GIS Guide: Far North Maps

Using FNDC's external mapping system

15 January 2021

Summary

Far North Maps is a gallery of maps for FNDC customers and staff to use. Map data is updated weekly, monthly, quarterly depending on the dataset.

Accessing Far North Maps

Far North Maps can be accessed through the FNDC website: https://www.fndc.govt.nz/Our-Services/Online-maps

Selecting Far North Maps takes you to the Far North Map gallery page: https://www.fndc.govt.nz/Our-Services/Online-maps/Far-North-Maps

Finding your way around Far North Maps is a video tutorial series demonstrating how to navigate and use the tools available in Far North Maps. Check the chapters listed in the video description of you don't wish to go through the whole video.

Overview

A map is selected from the gallery and opens the map viewer:

Search – use address, legal description, title, valuation number or place name to search for a location

Widgets - enable users to interact with maps in a specific way. Details in the Widgets table below.

Zoom in or out

Default extent – returns to map default extent

My Location - when using mobile data, determines current location

Widgets

Widget	Name	Use
	About	Provides information about the map
	Add data	Adds data to the map by searching for layers in the FNDC Data Library content, entering URLs, or uploading local files.
	Basemap gallery	Presents a gallery of basemaps to use for the map
	Draw	Draws basic graphics and text on the map
	Legend	Displays a legend for the visible layers in the map or scene
	Map layers	Displays a list of operational layers in the map
	Measurement	Allows measurement of the area of a polygon, length of a line, or coordinates of a point
	Print	Advanced or basic printing of the current map
	Select	Enables interactive selection of features on a map so that further actions can be taken on the selected features
	Share	Allows a map to be shared by posting it to a social media account, sending an email with a link, or embedding it in a website or blog

About

Provides information about the map, where the data comes from, any restrictions on using the data and in some cases how the data was compiled.

Look out for any hyperlinks to external resources and use these for further information about the map layer.

Click 🛈 to open the *About* pane.

Add data

Adds data to the map by searching for layers in the FNDC Data Library, entering URLs, or uploading files on a local drive.

1. Click [icon] to open the *Add Data* pane

2. Scroll through the list of available layers

3. Navigate to the next page to view more layers

4. Alternatively, enter a search term into the search bar and select a layer from the results.

5. Click *ADD* to add the layer to the map.

6. To remove an added layer, click REMOVE

Basemap gallery

Presents a gallery of basemaps to use for the map.

Click [icon] to open the *Basemap Gallery* pane

The basemap options include:

NZ Community basemap – a generic map of New Zealand with basic information including parcel boundaries, place names, and road labels. Colours are much brighter allowing for place names and roads to display more prominently. Maximum scale 1:8,000,000; minimum scale 1:1,128

NZ Dark grey canvas – a dark grey canvas map with basic information including parcel boundaries, place names, and road labels. Colours are very basic allowing the data to be the focus of the map.

NZ Geology – includes rock/soil information and fault data from the QMAP Geological Map of New Zealand Project and has been produced by GNS Science. QMAP represents the most current geological map of New Zealand at 1:250 000 scale. More information about the data and basemap is available here.

NZ Imagery – includes New Zealand's most current publicly owned aerial imagery: Rural Aerial Photos (2015-2017) and LINZ NZ 10m Satellite Imagery (2017) LINZ. To see the most recent imagery released by LINZ for Northland: https://data.linz.govt.nz/search/?q=northland

NZ Light grey canvas – the dark grey canvas map with a light grey background.

NZ Light grey canvas map - this map includes highways, major roads, minor roads, railways, water features, cities, parks, landmarks, building footprints, and administrative boundaries for added context.

NZ LINZ Topographic – the Topo250 and Topo50 map series provides topographic mapping for the New Zealand mainland, the Chatham Islands at 1:250,000 and 1:50,000 scale, and includes river names, contours, and land features. Map legends are available at: https://www.topomap.co.nz/

NZ Navigation map (vector) – this map includes highways, major roads, minor roads, railways, water features, cities, parks, landmarks, building footprints, and administrative boundaries for added context.

NZ Topographic relief map – topographic map with a shaded relief (hillshade) layer.

Draw

The Draw widget provides tools for customising a map. Points, lines, shapes and text can be added as well as XY coordinates, length, and area measurements.

Click 🎨 to open the *Draw* panel showing the tools available:

4
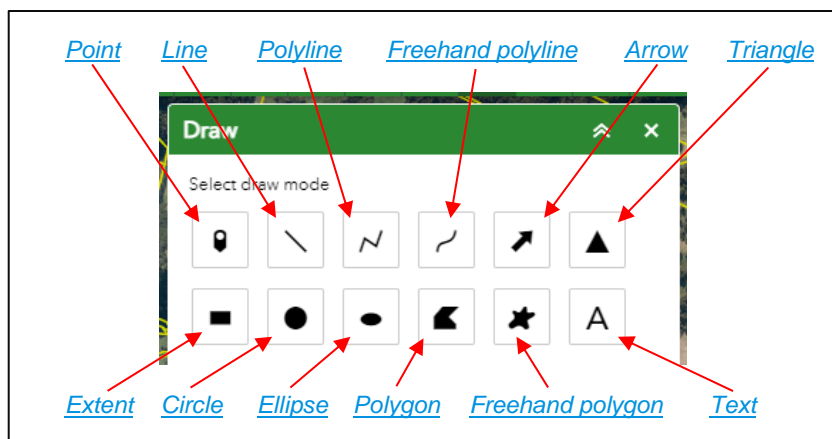
Point tool - pinpoint a single location on a map.

1. Click 📍 to open the *Point* pane

2. Select symbol marker, use dropdown bar for further options

3. Set symbol size, colour, transparency and other options

4. To display XY coordinates for this point, toggle *Show location measurement* button on.

5. Select measurement unit and font settings

6. Click on the map to create the point.
   Note: *Point* tool must be selected/ grey to create a point on the map.

7. i) Use *Undo* to remove point

   ii) Use *Redo* to undo previous *Undo*

   iii) *Clear* – use with caution because it removes <u>all</u> drawings and text added to the map

Line tools – *Line*, *Polyline*, *Freehand polyline* - these tools are for drawing lines with options for setting colour, line pattern, line thickness, transparency, and text colour and size options.

1. Click one of ⟍ ⟋ ⟋ to open the line panes

2. Select line from default options or customise line appearance using colour, style transparency and width options

3. To display length of line toggle *Show length measurement* button on

4. Select measurement unit and font settings

5. To draw **Line**: click and hold mouse button down – release mouse button to finish

   To draw **Polyline**: click to begin drawing, click for each segment and double click to finish.

   To draw **Freehand polyline***: click and hold mouse button down – release mouse button to finish.

Note: *Line, Polyline* or *Freehand polyline* tool must be selected/ grey to create a line on the map

Draw

Select draw mode

Preview:

Color:

Style: Solid

Transparency:
Opaque   Transparent
0%   50%   100%

Width: 3

Show length measurement

Unit: Kilometers

Font color:

Font size: 16

Undo   Redo   Clear

6. i) Use *Undo* to remove line

   ii) Use *Redo* to undo previous *Undo*

   ii) *Clear* – use with caution because it removes all drawings and text added to the map

Arrow tool for adding arrows to a map

1. Click ↗ to open the *Arrow* pane

2. Select arrow from default options or customise arrow appearance using colour, width, transparency, outline colour and outline width options

3. Click on the map to create a 'default' arrow.

   To draw a 'custom' arrow click and hold mouse button down – release mouse button to finish

   Note: *Arrow* tool must be selected/ grey to create a line on the map

4. i) Use *Undo* to remove arrow

   ii) Use *Redo* to undo previous

   iii) *Clear* – use with caution because it removes all drawings and text added to the

Text tool for adding text to a map

1. Click A to open the *Text* pane

2. Enter text to add to map

3. Set font colour and size

4. i) Use *Undo* to remove text

   ii) *Clear* – use with caution because it removes all drawings and text added to the map

Area tools – *Triangle*, *Extent, Circle, Ellipse, Polygon, Freehand polygon* - these tools are for drawing areas on a map with options for setting colour, transparency, outline colour, outline width, and text colour and size options.

1. Click one of the area icons

   ▲ ▪ ● • ◄ ✱

   to open the area pane

2. Select one of the default options or customise using colour, transparency, outline colour and outline width options

3. To display area and/or perimeter measurements toggle measurement buttons on

   Select measurement unit and font settings

4. To draw the selected shape click on the map, hold mouse button down and draw – release mouse button to finish.

   For *Polygon* click on the map to begin drawing, click at each 'corner' of the polygon and double click to finish.

   Note: An area tool must be selected/grey to create a shape on the map

5. i) Use *Undo* to remove line

   ii) Use *Redo* to undo previous *Undo*

   iii) *Clear* – use with caution because it removes all drawings and text added to the map

Legend

Displays a legend showing the symbology (patterns and colours) for the layers that are currently turned on within the map. Unlike *Map layers* there isn't an option to turn layers on or off, the legend provides a way to see what the symbology means.

Click ⊞ to open the *Legend* pane

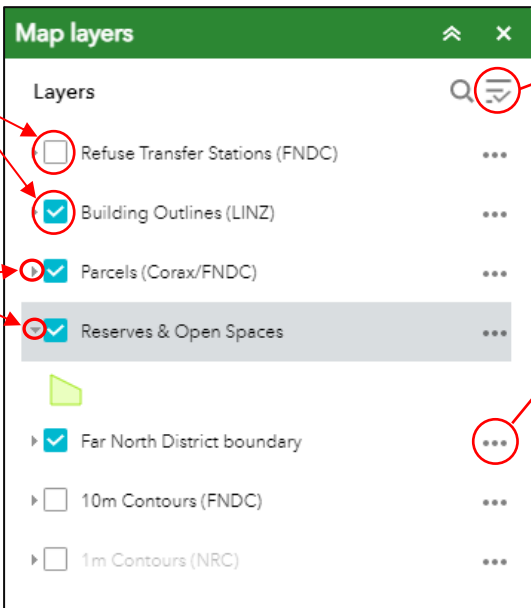For layers to show up in the legend the layers should be:

- selected (tick in tick box) in "*Map layers*"; and,
- map zoomed in to within layer display extent (layer name 'active' not 'greyed out')

<div align="right">

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Map layers

Displays a list of layers within the map and the symbology (colours or patterns) for each.

Click ⧉ to open the *Map layers* pane.

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Measurement

Allows measurement of the area of a polygon, length of a line, or coordinates of a point.

Click ![ruler icon] to open the *Measurement* pane.

Measurement tools   Dropdown bar with
   measurement unit options
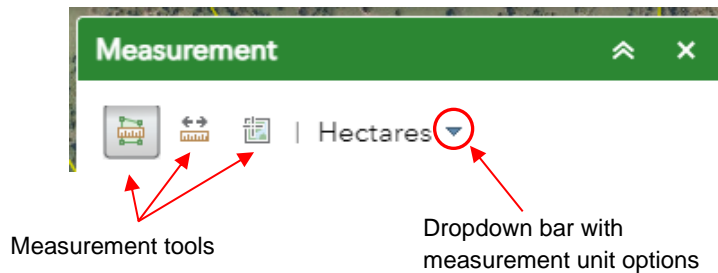
1. Select measurement tool (Area, Distance, Location) and use dropdown bar to select measurement unit.

2. For Area and Distance measurement tools, mouse click on map to draw shape or line, double click to finish drawing and result is displayed in the panel under *Measurement Result* in the selected measurement unit:
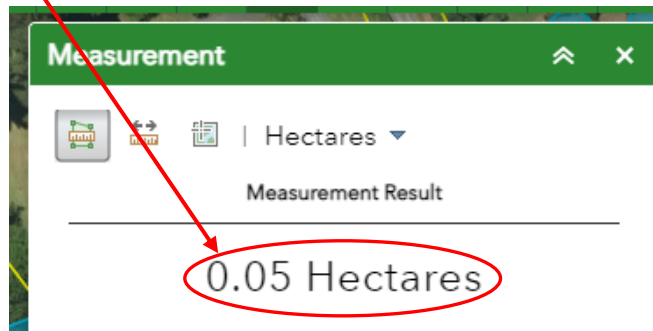
3. For the Location measurement tool single click on a point in the map, a marker will mark the location on the map and the result is displayed in the panel under *Measurement Result*:
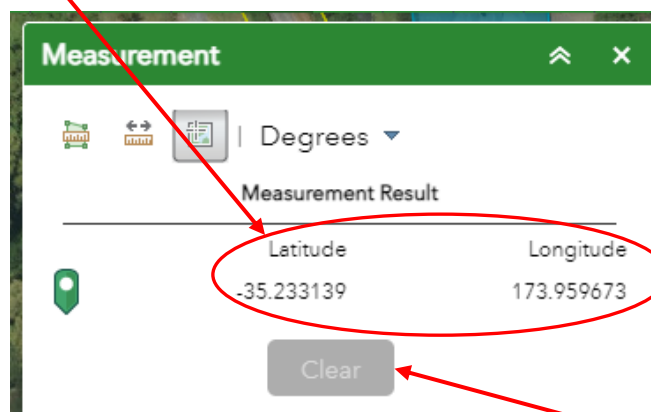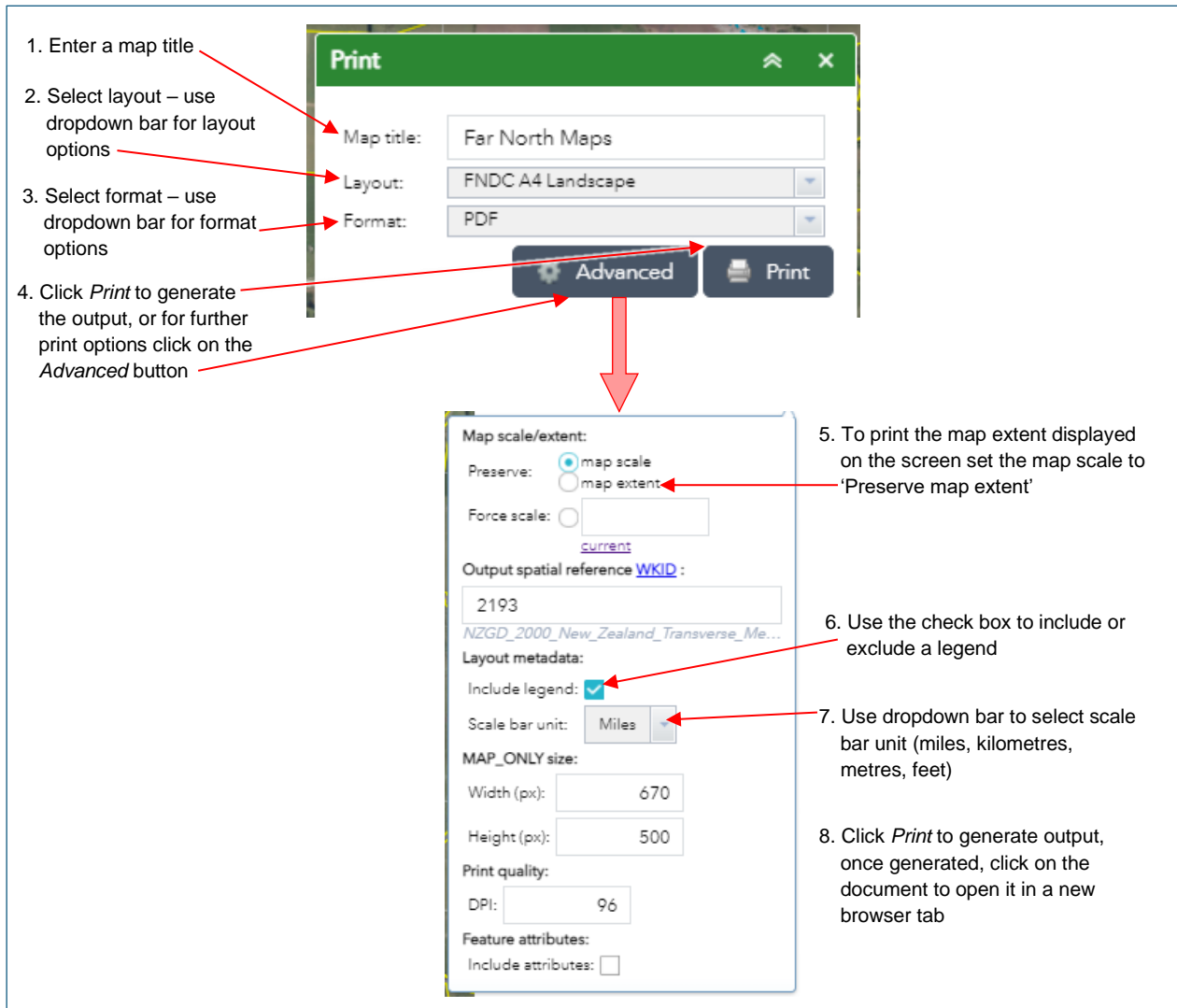

4. To remove the result from the panel and the lines or point from the map, click *Clear.*

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Print

Advanced or basic printing of the current map. Select 🖨 to open the print pane.

1. Enter a map title

2. Select layout – use dropdown bar for layout options

3. Select format – use dropdown bar for format options

4. Click *Print* to generate the output, or for further print options click on the *Advanced* button

Print

Map title: Far North Maps

Layout: FNDC A4 Landscape

Format: PDF

⚙ Advanced   🖨 Print

Map scale/extent:

Preserve: ⦿ map scale ◯ map extent

Force scale: ◯

current

Output spatial reference WKID :

2193

NZGD_2000_New_Zealand_Transverse_Me...

Layout metadata:

Include legend: ☑

Scale bar unit: Miles ▾

MAP_ONLY size:

Width (px): 670

Height (px): 500

Print quality:

DPI: 96

Feature attributes:

Include attributes: ☐

5. To print the map extent displayed on the screen set the map scale to 'Preserve map extent'

6. Use the check box to include or exclude a legend

7. Use dropdown bar to select scale bar unit (miles, kilometres, metres, feet)

8. Click *Print* to generate output, once generated, click on the document to open it in a new browser tab
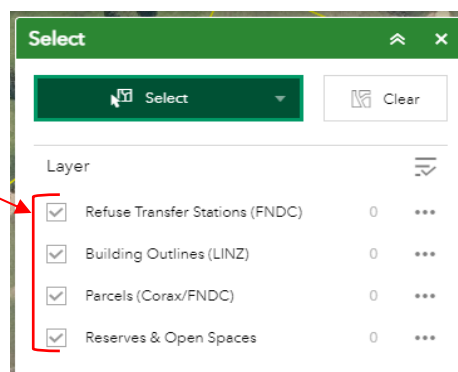
Select

Enables interactive selection of features on a map so that further actions can be taken on the selected features. Click 📝 to open the *Select* pane.

1. Choose datasets to include in selection

Select

📝 Select ▾   📝 Clear

Layer ⩸

☑ Refuse Transfer Stations (FNDC)   0   •••

☑ Building Outlines (LINZ)   0   •••

☑ Parcels (Corax/FNDC)   0   •••

☑ Reserves & Open Spaces   0   •••

2. Click the *Select* dropdown bar for selection tools.

3. Executing the selection:
   - *Select by rectangle* is the default selection tool:
     to select start by holding the mouse button down, and finish by releasing.
     Draw a rectangle that touches all the features to be selected.

   - Other selection tools:
     start by clicking on the map, click to continue and double click to complete.

   - To add more features to the already selected items, hold the Shift key down and draw as before

   - To remove features from the selection, hold the Ctrl key down and draw over the features to be removed
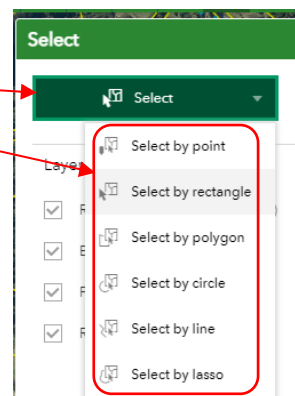
4. Selected features will be highlighted on the map and the number of selected features will be displayed in the *Select* pane:

5. Use the ellipsis to open the *Selection Actions* menu
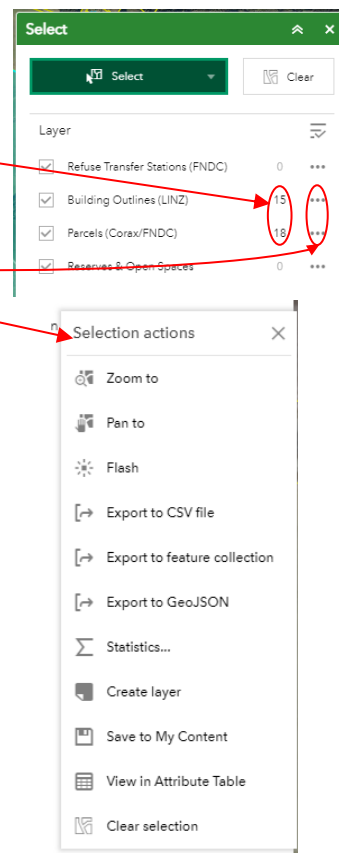
Share

Allows a map to be shared by posting it to a social media account, sending an email with a link, or embedding it in a website or blog. The link saves the current map and location. Click to open the *Share* pane.

Note: the link will not save any additional data added to the map, nor will it save the basemap if it has been changed from the default.