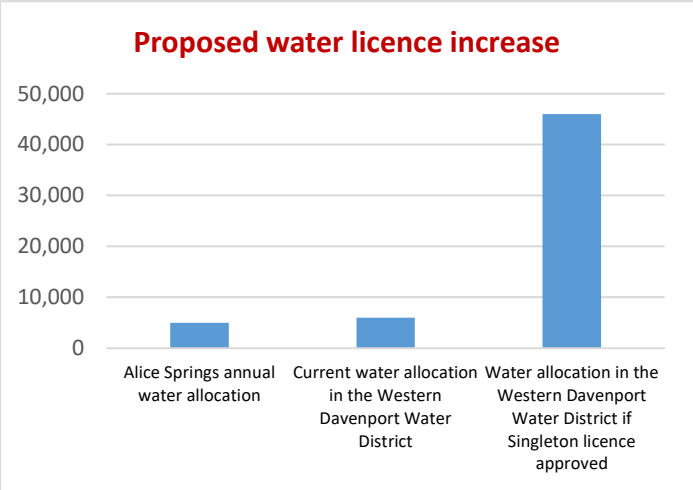
Singleton Station groundwater license application Fortune Agribusiness Fund Management (FAFM)

Background

FAFM purchased Singleton Station in the Northern Territory's Western Davenport water control district in 2016 for an intensive agribusiness project. In 2020 FAFM applied for 40,000 ML of ground water each year for 30 years. **If approved, the allocation will be the largest groundwater licence ever issued in the NT**[1]. It will increase water use in the region from over 10,000 ML to 40,000 ML per year and lock up a significant part of the district's consumptive pool.

The district is 41% Aboriginal land with 1,000 Aboriginal residents in Alekarenge community, outstations and land trusts[2]. They want their drinking water, cultural sites and associated ecosystems as well as future businesses protected, yet most have no idea about this proposal.



CLC consultations

Between last September and November the CLC consulted native title holders and residents in Alekarenge and Tennant Creek and raised their concerns in a letter to Minister Eva Lawler. Residents were worried that too little is known about the groundwater to make such a big allocation and asked the minister to freeze the licence decision until important data collection and testing is done and a briefing can be held with native title holders and residents in the third week of February, 2021, following the ceremony season. In January the Department of Environment, Parks and Water Security told the CLC the licence will be decided before that date.

Knowledge gaps about the Western Davenport water control district

The district's water allocation plan (2018-2021) identifies 'large knowledge gaps' about the groundwater which impact on the Singleton licence application, such as:

- There is limited data to verify modelling assumptions about estimates of sustainable yield, including aquifer storage and recharge through rainfall. This creates a real risk of overestimation of the available resource.
- Environmental and cultural values could be threatened if the consumptive pool is over-allocated, also posing a financial risk to developers and investors.
- The impact on soil and groundwater of intensive irrigation over 30 years with respect to salinity is not known.
- Assumptions about storage in regolith rock of 30,000 ML per year that form part of the estimated sustainable yield are unverified.
- The response of groundwater dependent ecosystems (GDE) to pumping is only inferred from studies conducted elsewhere[3].
- Untested assumptions about the impact of recharge from rainfall on water table levels. In the past 100 years four recharge events have been recorded and climate change is not factored into the plan, however higher temperatures and more evaporation are forecast.[4]
- Essential baseline surveys of the values and requirements of GDE have not been done for Singleton. GDE modelling is currently based on remote sensing data but "detailed mapping of GDE's including identification of priority conservation areas and types/use and vulnerabilities to change"[5]

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[1] The Guardian, 22 Nov 2020. https://www.theguardian.com/australia-news/2020/nov/22/nt-government-urged-to-reject-speculative-licence-for-largest-private-water-allocation-in-state

[2] NT Government, Department of Environment, Parks and Water Security, Western Davenport Water Allocation Plan 2018-2021. https://denr.nt.gov.au/__data/assets/pdf_file/0011/624863/Western-Davenport-WAP-04012019.pdf, p.11

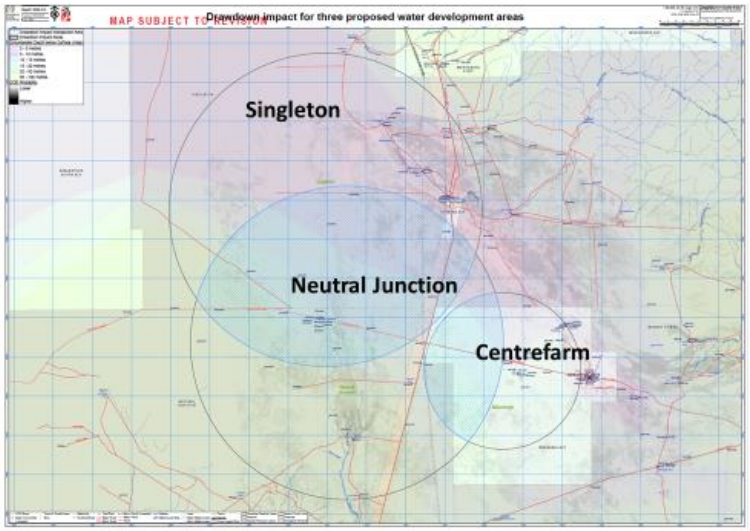
[3] Ibid p27

4 Ibid, pp 55-57

5 Ibid p27

Other Concerns

- The DEPWS released a new guideline, allowing the destruction of up to 30% of GDEs despite a commitment to "no deleterious impacts on GDEs" in the WD Water Allocation Plan.[6]
- While reference to impacts on GDE is raised in the Water Allocation Plan there is little attention given to potential impacts of intensive irrigation on springs, soaks and surface water that may exist within the district including the drawdown zone for Singleton. An assumption is made that these sites are likely to exist in and near the rocky ranges and it is "considered unlikely that GDE of these types would be impacted by licences groundwater extraction"[7]. This assertion is not supported by evidence.



- A proposed small scale horticultural development on the Ilyarne Land Trust could become unviable if the license application is approved at the proposed volume. The land trust's proximity to the Singleton draw down zone could put its licence approval at risk. Aboriginal Economic Development should be considered a regional priority not to be threatened by an industrial scale development next door.
- If wrong assumptions underpin the licence decision then GDE will be damaged or destroyed.

The NT Government's monitoring and management approach

The NTG will apply 'adaptive management' to the Singleton licence. Adaptive management is an iterative process whereby monitoring data is reviewed and interventions are introduced if benchmark measures in an adaptive management plan are triggered. If issues arise, for example water levels drop more rapidly than expected, GDE deteriorate or die, or salinity levels climb higher than anticipated then a cascade of clear actions should follow which could include cutting the licensee's water allocation. If the consequences are not transparent and implemented, then irrevocable harm to the environment, water quality and availability can follow. A strong adaptive management plan will also be fed by strong baseline data. This data should be collected prior to any activity commencing so that comparisons can be made. While the National Water Initiative supports adaptive management in theory, the results of its application are mixed. A recent analysis of case studies finds "the most notable issues in the application of AM to groundwater activities include a lack of substantive mitigation measures and/or assessment of the potential for remediation." (Thomann et al. 2020). A reasonable expectation is that a detailed adaptive management plan will be produced and released for peer review prior to any licence approval.

The capacity of DEPWS' water resources section to monitor and manage the plethora of new licence applications in this and other NT water districts and outside water districts is in doubt. Without adequate resourcing and the availability of appropriately qualified staff to analyse data collected as part of adaptive management and to implement the interventions when issues arise creates great risk and uncertainty around the future integrity of the groundwater resource.

6 NTG (2020), 'Guideline: Limits of acceptable change to groundwater dependent vegetation in the Western Davenport water Control District', P8

7 NTG, Department of Environment, Parks and Water Security, Western Davenport Water Allocation Plan 2018-2021. https://denr.nt.gov.au/__data/assets/pdf_file/0011/624863/Western-Davenport-WAP-04012019.pdf. p27