Re: Bowdens Project - Submission to Independent Planning Commission

The Bowdens Project <u>should be rejected</u> as it is not in the public interest. It fails to meet the precautionary principle¹, a standard to which all development projects should be scrutinised. Effective measures, with regards to this project, can only be achieved by rejecting the development application.

I have lived in Mudgee for most of my life. This region holds a portion of my family history. I do not want to see this beautiful region damaged and destroyed for a short term financial gain.

The Bowdens Project is to be located adjacent to Lawsons Creek, as well as over the fault boundary between the Sydney Basin and Lachlan Fold Belt. This project has the potential to negatively impact both surface water and ground water.

With the extraction of the silver product, Bowdens Project will also be extracting "...sulphides of iron, arsenic, zinc and lead.^{2"} The treatment and disposal of these toxins carries a significant and highly probable risk of contamination to the air, water, and soil of the immediate area, as well as further surroundings and downstream. Lawsons Creek feeds into Cudgegong River. This flows on to Macquarie River, moving on out west to Macquarie Marshes and on through the Murray-Darling Basin. The Bowdens Project has the potential to leach toxic waste throughout Australia's largest catchment system; the water source for the food bowl of Australia. Despite the proposed usage of a high density polyethylene liner along the base of the tailings storage facility (TSF), there is no way of predicting the long term integrity of this preparation in the containment of the toxins and by-products from the mining venture. The only surety of environmental integrity is to not disturb the site in the first place. The assumption that a company will prepare a site for waste capture and processing is appropriate only to the extent that they will presumably operate within the required limits of any regulation. It could be argued that a company, with its obligations primarily to its shareholders, will not operate beyond the minimal expectations of any regulatory restriction. Shareholder expectations are the benchmark for any company and to expect or anticipate that the company will act beyond this scope, particularly with regard to external elements such as environmental integrity, is perhaps assuming well beyond reality.

Mining and processing at this site have been estimated to go for "...at least 17 years.3" At the conclusion of this enterprise, what is the intergenerational plan for managing the TSF? Who is financially and environmentally responsible for ensuring the integrity of the high density polyethylene liner? Will the shareholders take responsibility for this ongoing and necessary protection, or will it simply disintegrate into a public disaster, requiring public money to clean up the mess? During operation, "Bowdens' own proposal acknowledges a leakage rate of 1.6mL per day.4" This is unacceptable! What will the potential leakage rate be once the company has completed operation and has walked away?

¹ Felix, Jose. "The Precautionary Principle." International Institute for Sustainable Development, 23 October 2020, https://www.iisd.org/articles/deep-dive/precautionary-principle. Accessed 12 February 2023.

Corkery, RW. "Preliminary Environmental Assessment for the Bowdens Silver Project." Bowdens Silver, 26 November 2016, https://bowdenssilver.com.au/wp-content/uploads/2017/02/Bowdens-Silver-Project-Revised-Preliminary-Environmental-Assessment-Nov-2016.pdf - page 8. Accessed 12 February 2023.

Corkery, RW. "Preliminary Environmental Assessment for the Bowdens Silver Project." Bowdens Silver, 26 November 2016, https://bowdenssilver.com.au/wp-content/uploads/2017/02/Bowdens-Silver-Project-Revised-Preliminary-Environmental-Assessment-Nov-2016.pdf - page 1. Accessed 12 February 2023.

⁴ Lue Action Group. "Protecting Lue and Mudgee from potential environmental disaster." *Lue Action Group*, https://www.lueactiongroup.org/. Accessed 12 February 2023.

According to the United States Environmental Protection Agency, "Elevated lead in the environment can result in decreased growth and reproduction in plants and animals, and neurological effects in vertebrates.^{5"} In addition to this, the World Health Organisation states that "there is no known safe blood lead concentration; even blood lead concentrations as low as 3.5 µg/dL may be associated with decreased intelligence in children, behavioural difficulties and learning problems. As lead exposure increases, the range and severity of symptoms and effects also increase.^{6"} Why would a planning organisation allow for such a significant risk to be approved, potentially impacting the health and wellbeing of our entire community, both now and into the future. The intergenerational impact is too big, too risky and completely unethical.

On page 27 of the Preliminary Environmental Assessment⁷, it states the management commitments to combat "Air quality, Lead, and Health Risks." The commitment includes "Apply water to roads and trafficked areas using water trucks to minimise the generation of dust. Install and operate water sprays on crushing equipment. Water stockpiles to maintain moisture content and minimise the generation of dust.8" Where is this water going to come from? During the normal el nino cycles, this is a very dry part of Australia. There is not an abundance of surface run-off, or under-ground supplies, to perhaps meet the demands of this operation. This is an area of concern which requires significant investigation and planning. The suggestion that it will come from Lawsons Creek is a disaster waiting to happen. Has there been a consideration of what happens in Australia at the height of an el nino cycle, the common trend of Eastern Australian weather patterns? Lawsons Creek has a small flow rate at the best of times, with a significant reduction during normal to el nino cycles. With farming and other uses along the Lawsons Creek, extraction rates and licences will be significantly impacted if the Bowdens Project goes ahead and drains the creek dry before it has even had a chance of moving further downstream. This issue needs further investigation and realistic measurements of a worst-case scenario.

Australia is a signatory to the Stockholm Convention on Persistent Organic Pollutants. While lead, arsenic, zinc and iron are all natural products, they are problematic when relocated in our environment, so as to become persistent organic pollutants. If the federal government found it prudent to sign this international agreement, why are we prepared to allow for a project to be approved which will go against the ambitions and intentions of the international agreement. This is completely averse to the precautionary principle under which all government and other agencies should be operating.

"Implement waste rock and tailings management measures to minimise the potential for contamination of land, surface water and groundwater⁹." This acknowledges that there is the potential for contamination from this project. The type of contamination is potentially highly toxic and irreversible. Not only is the contamination possible on a surface level, but it is also

⁵ United States Environmental Protection Agency. "Basic Information about Lead Air Pollution | US EPA." *Environmental Protection Agency*, 26 July 2022, https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution . Accessed 12 February 2023

⁶ World Health Organisation. "Lead poisoning." World Health Organization (WHO), 31 August 2022, https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health . Accessed 12 February 2023.

Corkery, RW. "Preliminary Environmental Assessment for the Bowdens Silver Project." Bowdens Silver, 26 November 2016, https://bowdenssilver.com.au/wp-content/uploads/2017/02/Bowdens-Silver-Project-Revised-Preliminary-Environmental-Assessment-Nov-2016.pdf . Accessed 12 February 2023.

⁸ Corkery, RW. "Preliminary Environmental Assessment for the Bowdens Silver Project." Bowdens Silver, 26 November 2016, https://bowdenssilver.com.au/wp-content/uploads/2017/02/Bowdens-Silver-Project-Revised-Preliminary-Environmental-Assessment-Nov-2016.pdf – page 27. Accessed 12 February 2023.

Orkery, RW. "Preliminary Environmental Assessment for the Bowdens Silver Project." Bowdens Silver, 26 November 2016, https://bowdenssilver.com.au/wp-content/uploads/2017/02/Bowdens-Silver-Project-Revised-Preliminary-Environmental-Assessment-Nov-2016.pdf . Accessed 12 February 2023.

possible on the sub-surface. Leaching into the groundwater and soil is equally possible and significantly destructive to the environment, both immediate and distal. With the project site being located over several geological zones, the risk of leaching is high. The flow leads to more than one catchment, both inland and coastal.

Finally, the suggestion that this project has an economic benefit to the region is concerning. According to the Preliminary Environmental Assessment, the construction phase will employ "approximately 200 persons," while the operational stage will employ "approximately 150 persons.¹0" While there is an argument that any industry can have a positive multiplier effect on a region, the environmental and health implications of the operation significantly outweigh any economic gain to be had. And with the life of the operation being documented as "…17 years,¹¹" the economic gain will be eradicated by the environmental and health impacts and ramifications which will last indefinitely.

Judge Preston in the case landmark case Gloucester Resources Limited v. Minister for Planning (2017) stated that the development was "...in the wrong place at the wrong time. 12" While that case was about a coal mine, and the development application was successfully stopped in relation to Australia's commitment to the Paris Climate Agreement, key arguments relevant and related to the Bowdens case at hand include "...planning impacts...visual impacts...noise and dust...social impacts...outweigh the economic and other public benefits...the project is contrary to the public interest. 13"

Bowdens lead mine development is unethical and should be declined. We should not be investing in industries which risk long term irreversible environmental destruction from a short lived economic venture.

I have lived in this area, specifically Mudgee, for most of my life. This is my community. This is my home. This is my environment. We are located in a spectacular part of the world, in an environmental area of beauty and serenity. I want to see this area preserved and protected for generations to come. I want to see others care for this environment in a way that is genuine and not from a superficial regulatory perspective, as way of meeting minimal requirements only.

Claire Windever

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¹² Environmental Law Australia. "Gloucester Resources ("Rocky Hill") case." *Environmental Law Australia*, http://envlaw.com.au/gloucester-resources-case/ - paragraph 699. Accessed 12 February 2023.

Environmental Law Australia. "Gloucester Resources ("Rocky Hill") case." Environmental Law Australia, http://envlaw.com.au/gloucester-resources-case/ - paragraph 688. Accessed 12 February 2023.