
From: XXX
Sent: Thursday, 9 February 2023 9:12 AM
To: eia consult
Cc: XXX
Subject: Singleton horticulture proposal poses a significant and unacceptable impact to the environment.

Categories:

Northern Territory Environment Protection Authority
GPO Box 3675
Darwin NT 0801

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9 February 2023

Dear Chairperson

I am a retired civil engineer and project manager and have worked in the water industry throughout Western Australia and also in the Northern Territory for 45 years, including working with remote aboriginal communities for 8 years.

I value resilient arid zone landscapes and following the advice of custodians I am seriously concerned that the Singleton horticulture proposal poses a significant and unacceptable impact to the environment.

I believe the proposal poses risk of serious or irreversible environmental harm including to groundwater dependent ecosystems, sacred sites, habitat for threatened species, including the bilby. This is due to the huge size and scale of the development, and subsequently the intensity of its impacts on significant ecological and cultural values across many decades.

The public was not effectively consulted about the impacts on groundwater dependent ecosystems during the assessment of the groundwater extraction licence process as:

- *minimal information was publicly available on the risks to GDEs*
- *the NT Water Act 1992 does not provide the same level of public involvement as the NTEPA Act, resulting in the views of the 23,355 people who petitioned the Controller to refuse the licence, not even being acknowledged in the Controller's Notice of Decision.*

It is well understood that arid and semi-arid environments in Australia are already undergoing ecosystem collapse from the impacts of climate change, such as changes to temperature and precipitation, and regional factors such as land clearing and habitat loss, invasive species and impacts from agriculture and industry, including water extraction. The substantial groundwater extraction associated with this Project, as well as the land clearing it requires, will further threaten these at-risk ecosystems.

I outline some of my specific concerns related to the NTEPA Environmental Factors below.

Risk Assessment

It is unacceptable that the proponent has classified every residual risk rating as 'low' or 'medium'. There are zero residual risks that have been classified as 'high' or 'extreme'. There are significant and intense risks to diverse ecological, hydrological and cultural values over a period of many decades. This is unsurprising as this project is one of the largest fruit and vegetable developments in Australia and requires one of the nation's largest water licences.

This development is defined by significant risk and uncertainty. Whether it is related to salinity, cultural values, groundwater dependent ecosystems, the groundwater resource or many others, there is outstanding uncertainty and significant risk.

Land (landforms, terrestrial environmental quality)

Large areas of terrestrial habitat within the groundwater drawdown area (which is greater than 40km in diameter) depend on groundwater to maintain biodiversity, ecological integrity and ecological functioning.

It is unacceptable that the proponent does not consider the destruction of up to 30% of GDEs on Singleton Station to be an environmental risk, based on a DEPWS guideline, which has not been open to public consultation and was in conflict with the relevant water allocation plan. This is a non-statutory guideline which is not enforceable and should not dictate what constitutes a significant impact.

It is unacceptable that the proponent has not undertaken any meaningful fieldwork to comprehensively visit the GDEs occurring within the impacted area or identify threatened flora. This is despite acknowledging that GDEs are known for their ability to support higher biodiversity and productivity than surrounding landscapes and may be an important underpinning of persistence of resident flora and fauna species.

It is unacceptable that the proponent has not undertaken any meaningful fieldwork to investigate the occurrence of threatened fauna, despite occurrence of near threatened species near the site, including bilby (a disused bilby burrow was identified within 4 km of the site) and grey falcon records within 3 km of the site.

The loss of large trees such as ghost gums which are associated with GDEs would be expected to reduce habitat for threatened species, the grey falcon.

The potential impacts to vegetation and GDEs of salinisation of groundwater have not been adequately addressed.

There have been no on the ground studies undertaken to determine the presence of stygofauna in the impacted aquifers, only a Desktop review which found the presence of stygofauna in some bores within and surrounding the Project to be likely.

Water (hydrological processes, inland water environmental quality, aquatic ecosystems)

Fortune's modelling indicates that the water table would be lowered by up to 50 metres in parts of the aquifer, threatening Groundwater Dependent Ecosystems (GDEs) and numerous groundwater dependent sacred sites in and around the drawdown area. These impacts are destructive, extremely significant, and unacceptable.

The Project is located in the Arid Zone of the NT, and specifically within the Western Davenport Water Control District. Groundwater recharge in the Western Davenport region is "highly episodic" and "rare, peak rainfall years contribute disproportionately to groundwater recharge while in an annual year, minimal, if any, groundwater recharge occurs". There have only been three significant recharge events in the last 100 years. It is simply irresponsible to grant a licence of this volume in these circumstances.

Cooke and Keane assessed the impacts of salinity to the area in their report, "[The Risk of Salinity due to Irrigation Developments in the Western Davenport Basin, Northern Territory](#)." The authors conclude Singleton Station and the surrounding area is at 'high risk' of increased salinity after 30 years of groundwater extraction which will have "very significant implications for long-term viability of irrigated horticulture." Key findings in this report were ignored by the proponent in their referral to the NT EPA.

People, (community and economy, culture and heritage, human health)

This report does not offer a great benefit for the region. The report estimates only 26-36 full time equivalent jobs will likely be filled by residents of the NT of which only 5-8 full-time equivalent jobs are expected to be from Aboriginal communities in the Barkly region.

The proposal threatens up to 40 sacred sites, within its drawdown area.

Air (air quality, atmospheric processes)

Clearing the land for horticulture and destruction of GDEs would be expected to result in atmospheric emissions but these have not been calculated and considered as an environmental risk. As these risks are avoidable they should not be offset.

I respectfully request that you ensure that the most rigorous level of environmental impact assessment (Tier 3) is applied.

Thank you for taking the time to consider this letter. I look forward to your response.

Yours sincerely,

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