

Supplementary Submission on SSD-5765 to the Independent Planning Commission by Michael White

Commissioners thank you for the opportunity to have spoken to you at the Public Hearing on Wednesday 15th February 2023. I was speaker #7 and I have already provided my PowerPoint presentation to the IPC.

I would like to summarise my key concerns relating to this Project:

1. The Acid Mine Drainage Risks has not been adequately assessed or controlled.

The Department's own independent expert review by Earth Systems has raised numerous significant concerns about this:

- **Lack of Accurate Classification of PAF and NAF Material.**
 - This is fundamental to the basic mine design and is critical to ensure that no PAF material is placed outside containment areas.
 - It is critical to ensure that PAF waste dumps have sufficient capacity to store all PAF material.
 - It is critical to ensure there is sufficient NAF material for construction and rehabilitation requirements.
- **An Unproven and Substantially Problematic Design of the Waste Rock Emplacement Area (WRE).**
 - In order for the community and government to be satisfied that such designs as contained in this Project proposal are effective, safe and successful in both the short and long term there would need to be evidence of this at similar scale elsewhere.
 - The Proponent has not identified any other mine sites where the use of this design and technology at this scale has been successfully employed in either the short term or the long term.
- The WRE and Tailings Storage Facility (TSF) AMD management strategy/closure design presents the post closure risk of **requiring water treatment in perpetuity**
- The Store and Release Cover System proposed for both the WRE and the TSF are **not suitable for AMD control**

2. The Final Void Water "Through Flow" Risk has not been resolved

The Department's own independent groundwater expert review by Hydrogeologic raised concerns that there was a greater than 50% probability of the through flow of contaminated water from the final void to the surrounding environment post closure.

Bowdens Proposed Final Void Mitigation option (which has not been assessed in the EIS) is to increase the surface area of the final void and the final void lake to increase evaporative losses.

While the DPE's independent water expert acknowledges that this would resolve the through flow risk this proposed solution would require an increase in the final void footprint of between 16.6 ha and 28 ha. The EIS final void design footprint is 53ha. An additional 28ha is an increase of 52% in final void footprint.

This 28ha increase would require moving an additional 16.3 million bank cubic metres of rock.

The total EIS volume of material (that is all the ore and all the waste rock for the entire project) to be removed from the currently proposed open cut pit is approximately 32.5 M cubic metres.

This “solution” would require Bowdens to move 50% more total material over the project life **for no additional revenue**. At \$3-\$4 /bank cubic metre (my conservative estimate) this is would be an **additional** closure cost of between \$49M and \$65M.

The Current EIS mine rehabilitation and Closure costs are \$39.4M. This would increase mine rehabilitation and closure costs to between \$88.4M and \$104.4M (an increase of 224% - 265%)

It is physically possible to move this very large amount of material but it is very unlikely to be economically practical.

Other impacts of this major change to the final landform have not been assessed in the EIS.

This is another example of a hastily cobbled together, improperly assessed, concept level idea put forward as if it is a mature, properly assessed and feasible technical solution. It is not.

3. These significant technical Deficiencies should not be “kicked down the road” for resolution in Conditions of Consent and management plans.

Major unresolved technical issues dealing with fundamental controls of agreed risks (AMD and water quality) do not belong for resolution in Conditions of Consent and future Management Plans. These critical issues must be addressed, broadly scrutinised and resolved in the EIS stage of a project. This has not occurred for this Project.

This project’s location is unsuitable as an experimental test site

Because robust and proven technical solutions to AMD and water quality are not included as part of the EIS then the IPC must refuse this project.

Michael White

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23 February 2023