



The Chief Executive  
Attention: The EIS Coordinator, Mungana Gold Open Pit Development Project  
Environment and Natural Resource Regulation Division  
Department of Environment and Resource Management  
GPO Box 2454  
BRISBANE QLD 4001

**Submission on Draft Environmental Impact Statement (EIS)**  
**Mungana Gold Open Pit Development Project**

Thank you for the opportunity to comment on the Environmental Impact Statement for the Mungana Gold Open Pit Development Project.

The Cairns and Far North Environment Centre (CAFNEC) is aware that the site of the project is already heavily disturbed and that significant other projects related to underground mining and processing on the site have already been given approval. We also believe that in general, the EIS has identified adequate mitigation measures to address the expected impacts of the project. However we would like to make the following comments about specific aspects of the EIS and project.

**Sensitive environmental areas**

We understand there are a number of ecologically sensitive areas occurring in the vicinity of the project, particularly the Chillagoe-Mungana Caves National Park (particularly the Spring Tower section which is listed on the Directory of Important Wetlands), and bat and quoll conservation zones associated with areas of limestone.

The decision by the Commonwealth Department for Environment and Heritage (now the Commonwealth Department of Environment, Water, Heritage and the Arts (DEWHA)) on the 3rd April 2006 determined this project to be 'Not a Controlled Action' provided that it is undertaken in a 'Particular Manner'. The Commonwealth Government specified in their decision that 'Particular Manner' means that measures must be taken to avoid significant impacts on populations of listed threatened species.

The EIS identifies that there is high potential for disturbance of two threatened fauna species (Greater Large-eared Horseshoe Bat and the Northern Quoll) and several EPBC and NCA Act listed plant species to be impacted by the project, Therefore Mungana Ltd has established 100m conservation zones around the limestone karsts at Mungana 2, Eclipse Tower, Red Dome 1, Red Dome 4 and Red Dome 5 in addition to a 100m National Parks conservation zone to minimize impacts on threatened flora and fauna.

Detailed mitigation measures related to potential impacts on flora and fauna found on the site have been outlined in the EIS. In particular, Table 4.8.13 provides mitigation measures for the Greater Large-eared Horseshoe Bat and Northern Quoll which appear more than adequate. However, these measures are on paper only and CAFNEC urges DERM to ensure that these measures are properly implemented to protect threatened species.

CAFNEC notes that the perimeter of the Mungana Gold Open Pit is adjacent to the northern-most conservation zone, leaving the minimum buffer distance (of 100m) between the pit and bat roosting area/limestone karst. It is noted in Table 4.8.13 that conservation zones are intended to preclude



direct impacts from ground disturbance and other activities and that a larger buffer area may be needed to minimise noise and vibration damage to caves or disturbance to roosting bats. We are concerned that issues related to subsidence, noise and vibrations from the pit area and its effect on the nearby karst and bat roosting area may not have been adequately addressed in the proposed mitigation measures. However we do note that the earlier Red Dome operation blasting occurred in the open pit within 100 m of the Chillagoe-Mungana Caves National Park and the caves therein and that the values of the National Park and karst systems do not appear to have been impacted by noise and vibration. As a minimum we would suggest that there is a need for a contingency operational plan for excavation of the open pit if it is found that the works have considerable impacts on the karst system or roosting sites.

In addition, we understand that ongoing monitoring of the receiving environment will be undertaken throughout the life of the project, including water quality, aquatic ecosystem values and sediment quality. Monitoring activity can be effective if it is also followed up with action where issues develop. Data alone will not save a polluted waterway or threatened species. We urge DERM to set in place sufficient mechanisms to ensure that Mungana Ltd reacts to potential problems identified from the monitoring data in a timely fashion before environmental impacts occur.

## **Rehabilitation**

The EIS refers to the intention for land disturbed by the project to be rehabilitated to a condition that makes it suitable for low intensity cattle grazing. It was also stated that some sites (particularly those associated with the storage and handling of hydrocarbons) will require remediation.

CAFNEC urges DERM to ensure the Post-mine Land Use Plan and associated implementation achieves the outcomes set out in the EPBC Act approval. Namely that

- Areas disturbed during mining are progressively rehabilitated as soon as possible following disturbance.
- Rehabilitation is undertaken to establish vegetation communities that reflect the surrounding landscape.
- Waterbodies that are part of the process circuit are decommissioned and remediated.
- Where possible, habitats in the post-mine landscape are created or enhanced so that they are suitable for identified threatened species.

We also understand that up to 11.5 Mt of waste rock to be extracted from the open pit has been estimated to be reactive waste rock (ie material that will require encapsulation) and that inert waste rock (ie benign non-acid forming (NAF) waste rock) will be used in the finalization of construction of the Tailings Storage Facility, construction of the Waste Rock Dump and other structures.

The availability of this material is imperative for the adequate rehabilitation of the waste rock dump to ensure it is properly capped to minimize seepage from the potentially-acid forming (PAF) materials. It is unclear from the EIS where this material is to come from. CAFNEC suggests that DERM ensure Mungana Ltd has identified adequate sources of NAF material to undertake the required works before this project gets underway.

## **Haulage**

As the EIS identifies, the proposed haulage activity, with the massive increase in trucks transporting ore and concentrate in close proximity to the urban areas of Chillagoe, Charters



Towers, Townsville, and other townships on route raises environmental issues with haulage. We understand that Kagara Ltd has spill management procedures in place for haulage spills relating to both ore and concentrate. We would encourage DERM to ensure that these spill procedures are adequate and strictly enforced, given the huge quantity of material being transported and the potential for ore and concentrate to contaminate waterways and drainage lines adjacent to transport routes.

In addition, we would ask that transport of ore and concentrate must be in covered loads to significantly reduce dust emissions along transport routes.

## **Water**

It is difficult to assess the management of water for the project without a much more detailed study of the EIS and other documents. One of the key operating objectives outlined in the EIS is to prevent the release of mine water from the site for all but extreme rainfall events. However elsewhere in the document, modelling shows the Raw Water Dam and Red Dome Sediment Dam are likely to spill with an average probability of 62% and 100% respectively.

CAFNEC is aware that invariably water is poorly managed on mine sites in north Queensland where they can be long dry spells, followed by high rainfall events that cause seepage and runoff from mine sites into the surrounding environment. Where possible, this project should operate so that all water is managed on-site through capture and containment for reuse on-site. Surface water upstream of the site should be diverted around the operating area to avoid contamination.

In addition, sufficient capacity must exist in the on-site water storages to ensure there are no overflows during normal wet weather events. On-site structures, including erosion and sediment controls and water storages, should be sufficiently robust to ensure release of mine water or leachate to aquifers, or runoff to surface water streams does not occur, unless under extreme (1-in-100 year) events.

## **Conclusion/Recommendations**

In this submission we have identified a range of issues which we would like DERM to consider in the assessment of this EIS and the subsequent Environmental Authority to mine. These issues relate to the long term effects of the project, to ensure that it doesn't become a legacy 'white elephant' like so many other abandoned mine sites in Queensland. We believe that sooner or later the accumulated impact of these legacy sites is extremely likely to cause significant impacts on our land, waterways, coastline and marine environment.

Thank you for the opportunity to comment on this project.

Yours sincerely,

Sarah Hoyal  
Coordinator