

# Comments on Draft Terms of Reference for an Environmental Impact Statement (EIS) for Singleton Horticulture Project<sup>1</sup>

Comments by Grusha Leeman  
Wednesday September 13 2023

Thank-you so much for taking my comments into consideration. As this is planned to become one of the largest fruit and vegetable operations in Australia,<sup>2</sup> this appears to be one of those proposals that could end with a vast salty desert-scape wasteland with extremely low biodiversity and contribute to extinction of species already on the brink, as well as the loss of unknown wonders like stygofauna species. That could cascade to cultural poverty as well. Or we could set the bar at maintenance of the rich biodiversity and cultural presence we enjoy today. Climate change will cause enough pressures.

I am keen to see an expansion to clean sustainable and more diversified horticulture in the Northern Territory. However, this horticulture proposal on Singleton Station would see over 4,000 hectares bulldozed and 3,500 Ha of intensive irrigated horticulture utilising 40GL of groundwater annually, threatening to substantially impact the sensitive NT environment. The groundwater dependent trees, soaks, springs, swamps and animals are what make this region special and they must be fully protected. Already the arid zone environment is in ecosystem collapse, let's recognise there are excellent reasons not to plunder our ancient waters.

## Improvements are needed

### 2.2.4. Alternatives

Add alternative fertiliser and pesticide options to limit issues with leachate, particularly as vast floods happen south of Tennant creek.<sup>3</sup>

### 2.3.1. Aboriginal stakeholders

Add a requirement all staff involved with First Nations contact:

1. have recently completed appropriate cultural awareness training;
2. Utilise the services of translators;
3. Take time to respectfully listen to the people and not just meet with the Councils and Corporations;
4. Have the full complete plans, possible extensions, worst case scenarios presented to the people, not just the first portion/good news.
5. Investigate and implement opportunities to maximise the staffing from the local people, including with scholarships and training programs to ensure they aren't only unskilled positions.

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<sup>1</sup> [https://ntepa.nt.gov.au/\\_data/assets/pdf\\_file/0005/1269455/draft-tor-public-consultation-fafm-singleton-horticulture-project.pdf](https://ntepa.nt.gov.au/_data/assets/pdf_file/0005/1269455/draft-tor-public-consultation-fafm-singleton-horticulture-project.pdf)

<sup>2</sup> [Singleton Horticulture Project | fortuneagri](#)

<sup>3</sup> [freight delays after Stuart Highway re-opens, but major transport routes remain closed due to flooding - ABC News](#)

### 2.4.1. Principles of ecologically sustainable development

In regards to: "the principles of ecologically sustainable development as set out in Part 2, Division 1, of the EP Act." I take this to refer to this document: NORTHERN TERRITORY ENVIRONMENT PROTECTION AUTHORITY ACT 2012<sup>4</sup> I fail to see the relevance to the question of ESD in Part 2, Division 1:

*Part 2 Northern Territory Environment Protection Authority*

*Division 1 Establishment*

*6 NT EPA established*

*(1) The Northern Territory Environment Protection Authority is established.*

*(2) The NT EPA:*

*(a) is a body corporate with perpetual succession; and*

*(b) has a common seal; and*

*(c) is capable, in its corporate name, of:*

*(i) acquiring, holding and disposing of real (including leasehold) and personal property; and*

*(ii) suing and being sued; and*

*(iii) entering into contracts.*

*(3) All courts, judges and persons acting judicially are to take judicial notice of the common seal of the NT EPA affixed to a document and are to assume that it was duly affixed.*

Please ensure this is corrected. Perhaps the following definition is what is meant to be referred to:

***ecologically sustainable development***<sup>5</sup> means development that improves the total quality of human life, both now and in the future, in a way that:

*(a) maintains the ecological processes on which all life depends; and*

*(b) recognises the need for development to be equitable between current and future generations*

There are many points that could be highlighted to ensure an adequate response from the proponent. For instance for the phrase "all life," it would be good to have clear reference to endangered species that may be impacted by the development. And also how they plan to ensure that the water, biodiversity and cultural richnesses are protected for future generations to enjoy. Salt buildup over decades is enough to destroy future uses of the area.

### 2.4.4. The impacts of a changing climate

Include details of the worst climate scenarios and their anticipated worst case scenario impacts on the business as well as the surrounding environment. This is not to be ignored as there are serious plans to remove as much of the fossil fuels as we can manage instead of aiming to limit our pollution of our only livable climate.

Include estimates of all the greenhouse gas impacts of the project.

Add a requirement to properly locally offset climate pollution.

<sup>4</sup> [https://legislation.nt.gov.au/Search/~/link.aspx?\\_id=2ADF2B771C914F399AA617B5F0B6830F&\\_z=z](https://legislation.nt.gov.au/Search/~/link.aspx?_id=2ADF2B771C914F399AA617B5F0B6830F&_z=z)

<sup>5</sup> [Environment Protection Act 2019](#)

## 2.5. Information requirements for environmental factors

Table 2 - Add a theme of Flora and Fauna and add an environmental objective that threatened species be protected.

**Air** - add that air pollution including from crop spraying is minimised and contained.

### 2.5.1. Hydrological processes: Table 3

**Environmental values** There are repeated uses of the word "information" [*information on groundwater flow direction...; information on hydrological connectivity...; information on recharge zones...*]

In order to judge adequately what the impacts could be, detailed analysis would be better than mere "information". Information could be deemed a quick summary such as -the groundwater flows from the southeast to the northwest- and might not necessarily involve the complexities that might be observed.

**Monitoring and reporting** Add that monitoring needs to be amped up if there are issues and reporting should be transparent, swift and public if there are incidents or issues.

**Residual impact** How about changing this to:

Identify ~~any significant~~ residual impacts of the proposal on the hydrological regime and dependent environmental values.

### 2.5.2. Inland water environmental quality and terrestrial environmental quality

**Potential significant impacts and risks** For all instances where climate change is considered add that it needs to be for all scenarios: impacts under a predicted safer climate - if we actually work hard to limit it to two degrees would be quite different than under the worst scenarios where there are 3 months on average each year where maximum temperatures are over 40 degrees and potential evapotranspiration could rise by 12% by 2050.<sup>6</sup>

Explicitly require the full impacts of salinity to be assessed. Increase pressure to acquire alternative treatments to mitigate the effects of salinity. Add study of salinity increases to stygofauna as a requirement.

### 2.5.3. Terrestrial ecosystems Table 5

**Environmental values** Add that on-ground surveys must be conducted during different seasons and climatic and other conditions. Surveys during the hottest months after several years of drought and bushfires are going to reveal differences to those done when conditions are more favourable. It can be revealing to potential impacts to include the harsher times.

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<sup>6</sup> [Northern Territory – State of the science and climate change impacts](#)

New flora and fauna surveys will need to be conducted to ensure there are adequate baselines. Require investigation of the occurrence of endangered and threatened flora and fauna, including the bilby the grey falcon.

Ensure there are on-ground studies undertaken to determine the presence of stygofauna in the impacted aquifers.

*Document the location of any sensitive and significant vegetation and wetlands within the potentially affected area.* This area could be interpreted that the potentially affected area be merely the area that will be farmed and as such clearfelled. Obviously perhaps to you and me, dropping the groundwater would affect a region beyond the irrigated area, but as this isn't clearly stated might be ignored. This is what I am worried about and merely requesting the locations to be documented is insufficient. I would expect there to be differing models. Were we to frack the Beetaloo and rip the Barossa's gas open, we can expect the rainfall to become even more erratic. With longer droughts and hotter summers, combined with excessive dropping of watertables, the impacts on the groundwater dependent ecosystems would be greater than if there were floods.

**Monitoring and reporting** Add requirements for reports to be publicly available and incidents swiftly fully and publicly publicised.

#### 2.5.6. Culture and heritage

Explicitly require sacred sites to be actively protected in a culturally sensitive and approved manner. As the proposal threatens up to 40 sacred sites within its drawdown area, they must be actually asked to ensure they can be fully protected.

Add the knowledge that old trees can be viewed as sacred sites yet might not be listed with the authority, as it is really very obvious: large trees such as ghost gums are too special to kill.

#### Appendix B – Information requirements of the water extraction licence compared with these TOR

**Table 9 CP7 a(iii)** Firstly, the rule as I understand it is to protect 70% of the current extent of groundwater dependent ecosystems in the Western Davenport Water Control District<sup>7</sup> and not qualify it to only 70% or more of groundwater dependent ecosystems in each of the two major land form classes (Aeolian sandplain and alluvial plain) on the Land.

Secondly, this Guideline that allows the 30% destruction of groundwater dependent flora should not be adopted. There seems to be no academic literature that is focused on groundwater dependent ecosystems of our semi-arid zone. It is a catastrophic departure from applying the principles of ecologically sustainable development. This DEPWS guideline was not open to

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<sup>7</sup> [Guideline: Limits of acceptable change to groundwater dependent vegetation in the Western Davenport Water Control District](#)

public consultation, and is in conflict with the water allocation plan. This is a non-statutory guideline which is not enforceable and should not dictate what constitutes a significant impact. The EPA must make decisions based on evidence, and not adopt industry-led policy development like the NT Gov GDV Guideline. Science first please.

## **Correct data?**

Have all decisions been properly informed? Coming across reports that large discrepancies have been made make it hard to trust that correct data has been used when considering the options. *"It should be noted that the volume reported for the Central Zone is an order of magnitude less than the value specified in the Water Allocation Plan document as the value has been incorrectly quoted from the supporting document".<sup>8</sup>*

## **Conclusion**

The proposal poses risk of serious or irreversible environmental harm including to groundwater dependent ecosystems, sacred sites, habitat for threatened species, including our beloved bilby. This is due to the huge size and scale of the development, the high levels of salinity that would come from drawing so much saline groundwater and subsequently the intensity of its impacts on significant ecological and cultural values across many decades. Modelling indicates that the water table would be lowered by a whopping 50 metres in parts of the aquifer, threatening not only groundwater dependent ecosystems and groundwater dependent sacred sites in and around the drawdown area, but all life.

I respectfully request that you ramp up the requirements to ensure a most rigorous environmental impact assessment. What are the requirements of a ToR that can enable a rejection of an EIA for a project that is expected to result in a biodiversity crash?

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<sup>8</sup> Page 59 [https://depws.nt.gov.au/\\_data/assets/pdf\\_file/0014/431060/Knapton-WD-GW-model-report-2017.pdf](https://depws.nt.gov.au/_data/assets/pdf_file/0014/431060/Knapton-WD-GW-model-report-2017.pdf)