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Bowdens Silver Project: State Significant Development 5765

My family and I live in Coxs Creek which is east of Lue. Our closest major town is Mudgee and our direct access to Mudgee is through Lue. I am against the proposed Bowden's Silver Mine for the reasons outlined below.

1. The notification and consultation process

1.1 Community notification and reach

There has been limited reach in terms of community consultation and insufficient timing. For example, whilst directly impacted residents surrounding the site might have received notification of this proposal and any amendments, those who live in neighbouring areas and need to travel through the proposed site in order to reach the nearest major town to buy groceries and get other supplies, have not. Any new mining proposal and/or amendment should consider potential impacts on neighbouring areas, not just those in the direct vicinity of the site. Furthermore, two weeks notification of a proposal of this magnitude, even if only limited to the removal of a water pipeline, is simply insufficient. I personally have only found out that submissions are due today, resulting in a hasty submission.

1.2 The impact of the Proposal announcement on the community

Due to the limited reach of the Proposal notification, the onus of informing all residents that could be impacted by the Proposal was left to the community. This is inherently wrong. This has resulted in a group of concerned residents, landowners and stakeholders being left to mobilise physical and human resources to inform adjoining landowners and the neighbouring towns that public consultations were taking place and submissions were due within 14 days. This placed an inordinate amount of pressure and stress on those individuals and their families, forcing many of them to halt everything else in their lives in order to do this, including recovering from the recent February 2022 floods. Residents and landowners in the directly impacted area and the surrounding neighbouring communities are already at high risk of negative health impacts due to dealing with the cumulative impacts of multiple natural disasters (drought, bushfires, floods and then COVID-19)¹⁻³. This has negatively impacted community health and wellbeing^{4,5}. Yet to be realised is the resultant increased cost and strain to the healthcare system.

2. Negative impacts on the social determinants of health

2.1 Clean air

Air pollution is the world's largest environmental health risk⁶. Particulate matter pollution is strongly associated with hospitalisation and death for a range of cardio-pulmonary and cardiovascular diseases, including lung cancer, lung disease, chronic obstructive pulmonary disease, cardiac arrhythmia, heart attack, and stroke⁷⁻⁹. There are no safe levels of exposure for particulate matter PM_{2.5} and PM₁₀^{8, 10, 11} and even

short-term exposure can have adverse effects on health^{8, 11}. Furthermore, approval of the Proposal would be out of step with the Paris Agreement¹² on action to address climate and ecological crises, and the international Net Zero by 2050¹³ targets.

2.2 Clean water

Despite claims in the EIS that water supply and water contamination will be kept within acceptable limits, it is unclear how this can be guaranteed when the residents in the area rely on tank water captured from roof tops. Considering that during the 2019-2020 Black Summer Bushfires, water was contaminated from tens of kilometers away, it is unclear how dust from the mine will not travel a couple of kilometers to the town and neighbouring properties.

Furthermore, the region has been subject to flooding throughout February 2022. It is not clear in the EIS how freedom from water contamination and ground contamination can be guaranteed given the close proximity of the creeks in the area and the close proximity of the tailings dam to the town.

The Proposal has the potential for significant loss of water. In particular the recent amendment to remove the water pipeline is not realistic. The region has been crippled with drought and bushfires, and water to combat these was in limited supply. Without a pipeline from the Ulan and Moorlaben Mines, claims of having sufficient water to meet the mine requirements require careful and thorough investigation.

2.3 Mental health

The Proposal can result in substantial mental health issues. Rural communities, particularly those based on farming or ecotourism are subject to psychosocial distress caused by climate change, drought, floods and bushfires². Changed landscapes, including altered visual appearance of landscapes such as those that occur with natural disasters or with large scale developments including mining, can have significant negative psychological impacts^{3, 14-17}. This Proposal has already impacted significantly on the health and wellbeing of many residents, many of whom are dealing with the cumulative effects of multiple disasters, as previously mentioned. One friend broke down and exclaimed, *“The drought, the bushfires, COVID, and now the mines. When will the threat to our livelihoods ever stop?”*

2.4 Housing and access to services

The Proposal could negatively impact housing and availability of services at the community level. These impacts will not be outweighed by the promises of investment in the local community through claims of employment opportunities. An influx of workers will result in a high demand for housing coupled with limited housing supply, which will increase housing prices and rental prices¹⁸⁻²⁴. This can have disproportionate impacts on low-income households and often forces them out of the community or results in them becoming homeless^{20, 25}. Rapid population growth often leaves communities with insufficient infrastructure and local services to meet the increased demand^{18, 20, 24, 26}. Local governments and businesses are often hesitant to invest in increased services for what is considered a short term venture^{27, 28}.

2.5 Employment and economic impacts

Mines provide a flow of revenue to governments and the mines' (mostly foreign) owners, however, the flow-on to local businesses and local communities is generally not seen²⁹. Mining is a specialist industry and there is likely to be very limited hiring from the local population²⁷. Mining is becoming increasingly automated which results in fewer on site roles, particularly manual and semi-skilled roles.³⁰ This will likely reduce local opportunities to supply mines with services^{27, 30}. Furthermore, existing businesses and services will struggle to compete with the high wages mining companies offer, finding it difficult to fill positions or retain staff^{20, 21}. These will impact the very fabric of this region.

The Proposal has the potential to create major employment losses in the region. The Agriculture, Forestry & Fishing industry sector is the largest employer in the proposal area accounting for approximately 20 percent

of jobs, followed by Tourism at around nine percent; mining accounts for only two percent³¹. These long-term sustainable industries are incompatible with mining. Developing a mine in the area is not fostering a sustainable economy and is putting the current sustainable economy of the region at risk.

The uncertainty of a new mining proposal has negative impacts on local economies: businesses stop investing³², new industries are difficult to attract³², and property values decrease as people cannot sell³³. This can be evidenced locally by the impacts on Ulan, Wollar and Bylong – communities that no longer exist due to mining operations or the threat of new mining operations.

2.6 Living conditions

The Proposal has potential negative impacts on living conditions. Increased non-resident transient male workforces, with good incomes and large blocks of down time, can lead to increased alcohol and substance abuse, and increased violent crime including physical and sexual assault^{19, 20, 27, 34} in nearby communities. Areas with large non-resident workforces have reported a decline in community networks, community identity and community cohesion^{20, 21, 24, 35}. These again will impact the very fabric of this region.

Environmental noise pollution is a threat to health and well-being³⁶. Detrimental health impacts include hearing impairment, increased blood pressure, ischemic heart disease, sleep disturbance, and psychosocial effects such as annoyance and reduced performance³⁶⁻³⁸. At the lower frequencies, people commonly report pain or pressure in the ears and head, sleep disturbance, pressure in the chest cavity, body vibration and nausea³⁹. Nocturnal environmental noise pollution is thought to be the most significant form of noise pollution in terms of health consequences, due to its interference on biological systems through sleep disturbances³⁸. Noise and vibrations from mining are increasingly impacting neighbouring townships²⁴ and are likely to impact the neighbouring townships of Lue. Noise generated from transporting mining materials in trucks and then to trains, will also undoubtedly impact residents.

2.7 Cultural heritage

Aboriginal Australians are the oldest continuous living culture in the world⁴⁰. Country is of great significance to Aboriginal peoples is fundamental to identity⁴¹. Aboriginal people are owned by the land and have a deep responsibility to protect the land. *Yindyamarra* is a key way of being for the Wiradjuri peoples, to respect and honour everything and is interconnected with identity, belonging, culture, spirituality, language, law and kinship⁴¹. Cultural sites are interconnected and each site represents only one part of a bigger picture. Mining operations of any kind, risk disturbing sites. Moving, damaging, or destroying one site, destroys the meaning of the sites and their interconnectedness. Disrespect, damage or destruction of land leads to significant negative impacts on the health and wellbeing of Aboriginal peoples, impacting their identity, sense of belonging, culture and spirituality, and results in continued intergenerational trauma^{41, 42}.

3. Conclusion

The level of opposition to the Proposal includes: concerns raised with the limited reach of the community consultation process and insufficient time allowed to respond; negative impacts on the community's physical and mental health, access to clean air and water, employment, housing and services and living conditions; decreased social capital; and continued intergenerational trauma through negative impacts on Aboriginal Cultural Heritage and Country. All the above clearly indicate that a social license for the Proposal has not been achieved. The Proposal should be denied.

4. References

1. Australian Institute of Health and Welfare. Rural & Remote Health. Cat No. PHE 255. Canberra: Australian Government; 2019.
2. Fraser CE, Smith KB, Judd F, Humphreys JS, Fragar LJ, Henderson A. Farming and mental health problems and mental illness. *International Journal of Social Psychiatry*. 2005;51(4):340-9.

3. Reser JP, Morrissey SA, Ellul M. The threat of climate change: Psychological response, adaptation, and impacts. In I. Weissbecker (Ed.), *Climate change and human well-being. Global challenges and opportunities*. New York: Springer; 2011.
4. McEwen B, Nasveld P, Palmer M, Anderson R. *Allostatic Load, A Review of the Literature*. Canberra: Department of Veterans' Affairs; 2021.
5. Moffatt J, Baker P. Farmers, mining and mental health: the impact on a farming community when a mine is proposed. *Rural Society*. 2013;23(1):60-74, DOI: 10.5172/rsj.2013.23.1.60.
6. Neira M. 7 million premature deaths annually linked to air pollution. Geneva: World Health Organization. News Release, 25 March 2014. Available at <https://www.who.int/news/item/25-03-2014-7-million-premature-deaths-annually-linked-to-air-pollution>.
7. World Health Organization. Global Health Observatory: Ambient Air Pollution. Available at <https://www.who.int/data/gho/data/themes/air-pollution/ambient-air-pollution>. Viewed 3 August 2021.
8. Doctors for the Environment Australia. Submission No. 4 to the Senate Community Affairs References Committee, Parliament of Australia - Impacts on Health of Air Quality in Australia. 2013.
9. United States Environment Protection Authority. Particulate Matter (PM) Pollution. Washington, DC United States Environment Protection Authority. Available at <https://www.epa.gov/pm-pollution> Viewed 5 Aug 2021.
10. Senate Community Affairs Committee. Impacts on health of air quality in Australia. Canberra: Commonwealth of Australia; 2013.
11. World Health Organization. Health effects of particulate matter. Denmark: WHO Regional Office for Europe; 2013.
12. United Nations. The Paris Agreement. Bonn, Germany: United Nations Framework Convention on Climate Change; 2016.
13. International Energy Agency. Net Zero by 5050. A roadmap for the global energy sector Paris: IEA; June 2021.
14. Albrecht G. Solastalgia: a new concept in human health and identity. *Philosophy Activism Nature*. 2005;3:341-55.
15. Speldewinde PC, Cook A, Davies P, Weinstein P. A relationship between environmental degradation and mental health in rural Western Australia. *Health and Place*. 2009;15(3):880-7.
16. Albrecht G. Chronic environmental change: Emerging 'psychoterratic' syndromes. In I. Weissbecker (Ed.), *Climate change and human wellbeing: Global challenges and opportunities*. New York: Springer; 2011.
17. Bourke L, Humphreys JS, Wakerman J, Taylor J. Understanding drivers of rural and remote health outcomes: A conceptual framework in action. *Australian Journal of Rural Health*. 2012;20:318-23.
18. Mactaggart F, McDermott L, Tynan A, Gericke CA. Exploring the determinants of health and wellbeing in communities living in proximity to coal seam gas developments in regional Queensland. *BMC Public Health*. 2017;18(1):51.
19. Carrington K. The resource boom's underbelly: Criminological impacts of mining development. *Australian and New Zealand Journal of Criminology*. 2011;doi.org/10.1177/0004865811419068.
20. Sincovich A, Gregory T, Ashleigh W, Brinkman S. The social impacts of mining on local communities in Australia. *Rural Society*. 2018;27(1):18-34. DOI: 10.1080/10371656.2018.1443725.
21. Petkova V, Lockie S, Rolfe J, Ivanova G. Mining developments and social impacts on communities: Bowen basin case studies. *Rural Society*. 2009;19(3):211-28.
22. Rolfe J, Miles B, Lockie S, Ivanova G. Lessons from the social and economic impacts of the mining boom in the Bowen Basin 2004-2006. *Australasian Journal of Regional Studies*. 2007;13(2):134-53.
23. Fleming DA, Measham TG. Disentangling the Natural Resources Curse: National and Regional Socioeconomic Impacts of Resource Windfalls. Agricultural & Applied Economics Association's 2013 AAEE & CAES Joint Annual Meeting Washington, DC, August 4-7, 2013.
24. Franks DM, Brereton D, Moran CJ. Managing the cumulative impacts of coal mining on regional communities and environments in Australia. *Impact Assessment and Project Appraisal*. 2010;28(4):299-312.
25. Robertson M. Affordable housing in the boom. *Parity*. 2010;23(6):64-6.
26. Carrington K, Pereira M. Assessing the social impacts of the resources boom on rural communities. *Rural Society*. 2011;21(1):2-20.
27. Power Consulting Incorporated. The social costs of mining on Rural Communities. Missoula, Montana; 2019.
28. Ruddell R. Boomtown Policing: Responding to the Dark Side of Resource Development. *Policing*. 2011;5(4):328-42.
29. Power Consulting Incorporated. The social costs of mining. Missoula, Montana; 2019.
30. McNab K, Onate B, Brereton D, Horberry T, Lynas D, Franks DM. Exploring the social dimensions of autonomous and remote operation mining: Applying Social Licence in Design. Brisbane: University of Queensland; 2013.
31. Remplan. Economy, Jobs and Business Insights - Mid-Western Regional Council Local Government Area <https://app.remplan.com.au/midwestern/economy/summary> Victoria: Remplan; No date.

32. Campbell R, McKeon R. For Hume the Bell Tolls: local economic impacts of the Hume Coal project. Canberra: The Australia Institute; 2017.
33. Murray C, Campbell R. SUBMISSION: Rocky Hill coal project. Canberra: The Australia Institute; 2017.
34. Jayasundara D, Heitkamp T, Mayzer R, et al. Exploratory Research on the Impact of the Growing Oil Industry in North Dakota and Montana on Domestic Violence, Dating Violence, Sexual Assault, and Stalking: A Final Summary Overview. National Institute of Justice Award Number 2013-ZD-CX-0072. 2016.
35. Petrova S, Marinova D. Social impacts of mining: Changes within the local social landscape. *Rural Society*. 2013;22(2):153–65.
36. Goines L, Hagler L. Noise pollution: a modern plague. *Southern Medical Association*. 2007;100(3):287–94.
37. Babisch W. Noise and Health. *Environmental Health Perspectives*. 2005;113(): (1):A14–A1.
38. Halperin D. Environmental noise and sleep disturbances: A threat to health? *Sleep Science*. 2014;7:209–12.
39. Hunter Central Rivers Alliance and Leard Forest Research Node. Noise Impacts from Mining in Rural Areas. An epidemic of sleep disturbance. NSW: Hunter Central Rivers Alliance and Leard Forest Research Node; 2017.
40. Rasmussen M, Guo X, Wang Y, et al. An Aboriginal Australian Genome Reveals Separate Human Dispersals into Asia. *Science*. 2011;334(6052):94-8. DOI: 10.1126/science.1211177.
41. Duff A, et al. A Right Way, Wrong Way and Better Way for Energy Engineers to Work with Aboriginal Communities. In: Bombaerts G., Jenkins K., Sanusi Y., Guoyu W. (eds). pp 45-68. *Energy Justice Across Borders*. Springer, Cham. https://doi.org/10.1007/978-3-030-24021-9_32020.
42. Schutze, H. Personal comm: Traditional Custodians and Aboriginal community members, Aug 2021.