

17-35. REVIEW AGAINST SEARS

Concern:

If adopted, several recommendations can enable the EIS to respond to the SEARS.

SEARS	Recommendation
A description of the existing environment likely to be affected by the development, using sufficient baseline data;	More baseline data is required to identify and protect significant groundwater receptors. Groundwater contamination is predicted, however, there are few controls on contamination spreading 40 m from the site boundary as prescribed under the Aquifer Interference Policy.
A description of mitigations	Mitigations for potential problems such as TSF or leachate dam leakage are not provided.
Whether these are best practice and represent a full range of measures	Best practice and full range of methods not discussed – examples from Cloudbreak and other mine's treatment of contaminants should be followed.
Whether they will be effective / key performance indicators	More definitive and robust key performance indicators would instil confidence in the planned management.
Contingency plans for residual risks / monitoring and reporting on environmental performance	A risk framework, including maximal and residual risk assessments should be included within the EIS; before mining starts. Defining community management values and goals needs to be done well in advance. Contingency plans to remediate impacts when the assessment is incorrect should be prepared and ready for approval.
An assessment of the likely impacts of all stages of the development, including any cumulative impacts, taking into consideration any relevant legislation, environmental planning instruments, guidelines, policies, plans and industry codes of practice;	The 2019 ANCOLD dam management guidelines, as well as groundwater management around dams should be implemented. The definition of groundwater dependent ecosystem (GDE) should be updated throughout the EIS.
A summary of commitments	More definitive and robust key performance indicators would instil confidence in the planned management.
Part 3: Any interference with an aquifer caused by the development does not exceed the respective water table, water pressure and water quality requirements specified for item 1 in columns 2, 3 and 4 of Table 1 of the <i>Aquifer Interference Policy 2012</i> for each relevant water source listed in column 1 of that Table.	Significant species, especially fauna in springs and water courses, should be surveyed and identified. More confidence that contamination will not breach the 40 m distance from the site boundary is sought.

Part 3: impacts to significant water resources or threatened species are minimised to the greatest extent practicable	The impacts to five listed aquatic fauna and two listed terrestrial fauna (outside the mine footprint) should be identified and minimised to the greatest extent practicable. The same applies for the potable water quality available to the people of Lue village.
Assessment of Lawsons Creek and Price Creek	The groundwater analysis should consider the relationship of groundwater, including leakage from the leachate management dam, the TSF and pit lake after 130 years, with each creek separately. The value of Lawsons Creek should be better assessed.
Assessment of likely impacts to aquifers; detailed site water balance, management of excess water and reliability	Stating that the majority of 'outflow' is stored in tailings in the <i>average</i> mine water balance should be clarified. The reliability of HDPE and clay liners for the designed operation (~500 years) should be discussed and the likely impacts to aquifers should be more accurately presented.
DRG, Attachment 2A requires rehabilitation methods including	
e) monitoring for rehabilitation	A more detailed and comprehensive monitoring plan is recommended.
i) details of triggering intervention	Quantitative details triggering intervention should be included prior to any regulatory approvals.
k) details of post-rehabilitation management	Details of post-rehabilitation management should be provided prior to any regulatory approvals later.
l)i) assessment of rehabilitation techniques against objectives	Objectives should be clearly stated and assessment indicators agreed prior to any regulatory approvals.
l) ii) assessment of potential acid mine drainage	An assessment of the impact of acid mine drainage seeping from the TSF and pit lake (once full) should be included. The influence of faults should be considered.
l) iii) processes to identify and management geochemical risks throughout mine life	Any proposed treatment should be mentioned and the processes to identify (and remediate) geochemical risks should be included.
m) iii) groundwater assessment for final water level in any tailing storage facility void	The final water level is predicted to stabilise 130 years after mining. Site groundwater contour maps, including maps around the TSF and pit lake, should be included for assessment.
o) consideration of controls	The monitoring network should be improved and detailed. Triggers for action should be agreed with the community now and approved.
DRE/DPE requires a Water Management Strategy that considers:	
the existing surface and groundwater qualities	The existing groundwater quality should be accurately reported around the Lue Village.

a robust baseline	The baseline of ecological receptors and native groundwater flow paths should be made robust.
a description of how groundwater and aquatic ecosystems will be monitored, Trigger Action Response Plan and trend identification	The locations of significant ecosystems should be identified to enable maximal and residual risk assessments and development of a monitoring plan along with triggers and planned remediations that will be effective.