

SSD 5144 MANDALONG SOUTHERN EXTENSION PROJECT Modification 4

DoPE

Dear Sir/Madam

I would like to object to the above extension project

Morans Creek and Tobins Creek catchment areas are valuable water resources to suggest that surface flow is entirely absent on the basis of fluctuating flows concomitant draws an extremely long bow since fluctuation due to rainfall is fundamental to all water cycles.

To use this fact to justify undermining these tributaries by using simplistic equations as expressed in the Assessment is unscientific and dangerous for future water resources.

DoPE should initiate a properly scientific study of the value of these water resources particularly as they impact on Stockton Creek, which is a major source for the integrity of the ecology of Dora Creek.

The other major concern expressed in the Assessment is the problem of salty brine. The tonnage of salt extracted from groundwater inflows into the mine begins with 1283 tonnes per annum, to almost 3000 tonnes per annum in 2036. These vast amounts of salt extractions are to be transferred to the Borehole Dam and subsequent discharges are not clearly defined.

It is an unsophisticated notion apparent in many DoPE policies that these large salt depositions can be handled and excused in times of high flows over the life of all mines.

THIS IS AN EXTREMELY DANGEROUS NOTION

That salinity is decreased **in solution** during high flows is a fact.

ABSOLUTE SALT IS NOT!

THUS

The salt contained in solution is no less for its dilution. The crystalline salt stays in the earth **forever** the evaporation and eventual disappearance of the flows cannot magically “disappear” the crystalline salt! This fact is crucial to the cause of long term impacts of saline action upon water resources and fertile land in the vicinity of the catchment areas impacted by flows.

It is acknowledged that this extension will produce large amounts of salty brine. As outlined above this can **never** be minimised over time only increased.

Salinity is increasingly a problem for in The Hunter for agriculture and for water resources.

ANYTHING which exacerbates this problem is to be avoided.

The value of natural water systems, including tributaries, in NSW is constantly under attack.

EIS data must not be allowed to diminish the importance of these resources nor the impacts of salty brine.

It is incumbent upon DoPE to question such assessments and to have them critically reviewed by **independent** hydrologists.

DoPE should review both the water resource issues of this Mandalong Extension Project and also the critical issue of salt extraction, treatment and long term storage before proceeding

Considering the detrimental impacts of salty brine on both water resources and soil;

this Application should be rejected.

Judith Leslie

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