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Executive Officer
Pastoral Land Board

Via email: PastoralAssessment.DEPWS@nt.gov.au

To Whom it May Concern,

Cleveland Agriculture on behalf of Ucha Pty Ltd - Application to Clear Pastoral Land (s3(1)(h)) on Ucharonidge Station

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 Cleveland Agriculture on behalf of Ucha Pty Ltd for a permit to clear Pastoral Land under section 38(1)(h) of the *Pastoral Land Act 1992* (NT) in respect of Ucharonidge Station Pastoral Lease 1072.

ECNT notes that this is second land clearing application of approximately 5000ha submitted by Cleveland Agriculture for Ucharonidge Station this year, creating a total cleared area of approximately 10,000ha where the proponent intends to grow cotton and sorghum “to achieve a viable commercial operation”. It is thus a very large project, involving significant land clearing of part of the Mitchell Grass Downs bioregion, and utilising a large number of toxic pesticides for a crop (cotton) which is untested on such a large scale in the Northern Territory. The public is largely unaware of this proposal, its scale, or its possible environmental impacts. Public commentary about cotton in the Northern Territory in recent years has largely been confined to discussions of the results of a number of trials in the Douglas Daly and Katherine areas. The production of cotton on the scale proposed at Ucharonidge (and elsewhere in the Northern Territory) does not have a social licence to operate in the Northern Territory, and requires close public and environmental scrutiny. ECNT notes with concern that a similar project by the same proponent in Western Australia (in respect of GoGo Station) required environmental impact assessment under both Western Australian and Commonwealth environmental laws. If the land clearing permit is approved as is, this may undermine the legitimacy and reputation of the Pastoral Land Board – and the Northern Territory Government more broadly - as an appropriate regulator of the Northern Territory pastoral estate and the environmental impacts caused by proposed cotton diversification across the Northern Territory.

ECNT believes the Application should be refused, or alternatively the proponent’s operation as a whole should be referred for public environmental impact assessment under the *Environment Protection Act 2019* (NT) and *Environment Protection and Biodiversity Conservation Act 1999* (Cth) before any decision is made about the Application. The reasons for refusal and/or referral are detailed below.

Lack of detail regarding proponent’s proposed operation

Despite the size of the proposed operation, little detail about it, or its environmental impacts, is given in the application. It is expressed to be an application for land clearing to grow crops for “pastoral purposes”,

rather than for agricultural purposes. The application stipulates that no water licences will be required to grow the proposed crops. ECNT believes that the proponent's characterisation of its operation as being primarily for pastoral purposes and not for irrigated agriculture needs to be carefully scrutinised by the Pastoral Land Board for the following reasons:

1. While the application demonstrates that the cotton will be grown as a "dryland" or "rainfed" crop, the available evidence demonstrates that it is not possible to grow dryland cotton viably in areas with annual rainfall as low and daily temperatures as high as in the project area. ECNT understands the annual rainfall in the project area to be in the vicinity of 500-600mm per year, with very high daily temperatures of over 35 degrees Celsius for 7 months of the year. The Cooperative Research Centre on Northern Australia states in a recent analysis in relation to broadacre "dryland" cropping of cotton in areas of comparable rainfall and high daily temperatures (<https://crcna.com.au/resources/publications/northern-australian-broadacre-cropping-situational-analysis>):
 - "Average rainfall in the Kimberley and Pilbara ranges from 300 to 600mm and is highly variable with cyclonic activity providing intense but infrequent rainfall events. Combined with daytime wet season temperatures averaging over 35 degrees Celsius for most locations and the attendant high evaporation rates, sustained dryland cropping is not commercially realistic. Accordingly, irrigation is fundamental to any cropping development. Irrigation in coastal Western Kimberley and the Pilbara has a short history and is almost exclusively reliant on groundwater." (p22)
 - "Average yields in Katherine on irrigated crops produced between 5-10 bales to the hectare against one or less bales on rain-fed trials – which also had lower fibre quality" (p 40);
 - In relation to the Flinders catchment in Queensland, "The catchment receives an annual mean rainfall of 492mm with significant variability from 800mm on the west coast to 350mm in the south of the catchment... Rainfall patterns allow for reasonably accurate predictions of available water that can assist cropping decisions but there are limited options available for dryland production when rainfall is predicted to be below average. It is most likely that dryland cropping, while a potentially important part of a production system, will be opportunistic... CSIRO predicts that break-even yields in a dryland production system might be achieved ... one year in ten for cotton" (p 58);
2. The Application contains numerous references to the equivalence between the soils in the project area, and those that exist on the proponent's property near Mungindi NSW as an indication of the likelihood of success of the cropping operation. However, the Mungindi project involves extensive irrigation of those crops, as indicated in the following parts of the Application:
 - "this soil type is the same classification given to the soils on the property Cleveland, at Mungindi, NSW. Cleveland Agriculture has been successfully producing high yielding irrigated and dryland crops on this soil type for the past 22 years" (p 5);
 - In relation to using on Ucharondige similar techniques to the Mungindi property to utilise manure from the feedlot "onto the irrigation fields for the last four years, and more recently onto the broadacre dryland area ... The feedlot manures have been generated from the cotton seed, corn and barley produced on the irrigated

fields ... It is anticipated that a similar sustainable approach will be replicated at Ucharonidge" (p 17);

3. The proponent has a proposed project in an area in Western Australia (GoGo Station) with similar rainfall to Ucharonidge Station for a cotton/cropping operation of similar size. There, the proponent has indicated in public documentation that more than 50GL of water will be required to make this operation viable (**copy of WA Environment Protection Authority scoping document attached**).

In ECNT's view the proponent's proposed operation on Ucharonidge will clearly be unviable without irrigation, and will require a water extraction licence for vast amounts of water at an unnamed future date. The Application is better characterised as a land clearing proposal for irrigated agriculture, rather than for pastoral purposes. The proponent should disclose its plans fully, including by applying for a non-pastoral use permit for this operation, as well as a water licence – there is no indication that the proponent intends to apply for either of these approvals. Rather than obtaining piecemeal approvals with inadequate and fragmented consideration of environmental impacts, the project should be referred for public environmental impact assessment under the *Environment Protection Act 2019 (NT)*.

Stacking of applications

ECNT is concerned that the proponent – aided by an ineffective regulatory regime with regard to pastoral land clearing - has "stacked" successive land clearing applications, effectively avoiding scrutiny under the Northern Territory's environmental laws.

ECNT understands that an informal policy has been adopted by the NTEPA that land clearing applications of under 5000ha do not require referral under the *Environment Protection Act*. This has, unsurprisingly, led to a succession of land clearing applications for just under 5000ha across the Northern Territory. By "stacking" these land clearing applications, Cleveland Agriculture's plans for cotton and sorghum are thereby avoiding necessary environmental and public scrutiny. In ECNT's view, and for reasons which are detailed further below, the proponent's plans for Ucharonidge Station should be referred and assessed under the *Environment Protection Act 2019 (NT)* and referred for assessment under the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*. ECNT notes, in this regard, that the same proponent referred their similar sized project at GoGo Station for environmental impact assessment under Western Australian environmental laws (**copy of WA Environment Protection Authority scoping document attached**), and under the EPBC Act (**copy attached**). It is not clear why a different approach should be taken here.

Cultural and heritage issues - change in land use requiring free prior and informed consent from native title holders

As stated above, combined with the proponent's previous land clearing permit, the proposed operation entails clearing and cropping approximately 10,000ha of pastoral land. This is a significant change in land use that effectively converts a significant portion of a non-exclusive pastoral lease to exclusive possession. Ucharonidge Station is subject to native title rights and interests, which will not be able to be exercised in the project area if the cropping project is established. In ECNT's view, the proponent should obtain the free, prior and informed consent of native title holders to the project as a whole, preferably by negotiating an indigenous land use agreement under the *Native Title Act*.

There are likely to be sacred sites in the vicinity of the project area. A registry extract is manifestly inadequate to protect these, and any other sites that may exist in the area. An authority certificate granted under the *Northern Territory Sacred Sites Act* should be a mandatory requirement.

Inadequate consideration of environmental impacts, including to biodiversity, native vegetation and habitat, soil and water quality, and threatened species

Land clearing is a fundamental pressure on the environment. Land clearing causes the loss, fragmentation and degradation of native vegetation, and a variety of impacts on soils (eg erosion, salinity, loss of nutrients and acidification) and disrupts essential ecosystem processes (<https://soe.environment.gov.au/theme/overview/topic/land-use-change-and-habitat-fragmentation-and-degradation-threaten-ecosystems>). Threats to biodiversity from land clearing and habitat loss are one of the greatest threats to threatened species in Australia, and to the environment more generally (https://environment.des.qld.gov.au/_data/assets/pdf_file/0020/90272/land-clearing-impacts-threatened-species.pdf). Land clearing applications are nevertheless on the rise in the Northern Territory, aided by an inadequate and piecemeal regulatory regime.

Northern Australia is in the midst of an unprecedented mammalian extinction (<https://www.natureaustralia.org.au/content/dam/tnc/nature/en/documents/australia/Into-Oblivion.pdf>). As habitats become increasingly fragmented, populations become more vulnerable to other threats, such as predation by feral species and destructive fires, and lose the ability to recolonise suitable habitat.

The project area involves clearing a significant portion of the Northern Territory's Mitchell Grass Downs bioregion (<https://www.environment.gov.au/system/files/resources/a8015c25-4aa2-4833-ad9c-e98d09e2ab52/files/bioregion-mitchell-grass-downs.pdf>). This bioregion is recognised by the Australian Government as one of 23 Conservation Management Zones of Australia (**see attached Conservation Management Zones of Australia – Mitchell Grasslands**). The Mitchell Grass Downs bioregion has significant conservation values, and contains several threatened animals and vegetation communities. The World Wildlife Fund notes in relation to the biodiversity values of the Mitchell Grass Downs (<https://www.worldwildlife.org/ecoregions/aa0707>):

The distinctive grasslands of the downs harbor several endemic reptiles: the gecko *Gehyra minuta*, skinks (*Ctenotus schevilli*, *C. agrestis*, and *C. joanae*), an agamid lizard *Pogona henrylawsoni*, and a monitor *Varanus spenceri*. This ecoregion also forms the main distribution for numerous other reptiles, including many large venomous elapid snakes (*Pseudonaja guttata*, *P. ingrami*, and *Pseudechis colletti*) (Horner and Fisher 1998). Although the invertebrate fauna is generally poorly known, many ant species are known to occur only in this ecoregion (Fisher 2001). This ecoregion has also yielded the only recent record of the critically endangered night parrot (*Geopsittacus occidentalis*) (Hilton-Taylor 2000) (Boles et al. 1994). The endangered Julia Creek dunnart (*Sminthopsis douglasi*) is endemic to the downs, Desert Uplands, and restricted areas of the Gulf Plains immediately north of the downs (Strahan 1998). A recent survey of the Desert Uplands region resulted in the discovery of two new reptile species, *Ctenotus rosarius* sp. nov, and *Lerista* sp. nov, as well as the discovery of animals outside their previously known home ranges, indicating that further research may yield a fuller picture of the region's fauna (Kutt 2001). The vegetation is also distinctive, with Mitchell grasslands and associated communities supporting at least 10 endemic plant species (Fisher 2001).

... this region does contain a unique and distinctive fauna, adapted to the region's seasonality and variability in yearly rainfall. One of the most distinctive features of the Mitchell Grass Downs are the extraordinary irruptions of its two most characteristic and pivotal animal species, the flock bronzewing (*Phaps histrionica*) and the long-haired rat (*Rattus vilosissimus*). These two species encapsulate the apparent simplicity but striking dynamism of this system. No other Australian ecoregion possesses this trait so markedly.

The flock bronzewing, a large ground-foraging pigeon, formerly occurred in flocks of hundreds of thousands, dispersing widely across the Mitchell Grass Downs in response to rainfall variation. They declined rapidly in response to pastoral settlement in the period 1850-1900 and were feared extinct by about 1950. They have since recovered somewhat, and can still be seen in flocks of tens of thousands (Higgins and Davies 1996). The long-haired rat has a similar "boom-bust" cycle, erupting in vast plagues following favorable rainfall (Carstairs 1974). Early descriptions catch some of the immensity of these eruptions: "The numbers of the rats were incredible ... fifty thousand square miles were occupied by these animals and one rat to every ten square yards would not represent anything like their number ... they devoured everything edible that came in their way, and destroyed what they did not devour ... they swarmed to such an extent that it was almost impossible to sleep, for the rats invaded the blankets of the sleeper in order to find a meal. Cases in which a man's fingers, toes or ears were nibbled were common" (Wood Jones 1923-25).

Irruptions continue to occur at irregular intervals, with the rats then extending from their core refuge areas of the Mitchell Grass Downs to spread across much of inland semi-arid Australia. In their wake, many birds of prey, most notably the largely nocturnal letter-winged kite (*Elanus scriptus*) also reach unusually high population densities and extend their geographic range well beyond their normal center in the Mitchell Grass Downs.

Another distinctive feature of this region is the response of much of the fauna to regular seasonality. The clay soils of the Mitchell grasslands dry and crack widely during the long dry season. Above ground the environments are simple, lacking trees and offering little shelter, so much of the fauna utilizes the deep fissures and cracks. Small carnivorous marsupials, typically including the long-tailed planigale (*Planigale ingrami*) and the stripe-faced dunnart (*Sminthopsis macroura*), are among the most abundant mammals using this subterranean shelter. The shrew-like long-tailed planigale is one of the world's smallest mammals with an adult weight of less than 6g, and has a remarkably compressed head, ideal for probing among the crack network. Very high densities of specialized skinks and large snakes also find refuge in this fissured environment. With the coming of the annual rains, the fissures close and much of the landscape becomes waterlogged, encouraging the emergence of vast numbers of burrowing frogs (Palmer and Pidcock 2001).

A recent analysis as part of the Australian Government's Bioregional Assessment for the Beetaloo Basin demonstrates a range of matters of national environmental significance occur, or may occur, within the in the assessment region, which includes Ucharondidge (**see attached**). Within the area are one threatened ecological community, 15 threatened species and two species that are both threatened and migratory. The threatened species that appear to occur on Ucharonidge Station specifically from this report include the curlew sandpiper, the red goshawk, the Gouldian finch, the night parrot, the Australian painted snipe, the masked owl, the greater bilby, the ghost bat, and the plains death adder.

Despite the clear conservation values of the Mitchell Grass Downs, and the threats that land clearing pose to a number of threatened species that occur in the project area, and their habitats, the Application does not acknowledge these impacts, nor indeed the likely presence of any threatened species or ecological communities. Unlike in the proponent's proposed project at GoGo station (**attached**), a detailed referral was not provided for the project under the EPBC Act. There is no reference to biodiversity at all in the Application, and no biodiversity management plan has been included.

The Application should be refused on this basis. Alternatively, a comprehensive and evidence-based assessment of these impacts is required, under both the *Environment Protection Act 2019 (NT)* and the *EPBC Act 1999 (Cth)*. The project as a whole should be immediately referred for assessment under this

legislation, prior to any decision being made. The project clearly meets the threshold of having the potential to have a significant impact on the environment.

Other environmental impacts

ECNT notes the following deficiencies in the Application:

- (a) The Application discloses a list of 13 pesticides that will be applied in the project area for cotton alone. Indeed, one of the proposed methods of clearing the project area involves applying glyphosate across the area. Little detail is given about how these pesticides are to be applied. ECNT notes that there are a number of environmental and health risks from these chemicals, including risks of contamination of groundwater and surface water through seepage/flooding, and the risk of defoliation of surrounding vegetation from spray drift. These chemicals are unlikely to have been used in the project area before, and a full environmental assessment is required to understand their likely impacts, and plans to mitigate their effects.
- (b) Similarly, the Application does not provide an adequate assessment of the possible environmental impacts and mitigation measures for the fertiliser to be applied to the area (including nitrogen, phosphorous, potassium, sulphur and zinc).
- (c) The Application is inconsistent with the Pastoral Land Clearing Guidelines in that it provides an inadequate wildlife corridor or buffer of 300m between cleared areas rather than multiple corridors.
- (d) The Application contains an inadequate assessment of the possible impacts on the water balance from the land clearing application, which might lead to an increase in salinity and soil acidification from the project. Increased salinity is a well-known impact from land clearing, and may destroy habitat for threatened species within and in the vicinity of the Application area;
- (e) There is no information to guide the Pastoral Land Board's assessment of the cumulative impacts of the Application together with other impacts in the wider area (eg including but not limited to other land clearing applications, the proposed nearby onshore gas industry, non-pastoral use permits, and feral animal impacts).

Conclusion

ECNT is extremely concerned by the rate of increase in land clearing applications and approvals in the Northern Territory, particularly in the savanna regions.

Approximately 11000 hectares of land has already been approved for clearing in 2020, with another 11,000 hectares under application. If approved, the Pastoral Land Board will authorise the clearing of approximately 22,000 hectares in 2020 alone. This is more than double the amount of land approved for clearing in 2019, and quadruples the area authorised for clearing in 2018. ECNT understands that this is likely to be the start of an avalanche of applications. The NT Farmers Association has revealed plans for 168,000 hectares of farming development across the Northern Territory, which will not only increase the Northern Territory's greenhouse gas emissions significantly, but also require billions of litres of the Northern Territory's groundwater and surface water, as well as exacerbating the impacts of climate change (through increased heat and changes to the water table from clearing and irrigation). Notably, the Application is not part of the 168,000 hectares slated for development by NT Farmers, suggesting that the land to be developed for agribusiness (including cotton) on the pastoral estate may in fact be far in excess of this amount.

The *Pastoral Land Act* is not fit for purpose to protect the Northern Territory's pastoral estate from habitat fragmentation and damage on the vast scale that is underway, and being proposed. The Northern

Territory is completely unprepared to respond to the environmental threats posed by the proposed large-scale agricultural development, with piecemeal regulatory approvals that frustrate any attempts to strategically assess the likely cumulative impacts of these developments instead the norm. Urgent regulatory reform is needed so that landscape scale integrated protection and management of the Northern Territory's unique environment.

ECNT calls on the Northern Territory Government to introduce a new regulatory system for deforestation and land clearing that protects remnant and high conservation value native vegetation.

In the interim, this Application should be refused, or referred for assessment under the *Environment Protection Act* and *EPBC Act* as a matter of urgency.

Yours faithfully,



Kirsty Howey

Co-Director



Shar Molloy

Co-Director