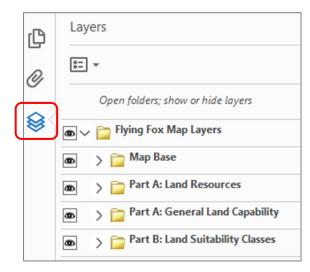
### About viewing this interactive PDF map using Adobe Reader

Interactive layers are not visible via web view. Download the map to your computer.

# Click to View Map Layers



## View the interactive map layers

In Adobe Reader, open the left navigation panel to reveal the map layers.

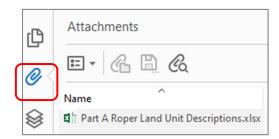
Open each folder to see the individual map layers.

Hide or show layers on the main map.

Turn off colour filled layers above as they will mask the layer below.

Titles will automatically turn on to match the layer.

If 2 layers are displayed, the titles will merge.

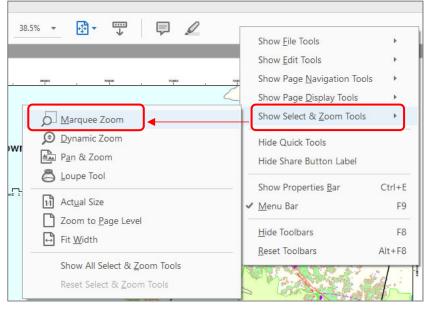


# **View the Land Unit Summary Descriptions**

Open the left navigation panel to view the attachment.

Double click the file to open the spreadsheet. File format is Microsoft Excel.

Each land unit polygon has been assigned a large set of attributes to describe land resource details and land evaluation assessment criteria.



#### **Add Adobe tools**

Right mouse click on the grey menu toolbar to see Adobe viewing tools.

Tick the tool to view on the menu bar.

The **Marquee Zoom tool** is useful to view a small area on the PDF, eg zoom to the map or the legend.

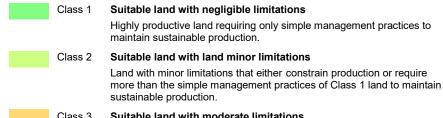
Show Select & Zoom Tools, then Marquee Zoom

Draw a rectangle on the map to zoom to that location.

**Printing** The map size is 75 x 56 cm. Print to a large format printer using page size A1 with no scaling.

Only turn on one layer at a time, so the titles do not merge.

A smaller area on the map page may be printed using the **Current View** printing option. For example, just print the Legend to an A3 or A4 page to assist with map interpretation when viewing on screen.



Part B. Digital Soil Mapping and Crop Specific Land Suitability

LAND SUITABILITY CLASSES FOR IRRIGATED AGRICULTURE

Class 3 Suitable land with moderate limitations Land with moderate limitations that further constrain production or require more than the management practices of Class 2 land to maintain

Class 4 Unsuitable land with severe limitations Currently unsuitable land with severe limitations that preclude successful or sustained use under existing conditions. Future changes in knowledge, economics or technology may alter this.

Land with extreme limitations that preclude any possibility of successful

or sustained use, either now or in the future.

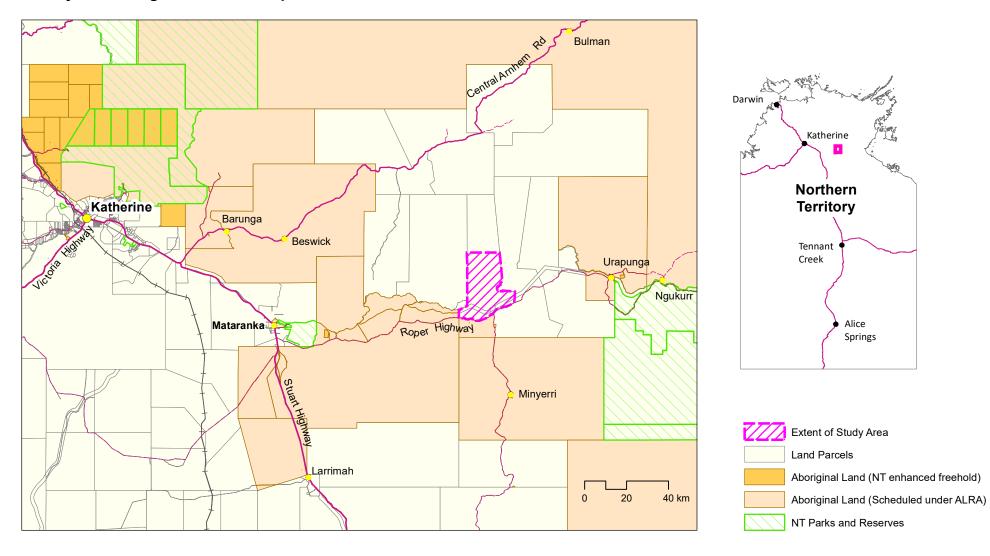
#### Part B. Digital Soil Mapping and Crop Specific Land Suitability POTENTIAL IRRIGATED AGRICULTURAL CROPS

Class 5 Unsuitable land with extreme limitations

Irrigated Crop Group	Group No.	Individual crops assessed
Tree crops	1	Monsoonal tropical tree crops (0.5 m root zone) – Mango, Coconut, Dragonfruit, Kakadu Plum, Bamboo
	2	Tropical Citrus – Lime, Lemon, Mandarin, Pommelo, Lemonade, Grapefruit
Row crops	3	Cucurbits – Watermelon, Honeydew melon, Rockmelon, Pumpkin, Cucumber, Asian melons, Zucchini, Squash
	4	Fruiting vegetable crops – Solanaceae (Capsicum, Chilli Eggplant, Tomato), Okra, Snake bean, Drumstick tree
	5	Leafy vegetables and herbs – Kangkong, Amaranth, Lettuce, Cabbage, Chinese cabbage, Cauliflower, Brocolli, Kale, Brussel sprouts, Bok Choy, Pak Choy, Choy Sum, Spring onions, Basil, Coriander, Dill, Mint, Spearmint, Chives, Oregano, Lemon grass
Root crops	6	Carrot, Onion, Sweet potato, Shallots, Ginger, Turmeric, Galangal, Yam bean, Taro
Grain and fibre crops	7a	Cotton, grains (sorghum)
	7b	Grains (maize, sweet corn, rice)
Small seeded crops	8	Hemp, chia, quinoa, poppies
Pulse crops	9	Mung bean, soybean, chickpea, navy bean, guar
Industrial crops	10	Sugar cane
Hay and forage	11	Sub-tropical grass hay/forage – Rhodes grass, panics, forage sorghum
	12	Legume forage (Wet season) – Blue pea, burgundy bean, Cowpea, lablab, Cavalcade, forage soybean
	13	Legume hay (Dry season) – Lucerne, vetch and clover
Forestry	14	Sandalwood
	15	Mahogany, Eucalyptus spp., Acacia spp.
Rainfed Crop Group	Group No.	Individual crops assessed
Hay and forage	16	Sub-tropical grass hay/forage (Jarra, Strickland, Tully, Cavalcade, Forage Sorghum)

#### Part A. Land Resources Part A. General Land Capability MAP LEGEND LANDSCAPE ASSESSMENT CRITERIA Field Sites (2018) General Land Capability Detailed field site Class 1. Land with negligible constraints \* Detailed field site and analytical data or Class 2. Land with minor or moderate constraints representative analytical site Class 3. Land with severe constraints \* Cation analysis to determine soditicity Class 4. Land with extreme constraints Extent of Study Area Microrelief 6b Land Units Class 1. None or neglible Landform Classes Class 2. Minor or moderate Plateaux Class 3. Severe Sideslopes Class 4. Extreme Low Hills Class 1. Never Low Rises Class 2. Extremely rare \* Plains Class 3. Rare \* Alluvial Plains Class 4. Regular to permanent Drainage Systems Swamps Class 1. Non-saline **Dominant Soil Order** Class 2. Slightly saline Chromosols Class 3. Moderately saline Dermosols Class 4. Highly to extremely saline \* Kandosols Slope (Erosion Risk) Rudosols Class 1. Low Tenosols Class 2. Moderate Vertosols Class 3. High **Dominant Vegetation Structure** Class 4. Very high Low open forest Mid woodland Class 1. Non-sodic Low woodland Class 2. Sodic Low open woodland Class 3. Strongly sodic \* Low tussock grassland Class 4. Extremely sodic Class 1. Deep to very deep Class 2. Moderately deep Class 3. Shallow Class 4. Very shallow Soil Drainage Class 1. Well to rapid Class 2. Moderately well Class 3. Imperfect Class 4. Poor to very poor Surface Rock Class 1. None or negligible Class 2. Minor to moderate 1 2 3 4 5 Class 3. Severe

# **Survey Area - Region Location Map**



# About this PDF map

Page 1 of this file is an interactive PDF map best viewed on screen

using Adobe reader. If using Adobe Reader DC protected view, enable all features to see the map layers. - Open folders in the left navigation panel to view the map layers - Users may turn layers ON or OFF

- Turn off layers above to view layers that are masked underneath - Titles will automatically turn on to match the thematic display - To print this map, use page size A1 with no scaling

- Only print one thematic display at a time, so the titles do not merge

Summary of land unit descriptions

From the left navigation panel, open the attachment: - Part A Roper Land Unit Descriptions. - The file format is Microsoft Excel xlsx.



Creative Commons Attribution 4.0 International Public License (CC BY 4.0) Department of Environment, Parks and Water Security © Northern Territory Government

# For further information, please contact:

Note: \* denotes that the class is not present in this survey

Director, Land Assessment Branch Department of Environment, Parks and Water Security (DEPWS) Level 3, Goyder Centre, 25 Chung Wah Terrace, Palmerston Northern Territory of Australia. Email: rangelands@nt.gov.au



Web: <u>land-soil-vegetation-information</u>

# Andrews K, Burgess J and McGrath N (2021) Agricultural Land Suitability Series, Report 14B. Soil and Land Assessment of the Southern Part of Flying Fox Station for Irrigated Agriculture Part B: Digital Soil Mapping and Crop Specific Land Suitability Technical Report 4/2021, Department of Environment, Parks and Water Security. Northern Territory Government, Darwin, NT. Vegetation Communities of the Southern Part of Flying Fox Station, Northern Territory. Technical Report 1/2018D, Department of Environment and Natural Resources Northern Territory Government, Darwin, NT. Technical references National Committee on Soil and Terrain (2009). Australian Soil and Land Survey Field Handbook. Third Edition. CSIRO Publishing, Melbourne. Isbell, R.F. and the National Committee on Soil and Terrain (2016). The Australian Soil Classification. Second Edition. CSIRO Publishing, Melbourne. Executive Steering Committee for Australian Vegetation Information (ESCAVI) (2003). Australian Vegetation Attribute Manual: National Vegetation Information System, Version 6. Department of Environment and Heritage, Canberra.

Black numbered lines on the map are 10 000 metre intervals of the Map Grid of Australia (MGA), Zone 53 Transverse Mercator Projection. Horizontal Datum: Geocentric Datum of Australia (GDA94)

How to access land resource information for this survey Part A. Land Resources and General Land Capability

View soil site data and descriptions in <u>NRmaps.nt.gov.au</u> Data layer: Land > Land Resources > Soils

the Geospatial Resources webpage.

Parks: Parks and Wildlife Commission NT.

Part B. Digital Soil Mapping and Crop Specific Land Suitability

Andrews K, Burgess J, McGrath N, Wright A and Walton S (2021)

Part A: Land Resources and General Land Capability.

Northern Territory Government, Darwin, NT.

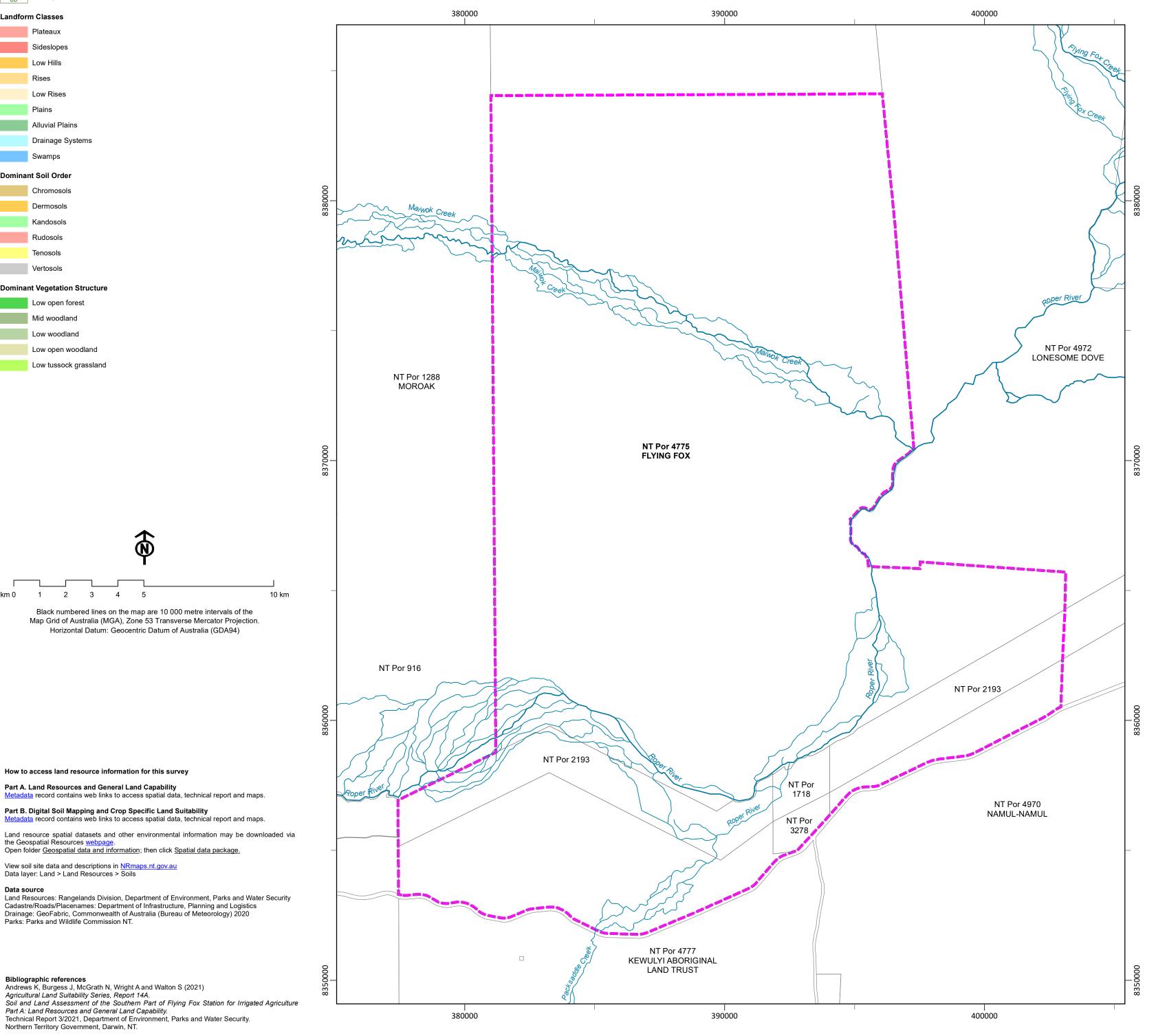
Metadata record contains web links to access spatial data, technical report and maps.

Open folder Geospatial data and information; then click Spatial data package.

Cadastre/Roads/Placenames: Department of Infrastructure, Planning and Logistics Drainage: GeoFabric, Commonwealth of Australia (Bureau of Meteorology) 2020

Technical Report 3/2021, Department of Environment, Parks and Water Security.

LIMITATIONS OF USE PART B. LAND SUITABILITY ASSESSMENT Land unit boundaries were derived using satellite imagery in association with a digital elevation model, Land suitability outcomes are based on limitation attribute models created using digital geological and topographic data. Landform, soil and vegetation field assessments conform to national soil mapping (DSM) and assessed against the irrigated agricultural land suitability standards and support mapping at a scale of 1:100,000. This mapping is presented at a scale of 1:100,000. framework for the Roper River Region of the Northern Territory. When assessing specific areas within the mapping, it is recommended a site inspection be undertaken to DSM land suitability outcomes describe agricultural potential and likely development establish unmapped variation and confirm mapping accuracy on the ground. constraints across the study area at a scale of 1:100, 000. Neither the land unit mapping nor land capability or land suitability assessments indicate, imply or ascertain Modelled outcomes were produced in parallel with traditional land unit mapping and a the likelihood of groundwater availability or the granting of appropriate water extraction licensing needed to general land capability assessment for comparative purposes. satisfy the irrigation requirements of the potential agricultural development options identified.



Soil and Land Assessment of the Southern Part of Flying Fox Station for Irrigated Agriculture Part A. Land Resources and General Land Capability Part B. Digital Soil Mapping and Crop Specific Land Suitability

Map production: 9/02/2021, C.Green, Geospatial Services. Drawing Ref: DEPWS2021033

Department of Environment, Parks and Water Security