but with the impending collective contamination from the mine will not be able to undertake these activities, he feels the Regis Resources mine at Kings Plains and his principles will not be able to coexist for obvious reasons.

And Lisa Paton an Aboriginal person with connections to both Wiradyuri and Bundjalung ancestry. Having participated in many committees, groups, and individual activities to highlight the negative impacts of mining and development on Country in addition to being a current member of the Belubula Headwaters Protection Group, is also a member of the Murray Darling Community Consultative Committee - Central West NSW and a Director of the Wiradyuri Traditional Owners Central West Aboriginal Corporation.

Lisa and Tony have a particularly strong connection and drive to protect the area at Kings Plains near Blayney from the negative impacts of mining consisting of impacts to the environment, human and animal health and Aboriginal Cultural Heritage from Cadia Gold mine and potentially the McPhillamys Gold mine once in production. The Kings Plains area has a multitude of connection to Aboriginal heritage including and not limited to the place where the songlines of the Wellington mob, Galari mob and Bathurst mob meet, mob met here prior to the Aboriginal boys going on to initiation at Wahluu (Mount Panorama). The area is rich with tangible and intangible Aboriginal Cultural heritage, including the headwaters of the Bila Bula (Belubula) River Bila Bula meaning rivers two, where the springs exits at the head waters of the river this story being passed down through multiple families, the headwaters is the area where numerous artefacts have been located evident in the McPhillamys mines Aboriginal Cultural Heritage Assessment.

In regard to speaking at a hearing we would be prepared to give evidence at a hearing dependant on work commitments.

In regard to the impacts of mining related to Human Health and TOR (a)

We believe that the impacts to human health are not only evident via physical health they are evident via the psychological impacts from mining which can be triggered by the noise, light, air, water quality or the visual impacts to the surrounding environment. The impacts to the break down in community due to opposing opinions on the mine, loss of neighbours who move away due to not wanting to live close to a mine, fear of what the future has to hold.

There is a negative psychological impact to the Aboriginal community due to the disregard of Aboriginal Cultural heritage and the inadequate strategies identified by the proponent and government departments to supposedly protect and preserve the artefacts and the stories that are connected to the landscape. The wishes of community are often disregarded, and conflicting reports are provided by the proponent about the significance or adequacy of the Aboriginal Cultural Assessments completed, the psychological impacts of this opposing opinions are felt amongst community as a disbelief that such obvious evidence could be so easily disregarded and causes depression and anxiety.

In this region the heightened concern for human health has occurred due to the realisation of cumulative impacts of multiple mining development application approvals and the fact that the Central West of NSW has been identified as a key expansion area for mineral mining, this is a significant concern related to biomagnification and bioaccumulation.

The Central West of NSW is a key agricultural area for the production of beef, lamb, honey, and other horticultural products. The fact that the livestock are consuming pastures that are subject to bioaccumulation which intensifies when being eaten by humans, is a major concern for Australia's food production industry.

A plan for ongoing testing of agricultural and horticultural products should be part of any mining development application and become an ongoing process as part of a management plan including collecting baseline, ongoing and postproduction data.

As an example of human focused baseline and ongoing interventions that should be part of any mines development application, all current Cadia staff should be tested every 12 months at the company's expense, this medical monitoring should not only include all staff it should include monitoring of surrounding farmers, residents and schools in a geographical area to be

determined by independent health and environmental experts, measures such as through testing of the distance of dust drift from the mine site.

Mining companies should be financially responsible for development of an action plan to inform the process of baseline documentation and steps to be undertaken in the event of identification of human contamination, if so detected in their employees, contractors, or community members blood samples. This process should be overseen by an independent body. This independent body should liaise with government to ensure, the mining company is aware of the varying contamination risks on site and undertakes regular random testing to identify new contamination issues and any identified risks should be communicated to all potentially affected stakeholders, and they should act immediately on any risks.

At no point should a mining company be permitted to contaminate Australian Agriculture and impact on the consumption of local produce.

Government Authorities such as Department of Planning and Environment should place stringent conditions on all mining companies operating in proximity of farming, towns and in particular schools and lifestyle blocks.

Land

Through the consequences of the containments from mining that impact the health of the land, there is a direct impact to physical health, and psychological wellbeing of people due to their witnessing these visual impacts.

From an Aboriginal perspective, peoples' spiritual beliefs are linked to their connection to country, the negative visual impacts on the landscape have a deep adverse spiritual impact and are at odds to the cultural expectations to care for country.

'Creeks, rather than the rivers they feed, are central to thinking about pre-colonial relationships between Wiradjuri people and country. Rivers connect creeks like an ancestral thread, just as ancestors connect people to their environment and their kin. Each creek, and each person, contributes to and is responsible for the whole' (MacDonald 2017 p 63)

Included as an attachment.

Being the driest continent in the world and current forecast of the next weather period being an El Nino, allowing mining to take up agricultural land and impact on waterways is a risk to Australia's food and water security and the ability to produce uncontaminated food for Australia's growing population.

Air

The impact of mining on air is also contributed to via light pollution, or artificial light at night, the excessive or poor use of artificial outdoor light, disrupts the natural patterns of wildlife, contributes to the increase in carbon dioxide (CO₂) (smog) in the atmosphere, disrupts human sleep, and obscures the stars in the night sky.

Not being able to view the night sky impacts on long held sharing of Aboriginal Cultural heritage and passing down of sky stories, not being able to connect with a clear view of the sky is another impact to psychological and physical health for Aboriginal people, living in the region.

Water Quality

In regard to food and water security, allowing mining processes to continue to contaminate is a direct association to biomagnification in our landscape and waterways which can only logically increase the risk of degradation of the environment long-term. Continuing to allow current mining practices which contribute to biomagnification will only extend the current issue and create long term complexities in rehabilitation to correct the current and future problems.

From an Aboriginal perspective the rivers and waterways are the life blood of Country and poor water quality and flow volume is a sign Country is sick. Culture is reflective of the environment and if Country is sick those affects are felt by the Aboriginal people that are connected to Country, then they have a desire and feel duty-bound to try and heal Country(mother). If this is not achievable Aboriginal peoples emotional and physical health is impacted. Traditional practices of food collection and teaching children how to survive in traditional ways is impacted on by poor water quality as was the case in the fish kills on the Darling-Barka River, and when the river flow through Wilcannia ran dry and there was no water therefore no fishing and the Aboriginal community were unable to practice traditional ways. Responsibility for the environment as a whole from a cultural perspective is linked to self and community.

As Gaynor McDonald writes

“they brought with them colonial arrogance and British understandings of ‘a river’. They superimposed technologies and understandings of rivers, plants and soil that been honed over centuries, but on the other side of the world, in a different ecology and climate. These were inadequate to maintaining the health of Wiradjuri river ecosystems”. (Macdonald,201, p. 64) **Included as an attachment.**

An example of the impacts on human wellbeing due to a contaminated environment, is the Cadia Community Sustainability Network where due to the impacts caused by Cadia’s mining processes and ensuing contamination, there is a direct impact to their members and local residents personal health. And they are now presented with negative emotional and physical conditions due to Cadias poor mining standards and practices.

The makeup of the material from the pit when exposed and wet becomes acid forming and has the potential to leach contaminates into the surrounding landscape. By the time Regis has finished it’s mining process, they will contaminate the 642ac area of the tailings dam, covering over multiple springs that feed the Belubula river..... leave us with a 1.2 kilometre wide, 460 metre deep pit of contaminated water.....Pump saline based contaminated water from the Lithgow area into holding ponds to leach.....Contaminate underground springs and aquifers and leave us with a tailings dam not rehabilitated at the end of its life. Planning to rehabilitate by remediation with a bit of topsoil and some grass doesn’t actually fix the problem with the subsoil. Not one tree planted on the 642acres of the Tailings Storage Facility will survive due to being deep rooted.

*Below is a photo of the damage to the cooling towers at Wallerawang Power station. The damage was caused by the makeup of the saline based water used to cool the

towers. This saline based waste product is part of the volume of water that will be pumped from the Lithgow area to the Regis Kings Plains mine site.



Contamination of water tanks that are utilised for drinking and household water, is another water quality issue as is evidenced by the contaminated water tanks near Cadia mine. The Regis and Bowden's mines will create the same issues even with stringent procedures. Regardless of Regis modelling for dust, based on Cadia's current issues concerning contamination, we feel that it is impossible for the mining companies to guarantee 100% that the water tanks at the properties and waterways surrounding the mine such as the Belubula River and other tributaries will not be contaminated.

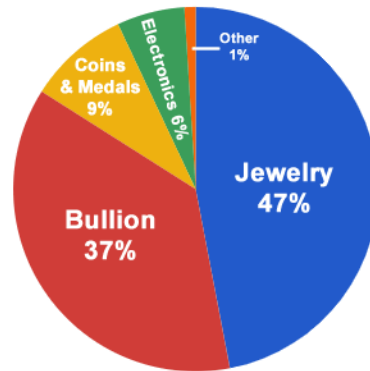
The cumulative impacts to the entire water system both naturally occurring and in man made storage systems is another example of how mining is negatively impacting multiple water systems. Poor water quality impacts on human health via consumption but also the health of the landscape, native and farmed animals. The quality of food produced for human consumption is directly impacted via poor water quality.

Recommendations

A mining project should be assessed not only on its ability to inject money into the economy but should be assessed on the long-term impacts to the environment, people, workers, and public health surrounding the mine, and its capacity to negatively impact on the economic viability of other industries in the proposals area.

The use of the resources mined should be scrutinised from the perspective of hierarchy of need.

Global Gold Consumption By Use



Data from USGS Mineral Commodity Summaries, 2022

Global Gold Consumption by End Use: This pie chart shows the primary uses of gold during 2022. They were: jewelry manufacturing (47%); bullion (gold bars and ingots) (37%); production of gold coins and medals (9%); and other (1%). Data from the USGS Mineral Commodity Summaries, January 2023.

[Uses of Gold in Industry, Medicine, Computers, Electronics, Jewelry \(geology.com\)](https://www.geology.com/uses-of-gold-in-industry-medicine-computers-electronics-jewelry/)

- There should be encouragement of a reduction in gold production, facilitated by several strategies including the following.
 - Shifting our dependency on gold when our economy is in a downturn and investing in other commodities that would be beneficial in bad times.
 - Recycling program for gold and precious metals
- The development of a viable resource alternative and transition strategy away from reliance on new mining activity, to a structure that focuses on recycled resources and encourages development of new technologies.
 - e.g. jewellery – wood and hemp natural sustainable materials hemp can be made into a resin for durable pieces.
- A future safety net which is based around food security and survival of the species, such as a seed bank which could be a trading commodity especially during hard times. (Realistically we can't eat gold)

In relation to our concerns to the response from the regulatory authorities being the Department of Planning and Environment and Independent Planning Committee through the development application process, we feel the response to our and other stakeholders' submissions has been dismal and left us in complete disbelief. Based on the quality evidence we provided we believe that the action to put minimum conditions on the proponent is absurd considering the likelihood for major impacts from the McPhillamys Gold mine, and in addition to this Tony's feelings were that these two bodies DPE and IPC were a waste of everyone's time, energy and resources based on their responses to our concerns, Tony felt our concerns were ignored and dismissed.

In response to the effectiveness of the current regulatory framework for mining activities, in regard to Cadia the framework has failed completely. In relation to the conditions placed on the McPhillamys project is likely that this framework will also be a major failure.

Fines aren't adequate, production needs to be halted when they exceed the regulators limits, as this is most costly to the proponent and would ensure an immediate response and solution to the regulators prohibited event, and safeguard that the proponent continually adheres to best practice.

[Cadia gold mine fined \\$15,000 for dust pollution \(nsw.gov.au\)](http://nsw.gov.au) (example)

Kuskie and Williams reports included as attachments are examples that refute the proponents Aboriginal Cultural Heritage Assessment outcomes and highlight the inadequacy of the work carried out by the proponents' consultants.

After one of the Elders/ Traditional Owner of the McPhillamys site at Kings Plains viewed these independent reports he shook his head in disbelief and said how can they approve this mine. These documents were viewed by other Aboriginal Community members and the same responses were communicated. This decision by the DPE and IPC to approve the development application will have a major impact on Aboriginal Culture and therefore the health and psychological wellbeing of Elders, Traditional Owners, and the broader Aboriginal Community. The current pending Section 10 application and the NSW State Heritage Register Nomination for the Kings Plains location are an extensive compilation of added evidence of the Aboriginal significance of this area.

We hope that you consider the impacts to the health of the community, and also as an example, review the inadequate Aboriginal Cultural Heritage Assessment process that should be revisited to ensure that the regulatory authorities processes are adequately followed, as per TOR (e)

Please see attached video which clearly shows the catastrophic destruction of Country, showing how the existing tailings dam wall breached at Cadia forcing the mining company to divert the tailings waste to the existing open pit as documented in the video. Look at the extensive damage that mining causes!!!!



Aerial view of the Cadia mine the scale bar indicates 1km which gives some indication of the scale of destruction.

We recommend that all committee members fly over Cadia mine to see the extent of the destruction and devastation. The video is an example of what you will witness.

Yours sincerely

Tony Newman and Lisa Paton