

Submission contents:

Dear Dr. Vogel/Northern Territory Environment Protection Authority (NT EPA),

**I write to you as a concerned resident of Tennant Creek regarding the proposed Fortune Agriculture Singleton Horticulture Project (the Project).**

I write technical scientific reports for my day job, and you I am sure will be reading many submissions that are heavily referenced, researched, and filled with figures and numbers. And so, to save you some repetition, the following are the reasons why I am extremely concerned by the proposed Fortune Agribusiness Singleton Horticulture Project (the Project).

I have a bachelor's degree in science, majoring in hydrogeology and minored in conservation biology. I have worked as a farmer, a wildfire fire fighter, and a land manager. My experience in the local area gives me a unique insight into the reality of the situation.

It is my strongest belief and desire to see the Project subjected to a Tier 3 environmental impact assessment (EIA) to ensure the impacts and risks of the Project are fully understood prior to the Minister giving approval.

As a resident of the area, I don't feel as though myself, or other members of the local and broader community, have been fully informed on the impact the Project may have on traditional culture, the environment, and on the regional economy.

Hydrogeologic systems are fragile and inherently unpredictable, which is particularly true of groundwater systems within the arid zone. It is known that some vegetation the arid zone access groundwater through deep root systems, which become vital sources of sustenance during prolonged dry periods.

Arid zone ecosystems can be characterised as 'boom and bust' due to the unpredictable annual rainfall. The sporadic rainfall patterns impact upon the rate of recharge for groundwater. In higher rainfall regions of Australia, the estimated sustainable use of rainfall is calculated as a proportion of the recharge volume. However, in the desert – a place known for its distinct lack of regular/predictable rain – this is not done. Instead, a proportion total storage of the aquifer is used to allocate water use.

It is stated that the Project will draw 40 GL of water per year from the ground, or the equivalent of Darwin's annual domestic water usage, or nearly 3 times Alice Springs' domestic water use. The unknown impact of this significant drawdown of groundwater will have on cultural sites within and adjacent to the Project area.

The traditional owners of the country where the farm is proposed know how to read if it is healthy or not, without the need for estimations or calculations. They have knowledge of ecosystems that is incomprehensible when viewed through a Western scientific lens, an understanding of the way natural systems function that has been informed by thousands of years of observation and communication.

The traditional owners of the region know that taking this much of something out of the landscape is not right, and the likely impact of that exploitation is not good. The Project is allowed to destroy 70% of the vegetation within the project area. However, it is unknown what the impact will be on vegetation adjacent to, and downstream of, the farm.

This area has an abundance of unique species that have witnessed a century of destruction due to cattle farming and colonisation. The benefit of this farm surely does not outweigh the risk to these species, and the culture that is intrinsically tied to their welfare.

This ecosystem is robust because of way it is able to preserve water, and therefore life. Groundwater is critical to the resilience of arid zone ecosystems and the potential extraction of up to 80% of the groundwater within the Western Davenport's aquifer over the next century could be the death knell for the ecosystem.

As a trained and professional environmental scientist, I understand why this region has been earmarked by the Commonwealth and Territory governments for economic development. However, as an environmental scientist I also understand the dangers this pursuit is likely to have on a region that has been degraded well before we'd been able to step on the moon or create a computer you could hold in your hand.

The uncertainties surrounding this Project are numerous and relate to things that are significant enough to warrant the most scrupulous review.

I want to believe we can farm in the desert, as climate change impacts and the population continue to grow. The reality is, we can't, and we shouldn't. Keep farming on the coast where it makes economic sense, and instead encourage investment in more efficient farming systems rather than frontier inspired exploration into the unknown.

Thank you for taking the time to read this submission, and I hope these words have helped you understand the viewpoint of a very concerned community member.

Sincerely,  
Tim Berenyi