How to use NR Maps tools

Natural Resource Maps user guide   nrmaps.nt.gov.au

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

Email   datarequests.DEPWS@nt.gov.au

Phone   (08) 899 94579

To view other user guides, please click on the Help link on the top right of the NR Maps screen.

This guide contains some simple and practical examples to learn how to use the NR Maps tools.

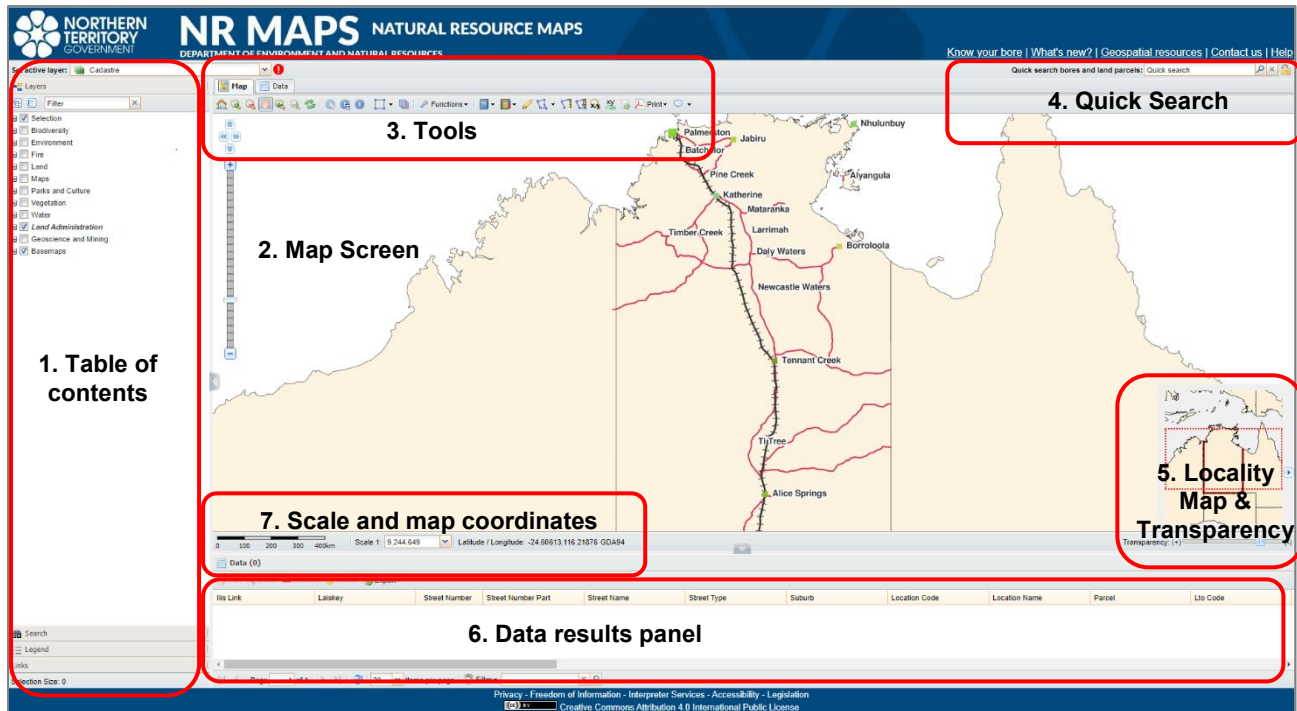**NR Maps is not suitable for use with a mobile device.**

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

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Contents

NORTHERN TERRITORY GOVERNMENT

1. The main areas of the NR maps screen interface

1.1 Table of Contents

Layers Open a folder or sub-folder group; tick the data layer to display on the map screen.

Only the Active Layer may be used for search and selection queries.

When NR Maps starts, the Active Layer is the Cadastre (Land Parcels). To change the Active Layer, right mouse click on a layer and select Set Active. Alternatively, enter a name or select from the drop down list (see top of table of contents).

Right mouse click to view Metadata and find out layer details.

Search Select features for the Active Layer using search fields (not all layers may be searched).

Legend The legend will display the symbology for layers that are visible on the map screen.

Links List of useful web links under group headings DEPWS, NT, National.

1.2 Map Screen

Right mouse click on the map screen to view a context menu with a handy list of tools.

1.3 Map Tools Hover your mouse over a tool to view a short description – then click the tool.

1.4 Quick Search

Enter an address, land parcel details or a Registered Bore number.

Select a record from the data results and automatically zoom to the location of the selected feature.

1.5 Transparency and Locality Map

Transparency The sliding bar will change the transparency of layers.

Locality map Click on the small triangle on the right screen edge to open or close the NT map.

1.6 Data results

The data results panel is located below the map screen. Click the small triangle to make expand the area. You can also view data results next to the Map tab above the map screen.

1.7 Map scale and Coordinate display

Map scale Change the scale and display of the map with a range of zooming and panning tools.

Coordinates The coordinate location of the cursor on the map screen is displayed in Decimal Degrees using datum Geographic Datum of Australia (GDA94).

2.   How to change the active layer
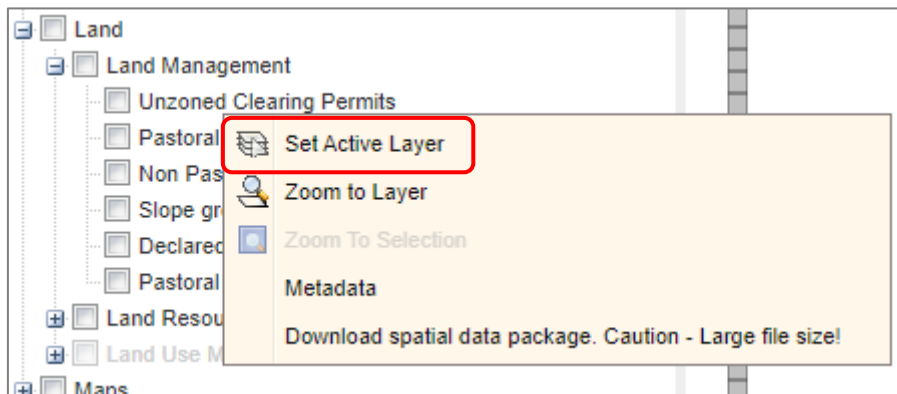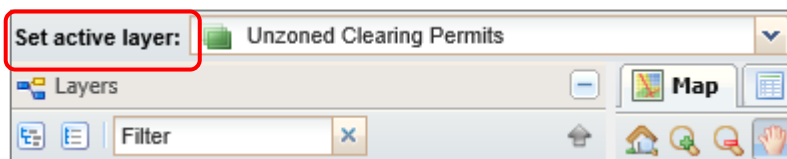

2.1   Choice 1

When NR Maps starts, the Active Layer is the Cadastre (Land Parcels). To change:

Select a layer. Right mouse click - Set Active.

The active layer name becomes **Bold and Italic.**

2.2   Choice 2

Change the Set active layer from the listing - located at the top of the layers menu.

- Start writing the layer name or pull down the list to select.
- Review layer details – hover the mouse to check the visible scale settings; zoom in if required.
- Review the legend to see how the data displayed on the map screen.

2.3   To filter the layer listing, enter a key word – eg land use. Click X to return to the full listing.
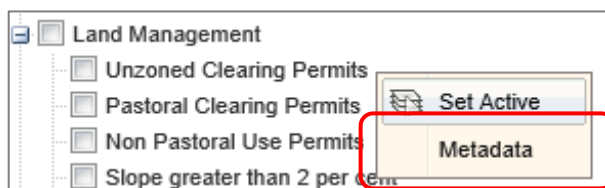
2.4 Find out more about the data layer

Select a layer

Right mouse click and choose Metadata

3.   Quick search - review cadastre records (land parcels)

3.1   Who is the custodian of the cadastre?

- Right mouse click on the layer and select Metadata. Please review this information.
- Public users may only export data from NR Maps if DEPWS is the custodian.

3.2   Enter a street address   32 Giles

- 2 records are returned. Select the Katherine address.
- View the descriptive details in the data panel located below the map screen.
- What is the parcel number for this address? What is the Location Code?
- View the Laiskey. This is a unique identifier for every parcel in NT (15 characters).

3.3   Enter a parcel number   1554

- 10 records are returned. Select the parcel in Acacia Hills.
- What is the parcel type? *You can also enter Sec. 1554 in the Quick Search entry field.*
- ILIS Link. Database access for land title details - only for authorised users.

**3.4   Enter an NT Portion number   NT Por 1604   *cannot enter text "NT Portion"***

- 2 records are returned. Select the property called Manbulloo.
- What Location Code is used to describe an NT Portion?

4.   Quick search - review bore records

When you enter details in the Quick Search panel, the active layer will automatically change to either Cadastre or Bores.

4.1   Enter a registered bore number   RN033342

The format must be: RN followed by 6 digits. Pad the Number with 0 to make up the 6 digits.
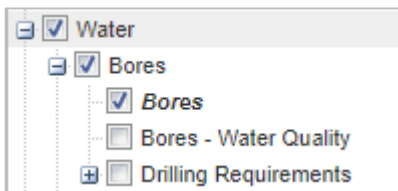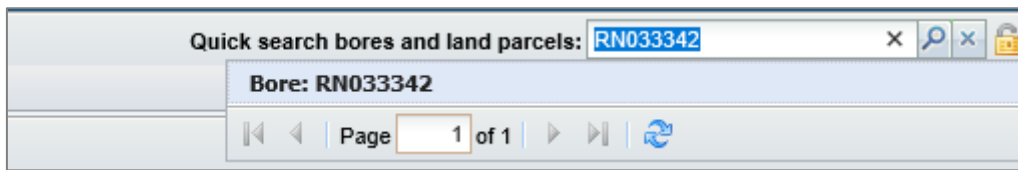
This bore is sourced from the layer Bores.

The quick search function will automatically change the Active layer to *Bores*

- View the Legend to review the data display on the map screen. (uses attribute Yield Class)
- What is the Yield L/s for this bore?
- View the bore report. Save the PDF to your computer.

**4.2   Enter a registered bore number   RN004499**

- What is the active layer?
- What date was this bore drilled?

5.   Map Tips tool

When you start using NR Maps, cadastre is the default setting for the Active Layer and Map Tips tool.

Layer location: Folder Land Administration > Cadastre (Land Parcels) > Cadastre

Map Tips location: Last tool on the right. Click on Map Tips tool to activate. Click again to deactivate.
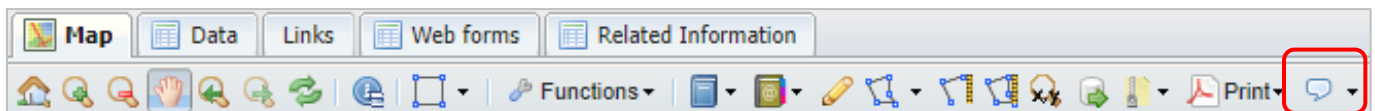

5.1   View Map Tips for cadastre

- Hover your mouse over a parcel. Map Tips display the parcel summary in a text bubble.
- Click the tool again to turn Map Tips off.

5.2   View Map Tips for bores

- Turn on the layer Water > Bores
- Change the Map Tips tool to bores. Hover the mouse over a bore to view summary details.

- The layer does not have to be active, just visible on the map screen.

6.   Search functions (Table of Contents)   Search only works with the active layer!
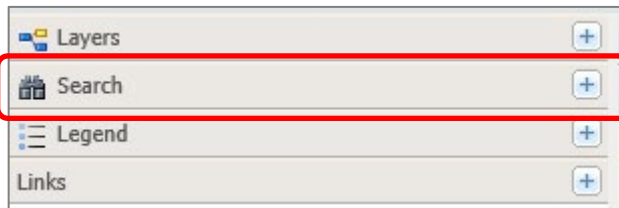
Layers ⊞	
Search ⊞	**Step 1. Change the active layer**
Legend ⊞	**Step 2. Click Search (Table of Contents)**
Links ⊞	Some layers do not have search filters

6.1   Review the Search Functions for a range of layers

Change the active layer to **Bores.**

- Enter part of a bore number – you do not need to write the entire Registered Number (RN).
- **Enter 26140**   *Click on New button*
- **Enter 26141**   *Click on Add button*

Change the active layer to **Cadastre**

- Review the search form.
- Enter Property Name: **Mount Denison**   *Click on New button*
- Enter Property Name: **Horseshoe Bend**   *Click on Add button*

Change the active layer to Surface Water Drainage > Major Drainage > **Major Drainage**

- Search for Stream name: **Finke**   *Click on New button*
- Search for Stream name: **Hugh River**   *Click on Add button*

Change the active layer to Biodiversity > Flora Atlas > **Threatened Flora**

- Search for Genus: *Acacia* and species: *praetermissa*
- Search All records   *Click on New button*
- How many records were found?

Change the active layer to Biodiversity > Fauna Atlas > **Native Fauna**

- Start typing the common name **Butler's Dunnart**
- The list is predictive … the name will appear. *Click on New button*
- In what location has this species been found?
- What is the scientific name of this species?

6.2   View the metadata record for Threatened Fauna.

Review the data records for the Butler's Dunnart in the data panel below the map screen.

- The EPBCA value is VU.
- Review the Data Dictionary in the Metadata record to find out what these terms mean.
- Right mouse click on the layer and select Metadata. The information is displayed on a new window behind the map screen.

7. Select features on the map screen

Please review the NR Maps user guide *How to use the selection tools* for detailed instructions!

IMPORTANT !! You can only select features on the map screen for the active layer.

Open the Selection Tools menu using the small black triangle.

Select features on the map screen using either a rectangle, circle, point, polyline or polygon.

The selection tools are the same in each of the drawing groups;

1   New selection
2   Add to selection
3   Remove from selection
4   Refine the selection

7.1   Manual process - Select bores on the map screen within NT Por 1747

- Turn on layer Land Administration > Cadastre > Tenure Types and review this land parcel.
- Turn on layer Water > Bores

Use the selection tools to select the bores in this parcel. Start with 1. New selection.

Review the data panel below the map screen. Similar selection tools can also be used to filter results in the data panel. Sort the data using the column headings in the data panel.
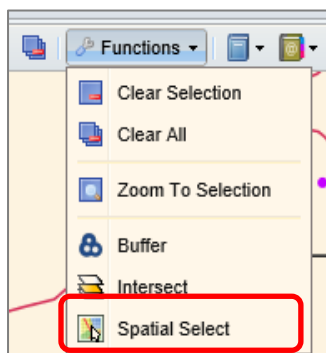
## 8.   Functions - Spatial query selections

### 8.1 Automated process - Select Bores within NT Por 1747

- Select NT Por 1747
- Click on the tool **Functions: Spatial select**

- Change target: **Bores**
- Distance from parcel boundary 0 metres

How many bores were selected?

- Review the bores in the data panel. Sort by Yield L/s (Ascending order; change to Descending order)
- View the bore report for the highest yielding bore.
- Export results to various formats – web links to the reports will be held.
- Select records with Yield L/s < 2 (shift key for multiple rows) Remove them from the results.
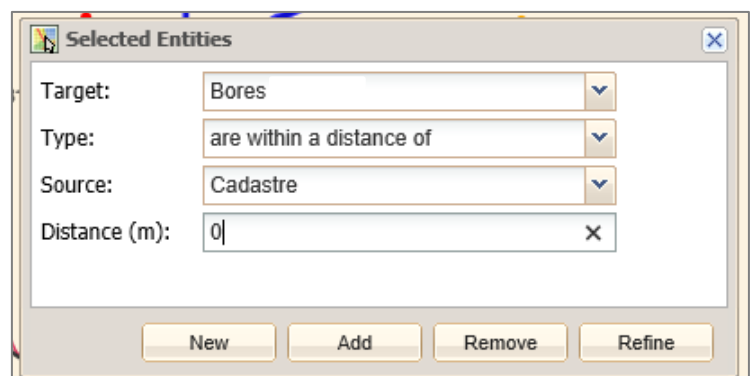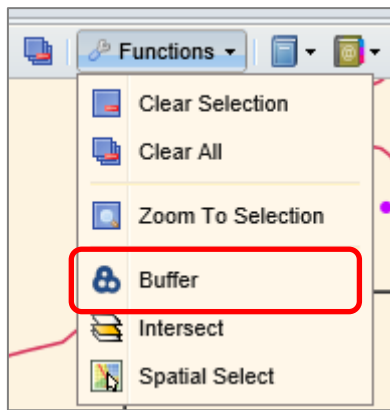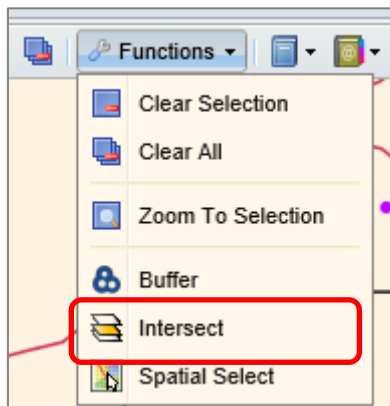
8.2   How many parcels are within a 100m buffer from a selected feature?

Select Litchfield National Park

- Change active layer to cadastre
- Click on tool **Functions: Buffer**
- Enter 100 metres and review results in the data panel.
- How many parcels were selected?
- What is the area of the smallest parcel?

*Note: I find the Spatial Select tool easier to use - edit the target layer.*

8.3   How many Threatened Flora Species intersect a parcel?

Select NT Por 657, Property name: Henbury

- Change the active layer to Threatened Flora
- Click on tool **Functions: Intersect**
- Layer: Cadastre (the selected parcel is saved)
- Click on New
- How many species records were selected?
- Sort by Species name
- Export to an excel spreadsheet to store the details

Note: I find the Spatial Select tool easier to use – just change the type in the form.
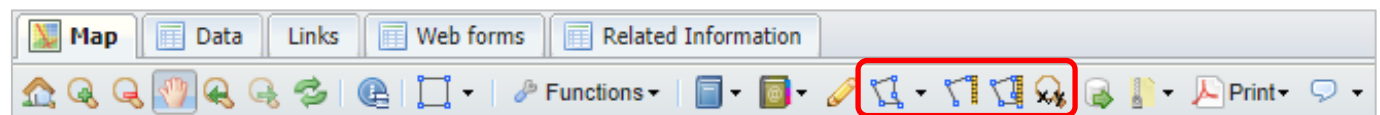
9.   Identify tool
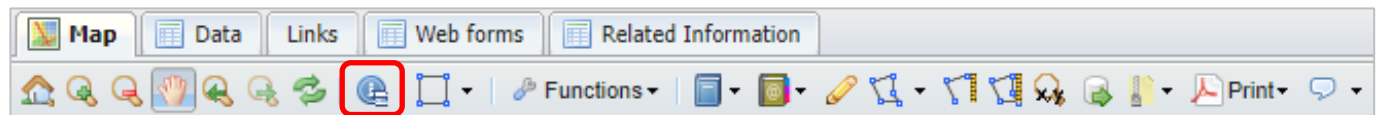
9.1   Identify Visible Layers based on Rectangle Selection

- Click on the Identify visible by area tool
- Turn on Parks; Draw a small rectangle on the map screen
- New window will display all visible features within the rectangular area.

10.   Measuring and coordinate tools

10.1 Map Screen Context menu

- Right mouse click on the map screen: **Current Coodinates**
- Settings to match NR Maps screen: Geographics (Datum GDA94) Decimal Degrees
- Zoom to a specific location: Parcel 1369, Katherine Post Office
- Copy coordinates to your computer: -14.4658738, 132.2632482
- Screen coordinates are displayed as: Latitude, Longitude (Y, X)

10.2 Coordinate zoom

- Select projection: Default is Geographic GDA94 (Decimal Degrees)
- Enter Latitude: **-14.4658738**   *Southern hemisphere must use a negative sign*
- Enter Longitude: **132.2632482**
- Select zoom width: **1 kilometre**

This point is also on your Drawing Canvas. Use Mark-up tools to edit, save or export to a shapefile or kml.

10.3   Measure the area of the Western Davenport Water Control District

Search Layer: Water > Water Management > Water Control Districts

- Select tool: Measure area
- Click on the screen to start, click to draw the next vertex, double click to finish
- Click the button on the left of **X** to save the polygon in your Drawing Canvas.
- The measured area text will be added to the polygon. Use Mark-up tools to edit, save or export to a shapefile or kml.
- Measurements are approximate and use Coordinate Reference System EPSG:3587.

10.4   Digitise map coordinates for NT Por 4849

- Open group tool to reveal 4 tools – from the left;

   1. Start drawing; 2. Enable snapping; 3. Alter settings (depending on your zoom scale) 4. Delete drawing
- Select the left tool to start - default settings are Decimal Degrees using Datum GDA94 (same as the map screen)
- Click the 3 outside corner locations on the map screen
- Double click the final corner point to finish
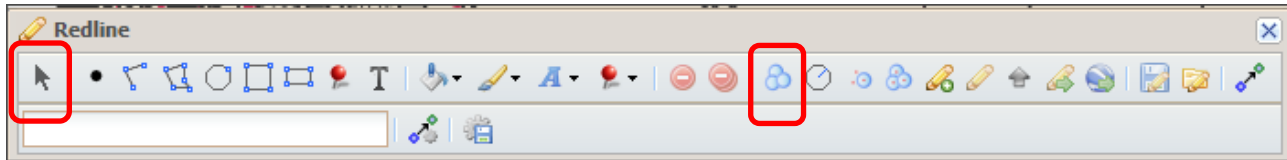- Export – result is a text file. Finally, delete the drawing from the screen

## 11.   Drawing tools (aka redline markup tools)

11.1 Buffer bores by 100m

Search and select bores from the layer Bores: RN035864 and RN035865

🖉   Open the Redline markup tools . Hover the mouse over each tool to view a short description.

- Turn on google satellite imagery (layer is stored in folder Basemaps)
- Click the **Buffer tool.** Create a 100m buffer around the selected bores.
- Select a polygon (use black arrow tool on the left). Orange vertices display on polygon edge.
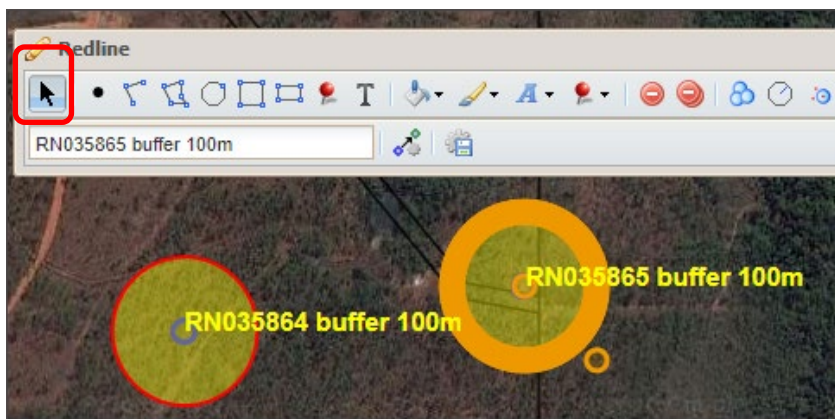
Change settings:
- Polygon fill: yellow, opaque 50%
- Lines: red
- Text: yellow bold.

Create a short description for each new polygon features.
RN035864 buffer 100m

Click on the select tool again to unselect the drawing feature.

11.2 Create a map

- Click the **Print tool**. Select either A4 or A3 map size; enter a Map Title.
- Click generate and save the PDF to your computer.

11.3 Export your drawing to a shapefile or KML

- Click the **Export to Shapefile** or **Export to KML redline tool**
- Add a description for the new polygons. The output will be saved to a zip file in your computer.
- Shapefiles and KML files can be viewed using Google Earth Pro. (free software)

11.4 Save the redline markups

- Click the **Save redlines tool;** describe the drawing features - Buffered bores Taylor Road
- You can add the saved lines in a new NR Maps session at another time. Just click the **Load redlines tool** to load the saved lines.

11.5 Save all settings (layers, location and also drawing markups) using a Personal Bookmark
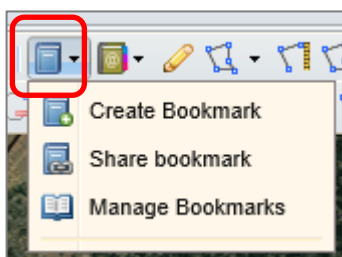
Create Bookmark   Save all settings and name the bookmark.
The bookmark will be saved on your computer under your username.

Share bookmark   Email the saved bookmark to a colleague.
Saved drawing markups will also be included in the bookmark.

Manage Bookmarks   Edit saved bookmarks (rename, remove, open)

Published bookmarks are created by administrators. Hover over each group and click the bookmark.

11.6 Load your own data – using the Upload tool
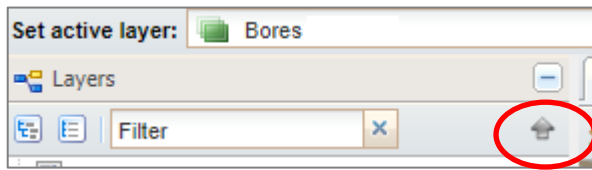
You can load data to display the spatial location.

The file cannot be made active to use query tools.

Click the Load tool and follow the screen prompts.

KML files will use saved settings from Google Earth software. Keep it simple, complex files will not load.

You can change the display settings for shapefile and mapinfo files. (colour fill, lines and points)

11.7 Load your own data - using the Drawing Tools
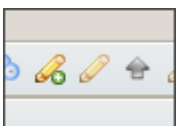
(right tool) Upload geometry from a file

This tool allows users to load their own data and save it in the redlines storage area so that the data can be displayed for multiple NR Maps sessions. The data can be edited in NR Maps. The file cannot be made active to use the query tools.
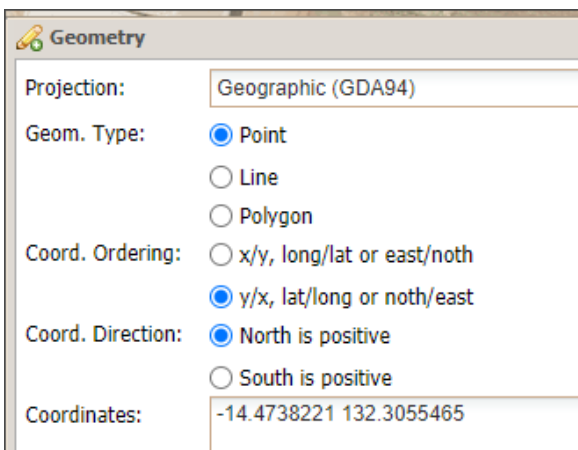
(left tool) Create geometry from text coordinates

Enter coordinates separated with a space. Be careful with the order! The map screen uses Lat / Long which is Y/X.

Right mouse click on the screen and select XY Current Coordinates. Copy and paste the coordinates in the data entry tool.

(middle tool) Update geometry from text coordinates Select an existing point and use this tool to edit the spatial location.

12.   Data export tools   Only DEPWS data may be exported

12.1 (left tool) Download the screen area only - scale must be < 1 : 600 000

- The area on the screen will be exported. The layers do not have to be visible.
- Click on the **Data Export tool** and go through the steps in the export wizard.
- Select the data, or groups of data, from the listing to export.
- Extract all data from the output zip file and save to your computer.

12.2 (right tool) Download selected features

- Select features on the map screen then click on the **Selected Features Export tool**
- Select the format type and click export
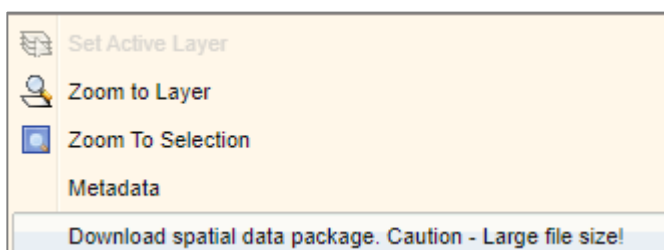
12.3 Download entire dataset

Right mouse click on a DEPWS dataset to download the entire dataset.

The zipped packages includes spatial data in ESRI file formats (GDB and/or shapefile), metadata, maps and reports (if available). Caution - these are large files.