

Planning and Assessment  
Department of Planning, Industry and Environment  
Locked Bag 5022  
Parramatta. NSW. 2124.

### SUBMISSION

Date: 26<sup>th</sup> July 2020  
Name: Sue Ann White  
Address: 1918 Lue Road, Havilah. NSW. 2850.

Applicant – Bowdens Silver Pty Limited  
Application Number – SSD-5765  
Application – Bowdens Silver Mine

I object to the BOWDENS SILVER MINE proposal.

I declare that I have not made a reportable political donation in the previous 2 years.  
I would like my submission to be anonymous.  
I request that you please withhold my name, do not publish my name on your website and  
Remove my name from any documents that are already published on your website.

The reasons for objecting to this proposal are:-

1. Water safety/security
2. Damage to the environment
3. Human health
4. Legacy for the Lawson Creek Valley and the state of NSW

#### 1. Water

Surface Water:-

I live at Havilah, 8km from Lue and the proposed mine. Our property is on Lawsons Creek and our livelihood is farming sheep and cattle. We hold a Water Access Licence that hasn't been used since the 1980s due to lack of water available and changes to our farming practices.  
We use water out of the creek for stock and domestic purposes. There are 12 households within 1.5 km of the Havilah Bridge that depend on water from Lawsons Creek.  
Clean water is essential for our survival on the farm.

I am worried that the mine's need for 1800ML/year will put severe stress on the Lawsons Creek's surface water supply. There is no consideration for dry times or drought in the EIS.  
We have just come out of a severe drought. Lawsons Creek was reduced to sparse pools and despite some good rain events this year the creek is still flowing at a low level.  
The competition for surface water along the creek is high with more and more people living along the creek and consequently drawing out surface water for their stock and domestic useage.

Ground Water:-

The mine intends to use 637ML of groundwater/year.

The 300m deep pit will affect the water table. The pit at the end of mining will continue to suck in groundwater for up to 200 years after the mine is shut down. Bowdens are not going to fill the void after mining and it is likely that the waterhole created will be polluted with heavy metals and highly acidic therefore of no use to anyone needing water for industry or leisure.

We are concerned the creek water will become more and more salty as the ground water flow will naturally find its way into the creek when the water table is disturbed by excavation of rocks in the mine pit.

Pipeline from Ulan:-

Bowdens propose to pipe water 59km from a coal mine at Ulan which will account for 14% of their water requirements. This water will be very poor quality, unprocessed and not suitable for any other use. There is therefore a great risk to the property owners along the pipeline that the salty water could come onto their land in the event of a breakout from the pipeline.

The piped water will not be suitable for fire-fighting or agricultural use due to its saline nature.

## 2. Damage to the Environment

Acid Mine Drainage (AMD)

Tailings Dam (TSF):-

I am extremely concerned that the 117ha TSF is to be placed less than 1 km from Lawson's Creek.

The TSF will be full of contaminants, lead, zinc and silver tailings, arsenic, antimony, fluorine and manganese. Cyanide used in the processing of the ore will be present too. These toxins will be left in our environment forever.

The Bowdens EIS shows a fault line running underneath the TSF on a cross-section map. Another fault line runs under the WEA.

The tailings dam also has a spillway built into its design.

The TSF could fail during a catastrophic weather event. In 2008 we recorded 225mm here in 10 hours. This resulted in extensive regional flooding that lasted for several days. Lue was cut off from both directions due to water flooding the road.

These storms occur frequently and are often extremely localised. We have had similar rainfall events although less extreme on 12<sup>th</sup> Feb.2020 when we received 125mm on the western end of Havilah and Mudgee recorded only 26.6mm.

If we had a similar rain event anywhere near the minesite the tailings dam would overflow and the toxins would escape into our surface and groundwater. This would be devastating for the river systems feeding from Lawsons Creek.

Waste Rock Establishment Area (WEA)

I am extremely concerned that we will get seepage and leakage from the waste rock emplacement area (WEA). This would result in damage to both groundwater and surface water as both these areas are to be put above the water table and less than 1km from Lawsons Creek.

Leakages would be difficult to detect and impossible to repair.

This legacy of PAF waste rock is also to be left in our environment on a vulnerable site above the water table of Lawsons Creek forever.

The WEA covers 77ha of uneven ground, including gullies and natural watercourses. The proposal to dump 56 tonnes of waste rock, potential acid forming (PAF) and lining the ground with a 1.5mm a geotextile material for protection against leakage sounds very unconvincing and not sound practice.

A much smaller trial area, 1/2ha, done by Century Zinc in NW Qld using the methods described by Bowdens to cover and cap the TSF & waste rock in the WEA proved to be unsatisfactory.

The Yerranderie Silver Mine in the Warragamba Dam catchment was closed down 80 years ago and there are still toxins in the run off from the tailings and mine site. Repair work has had to be done at the NSW government's expense. It is an ongoing issue with monitoring of water and major reconstruction works being done.

In 2019 an Engineers Australia leaflet stated that "the UN recently labelled AMD as the second biggest problem facing the world after climate change".

#### Flora and Fauna:-

Koalas live near Lue. There has been one recorded sighting on the land owned by Bowdens. During the 2019-20 drought the koalas were moving around in this area. We spotted one in a roadside tree on the Lue Rd about 6km from Lue. They have been seen by locals to the north and east of the mine site.

Koala habitat is of national importance especially after the devastation of the 2019 bushfires. A recent approved extension to the Brandy Hill quarry in the Upper Hunter region will destroy 52 ha of known koala habitat. We could encourage koalas to thrive in this region.

The Bowdens site also supports the growth of White Box, Yellow Box, Blakely's Red Gum, important species of eucalypts that comprise grassy box woodland landscapes. They provide important habitat for some of our rare and endangered species such as koalas and regent honeyeaters. The Regent Honeyeater is listed as a critically endangered bird. Birdlife International identified Mudgee-Wollar and the Capertee Valley as being an important site for the species in 2011. The 2019-20 bushfires in the Wolgan Valley has had an incredibly negative effect on the already small wild population.

There has been a sighting of the regent honeyeater near the school in Lue by an avid local bird watcher.

There is a family of Platypus that have been known to be living under the Havilah Bridge on Lawsons Creek downstream of Lue. They first came to my attention in the 1980s.

### 3. Human Health.

I am concerned about the future of the village of Lue which has 98 houses, 192 residents and a thriving Primary School. It is the 5<sup>th</sup> largest town in the Mid-Western Regional Council.

I am concerned about the quantity of lead being dug up and the resulting dust in the air, on the ground and in the tailings.

There have been many studies done on the effect of lead on human health from other mining areas such as Broken Hill, Mount Isa. Professor Barry Noller has stated that the bioaccessibility (the ability of the body to ingest lead) will be 3 times higher at the Bowdens site near Lue than studies done in Mt Isa and Broken Hill have shown. This is because of the density of the lead in the total amount of rock to be mined.

Lue Village is less than 2km from the mine. It will be impossible to stop the dust from infiltrating the houses and water tanks due to the nature of mining and the movement of heavy transport around the site.

The residents of Lue rely on rainwater from roof catchment and some bores for their water supply. With 95,000 tonnes of lead being extracted from the mine, 42% of the total, the risk of lead dust getting ingested by the residents of Lue is very high.

The bores and springs around Lue will dry up due to the water usage demands of the mine.

Will the proponent provide a water pipeline from Mudgee to compensate Lue for this?

I am concerned about air quality.

Lead and silica both adversely affect human health. These will be in the dust from the mine. I have also read about blast fume, an orange fume that results when explosive material gets wet. The fumes are toxic and dangerous to human health. Explosives will be used for blasting at this mine. The residents of Lue will be incredibly impacted from the noise of machinery, blasting, vibrations, artificial light, day and night. Their mental health is at risk.

I am concerned about daily truck movements along the Lue Road.

There will be trucks carrying chemical explosives and oxidising agents to the mine every day. There will also be B-doubles travelling to and through Mudgee with ore concentrate every day. The Lue Road is windy and narrow in places. It could be dangerous.

#### 4. Legacy

I am concerned that after 16 years of mining, when the mine closes, we will be left with toxins in the environment that will be there forever in the TSF and WEA. The plans in the EIS to protect the environment from pollution are not convincing. We all see the effects of heavy rainfall and erosion, droughts and dust storms. We don't want a dangerous hazard threatening the water and air quality of the Lawsons Creek catchment forever.

The proponent has had no experience in running a mine. This will be the most environmentally dangerous mine in our region. I am concerned that the local community and state government will be left with a long term liability that will have negative impacts on us all.

The Mid Western Regional Council values agriculture and tourism.

Both industries provide jobs and training to locals and encourage others to move to the region to live.

Lue is an idyllic alternative to living in a larger town. The school is well recognised for its facilities. There is a very well organised and essential Bush Fire Brigade. The presence of villages in the MWRC region is important to the whole shire.

The circumstances of 2020 and the lockdown with Covid-19 has shown us that many businesses can operate from the home office.

We need to encourage diversity in the workplace and employment.

The promise of jobs for 16 years does not compare to the negative effects of unbalancing surface and groundwater systems, pollution of the soil and water with toxic chemicals and the destruction of a functioning community.

There is no guarantee that locals will get a job despite what the proponents are suggesting in their promotional material.

I am asking you to please reject the application for a mining licence by Bowdens Silver Pty/Ltd.