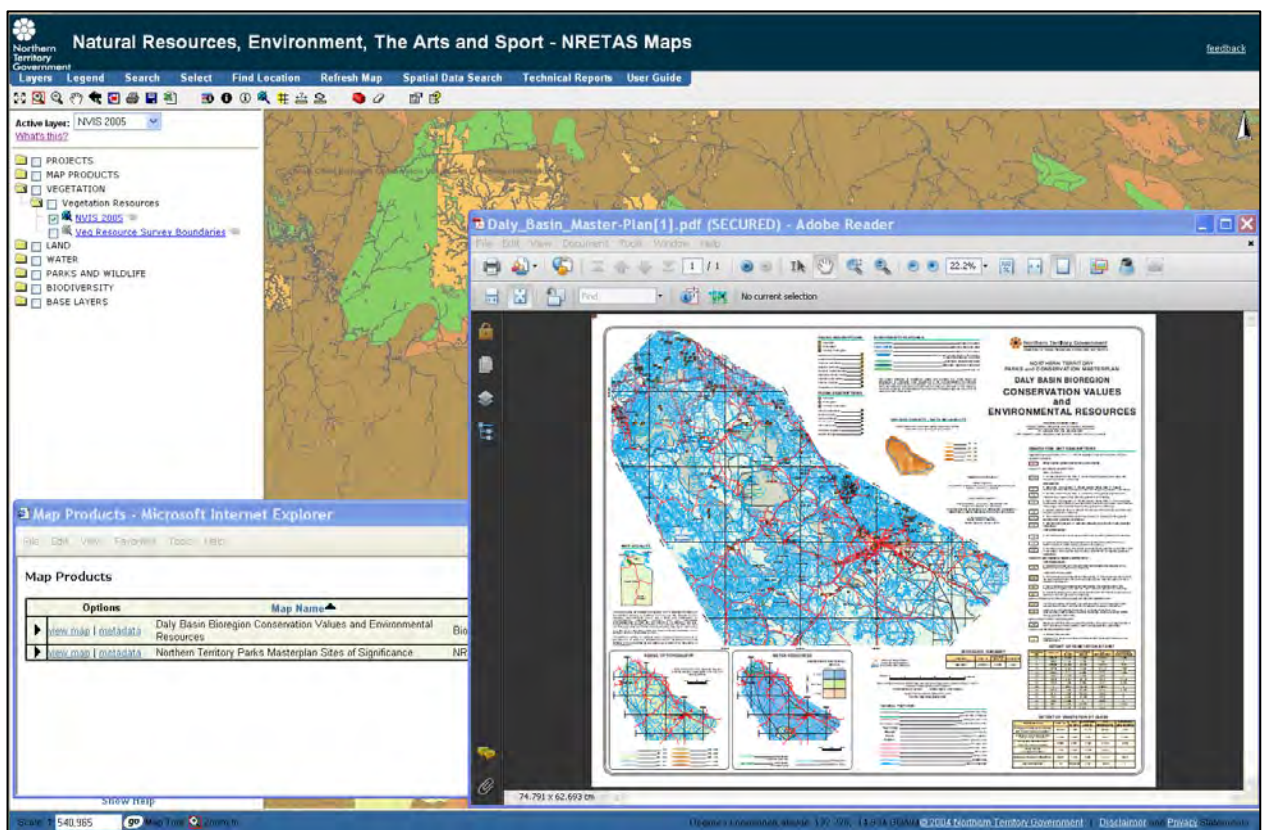


A Guide to using NRETAS Maps

March 2010



www.nt.gov.au/nretasmaps

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Help Guide Updates

The NRETAS Maps web mapping application is constantly being updated. This document may not reflect all current changes.

We welcome your feedback via email datarequests.nretas@nt.gov.au

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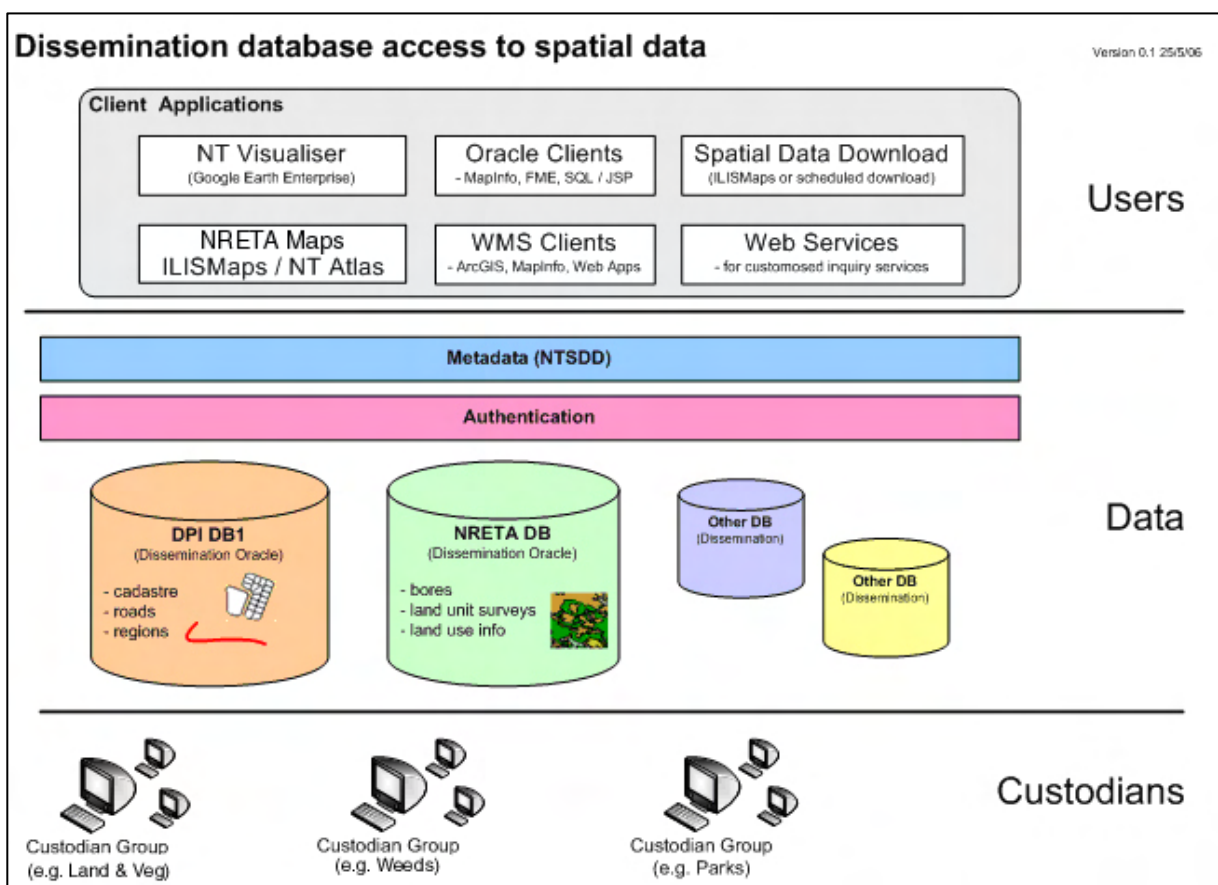
1.0 ABOUT NRETAS MAPS

NRETAS Maps is a web mapping application for the discovery, interrogation and mapping of Northern Territory natural and cultural resource data and information.

The Department of Natural Resources, Environment, The Arts and Sport (NRETAS) stores and manages spatial datasets, reports and map products in an Oracle Spatial Dissemination Database called NRDB1. The data is stored on behalf of custodians to protect and manage these valuable assets.

The database, NRDB1, is a reliable and central storage repository and is referred to as the **Point of Truth**. Many copies of spatial datasets may be stored with individuals in various locations throughout the Northern Territory, however, the accuracy and currency of these datasets may be in question.

Each of the custodians who provide data for storage in NRDB1 must also provide metadata information. Data is disseminated from NRDB1 via web mapping applications including **NRETAS Maps**. Databases from other Government Departments also store data accessed by NRETAS Maps.



NRETAS Maps is managed by the Spatial Data and Mapping Branch of this Department. Currently, datasets may only be viewed by the public and are not able to be downloaded in a digital format. This functionality is under development. Please contact this branch to access spatial datasets in a digital format. For contact details, please refer to the NRETAS Maps home page.

All custodians storing data in NRDB1 determine the availability of data use by either their own branch or Department, other NT Government agencies or the public. For example, within the NRETAS Maps application, the NTG Aerial Photography data layer is restricted for use by only NT Government users and is not be able to be viewed by public users.

As more data layers are added to the NRDB1 database they will become available in NRETAS Maps.

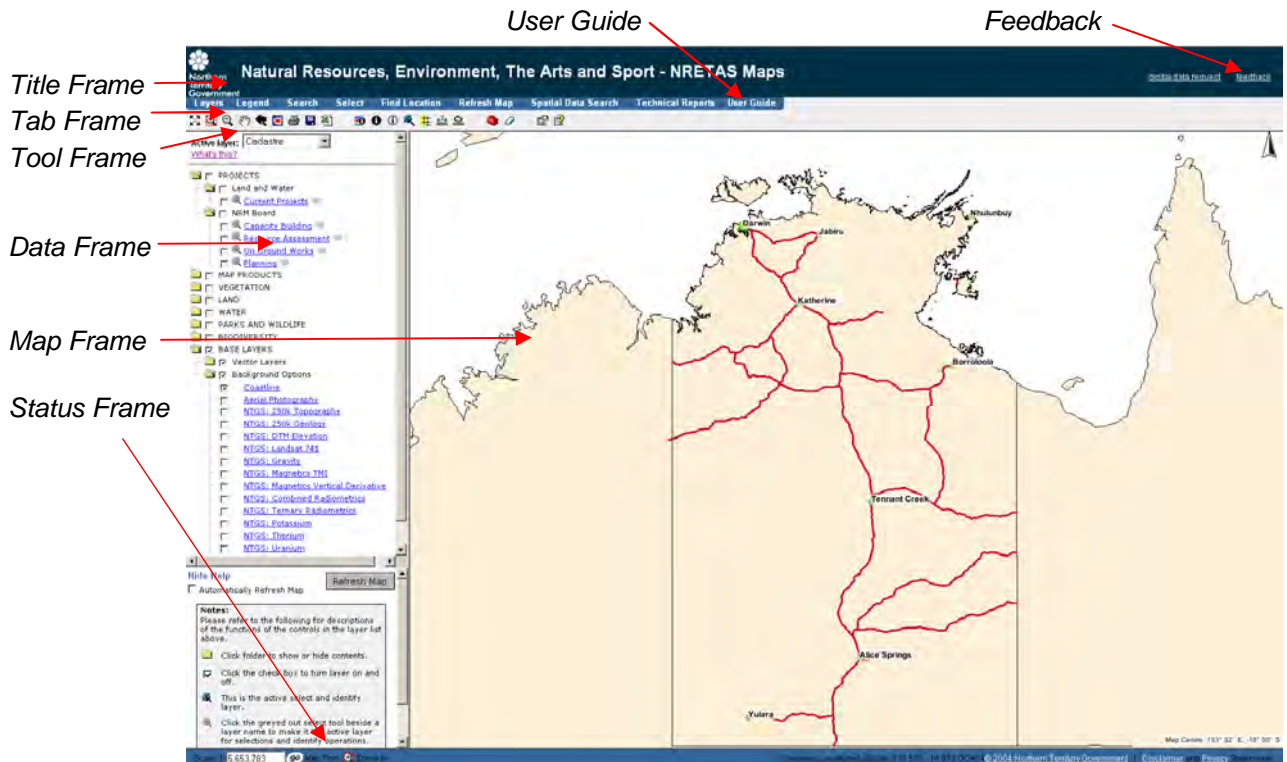
2.0 OVERVIEW OF GRAPHIC DISPLAY

CAUTION This website has POP-UP windows!

Maps and reports can be viewed and downloaded from this website using pop-up windows. In your web browser, turn **OFF** the pop-up blocker and also other browser toolbars. (eg google, yahoo)

2.1 A Brief Description of the Frames

NRETAS Maps is comprised of several frames; **Title, Tab, Tool, Map, Data and Status** frames. A brief description of each of these frames is provided in this overview chapter with more detail described in later chapters of this document.



Title Frame

The Title Frame contains the Northern Territory Government Logo and the Website name. On the top right click on the Feedback icon to send an email to the Spatial Data and Mapping Branch.

Tab Frame

When each tab is selected, the left Data Frame panel will change.



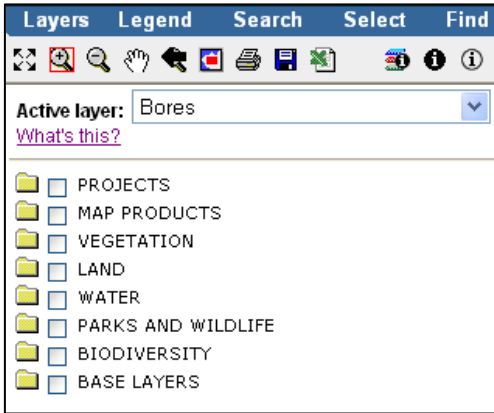
Tool Frame

Each of the tools will perform specific functions. Hover over each of the tools to find out the name. From left to right, the tools are;

Full Extent, Zoom In, Zoom Out, Pan, Zoom Previous, Overview Map, Print to PDF, Save session, Extract to layer to excel, (NT Govt) Identify visible, Identify, Identify radius, Select, Buffer, Measure distance, Measure area, Show markup tools, Clear selection, Modify display preferences, Help.

Data Frame

The left panel is called the Data Frame. The information in this panel will change to suit the TAB selected. In the initial view, the data frame is based on the **Layers Tab**. All the data layers are grouped by **themes**. Refer to chapter 3.0 - Layers Tab for more information.

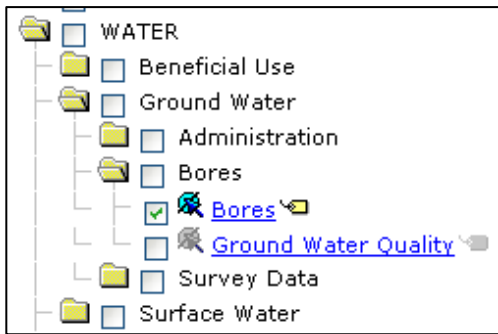


New Function! The user can now also change the active layer by selecting a new data layer from the drop down list.

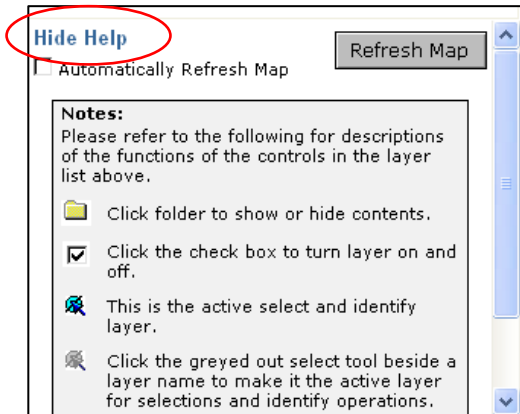
The **Active Layer** defines which layer the search and identify functions are performed on. Only 1 data layer can be active.

Tick box next to data layer to display on map screen

CAUTION If you tick the box at the **THEME** or **SUB-FOLDER** level, everything below this will turn on. Untick the box to turn everything off at this level.



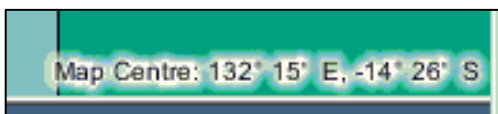
- Click on a **yellow folder icon** to open or close sub-folders.
- Tick the box next to any of the data layers to display the data on the map. To turn off the layer, untick the box.
- Then click the **Refresh Map button** to display the selected data layer. The tab button, Refresh Map, can also be used. The map image can also be automatically updated by ticking the check box.



The **Notes** area at the bottom of the Data Frame summarise a description of the main icons used in the Map Layers.

Click on **Hide Help** to remove this from the Data Frame panel.

Map Frame



The Map Frame will display the data layers that have been turned on. The map images are generated from the server and sized to the fit the frame automatically. The map is displayed with **North** at the top of the page.

The location of **centre of the map** is noted at the bottom right of the screen using degrees and minutes of Longitude (east) and Latitude (south). This example shows 132° 15' E, -14° 26' S. The latitude is a negative value because it is south of the equator.

Status Frame

Enter a new value in the **scale text box** to change the zoom display of the map image. Use either the enter key or the **GO** button to activate the change to the map display.



A **scale** provides information about the comparative size of features and distances displayed on the map. It can be expressed as a ratio or displayed as a scale bar on a map.

	Scale	Ground Distance of 1cm on the Map
Larger ↑	1:10 000	100 m
	1:25 000	250 m
	1:50 000	500 m
↓ Smaller	1:100 000	1 km
	1:250 000	2.5 km
	1:1 million	10 km
	1:5 million	50 km
	1:10 million	100 km

A map represents a given area on the ground. A map scale refers to the relationship (or ratio) between distance on a map and the corresponding distance on the ground.

The larger the scale of a map, the smaller the area that is covered and the more detailed the graphic representation of the ground.

Eg. Scale 1:10 000 The first number (1) represents a core unit of distance on the map, while the second number (10 000) represents that same distance on the ground.

Coordinate Location - The position of your **cursor** on the map image will change the coordinate location displayed on the status frame.

In the example above, the coordinate is displayed using decimal degrees as Longitude 132.256 and Latitude -14.470. The coordinates are displayed using the datum GDA94 (Geocentric Datum of Australia 1994).

For more information about mapping, datums and coordinate systems, refer to the Australian Government website for Geoscience Australia (GA) and also the Intergovernmental Committee on Surveying and Mapping (ICSM).

Datums <http://www.ga.gov.au/geodesy/datums/aboutdatums.jsp>

GPS Information <http://www.ga.gov.au/geodesy/gps/>

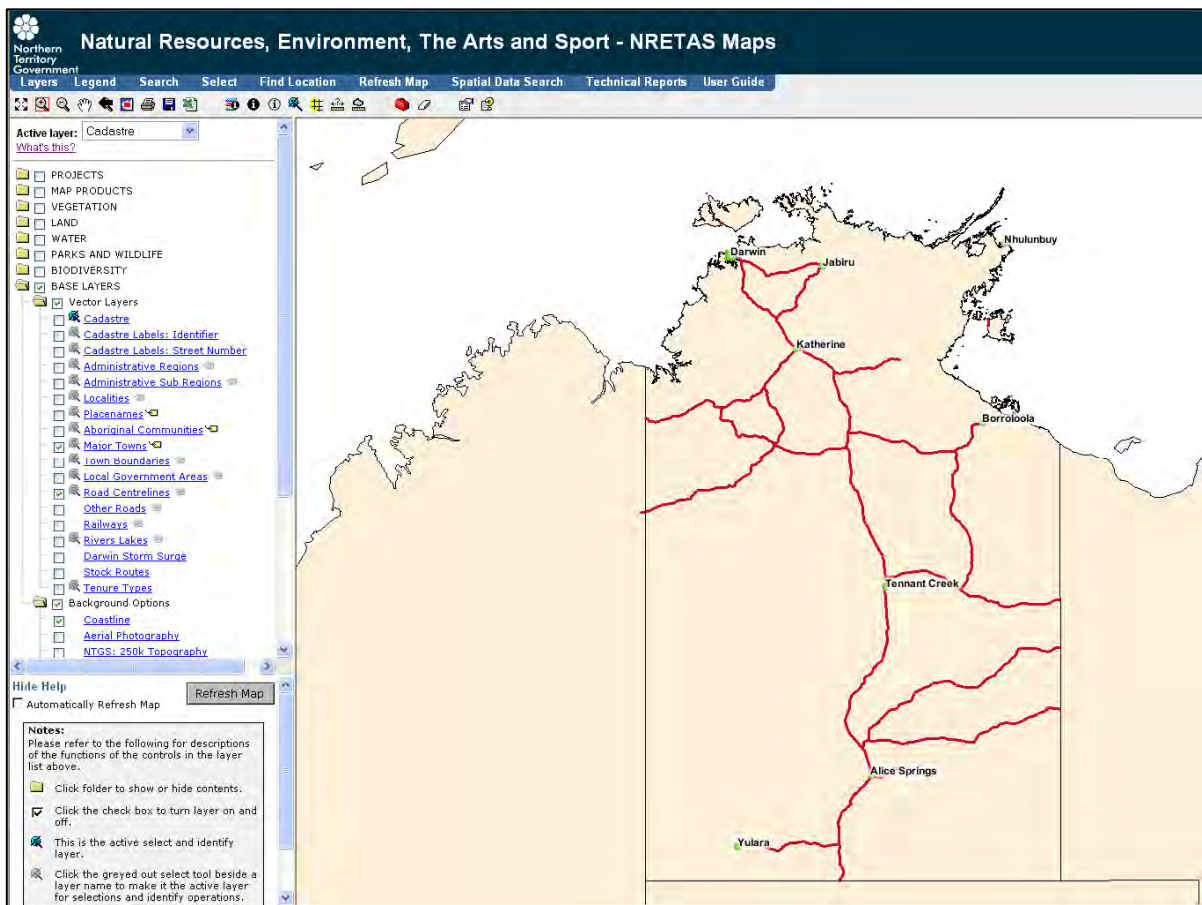
How to read topographic maps <http://www.ga.gov.au/nmd/products/maps/publications.htm>

Fundamentals of Mapping (ICSM) <http://www.icsm.gov.au/icsm/mapping/index.html>

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The **Copyright, Disclaimer and Privacy statements** link to a Northern Territory Government website containing the description of each of these topics.

2.2 The Initial View



PUBLIC USERS - Coastline is the background layer

The NTG Aerial Photography is not able to be displayed for Public Users of NRETAS Maps. Instead, the Coastline will be displayed as the background layer for the initial view. Only the major towns and roads will be displayed in the initial view. That is, these data layers are ticked ON in the list of Map Layers.

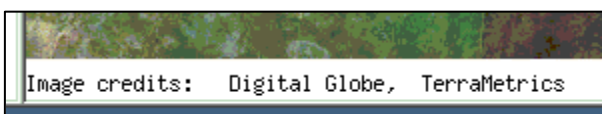
By default, the Cadastre (properties) data layer will be the active selection layer ready for searching. Untick or tick other data layers to change the map display.

How to use the map layers is described in detail in the Layers Tab chapter.

NT GOVERNMENT USERS - Aerial Photography is the background layer

NRETAS Maps will always default to this initial view, displaying the NTG Aerial Photography as the background layer. Only the major towns and roads will be displayed in the initial view. That is, these data layers are ticked ON in the list of Map Layers.

By default, the Cadastre (properties) data layer will be the active selection layer, ready for searching. Untick or tick other data layers to change the map display. How to use the map layers is described in detail in the Layers Tab chapter.



The imagery is a complete cover of the Northern Territory at various resolutions. As the scale and location is changed, note the image credits at the bottom left of the screen.

This image is sourced from various georeferenced imagery files combined together in Google Earth Fusion and licensed for use by the Department of Planning and Infrastructure. This layer is available as a WMS (web mapping server) mosaic.

3.0 USING THE BUTTONS AND TOOLS



The current map tool in use is also displayed on the Status Frame (see bottom left of screen).

3.1 Navigation Tools



From left to right, the navigation tools are; Full Extent, Zoom In, Zoom Out, Pan, Zoom Previous

Full Extent

This button will zoom to the full extent of the map. The full extent is usually the extent of the map displayed when the viewer is initially launched.

Zoom In

This button allows the user to window into a particular area on the map. Use one of these methods;

- Click a point on the map as the centre of the selected area (one click zooms in approximately 2 times); **or**
- define a window by clicking on a point and, keeping the mouse button depressed, pull the red rectangle being formed until it covers the area of interest, then release the mouse button.

If you have windowed in too far, use the Zoom Out button to back out (approximately 2 times for each click) until the appropriate area has been defined.

Zoom Out

Clicking the map with the Zoom Out tool causes the map to back out so you can see approximately 2 times more with each click. The map will be centred at the point clicked.

Pan

The Pan tool is used to move the area shown in the map window. Use one of these methods;

- Click on the map – this will become the new centre of the map; **or**
- Drag the map by left clicking the mouse cursor, keeping the left button depressed, dragging the map window until the adjusted area of interest is displayed. When the mouse button is released, the map will redraw.

Zoom Previous

The display of the map extent changes back to the map extent before the last change.

3.2 Overview Map



A small overview map will display the Northern Territory in the data frame and highlight the location of the main map window.

Depending on the map extent, the overview map may show a rectangle or a pushpin to signify the location. The overview map can be used to stay oriented as you zoom in and out. If you change the map's extent, the overview map will automatically update. You can also change the extent of the map by clicking a new location on the overview map.

3.3 Create a map



Create a map product as an Adobe PDF document that can either be saved to the computer or sent to a printer. Select this tool to open the map form in the data frame.

Create a PDF Map

Map Title:

Quality / Page Size:

Scale:

Show Overview Map:

Show Legend:

Show Measure (if one is displayed):

Enter a map title

Select the existing text and overwrite as required

Page size

portrait measurements are noted below

A5	148 x 210mm	
A4	210 x 297mm	<i>default size</i>
A3	297 x 420mm	
A2	420 x 592mm	

Page Orientation



Change the scale

Select from one of the options or key in the scale on the status frame (bottom left of screen)

To view the map, you will need the software Adobe Reader. This free software can be downloaded from <http://www.adobe.com/>. Adobe Reader PDF (portable data format) files are very small and compressed documents and can be read on all computer platforms.

3.4 Save the current NRETAS Maps session



Click this button to save your current NRETAS Maps session for use at a later time.

Save Session

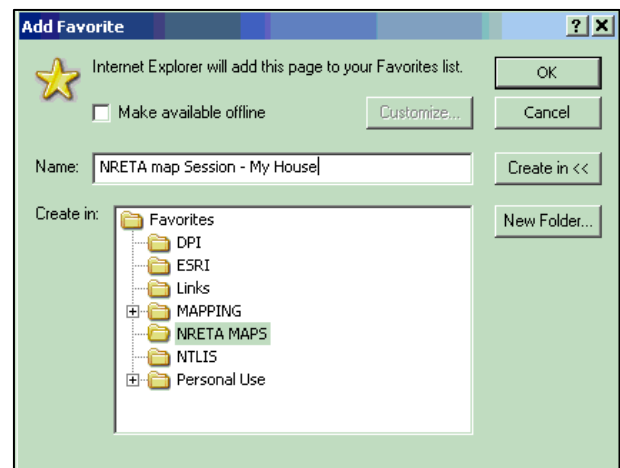
Save your session by clicking 'Add to Favorites'
 Type in a name or use the default 'NRETA map Session' and click OK.

Alternatively you can choose to email this link by clicking below.

Note: This session information is stored on the mapping application server, and will be retained as long as you continue to use it. Sessions that are not accessed for 30 days will be automatically removed.

A link can be added to your internet folders.

The web link will keep all the user's display options, scale and even any markup graphics drawn on the map area!



E-mail the Session URL

Fill out the form below and click the "Send" button. Required fields are marked with an asterisk.

To send the link to multiple recipients, separate their e-mail addresses with a comma.

Put your e-mail address in the "from" field. If the message cannot be delivered to a recipient, a notice will be sent to the "from" address. This address also tells the recipient who sent the map.

* E-mail To:

* E-mail From:

Message:
 To view the session, v
<http://www.ntlis.nt.gov>

Send

Option 1. Email via NRETAS Maps

Email the web link to colleagues to view location information you have set up in NRETAS Maps.

Fill in the Message box with details.

Option 2. Save the URL and email later

Alternatively, copy the saved URL address into your own email for the recipient to select.

3.5 Identify tools



To find out more information about the selected feature in the **active selection layer**, use one of the **IDENTIFY** tools.

From left to right, the tools are; 1. Drill down identify, 2. Identify, 3. Identify Radius

The **drill down identify tool** displays information about each visible layer at the map position clicked. To use, simply click the map and view the results in this window.

The **identify tool** is used for reporting. Use LAYERS tab to open the map layers. Click the active selection icon next to the data layer that you want more information about. The icon will become **bright blue**. The name of the active layer is displayed in the status bar under the map.

The features found at the location clicked on the map area will be displayed in the information panel. A coordinate position is also noted. (refer to page 36 of this guide for details about coordinates)

Coordinate Position (GDA94)

Geographic: 132° 14' 3.76" E
 14° 29' 31.30" S

Geographic: 132.234, -14.492

UTM: 201882, 8396054
 (zone 53)

The position is noted using 3 different coordinate settings

- Degrees Minutes and Seconds
- Decimal Degrees
- Metres with the UTM zone noted in brackets

USING A GPS! To use the location position on a GPS, the datum must be GDA94 and the coordinate system should also match the setting required.

The **identify radius tool** will display information about features within a specified distance of where you click on the map.

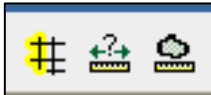
3.6 Active Selection Tool



Only features associated with the Active Layer can be selected.

Click on the tool, then select features on the screen from the Active Layer. The selected features will be highlighted yellow in the map area. Further information about the features will then be available using the Reporting functions.

3.7 Measuring Tools



From left; Buffer, Measure distance, Measure Area tools.



Buffer Tool Select features within a distance of selected features.

In the example below, the active selection layer is the Road Centrelines with one road selected. The selected feature will be highlighted yellow on the map area. I want to find all the bores that are within 800 metres of the selected road.

Select by Buffer

Select features from

that are within

of the selected features of

1. Select the buffer tool
2. Click the start location on the screen
3. The buffer form will open – enter the criteria
4. A hatched area on the map will display and the bores found in the area will be listed in the data frame.



The **Measure tool** is used to calculate distances between points that you click on the map. The first time you click the map, the location of that point will be displayed in the information area in the data frame. When additional points are clicked, the coordinate locations and the distance between the points will also be displayed. To start again, click on the tool again, or, click the Clear Points button in the information window.

Measure Tool

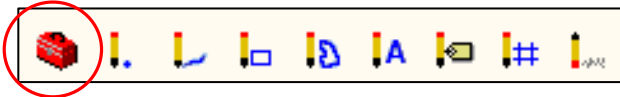
This document shows the positions of the cursor that you have clicked on the map and reports the great circle distance between them. Please note coordinates and measurements are approximate.

Position	131.33
	-14.55
Position	131.39
	-14.58
Distance	7,672.1 m
True Course	117.5°



The **Measure Area tool** is used to calculate the area of a polygon drawn on screen. The sides of a polygon will be drawn with each click of the mouse. The area of the polygon will be displayed in the data frame. To start again, click on the tool again, or, click the Clear Points button in the information window.

3.8 Markup Tools



Click on the Red Toolbox to access the marker tools; click again to close the toolbox.

From left to right, the markup tools are; 1. Points, 2. Lines, 3. Rectangles, 4. Polygons, 5. Text, 6. Label a feature using an attribute from the active layer, 7. Grid creation, 8. Erase markup

The user can **add graphic markups** to the map display using these tools. Select the tool, click on the screen to start and forms will appear to guide the user with display preferences, including - colour, size and line weight. Points and text may also be positioned on the screen with user entered coordinate locations.

To remove markup graphics select the last tool. Click on the screen to create a box around the graphics and they will be deleted.

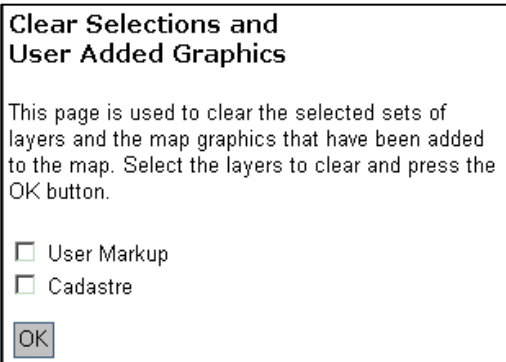
IMPORTANT NOTE Set up the required scale of the map area **BEFORE** using any of the markup tools.

3.9 Clear selected features



Select the tool to clear any selected (or highlighted) features.

If there is only one layer with selected features or only the user markup graphics, they will be immediately removed. If there are multiple objects to be cleared, a pop-up list will give the user options to select either the User Markup layer or the selected features from the active layer.



3.10 Modify display preferences



The user can change the display preferences for the markup tools as well as the selected features using this tool.

2 screens are displayed under the tabs **NRETAS Maps Properties** and **Layer Manager**.

The **Layer Manager** screen gives the user the option to change the order of the **visible** layers.

Use the **NRETAS Maps Properties** screen to change the display of the markup graphics.

The screenshot shows the 'NRETAS Maps Properties' dialog box with two tabs: 'NRETAS Maps Properties' (selected) and 'Layer Manager'. Under 'NRETAS Maps Properties', there are three dropdown menus: 'Display Units' (Metres), 'Area Units' (Metres), and 'Map Units' (Degrees). The 'Map Units' dropdown is circled in red. Below these are sections for 'Map Designer' with settings for 'Point Style', 'Line Style', 'Polygon Style', and 'Text Style'. At the bottom, there are 'Restore Defaults' and 'Save' buttons, with the 'Save' button circled in red.

Change the Map Units display settings

By default, the map units are displayed on NRETAS Maps using Degrees. The user can choose to display the **Map Units** as either Degrees, Decimal Degrees or MGA to enter coordinates for points or text location on the screen. Save you new settings to apply.

Degrees Degrees, minutes, seconds (eg 132° 30' 45")

Decimal Degrees Degrees, and the minutes and seconds are combined as a decimal part of a degree (eg 132° 30' 45" value is displayed as 132.5125)

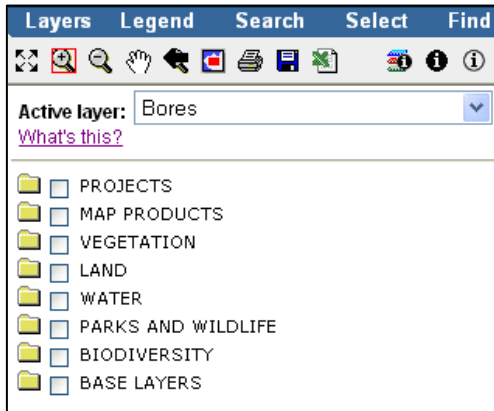
MGA Easting and Northing coordinate location values are displayed using **metres** over a specified Map Grid of Australia zone using the Universal Transverse Mercator (UTM) projection.

In the Northern Territory, **Zone 52 is west** of 132° longitude and **Zone 53 is east** of 132° longitude.

4.0 LAYERS TAB



The Layers Tab displays the layers of data and information that are available for use in the **Data Frame** on the left side of the screen. The layers of data are arranged into folder **themes**.

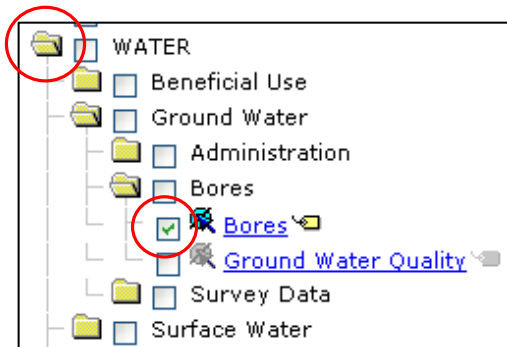


Turn layers on and off

CAUTION

If you tick the box at the THEME or SUB-FOLDER level, everything below this will turn on. Untick the box to turn everything off at this level.

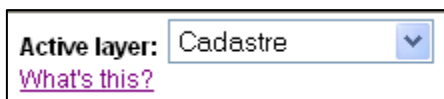
- Click on a **yellow folder icon** to open or close sub-folders.
- Tick the box next to any of the data layers to display on the map. To turn off the layer, untick the box.
- Then click the **Refresh Map button** to display the selected data layer. The tab button, Refresh Map, can also be used. The map image can also be automatically updated by ticking the check box.



View the Metadata information by clicking on the **blue layer name**. **Metadata** is information about data sets, describing such things as the content, quality, currency and availability.

Active Selection

Click on the **Active Select Icon** next to the blue layer name. The icon will turn **blue** once it has been activated. The icon will be coloured **grey** if the layer is not active. Only one layer at a time can be the Active Selection Layer.



New Function! The user can also change the active layer by selecting a new data layer from the drop down list. This tool is located at the top of the layer listing.

Only the active selection layer can use the **SEARCH** or **IDENTIFY** functions.

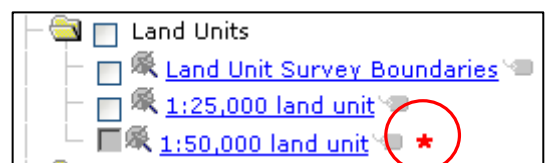
Feature Labels

Some layers have text labels to describe a feature on the map image. If the tag is **grey** the labels will not be displayed. Turn the labels on by clicking the Labels Tag. If the Tag is **yellow** the labels will be displayed. Click again to turn off the labels.



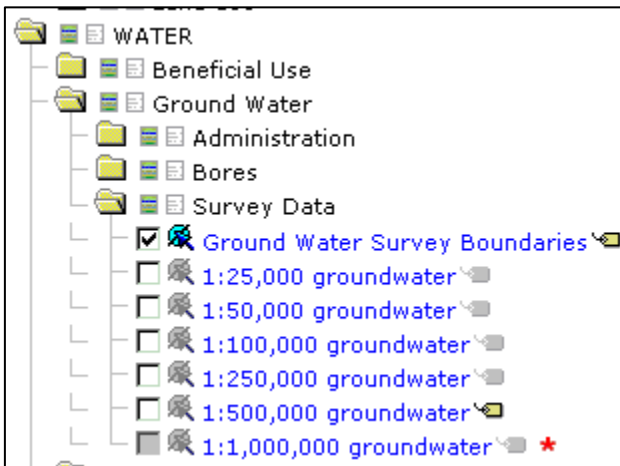
Scale of data display

Some data layers will not display if the scale is not suitable for the data layer requirements. The check box will be greyed out. Hover the cursor over the red asterisk to read the note.



Click the **red asterisk** and the map image will automatically zoom to the correct display scale.

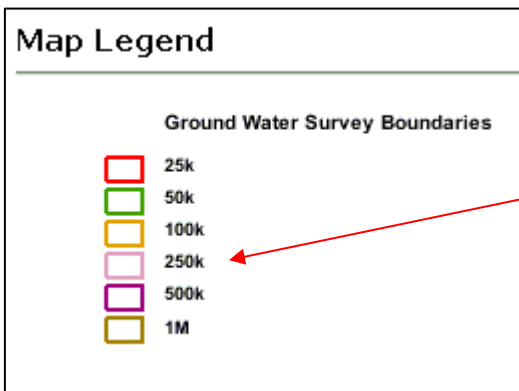
4.1 Information about the Land and Water Survey data layers



Land and Water Resource Surveys have been compiled over the Northern Territory at various scales.

If the survey is available in a digital data format it is included in the survey boundary data layer. These polygon datasets show the extent (or boundary) of each survey and contain descriptive information including the survey name and scale of the data.

The name can be used to view any associated maps or reports for the survey.



The Ground Water Survey Boundaries are displayed on the map based on the scale of the data.

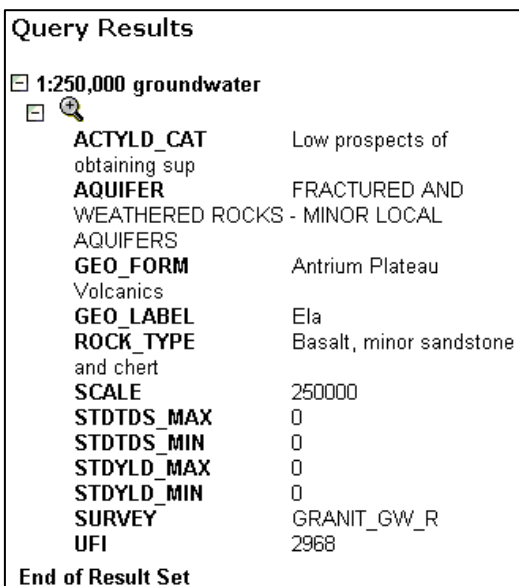
A different colour describes the survey scale.

eg. A survey that was compiled at a scale of 1:250,000 is coloured pink and coded 250k in the Map Legend.

The name of the survey is noted on the map display. (Turn on the labels!)

Use the active select tool (or the select tab) and click on one of the survey boundaries. It will highlight yellow and the details about this survey will be noted in the Query Results form. Click on the link to view a report (if completed). Change the active selection layer to maps and projects and enter the survey name (or part of it) to search for any available map products.

To review the data for any of the surveys turn on the appropriate scaled groundwater data layers. Also turn on the labels and make it the active layer. Turn off the boundaries data layer. Zoom in to look at this data. (eg. for 1:250,000 data layer, the scale must be > 250,000)

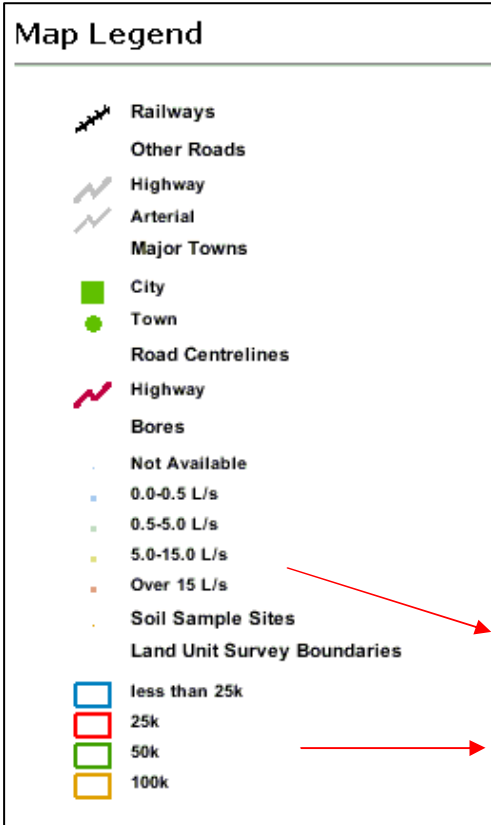


Select one of the polygon features on the map.

The Query Results information will describe the values for each of the data attributes for the selected feature.

The **data attributes** are noted on the left of the results list. An associated **data value** for each of the attributes is noted on the right.

5.0 LEGEND TAB



A **Map Legend** describes the features displayed on the map, referred to as the map symbology.

Click on the **Legend Tab** to view the current legend.

The Map Legend will only display the symbolization used for each **visible layer**. (*ie only layers that are turned ON*)

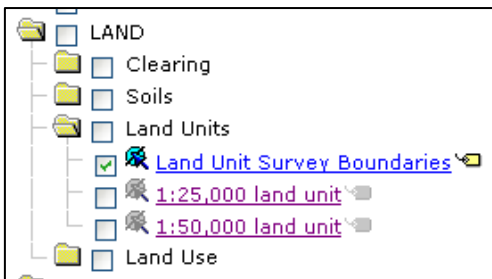
Each of the data layers is stored and displayed as either;

POINTS
LINES
or **POLYGONS**

The map display is based on one of the stored data attributes for that data layer.

The data layer **Bores** is stored as points and displayed according to the attribute YIELD using 4 categories.

The data layer **Land Unit Survey Boundaries** is stored as polygons and displayed according to the attribute SCALE using 4 categories.



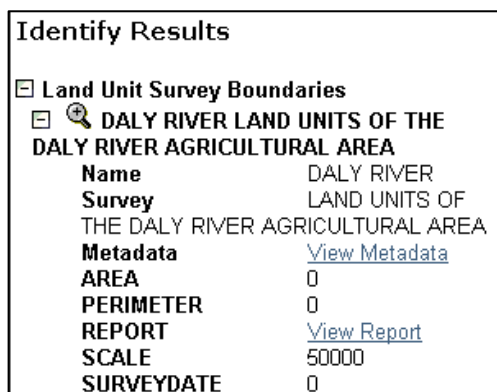
Try this example;

Make the data layer Land Unit Survey Boundaries the active selection. (*ie active select icon must be blue*)

Use the identify tool and select one of the features on the map area for this dataset.

I selected a feature on the map screen called *Daly River Land Units of the Daly River Agricultural Area*.

The data values for the selected feature are displayed in the Identify Results form in the left panel.



The **data attributes** for this data layer are Name, Survey, Metadata, Area, Perimeter, Report, Scale and Surveydate.

The **data values** for each of the attributes for this particular selected feature are noted on the right side.

The data attribute, SCALE, has a value of 50000.

The colour used to display this feature on the map and in the legend is **green** and it will be categorised as **50k**.

6.0 SEARCH TAB



6.1 Please read this important information about searching!

Selection, identify and searching facilities are only available for the **Active Selection Layer**. Only 1 layer can be active at any time.



Method 1.

To activate a layer, click the **grey** icon on the left of the **blue** layer name. This icon will turn **bright aqua blue** when it is active.



Method 2.

All the data layers that are ticked on for display are available in a drop-down list at the top of the data layers panel.

To activate a layer, select the layer from the list.

Now select the **Search Tab** to open the search form for the data layer. The search forms will change depending on which dataset is the current active selection layer.

This website has POP-UP windows!

The search results for maps or reports are viewed and downloaded from this website using pop-up windows. In your web browser, turn **OFF** the pop-up blocker and any other browser toolbars. (eg google, yahoo)

Before you begin searching ...

Before you begin searching, turn on some useful orientation layers such as the cadastre (land parcels) and labels, road centrelines and labels, rivers and labels, and also towns or placenames.

Some searching examples have been described in this chapter.

6.2 About the cadastre (ie land parcels)	19
<i>Searching Examples</i>	
1. How do I search for an urban property location?	20
2. How do I search for a rural property location?	22
3. How do I search for bore information?	24
4. How do I select all the bores located on a specific property?	26
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6.2 About the cadastre (parcels of land)

NRETAS Maps will open, by default, with the Northern Territory cadastre (land parcels) as the **Active Selection Layer**, ie arrow select icon will be **bright blue**. The cadastre is displayed showing the outline of each property or parcel boundary.



Folder Location: BASE LAYERS \ Vector Layers.

The Active Layer is CADASTRE

What is the Cadastre?

The boundary extent of parcels of land is referred to as the **cadastre**. The NRETAS Maps web application accesses the Digital Cadastral Database (DCDB) of the Northern Territory via the Department of Lands and Planning.

Click on the blue data layer name, **Cadastre**, to review the metadata. (data description and source)

How do I search using the Cadastre?

Cadastre	
425 01920 32	
LAIS Key	425 01920
Street Number	32
Street Name	GILES
Street Type	ST
Suburb	KATHERINE
Location Code	425
Location Name	Town of Katherine
Parcel Number	1920
Parcel Type	LOT
Parcel Label	1920
Area M Square	5980
Owner Category	Private
Survey ID	S 83/190
Survey Plan No	S 83/190
Reference Type	G
Reference Number	0
Survey Link	suvylink
Volume	0
Folio	0
Town Planning Zone	C
Status Code	A
Link to ILIS	ilissy
Date Extracted	21/06/2007

You will need to enter some details about a land parcel to start your search.

The cadastre data layer contains many data attributes that describe each of the land parcels including the Street, Suburb or the Parcel number. Data values for each of these attributes can be used to help search for a property location.

LAIS Key

Each parcel of land is described using a unique identifying code called the LAIS Key. This code is made up of 15 characters and includes alphabetic as well as numeric values.

Location Code

The first 3 characters of the LAIS Key are the Location Code. For example;

Code	Location Name
010	Town of Alice Springs
200	Town of Darwin
265	Hundred of Finnis
425	Town of Katherine
730	Town of Tennant Creek
000	NT Portion

Parcel Type

Parcels of land INSIDE a named locality are referred to as a **Lot or a Section**. Parcels that are NOT within a named locality are referred to as an **NT Portion** and use the location code 000.

Parcel Number

The land parcel number are characters 9 - 13 of the unique LAIS Key code and refers to the lot, section or portion number - in this example, 01920. For more information about the LAIS Key refer to Glossary of Terms, page 41.

Example 1 How do I search for an urban property location?

HINT Turn on other data layers such as road centrelines and labels before you search

Search Cadastre	
LAIS Key	<input type="text"/>
Street Number	<input type="text" value="32"/>
Street Name	<input type="text" value="Giles"/>
Suburb	<input type="text" value="Katherine"/>
Location Code	<input type="text"/>
Location Name	<input type="text"/>
Parcel Number	<input type="text"/>
LTO Plan	<input type="text"/>
Parcel Part	<input type="text"/>
Property Name	<input type="text"/>
Owner Category	<input type="text"/>
Reference Type	<input type="text"/>
Reference Number	<input type="text"/>
Volume Type	<input type="text"/>
Volume	<input type="text"/>
Folio	<input type="text"/>
Town Planning Zone	<input type="text"/>
<input type="button" value="Search"/>	
Action:	<input type="text" value="Make new selection"/>

Click on the **Search tab**

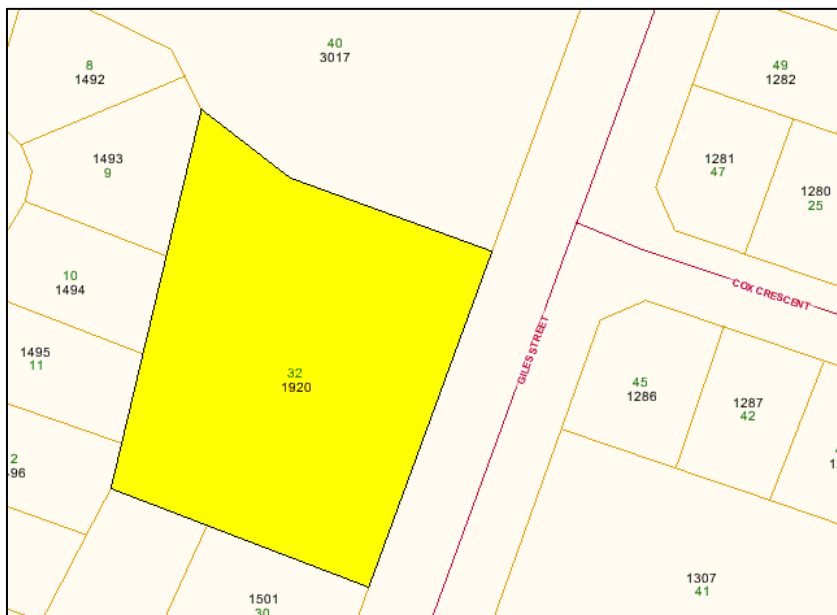
To locate an **urban house** on the map image, enter

Street Number
Street Name (do not enter not the street type)
Suburb (if known)

Also enter the parcel number if known

NOTE: This is the street address of the Katherine NRETAS office.

Click on the **Search button** at the bottom of this form.



The map image will automatically zoom to the location and the selected feature is highlighted yellow.

The parcel number is written in **black** text.

The street number is written in **green** text.

Selection Set

Layer:
Cadastre

Select Method
[By point](#)
By box
[By polygon](#)

Selection:
1 features selected.

Options

[Extent](#) Zoom to the extent of all the selected features in this layer.
[Clear](#) Unselects all the selected features in this layer.

Reporting:

[Execute report for this set.](#)

Extract Excel:

[Extract selected features to a local Excel file.](#)

This layer is defined as a selected set type of layer. You may use the selection tool to refine your selected set so that it contains the desired features before executing the reporting routines.

Select the **report** to view more information.

The Query Results form will display the available data values for the selected feature.

Query Results

Cadastre
 425 01920 32

LAIS Key	425 01920
Street Number	32
Street Name	GILES
Street Type	ST
Suburb	KATHERINE
Location Code	425
Location Name	Town of Katherine
Parcel Number	1920
Parcel Type	LOT
Parcel Label	1920
Area M Square	5980
Owner Category	Private
Survey ID	S 83/190
Survey Plan No	S 83/190
Reference Type	G
Reference Number	0
Survey Link	suvylink
Volume	0
Folio	0
Town Planning Zone	C
Status Code	A
Link to ILIS	ilissy
Date Extracted	18/06/2007

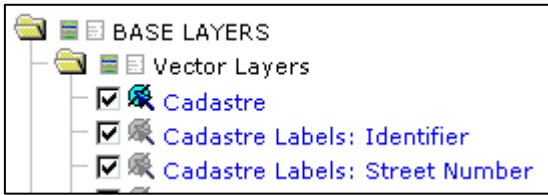
End of Result Set

ILIS

Integrated Land Information Systems is a web application developed by the Department of Lands and Planning to administer land and property information in the Northern Territory. The system provides data about cadastre, land titles, land valuations, land use, planning and development assessment, building control, land administration and land acquisitions for Government purposes.

To arrange access to this system and to find out more information about ILIS refer to the DLP website, <http://www.nt.gov.au/ntlis/support/index.shtml>

Example 2 How do I search for a rural property location?



Theme is BASE LAYERS \ Vector Layers.
The Active Layer is CADASTRE

HINT: Before you begin the search, turn on other useful layers such as road centrelines and labels, rivers and labels, and also placenames.

Search Cadastre	
LAIS Key	<input type="text"/>
Street Number	<input type="text"/>
Street Name	<input type="text"/>
Suburb	<input type="text"/>
Location Code	<input type="text"/>
Location Name	<input type="text"/>
Parcel Number	<input type="text" value="1784"/>
LTO Plan	<input type="text"/>
Parcel Part	<input type="text"/>
Property Name	<input type="text"/>

Enter any known information – such as the street number, name and suburb.

In this example, the only known information that I have for this rural property search is the parcel number.

I do not know if this parcel is a Lot or an NT Portion number. I do not know the location code or the location name.

Click on the **Search button** at the bottom of this form.

Selection Set	
Layer: Cadastre	Select Method By point By box By polygon
Selection: 8 features selected.	
Options	
Extent	Zoom to the extent of all the selected features in this layer.
Clear	Unselects all the selected features in this layer.
Reporting: Execute report for this set.	
Extract Excel: Extract selected features to a local Excel file.	

The **search result** has found 8 features within the Northern Territory that all have the parcel number of 1784 included within the LAIS Key code.

Select the **report** to view more information about the 8 selected features.

The **8 query results** are listed using the LAIS Key code. Open or close the **box icon** on the left side of the panel to review the available details for one of the 8 selected features.

Click on the **magnifying glass icon** and the map display will automatically zoom to that selected feature.

The first 3 values of the LAIS Key refer to the Location Code.

In this example, the search for Parcel 1784 has a Location Code of 000.

This parcel is referred to as an NT Portion as it is outside any of the designated named location areas.

Query Results

[-] Cadastre

- [+] [magnifying glass] 685 01784 31
- [+] [magnifying glass] 550 01784 6
- [+] [magnifying glass] 200 01784 0
- [+] [magnifying glass] 590 01784 29
- [+] [magnifying glass] 045 01784 1150
- [+] [magnifying glass] 345 01784 0
- [+] [magnifying glass] 000 01784 460

LAIS Key	000 01784
Street Number	460
Street Name	ZIMIN
Street Type	DR
Suburb	KATHERINE
Location Code	000
Location Name	NT Portion
Parcel Number	1784
Parcel Type	NT Por
Parcel Label	NT Por 1784
Area M Square	80100
Owner Category	Private
Survey ID	S 80/091
Survey Plan No	S 80/091
Reference Type	F
Reference Number	0
Volume Type	CUFT
Survey Link	suvelylink
Volume	541
Folio	27
Town Planning Zone	RL
Status Code	A
Link to ILIS	ilissy
Date Extracted	19/06/2007

[+] [magnifying glass] 010 01784 13

End of Result Set

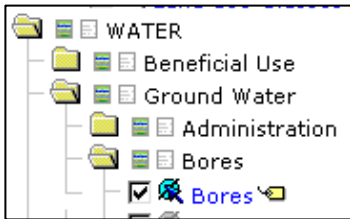
Searching Hint!

If the Location Code 000 had also been entered in the search field as well as the parcel number, the query result would be a single parcel of land instead of the 8 parcels found with this search.

Example 3 How do I search for Bore information?

HINT: Before you begin the search, turn on bores and labels and also other useful layers such as cadastre and labels, road centrelines and labels, rivers and labels, and also placenames.

QUESTION Do you know the Registered Bore Number? Eg. RN022326



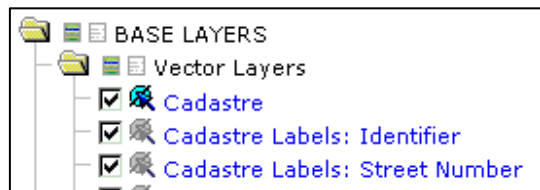
Answer YES, I do know the RN

If you do know the Registered Bore Number (RN), use the search tab with Bores as the active selection layer. Enter the RN number, then click the search button to automatically zoom to the bore location.

Only enter the whole numeric value, eg 22326

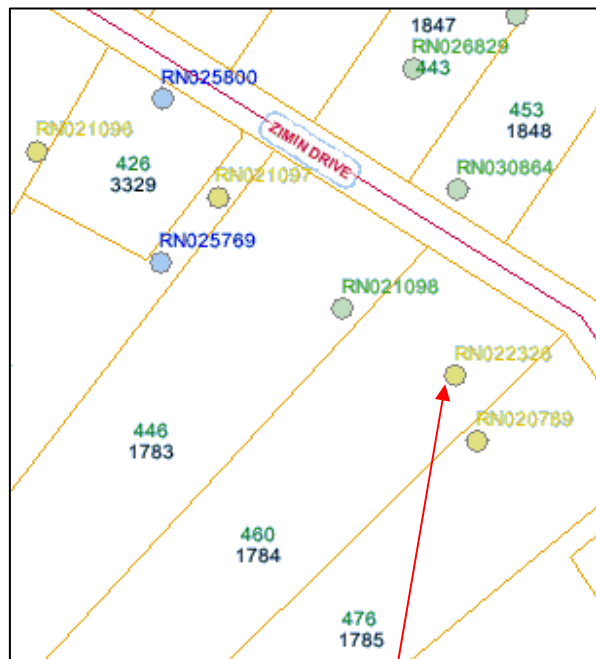


Answer NO, I do not know the RN



If you do NOT know the Registered Bore number, it is easiest to use the search tab for the property with the CADASTRE as the active selection layer, zoom to the map location and then, finally, review the bore information on the map screen.

1. Use Cadastre as the active selection layer; click the Search tab to find the property location
2. Zoom to the property location and review the map display
3. Now change the active selection layer to Bores

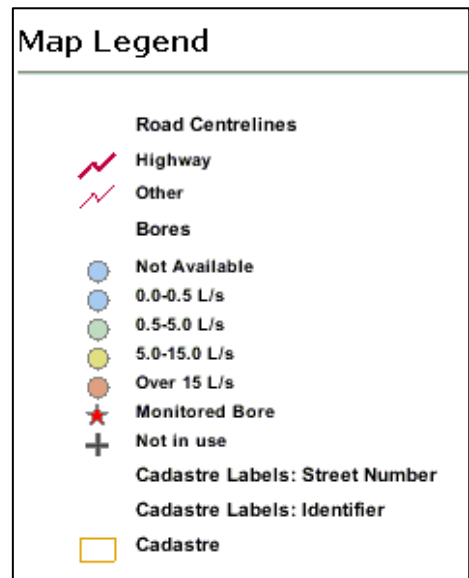


The Bores data layer is displayed on the map as a coloured dot using the value, **YIELD** (measured in litres per second).


The Registered Bore number is displayed as the label on the map image using the same colour as the yield value.

In this example, **RN022326** is the registered bore number on NT Por 1784.

Select the **LEGEND TAB** to review the bore data display.



Use the **identify tool** to find out more information about a bore. Select the tool. Click on the bore.

Identify Results	
☐ Bores	
☐  RN022326 COWEN B 1784 ZIMIN DRIVE	
RN Number	RN022326
BORE_NAME	COWEN B 1784 ZIMIN DRIVE
BORE_REPOR	RN022326
COMPLDEPTH	42
COMPL_DATE	19830905
DRILLDEPTH	42
EASTING	203327.9
GAMMA	false
GRDATUM	MGA94
LOCALITY	1784 ZIMIN DRIVE KATHERINE
MAP_INDEX	69
MONITORED	0
NORTHING	8396935
POSACC	30
TESTDATE	19830905
TESTTYPE	AL
UFI	11556
WATERLEVEL	15
YIELD	5
ZONE	53

The results will display in the left information panel. The **Identify Results** screen will describe some of the available data values.

This information is sourced from the HYDSTRA database where all bore related information is stored by this department.

To find out more about the Bores data layer click on the blue layer name in the Layers Tab and review the Metadata details.

Click on the **Bore Report** link to view details about this selected feature.

The **Bore Report** consists of several scanned pages that include the bore construction description, strata depth descriptions, water analysis and bore location details.

The bore report is stored as a pdf and can be viewed, printed or downloaded by the NRETAS Maps user.

CAUTION: Information about the location of bores

The bore location details were supplied by drillers to this department at the time of drilling and may not be correct. The coordinate location of bores drilled prior to use of GPS may have been estimated from broad scale topographic maps. These bores may also have a coordinate location recorded on the Bore Report using an older regional Australian datum, AGD66. The coordinates noted on the bore report may be incorrect and may be different to the values provided on the map screen.



To find a coordinate location on the screen using NRETAS Maps, select the Identify tool and click on the map.

The location where you clicked on the map will be displayed like this graphic (on right). NRETAS Maps display uses the datum GDA94.

To use these coordinate locations, you must also set up the datum to GDA94 on your GPS receiver.

☐ Coordinate Position (GDA94)
Geographic: 132° 14' 3.76" E 14° 29' 31.30" S
Geographic: 132.234, -14.492
UTM: 201882, 8396054 (zone 53)

If a bore is **NOT** displayed in the correct location in NRETAS Maps, please contact the Water Resources Branch. The location of the bore will need to be verified on the ground and the department's HYDSTRA database will also require updating.

Good idea!! Use the mark-up tools to note the correct location, save the NRETAS Map session and forward the URL via an email to Water Resources branch staff. (See page 10 of this guide)

Contact Water Resources Branch, NRETAS

For further details about bores and water management information in the Northern Territory, please contact the Water Resources Branch of this department in your region.

Darwin (08) 899 93678

Katherine (08) 897 38840

Alice Springs (08) 895 19215

Website <http://www.nt.gov.au/nreta/water/>

Example 4 How do I select all the bores located on a specific property?

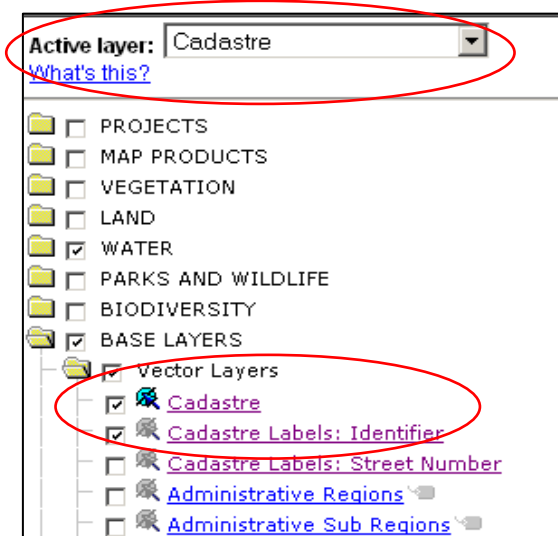
Some properties may have several bores. There are 2 methods of selecting just the bores located on a specific property, using either the select tab functions or the buffer tool.

A summary file (format is excel spreadsheet) listing the bore details can also be generated using the download to excel function.

NOTE: The download to excel tool is only available for NT Govt users, not to public users.

Try this example: I want to find all the bores that are located on the property NT Por 5626

Turn on data layers – cadastre, bores, road centrelines and associated labels.



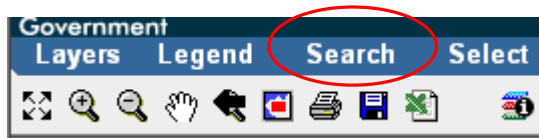
Step 1. Cadastré must be the active layer.

That is, the icon on the left of the data layer must be **bright blue**.

Either; Click on the icon to make it blue
Or
Select the Active Layer from the drop down list at the top of the data layers panel.

(Any data layers that are ticked on for display will be available in the Active Layer drop down list)

Step 2. Find the property of interest



Select the Search tab to open the searching form.

Search Cadastre	
LAIS Key	<input type="text"/>
Street Number	<input type="text"/>
Street Name	<input type="text"/>
Suburb	<input type="text"/>
Location Code	<input type="text" value="000"/>
Location Name	<input type="text"/>
Parcel Number	<input type="text" value="5626"/>
LTO Plan	<input type="text"/>

Enter the search criteria in the Search Cadastre Form.

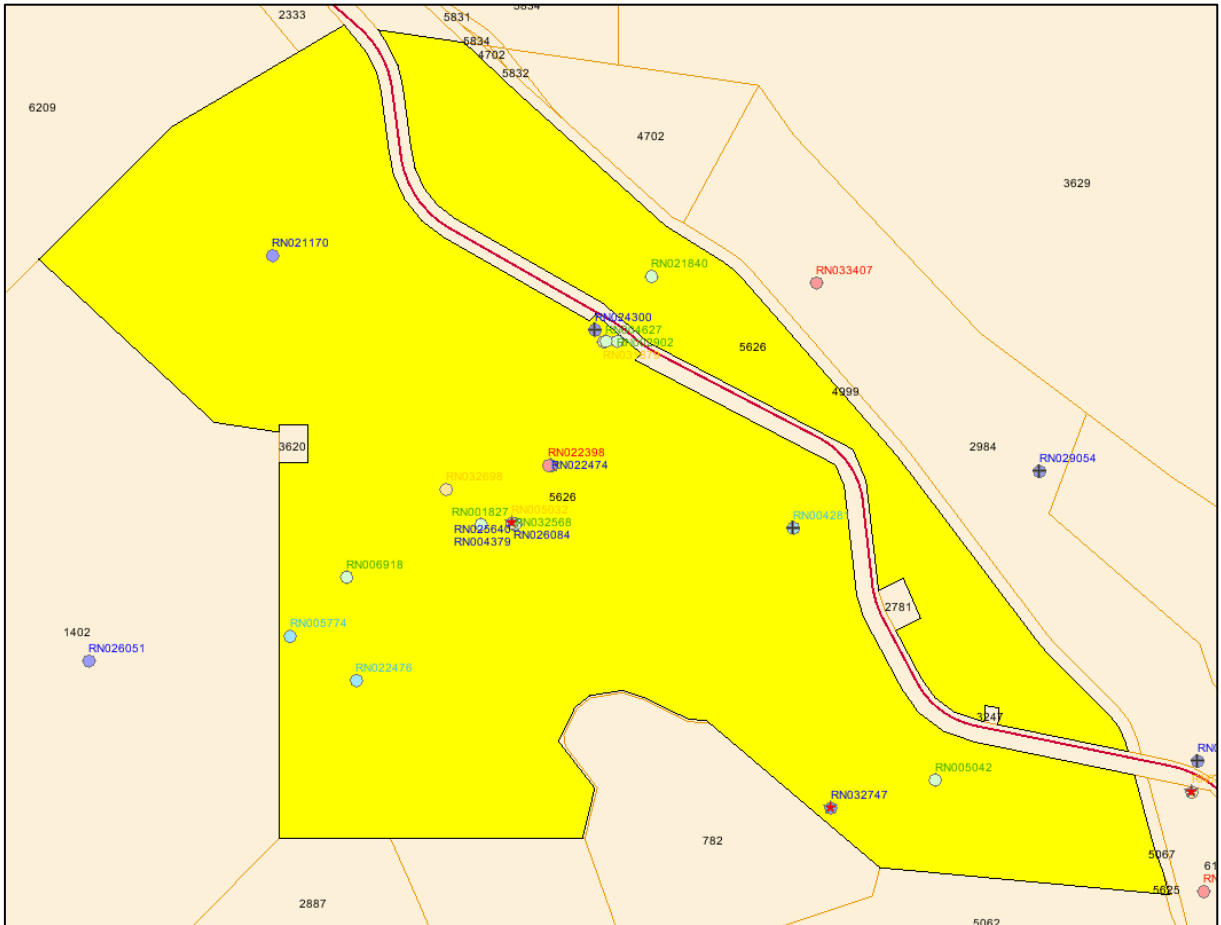
In this example, I am searching for NT Por 5626.

Location Code is 000
Parcel Number is 5626

Click on the Search button at the **bottom** of the information panel.

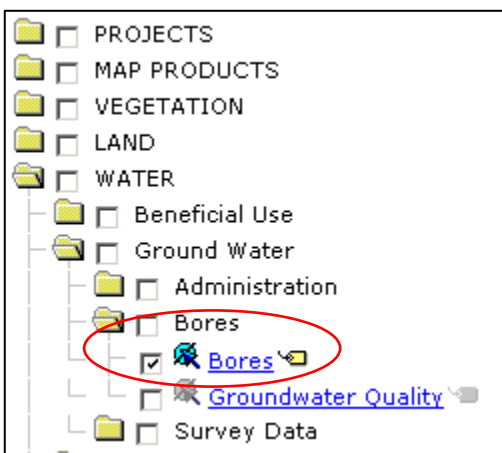
User Note: For more information about how to fill in the Search Cadastre form review page 19.

The selected property is highlighted in yellow. Bores are displayed in colours according to yield (L/s).



Step 3. Find the bores that are located in this highlighted parcel

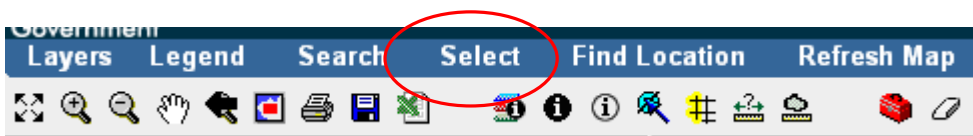
METHOD 1. Use the Select Tab functions



All the Selection tools refer to the current active layer.

My query now relates to the selection of bores, so I must change the active selection layer to bores.

Click on the Select Tab.



Selection Set

Layer:
Bores

Selection:
0 features selected.

Select Method

[By point](#)
[By box](#)
[By polygon](#)

The boundary of the parcel, NT Por 5626, is very irregular, so select By polygon.

Click with the left button mouse around the outside boundary of the highlighted parcel. As you click, each location point is noted in the left panel and is displayed on the screen with a red line.

Point 20:	132° 9' 16.45" E 14° 24' 57.3" S
Point 21:	132° 7' 56.61" E 14° 24' 58.74" S
Point 22:	132° 7' 36.74" E 14° 24' 53.60" S
Point 23:	132° 7' 36.40" E 14° 22' 58.13" S

Clear Points Submit Query

After completing the polygon, click on the Submit Query button.

Query Results

Bores

- RN031879 NO 1/99
- RN002902 RURAL COLLEGE 450 STUART HWY
- RN004627 NO.1 BORE EXPERIMENTAL FARM;KATH
- RN024300 KATHERINE RURAL COLLEGE
- RN021840 1/82 RAILWAY KATHERINE

A list of all the bores within the selected area are displayed in the left information panel.

Step 3. Find the bores that are located in this highlighted parcel

METHOD 2. Use the Select by Buffer Tool



Select the BUFFER tool.

NOTE: Click somewhere on the map display area to open the Buffer form.

Enter the criteria in the Buffer form.
 In this example, I want to find all the bores that are found on NT Por 5626.

Select by Buffer

Select features from

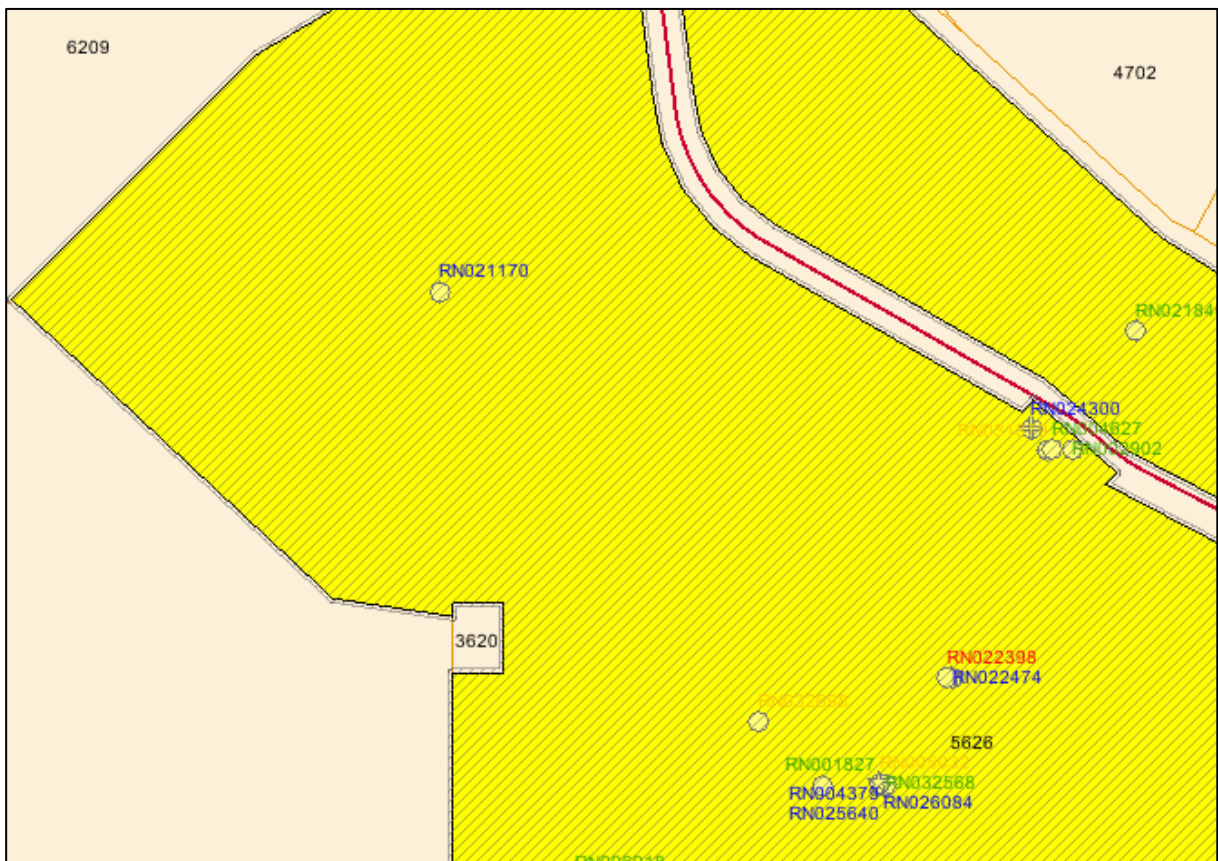
that are within

of the selected features of

The data layer Bores is currently the active layer (or select from the drop down list).

Nominate a distance from the boundary of NT Por 5626.

NT Por 5626 is currently highlighted as the selected feature.



Query Results

Bores

- RN032835 NO EM 46
- RN020345 WR 80/OB 8 MCMINNS
- RN032834 NO EM 45
- RN020734 MCMINNS (AHTOY) 4/81 KOOLPINYAH STATION
- RN025942 WR 88/3 DARWIN G/W/ INVEST

The buffered area will display with a hatched line on the map screen.

A list of all the bores within the buffered area are displayed in the left information panel.

Step 4. Use the Query Results to download a summary listing

The Extract Layer to Excel Tool is NOT available to Public users of NRETAS Maps. This tool is only available to NT Government users.



Select the Extract Layer to Excel tool

Extract Layer to Excel

Select the layer that you wish to extract to an Excel file, then press the OK button. The attributes of the features from the layer you select will be extracted to a file that you can download to your local computer.

Layer name
Bores

Within visible extent only?
Yes

Selected features only?
Yes

OK

Make sure you choose YES for selected features only!!

OK

The results will be generated in a zipped excel file.

Extract Layer to Excel

Extract operation successful.

101 features written.

A zip file containing the layer's attributes in Excel format has been created for you to download.

[\[Open or Save Zip file \]](#)

In this example, 101 features (ie bores) were found within the designated buffered area for the selected parcel.

The excel spreadsheet contains fields of data describing the bores; including the Registered Number, name, date and depth drilled and also a web page text link to the driller's report.

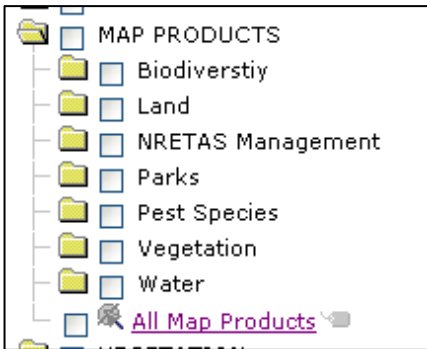
Caution: The web text in the spreadsheet is not a hyperlink!

How do I create a hyperlink on a single cell in excel?

- Select the cell
- Put a return after the last character (enter key)
- The cell will now contain a hyperlink to the web page

http://www.ntlis.nt.gov.au/hpa-services/borereport?bore=RN032747
http://www.ntlis.nt.gov.au/hpa-services/borereport?bore=RN005042
http://www.ntlis.nt.gov.au/hpa-services/borereport?bore=RN022476
http://www.ntlis.nt.gov.au/hpa-services/borereport?bore=RN005774

Example 5 How do I search for and download a map product?



HINT: Before you begin a search, turn on some useful orientation layers such as cadastre (land parcels) and labels, road centrelines and labels, rivers and labels, and also towns or placenames.

These map products have been compiled by the Spatial Data and Mapping Branch of this Department.

The theme **MAP PRODUCTS** is categorised into 8 groups.

Map product search - Option 1.

Select a map from the screen



To begin searching, select a Theme from the Map Products.

Example: Open the yellow folder **Land**.

Make **Land Units** the Active Theme.

- Zoom to the area required on the map screen and review the area extents of any available map products and the map title names.
- Use the Identify tool to select one of the map extents.
- A new window will pop-up. Select the black arrow to read more information about this map product.
- Select the blue [View Map](#) link to open the map as a pdf. (View pdf with Adobe Reader. This is free software and can be downloaded from the Adobe website, www.adobe.com)

Caution: Check the size of the file before you download. The size of these files may be very large.

Options	Map Name
view map metadata	Agricultural Classes of the Land Resources of the Daly Basin
view map metadata	Land Units, Soil

File Download

Do you want to open or save this file?

Name: Daly-Basin_Agricultural-Classes.pdf

Type: Adobe Acrobat Document, 7.20 MB

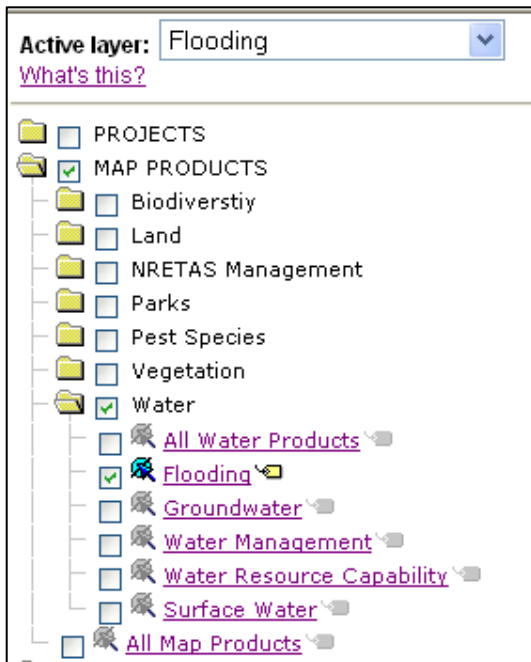
From: www.ntlis.nt.gov.au

Open Save Cancel

While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or save this file. [What's the risk?](#)

Map product search - Option 2.

Using the Search Tab

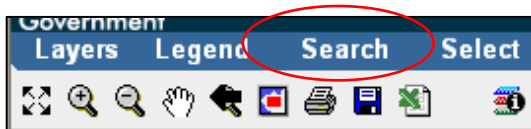


To begin searching, select a Theme from the Map Products list.

Example: I want to find out what Flooding maps are available over the Katherine location.

Open the yellow folder **Water**.

Make **Flooding** the Active Theme.



Now select the Search Tab.

Search Flooding

Map Name

Description

Map Theme

Action:

Type in a value to search for, then press the Search button. If the value is found in the layer's attribute table, the map will zoom to the extent of the feature(s) with that attribute value.

Note: This page searches the active layer. If you would like to search on another layer, click on the layers tab and select another active layer.

I have entered the word, Katherine, in the description.

Click the **Search** button on this form.

A list of map products containing the entered search words will appear in a new window.


- A new window will pop-up. Select the black arrow to read more information about this map product.


Map Products

Options	Map Name▲	Themes
▶ view map metadata	Daly - Katherine Rivers Flood Warning Monitoring Stations - Station Name	Flooding, Surface Water
▶ view map metadata	Daly - Katherine Rivers Flood Warning Monitoring Stations - Station Number	Flooding, Surface Water
▼ view map metadata	Katherine Town & Rural Area 1 in 100 Year Flood	Flooding, Surface Water
description: Computed 1% AEP (1 in 100 year) flood extent and flood surface contours id: 941 metadata: Metadata Link name: Katherine Town & Rural Area 1 in 100 Year Flood product: View Map themes: Flooding, Surface Water		
▶ view map metadata	Katherine Town & Rural Area 1 in 20 Year Flood	
▶ view map metadata	Katherine Town & Rural Area 1 in 50 Year Flood	
▶ view map metadata	Katherine Town Area 1 in 100 Year Flood	
▶ view map metadata	Katherine Town Area 1 in 20 Year Flood	
▶ view map metadata	Katherine Town Area 1 in 50 Year Flood	
▶ view map metadata	Katherine Town and Rural Area - Probable and Possible Areas of Flooding for Category 1 Flood Warning	
▶ view map metadata	Katherine Town and Rural Area - Probable and Possible Areas of Flooding for Category 2 Flood Warning	
▶ view map metadata	Katherine Town and Rural Area - Probable and Possible Areas of Flooding for Category 3 Flood Warning	Flooding, Surface Water

File Download

Do you want to open or save this file?

 Name: Kath-Rural_100yr-Flood.pdf
 Type: Adobe Acrobat Document, 753 KB
 From: www.ntlis.nt.gov.au

 While files from the Internet can be useful, some files can potentially harm your computer. If you do not trust the source, do not open or save this file. [What's the risk?](#)

- Select the blue [View Map](#) link to open the map as a pdf. (View pdf with Adobe Reader. This is free software and can be downloaded from the Adobe website, www.adobe.com)

Caution: Check the size of the file before you download. The size of these files may be very large.

Select the blue text [Metadata Link](#) to find out more information about the associated dataset this map is based on.

7.0 SELECT TAB



Select features on the screen

Selection Set

Layer:
Cadastre

Selection:
0 features selected.

Select Method

[By point](#)

[By box](#)

[By polygon](#)

Rather than using the search tab and entering values into a form, select features on the map area using the SELECT tab.

Note: Only the features associated with the ACTIVE SELECTION LAYER can be selected.

By Point Click a point on the map image to select a feature

By Box Click 2 points on the screen to create a box.
(ie. click on the top left, keep the button depressed and drag the red rectangle to the bottom right) All features that are overlapped by the red box will be included in the selection.

By Polygon Click many points on the screen to create a polygon. (ie. a multi-sided shape)
All parcels that are overlapped by the polygon will be included in the selection. Click the submit query button.

Selection Set

Layer:
Cadastre

Just Selected:
1 features selected.

Previously Selected:
1 features selected.

Options

[New](#) Sets the selected set of this layer to the features just selected.

[Add](#) Adds the features just selected to the set of features that were previously selected.

[Subtract](#) Removes the features just selected from the set of features that were previously selected.

[Unchanged](#) Leaves the selected set as it was, ignoring the selection that you just made.

[Clear](#) Unselects all the selected features in this layer.

The selected features will be noted in the left information panel – the **Selection Set**.

Choose one of the **options** to either view the current selected features or change the selected number of features.

All of the resulting selected features will be highlighted yellow on the map image display.

The form will change back and give the user the option to either view the report for the selected features or to extract the data to an excel file.

8.0 FIND LOCATION TAB



Find Location

Zoom To:

- [Regions](#)
- [Personal Bookmark](#)
- [Map Coordinates](#)

Regions

Select one of the predefined areas listed under Regions and automatically zoom to the location on the map display.

Personal Bookmark

First, set up the map display - turn data layers on or off and also set the scale. Use either the **zoom tools** or the **SEARCH tab** to find a specific location. The map location and display can be saved as a personal bookmark in NRETAS Maps.

Zoom To Bookmark

You do not have any personal bookmarks defined.

[[add current extent](#)]

Click on [add current extent](#)

Create Bookmark

Use this form to create a personal bookmark that can be used to zoom the map to the current extent from this or other IMF sites.

Enter a name for your bookmark:

Enter a name for your bookmark

Click the OK button

Zoom To Bookmark

Select the name of your personal bookmark to zoom the map to:

- ✗ [Katherine Showground](#)
- ✗ [My House](#)
- ✗ [My fav swimming place](#)
- ✗ [Kath Gorge Pats Lookout](#)

[[add current extent](#)]

To remove a bookmark, click the red x beside the name.

Personal Bookmarks can be stored for future use. Only the location is saved.

Any data layers turned on/off or mark up graphics are not saved.

Click on any of the saved bookmarks to automatically zoom to the location.

Map Coordinates

Zoom To Map Coordinate

Point and Radius

Latitude **Deg** **Min** **Sec**
 Centre - 14 31 22.64
Longitude **Deg** **Min** **Sec**
 Centre 132 13 12.95
 Radius 500 meters

All coordinate locations displayed in NRETAS Maps use the datum GDA94 (Geocentric Datum of Australia 1994).

First, select the type of map **coordinate system** required;

1. DEGREES

Coordinate values are displayed using Degrees, Minutes and Seconds. Latitude values are recorded as a negative because Australia is south of the equator.

Zoom To Map Coordinate

Point and Radius

Latitude **Degrees**
 Centre - -14.522957085
Longitude **Degrees**
 Centre 132.220266118
 Radius 500 meters

2. DECIMAL DEGREES

Coordinate values are displayed using Degrees and the minutes and seconds are combined as a decimal part of a degree. Eg. 0.5 of a degree = 30minutes

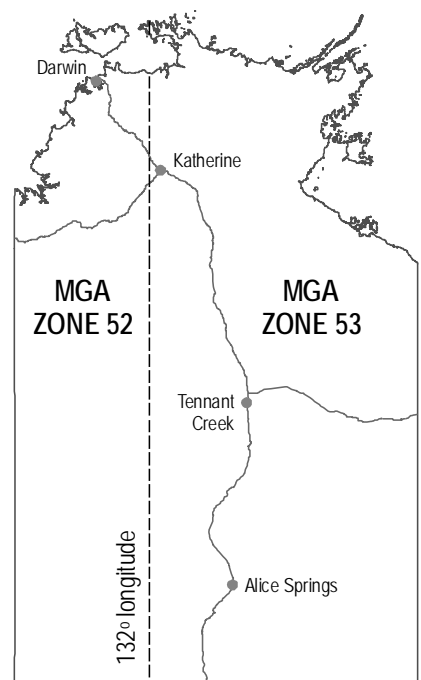
Zoom To Map Coordinate

Point and Radius

Easting **MGA**
 Centre 200274
Northing **MGA**
 Centre 8392448 53
 Radius 500 meters

3. MGA

Coordinates values are expressed as a northing and easting using units of metres using the Map Grid of Australia (MGA).



Choose either 52 or 53. In the Northern Territory, **Zone 52 is west** of 132° longitude and **Zone 53 is east** of 132° longitude.

10.0 TECHNICAL REPORTS TAB



Click the Tab button, Technical Reports, and a new searching window will open.

To begin the search, select one of the Primary Report Themes listing - **All Reports, Groundwater, Surface Water, Land Units, Land Systems or Vegetation**

NRETAS Land and Water Technical Reports

Please enter the following information to search for the scan report

<p>Report Number <input type="text"/> <small>(e.g. 01/2008)</small></p> <p>Title (any keywords) <input type="text" value="daly"/></p> <p>Author <input type="text"/></p> <p>Year issued <input type="text"/> <small>(Please use YY format e.g. enter 76 for 1976)</small></p> <p>Aboriginal name <input type="text"/></p> <p>Any Keyword <input type="text"/></p>	<p>Scan Number <input type="text"/> <small>(e.g. WRD08001)</small></p> <p>Report Date <input type="text"/></p> <p>Publisher <input type="text"/></p> <p>Primary Report Theme <input type="text" value="Land Units"/></p> <p>Outstation Number <input type="text"/></p>
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Please note that providing as much info as possible will help to filter down your search

This search example returned 4 records.

Your search found 4 Records. Click on the Scan Number to view the Report.

Scan Number	Report Number	Title	Author
LRD76023		DALY RIVER FARM AREA : KEY TO DALY RIVER LAND USE MAPS	Gibbs, C.R. and Melville, I.R.
LRD76024	TB - 76/23	REPORT ON THE LAND UNITS OF THE DALY RIVER AGRICULTURAL AREA	Fogarty, P.J. and Gibbs, C.R.
LRD78011	LC78/11	REPORT ON THE LAND UNITS OF THE DORISVALE AREA - DORISVALE STATION & VACANT CROWN LAND EAST OF DORISVALE STATION TO THE DALY RIVER	Wood, B.G.
LRD83010	TR 83/10	LAND UNITS OF THE DOUGLAS - DALY ADMA ACQUISITION AREA, NT	Lucas, S.J.

Click on the **blue Scan Number** to open the report as a pdf. These files can be printed or saved to your computer.

CAUTION: Check the size of the file before you download. Some of these reports may be very large in size.

If the report is not available in the listing ...

The report listing is constantly being updated. If you cannot find the report in this search listing, please contact the Spatial Data and Mapping Branch of this Department.

Email DataRequests.NRETA@nt.gov.au

Appendix 1. LINKS AND CONTACTS

- 1. Northern Territory Government** <http://www.nt.gov.au/>
NT Government Switch board (08) 899 95511
- 2. Dept of Natural Resources, Environment, The Arts and Sport (NRETAS)**
Home <http://www.nt.gov.au/nretas/>
NRETAS Maps <http://www.nt.gov.au/nreta/nretasmaps/>
Spatial Data and Mapping, Natural Resources Division, NRETAS
Darwin - Branch Manager (08) 899 93602
Darwin - Scientific Data Manager (08) 899 94579
Katherine (08) 897 38843
Alice Springs (08) 895 19216
Digital Data Requests - Email datarequests.nreta@nt.gov.au
Digital Data Requests - Fax (08) 899 93667
- 3. Dept of Lands and Planning (DLP)** <http://www.dlp.nt.gov.au/>
Land Information <http://www.nt.gov.au/lands/lis/>
NTLIS - Northern Territory Land Information System <http://www.nt.gov.au/ntlis/>
NTLIS is a dynamic system of inter-related knowledge and expertise, spatial data and information, policies, procedures and standards, information technology and communications.
NTLIS on-line applications <http://www.nt.gov.au/ntlis/online/index.shtml>
ILIS <http://www.nt.gov.au/ntlis/support/index.shtml>
(Restricted Services – review access details to this system via the web link)
The Integrated Land Information System provides easy access via the internet to a range of information about land and property in the Northern Territory. The data available covers the cadastre, land titles, land valuations, land use, planning and development assessment, building control, land administration and land acquisitions for Government purposes.
NT Atlas http://www.ntlis.nt.gov.au/imfPublic/imf.jsp?site=nt_atlas
The Northern Territory Atlas is an online application allowing users to view and query some of the more commonly used Northern Territory Government spatial datasets. The NT Atlas provides an interface to the NT Spatial Data Directory (NTSDD).
NTLIS Collaboration Forum <http://www.ntlis.nt.gov.au/forum/>
The NTLIS Collaboration Forum is the place to find information, news and events relating to spatial data and services in the Northern Territory. The NTLIS Collaboration Forum is fully interactive, you can add your own articles, news, and events simply by signing up and entering them in.
Aerial Photography Index <http://www.ntlis.nt.gov.au/imfPublic/airPhotoimf.jsp>
Aerial photography is captured primarily for the purposes of producing topographic mapping. Photographs (prints and digital images) are available for purchase through the Land Information Centres. The archive contains over 350,000 photographs dating back to the 1940s. 2,000 photographs are added to the archive each year.

4. Dept of Resources (Primary Industry, Fisheries and Resources)

Minerals and Energy - home http://www.nt.gov.au/d/Minerals_Energy/

NT Geological Survey (NTGS) http://www.nt.gov.au/d/Minerals_Energy/Geoscience/

STRIKE <http://apps.minerals.nt.gov.au/strike/CLIENT/display/GeoSamba.asp>

The Northern Territory Geological Survey (NTGS) manages this interactive web-mapping tool STRIKE - Spatial Territory Resource Information Kit for Exploration. It enables internet users to view, query and download relevant geoscientific data.

5. Geoscience Australia <http://www.ga.gov.au>

Within the Australian Government portfolio of Industry, Tourism and Resources, Geoscience Australia is the leading agency for the development and production of geoscientific information and knowledge. This enables the government and the Australian community to make informed decisions about the exploration of resources, the management of the environment and the safety of critical infrastructure.

Datums <http://www.ga.gov.au/geodesy/datums/aboutdatums.jsp>

GPS information <http://www.ga.gov.au/geodesy/gps/>

Topographic maps <http://www.ga.gov.au/nmd/mapping/>

Interactive tools http://www.ga.gov.au/nmd/mapping/interactive_maps.jsp

6. Intergovernmental Committee on Surveying and Mapping (ICSM)

ICSM's role is to provide leadership, coordination and standards for surveying, mapping/charting and national datasets. ICSM is made up of senior representatives from New Zealand and Australian (Commonwealth, States & Territories) government surveying and mapping/charting agencies.

ICSM - home <http://www.icsm.gov.au/>

Fundamentals of Mapping (ICSM) <http://www.icsm.gov.au/icsm/mapping/index.html>

7. Links to national websites <http://www.nt.gov.au/ntlis/online/links.shtml#national>

Aerial Photograph A photograph of the earth's surface taken from above the surface, usually an aircraft. Aerial photography is often used as a cartographic data source for base mapping, locating geographic features, and interpreting environmental conditions.

AGD66 Australian Geodetic Datum 1966 is a datum reference model that defines the shape of the earth with a best fit for the Australian Region. The origin point of this datum does not coincide with the centre of mass of the earth but lies about 200 metres from it.

Cadastre Boundary extent of land parcels and associated ownership details. The NRETAS Maps application accesses the Digital Cadastral Database (DCDB) of the Northern Territory that is managed by the Department of Lands and Planning.

Coordinates Two values providing a reference to a point in north-south and east-west directions.

Datum The parameters used to define the basis of coordinate systems. For the WGS84 and the GDA94 datum, the origin of the coordinate systems corresponds with the centre of the earth. The origin of the coordinate systems of the AGD datums corresponds with a point around 200 metres away from the centre of the earth. This was to allow for the ellipsoid in the former systems to be a best-fit estimate of the earth's shape around the Australian continent. The earth-centred systems were introduced to better suit the increasing use of GPS derived coordinate measurements.

Geographic coordinates are expressed in degrees as latitude and longitude derived from angular lines running east-west and north-south on the earth's surface. Australia is south of the equator, therefore latitude values are recorded as a negative.

Geographic coordinate values are displayed in either of these two formats in NRETAS Maps; Degrees, Minutes and Seconds (DMS) or Decimal Degrees (D.dddd^o)

GDA94 Geocentric Datum of Australia 1994 is a datum reference model that defines the shape of the earth and uses the centre of the earth as the origin point. The Geocentric Datum of Australia (GDA) is an Australian coordinate system, replacing the Australian Geodetic Datum (AGD). GDA is part of a global coordinate reference frame and is directly compatible with the Global Positioning System (GPS).

GIS Geographic Information System - a computer software system within which spatial information can be captured, stored, manipulated, displayed and analysed.

GPS Global Positioning System - a satellite based navigation system. The system used in Australia is managed by the United States Dept of Defence and uses 24 satellites that orbit the earth twice a day. To determine a user's position, GPS receivers triangulate signals transmitted from at least 3 satellites comparing time differences between signals sent and received.

Easting Vertical grid lines running from west to east usually in units of metres.

LAIS key Land Administration Information Systems Key. This is a 15 character unique code used to describe each land parcel of the Northern Territory within the cadastral database managed by the Department of Lands and Planning.

Characters 1 – 3 Location Code (eg. 000 = NT Portion, 200 = Town of Darwin) is an identifier for the Town, Hundred or location of the parcel. An NT Portion is outside a named area.

Characters 4 – 8 LTO Plan Number (eg. 73056 = LTO Plan No. 73/056). This number is historical and rarely used – often leaving 5 spaces.

Characters 9 – 13 Parcel number (eg. 06428, 0000A) is the lot, section or portion number.

Characters 14 - 15 Part Parcel Indicator (eg. A) is rarely used – often 2 blank spaces.

Land Units / Land Systems Land resource information is derived from aerial photograph interpretation and field data describing landform, soils and vegetation collected according to Australian Soil and Land Survey Standards. Survey data is mapped at a specified scale. Enlarging the data beyond the surveyed scale does not provide further detail. Field verification should always accompany any mapping over specific areas.

Land Unit surveys are mapped over smaller areas at scales less than 1:50,000. Land System surveys are generally mapped over larger areas at scales greater than 1:100,000. They provide an initial understanding of large tracts of land often recommending further detailed work on specific areas.

Land Resource Survey Reports and associated maps are available to download via NRETAS Maps.

Latitude A measure of the angular distance that a point on the earth's surface is north or south of the equator (0° latitude). The North Pole is expressed as 90° north, the South Pole as 90° south. 1 degree = 60 minutes. 1 minute = 60 seconds. (1 degree is approx 100km in on-ground distance)

Legend Describes the features displayed on the map, also known as the map symbology.

Longitude The angular distance the meridian of a point on the earth's surface is east or west of the prime meridian (0° longitude). The prime meridian is aligned through Greenwich, England, and is used to determine east and west. 1 degree = 60 minutes. 1 minute = 60 seconds.

Map A map is a graphic representation of geographic features containing both location and attribute information. A map is usually made up of several components, including; the map area, legend, title, orientation (usually north) and scale.

Metadata Metadata is information about data sets, describing the content, quality, currency and availability and ownership details.

MGA The Map Grid of Australia is a Universal Transverse Mercator (UTM) projection based upon the Geocentric Datum of Australia (GDA) measuring coordinate values in metres. The earth is divided up into 60 zones which each have a width of six degrees of longitude. In the Northern Territory, Zone 52 is west of 132° longitude and Zone 53 is east of 132° longitude.

PDF Portable Data Format – refers to a compressed file format viewable by the software Adobe Reader. Maps and reports in NRETAS Maps are stored in this format.

Projection A mathematical formula used to depict the earth's spherical surface on to a flat map surface. A Universal Transverse Mercator (UTM) projection of the GDA94 geographic coordinates produces the Cartesian coordinates Map Grid of Australia 1994 (MGA94).

Scale A scale provides information about the comparative size of features and distances displayed on the map. It can be expressed as a ratio and/or displayed as a scale bar on a map.

Tenure Ownership status of cadastral land (eg. freehold, pastoral lease, vacant crown land)

Topographic map A map type showing a limited set of features with elevation and landform a minimum component of the display. Examples are contour or elevation maps. Topographic maps are used for reference or navigation.

WGS84 World Geodetic System 1984 is a datum reference model that defines the shape of the earth and uses the centre of the earth as the origin point. This datum is the default used by USA Defence managed satellite navigation systems for GPS.

Zone For mapping purposes, the earth is divided into a series of zones to allow minimum distortion in projecting the earth onto a flat surface when using a Cartesian coordinate system. Australia is covered by seven zones; 49 to 56. The Northern Territory is covered by zone 52 and 53. (Zone 52 is east of 132° longitude and Zone 53 is west of 132° longitude)