

# UK Location Map Based Search

*User Guide*

Version 2.0  
February 2012



## Document Control and Contents

### Change Summary

Version	Date	Author/Editor	Change Summary
0.0	10/11/2011	David Buck	Initial draft.
0.1	14/11/2011	Keith Giles/David Buck	Finalised for internal review.
1.0	23/11/2011	David Buck	Base lined for publication.
1.1	15/11/2011	David Buck	Screen shots updated to reflect live and references to refreshing browser included.
1.2	02/02/2012	Simon Roberts	Redraft for new functionality in February update
2.0	27/02/2012	David Buck	Screen shots updated to reflect live and minor amendments made following review.

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## Introduction

- 1 The UK Location Discovery Metadata Service (DMS) lies at the heart of the UK Location Information Infrastructure (UK Location) and the delivery of the UK Location Strategy and INSPIRE (**I**Nfrastructure for **S**patial **I**nfo**R**mation in **E**urope).
- 2 The Map Based Search tool is a part of the Discovery Metadata Service that enables search for records of datasets and related view services on data.gov.uk that are referenced by geographical coordinates. Each UK Location dataset on data.gov.uk has within its metadata record the coordinates which define the area of coverage of the data. It is this part of the metadata which is used by the Map Based Search tool to select records.
- 3 The UK Location Map Based Search tool has been developed by Ordnance Survey and data.gov.uk in partnership with the UK Location Programme. This guide is for use with the Map Based Search tool and provides further background to the facilities and metadata which underpins Map Based Search.

## Target Audience

- 4 The primary audience for this guide are data consumers using the Map Based Search tool on data.gov.uk.

## Assumed Knowledge

- 5 This document does not assume that the reader is familiar with UK Location. The guide has been drafted assuming that users will have some experience with data searching on data.gov.uk though not necessarily in searching for geographical data.

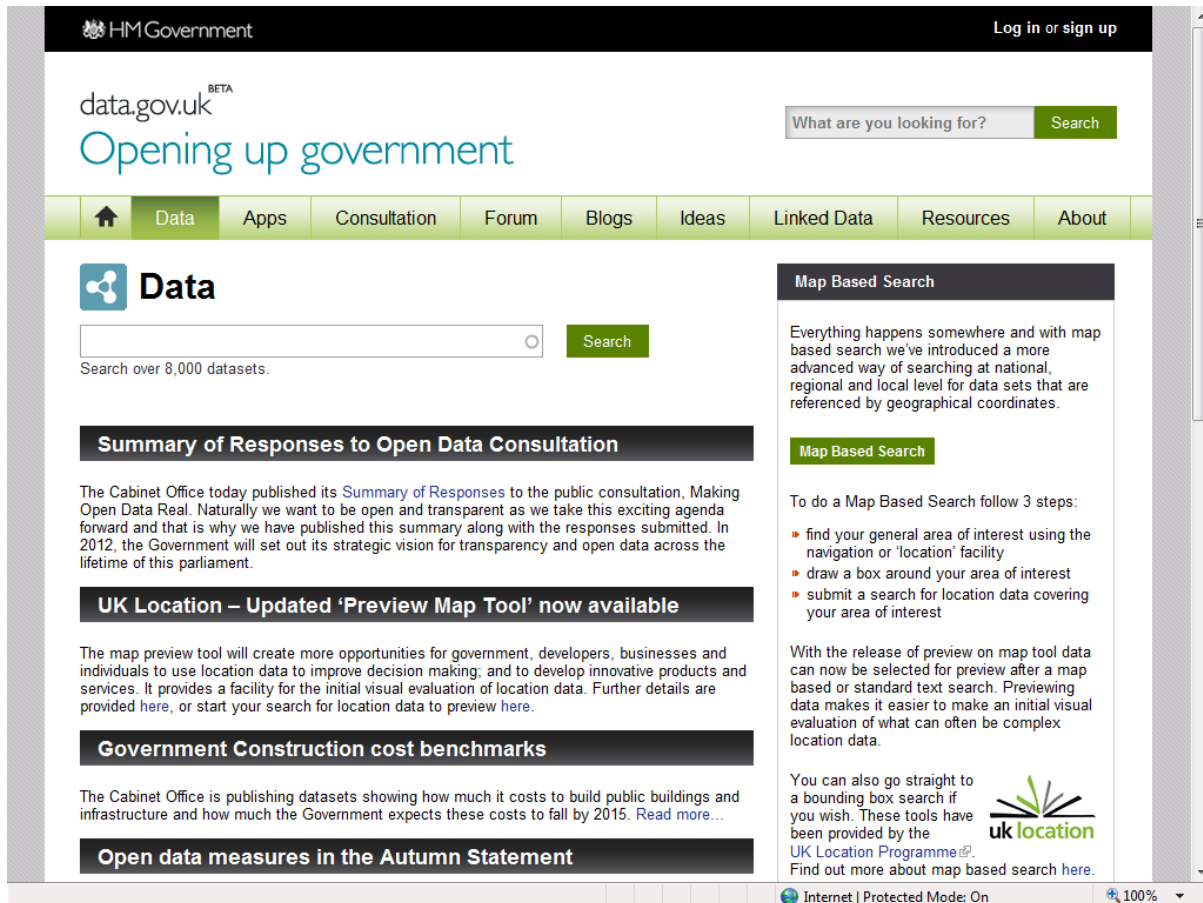
## Where to Obtain More Information

- 6 The latest version of all UK Location resources, including 'Getting Started' Guides for those unfamiliar with UK Location can be found via the UK Location Resource Centre:  
  
<http://location.defra.gov.uk/resources/>
- 7 We welcome feedback on Map Based Search and your comments and suggestions are appreciated. The UK Location Programme team can be contacted thorough the UK Location Helpdesk via the contact form:

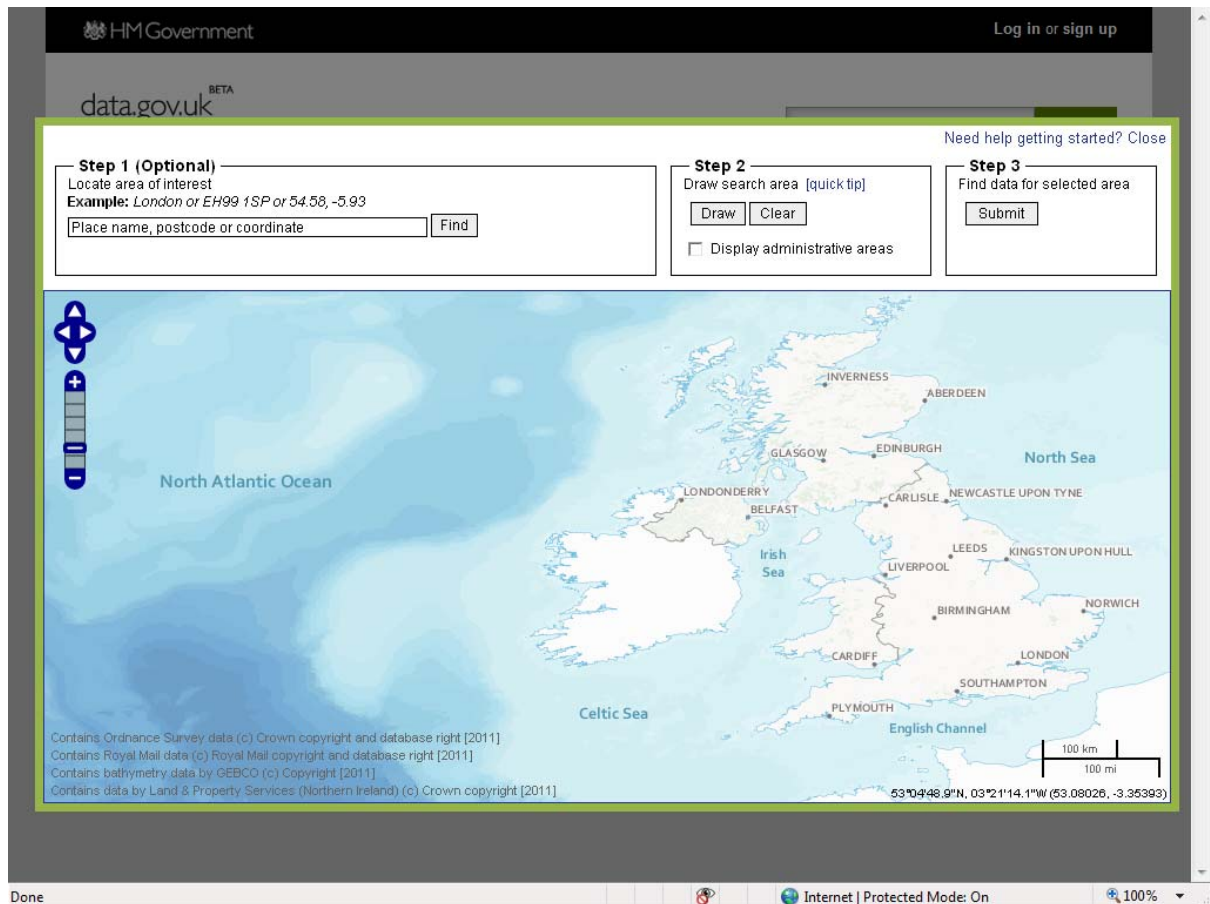
<http://location.defra.gov.uk/resources/contact-us/>

## Accessing the tool

- 8 Open a web browser and navigate to <http://data.gov.uk/data>. You will see a page similar to:



- 9 On the right hand side, in the box titled 'Map Based Search', click on the 'Map Based Search' button. You will see a new window appear in your browser similar to the one on the next page:



- 10 Map Based Search is provided as a pop out from the data.gov.uk main site. Clicking outside of Map Based Search window will close Map Based Search.
- 11 The header section contains a three functional steps. Step 1 – locate area of interest. Step 2 – draw search area. Step 3 - submit a search. It also provides access to this guide via 'Need help getting started' link and a link to close the page.
- 12 The map window contains; background mapping, pan and zoom navigation controls, scale bar, licensing information as well as latitude and longitude (which correspond to the position of the cursor on the background mapping).
- 13 In Map Based Search if the map fails to display please refresh your browser to clear all saved pages.

## Map Based Search functionality

- 14 The Map Based Search tool is a part of the Discovery Metadata Service that enables you to search for location data sets and view services at data.gov.uk that are referenced by geographical coordinates. Each of these records has (stored within its metadata) the coordinates of the geographical extent of coverage of the data; it is these coordinates that are picked up the Map Based Search tool when conducting a search.

### Header section

- 15 The header section contains three separate functional steps:
- Step 1 – Locate area of interest (which is optional)
  - Step 2 – Draw search area
  - Step 3 – Submit a search

#### Step 1 - Locate area of interest

- 16 Step 1 is optional and you may wish to avoid this step and manually pan and zoom to your area of interest. This function, which is located in the top left of the header section, enables location of your area of interest using place names, postcodes or coordinates. It includes a free text search field and *Find* button.
- 17 Place names and Postcodes can be entered in part or in full. Coordinates should be entered in the format of a numerical string separated by a comma with the latitude coordinate first. For example: 51.49, -0.12.

**Step 1 (Optional)**  
Locate area of interest  
**Example:** London or EH99 1SP or 54.58, -5.93

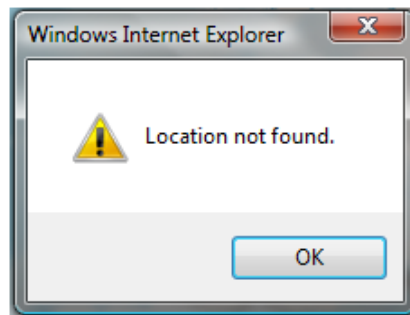
- 18 After entering your search text click the *Find* button (hovering over this button provides additional guidance text). This will then search a gazetteer of place names, areas of interest (such as forests), postcodes etc and present your results. These may be either exact or nearest matches to your search entry. If there are more than one you will see them appear in a drop down list below your search entry. If you click the down arrow that appears you will see all matches grouped by location type i.e. county, town, forest.

**Step 1 (Optional)**  
Locate area of interest  
**Example:** London or EH99 1SP or 54.58, -5.93

Lincoln Find

Select place name from list ▼

- 19 If the search term used does not find any matches, you will see an error message, explaining that the location cannot be found. If this happens (and you think you have entered a valid place name) try only entering the first 3 or so letters of a place name.



- 20 Once you have selected your desired location of interest from your results list you can zoom the map to that location by clicking on it.

## Step 2 – Draw search area

- 21 In the centre of the header section is a function which allows you to manually draw a box around your area of interest. This is a mandatory step which cannot be avoided. The tool has two buttons: Draw and Clear (which offer some guidance text when you hover your mouse cursor over them). It also has a tick box that, when checked, will draw administrative boundary lines on the map (so long as the map is not zoomed out showing the whole of the British Isles – guidance text will appear if you hover over it).

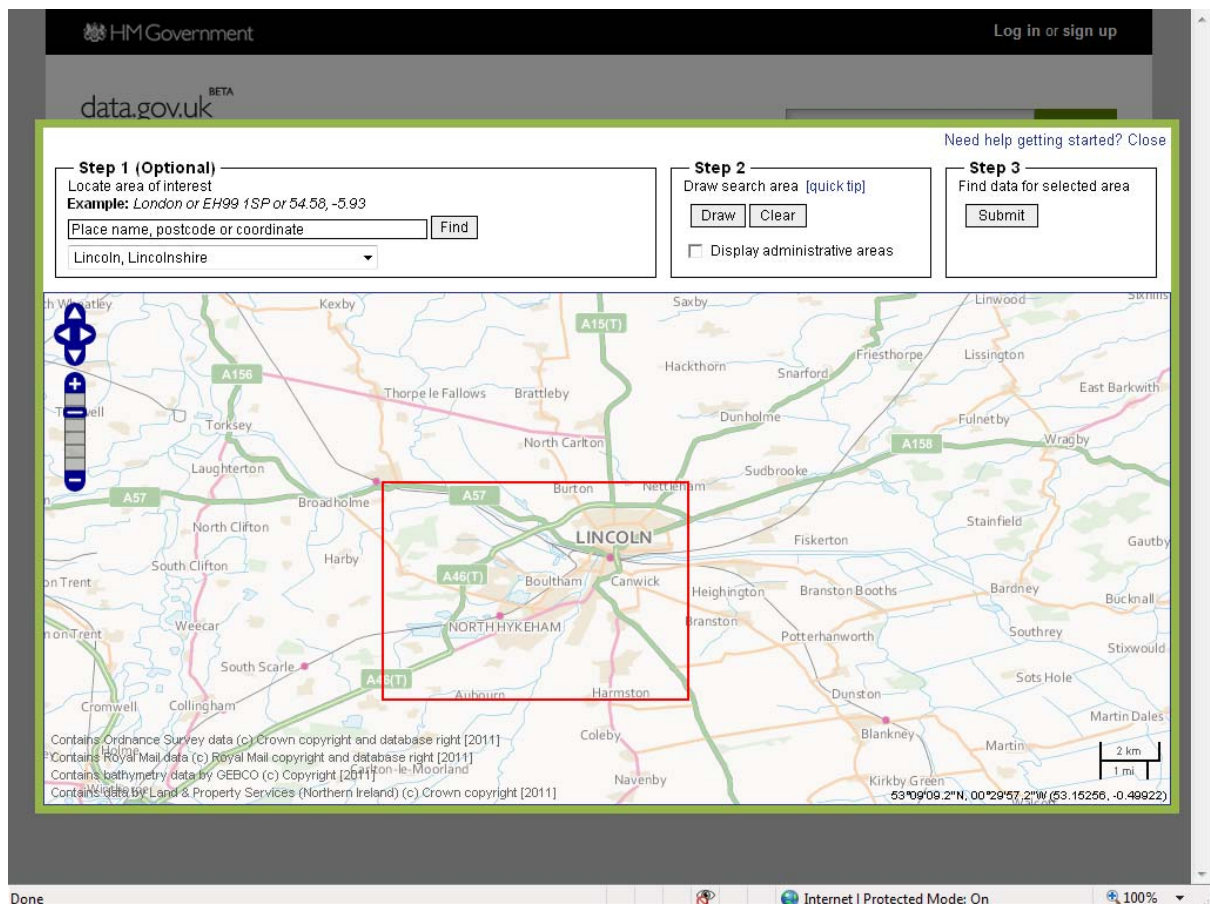
**Step 2**  
Draw search area [\[quick tip\]](#)

Draw Clear

☐ Display administrative areas

- 22 In order to search a specified area of the map for relevant datasets, click the *Draw* button and then use the left mouse button to draw a rectangle on the map around your area of interest. The screen shot below shows a completed search area in red.





- 23 If you haven't quite specified the correct area with your first search box attempt, click the *Clear* button. This will remove the search box so that you can re-click the *Draw* Button and draw a new search box. Previous search boxes must always be cleared to carry out a new search.

### Step 3 – Find data for selected area

- 24 Once you have drawn your search box over your area of interest click the *Submit* button. This will send the coordinates of that defined area to the map based search backend functionality. These coordinates are used to find location data records with extents that are included within, include or intersect the search box.

**Step 3**

Find data for selected area

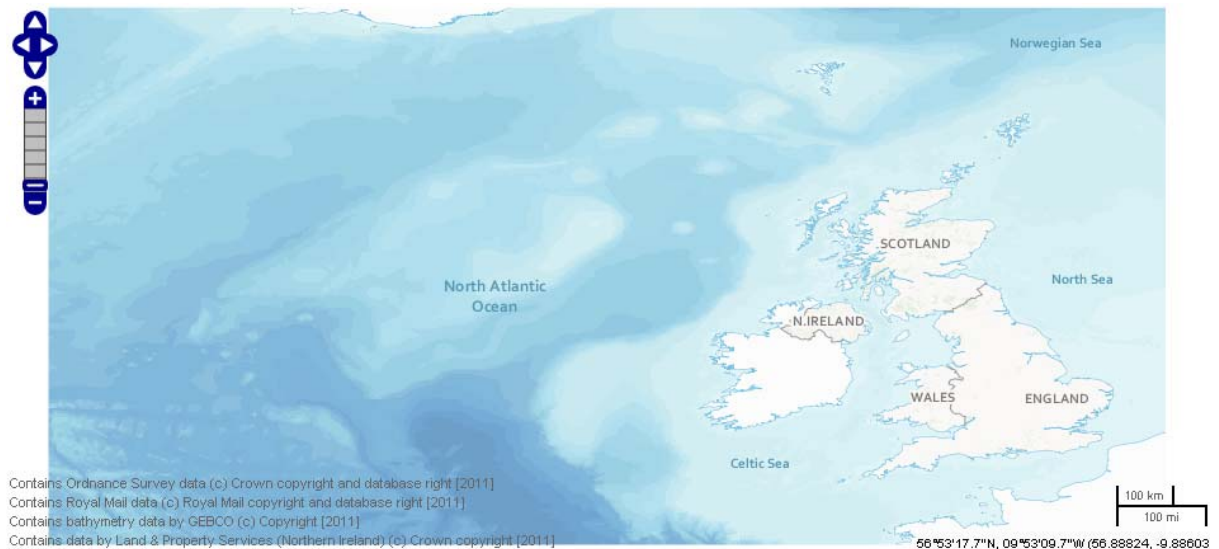
Submit

- 25 Once the search is completed the map based search window will automatically be closed down and a list of all datasets corresponding to your search area will be displayed on the data.gov.uk data page.

- 26 A search is not saved when you return to the data.gov.uk data page. If you would like to save this search you can do so by using your browsers book mark facility, or copying the URL and pasting it back into your browser at a later date.

## Map window

- 27 The map window contains; background mapping, pan and zoom navigation controls, scale bar, licensing information as well as the latitude and longitude of the cursor location at any one time.



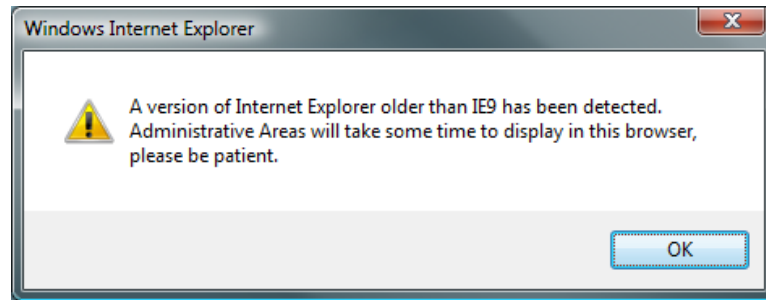
- 28 If the map window fails to display please refresh your browser to clear all saved pages.

## Background mapping

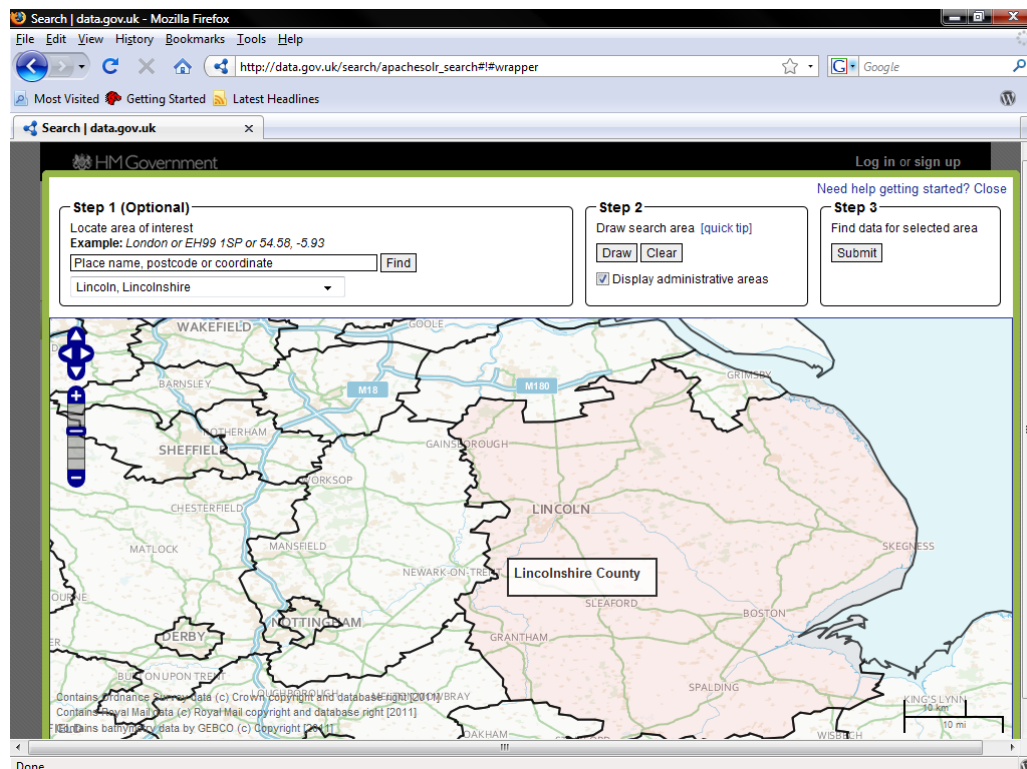
- 29 The background mapping has been developed by Ordnance Survey using; Royal Mail, General Bathymetric Chart of the Oceans, Northern Ireland Land & Property Service and Ordnance Survey data.
- 30 The mapping we have developed includes territorial waters, as marine data will also be available.
- 31 The background map is displayed using the European Terrestrial Reference System developed in 1989 (ETRS89) providing a UK wide search extent and ensuring interoperability between datasets across the UK and Europe.
- 32 Background mapping has been provided at a scale of 1:15000000 to 1:75000

## Administrative area boundaries

- 33 When the administrative area tick box is checked and the map is zoomed in to at least level 2, the black outlines of the administrative regions of the UK will be displayed.
- 34 If you are using a version of Internet Explorer that is older than Version 9.0 you will see the following message:



- 35 Don't worry about this message too much - the administrative areas will still draw, there'll just take a few seconds longer. Internet Explorer 6-8 have a different method for drawing vector-based shapes in web pages from other browsers. It is slower than the method used by more modern browsers. To reduce this problem we have introduced a simplified set of administrative area boundaries which will be displayed when using Internet Explorer 6, 7 and 8. The map will automatically adopt the faster drawing method if the browser supports it and will display a more defined set of administrative boundaries.
- 36 If you hover your mouse cursor over each of these admin areas it will be highlighted and display a label on the map showing the name of the region.



## Navigation controls

- 37 The navigation controls can be used to move around and zoom in and out of the map to search for areas of interest.
- 38 They include a pan function which enables you to move left and right and up and down around the map. You can also do this by left clicking and holding down on the map and moving the cursor (which will now resemble a hand). The direction arrows on your keyboard can also be used to move around the map.

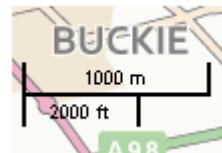
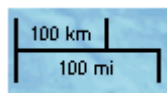


- 39 The navigation controls include a zoom function, with slide bar. There are 5 zoom levels from 1:15000000 to 1:75000. This can be operated by clicking on it. Or alternatively you can use a scroll wheel on a mouse to operate the zoom function.



## Scale bar

- 40 The scale bar is provided in the bottom right hand corner of the map and will change accordingly at every different zoom level. It shows the scale in both metric (above) and imperial (below) units.



## Licensing information

- 41 Copyright details associated with the various background mapping images are viewable in the bottom left hand corner of the window (regardless of what zoom level you are at).

## Guide coordinates

- 42 The longitude and latitude coordinates in the right hand corner of the map show the location of the cursor at any given time on the map. When you move the mouse cursor, they will change.

57°14'16.7"N, 13°29'01.1"W (57.23798, -13.48363)

## How the map based search tool works, behind the scenes

### UK Location Discovery Metadata – dataset coverage

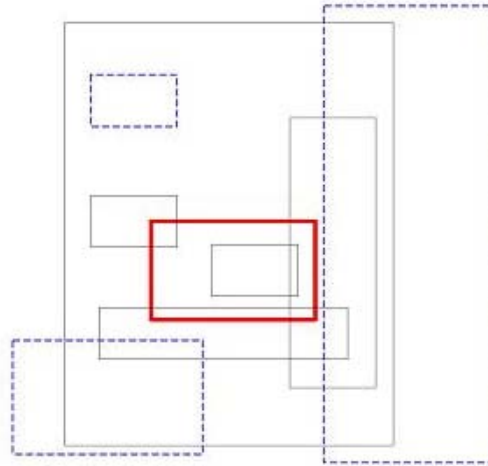
- 43 Each UK Location dataset or view service referenced on data.gov.uk has a discovery metadata record associated with it which comprises coordinates that define the geographical extent of its data. These four coordinates represent the latitudinal and longitudinal extent of the data within a dataset, Spatial searches such as that carried out in Map Based Search directly query these metadata coordinates to ascertain which datasets and/or view services are within scope of the search.
- 44 Data set or view service discovery metadata details the entire coverage of the data within it, not the specific individual data objects. If the data was, for example, national parks in England, the coordinates would be set within the discovery metadata to cover the furthest extent of all national parks in in the entire dataset, even though many parts of England do not have National Parks. The screen snippet below represents this:



### Searching - UK Location Discovery Metadata coordinates

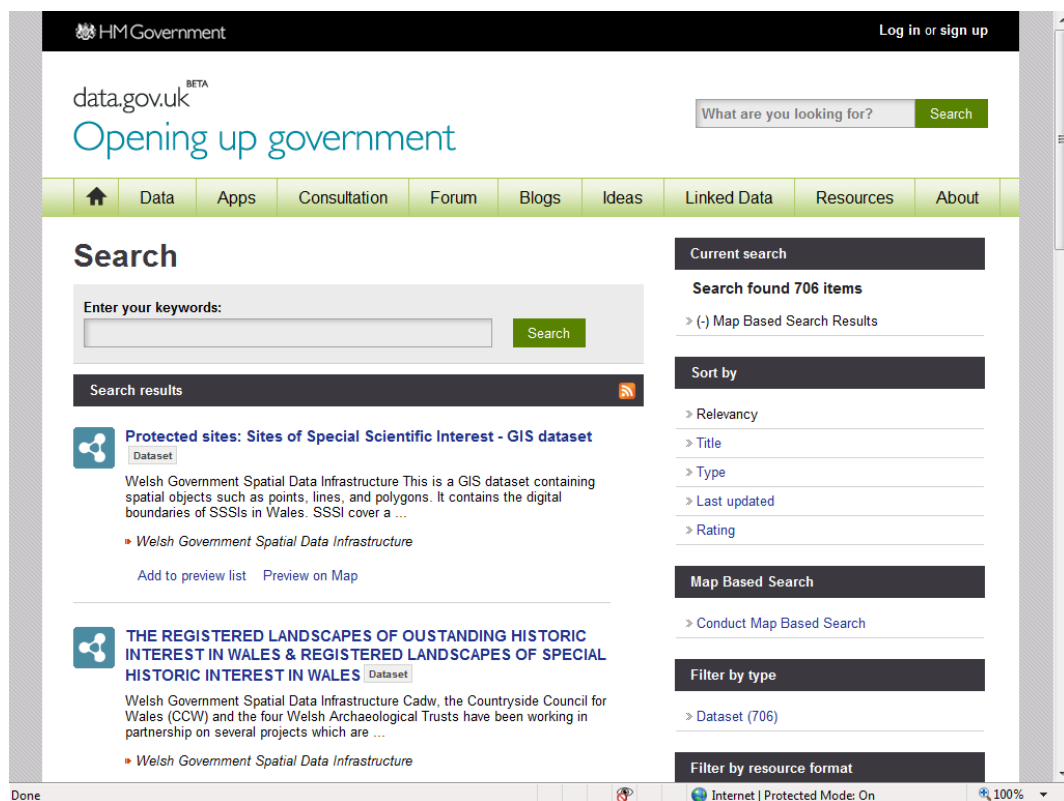
- 45 To physically show the geographical extent of all 1,000+ datasets and view services within our Map Based Search would be impractical. For this reason the boxes that denote the physical extent of these data set and view service coordinates are hidden from view on the map.
- 46 Instead a coordinate search is conducted (on the behind the scenes discover metadata records) by drawing a box on a generic, but spatially referenced, map using the *Draw* button. Prior to drawing this search box the Step 1 tool can be used to navigate to more detailed areas of interest in order to refine searches.

- 47 The results of a Map Based Search are illustrated diagrammatically below. Where the search box (shown here as red) cuts across, envelops or is enveloped by a data set or view service extent (shown as grey) the system will return their respective metadata records. Dataset and view services boxes that fall completely outside of the search area (shown here with broken blue lines) will not be returned.



## Results of map based searches

- 48 Once you have completed the three-step geographical search using the map based search, the map window will close and you will be presented with your results on a screen similar to that shown below.





- 49 If the results of your map based search fail to display please refresh your browser to clear all saved pages.
- 50 At this point further filtering of the results (by such things as type, publisher, or key words) is possible using the standard data.gov.uk functionality.
- 51 You will notice that the results will include a number of national datasets or view services even though you may only have searched a small geographical area. This is because that small search area's coordinates are encompassed within the geographical coordinate extent for the whole country dataset view service.
- 52 If your results contain any that have a grey 'Service' label next to them you will have the ability to preview them in another window. For details on how to do this please refer to the 'Preview on Map – User Guide'.