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To the IPC Public Hearing February 2023 Bowden's Silver Project SSD-5765

As a resident of Mudgee, I am opposed to this project. My major concerns which I will address relate to both the short- and long-term risks to our water supplies.

“Loss of Water”

The traditional owners name for Lue means “a chain of waterholes”. Bowden's Silver Mine will destroy the local waterholes and springs that are fed by groundwater. This mine will irreparably damage the water supply for local users and the environment.

Groundwater and surface water are highly connected and impacted by mining operations with severe irreversible impacts on river systems.

The result in a loss of flow in Lawson Creek will have a significant impact on ALL downstream water users, including a loss of flow into the Cudgegong and consequently into the Burrendong Dam.

“Predicted Weather Events”

Climate change is causing an increase in extreme events:

“Extreme Drought” being one. This area is already classed as an Arid Region and cannot risk losing any of the natural water resources that exist. Bowden's mine will destroy this delicate balance. In times of drought: farmers in the Lue area, residents along the river, animals and plants will all suffer more than in the past dry times.

Secondly, “Rain Events” leading to destructive flooding impacts are already being experienced. How can Lue and Mudgee residents be confident that these events will not cause the overflow or collapse of the tailings dam and leakage of hazardous substances into the river system? The natural flood plain where the Lawson Creek merges into the Cudgegong River is one of the points where Mudgee town water supply is sourced. Recently this entire area was flooded from a rain event. Note this area is traditionally known to flood. A major rain event could cause toxic chemicals from Bowden's mine to enter the water table and pollute our Mudgee town water supplies. Children who use the Mudgee Glen Willow sporting complex will be at risk of lead poisoning as they will be exposed to this toxic water.

“Toxic Waste in our Water”

This project will create two massive dumps containing acid forming rock and a toxic tailings dam that will be perched above the water table and local creek catchments including Price Creek, Hawkins Creek and Lawson Creek.

The huge single wall tailings dam will be less than 1 km from Lawson Creek. Over the mine's life tonnes of toxic and hazardous chemicals, including Lead, Arsenic, Cyanide and Cadmium will end up in the tailings.

The Tailings Dam is planned to be built across a major geographical fault line. Any movement would increase the risk of leakage or collapse of the dam. If this occurs the toxic water will flow into Lawson Creek carrying the hazard downstream. The Lawson Creek flows into the Cudgegong River at Mudgee feeding into Mudgee Town's water supply!

The proposed mine is estimated to create millions of tonnes of waste rock which will be potentially acid forming (PAF). PAF rock contains sulphides, which when disturbed can create sulfuric acid. Sulfuric acid is toxic to aquatic life, and acid drainage from sulphide bearing rock is recognised as a major source of heavy metal pollution to groundwater and surface water ways. Heavy metals from the orebody below ground released by sulfuric acid will contaminate groundwater (and thus surface water) decades after mining stops.

The Project proposes to prevent contamination of the downstream environment by sealing underneath and capping both the Waste Rock Emplacement Area and the Tailings dam. However, expert advice tells us that "it will be difficult to build to design and to quality check construction to meet design". Leakage will not be known until it is already polluting the surrounding environment. The location of the leaks will be extremely difficult to pinpoint and in many cases repair will not be possible. The proposed construction methods are untested. There is no proof that they will be successful. It is well known that many other tailings dams have leaked or even collapsed.

The risk of heavy metals such as arsenic and antimony leaking into the river systems is realistic. The health impacts of lead poisoning are well known! Once hazardous substances enter the ground water system the impacts would be disastrous

Is it worth that risk of these toxic wastes infiltrating the River System, Mudgee town water supplies and Glen Willow sporting complex water table?

Where is the comprehensive scientific study to prove that this risk is not a valid concern for my community?

When the life of the mine is over what commitment does our local community have that the tailings dam will be maintained, monitored and repaired? What Agency will do this forever?

Five generations of my family have called Mudgee home. Even if the problems I have identified do not eventuate in the near future, it is not worth sentencing my family and my community to the risk of a long term intergenerational toxic environment.

Please do not approve this mine!