

# Spatial query examples

To seek assistance using NR Maps, please contact the department's Geospatial Services Unit.

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We recommend reading the NR Maps user guide *How to use NR Maps tools*. To view user guides, please click on the User Guide tab above the map screen in NR Maps or click the Help link on the top right of the NR Maps screen.

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These examples will show you how to resolve some spatial queries using NR Maps tools.

Try to reframe the question using other layers.

## Important information – please read!

- Most of the search and selection tools only work with the Active Layer
- Change the Active Layer: 1. Right mouse click on the layer and choose Set Active  
Or: 2. Enter layer name in Set Active list (see top of table of contents)
- Data layer details: Right mouse click on the layer and click on Metadata
- Hover your mouse over a tool to view a short description - then click the tool to action
- F11 Maximum screen F5 Restart Right mouse click on screen: Context menu

### 1.1 Export a list of ALL Bore reports that are located within NT Por 7346

- Quick search: Enter NT Por 7346
- Tool: Functions: Spatial Select
  - Target layer: Bores
- Data panel: View records. Export format: Excel. Download the file to your computer.

### 1.2 Refine this list and remove bores where the Yield = 0 L/s

- Data panel: Sort by Yield Class; Select records = 0 L/s. Remove these records.  
Use the shift key to select multiple records in the data panel.

*Hint! Drag the attribute column Yield Class to the left to make it easier to sort and view.*

*Notes: Question 1 and 2 are actually identical – they just refer to different layers.*

*Intersect features from layer 1 on a selected feature from layer 2.*

### 2.1 How many soil profile sites have been drilled on Victoria River Downs Station?

- Active layer: Land Administration > Cadastre
- Search: Enter property name; click on new
- Tool: Functions: Spatial Select
  - Target layer: Soil
- Data panel: View number of selected features

### 2.2 How many soil profile sites were drilled after the year 2000?

- Data panel: Sort by Survey Date (*descending order*); Select records > 2000

### 3. How many Remote Community Bushfire Risk locations are described as High within the Savanna Fire Management Zone?

- Active layer: Fire > Bushfires NT > Administrative Boundaries > Fire Management Zones
- Search: Select Savanna from the drop-down list; click on new
- Tool: Functions: Spatial Select
  - Target layer: Remote Community Bushfire Risk- Public
- Data panel: Sort attribute Risk Rating; select records = High; Refine.
- Data panel: **OR** use the Filter: Risk Rating = High

### 4. List the Water Management Zones that intersect the Daly River

- Active layer: Water > Surface Water Drainage > Drainage Lines > Major drainage
- Search: Enter Daly River; click on new
- Tick layers: Water > Water Management > Water Plan Management Zones
- Tool: Left Identify - *name all visible features that intersect the selection*
- Results: new window displays intersecting layer name and features

*Notes: In this example I did not use the Spatial Select tool. There are 4 different layers for Water Plan Management Zones. Only 1 layer can be used for the spatial select target.*

### 5.1 Find a land resource map over Brunette Downs Station

- Active layer: Land Administration > Cadastre
- Search: Enter property name; click on new
- Tool: Functions: Spatial Select
  - Target layer: Map Products - Land Units
- Data panel: Filter: Themes = Land

The outline of each map area is displayed on the map screen. The results include maps that cover the entire Northern Territory. Select Northern Territory records and remove them. Use the shift key to select multiple records in the data panel.

- Data panel: Review results and download map (PDF).

### 5.2 When was the land resource map published?

- The date attribute is only noted on the layer Maps – All map products.
- As above Change the target and review the results.
- Data panel: Filter: Themes = Land Units

## 6. Export a shapefile for all the areas that grow mangoes

- Active layer: Land > Land Use Mapping > Land use secondary classes
- Search: Select Commodity drop-down list – Mangoes
- Tool: Selected Features Export (*2<sup>nd</sup> tool from right end*)  
Choose format ESRI shapefile and download to your computer
- Metadata: Right mouse click on layer name to review the metadata record.  
Data is available via Creative Commons Licence.

### 7.1 View land parcels that intersect a 5km buffer of EL32156 and EL32157

- Active layer: Geoscience and Mining > Titles Register > Mineral titles > Exploration Licences Granted.
- Search: Enter: EL32008; Click on new  
Enter: EL32039; Click on add
- Tool: Functions: Spatial Select
  - Target layer: Cadastre
  - Distance: 5000m
- Data panel: View records

## 7.2 Export a list of all Threatened Fauna that are located in these selected parcels

- Tick layer: Biodiversity > Fauna Atlas > Threatened Fauna
- Tool: Click on Left Identify – results will not display if the Threatened Fauna is not visible on the map screen.
- Tool: Zoom in until the fauna points are visible.
- Tool: Left Identify – results will now display and can be exported.

## 8.1 What is the name of the Aboriginal Community located at this coordinate?

**-25.2545501, 130.8910799**

- Tool: Published Bookmarks: (yellow book) Land Administration > Aboriginal Land and Communities.  
*This will automatically turn on layers in the folder Land Administration.*
- Tool: Coordinate Zoom
  - Latitude: -25.2545501
  - Longitude: 130.8910799
  - Zoom: 10 km
- Map screen: View the label for the community displayed on the map screen.

## 8.2 Find out more information for this Community

- Active layer: Land Administration > Infrastructure > Aboriginal Communities
- Search: Enter: Yulara; click on new
- Data panel: View records; click on web sites for further details

## 9.1 What land unit surveys were undertaken on NT Por 4091?

- Quick search: Enter NT Por 4091
- Results: Data panel – view the land parcel details. What is the property name?
- Tick layers: Land > Land Resources > Land Resource Survey Index > Land Resources surveys finer scale. (i.e. survey scale  $\leq$  100,000)
- Tool: Left Identify – view the survey details and find the best information available over this property.

This layer displays the footprint of each survey. *The Land Resources of Victoria River District* was mapped at a scale of 1:100,000 and published in 2013. Click on the web links to download the survey report and associated geospatial information products.

## 9.2 Create your own landform class map of NT Por 4091

The status of the GIS data notes that Core Attributes have been mapped for this survey. This term describes a minimum set of land unit attributes collected by the department. Land units for this survey have been compiled into a land unit layer for display in NR Maps.

- Untick layers: Land resource survey index
- Tick layers: Land > Land Resources > Land Units > Land Units 100k Landform
- Legend: The land units have been grouped into Landform Classes
- Tool: Print – A3 map. Enter title: *Landform Classes over NT Por 4091*. Save the map to your computer. Rename the file (PDF).

## 9.3 What is the dominant vegetation species for land unit 5a1?

Land units describe soil, landform and vegetation. Zoom in to the south west of the property.

- Tick layers: Land > Land Resources > Land Units > Land Units 100k
- Tool: Selection. Manually select a polygon labelled 5a1. (*see south west corner*)
- Data panel: View records

## 10.1 Create a polygon showing the extent of Significant Flora in Fish River Gorge Block.

- Active layer: Parks and Culture > Parks and Reserves
- Search: Select a park name from the list: enter Fish; Select park; Click on new
- Tick layers: Biodiversity > Flora Atlas > Significant Flora
- Measure Area: Draw a polygon that surrounds the flora sites within the park.
  - Double click to finish drawing.
  - Click the button on the left of X – save to redline layer. The area text will display.
  - Click the X to stop using the measure area tool. Your polygon will be available in the redline tools.
- Redline: Click the yellow pencil to open the Redline drawing tools.
  - Select (*first tool on left*) the polygon to change the display style. You can also edit the area text, e.g. Approximate Area 841 km<sup>2</sup>.
  - Export the polygon to KML or Shapefile
  - Click Save to keep the polygon in your drawing canvas. Name the drawing. (*third tool from right end*)

## 10.2 Share your polygon with a colleague

Your polygon has been saved in your drawing canvas. You can display this polygon in other NR Maps sessions and also share it with colleagues.

- Redline: Click the yellow pencil to open the Redline drawing tools.
  - Click on the Load tool (*second from right end*)
  - Select your drawing to display it on the map screen.
  - Zoom to the area of interest
- Tick layers: Biodiversity > Flora Atlas > Significant Flora  
Parks and Culture > Parks and Reserves
- Tool: Personal Bookmarks: (blue book) Select Share Bookmark; name the bookmark e.g. Significant Flora in Fish River Gorge Block
  - Click on Email - the URL will copy to a new email

Your colleague can click on the URL and will have access to the same display - your zoomed location, the layers that are turned on and also your polygon.

To keep these settings, your colleague will need to create a bookmark on their computer.

They can also save the polygon in their drawing canvas or export the spatial data.