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Submission - Amendment to EIS for Lue Lead Mine/Bowdens Silver Project SSD 5765

Submission of Objection

5/8/2021

Healthy Rivers Dubbo is a grass roots community network dedicated to providing a strong voice for our local rivers, aquifers and wetlands in the Murray-Darling Basin for the benefit of wildlife, plants and people. We pay our respects to Elders past and present, and acknowledge that this land was never ceded.

Healthy Rivers Dubbo (HRD) strongly objects to the proposed Lue Lead Mine near Mudgee. There would be a lot more lead produced by this mine than silver, therefore we refer to the proposal as the Lue Lead mine, which is a far more accurate way of describing the project.

Climate Change

The draft Macquarie Regional Water Strategy (RWS) presents climactic modelling produced by the NSW Government showing the impact of climate change on water in the valley. The report presents what it says is the worst case scenario, however we have witnessed a summer of horrendous disasters in the northern hemisphere, and all the signs point to the so-called 'worst case' scenario actually being understated.

*"...a study this year of ocean-salinity data from between 1950 and 2000 by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO) found that the global water cycle – the rate at which water evaporates and falls as rain – has increased at double the pace projected by models that aim to simulate the global climate."*¹

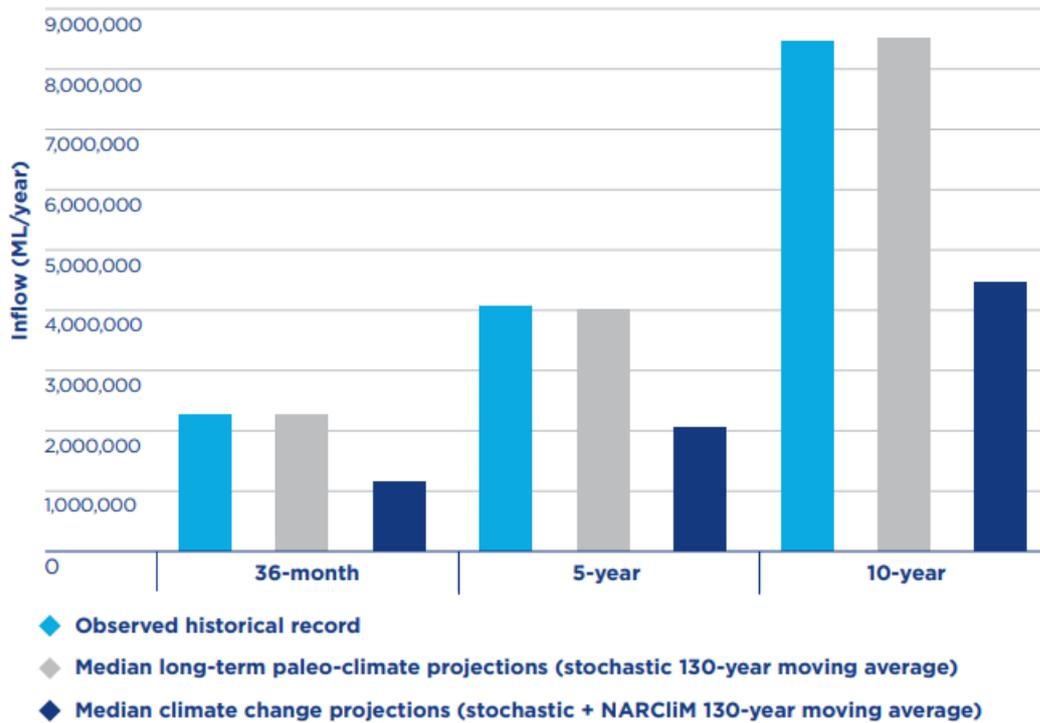
The scenario presented for the Macquarie Valley in the RWS will probably be 'likely', not 'worst case'. It will also most likely manifest sooner than forecast.

The RWS tells us that in the next few decades the risk of extreme drought could increase from 1% to 20-25%, and that inflows into Burrendong dam could decline by up to 50%.

The drought experienced in 2019/20 was unprecedented in its extremity. The valley was months away from the river being cut off at Burrendong dam. There is not the extra water available that would be needed to suppress lead dust at a new lead mine.

¹ <https://www.newscientist.com/article/mg21628911-600-climate-downgrade-extreme-weather/#ixzz72eXjseb8>

Figure 12. Median annual inflows into Burrendong Dam under three climate scenarios



Source: Department of Planning, Industry and Environment—Water 2020, hydrological modelling

Page 44 Macquarie Draft Regional Water Strategy

Not only is climate change bringing more frequent and more intense droughts, we are also seeing globally that when floods do come, they are more likely to be large and more destructive.

Tailings dam

Lead is a particularly environmentally damaging metal to mine. The process created a lot of tailings.

Tailings dams are much more likely to fail than dams that hold water, because of the great weight of sludge they contain. Over the past century the failure rate for tailings dams was more than 100 times higher than that of reservoir dams.²

“Lead is almost always contained in sulfide ores as galena, or lead sulfide. Waste rock material from mines that contain metal sulfides can lead to sulfuric acid drainage when left out in the open air. Tailings also contain minerals and materials that can lead to dangerous runoff and water contamination when stored improperly. Some mine waste and tailing dump

² <https://www.sciencemag.org/news/2020/08/catastrophic-failures-raise-alarm-about-dams-containing-muddy-mine-wastes>

sites are structurally unsound and often overflow and break, allowing contaminants to spill out over the surrounding environment.”³

The tailings dam for the Lue Lead Mine proposal would be built within a kilometre of Lawson Creek. It would be unable to withstand the impacts of a major flood. We know that climate change has brought on greater risks of severe, damaging floods.

HRD is concerned that the assessment of the integrity of the tailings dam, which would contain heavy metals and cyanide, does not factor in the much higher risk of severe flooding due to climate change. The assessment relies on average rainfall data, which does not predict the damage that is done by severe events.

The irreversible pollution risk to the Cudgegong River, Burrendong dam, Macquarie River and the Macquarie Marshes is unacceptable. These water courses provide town water for Gulgong, Mudgee, Wellington, Dubbo and communities between and beyond.

The assessment that groundwater would only be polluted up to 40 metres from the mine site has no basis for fact. There is nothing to stop the pollution from permeating the ground over time. Such an enormous and permanent risk to groundwater sources is unacceptable.

Poor Process

The realignment of the large power line should have been included in the EIS that was released last year. It is a sign of a poor planning process that it was omitted, eroding even further the public's trust in the process.

The significant impacts to biodiversity and cultural heritage of moving a 500kv Transgrid power line will need a lot more assessment than this process will facilitate.

Yours Sincerely

³ https://www.worstpolluted.org/projects_reports/display/84