

The NSW Department of Planning and Environment

GPO Box 39, Sydney NSW 2001

Project Application number is 10 0054 MOD 3

Dear Sir/Madam

I am writing to object to the above application from Unity Mining being approved at all, whether with or without additional conditions.

I live in Araluen and with about 1.5kms of the Araluen Creek running through the property have a significant interest on any matter that impinges on the well being of the Creek. The water is used for stock a small orchard and a large vegetable garden. This surface water is rarely not running and even in drought there are large pools.

Cortona Mining originally proposed the gold mine which after several years of negotiation with the community and many serious concerns regarding both surface and ground water, this was approved. The Land and Environment Court and the PAC were also involved in setting higher standards in the conditions and imposing significant water monitoring requirements.

Unity Mining took over the mine and immediately assured the community of their commitment to meeting the conditions previously negotiated; including no processing with cyanide on site, would be honoured.

Even with the initial development proposal from Cortona the Araluen Valley residents were concerned re the ground water as well as the surface water, the amount of water to be used by the mine appeared very high and while most was "harvestable rights" that was then not available for the environment and downstream ground or surface water. Most people in the Valley have wells and or small bores and this pristine environment has supported this food bowl for many years. There was concern re the tailings dam and possible future breaches.

Their concerns were validated when within the first and only 6 months the mine has operated (construction only) there were five breaches three of which resulted in the creek being polluted by sediment. While the company admitted guilt and has paid a fine, always in these circumstances "it is an after the event" issue.

This company has had a changed narrative from day 1, with a range of statements to various audiences re their now proposed modification to process with cyanide on site. This is to make the enterprise "more robust" to if not approved, "we will still mine and process elsewhere". Their scanty EA for modification 3 is evidence of the disdain this company has for the requirements demanded by communities in respect of companies wishing to operate within their midst with potentially dangerous activities.

This processing plant will fundamentally change the economics of further processing of ore in the greater area. Other gold prospecting licences are active across the region; it would

only need one more Modification by Unity to extend the processing to include ore from other sites, thus greatly enhancing the risk of further heavy metal or cyanide contamination. While Unity has indicated publically and through news outlets it does not intend to process from other sites, this rather smacks of their “never ever cyanide” mantra which changed so rapidly.

Interestingly the Chairman’s address to the 2014 AGM stated that it would be irrational for Unity to restrict use of its proposed plant to one mine.

It is clear that this application carries a risk that the abundant food producing catchment and the pristine environment of the Araluen Valley and Deua River corridor could be damaged forever. **What gain if we lose a magnificent corridor for a few ounces of gold? We need to insist that people, places and produce be protected and the modification rejected out of hand.**

This risk is unacceptable and people, clean food and water must come before gold processing and the very dubious rational of marginal economic gain. At risk is the cost of other local jobs and economic uncertainty due to the company’s poor record of compliance, accidents and community relations. The approval for the mine without modification 3 (*gold processing on site*) remains valid.

Because of the major adverse or even lethal impacts on downriver communities, the environment and the potential for an environmental disaster which could impact potentially from Majors Creek to Moruya and because the company has shown itself unable to fully comply with PAC and NSW Land and Environment Court conditions, **this application must be rejected.**

Tailings Dam

There will be a Tailings dam 700m long, 400 metres wide and 32 metres deep at its deepest point in Majors Creek if Mod 3 gets approved.

This site preferred by Unity is not safe, it is placed within a drainage line where any breach will lead to contaminated water draining into Major’s Creek, Araluen Creek, Deua and Moruya Rivers water systems. Their apparent selection of this site flies in the face of the risks the topography and the rainfall at the site pose. The issue of inaccurate rainfall data used by Unity (Cortona) throughout all of the applications, modification processes continues to haunt this proposal. Unity in providing this data to their consultants ensures a flawed process and enables significant understatement of risk and will only result in “oh oops we miscalculated but we are doing our best” No good after the event.

A TSF of 16hectares poses significant risk of breaches, overtoppings and leaks. The elevation surely means there is only one way and that is down via streams through groundwater with all of the consequences for the whole area. Immediately below the TSF is Araluen where surface and groundwater is used by all householders, where NSW Dept of Water have identified the aquifers as some of the most at risk in NSW.

In addition to the matter being placed in the TSF there is also an approach to pump sediment laden water from sediment basins in the event of a significant rain event, this will greatly increase TSF risks. Once out the genie cannot be put back.

The company has provided no risk assessment for the leakage of heavy metals from the dam on the grounds that this will not occur, even though Knight Piezold, who designed the tailings dam in the EA, state that spillages will occur but be diluted, using flawed rainfall and stream flow data presumably provided by Unity.

The EA acknowledges that spillages can contain copper and mercury that exceed safe levels by two to five times in a 1-200 year, 72 hour rainfall event. This is very concerning given the rainfall data is inaccurate and that the particular climatic conditions at Major's Creek remain underestimated, misunderstood and denied.

The possibility of a bushfire overrunning the site and combining with cyanide and/or other chemicals on site is really too awful to contemplate. This is so self evidently the wrong site for a processing plant using cyanide and storing toxic metals for years to come that no conditions, monitoring additional work by the company can make it right.

In a normal three day rain even (*i.e. not a one in ten year etc event*) in ten minutes pollution has reached into the head of the Araluen Valley nowhere near enough time to warn people downstream, do anything about it or indeed recognise the enormity of what may be happening.

Economic Issues

For the last 150 years or so since the gold rush, this catchment community has based its growth, expansion, jobs, and land uses primarily on farming and agriculture. In fact farming and agriculture in this catchment district support thousands of incomes and households. The water that we drink, that we irrigate our farms with, that we feed our stock, is our most precious resource and must be protected.

Unity predicts the jobs and income six to ten million dollars a year will be added to the local economy. This is trifling amount given the downstream effects and very local effects that may decimate the local industries and reduce the area to a case study of what not to allow to happen. With NO economic analysis of potential losses there is no economic case.

What cost and who pays for a contaminated catchment, how does the Eurobodalla Shire provide clean water to their **140 000** residents? Again who pays it will not be Unity, Unity's record or offers of reparation or remediation for damage they have caused is nonexistent.

It is also worth noting that the auditor's report in September and December 2014 cast doubt about the Company's and Consolidated Entity's ability to continue as a going concern. This is a significant statement and not withstanding Unity seeking a partner and their various statements that they are in a sound position should also be an issue for serious doubts re their capacities.

Community Issues

It is an inherent belief within the communities within this catchment that their water supply for home and agricultural business would be protected from the risk of dangerous and permanent contamination. There is no excuse economic or otherwise that would persuade communities to trade their clean water both groundwater and stream water so therefore this must be rejected.

The community was told from the beginning that the ore would be sent to Parkes or Bendigo for processing and the approval originally was given on that basis. Given that the Bendigo reserves proved unfounded and the operation ceased there still remains the processing equipment owned by Unity ready to process as per the original development.

The history of developments in this space are that water sources are often polluted, there is no monitoring mechanism that can keep accidents from happening, given both the NSW Dept Planning and the EPA have no resources to sufficiently oversight this project. This is shown by the many failure of compliance with Conditions of Approval. The EPA only have an ability to act once pollution has occurred.

Thus monitoring becomes by de-fault after the event, when communities and individuals raise the alarm. Not good enough; given the potential toxicity we are contemplating in this proposal.

In the EA however, Unity states than processing using cyanide on site is the only way the project will be viable. This contradiction does not engender trust in the company's statements. If, however, this project can only be viable by a cost cutting design based on false rainfall and evaporation data, using cyanide and leaving a legacy of heavy metals, then it is obvious that this project is not to the best economic interests of this community or for NSW.

A cost saving measure or a bid to increase profits by this mine plus others in the area puts at risk the catchment from Major's Creek to the sea at Moruya. To try and develop such a processing plant here at the headwaters of a major river, agricultural system and coastal residential areas has every community along the way objecting in the strongest terms.

Environment

The Majors Creek National Park Reserve, the Majors Creek gorge, and the Araluen Scarp Grassy Forest, and the Neverbreak Hills Voluntary Conservation Area, proclaimed in 2013 and adjacent to the Major's Creek Conservation Area, are areas of considerable biological richness, in both numbers of species and habitats.

The Neverbreak Hills Voluntary Conservation Area (VCA) was assessed and proclaimed in 2013, and its species thus independently verified. A more detailed list can be found in the VCA agreement with the NSW Department of Environment.

It is ironic that one department proclaims the unique conservation value of the land below the site while another has allowed the inadequate designs that led to the 2013 pollution incidents from Dargues to pollute it.

The sediment from these spillages is still a major risk to wildlife in dry periods. While the deep pools in the reserves are fed by springs linked to the Major's Creek fault, they shrink to about a third full in drought. In these times they are the only safe water available for wild species for about 60 square km. These pools are now approx. one third full of sediment. If a drought hits before a coursing flood, the death toll from local and migratory species may be massive.

The four kilometres directly below the proposed Dargues Reef Mine ranges from rainforest dominated by *Backhousia myrtifolia* (one of the few such 'dry temperate' rainforest remnants in Australia) to grasslands with rich populations of orchids, to dry sclerophyll and wet sclerophyll forest, each with their own unique but interlocking communities of plants and animals.

Several do not exist elsewhere; all are already under threat from climate change and water loss to bores. It is important to acknowledge that any contamination with heavy metal residues would be long-lasting, held in the sediments along the rivers, and would mean that aquatic life could only survive locally in tributaries of the Deua River, not the main Deua and Moruya River system. Contamination by any leakage or spillage at a time of heavy rainfall (which, after all, is the most likely cause of a spill) will mean within three hours the consequential pollution of the flood plain will deliver that toxic material into the silt to further pollute the water system and stop any re-colonisation by the fish.

It must also be noted the extensive tourist industry along this catchment corridor that too will be at risk as there will be no tourists but those coming to study what happens when the gleam of gold holds sway.

Yours sincerely

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