# RADIO SPECTRUM MANAGEMENT

# Search Licences and Using the Map

## User guide

**Version 1.00 | March 2023**

# Contents

# Introduction

This document details the process for all users to search for a licence in the [Register of Radio of Frequencies (the RRF)](#).

## Explanation

**Document Steps, Images and Links**

This document contains instructions (steps) to perform a process within the RRF.

- Some steps are followed by an image that demonstrates the onscreen result of that step.

- Some steps include links to other sections within the document or to other user guides; these are designated using 'go to' or 'refer to'.

- Clicking the section name moves you directly to that section or user guide.

## Requirements

All users can search for current licences using this process. If you are an approved user of the RRF there are some additional fields that display for you to search on, (e.g. Licence status).

## Technical Assistance

Comprehensive help is available to help you complete the various processes:

- Technical assistance can be found within the Public Information Brochures (PIBs); these are located within the [Resources for AREs and ARCs](#) on the RSM Website. The PIBs provide licensing, technical rules and other general information on a range of common radio services such as CB Radio, Amateur Radio and Maritime VHF Radio.

- Various [user guides](#) on the RSM Website describe the steps to take to complete each process.

- Some fields and sections in the Register of Radio Frequencies (the RRF) have help text.

    - Click or hover over the  (Information icon) to view the help text with information about what to enter in the field or information about a section of the screen.

- Please contact RSM if you require further assistance:

    - Email [rsmlicensing@mbie.govt.nz](mailto:rsmlicensing@mbie.govt.nz)

    - Phone the freephone number 0508 RSM INFO (0508 776463).

## Amendment history

| Version | Date | Details |
|---------|------|---------|
| 0.01<br>0.02 | October 2022<br>December 2022 | Draft RRF version for review |

| Version | Date | Details |
| --- | --- | --- |
| 0.03 | December 2002 | Draft for Release 1 |
| O.04 | February 2023 | Draft for Release 2 |
| 1.00 | March 2023 | Final version |

# About searching for licences

You can search for licences in the Register of Radio of Frequencies (RRF) using the text screen or the map screen to view an individual licence and/or print or export the search results in csv format.

The *Search Licences* screen uses text fields in conjunction with a map to search for licences in the RRF. You can select to use the text fields only, just the map, or a combination of both to find the licences and the information you require.

All users (i.e. public and approved users) can perform a search for licences in RRF.

## First time use of the map

The first time you open the *Search Licences* screen you will get a message in your browser asking if you want RSM to access your location. For example:
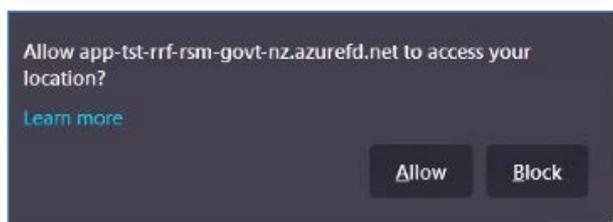


- Click **Allow** to show your current location on the map.
- Click **Block** and the map will not show your current location.

**Note:** If you select **Yes**, your current location shows as an active blue circle on the map in the *Search Licences* screen. You can toggle your location off or as required on the map.

## Methods used to search for licences

There are two methods to use to search for licences using the *Search Licences* screen:

- Search using the text fields, refer to [Search for licences using text fields](#) or see [Area search for licences using text fields](#).
- Search by marking a radius on the map, (i.e. Area search), see [Area search for licences using the map](#).

  **Note:** You can use either method or a combination of both.

While performing a search and viewing results in the *Search Licences* screen you have the options to:

- Click **Hide Map** or **Show Map** buttons to hide and show the map screen.
- Click **Show Search** or **Hide Search** to show or hide the search fields.
- Scroll down to view the list of search results.
- Use the map functions to zoom and view the licences you require. Refer to [Map functions](#).

# Search results

The results of your search display on the map screen (if selected to display) and in the search results area of the *Search Licences* screen.

If you have the map screen displayed, the same number of results display on the map as those listed on the current page of the search results area of the *Search Licences* screen. When you select to view the next page of search results, the map screen updates to mirror the new page of results.

The number of search results that display per page will default to a pre-set number, but you can temporarily change this number as required. Refer to [Change the number of search results to display per page](#).

**Note:** If you are an approved user of the RRF, you can also set the default number in the **Preferences** section under **My Account**, (e.g. to change the default display from 20 per page, 100 per page).

When an ARE or ARC performs a licence search, the search results will display for all licence records (suppressed or unsuppressed). These results will only display incomplete licences where they are the assigned engineer or have delegated authority.

Public users search results will only retrieve unsuppressed licence records.

# Search for licences using text fields

Follow these steps to search for licences in the RRF using text fields. The results also show on the map screen if you have it displayed.

1. Click the Register of Radio Frequencies (the RRF) link in the top right of the Radio Spectrum Management website. The RRF Welcome screen displays.
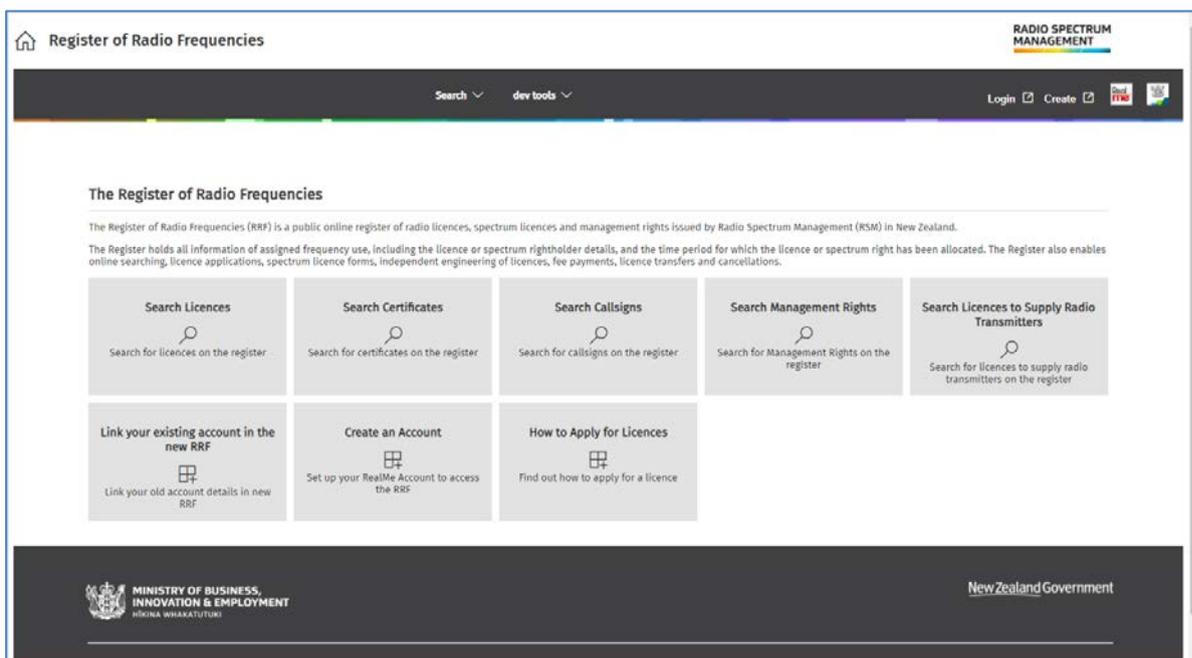


2. Click the **Search Licences** box on the home page or select **Search > Licences** from the menu. The *Search Licences* screen displays.
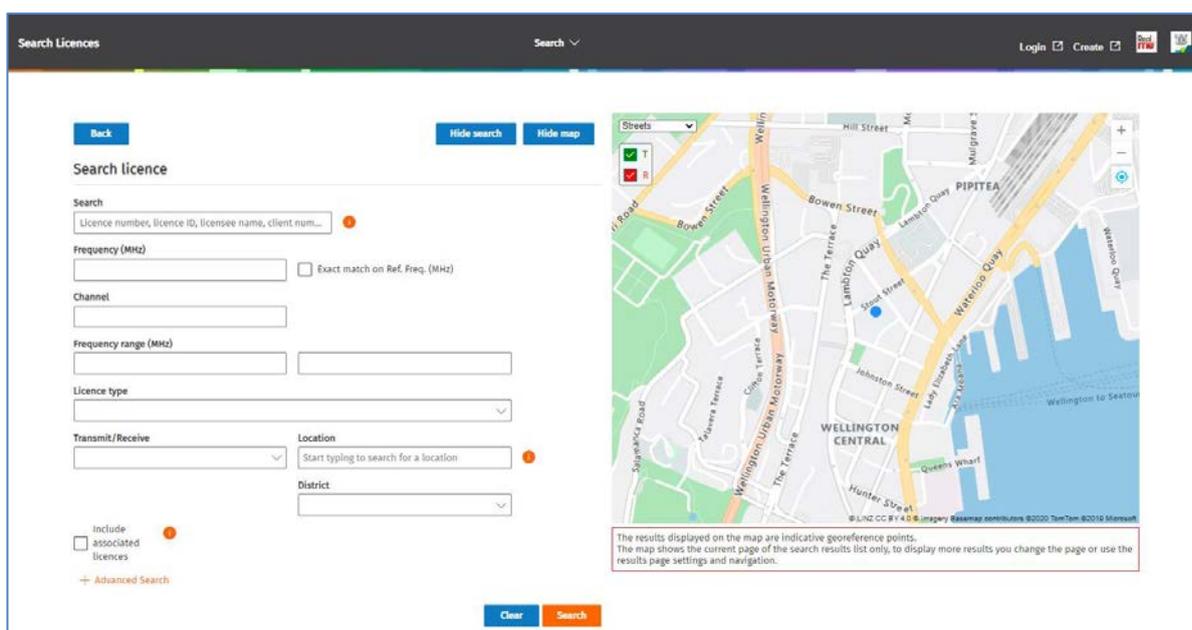


**Tip:** Click 🛈 (Information icon) to view help text for the adjacent field.

- When performing your search, you can hide the map or show the map, as required.

- Enter less information in the text search fields to return more results. For more details about the fields in this screen, refer to [Search field information](#).

- After performing your search, you can click **Hide Search** and **Hide Map** so that you only display the list of search results.

3. Enter your search criteria in the relevant field(s).

- For example, to search for a specific Licence number, enter the number in the **Search** field, (e.g. 211753).
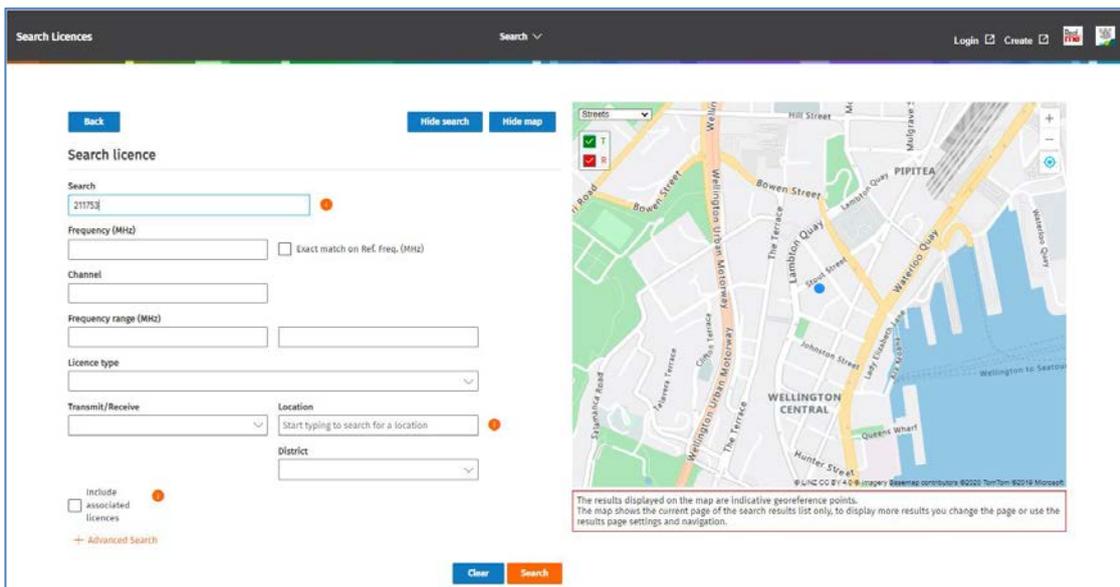


4. Click **Search**.

- If you chose to leave the Map screen showing, the map zooms to show all results returned from the first page of the results with the list of results below in the **Search results** area.
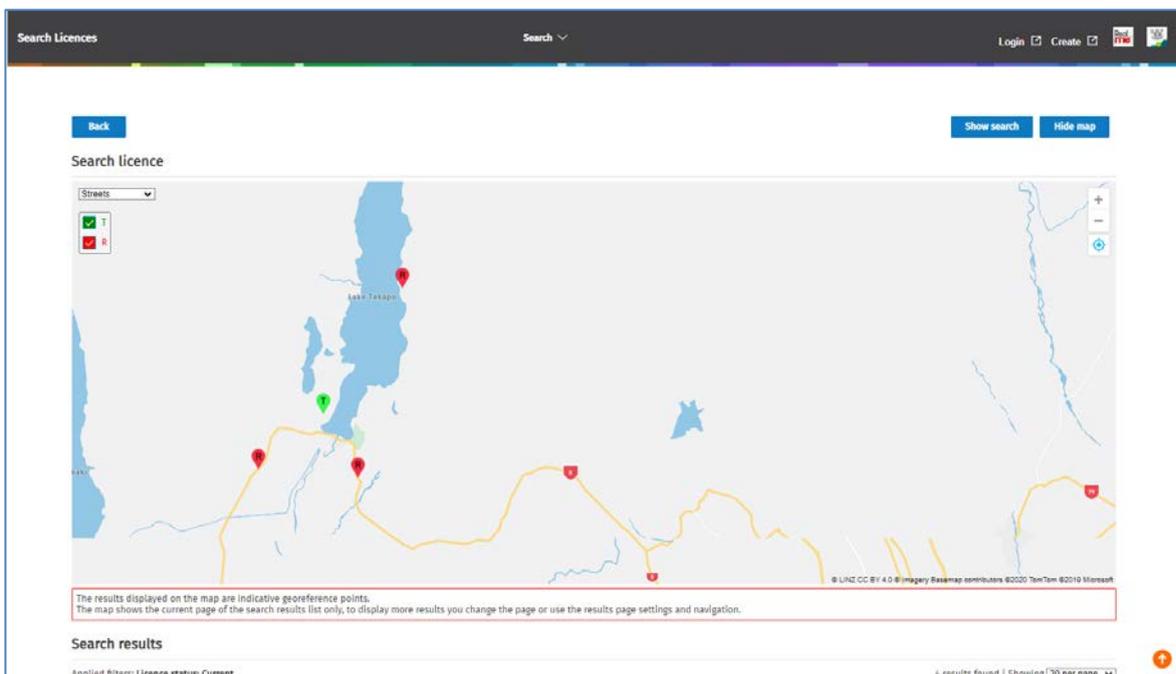


- To view the list of results, either click **Hide Map** or scroll down to the **Search Results** area.

- If you chose to **Hide Map**, only your search results will display. For example:



- Click any of the column headings to sort the results ascending or descending (the arrow in the column heading will indicate which way they are sorted).

- Change the width of the columns to suit, (e.g. widen the Grid Reference column).

- If you have more than one page of search results and you need to change the number to view per page, refer to Change the number of search results to display per page.

5.  Perform the action you require from your search results:

- View details of any licence from the search results, refer to View a Licence Record.

- Export the search results, refer to Export search results data.

6.  Click **Back** (or click the back arrow in your browser) to return to the *Search Licence* screen.

# Change the number of search results to display per page

The default number of search results to display per page for searches is set in the RRF by default.

If you are an approved user, you can change the default number per page in your user preferences under **My Account**.

All users can temporarily change the number of search results to display per page:

1.  Scroll down to the right of the screen in the Search Results area.
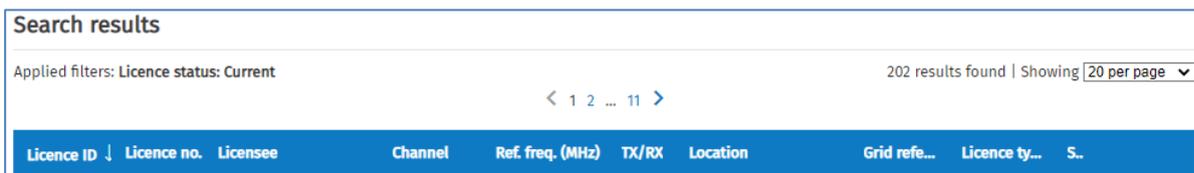


2.  Select another option in the **Showing [# per page]** field drop down list, (e.g. 100 per page). The screen refreshes and displays the selected number in the search results area.

    **Note:** When you change the number of search results to display per page, or select another page of results to view, the map automatically refreshes and mirrors those search results.

# View a Licence record

After performing a search, you can view the details of a licence from the search results area.

1.  Click **View** next to the relevant licence. The *Licence Summary* screen displays with details of the selected licence.
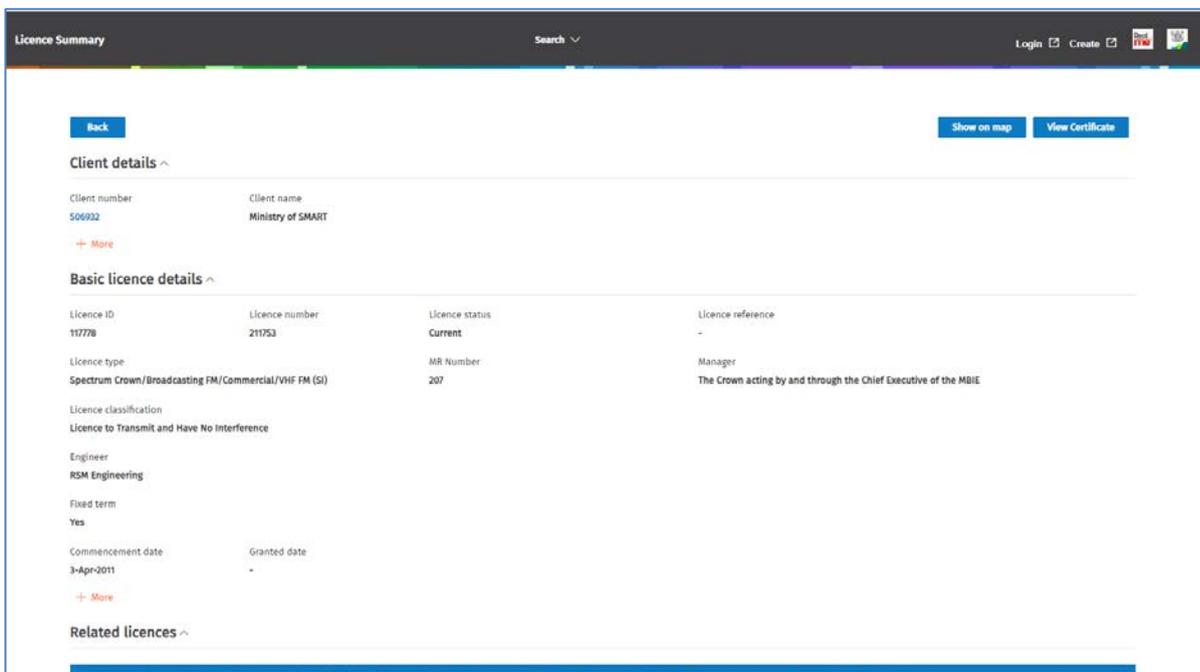


2.  Scroll down the licence record to view all details.

    - If required, click the chevron next to any of the headings to collapse or expand those details. This example shows the **Client details** and **Basic licence details** collapsed.
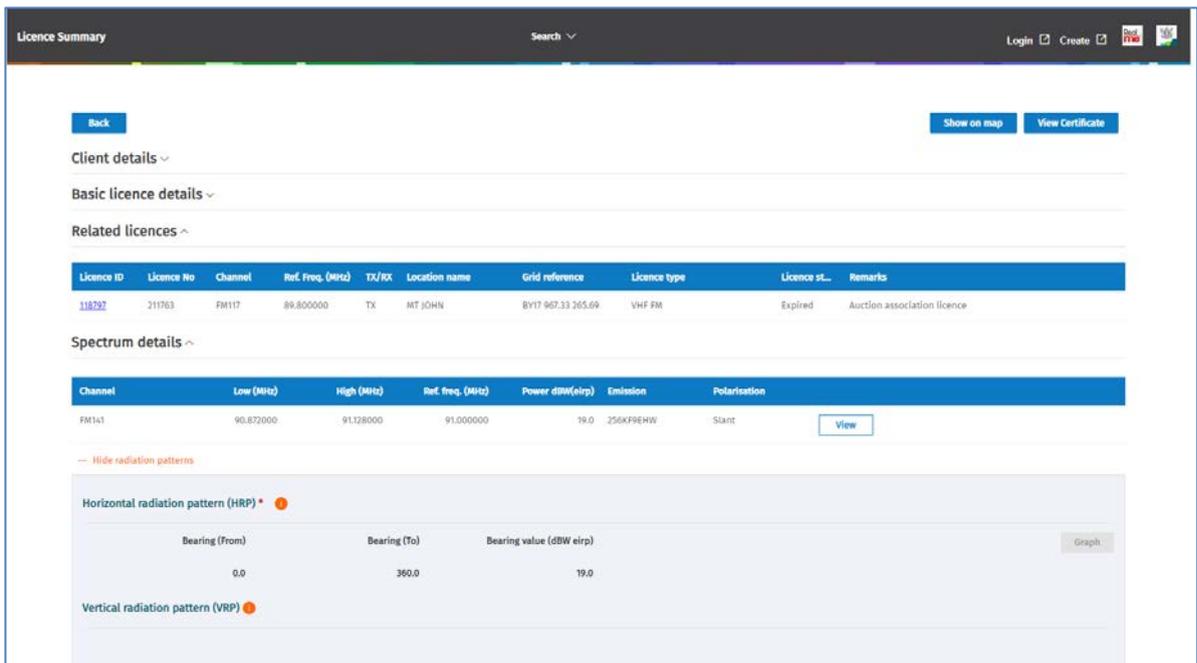
- Expand **Show radiation patterns** (at the bottom of the spectrum details) to view the horizontal and vertical radiation patterns. Click again to hide them.

3. To view more detailed information about of the licence record, (e.g. the spectrum details):

- Click **View** next to the record in the **Spectrum details** area.
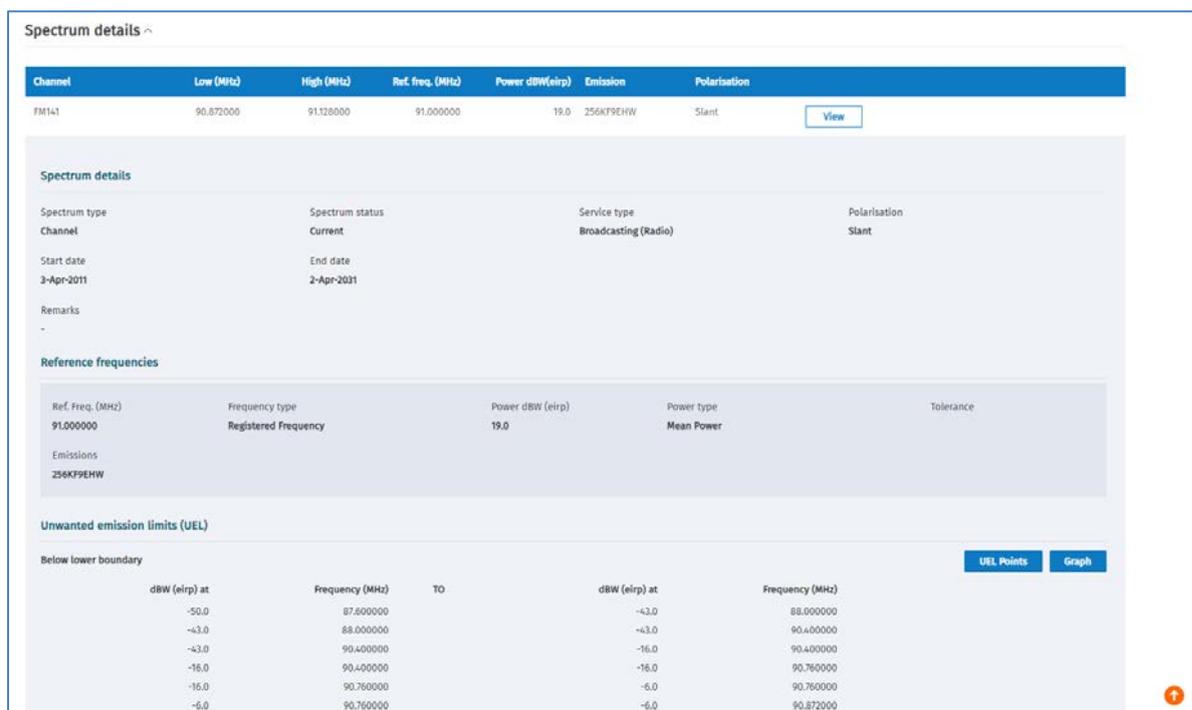


- To view additional information:
    - Click **UEL Points** (or **UEL**) and **Graph** to view the information about the spectrum record.
    - Scroll down and click **Close** to close the spectrum details screen.

    **Note:** Repeat this step, as required, to view details of the **Transmit** and **Receive** details for the licence.

4. Scroll to the bottom of the *Licence Summary* screen to view any **Conditions** for the licence.

5.  To view the location of this licence on the map, click **Show on Map**. The *Search Licences* screen displays the location of the Licence Record on the map. If required, click **Hide search** to show only the Map screen.
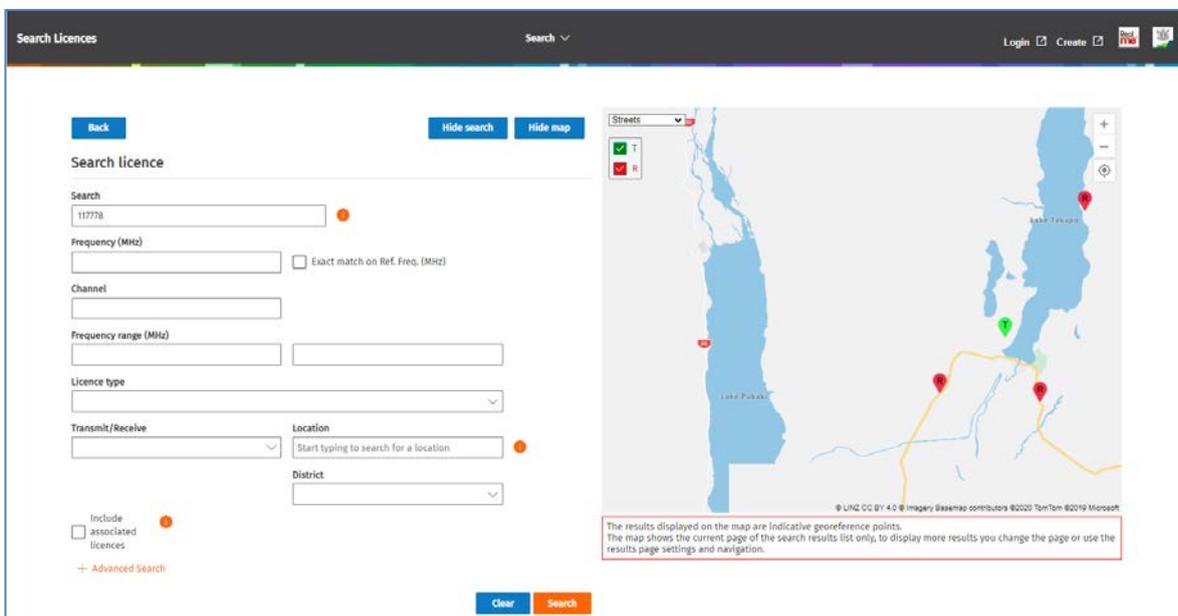


- For details about how to navigate on the map, refer to Map Functions.

- Click Back to return to the *Licence Summary* record.

6.  Click **Back** (or click the back arrow in your browser) to return to the *Search Licence* screen.

    **Note:** You may need to click the **Hide Search** and/or **Hide Map** so you can only view the search results list only.

# Export search results data

After performing a search for Licences, Certificates, Callsigns, Management Rights and AtoNs, you can export the list of search results to a file in csv format. The exported information contains the details and attributes of each record as displayed in the search results screen.

**Note:** After you perform a search you can change the number of search results to display per page up to a maximum of 5,000 records. If you have multiple pages of search results, you must export each page of results separately.

1. Change the number of search results to display per page (if required).

   - Alternatively, change the search filter(s) and perform the search again.



2. Click **Export file**.

   - A link to the exported csv file displays at the bottom of your screen. It is also located in your *Downloads* folder.

   **Note:** The time it takes to extract licence information depends on the number being exported.

3. If you have another page of search results to extract, display the next page of search results and repeat step 2.

4. To open an exported csv file from the current screen to view in Excel:

   - Right click the file name (e.g. 'Search Licences – 00001.csv') and select **Open**, or

   - Right click and select **Show in folder** to open the *Downloads* folder, then open the file you require.

5. Manipulate the columns in the spreadsheet to suit your requirements.

   - If you exported more than one file from your search results, combine the data from each file into one Excel spreadsheet, if required.

   **Note:** Each page of the search results you export is numbered sequentially, (e.g. the second page of search results exported saves as 'Search Licences – 00002.csv').

# Search for a specific type of licence

Another licence search you can perform using the text search fields is to search for all licences of a specific type and view the results. You can also limit you results to a location, if required.

1. Display the *Search Licences* screen, (i.e. Click the **Search Licences** box on the home page or select **Search > Licences** from the menu).
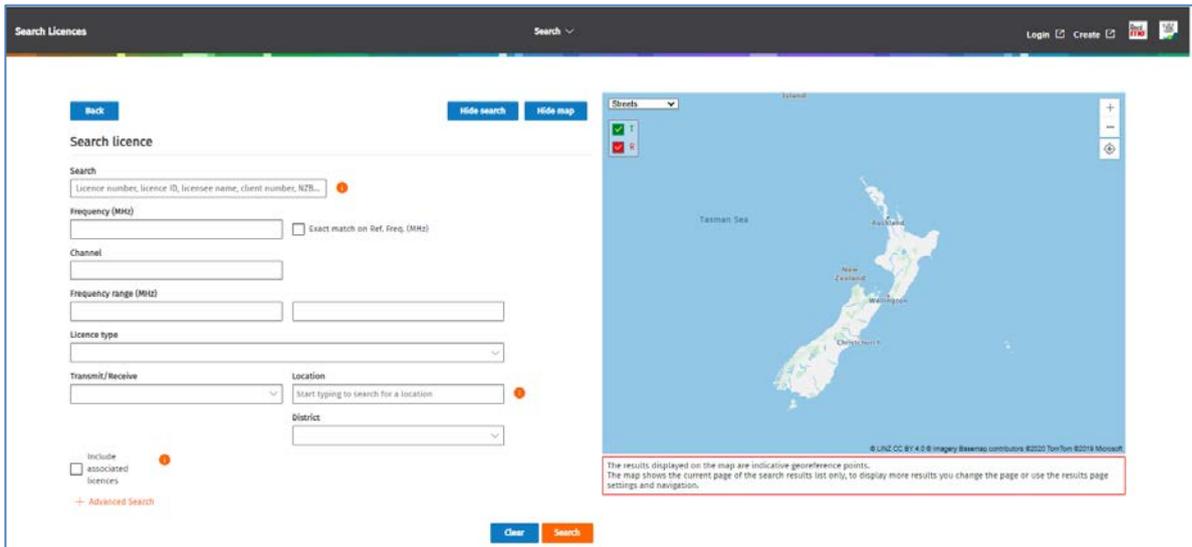


2. Enter your search criteria, (e.g. select **Land Repeater** in the **Licence type** field).

3. Click **Search**. The search results display on the map and in the search results area.

   **Note:** The number of results per page has been set to 100 for this search so the number of licences on the map have been grouped.
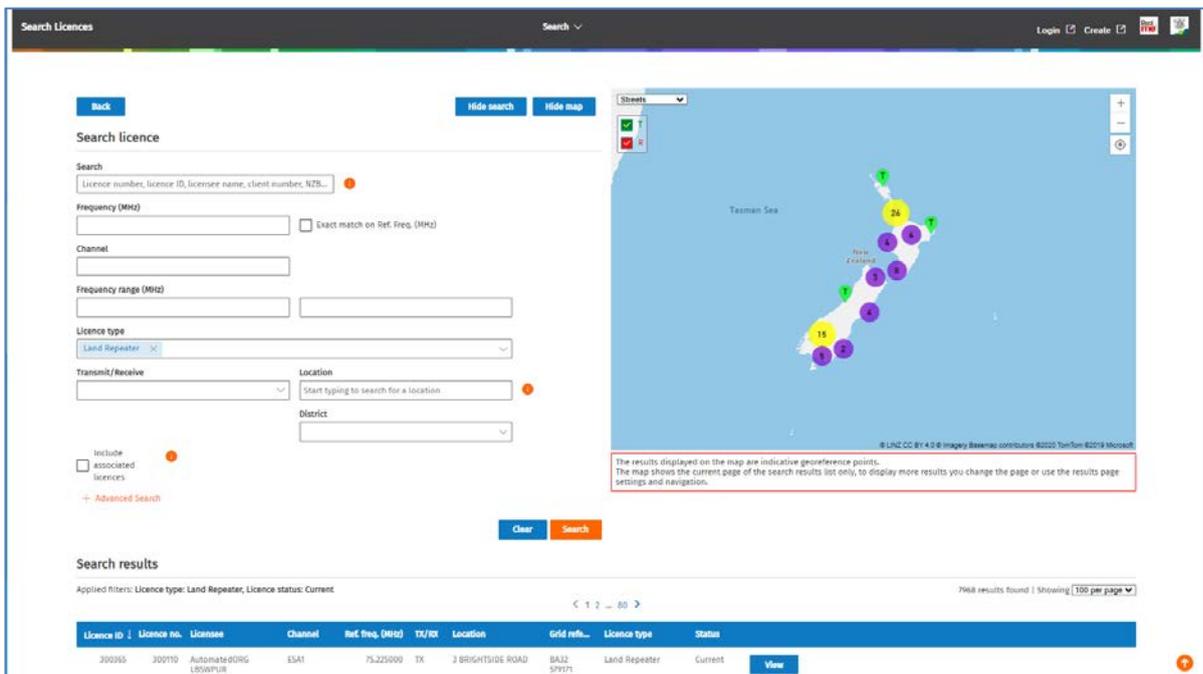


4. Zoom in to a specific area you required on the map. For example:

   - Zoom into the Tauranga area click the Transmitter pin to display the pop-up window with licence details.
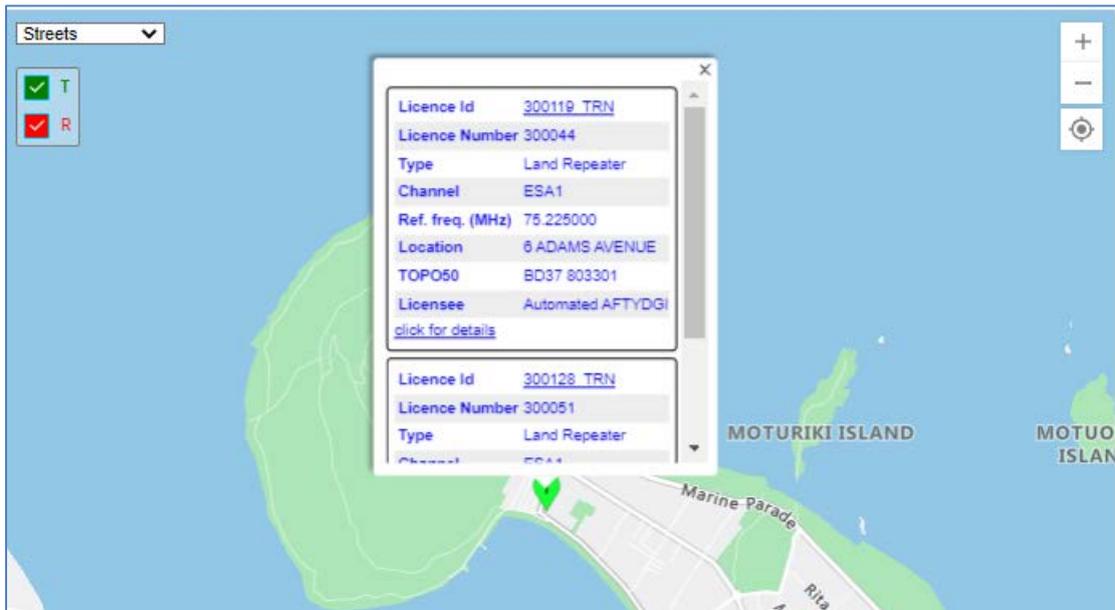
- Click the **click for details** link in the pop-up window. The map refreshes and displays the associated licences for this transmitter.
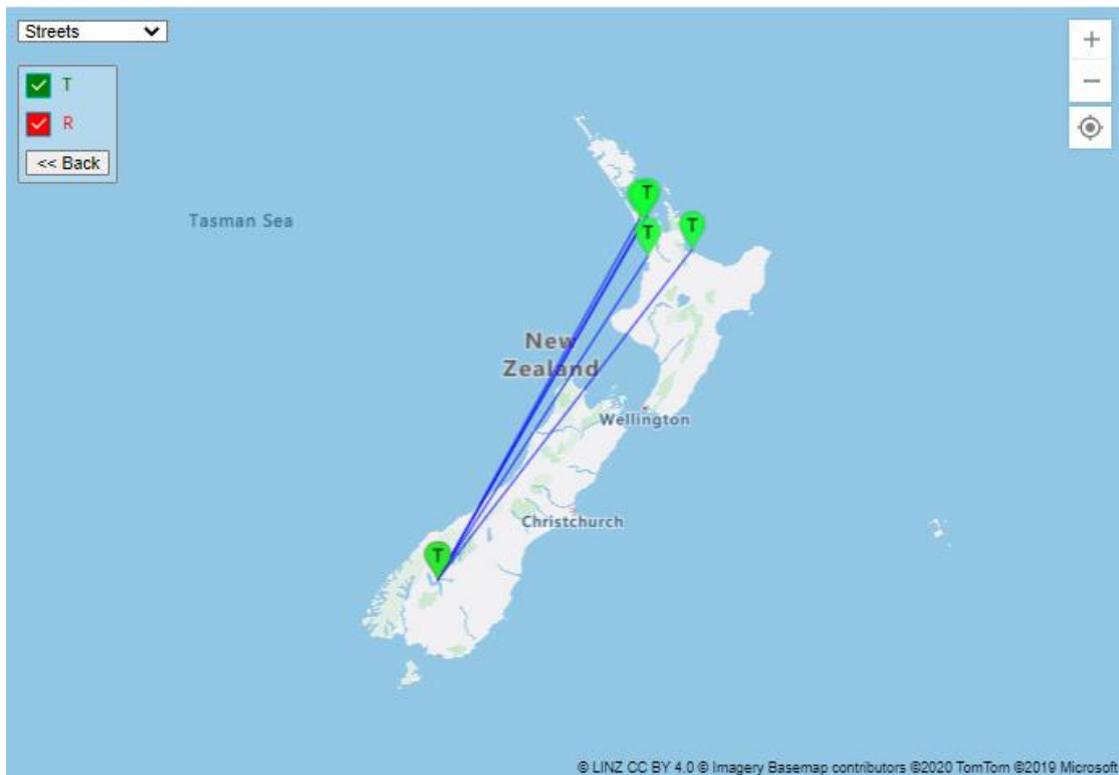


- For more information on viewing information you require, refer to Map Functions.

# Perform an area search

An area search for licences can be performed in *Search Licence* screen using text fields, the map, or a combination of both. Follow the steps in the following sections:

- [Area search for licences using text fields](#)
- [Area search for licences using the map](#)

## Area search for licences using text fields

You can perform an area search for licences using the text fields in the *Search Licences* screen.

1. Click the Register of Radio Frequencies (RRF) link in the top right of the Radio Spectrum Management website.

2. Click the **Search Licences** box on the home page or select **Search > Licences** from the menu. The *Search Licences* screen displays.

   - Click **Hide Map**.



3. Enter your search criteria in the relevant fields of the screen. For example, to perform a search for FM licences within a 1km radius at the Skytower Auckland location:

   - Enter FM in the **Channel** field.

   - Start typing Skytower in the **Location** field and select the Skytower location you require from the list, (e.g. 9835 Skytower Auckland).
     **Note:** You can select more than one location in this field when required.

4. Expand and **Advanced Search** fields. You will see that the reference information has been automatically populated in some fields from the details you just entered.

- Enter **1** (i.e. 1km) in the **Radius(km)** field.

5. Click **Search**. The results of your search display.



- Change the order of the search results to suit, if required:

   o Click any of the column headings to sort the results ascending or descending. An arrow in the selected column heading indicates which way it is sorted.

   o Change the width of columns to suit.

- If you have more than one page of search results and you need to change the number of search results to display on each page, refer to Change the number of search results to display per page.

6. Perform the any actions you require. For example:

- View licence records, refer to [View a Licence record](#).
- Export the search results, refer to [Export search results data](#).
- Click **Show Map**, to view your search information on the map screen.
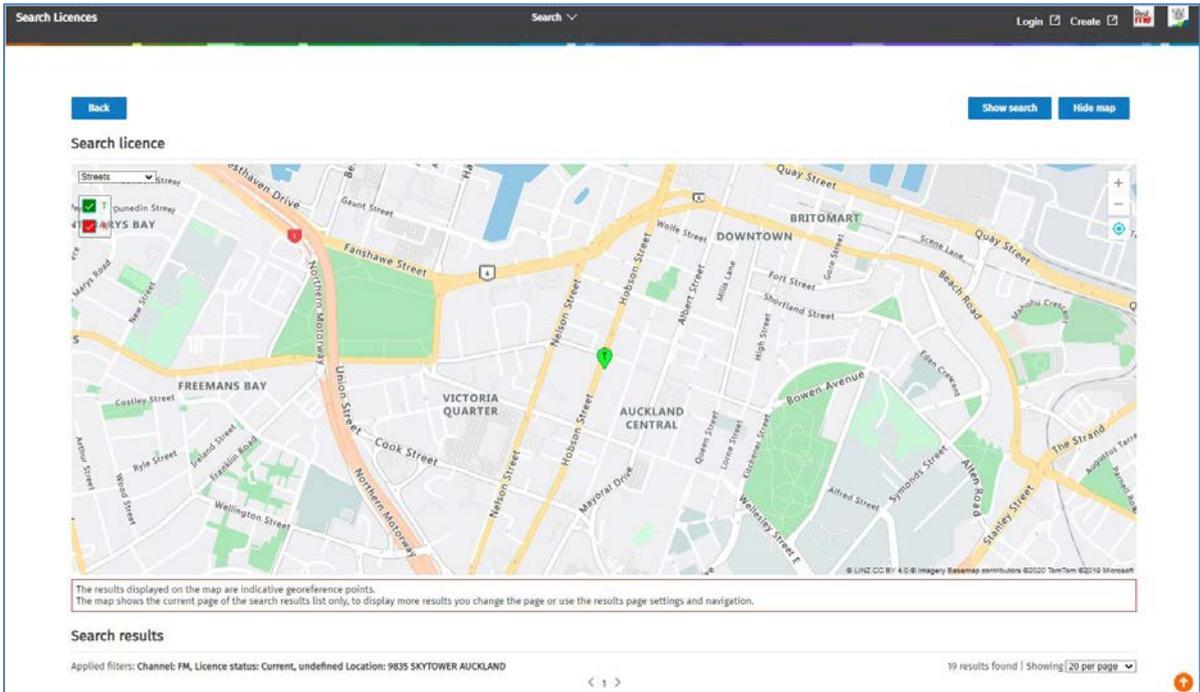


- Hover over the transmitter icon then click the pin to view details. Refer to [Map Functions](#).
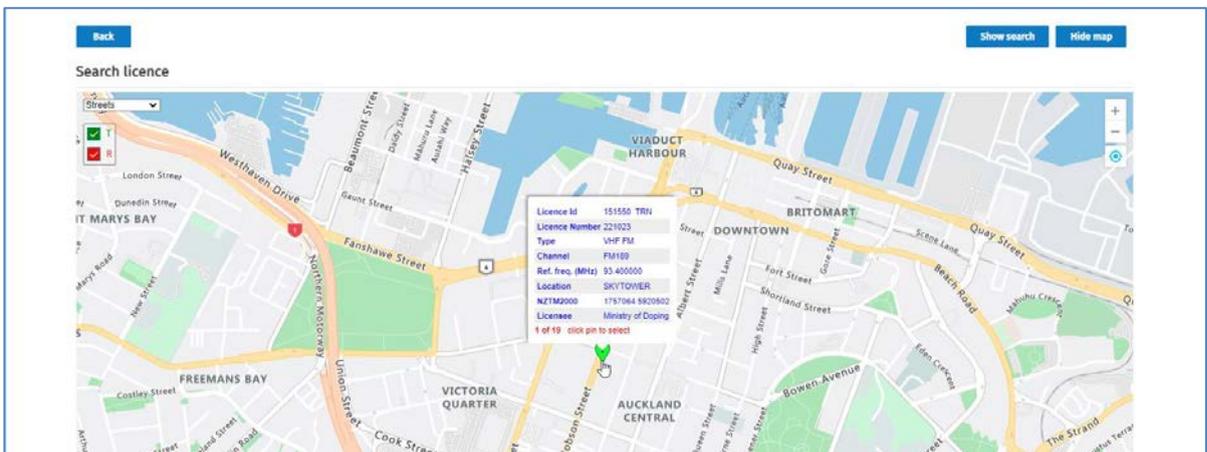


7. Perform one of the following actions:

- Scroll down to the search results again (if required).
- Click Show search to continue searching or modify your current search.
- Click **Back** to exit the *Search Licences* screen.

# Area search for licences using the map

You can physically mark an area (i.e. a radius) on the map then search to view all licences within the selected area.

1.  Click the Register of Radio Frequencies (RRF) link in the top right of the Radio Spectrum Management website.

2.  Click the **Search Licences** box on the home page or select **Search > Licences** from the menu. The *Search Licences* screen displays.
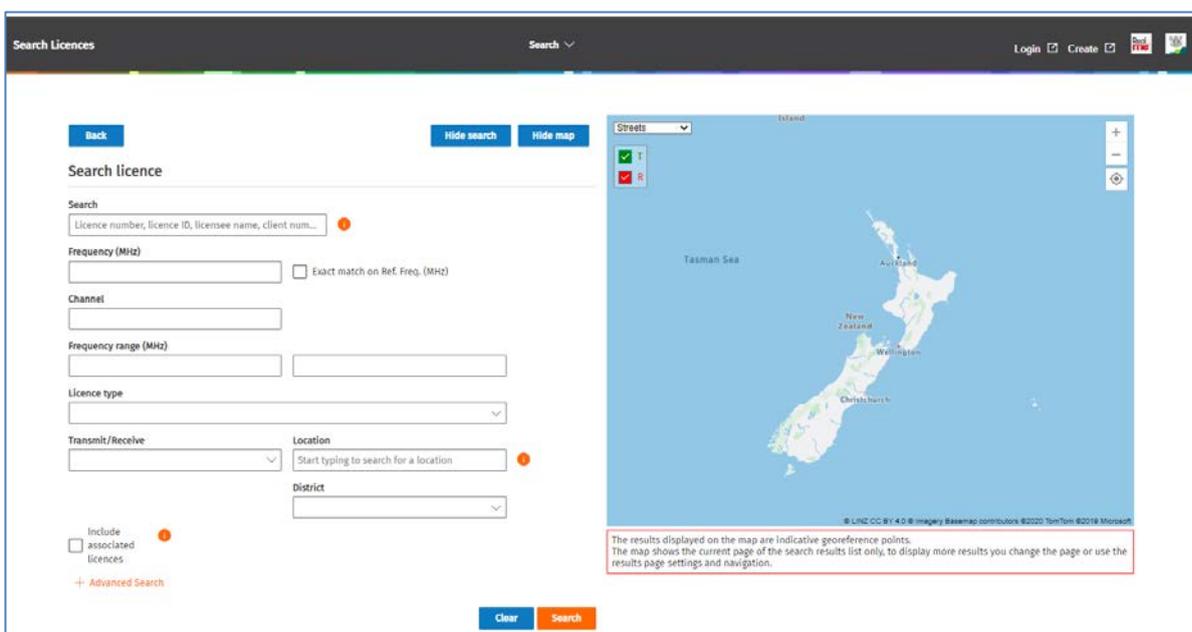


*   Click **Hide search** so only the map displays.

*   If the map is not displaying, click **Show Map**.

3.  If you have your location active, the map will display your current location, which displays as active blue icon. For example:
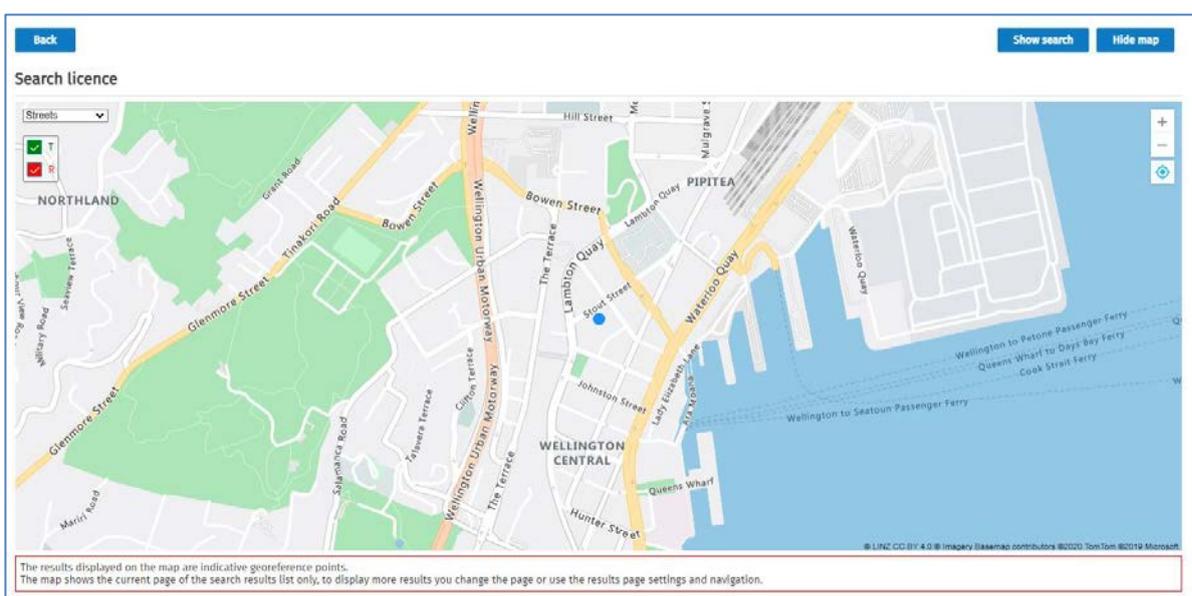


*   If your location is not active, click the ⊙ (inactive location) on the map. The icon becomes active and displays your current location on the map.

4. Zoom to the location on the map where you want to mark your area of interest.

5. To mark your area of interest (i.e. a radius) on the map:

   - Double click the location on the map to mark the starting point for your radius. The active blue location icon displays where you clicked.

   - Hover on the blue flashing location icon until a pointed finger displays .

   - Click and drag the shaded radius area to the size you require. As you drag the size of the radius, a coloured circle shows on the map. For example:



   - Once you reach the required radius, release the mouse button. Your area of interest displays.
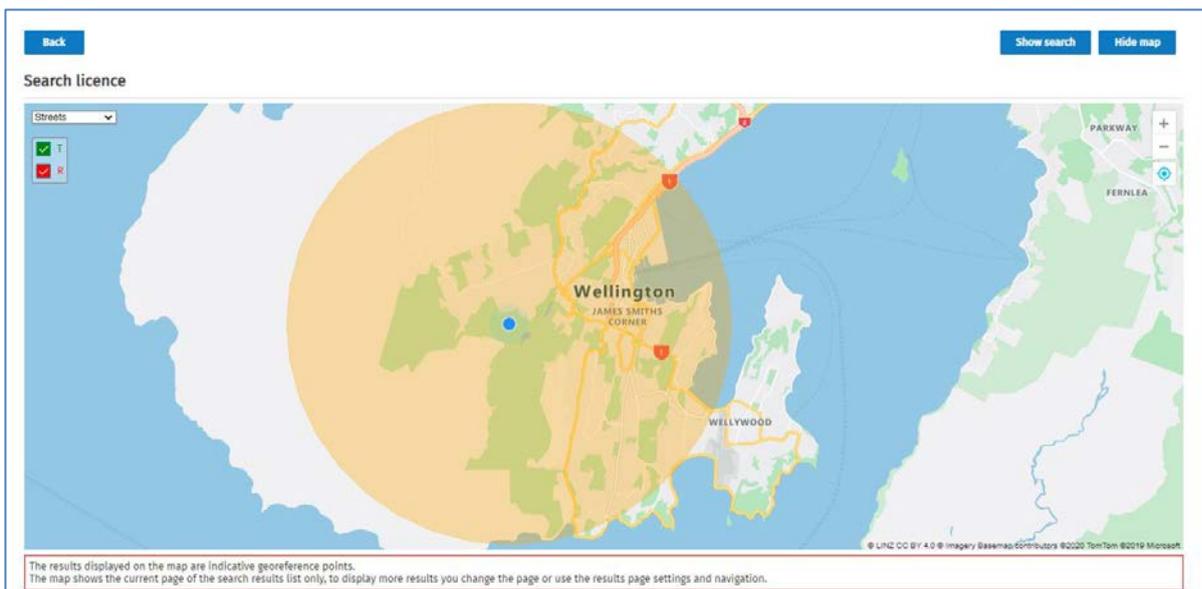


6. To check that the radius (or latitude, longitude) is what you require:

   - Click **Show search** to display the *Search Licence* screen text fields.

   - Click **Advanced search** to display additional fields.

   - Adjust the value in the **Radius (km)** field (or the **Latitude, Longitude** fields), as required.

7. Click **Search**. The map zooms to show the first page of search results on the map.

   **Note:** For Public users, this will default to 20 per page. To temporarily change this number, refer to Change the number of search results to display per page. Authorised users can set a default for this number in their user preferences.
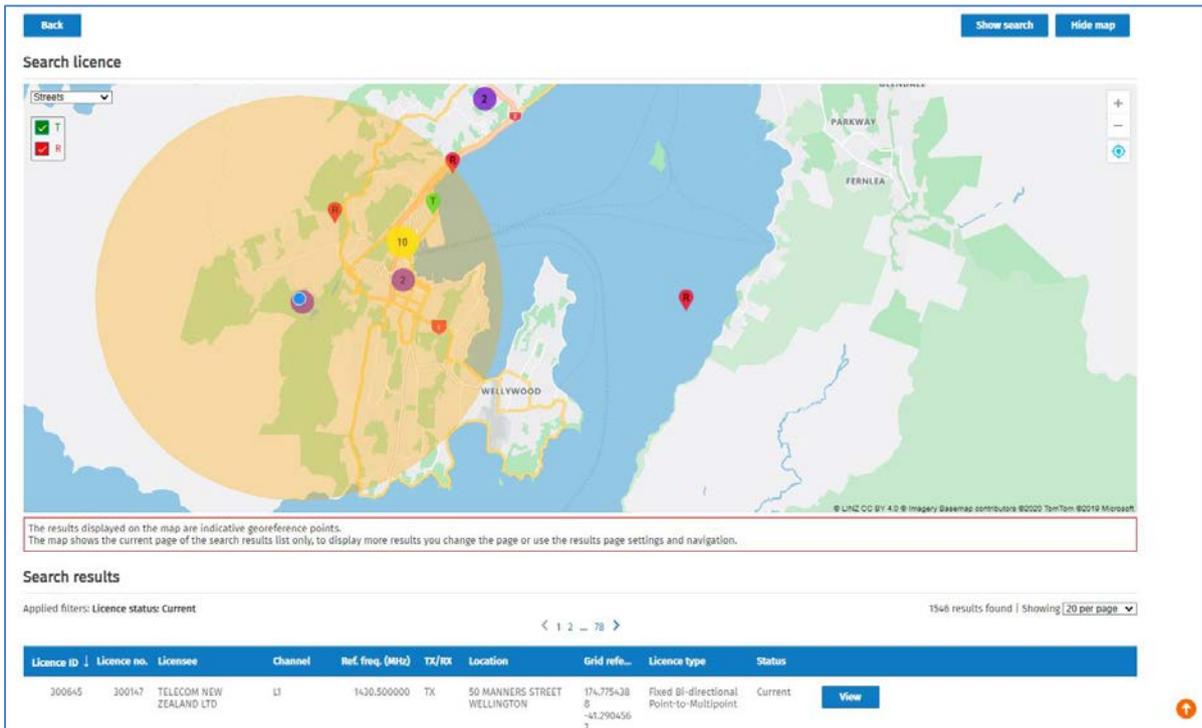
- The results displayed on the map are also listed below the map in the **Search results** area.

8. Use the map functionality to zoom and view the transmitter and/or receiver licence information and related licences shown in your marked area of interest. Refer to Map Functions.

    - For example, click a receiver pin to view the polygon for a spectrum licence.
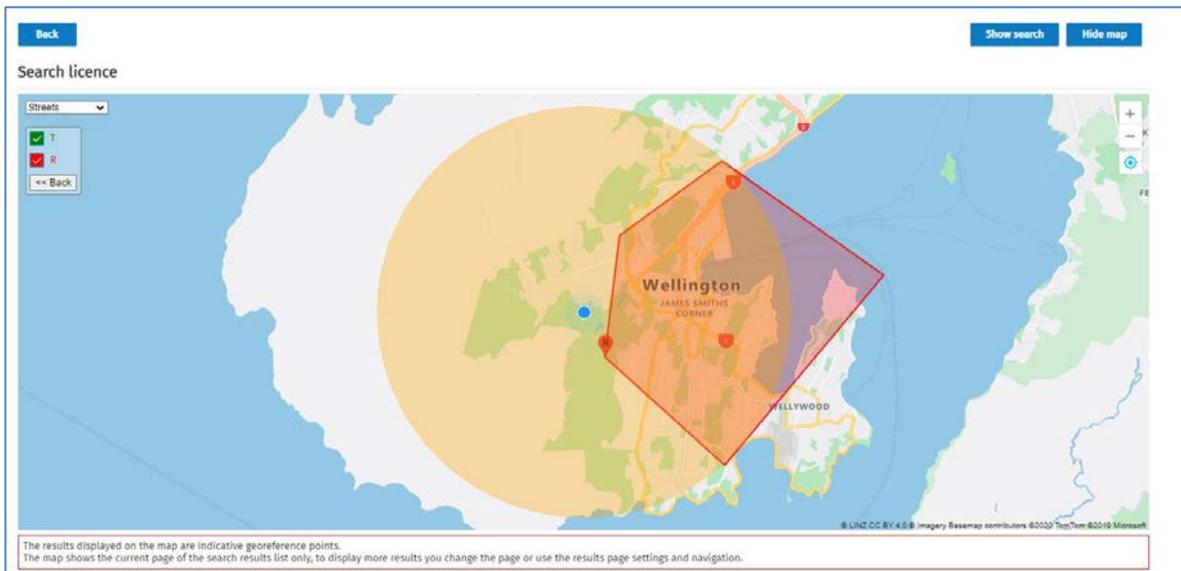


9. To view more search results on the map (if applicable), either:

    - Select to display another page of results in the Search results area, or

    - Change the number of results that display per page, refer Change the number of search results to display per page.

# Map Functions

This section explains how to navigate using icons and options on the map.

## Map icons and options

This table outlines icons and functions to use on the map.

| | |
|---|---|
| + | Click to zoom in. You can also use your mouse wheel to zoom in. |
| − | Click to zoom out. You can also use your mouse wheel to zoom out. |
| (active) (Inactive) | Click to toggle your current location on the map to active or inactive. If your location is switched off and you move to another part of the map, click this icon to make it active to automatically return the map display to show your current location. |
| Streets / Satellite / TLA / TLA & Satellite | Select the view: Streets (default view) Satellite, TLA (i.e. Territorial Authority) TLA and Satellite The Satellite view can be useful to check if there is anything in the way to distort a frequency, (e.g. large building, etc.) |
| ✔ T | Click to toggle the map to display transmitters or not. |
| ✔ R | Click to toggle the map to display receivers or not. |
| << Back | Click to return the map display to your original search view. This button only displays after performing a function on the map, (e.g. you click a transmitter icon). |
| 2 | Indicates there is more than one result in this area. Zoom in to view the individual transmitters and receivers. The number in the circle states the number of results. **Note:** As the number of results increases, the colour of the circle changes (see below). |
| 11 or 128 | Indicates there are more than 10 results or more than 50 results in in this area. The number in the circle states the number of results. Zoom in to view smaller clusters (e.g. purple circles for less than 10), then zoom in further to view individual transmitters and receivers. |
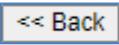
# Licence Details pop-up window

You can zoom in and view licence information for a transmitter or receiver pin displayed on the map.

When you hover over a Transmitter or Receiver pin on the map, a pop-up window displays showing details about the selected licence. You can click the pin to view all details. Some will have multiple licences.

1.    Hover over the transmitter or receiver pin on the map to display licence information:
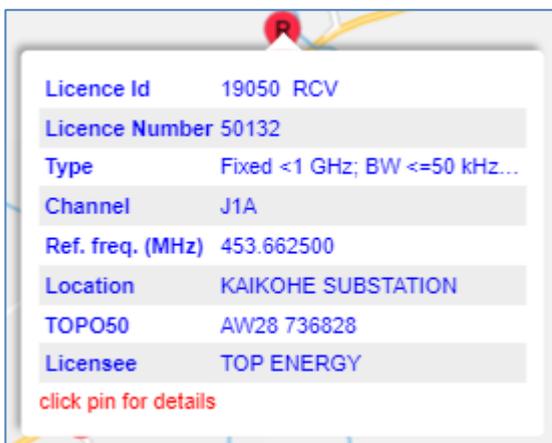


*Example of a pin with one licence*        *Example of a pin with multiple licences*

2.    Click the pin to keep the pop-up window open to view more details. When a pin has multiple licences, you need to scroll to view details of each licence.
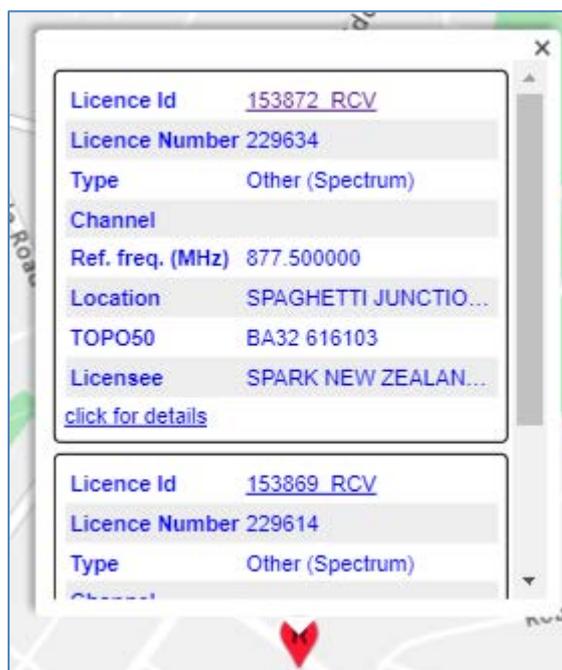


*Example of a pin with one licence*        *Example of pin with multiple licences*

- Click the **Licence Id** link in the window to view that licence.

3.    To show the relationship of any associated licences between a specific licence on the map:

- For a pin with a single licence, click the pin on the map, (i.e. transmitter or receiver pin).

- For a pin with multiple licences, while in the pop-up window, scroll to the selected licence and click the **click for details** link.

- For more information and examples, refer to [Show relationship between associated licences](#) and [Spectrum licence map display](#).

4. To close the pop-up window, either click **X** in the top right or click elsewhere on the map.

## Show relationship between associated licences

You can show the link to any associated licences on the map to view their relationship.

1. Zoom to view the area of the map you require.

    - In this example there is a transmitter and four receivers, as indicated in the purple circle:



2. Click the transmitter pin to see the connection to each receiver:
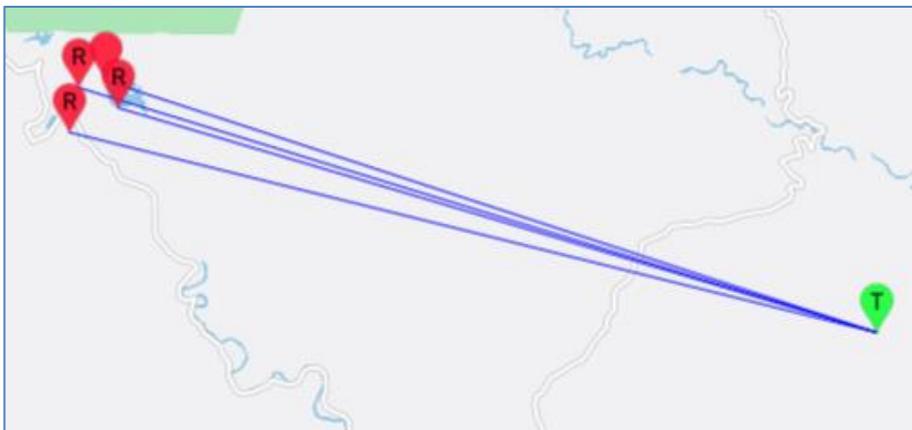


3. Zoom in and click each receiver (or the transmitter) to view licence details in a pop-up window.

# Spectrum licence map display

When you click a pin on the map for a spectrum licence a red or green shaded polygon displays to indicate the area of the licence. This will display as a different shape depending on the licence, not always a square in the example below. Depending on the licence, the receiver and transmitter for the polygon can also show in different positions depending on the order it was entered. For example:

- Transmitter in the middle and a Receiver on the perimeter of the polygon.
- Receiver in the middle with the Transmitter on the perimeter of the polygon.

**Examples of a Spectrum licence receive area:**
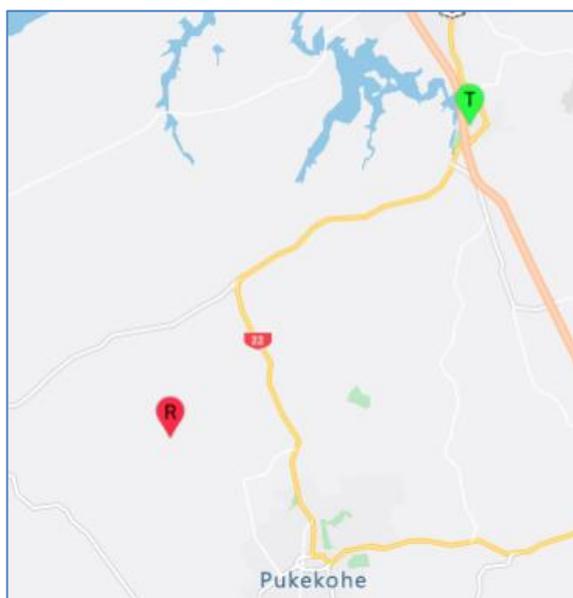


*Before clicking the pin*
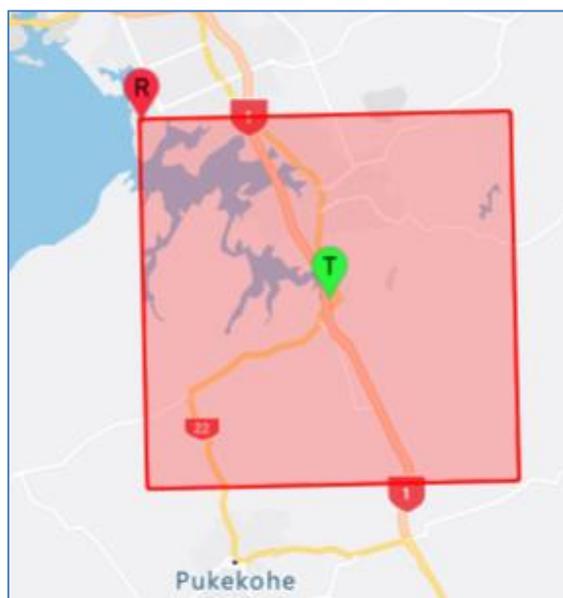


*After clicking the pin*
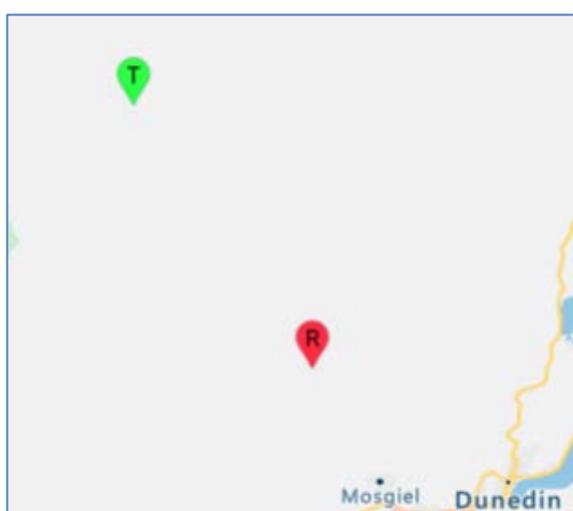


*Before clicking the pin*
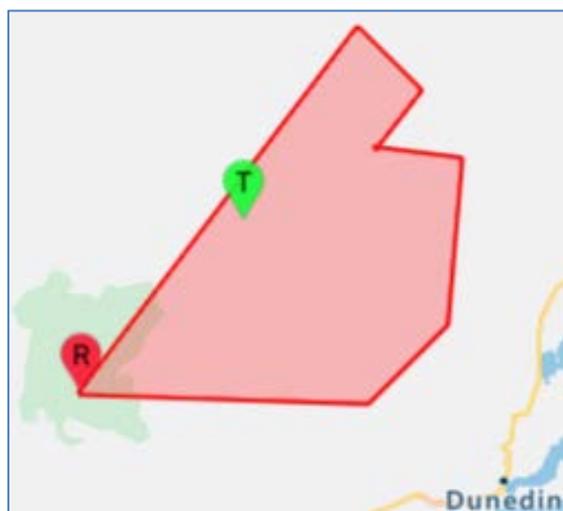


*After clicking the pin*

# Appendix

## Search Licence screen field information

This table outlines the information you can select or enter in each field when performing a text search for licences.

**Note:** If you are an approved user of the RRF some additional fields display for you to use in your search, (e.g. Licence status).

| Field | Details |
|---|---|
| Search | Enter all or part of the licence number, licence ID, licensee name, client number.<br>- For NZBZ number you must enter the whole number.<br>- Only approved users can search for licence application number. |
| Frequency (MHz) | Enter a frequency to search on, (e.g. 90.9). This will return any licences within the channel frequency low or high.<br><br>If you want to search for the exact frequency match, tick the **Exact match on Ref.Freq (MHZ)** check box. |
| Channel | Enter one or more channels to search for, (e.g. cn42 cn32). |
| Frequency range (MHz) | Enter the frequency range, (e.g. enter 450 in first field then enter 455 in the second field) to search for licences within this range. |
| Licence type | Select the licence type from the drop down list. You can select more than one licence type in this field.<br>Once you select a licence type it no longer displays in the drop down list. |
| Licence Status | Public users can only search on licences with a **Current** status.<br>An approved user on the RRF can search for other status, (e.g. Planned), but this will depend on your role and privileges. |
| Transmit/Receive | Select to search for Transmit and Receive only, Transmit only or Receive only. Leave blank to return all three (3) types. |
| Location | You can enter multiple locations for your search in this field.<br>Begin typing the location in which to search then select the location from the list. If you need to include another location in this search, begin typing the select the next location from the list. |
| District | Select the regional district for your search. |
| Include associated licences | Any bi-directional or point to point licences created will be automatically returned without ticking this check box.<br><br>Tick the check box if you want to return any manually added licences associated with licences you are searching for.<br>**For example:** If you are an FM broadcaster and you also had an STL and you wanted to associate it, you can put a manual association on the licence to link them. |

| Field | Details |
|---|---|
| *Advanced Search fields* | |
| Georeference type | Select the map type you require from the crop down list. An approved user has the option to set the default map type in their account settings. |
| Grid reference | Enter the grid references as required, (e.g. **Latitude**, **Longitude**). or Enter the km in the **Radius(km)** field and if required, tick the **Include licences with no georeferences in the same frequency range** check box to include these in your radius search. **For example:** You want to return licences in a band which usually have a fixed point location, but don't have a georeference (e.g. TLA, mobile). |
| Certified by | Select a name from the drop down list to return only licences certified by that person. |
| Callsign | Enter the callsign, (e.g. for HF fixed services or land mobile HF services). |
| Licence date type | Select the licence date type from the drop down list. This is dependent on your role and privileges. |
| Date range | Enter a from and to date range for you search. |
| System ID | Enter system ID if known. |
| Management right number | Enter the management right number for the licence. |