Northern Territory Environment
Protection Authority
GPO Box 3675
Darwin NT 0801

Jason Pincini
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XXX 3871

11/02/2023

Dear: Ms. Lawler.

I am a mature age university student from a background of large scale broad-acre agriculture, and residential development.

I am seriously concerned that the Singleton horticulture proposal poses a significant and unacceptable impact to the environment and rural and agricultural sustainability. It also threatens the natural habitat, due to the massive size and scale of the development and its significant ecological impacts over many decades.

My concerns are that the water allocation associated with the proposal risks serious, irreversible environmental harm to groundwater dependent ecosystems, sacred sites, habitat for threatened species, including the bilby. This is due to the considerable size and scale of the development, and subsequently the intensity of its impacts on significant ecological and cultural values across many decades, in addition to the short period in which the project is to progress from initial implementation to full scale, meaning if projections are inaccurate there is little or no time to modify the project to reduce adverse impacts.

The Project is located in the Northern Territory arid zone and specifically within the Western Davenport Water Control District. In which the groundwater recharge is classified as "highly episodic" and "rare, peak rainfall years contribute disproportionately to groundwater recharge, with little if any groundwater recharge in an average year". It is implausible 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, 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 will require one of the nation's largest water licences.

This development appears set to proceed with relatively uncertain water security or reliability, in direct contrast to Cubby station which has approximately 200,000 ML available entitlements in an average year, and sufficient storage capacity to allow production in a subsequent year without inflows. The Ord irrigation area Australia's other large scale horticultural development (Lake Argyle) having a storage capacity sufficient to meet many years of irrigation without additional inflows(https://www.agric.wa.gov.au/assessment-agricultural-expansion/ord-river-development-and-irrigated-agriculture-western-australia,) with a significant proportion of Cubby stations entitlements being dependent on seasonal conditions, being medium or low security. In both cases available reserves being clearly observable/quantifiable.

There have only been three significant recharge events in the last 100 years, in the western Davenport water control district, in which this new development lies, according to official sources, and it is simply irresponsible to grant a licence of a comparable 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.

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 and impacts from agriculture and industry, including water extraction, with these all but certain to intensify due to further changes in climate.

Specific concerns related to the NTEPA Environmental factors

Risk Assessment

Water- Groundwater reliance:

There are significant and intense risks to diverse, hydrological and cultural values over a period of many decades. This is unsurprising as this proposal is for one of the largest fruit and vegetable developments in Australia and requires one of the nation's largest water licences. This is in direct contrast with Cubby station's 200,000 Ml, (average available allocation) being largely reliant on seasonal conditions,(https://www.afr.com/companies/agriculture/cubbie-station-waiting-to-soak-up-qld-flood-waters-20200227-p544x5) low and high security allocations, (and 469 GL in available storage) with widely publicised occurrences of the station having no water to irrigate, despite these reserves. The Ord irrigation scheme has sufficient water in reserve, 10,760,000 ML (https://www.agric.wa.gov.au/assessment-agricultural-expansion/ord-river-development-and-irrigated-agriculture-western-australia) to enable multiple years operation with zero inflows. In addition, the available reserves are clearly quantifiable in both cases, in direct contrast to this project being totally reliant on groundwater of a relatively unquantified volume or sustainability.

This development is defined by significant risk and uncertainty. Whether it is related to salinity, cultural and social values, groundwater dependent ecosystems, or the groundwater resource, and related economic sustainability of the project, there is an extremely elevated level of uncertainty and significant risk.

Land – aquifer recharge/discharge:

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 Groundwater Dependent Ecosystems (GDE's) on Singleton Station to be an environmental risk, based on a DEPWS guidelines, with the view evidently not open to public scrutiny 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.

People – social and economic.

This report does not offer a significant 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:

Land clearing for horticulture and destruction of GDEs would be expected to result in atmospheric emissions which have not been calculated or considered as an environmental risk. These risks should require a 200% offset if the project proceeds.

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:

Jason Pincini.

Email: XXX