

Thank you for the opportunity to comment on the application by Fortune Agribusiness Funds for the Singelton Horticulture Project (the Proposal).

I have serious concerns regarding the environmental impacts of this application and request that the Northern Territory Environmental Protection Authority (NTEPA) ensure that the most rigorous level of environmental impact assessment (Tier 3) is applied.

I have lived in the Northern Territory (NT) for over 10 years, observing an increasingly unreliable climate along with dramatic increases in land clearing and approval of massive water licenses. My major concerns for this Proposal regard land clearing and water preservation.

The Proposal requires clearing of 3944 hectares of land in a fragile, sandy soiled area where the annual deficit of water (Evaporation vs Rainfall) is 2731mm per year, according to Appendix Q section 3.1. Vegetation includes acacia scrub and some areas of mallee.

My grandfather was allocated a soldier settlement in the Mallee region of Victoria on his return from Gallipoli/Egypt in World War I. Along with other returned soldiers, they were instructed to clear the land as their first priority. This task was assiduously complied with resulting in massive soil erosion, lost topsoil and massive dust storms that made life unbearable for the families trying to survive in this area. The destructive environmental impacts from this time in the 1920s are still being felt.

Despite the NT not being the Victorian Mallee, there are similarities. My point is that land clearing has significant, well known environmental impacts, and that land clearing of the scale in this Proposal must be subject to the highest possible regulatory scrutiny to prevent the risk of the Mallee disaster from being repeated here in the Territory.

Land clearing results in soil erosion, habitat loss for wildlife and increased occurrence of invasive species (please note the thriving gamba grass already infesting the land cleared for Berrimah road construction). Land clearing also changes water run-off patterns and increases risk of silting, increased sedimentation and turbidity impacting on downstream water quality. Stage 3 alone of this agricultural development is estimated to result in soil loss of 568m³ per year by year 7-9.

It appears that appropriate fieldwork has not been undertaken to understand the species who live in this area. Threatened bilbies and grey falcons have been identified in this region. The requirement for inclusion of a specific, science informed program to ensure their ongoing survival would serve to help mitigate the habitat loss risk by this Proposal.

Wildlife corridors informed by independent scientific wildlife knowledge strategically placed throughout the development proposed (much larger than the 200m between plots in the Proposal) would be one way to reduce some of the impact of land clearing, ensure windbreaks remain and that wildlife habitat is preserved. Any large trees should be identified and protected, and also additional native species planted as potential windbreaks.

Preservation of water quality and quantity is also a significant risk which will result from approval of this Proposal. It concerns me that water allocation has already been granted when the NT Strategic Water Plan designed to protect our water has not yet been ratified. Major water allocations such as this one, ought to be reviewed in light of the revised Water Act when this is available, to ensure scientific rigor based on the most recent information is applied. I also note that concerns have been raised regarding water allocation in the NT by eminent researchers nationally, in their recent response to the Georgina-Wiso water allocation plan.

Water quantity and quality are major concerns. Rainfall is becoming increasingly unreliable, with past

data now less useful to estimate future water recharge potential. Aquifers will be tapped to supply the large quantities of water that are required for this development. These aquifers have been filled and sustained over millennia. They sustain life and ecosystems which are dependent on this water for survival. Draining of the proposed volume of water from these aquifers has NEVER been tested and may have disastrous irreversible consequences. Risks such as increasing salinity and whether volume extraction can be sustained are very real and must be assessed as high-level risks. We know that significant recharge events are rare, having occurred only 3 times in the past 100 years.

Companies employed by the applicant have provided estimates for water and soil impact based partly on information provided by the applicant. A truly independent assessment is required using rigorous scientific knowledge based on actual testing and sampling rather than just modelling. For example, stygofauna is known to be present in aquifers in this region and more needs to be known or we potentially risk their survival. Use of the precautionary principle by applying a reduced volume of water for allocation is also needed, given the risks to water quantity and quality of this Proposal.

The Proposal will result in significant use of agricultural chemicals including toxic insecticides and herbicides. These along with nutrient rich run-off from fertilisers will impact and damage the fragile ecosystems, potentially threatening birds/insects/frogs and other small wildlife that inhabit the area. The Proposal outlines actions that *can* mitigate these risks, such as vegetation buffers and bioretention systems. It is my view that these *must* be included in the requirements for the Proposal to proceed to ensure the strongest level of water protection possible.

It concerns me that water intensive crops are suggested for this area when water is so precious. Loss or reduction of water quantity or quality will impact on diverse ecosystems and ultimately, our own lives. More sustainable crops that ARE suited to our fragile climate need to be investigated and recommended. Crops that meet environmentally sustainable criteria such as low water /low pesticide/low fertiliser use should be recommended for this area. Hemp is one such crop that may be suitable and has benefits over more traditional crops.

I also have other concerns such as the potential impact on over 40 sacred sites, whether the economic benefit will be felt by the local community and whether the number of jobs available to locals is a realistic estimate. We do know, that seasonal workers from the Pacific Islands makeup the majority of the labour force on large NT properties not locals.

The Proposal outlines a potential program and local garden that could provide skills development and local produce. These programs have merit and should also be a requirement of the Proposal going ahead.

Thanks for the opportunity to outline my concerns about the risks associated with uninterrupted land clearing and water use of this scale. For the reasons outlined, I respectfully request that a Tier 3 assessment be required by NT EPA for this proposal.

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