Environment Centre NT
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13 January 2026

Mr Andrew Johnson PSM
Controller of Water Resources
Department of Environment, Parks and Water Security

By email: water.licensing@nt.gov.au

Dear Mr Johnson,

RE: Water extraction licence applications by Consolidated Pastoral Company Pty Ltd to extract 7290 ML per year at Tandyidgee Station and 3060 ML per year at Newcastle Waters Station.

1. We refer to the above groundwater extraction licence applications, published 5 December 2025 and lodged by Consolidated Pastoral Company Pty Ltd (**the Licence Applications**).

2. Consolidated Pastoral Company (**CPC**) has applied to extract 7,290 ML per year at Tandyidgee Station (NT Portion 2095) and a further 3,060 ML per year at Newcastle Waters Station (NT Portion 2093). The two NT portions are adjacent to each other.

3. The proposed extraction will draw groundwater from the Gum Ridge Formation, part of the Cambrian Limestone Aquifer. The Gum Ridge Formation is within the Georgina Basin and groundwater is allocated from the Georgina Basin under the Georgina–Wiso Water Allocation Plan.

4. The total proposed extraction of 10,350 ML per year from the Geogina Basin accounts for almost 7% of the total Estimated Sustainable Yield (**ESY**) for *Other Consumptive Uses* (e.g. agriculture) within the Georgina Basin, per the Georgina Wiso Water Allocation Plan 2023-2031. Under the NT Government's *Processing Water Extraction Licence Applications* policy [1], any proposal exceeding 500ML per year from a regional scale water resources constitutes a *significant proposal*. This makes both CPC applications a matter of considerable public interest and warrants a precautionary approach.

5. These Licence Applications present a significant increase of water extraction in the Georgina Basin. This is concerning given the scientific uncertainties associated with

[1] Department of Environment and Natural Resources 2020, *Processing Water Extraction Licence Applications policy*, NT Government.

groundwater in the Georgina-Wiso basin region and the important natural and cultural values in the area, cited in the application.

6. The Environment Centre NT (ECNT) submits that these licences should not be granted, due to the significant risks of the proposal and deficiencies in the Licence Applications, as outlined below.

7. Alternatively, if the Water Controller does not determine to refuse the Licence Application, ECNT submits that they must 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.

Summary of Licence Application

8. CPC proposes to develop irrigated agriculture at Newcastle Waters and Tandyidgee stations through staged irrigation development over a ten-year period.

9. At Newcastle Waters Station, irrigation is proposed over approximately 225 hectares within 3,729 hectares of land approved for native vegetation clearing under permit PLC22/06, adjoining a further approximately 990 hectares approved under permits PLC19/04 and PLC21/07.

10. At Tandyidgee Station, irrigation is proposed over approximately 495 hectares within 4,438 hectares of land approved for native vegetation clearing under permit PLC23/01.

11. The proposed clearing and water extraction are intended to support broad-scale irrigated cropping, including rotations of cotton, grain sorghum, Rhodes grass, cavalcade in the wet season; and oats, rhodes grass and forage sorghum, as well as fallow periods, in the dry season.

The Georgina Wiso Water Allocation Plan is an unsuitable basis for water licensing decisions

12. Environment Centre NT submits that the Georgina Wiso Water Allocation Plan (**Georgina Wiso WAP**) is an unsuitable basis for water licensing decisions for the reasons set out below.

13. ECNT's submission on the draft Georgina Wiso WAP, setting out these concerns in more detail, can be found at Attachment A.

Lack of a water advisory committee

14. The Georgina Wiso WAP was not developed in consultation with relevant stakeholders and the community on the basis of best scientific and socio-economic assessment as is required by the National Water Initiative (Schedule B(i)) of the NWI). There was no water advisory committee established to develop the plan, and one has not been established to guide implementation of the plan.

Flaws in the calculation of the estimated sustainable yield

15. There is considerable uncertainty associated with the estimated recharge for the Georgina and Wiso Basins. Expert review by Currell and Ndehedehe in 2022 (Attachment B) states the current data indicates that recharge is considerably lower than the long-term average in most years (and may be negligible under the current climate), except for rare events where rainfall and recharge far exceed the long-term average[2].

16. The estimated sustainable yield for the Georgina Wiso WAP was calculated at approximately 32% of recharge of the aquifer. The basis upon which 32% of the recharge is said to be sustainable is not addressed in the Georgina Wiso WAP. It is significantly higher than the contingent allocation for the "Top End" water allocation planning framework (20%) as recommended under the NT Water Allocation Planning Framework.

17. The Georgina Wiso WAP uses an average recharge figure of approximately 630GL per annum, based upon modelling used by Knapton[3].

18. This estimate, however, is approximately double the recharge reported for the Georgina Basin in Knapton[4]. This is due to the use of the most recent 50 year period of data (a wet period) as opposed to the full length of available climate records. If 100 years of data were used, then the annual recharge would be halved (giving an annual recharge rate of only 315 GL per annum, meaning that the estimated sustainable yield used in the Plan would comprise approximately 80% of average annual recharge).

19. The recharge in the basin is episodic. There was a very significant recharge event in 1974 which has skewed the average recharge figure used in the plan[2]. If the median were used instead, recharge would be negligible, at approximately 0.5GL per annum.

20. Taking into account the above, there is a very real risk that permitting extraction at the rate permitted in the Georgina Wiso WAP would constitute "mining" of the resource, causing unacceptable depletion of the storage of the aquifer and impacts on

[2] Currell, M; Ndehedehe, C, The Cambrian Limestone Aquifer, Northern Territory: Review of the Hydrogeology and Management Rules to Ensure Protection of Groundwater Dependent Values, 2022
[3] Knapton, A., 2020. "Upgrade of the Coupled Model of the Cambrian Limestone Aquifer and Roper River Systems." WRD Technical Report 57/2020
[4] Ibid.

groundwater dependencies. In most years, significant aquifer overdraft may occur for many consecutive years (or decades) before the next episodic recharge event occurs.

Risks to groundwater dependencies and aquatic ecosystems

21. The Georgina Wiso WAP allocates only 20ML per annum to the environment, which is insufficient to maintain aquatic ecosystems as required by the *Water Act 1992*.

22. Hydrogeologically, the Mataranka-Roper River area is the discharge zone for the regional-scale Georgina groundwater system originating from the Georgina Basin and flowing northwards. This means that the Georgina Wiso Plan area is hydraulically connected to the Roper River and associated aquatic ecosystems. There are a range of aquatic ecosystems which could be impacted by the Georgina Wiso Plan, including the stygofauna communities, the Roper River, Flora River, Daly River, Katherine River, Dry River, Elsey Creek, and a number of wetlands, springs and billabongs including Longreach waterhole, Warloch Ponds, Mataranka Thermal Pools, Red Lily Lagoon and Bitter Springs[2].

23. The Georgina Wiso WAP contains no environmental or cultural objectives, nor does it ascertain the limits of acceptable change to these values. The plan makes scant reference to key dependencies which the community has been concerned about for many years (including the Flora and Mataranka spring complexes, and the Roper and Daly Rivers). No scenario modelling was disclosed during the plan's public exhibition to show the impacts of modelled extraction on dependencies, and no limits of acceptable change were identified in the plan.

24. The Georgina Wiso WAP also provides no information about how secure ecological outcomes and resource security for users will be maintained or achieved.

25. For the reasons given above, ECNT submits that the Georgina Wiso WAP should not be used to assess the Licence Applications, particularly with respect to the availability of water.

Significant risks associated with the Licence Applications

26. In support of the Licence Applications, CPC relies predominantly on a consultant report entitled "Newcastle Waters Station & Tandyidgee Station Groundwater Extraction Licence Applications" dated 3 September 2025 (**Modelling Report**).

27. ECNT submits that the Modelling Report is flawed in a number of key respects, including:
    (a) Claims that groundwater extraction will not impact Lake Woods, a wetland of national significance and one of the largest inland freshwater lakes in the Northern Territory, are not substantiated and appear contradictory. For example,

reference is made to Sun Cable modelling which indicates Lake Woods is not directly connected to the underlying aquifer, but later Lake Woods is described as a major recharge mechanism for the aquifer;

(b) Impacts on aquatic ecosystems such as the Roper River, Mataranka and Bitter Springs complexes, Warloch Ponds, and Elsey Creek are not assessed, with springs only identified within a 50km radius (see CSIRO analysis below);

(c) Claims that groundwater extraction will not impact the 10 identified groundwater dependent ecosystems (**GDEs**) at Newcastle Waters Station, including Ferguson Creek and springs, and the high potential GDE of Newcastle Creek (also culturally significant to Traditional Owners) are not substantiated;

(d) Claims that groundwater extraction will not impact two identified GDEs at Tandyidgee Station are not substantiated;

(e) Impacts of the Licence Applications were only modelled over a 10-year period, which is inadequate given the likely delayed impacts of groundwater extraction. A longer timeframe should be used (up to 100 years);

(f) Impacts of drawdown on water supply to the Indigenous community of Marlinja are not mentioned or assessed. Marlinja community is located within the Newcastle Waters cattle station, very close to the proposed groundwater extraction; and

(g) Cumulative impacts of groundwater extraction (including from existing licences and entitlements in the Georgina Wiso WAP and Mataranka WAP areas) are not modelled.

28. ECNT submits that the Licence Applications, if granted, would permit an unsustainable level of extraction in a relatively confined area, which would exceed the annual recharge across the whole Georgina Basin in most years and lead to significant drawdown, and aquifer depletion in this area (see analysis regarding recharge rates with respect to the Georgina Wiso WAP above).

29. ECNT submits that this extraction, taken cumulatively with other licences granted in the Mataranka Water Allocation Plan area and the Georgina Wiso WAP area, is likely to cause unacceptable impacts to groundwater dependencies including the aquatic ecosystems listed above with respect to the Georgina Wiso WAP.

30. ECNT notes that the CSIRO recently undertook groundwater flow modelling of the Roper River catchment, including in parts of the Georgina Wiso WAP area. One model scenario to 2070 used by CSIRO involves adding 35GL/year extraction (including at sites in the vicinity of the Licence Applications). Watertable decline extended more than 100km northwards, towards the Roper River, highlighting the groundwater connectivity between the zones and potential for negative consequences on ecosystems. This widespread propagation of watertable decline was attributed to the low storage properties of the

Cambrian Limestone Aquifer [5]. This indicates the Licence Applications could impact groundwater dependencies some distance from the licence area. However, these are not assessed.

31. ECNT submits that the watertable gradient, groundwater velocities and flow directions could be significantly altered from their natural state by groundwater pumping exceeding recharge (as would be the case here). Excessive groundwater extraction could plausibly reduce or reverse the regional Georgina flowpath by the creation of a "cone of depression". This risk was raised by a former Director of Water Planning when considering the potential impacts of a groundwater extraction licence near Larrimah[6]. He warned that pumping based on "Arid Zone" storage rules "has the potential to reverse the hydraulic gradient removing through-flow to areas near the southern side of the Roper River and cause water to flow in the opposite direction." This risk is not explicitly addressed in the Modelling Report. However, the Modelling Report does indicate significant levels of drawdown that could change watertable gradients. For example:
    (a) A pumping test at Newcastle Waters Station resulted in 3.4m of drawdown after the 24 hours of pumping;
    (b) A pumping test at Tandiyidgee Station resulted in 9.2 metres of drawdown within the first five minutes, and reached a maximum of 13.1 metres of drawdown after 72 hours;
    (c) Modelling of the impacts of the Licence Applications over 10 years demonstrates very significant drawdown is anticipated. For example:
        a. 8 metres of drawdown would be anticipated from pumping at Newcastle Waters Station at the production bores, with drawdown of 1.5 metres predicted at Elliott;
        b. 12 metres of drawdown would be predicted from pumping at Newcastle Water Station and Tandyidgee Station at the production bores, with drawdown of 1.53 metres at Elliott.

32. ECNT also suggests there has been a lack of sincere stakeholder engagement by CPC, particularly noting that the wrong Land Council appears to have been contacted for the Marlinja Aboriginal Land Trust – which lies within the Northern Land Council Boundary, however the Central Land Council is listed as the contact in the Licence Application. Traditional Owners who the ECNT have spoken to in the region have either not been made aware of the water licence applications at all or, if so, less than a week before public submissions closed.

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[5] Watson I, Petheram C, Bruce C and Chilcott C (eds) (2023) Water resource assessment for the Roper catchment. A report from the CSIRO Roper River Water Resource Assessment for the National Water Grid. CSIRO, Australia. See: https://publications.csiro.au/publications/publication/PIcsiro:EP2024-1416

[6] Director Water Planning and Engagement (2020) Memorandam: GWEL application KG08988 - NT Land Corp at Larrimah. Obtained by ECNT through Freedom of Information request, see: https://www.ecnt.org.au/secret_nt_government_memo

Potential contravention of Pastoral Land Act 1992

33. The Licence Application states the beneficial use of the water extraction to be for agriculture, with water used for staged irrigation development utilising rotation of crops including grain sorghum, rhodes grass, cavalcade and cotton. The Licence Application does not state anywhere that these crops will be associated with the pastoral enterprise or pastoral activities.

34. The proposed irrigated agriculture developments are within the footprints previously approved for native vegetation clearing (PLC 22/06 and PLC 22/01). These native vegetation clearing permits were granted by the Pastoral Land Board for pastoral purposes only.

35. Under the Pastoral Land Act 1992 (**Pastoral Land Act**), "Pastoral purposes" means: *the pasturing of stock for sustainable commercial use of the land on which they are pastured or agricultural or other non- dominant uses essential to, carried out in conjunction with, or inseparable from, the pastoral enterprise, including the production of agricultural products for use in stock feeding and pastoral based tourist activities such as farm holidays, but does not include a use which, under section 91, is declared by the Board not to be a use for pastoral purposes.*

36. There is no evidence provided in the application to demonstrate that the irrigated agriculture proposals at the centre of these Licence Applications are *essential to, carried out in conjunction with, or inseparable from the pastoral enterprise* as required under the Pastoral Land Act.

37. ECNT submits that CPC's proposal constitutes a potential contravention of the Pastoral Land Act. The irrigated agricultural developments are proposed on land cleared under permits granted exclusively for pastoral purposes, yet the Licence Application provides no evidence that the agricultural activities are essential to, carried out in conjunction with, or inseparable from the pastoral enterprise as required under the Act.

Conclusion

38. ECNT submits that the Licence Applications should not be granted for the following reasons:

    a. The Georgina Wiso WAP is an unsuitable basis for water licencing decisions as it should not have been declared due to the lack of a water advisory committee, significant flaws in the calculation of the estimated sustainable yield and the risks to groundwater dependencies and aquatic ecosystems.

b. The Licence Applications rely on inadequate modelling, fail to consider cumulative and long-term impacts, and neglect potential consequences for surrounding communities and Groundwater Dependent Ecosystems.

c. The proposal to develop irrigated agriculture activities appears inconsistent with the Pastoral Land Act and the land clearing permits held by CPC.

39. Alternatively, if the Water Controller does not determine to refuse the Licence Application, ECNT submits that they must defer determination of the Application and refer the action for assessment under Part 4, Division 3 of the EP Act on the basis that it has the potential to have a significant impact on the environment.

Yours Sincerely,

Correa Driscoll
Freshwater and Nature Campaigner
Environment Centre NT

Attachments

Attachment A	Environment Centre NT's submission to the Georgina Wiso Water Allocation Plan 2023-2031
Attachment B	The Cambrian Limestone Aquifer, Northern Territory: Review of the Hydrogeology and Management Rules to Ensure Protection of Groundwater Dependent Values, Currell and Ndehedehe, 2022