Adrian Tomlinson
PO Box 9124
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NT 0870

Andrew Johnson
Controller of Water Resources
Via email water.licensing@nt.gov.au

13 January, 2026

Dear Andrew,

**Objection to application for a Groundwater Extraction Licence – NT Portion 2093, Newcastle Waters Station; 21468 Stuart Hwy, Pamayu, 3060 ML/yr , Georgina Wiso Water Allocation Plan Area**

I am writing to request that you refuse this application for a groundwater extraction licence (GWEL).

***Overall recommendation***

***I am firmly of the view this application should be refused. If you wish to progress this application it must first be referred to the NT EPA for an environmental impact assessment.***

I expand on the reasons for my objection and make specific sub-recommendations in the discussion below.

**DISCUSSION**

1. **Size of the application**

This is a very large application. It will dramatically increase water extraction from within the Georgina management zone of the Georgina Wiso Water Allocation Plan.

The rapid escalation of extraction is risky. It could result in environmental harm and/or groundwater not being available to other future and more worthy proposals, if the ESY were to be subsequently reduced.

It would be prudent to first consider a much smaller application.

2. **Unsuitability of the Georgina Wiso Water Allocation Plan as a basis for licensing decisions - it allocates too much water and lacks mechanisms to protect the environment**

The Georgina Wiso plan is controversial and has been widely criticised. The Hon Eva Lawler stepped in and approved the plan while the Environment Minister was on holiday[1].

When the plan was gazetted it still had many unresolved issues. It been prepared without a Water

[1] https://www.abc.net.au/news/2024-08-22/foi-documents-reveal-massive-nt-water-plan-approved-in-two-days/104248356

Advisory Committee and went against the wishes of Traditional Owners[2].

Furthermore public submissions had been sought and received on the draft plan, however the plan was gazetted without publishing a response to these submissions.

The plan sets the Estimated Sustainable Yield (ESY) at 186,154 ML/yr for the Georgina management zone. This appears to be based upon taking 3% of storage over 100 years. As a fraction of recharge the ESY is around 32% of recharge, even when based on the controversially high recharge rate of 585,000 ML/yr that was adopted in the Georgina Wiso WAP. This is significantly more than the contingent allocation of 20% of recharge as would apply under the NT Water Allocation Planning Framework.

Note both recharge and storage were calculated during a period of increasing aquifer levels, something for which there is no basis to expect to continue.

- Storage - there is a very high likelihood that storage could decline as has already been observed in the Georgina bores since 2012 - see figure over
- Recharge estimate adopted in the plan is calculated over the wettest period from the early 1970s onwards. Actual recharge could be much, much less (E.g. Currell, M.J., Ndehedehe, C., 2022 table 3 shows recharge estimate adopted in the WAP is an outlier - all other recharge estimates for the Georgina Basin CLA have been 330 GL/yr or less.)

Furthermore, the Georgina Wiso WAP contains no environmental or cultural objectives, nor does it ascertain the limits of acceptable change to these values, nor does it prescribe the threshold aquifer and discharge levels needed to maintain these.

To summarise: the ESY in the management plan is highly uncertain and there is a very significant risk it will be very significantly reduced in future plans because:

1. Based upon mining stored groundwater and does consider we may already be facing a period of declining storage;
2. Expressed as a fraction of recharge the ESY is around 32% of recharge - far more than the contingent allocation of 20% of recharge estimated in the plan which would normally apply under the NT Water Allocation Planning Framework;
3. The recharge estimate in the plan is an outlier. It is calculated from the wettest period in the rainfall record in a time of increasing aquifer levels[3];
4. The plan was decided without a Water Advisory Committee and does not specify thresholds that need to be maintained to protect the environment.

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[2] https://www.abc.net.au/news/2024-08-22/foi-documents-reveal-massive-nt-water-plan-approved-in-two-days/104248356

[3] Currell, M.J., Ndehedehe, C., 2022. The Cambrian Limestone Aquifer, Northern Territory: Review of the Hydrogeology and Management Rules to Ensure Protection of Groundwater Dependent Values. Report prepared for Environment Centre NT https://research-repository.griffith.edu.au/server/api/core/bitstreams/fa7a318e-88a9-43a2-8f9b-8ea0754105c3/content

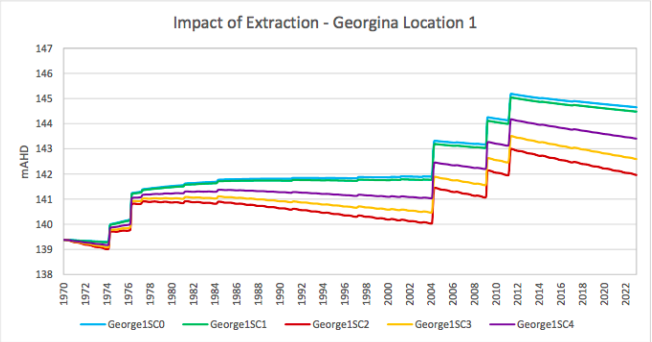


Figure 10 Modelled impact of extraction, Georgina Basin location 1

see footnote [4]

**Table 3:** Summary of recharge estimates for the CLA

| Study | Basin/Unit(s) | Point-based recharge rate estimates (mm/year) | Volumetric recharge rate (CLA) | Method(s) used |
|---|---|---|---|---|
| Deslandes et al., 2019 | Southern Daly (Tindall), Northern Georgina (Anthony Lagoon & Gum Ridge Fm), | 1 to 25 mm/yr (diffuse, increase south to north); 140 to 190 mm/yr (preferential | Not quantified | Tritium, Chloride mass balance (recharge rate); CFCs, SF6 and noble gases |
| | Northern Wiso (Montejinni Lstone) | recharge through sinkholes) | | (qualitative insights) |
| Bruwer and Tickell, 2015 | Daly Basin / Tindall Limestone | 8.7 to 28.5 mm/yr (in areas of shallow/exposed CLA) | Approx. 330 GL/yr (possible range from 286 to 722 GL/yr). | Water table fluctuations, Chloride mass balance, water balance, model |
| Tickell and Bruwer, 2017 | Georgina Basin / Anthony Lagoon Formation | 0.9 to 12.2 mm/yr (areas of shallow/ exposed CLA) | 20 to 179 GL/yr (Gum Ridge Fm) 51 GL/yr (Anthony Lagoon Fm) | Chloride mass balance |
| Crosbie and Rachakonda, 2021 | Entire CLA | 5 to 156 mm/yr including: 5 to 18 mm/yr (Georgina); 9 to 31 (Wiso); 49 to 156 (Daly) (5th to 95th percentiles) | | Chloride mass balance, constrained using baseflow separation and remote sensing data |
| Knapton et al., 2020 | Georgina Basin & Daly Basin | | 315 GL/yr (Georgina); 177 (Daly) | Coupled ground-surface water modelling |
| Northern Territory Government, 2022a | Georgina & Wiso Basins | | 608.4 GL/yr (Georgina); 48 GL/yr (Wiso) (Additional estimates compiled in background report – NTG, 2022b) | Coupled ground-surface water modelling |
| This study (preliminary estimates only) | Daly Basin (Flora, Roper, Gregory River catchments) | 174 mm, 87 mm, 84, and 144 mm for the Flora River, Gregory River, Lawn Hill Creek and Roper River catchments. | Not quantified | GRACE satellite data |

***Recommendation***

***Given the lack of support for the plan, the controversial assumptions in it and controversial gazettal process, the Georgina Wiso Water Allocation Plan should not be used as a basis for your decision.***

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https://nt.gov.au/_media/docs/environment/water/water-management/announced-water-allocations/georgina-wiso-water-allocation-plan/georgina-wiso-background-report.pdf (p32)

### 3. Risk of the applicant dominating water markets and limiting more worthy uses.

I am concerned that by getting in early before the system response to extraction is understood, there is a high risk that this applicant could end up with the bulk of the entitlements in the Georgina Basin groundwater management zone in the event that the ESY is reduced.

The risk:

- Is heightened because there is no cost attached to acquiring these entitlements.
- substantial and not without precedent in the Territory. You would be aware that Katherine, Oolloo and Mataranka plans all include groundwater management zones where the system limits were not appreciated upfront, resulting in too much groundwater extraction being approved.
- threatens to result in poor outcomes for the Territory as there are many potential groundwater users who may miss the opportunity to realise their aspirations.

There is also a risk that if companies like CPC are left with the bulk of water entitlements they could control water markets in the region.

***To mitigate the risk of over allocation, and one applicant having most of the entitlements, I recommend you develop and apply a policy of only approving licence entitlements up to an amount that is proportional to the fraction of the groundwater management zone that the applicant occupies. (This would need refinements around approach to applications on small properties).***

### 4. Local Environmental Risks

<u>Receiving aquatic ecosystems</u>

The assessment report  Water Technology Pty Ltd in its section 2.3 does not address the risks to regionally significant South Newcastle Waterhole[5] and drains to the Internationally significant Lake Woods. The impacts of irrigated agriculture on these wetlands. Given proximity to Newcastle Creek the risks to fauna visiting the site from here and other sites and the incompatibility of this conflicting use should be considered.

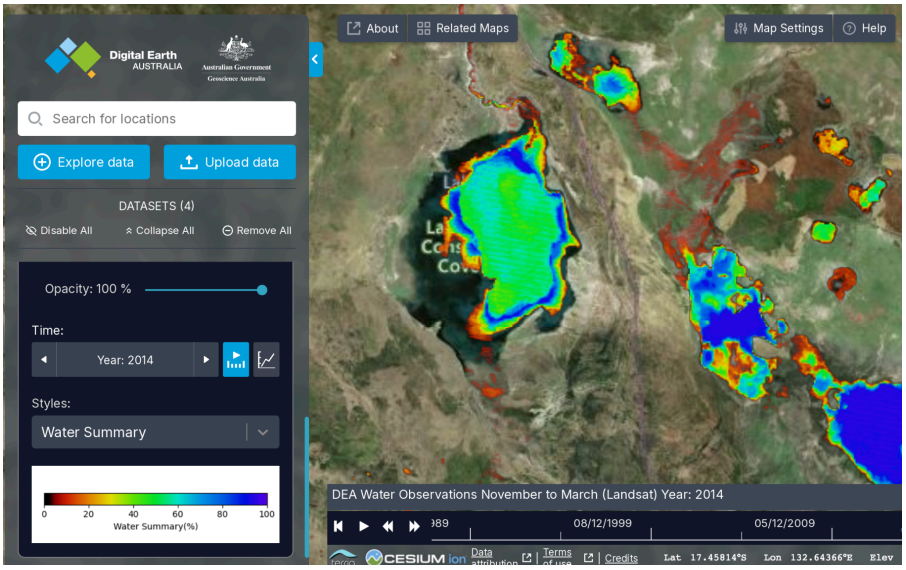


*Figure: extensive inundation areas occur in the vicinity of the proposal Source: https://maps.dea.ga.gov.au/#share=s-mYmYKh57NcZV7nUN8vaV52ZNO5S*

[5] https://www.researchgate.net/publication/238723990_Mitchell_Grass_Downs_Northern_Territory Fisher et al 2002

Significant overall risks

Given the scale and risks of this proposal it must first be assessed by the NTEPA.

This is appropriate and will lead to a better licence decision because:

- The issues you consider are effectively a subset of those issues considered by the NT EPA;
- The water licence decision would benefit from the information gathered on environmental and cultural issues in support of an environmental impact assessment;
- More comprehensive formal consultation processes are in place for the preparation of an Environmental Impact Statement.

***Recommendation to address concern***

***To address environmental risks and afford the opportunity for community input you defer determination of the Application and refer the action for assessment under Part 4, Division 3 of the Environment Protection Act 2019 (NT) (EP Act) on the basis that it has the potential to have a significant impact on the environment.***

**5. Pastoral Land Act permits**

I am concerned that the intended use proposed in this GWEL application is different from what was originally approved - i.e dryland cropping.

This new proposal includes irrigated cotton cropping and other crops depending on 'market factors'. This introduces greater complexity and more environmental risk than the original proposal (e.g. different weeds including weeds that prosper under irrigation and hence may be more likely to prosper in wetlands, more chemicals and fertilisers, greater risk of leachates contaminating groundwater and greater potential for contaminated surface runoff.)

The full extent of the proposal should have been communicated and assessed upfront.

Given the scale and location, a proposal involving irrigated cotton and other irrigated agriculture is more likely to have been assessed as needing a public environmental impact assessment by the NTEPA.

Furthermore, irrigated cotton, no matter how the Pastoral Lands Board may frames it, is clearly a non-pastoral use. As such it should be subject to assessment as a non-pastoral use.

The applicant appears to have taken an approach of seeking and implementing approvals incrementally rather than a full and upfront assessment. I raised this same issue in relation to CPC's recent GWEL application on Dungowan Station.

It is concerning that the Deputy Chair of the Pastoral Lands Board is Allen Andrews, from CPC.

***Recommendations***

***You should refuse this application given it is different and more impactful to what was approved and assessed in the existing clearing approvals.***

***You write to the Pastoral Lands Board to highlight that the pattern of incremental approvals associated with irrigation proposals is unacceptable and not in the public interest and establish a way to stop this happening again.***

**6. Failure to consult with First Nations people**

The application does not demonstrate the support of local communities or that cultural values associated with the Cambrian Limestone Aquifer and surface water features impacted by the proposal will be safe. The Northern Land Council's opposition to the allocations in the Georgina Wiso Water Allocation plan is suggestive that impacted groups away from the site are unlikely to be supportive.

**SUMMARY OF RECOMMENDATIONS**

**Overall**

***I firmly am of the view this application should be refused. If you wish to progress this application it must first be referred to the NT EPA for an environmental impact assessment.***

**Sub-recommendations**

***Given the lack of support for the plan, the controversial assumptions in it and the controversial gazettal process, the Georgina Wiso Water Allocation Plan should not be used as a basis for your decision.***

***To mitigate the risk of over allocation, one applicant having most of the entitlements, I recommend you develop and apply a policy of only approving licence entitlements up to an amount that is proportional to the fraction of the groundwater management zone that the applicant occupies. (This would need refinements around approach to applications on small properties).***

***To address environmental risks and afford the opportunity for community input you defer determination of the Application and refer the action for assessment under Part 4, Division 3 of the Environment Protection Act 2019 (NT) (EP Act) on the basis that it has the potential to have a significant impact on the environment.***

***You should refuse this application given it is different and more impactful to what was approved and assessed in the existing clearing approvals.***

***You write to the Pastoral Lands Board to highlight that the pattern of incremental approvals associated with irrigation proposals is unacceptable and not in the public interest; and establish a way to stop it happening again***

Thank you for your consideration. I welcome the opportunity to discuss my concerns with you.

Kind regards,

Adrian Tomlinson