

## **Submission – Sweetwater Agricultural Development**

I am a Darwin resident for over 13 years and an environmental science student. I not only love the natural environment here in the Territory but am very aware of its fragility and of the risks posed by inappropriate development, particularly in areas of conservation significance.

This proposal has been self-referred for Environmental Impact Statement (EIS) assessment due to the fact that it lies within the Keep River Area of Conservation Significance and for its potential impact on Matters of National Environmental Significance (MNES) such as threatened and migratory species in the Keep River system.

This area across the North of Australia, the Great North, retains the last relatively intact tropical savanna on the planet. It is an area of great biodiversity with unique and endangered flora and fauna species, historic cultural value and some of the world's last free flowing rivers.

This land should never be developed for intensive agriculture and irrigation that will destroy its very nature. The Murray-Darling basin disaster continues to wreak environmental and economic havoc due to overallocation of water, dams and irrigation for crops such as cotton and rice. This is what is being proposed here in this significant area of biodiversity.

**This proposal repeatedly refers to “dryland” farming for a preliminary development for which land clearing is requested, of 4524 hectares. However, this proposal is clearly just the starting point of land clearing and irrigation for intensive agriculture for an additional 24 685 hectares.**

**This proposal should NOT be considered in isolation but as a whole of project impact. If 4000 hectares are worth consideration due to MNES, then 15 times that impact requires serious assessment of the project as a whole, including Stages 1, 2 and 3.**

**As a major irrigation project, impacts in particular on downstream water quantity and quality must be assessed, and potential impacts on the Legume Wetlands Complex minimised to the greatest extent possible.**

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### **Land Clearing**

The consequences of land clearing have been known for many decades, since the Mallee was cleared by returned servicemen, creating the great Mallee dustbowl and loss of essential topsoil through massive dust-storms throughout the 1930s.

Land clearing, building of infrastructure and on-farm road access increases soil degradation, loss of topsoil, invasive weed growth and use of pesticides.

It is clear from the proponent's submission that land clearing risks the future of a range of identified endangered species. It also risks the soil quality, the flows of the river and risks from flooding. Soil issues raised include poor soil drainage, increasing salinity which we have seen in the Murray-Darling basin and do not want repeated in the Keep River catchment.

## **Water**

Groundwater, waterholes and springs fed by this river system have sustained life in this region for thousands of years. Dependent species include endangered migratory shorebirds, freshwater sawfish, monitors, and others outlined in the proposal. Ecological systems here rely totally on the large wet season flows and recharge and harvesting floodwaters will be impactful.

Acknowledged water issues include poor drainage, flood risk, increased salinity and eutrophication. Fertilisation of fertiliser intensive crops such as cotton and run-off (including pesticides) have the potential to cause eutrophication and poisoning of the currently pristine Keep River system and downstream.

The stated “on-site water storage capacity” or “on-site retention of stormwater for use in cropping” is a 10000ML dam (p23 of proposal). Water taken out of the ecosystem and dammed will impact the groundwater, waterholes and springs and downstream water quality and volume. Levee banks and other river modifications will be made, altering but certainly restricting river flow and flooding, essential for ecosystem preservation. The dam proposed is needed despite the suggested crop being “dryland” cotton.

EIS hydrological assessment is critical to identify environmental issues on and in the river and downstream effects. Independent hydrological investigation must be conducted to obtain scientific data on these impacts due to the whole project stages 1,2, and 3. Accurate measurement of water take proposed, and reporting is essential to protect the long-term river and wetland health.

While the agricultural development of this area is stated to have been proposed for decades, new information and recent facts of our changing climate (increasing heat for longer periods/greater storm intensity) and knowledge of the need for greater conservation efforts must be prioritised over outdated information. Not everything that has been “thought of for years” is now the best way forward for a region, Keep River included. Sandalwood is a good example of a crop that was "a good idea at the time” and has failed.

In the current environment and in this pristine, unique conservation areas, it is imperative that we consider:

Firstly, the benefit vs risks (as outlined) to a broad range of species and land for agricultural development at all in this significant area, and secondly for determination of the most appropriate crops for one for the driest continents on earth. A water thirsty and fertiliser intensive cotton is not that crop.

I recommend that the proponent consider current scientific knowledge of changing weather, water and land capacity and impact on unique and endangered fauna and flora and consider alternative more appropriate, viable and less destructive means for economic benefit in this globally significant conservation area.

