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To Whom it May Concern,

**Fortune Agribusiness Funds Management Pty Ltd – Singleton Station NT Portion 653
Water extraction licence application**

The Environment Centre NT (ECNT) is the peak community sector environment organisation in the Northern Territory of Australia, raising awareness amongst community, government, business and industry about environmental issues and assisting people to reduce their environmental impact and supporting community members to participate in decision-making processes and action.

Thank you for the opportunity to provide a comment on the application (**Application**) of Fortune Agribusiness Funds Management Pty Ltd (**Fortune**) for a groundwater extraction licence (**Licence**) under section 60 of the *Water Act 1992* (NT) in respect of Singleton Station NT Portion 653.

1. Summary

- (a) ECNT submits that the Application should be refused on the basis that the Licence would breach s22B(4) of the *Water Act* because it is inconsistent with the Western Davenport Water Allocation Plan (WDWAP) including on the following bases:
 - (i) the Application would cause significant deleterious impacts on groundwater dependent ecosystems;
 - (ii) there would be a threat (and indeed a likelihood) of serious and irreversible environmental harm if the Licence was granted;
 - (iii) there is considerable scientific uncertainty and a lack of evidence regarding key matters (and thus to rationally assess the Application), including, but not limited to, uncertainty about the rate of acceptable aquifer drawdown, the projected rate of recovery of aquifers, the nature and extent of groundwater dependent ecosystems, the impact of extraction on groundwater dependent ecosystems, the cultural impacts of extraction (including sacred sites), and the impacts of climate change on groundwater resources;

- (iv) there is insufficient information in the Application to form a rational basis for a decision to grant the Licence;
 - (v) the document entitled “Guideline: limits of acceptable change to groundwater dependent vegetation” (**Guideline**) should not be applied or taken into account because it lacks any discernible scientific basis, has not been subjected to peer review or public consultation, incorrectly states the law, and is inconsistent with the WDWAP;
 - (vi) the application of the precautionary principle necessitates that the Application be refused.
- (b) Alternatively, ECNT submits that the Application *prima facie* discloses that the grant of the water licence (and Fortune’s proposed horticulture project as a whole) would have a significant impact on the environment, thus meeting the threshold for referral under s50 of the *Environment Protection Act 2019* (NT). The Controller should immediately refer the application (and the project as a whole) to the NTEPA under s50 of the *Environment Protection Act* before making a decision on the Licence.

2. Background

As a general comment, ECNT holds considerable concerns about the scale of the proposed development, its impact on groundwater resources, and the capacity of the Northern Territory’s water regulatory regime to appropriately manage these impacts.

ECNT understands that the Licence, if granted, would comprise the single largest private water licence allocation in the NT (at 40,000ML per year). By comparison, the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory (**Pepper Inquiry**) estimated the annual groundwater requirements of the Beetaloo Sub-basin’s projected onshore gas production phase to be in the order of 3000-5000ML/year. The Application covers arid land where groundwater resources are likely to be seriously impacted by the impacts of climate change, and where scientific knowledge about the nature, extent and characteristics of those groundwater resources and the communities and ecosystems that rely on them is scant. Even a cursory glance of the Application and the applicable Western Davenport Water Allocation Plan (WDWAP) discloses a range of unacceptable and irreversible impacts including drawdown of aquifers of up to 50 metres over a reasonably short period of three decades, with little guarantee of how or when those water resources and the communities and ecosystems that rely on them would recover, if ever. This creates a compelling argument for caution.

Relatedly, the Northern Territory’s regulatory framework for water resource management falls far short of best practice. The Northern Territory remains largely non-compliant with the implementation of the National Water Initiative (**NWI**), which forms the policy basis for the sustainable management of water resources across Australia. ECNT holds serious doubts about the capacity of the Northern Territory to adequately manage the impacts of this development on groundwater resources as a consequence.

There is no institutional separation between service delivery, policy-making and regulation with respect to water in the Northern Territory (as required by the NWI). Indeed, all these roles appear to be performed by the one department. ECNT notes with concern Fortune CEO’s comment to the ABC in a recent article that “we’ve done a lot of work with the government to determine how to assess the impacts on the environment and make sure what we’re proposing to do is acceptable from an environmental point of view” ([https://www.abc.net.au/news/rural/2020-09-14/outback-cattle-station-unveils-\\$150-million-horticulture-plans/12650616](https://www.abc.net.au/news/rural/2020-09-14/outback-cattle-station-unveils-$150-million-horticulture-plans/12650616)). To avoid allegations of perceived or actual bias or industry capture, any employees of DENR who have been involved in advising Fortune about its Application should not be involved in its assessment. In the medium to longer term, consideration should be a stand-alone water regulator that is separate from DENR and the machinery of government.

Even more concerning is that fact that the Northern Territory remains the only jurisdiction in Australia that does not charge for water. This is the key mechanism by which water resource management, including regulatory, compliance and enforcement functions, is funded across Australia. Without cost recovery, ECNT does not believe that it is possible for the Northern Territory to satisfactorily perform these vital functions. Cost recovery also creates a disincentive to potential speculators by applying appropriate charges for entitlement. ECNT notes, in this regard, that if the (conservative) rate for water suggested by the Pepper Inquiry as a guide to assess income foregone by the Northern Territory for that industry (\$1000 per ML, see p 117 of the Pepper Inquiry) were applied here, then Fortune would be liable for up to \$40million per year. By failing to charge for water, the Northern Territory is giving away valuable public assets at considerable cost to the public and the environment.

3. Regulatory framework, the WDWAP and the status of the Guideline

Section 60(1) of the *Water Act 1992* (NT) empowers the Controller to grant a groundwater extraction licence upon application. Section ss22B(1) notes that water resource management (including the granting of licences) must occur in accordance with the relevant water allocation plan. The purpose of a water allocation plan is to ensure that water is allocated within the estimated sustainable yield to beneficial uses (s22B(5)). Thus, the water allocation plan (in this case the WDWAP) is the key policy document guiding the Controller's consideration of the Application and any groundwater extraction licences must comply with that plan.

The WDWAP explicitly requires that groundwater dependent ecosystems (GDEs) must be protected from deleterious impacts (p 25). This reflects and incorporates the Northern Territory Allocation Planning Framework, which requires that, in relation to groundwater extraction in the arid zone (where the project is proposed), "there will be no deleterious change in groundwater discharges to dependent ecosystems, and total extraction over a period of at least 100 years will not exceed 80 percent of the total aquifer storage at the start of extraction". ECNT submits that the WDWAP clearly requires that any licensing decisions must apply the benchmark of test of causing "no deleterious impacts on GDEs".

The WDWAP sets out the following limits to change in groundwater conditions at GDEs caused by proposals to extract groundwater:

- The maximum depth to groundwater does not exceed 15m;
- The magnitude of change in the depth to groundwater is not more than 50%;
- The rate of change of the groundwater table is not more than 0.2m per year.

The rationale for such a cautious approach is set out in the WDWAP, and is based on both scientific uncertainty about a range of key matters and the threat of irreversible damage to groundwater resources and GDEs if overextraction occurs.

In particular, ECNT notes the following serious deficiencies in the knowledge base underpinning the WDWAP:

- There are no site-specific studies underpinning the acceptable rate of drawdown of aquifers in the plan area, this instead being inferred from a single study conducted in Western Australia regarding banksias (p 27). It is difficult to see how a hydraulic assessment of this Application or others can even be undertaken in the absence of this information, which should by definition involve an analysis of expected drawdown impacts compared to the acceptable levels of impact.

- The WDWAP does not incorporate data regarding the location and individual requirements of GDEs in the area (p 10);
- There is a lack of information regarding the accessibility of groundwater stored in the regolith (p 10);
- The WDWAP contains no climate change modelling, and indeed explicitly notes that the effect of climate change has not been considered in the plan (p, 22, p 35);
- There is no discernible scientific basis given for the estimated sustainable yield;
- There does not appear to have been a sacred site clearance or cultural impact assessment undertaken in the area, although the cultural importance of soaks to Aboriginal people is referred to (p 28).

The WDWAP also discloses the threat of serious and irreversible environmental harm if overextraction occurs. In particular:

- The WDWAP notes that “there is a high degree of connectivity between the aquifers within this zone. As a result, extraction from one resource is expected to impact the neighbouring aquifers (p 18). This means that the drawdown anticipated in the Application may have serious impacts in other areas;
- The WDWAP notes that there is a risk that hotspots of use may cause unacceptable local drawdown (p 35);
- The WDWAP notes that groundwater recharge is highly episodic, “rare and therefore difficult to predict” (p 23), and records that there was little recharge between 1900 and 1975 (p 21). This means that it may take many decades for aquifer levels to recover if there is unacceptable drawdown.

These uncertainties and threats mean that the estimated sustainable yield set out in the WDWAP must be approached with a degree of caution. Indeed, ECNT notes that there are real questions about the validity of the WDWAP, and in particular whether it is possible to rationally form a view about the estimated sustainable yield required to underpin a water allocation plan in accordance with s22B(5) of the *Water Act* in the absence of the evidentiary base identified above (particularly the lack of information about an acceptable level of aquifer drawdown).

ECNT notes that the Department has recently published a document entitled “Guideline: limits of acceptable change to groundwater dependent vegetation” (Guideline). This Guideline is problematic in a number of key respects, and ECNT submits that it should not be applied or used in assessing the Application, as to do so would lead the Controller into legal error. The Guideline incorrectly paraphrases the benchmark of “no deleterious impacts on GDEs” that forms the basis of the WDWAP, instead saying that deleterious impacts should be “avoided as far as possible”. It incorrectly states the purpose of the WDWAP is to “provide for consumptive use of groundwater and that some impact on GDEs is unavoidable”. It purports to change the principles underlying the WDWAP by asserting that only 70% of GDEs should be protected from negative impact. The Guideline has not been subjected to the extensive public consultation processes that informed the WDWAP. It is not clear how it has been developed. The studies it refers to that have purportedly added to the knowledge base about GDEs have not been cited, and it is not clear they have been peer reviewed. It is inconsistent with the WDWAP in key respects (outlined above). To apply this Guideline in granting the Licence would breach s22B(4) of the *Water Act* which requires water management to occur in accordance with declared water allocation plans.

4. Environmental impacts of the Application

In ECNT's view, the Application does not contain sufficient information to enable its assessment. The Application seems to be in the form of a prospectus, rather than a justification (based on scientific evidence) of how the Licence would comply with the WDWAP. In particular, ECNT notes the following deficiencies:

- no scientific basis is given for the projected drawdown of aquifers by over 50 metres over 30 years;
- no scientific basis is given for the assertion that aquifers would recover over a 30-year period following the conclusion of the project (and indeed this seems starkly inconsistent with the WDWAP's characterisation of the episodic nature of recharge in the area);
- the Application does not demonstrate that the Licence can comply within the assessment criteria established to protect GDEs and cultural values (p 9);
- no information is given about the cumulative impacts of the Licence (if granted) and other groundwater extraction entitlements within the WDWAP area;
- there is no modelling for climate change impacts on groundwater resources or GDEs;
- there is no information given about increases to salinity from the project;
- there is insufficient information about how cultural values and sacred sites will be protected.

It is not clear to ECNT how the Application has been accepted for assessment given these shortcomings.

Despite the deficiencies in the Application, ECNT notes that it discloses a number of significant and unacceptable impacts to groundwater resources, and the ecosystems that depend on them. In particular, the asserted aquifer drawdown of up to 50 metres over 30 years (ie at a rate of on average between 1-2 metres per year) is grossly inconsistent with the requirement in the WDWAP that:

- (a) the maximum depth to groundwater should not exceed 15 metres;
- (b) the magnitude of change in the depth to groundwater is not more than 50%;
- (c) the rate of change of the groundwater table is not more than 0.2metres per year.

The Application also relies heavily on the Guideline, which should not be applied for the reasons detailed above including that it is inconsistent with the WDWAP.

To grant the Application would cause significant deleterious impacts on groundwater resources and GDEs, and would be inconsistent with the WDWAP. Indeed, the project seems likely to effectively drain an aquifer containing water that is thousands of years old, with likely serious and irreversible impacts. To grant the Licence would breach s22B(4) of the *Water Act*. The only legally available pathway is to refuse to grant the Licence.

5. Referral under the *Environment Protection Act 2019 (NT)*

For the reasons given above, the Controller should refuse the Application. However, if the Controller is not minded to refuse the Application at this stage, then it is clear that the project as a whole should be referred by the Controller to the NTEPA for assessment under s50 of the *Environment Protection Act 2019 (NT)* prior to a decision being made on the Application. The projected drawdown of the aquifer by up to 50 metres, and the impact of the Licence on groundwater dependent ecosystems, constitute significant impacts on the environment within the meaning of the *Environment Protection Act*, which is the threshold trigger for referral and environmental impact assessment under this legislation. It is noted that a number

of other approvals with additional environmental impacts are also needed for the project to proceed (including a land clearing permit, and a non-pastoral use permit). It is appropriate that the project be referred for assessment under the *Environment Protection Act 2019 (NT)*.

An authority certificate granted under the *Northern Territory Sacred Sites Act* should also be a mandatory requirement given the scant information given in the Application about cultural impacts, and the lack of knowledge about the cultural values of the area as disclosed in the WDWAP.

Yours faithfully,

Shar Molloy

Director