

David Eldridge

0870

12 February 2023

Dear Madam / Sir

Water and the Singleton Station Horticulture Proposal

I live and work in Alice Springs / Mparntwe. Lawyer by profession and horticulturist by trade, I write to express my concern about the proposed Singleton Station horticulture development (the Proposal), particularly the significant environmental impacts likely to result

It seems obvious the Proposal poses a significant and unacceptable risk to the environment. You can't expect to pull that much water out of a desert without causing major impacts. It must not be simply waved through without as much scrutiny as possible. Therefore I respectfully request you ensure the most rigorous level of environmental impact assessment (Tier 3) is applied.

The Proposal risks serious or irreversible environmental harm including to sacred sites, groundwater dependent ecosystems (GDEs), habitat for threatened species including the bilby. Who knows what other creatures and their ecosystems will be drastically affected? Proper environmental research is required before the Proposal can commence.

Plants in this region have adapted to the harsh desert environment. If you take the water away from their roots deep underground, will they die? Probably. Is that acceptable environmentally? Recent legislative change allows much greater loss to GDEs than previously, such that the Proposal would have failed. Even so, it appears the impact on GDEs on Singleton and surrounding region will be significant and dire. Without the groundwater keeping, for example, the treasured ghost gums alive, not only will the massive acreage cleared for crops be forever denuded, but vast tracts of surrounding country will similarly significantly suffer.

Will there be increased salinity? Major developments such as this in semi-arid Australian regions have resulted in toxic salt loads, causing significant environmental damage. Where possible there have been remediation works at enormous costs. Still, across Australia vast tracts of briefly productive land are ruined. Where once there was stable mallee woodland, too much country is ulcerated by huge salt pans. Is that to be the fate of Singleton and surrounds?

What are the impacts on existing established vegetation, sequestering carbon and stabilising soils? How significant will the impact of such wholesale vegetation loss be to global warming?

Already, after recent flood events, the Proposal's potential footprint has changed. They apparently didn't realise the Proposal is on a flood plain. What else have they missed? Will there be erosion, dust, weeds?

Arid and semi-arid environments in Australia are already undergoing ecosystem collapse from the impacts of climate change, globally to temperature and precipitation, regionally due to factors such as land clearing and habitat loss, invasive species and impacts from agriculture and industry, including water extraction.

Whether related to sacred sites and cultural values, salinity, GDEs, the groundwater resource, etc, this Proposal is defined by outstanding uncertainty and significant risk. Yet the Proposal's proponent submits that every residual risk rating is 'low' or 'medium'. They classify none as 'high' or 'extreme'. They are not taking this process seriously.

I share my colleagues at ALEC's concerns about the Proposal and the cavalier approach taken to bring it as far as this:

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 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 salinization (sic) 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.

The Proposal is one of the largest horticulture developments in Australia and requires one of the nation's largest water licences. The eye-watering scale of groundwater extraction with the associated substantial land clearing, directly and through the impact on GDEs, will further threaten significant at-risk ecosystems. It poses significant and intense risks to diverse ecological, hydrological and cultural values over many decades if not centuries.

To me and many others it seems obvious the huge scale of the Proposal will cause intense impacts on Singleton and the surrounding region. The public was not effectively consulted about the impacts on GDEs during the assessment of the groundwater extraction licence process. Minimal information was publicly available on the risks to GDEs. Still, lots of people heard about it and were concerned. However, the *NT Water Act 1992* does not provide for the same level of public involvement as the *NTEPA Act*. Thus the views of 23,355 people who petitioned the Controller to refuse the licence were not even acknowledged in their Notice of Decision.

Environmental assessment of such a significant Proposal should be thorough, scientific, professional and capable of proper scrutiny. I respectfully request you apply the most rigorous level of environmental impact assessment - Tier 3.

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

Yours sincerely,



David Eldridge