

Development Application - Unzoned Land Clearing – Section 46(3) Planning Act 1999

CONTEXT: This form can be used to apply for a clearing permit for unzoned land. The questions in this application form seek to help you address section 46(3) of the [Planning Act 1999](#), and the performance criteria for the application, which is specified in Clause 3.2 CNV – Clearing of Native Vegetation of the [Northern Territory Planning Scheme 2020](#). For further information contact the Vegetation Assessment Unit, Department of Lands, Planning and Environment (DLPE) on (08) 8999 4454 or refer to the following website: [Apply to clear freehold land | NT.GOV.AU](#).

The [Northern Territory Planning Scheme Land Clearing Guidelines](#) (NTPS LCG) are designed to assist landholders and the consent authority to decide which areas are suited to development and those that should be left in their natural state to help protect the environment and maintain biodiversity. Development applications for the purpose of clearing of native vegetation must consider the NTPS LCG. Additional guidance can be found in the [Northern Territory Planning Scheme Land Clearing Guidelines](#) (NTPS LCG).

PRE-LODGEMENT: Applications will be screened by the Vegetation Assessment Unit, DLPE before being accepted for assessment to ensure applications contain all the information required to enable assessment. Incomplete applications will not be accepted. Applicants are encouraged to contact the Vegetation Assessment Unit to discuss their application prior to lodgement.

LODGEMENT: Submit the completed form along with all required attachments and associated spatial data (e.g. proposed clearing shapefile, land types shapefile) through [Development Applications Online](#).

INFORMATION: The DLPE respects and is committed to safeguarding the confidentiality and privacy of the information that it collects and handles, in accordance with the [Northern Territory Information Act 2002](#). You have been asked to provide personal information necessary for us to accept the application. You do not have to provide your personal information but if you choose not to, it may impact the processing of the application. The information you provide will be accessible to the public. You may request access to the personal information we hold about you. To find out more read [our privacy policy](#). If you want more information about the Northern Territory's privacy laws, please refer to the *Northern Territory Information Act 2002*, or the Office of the Information Commissioner NT.

1. Application details

Property Address:	NT Portion 6890, Robin Falls
Tenure Reference Type (e.g. Freehold, crown lease):	Freehold
Property Name (if applicable):	Isabella Downs
Proposed Clearing Area (ha):	425.6
Document Version Number:	1
Date:	15/05/2025

2. Applicant details

Under section 46(1) of the *Planning Act 1999*, an application for a development application may only be made by the owner of the land, or a person authorised in writing by the owner.

Owner's authorisation is required in writing if the applicant is not the owner or the sole property owner. If the land is owned by a company or body corporate, written authorisation should be obtained from the company director/s or from the body corporate. If the land is owned by more than one person or company, written authorisations should be obtained from each person or company named on the title. Download the [Land owner/s authorisation to lodge a development application](#).

Authorisation should be dated within 6 months of the date of the application.

Applicant name:	Doug Sallis Nominees Pty Ltd
Applicant ABN:	81 115 710 659
Applicant email/postal address:	jarrodsallis@pubsnt.com
Contact Person name*:	Helen Groves
Contact Person telephone:	0439937802
Contact Person email:	hgroves@magnatagriservices.com.au
Contact Person postal address:	508 Pilton Valley Road, Pilton QLD 4361

*All correspondence regarding the application will be directed to the contact person.

☒ Attach Land owner/s Authorisation form.

Attachment No: A

3. Pre lodgement meeting

A pre-lodgement meeting with DLPE is recommended.

Enter the date, DLPE contact name and any issues raised at the pre-lodgement meeting.

Pre-lodgement meeting held 23 October, 2024. Presence of wetlands and possible GDE's was raised in the meeting. A desktop surface water and GDE assessment was carried out by Amie Leggett (Principal Environmental Scientist, Innovative Groundwater Solutions), and field verification of sites was also carried out to identify, buffer and mitigate risk to surface water features.

4. Description of proposal

Provide an overview summarising the proposed development.

Include any relevant information or details you wish to be considered that is not captured in the following sections, including design rationale.

5. Merits of the proposal

Describe the merits of the proposal and how it will benefit the economy, society or environment.

Include any relevant information or details of the merits of the proposal

The development of the area proposed in this application for grazing will be of economic benefit to the application as it will significantly increase the productivity of NT Portion 6890 as a pastoral property.

The proposed activities will enable the applicant to contribute to the growth of the Northern pastoral industry and the Top End in general.

6. Existing clearing

6.1 Provide details of the extent of existing clearing within the property.

Note: All unzoned land clearing permits are published online at [Unzoned land clearing applications and approvals | NT.GOV.AU](#).

Site	Area (ha)	Year cleared	Permit No.	Area within proposed clearing extent (ha)	Description
<i>Example:</i> Site 1 Front paddock	10.5ha	1980	NA	7.5	Western half of front paddock cleared in 1980 for improved pasture, now contains regrowth. This area (excluding stream buffer) is proposed to be cleared.
YARDS, TURNAROUND AND LAYDOWN AREAS	9.4	(Unknown – historical clearing)	-	0	Station operation infrastructure
Total:	9.4				

☒ Attach a map showing areas of existing clearing within the property.

Attachment No: 3

☒ Attach clearing plan spatial data* **Note:** Spatial data can be placed into a zip folder for upload to Development Applications Online.

7. Proposed clearing

7.1 Provide details of the proposed clearing extent.

Note: the clearing of internal tracks to access the proposed clearing requires consent and must be included as part of the proposed clearing area.

Site Id	Proposed Use	Area (ha)
ISA-01	Non-irrigated improved pasture for grazing (<i>Urochloa humidicola</i>)	110.7

ISA-02	Non-irrigated improved pasture for grazing (<i>Urochloa humidicola</i>)	113.8
ISA-03	Non-irrigated improved pasture for grazing (<i>Urochloa humidicola</i>)	45.8
ISA-04	Non-irrigated improved pasture for grazing (<i>Urochloa humidicola</i>)	29.7
ISA-05	Non-irrigated improved pasture for grazing (<i>Urochloa humidicola</i>)	8.4
ISA-06	Non-irrigated improved pasture for grazing (<i>Urochloa humidicola</i>)	65.1
ISA-07	Non-irrigated improved pasture for grazing (<i>Urochloa humidicola</i>)	52.1
Total:		425.6

☒ Attach any relevant information about the intended use. For example see, [Agnotes, technotes and technical bulletins | Department of Agriculture and Fisheries](#)

Attachment No: 1

7.2 Provide a proposed clearing plan.

The proposed clearing plan is a map showing the location of the proposed clearing area/s as identified in Section 7.1. The map must include:

- The map datum (preferred: GDA94);
- The map projection or zone;
- A north arrow;
- A grid or scale bar;
- A suitable background (e.g. cadastre and aerial/satellite imagery); and
- Area (in hectares) of each polygon (preferred: GDA94 Australian Albers projection).

Document	Attachment Number
<input checked="" type="checkbox"/> Attach proposed clearing plan	2A & 2B
<input checked="" type="checkbox"/> Attach clearing plan spatial data* Note: Spatial data can be placed into a zip folder for upload to Development Applications Online	(spatial files folder)

*Please refer to the spatial data requirements: [Spatial data for clearing applications | NT.GOV.AU](#).

8. Water Resources

8.1 Does the proposed use require irrigation?

☐ Yes ☒ No

8.2 Provide details regarding the proposed water requirements for each proposed crop/use.

Note: If the proposal requires irrigation and a Water Extraction Licence (WEL) has not been issued please contact Water Resources Division, DLPE by email waterresources@nt.gov.au or telephone: (08) 8999 4455 for advice. For further information visit [Water | NT.GOV.AU](#). Pre-lodgement advice should be sought for consideration streamlining the regulatory approval process. To discuss, contact the Development Coordination Branch by email landclearing.DLPE@nt.gov.au or (08) 8999 4454.

Crop/use & polygon	Area (ha)	Water required (ML/year)	Water source	Licence required (yes/no)	Licence No. or application status

Total:					

☐ Attach a copy of any relevant licences.

Attachment No: _____

8.3 Are you proposing to clear in a Water Control District?

☒ Yes ☐ No

Identify the Water Control District and any beneficial uses as declared under the Water Act 1992

Darwin Rural Adelaide River Water Control District.

For more information refer to section 4.5.3 of the NTPS LCG or use NR Maps to view [WCDs](#).

9. Land Resources

Note: Land resource mapping and soil site data is available on [NR Maps](#). This broad scale mapping can provide useful information and guidance with respect to planning a more detailed site-specific resource assessment to prepare a Land Type map. For further information visit [Land, soil and vegetation information | Department of Lands, Planning and Environment](#).

9.1 Provide a Land Type map for the proposed clearing extent.

Note: Consideration of an application cannot proceed without the collection and orderly presentation of field-verified site-specific data and mapping. In accordance with the NTPS LCG (section 4.2.3) all clearing applications need to be accompanied by an appropriate soil, vegetation and land resource assessment in the form of a Land Type map at a scale of 1:5,000 to 1:20,000.

Document	Attachment Number
<input checked="" type="checkbox"/> Attach a Land Type map for the proposed clearing extent.	5
<input checked="" type="checkbox"/> Attach one Land Type description for each Land Type unit (use proforma at Appendix A – Land Type description proforma).	6
<input checked="" type="checkbox"/> Attach Land Type spatial data*	(spatial files folder)
<input checked="" type="checkbox"/> Attach supporting field verified data (e.g. spatial data* of site inspection track, site locations, photo points and photos).	7

*Please refer to the spatial data requirements: [Spatial data for clearing applications | NT.GOV.AU](#).

9.2 Provide a Land Capability Assessment (LCA).

Note: In accordance with land capability (section 4.2.2) of the NTPS LCG; land capability evaluates a common set of broad land-based development constraints and determines the appropriateness of the land in general for a broad range of land uses.

In accordance with the NTPS LCG, LCA (section 4.2.7) evaluates the key soil and land resource attributes recorded within a Land Type map against a defined set of criteria to determine an overall Land Capability Class.

Document	Attachment Number
<input checked="" type="checkbox"/> Attach a LCA table for Land Types within the proposed clearing extent (use proforma at Appendix B – Land Capability Assessment table).	8
<input checked="" type="checkbox"/> Attach a map of the proposed clearing extent showing the Land Types' overall Land Capability Classes.	9

Note: Some projects may also require a land suitability assessment (LSA) to assess the potential of a soil or land resource for a specific irrigated agricultural land use (refer to section 4.2.8 of the NTPS LCG). To determine if a LSA is required, contact the Land Assessment Branch, DLPE (08) 8999 4443.

10. Biodiversity

10.1 Describe any records of threatened flora and fauna species or migratory species listed under the *Territory Parks and Wildlife Conservation Act 1976* (TPWC) or the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC) within 20km of the proposed clearing extent.

Also describe any such species for which there are no records but have a reasonable likelihood of occurring within the habitats (i.e. Land Types) comprising the proposed clearing extent.

Note: Threatened flora and fauna species and migratory species records can be found using [NR Maps](#) or [Protected Matters Search Tool - DCCEEW](#). For further information contact the Flora and Fauna Division, DLPE via email Biodiversity.Assessments@nt.gov.au or telephone: (08) 8995 5000.

Add additional rows to the table as needed.

Common name	Species name	TPWC Act listing	EPBC Act listing	Location
Black-footed Tree-rat (Kimberley and mainland Northern Territory)	<i>Mesembriomys gouldii gouldii</i>	EN	EN	4 records – 11/06/1988, 13/03/1996, 01/08/2007 & 25/08/2007. Closest record is 8.9km from clearing extent.
Common Brushtail Possum (north-western)	<i>Trichosurus vulpecula arnhemensis</i>	NT	VU	3 records – 11/06/1988 and 2 undated. Closest record is 4.2km from clearing extent.

Common Greenshank	<i>Tringa nebularia</i>	LC	EN	4 records – 2 dated 22/11/1991, and 2 undated. Closest record is 5.5km from clearing extent.
Ghost Bat	<i>Macroderma gigas</i>	NT	VU	5 records – 23/11/1988, 01/06/2022, 15/05/2023, and 2 undated. Closest record is 3.6km from clearing extent.
Gouldian Finch	<i>Erythrura gouldiae</i>	VU	EN	27 records – mostly undated. 1 record dated 1942, 2 x 1962 and 1 record dated 2012. Closest record is 2.3km from clearing extent.
Masked Owl (northern mainland)	<i>Tyto novaehollandiae kimberli</i>	VU	VU	2 records – both undated. Closest record is 3.6km from clearing extent.
Mertens' Water Monitor	<i>Varanus mertensi</i>	VU	EN	8 records – dated between 1985 and 2018. Closest record is 4.4km from clearing extent.
Mitchell's Water Monitor	<i>Varanus mitchelli</i>	VU	CR	2 records – 02/11/1985 and 1 record undated. Closest record is 9.3km from clearing extent.
Nabarlek (Top End)	<i>Petrogale concinna canescens</i>	EN	EN	2 records – 01/03/1996 and 27/04/1990. Closest record is 4.6km from clearing extent.

Northern Blue-tongued Skink	<i>Tiliqua scincoides intermedia</i>	(not listed)	CR	4 records – 2 records dated 02/12/1990, 11/12/1965 and 26/01/1996. Closest record is 4.4km from clearing extent.
Northern Brush-tailed Phascogale	<i>Phascogale pirata</i>	EN	VU	2 records – 01/01/2001 and 06/07/2004. Closest record is 8.7km from clearing extent.
Northern Quoll	<i>Dasyurus hallucatus</i>	CR	EN	33 records dated between 1972 and 2004. Closest record is 4.1km from clearing extent.
Pale Field-rat	<i>Rattus tunneyi</i>	VU	(not listed)	28 records dated between 1985 and 2007. Closest record is 4.5km from clearing extent.
Partridge Pigeon (eastern)	<i>Geophaps smithii smithii</i>	VU	VU	31 records dated between 1977 and 2005. Several undated records. Closest record is 1.1km from clearing extent.
Red Goshawk	<i>Erythrorhynchus radiatus</i>	VU	EN	4 records – 2 records dated 14/05/1962, 26/09/1978 and 1 undated record. Closest record is 6.1km from clearing extent.
Sharp-tailed Sandpiper	<i>Calidris acuminata</i>	LC	VU	6 undated records. Closest record is 9.6km from clearing extent.

Curlew Sandpiper	<i>Calidris ferrunginea</i>	CR	CR	No records – species or species habitat may occur within the feature area.
Grey Falcon	<i>Falco hypoleucos</i>	VU	VU	No records – species or species habitat may occur within the feature area.
Crested Shrike-tit (northern), Northern Shrike-tit	<i>Falcunculus frontatus whitei</i>	(not listed)	VU	No records – species or species habitat may occur within the feature area.
Australian Painted Snipe	<i>Rostratula australis</i>	EN	EN	No records – species or species habitat may occur within the feature area.
Fawn Antechinus	<i>Antechinus bellus</i>	EN	VU	No records – species or species habitat may occur within the feature area.
Brush-tailed Rabbit-rat, Brush-tailed Tree-rat, Pakooma	<i>Conilurus penicillatus</i>	EN	VU	No records – species or species habitat may occur within the feature area.
Arnhem Leaf-nosed Bat	<i>Hipposideros inornatus</i>	VU	EN	No records – species or species habitat may occur within the buffer area only.
Bare-rumped Sheath-tailed Bat, Bare-rumped Sheath-tail Bat	<i>Saccolaimus saccolaimus nudicluniatus</i>	(not listed)	VU	No records – species or species habitat may occur within the feature area.
Plains Death Adder	<i>Acanthophis hawkei</i>	VU	VU	No records – species or species habitat may occur within the feature area.

Pig-nosed Turtle, Pitted Shell Turtle	<i>Carettochelys insculpta</i>	(not listed)	VU	No records – species or species habitat may occur within the buffer area only.
Freshwater Sawfish, Largetooth Sawfish	<i>Pristis pristis</i>	VU	VU	No records – species or species habitat may occur within the feature area.
Darwin Cycad	<i>Cycas armstrongii</i>	VU	(not listed)	20 records, all dated 30/07/1971. Closest record is 11.2km from clearing extent.
Zeuxine	<i>Zeuxine oblonga</i>	VU	(not listed)	2 records – 23/02/1989 and undated. Closest record is 10.9km from clearing extent.
Triggerplant	<i>Stylidium ensatum</i>	EN	EN	No records – species or species habitat may occur within the feature area.

10.2 Describe potential impacts to species identified above from the proposed clearing.

Note: To determine the risk to threatened species, information should be considered at the scale of the proposed clearing and at a regional context. Consider any associations that the species may have with landforms, vegetation structure or dominant plant species proposed for clearing.

Common name	Potential impact	Risk*	Justification
Black-footed Tree-rat (Kimberley and mainland Northern Territory)	Loss of important habitat	Low	Although suitable foraging habitat occurs on this site, the area of habitat that is proposed to be cleared is small in comparison to the area of potentially suitable foraging at a regional scale, and habitat for the species across the region is relatively intact with high connectivity.
Common Brushtail Possum (north-western)	Loss of habitat	Low	The brushtail possum is known to occupy a variety of habitats from forest and woodlands that provide sufficient trees with hollows, to ground refuges such as hollow logs. Although suitable habitat occurs on these sites, the area of habitat that is proposed to be cleared is small in comparison to the area of potentially suitable foraging at a regional scale, and habitat for the species is across the region is relatively intact with high connectivity.
Common Greenshank	Loss of migratory habitat	Low	There is no approved Conservation Advice for the Common Greenshank. It is a migratory species, with known species or species habitat distribution occurring in coastal and inland areas of Australia. Although suitable habitat may occur within the proposed clearing sites, the area of potential habitat that is proposed to be cleared is small with extensive relatively intact native vegetation available with high connectivity. For this reason the risk of loss of habitat for this species is considered to be low.

Ghost Bat	Loss of habitat	Low	The distribution of the Ghost Bat is determined by the availability of suitable caves and mines for roost sites. The footprint of the proposed clearing area at Isabella Downs and surrounding areas does not contain suitable roosting sites, and therefore the potential impact on the species is considered to be of low risk.
Gouldian Finch	Loss of habitat	Low	Although suitable foraging habitat occurs on this site, the area of habitat that is proposed to be cleared is small in comparison to the area of potentially suitable foraging at a regional scale, and habitat for the species across the region is relatively intact with high connectivity.
Masked Owl (northern mainland)	Loss of habitat	Low	The Masked Owl occurs mainly in tall open eucalypt forests, and typically roost in tree hollows, which are also used for breeding. This species is also known to forage in grasslands. Although suitable foraging and roosting habitat occurs on these sites, the area of habitat that is proposed to be cleared is small in comparison to the area of potentially suitable foraging and roosting habitat at a regional scale, and habitat for the species across the region is relatively intact with high connectivity. Therefore, the potential impact on the species is considered to be of low risk.
Mertens' Water Monitor	Loss of important habitat	Low	Suitable habitat will not be disturbed, riparian vegetation is not present within or adjacent to proposed clearing areas.
Mitchell's Water Monitor	Loss of important habitat	Low	Suitable habitat will not be disturbed, riparian vegetation is not present within or adjacent to proposed clearing areas.

Nabarlek (Top End)	Loss of habitat	Low	<p>The DEPWS Threatened species of the Northern Territory information sheet for the Nabarlek (Top End) (2021) states that the species is known to occur “in rugged sandstone or granite rocky areas, especially on steep slopes with large boulders, caves and crevices.”</p> <p>There is no suitable habitat for the species within or adjacent to the proposed clearing extent, and no further mitigation measures are proposed.</p>
Northern Blue-tongued Skink	Loss of habitat	Low	<p>Species conservation advice identifies the greatest threat to the long-term persistence of the species is the invasive and toxic cane toad.¹</p> <p>Although suitable habitat occurs on this site, the area of habitat that is proposed to be cleared is small in comparison to the area of potentially suitable foraging at a regional scale, and habitat for the species is across the region is relatively intact with high connectivity.</p>
Northern Brush-tailed Phascogale	Loss of habitat	Low	<p>While Eucalypt species suited to species habitat are present in the proposed clearing extent, there are areas of potentially suitable foraging and roosting habitat at a regional scale, and habitat for the species is across the region is relatively intact with high connectivity. Therefore, the potential impact on the species is considered to be of low risk.</p>

¹ [Conservation Advice for *Tiliqua scincoides intermedia* \(northern blue-tongue skink\)](#)

Northern Quoll	Loss of important habitat	Low	The Northern Quoll is known to occur in a variety of habitats, including open Eucalypt forests. Although suitable habitat occurs on these sites, the area of habitat that is proposed to be cleared is small in comparison to the area of potentially suitable foraging at a regional scale, and habitat for the species across the region is relatively intact with high connectivity.
Pale Field-rat	Loss of important habitat	Low	Essential habitat will not be disturbed, riparian vegetation is buffered.
Partridge Pigeon (eastern)	Loss of important habitat	Low	Although suitable foraging habitat occurs on this site, the area of habitat that is proposed to be cleared is small in comparison to the area of potentially suitable foraging at a regional scale, and habitat for the species across the region is relatively intact with high connectivity.
Red Goshawk	Loss of nesting habitat	Low	The preferred habitat of the Red Goshawk is tall open eucalypt forest and riparian areas (including paperbark forest and gallery forests). There are no riparian areas within proximity of the proposed clearing areas. Mid-tall open woodland consisting of Eucalyptus species is present within the proposed clearing areas, however the area of habitat that is proposed to be cleared is small in comparison to the area of potentially suitable nesting habitat on a regional scale. The habitat for the species regionally is relatively intact with high connectivity.
Sharp-tailed Sandpiper	Loss of nesting habitat	Low	While there are riparian trees adjacent to the proposed clearing areas that may be considered suitable nesting trees for the species, riparian vegetation is buffered, and the potential for loss of critical habitat is considered low.

Curlew Sandpiper	Loss of migratory non-breeding habitat	Low	The Curlew Sandpiper migrate to Australia and occur on intertidal mudflats and sandflats, estuaries, coastal brackish lagoons, saltmarshes and occasionally on inland freshwater wetlands. The proposed clearing areas at Isabella Downs do not contain any wetlands suitable for habitat, and will not impact regional water bodies that may provide suitable habitat. Therefore, the potential impact on the species is considered to be of low risk.
Grey Falcon	Loss of nesting habitat	Low	The Grey Falcon occurs at low densities throughout much of the semi-arid and arid Northern Territory and is reliant on tall nesting trees associated with watercourses. Although suitable nesting habitat occurs on the sites, the area of habitat that is proposed to be cleared is small in comparison to the area of potentially suitable nesting habitat at a regional scale, which is intact with high connectivity.
Crested Shrike-tit (northern)	Loss of important habitat	Low	The Crested Shrike-tit (northern) typically occurs in open woodlands dominated by Eucalyptus and/or Corymbia species. Although suitable habitat occurs on these sites, the area of habitat that is proposed to be cleared is small in comparison to the area of potentially suitable foraging at a regional scale, and habitat for the species is across the region is relatively intact with high connectivity.

Australian Painted Snipe	Loss of habitat	Low	The Australian Painted Snipe is known to occupy a wide variety of shallow freshwater wetlands. The footprint of the proposed clearing area at Isabella Downs does not contain any wetlands suitable for habitat, and will not impact regional water bodies that may provide suitable habitat. Therefore, the potential impact on the species is considered to be low.
Fawn Antechinus	Loss of important habitat	Low	The Fawn Antechinus is known to occur in savannah woodland and tall open forests in the Top End, and shelter in tree hollows and fallen logs. Although suitable may occur on this site, the area of habitat that is proposed to be cleared is small in comparison to the area of potentially suitable foraging at a regional scale, and habitat for the species across the region is relatively intact with high connectivity.
Brush-tailed Rabbit-rat	Loss of habitat	Low	The Brush-tailed Rabbit-rat prefers tall open eucalypt forests, Although suitable habitat occurs on these sites, there are areas of potentially suitable foraging and roosting habitat at a regional scale, and habitat for the species is across the region is relatively intact with high connectivity. Therefore, the potential impact on the species is considered to be low.
Arnhem Leaf-nosed Bat	Loss of important habitat	Low	There are no roosting caves within close proximity to the proposed clearing areas, and riparian vegetation has been excluded and buffered.

Bare-rumped Sheath-tailed Bat	Loss of important habitat	Low	The species has a wide distribution, and although suitable habitat occurs on these sites, the area of habitat that is proposed to be cleared is small in comparison to the area of potentially suitable foraging at a regional scale, and habitat for the species is across the region is relatively intact with high connectivity.
Plains Death Adder	Loss of foraging habitat	Low	The distribution of the Plains Death Adder in the Northern Territory is associated with cracking soil floodplains in the Top End, and cracking black soils of the Barkly Tableland. The proposed clearing sites do not contain cracking black soils, and therefore it is unlikely that there would be species presence at the proposed sites to be impacted.
Pig-nosed Turtle	Loss of habitat	Low	The pig-nosed turtle inhabits freshwater river systems and prefers large, still waterbodies and sandy river beds ² . Rivers, streams and other surface water features and associated riparian vegetation have been excluded and buffered from the proposed clearing extent.
Freshwater Sawfish	Loss of habitat	Low	Suitable habitat will not be disturbed, waterways and riparian vegetation is not present within or adjacent to proposed clearing areas.
Darwin Cycad	Loss of high quality habitat	Low	This species of cycad usually grows on well-drained sandy and lateric soils ³ , which do not occur within the proposed clearing extent.
Zeuxine	Loss of habitat	Low	This species is endemic to northern Australia, mainly growing in wet forest and rainforest ⁴ . There are no wet forest or rainforest land types in the proposed clearing extent, and riparian vegetation has also been buffered.

Triggerplant	Loss of important habitat	Low	The mapped distribution of <i>Stylidium ensatum</i> ⁵ shows that there are no areas of high likelihood for the species within the proposed clearing areas.
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*Use the following risk matrix (adapted from Table 17 in the NTPS LCG):

Risk rating	Characteristics
Low	The proposed clearing extent is characterised by a combination of factors such as: <ul style="list-style-type: none"> It is a relatively small area It does not contain sensitive or significant vegetation It is unlikely to provide habitat for the identified species It is unlikely to cause offsite impacts to the identified species.
Medium	The proposed clearing extent has characteristics between the Low and High risk classes. (e.g. it may support the identified species, however the local occurrence of the species may not be considered significant or the extent of clearing as a proportion of habitat available to the species may be sufficiently small enough to not pose a High risk).
High	The proposed clearing extent is important habitat for the identified species. Note: If the clearing has the potential to negatively impact the species identified, even a small clearing extent could be categorised as high risk.

10.3 Identify which of the following types of sensitive features are present within and in proximity to the proposed clearing extent.

Feature	NTPS LCG	Present/Absent*
Sensitive or significant vegetation such as rainforest, vine thicket, closed forest, riparian vegetation, mangroves and vegetation containing large trees with hollows suitable for fauna.	Section 4.4.6	Present
Drainage depressions, streams, creeks and rivers	Section 4.4.7	Present
Wetlands and Groundwater Dependent Ecosystems	Section 4.4.8	Present
Sinkholes	Section 4.4.9	Absent

*If present, features must be ground-truthed in order to determine the adequacy of any proposed buffer.

Document	Attachment Number
<input checked="" type="checkbox"/> Attach a map showing the location/s of these features	10
<input checked="" type="checkbox"/> Attach supporting field verified data (e.g. spatial data of site inspection track, site locations, photo points and photos)	7 (also see spatial files)

² [Pig-nosed Turtle \(*Carettochelys insculpta*\) - DCCEEW](#)

³ [Cycas armstrongii : Zamia Palm | Atlas of Living Australia](#)

⁴ [Zeuxine oblonga : Hairy Jewel Orchid | Atlas of Living Australia](#)

⁵ 'Threatened Species Distribution in the Greater Darwin Region – *Stylidium ensatum*', Northern Territory Government

10.4 Identify the individual sensitive features within and in proximity to the proposed clearing extent and the associated Land Type.

Note: Refer to the relevant sections of the NTPS LCG (identified above) for information regarding recommended native vegetation buffer widths and value attribution.

Feature	Land Type	Value / Order	Location in relation to proposed clearing extent	NTPS LCG recommended buffer width (m)	Proposed buffer width (m)
<i>Examples:</i>					
Dry Rainforest	8d	Low	West of polygon 4	50m	150m
Crocodile Creek	5c	2 nd order stream	East of polygon 1	50m	125m
Wetland	6a	High	South of polygon 2	250m	250m
WETLAND 1	NA	Low	East of ISA-03	100m	100m

The presence of Melaleuca spp. and Lophostemon spp. were identified at the following waypoints:

494, 515, 520, 492, 482, 487, 506, 517, 523, 485, 488, 490, 499, 503 and 519.

In addition to field work being carried out in the wet season, the presence/absence of potential wetland areas at these waypoint locations were further verified using the tasseled cap wetness 90th percentile wetness index overlay (Geoscience Australia Portal). Consequently, the wet area at waypoint 519 was buffered and removed from the proposed clearing extent of polygon ISA-01. All other waypoints did not indicate presence of wet areas.

10.5 Provide reasons for discretion and describe proposed mitigation measures for any proposed buffers that are not consistent with the NTPS LCG recommendations.

Note: Additional supporting evidence should be attached.

Feature	Reasons for discretion	Proposed mitigation
NA		

☐ Attach relevant supporting evidence.

Attachment No: _____

10.6 Identify the wildlife corridors to be retained within proximity of the proposed clearing extent and reasons for siting and design.

Note: A corridor of 100m is considered the minimum width to be viable in the NT context for clearing between 100 and 500ha. A corridor of 200m is considered to be the minimum width for clearing greater than or equal to 500ha. As a default, corridor density should be at a rate of one corridor per linear kilometre of clearing or equivalent – refer to NTPS LCG section 4.4.10.

Note: Question 3 in the Land Management Plan (template available at **Appendix E** – Land Management Plan) addresses property boundary buffers.

Corridor Id.	Location	Proposed width (m)	Justification
CORRIDOR 1	Between ISA-01 and ISA-02	100m	Connects habitat from Burrell Creek with intact vegetation to the north of NT Portion 6890, and incorporates DRAINAGE DEPRESSION 9 and buffer.
CORRIDOR 2	Between ISA-02 and ISA-03	100m	Connects habitat from Burrell Creek with intact vegetation located east of the clearing extent, and incorporates DRAINAGE DEPRESSION 5, 6 and 7 and buffers.
CORRIDOR 3	Between ISA-04 and ISA-06	Greater or equal to 132m	Connects habitat at Burrell Creek with a drainage area to the west of the proposed clearing extent and broader regional intact vegetation, and incorporates riparian vegetation and buffer.
CORRIDOR 4	Between ISA-06 and ISA-07	100m	Connects habitat at Burrell Creek with a drainage area to the west of the proposed clearing extent and broader regional intact vegetation.

10.7 Conservation areas and natural features.

Does the proposed clearing or property fall wholly or partly within, or is adjacent to, areas recognised as having biodiversity value/s?

Note: A biodiversity value may be recognised as: internationally – Ramsar Convention; or nationally – Directory of Important Wetlands in Australia, important wetlands, Sites of Conservation Significance (SoCS), sites on the Register of the National Estate, National Parks, Priority Environmental Management Areas, Conservation zones*.

☐ Yes ☒ No

Description of conservation area	Distance to proposed clearing	Identified values present within clearing area? Y / N

☐ Show the location of any conservation areas in proximity to the proposed clearing footprint on the land type map and clearing plan.

*Information about conservation areas can be found at:

- Section 4.4.5 of the NTPS LCG
- [NT Sites of Conservation Significance](#)
- [Directory of Important Wetlands in Australia](#)
- [Australia's Ramsar Sites](#)
- [NR Maps Parks and Reserves](#)

10.8 Assess the risk of the proposed clearing to regional biodiversity and provide an overall risk rating.

Note: To determine the risk to regional biodiversity, information is to be considered at the scale of the proposed clearing footprint and evaluated within a regional context. Refer to Section 4.4.2 and 4.4.3 of the NTPS LCG or contact the Flora and Fauna Division, DLPE via email Biodiversity.Assessments@nt.gov.au or telephone: (08) 8995 5000.

Consideration	Yes/No	Explain
Are there any important biodiversity values within the proposed clearing extent?	No	There are no important biodiversity values within the proposed clearing extent.
Are there any important biodiversity values within proximity of the proposed clearing extent?	No	There are no important biodiversity values within proximity of the proposed clearing extent.
Does the proposed clearing have the potential to impact any important biodiversity values?	No	There are no important biodiversity values within proximity of the proposed clearing extent.
Have all reasonable alternatives been considered to avoid impacts to important biodiversity values?	NA	
What is the overall biodiversity risk rating (Low, Medium, High)?	Low	Considering the very low potential impact to important biodiversity values surrounding the proposed clearing area, the overall biodiversity risk rating is Low.

11. Infrastructure and amenity

11.1 Describe any public facilities, utilities or infrastructure within the locality and how any potential impacts from the proposed clearing development will be managed.

Infrastructure	Location	Potential impacts	Proposed mitigation
----------------	----------	-------------------	---------------------

Alice Springs Darwin Railway	246m	Potential impact is dust, sedimentation or damage to the Alice Springs Darwin Railway.	Clearing activities will be timed when there is adequate soil moisture to achieve a 'clean pull', which will also minimise dust from clearing activities. Property boundary buffers have been retained as per the LCG, further mitigating potential impacts to surrounding features.

11.2 Identify any public roads within 200m of the proposed clearing extent.

Note: Refer to NTPS LCG sections 4.3.5 and 4.3.5.1.

Please contact the relevant road authority if access from a public road is required.

For land adjoining a Northern Territory Government road reserve, Transport and Civil Services Division of the Department of Logistics and Infrastructure generally recommend that a vegetated buffer of a minimum width of 50m, be retained as native vegetation or established groundcover to reduce overland flow.

Please note that road buffers do not replace the need for the retention of appropriate property boundary buffers in accordance with the NTPS LCG Section 4.3.3.

Road name	Distance from proposed clearing extent (m)
-	

11.3 Assess the risks posed to the following public values and the proposed mitigation measures.

Note: Risk assessment should describe the likelihood of impacts occurring and the potential consequences.

Value	Risk and consequence	Mitigation
Amenity	Risk of negative impact to air quality, noise and aesthetics in the region from the proposed clearing activities and intended land use.	Property boundary buffers have been retained as per the LCG recommendations. There are no foreseen adverse effects to amenity in the region.
Recreation	Risk of negative impact to recreational use of the natural or built environment from the proposed clearing activities and intended land use.	There are no recreation sites or activities within the vicinity of the proposed clearing areas. There are no foreseen adverse effects to recreation in the region.

Tourism	Risk of negative impact to existing tourism industry in the region from the proposed clearing activities and intended land use.	There are no tourism sites or activities within the vicinity of the proposed clearing areas. There are no foreseen adverse effects to tourism in the region.
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12. Land Management

12.1 Attach land management plans

Document	Attachment Number
<input checked="" type="checkbox"/> Attach a proposed Establishment Plan (see template at Appendix C – Establishment Plan)	11
<input checked="" type="checkbox"/> Attach a proposed Staging Plan (see template at Appendix D – Staging Plan)	12
<input checked="" type="checkbox"/> Attach a proposed Land Management Plan, including slope and runoff map (see template at Appendix E – Land Management Plan)	13

13. Weed Management

13.1 List all weeds declared under the *Weeds Management Act 2001* present within the property and describe the proximity of species to the proposed clearing extent.

Note: For information refer to section 4.6 of the NTPS LCG.

Further information can be found at [Weeds | NT.GOV.AU](https://www.nt.gov.au/weeds/) and [NR Maps](#).

Weed species	Class	Location	Density
<i>Example: Grader grass</i>	Class B	Along verge of main station road; 200m upslope of proposed clearing polygon X at closest point.	Uncommon. Occasional individual plants only.
Gamba grass	Class B (zoned)	Not within the proposed clearing areas. Along outer edges of property, with closest record 187m from ISA-01.	Density of mostly 1% in 100m diameter areas.
Mimosa	Class A (zoned)	Not within the proposed clearing areas. Along Burrell Creek, with closest record 155m from ISA-01.	Density of mostly 1 to 10% in 100m diameter areas.

13.2 Provide details of weed management on the property.

Note: Consider whether the weed has a statutory Weed Management Plan. Information available at [Weed management plans and regional strategies | NT.GOV.AU](#).

Weed species	Management aim	Method	Current / Proposed
Gamba grass	Eradication and contain spread.	Spot spray seedlings and adults with Glyphosate 360g/L @ 1L/100L + spray adjuvant during periods of active growth. Record and monitor using NT WeedMate App.	Method is both current and proposed.
Mimosa	Eradication and contain spread.	Spot spray seedlings and adults with Starane Advanced @ 300mL/100L + 500mL/100L Uptake spray adjuvant during periods of active growth. Record and monitor using NT WeedMate App.	Method is both current and proposed.

☐ Attach supporting information (e.g. a property weed management plan)

14. Cultural Heritage

14.1 Contact the Heritage Branch, DLPE for advice regarding the proposed clearing in relation to the *Heritage Act 2011*.

Note: The Heritage Branch can be contacted via email: heritage.branch@nt.gov.au or telephone (08) 8999 5039.

☒ Attach a copy of the advice from Heritage Branch. Attachment No: 14

14.2 Provide details of any heritage or archaeological surveys conducted within the property and any findings relevant to the proposed clearing extent.

Survey name	Year conducted	Completed by	Findings relevant to the proposed clearing extent

☐ Attach relevant information from the survey relevant to the proposed clearing extent (e.g. maps, site descriptions). Attachment No: _____

14.3 Provide details of any known (i) places, (ii) archaeological places, or (iii) Aboriginal or Macassan archaeological places, within the meaning of the *Heritage Act 2011* located within the property.

Note: Risk assessment should describe the likelihood of impacts occurring and the potential consequences. For more information go to [Heritage Register: search for places or objects | NT.GOV.AU](#).

Place / Site	Location in relation to the proposed clearing extent	Risk	Mitigation

☐ Attach a map showing the location of any declared sites/places in proximity to the proposed clearing extent.

Attachment No: _____

It is acknowledged that the recommendations made by the Heritage Branch regarding the presence of Aboriginal Archaeological places and objects approximately 400m from the proposed clearing areas, and recommendation for an archaeological survey and provision of a cultural heritage management plan, as per the advice provided in Attachments 14A and 14B.

However, we have also received advice from the Aboriginal Areas Protection Authority stating that there are previously issued Authority Certificates for all of NT Portion 6890, with advice that there are currently no registered or recorded sacred sites on the property, and there is a restricted works area which are provided for in a previously issued Authority Certificate, which has been removed from the proposed clearing plan.

Considering these differing perspectives, the applicant proposes a cautious approach during clearing activities. Should any archaeological sites be discovered during the course of their work, we will immediately cease operations in the immediate area and contact the Heritage Branch for further guidance and comment.

14.4 Aboriginal Areas Protection Authority (AAPA) Abstract of Records

Contact AAPA to obtain an Abstract of Records online at [Request for Information | Aboriginal Areas Protection Authority](#).

Note: Consent is required from AAPA to share the Abstract of Records with the Department of Lands, Planning and Environment, and the relevant Land Council for the purpose of lodging a land clearing application. Please request consent directly from AAPA.

Document	Attachment Number
----------	-------------------

<input checked="" type="checkbox"/> Attach the Abstract of Records	15A
<input checked="" type="checkbox"/> Attach consent to share Abstract of Records	15B

14.5 Provide details of any sacred sites within the meaning of the *Northern Territory Aboriginal Sacred Sites Act 1989* located within proximity of the proposed clearing extent.

For more information contact the [Aboriginal Areas Protection Authority](#).

Note: Risk assessment should describe the likelihood of impacts occurring and the potential consequences.

Site	Location in relation to the proposed clearing extent	Risk	Mitigation
NA			

☐ Attach a map showing the location of any declared sites in proximity to the proposed clearing extent.

Attachment No: _____

14.6 Have you, or do you intend to apply for an Authority Certificate?

☐ Yes ☒ No

If yes, please provide a copy of the Authority Certificate as part of the application or before the application is determined.

Attachment No: _____

15. Environment Protection

Proposals that have the potential to have a significant impact on the environment require a referral to the Northern Territory Environment Protection Authority (NT EPA) in accordance with the *Environment Protection Act 2019*.

Refer to the document [Referring a proposal to the NT EPA](#) or contact the Environment Division, DLPE via telephone (08) 8924 4218 or email eia.ntepa@nt.gov.au

Note: An applicant is required to self-refer, or obtain appropriate advice from the NT EPA that self-referral is not required, if the proposed clearing results in a total of 5,000ha to be cleared in aggregate.

15.1 Has the application been referred for assessment under the *Environment Protection Act 2019*?

☐ Yes, referred
☒ No, not referred

Document	Attachment Number
<input type="checkbox"/> Referred: Attach advice from the NT EPA	
<input checked="" type="checkbox"/> Not referred: Attach a completed referral checklist located in Appendix 1 of Referring a proposal to the NT EPA	16

15.2 Assess the risks associated with the following potential pollutants from clearing and development works and describe the proposed mitigation measures. Consideration of risk should include potential sources, the likelihood of impacts occurring and the potential consequences.

Note: Under the *Waste Management and Pollution Control Act 1998* everyone in the NT has a 'general environmental duty' to not carry out any activity that causes or is likely to cause environmental harm, unless measures to prevent or minimise the harm have been taken. For more information refer to the following website [Environmental obligations and duties | NTEPA](#) or contact the Environment Division, DLPE via telephone (08) 8924 4218 or email pollution@nt.gov.au.

For information regarding spray drift and the *Agricultural and Veterinary Chemical (Control of Use) Act 2004* contact Chemicals Services, Department of Agriculture and Fisheries via email chemicals@nt.gov.au or telephone 08 8999 2344.

Potential pollutants	Risk	Mitigation
Dust	Minimal risk of dust pollution.	Neighbours are not in close proximity. Clearing and ground preparation activities will be carried out when adequate soil moisture is present, reducing the risk of dust being generated.
Chemical spray drift	Minimal risk of chemical drift.	Aerial applications of chemicals will not be necessary. Will be ground applied by boom spray or spot spray. Best practice methods will be adhered to in chemical application.
Chemical runoff (to surrounding land or riparian systems)	Minimal risk of off-site movement of fertilisers through leaching or sedimentation and erosion.	Fertiliser will be drilled with seed at planting, reducing the exposure to surface water and sedimentation. Minimal slope and run length will mitigate risk of movement with erosion or sedimentation. Fertiliser application rates, application methods and timing will be carried out with best practice methods in mind.
Groundwater contamination	Minimal risk of chemical contamination of groundwater.	There are no recharge points within the proposed development area (e.g. sinkholes) that could facilitate contamination of groundwater.

16. Other relevant information

16.1 Provide any additional relevant information not addressed above and outline in the table below.

Description	Attachment Number
GDE Assessment of Isabella Downs	17

17. Checklist of Attachments and Required Spatial Data

Complete the following checklist.

Note: Spatial data for the items indicated must be provided before the application will be accepted. ESRI shapefile (.shp) is the preferred format. Please refer to the spatial data requirements: [Spatial data for clearing applications | NT.GOV.AU](#). Contact: landclearing.DLPE@nt.gov.au

Attachment No.	Name	Question No.	Spatial data
-	Owners/s Authorisation form	2	N/A
PREVIOUS CLEARING	Map of existing clearing	6.1	Required
-	Relevant information about the intended use	7.1	N/A
CLEARING PLAN V3	Proposed clearing plan and spatial data	7.2	Required
-	Water licence &/or bore reports	8.2	N/A
LAND TYPES	Land Type map and spatial data	9.1	Required
-	Land Type descriptions	9.1 / Appendix A	N/A
WAYPOINTS – 23 AND 24 MARCH 2025	Supporting field data	9.1	Required
-	LCA table	9.2 / Appendix B	N/A
-	LCA map	9.2	N/A
-	LSA report and map	9.4	N/A
DRAINAGE DEPRESSIONS; STREAMS; WETLAND; Isabella Downs_mapped buffers	Sensitive features map and supporting field data	10.3	Required
-	Buffer discretion – supporting evidence	10.5	N/A
-	Conservation areas	10.7	N/A
-	Establishment Plan	12.1 / Appendix C	N/A
-	Staging Plan	12.1 / Appendix D	N/A
-	Land Management Plan	12.1 / Appendix E	N/A
WAYPOINTS – 23 AND 24 MARCH 2025	Slope & runoff map	12.1 / Appendix E-2	Required
-	ESC map	12.1 / Appendix E-9	Optional

-	ESC details	12.1 / Appendix E-10	N/A
-	Weed management supporting information	13.2	N/A
-	Heritage Branch advice	14.1	
-	Heritage/archaeological survey information	14.2	N/A
-	Map of heritage/archaeological places	14.3	N/A
-	Abstract of Records	14.4	N/A
-	Consent to share Abstract of Records	14.4	N/A
-	Map of sacred sites	14.5	N/A
-	NT EPA advice	15.1	Optional
-	NT EPA referral checklist	15.1	N/A
Isabella Downs_mapped buffers	Other additional information	16	Optional

Appendix A – Land Type description proforma

Note: Complete one table per Land Type. Data generated from Land Type field investigations needs to be provided – refer to the NTPS LCG – section 4.2.5.

☐ Attach map and spatial data showing site inspection track, site locations, photo points and Land Types.

Attachment No: _____

Attribute	Description
Land Type	<i>E.g. Use a letter or number to distinguish each Land Type.</i>
Landform	<i>E.g. Describe the landform, slope range, extent of surface rock. Refer to NTPS LCG Section 4.2.4.</i>
Soil	<i>E.g. Describe the dominant soil in this Land Type highlighting features such as soil texture, depth, colour, occurrence of surface gravel or cracking, Wet season drainage. Refer to NTPS LCG Section 4.2.4.</i>
Vegetation	<i>E.g. Describe the average height and cover of the upper-storey (e.g. individual tree canopies generally overlapping, partially separated, clearly separated or very sparse) and the dominant trees, shrubs, grasses and weeds. Refer to Section 4.2.5 (NVIS level 5).</i>
Photo No.	<i>E.g. Insert numbered photo (representative of Land Type) and show location on map.</i>

Appendix B – Land Capability Assessment table

Note: Refer to the NTPS LCG – Land Capability Assessment (section 4.2.7.1).

Land Type	Acid Sulfate Soils	Flooding	Microrelief	Salinity	Sodicity	Slope	Soil depth	Drainage	Surface Rock	Wind erosion	Initial capability class	Overall capability class



Appendix C – Establishment Plan

Note: Refer to NTPS LCG sections 4.3.2.3 and 4.3.2.4.

Activity	Timing (month & year)	Methods/Details
Demolition of vegetation		Machinery and techniques:
Removal of debris		Machinery and techniques, including burning, mulching, temporary location and removal of windrows:
Site preparation		Machinery and techniques, use of raised beds and their angle to contour:
Planting		Machinery and techniques:
Weed management		Indicate control methods:
Regrowth management		Indicate control methods:
Grazing management (if applicable)		Outline when stock will be introduced and stocking regime to be used after establishment:
Crop management (if applicable)		Outline how crops will be tilled and/or rotated and whether any additional crops or pastures are likely to be added in the future:

Appendix D – Staging Plan

Refer to NTPS LCG section 4.3.2.4.

Note: Clearing of native vegetation development permits allow for a base period of two years to comply with the conditions. Where the works permitted under the permit are substantially commenced within two years the permit is automatically extended by a further two years. Permit holders may apply for extensions to a development permit before the permit lapses.

Year	Site ID (e.g. polygon / paddock)

Appendix E – Land Management Plan

Note: The following Land Management Plan (LMP) should be developed with reference to the proposed Establishment and Staging Plan. It is not an Erosion and Sediment Control Plan (ESCP). For large or complex clearing areas, preparation and implementation of an Erosion and Sediment Control Plan (ESCP) can be an effective way of managing erosion risk - however it is not an alternative to retaining native vegetation which should otherwise be retained in accordance with the NTPS LCG, or used as a “catch-all” means of mitigating other risks the clearing may pose (see NTPS LCG section 4.3.2.5).

Whether a formal ESCP is required as a condition of a Land Clearing permit will be at the discretion of the Consent Authority based on the advice of the Land Management Unit, DLPE and will depend on the level of detail provided in this LMP and the erosion risk associated with the proposal. For further information, contact the Land Management Unit, DLPE on (08) 8999 4404.

1. Provide a general description of the soil loss factors for the proposed clearing extent

Note: Refer to Section 4.3.2 of the NTPS LCG.

Factor	Description
Rainfall Consider the climatic zone, seasonal outlook and proposed timing of works	
Soil Consider the erodibility of soil types present based on soil type texture and structure. Note whether soils are dispersive or sodic.	
Length of slope Indicate the average length of slope within the proposed clearing extent and areas that exceed this.	
Slope gradient (%) Indicate the range of slope within the proposed clearing extent (e.g. 0-2%) and areas that exceed 2%.	
Groundcover Consider the timing, duration and frequency of soil exposure.	
Management Consider the level of soil disturbance associated with the proposed method of clearing and land use.	

2. Describe where rainfall runoff flows within the proposed clearing extent.

Polygon	Direction of runoff	Receiving environment

☐ Attach map showing slope gradient, direction of runoff and field verified slope points within the proposed clearing extent.

Attachment No: _____

3. Identify whether property boundary buffers will be retained in accordance with the NTPS LCG and provide reasons for discretion (if required).

Note: Valid reasons must be provided for instances where no property boundary buffers or buffers less than the NTPS LCG recommendations are proposed to be retained. Refer to section 4.3.3 of the NTPS LCG.

Note: Property boundary buffers must exclude firebreaks – refer to section 4.3.6 of the NTPS LCG.

Property Boundary	Proposed buffer width (m)	Reasons for discretion

4. Describe any land management buffers to be retained within proximity of the proposed clearing extent.

Note: A land management buffer is different to a wildlife corridor or property boundary buffer – refer to section 4.3.4 of the NTPS LCG.

Buffer Id.	Location	Width (m)	Purpose and design justification

5. Describe any existing erosion within the proposed clearing extent.

Note: Erosion types include: wind, sheet, rill, gully or tunnel erosion.

Erosion Site	Location	Cause	Erosion type & description	Mitigation

6. Considering all information provided above; describe the potential risk, likelihood and impact of erosion associated with the proposed development.

Source of risk	Likelihood of occurring	Potential impacts

7. Considering all information provided above; describe the proposed erosion and sediment control (ESC) measures to be implemented during the clearing and establishment phase of the development.

ESC measure	Location	Temporary/Permanent	Description

8. Considering all the information provided above; describe the proposed erosion and sediment control (ESC) measures to be implemented during the operational phase of the development.

ESC measure	Location	Temporary/Permanent	Description

9. Provide an erosion and sediment control (ESC) map showing the location of the following information.

☐ Attach an ESC map showing the location of the following within the proposed clearing extent:

- Land management buffers (Question 4)
- Existing erosion (Question 5)
- Temporary ESC measures to be installed (Question 7 & 8)
- Permanent ESC measures to be installed (Question 7 & 8)
- Firebreaks, tracks and fences.

Attachment No: _____

10. Provide any ESC standard drawings or design details.

Note: The level of information required will depend on the complexity of the proposed measures. Information is available at [Soil, land and vegetation | NT.GOV.AU](https://www.nt.gov.au/soil-land-and-vegetation/).

☐ Attach ESC standard drawings / design details

Attachment No: _____

Tully

A. G. Cameron, Principal Pastures and Extension Agronomist, Darwin

DESCRIPTION

Tully koronivia grass (*Urochloa humidicola* cv Tully, formerly *Brachiaria humidicola* cv Tully) is a strong creeping perennial, which roots vigorously from lower nodes and forms a dense matted sward.

Leaf blades are 12 to 15 cm long, expanded, rounded at the base, lanceolate and tapering to an acute point. They are 8 mm to 10 mm wide. Flowering stems are erect, and up to 60 cm high.

The seed is similar to that of signal grass. There are about 200 000 seeds/kg.

CLIMATE AND SOILS

Tully grass is a native of East and Southeast tropical Africa and has been widely used in Fiji. Koronivia is the Fijian name.

It is suitable for areas receiving more than 1000 mm average annual rainfall.

Tully is adapted to the same environments as signal grass, but is more tolerant of poor drainage. Its growing season is more compressed into the wet season than signal grass, but will grow longer into the dry season than pangola grass.

There are suggestions that Tully tolerates lower soil phosphorus levels than signal grass. It will remain productive under heavy grazing without fertiliser application.



ESTABLISHMENT

Tully establishes readily from either cuttings or seed. Minimum standards for seed quality are 40% purity and 15% germination.

A well-prepared, weed-free seedbed is preferred to ensure good establishment. Seed should be sown by a combine or drum seeder and lightly rolled. Sow as early as possible in the wet season on good soil moisture and when there is a likelihood of follow-up rain.

Tully has been successfully sown by combine into a dry seedbed when follow-up rain fell within a week of sowing.

Seed can be sown at 2 kg to 6 kg/ha. The higher rates should be used if weed competition is likely to be strong. While Tully is slow to establish because of native grass and weed competition, or if a low seeding rate is used and it is not well fertilised, many sowings have produced good stands by the end of their second wet season after a poor first year.

MANAGEMENT

Fertiliser Requirements

Tully responds to fertilisers, particularly nitrogen (N).

Annual forage yield and quality are similar to those of signal grass, which is 4 to 6 t/ha dry matter without N fertiliser and over 12 t/ha dry matter with 100 to 200 kg N fertiliser. It produces more herbage during the wet season than signal grass.

Sow seed, or plant cuttings or runners, with 100 kg to 200 kg/ha of superphosphate and apply maintenance dressings of 50 kg to 100 kg/ha/year.

Potassium may be required on some soils, particularly with intensive use, such as areas where hay is regularly cut.

Grazing

Heavy grazing for a short period in February or March during the wet season of establishment promotes the production of runners. The stand can be lightly-grazed during the first dry season.

It can tolerate heavy wet-season grazing on poorly-drained soils where signal grass and Guinea grass will not persist.

Acceptability of Tully by animals can vary for no apparent reason. Tully is more readily grazed by cattle and buffalo if it is applied with a small dressing of N fertiliser of about 25 kg to 50 kg/ha. Acceptance is best when Tully is well-grazed and short rather than tall, rank and hayed off.



Horses vary greatly in their acceptance of Tully as green feed or hay. Some horses graze green feed and/or hay readily while others will eat green feed only, hay only, or neither.

At a stocking rate of one yearling steer/ha, annual live-weight gains of 100 kg to 120 kg/animal can be expected.

In years with long dry seasons and/or a late start to the wet season, Tully pastures can die out if continuously-grazed early in the wet season. Grazing animals may need to be removed to prevent the plants dying.

Mixtures

Tully's vigorous and dense habit makes it difficult for weeds or legumes to grow with it. While palatable legumes tend to be selectively grazed in preference to Tully, Glenn, Amiga, Verano and Wynn may be suitable for planting with it.

PESTS AND DISEASES

In the Darwin area, Tully has disappeared in patches of up to 10 m in diameter in apparently healthy pastures. These patches normally occur during the late dry season under high grazing pressure, particularly from horses. These patches are most likely caused by larvae of a root-eating curl grub known as cockchafer or cane grub (*Lepidiota* sp). The grubs can be found eating roots on healthy plants bordering the affected area.

There have been no other pests or diseases observed to cause economic problems.

WARNING

Pasture plants have the potential to become weeds in certain situations. To prevent that, ensure that pasture seeds and/or vegetative materials are not inadvertently transferred to adjacent properties or road sides.

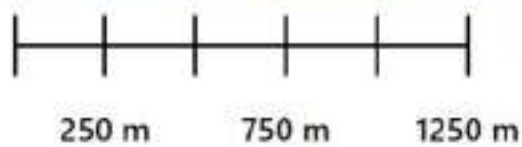
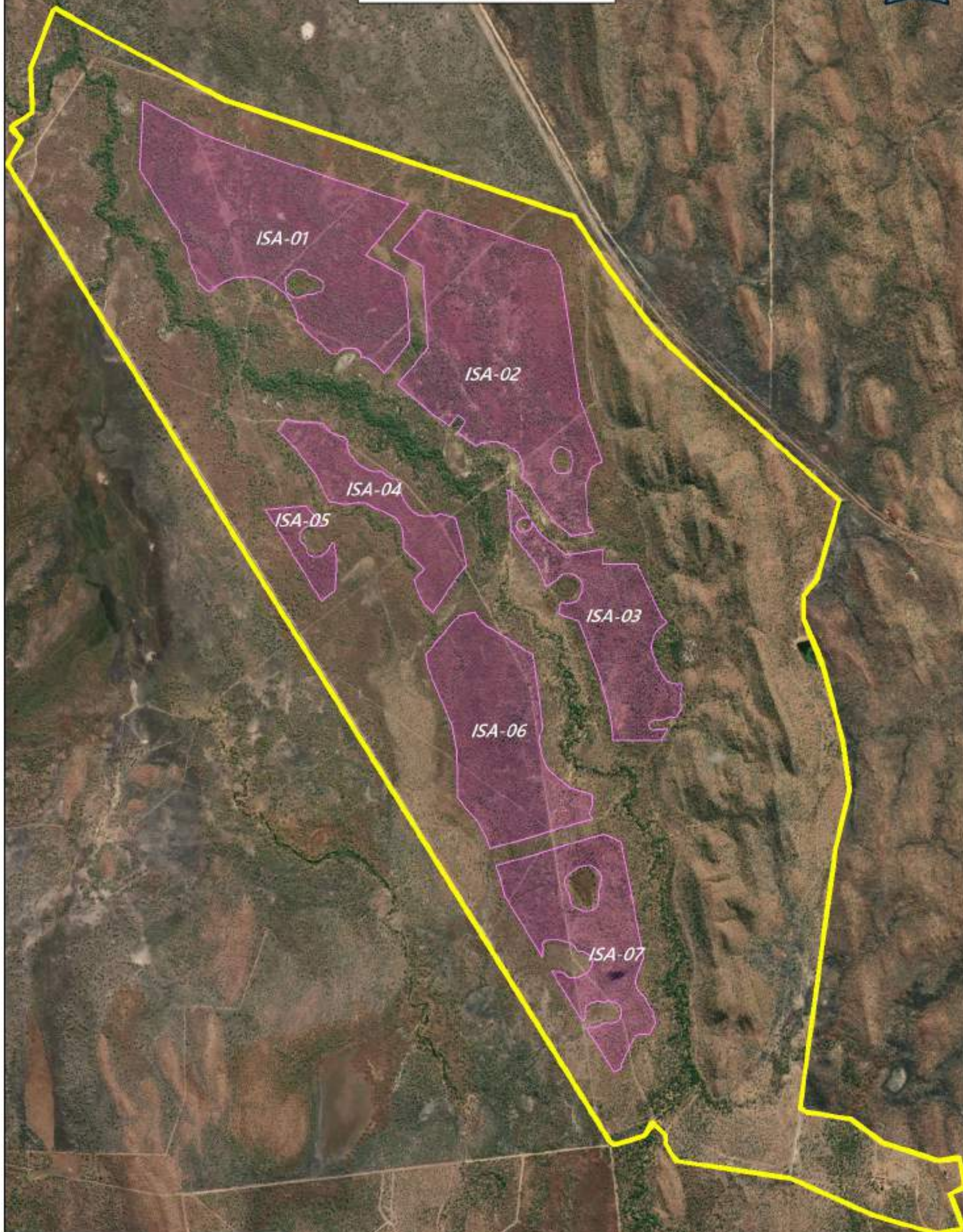
Please visit us at our website:

www.nt.gov.au/d

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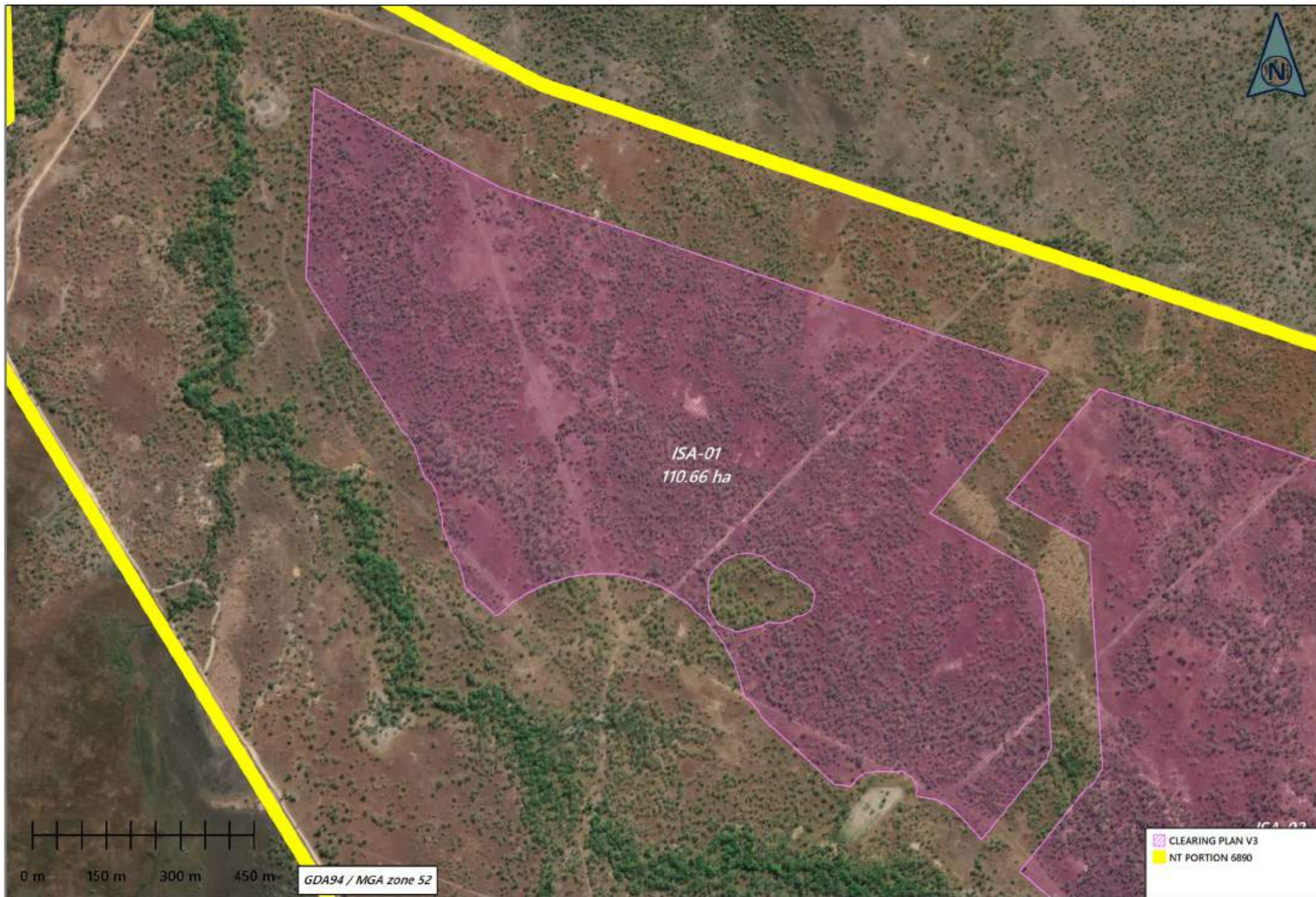
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ISABELLA DOWNS - Clearing Plan
(Property Scale)



GDA94 / MGA zone 52

CLEARING PLAN V3
NT PORTION 6890



ISA-01
110.66 ha

0 m 150 m 300 m 450 m

GDA94 / MGA zone 52

ISA-02
CLEARING PLAN V3
NT PORTION 6890





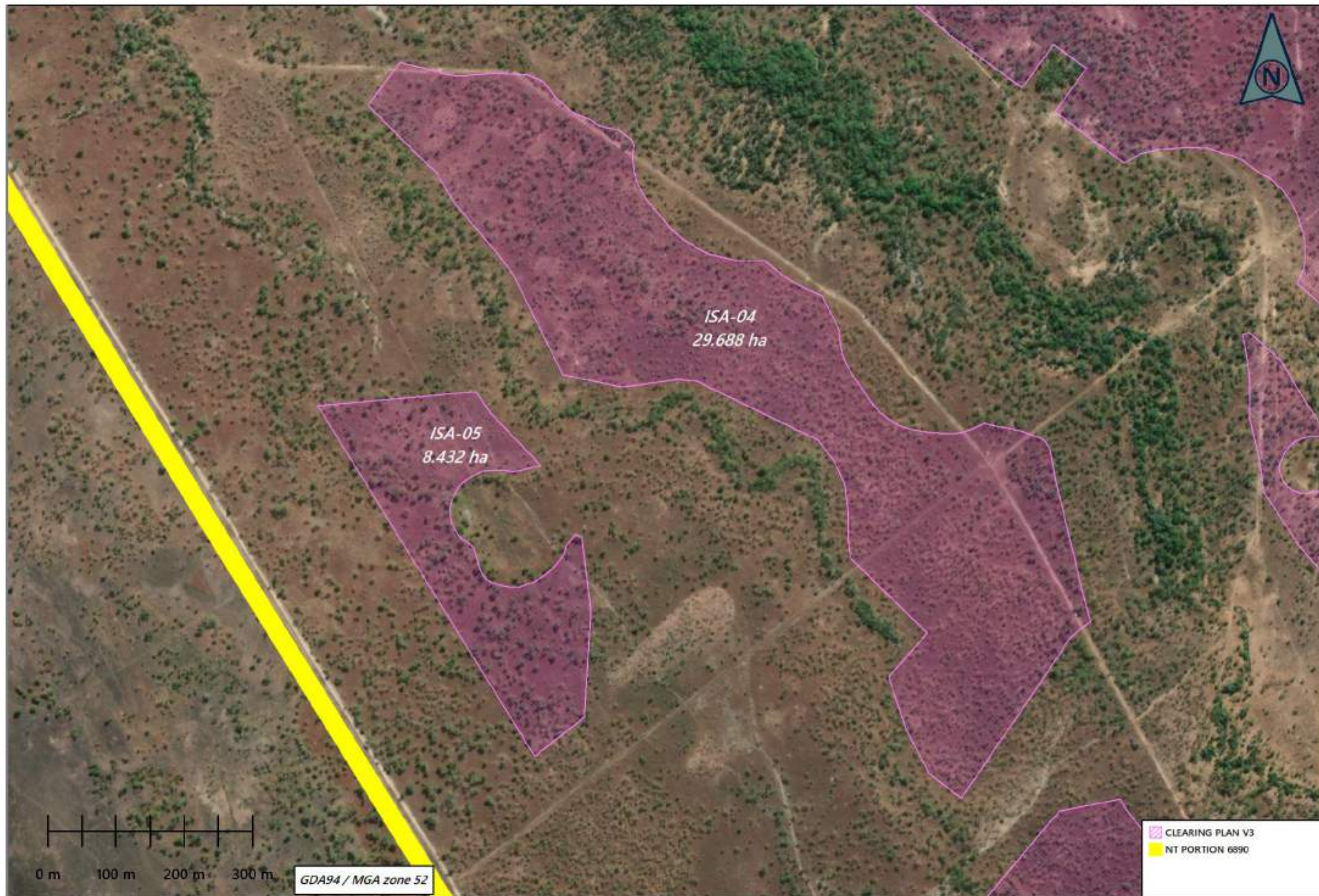
ISA-03
45.778 ha

ISA-06
65.117 ha



GDA94 / MGA zone 52

CLEARING PLAN V3
NT PORTION 6890





ISA-03
45.778 ha

ISA-06
65.117 ha

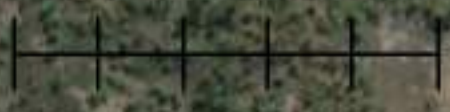


GDA94 / MGA zone 52

CLEARING PLAN V3
NT PORTION 6890





ISA-07
52.124 ha

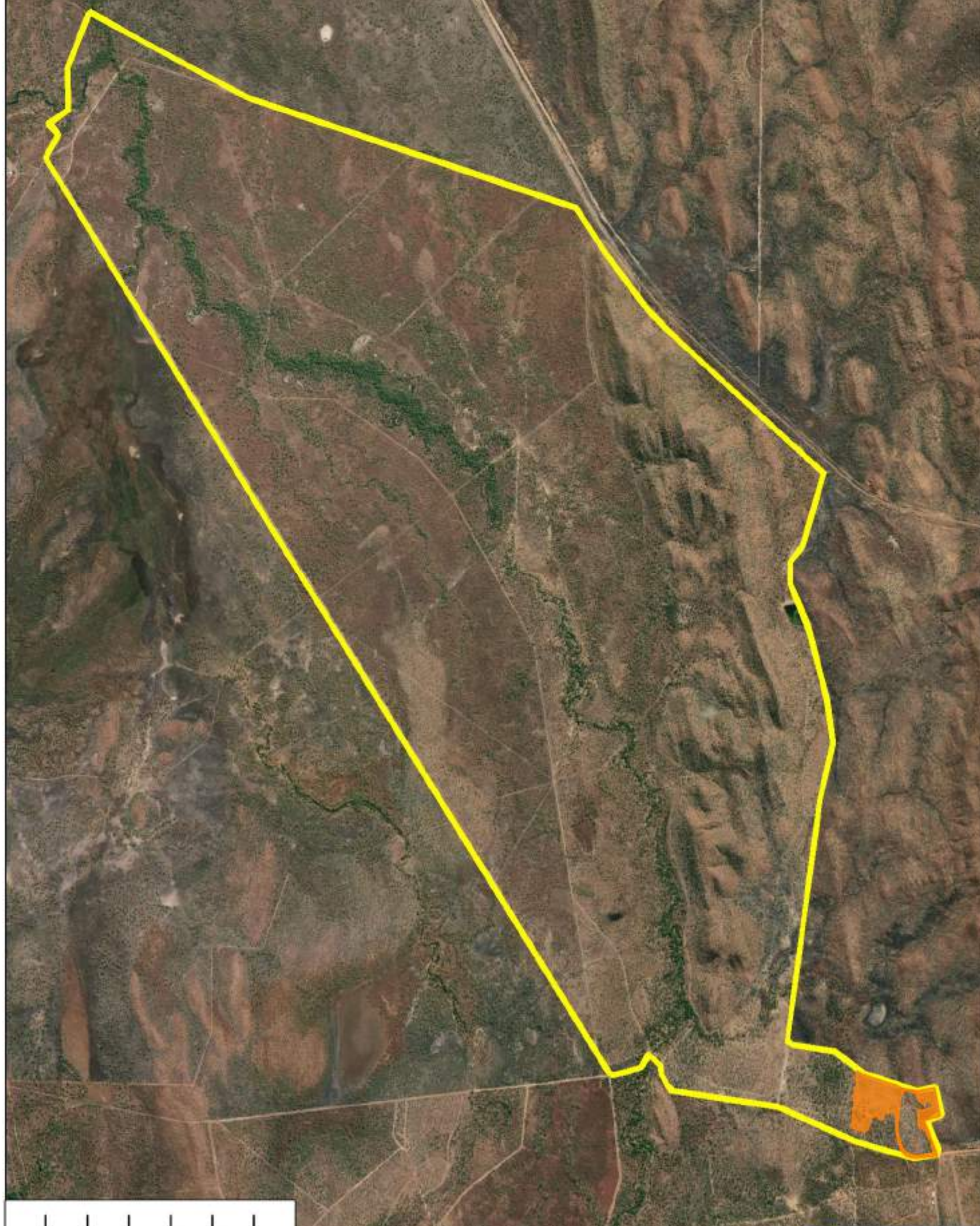


50 m 100 m 150 m 200 m

GDA94 / MGA zone 52

-  CLEARING PLAN V3
-  NT PORTION 6890

ISABELLA DOWNS - PREVIOUS CLEARING
(Property Scale)

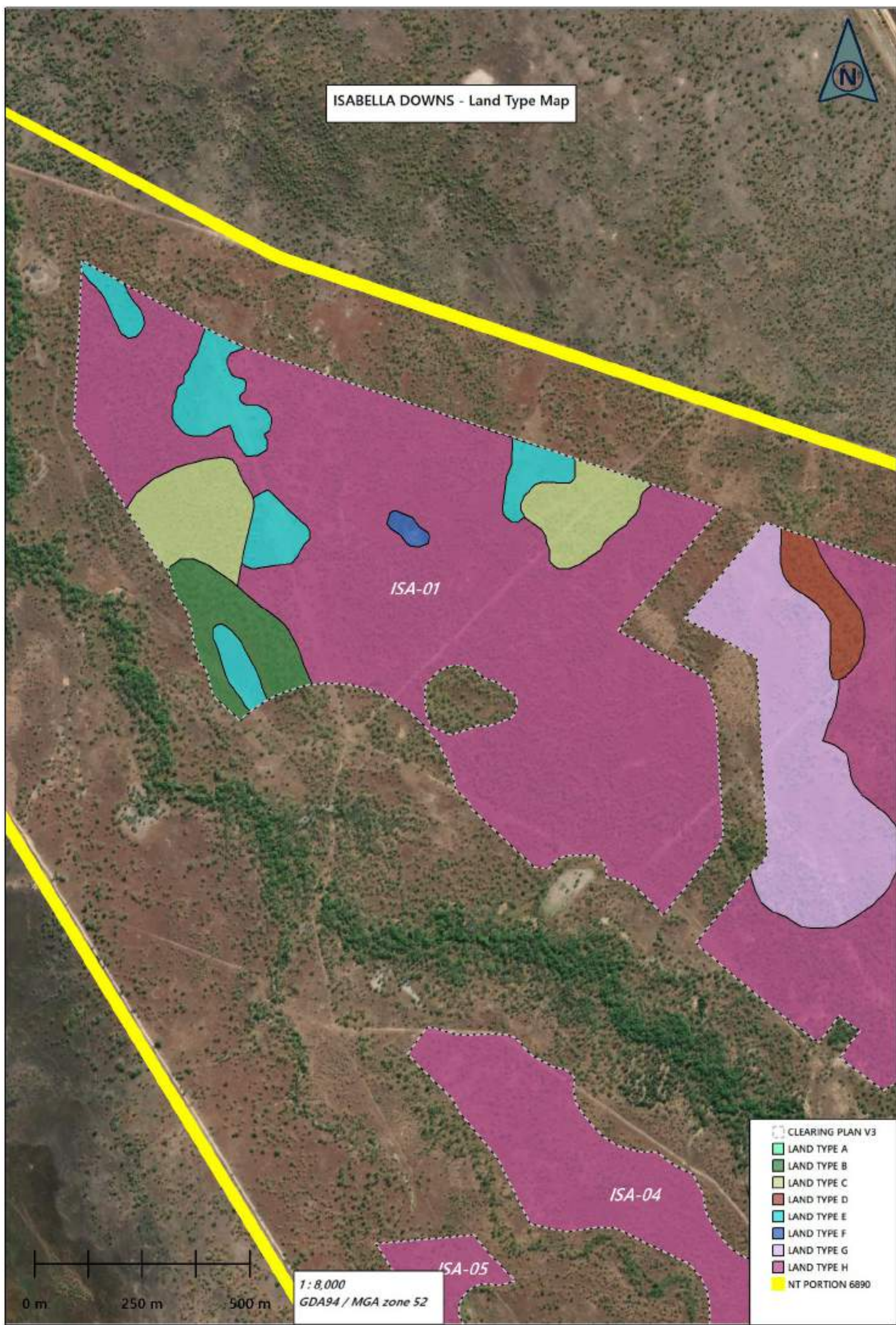


250 m 750 m 1250 m

GDA94 / MGA zone 52

- NT PORTION 6890
- PREVIOUSLY CLEARED

ISABELLA DOWNS - Land Type Map



ISA-01

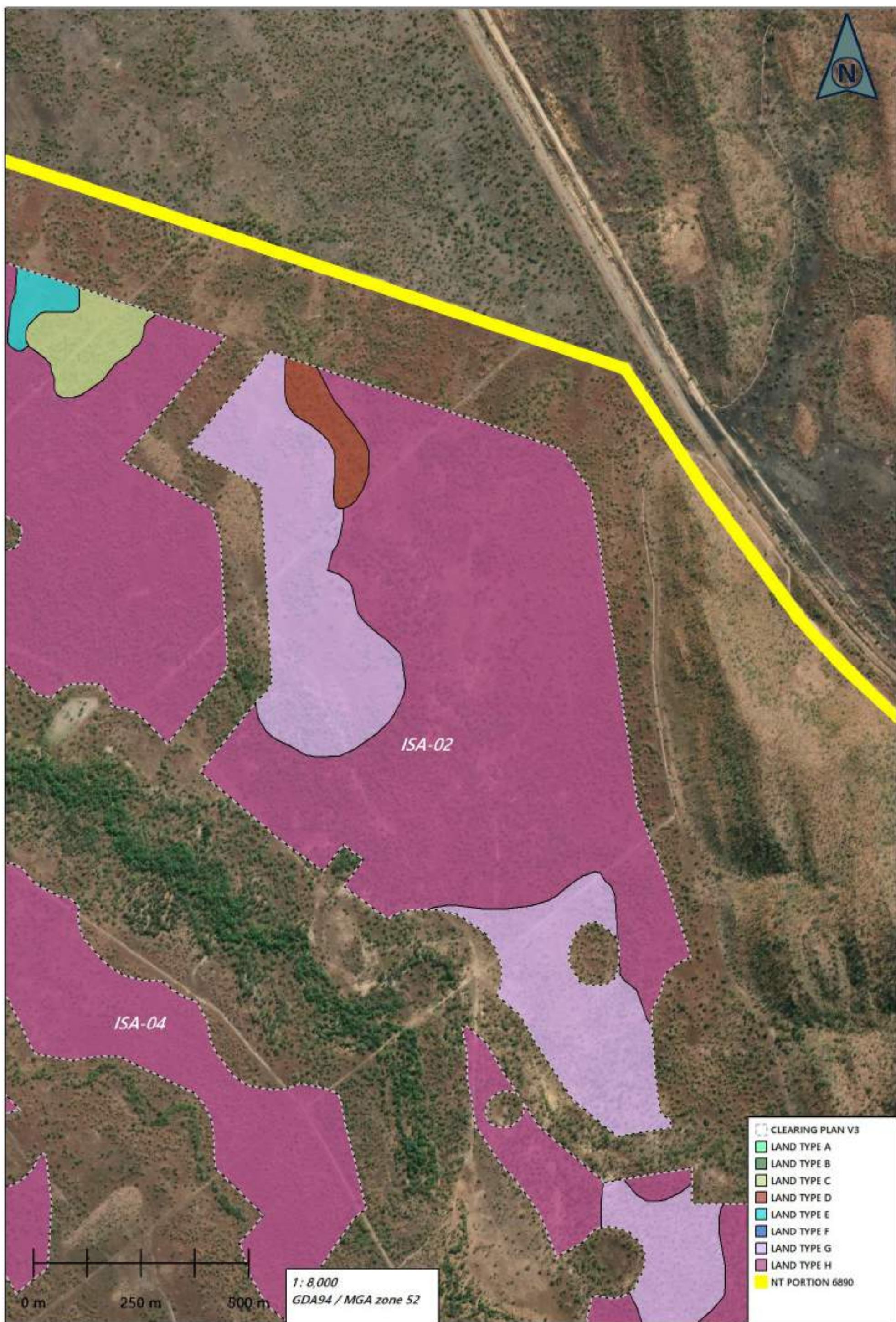
ISA-04

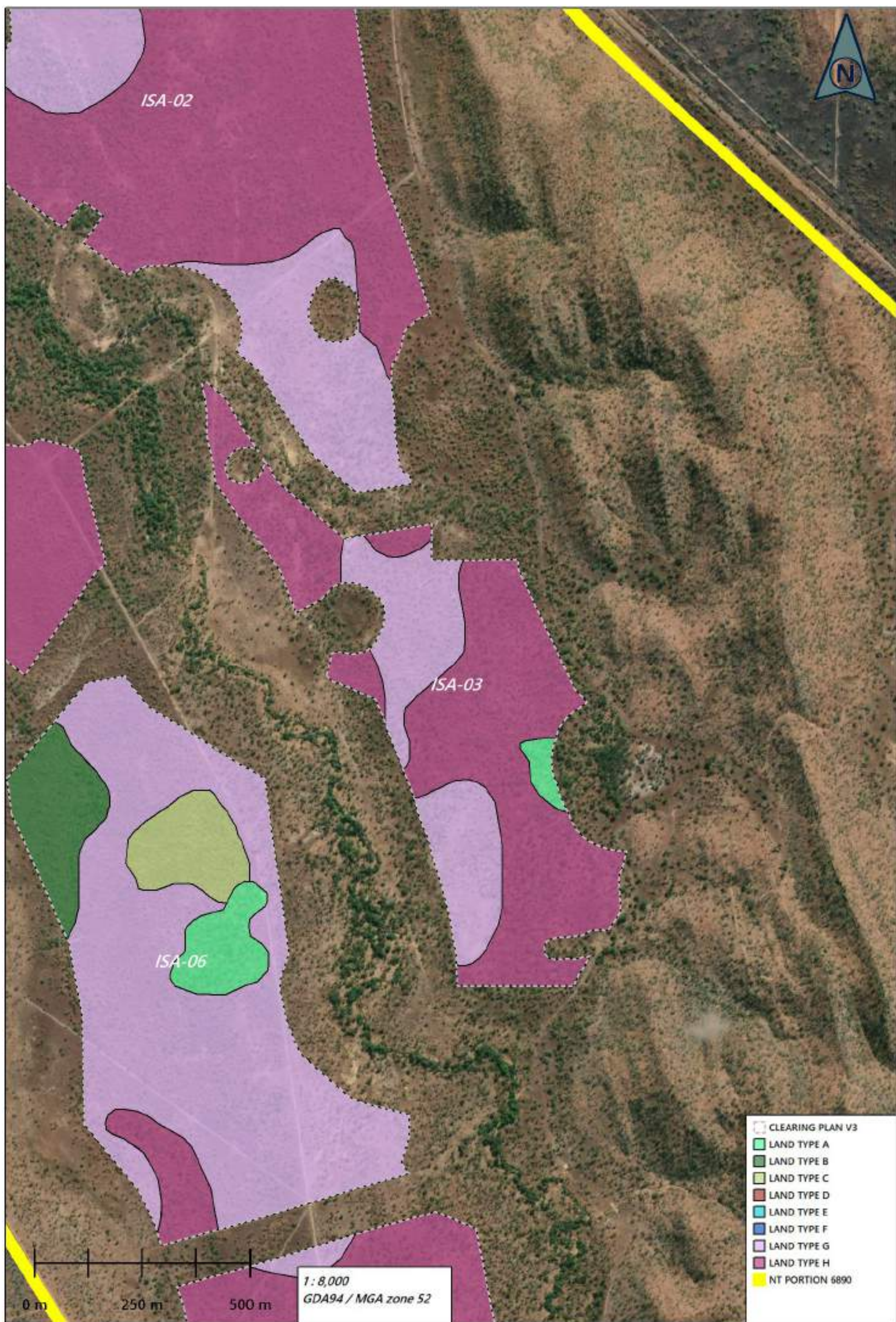
ISA-05

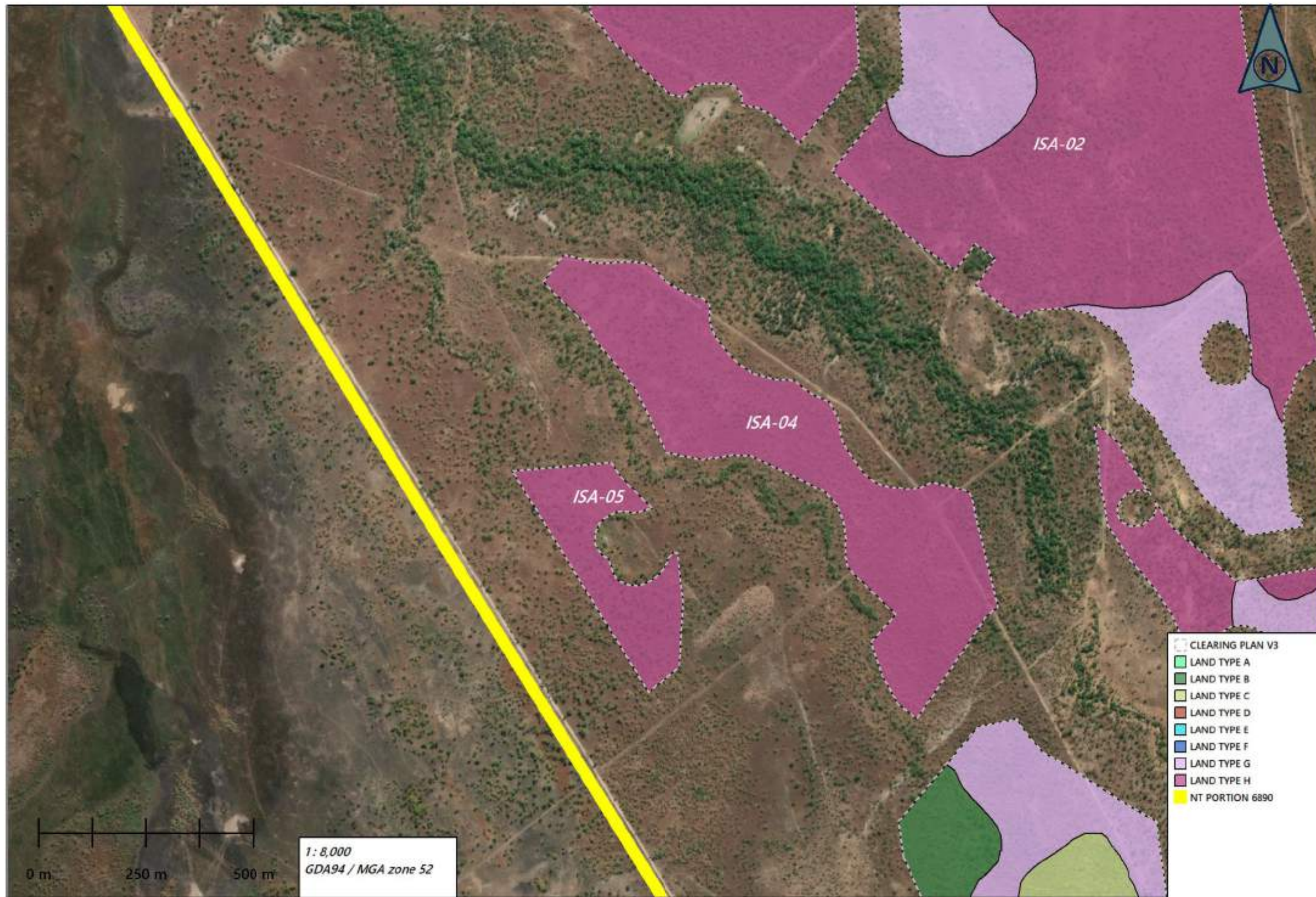
- CLEARING PLAN V3
- LAND TYPE A
- LAND TYPE B
- LAND TYPE C
- LAND TYPE D
- LAND TYPE E
- LAND TYPE F
- LAND TYPE G
- LAND TYPE H
- NT PORTION 6890

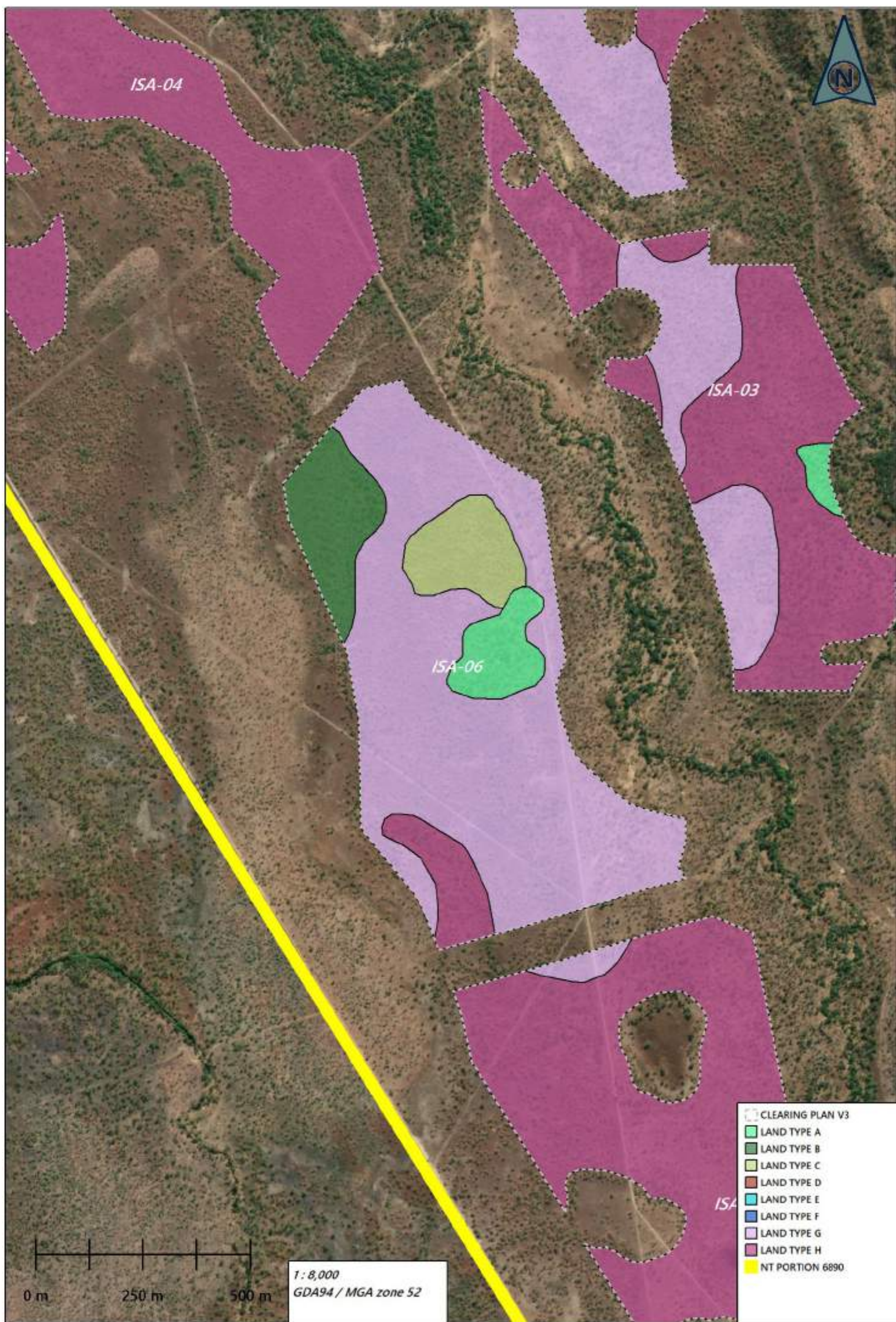
0 m 250 m 500 m

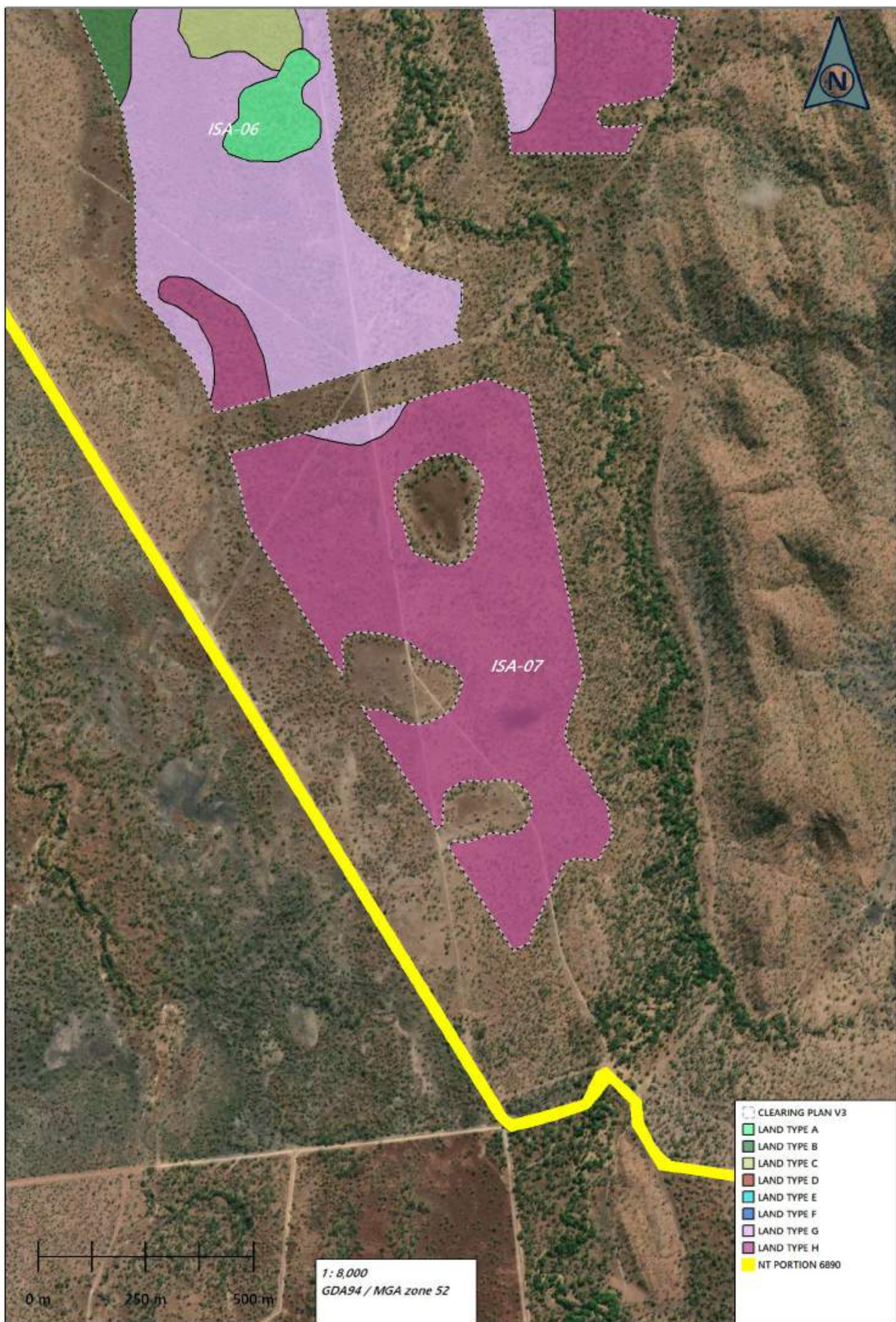
1:8,000
GDA94 / MGA zone 52











Isabella Downs – Land Type descriptions

Note: Complete one table per Land Type. Data generated from Land Type field investigations needs to be provided – refer to the NTPS LCG – section 4.2.5.

☒ Attach map and spatial data showing site inspection track, site locations, photo points and Land Types.

Attachment No: 6B

A spreadsheet of all waypoint sites and land type descriptions is provided in Attachment 6C.

Attribute	Description
Land Type	<p><i>E.g. Use a letter or number to distinguish each Land Type.</i></p> <p>A</p> <p><i>(Loamy clays with moderate drainage)</i></p>
Landform	<p><i>E.g. Describe the landform, slope range, extent of surface rock. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Alluvial plains with a slope range of 0 to 1%. No surface rock observed.</p> <p>Slope measurements taken at the following waypoints:</p> <ul style="list-style-type: none"> Waypoint 488 – 0% N Waypoint 501 – 0% SE
Soil	<p><i>E.g. Describe the dominant soil in this Land Type highlighting features such as soil texture, depth, colour, occurrence of surface gravel or cracking, Wet season drainage. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Loamy clay soil (Greyish-brown or yellowish-brown in colour), with moderate drainage. No gravel observed. Soil depth measurements taken at following waypoints:</p> <ul style="list-style-type: none"> Waypoint 488 – 35cm Waypoint 501 – 40cm

Vegetation	<p><i>E.g. Describe the average height and cover of the upper-storey (e.g. individual tree canopies generally overlapping, partially separated, clearly separated or very sparse) and the dominant trees, shrubs, grasses and weeds. Refer to Section 4.2.5 (NVIS level 5).</i></p> <p>Mid open to partially closed woodland. Observed species included:</p> <p><i>Eucalyptus miniata</i> <i>Eucalyptus tetradoncha</i> <i>Erythrophleum chlorostachys</i> <i>Corymbia foelscheana</i> <i>Lophostemon lactifluus</i> <i>Pandanus spiralis</i> <i>Planchonia careya</i> <i>Terminalia ferdinandiana</i> <i>Buchanania obovate</i>.</p> <p>Grass species included <i>Heteropogon triticeus</i> <i>Sorghum intrans</i></p>
Photo No.	<p><i>E.g. Insert numbered photo (representative of Land Type) and show location on map.</i></p> <p>See photos for waypoints 488 and 501.</p>

Attribute	Description
Land Type	<p><i>E.g. Use a letter or number to distinguish each Land Type.</i></p> <p>B</p> <p><i>(Loamy clays with poor drainage)</i></p>
Landform	<p><i>E.g. Describe the landform, slope range, extent of surface rock. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Alluvial plains with a slope range of 0 to 1%. No surface rock observed.</p> <p>Slope measurements taken at the following waypoints:</p> <ul style="list-style-type: none"> • Waypoint 490 – 0% N • Waypoint 520 – 1% S
Soil	<p><i>E.g. Describe the dominant soil in this Land Type highlighting features such as soil texture, depth, colour, occurrence of surface gravel or cracking, Wet season drainage. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Loamy clay soil (Greyish-brown), with poor drainage. No gravel observed.</p> <p>Soil depth measurements taken at following waypoints:</p> <ul style="list-style-type: none"> • Waypoint 490 – 35cm • Waypoint 520 – 35cm
Vegetation	<p><i>E.g. Describe the average height and cover of the upper-storey (e.g. individual tree canopies generally overlapping, partially separated, clearly separated or very sparse) and the dominant trees, shrubs, grasses and weeds. Refer to Section 4.2.5 (NVIS level 5).</i></p> <p>Mid open to partially closed woodland. Observed species included:</p> <p><i>Eucalyptus alba var. australasica</i></p> <p><i>Eucalyptus tetradonta</i></p> <p><i>Corymbia confertiflora</i></p> <p><i>Corymbia foelscheana</i></p> <p><i>Corymbia disjuncta</i></p> <p><i>Melaleuca viridiflora</i></p> <p><i>Melaleuca nervosa</i></p> <p><i>Lophostemon lactifluus</i></p> <p><i>Livistona humilis</i></p> <p><i>Pandanus spiralis</i></p> <p><i>Planchonia careya</i></p> <p><i>Petalostigma pubescens</i></p> <p><i>Buchanania obovata</i></p> <p>Grass species included</p> <p><i>Themeda triandra</i></p> <p><i>Eriachne burkittii</i></p> <p><i>Heteropogon triticeus</i></p> <p><i>Sorghum intrans</i></p>

Photo No.	<i>E.g. Insert numbered photo (representative of Land Type) and show location on map.</i> See photos for waypoints 490 and 520.
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Attribute	Description
Land Type	<p><i>E.g. Use a letter or number to distinguish each Land Type.</i></p> <p>C</p> <p><i>(Bloodwood dominant woodlands)</i></p>
Landform	<p><i>E.g. Describe the landform, slope range, extent of surface rock. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Alluvial plains with a slope range of 0 to 1%. No surface rock observed.</p> <p>Slope measurements taken at the following waypoints:</p> <ul style="list-style-type: none"> • Waypoint 489 – 0% N • Waypoint 516 – 0% NW • Waypoint 521 – 0% NE
Soil	<p><i>E.g. Describe the dominant soil in this Land Type highlighting features such as soil texture, depth, colour, occurrence of surface gravel or cracking, Wet season drainage. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Clay soil (Grey, greyish-yellow or greyish-brown), with poor drainage. Minor gravel observed (0 to 2%). Soil depth measurements taken at following waypoints:</p> <ul style="list-style-type: none"> • Waypoint 489 – 35cm • Waypoint 516 – 35cm • Waypoint 521 – 35cm
Vegetation	<p><i>E.g. Describe the average height and cover of the upper-storey (e.g. individual tree canopies generally overlapping, partially separated, clearly separated or very sparse) and the dominant trees, shrubs, grasses and weeds. Refer to Section 4.2.5 (NVIS level 5).</i></p> <p>Low to mid open woodland, dominated by bloodwood species.</p> <p>Observed species included:</p> <p><i>Corymbia foelscheana</i> <i>Corymbia disjuncta</i> <i>Buchanania obovata</i></p> <p>Grass species included <i>Themeda triandra</i> <i>Mnesithea rottboellioides</i></p>
Photo No.	<p><i>E.g. Insert numbered photo (representative of Land Type) and show location on map.</i></p> <p>See photos for waypoints 489, 516 and 521.</p>

Attribute	Description
Land Type	<p><i>E.g. Use a letter or number to distinguish each Land Type.</i></p> <p>D</p> <p><i>(Sandy loam with moderate drainage)</i></p>
Landform	<p><i>E.g. Describe the landform, slope range, extent of surface rock. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Alluvial plains with a slope range of 0 to 1%. No surface rock observed.</p> <p>Slope measurements taken at the following waypoint:</p> <ul style="list-style-type: none"> Waypoint 515 – 0% NW
Soil	<p><i>E.g. Describe the dominant soil in this Land Type highlighting features such as soil texture, depth, colour, occurrence of surface gravel or cracking, Wet season drainage. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Brown sandy loam, with moderate drainage. No gravel observed. Soil depth measurements taken at following waypoint:</p> <ul style="list-style-type: none"> Waypoint 515 – 40cm
Vegetation	<p><i>E.g. Describe the average height and cover of the upper-storey (e.g. individual tree canopies generally overlapping, partially separated, clearly separated or very sparse) and the dominant trees, shrubs, grasses and weeds. Refer to Section 4.2.5 (NVIS level 5).</i></p> <p>Low to mid open woodland.</p> <p>Observed species included:</p> <p><i>Eucalyptus miniata</i></p> <p><i>Erythrophleum chlorostachys</i></p> <p><i>Corymbia foelscheana</i></p> <p><i>Corymbia disjuncta</i></p> <p><i>Melaleuca viridiflora</i></p> <p><i>Melaleuca nervosa</i></p> <p><i>Lophostemon lactifluus</i></p> <p>Grass species included</p> <p><i>Heteropogon triticeus</i></p>
Photo No.	<p><i>E.g. Insert numbered photo (representative of Land Type) and show location on map.</i></p> <p>See photos for waypoint 515.</p>

Attribute	Description
Land Type	<p><i>E.g. Use a letter or number to distinguish each Land Type.</i></p> <p>E</p> <p><i>(Mid spare woodlands)</i></p>
Landform	<p><i>E.g. Describe the landform, slope range, extent of surface rock. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Alluvial plains with a slope range of 0 to 1%. No surface rock observed.</p> <p>Slope measurements taken at the following waypoints:</p> <ul style="list-style-type: none"> Waypoint 522 – 0% N Waypoint 523 – 0.5% E
Soil	<p><i>E.g. Describe the dominant soil in this Land Type highlighting features such as soil texture, depth, colour, occurrence of surface gravel or cracking, Wet season drainage. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Greyish-brown clay, with poor drainage. Minor gravel observed (0 to 2%).</p> <p>Soil depth measurements taken at following waypoints:</p> <ul style="list-style-type: none"> Waypoint 522 – 35cm Waypoint 523 – 35cm
Vegetation	<p><i>E.g. Describe the average height and cover of the upper-storey (e.g. individual tree canopies generally overlapping, partially separated, clearly separated or very sparse) and the dominant trees, shrubs, grasses and weeds. Refer to Section 4.2.5 (NVIS level 5).</i></p> <p>Mid sparse woodland. Observed species included:</p> <p><i>Corymbia disjuncta</i></p> <p><i>Melaleuca nervosa</i></p> <p>Grass species included</p> <p><i>Themeda triandra</i></p> <p><i>Heteropogon triticeus</i></p> <p><i>Mnesithea rottboellioides</i></p>
Photo No.	<p><i>E.g. Insert numbered photo (representative of Land Type) and show location on map.</i></p> <p>See photos for waypoints 522 and 523.</p>

Attribute	Description
Land Type	<p><i>E.g. Use a letter or number to distinguish each Land Type.</i></p> <p>F</p> <p><i>(Low open woodland with shallower soil)</i></p>
Landform	<p><i>E.g. Describe the landform, slope range, extent of surface rock. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Alluvial plains with a slope range of 0 to 0.5%. No surface rock observed.</p> <p>Slope measurements taken at the following waypoint:</p> <ul style="list-style-type: none"> Waypoint 518 – 0.5% NW
Soil	<p><i>E.g. Describe the dominant soil in this Land Type highlighting features such as soil texture, depth, colour, occurrence of surface gravel or cracking, Wet season drainage. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Yellowish-grey clay, with poor drainage. No gravel observed. Soil depth measurements taken at following waypoint:</p> <ul style="list-style-type: none"> Waypoint 518 – 20cm
Vegetation	<p><i>E.g. Describe the average height and cover of the upper-storey (e.g. individual tree canopies generally overlapping, partially separated, clearly separated or very sparse) and the dominant trees, shrubs, grasses and weeds. Refer to Section 4.2.5 (NVIS level 5).</i></p> <p>Low open woodland. Observed species included:</p> <p><i>Corymbia disjuncta</i></p> <p>Grass species included</p> <p><i>Themeda triandra</i></p>
Photo No.	<p><i>E.g. Insert numbered photo (representative of Land Type) and show location on map.</i></p> <p>See photos for waypoints 518.</p>

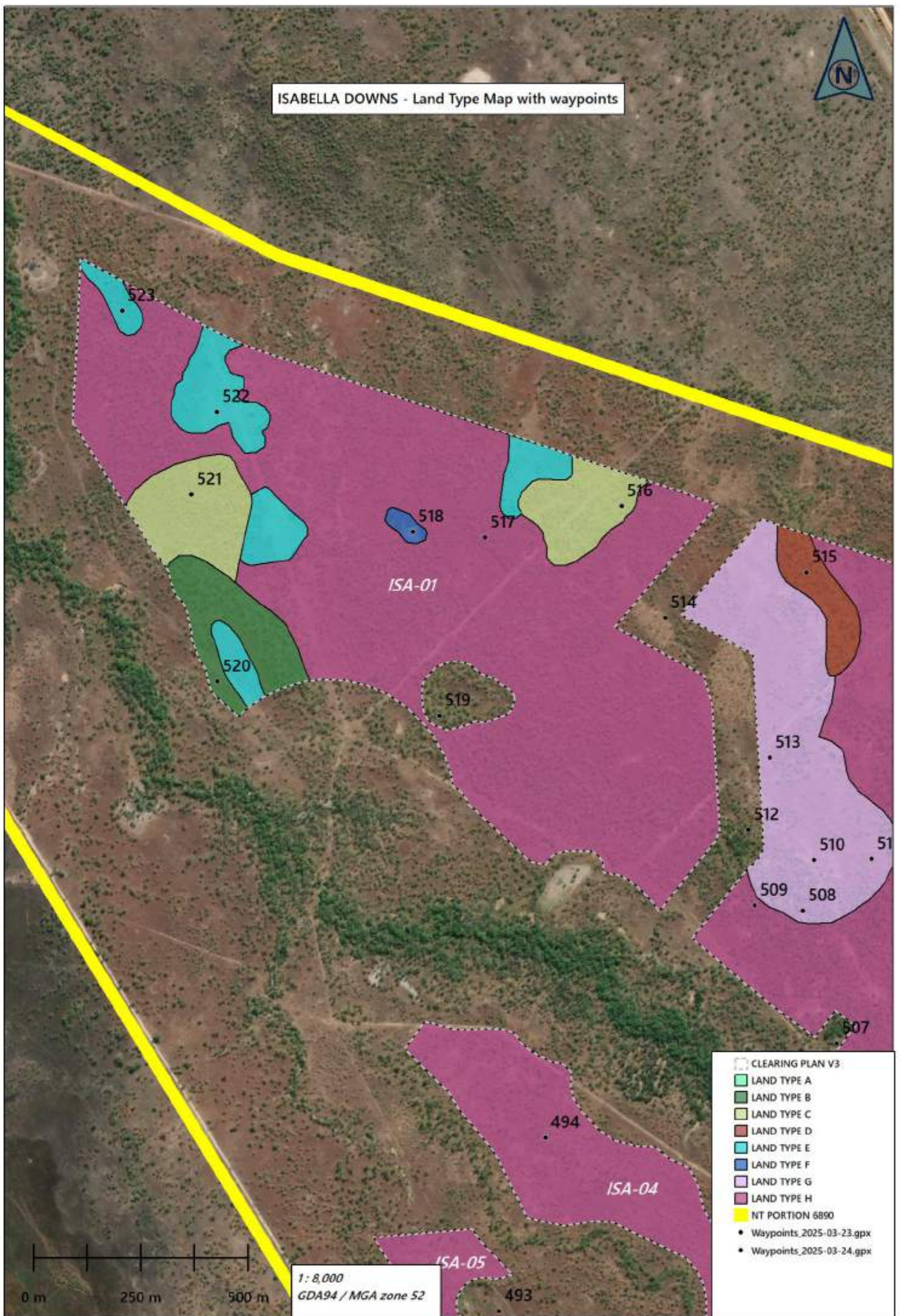
Attribute	Description
Land Type	<p><i>E.g. Use a letter or number to distinguish each Land Type.</i></p> <p>G</p> <p><i>(Clays with low to mid woodland)</i></p>
Landform	<p><i>E.g. Describe the landform, slope range, extent of surface rock. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Alluvial plains with a slope range of 0 to 2%. No surface rock observed.</p> <p>Slope measurements taken at the following waypoints:</p> <ul style="list-style-type: none"> • Waypoint 487 – 0% NW • Waypoint 497 – 0% NW • Waypoint 498 – 0% N • Waypoint 508 – 0% E • Waypoint 513 – 0.5% S
Soil	<p><i>E.g. Describe the dominant soil in this Land Type highlighting features such as soil texture, depth, colour, occurrence of surface gravel or cracking, Wet season drainage. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Clay soil (Grey or reddish-brown), with poor drainage. No gravel observed.</p> <p>Soil depth measurements taken at following waypoints:</p> <ul style="list-style-type: none"> • Waypoint 487 – 35cm • Waypoint 497 – 40cm • Waypoint 498 – 35cm • Waypoint 508 – 35cm • Waypoint 513 – 35cm
Vegetation	<p><i>E.g. Describe the average height and cover of the upper-storey (e.g. individual tree canopies generally overlapping, partially separated, clearly separated or very sparse) and the dominant trees, shrubs, grasses and weeds. Refer to Section 4.2.5 (NVIS level 5).</i></p> <p>Low to mid open woodland. Observed species included:</p> <p><i>Eucalyptus alba var. australasica</i> <i>Eucalyptus tetrodonda</i> <i>Erythrophleum chlorostachys</i> <i>Corymbia confertiflora</i> <i>Corymbia foelscheana</i> <i>Corymbia disjuncta</i> <i>Melaleuca nervosa</i> <i>Livistona humilis</i> <i>Buchanania obovata</i></p> <p>Grass species included <i>Themeda triandra</i> <i>Eriachne burkittii</i> <i>Mnesithea rottboellioides</i> <i>Megathyrsus maximum</i></p>

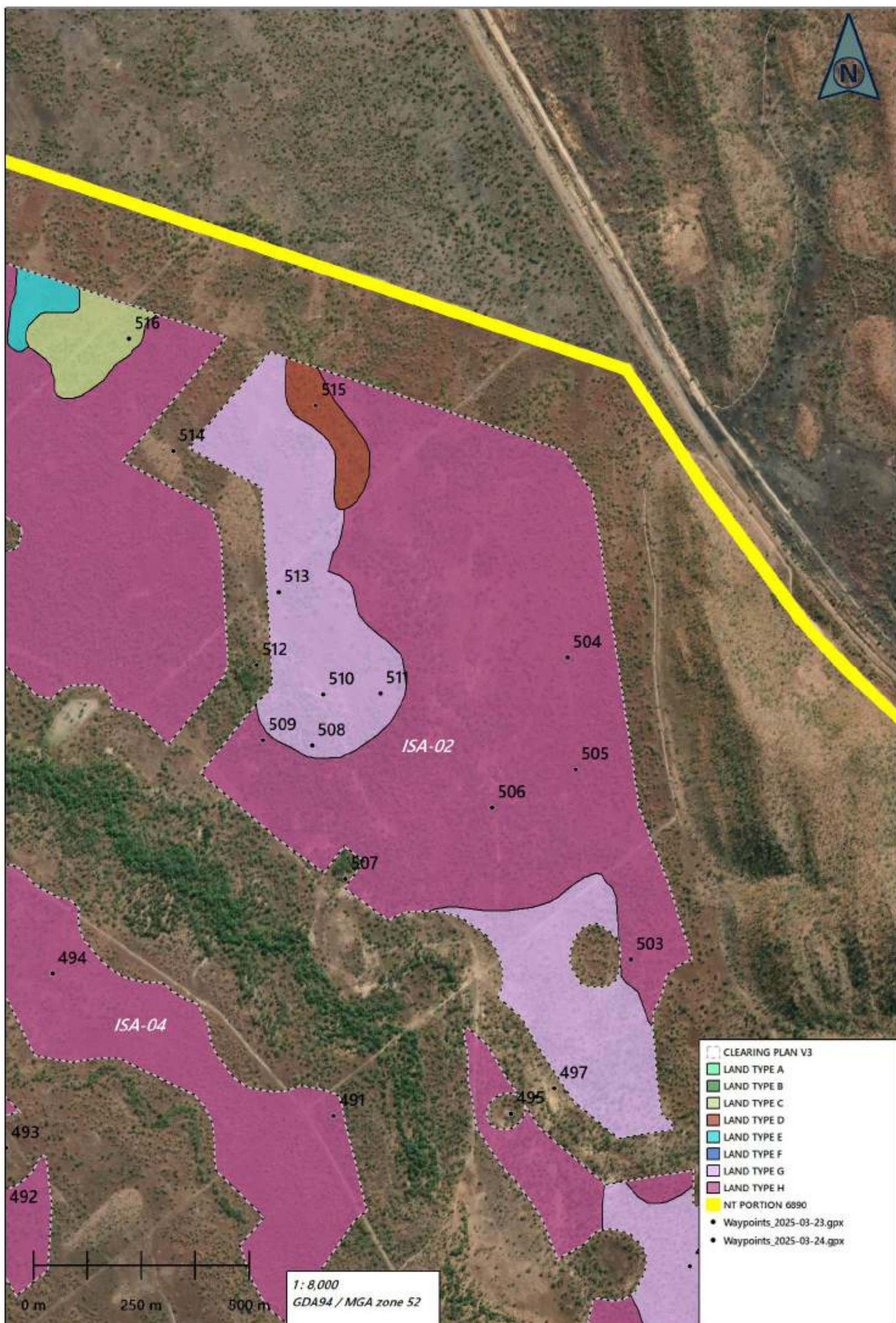
Photo No.	<p><i>E.g. Insert numbered photo (representative of Land Type) and show location on map.</i></p> <p>See photos for waypoints 487, 497, 498, 508 and 513.</p>
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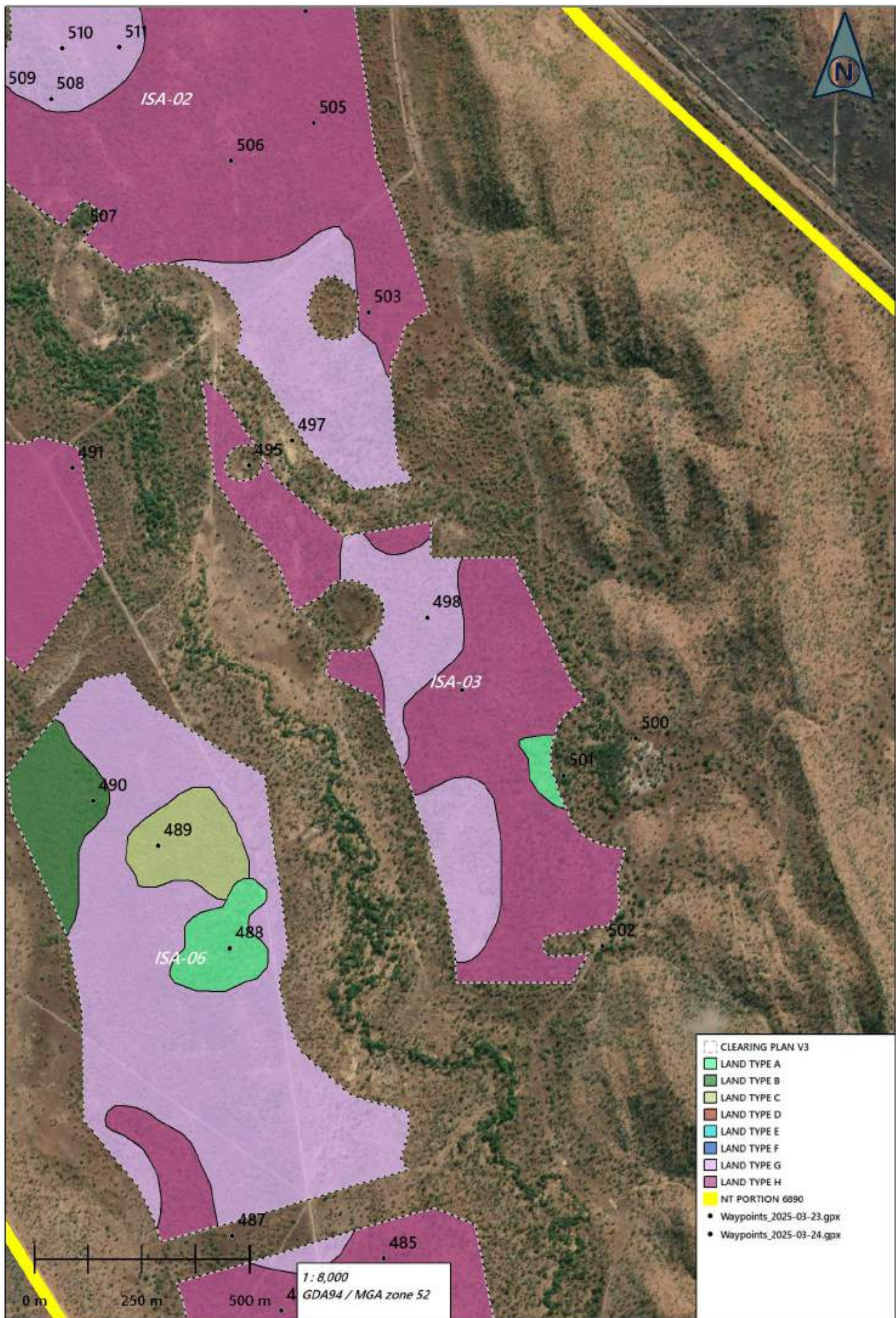
Attribute	Description
Land Type	<p><i>E.g. Use a letter or number to distinguish each Land Type.</i></p> <p>H</p> <p><i>(Clays with mid open woodland)</i></p>
Landform	<p><i>E.g. Describe the landform, slope range, extent of surface rock. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Alluvial plains with a slope range of 0 to 2%. No surface rock observed.</p> <p>Slope measurements taken at the following waypoints:</p> <ul style="list-style-type: none"> • Waypoint 482 – 0% NW • Waypoint 485 – 0.5% N • Waypoint 486 – 0% NW • Waypoint 491 – 0.5% NE • Waypoint 492 – 0.5% N • Waypoint 494 – 0% N • Waypoint 499 – 0% W • Waypoint 503 – 0% N • Waypoint 504 – 0% NW • Waypoint 506 – 0.5% N • Waypoint 517 – 0.5% N • Waypoint 519 – 1% N
Soil	<p><i>E.g. Describe the dominant soil in this Land Type highlighting features such as soil texture, depth, colour, occurrence of surface gravel or cracking, Wet season drainage. Refer to NTPS LCG Section 4.2.4.</i></p> <p>Clay soils with poor drainage. Minor gravel observed (0 to 2%). Soil depth measurements taken at following waypoints:</p> <ul style="list-style-type: none"> • Waypoint 482 – 40cm • Waypoint 485 – 35cm • Waypoint 486 – 35cm • Waypoint 491 – 35cm • Waypoint 492 – 35cm • Waypoint 494 – 30cm • Waypoint 499 – 35cm • Waypoint 503 – 35cm • Waypoint 504 – 40cm • Waypoint 506 – 35cm • Waypoint 517 – 35cm • Waypoint 519 – 35cm

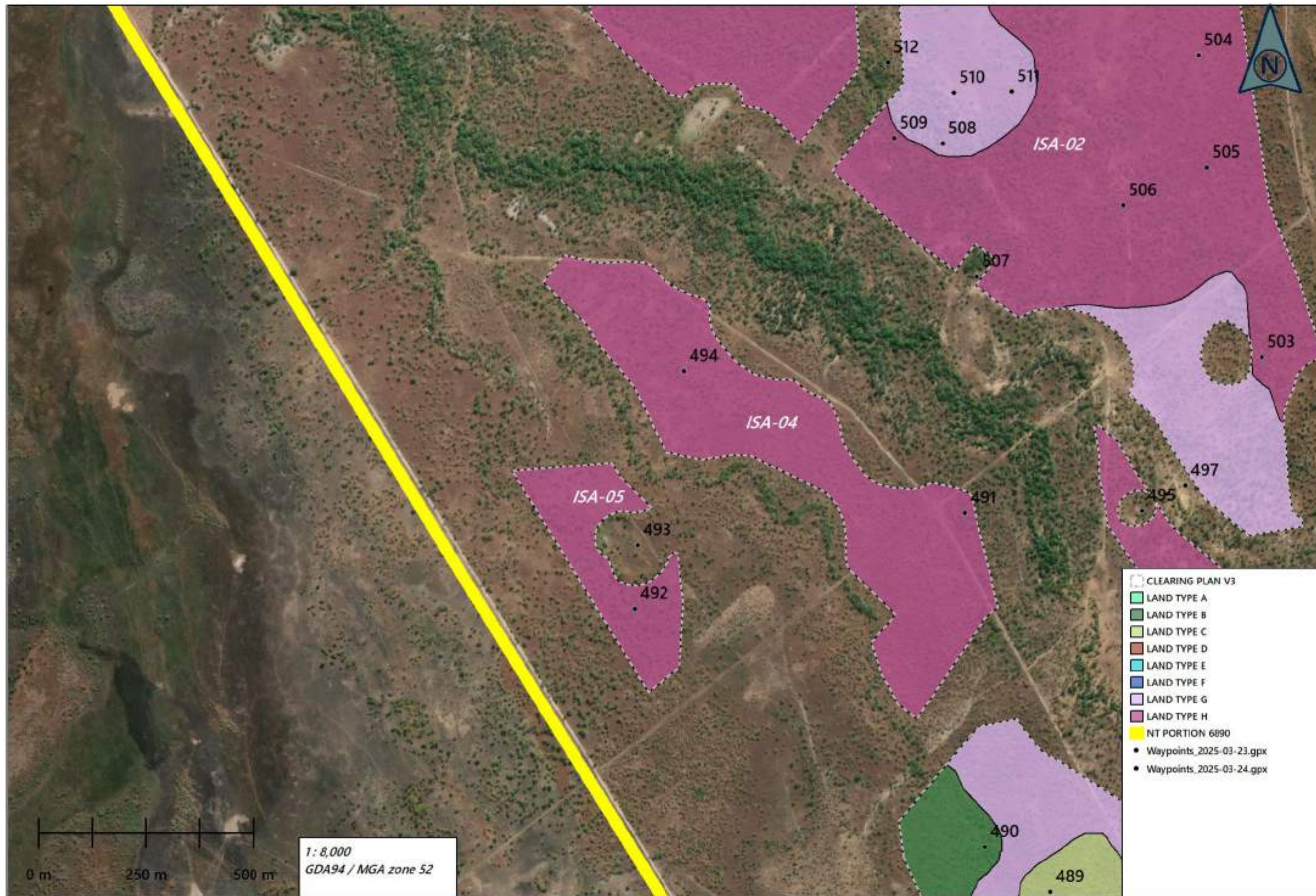
Vegetation	<p><i>E.g. Describe the average height and cover of the upper-storey (e.g. individual tree canopies generally overlapping, partially separated, clearly separated or very sparse) and the dominant trees, shrubs, grasses and weeds. Refer to Section 4.2.5 (NVIS level 5).</i></p> <p>Mid open woodland. Observed species included:</p> <p><i>Eucalyptus alba</i> var. <i>australasica</i> <i>Eucalyptus miniata</i> <i>Eucalyptus tetradon</i> <i>Erythrophleum chlorostachys</i> <i>Corymbia polycarpa</i> <i>Corymbia confertiflora</i> <i>Corymbia foelscheana</i> <i>Corymbia disjuncta</i> <i>Melaleuca nervosa</i> <i>Melaleuca dealbata</i> <i>Melaleuca nervosa</i> <i>Lophostemon lactifluus</i> <i>Livistona humilis</i> <i>Pandanus spiralis</i> <i>Planchonia careya</i> <i>Terminalia ferdinandiana</i> <i>Buchanania obovata</i> <i>Amyema sanguinea</i></p> <p>Grass species included <i>Themeda triandra</i> <i>Eriachne burkittii</i> <i>Heteropogon triticeus</i> <i>Sorghum intrans</i></p>
Photo No.	<p><i>E.g. Insert numbered photo (representative of Land Type) and show location on map.</i></p> <p>See photos for waypoints 482, 485, 486, 491, 492, 494, 499, 503, 504, 506, 517 and 519.</p>

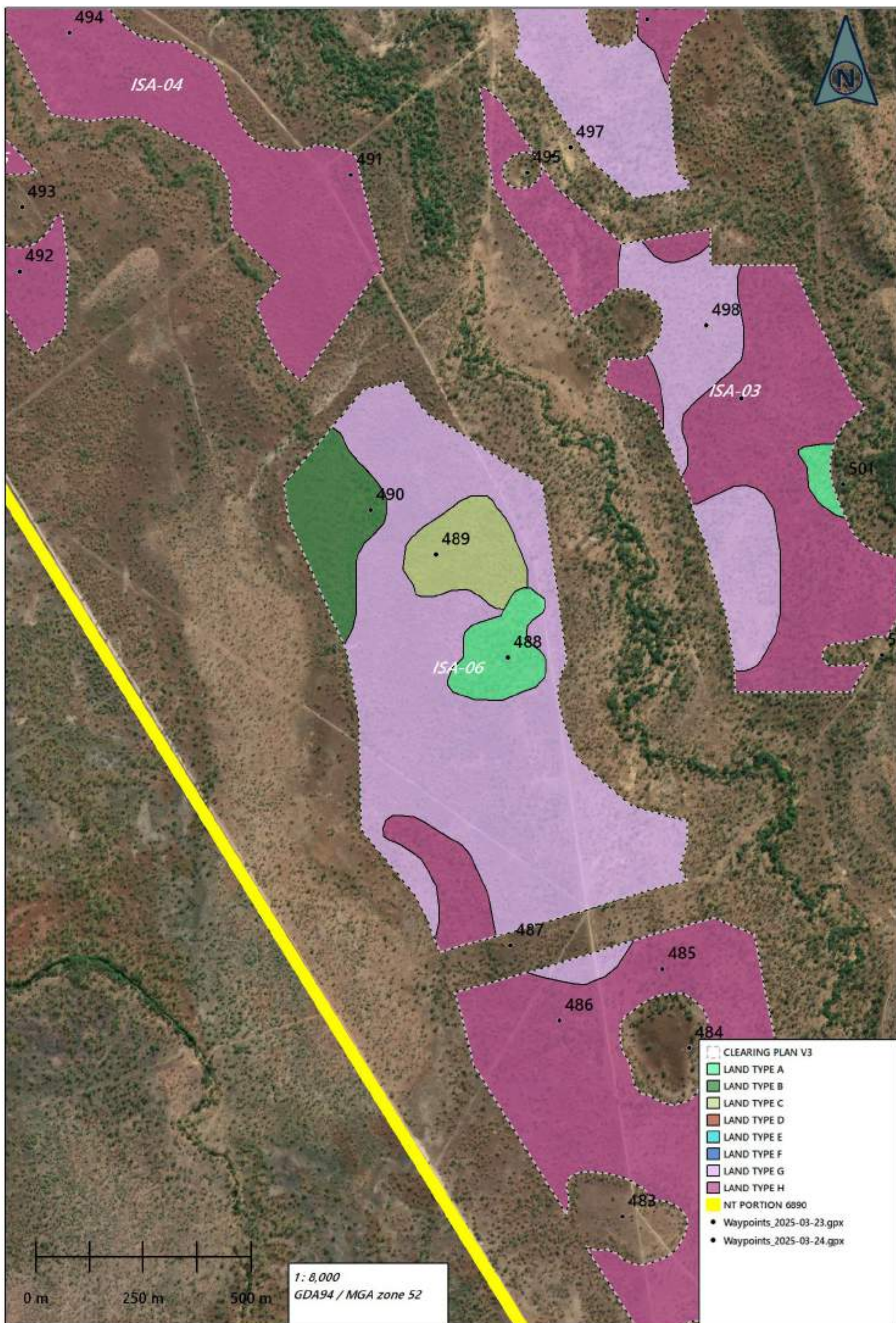
ISABELLA DOWNS - Land Type Map with waypoints

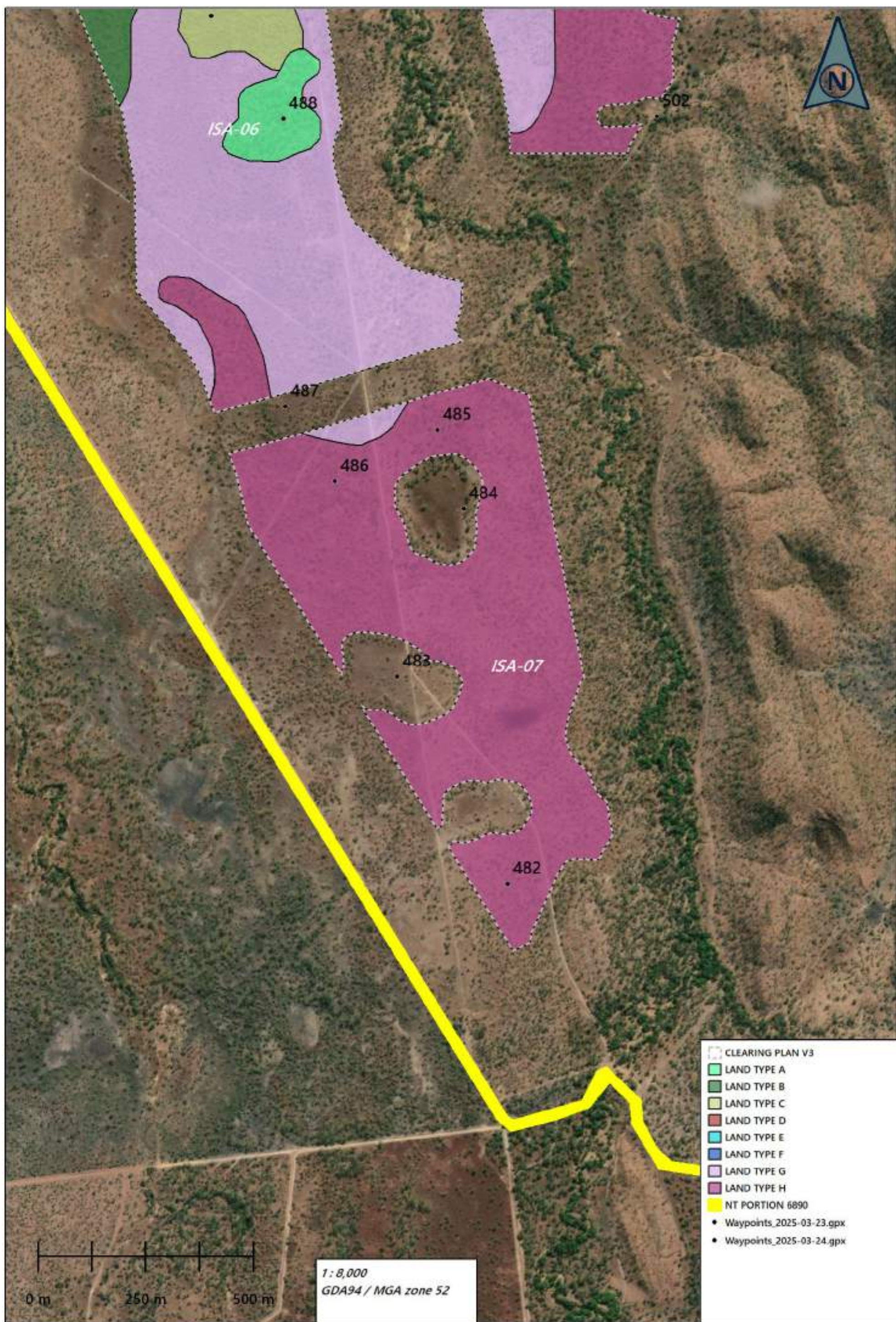






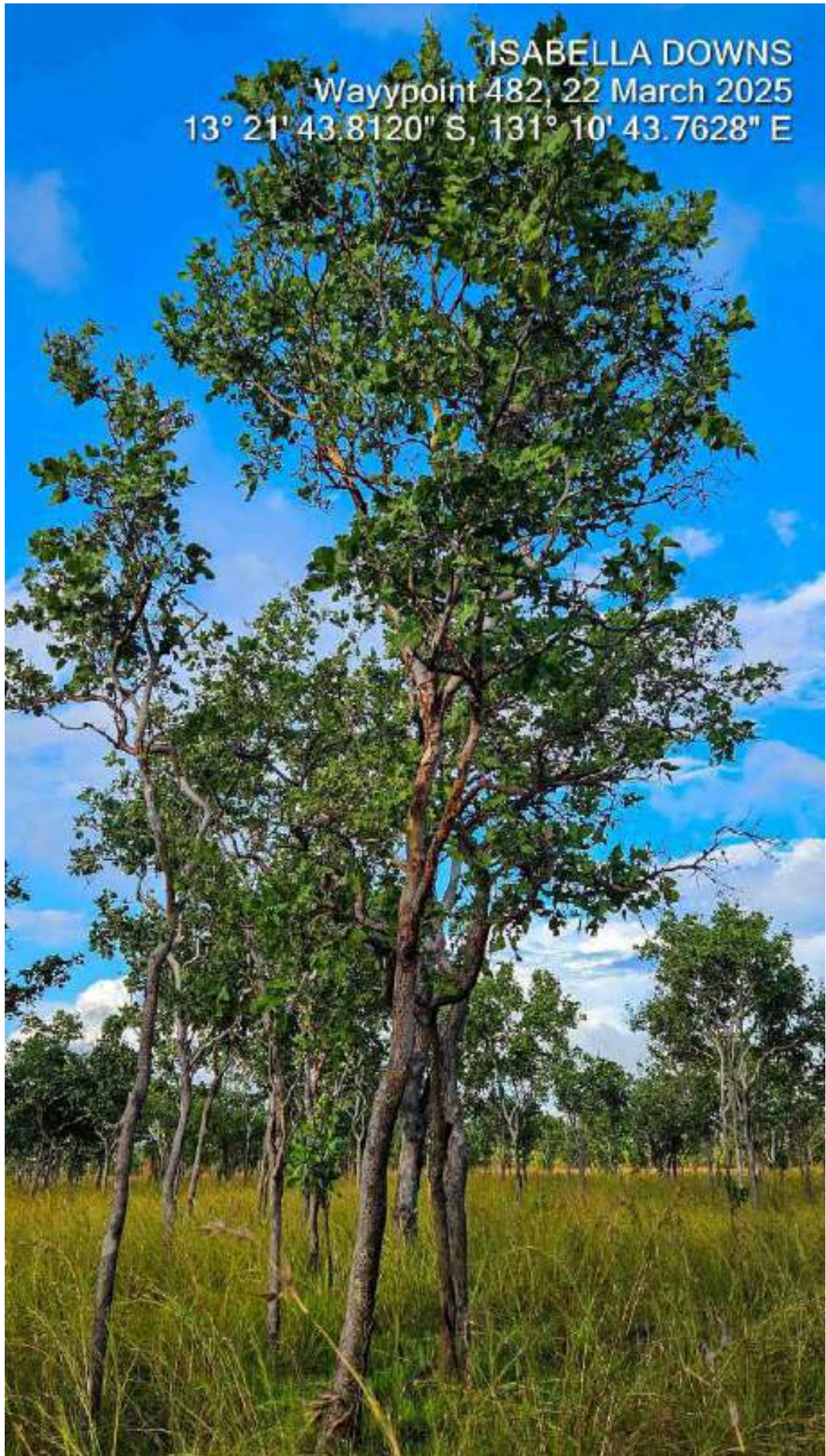






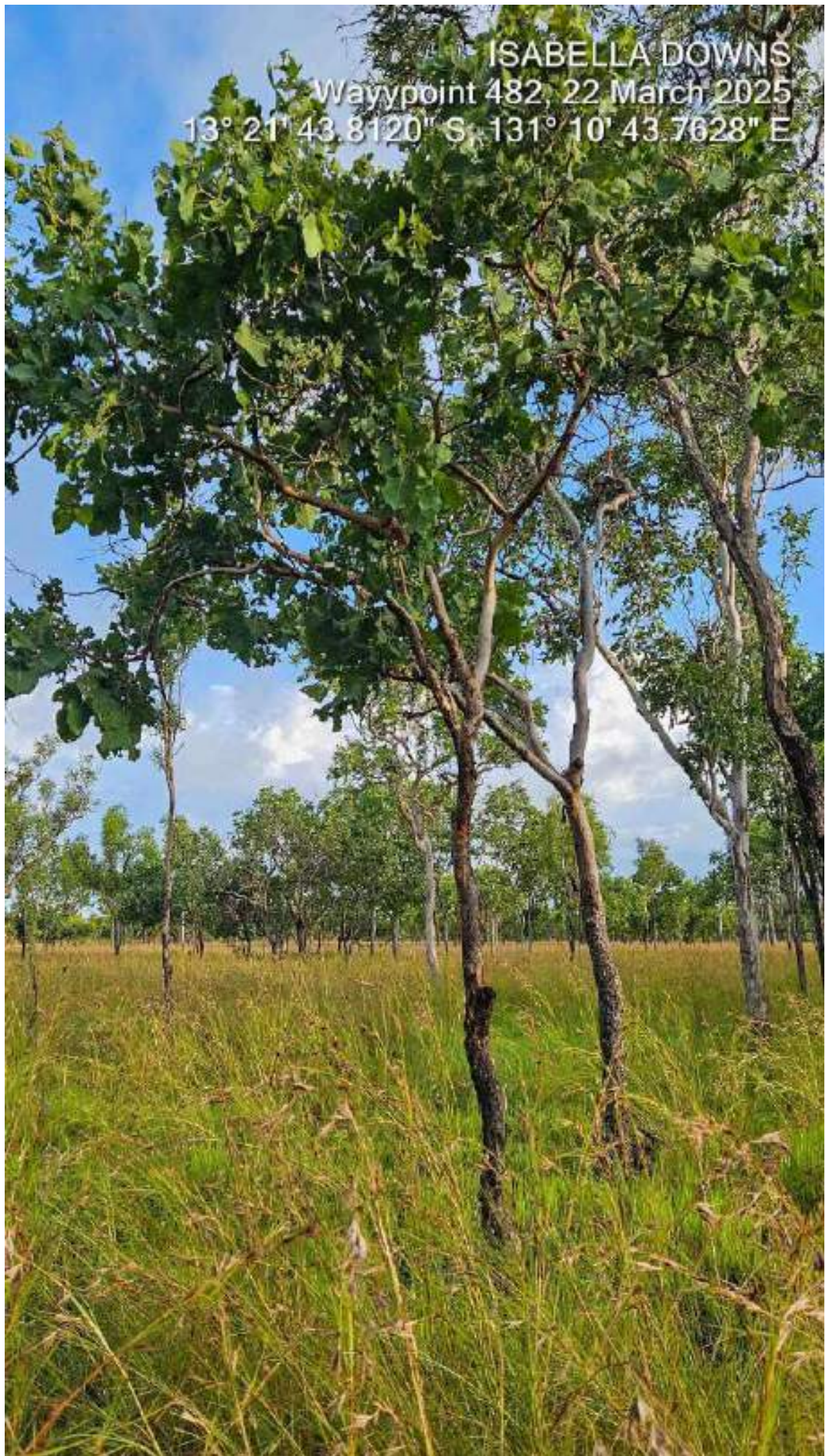
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ISABELLA DOWNS
Waypoint 482, 22 March 2025
13° 21' 43.8120" S, 131° 10' 43.7628" E





ISABELLA DOWNS
Waypoint 482, 22 March 2025
13° 21' 43.8120" S, 131° 10' 43.7628" E



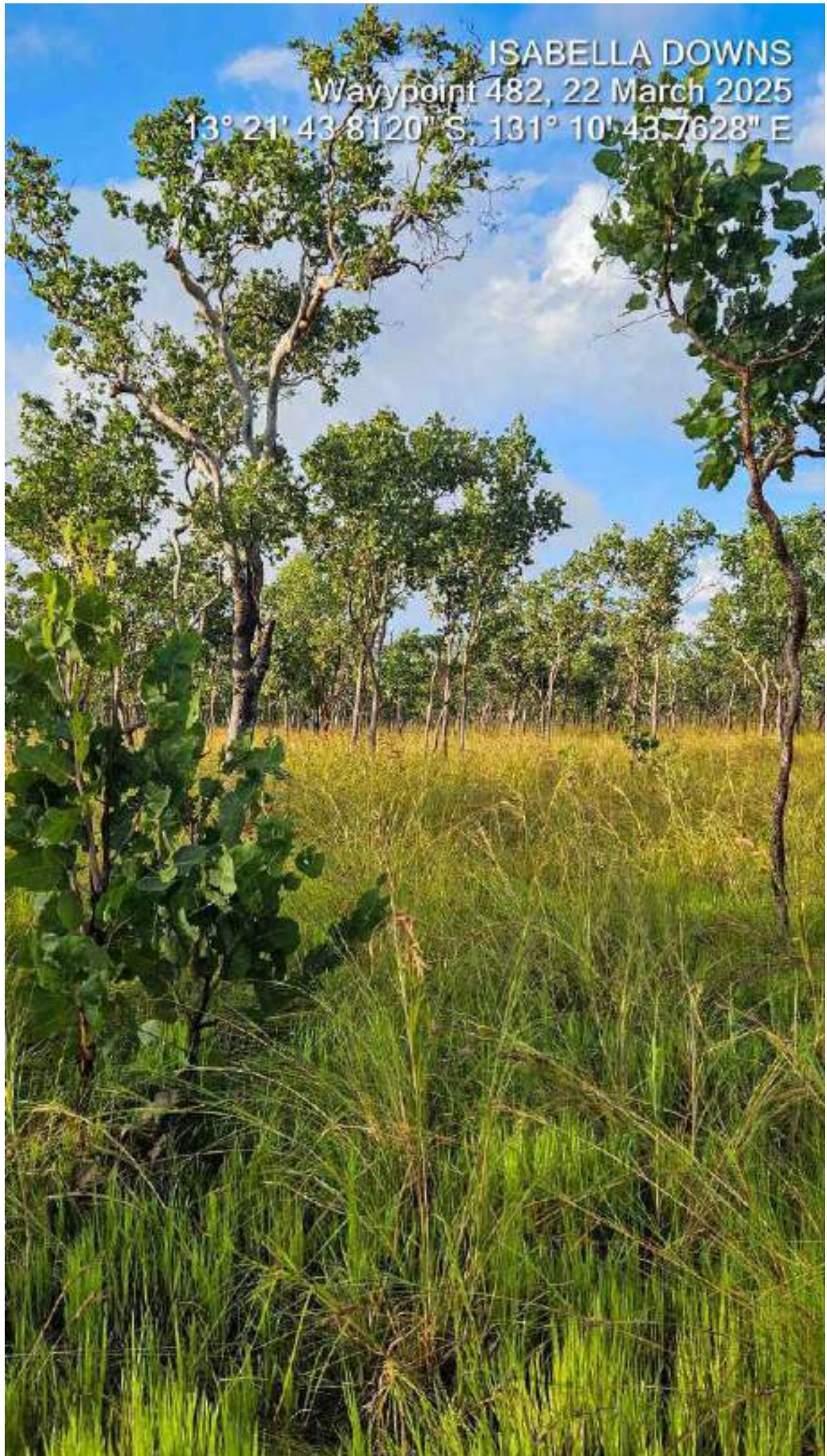
ISABELLA DOWNS
Waypoint 482, 22 March 2025
13° 21' 43.8120" S, 131° 10' 43.7628" E



ISABELLA DOWNS
Waypoint 482, 22 March 2025
13° 21' 43.8120" S, 131° 10' 43.7628" E



ISABELLA DOWNS
Waypoint 482, 22 March 2025
13° 21' 43.8120" S, 131° 10' 43.7628" E



ISABELLA DOWNS
Waypoint 482, 22 March 2025
13° 21' 43.8120" S, 131° 10' 43.7628" E





ISABELLA DOWNS
Waypoint 482, 22 March 2025
13° 21' 43.8120" S, 131° 10' 43.7628" E

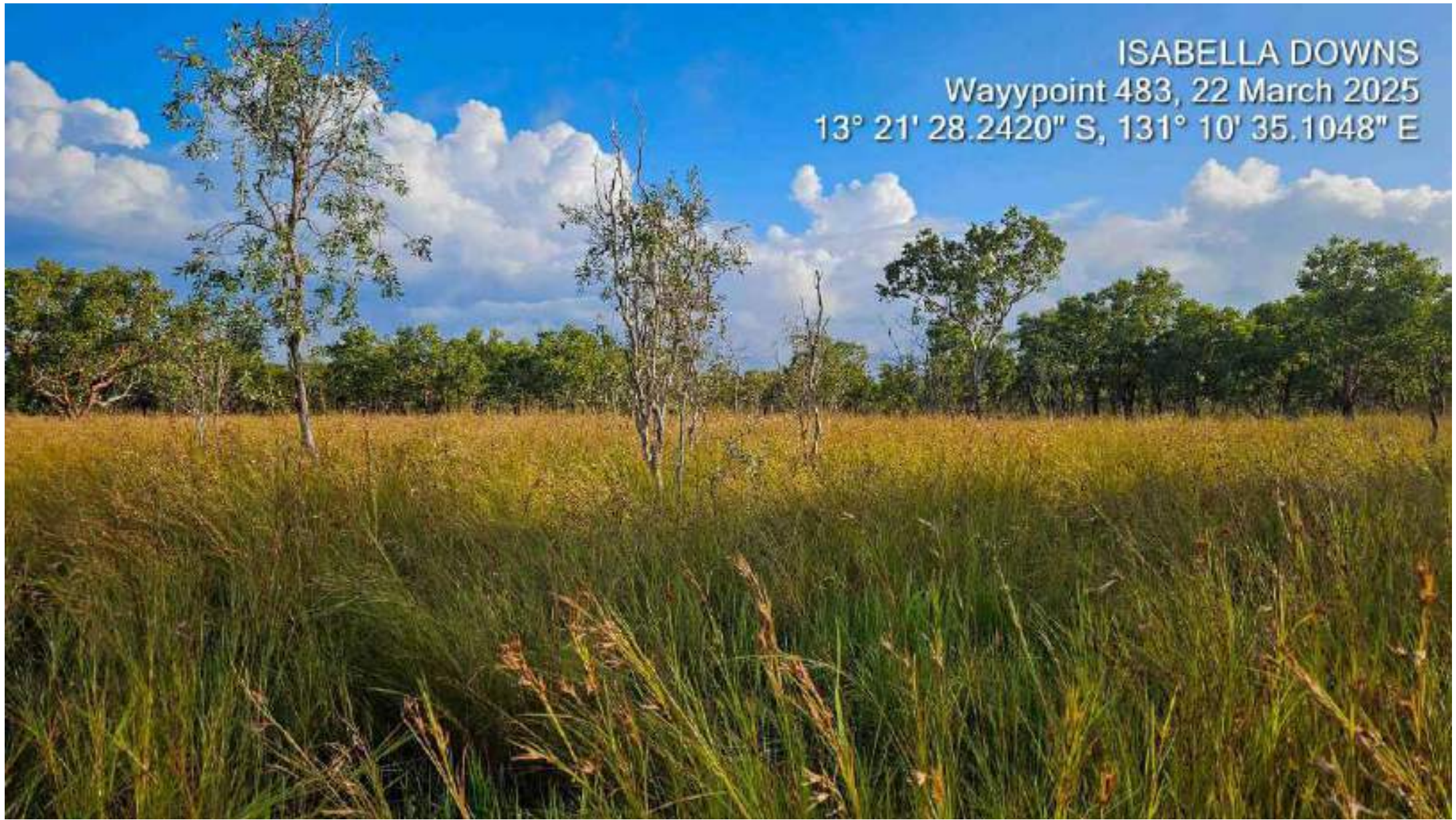


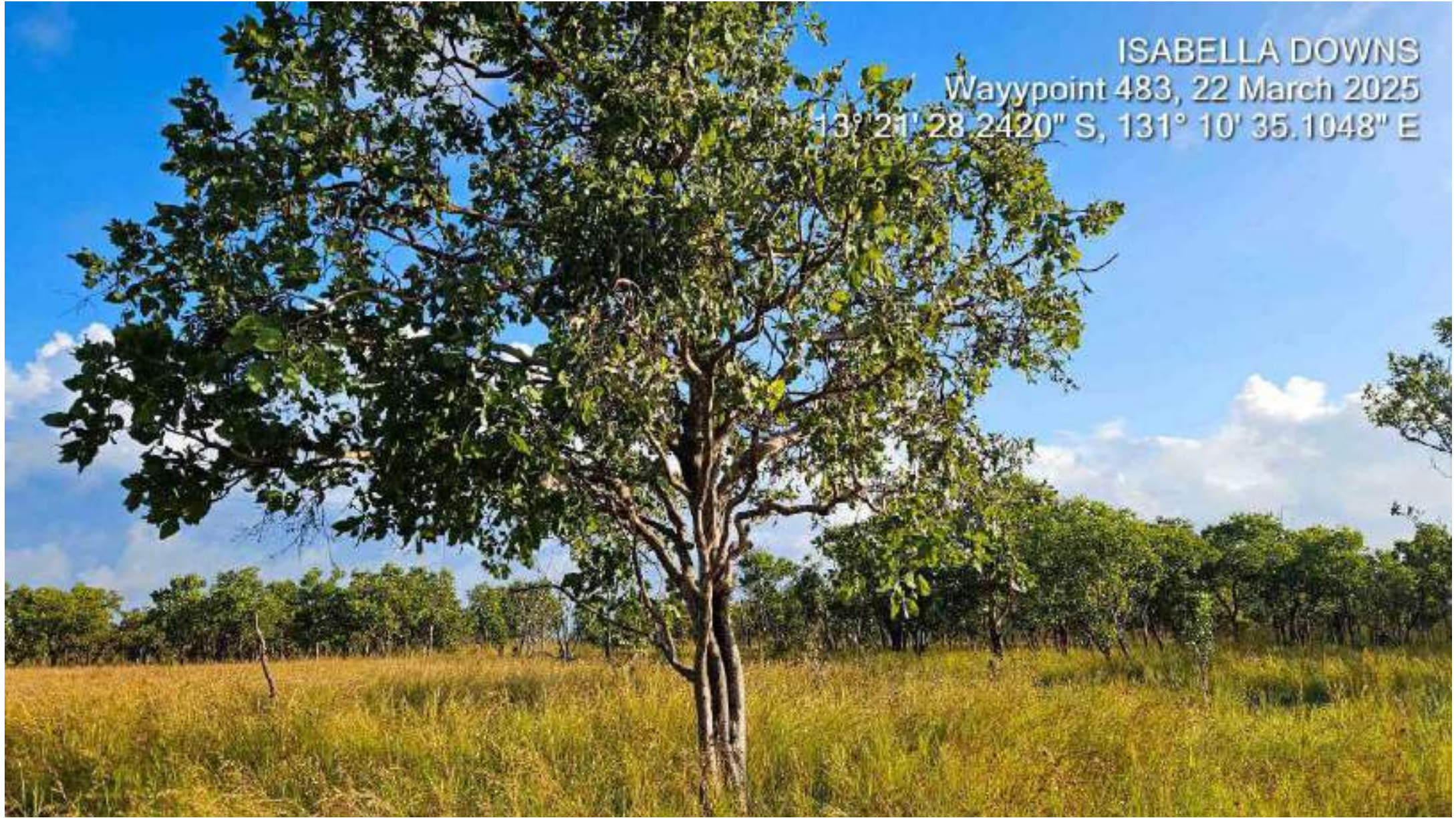
ISABELLA DOWNS
Waypoint 482, 22 March 2025
13° 21' 43.8120" S, 131° 10' 43.7628" E

ISABELLA DOWNS
Waypoint 482, 22 March 2025
13° 21' 43.8120" S, 131° 10' 43.7628" E



ISABELLA DOWNS
Waypoint 483, 22 March 2025
13° 21' 28.2420" S, 131° 10' 35.1048" E



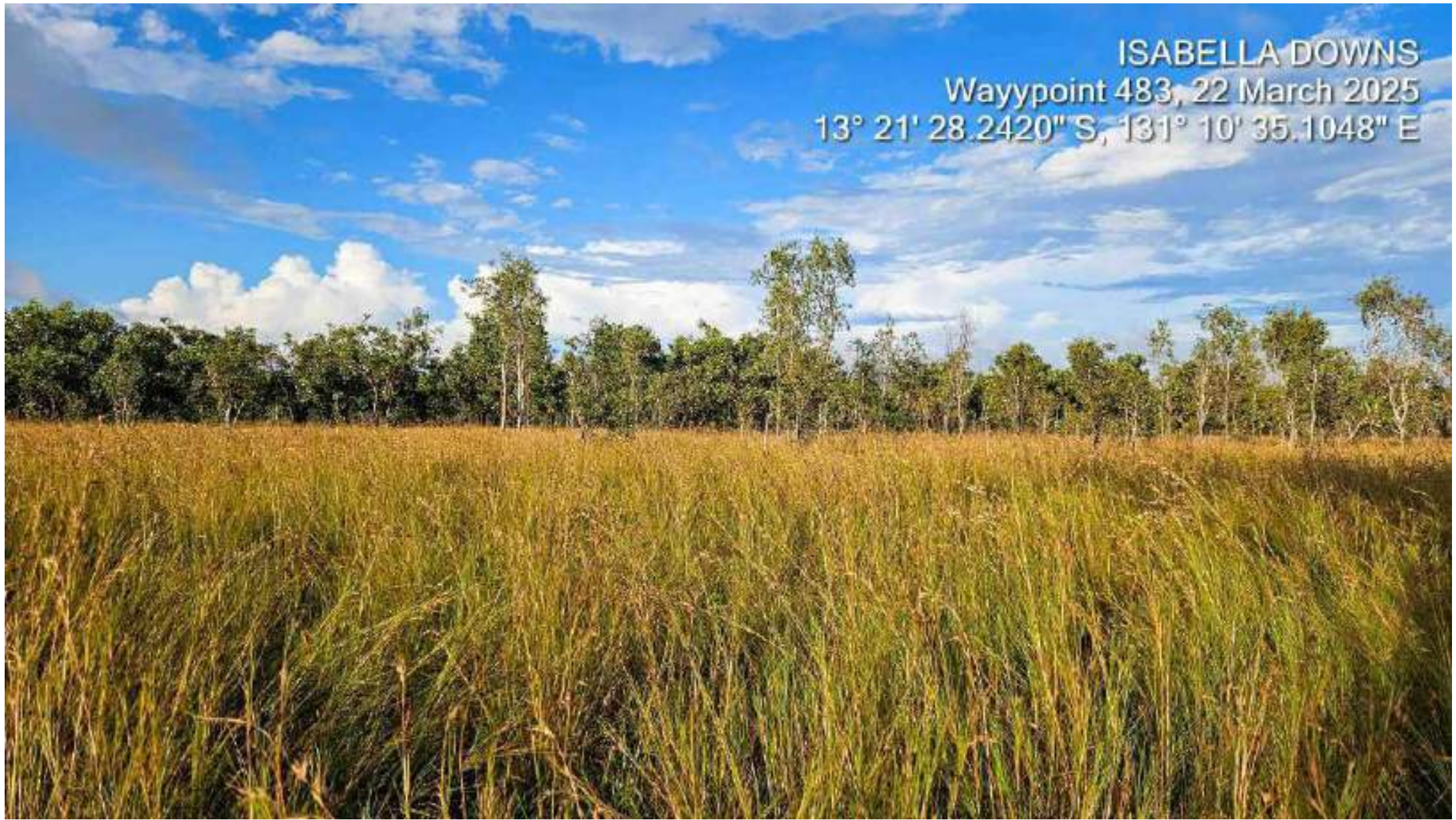


ISABELLA DOWNS

Waypoint 483, 22 March 2025

13° 21' 28.2420" S, 131° 10' 35.1048" E

ISABELLA DOWNS
Waypoint 483, 22 March 2025
13° 21' 28.2420" S, 131° 10' 35.1048" E





ISABELLA DOWNS

Waypoint 483, 22 March 2025

13° 21' 28.2420" S, 131° 10' 35.1048" E

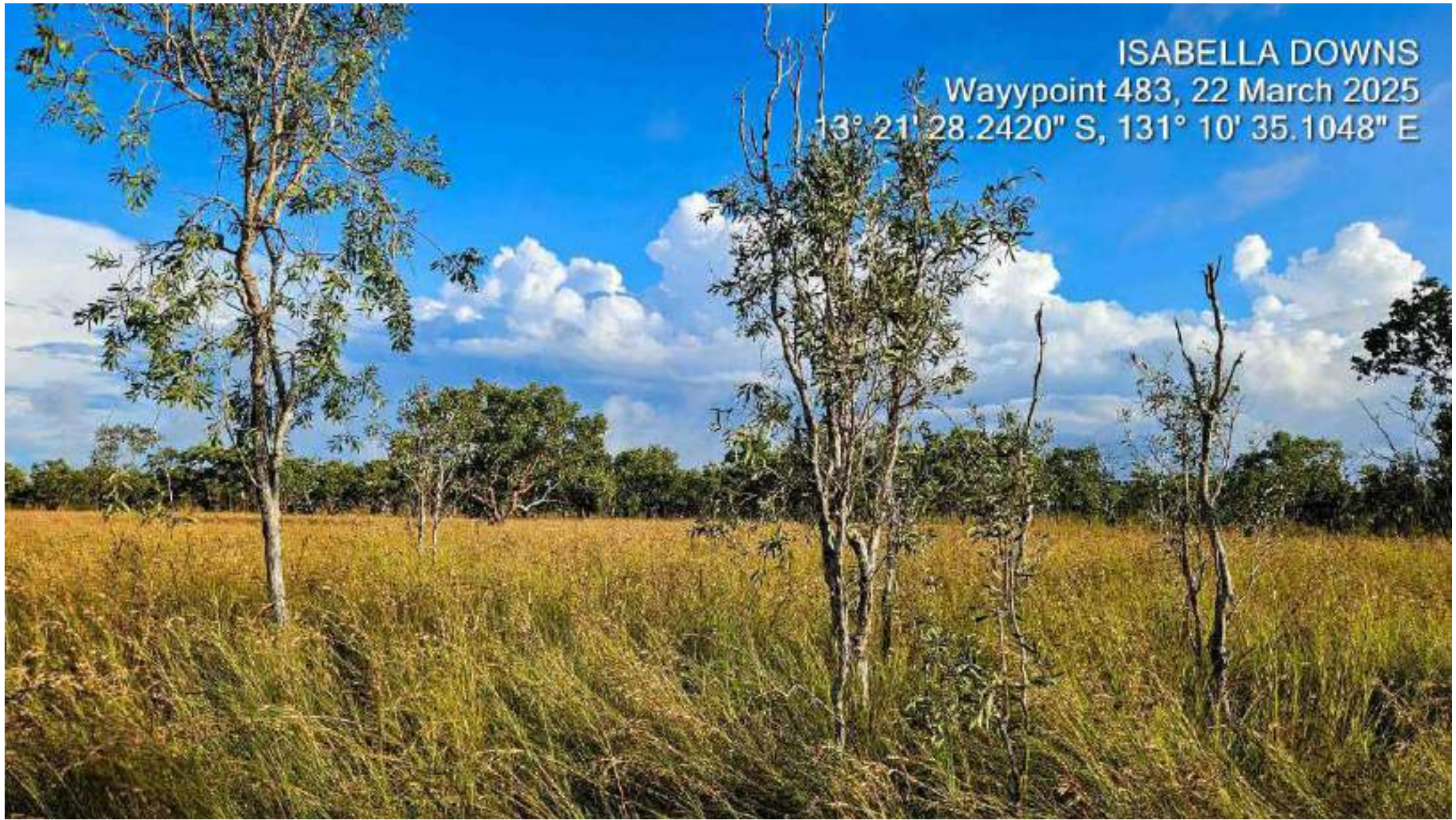


ISABELLA DOWNS

Waypoint 483, 22 March 2025

13° 21' 23.2420" S, 131° 10' 35.1048" E

ISABELLA DOWNS
Waypoint 483, 22 March 2025
13° 21' 28.2420" S, 131° 10' 35.1048" E



ISABELLA DOWNS

Waypoint 483, 22 March 2025

13° 21' 28.2420" S, 131° 10' 35.1048" E



ISABELLA DOWNS

Waypoint 483; 22 March 2025

13° 21' 28.2420" S, 131° 10' 35.1048" E





ISABELLA DOWNS
Waypoint 484, 22 March 2025
13° 21' 15.4620" S, 131° 10' 40.1232" E

ISABELLA DOWNS
Waypoint 484, 22 March 2025
13° 21' 15.4620" S, 131° 10' 40.1232" E



ISABELLA DOWNS
Waypoint 484, 22 March 2025
13° 21' 15.4620" S, 131° 10' 40.1232" E





ISABELLA DOWNS

Waypoint 484, 22 March 2025

13° 21' 15.4620" S, 131° 10' 40.1232" E

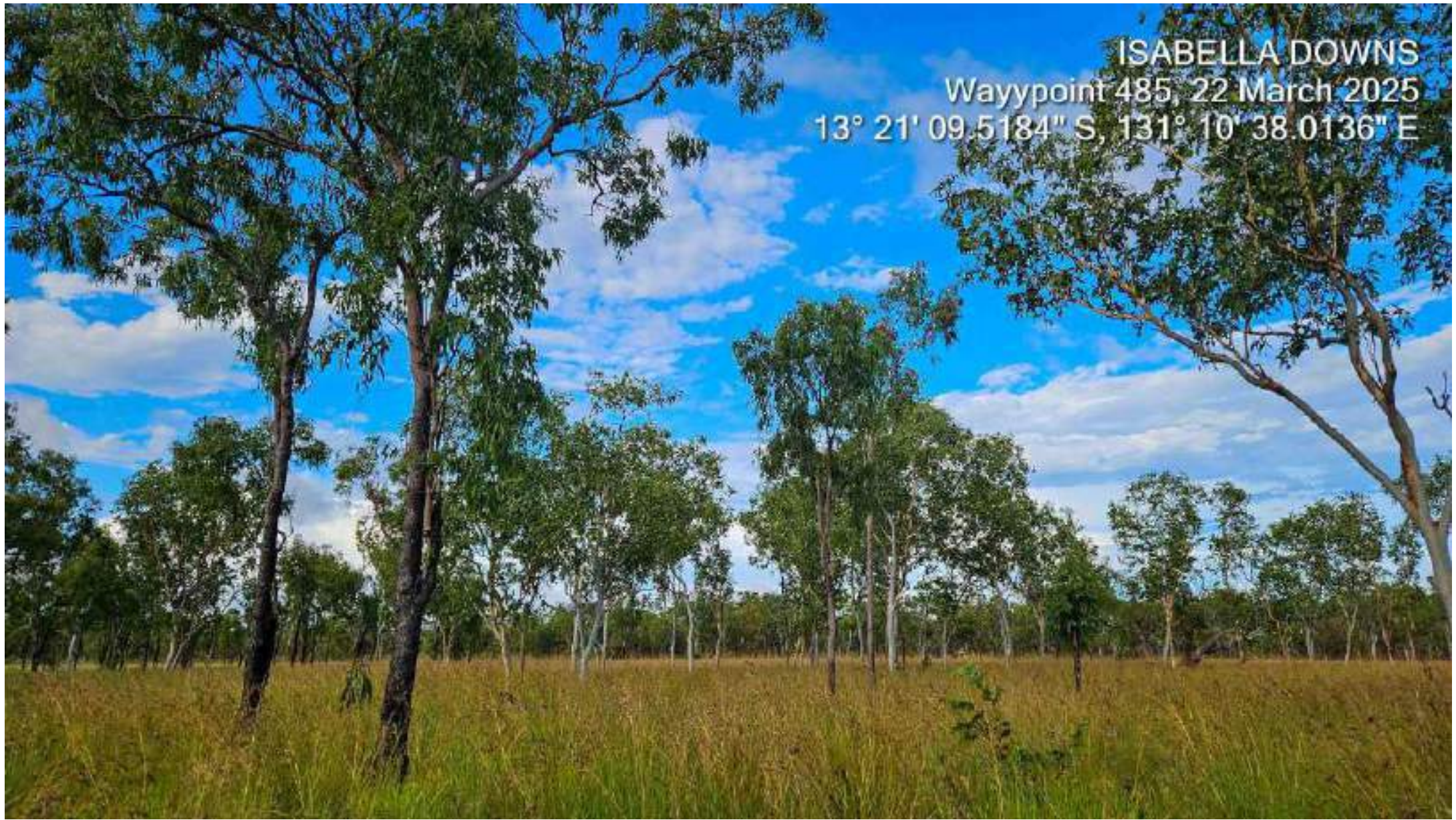
ISABELLA DOWNS
Waypoint 484, 22 March 2025
13° 21' 15.4620" S, 131° 10' 40.1232" E





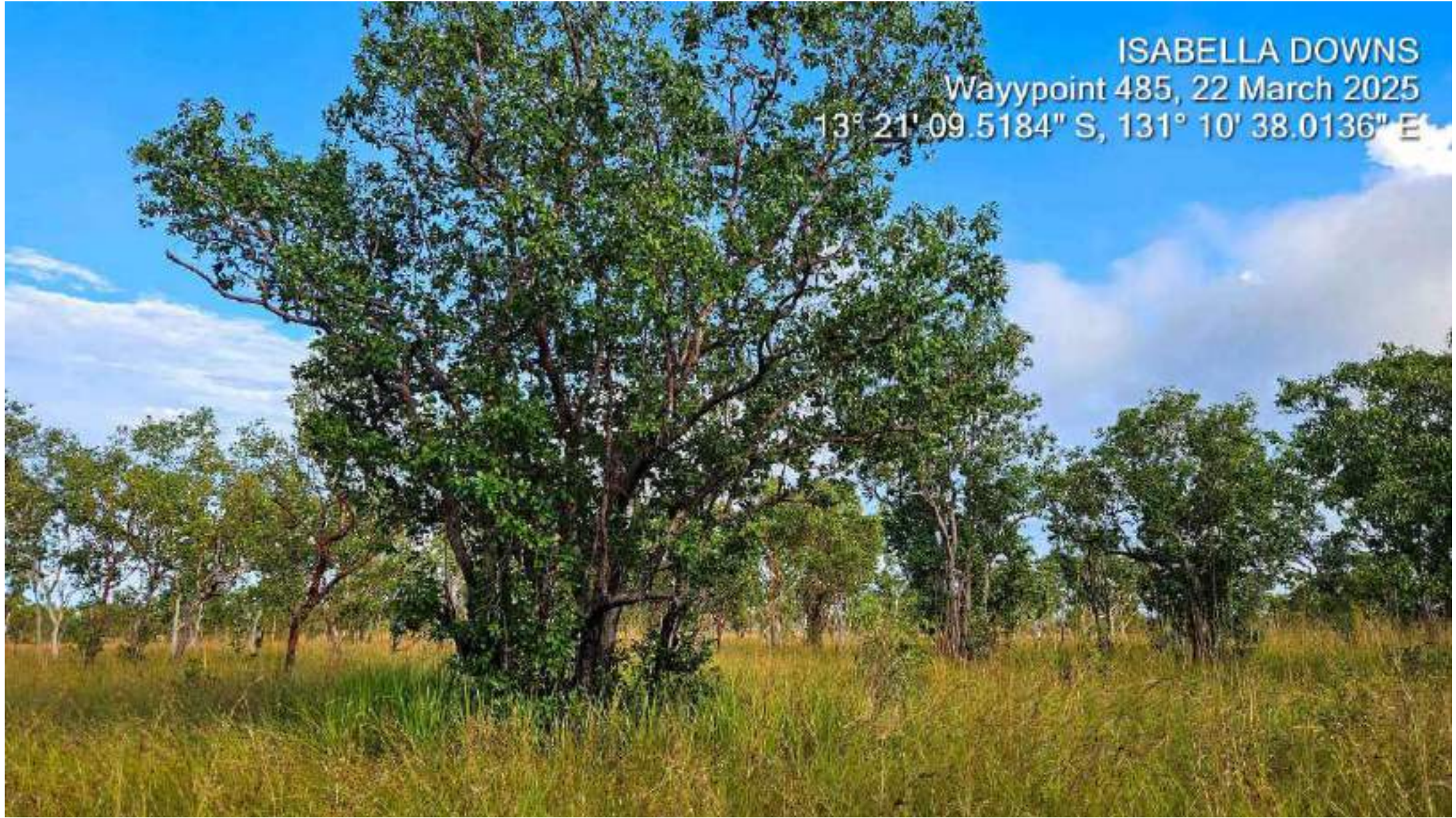
ISABELLA DOWNS
Waypoint 484, 22 March 2025
13° 21' 15.4620" S, 131° 10' 40.1232" E

ISABELLA DOWNS
Wayypoint 485, 22 March 2025
13° 21' 09.5184" S, 131° 10' 38.0136" E





ISABELLA DOWNS
Waypoint 485, 22 March 2025
13° 21' 09.5184" S, 131° 10' 38.0136" E



ISABELLA DOWNS
Waypoint 485, 22 March 2025
13° 21' 09.5184" S, 131° 10' 38.0136" E

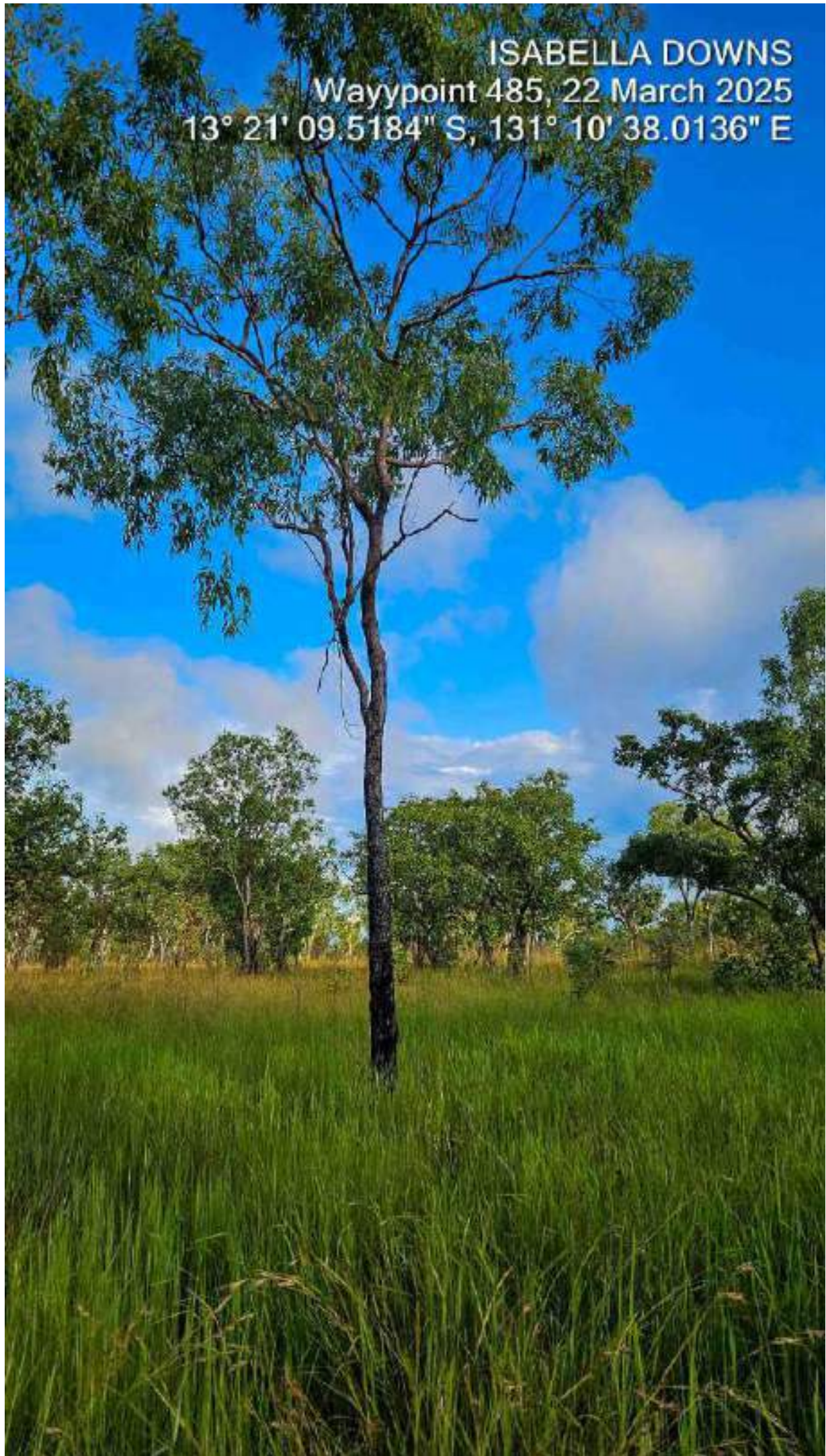
ISABELLA DOWNS
Waypoint 485, 22 March 2025
13° 21' 09.5184" S, 131° 10' 38.0136" E



ISABELLA DOWNS
Waypoint 485, 22 March 2025
13° 21' 09.5184" S, 131° 10' 38.0136" E



ISABELLA DOWNS
Waypoint 485, 22 March 2025
13° 21' 09.5184" S, 131° 10' 38.0136" E



ISABELLA DOWNS
Waypoint 485, 22 March 2025
13° 21' 09.5184" S, 131° 10' 38.0136" E





ISABELLA DOWNS
Waypoint 485, 22 March 2025
13° 21' 09.5184" S, 131° 10' 38.0136" E

ISABELLA DOWNS

Waypoint 485 22 March 2025

13° 21' 09.5184" S, 131° 10' 38.0136" E



ISABELLA DOWNS

Waypoint 485, 22 March 2025

13° 21' 09.5184" S, 131° 10' 38.0136" E



ISABELLA DOWNS
Waypoint 485, 22 March 2025
13° 21' 09.5184" S, 131° 10' 38.0136" E



ISABELLA DOWNS

Wayypoint 485, 22 March 2025

13° 21' 09.5184" S, 131° 10' 38.0136" E





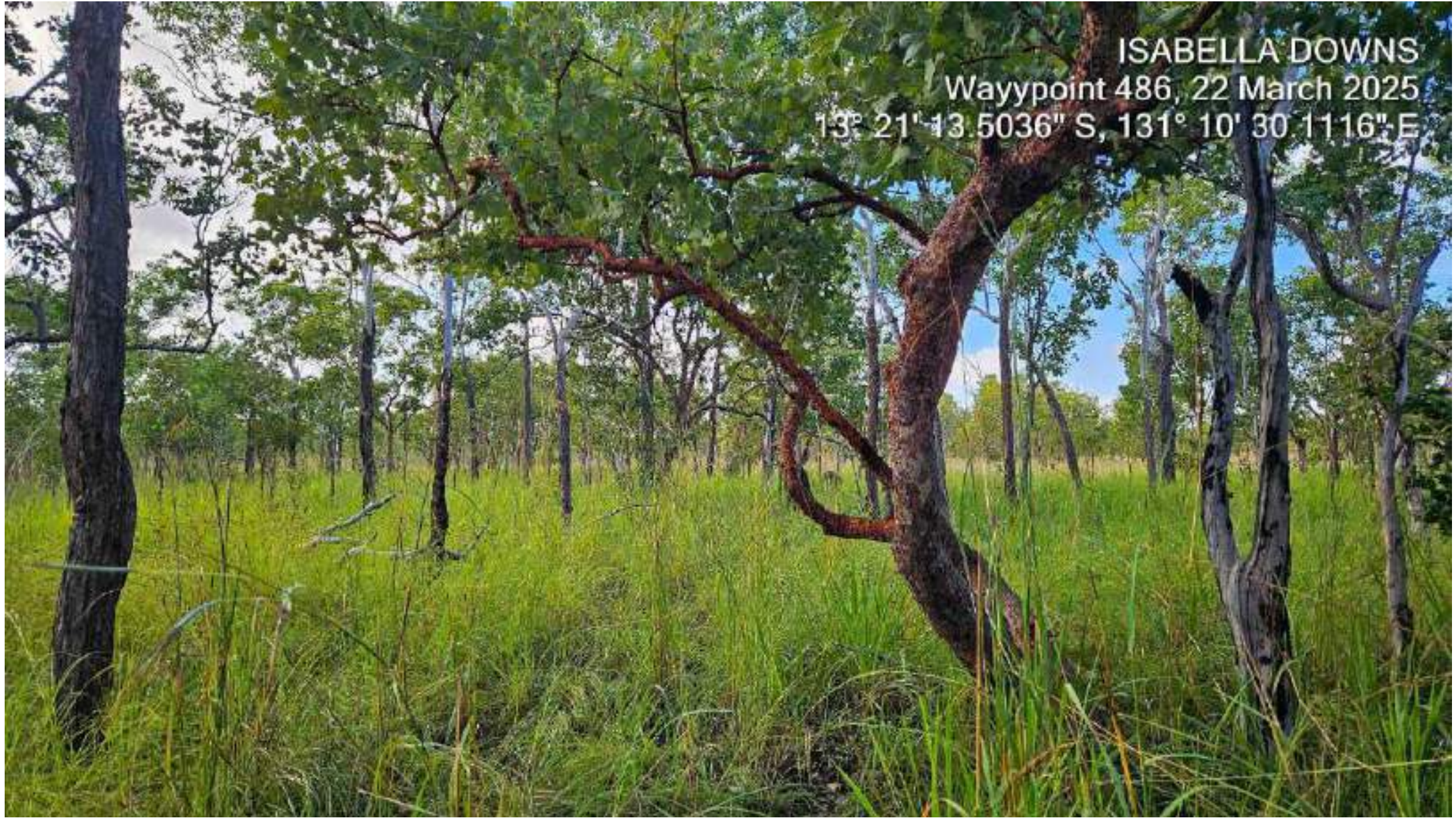
ISABELLA DOWNS

Waypoint 485, 22 March 2025

13° 21' 09.5184" S, 131° 10' 38.0136" E

ISABELLA DOWNS
Waypoint 485, 22 March 2025
13° 21' 09.5184" S, 131° 10' 38.0136" E





ISABELLA DOWNS
Waypoint 486, 22 March 2025
13° 21' 13.5036" S, 131° 10' 30.1116" E



ISABELLA DOWNS

Waypoint 486, 22 March 2025

13° 21' 13.5036" S, 131° 10' 30.1116" E



ISABELLA DOWNS
Waypoint 486, 22 March 2025
13° 21' 13.5036" S, 131° 10' 30.1116" E

ISABELLA DOWNS
Waypoint 486, 22 March 2025
13° 21' 13.5036" S, 131° 10' 30.1116" E



ISABELLA DOWNS
Waypoint 486, 22 March 2025
13° 21' 13.5036" S, 131° 10' 30.1116" E



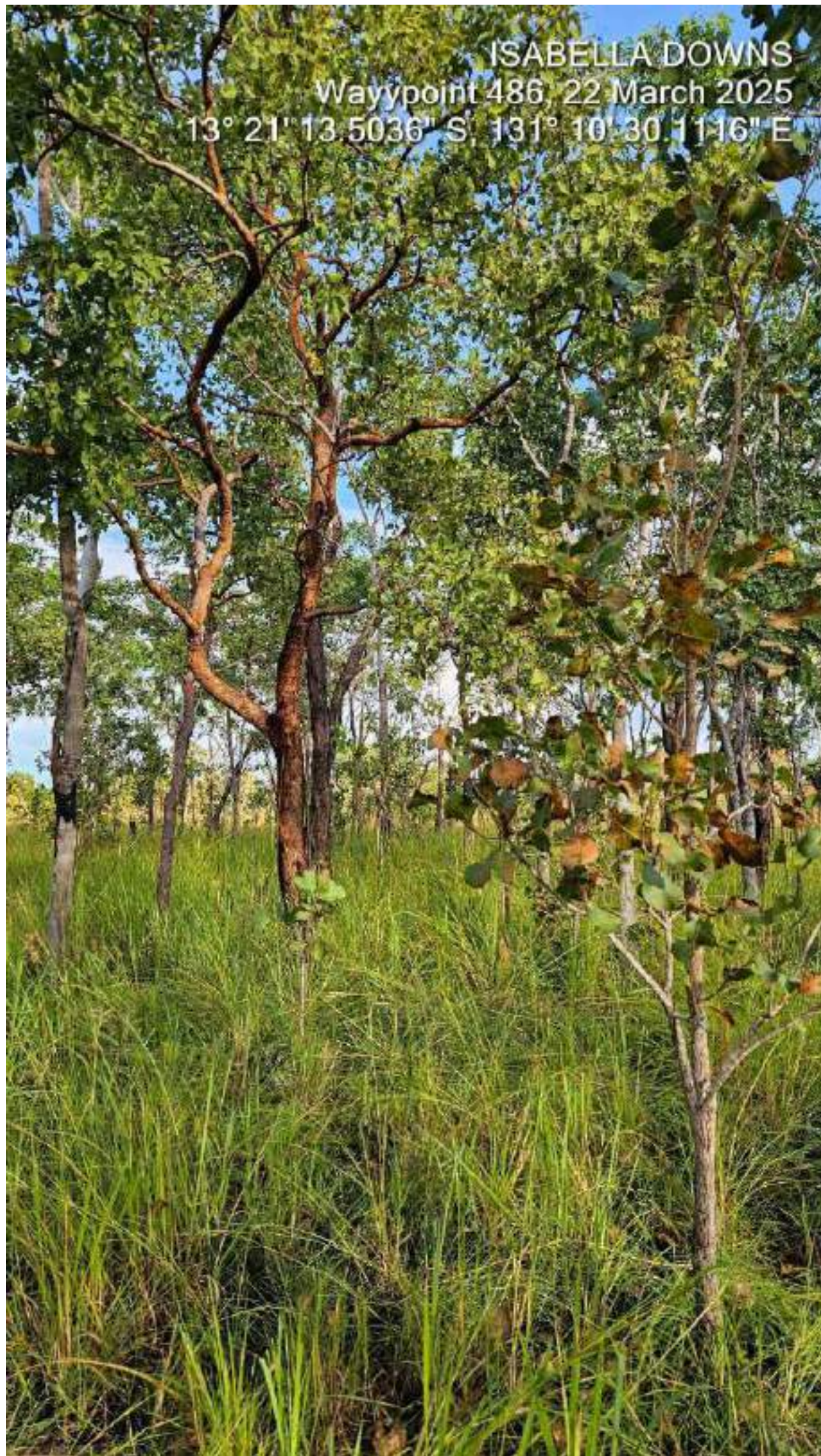


ISABELLA DOWNS
Waypoint 486, 22 March 2025
13° 21' 13.5036" S, 131° 10' 30.1116" E

ISABELLA DOWNS

Waypoint 486, 22 March 2025

13° 21' 13.5036" S, 131° 10' 30.1116" E





ISABELLA DOWNS

Waypoint 486, 22 March 2025

13° 21' 13.5036" S, 131° 10' 30.1116" E

ISABELLA DOWNS
Waypoint 486, 22 March 2025
13° 21' 13.5036" S, 131° 10' 30.1116" E





ISABELLA DOWNS

Waypoint 486 22 March 2025

13° 21' 13.5036" S, 131° 10' 30.1116" E



ISABELLA DOWNS

Waypoint 486, 22 March 2025

13° 21' 13.5036" S, 131° 10' 30.1116" E

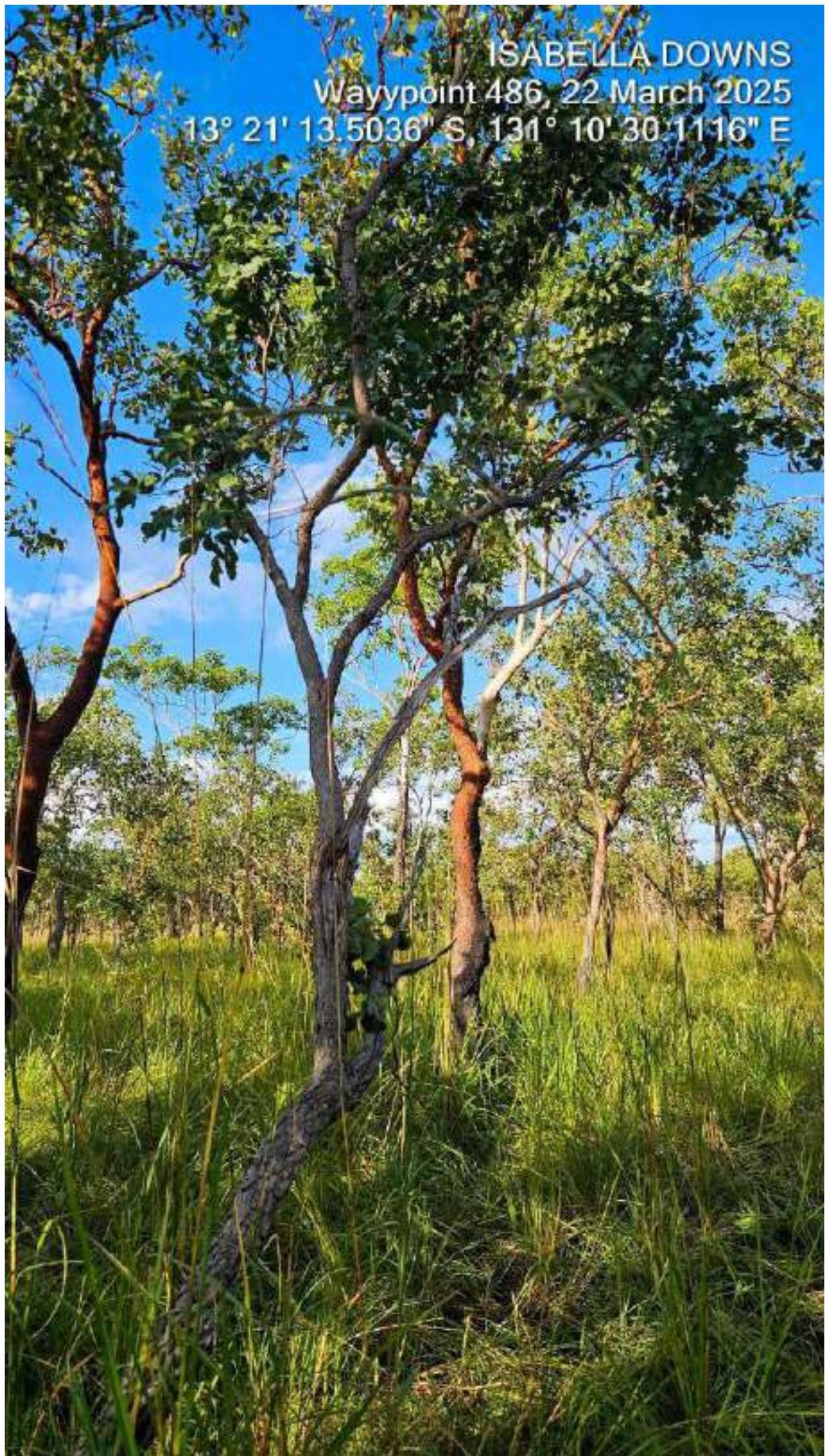
ISABELLA DOWNS

Waypoint 486, 22 March 2025

13° 21' 13.5036" S, 131° 10' 30.1116" E



ISABELLA DOWNS
Waypoint 486, 22 March 2025
13° 21' 13.5036" S, 131° 10' 30.1116" E





ISABELLA DOWNS

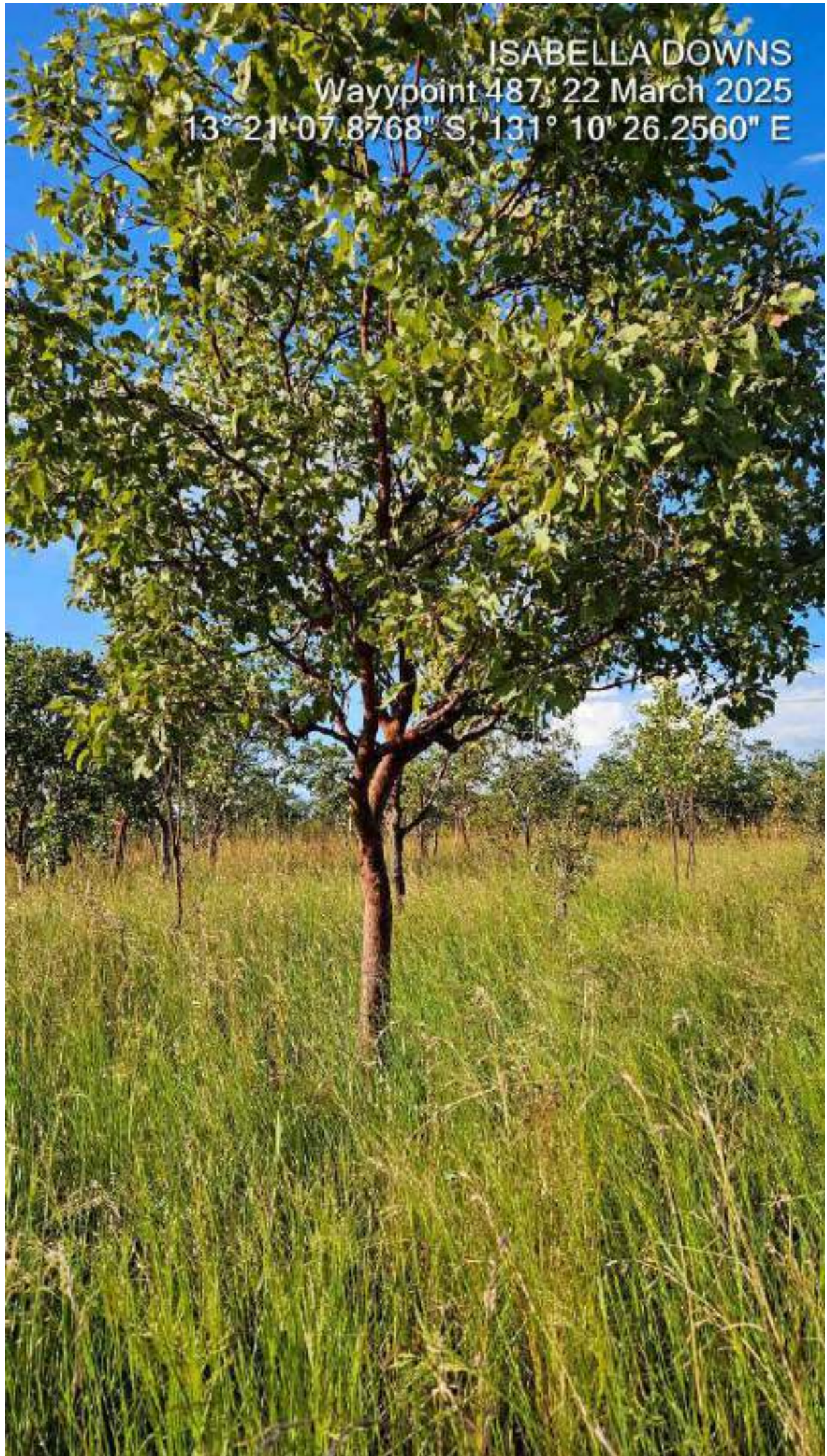
Waypoint 486, 22 March 2025

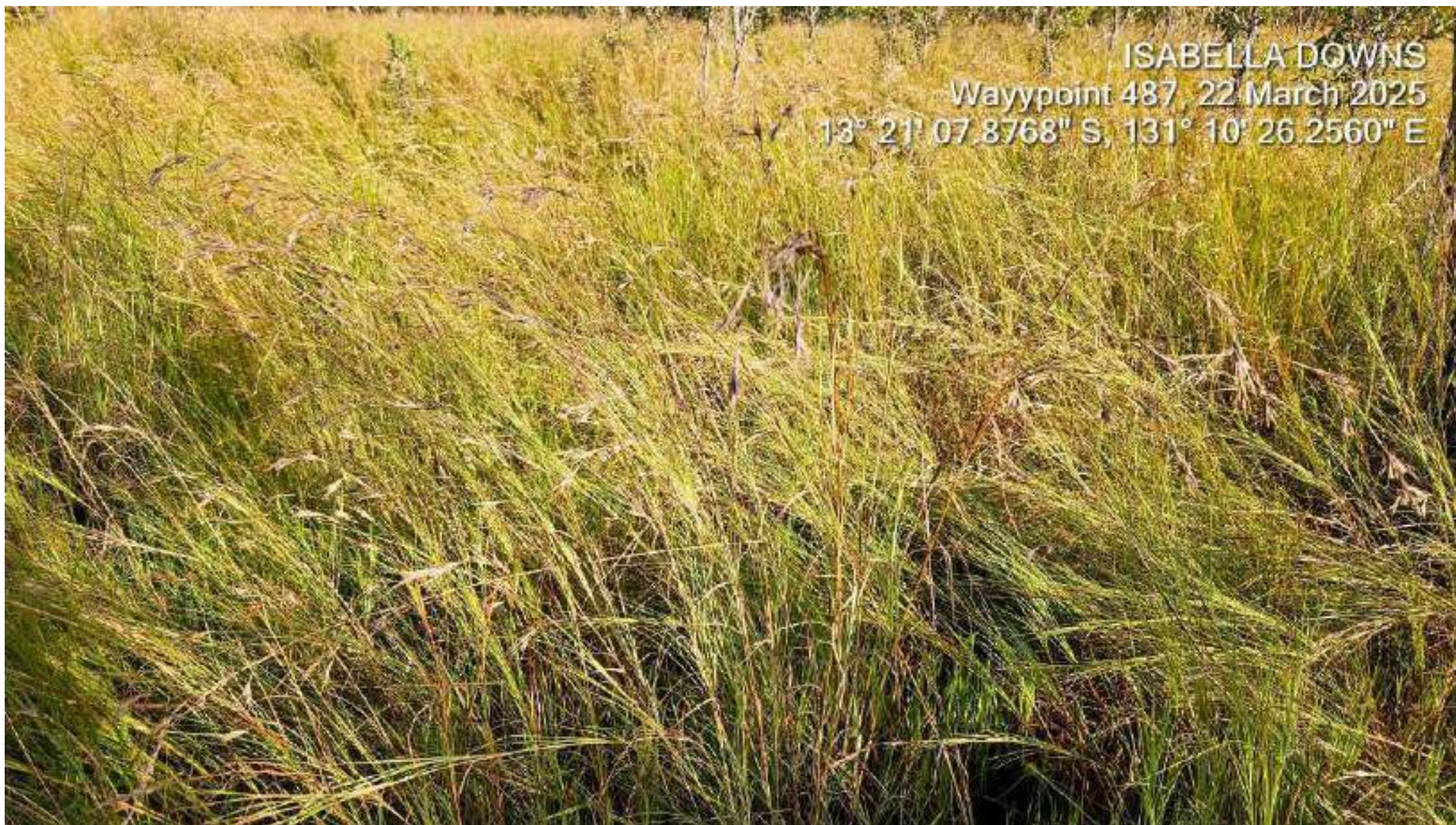
13° 21' 13.5036" S, 131° 10' 30.1116" E

ISABELLA DOWNS

Waypoint 487, 22 March 2025

13° 21' 07.8768" S, 131° 10' 26.2560" E





ISABELLA DOWNS

Waypoint 487, 22 March 2025

13° 21' 07.8768" S, 131° 10' 26.2560" E



ISABELLA DOWNS

Waypoint 487, 22 March 2025

13° 21' 07.8768" S, 131° 10' 26.2560" E



ISABELLA DOWNS

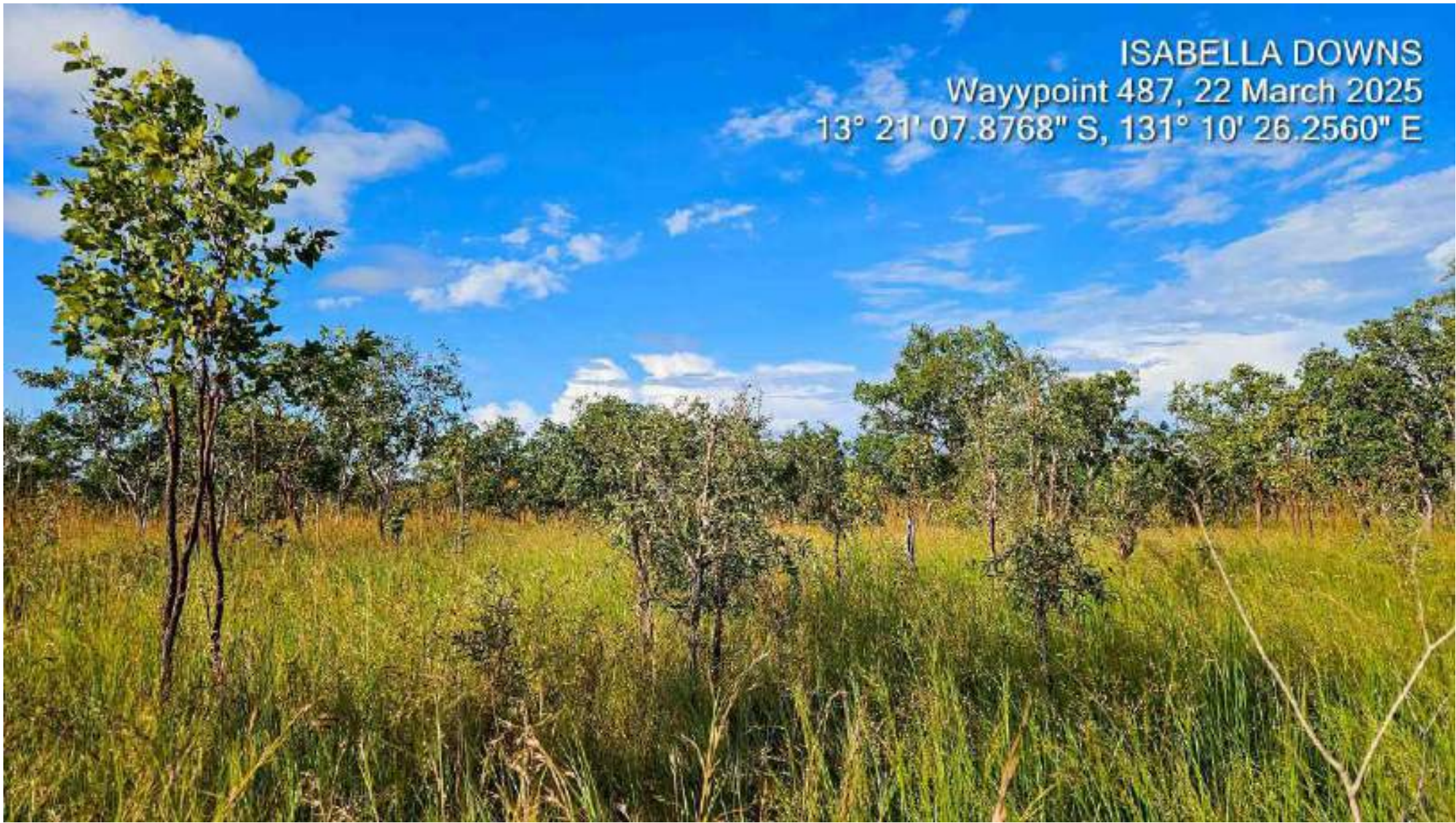
Waypoint 487, 22 March 2025

13° 21' 07.8768" S, 131° 10' 26.2560" E



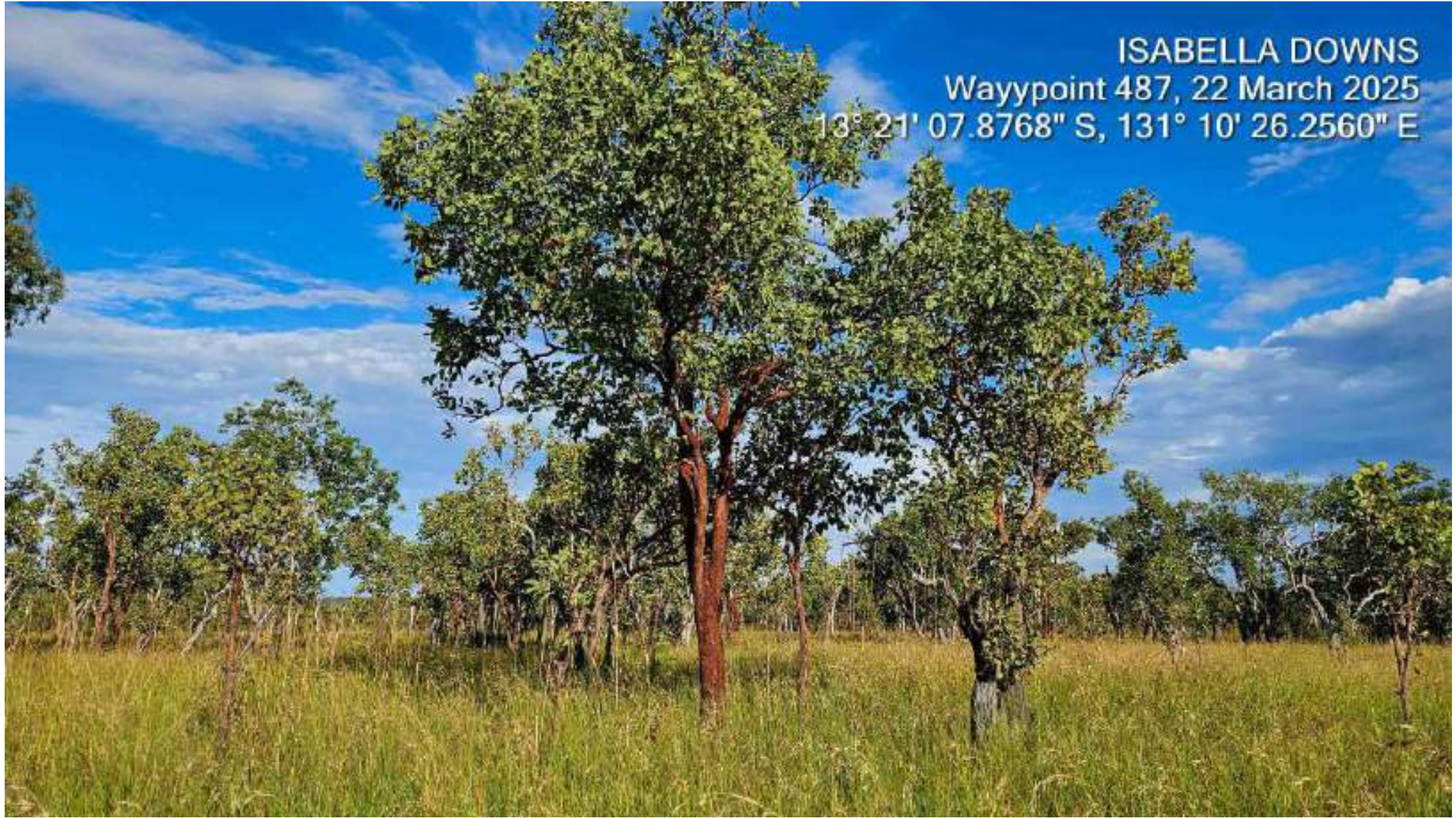
ISABELLA DOWNS
Waypoint 487, 22 March 2025
13° 21' 07.8768" S, 131° 10' 26.2560" E

ISABELLA DOWNS
Wayypoint 487, 22 March 2025
13° 21' 07.8768" S, 131° 10' 26.2560" E



ISABELLA DOWNS
Waypoint 487, 22 March 2025
13° 21' 07.8768" S, 131° 10' 26.2560" E





ISABELLA DOWNS
Waypoint 487, 22 March 2025
13° 21' 07.8768" S, 131° 10' 26.2560" E



ISABELLA DOWNS
Wayypoint 487, 22 March 2025
13° 21' 07.8768" S, 131° 10' 26.2560" E



ISABELLA DOWNS

Waypoint 487, 22 March 2025

13° 21' 07.8768" S, 131° 10' 26.2560" E

ISABELLA DOWNS
Waypoint 487, 22 March 2025
13° 21' 07.8768" S, 131° 10' 26.2560" E



ISABELLA DOWNS
Waypoint 488, 22 March 2025
13° 20' 46.1328" S, 131° 10' 25.9068" E







ISABELLA DOWNS

Waypoint 488, 22 March 2025

13° 20' 46.1328" S, 131° 10' 25.9068" E



ISABELLA DOWNS

Waypoint 488, 22 March 2025

13° 20' 46.1328" S, 131° 10' 25.9068" E

ISABELLA DOWNS

Waypoint 488 22 March 2025

13° 20' 46.1328" S, 131° 10' 25.9068" E



ISABELLA DOWNS
Waypoint 488, 22 March 2025
13° 20' 46.1328" S, 131° 10' 25.9068" E



ISABELLA DOWNS

Waypoint 488, 22 March 2025

18° 20' 46.1328" S, 131° 10' 25.9068" E





ISABELLA DOWNS

Waypoint 488, 22 March 2025

13° 20' 46.1328" S, 131° 10' 25.9068" E





ISABELLA DOWNS
Waypoint 488, 22 March 2025
13° 20' 46.1328" S, 131° 10' 25.9068" E

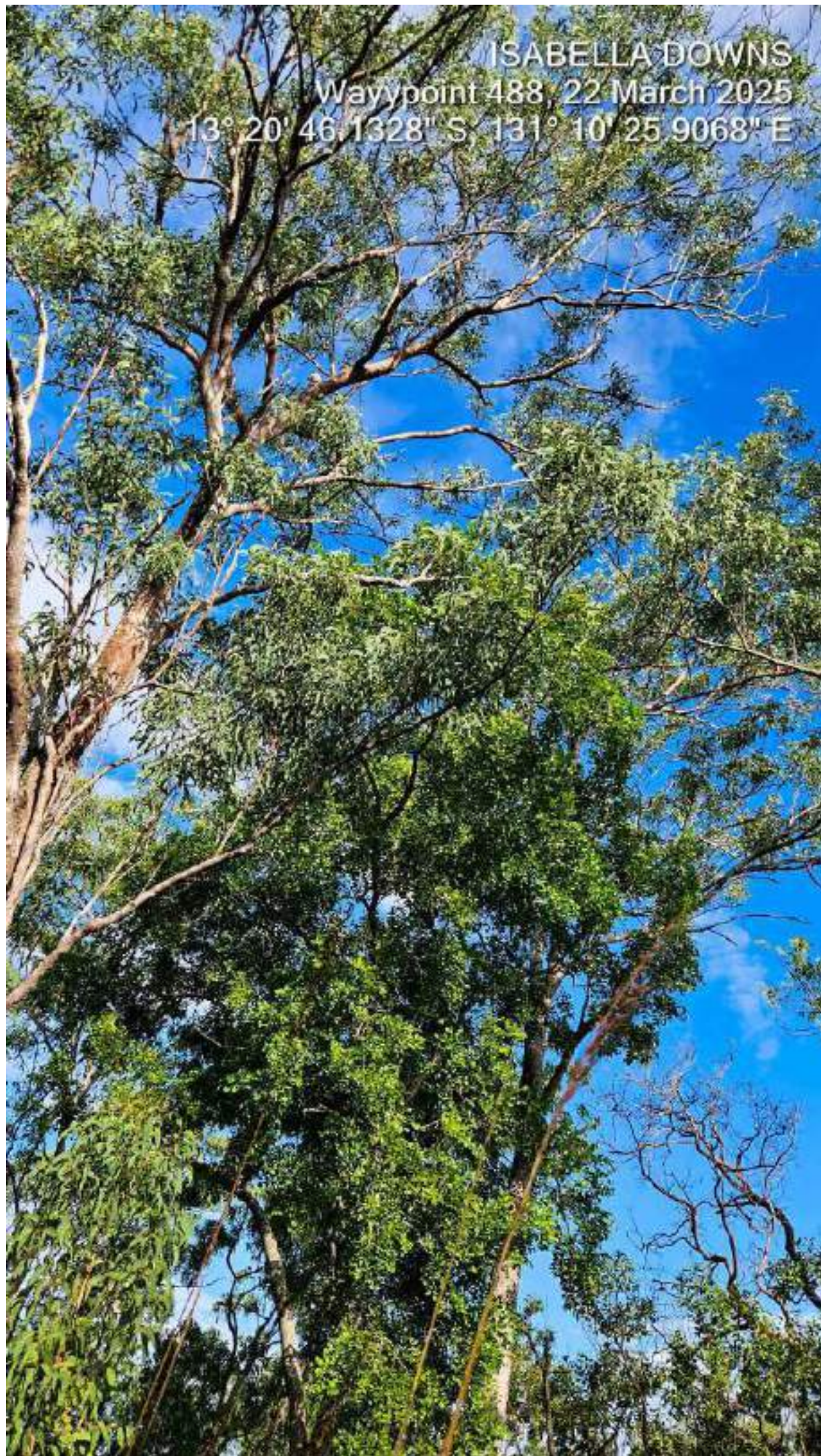


ISABELLA DOWNS
Waypoint 488 22 March 2025
13° 20' 46.1328" S, 131° 10' 25.9068" E

ISABELLA DOWNS

Waypoint 488, 22 March 2025

13° 20' 46.1328" S, 131° 10' 25.9068" E



ISABELLA DOWNS
Waypoint 488, 22 March 2025
13° 20' 46.1328" S, 131° 10' 25.9068" E



ISABELLA DOWNS
Waypoint 488, 22 March 2025
13° 20' 46.1328" S, 131° 10' 25.9068" E



ISABELLA DOWNS

Waypoint 488, 22 March 2025

13° 20' 46.1328" S, 131° 10' 25.9068" E



ISABELLA DOWNS

Waypoint 488, 22 March 2025

13° 20' 46.1328" S, 131° 10' 25.9068" E



ISABELLA DOWNS

Waypoint 488, 22 March 2025

13° 20' 46.1328" S, 131° 10' 25.9068" E



ISABELLA DOWNS

Waypoint 488, 22 March 2025

13° 20' 46.1328" S, 131° 10' 25.9068" E



ISABELLA DOWNS
Waypoint 489, 22 March 2025
13° 20' 38.4036" S, 131° 10' 20.2692" E





ISABELLA DOWNS
Waypoint 489, 22 March 2025
13° 20' 38.4036" S, 131° 10' 20.2692" E



ISABELLA DOWNS
Waypoint 489, 22 March 2025
13° 20' 38.4036" S, 131° 10' 20.2692" E

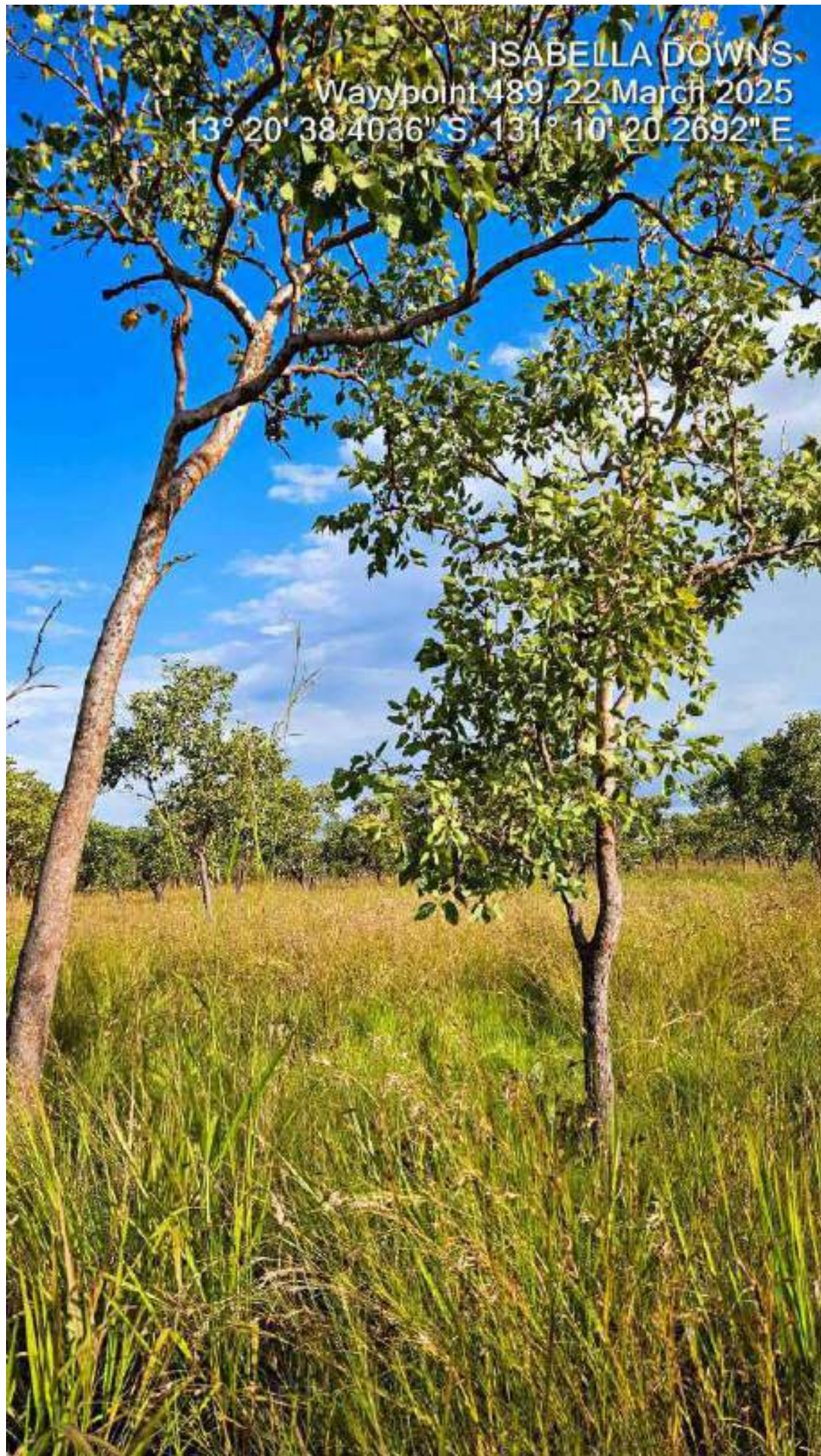
ISABELLA DOWNS
Waypoint 489, 22 March 2025
13° 20' 38.4036" S, 131° 10' 20.2692" E



ISABELLA DOWNS

Waypoint 489, 22 March 2025

13° 20' 38.4036" S, 131° 10' 20.2692" E

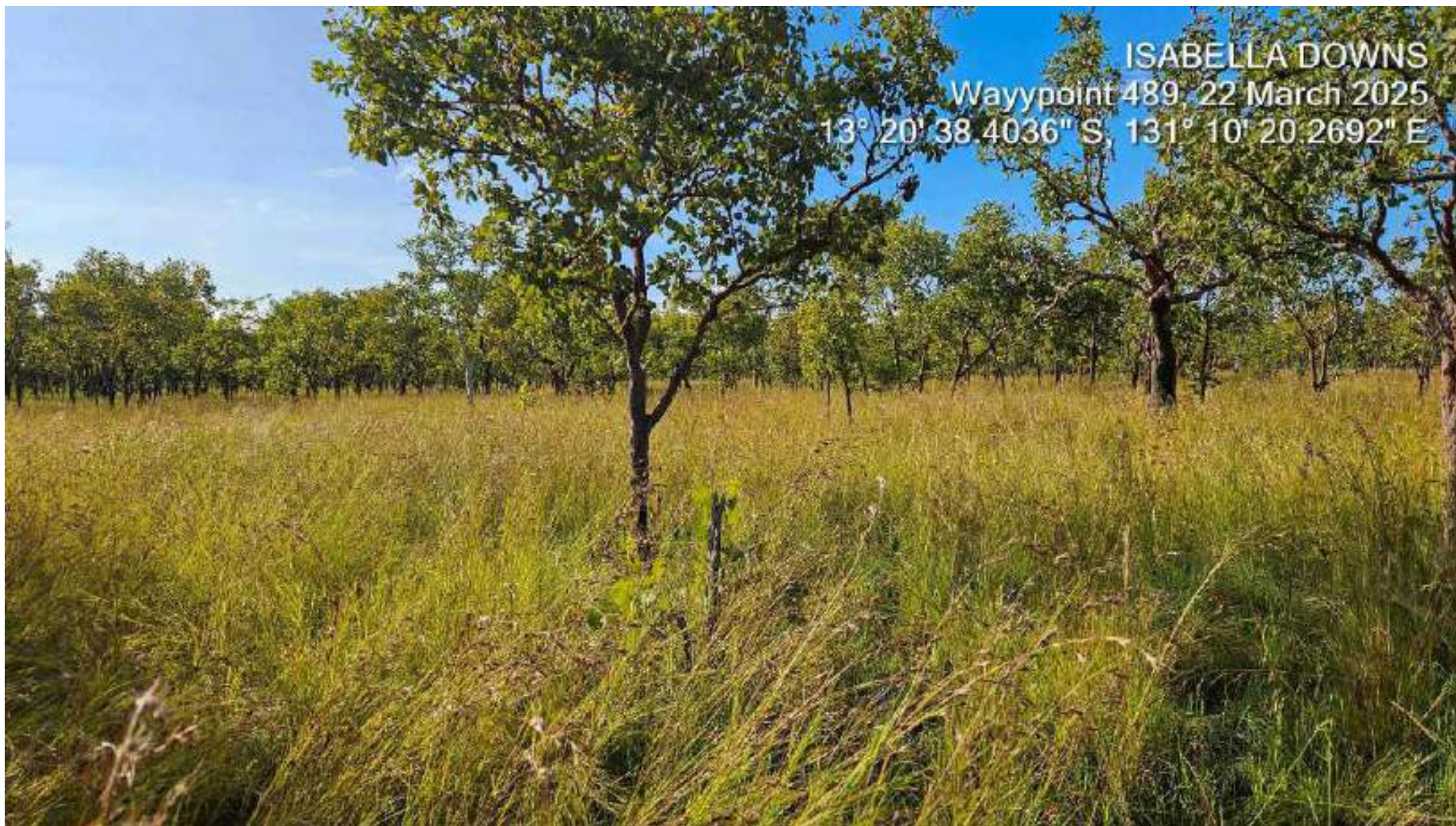


ISABELLA DOWNS

Waypoint 489, 22 March 2025

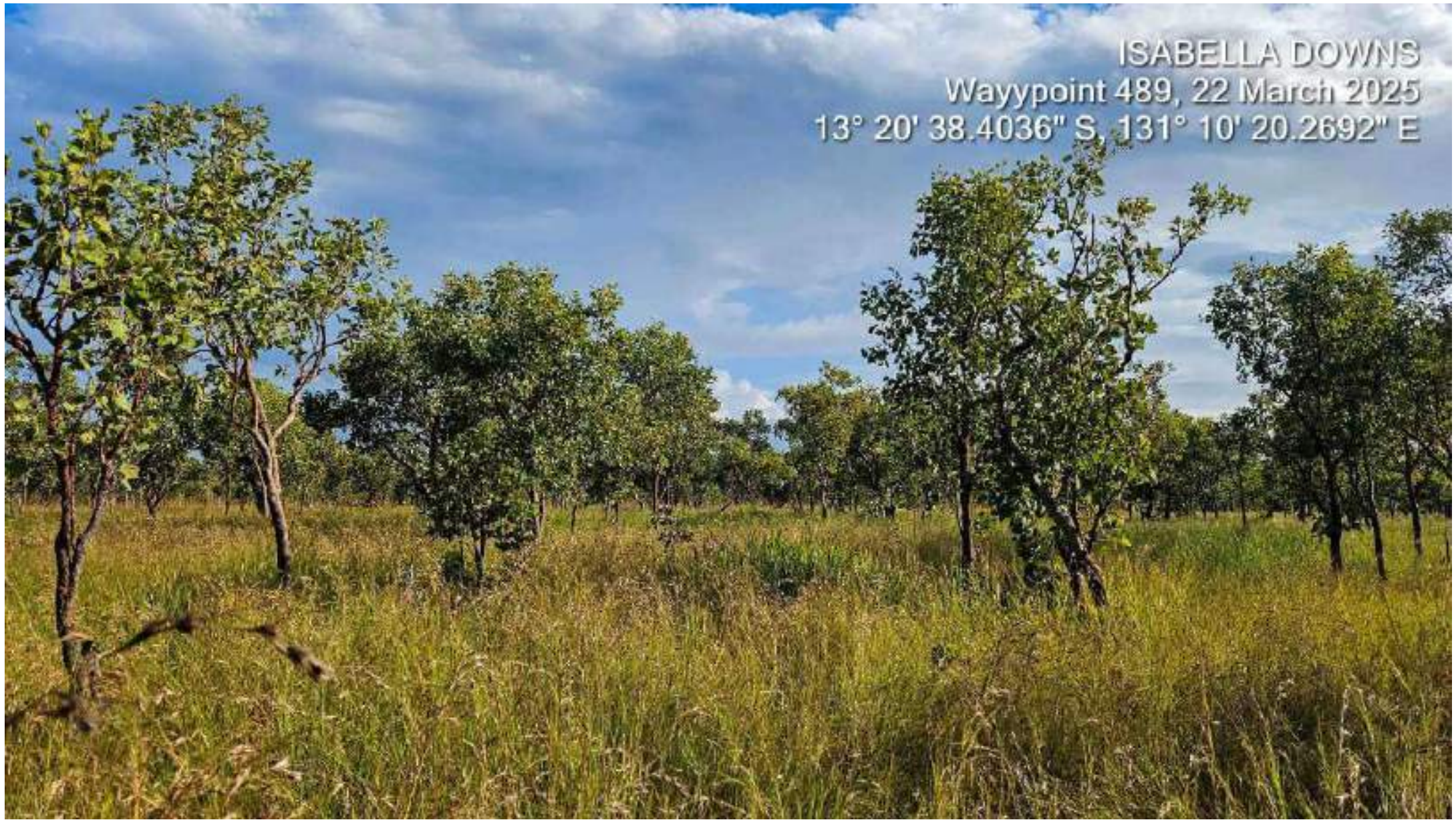
13° 20' 38.4036" S, 131° 10' 20.2692" E





ISABELLA DOWNS
Waypoint 489, 22 March 2025
13° 20' 38.4036" S, 131° 10' 20.2692" E

ISABELLA DOWNS
Waypoint 489, 22 March 2025
13° 20' 38.4036" S, 131° 10' 20.2692" E



ISABELLA DOWNS

Waypoint 489, 22 March 2025

13° 20' 38.4036" S, 131° 10' 20.2692" E



ISABELLA DOWNS

Waypoint 489, 22 March 2025

13° 20' 38.4036" S, 131° 10' 20.2692" E

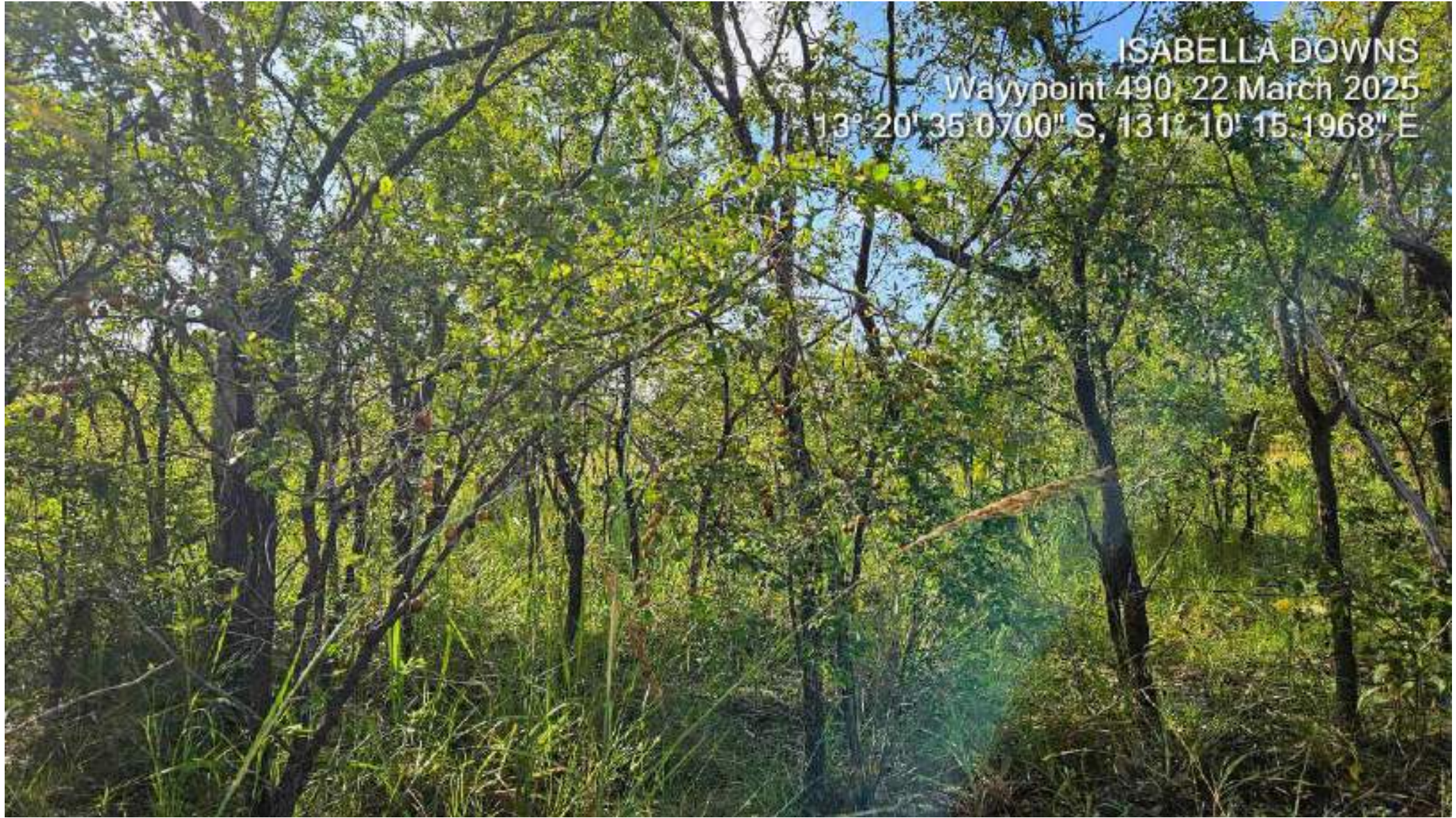


ISABELLA DOWNS

Waypoint 490, 22 March 2025

13° 20' 35.0700" S, 131° 10' 15.1968" E





ISABELLA DOWNS
Waypoint 490 22 March 2025
13° 20' 35.0700" S, 131° 10' 15.1968" E

A photograph of a savanna landscape. In the foreground, there is a dense field of tall, green grass. Several trees are scattered throughout the scene. On the left, a tree with a dark, gnarled trunk and green foliage stands prominently. In the center-right, a taller tree with a lighter, smoother trunk and a full green canopy is visible. The background shows more trees and a clear blue sky with a few wispy clouds. In the upper right corner, there is white text providing location information.

ISABELLA DOWNS
Waypoint 490, 22 March 2025
13° 20' 35.0700" S 131° 10' 15.1968" E



ISABELLA DOWNS
Waypoint 490, 22 March 2025
13° 20' 35.0700" S, 131° 10' 15.1968" E

ISABELLA DOWNS

Waypoint 490, 22 March 2025

13° 20' 35.0700" S, 131° 10' 15.1968" E



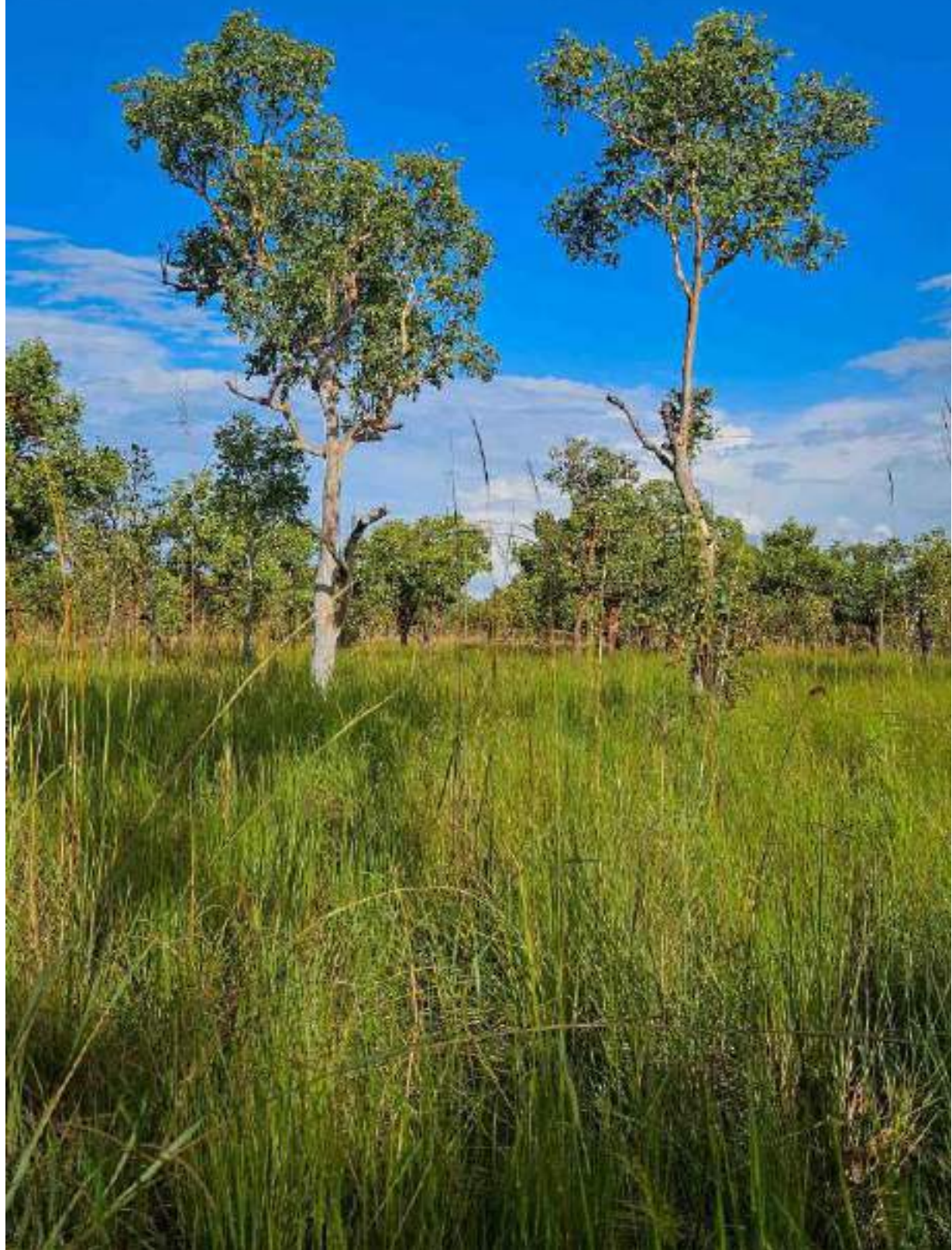


ISABELLA DOWNS
Waypoint 490, 22 March 2025
13° 20' 35.0700" S, 131° 10' 15.1968" E



ISABELLA DOWNS
Waypoint 490/ 22 March 2025
13° 20' 35.0700" S, 131° 10' 15.1968" E

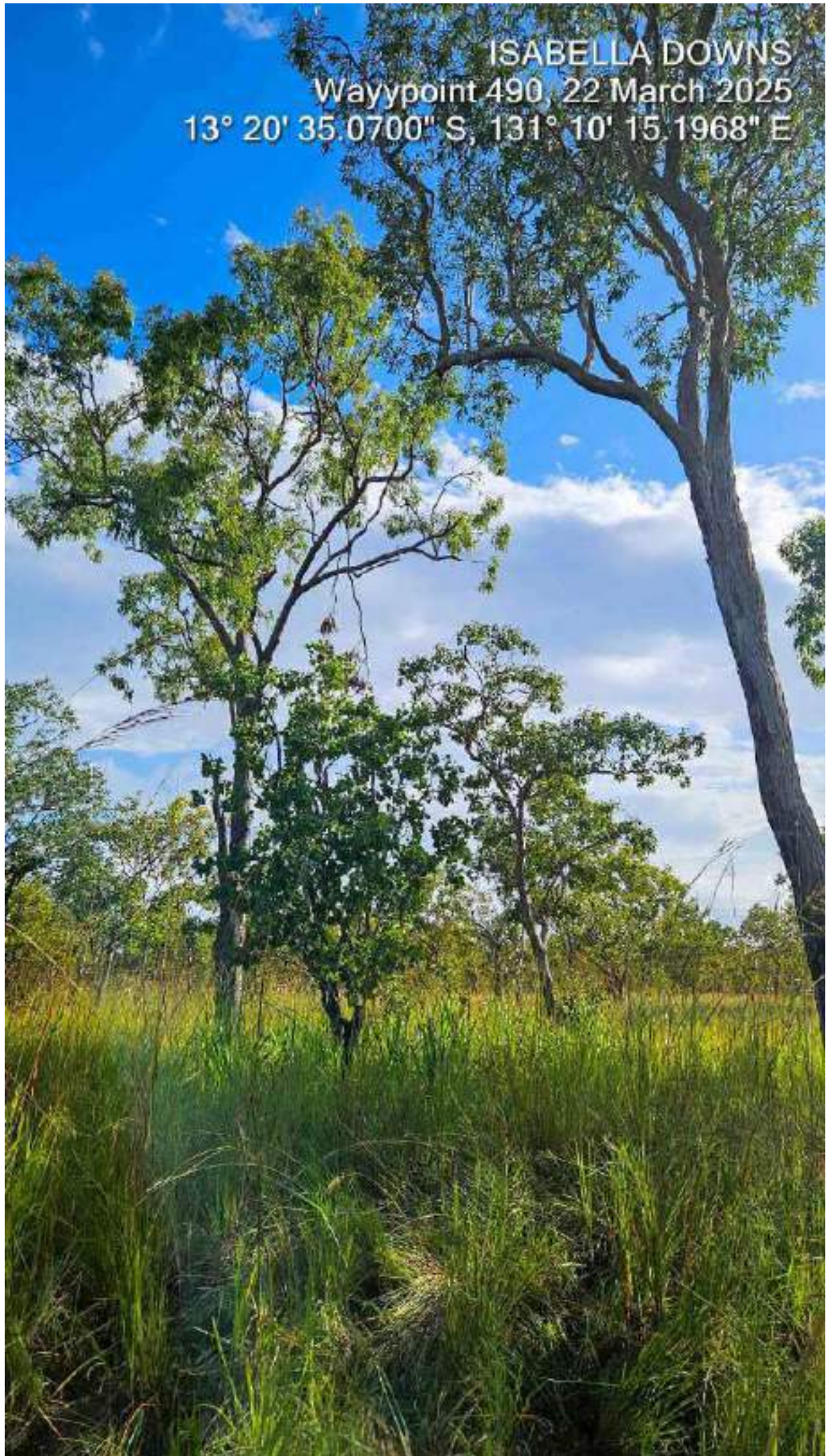
ISABELLA DOWNS
Waypoint 490, 22 March 2025
13° 20' 35.0700" S, 131° 10' 15.1968" E



ISABELLA DOWNS
Waypoint 490, 22 March 2025
13° 20' 35.0700" S, 131° 10' 15.1968" E



ISABELLA DOWNS
Waypoint 490, 22 March 2025
13° 20' 35.0700" S, 131° 10' 15.1968" E







ISABELLA DOWNS

Waypoint 490, 22 March 2025

13° 20' 35.0700" S, 131° 10' 15.1968" E



ISABELLA DOWNS

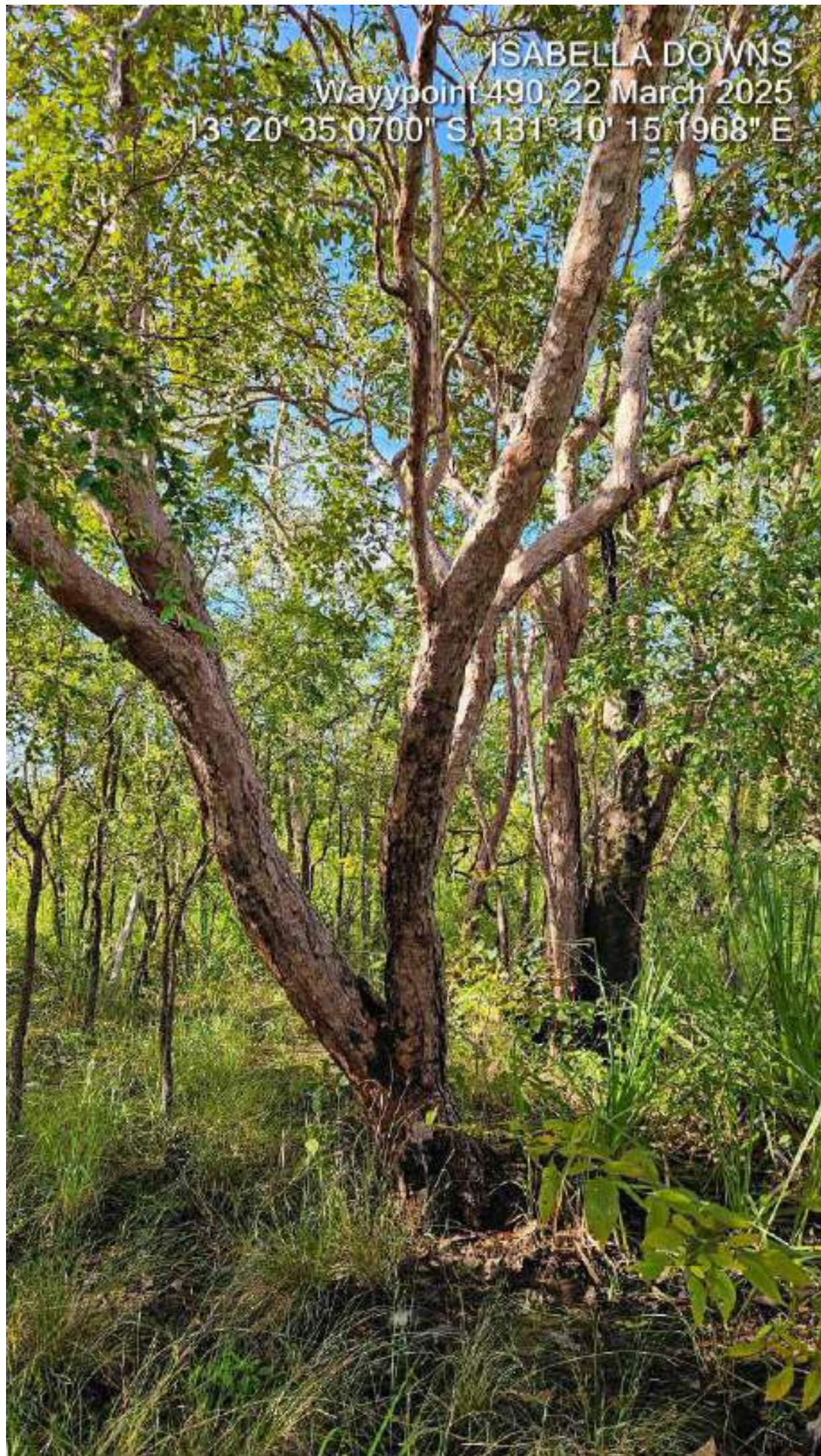
Waypoint 490, 22 March 2025

13° 20' 35.0700" S, 131° 10' 15.1968" E

ISABELLA DOWNS

Waypoint 490, 22 March 2025

13° 20' 35.0700" S, 131° 10' 15.1968" E



ISABELLA DOWNS
Waypoint 490, 22 March 2025
13° 20' 35.0700" S, 131° 10' 15.1968" E



ISABELLA DOWNS
Waypoint 490, 22 March 2025
13° 20' 35.0700" S, 131° 10' 15.1968" E





ISABELLA DOWNS
Waypoint 491, 22 March 2025
13° 20' 09.8196" S, 131° 10' 13.4256" E



ISABELLA DOWNS

Waypoint 491, 22 March 2025

13° 20' 09.8196" S, 131° 10' 13.4256" E

ISABELLA DOWNS
Waypoint 491, 22 March 2025
13° 20' 09.8196" S, 131° 10' 13.4256" E

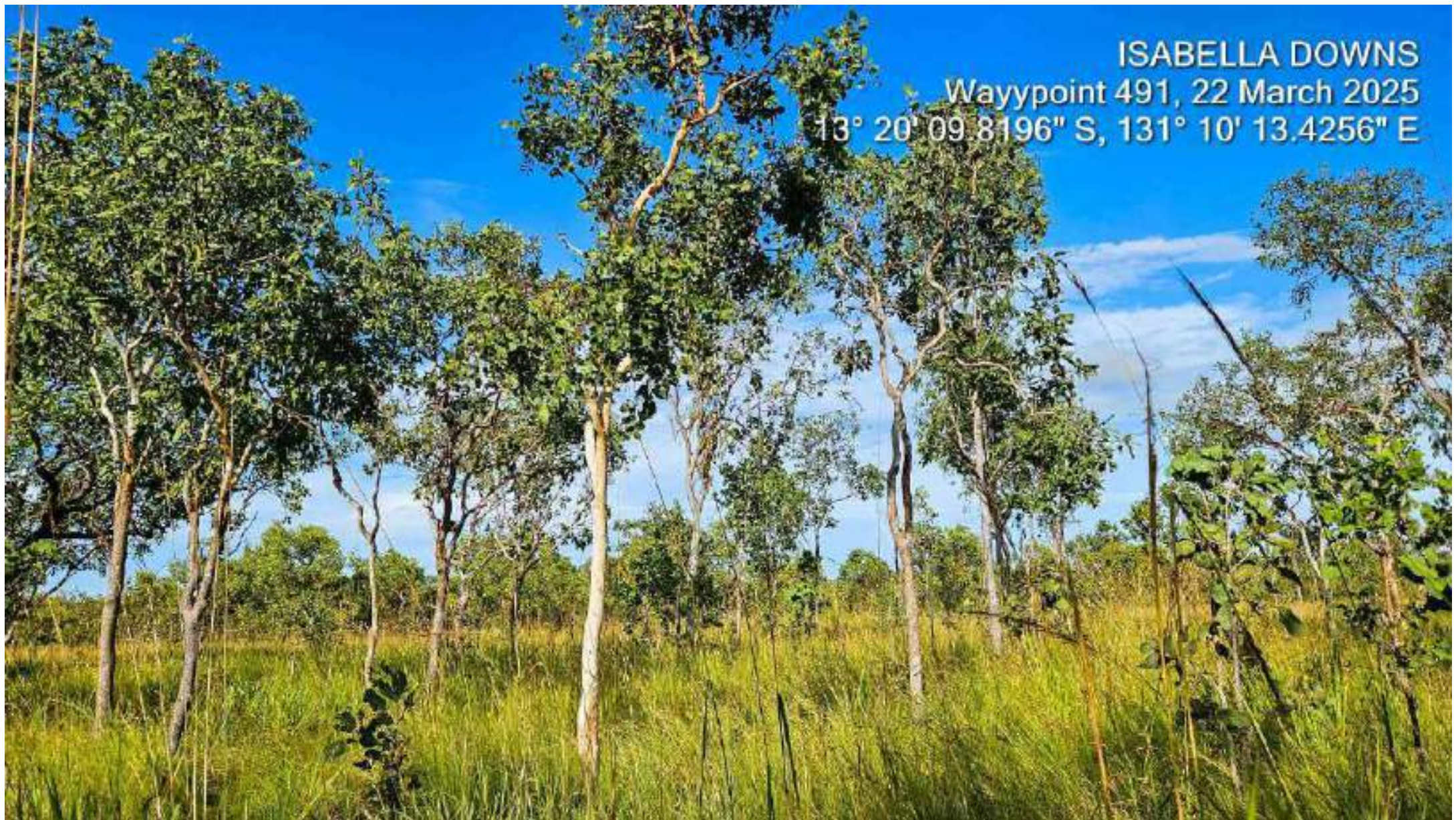




ISABELLA DOWNS

Waypoint 491, 22 March 2025

13° 20' 09.8196" S, 131° 10' 13.4256" E



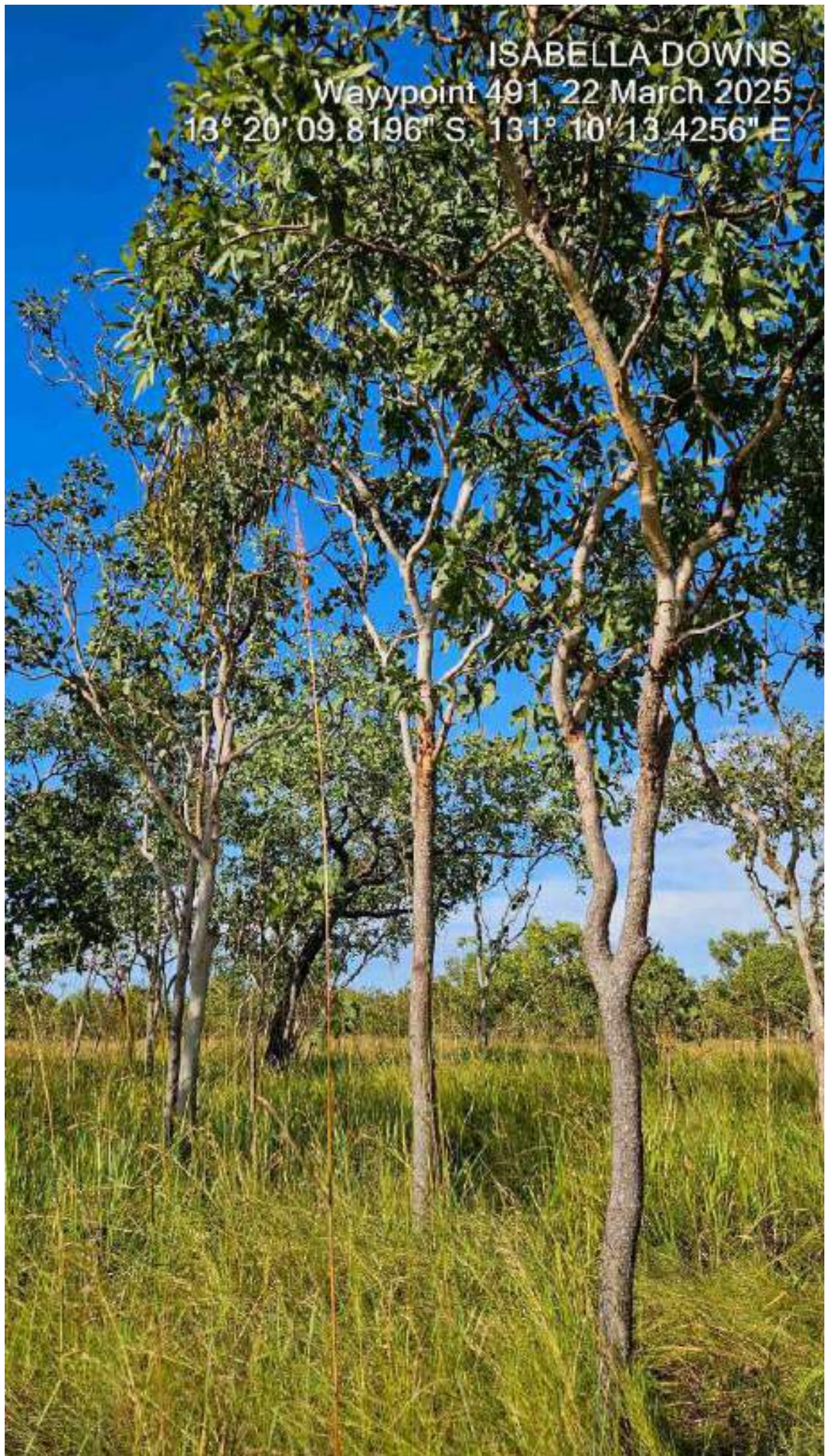
ISABELLA DOWNS

Waypoint 491, 22 March 2025

13° 20' 09.8196" S, 131° 10' 13.4256" E



ISABELLA DOWNS
Waypoint 491, 22 March 2025
13° 20' 09.8196" S, 131° 10' 13.4256" E



ISABELLA DOWNS
Waypoint 491, 22 March 2025
13° 20' 09.8196" S, 131° 10' 13.4256" E



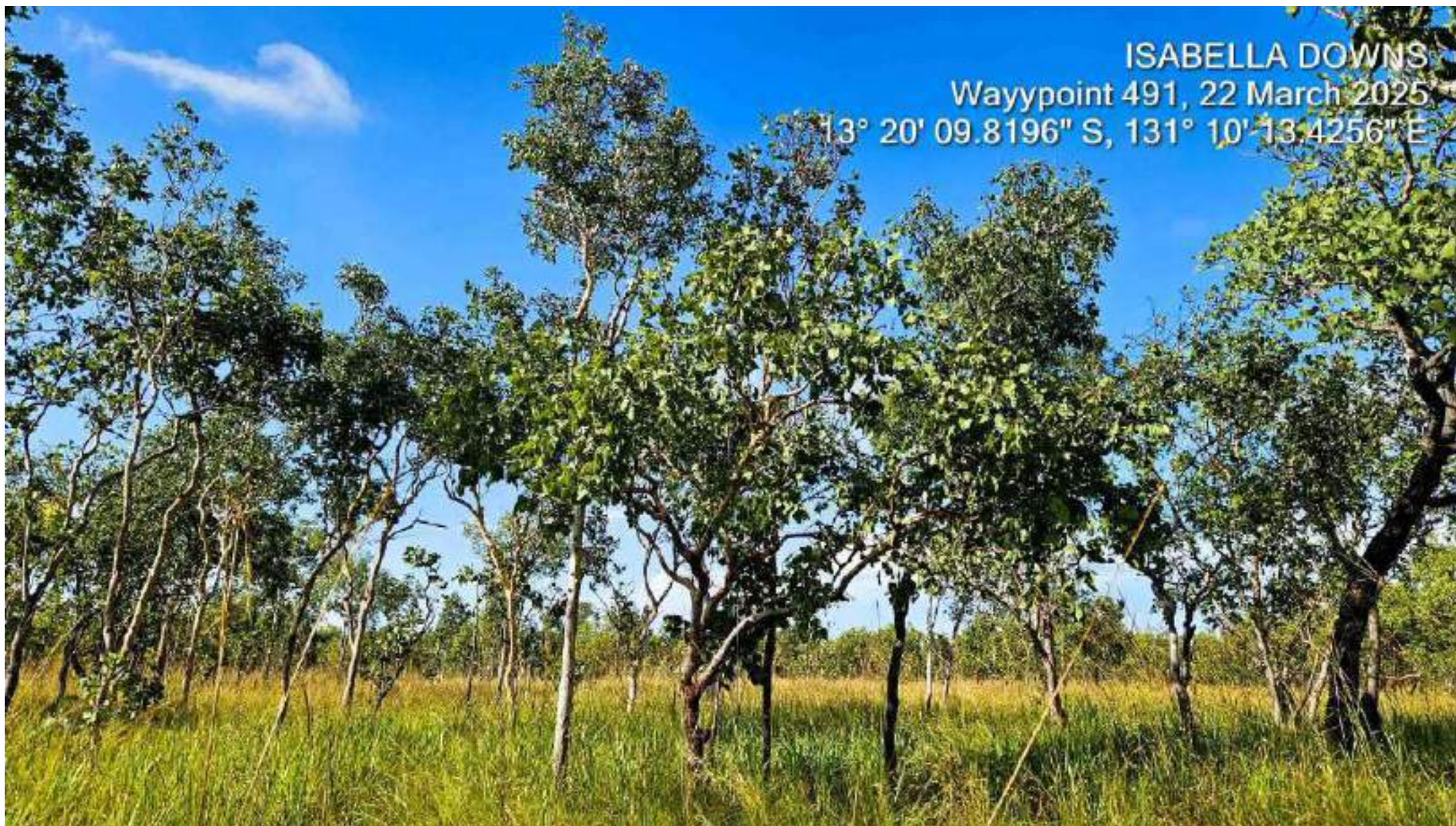
ISABELLA DOWNS
Waypoint 491, 22 March 2025
13° 20' 09.8196" S, 131° 10' 13.4256" E



ISABELLA DOWNS

Waypoint 491, 22 March 2025

13° 20' 09.8196" S, 131° 10' 13.4256" E

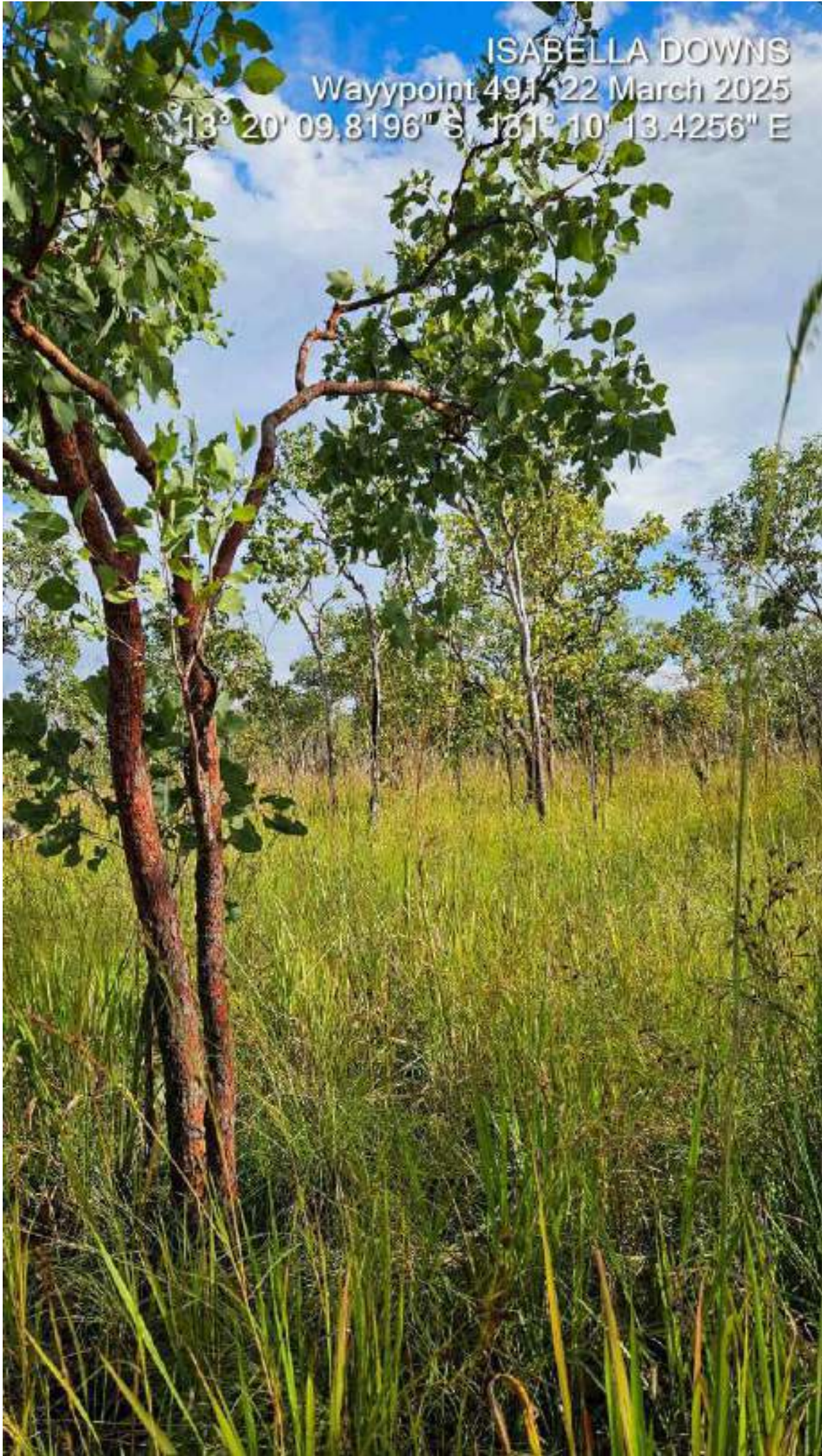


ISABELLA DOWNS

Waypoint 491, 22 March 2025

13° 20' 09.8196" S, 131° 10' 13.4256" E





ISABELLA DOWNS

Waypoint 491 22 March 2025

13° 20' 09.8196" S 161° 10' 13.4256" E



ISABELLA DOWNS
Waypoint 491, 22 March 2025
13° 20' 09.8196" S, 131° 10' 13.4256" E

ISABELLA DOWNS
Waypoint 491, 22 March 2025
13° 20' 09.8196" S, 131° 10' 13.4256" E



ISABELLA DOWNS

Waypoint 492, 22 March 2025

13° 20' 17.2968" S, 131° 09' 47.9988" E



ISABELLA DOWNS
Waypoint 492, 22 March 2025
13° 20' 17.2968" S, 131° 09' 47.9988" E





ISABELLA DOWNS
Wayypoint 492, 22 March 2025
13° 20' 17.2968" S, 131° 09' 47.9988" E



ISABELLA DOWNS

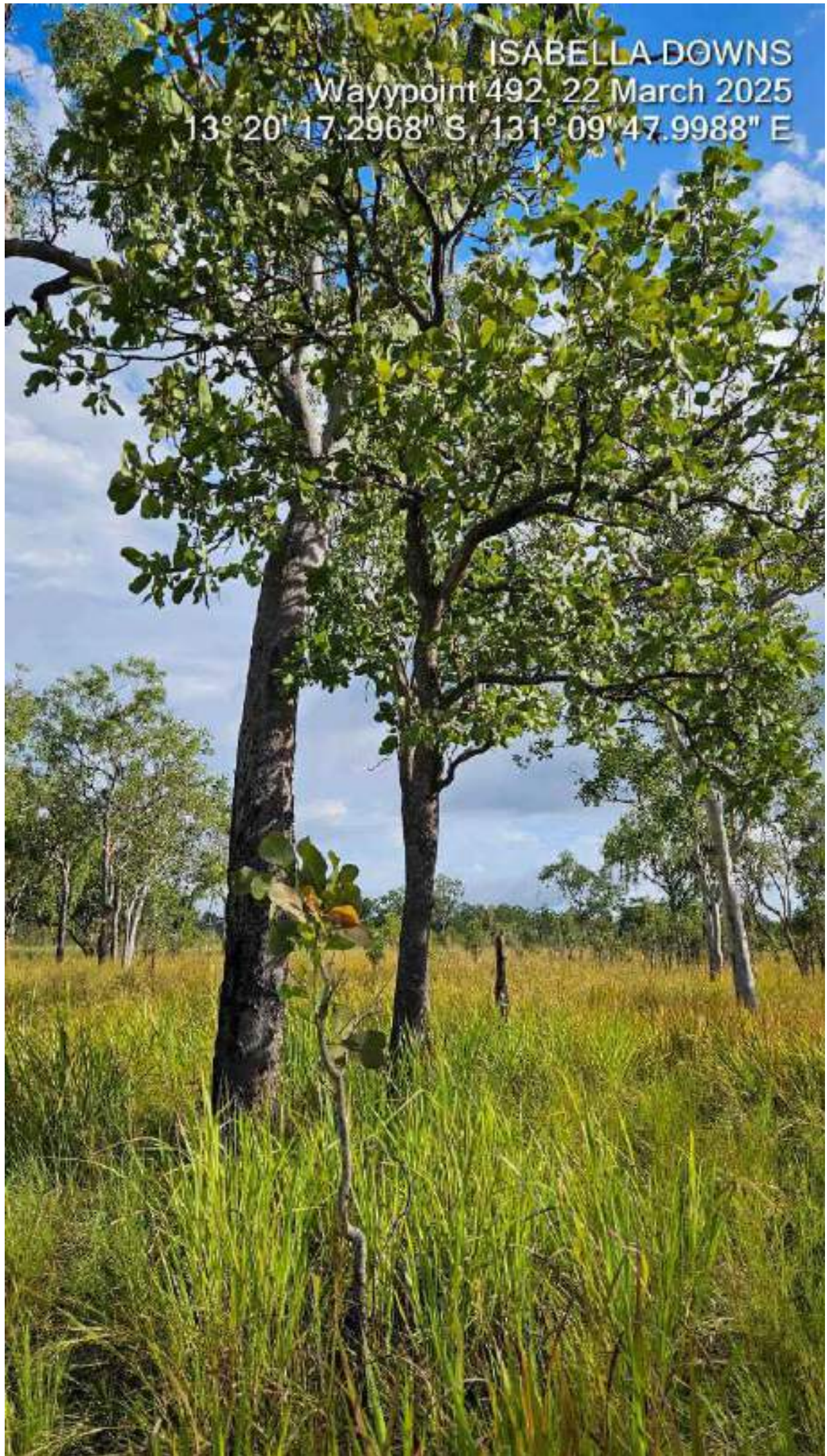
Waypoint 492, 22 March 2025

13° 20' 17.2968" S, 131° 09' 47.9988" E

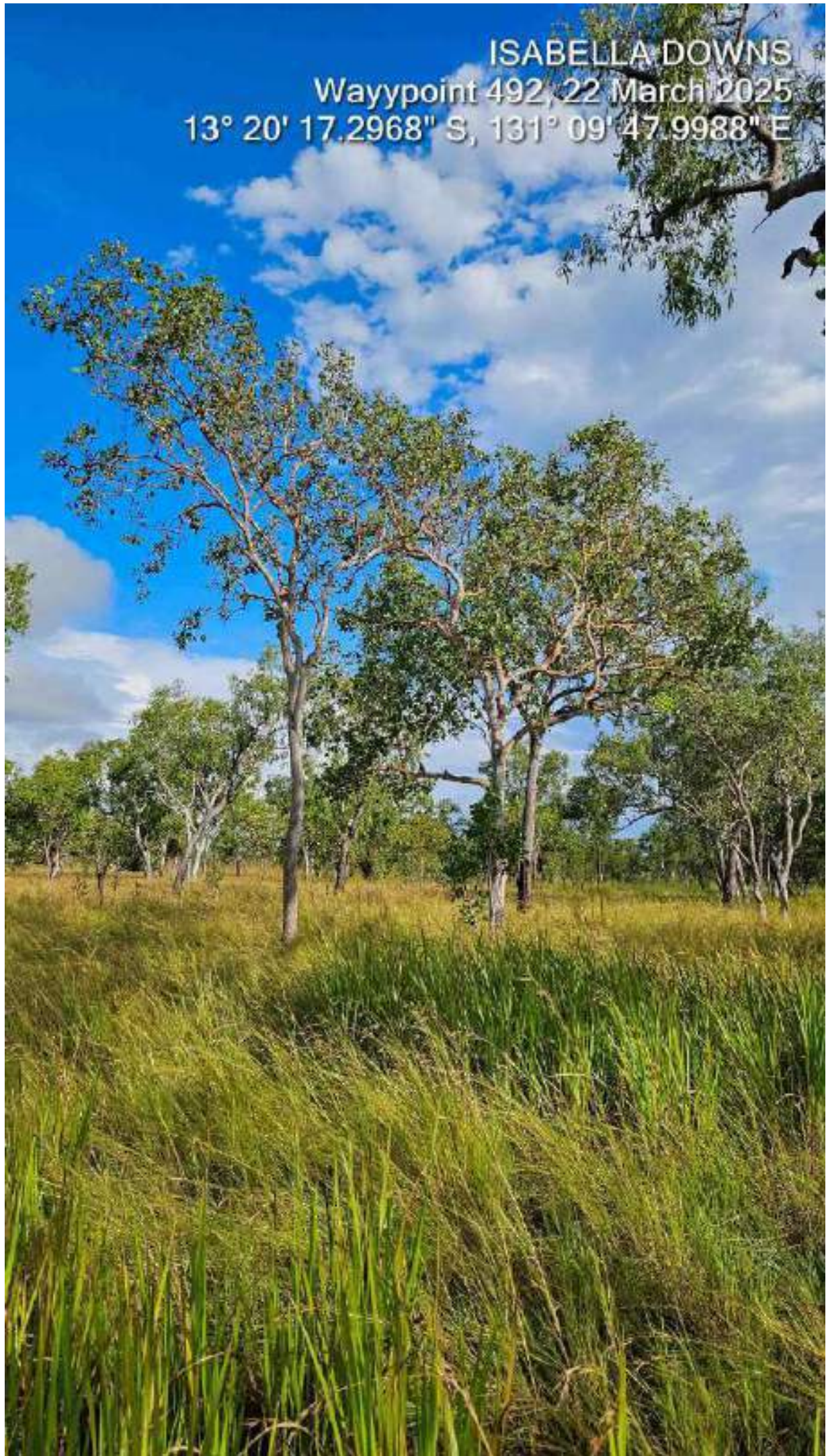
ISABELLA DOWNS

Waypoint 492, 22 March 2025

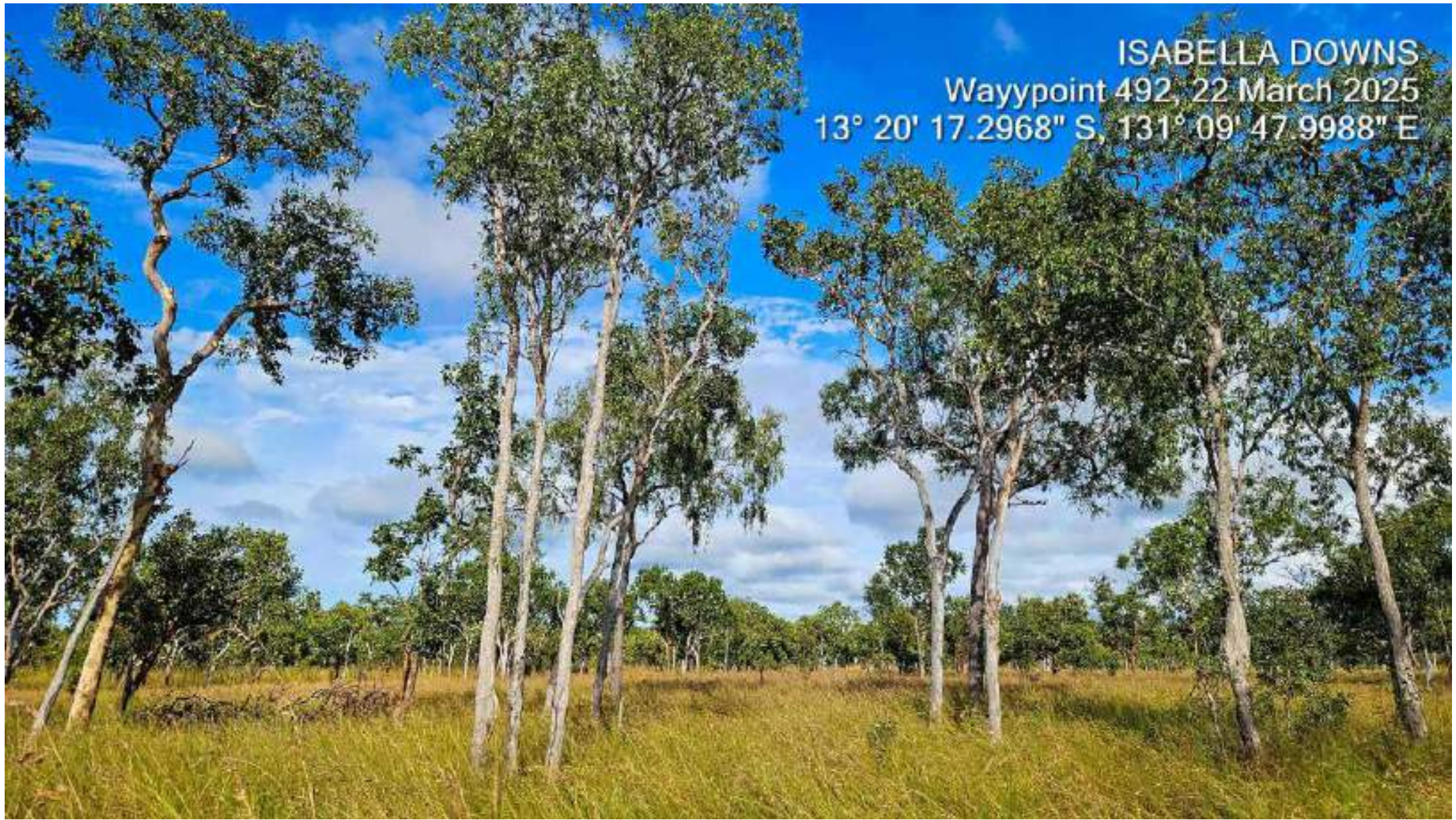
13° 20' 17.2968" S, 131° 09' 47.9988" E



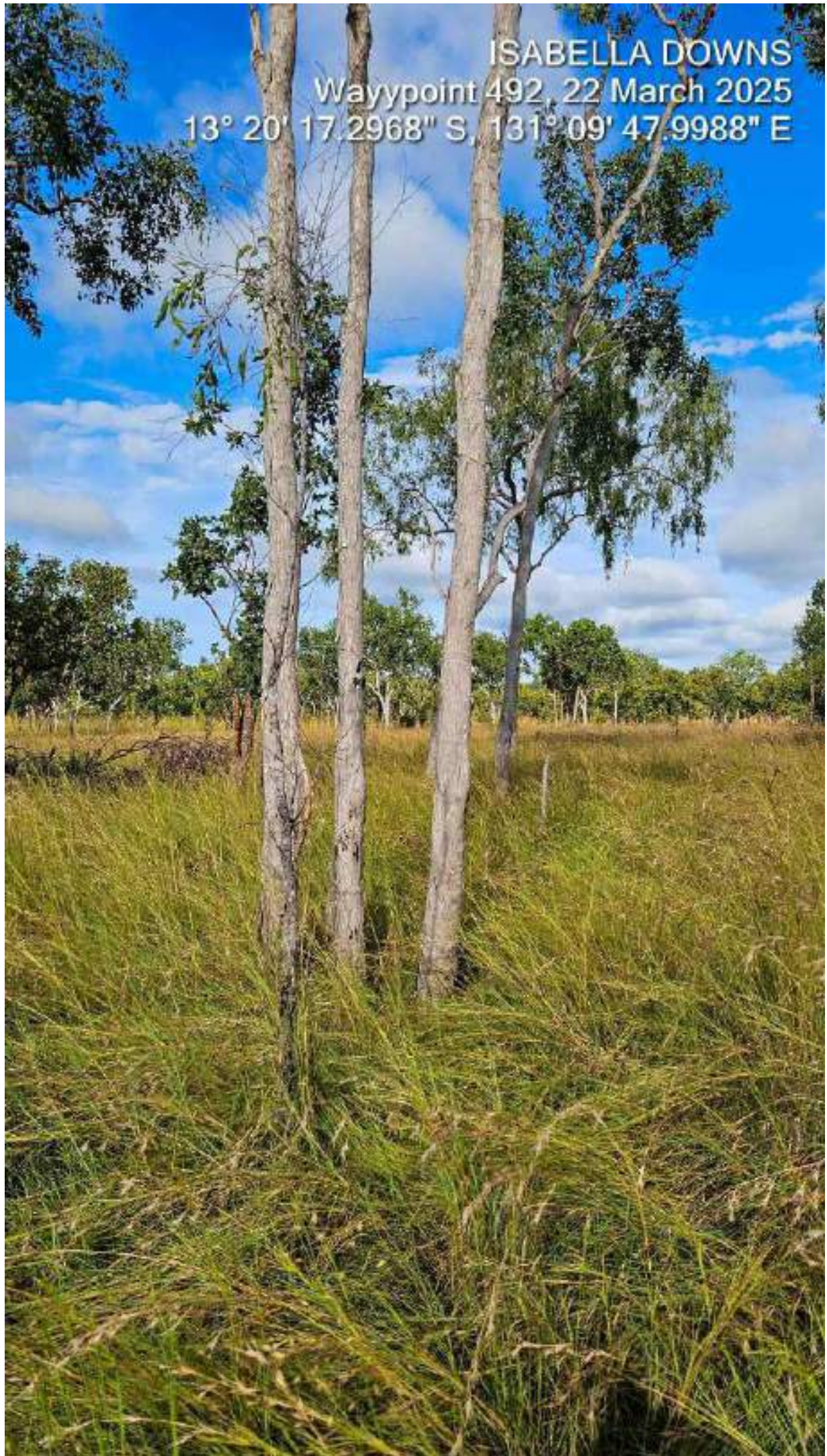
ISABELLA DOWNS
Waypoint 492, 22 March 2025
13° 20' 17.2968" S, 131° 09' 47.9988" E



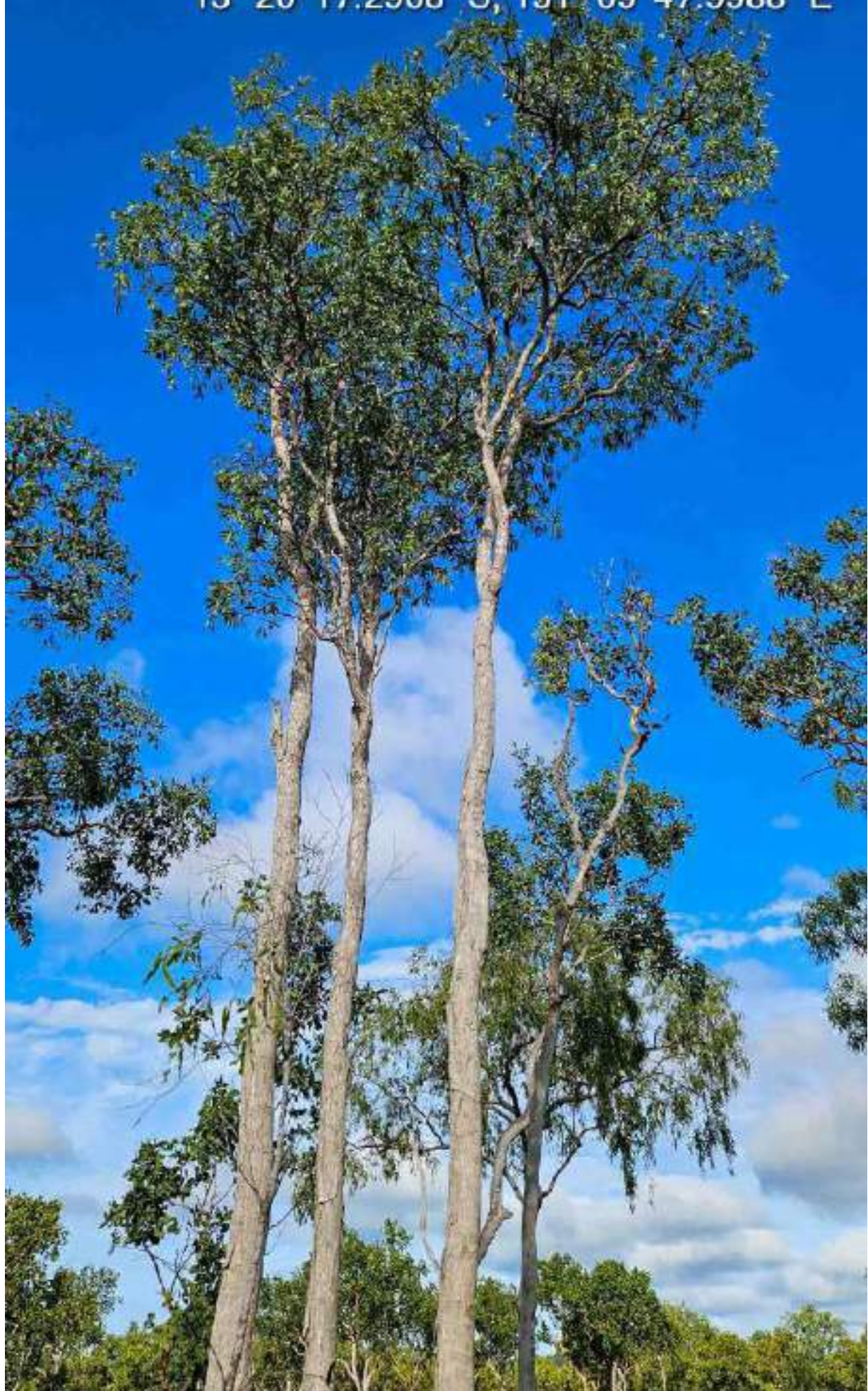
ISABELLA DOWNS
Waypoint 492, 22 March 2025
13° 20' 17.2968" S, 131° 09' 47.9988" E



ISABELLA DOWNS
Waypoint 492, 22 March 2025
13° 20' 17.2968" S, 131° 09' 47.9988" E



ISABELLA DOWNS
Waypoint 492, 22 March 2025
13° 20' 17.2968" S, 131° 09' 47.9988" E



ISABELLA DOWNS
Waypoint 492, 22 March 2025
13° 20' 17.2968" S, 131° 09' 47.9988" E



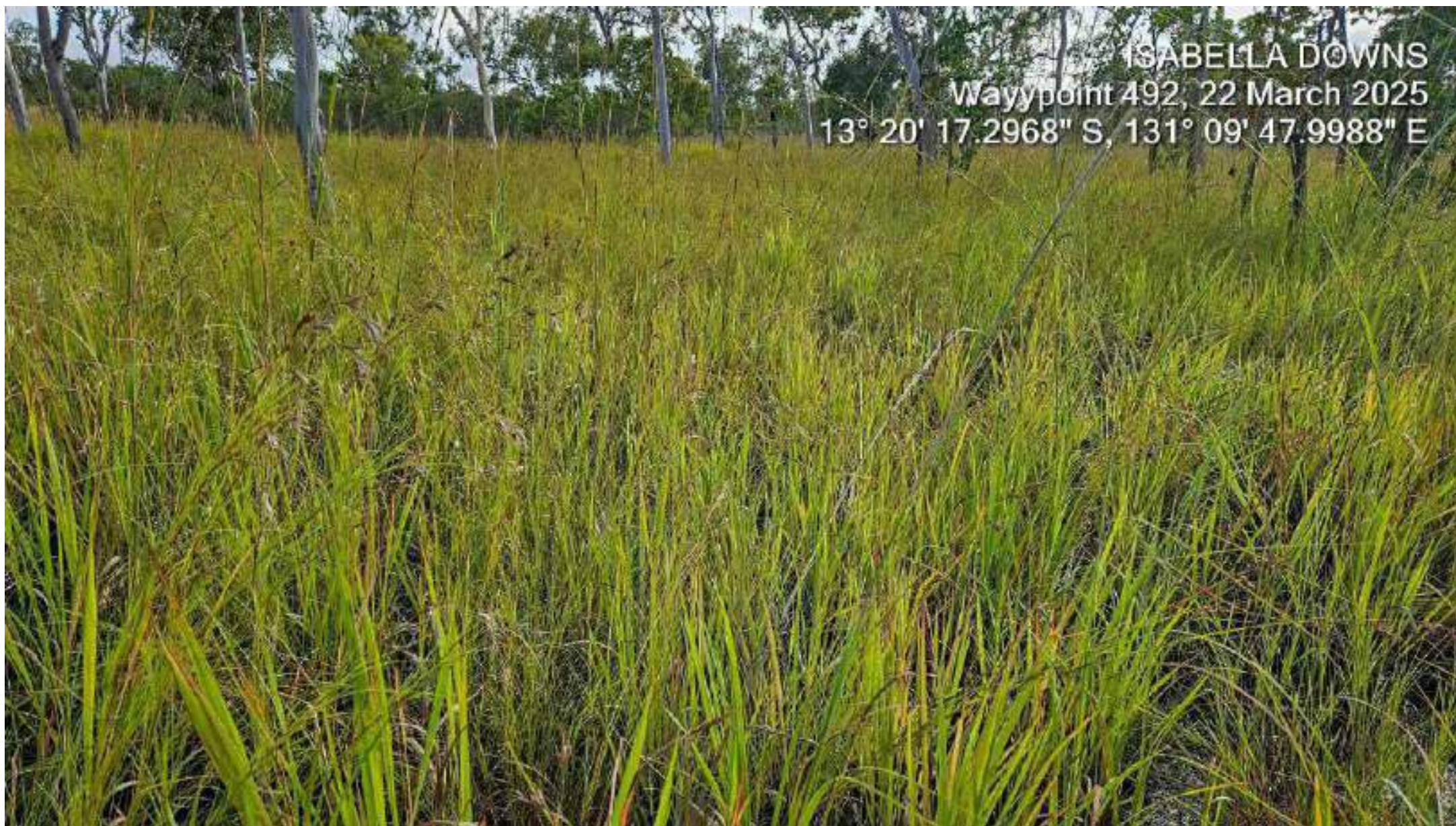


ISABELLA DOWNS

Waypoint 492, 22 March 2025

13° 20' 17.2968" S, 131° 09' 47.9988" E





ISABELLA DOWNS

Waypoint 492, 22 March 2025

13° 20' 17.2968" S, 131° 09' 47.9988" E

ISABELLA DOWNS
Waypoint 492, 22 March 2025
13° 20' 17.2968" S, 131° 09' 47.9988" E



ISABELLA DOWNS
Waypoint 492, 22 March 2025
13° 20' 17.2968" S, 131° 09' 47.9988" E



ISABELLA DOWNS

Waypoint 492, 22 March 2025

13° 20' 17.2968" S, 131° 09' 47.9988" E



ISABELLA DOWNS

Waypoint 493, 22 March 2025

13° 20' 12.4728" S, 131° 09' 48.1572" E





ISABELLA DOWNS

Waypoint 493, 22 March 2025

13° 20' 12.4728" S, 131° 09' 48.1572" E



ISABELLA DOWNS

Waypoint 493, 22 March 2025

13° 20' 12.4728" S, 131° 09' 48.1572" E



ISABELLA DOWNS

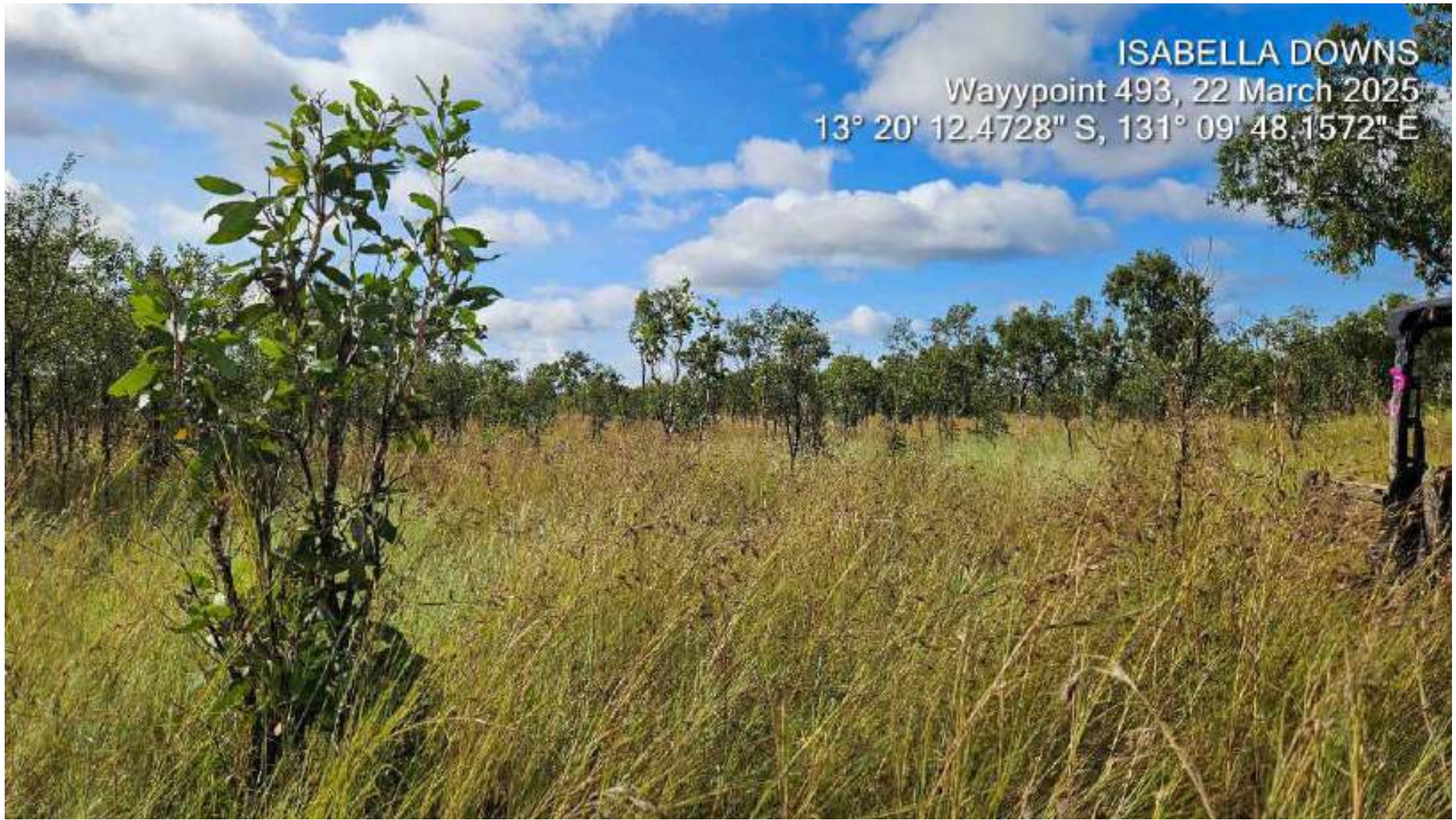
Waypoint 493, 22 March 2025

13° 20' 12.4728" S, 131° 09' 48.1572" E

ISABELLA DOWNS
Waypoint 493, 22 March 2025
13° 20' 12.4728" S, 131° 09' 48.1572" E



ISABELLA DOWNS
Waypoint 493, 22 March 2025
13° 20' 12.4728" S, 131° 09' 48.1572" E



ISABELLA DOWNS
Waypoint 493, 22 March 2025
13° 20' 12.4728" S, 131° 09' 48.1572" E



ISABELLA DOWNS
Waypoint 493, 22 March 2025
13° 20' 12.4728" S, 131° 09' 48.1572" E





ISABELLA DOWNS

Waypoint 493, 22 March 2025

13° 20' 12.4728" S, 131° 09' 48.1572" E

ISABELLA DOWNS
Waypoint 493, 22 March 2025
13° 20' 12.4728" S, 131° 09' 48.1572" E



ISABELLA DOWNS

Waypoint 493, 22 March 2025

13° 20' 12.4728" S, 131° 09' 48.1572" E





ISABELLA DOWNS
Waypoint 494, 22 March 2025
13° 19' 59.2752" S, 131° 09' 51.6528" E



ISABELLA DOWNS

Wayypoint 494, 22 March 2025

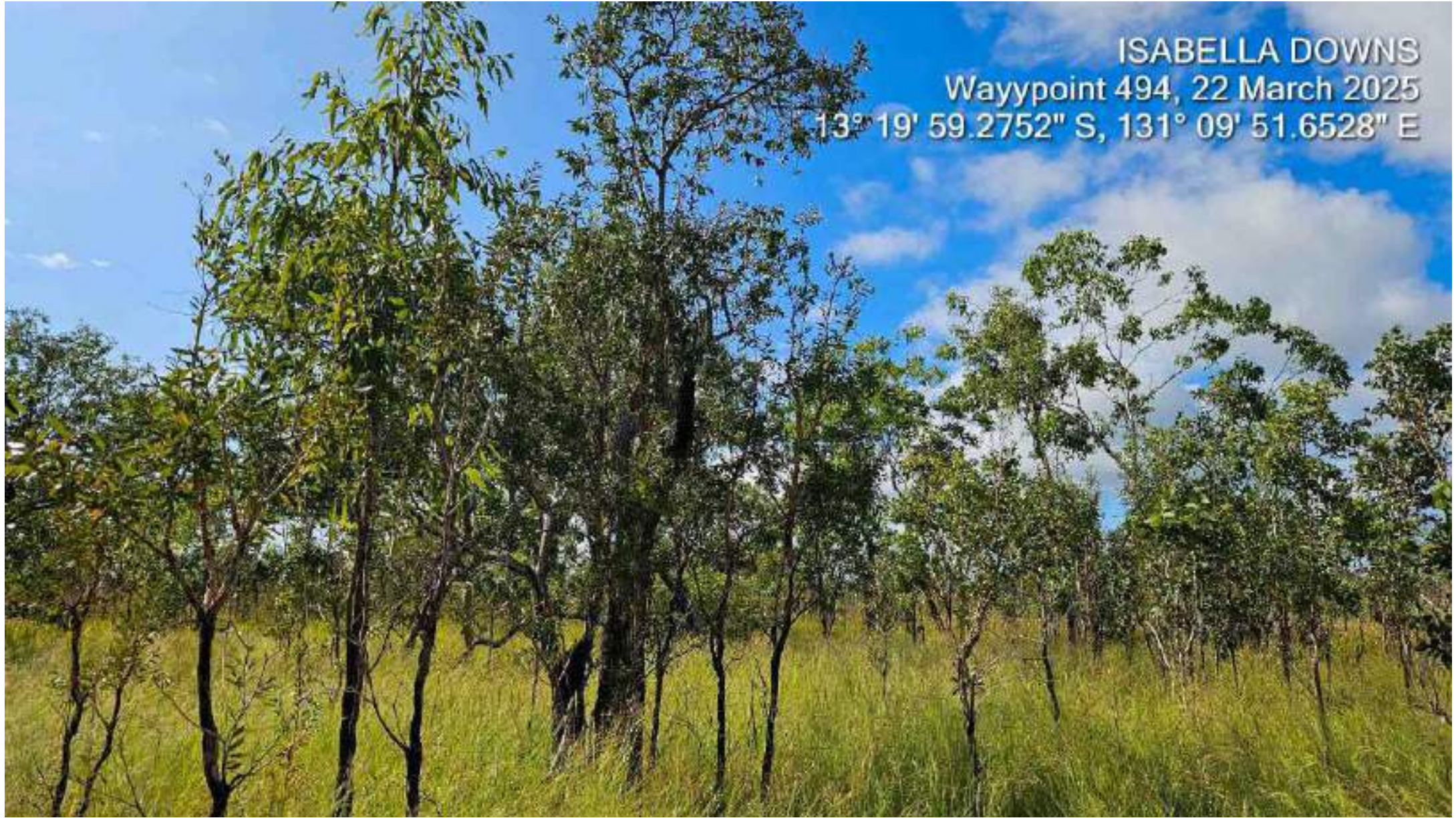
13° 19' 59.2752" S, 131° 09' 51.6528" E



ISABELLA DOWNS

Waypoint 494, 22 March 2025

13° 19' 59.2752" S, 131° 09' 51.6528" E

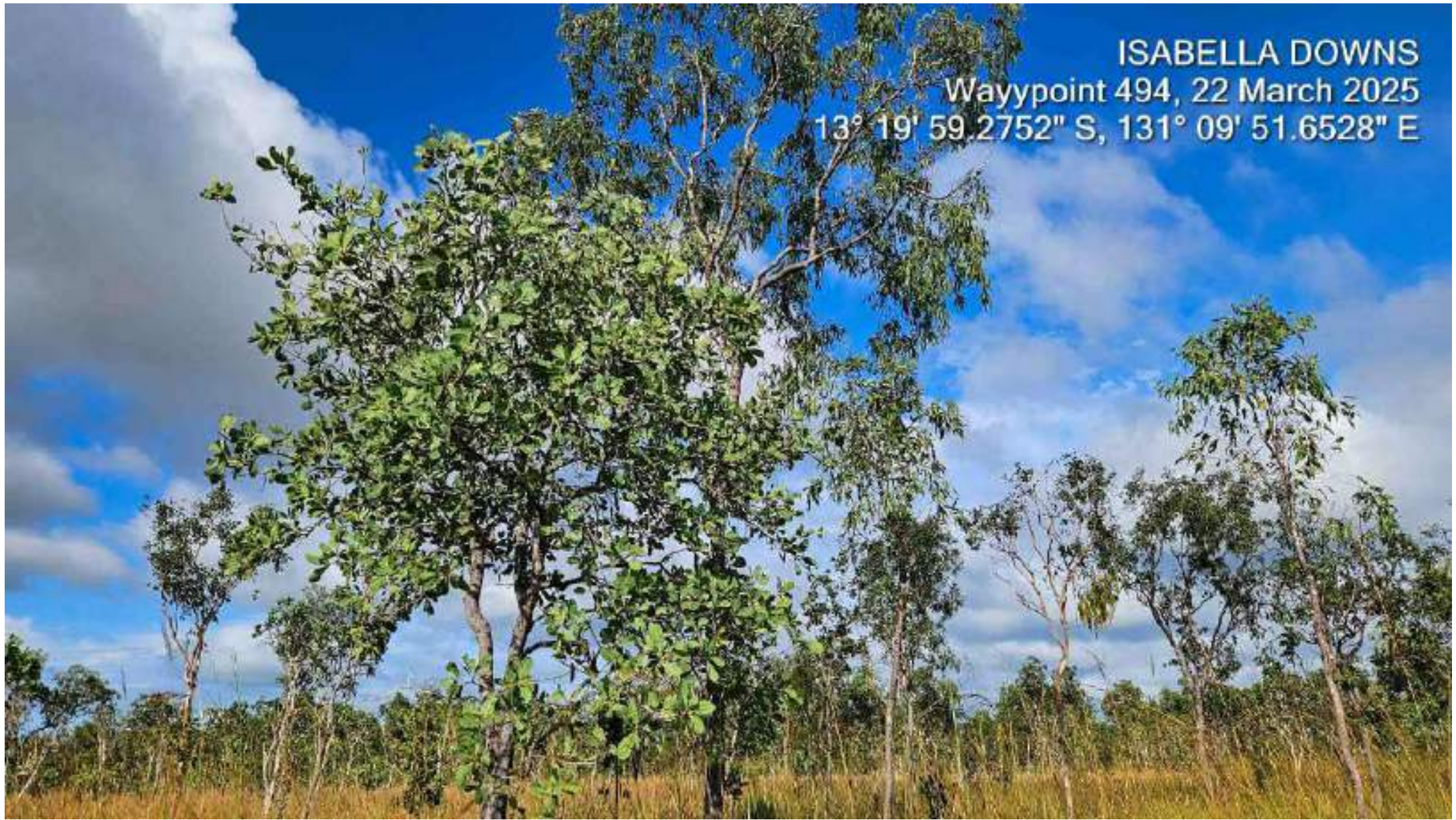


ISABELLA DOWNS
Waypoint 494, 22 March 2025
13° 19' 59.2752" S, 131° 09' 51.6528" E

ISABELLA DOWNS
Waypoint 494, 22 March 2025
13° 19' 59.2752" S, 131° 09' 51.6528" E

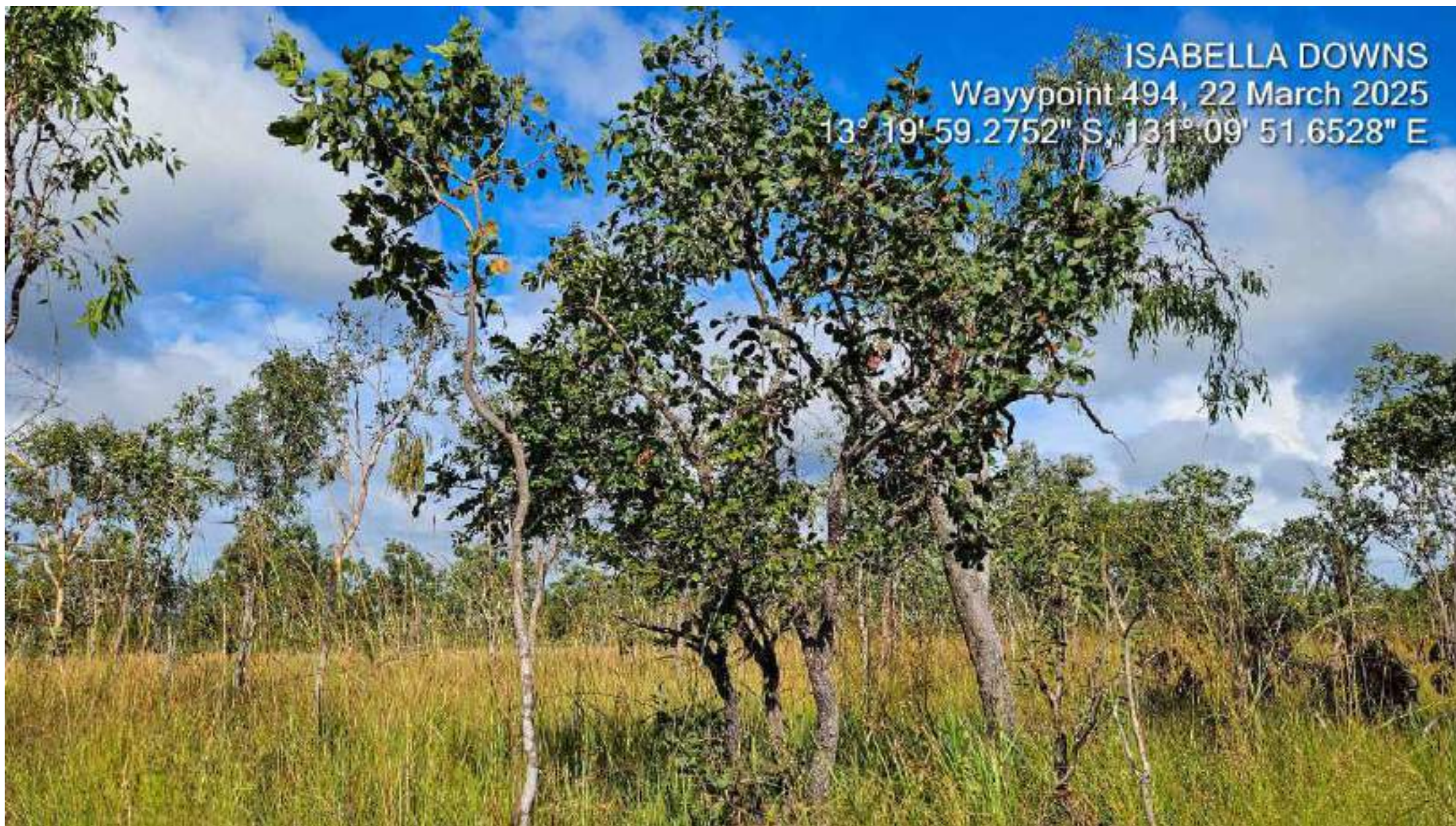


ISABELLA DOWNS
Waypoint 494, 22 March 2025
13° 19' 59.2752" S, 131° 09' 51.6528" E



ISABELLA DOWNS
Waypoint 494, 22 March 2025
13° 19' 59.2752" S, 131° 09' 51.6528" E







ISABELLA DOWNS
Waypoint 494, 22 March 2025
13° 19' 59.2752" S, 131° 09' 51.6528" E

ISABELLA DOWNS

Waypoint 494, 22 March 2025

13° 19' 59.2752" S, 131° 09' 51.6528" E



ISABELLA DOWNS
Waypoint 494, 22 March 2025
13° 19' 59.2752" S, 131° 09' 51.6528" E



ISABELLA DOWNS
Wayypoint 495, 23 March 2025
13° 20' 09.5388" S, 131° 10' 27.0516" E





ISABELLA DOWNS

Waypoint 495, 23 March 2025

13° 20' 09.5388" S, 131° 10' 27.0516" E



ISABELLA DOWNS
Waypoint 495, 23 March 2025
13° 20' 09.5388" S, 131° 10' 27.0516" E

ISABELLA DOWNS
Waypoint 495, 23 March 2025
13° 20' 09.5388" S, 131° 10' 27.0516" E



ISABELLA DOWNS
Waypoint 495, 23 March 2025
13° 20' 09.5388" S, 131° 10' 27.0516" E





ISABELLA DOWNS
Waypoint 496, 23 March 2025
13° 20' 08.2356" S, 131° 10' 29.0496" E



ISABELLA DOWNS

Waypoint 496, 23 March 2025

13° 20' 08.2356" S, 131° 10' 29.0496" E



ISABELLA DOWNS

Waypoint 496, 23 March 2025

13° 20' 08.2356" S 131° 10' 29.0496" E



ISABELLA DOWNS
Waypoint 496, 23 March 2025
13° 20' 08.2356" S, 131° 10' 29.0496" E

ISABELLA DOWNS
Waypoint 496, 23 March 2025
13° 20' 08.2356" S, 131° 10' 29.0496" E





ISABELLA DOWNS

Waypoint 497, 23 March 2025

13° 20' 07.6020" S, 131° 10' 30.3852" E

ISABELLA DOWNS
Waypoint 497, 23 March 2025
13° 20' 07.6020" S, 131° 10' 30.3852" E





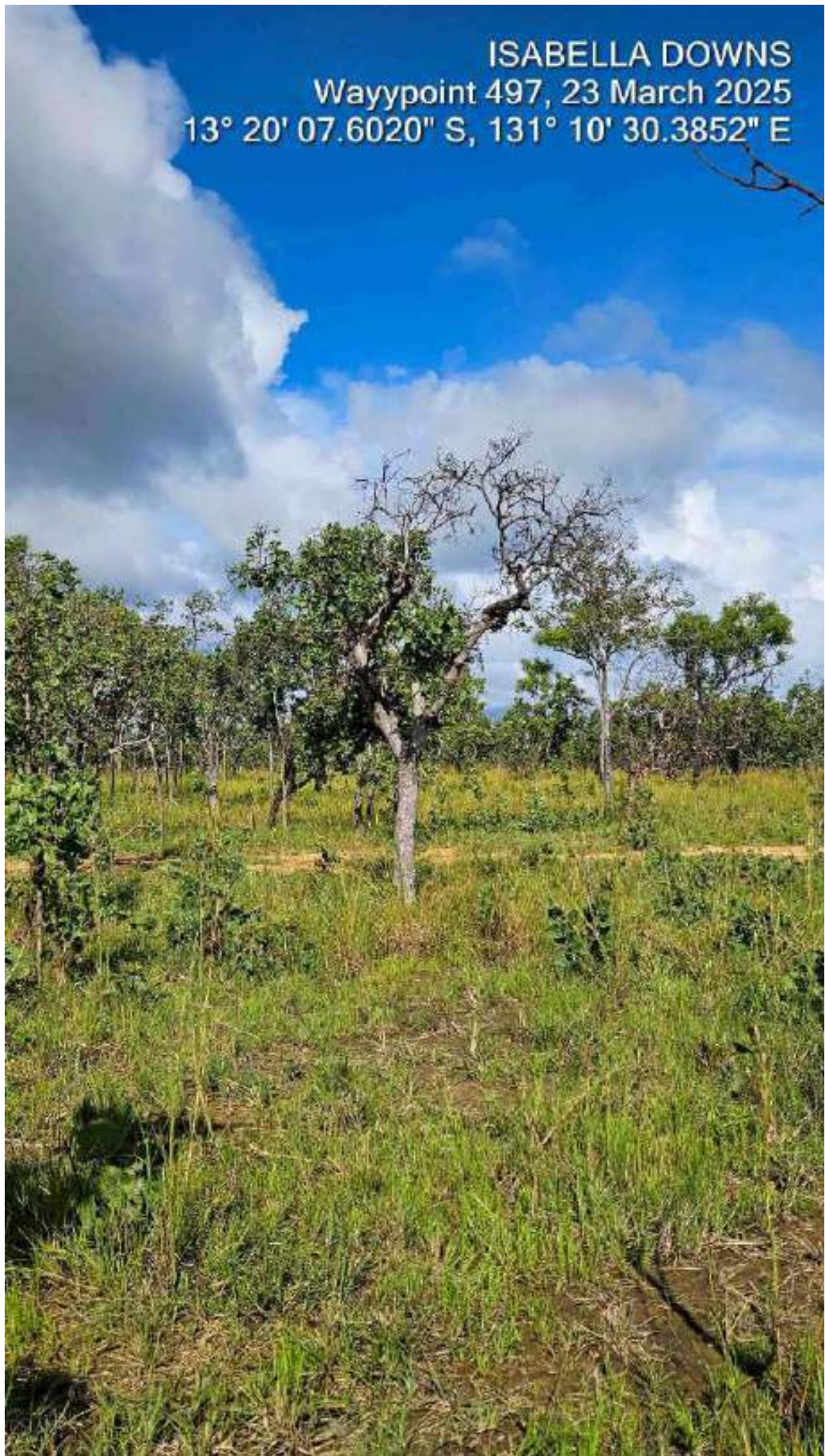
ISABELLA DOWNS

Waypoint 497, 23 March 2025

13° 20' 07.6020" S, 131° 10' 30.3852" E



ISABELLA DOWNS
Waypoint 497, 23 March 2025
13° 20' 07.6020" S, 131° 10' 30.3852" E





ISABELLA DOWNS

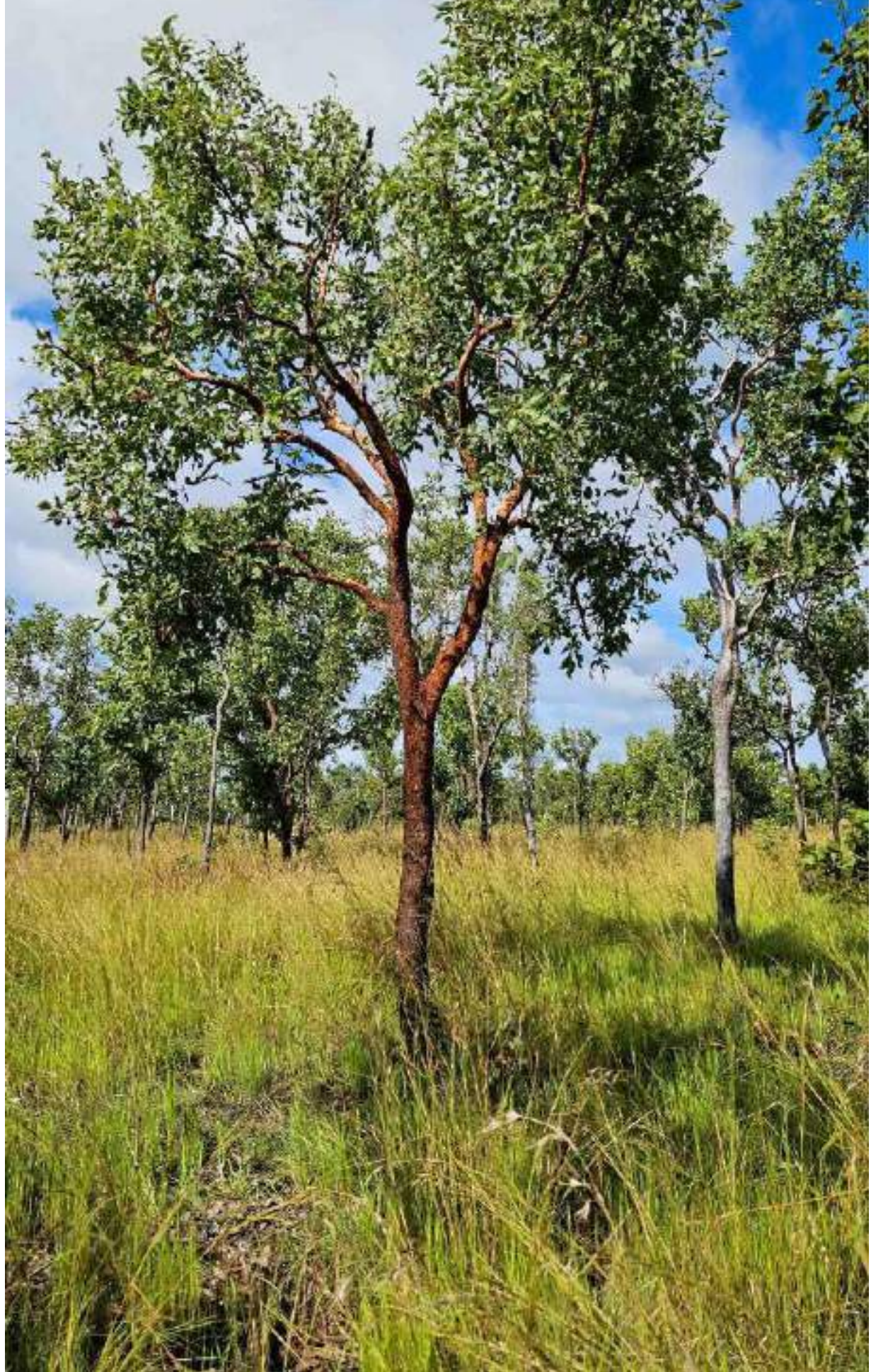
Waypoint 497, 23 March 2025

13° 20' 07.6020" S, 131° 10' 30.3852" E

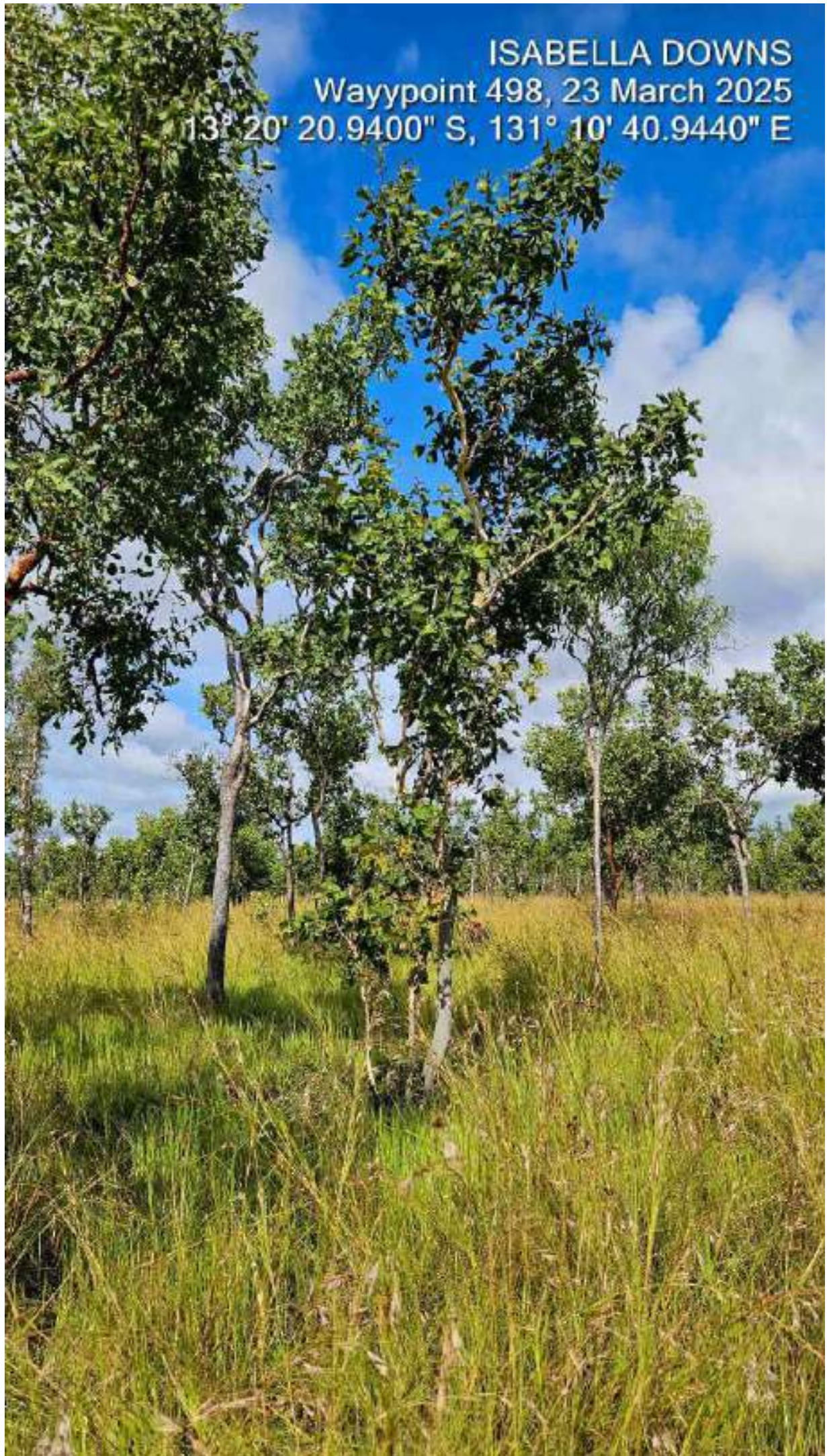
ISABELLA DOWNS
Waypoint 497, 23 March 2025
13° 20' 07.6020" S, 131° 10' 30.3852" E



ISABELLA DOWNS
Waypoint 498, 23 March 2025
13° 20' 20.9400" S, 131° 10' 40.9440" E

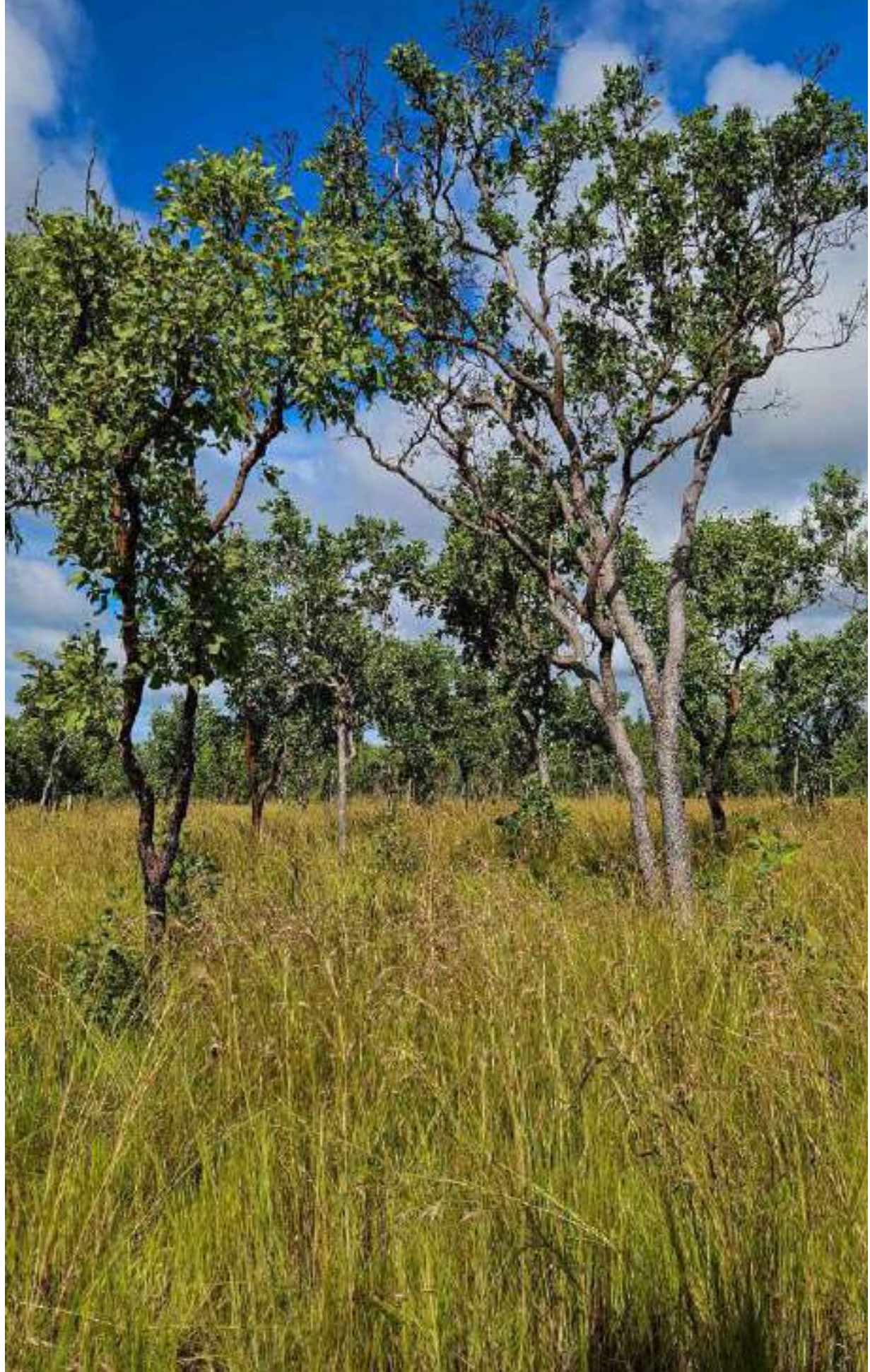


ISABELLA DOWNS
Waypoint 498, 23 March 2025
13° 20' 20.9400" S, 131° 10' 40.9440" E





ISABELLA DOWNS
Waypoint 498, 23 March 2025
13° 20' 20.9400" S, 131° 10' 40.9440" E





ISABELLA DOWNS

Waypoint 498, 23 March 2025

13° 20' 20.9400" S, 131° 10' 40.9440" E



ISABELLA DOWNS
Waypoint 498, 23 March 2025
13° 20' 20.9400" S, 131° 10' 40.9440" E

ISABELLA DOWNS
Waypoint 498, 23 March 2025
13° 20' 20.9400" S, 131° 10' 40.9440" E

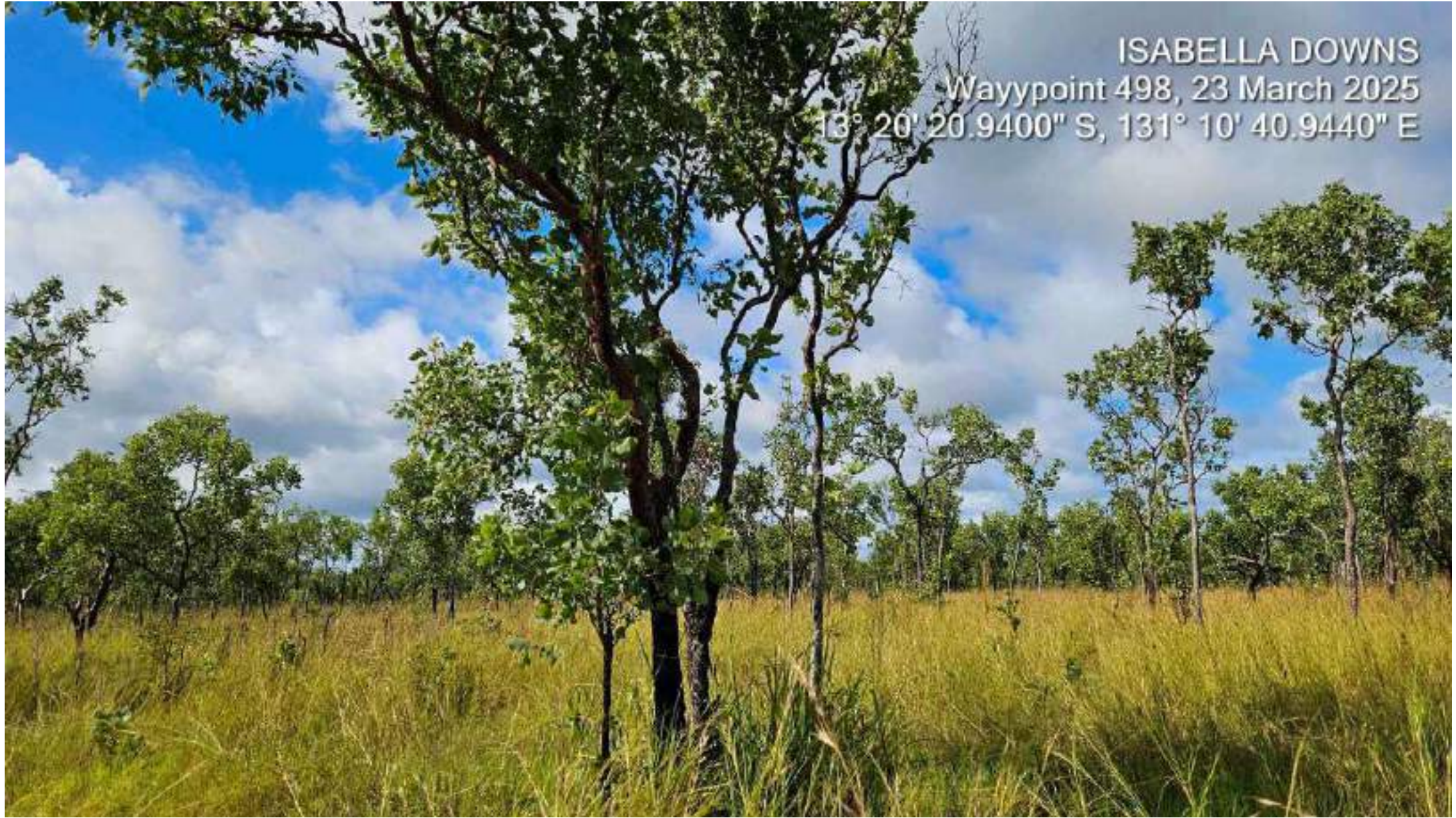


ISABELLA DOWNS
Waypoint 498, 23 March 2025
13° 20' 20.9400" S, 131° 10' 40.9440" E





ISABELLA DOWNS
Waypoint 498, 23 March 2025
13° 20' 20.9400" S, 131° 10' 40.9440" E



ISABELLA DOWNS
Waypoint 498, 23 March 2025
13° 20' 20.9400" S, 131° 10' 40.9440" E

ISABELLA DOWNS

Waypoint 498, 23 March 2025

13° 20' 20.9400" S, 131° 10' 40.9440" E



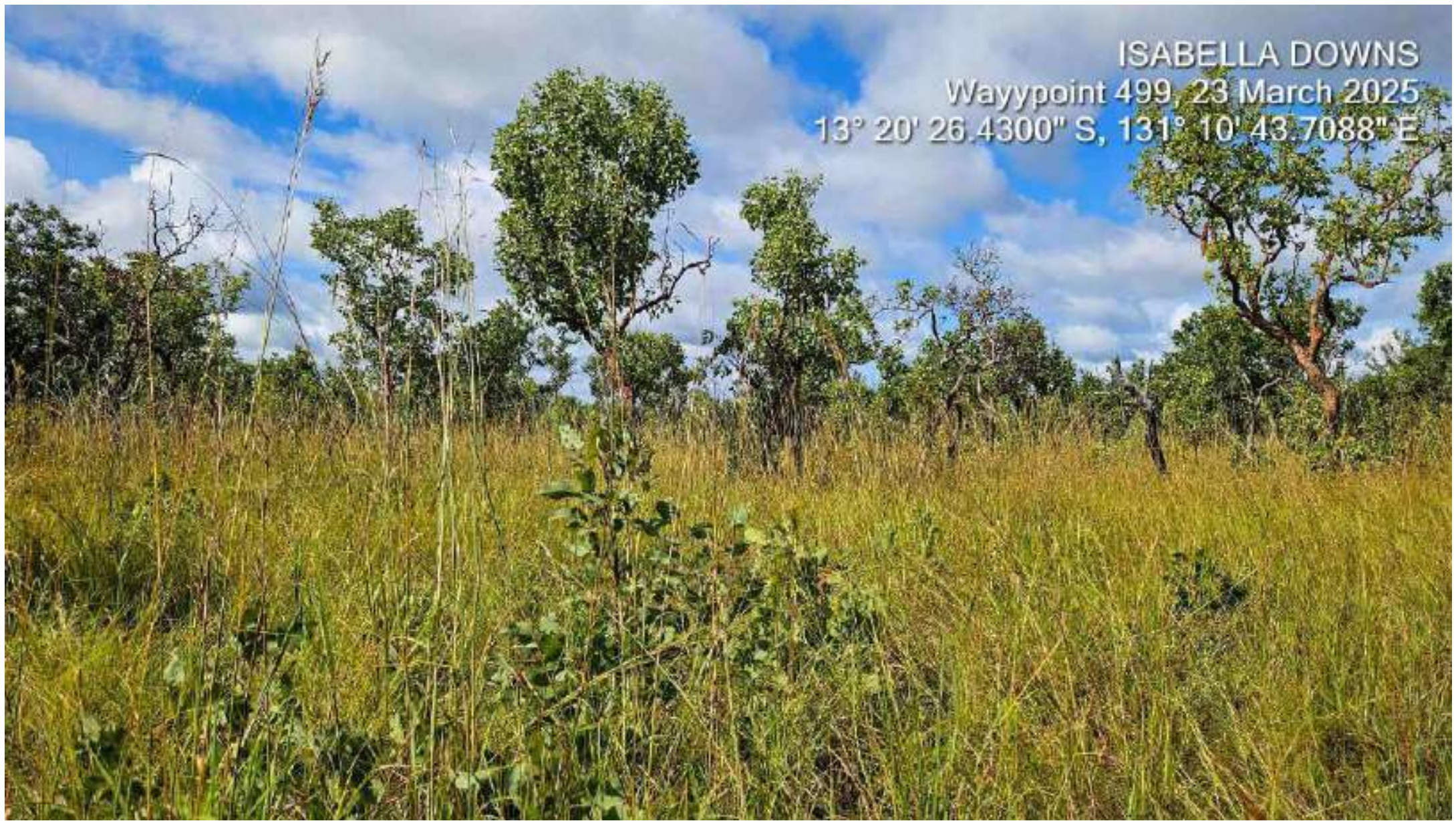


ISABELLA DOWNS

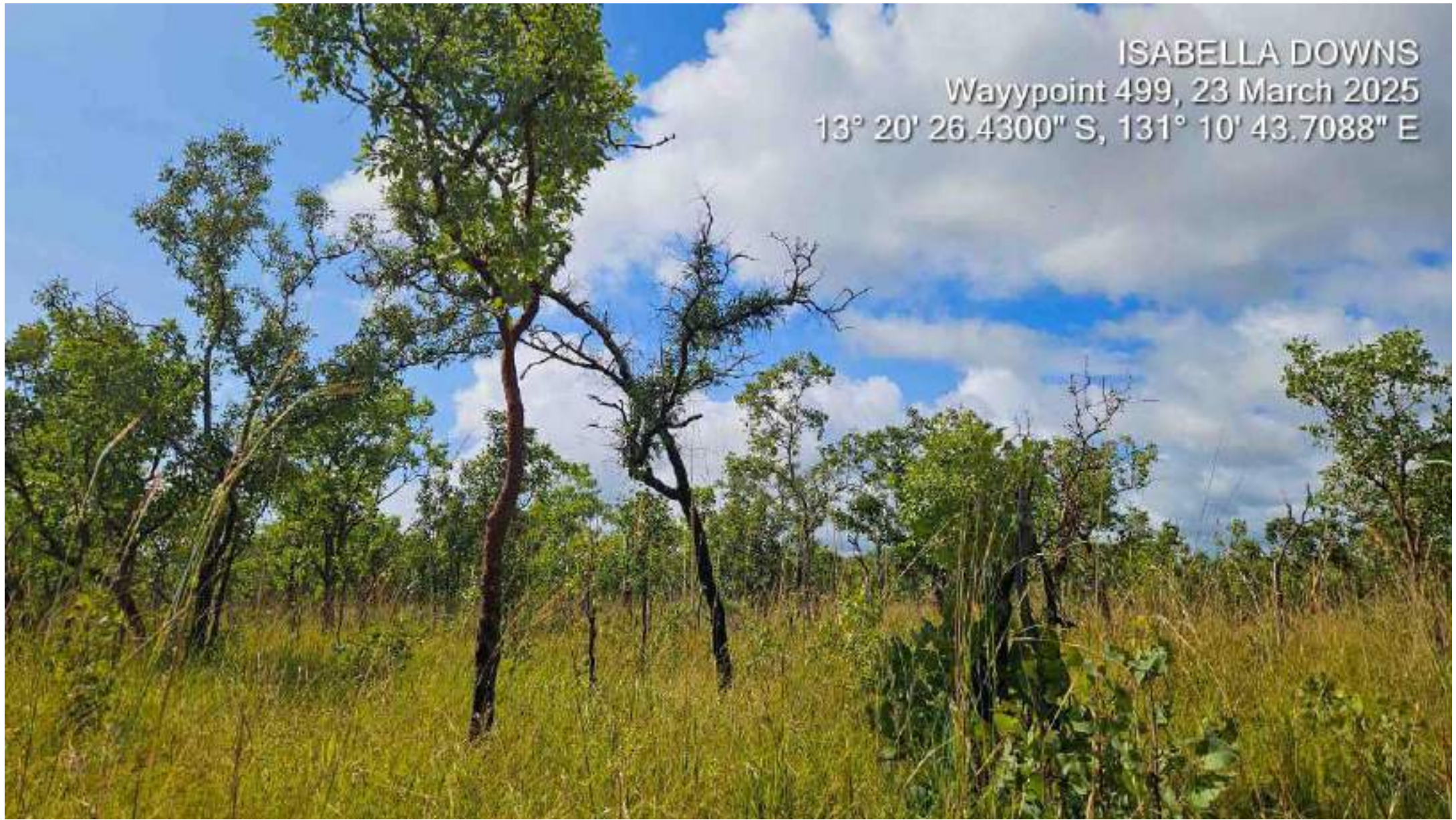
Waypoint 499 / 23 March 2025

13° 20' 26.4300" S, 131° 10' 43.7088" E

ISABELLA DOWNS
Waypoint 499, 23 March 2025
13° 20' 26.4300" S, 131° 10' 43.7088" E



ISABELLA DOWNS
Waypoint 499, 23 March 2025
13° 20' 26.4300" S, 131° 10' 43.7088" E



ISABELLA DOWNS
Waypoint 499, 23 March 2025
13° 20' 26.4300" S, 131° 10' 43.7088" E



ISABELLA DOWNS
Waypoint 499, 23 March 2025
13° 20' 26.4300" S, 131° 10' 43.7088" E



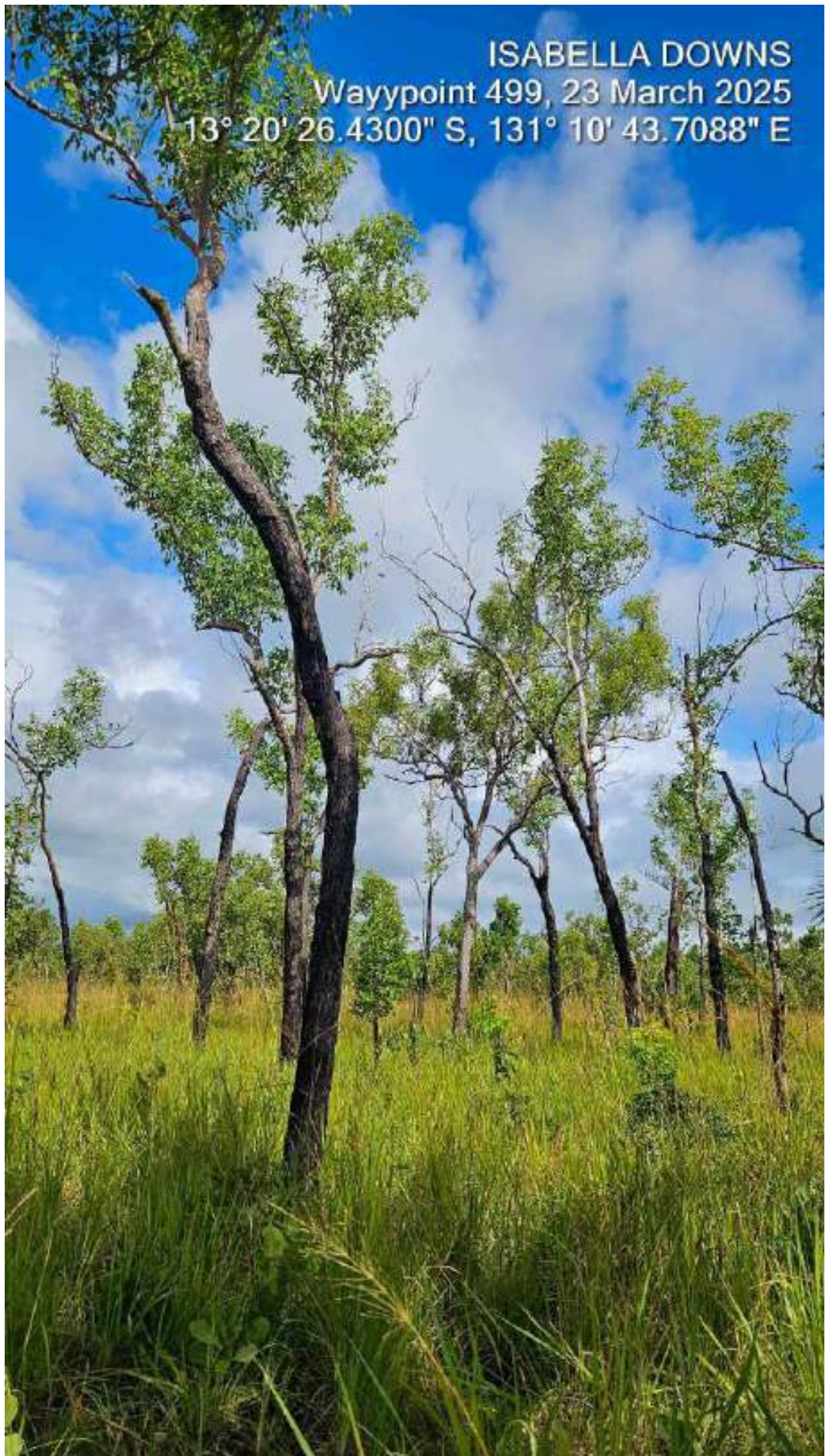


ISABELLA DOWNS
Waypoint 499, 23 March 2025
13° 20' 26.4300" S, 131° 10' 43.7088" E

ISABELLA DOWNS

Waypoint 499, 23 March 2025

13° 20' 26.4300" S, 131° 10' 43.7088" E





ISABELLA DOWNS

Waypoint 499, 23 March 2025

13° 20' 26.4300" S, 131° 10' 43.7088" E

ISABELLA DOWNS
Waypoint 499, 23 March 2025
13° 20' 26.4300" S, 131° 10' 43.7088" E





ISABELLA DOWNS
Waypoint 500, 23 March 2025
13° 20' 29.9796" S, 131° 10' 57.1620" E

ISABELLA DOWNS
Waypoint 500, 23 March 2025
13° 20' 29.9796" S, 131° 10' 57.1620" E







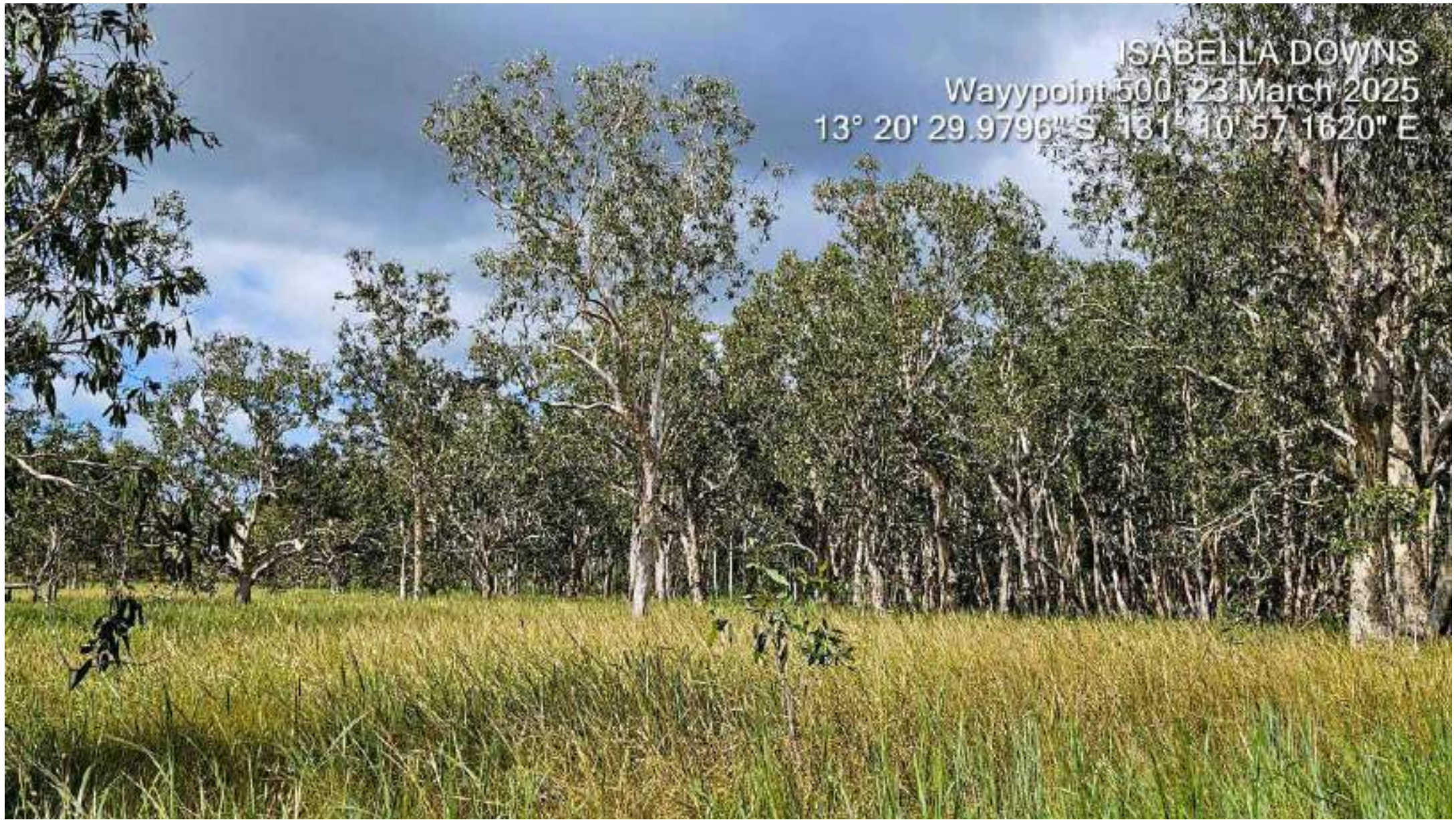


ISABELLA DOWNS

Waypoint 500, 23 March 2025

13° 20' 29.9796" S, 131° 10' 57.1620" E

ISABELLA DOWNS
Waypoint 500 23 March 2025
13° 20' 29.9796" S 181° 10' 57.1620" E



ISABELLA DOWNS
Waypoint 501, 23 March 2025
13° 20' 32.8452" S, 131° 10' 51.6036" E





ISABELLA DOWNS

Waypoint 501, 23 March 2025

13° 20' 32.8452" S, 131° 40' 51.6036" E

ISABELLA DOWNS

Waypoint 501, 23 March 2025

13° 20' 32.8452" S, 131° 10' 51.6036" E



ISABELLA DOWNS

Waypoint 501, 23 March 2025

13° 20' 32.8452" S, 131° 10' 51.6036" E





ISABELLA DOWNS
Waypoint 501, 23 March 2025
13° 20' 32.8452" S, 131° 10' 51.6036" E



ISABELLA DOWNS

Waypoint 501, 23 March 2025

13° 20' 32.8452" S, 131° 10' 51.6036" E

ISABELLA DOWNS

Waypoint 501, 23 March 2025

13° 20' 32.8452" S, 131° 10' 51.6036" E



ISABELLA DOWNS
Waypoint 501, 23 March 2025
13° 20' 32.8452" S, 131° 10' 51.6036" E





ISABELLA DOWNS

Waypoint 501, 23 March 2025

13° 20' 32.8452" S, 131° 10' 51.6036" E



ISABELLA DOWNS
Waypoint 501, 23 March 2025
13° 20' 32.8452" S, 131° 10' 51.6036" E





ISABELLA DOWNS

Waypoint 501 23 March 2025

13° 20' 32.8452" S, 131° 10' 51.6036" E

ISABELLA DOWNS
Waypoint 501, 23 March 2025
13° 20' 32.8452" S, 131° 10' 51.6036" E





ISABELLA DOWNS

Waypoint 502, 23 March 2025

13° 20' 45.6864" S, 131° 10' 54.7500" E

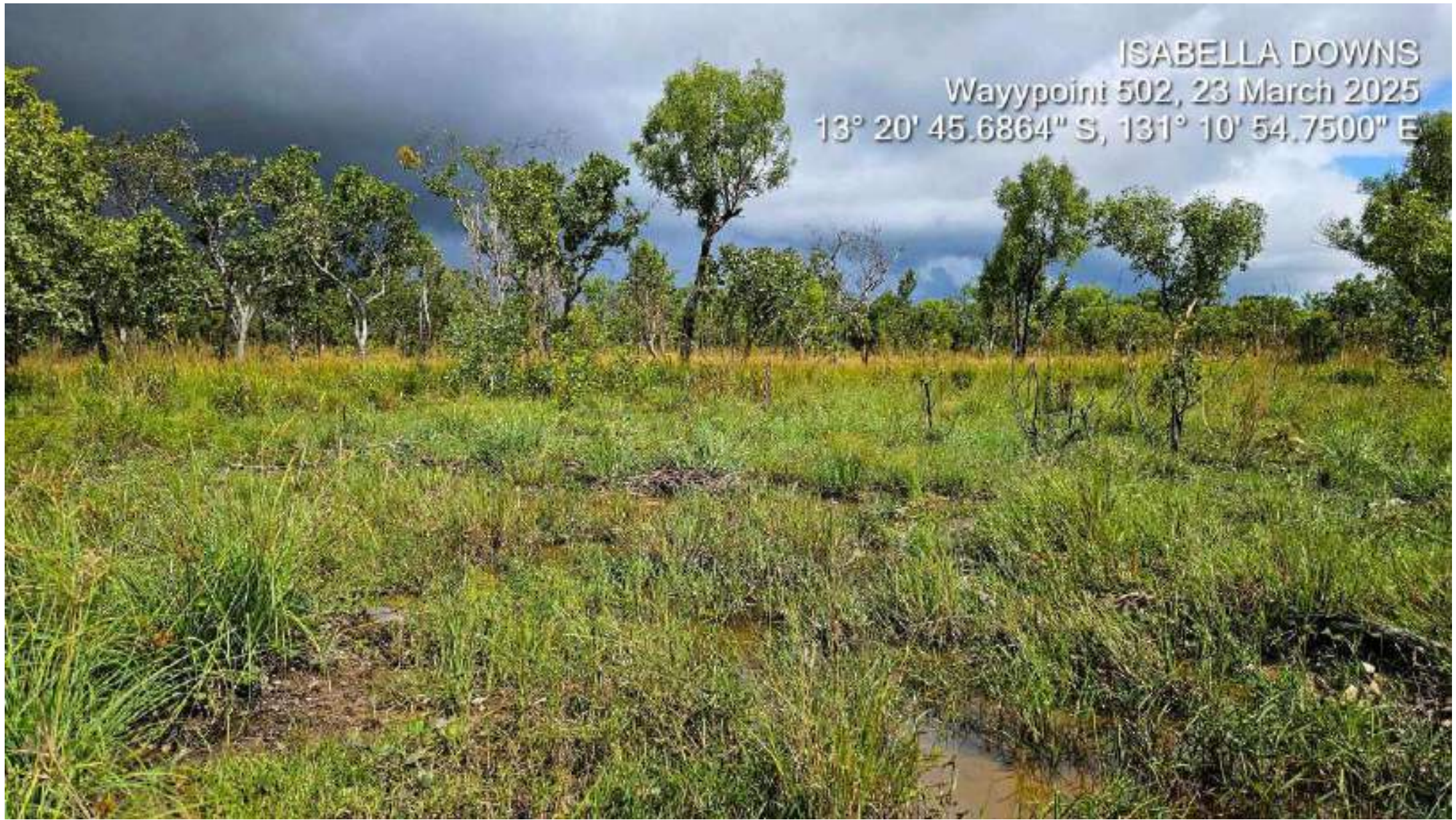


ISABELLA DOWNS

Waypoint 502, 23 March 2025

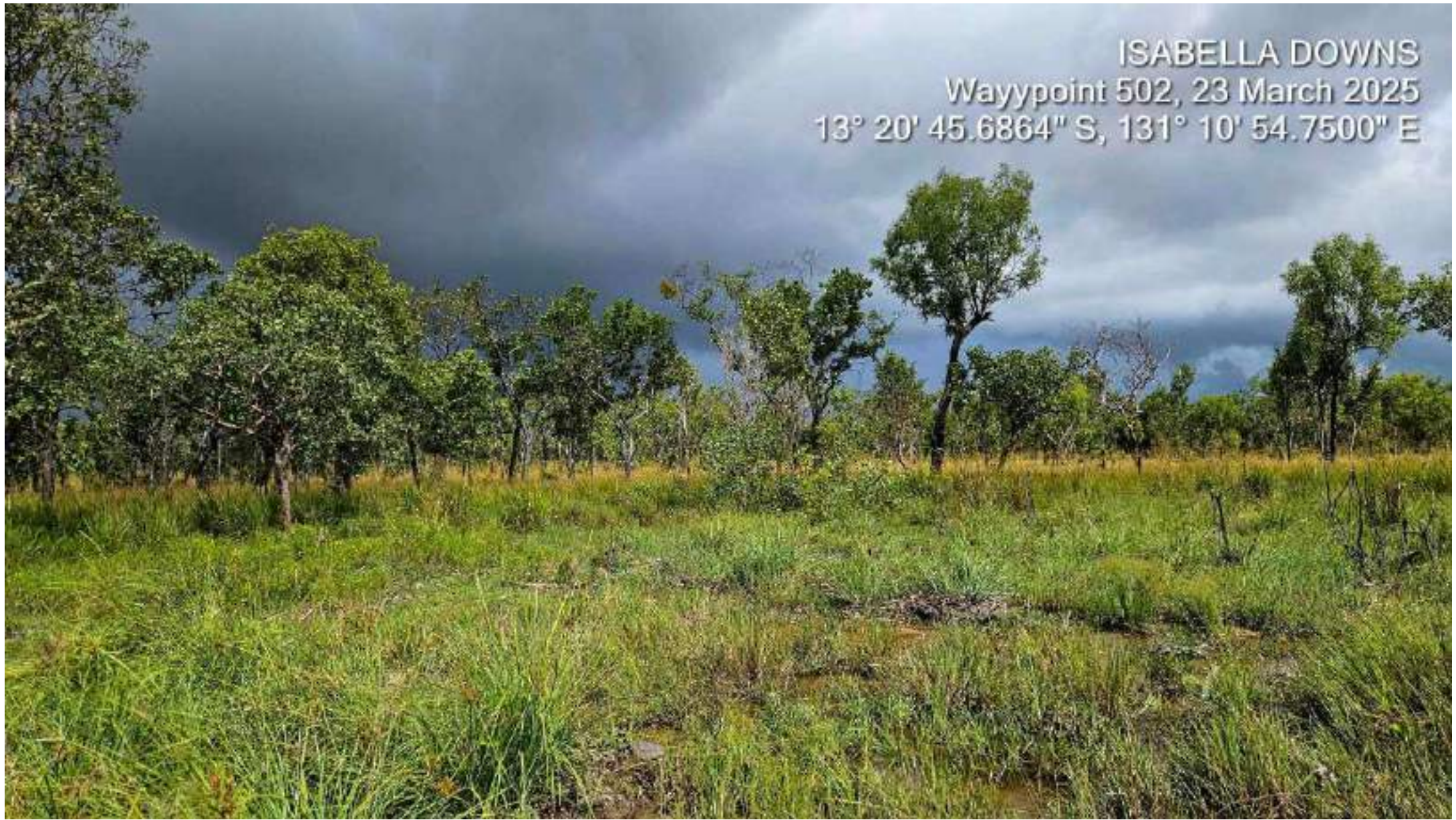
13° 20' 45.6864" S, 131° 10' 54.7500" E

ISABELLA DOWNS
Waypoint 502, 23 March 2025
13° 20' 45.6864" S, 131° 10' 54.7500" E





ISABELLA DOWNS
Waypoint 502, 23 March 2025
13° 20' 45.6864" S, 131° 10' 54.7500" E





ISABELLA DOWNS
Waypoint 502, 23 March 2025
13° 20' 45.6864" S, 131° 10' 54.7500" E

ISABELLA DOWNS
Waypoint 503, 23 March 2025
13° 19' 57.8604" S, 131° 10' 36.2064" E



ISABELLA DOWNS
Waypoint 503, 23 March 2025
13° 19' 57.8604" S, 161° 10' 36.2064" E





ISABELLA DOWNS

Waypoint 503, 23 March 2025

13° 19' 57.8604" S, 131° 10' 36.2064" E

ISABELLA DOWNS

Waypoint 503, 23 March 2025

13° 19' 57.8604" S, 131° 10' 36.2064" E



ISABELLA DOWNS
Waypoint 503, 23 March 2025
13° 19' 57.8604" S, 131° 10' 36.2064" E





ISABELLA DOWNS
Waypoint 503, 23 March 2025
13° 19' 57.8604" S, 131° 10' 36.2064" E

ISABELLA DOWNS
Waypoint 503: 23 March 2025
13° 19' 57.8604" S, 131° 10' 36.2064" E





ISABELLA DOWNS

Waypoint 503, 23 March 2025

13°19'57.8604" S, 131°10'36.2064" E



ISABELLA DOWNS
Waypoint 503 / 23 March 2025
13° 19' 57.8604" S, 131° 10' 36.2064" E





ISABELLA DOWNS
Waypoint 503, 23 March 2025
13° 19' 57.8604" S, 131° 10' 36.2064" E

ISABELLA DOWNS

Waypoint 503, 23 March 2025

13° 19' 57.8604" S, 131° 10' 36.2064" E





ISABELLA DOWNS

Waypoint 504, 23 March 2025

13° 19' 35.0688" S, 131° 10' 31.1412" E

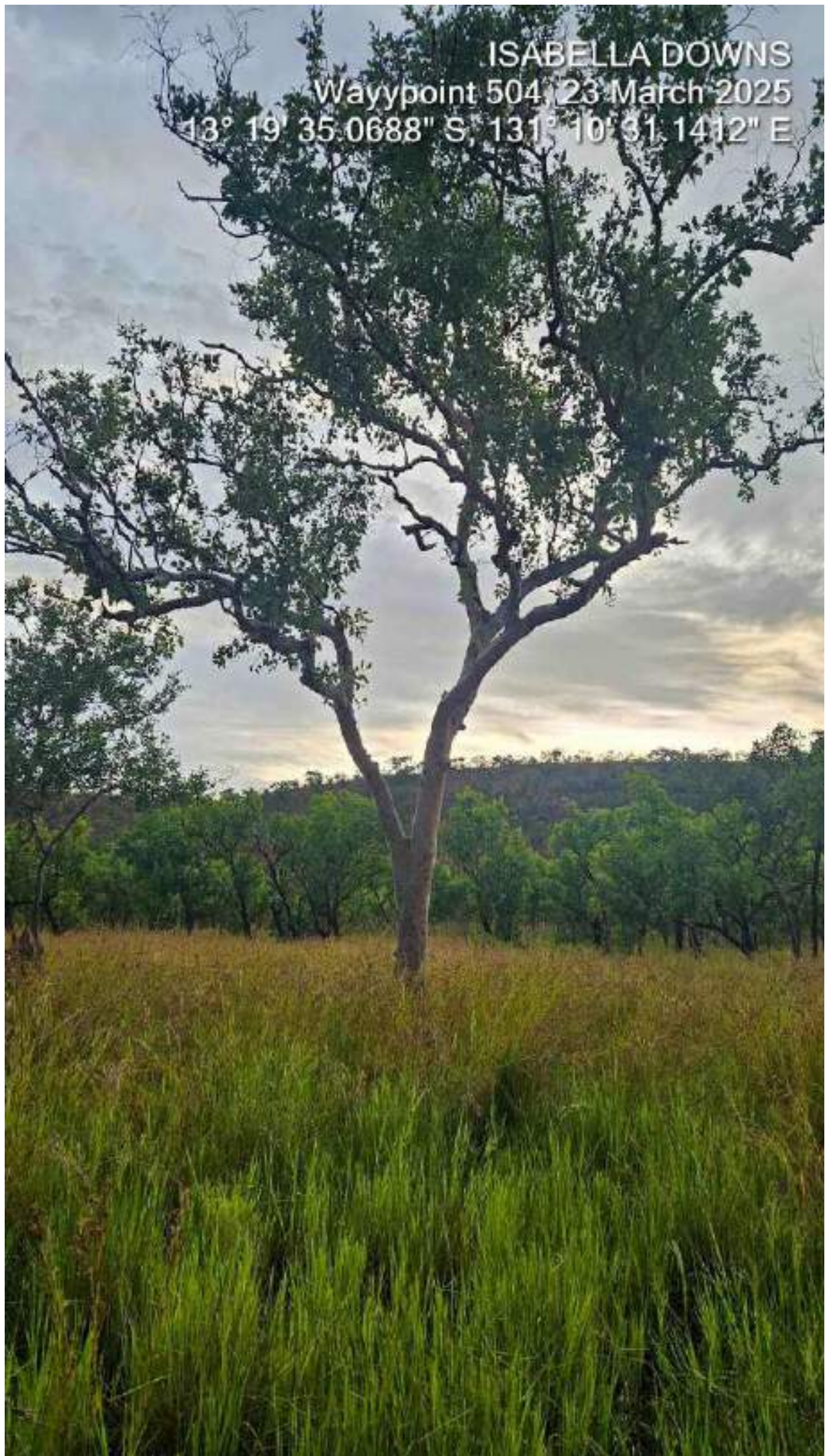


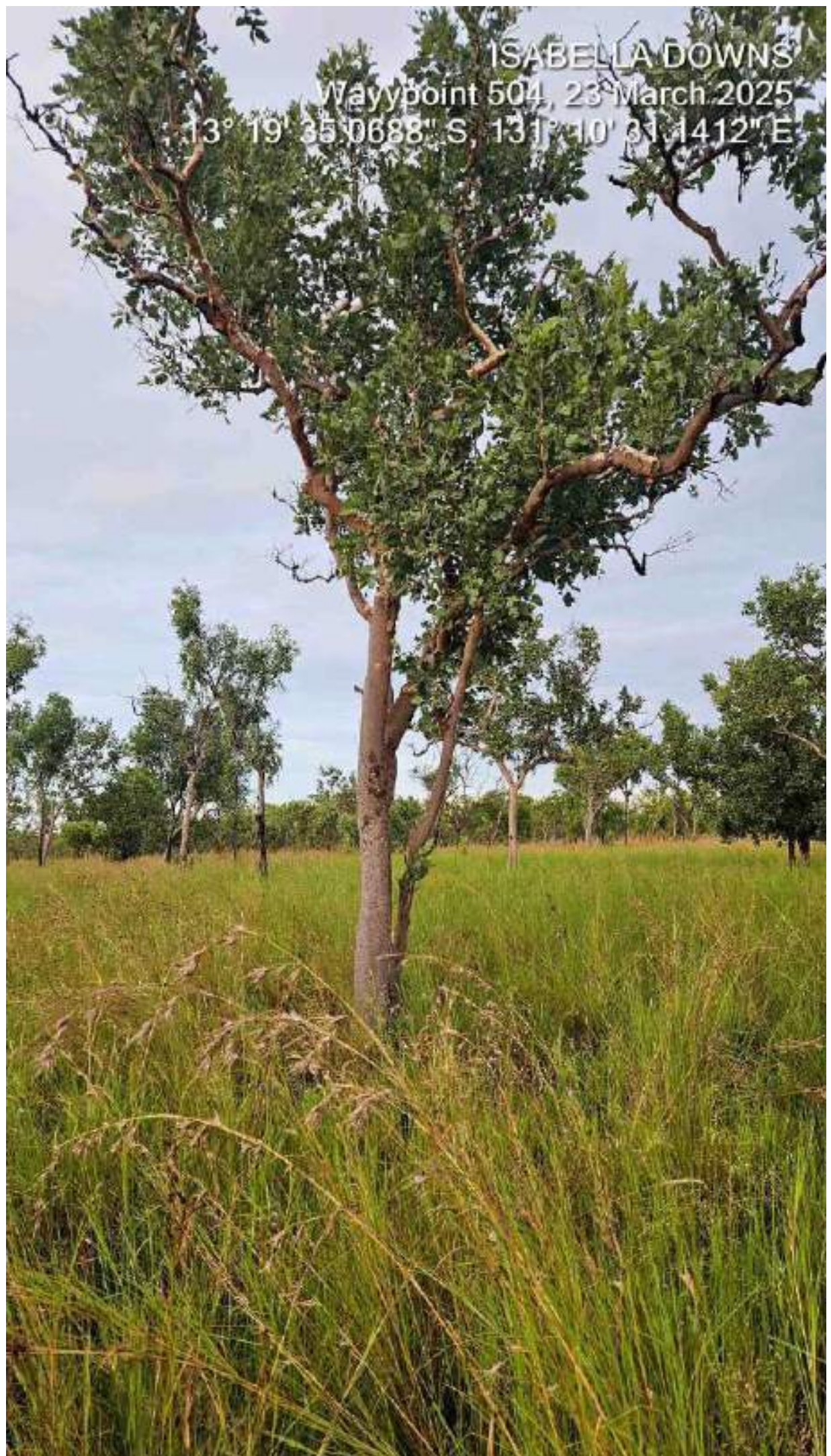
ISABELLA DOWNS

Waypoint 504, 23 March 2025

13° 19' 35.0688" S, 131° 10' 31.1412" E

ISABELLA DOWNS
Waypoint 504, 23 March 2025
13° 19' 35.0688" S, 131° 10' 31.1412" E





ISABELLA DOWNS

Waypoint 504, 23 March 2025

13° 19' 35.0688" S, 131° 10' 31.1412" E





ISABELLA DOWNS
Waypoint 594, 23 March 2025
13° 19' 35.0688" S, 131° 10' 31.1412" E



ISABELLA DOWNS
Waypoint 504, 23 March 2025
13° 19' 35.0688" S, 131° 10' 31.1412" E

ISABELLA DOWNS
Waypoint 504, 23 March 2025
13° 19' 35.0688" S, 131° 10' 31.1412" E





ISABELLA DOWNS

Waypoint 506, 23 March 2025

13° 19' 46.4484" S, 131° 10' 25.4388" E



ISABELLA DOWNS

Waypoint 506, 23 March 2025

13° 19' 46.4484" S, 131° 10' 25.4388" E

ISABELLA DOWNS

Waypoint 506, 23 March 2025

13° 19' 46.4484" S, 131° 10' 25.4388" E



ISABELLA DOWNS

Waypoint 506, 23 March 2025

13° 19' 46.4484" S 131° 10' 25.4388" E



ISABELLA DOWNS
Waypoint 506, 23 March 2025
13° 19' 46.4484" S, 131° 10' 25.4388" E





ISABELLA DOWNS

Waypoint 506, 23 March 2025

13° 19' 46.4484" S, 131° 10' 25.4388" E





ISABELLA DOWNS

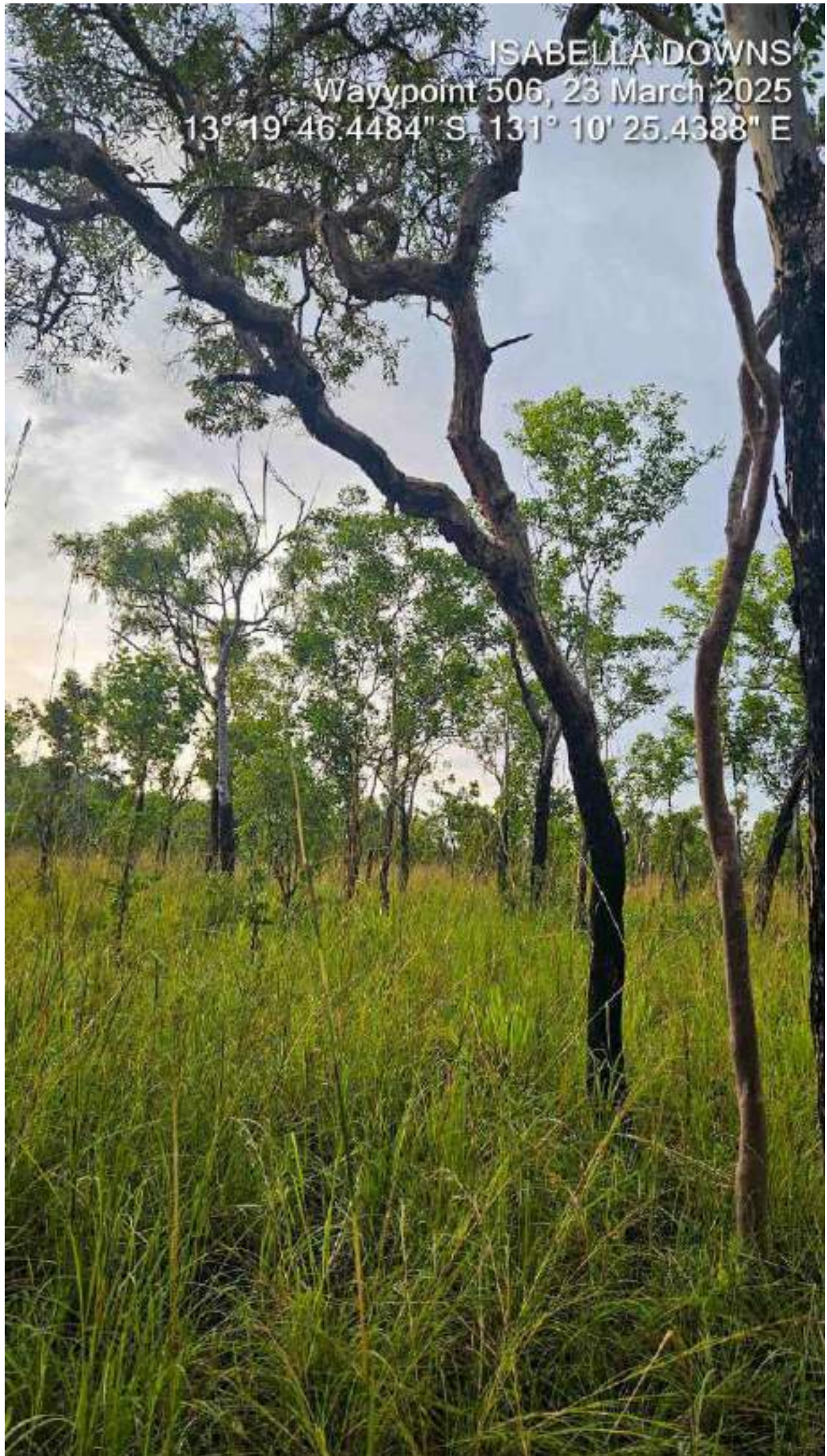
Waypoint 506, 23 March 2025

13° 19' 46.4484" S, 131° 10' 25.4388" E

ISABELLA DOWNS
Waypoint 506, 23 March 2025
13° 19' 46.4484" S, 131° 10' 25.4388" E



ISABELLA DOWNS
Waypoint 506, 23 March 2025
13° 19' 46.4484" S, 131° 10' 25.4388" E



ISABELLA DOWNS

Waypoint 506, 23 March 2025

13° 19' 46.4484" S, 131° 10' 25.4388" E



ISABELLA DOWNS

Waypoint 506, 23 March 2025

13° 19' 46.4484" S, 131° 10' 25.4388" E



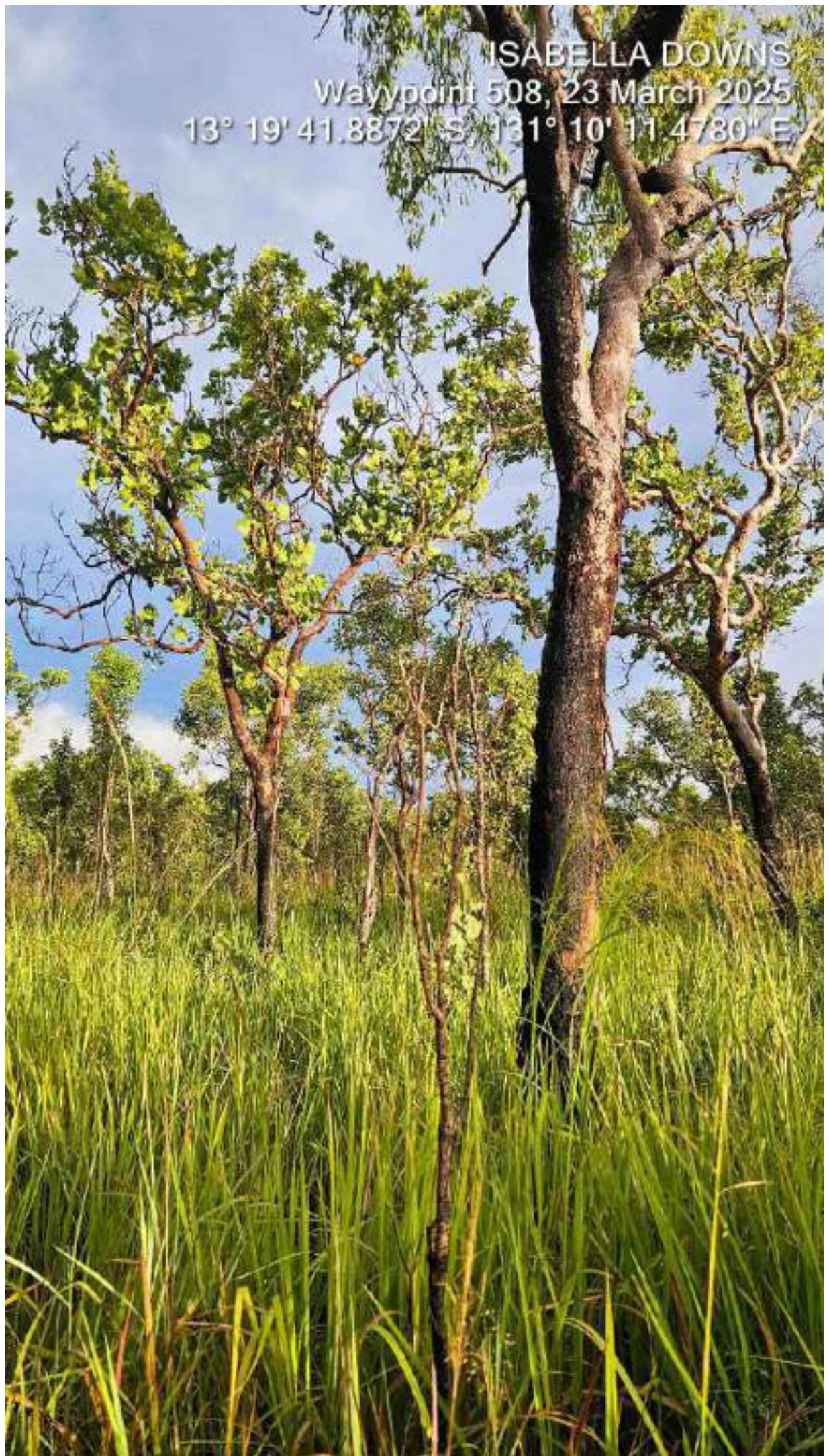


ISABELLA DOWNS
Waypoint 508, 23 March 2025
13° 19' 41.8872" S, 131° 10' 11.4780" E



ISABELLA DOWNS
Waypoint 508, 23 March 2025
13° 19' 41.8872" S, 131° 10' 11.4780" E

ISABELLA DOWNS
Waypoint 508, 23 March 2025
13° 19' 41.8872" S, 131° 10' 11.4780" E



ISABELLA DOWNS

Waypoint 508, 23 March 2025

13° 19' 41.8872" S, 131° 10' 11.4780" E



ISABELLA DOWNS
Waypoint 508, 23 March 2025
13° 19' 41.8872" S, 131° 10' 11.4780" E





ISABELLA DOWNS
Waypoint 508, 23 March 2025
13° 19' 41.8872" S, 131° 10' 11.4780" E

ISABELLA DOWNS

Waypoint 508, 23 March 2025

13° 19' 41.8872" S, 131° 10' 11.4780" E



ISABELLA DOWNS

Waypoint 508, 23 March 2025

13° 19' 41.8872" S, 131° 10' 11.4780" E





ISABELLA DOWNS

Waypoint 513, 23 March 2025

13° 19' 30.3168" S, 131° 10' 08.8140" E

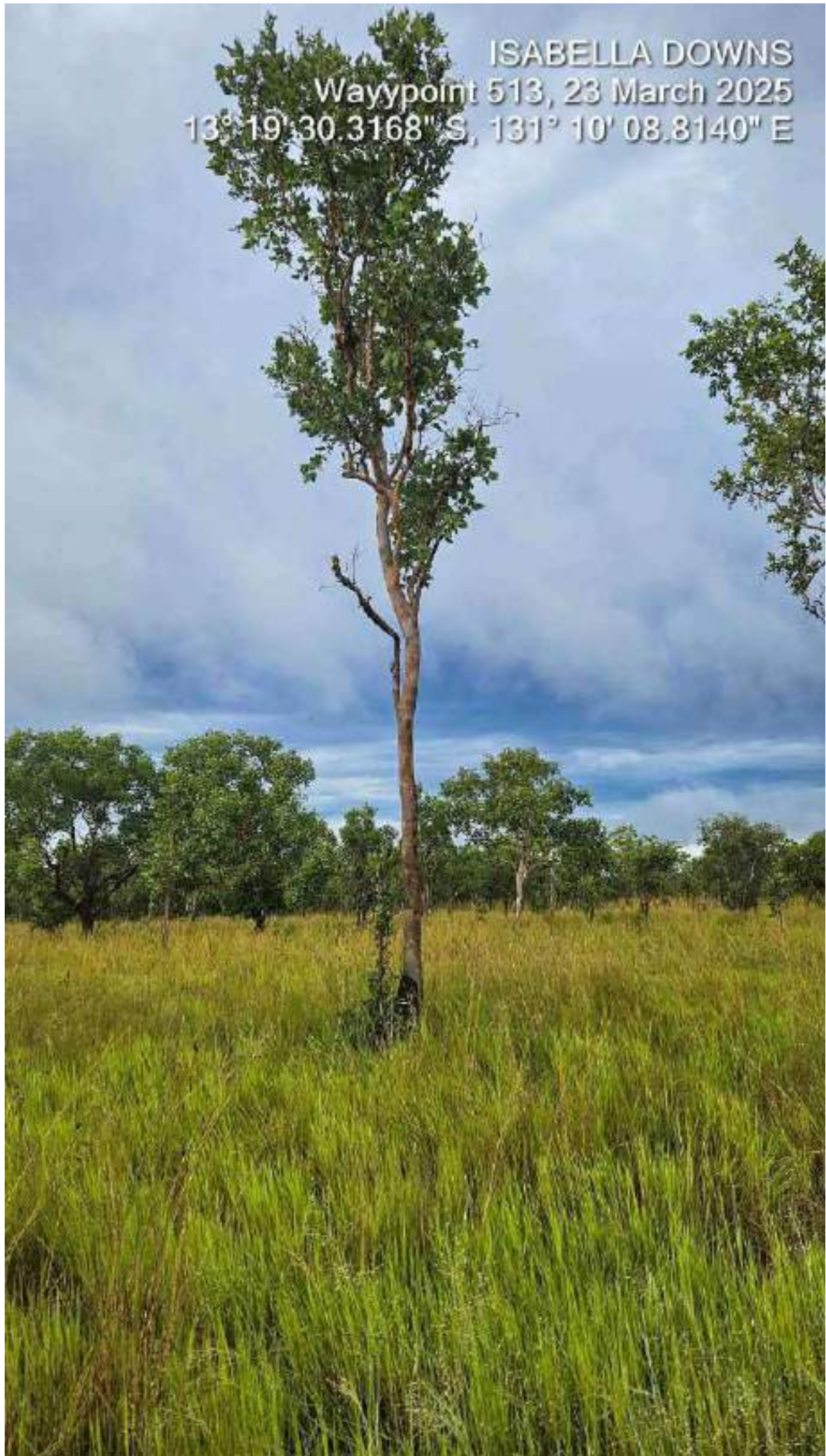
ISABELLA DOWNS
Waypoint 513, 23 March 2025
13° 19' 30.3168" S, 131° 10' 08.8140" E



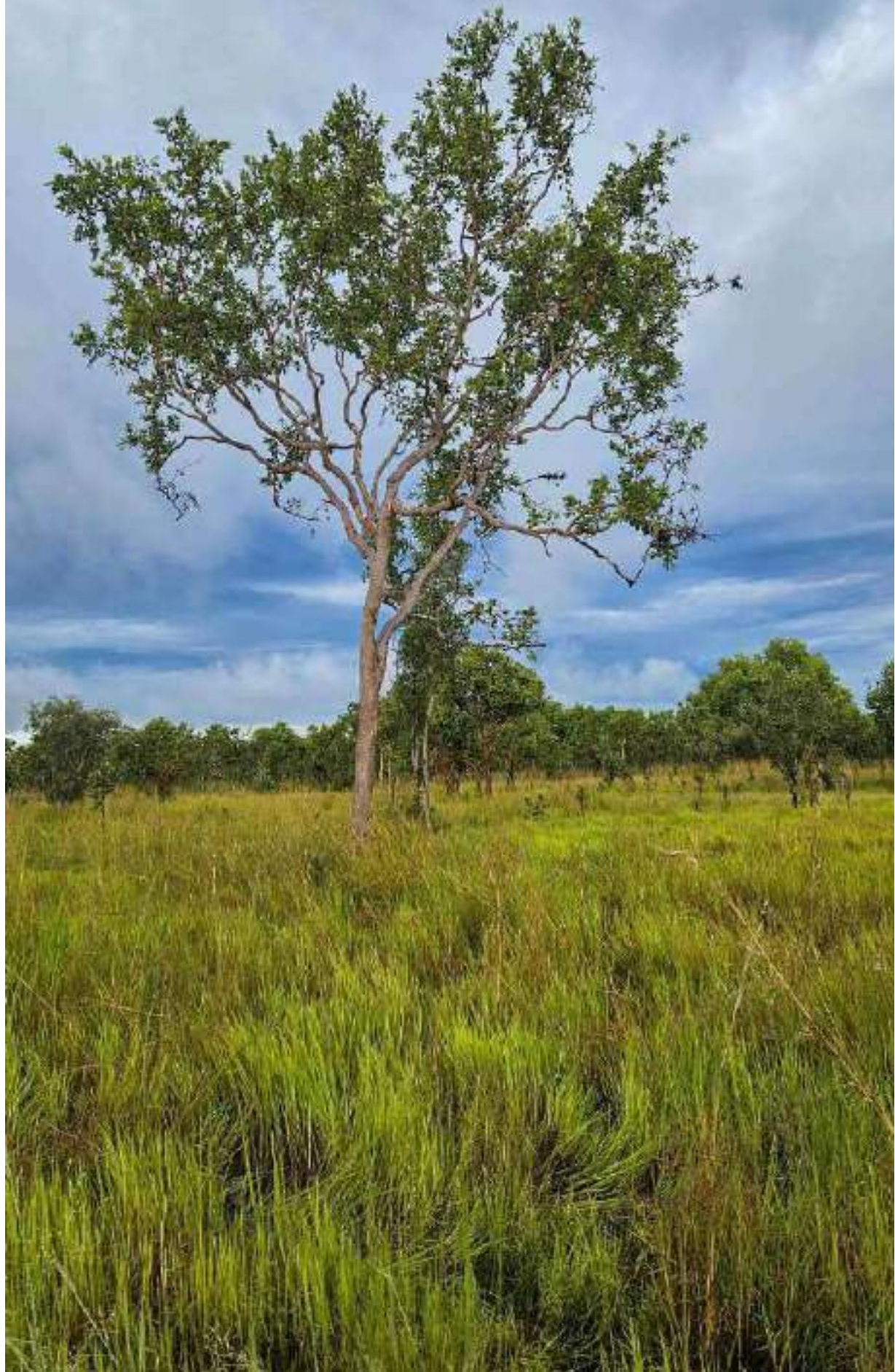




ISABELLA DOWNS
Waypoint 513, 23 March 2025
13° 19' 30.3168" S, 131° 10' 08.8140" E



ISABELLA DOWNS
Waypoint 513, 23 March 2025
13° 19' 30.3168" S, 131° 10' 08.8140" E



ISABELLA DOWNS
Waypoint 513, 23 March 2025
13° 19' 30.3168" S, 131° 10' 08.8140" E

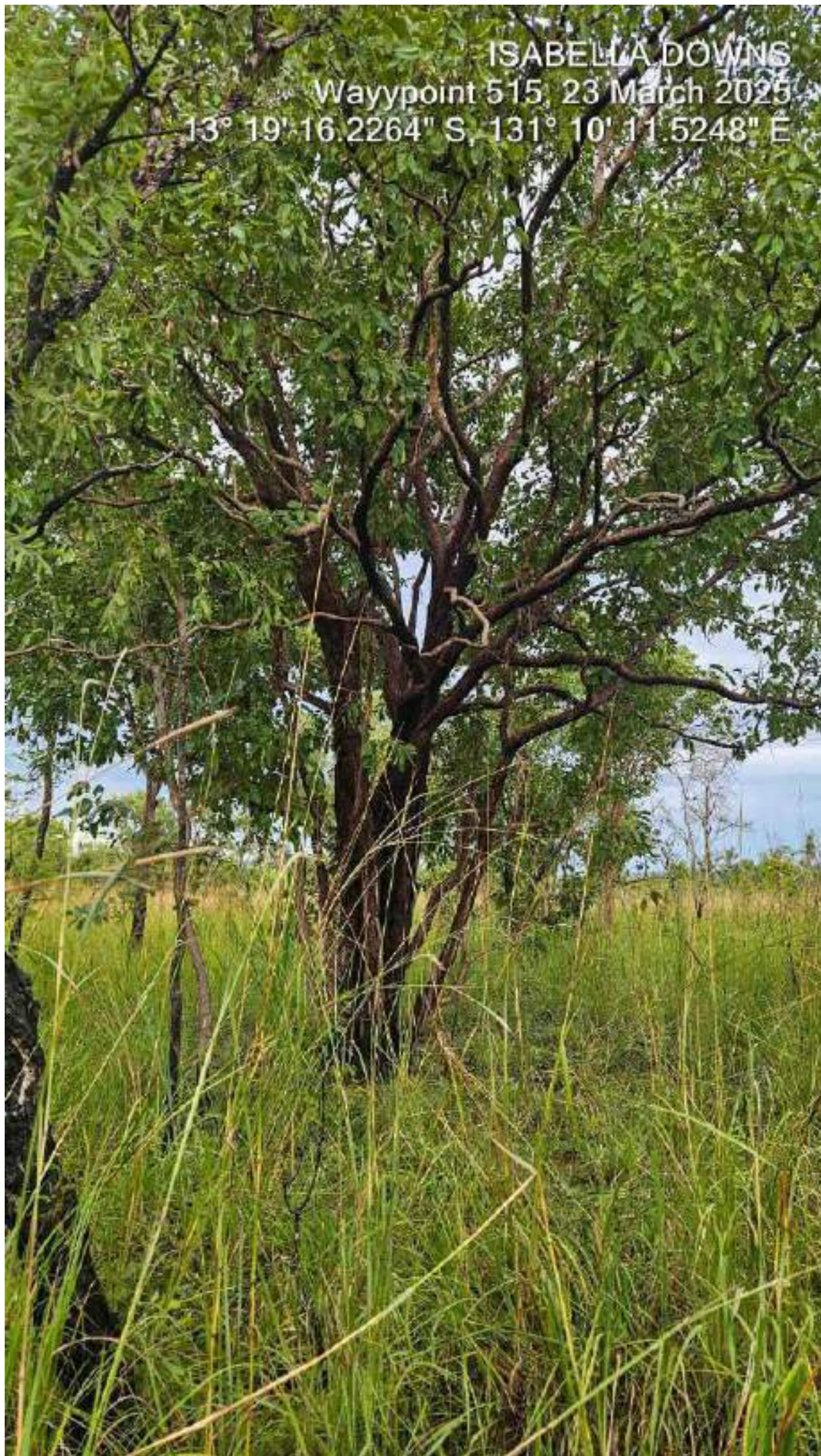




ISABELLA DOWNS

Waypoint 515, 23 March 2025

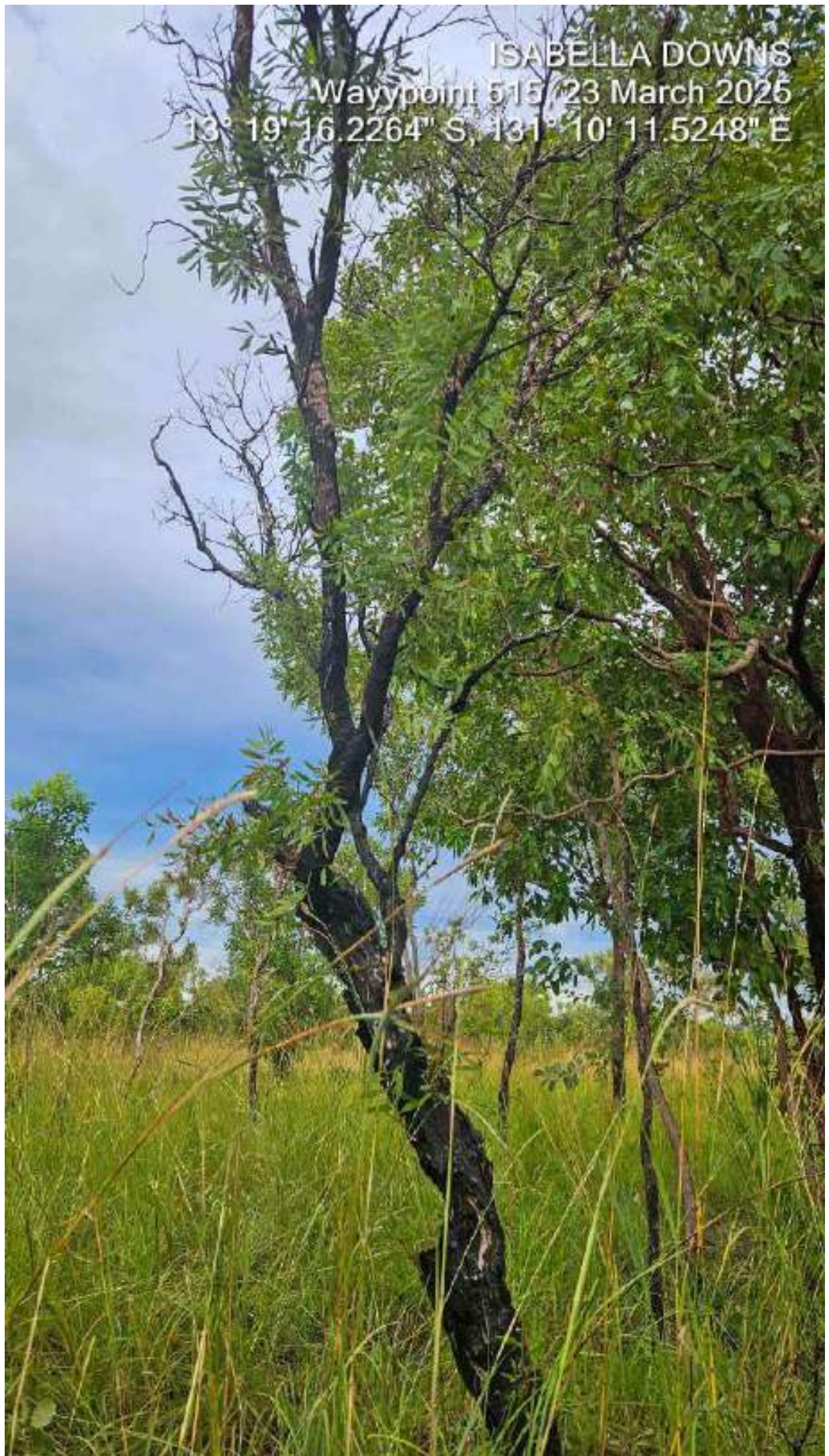
13° 19' 16.2264" S, 131° 10' 11.5248" E



ISABELLA DOWNS

Waypoint 515/23 March 2025

13° 19' 16.2264" S, 131° 10' 11.5248" E



ISABELLA DOWNS

Waypoint 515, 23 March 2025

13° 09' 16.2264" S 131° 10' 11.5248" E





ISABELLA DOWNS
Waypoint 515, 23 March 2025
13° 19' 16.2264" S, 131° 10' 11.5248" E



ISABELLA DOWNS
Waypoint 515, 23 March 2025
13° 19' 16.2264" S, 131° 10' 11.5248" E



ISABELLA DOWNS
Waypoint 515, 23 March 2025
13° 19' 16.2264" S, 131° 10' 11.5248" E



ISABELLA DOWNS
Waypoint 515, 23 March 2025
13° 19' 16.2264" S, 131° 10' 11.5248" E



ISABELLA DOWNS

Waypoint 515, 23 March 2025

13° 19' 16.2264" S, 131° 10' 11.5248" E






ISABELLA DOWNS

Waypoint 516, 23 March 2025

13° 19' 11.3088" S, 131° 09' 57.1140" E

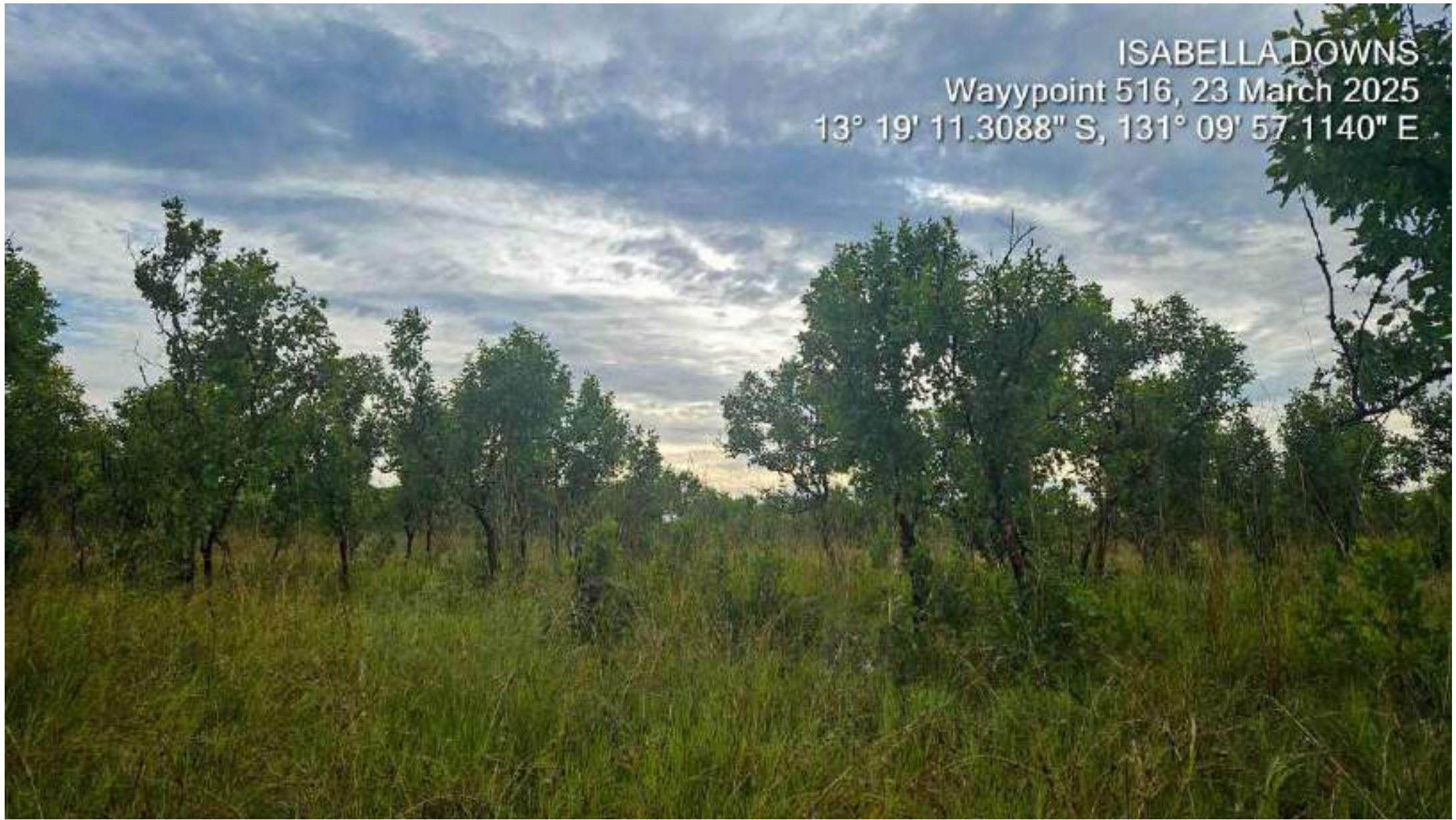


ISABELLA DOWNS
Wayypoint 516, 23 March 2025
13° 19' 11.3088" S, 131° 09' 57.1140" E

A photograph of a savanna landscape. In the foreground, there is a field of tall, dry grass. Several trees with green foliage are scattered across the middle ground. The sky is blue with some white clouds. In the top right corner, there is white text providing location and date information.

ISABELLA DOWNS
Waypoint 516, 23 March 2025
13° 19' 11.3088" S, 131° 09' 57.1140" E

ISABELLA DOWNS
Waypoint 516, 23 March 2025
13° 19' 11.3088" S, 131° 09' 57.1140" E



ISABELLA DOWNS

Waypoint 516, 23 March 2025

13° 19' 11.3088" S, 131° 09' 57.1440" E



ISABELLA DOWNS
Waypoint 516, 23 March 2025
13° 19' 11.3088" S, 131° 09' 57.1140" E





ISABELLA DOWNS

Waypoint 516, 23 March 2025

13° 19' 11.3088" S, 131° 09' 57.1140" E

ISABELLA DOWNS
Waypoint 516, 23 March 2025
13° 19' 11.3088" S, 131° 09' 57.1140" E



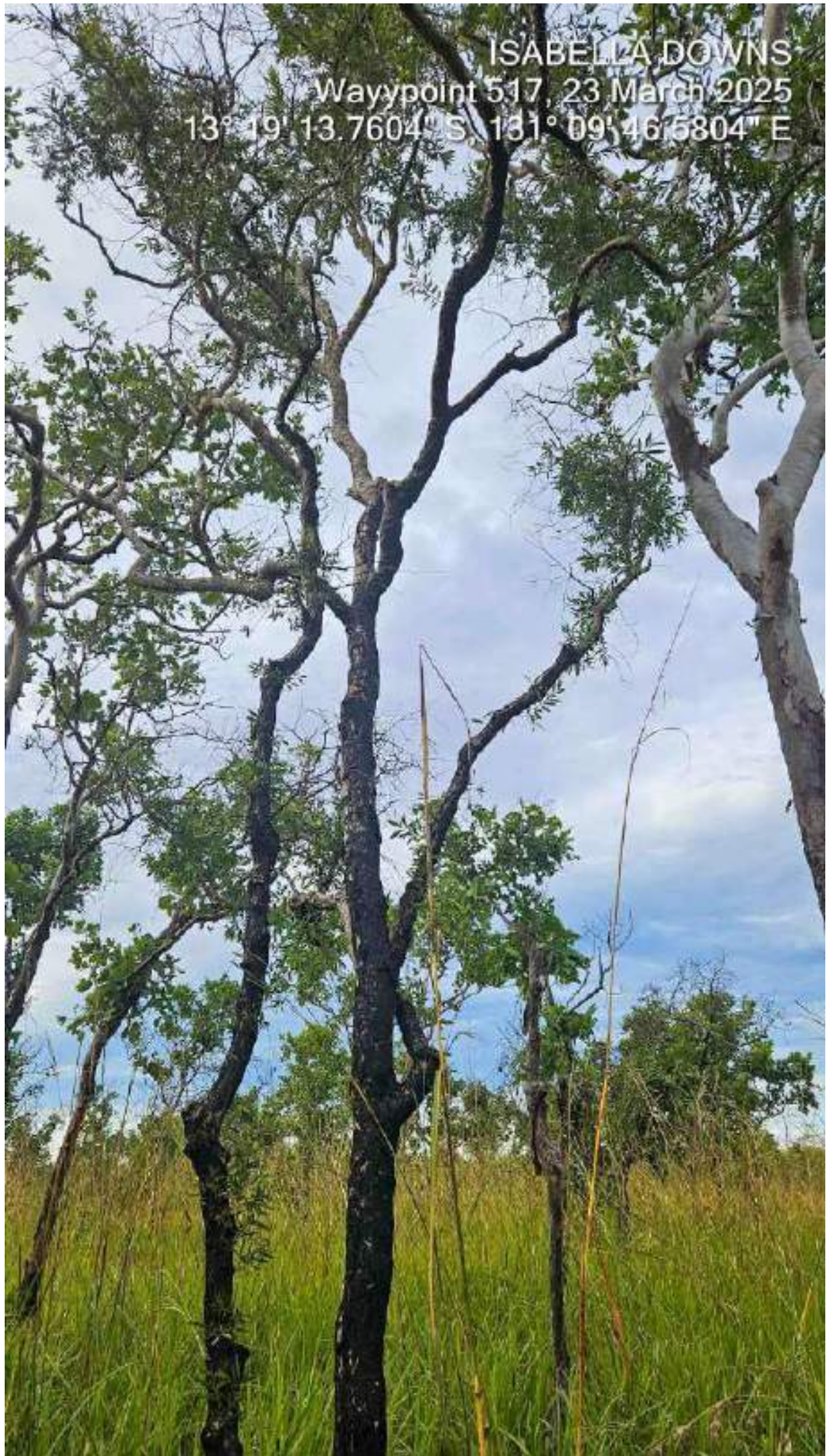
ISABELLA DOWNS
Waypoint 516, 23 March 2025
13° 19' 11.3088" S, 131° 09' 57.1140" E





ISABELLA DOWNS
Waypoint 517, 23 March 2025
13° 19' 13.7604" S, 131° 09' 46.5804" E

ISABELLA DOWNS
Waypoint 517, 23 March 2025
13° 19' 13.7604" S, 131° 09' 46.5804" E





ISABELLA DOWNS

Waypoint 517, 23 March 2025

13° 19' 13.7604" S, 131° 09' 46.5804" E



ISABELLA DOWNS

Waypoint 517, 23 March 2025

13° 19' 13.7604" S, 131° 09' 46.5804" E





ISABELLA DOWNS
Waypoint 518, 23 March 2025

13° 19' 13.4040" S, 131° 09' 40.9824" E

ISABELLA DOWNS
Waypoint 518, 23 March 2025
13° 19' 13.4040" S, 131° 09' 40.9824" E



ISABELLA DOWNS
Waypoint 518, 23 March 2025
13° 19' 13.4040" S, 131° 09' 40.9824" E



ISABELLA DOWNS
Waypoint 518, 23 March 2025
13° 19' 13.4040" S, 131° 09' 40.9824" E



ISABELLA DOWNS
Wayypoint 518, 23 March 2025
13° 19' 13.4040" S, 131° 09' 40.9824" E



ISABELLA DOWNS

Waypoint 518, 23 March 2025

13° 19' 13.4040" S, 131° 09' 40.9824" E







ISABELLA DOWNS

Waypoint 519, 23 March 2025

13° 19' 27.3576" S, 131° 09' 43.1712" E



ISABELLA DOWNS

Waypoint 519, 23 March 2025

16° 19' 27.3576" S, 131° 09' 43.1712" E

ISABELLA DOWNS

Waypoint 519, 23 March 2025

13° 19' 27.3576" S, 131° 09' 43.1712" E



ISABELLA DOWNS

Waypoint 519, 23 March 2025

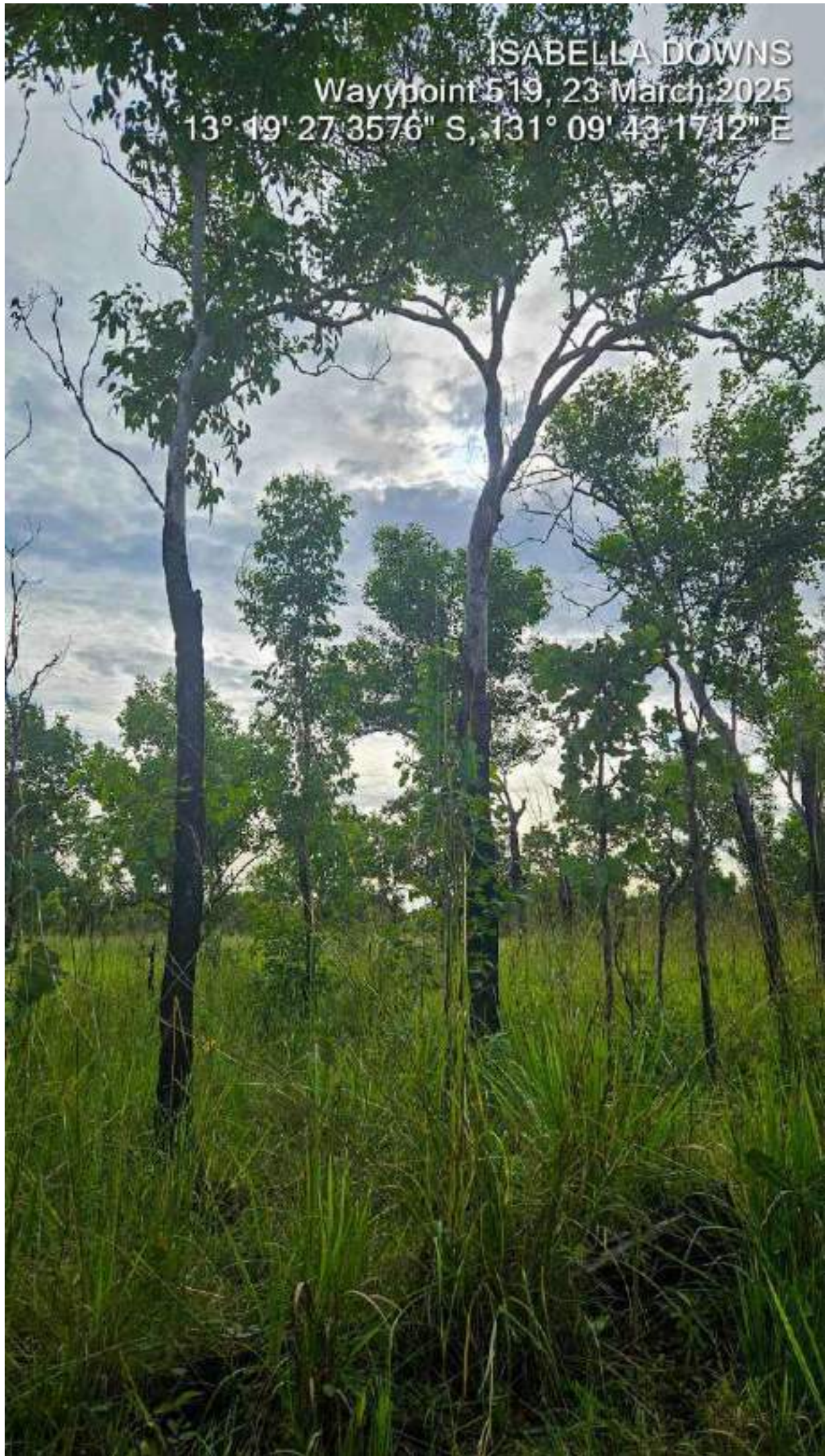
13° 19' 27.3576" S, 131° 09' 43.1712" E



ISABELLA DOWNS
Waypoint 519, 23 March 2025
13° 19' 27.3576" S, 131° 09' 43.1712" E



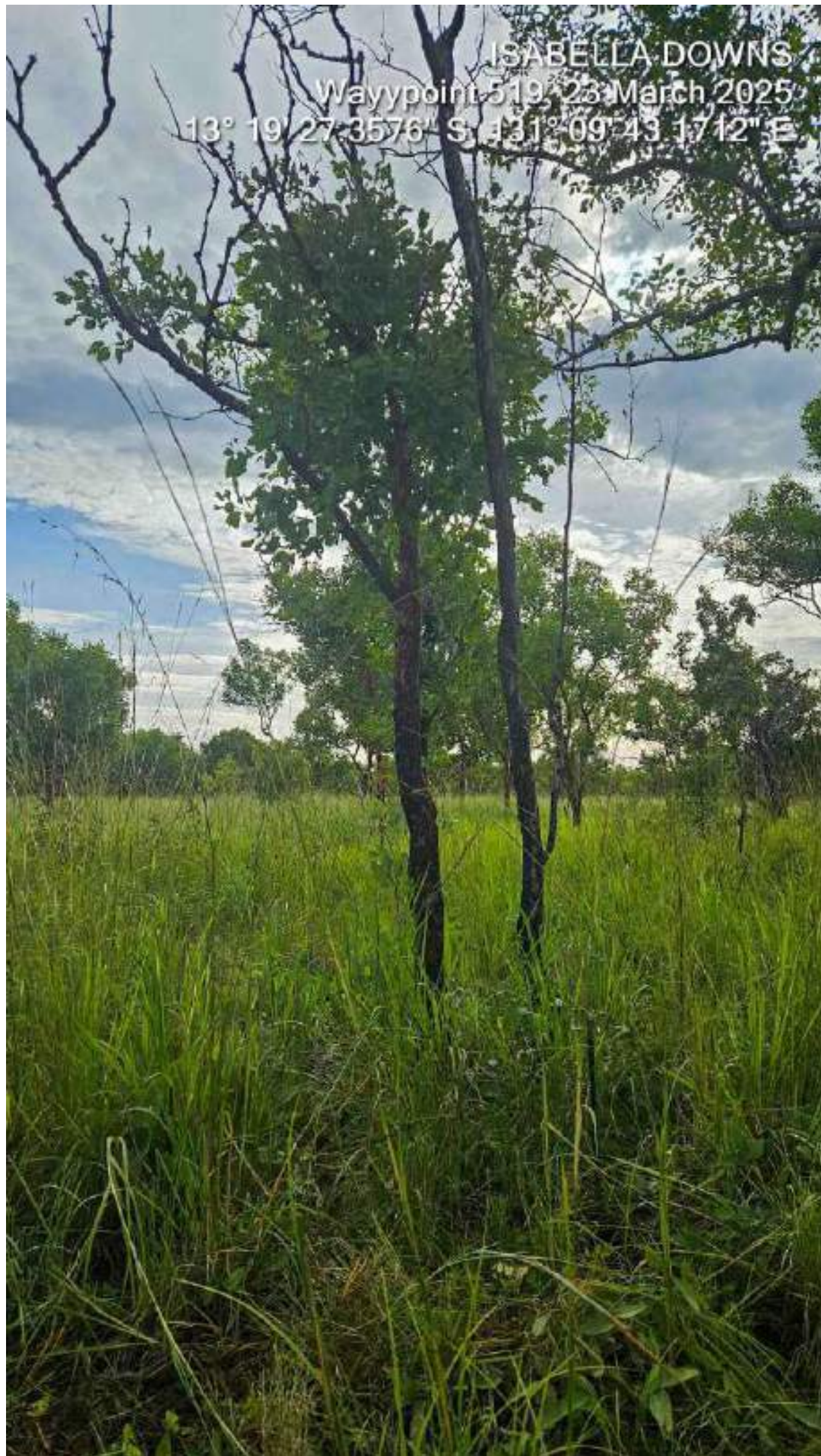
ISABELLA DOWNS
Waypoint 519, 23 March 2025
13° 49' 27.3576" S, 131° 09' 43.1712" E



ISABELLA DOWNS

Waypoint 519, 23 March 2025

13° 19' 27.3576" S, 431° 09' 43.1712" E



ISABELLA DOWNS

Waypoint 519, 23 March 2025

13° 19' 27.3576" S, 131° 09' 43.1712" E



ISABELLA DOWNS

Waypoint 519, 23 March 2025

13° 19' 27.3576" S, 131° 09' 43.1712" E





ISABELLA DOWNS

Waypoint 520, 23 March 2025

13° 19' 24.9204" S, 131° 09' 25.9560" E



ISABELLA DOWNS
Waypoint 520, 23 March 2025
13° 19' 24.9204" S, 131° 09' 25.9560" E

ISABELLA DOWNS

Waypoint 520, 23 March 2025

13° 19' 24.9204" S, 131° 09' 25.9560" E



ISABELLA DOWNS

Waypoint 520, 23 March 2025

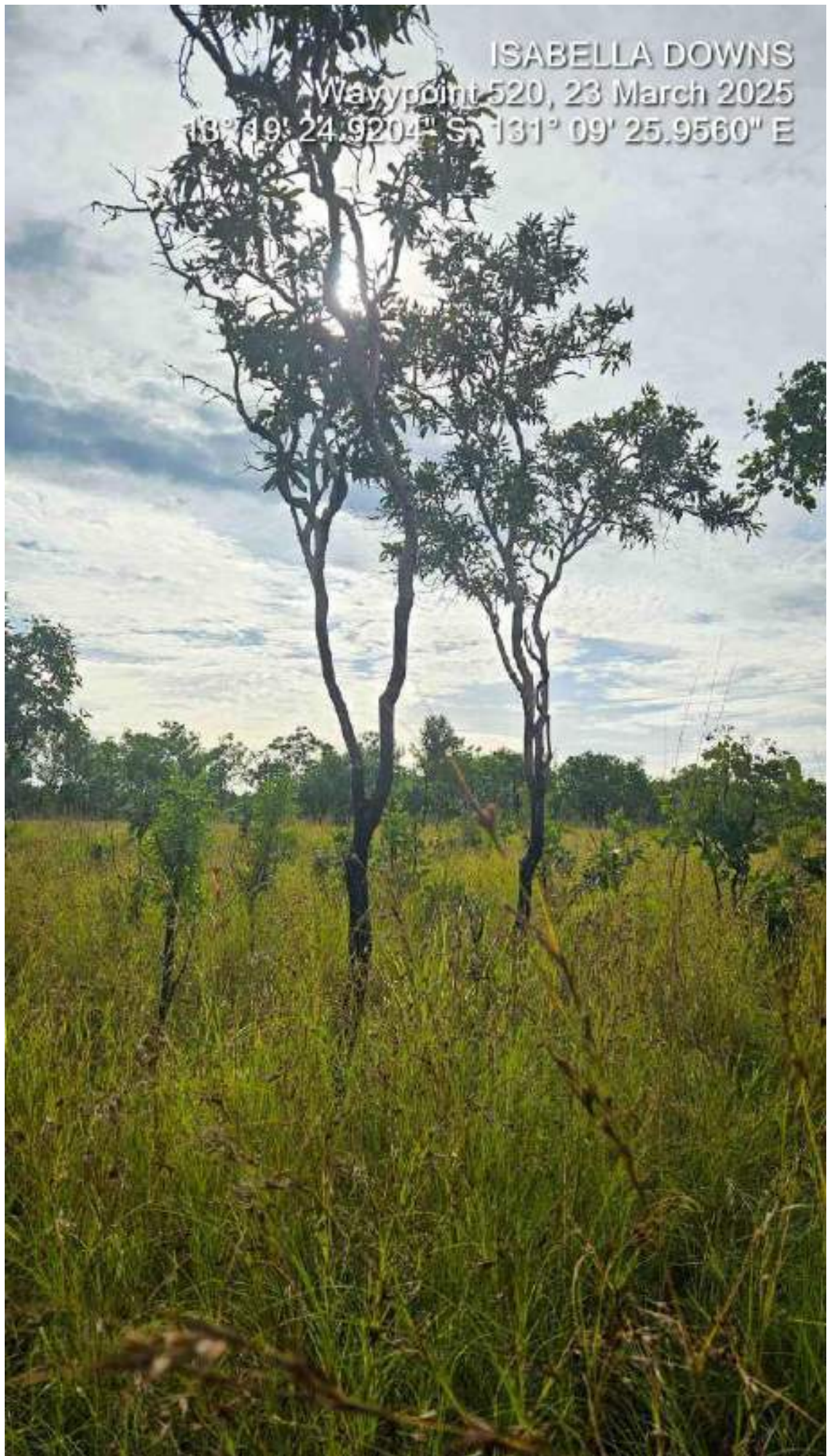
13° 19' 24.9204" S, 131° 09' 25.9560" E



ISABELLA DOWNS

Waypoint 520, 23 March 2025

13° 49' 24.9204" S, 131° 09' 25.9560" E



ISABELLA DOWNS
Waypoint 520, 23 March 2025
13° 19' 24.9204" S, 131° 09' 25.9560" E



ISABELLA DOWNS
Waypoint 520, 23 March 2025
13° 19' 24.9204" S, 131° 09' 25.9560" E





ISABELLA DOWNS

Waypoint 520, 23 March 2025

13° 19' 24.9204" S, 131° 09' 25.9560" E

ISABELLA DOWNS
Waypoint 520, 23 March 2025
13° 19' 24.9204" S, 131° 09' 25.9560" E



ISABELLA DOWNS
Waypoint 520, 23 March 2025
13° 19' 24.9204" S, 131° 09' 25.9560" E



ISABELLA DOWNS
Waypoint 520, 23 March 2025
13° 19' 24.9204" S, 131° 09' 25.9560" E

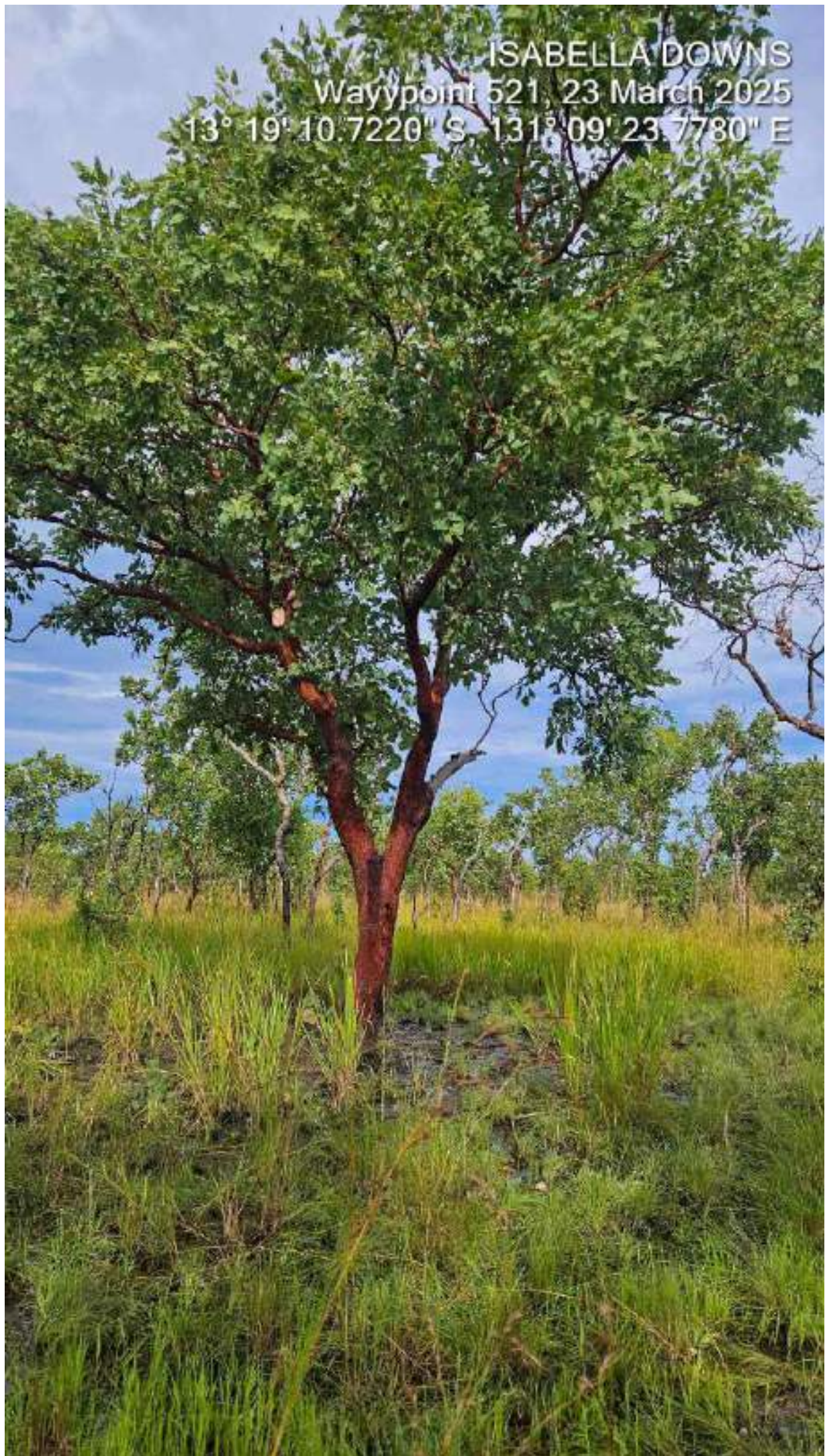


ISABELLA DOWNS
Waypoint 521, 23 March 2025
13° 19' 10.7220" S, 131° 09' 23.7780" E





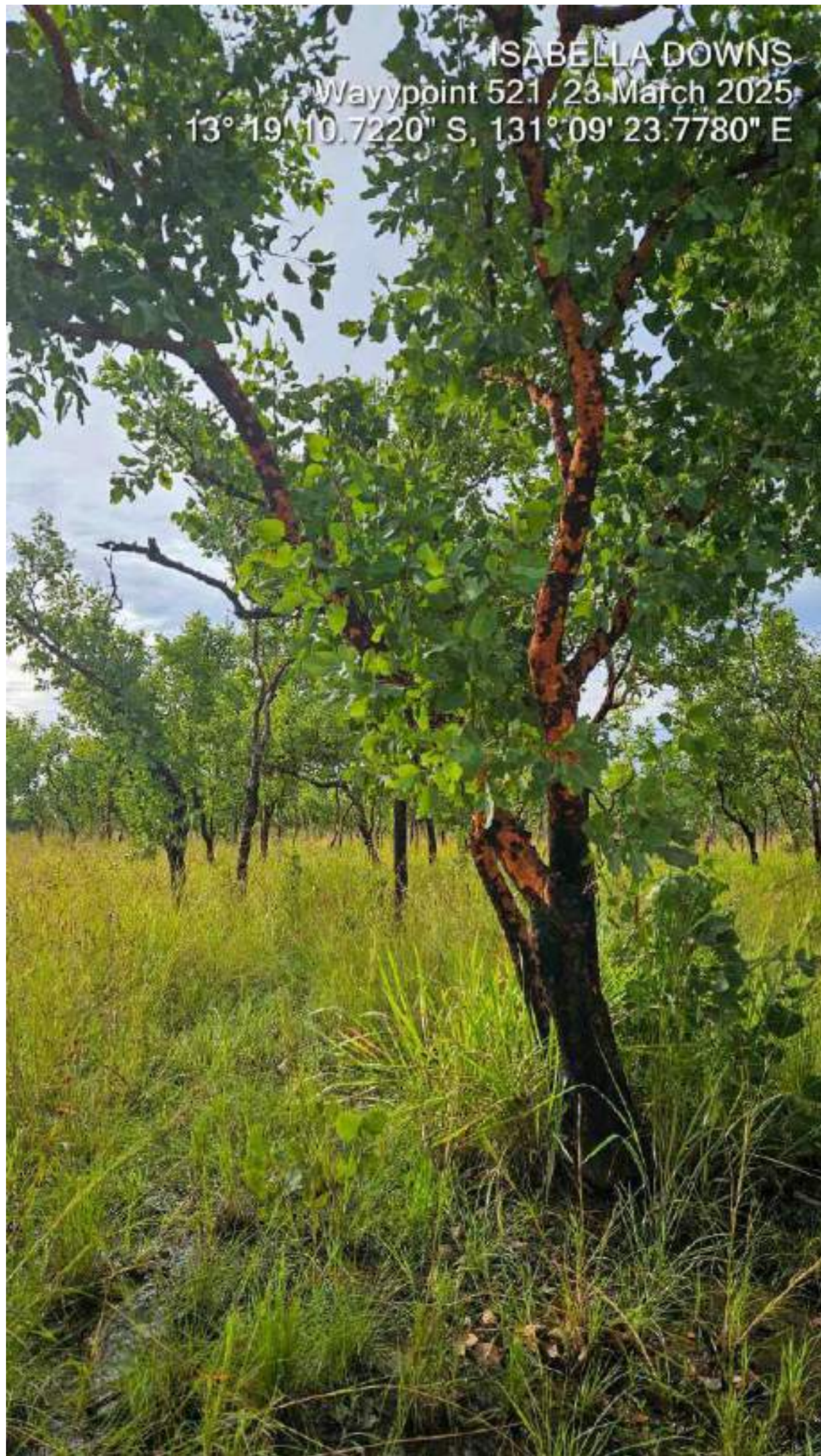
ISABELLA DOWNS
Waypoint 521, 23 March 2025
13° 19' 10.7220" S, 131° 09' 23.7780" E



ISABELLA DOWNS

Waypoint 521 / 23 March 2025

13° 19' 10.7220" S, 131° 09' 23.7780" E





ISABELLA DOWNS

Wayypoint 521, 23 March 2025

13° 19' 10.7220" S, 131° 09' 23.7780" E



ISABELLA DOWNS

Waypoint 521, 23 March 2025

13° 19' 10.7220" S, 131° 09' 23.7780" E



ISABELLA DOWNS

Waypoint 521, 23 March 2025

13° 19' 10.7220" S, 131° 09' 23.7780" E

ISABELLA DOWNS
Waypoint 521, 23 March 2025
13° 19' 10.7220" S, 131° 09' 23.7780" E



ISABELLA DOWNS
Waypoint 522, 23 March 2025
13° 19' 04.4256" S, 131° 09' 25.6896" E



ISABELLA DOWNS
Waypoint 522, 23 March 2025
13° 19' 04.4256" S, 131° 09' 25.6896" E



ISABELLA DOWNS

Waypoint 522, 23 March 2025

13° 19' 04.4256" S, 131° 09' 25.6896" E



ISABELLA DOWNS

Waypoint 522 23 March 2025

13° 19' 04.4256" S, 131° 09' 25.6896" E





ISABELLA DOWNS

Waypoint 523, 23 March 2025

13° 18' 56.8188" S, 131° 09' 18.3168" E





ISABELLA DOWNS

Waypoint 523, 23 March 2025

13° 18' 56.8188" S, 131° 09' 18.3168" E

ISABELLA DOWNS
Waypoint 523, 23 March 2025
13° 18' 56.8188" S, 131° 09' 18.3168" E







ISABELLA DOWNS

Waypoint 523, 23 March 2025

13° 18' 56.8188" S 131° 09' 18.3168" E

ISABELLA DOWNS
Waypoint 523, 23 March 2025
13° 18' 56.8188" S, 131° 09' 18.3168" E



ISABELLA DOWNS
Waypoint 523, 23 March 2025
13° 18' 56.8188" S, 131° 09' 18.3168" E



ISABELLA DOWNS
Waypoint 523, 23 March 2025
13° 18' 56.8188" S, 131° 09' 18.3168" E



ISABELLA DOWNS

Waypoint 523, 23 March 2025

13° 18' 56.8188" S, 131° 09' 18.3168" E



ISABELLA DOWNS – Land Capability Assessment table

Note: Refer to the NTPS LCG – Land Capability Assessment (section 4.2.7.1).

Land Type	Acid Sulfate Soils	Flooding	Microrelief	Salinity	Sodicity	Slope	Soil depth	Drainage	Surface Rock	Wind erosion	Initial capability class	Overall capability class
A	ASS1 generally within upper 1 m in wet / riparian areas with Hydrosols ¹ . Wet/riparian areas have been buffered and removed. Initially Class 3, amended to Class 2	Rare (1 in 10 to 30 years) Will not impact intended land use once pasture is established. Initially Class 3, amended to Class 2	No microrelief present. Class 1	Land type is not in a coastal or tidal area, and has a low salinity hazard associated with dryland agriculture ² . Class 1	There is no evidence of existing erosion to suggest soil associated with this Land Type has dispersive properties. Class 1	0 to 1%. Class 1	35 to 40cm. Won't impact intended land use. Initially Class 3, amended to Class 2.	Moderately well drained. Highly suitable for intended land use. Initially Class 2, amended to Class 1.	0%. Class 1	Low risk of wind erosion given soil structure of Land Type and perennial ground cover once pasture crop is established. Class 1	3	2

¹ Fitzpatrick, Rob; Powell, Bernie; & Marvanek, Steve (2011): Atlas of Australian Acid Sulfate Soils. v3. CSIRO. Data Collection. <https://doi.org/10.4225/08/512E79A0BC589>

² "Dryland Salinity Hazard Map". Department of Environment, Parks and Water Security, 14 January 2000.

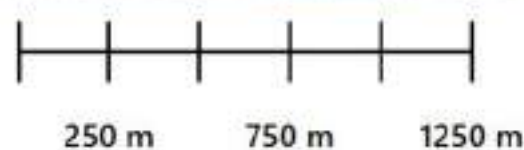
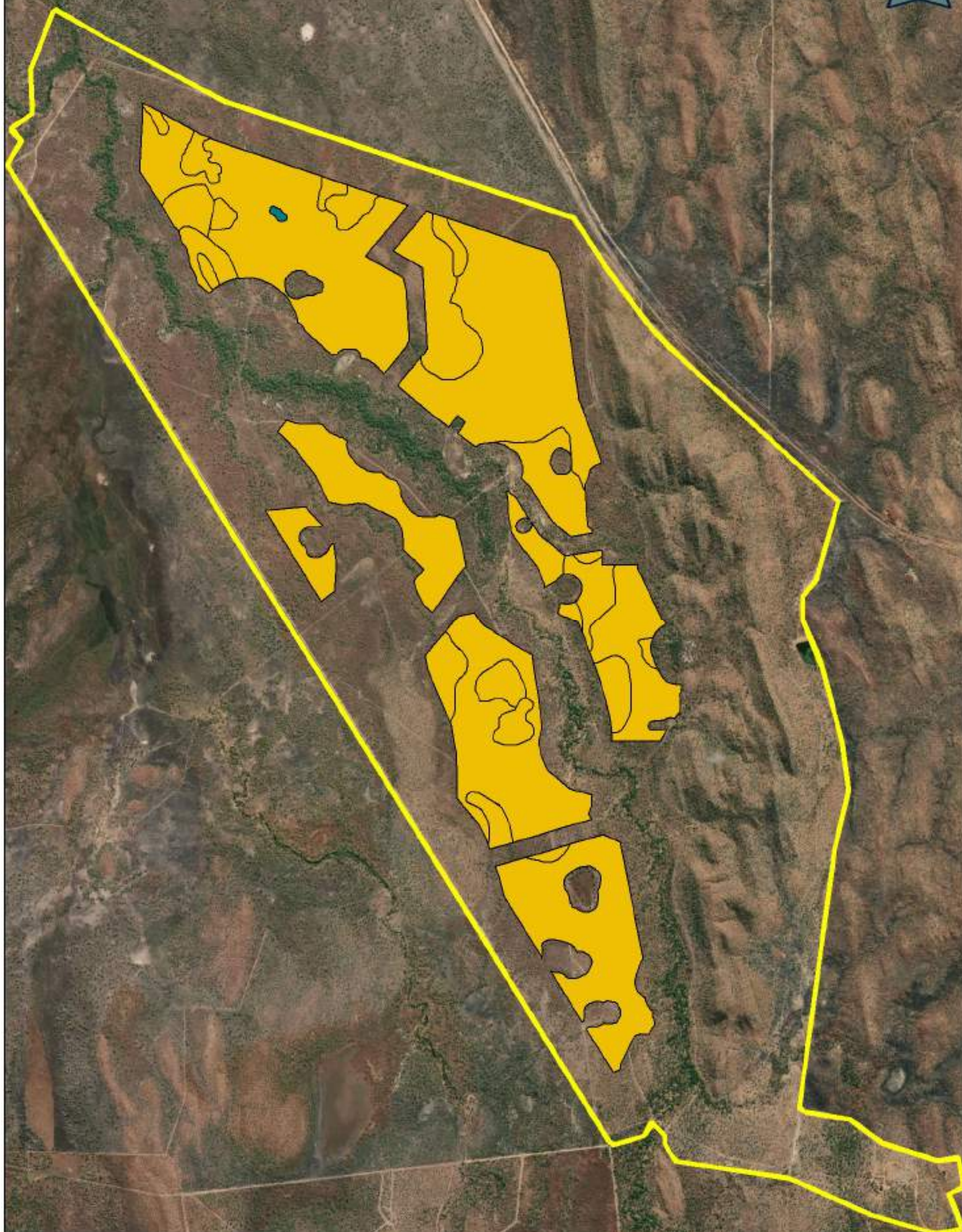
B	ASS1 generally within upper 1 m in wet / riparian areas with Hydrosols. Wet/riparian areas have been buffered and removed. Initially Class 3, amended to Class 2	Rare (1 in 10 to 30 years) Will not impact intended land use once pasture is established. Initially Class 3, amended to Class 2	No microrelief present. Class 1	Land type is not in a coastal or tidal area, and has a low salinity hazard associated with dryland agriculture. Class 1	There is no evidence of existing erosion to suggest soil associated with this Land Type has dispersive properties. Class 1	0 to 1%. Class 1	35cm Won't impact intended land use. Initially Class 3, amended to Class 2.	Poorly to imperfectly drained. Moderately suited to intended land use. Initially Class 3, amended to Class 2.	0%. Class 1	Low risk of wind erosion given soil structure of Land Type and perennial ground cover once pasture crop is established. Class 1	3	2
C	ASS1 generally within upper 1 m in wet / riparian areas with Hydrosols. Wet/riparian areas have been buffered and removed. Initially Class 3, amended to Class 2	Rare (1 in 10 to 30 years) Will not impact intended land use once pasture is established. Initially Class 3, amended to Class 2	No microrelief present. Class 1	Land type is not in a coastal or tidal area, and has a low salinity hazard associated with dryland agriculture. Class 1	There is no evidence of existing erosion to suggest soil associated with this Land Type has dispersive properties. Class 1	0 to 1%. Class 1	35cm. Won't impact intended land use. Initially Class 3, amended to Class 2.	Poorly drained. Moderately suited to intended land use. Initially Class 4, amended to Class 2.	No surface rock, 0 to 2% gravel. Highly suited to intended land use. Initially Class 2, amended to Class 1.	Low risk of wind erosion given soil structure of Land Type and perennial ground cover once pasture crop is established. Class 1	4	2

D	ASS1 generally within upper 1 m in wet / riparian areas with Hydrosols. Wet/riparian areas have been buffered and removed. Initially Class 3, amended to Class 2	Rare (1 in 10 to 30 years) Will not impact intended land use once pasture is established. Initially Class 3, amended to Class 2	No microrelief present. Class 1	Land type is not in a coastal or tidal area, and has a low salinity hazard associated with dryland agriculture. Class 1	There is no evidence of existing erosion to suggest soil associated with this Land Type has dispersive properties. Class 1	0 to 1%. Class 1	40cm. Won't impact intended land use. Initially Class 3, amended to Class 2.	Moderately well drained. Highly suitable for intended land use. Initially Class 2, amended to Class 1.	0%. Class 1	Low risk of wind erosion given soil structure of Land Type and perennial ground cover once pasture crop is established. Class 1	3	2
E	ASS1 generally within upper 1 m in wet / riparian areas with Hydrosols. Wet/riparian areas have been buffered and removed. Initially Class 3, amended to Class 2	Rare (1 in 10 to 30 years) Will not impact intended land use once pasture is established. Initially Class 3, amended to Class 2	No microrelief present. Class 1	Land type is not in a coastal or tidal area, and has a low salinity hazard associated with dryland agriculture. Class 1	There is no evidence of existing erosion to suggest soil associated with this Land Type has dispersive properties. Class 1	0 to 1%. Class 1	35cm. Won't impact intended land use. Initially Class 3, amended to Class 2.	Poorly drained. Moderately suited to intended land use. Initially Class 4, amended to Class 2.	No surface rock, 0 to 2% gravel. Highly suited to intended land use. Initially Class 2, amended to Class 1.	Low risk of wind erosion given soil structure of Land Type and perennial ground cover once pasture crop is established. Class 1	4	2

F	<p>ASS1 generally within upper 1 m in wet / riparian areas with Hydrosols. Wet/riparian areas have been buffered and removed.</p> <p>Initially Class 3, amended to Class 2</p>	<p>Rare (1 in 10 to 30 years)</p> <p>Will not impact intended land use once pasture is established.</p> <p>Initially Class 3, amended to Class 2</p>	<p>No microrelief present.</p> <p>Class 1</p>	<p>Land type is not in a coastal or tidal area, and has a low salinity hazard associated with dryland agriculture.</p> <p>Class 1</p>	<p>There is no evidence of existing erosion to suggest soil associated with this Land Type has dispersive properties.</p> <p>Class 1</p>	<p>0 to 0.5%.</p> <p>Class 1</p>	<p>20cm</p> <p>Marginally suited to intended land use.</p> <p>Initially Class 4, amended to Class 3.</p>	<p>Poorly drained.</p> <p>Moderately suited to intended land use.</p> <p>Initially Class 4, amended to Class 2.</p>	<p>0%.</p> <p>Class 1</p>	<p>Low risk of wind erosion given soil structure of Land Type and perennial ground cover once pasture crop is established.</p> <p>Class 1</p>	4	3
G	<p>ASS1 generally within upper 1 m in wet / riparian areas with Hydrosols. Wet/riparian areas have been buffered and removed.</p> <p>Initially Class 3, amended to Class 2</p>	<p>Rare (1 in 10 to 30 years)</p> <p>Will not impact intended land use once pasture is established.</p> <p>Initially Class 3, amended to Class 2</p>	<p>No microrelief present.</p> <p>Class 1</p>	<p>Land type is not in a coastal or tidal area, and has a low salinity hazard associated with dryland agriculture.</p> <p>Class 1</p>	<p>There is no evidence of existing erosion to suggest soil associated with this Land Type has dispersive properties.</p> <p>Class 1</p>	<p>0 to 2%.</p> <p>Class 2</p>	<p>35 to 40cm.</p> <p>Won't impact intended land use.</p> <p>Initially Class 3, amended to Class 2.</p>	<p>Poorly drained.</p> <p>Moderately suited to intended land use.</p> <p>Initially Class 4, amended to Class 2.</p>	<p>0%.</p> <p>Class 1</p>	<p>Low risk of wind erosion given soil structure of Land Type and perennial ground cover once pasture crop is established.</p> <p>Class 1</p>	4	2

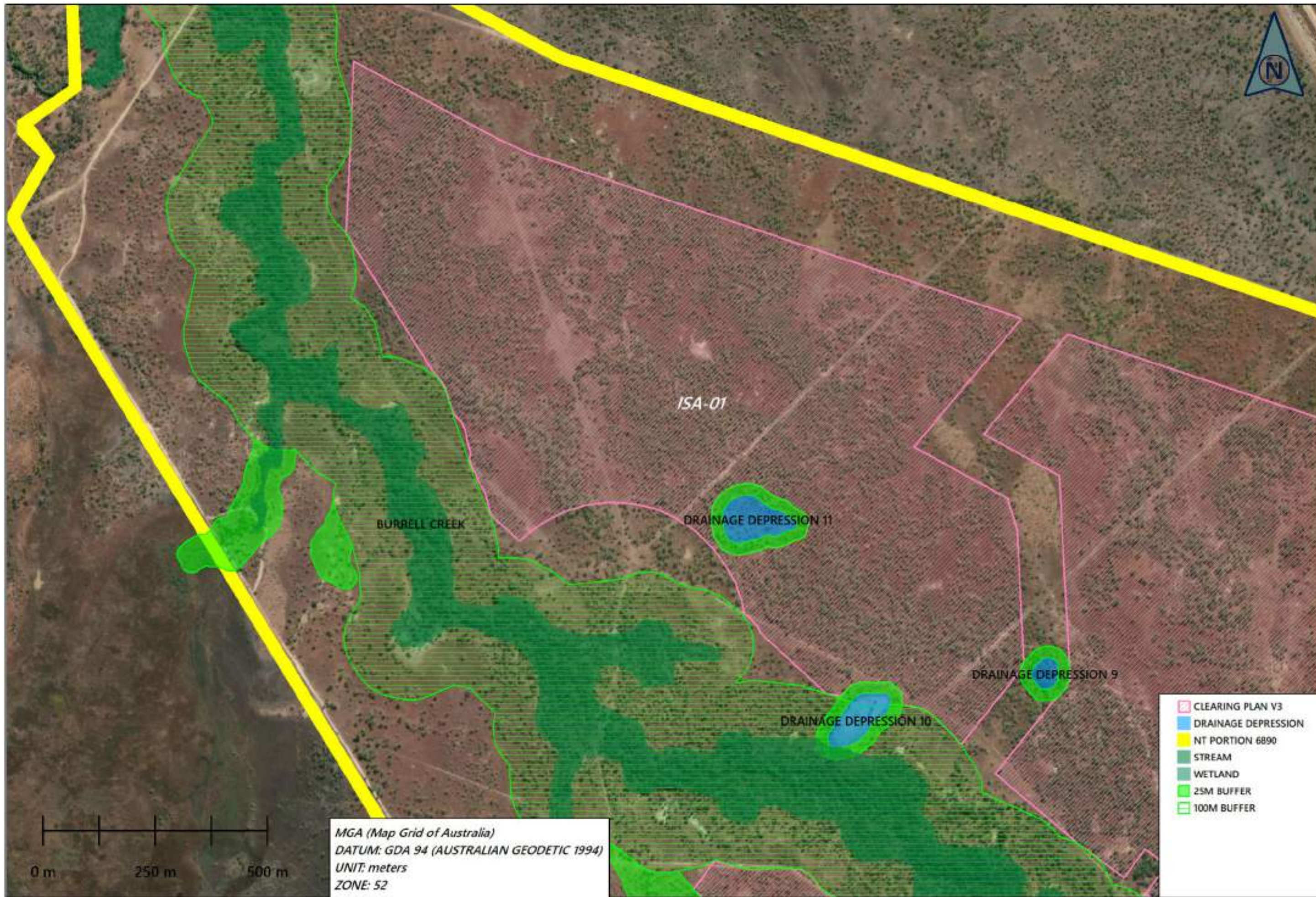
H	<p>ASS1 generally within upper 1 m in wet / riparian areas with Hydrosols. Wet/riparian areas have been buffered and removed.</p> <p>Initially Class 3, amended to Class 2</p>	<p>Rare (1 in 10 to 30 years)</p> <p>Will not impact intended land use once pasture is established.</p> <p>Initially Class 3, amended to Class 2</p>	<p>No microrelief present.</p> <p>Class 1</p>	<p>Land type is not in a coastal or tidal area, and has a low salinity hazard associated with dryland agriculture.</p> <p>Class 1</p>	<p>There is no evidence of existing erosion to suggest soil associated with this Land Type has dispersive properties.</p> <p>Class 1</p>	<p>0 to 2%.</p> <p>Class 2</p>	<p>35 to 40cm.</p> <p>Won't impact intended land use.</p> <p>Initially Class 3, amended to Class 2.</p>	<p>Poorly drained.</p> <p>Moderately suited to intended land use.</p> <p>Initially Class 4, amended to Class 2.</p>	<p>No surface rock, 0 to 2% gravel.</p> <p>Highly suited to intended land use.</p> <p>Initially Class 2, amended to Class 1.</p>	<p>Low risk of wind erosion given soil structure of Land Type and perennial ground cover once pasture crop is established.</p> <p>Class 1</p>	4	2
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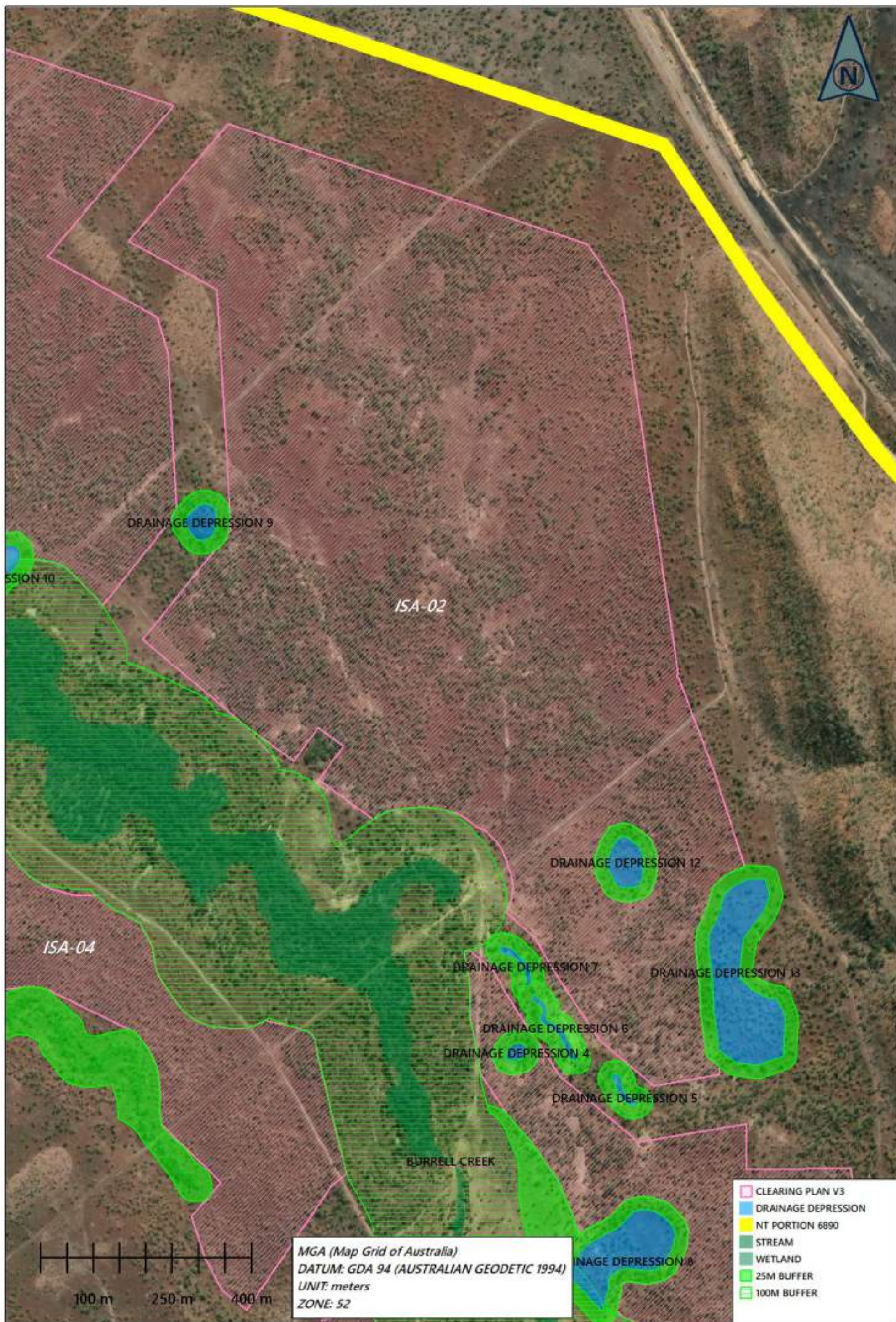
MAP OF LAND CAPABILITY CLASSES AT ISABELLA DOWNS

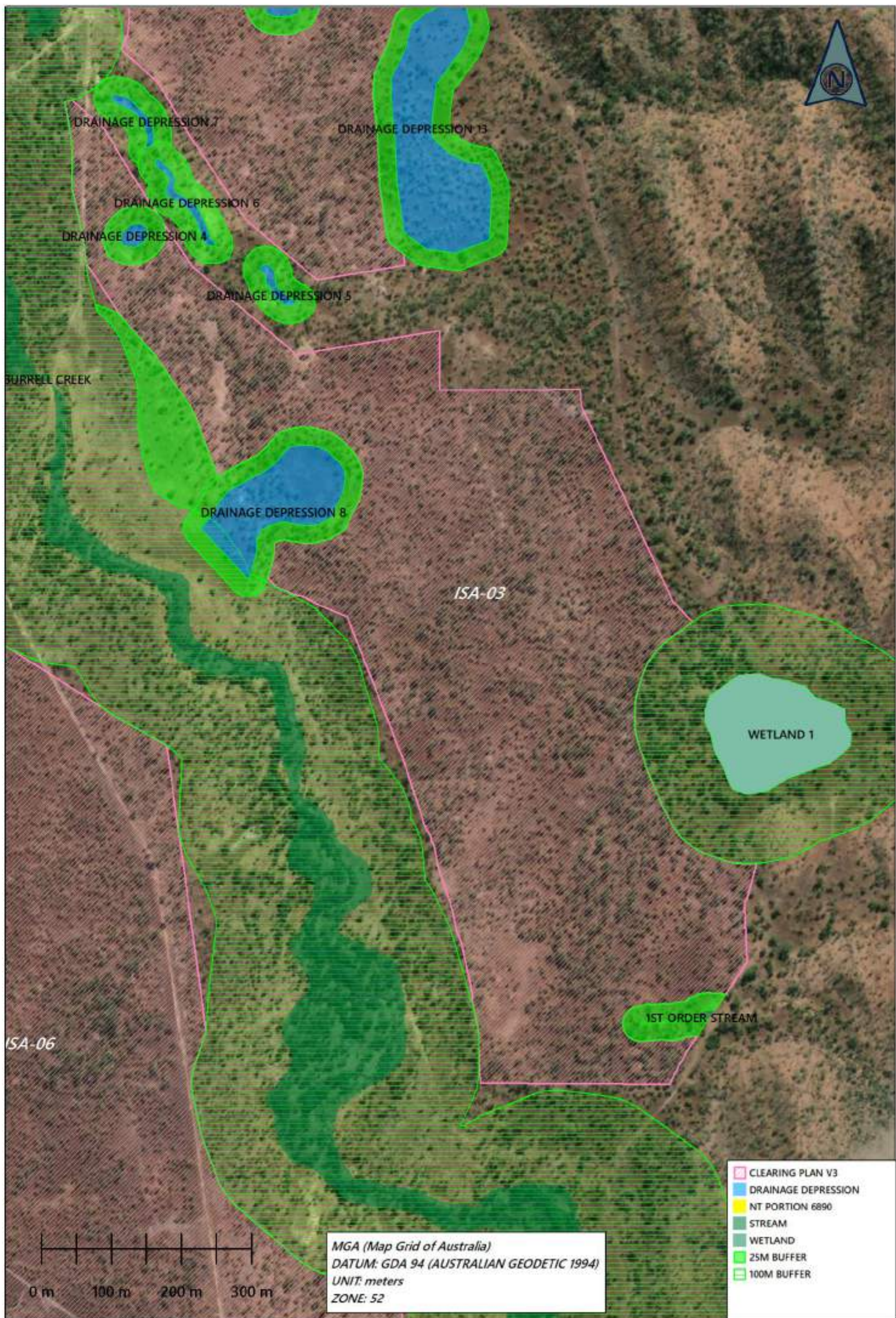


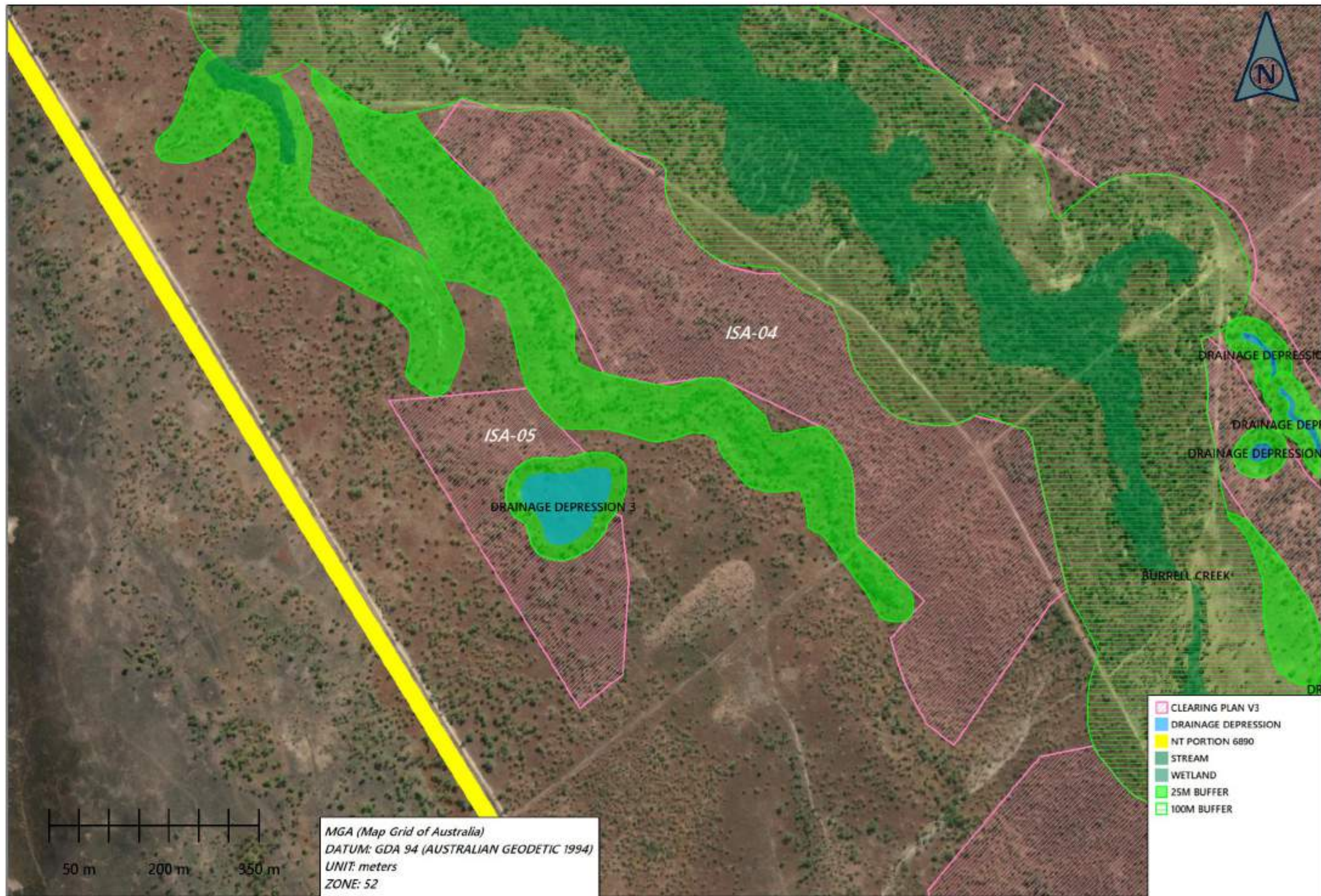
MGA (Map Grid of Australia)
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UNIT: meters
ZONE: 52















Isabella Downs – Establishment Plan

Activity	Timing (month & year)	Methods/Details
Demolition of vegetation	2025/2026 Wet Season	Track bulldozer to push vegetation over working along contours and not with direction of overland flow. Leave felled timber in situ until the dry season (approximately May 2026). Clearing to take place once adequate soil moisture is present to ensure a 'clean pull', expected to be late wet season (e.g. January 2026 onwards).
Removal of debris	Dry Season 2026	Commence May 2026 – Felled timber to be pushed into wind rows perpendicular to contours. Burn windrows and stick-pick any debris from the clearing areas.
Site preparation	Early Wet Season 2026/2027	Spray broad spectrum herbicide (Glyphosate) to the area once adequate germination of existing seed bank has occurred (late September/early October). Follow with cultivation for ground preparation prior to sowing (1 x disc plough and 1 x scarifier). Second Glyphosate application prior to sowing in mid October 2023.
Planting	October/November 2026	Sow all areas to <i>Urochloa humidicola</i> @ 8km/ha (coated seed) with 80kg/ha of a suitable DAP fertiliser. Plan with a combine seeder and lightly roll following.
Weed management	2027 onwards	Spot spray broadleaf weeds with selective herbicide such as 2,4-D Amine or a non-selective herbicide such as Glyphosate to actively growing weeds during the wet season.
Regrowth management	2027 onwards	Spot spray regrowth (1-3m tall) with Grazon Xtra during periods of active growth.
Grazing management (if applicable)	Late 2027/2028 wet season	Sown areas will be lightly grazed in the 2023/2024 wet season to avoid damage to the plant stand in the first year of establishment.
Crop management (if applicable)	2027 onwards	Broadcast a suitable NPK+trace fertiliser early in each wet season @ 120kg/ha. Areas will be grazed ongoing.

Isabella Downs – Staging Plan

Note: Clearing of native vegetation development permits allow for a base period of two years to comply with the conditions. Where the works permitted under the permit are substantially commenced within two years the permit is automatically extended by a further two years. Permit holders may apply for extensions to a development permit before the permit lapses.

Year	Site ID (e.g. polygon / paddock)
2026	ISA-01, ISA-02, ISA-03
2027	ISA-04, ISA-05, ISA-06, ISA-07

Appendix E – Land Management Plan

Note: The following Land Management Plan (LMP) should be developed with reference to the proposed Establishment and Staging Plan. It is not an Erosion and Sediment Control Plan (ESCP). For large or complex clearing areas, preparation and implementation of an Erosion and Sediment Control Plan (ESCP) can be an effective way of managing erosion risk - however it is not an alternative to retaining native vegetation which should otherwise be retained in accordance with the NTPS LCG, or used as a “catch-all” means of mitigating other risks the clearing may pose (see NTPS LCG section 4.3.2.5).

Whether a formal ESCP is required as a condition of a Land Clearing permit will be at the discretion of the Consent Authority based on the advice of the Land Management Unit, DLPE and will depend on the level of detail provided in this LMP and the erosion risk associated with the proposal. For further information, contact the Land Management Unit, DLPE on (08) 8999 4404.

1. Provide a general description of the soil loss factors for the proposed clearing extent

Note: Refer to Section 4.3.2 of the NTPS LCG.

Factor	Description
Rainfall Consider the climatic zone, seasonal outlook and proposed timing of works	The closest Bureau of Meteorology site to the proposed development area at Isabella Downs is at Station 014237 (Mount Bundy Station), located 9.7km north of the proposed clearing area at Isabella Downs. The mean rainfall at Station 014237 is 1198.3mm ¹ . The proposed clearing areas are located in the Top End Zone, with 95% of rainfall occurring October – April ² . The timing of planned operations aligns with soil preparation and planting of improved grass pasture species prior to the more intensive rainfall that occurs during the peak wet season, enabling adequate soil moisture for successful germination of the crop, and groundcover to establish during following rainfall.
Soil Consider the erodibility of soil types present based on soil type texture and structure. Note whether soils are dispersive or sodic.	The soils present are mostly clay soils with no surface rock, minor gravel in areas (0 to 2%) and poor drainage. Soils present have fairly good soil structure, and the proposed development area has been restricted to areas with slope of less than 2% to mitigate the risk of erosion (0 to 1% in most areas).

¹ [Monthly Rainfall - 014237 - Bureau of Meteorology](#)

² [classification of the top end and arid zone for northern territory water resources.pdf](#)

Length of slope Indicate the average length of slope within the proposed clearing extent and areas that exceed this.	The maximum length of slope for the proposed clearing polygons at Isabella Downs are as follows: ISA-01: 1.6km ISA-02: 1.9km ISA-03: 1.5km ISA-04: 1.3km ISA-05: 0.6 km ISA-06: 1.3km ISA-07: 1.1km
Slope gradient (%) Indicate the range of slope within the proposed clearing extent (e.g. 0-2%) and areas that exceed 2%.	Slope range within the proposed clearing areas is mostly 0 – 1%, with areas of up to 2% slope.
Groundcover Consider the timing, duration and frequency of soil exposure.	Timing of clearing activities aligns with very early wet season rains. Trafficability during the wet season is moderate, and may be potentially impacted by prolonged periods of rain. All clearing, soil preparation and planting activities are timed in the wet season to ensure access, and duration of soil exposure will be limited during the wet season and will be reliant on follow up rain and germination of the improved grass pasture species. Felled timber will be left in-situ to provide ground cover during the dry season. Once crop establishment and canopy closure have taken place the perennial species present will provide ongoing groundcover and soil stability, with soil exposure being limited to initially clearing, preparation and planting activities only.
Management Consider the level of soil disturbance associated with the proposed method of clearing and land use.	Level of soil disturbance with proposed method of clearing and long-term land use will be low to moderate. Initial clearing operations include deep soil disturbance for stump and root removal, and cultivation and sowing will result in disturbance of the upper soil profile. Deep ripping is not proposed for intended crop. No ongoing soil disturbance will occur after sowing has taken place.

2. Describe where rainfall runoff flows within the proposed clearing extent.

Polygon	Direction of runoff	Receiving environment
ISA-01	North-west	Delivering to neighbouring native vegetation.

ISA-02	North, north-west	Delivering to neighbouring native vegetation and CORRIDOR 1.
ISA-03	North, north-west	Delivering to neighbouring native vegetation and CORRIDOR 2.
ISA-04	North-west	Delivering to neighbouring native vegetation.
ISA-05	North-west	Delivering to neighbouring native vegetation.
ISA-06	North	Delivering to neighbouring native vegetation and CORRIDOR 3.
ISA-07	North	Delivering to neighbouring native vegetation and CORRIDOR 4.

☒ Attach map showing slope gradient, direction of runoff and field verified slope points within the proposed clearing extent.

Attachment No: 13B

3. Identify whether property boundary buffers will be retained in accordance with the NTPS LCG and provide reasons for discretion (if required).

Note: Valid reasons must be provided for instances where no property boundary buffers or buffers less than the NTPS LCG recommendations are proposed to be retained. Refer to section 4.3.3 of the NTPS LCG.

Note: Property boundary buffers must exclude firebreaks – refer to section 4.3.6 of the NTPS LCG.

Property Boundary	Proposed buffer width (m)	Reasons for discretion
NA		

4. Describe any land management buffers to be retained within proximity of the proposed clearing extent.

Note: A land management buffer is different to a wildlife corridor or property boundary buffer – refer to section 4.3.4 of the NTPS LCG.

Buffer Id.	Location	Width (m)	Purpose and design justification
(None)			

5. Describe any existing erosion within the proposed clearing extent.

Note: Erosion types include: wind, sheet, rill, gully or tunnel erosion.

Erosion Site	Location	Cause	Erosion type & description	Mitigation
(None observed)				

6. Considering all information provided above; describe the potential risk, likelihood and impact of erosion associated with the proposed development.

Source of risk	Likelihood of occurring	Potential impacts
Length of run of overland flow overlying proposed development areas.	Very low – mitigated by minimal slope present and reduced clearing polygon size. Groundcover and soil stability of perennial pasture species will provide ongoing stability once established.	Potential impacts are offsite movement of fertiliser, chemical and seed. There was no erosion observed at site, and source of risk is not likely to change this with planned activities at site, which will slow overland flow of water once improved pasture is established.
Land clearing and soil disturbance activities.	Minimal risk of soil erosion or displacement during clearing, soil preparation and planting of improved grass pasture species. Disturbance activities are limited to initial clearing, preparation and sowing activities, with no ongoing soil disturbance activities required after sowing.	Potential impacts include sedimentation of drainage areas, offsite movement of fertiliser, chemical and seed. Sowing of improved grass pasture crop as soon as possible after clearing and soil preparation will enable crop establishment as early in the wet season as possible and will also mitigate soil erosion or displacement as soon as possible.

7. Considering all information provided above; describe the proposed erosion and sediment control (ESC) measures to be implemented during the clearing and establishment phase of the development.

ESC measure	Location	Temporary/Permanent	Description
(None)			

8. Considering all the information provided above; describe the proposed erosion and sediment control (ESC) measures to be implemented during the operational phase of the development.

ESC measure	Location	Temporary/Permanent	Description
Timing of operations	Across all clearing sites	Temporary	Timing of soil preparation and sowing has been planned to minimise exposure of cultivated soil with no groundcover to as little as possible, with sowing taking place as soon as possible after cultivation to ensure establishment of groundcover can take place as soon as possible.
Perennial grass pasture crop	Across all clearing sites	Permanent	Establishment of perennial grass species in all clearing areas will provide permanent soil stability and ground cover.

9. Provide an erosion and sediment control (ESC) map showing the location of the following information.

☒ Attach an ESC map showing the location of the following within the proposed clearing extent:

- Land management buffers (Question 4)
- Existing erosion (Question 5)
- Temporary ESC measures to be installed (Question 7 & 8)
- Permanent ESC measures to be installed (Question 7 & 8)
- Firebreaks, tracks and fences.

Attachment No: _____ 13C _____

10. Provide any ESC standard drawings or design details.

Note: The level of information required will depend on the complexity of the proposed measures. Information is available at [Soil, land and vegetation | NT.GOV.AU](#).

☐ Attach ESC standard drawings / design details Attachment No: NA







Slope

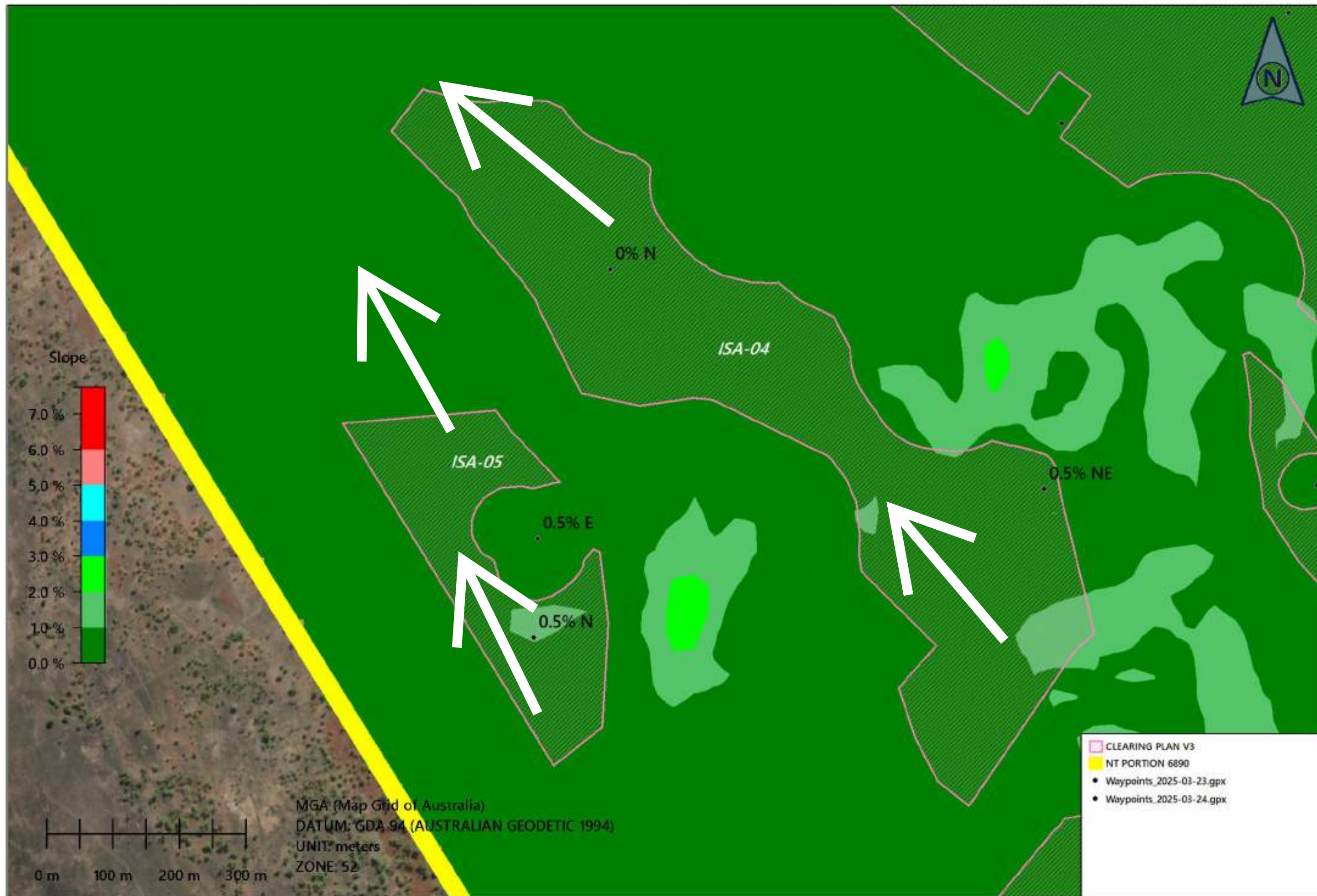


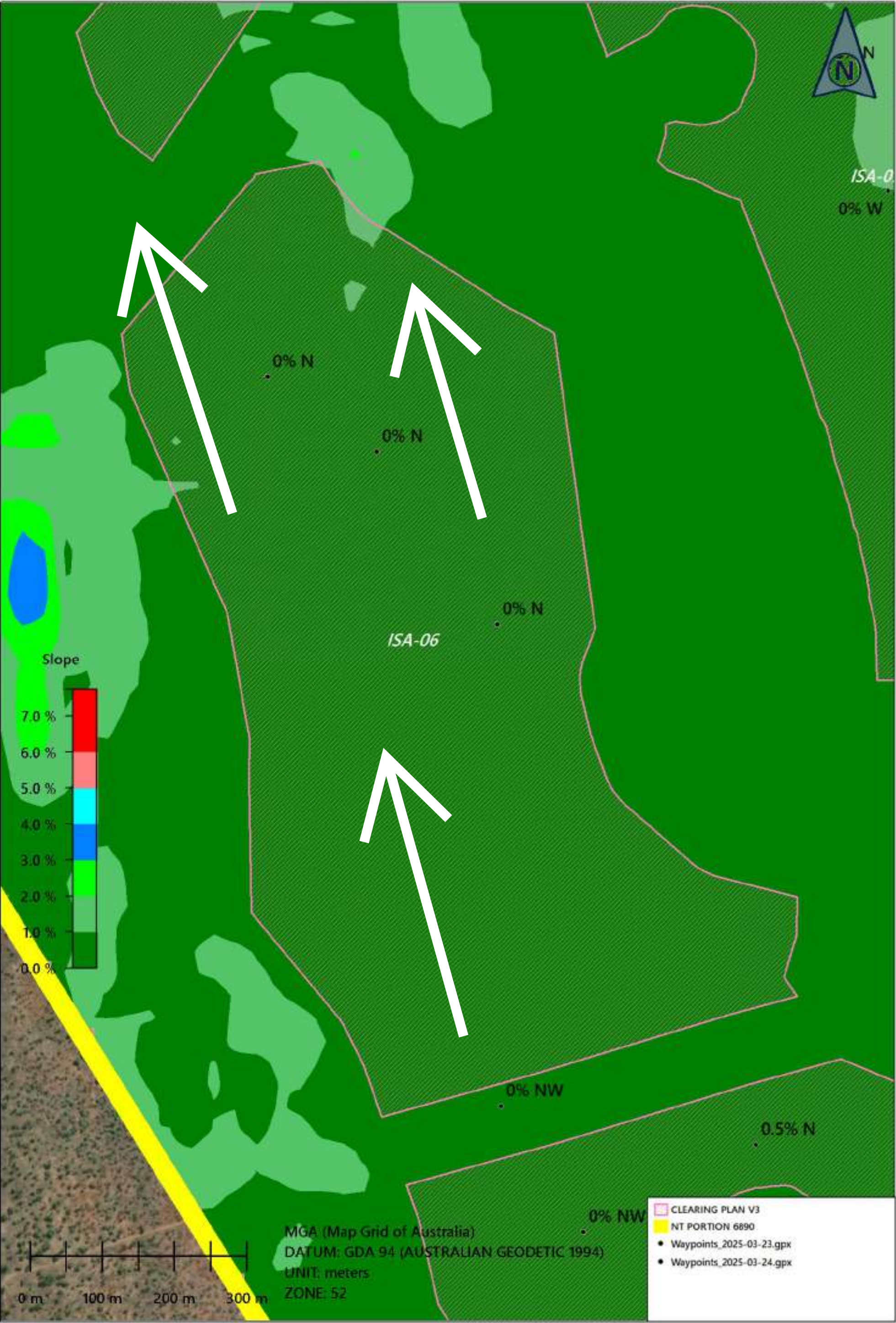
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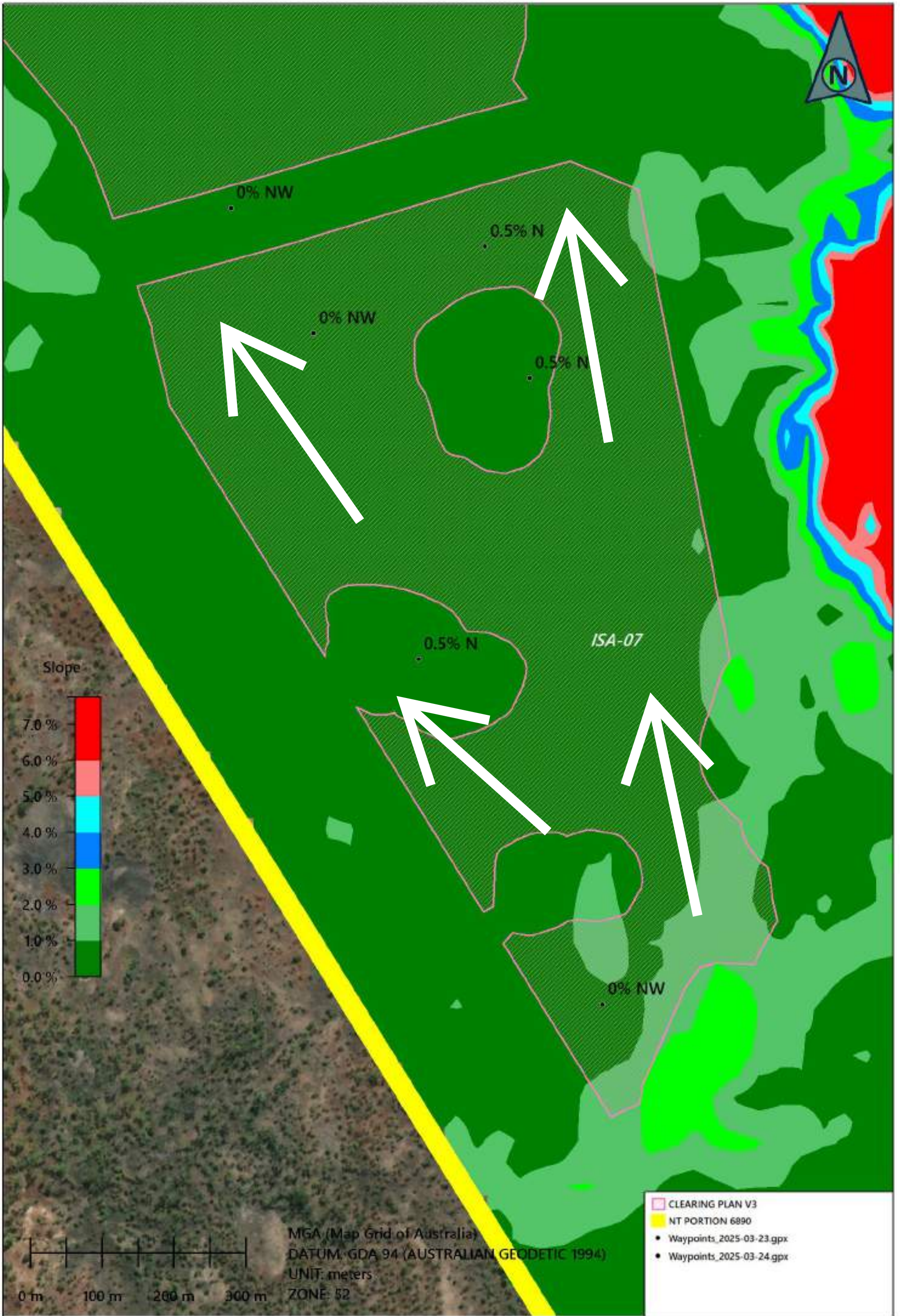
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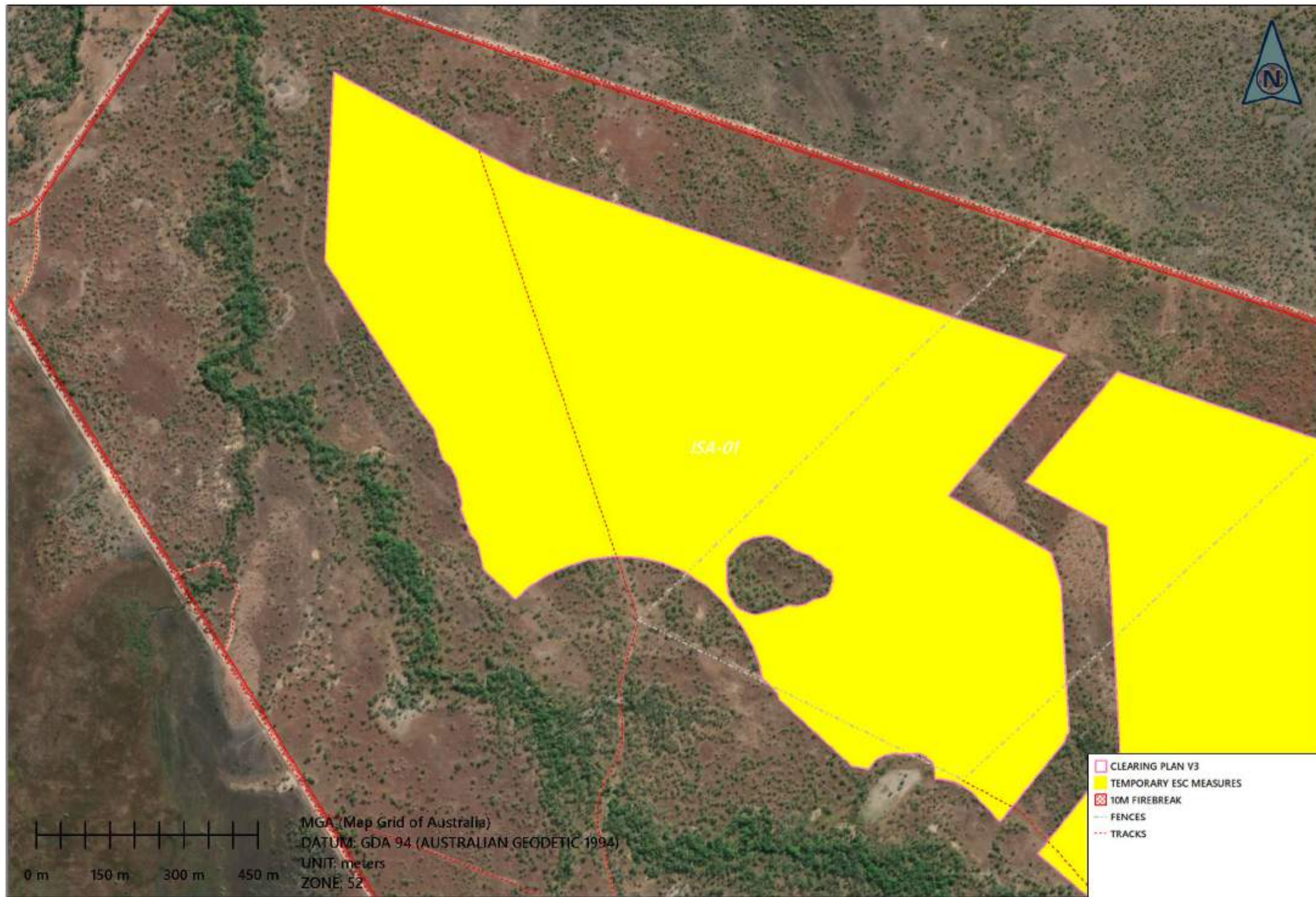
MGA (Map Grid of Australia)
DATUM: GDA 94 (AUSTRALIAN GEODETIC 1994)
UNIT: meters
ZONE: 52

- CLEARING PLAN V3
- NT PORTION 6890
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- Waypoints_2025-03-24.gpx

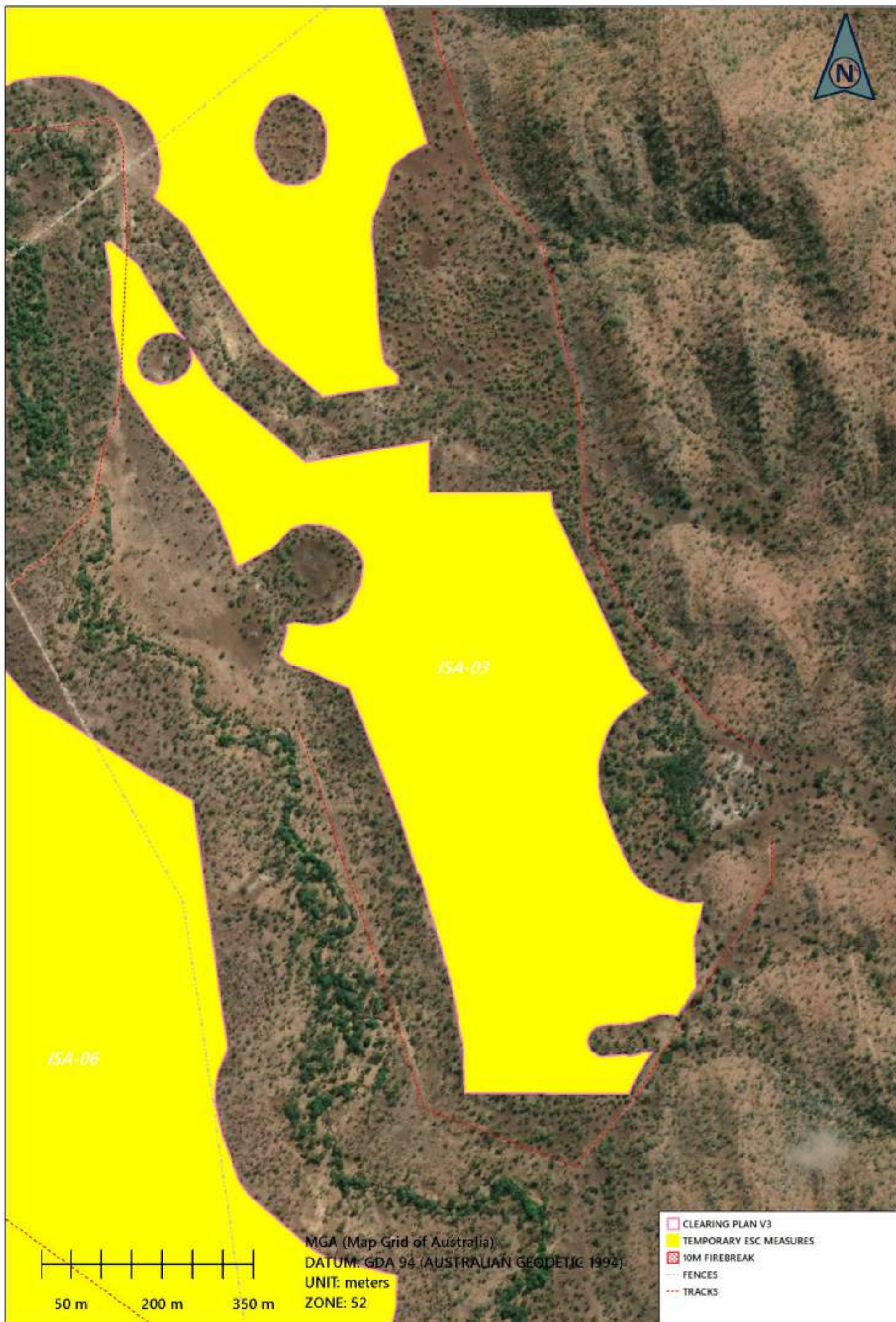






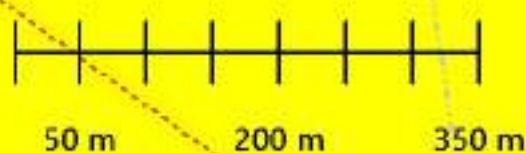






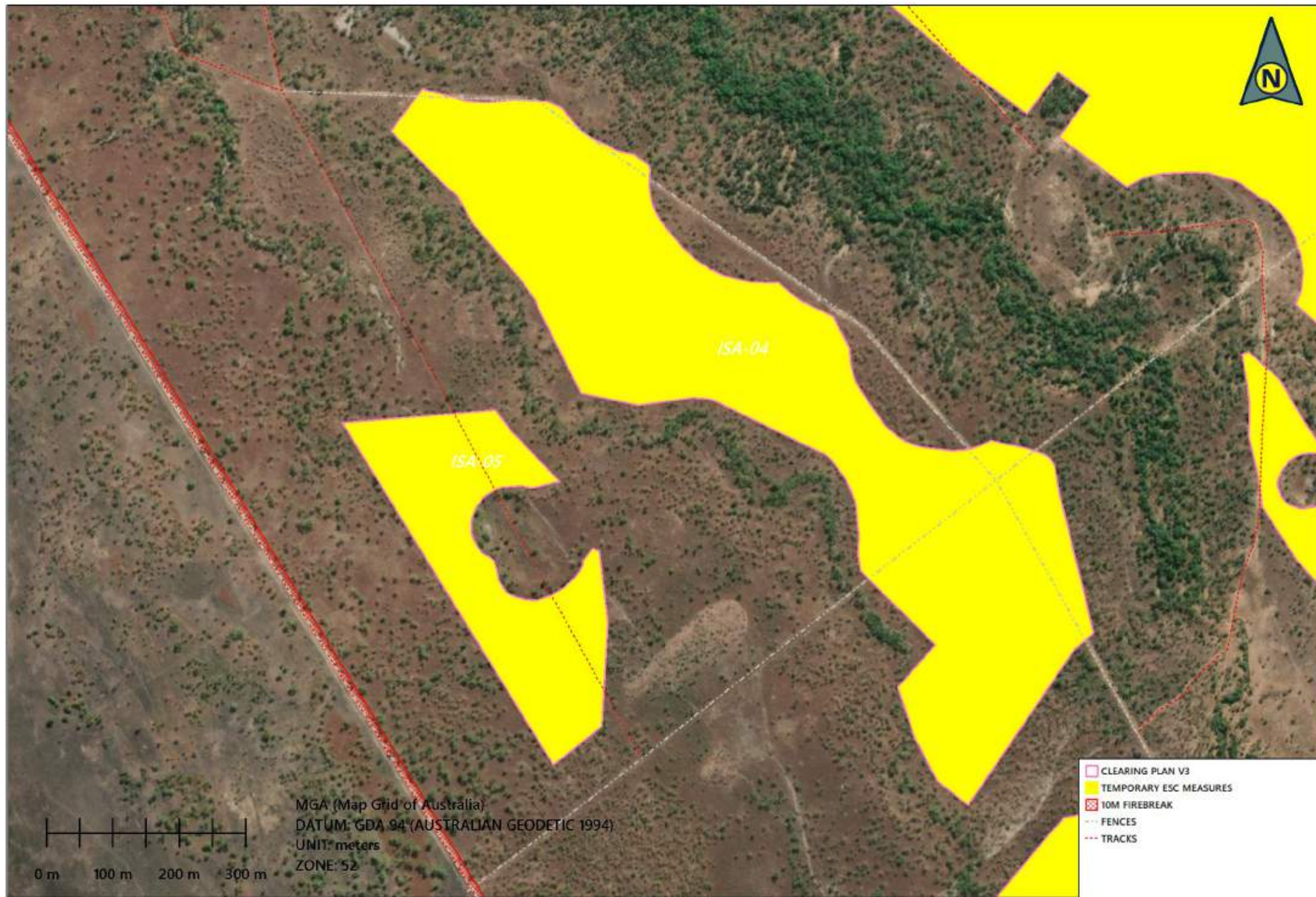
ISA-06

ISA-03



MGA (Map Grid of Australia)
DATUM: GDA 94 (AUSTRALIAN GEODETIC 1994)
UNIT: meters
ZONE: 52

- CLEARING PLAN V3
- TEMPORARY ESC MEASURES
- 10M FIREBREAK
- FENCES
- TRACKS





ISA-06

ISA-06

- CLEARING PLAN V3
- TEMPORARY ESC MEASURES
- TOM FIREBREAK
- FENCES
- TRACKS

MGA (Map Grid of Australia)
DATUM: GDA'94 (AUSTRALIAN GEODETIC 1994)
UNIT: meters
ZONE: 52





ISA-07



MGA (Map Grid of Australia)
DATUM: GDA 94 (AUSTRALIAN GEODETIC 1994)
UNIT: meters
ZONE: 52

- CLEARING PLAN V3
- TEMPORARY ESC MEASURES
- 10M FIREBREAK
- FENCES
- TRACKS

From: Fiona Earl <Fiona.Earl@nt.gov.au> on behalf of Heritage Branch
<Heritage.Branch@nt.gov.au>
Sent: Wednesday, 7 May 2025 10:54 AM
To: hgroves@magnatagriservices.com.au
Subject: RE: NT Portion 6890 - application to clear native vegetation

Flag Status: Flagged

Hi Helen,

This initial advice is provided following a request for information from the Heritage Branch.

The Heritage Branch administers the *Heritage Act 2011* which protects all Aboriginal and Macassan archaeological sites and all declared and provisionally declared heritage places.

For requests related to sacred sites, contact the Aboriginal Areas Protection Authority <https://www.aapant.org.au>.

Work details

Name of proponent (company or department)	Magnat Agri Services
Contact person (name and title)	Helen Groves
Date enquiry received	16 April 2025
Location of work	NT Portion 6890 (Isabella Downs)
Brief description of work as provided	Land clearing (442.7ha) – shape file supplied
Date of Heritage Branch response	7 May 2025
Our reference	42-F25-98

The context of Heritage Branch advice

The Northern Territory Government's Heritage Branch administers the *Heritage Act 2011* and provides authoritative advice about obligations under the *Heritage Act 2011*, including steps to take to manage the impact of proposed work on [Aboriginal and Macassan archaeological places and objects](#)

It is important that advice given by the Heritage Branch is followed. A failure to follow advice received from the Heritage Branch may be considered as evidence in an investigation if damage occurs to an Aboriginal or Macassan archaeological place or object.

Relevant parts of the Northern Territory's *Heritage Act 2011*

Under the Northern Territory's *Heritage Act 2011* (the Act):

1. All provisionally declared and declared heritage places and objects are protected under the Act;
2. All Aboriginal or Macassan archaeological places and objects are automatically protected - this includes places and objects not previously recorded;
3. Places and objects include an artefact or thing given shape by a person - examples include stone tools, stone arrangements, fish traps, rock art, modified trees, and shell middens;
4. Ancestral remains are also protected;
5. Underwater Cultural Heritage is protected, up to three nautical miles from the coast;
6. There is an obligation to notify of the discovery of Aboriginal or Macassan archaeological places or objects;
7. Work carried out to a heritage place or object must follow the *Heritage Act 2011*.

Conditions of advice

1. This advice is based on the description of the work provided to the Heritage Branch. If the work expands or changes significantly seek further advice.
2. In preparing this advice, the Heritage Branch has referred to an archaeological database which includes information about Aboriginal and Macassan archaeological places and objects in the Northern Territory. However, the database only includes information about known archaeological places. The fact that there

are no known archaeological places recorded may be because no archaeological surveys have been conducted in that particular area, and is not necessarily an indication they do not exist.

Actions

The following actions have been taken in relation to the enquiry.

- A search of the Northern Territory Heritage Register;
- A search for known archaeological places located within the subject site on the Heritage Branch archaeological database;
- A search for known archaeological places located within the proximity of the subject site on the Heritage Branch archaeological database;
- The extent of pre-existing ground disturbance;
- The scale and nature of the work proposed (major, moderate or minor);
- Areas identified as being excluded from the work footprint e.g. riparian buffers; and
- An assessment of the likelihood of unrecorded archaeological places existing within the subject site, based on landscape features, known archaeological places in the vicinity, and other predictive tools.

Advice for Aboriginal or Macassan archaeological places and objects

The search has found that there are no known Aboriginal or Macassan archaeological places and objects within the subject site. However, the likelihood of possible unrecorded Aboriginal or Macassan archaeological places has been assessed as *likely*. The extent of pre-existing disturbance and the nature of the work itself has also been considered. There are known Aboriginal archaeological places and objects within 400m of the proposed land clearing impact areas.

The Heritage Branch recommends that an archaeological survey and cultural heritage management plan are required to identify and mitigate the impact to Aboriginal or Macassan archaeological places and objects.

1. The Heritage Branch can provide a list of qualified archaeologists on request.
2. The Heritage Branch can provide advice in regard to the scope of the survey and plan on request.
3. The Heritage Branch must receive a copy of the final report for our records.

Advice for declared or Provisionally Declared heritage places and objects

The search has found that there are no nominated, provisionally declared or declared heritage places or objects within the subject area.

Further comments

Further information can also be found on our website:

<https://nt.gov.au/property/building/heritage-properties/heritage-properties-building-works-and-development>
[Aboriginal heritage information | NT.GOV.AU](#)

Thanks,

Fi

Dr Fiona Earl

Heritage Officer
Heritage Branch
Department of Lands, Planning and Environment
Northern Territory Government

Ground Floor, Arnhemica House
16 Parap Road, Parap

PO Box 3675, Darwin, NT 0801

P: +61 8 8999 5051

E: fiona.earl@nt.gov.au



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From: hgroves@magnatagriservices.com.au <hgroves@magnatagriservices.com.au>

Sent: Wednesday, 16 April 2025 7:54 AM

To: Heritage Branch <Heritage.Branch@nt.gov.au>

Subject: NT Portion 6890 - application to clear native vegetation

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Good morning all,

I am currently working on an application to clear native vegetation at NT Portion 6890 (Isabella Downs), south-west of Adelaide River. The proposed clearing area is 442.7ha, and all proposed areas have existing access via tracks on the property.

I've attached the spatial file of the proposed clearing area, and attached are some site photos taken 23rd and 24th March 2025. Please advise if there are any declared heritage places or archaeological sites within the meaning of the *Heritage Act 2011*.

Best regards,
Helen Groves

Helen Groves

Magnat Agri Services

0439 937 802 | hgroves@magnatagriservices.com.au

From: Fiona Earl <Fiona.Earl@nt.gov.au> on behalf of Heritage Branch
<Heritage.Branch@nt.gov.au>
Sent: Wednesday, 7 May 2025 10:56 AM
To: hgroves@magnatagriservices.com.au
Cc: Christine Plewinski
Subject: RE: NT Portion 6890 - application to clear native vegetation

Hi Helen,

As per the Heritage Branch response this morning, the Heritage Branch recommends an archaeological survey.

Thanks,

Fi

Dr Fiona Earl

Heritage Officer
Heritage Branch
Department of Lands, Planning and Environment
Northern Territory Government

Ground Floor, Arnhemica House
16 Parap Road, Parap

PO Box 3675, Darwin, NT 0801

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From: hgroves@magnatagriservices.com.au <hgroves@magnatagriservices.com.au>
Sent: Monday, 28 April 2025 9:37 AM
To: Heritage Branch <Heritage.Branch@nt.gov.au>
Cc: Christine Plewinski <Christine.Plewinski@nt.gov.au>
Subject: RE: NT Portion 6890 - application to clear native vegetation

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Good morning all,

Further to the request for information below, information from AAPA advises that there is a restricted works area present at NT Portion 6890. The extent of the restricted works area was vectorized and the clearing plan amended to exclude this area.

Please find attached the amended clearing plan spatial file, with the extent of proposed clearing polygon ISA-01 reflecting this change. Please advise if there are any declared heritage places or archaeological sites within the meaning of the *Heritage Act 2011*.

Best regards,

Helen Groves

Magnat Agri Services

0439 937 802 | hgroves@magnatagriservices.com.au

From: hgroves@magnatagriservices.com.au <hgroves@magnatagriservices.com.au>

Sent: Wednesday, 16 April 2025 8:24 AM

To: 'Heritage Branch' <Heritage.Branch@nt.gov.au>

Subject: NT Portion 6890 - application to clear native vegetation

Good morning all,

I am currently working on an application to clear native vegetation at NT Portion 6890 (Isabella Downs), south-west of Adelaide River. The proposed clearing area is 442.7ha, and all proposed areas have existing access via tracks on the property.

I've attached the spatial file of the proposed clearing area, and attached are some site photos taken 23rd and 24th March 2025. Please advise if there are any declared heritage places or archaeological sites within the meaning of the *Heritage Act 2011*.

Best regards,
Helen Groves

Helen Groves

Magnat Agri Services

0439 937 802 | hgroves@magnatagriservices.com.au

Disclaimer

This Abstract of Records has been provided by the Aboriginal Areas Protection Authority to Magnat Livestock Pty Ltd for the sole purpose of inclusion in land clearing applications. If it is required by law to publish the application then the Authority consents to the publication as required. It is an offence under s 38 of the Northern Territory Aboriginal Sacred Sites Act 1989 (NT) to permit further access to this information without the prior written consent of the Authority. For the identified subject land, the Abstract of Records identifies:

- Any registered or recorded sacred sites known to the Authority; and*
- Any Restricted Work Areas (RWAs) established by the Authority in previously issued Authority Certificate(s).*

The Abstract may show no sacred sites in the subject land, or part thereof, but this may be a function of the fact that the Authority has not yet undertaken work in the region, or that the work required to register a sacred site has not yet been completed. It does not mean there are no sites in the area. Where RWAs have been identified in the Abstract, Magnat Livestock Pty Ltd cannot rely on this information as it only applies to those prior works and prior proponent to which the relevant Authority Certificate was issued.

Accordingly, the Abstract of Records is not evidence of whether or not a sacred site exists in the subject land and whether they are protected. Given this significant limitation, the Abstract may be used for information purposes only and not as a basis for proceeding with works or use. Further, an Abstract does not provide a defence against prosecution under the Sacred Sites Act, only an Authority Certificate issued by the Authority can do these things.



**Aboriginal Areas
Protection Authority**
protecting sacred sites across the territory

Our File: RI2025/331
In Reply Please Quote: 202505954

Magnat Livestock Pty Ltd
508 Pilton Valley Road
PILTON, QLD, 4361

ATTENTION: Helen Groves
RE: Abstract of Records - NT Portion 6890. - 202505954

On 17th April 2025 the Aboriginal Areas Protection Authority (the **Authority**) received your application for an abstract of records under regulation 7 of the *Northern Territory Aboriginal Sacred Sites Regulations 2004* (NT) (the **Regulations**).

The contents of this letter and the enclosed map comprise the abstract which is hereby provided to you for the purposes of regulation 7(3). I advise, in accordance with regulation 7(3)(a), that for the parcel of land the subject of this abstract:

- i. there are currently no registered sacred sites located on the parcel of land;
- ii. there are currently no recorded sacred sites located on the parcel of land;
- iii. there are restricted work areas in the parcel of land which are provided for in a previously issued Authority Certificate;

The map enclosed provides an overview of any registered or recorded sacred sites and restricted work areas described above. The information provided to you in this abstract is for information purposes only and cannot be relied upon as an exhaustive list of sacred sites in the area. There may be other sacred sites in the parcel of land of which the Authority is not yet aware.

A person is only permitted to enter and remain on a sacred site, carry out works on a sacred site, or make use of a sacred site in accordance with an Authority Certificate granted by the Authority (refer ss22 and 25 of the Act, also see ss34 and 35). Should you desire to do any of these things please make an application for an Authority Certificate. Further information about this process can be found here – <https://www.ntlis.nt.gov.au/aapa-online/auth/login>. Undertaking any of these acts without an Authority Certificate puts you at risk of prosecution under the Act (refer ss33-35). This abstract does not protect you in any way for your acts and is not an Authority Certificate.

The current Act and Regulations can be found online here - <https://legislation.nt.gov.au/>. Please ensure you are familiar with the legislation, particularly the offences in relation to sacred sites and the processes involved for obtaining an Authority Certificate if and when you require one.

Further information concerning abstracts and requests for information from the Authority can be found in the frequently asked questions (**FAQs**) which can be found online here– <https://www.aapant.org.au/faq>.

The cost of providing the information set out in this letter and the attached map is \$32 (GST inclusive if applicable) and an invoice will be issued to you by the Department of Corporate and Digital Development.

If you have any queries, please do not hesitate to contact the Registrar via email through enquiries.aapa@aapant.org.au or (08) 8999 4356.

Yours sincerely,

Wendy Forscutt
REGISTRAR
17th April 2025

Abstract of Authority's Records - Regulation 7(3)(b) - 202505954

Provided to:
Magnat Livestock Pty Ltd

ASSESSED AT 17/04/2025

**This Abstract of Records is not an
Authority Certificate. It is not for
works, publication or distribution.**

**It is an offence under s.38 to publish or
distribute this Abstract of Records
without permission of the Authority.**

To seek an Authority Certificate from the Authority
apply online at www.aapant.org.au/our-services

N.B. The Sacred Site point is indicative of the
general sacred site location and does not necessarily represent the
location of any specific feature of the sacred site or the site extent and
is not an exhaustive record as unrecorded site may exist in the area

J2025-0578

0 1,800
metres
Scale 1:30,000

KEY

- Subject Land
- Restricted
Works Area
- Authority Certificate
Records available for
Public Inspection

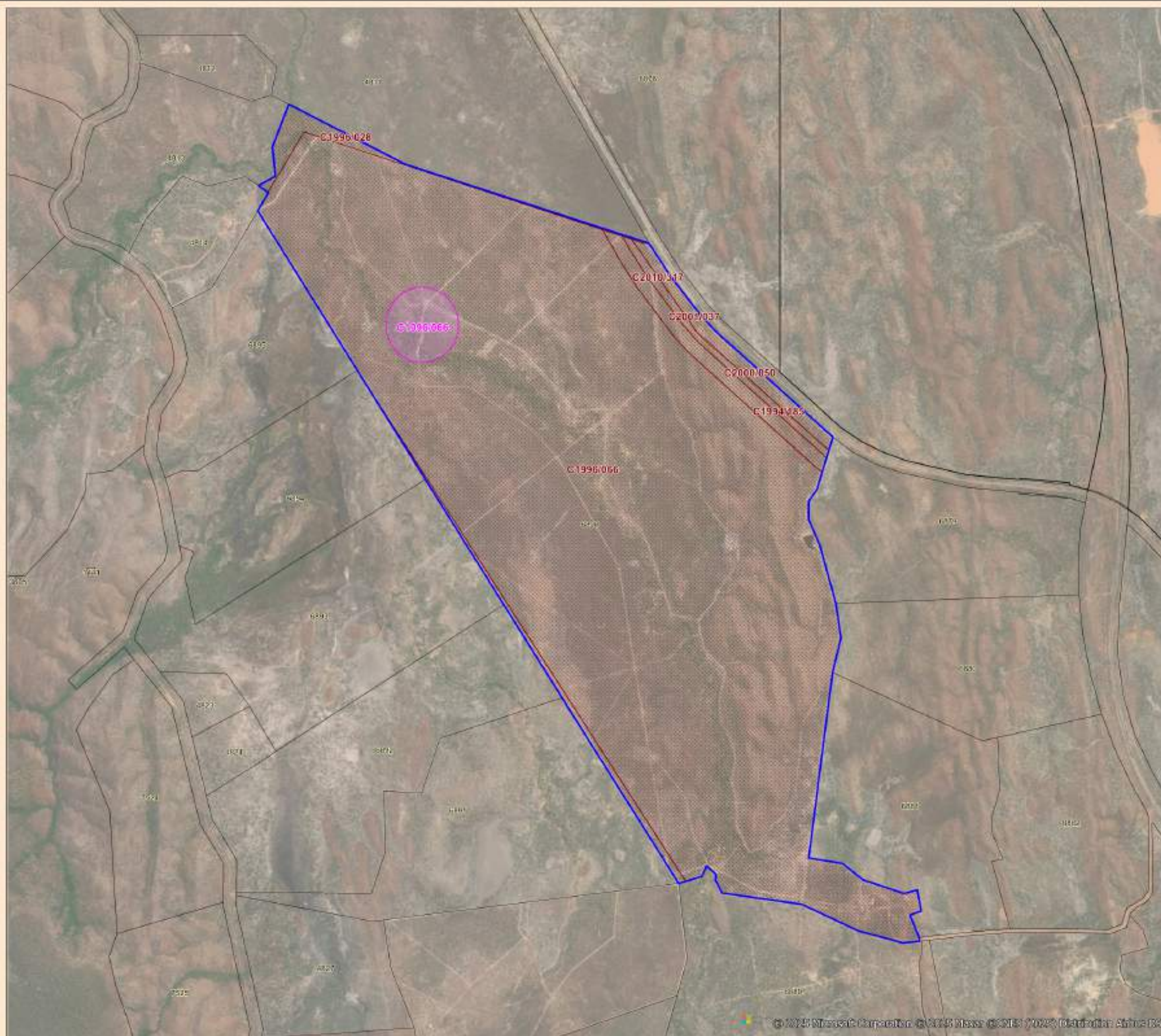


**Aboriginal Areas
Protection Authority**
protecting sacred sites across the territory

*Prepared and produced by: Aboriginal
Areas Protection Authority (AAPA),
Darwin, Northern Territory of Australia
Northern Territory of Australia*

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Topographic Data Mapping
Copyright Geoscience Australia
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All rights reserved*



List of Records available for Inspection


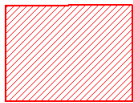


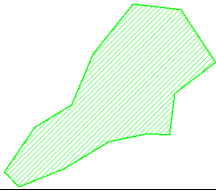
Authority Certificates


Cert No	With RWA	Superseded_by
C2010/317	No	
C2001/037	No	C2001/093
C1996/066	Yes	
C1996/028	No	C2005/059
C1994/185	No	






Frequently Asked Questions


In these FAQs, a reference to:

- “the Act” is a reference to the *Northern Territory Aboriginal Sacred Sites Act 1989* (NT); and
 - “the Regulations” is a reference to the *Northern Territory Aboriginal Sacred Sites Regulations 2004* (NT).
- The Act and Regulations can be found here - <https://legislation.nt.gov.au/>.

Question	Answer
What is a sacred site?	The term “sacred site” is defined in s3 of the Act by reference to its meaning in the <i>Aboriginal Land Rights (Northern Territory) Act 1976</i> (Cth) which provides a sacred site is “a site that is sacred to Aboriginals or is otherwise of significance according to Aboriginal tradition, and includes any land that, under a law of the Northern Territory, is declared to be sacred to Aboriginals or of significance according to Aboriginal tradition”.
What is a registered sacred site?	<p>A registered sacred site is indicated on the map by this symbol: </p> <p>The site number is indicated on the map by a number in the following format XXXX-XX.</p> <p>A registered sacred site is a site that has been added to the Register of Sacred Sites maintained by the Authority following the process set out in Part III Division 2 of the Act.</p> <p>The effect of registering a sacred site is set out in s45 of the Act.</p> <p>The extent of a registered site is the red hatched area: </p>
What is a recorded sacred site?	<p>A recorded sacred site is a site that is known to the Authority but has not been registered and includes recorded sacred burial sites. The Authority may hold the information required to register the site should this become the wishes of the custodians. Alternatively, a recorded sacred site may still require further research in order to obtain all necessary information. The recorded coordinate point for a sacred site is a reference point only and does not necessarily indicate the location or extent of any specific site feature.</p> <p>A recorded sacred site point is indicated on the map by this symbol: </p> <p>A recorded sacred burial site is indicated on the map by this symbol: </p> <p>Note that recorded sites have not gone through the registration process set out in s28 of the Act. As such, the full extent of the sacred site may change upon registration. The extent of a recorded sacred site is the green hatched area. </p>
<p>The map shows that there are no registered or recorded sites in the area of interest.</p> <p>Does this mean I can proceed with my works?</p>	<p>Whether you proceed with your works is a decision for you however you should carefully consider the area concerned and the provisions of the Act (particularly those that address the protections an Authority Certificate provides and the punishments prescribed for the offences set out in Part IV of the Act).</p> <p>If there is no record of an Authority Certificate being issued over the area concerned, it is possible that there may be sacred sites that are not currently known to the Authority.</p>
How long does it take to get an Authority Certificate?	The Authority takes an average of three months to produce an Authority Certificate. The timeframe will vary depending on various factors including the complexity of the proposed works, availability of custodians, remoteness, and access to land.

Question	Answer
How much does an Authority Certificate cost?	<p>Division 1A and Division 1 of Part III of the Act set out the procedures for applications for Authority Certificates.</p> <p>The cost of an Authority Certificate differs depending on whether it is a “standard application” or a “non-standard application”. The classification of an application is determined by the Authority in accordance with the guidelines prescribed by Regulation 3 and set out at Schedule 1 to the Regulations.</p> <p>Standard applications will incur a fee in accordance with Schedule 4 of the Regulations.</p> <p>Non-standard applications are subject to charges which will depend on the nature of the application and the work required by the Authority. These charges are calculated by the Authority in accordance with Regulation 6 of the Regulations. If you submit an application that is determined to be a non-standard application, the Authority will provide you with an estimate of charges for your consideration and approval.</p>
What information is on the Register of Sacred Sites?	<p>The information on the Register of Sacred Sites differs due to the information available and the information permitted by the custodians of the sacred site to be recorded. Please refer to section 29 of the Act for further information. However, generally the Register of Sacred Sites may include the following types of information in relation to a sacred site:</p> <ul style="list-style-type: none"> • the coordinate point of the site (NB: the coordinate point for a sacred site is a reference point only and does not necessarily indicate the location or extent of any specific site feature); • features of the site; • geographic description; • custodian group details; and • Aboriginal traditions associated with the site.
How do I inspect the Register of Sacred Sites?	<p>Section 48 of the Act allows a person to apply to the Authority to inspect the Register of Sacred Sites.</p> <p>The viewing will take place in the Authority’s offices, which are located in Darwin and Alice Springs. No hard or soft copies of the Register will be provided and photographs of the Register are prohibited.</p> <p>Information that is of a sensitive commercial nature or relates to matters required to be kept secret according to Aboriginal tradition will not be provided.</p> <p>To view the Register of Sacred Sites please apply online. You must specify the sites or certificates that you would like to view (see the map for the relevant numbers). A staff member will then contact you to organise an inspection time in either our Darwin or Alice Springs office.</p> <p>In accordance with regulation 8 and with reference to item 2 of Schedule 4 to the Regulations, the fee payable to inspect the Register of Sacred Sites is 23 revenue units per sacred site.</p>
Authority Certificate Records are available for Public Inspection in the area of interest. What does this mean?	<p>Areas over which the Authority has previously issued an Authority Certificate are indicated on the map by this hatching: </p> <p>In an abstract provided by the Authority pursuant to regulation 7(3) of the Regulations, areas over which the Authority has previously issued an Authority Certificate are indicated on the map.</p> <p>For these areas, the Authority has consulted custodians for the area in the past about prior works. There may be conditions in the Authority Certificate. These conditions will relate to the works covered by that certificate only.</p> <p>You cannot rely on an Authority Certificate that was issued to another person.</p> <p>If there is a record of an Authority Certificate being issued over the area concerned, that certificate only applies to those prior works and will not provide any protection for your works.</p>

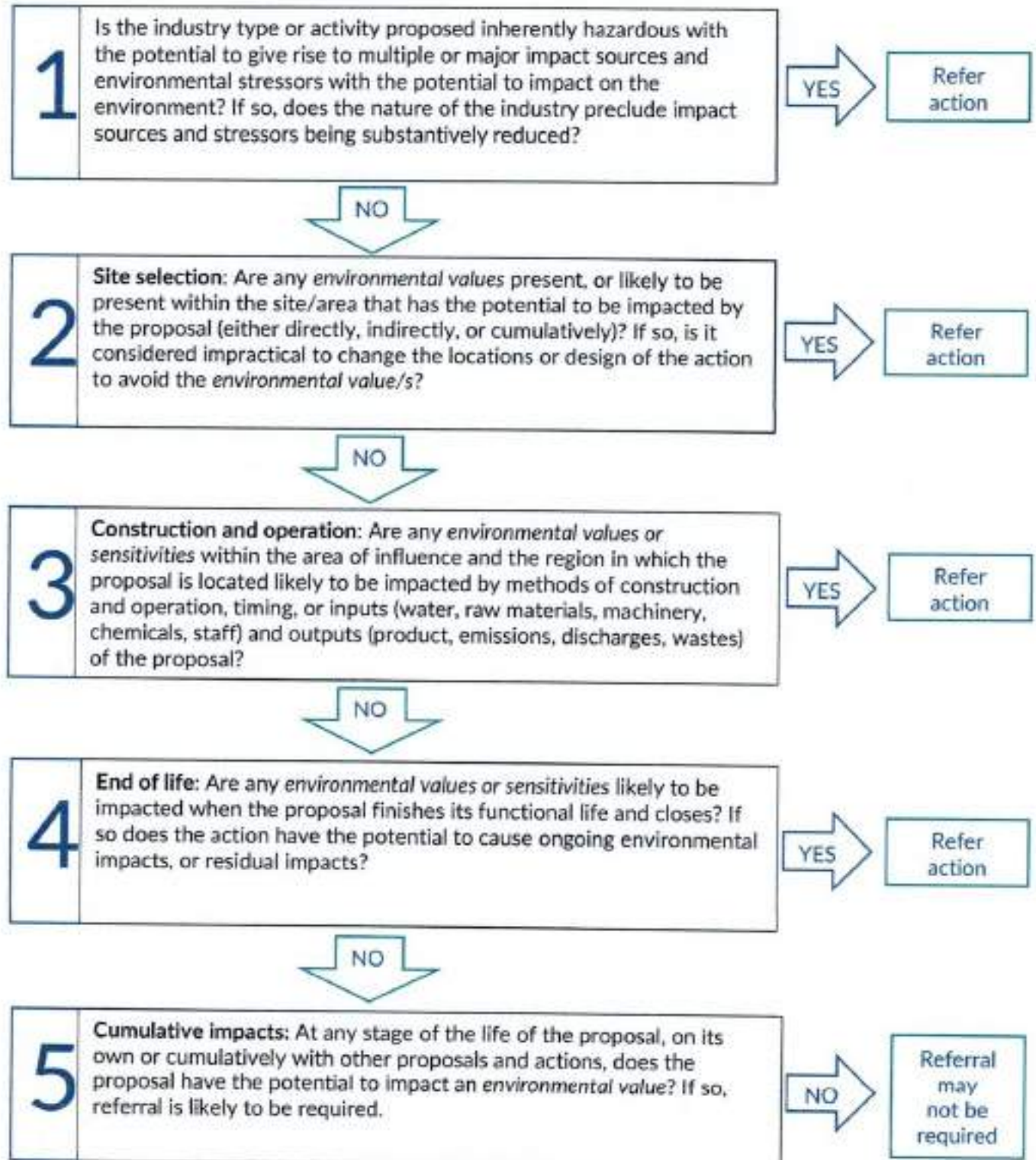
Question	Answer
<p>There was an Authority Certificate refused in the area of interest. What does this mean?</p>	<p>Areas over which the Authority has refused to issue an Authority Certificate are indicated on the map by this hatching: </p> <p>Applications for Authority Certificates that have been refused can be viewed on the Authority's Register.</p>
<p>There are restricted work areas in the area of interest. What does this mean?</p>	<p>In an abstract provided by the Authority pursuant to regulation 7(3) of the Regulations, a restricted work area will be indicated on the map by this hatching: </p> <p>A restricted work area relates to an area identified in an issued Authority Certificate. It is an area that had restrictions on the kind of activities that were permitted (or not permitted) in the area.</p>
<p>Can I see the Authority Certificate records that are available for public inspection over the area of interest?</p>	<p>Yes. The Authority will provide access to information on prior Authority Certificates that have been issued in the area of interest. An application may be made pursuant to section 48.</p> <p>You will be provided with a list of Authority Certificates granted or refused over the area of interest, including the conditions for any works that may have been proposed for that area. The conditions listed in a prior Authority Certificate are for the works stated in that particular Certificate. Restrictions on works can vary. Sometimes an Authority Certificate will prohibit any work in the area or will prevent certain activities, such as ground disturbing work, damage to trees, or the removal of sand or gravel. The conditions in a certificate are specific to each application and depend on the works proposed.</p> <p>The viewing will take place in the Authority's offices, which are located in Darwin and Alice Springs. No hard or soft copies of the Register will be provided and photographs of the Register are prohibited.</p> <p>Information that is of a sensitive commercial nature or relates to matters required to be kept secret according to Aboriginal tradition will not be provided.</p> <p>To view Authority Certificates that have been previously issued or refused in your area of interest, please apply online. You must specify the sites or certificates that you would like to view. The map contained in this letter will contain relevant record reference numbers. A staff member will then contact you to organise an inspection time in either our Darwin or Alice Springs office.</p> <p>In accordance with regulation 8 and with reference to item 3 of Schedule 4 to the Regulations, the fee payable to inspect the Register of Sacred Sites is 23 revenue units per inspection of Authority Certificate application and related Certificate or refusal.</p>
<p>No Authority Certificates have been issued in the area of interest. What does this mean?</p>	<p>Areas where the Authority has not issued an Authority Certificate are indicated on the map by this shading: </p> <p>In an abstract provided by the Authority pursuant to regulation 7(3) of the Regulations, areas where the Authority has not issued an Authority Certificate are indicated on the map. These are areas where the Authority has not undertaken anthropological research. The Authority may not have records of the sacred sites in this area. It means that there may be sites in the area and work should only proceed with an Authority Certificate, which will be issued after the Authority has spoken with custodians in the area.</p>
<p>There are "other sites" in the area of interest. What does this mean?</p>	<p>Other sites are shown on the map by this symbol: </p> <p>In an abstract provided by the Authority pursuant to regulation 7(3) of the Regulations, other sites (where known) are shown on the map. Other sites include archaeological places or sacred objects. These places and objects are protected under the <i>Heritage Act 2011</i> (NT).</p> <p>The extent of an "other site" is the diagonal blue hatched area. </p>

Question	Answer
<p>There is a burial site in the area of interest. What does this mean?</p>	<p>Burial sites are shown on the map by this symbol: </p> <p>In an abstract provided by the Authority pursuant to regulation 7(3) of the Regulations, burial sites (where known) are shown on the map.</p> <p>Under the <i>Criminal Code Act 1983</i> (NT) it is an offence to interfere with remains of a deceased person. It is also an offence contrary to the <i>Heritage Act 2011</i> to interfere with the remains of a deceased Aboriginal person without authorisation under that Act. In the event that any skeletal remains are unearthed, it is your responsibility to stop works and immediately report such disturbance to the NT Police and the Director Heritage Branch, Department of Territory Families, Housing and Communities.</p> <p>For further information, please contact the Director Heritage Branch, Department of Territory Families, Housing and Communities on (08) 8999 5051 or email heritage.branch@nt.gov.au.</p>
<p>I know the custodians of the sites in the area of interest. Do I still need an Authority Certificate?</p>	<p>Yes. An Authority Certificate provides a defence against prosecution under the Act as long as the conditions of the Certificate are adhered to. The Authority can only issue an Authority Certificate if it is satisfied of the matters set out in s22 of the Act.</p>
<p>I own the land that is the area of interest. Do I still need an Authority Certificate?</p>	<p>The rights of land owners are preserved under s44(1) of the Act. Ownership of the land, however, will not defend you against a prosecution under the Act in the event a sacred site is damaged. Only an Authority Certificate can do this. Owners of land that may include sacred sites should ensure they consider the Act and whether they may require an Authority Certificate for their use of the land.</p>
<p>Can I share my abstract of records with other people?</p>	<p>No. It is an offence under s38 of the Act to permit access to, or furnish a document produced for a purpose of the Act without permission of the Authority.</p> <p>The abstract of records has been provided to you by the Authority for the limited purpose of your consideration. Should you wish to share the abstract, you should write to the Authority seeking permission under s38(1) of the Act. You should detail the purpose of sharing the abstract of records.</p>
<p>Can I publish the abstract of records?</p>	<p>No. It is an offence under s38 of the Act to permit access to, or furnish a document produced for a purpose of the Act without permission of the Authority.</p> <p>The abstract of records has been provided to you by the Authority for the limited purpose of your consideration. Should you wish to publish the abstract, you should write to the Authority seeking permission under s38(1) of the Act. You should detail the purpose of publishing the abstract of records.</p>

Appendix 1: Pre-referral screening tool

This appendix provides the tools to assist proponents in conducting a pre-referral screening of a new proposal and should be completed after reading all information in the referral guidance.

Part 1 – General screening questions



Guidance for answering screening questions:

Environmental values and sensitivities

While a proponent may exercise a degree of judgement about whether a proposal has the potential to have a significant impact on the environment, **it is for the NT EPA to decide an impact's significance**. Therefore, the screening tool requires the identification of whether the proposal activity/industry type inherently has the potential to impact the environment and has the potential to impact aspects of the environment that are rare, sensitive to stress or important (environmental values and sensitivities). The premise for this approach is that any impacts (including impacts perceived to be minor) to environmental values and sensitivities, have the potential to be significant.

Question 1 – Inherent hazardous nature of proposal

If the proposal could be considered inherently hazardous (checkbox = yes), it must be referred to the NT EPA.

Examples of inherently hazardous developments or activities could include (but are not limited to) a uranium mine, aluminium smelter, Liquefied Natural Gas (LNG) plant or gas processing facility. As this question is about the proposal or activity without reference to the receiving environment or environmental values, check boxes for this question, corresponding to environmental factors, have been removed from the checklist at Part B.

Question 2 – site selection

Appropriate site selection is used to avoid environmental impacts by not locating a proposal where environmental values (such as sensitive environments) are present or can be impacted.

The checklist at Appendix 1 – Part 2 indicates the potential environmental values and sensitivities that are associated with each environmental factor to encourage consideration of whether an environmental value or sensitivity is present or absent within the footprint or surrounding environment of the proposal.

If present, a proponent must consider whether the proposal could have a direct, indirect or cumulative impact on it. If an impact to an environmental value or sensitivity has the potential to occur (checkbox = yes or uncertain), the proponent should consider, justify, and/or assess the significance of the impact. If there is potential for significant impact the proponent must refer the proposal to the NT EPA. Alternatively, the proponent could change the location or design of the proposal to avoid the impact (if this occurs, checkbox = no and provide a brief justification for the changes made and residual impact).

Question 3 – construction and operation

The methods of construction and operation may give rise to impact sources and pathways for impacts to environmental values and sensitivities outside the development footprint, in the surrounding environment.

For example, constructing an earthen barge landing or dredging a shipping channel in coastal waters could lead to poor water quality and impacts to marine ecosystems distant from the development; a polymetallic mine that includes processing and therefore a tailings stream, may pose a risk to beneficial uses downstream of the mine through seepage of contaminants to groundwater aquifers.

If the method of construction or operation of a proposal is likely to create impact sources and pathways to environmental values and sensitivities within the area of influence outside the development footprint (checkbox = yes or uncertain), the proponent must refer the proposal to the NT EPA. Alternatively, the proponent may alter the method to avoid the impact (if this occurs, checkbox = no and provide a brief justification for the changes made and residual impact).

Question 4 – residual or ongoing impacts

The state of the impacted area at the end of life of the proposal may give rise to ongoing impacts (legacy issues) that may not be possible to manage actively or effectively.

For example, in the mining industry where resources are finite and physical disturbance of the site is difficult and/or prohibitively expensive to repair.

If at the end of the proposal's life, the proposal footprint is unlikely to be restored, or adverse impacts to environmental values and sensitivities are likely to occur and be ongoing into the longer term (checkbox = yes or uncertain), the proponent must refer the proposal to the NT EPA. Alternatively, the proponent could demonstrate that adverse impacts would be avoided at the end of life of the proposal and into the future (if this occurs, checkbox = no and provide a brief justification for the changes made and residual impact).

Question 5 – cumulative impacts

It is a requirement to consider how the proposal could contribute to impacts to environmental values and sensitivities as a result of a combination of smaller impacts arising from the proposal, and/or that accumulate in conjunction with other developments, or natural events.

If cumulatively, the activities associated with a single proposal, and/or in combination with other proposals or actions or events in the region, impacts to environmental values and sensitivities are likely (checkbox = yes or uncertain), the proponent should consider, justify, and/or assess the significance of the impact, which may lead to referral of the proposal to the NT EPA. Alternatively, the proponent could demonstrate that cumulative impacts resulting from the proposal can be avoided (if this occurs, checkbox = no and provide a brief justification for the changes made and residual impact).

Part 2 – Answer checklist

How to complete the answer checklist: Use questions 1-5 from Part 1 of the screening tool. Indicate answer to questions 1-5 in corresponding checkbox.

The table below gives an indication of possible environmental values and sensitivities for each environmental factor that should be addressed when considering each question. If the answer to a question is 'yes' or 'uncertain', it is possible that the proposal may have the potential to have a significant impact on the environment and the proposal should be referred to the NT EPA. If you answer 'no' to any question, provide a justification why there is no likely impact to that factor.

Theme	Environmental factor and objective	Indicative environmental values and sensitivities relevant to each environmental factor	Proponent's answer to screening questions 1-5				
			No <input checked="" type="checkbox"/> Yes <input type="checkbox"/>	Q2	Q3	Q4	Q5
	Is the industry type or activity proposed inherently hazardous with the potential to give rise to multiple or major impact sources and environmental stressors with the potential to impact on the environment? If so, does the nature of the industry preclude impact sources and stressors being substantively reduced?		No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> NA				
LAND	1) Landforms Objective: Conserve the variety and integrity of distinctive physical landforms.	<ul style="list-style-type: none"> distinctive features in the landscape, either geological or anthropogenic subterranean karstic terrain and faults craters, gorges, ranges, caves, massifs, escarpments, plateaus monuments tourism related to landforms 	Yes No Uncertain Not Applicable	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	If you answered No to any screening questions for Landforms, provide justification here: <i>There are no distinctive physical landforms within or close to the proposed clearing area (see section 9 of application).</i>						
	2) Terrestrial environmental quality Objective: Protect the quality and integrity of land and soils so that environmental values are supported and maintained.	<ul style="list-style-type: none"> high quality soils, including chemical, physical, biological, and aesthetic qualities that support life the biological processes that depend on soil quality 	Yes No Uncertain Not Applicable	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Theme	Environmental factor and objective	Indicative environmental values and sensitivities relevant to each environmental factor	Proponent's answer to screening questions 1-5				
			Q2	Q3	Q4	Q5	
WATER	<p>If you answered No to any screening questions for Terrestrial environmental quality, provide justification here: or impacts to the quality and integrity of land and soils from the proposed works (Section 9 and 12).</p> <p>3) Terrestrial ecosystems</p> <p>Objective: Protect terrestrial habitats to maintain environmental values including biodiversity, ecological integrity, and ecological functioning.</p> <ul style="list-style-type: none"> o sensitive or significant vegetation or buffers (as defined in the NT Land Clearing Guidelines) o listed threatened species and their habitat (NT and Commonwealth) o listed migratory species and their habitat (Commonwealth) o listed threatened ecological communities (Commonwealth) o locally endemic or restricted species and their habitat o species that are data deficient with unknown protection status o protected area or reserve, including Indigenous Protected Area o biosecurity o high quality biological and functional diversity, integrity, and services 	<p>There are no foreseen adverse effects</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Not Applicable <input type="checkbox"/></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<p>If you answered No to any screening questions for Terrestrial ecosystems, provide justification here: ecosystems present (Section 10).</p> <p>1) Hydrological processes</p> <p>Objective: Protect the hydrological regimes of groundwater and surface water so that environmental values including ecological health, land uses and the welfare and amenity of people are maintained.</p> <ul style="list-style-type: none"> o the supply and quantity of water in surface water features including rivers, lakes, wetlands, swamps, creeks, billabongs, intermittent streams, floodplains, mangroves, and drainage lines o the supply and quantity of water in groundwater features including aquifers, aquitards, water tables and the ecosystems they support (stygofauna, vegetation, and groundwater dependent ecosystems) o declared beneficial uses o present and future users, and users of water o current or potential water supplies, including regional scale aquifers o culturally important water features or other features affected by water level 	<p>The proposed works pose a low risk to terrestrial ecosystems present (Section 10).</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Uncertain <input type="checkbox"/> Not Applicable <input type="checkbox"/></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<p>If you answered No to any screening questions for Hydrological processes, provide justification here: hydrological processes from the proposed works (Section 10).</p> <p>2) Inland water environmental quality</p> <ul style="list-style-type: none"> o the quality of water in surface water features including rivers, lakes, wetlands, swamps, creeks, billabongs, intermittent streams, floodplains, mangroves, and drainage lines 	<p>No foreseen adverse effects or impacts to</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Theme	Environmental factor and objective	Indicative environmental values and sensitivities relevant to each environmental factor	Proponent's answer to screening questions 1-5				
			Q2	Q3	Q4	Q5	
SEA	Objective: Protect the quality of groundwater and surface water so that environmental values including ecological health, land uses and the welfare and amenity of people are maintained.	<ul style="list-style-type: none"> the quality of water in groundwater features including aquifers and water tables declared beneficial uses present and future uses and users of water current or potential water supplies, including regional scale aquifers potability / drinkability culturally important water features 	Uncertain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	If you answered No to any screening questions for Inland water environmental quality, provide justification here: to inland water environmental quality (Section 10).		The proposed works pose a low risk to inland water environmental quality (Section 10).				
	3) Aquatic ecosystems Objective: Protect aquatic habitats to maintain environmental values including biodiversity, ecological integrity, and ecological functioning.	<ul style="list-style-type: none"> threatened species the health of the biota in inland waterways the habitats that support the lifecycle of aquatic biota groundwater dependent ecosystems Ramsar wetlands high quality biological and functional diversity, integrity, and services 	No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	If you answered No to any screening questions for Aquatic ecosystems, provide justification here: ecosystems in the region (Section 10).		The proposed works pose a low risk to aquatic ecosystems in the region (Section 10).				
	1) Coastal processes Objective: Protect the geophysical and hydrological processes that shape coastal morphology so that the environmental values of the coast are maintained.	<ul style="list-style-type: none"> processes that support marine ecosystems such as coral reefs and mangroves processes that support coastal morphology such as beaches, rock bars, and sandbars tidal creeks, deltas, and river mouths storm surge protection unique coastal landforms 	Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	If you answered No to any screening questions for Coastal processes, provide justification here: coastal or tidal areas		The application area is not in or adjacent to coastal or tidal areas.				
	2) Marine environmental quality	<ul style="list-style-type: none"> quality of the water, sediment, and biota physical parameters that support fishing and aquaculture physical parameters that support recreation and aesthetics 	Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Theme	Environmental factor and objective	Indicative environmental values and sensitivities relevant to each environmental factor	Proponent's answer to screening questions 1-5				
			Q2	Q3	Q4	Q5	
	Objective: Protect the quality and productivity of water, sediment, and biota so that environmental values are maintained.	<ul style="list-style-type: none"> o industrial water supply o cultural and spiritual values 	No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			Uncertain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			Not Applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	If you answered No to any screening questions for Marine environmental quality, provide justification here: (As above)						
	3) Marine ecosystems Objective: Protect marine habitats to maintain environmental values including biodiversity, ecological integrity, and ecological functioning.	<ul style="list-style-type: none"> o conservation significant marine and coastal fauna and critical habitat such as nesting, breeding or foraging habitat o conservation significant marine and coastal benthos (seagrass meadows, sponge gardens, coral reefs, mangrove communities and salt marshes) o groups of species (species richness and assemblages of species) o ecological functions and processes o high quality biological and functional diversity, integrity and services 	Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			Uncertain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			Not Applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
AIR	If you answered No to any screening questions for Marine ecosystems, provide justification here: (As above) .						
	1) Air quality Objective: Protect air quality and minimise emissions and their impact so that environmental values are maintained.	<ul style="list-style-type: none"> o ambient air quality in the local airshed o the chemical, physical and biological characteristics of quality air o the biological processes that depend on the air quality 	Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
			Uncertain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			Not Applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	If you answered No to any screening questions for Air quality, provide justification here: No proven adverse affects or impacts to air quality from the proposed works.						
	2) Atmospheric processes Objective: Minimise greenhouse gas emissions so as to contribute to the	<ul style="list-style-type: none"> o a contribution to the NT's greenhouse gas emissions through nearing or reaching emission thresholds for: o Industrial projects of 100 000 tCO₂e scope 1 emissions per financial year (not counting emissions generated from land clearing) 	Yes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Theme	Environmental factor and objective	Indicative environmental values and sensitivities relevant to each environmental factor	Proponent's answer to screening questions 1-5				
			Q2	Q3	Q4	Q5	
	NT Government's goal of achieving net zero greenhouse gas emissions by 2050.	<ul style="list-style-type: none"> land use project/s of 500 000 tCO_{2e} scope 1 emissions from single or cumulative land clearing actions. 	Uncertain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Not Applicable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you answered No to any screening questions for Atmospheric processes, provide justification here: Total calculated Scope 1 emissions - 26, 282.19 tCO_{2e} - e							
PEOPLE	1) Community and economy	<ul style="list-style-type: none"> communities, towns and suburbs where people live community aspirations for liveable environment and healthy lifestyles. affordable access to food, water, electricity, transport and communication networks. good amenity - air quality, noise, aesthetics access to social infrastructure and services including transport and logistics access to natural resources including bush food recreational use of the natural or built environment (for example fishing, cycling, sports, picnics) species of social, livelihood and or economic importance (terrestrial, aquatic and marine biota) participation in jobs, businesses and education existing industries such as agriculture, pastoralism, tourism, fisheries vulnerable sectors of the community. 	Yes <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Objective: Enhance communities and the economy for the welfare, amenity and benefit of current and future generations of Territorians.		No <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			Uncertain <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Not Applicable <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you answered No to any screening questions for Community and economy, provide justification here: No foreseen adverse affects or impacts to amenity, industry, welfare, social values or infrastructure from the proposed works (Section 11).							
PEOPLE	2) Culture and heritage	<ul style="list-style-type: none"> Aboriginal cultural values sacred sites the Territory's natural and built heritage declared heritage places and objects protected under the Heritage Act 2011 (NT) such as: <ul style="list-style-type: none"> any Aboriginal or Macassan archaeological place or object (coastal mounds and middens, rock art, stone arrangements, quarries, artefacts, graves, burial sites and ancestral remains) 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Objective: Protect culture and heritage.		No <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			Uncertain <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			Not Applicable <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Theme	Environmental factor and objective	Indicative environmental values and sensitivities relevant to each environmental factor	Proponent's answer to screening questions 1-5				
			Q2	Q3	Q4	Q5	
		<ul style="list-style-type: none"> underwater cultural heritage (isolated objects, shipwrecks, plane wrecks, underwater cables and evidence of Aboriginal occupation prior to sea level rise) built heritage (colonial buildings and other historic buildings) defence structures (defensive positions and airfields) natural features (meteorite impact sites, palaeontological sites, springs, trees) world heritage heritage protected under the Environment Protection and Biodiversity Conservation Act 1999 (Cth) underwater cultural heritage protected under the Underwater Cultural Heritage Act 2018 (Cth) Aboriginal rights and interests, including right of access 					
		<p>If you answered No to any screening questions for Culture and heritage, provide justification here: <i>No registered or recorded heritage or cultural sites within proximity to the proposed development area (Section 14).</i></p>					
	<p>3) Human health</p> <p>Objective: Protect the health of the Northern Territory population.</p>	<ul style="list-style-type: none"> drinking water air quality bush foods radiological limits (associated with electromagnetic and particulate radiation) biting insects 	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input checked="" type="checkbox"/>	<p>Uncertain</p> <input type="checkbox"/>	<p>Not Applicable</p> <input type="checkbox"/>	
		<p>If you answered No to any screening questions for Human health, provide justification here: <i>No foreseen adverse effects or impacts to human health from the proposed works.</i></p>					

Where the screening has been undertaken by a suitably qualified and experienced person and all responses in the checklist are 'no', a referral to the NT EPA is not likely required. The NT EPA and DLPE does not require the completed checklist to be submitted in this case. However, the checklist and its justifications for no likely impact should be retained by the proponent to demonstrate the screening has been conducted. The proponent should also retain the scope of the proposal that was considered in conducting the screening, the name, qualifications and contact details of the suitably qualified and experienced person(s) who conducted the screening using the table below.

The NT EPA retains to power to "call-in" a proposal under section 53 of the EP Act.

Recommended record keeping: Where a proponent intends to retain this checklist to demonstrate it has given consideration to whether a referral is required, it is recommended that the following details are recorded.

Details	
Proponent name	DOUG SALLIS NOMINEES PTY LTD.
Propose action name	Referring a proposal to the NT EPA - clearing of native vegetation at NT Portion 6090
Description of proposed action	Non-referral.

Pre-referral screening has been conducted by: names, qualifications and date of works by suitably qualified and experienced persons⁶ engaged by the proponent.

Environmental factor	Name	Qualification / Experience	Signature	Date

Proponent's declaration that the pre-referral screening has been conducted.

Screening declaration by proponent:

I, Helen Groves (full name) declare that I am authorised to verify the pre-referral screening of this proposed action/strategic proposal on behalf of DOUG SALLIS NOMINEES PTY LTD and further declare that:

- the attached environmental impact assessment documents (including attachments) are true; and
- the attached environmental impact assessment documents do not provide false or misleading information and I know it is an offence to provide false and misleading information, noting the penalties under section 260 of the EP Act, and section 119 of the Criminal Code Act 1983.

⁶ Section 4 of the EP Act provides the meaning of a qualified person. Experience may be provided in years and/or a description of relevant experience.

Technical Memo

Date: 10 January 2025

From: Amie Leggett, Principal Environmental Scientist, Innovative Groundwater Solutions (a Water Technology company)

To: Helen Grove, Magnat Agri Services

Subject: Mapping of Groundwater Dependent Ecosystems (GDEs) - Isabella Downs Station – Lot 6890

Introduction

Isabella Downs, located southeast of Adelaide River, is preparing an application to clear native vegetation. The area of proposed clearing lies to the east of the Stuart Highway and the Alice Springs Darwin Railway, and approximately 10 km south of Adelaide River township.

Vegetation communities that are dependent on groundwater are considered as significant and/or sensitive vegetation for the purposes of the Northern Territory Planning Scheme 2020. The Northern Territory Planning Scheme Land Clearing Guidelines (NTPS LCG) recommended that clearing of GDE's is avoided and that an appropriate native vegetation buffer is adopted.

Approach

A desktop assessment was undertaken using several lines of evidence to map potential GDEs. These included layers from the National GDE Atlas, NDVI imagery derived from the Sentinel satellite, vegetation and soils data, and depth to groundwater from nearby bores, if available. If identified, the value of the potential GDEs were then assessed as per the criteria in Section 4.4.8 of the NTPS LCG, and appropriate buffers proposed.

Depth to water is often used as an initial check to see if vegetation could be accessing groundwater during all or some of the year. A water table depth of 20 meters is considered a critical cut-off for plants accessing groundwater (NTPS LCG) because most plant roots do not extend to such depths. Typically, plant root systems are adapted to access water and nutrients within the upper soil layers, with the majority of roots found within the top few meters of soil. Only certain deep-rooted plants, such as some species of trees, have the capability to reach groundwater at depths beyond 20 meters. Therefore, when the water table drops below this threshold, it becomes inaccessible to the majority of vegetation.

The National GDE Atlas was developed by the Australian government using a GIS mapping approach and used broad scale spatial data (some developed using remote sensing) to map potential GDEs. The spatial data layers differed regionally as consistent datasets across the whole of Australia were few. The reliability of the predicted GDEs was directly related to the data quality and availability for a given region and reports describing the Atlas development method highlight multiple data deficiencies for large regions of the country (Doody et al., 2017; Dowsley et al., 2012). Due to these limitations, the Atlas defines areas of 'potential'



GDEs rather than specific spatial delineation of individual GDE ecosystems. Nevertheless, the Atlas can provide an appropriate starting place to assess potential GDEs.

An alternative approach of identifying GDEs using remote sensing can provide a higher resolution of mapping and is more likely to be able to directly detect GDEs rather than just inferring potential for their existence. The increased availability of satellite imagery has seen an increase in studies which use this approach (Alaibakhsh et al., 2016; Barron et al., 2012; Gou et al., 2015; Huntington et al., 2016; Münch and Conrad, 2007; Pérez Hoyos et al., 2016). Remote sensing methods are based on a conceptual understanding of the ecohydrological interactions within a landscape and the effect of these interactions on the spectral signature captured via remote sensing (Barron et al., 2012; Glanville et al., 2016). For example, 'greenness', as measured by remotely sensed vegetation indices (VIs), is commonly used to infer water availability to vegetation. Identifying GDEs with VIs utilises the concept that vegetation which is accessing groundwater will be able to maintain productivity during dry periods and therefore show characteristics associated with high photosynthetic activity, moisture content and biomass (O'Grady et al., 2011; Pérez Hoyos et al., 2016; Tweed et al., 2007). The most commonly used vegetation index for these types of studies is the Normalised Difference Vegetation Index (NDVI), which is calculated from the red edge formed by reflectance in the red and near infrared (NIR) wavelengths and is sensitive to greenness (Townshend and Justice, 1986; Tucker, 1979).

NDVI values range from -1 to +1. Values close to +1 typically indicate high levels of vegetation with healthy, dense plant life, suggesting high photosynthetic activity. As the values decrease towards zero and below, they reflect lower plant density and health, typically corresponding to sparse vegetation or non-vegetated surfaces such as rocks, rooftops, or barren lands. Negative values near -1 are often associated with water bodies, indicating very low or no vegetative productivity.

For this mapping exercise, rainfall records were interrogated from BOM station 014092 – Adelaide River Post Office (~10 km north of the area of interest) to identify below average wet seasons or years where the dry season was particularly long (e.g. 6 full months with no rainfall). A Sentinel-2 satellite image (L2A, 10m resolution, processed for NDVI) was then selected to coincide with the latest data capture prior to wet season onset. The rationale for image selection is based on the concept that areas that are still 'green' after extended dry periods, are likely accessing groundwater to maintain productivity. A 'wet season' image from the same water year was also selected to compare seasonal responses.

Figure 1 shows the monthly rainfall totals and water year (Aug – Sept) totals from 2015-2024 (Sentinel data captures commenced in 2015). The selected Sentinel image was captured on 22 October 2019 after a relatively long dry season (only 4.5 mm over 169 days, >5 ½ months) and a below average prior wet season. The selected image was clear of cloud interference.

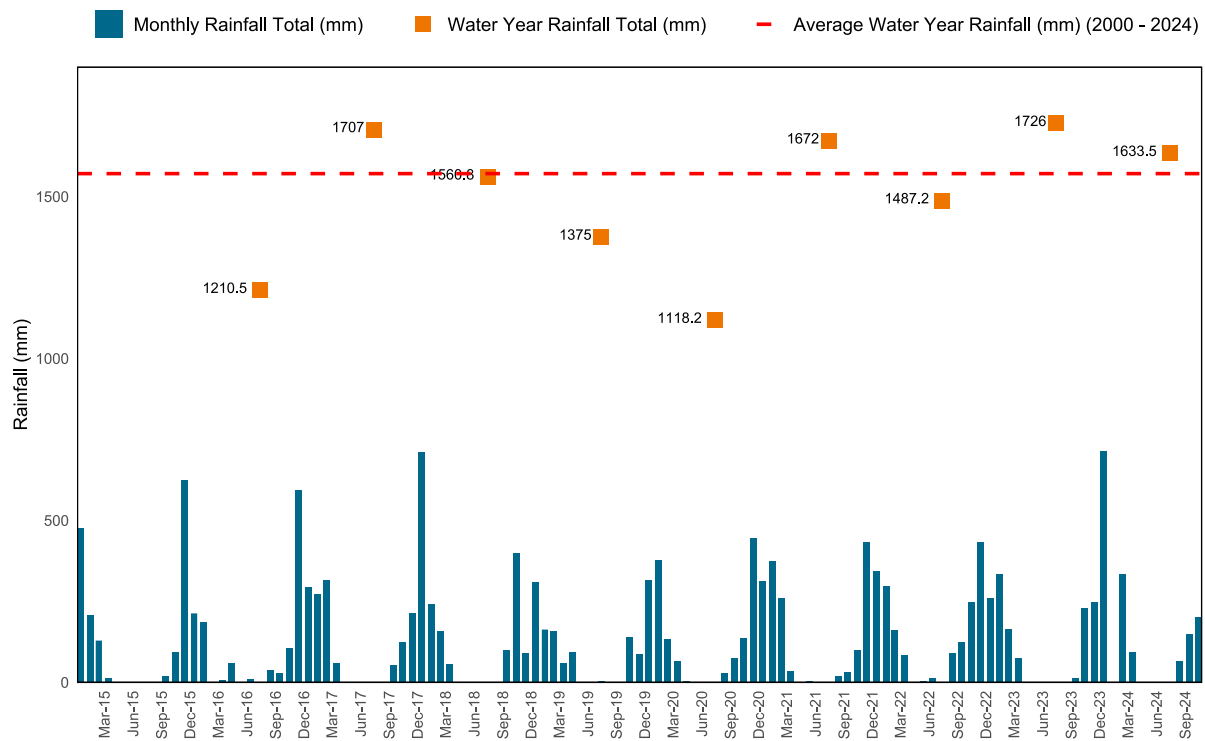


Figure 1. Monthly rainfall and water year (Sept-Aug) rainfall for BOM station 014092 – Adelaide River Post Office

The value of the identified GDEs was assessed according to guidance provided in Section 4.4.3 Biodiversity Risk Assessment and Section 4.4.8 Wetlands and Groundwater Dependent Ecosystems of the Northern Territory Planning Scheme Land Clearing Guidelines (NTPS LCG). Records of threatened and significant species, and details of conservation areas were downloaded from NR Maps (Northern Territory Government, 2024).

Results

The area proposed to be cleared is on a north-south aligned alluvial floodplain associated with Burrells Creek, a 3rd order, non-perennial tributary of the Adelaide River. During periods of inundation, flow is to the north. The riparian vegetation communities associated with the drainage line are denser than the surrounding alluvial plains. The creek runs between the separate parcels proposed to be cleared. Additionally, a drainage depression is located ~500m east of Burrell Creek.

Limited bores were available to assess depth to water in the immediate area. RN000305, drilled in the 1940's, is the closest bore (~1.5 km west), with a standing water level (SWL) record of 12.2 m BGL, collected at the time of drilling. The next nearest bore, RN000211 (~3.5 km north), was also drilled in the 1940's and recorded a SWL of 13.1 mBGL at the time of drilling. No other bores are nearby or located within the alluvial floodplain that have SWL records. Assuming the SWL is around 12-13m BGL, vegetation may access groundwater at this depth if sufficient water is not available in the vadose zone. However, the ecosystem may not necessarily be 'groundwater dependent' given the Top End is not a water-limited environment (Cook & Eamus 2018).

Spatial layers from the GDE Atlas show potential GDEs located within the land parcel (Figure 2A). These include both aquatic and terrestrial GDEs. The terrestrial GDEs are loosely associated with the narrow strip of vegetation surrounding the creek line whilst the aquatic



GDEs are assumed to be associated with the part of the creek line which holds water. These layers are misaligned with each other, and high-resolution satellite imagery, indicating that the data used to map these potential GDEs was limited. With this in mind and given the non-perennial nature of Burrells Creek and the regional depth to groundwater, the probability of the creek line being a true aquatic GDE is very low.

The NDVI imagery (Figure 2B) shows small areas of slightly increased productivity (higher NDVI values) along the drainage line compared to the surrounding plains. However, these areas are not consistent with the Atlas mapping, covering smaller, more variable shaped areas discontinuous along the drainage line. The NDVI values are in the mid-range (<0.5) and not generally consistent with GDEs which have access to a consistent supply of groundwater (El-Hokayam, De Vita & Conrad 2023). Additionally, the NDVI values in this area are fairly consistent between the wet and dry season and also consistent with the broader savanna vegetation of the Top End, which was found to access sufficient soil water stores throughout the dry season (Eamus et al., 2000; Hutley et al., 2011, Cook et al 1998). This is further supported by local and national level soils data for the project area which indicates sandy, silty and clayey soils which would be capable of storing sufficient soil water through dry periods.

As such the riparian vegetation along the intermittent drainage line and in the eastern drainage depression have not been identified as a GDE using the NDVI analysis approach.

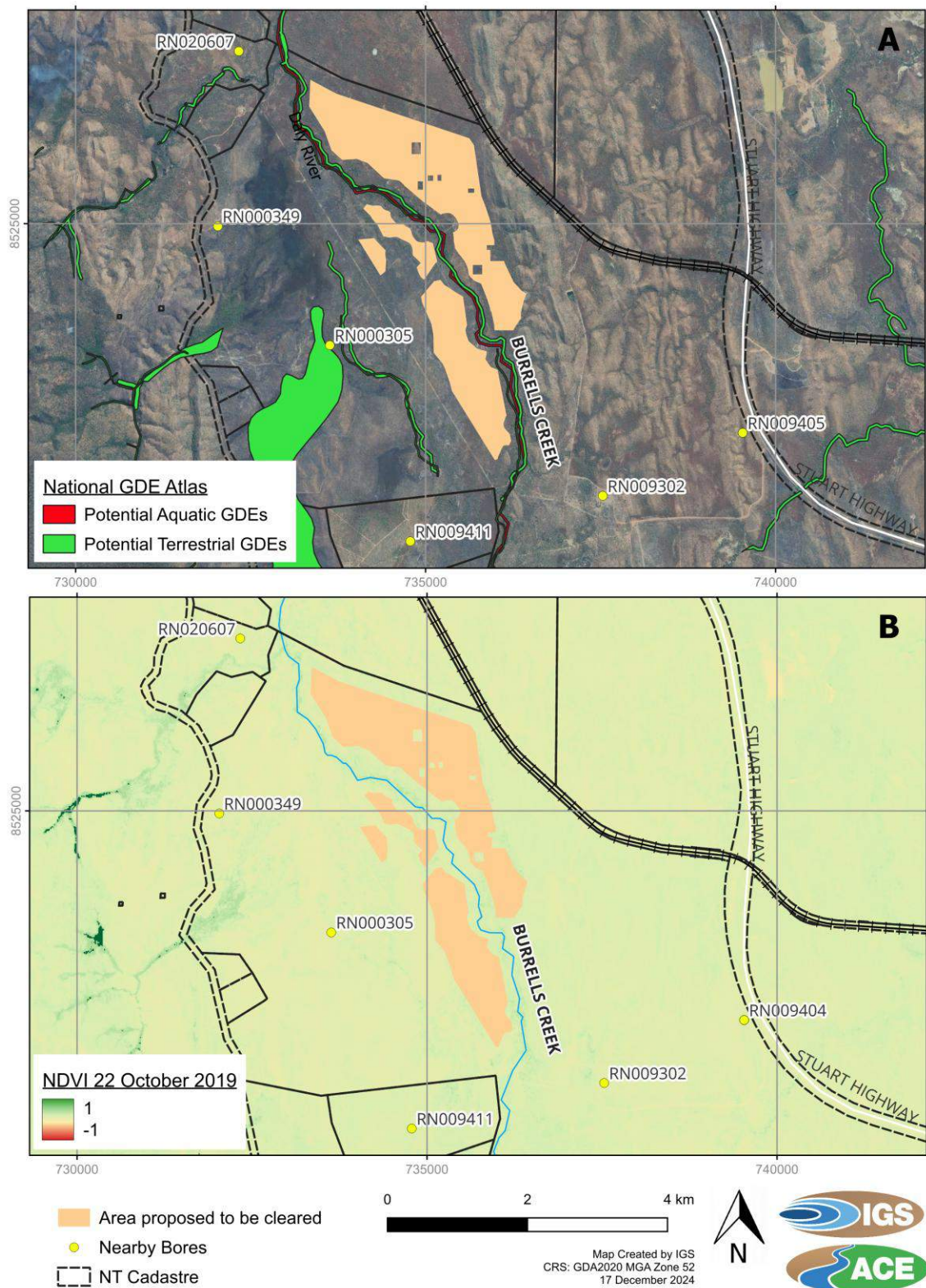


Figure 2. Isabella Downs - A) Potential GDEs mapped as per the National GDE Atlas and B) NDVI values and potential GDEs derived from Sentinel 2 imagery for the 13 November 2024.



Although no GDEs were identified in the area of proposed clearing, a preliminary search of NR Maps was undertaken to identify if any significant biodiversity had been recorded at the site.

Isabella Downs sits in the Pine Creek biodiversity region. No significant conservation areas are identified within the area of interest including the Directory of Important Wetlands, Sites of Conservation Significance or Sites of Botanical significance.

No records of threatened, restricted range or significant flora or fauna were found on Lot 6890.

However, several records of threatened and significant fauna were identified within 5 km of Lot 6890, most associated with the permanent water and sandstone ridges located near Robin Falls to the west. Identified species are provided in Table 1. Species that are mobile and may utilise terrestrial GDEs or riparian habitat on the alluvial plain are shaded.

Table 1. Threatened and Significant flora and fauna within 5km of the proposed clearing on Isabella Downs.

Species (Scientific)	Species (Common Name)	Status
Fauna		
Dasyurus hallucatus	Northern Quoll	Threatened
Chloebia gouldiae	Gouldian Finch	Threatened
Petrogale concinna canescens	Nabarlek (Top End)	Threatened
Geophaps smithii smithii	Partridge Pigeon (eastern)	Threatened
Rattus tunneyi	Pale Field-rat	Threatened
Merops ornatus	Rainbow Bee-eater	Significant
Burhinus grallarius	Bush Stone-curlew	Significant
Ardea alba	Great Egret	Significant
Varanus insulanicus	Black-spotted Spiny-tailed Monitor	Significant
Varanus primordius	Northern Ridge-tailed Monitor	Significant
Morgunda Morgunda	Northern Purplespotted Gudgeon	Significant
Porochilus obbesi	Obbes' Catfish	Significant
Flora		
Aristida jacobiana		Significant
Galactia sp. Litchfield		Significant
Acacia tolmerensis		Restricted Range
Cycas calcicola		Restricted Range

Summary

This exercise indicates it is unlikely that aquatic or terrestrial GDEs are associated with the length of Burrells Creek adjacent to the proposed clearing. Regardless, the NTPS (Clause 3.2(5)) still requires the clearing of native vegetation to avoid impacts on drainage areas and to sensitive riparian vegetation which would include the Burrells Creek alignment. The recommended riparian buffer for third order streams is 100m measured from the outer edge of the riparian vegetation whilst the recommended buffer for a drainage depression is 25m



measured from the outer edge of the associated poorly drained soils and associated vegetation.

The riparian vegetation and drainage depression were hand-mapped based on high-resolution Google Earth imagery from 2024 and appropriate buffers applied. The resulting map (Figure 3) indicates that the proposed area to be cleared is generally outside the Burrells Creek buffer zone excepting a few small slivers in the northern most extent. However, the drainage depression and associated buffer currently sits within the proposed clearing extent (as of 10 Jan 2025) and therefore it should be modified to accommodate the area to be protected.

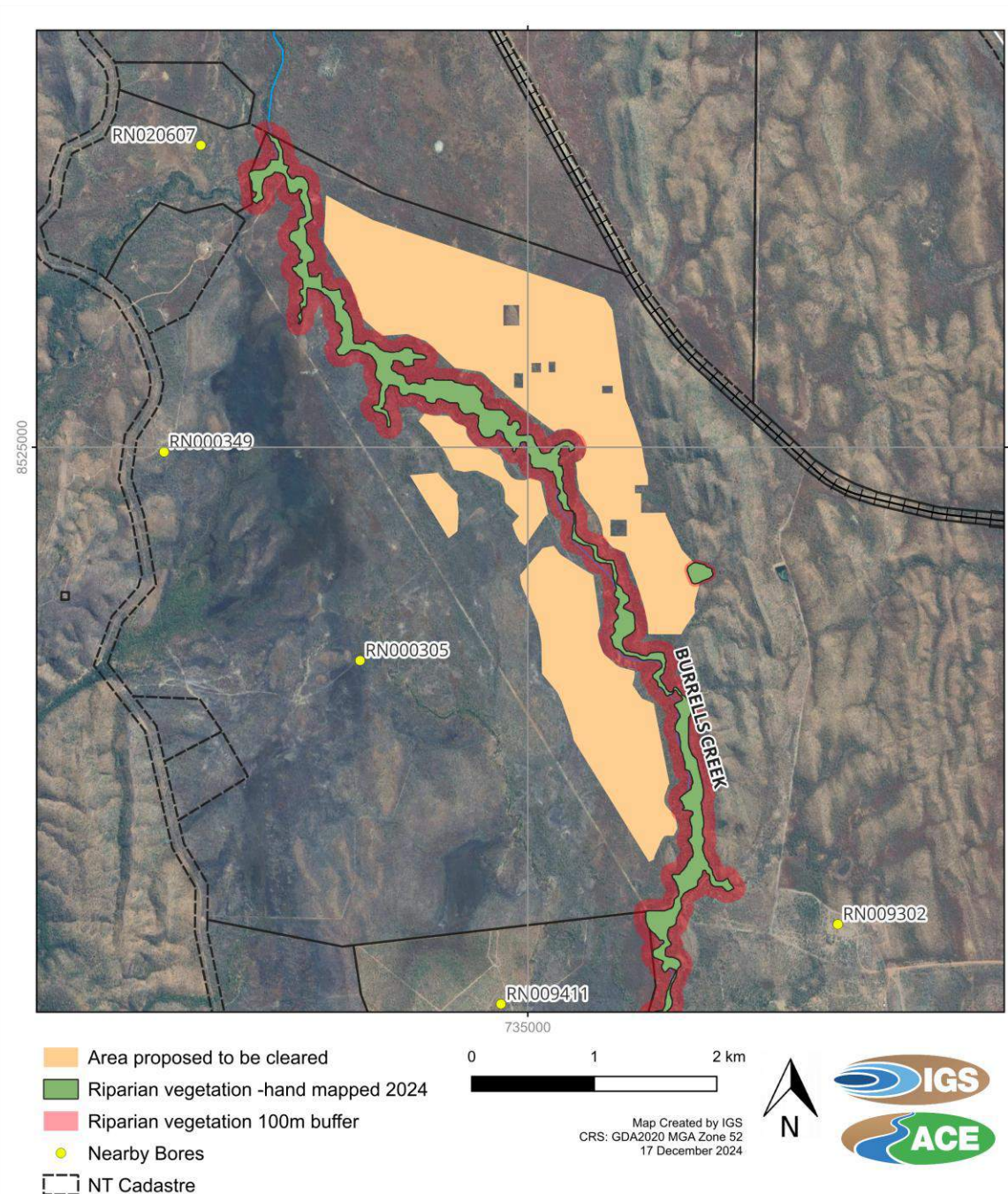


Figure 3. Isabella Downs – Riparian vegetation mapped during desktop assessment and NTPS LCG 100m buffer



References

- Alaibakhsh, M., Emelyanova, I., Barron, O., Sims, N., Khiadani, M., Mohyeddin, A., (2016). Delineation of riparian vegetation from Landsat multi-temporal imagery using PCA. *Hydrol. Process.* 31, 800–810.
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