



Argyll Consulting Pty Ltd  
PO Box 238  
Katherine NT 0851  
ABN 82 601 457 523

# Mathison Land Clearing Proposal – NT EPA Referral Report

April 2023

## Executive Summary

Mathison Station is proposing to clear 4,517ha for the purposes of growing hay and fodder crops. The species to be planted include: cavalcade, jarrah, forage sorghum, Rhodes grass. The area to be developed has been chosen based on the best soils and landforms on the property. The design of the development area has been done to best make use of these soils and in consideration of drainage areas. Whilst the development area is against the boundary there is no erosion, amenity or other negative impact expected on neighbouring properties due to the remote location. The scale of the development is required to justify the necessary investment in the required equipment and infrastructure.

According to calculations made by the Department of Environment, Parks and Water Security (DEPaWS) the development will produce approximately 625,000 tonnes of CO<sub>2</sub>e which exceeds the threshold for a Greenhouse Gas Abatement Plan (GGAP) under the *Northern Territory's Large Emitters Policy*. A GGAP (the first of its kind) has been created and is attached to this document. It is on this basis that the proponents have decided to refer the application to the EPA.

The technical assessment conducted by DEPaWS the found that the development posed low or no threat to significant regional ecosystems, threatened species or Aboriginal and heritage sites. The clearing was largely deemed to be within the guidelines for land clearing in the Northern Territory.

## Development Proposal

The development proposal is to clear 4,517 hectares of perpetual pastoral land for the purposes of growing hay and forage crops. No irrigation is proposed for this development. The land which has been selected was chosen based on the best available soils for this type of development. The design of the proposed clearing has been done to avoid areas of greater than 2% slope and provide substantial buffers (greater than the minimums required in the land clearing guidelines) to water courses and sensitive vegetation. Importantly, there is no permanent natural water within close proximity to the development which limits the likelihood that the area is key habitat for threatened species or contains culturally important sites.

Whilst the vegetation to be cleared is possibly habitat for threatened species there are large areas of similar habitat to be retained on the property and across the wider region. The majority of threatened species which may utilise the area are migratory birds which would find sufficient shelter and food within the surrounding remnant vegetation.

There are no known Aboriginal sacred sites or heritage sites within the development area. An abstract of records was provided by AAPA in 2020 and in 2022 an updated map of the development proposal which had been amended slightly since 2020 was also provided to AAPA. No records of sensitive sites have been recorded within the development proposal area or within close proximity. The closest recorded sites are over 40 kilometres away.

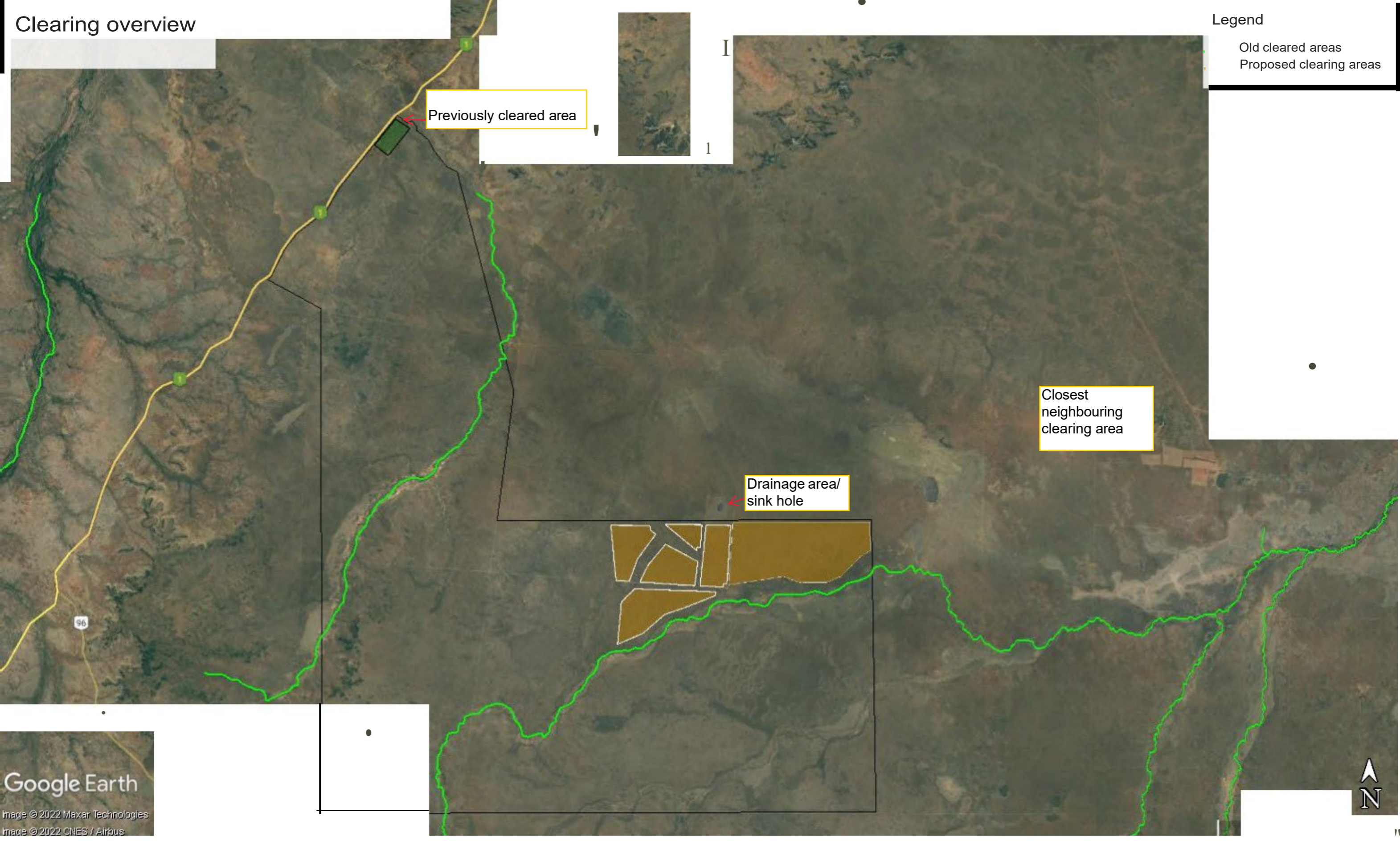
Full application details were available for public comment from 11<sup>th</sup> December, 2022 to 20<sup>th</sup> January 2023.

Maps outlining the proposed development including landtypes are shown on the following pages.

# Clearing overview

Legend

- Old cleared areas
- Proposed clearing areas



Previously cleared area

Drainage area/  
sink hole

Closest  
neighbouring  
clearing area



D=466h

B=149h

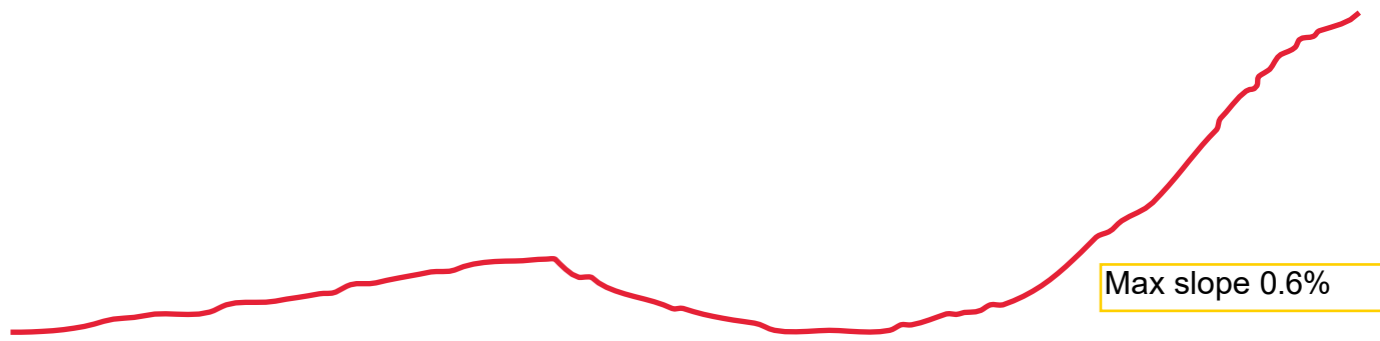
C=456ha

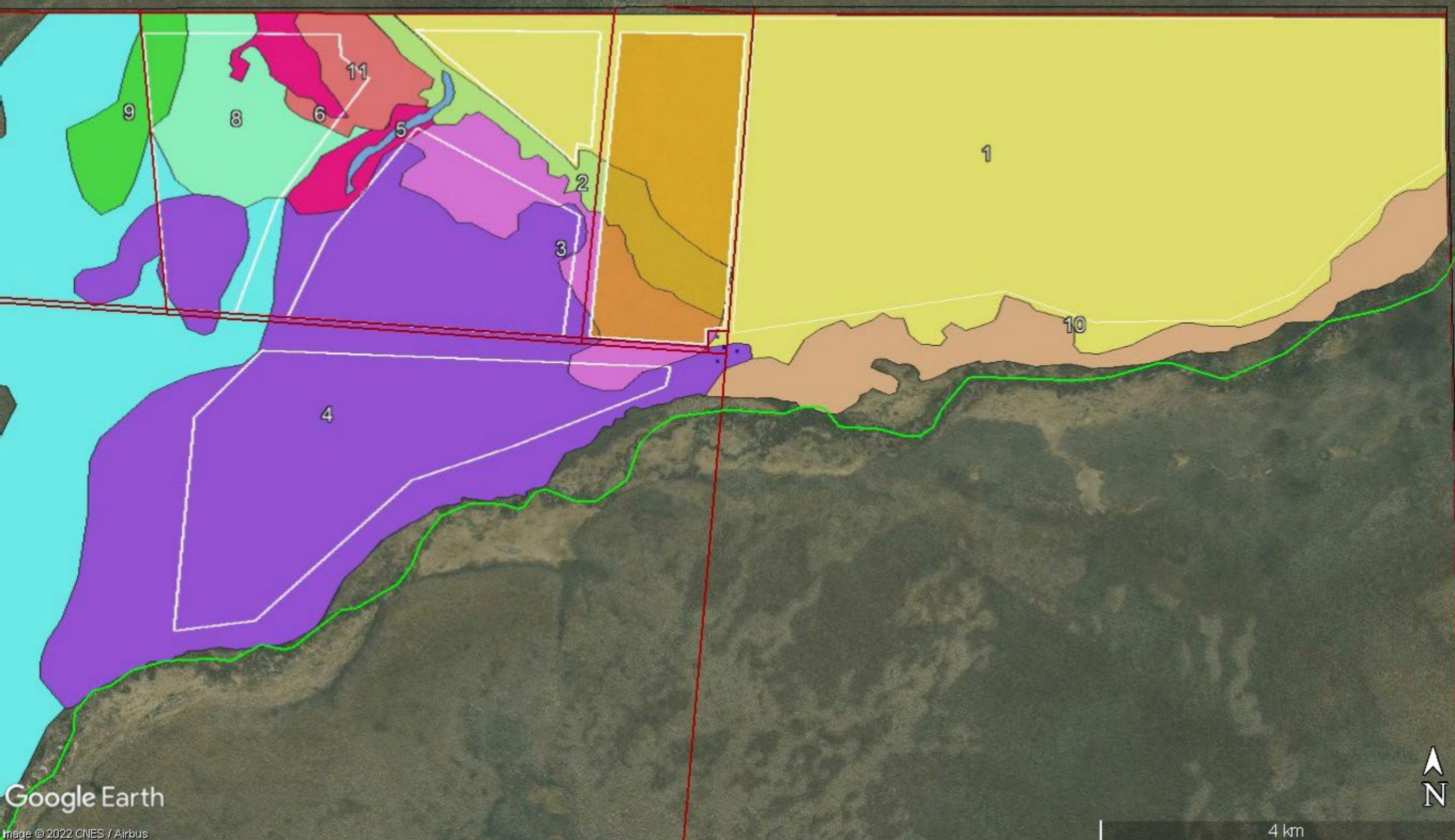
I=760h

Max slope 1.5%

Max slope 2.6%

Max slope 0.6%





Land systems	Description
1 – Plains	The predominant landtype in the area to be cleared is gently undulating to almost level plains (mostly less than 0.5% slope). The soils are deep loamy red earth supporting an open eucalypt woodland with predominantly <i>Themeda triandra</i> and <i>Hetropogon contortus</i> . Seca stylo and Verano are also well established. These areas are characteristic of the plains units of the Campbell and Wriggley land systems.
2 – Stream boundary	This area is sloping slightly towards the south into a drainage system. The actual stream is over 700m from the edge of the clearing area but the surrounding area has more wattle and low shrubs than the plains areas.
3 – Low ridge	There is a slightly elevated area in the western most clearing area. While mapped as greater than 2% slope on ground inspections do not detect any significant difference in height. The predominant vegetation is still open woodland with a mixture of perennial native pastures and established seca stylo and Verano. There is scattered spinifex in this area.
Sta4 northern area	There is an area to the north of clearing area A which is a seasonal swamp. This area is not suitable for clearing. The northern boundary of this proposed clearing area is based on local knowledge of the extent of this swamp during high rainfall years. The photo of this area is representative of the landtype in the area. There is no evidence of the swamp this year due to the poor wet season.

## Greenhouse Gas Abatement Plan

A Greenhouse Gas Abatement Plan (GGAP) was developed by Rebecca Mohr-Bell (ArGyll Consulting) and Rhonda Toms-Morgan (ConnectAg) as part of the application. A summary of their skills and qualifications is provided in the following section.

This is the first plan of its type ever created. It should be noted that there are no guidelines available as to what is required in this plan, there are no approved offset methodologies for land clearing in the Northern Territory and whilst there is a request for a public notification plan of abatement activities, there is no mechanism for this to occur nor guidance on the amount, type or frequency of information provided.

From the beginning the proponents have indicated that they are willing to work with DEPaws to develop practical methods by which pastoral landholders can meet these policy objectives whilst continuing to develop their land in a sustainable manner. This commitment remains unchanged and in partnership with the Northern Territory Cattleman's Association the proponent plans to implement a monitoring program to measure and evaluate the impact of the development on biodiversity and other environmental values. Once the project plan is complete it can be provided.

A full copy of the GGAP as provided in the application is attached.

## Qualification of consultants

The development proposal and GGAP were prepared by Rebecca Mohr-Bell (nee Gowen). Rebecca is an agricultural economist who has worked in the northern beef industry for over 15 years. A key focus of Rebecca's work has been in the carbon space including her Phd, "*Testing different approaches to estimate the potential supply of carbon offsets from beef grazing systems*" as well as other publications listed below.

**Gowen, R** and Bray, S, 2016 Bioeconomic modelling of woody regrowth carbon offset options in productive grazing systems, *The Rangeland Journal* 38, 207-218

Donaghy P, Bray S, **Gowen R**, Rolfe J, Stephens M, Williams S, Hoffman M & Stunzner A 2009, The bioeconomic potential for agroforestry in northern cattle grazing systems: An evaluation of tree alley scenarios in central Queensland, No 09/XXXX, *Rural Industries Research and Development Corporation*.

**Gowen, R**, Rolfe, J & Donaghy, P 2009, *Productivity tradeoffs and synergies for grazing lands in central Queensland to generate carbon offsets*, Department of Employment Economic Development and Innovation, Brisbane. Available from <http://www.fba.org.au/publication/downloads/Project-report-LowRes.pdf>

Rhonda Toms-Morgan provided technical support and peer review for the GGAP. Rhonda Toms-Morgan is the lead consultant for "ConnectAg", based in Roma, Queensland. Prior to establishing the business in 2017, Rhonda spent 8 years working with an NRM organisation as a Regional Climate Change Officer, supporting improved understanding and application of carbon and climate policies in the context of agricultural businesses in Queensland.

Rebecca and Rhonda are both accredited carbon advisors under the Queensland Government Land Restoration Fund program.

## Strategic and Statutory context

Legislation/Policy	Comment	Status
NORTHERN TERRITORY PASTORAL LAND CLEARING GUIDELINES <i>Pastoral Land Act</i>	Development application has been submitted to DEPaWS in accordance with the required template.	Technical assessment has been completed
Native Vegetation Panel		Technical Assessment sent for assessment.
Large Emitters Policy	Assessment by DEPaWS found that the development is required to submit a Greenhouse Gas Abatement Plan.	Greenhouse Gas Abatement Plan developed and submitted with application. Attached. Awaiting NTEPA comment.
Pastoral Land Board		Awaiting technical assessments and NT EPA report

## Land Clearing Guidelines

The development proposal has been assessed by DEPaWS including a field inspection on 14 and 15 March 2023. A summary of that assessment is provided below (extracts from letter sent to proponents 6<sup>th</sup> April 2023).

Vegetation Assessment Unit	Calculation of the estimated greenhouse gas emissions determined that the proposed clearing of 4525ha* would emit approximately 623,714.3 tCO <sub>2</sub> e and triggers the Large Emitters Policy. Accordingly, the applicant has included a GGAP with the application.
Flora and Fauna Division	The Flora and Fauna Division notes that the applicant has appropriately sited the clearing polygons to avoid impacting important habitat for threatened species and significant and/ or sensitive natural features.
Land Assessment BRanch	The proposed clearing area is predominantly a mixed <i>Corymbia</i> , <i>Eucalyptus tetrodonta</i> and <i>Erythrophleum chlorostachyum</i> open woodland.  All riparian buffers were found to be sufficient.  The proposed area is suitable for non-irrigated improved pasture for grazing and hay production.
Weed Management Branch (did not attend field inspection)	The applicant should carry out vehicle and equipment hygiene controls in line with the key principles for weed spread prevention as outlined in the Weed Management Branch document <i>Preventing Weed Spread is Everybody's Business</i> (note that Mathison Station has a comprehensive weed management plan which is strictly adhered to and Jay Mohr-Bell (co-proponent) is the Chair of the Katherine Regional Weed Reference Group)
Water Resources Division	The application proposes to clear 4517 ha of land for the development of non-irrigated improved pasture on NT Portion 7061 ( <b>Land</b> ). The land is located within the Daly Roper Beetaloo Water Control District and is not subject to a water allocation plan. The application does not propose to take water for the required land clearing.  Land to be cleared is unaffected by storm surge flooding.



	Contamination risks from clearing to nearby waterways is negligible.
Bushfires NT	The proposed areas are in the Savanna Fire Management Zone, as such a permit to burn windrows or stockpiles of felled vegetation is required during the northern Fire Danger Period (generally from June to December).

\* the proposed area to be cleared is 4517ha.

The technical assessment conducted by DEPaws noted that the application did not meet the guidelines on two points:

1. Property boundary buffers – north-eastern boundary.
2. Wildlife corridors

The recommended minimum boundary buffer and wildlife corridors were considered in the design of the development however were deemed to be counter-productive to weed and pest control, wildfire prevention and optimal use of the available land types. Buffers and wildlife corridors are to be retained where they provide measurable benefit due to slope and the presence of drainage areas or streams. There are no amenity, run-off or other risks to the neighbouring property by clearing to the boundary on the eastern side. Land clearing permits to property boundaries have been approved on large pastoral properties with no reported negative impacts.

## Public Consultation

The development application was available for public comment from 11<sup>th</sup> December, 2022 to 20<sup>th</sup> January 2023. No objections were received from relevant government departments. Four public comments were received (two from private citizens, one from the Northern Land Council one from the Environment Centre, NT). None of these comments provided any evidence that the development proposal posed particular risks to environmental, heritage or Aboriginal values. It would also appear that whilst the commentators noted that the development proposal required a GGAP, none of them had read the plan that was provided and none provided specific comment on the actions proposed in the GGAP.