# THE HISTORIC ENVIRONMENT VIEWER USER GUIDE

**National Monuments Service** 

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This is a step by step user guide to using the National Monuments Service (NMS) Historic Environment Viewer (HEV)

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### Introduction

The Historic Environment Viewer (HEV) is managed by the Department of Housing, Heritage and Local Government. This is a step by step user guide to using the National Monuments Service (NMS) HEV.

The Historic Environment Viewer is the National Monuments Service Geospatial Map Viewer, designed to provide information on the Archaeological Survey of Ireland and the National Inventory of Architectural Heritage records. Please note the information provided is subject to change as both data sets are continually updated.

The HEV is designed to be accessed through both desktop, tablet and smart phone devices. It was created using ESRI ArcGIS Online Web App Builder and contains basemaps from Tailte Éireann. The data and map is in ITM (Irish Transverse Mercator).

# Frequently Asked Questions

How do I turn layers on and off?

Please see section Layer List for more information

How do I turn labels on and off?

Please see section Layer List, Labels for more information

# Step by Step Guide

## 1. Launching the HEV

The HEV can be accessed through the NMS website

National Monuments Service (archaeology.ie)

or can be found at this link

Historic Environment Viewer (arcgis.com)

#### 2. Splash screen

When you open the HEV or Map Viewer a Splash screen will appear



(Screenshot of splash screen of HEV)

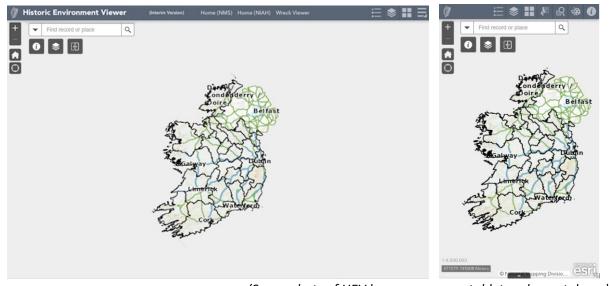
to enter the map viewer, you must agree to the to the terms and conditions, step 1 is to click agree and step 2 is to click okay, both are highlighted in the screenshot above

# 3. Home page

The home page is as screenshotted below

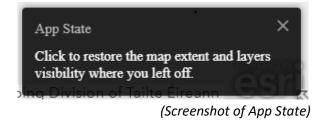


(Screenshot of HEV home page on a desktop)



(Screenshots of HEV home page on a tablet and smartphone)

When the Homepage is first opened the App state pop up will appear in the bottom right corner, clicking on it will restore the map extent and layers visibility from your last visit.



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# 4. Map tools

#### a. Zooming In

The map is defaulted to show the full extent of Ireland, where as the data layers are set to appear at different zoom extents to improve performance. The SMR and NIAH points appear first at a scale of 1:100,000 so you need to zoom in to see them. You can do this using the scroll wheel of your mouse or using the zoom in and out buttons on the top left of the screen highlighted below



(Screenshot of Zoom Buttons)

#### b. Home Button

The Home button is on the top left corner of the screen below the zoom buttons highlighted below. If you press it no matter where you are in the map or at what scale it will restore the map to the initial national extent.



(Screenshot of Home Button)

## c. My location

The My Location button is Located under the Home button in the top left corner of the screen highlighted below. To use this tool your device will need to share your location with the browser that you are using to access the HEV.



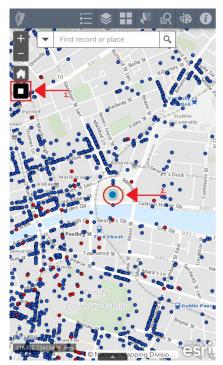
(Screenshot of My Location Button)

If your browser asks to use your current location, you need to choose allow to use My Location on the HEV.



(Screenshot of allow location request on HEV)

When the My Location function is activated in HEV the Icon changes from the crosshairs to the white square as highlighted below. The HEV will zoom to your location and a blue circle will appear at the centre of your map indicating your location. To turn off my location click on the My Location button again and it will revert to the crosshairs icon and the blue marker will disappear.



(Screenshot of My Location active in HEV)

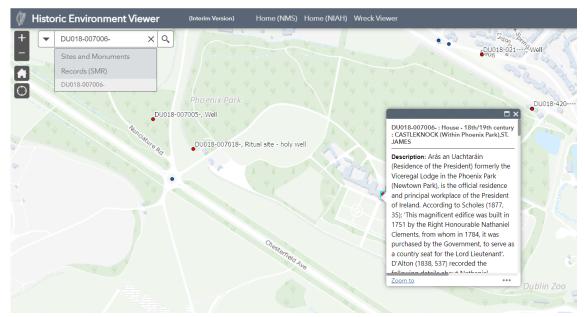
#### d. Search Bar

The search bar is located in the top left of the screen to the right of the zoom buttons highlighted below.



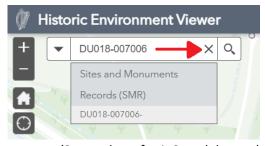
(Screenshot of Search Bar)

The search bar is designed to allow you to search for a SMR record, NIAH record, townland, address or eircode, latitude and longitude coordinates and RMP map sheets. You do not need to specify what type of search you are doing just type in your search term and press enter or if your search term appears in your drop down below click on it. The HEV will zoom to the location or record. When an SMR or NIAH number is searched it will zoom to the record and open the records pop up.



(Screenshot of Search results)

To exit out of the search click on the exit button highlighted in the screenshot below.



(Screenshot of exit Search button)

Townland, address, eircode, latitude and longitude coordinates can be searched. Just type the desired location and click enter.



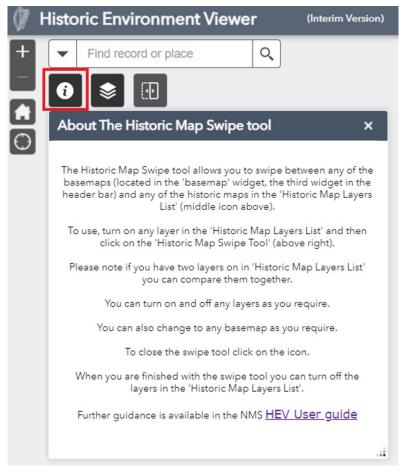
(Screenshot of exit Eircode search pop up button)

#### e. Historic Map swipe

The Historic Map swipe tool is made up of three widgets highlighted and explained below

### i. About the Historical Map Swipe tool

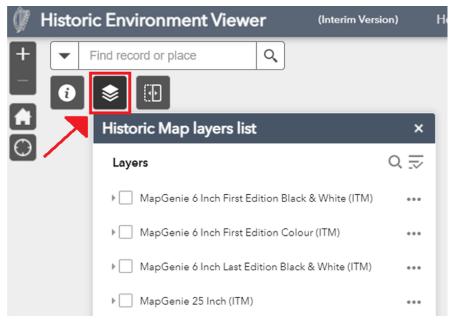
The 'About Historical Map Swipe tool' is the first widget below the Search bar as highlighted below. It contains directions on how the swipe tool works, please read carefully.



(Screenshot of the 'About Historical Map Swipe' button)

#### ii. Historic Map Layer List

The 'Historic Map layers list' is the second button below the search bar as highlighted in the screenshot below. Select the layer that you wish to examine with the swipe tool. Please note you should not turn on more than two layers. Turn on only one layer if you wish to examine the layer against the basemaps otherwise select two layers.



(Screenshot of the 'Historic Map layer list' buttons)

#### iii. Historic Map swipe tool

Finally select the 'Historic Map Swipe' tool, (highlighted in the screenshot below). Once the historic map layers have been turned on and the Historic Map swipe has been activated by clicking on it, then you can drag the swipe across the extent of the map (highlighted below).

You can change the layers by clicking on the historic map button and turning different layers on and off and then activate the swipe tool by clicking onto it again. If you have only turned on one of the layers in the historic map layers then you can use the basemaps, including satellite imagery, in the header widget.

When you are finished with the tool click on swipe layer button to close it at this time please also turn off any of the historic maps you no longer need. Please note all of the historic maps are available as basemaps in the header widget.



(Screenshot of the 'Historic Map swipe' buttons)

## f. Map Scale

There are two scales on the map on is a numeric scale and one is a metric scale bar. They are in the bottom left corner of the map. Both will be automatically updated as you zoom in and out of the map.



(Screenshot of Map Scale)

# g. ITM Coordinates

The coordinates of the Map are shown in ITM (Irish Transverse Mercator) on the bottom left of the screen as highlighted below. It automatically shows the coordinates for where your mouse is.



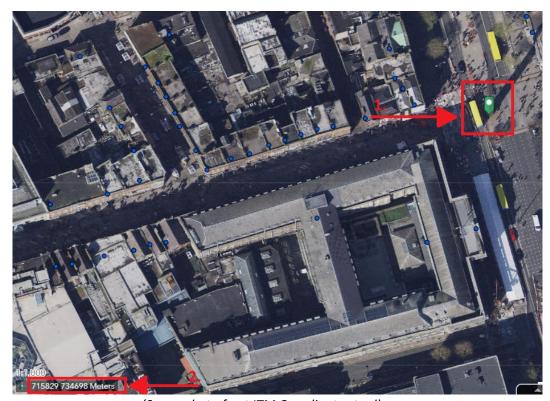
(Screenshot of ITM Coordinates)

Click on the crosshairs as highlighted below to enable clicking on the map to get coordinates. Once you have clicked this the crosshairs will change from white to blue to show you that the tool is enabled you can click anywhere on your map to get the ITM coordinates for that location.



(Screenshot of get ITM Coordinates tool)

The image below shows a marker where I have clicked on the Map, in this instance the marker appears at the base of the Spire. The ITM Coordinates highlighted below in the bottom left of the screen are now static and record the coordinates at the green marker.



(Screenshot of get ITM Coordinates tool)

The ITM Coordinates can be copy and pasted by selecting the coordinate in the bottom left of the screen as highlighted below, please note that as the font is white the coordinates will be pasted into your document/email as white and the font colour will probably need to be changed to be legible.



(Screenshot of selected ITM Coordinates)

While the ITM Coordinate tool is selected the marker will move to anywhere you click on the map and the coordinates will update to the marker's new position. When you are finished using the tool clicking on the blue crosshairs highlighted below will turn the tool off and remove the marker.



(Screenshot of activated ITM Coordinates tool)

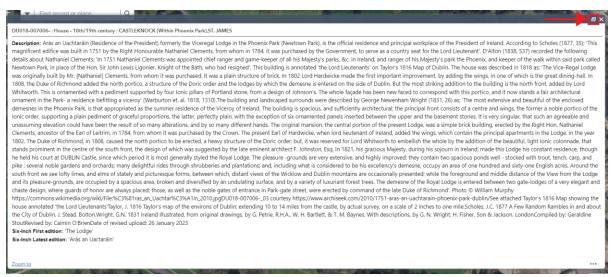
# h. Pop Ups

When you click on an SMR or an NIAH point a pop up will open with information about the record. To expand the pop up to see the text click on the expand button highlighted below in the top right of the popup.



(Screenshot of the expand pop up button)

To minimise the pop up when you are done click on the minimise button highlighted below in the top right of the popup.



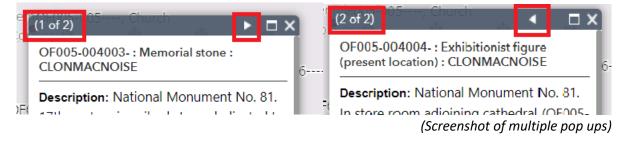
(Screenshot of the minimise pop up button)

When you are finished with the pop up you can close it by clicking on the close button highlighted below in the top right of the pop up.



(Screenshot of the close pop up button)

Sometimes there are multiple pop ups because there will be multiple records at the same location. As highlighted in the top left of the screen shot below it will indicate if there are more than one record at a location, it will tell you how many records there are. In the top right of the pop up an arrow button will appear to allow you to move between the different records.



To find further information on the record associated with the pop up click on the ellipsis button in the bottom right side highlighted below. This will give you more options and if you click on 'view in table' as highlighted below it will open the record in the attribute table at the bottom of the map screen.

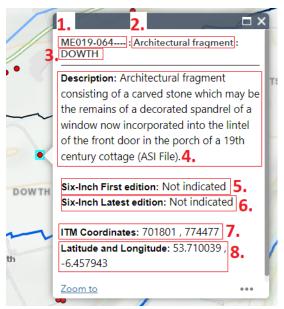


(Screenshot of more options on pop ups)

#### i. SMR Pop Ups

The following information is currently provided in the SMR pop ups;

- 1. SMR Number
- 2. Monument Class
- 3. Townland
- 4. Description
- 5. Six inch first edition
- 6. Six inch latest edition
- 7. ITM Coordinates
- 8. Latitude and Longitude



(Screenshot of SMR pop ups)

#### ii. NIAH Pop ups

The following information is currently provided in the NIAH pop ups;

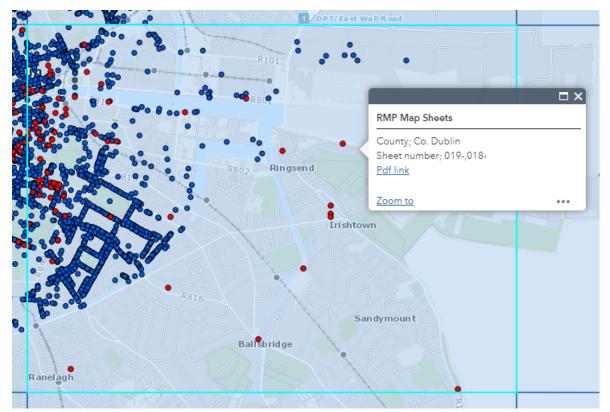
- 1. NIAH Reg. Number
- 2. Name
- 3. Original use
- 4. Rating
- 5. Link to record on NIAH website
- 6. Picture of the record



(Screenshot of NIAH pop ups)

# iii. RMP Map Sheet Pop ups

The RMP Map sheet layer is defaulted to off. To access pop ups please first turn layer on (please see section <u>8.b Layer List</u> for more information). To access the map sheets please click on the 'pdf link' this will open the county pdf on the page that the extent refers to in a new tab.



(Screenshot of RMP Map Sheets pop ups)

#### i. Table

The attribute table tab is at the bottom of the map viewer in the middle as highlighted below. When you click on the upwards facing arrow it will expand the attributes table.

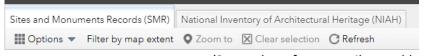


When the attribute table is expanded you can see more information about the record. By default, the filter by map extent button is activated, highlighted below at the top left of the attribute table. In this instance there are 4 SMR records in the map extent, highlighted below in the at the bottom left of the attribute table. To view the full SMR records in the attribute table click on the filter by map extent button and it will turn off.



(Screenshot of open attribute table)

There are two tables available to view in the attributes table, the SMR records and the NIAH records, click on the name of the record you want to view at the top left of the attribute table as highlighted below to open the records.



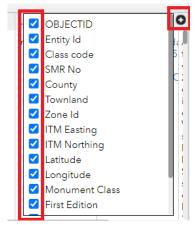
(Screenshot of open attribute table tabs)

To view the records you can scroll through the fields of the table highlighted at the bottom of the table in the screenshot below to scroll across the records. To scroll down through the records it is highlighted at step two in the right of the table. Highlighted in step three is the fields customisation button.



(Screenshot of close table scroll and fields button)

Clicking on the plus button will open the fields drop down button and you can turn on and off the fields that you don't need



(Screenshot of customise fields drop down)

When you are finished with the table click on the downwards facing arrow in the centre top of the attribute table as highlighted below, this will close the table.



(Screenshot of close table button)

#### 5. Header

There are three links on the header as highlighted in the screenshot below;

- 1. Home (NMS) <a href="https://www.archaeology.ie/">https://www.archaeology.ie/</a>
- 2. Home (NIAH) https://www.buildingsofireland.ie/about-us/
- 3. Wreck viewer National Monuments Service: Wreck Viewer (arcgis.com)

If you click on the link it will take you to the respective website.



# 6. Widgets

Tools and functions are called Widgets, they are located in the header on the top right of the HEV, if you hover your mouse over the icon it will tell you the name of the widget.



(Screenshot of widgets icons)

There are 8 Widgets that are explained below in more detail. They are the;

- Legend
- Layer List
- Basemap Gallery
- Select
- Query
- Draw and Measure
- Measurement
- About

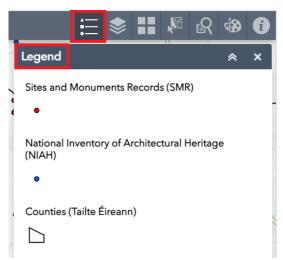
If you click on any of the widgets it will appear in a drop down box. To close the drop down box press exit.



(Screenshot of Exit button)

### a. Legend

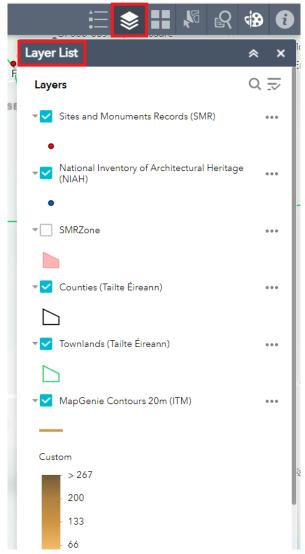
The Legend is the first widget. Its icon is highlighted below. If you click on the icon the legend will appear in a dropdown box. The legend shows the layers that are currently active in the map so the more you zoom in the more layers there will be.



(Screenshot of Legend)

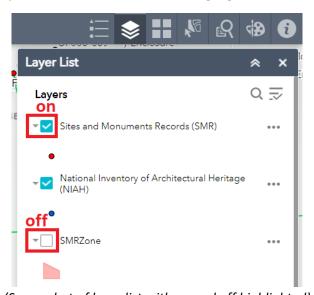
### b. Layer List

The second widget is the Layers List. Its icon is highlighted below. If you click on the icon the layer list will appear in a dropdown box. The layer list shows all of the layers contained in the map viewer.



(Screenshot of Layers List)

You can turn on and off any layers as you require. This is highlighted in the screenshot below. When a layer is on the box will be blue with a white tick in it. When the layer is off the box will be white and empty. To turn the layers on and off click the box as highlighted below.



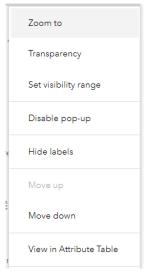
(Screenshot of layer list with on and off highlighted)

More customisation of the Map viewer is available in the ellipsis button on the layer list.



(Screenshot of layer list with the ellipsis highlighted)

Clicking on the ellipsis button will expand more options as illustrated in the screenshot below.



(Screenshot of layer list ellipsis drop down menu)

#### i. Transparency

You can adjust the transparency of the layer by clicking on the transparency option and then adjusting the toggle as required. Please note you can also adjust the transparency of basemaps if you require it.



(Screenshot of layer list transparency menu)

# ii. Set visibility range

You can adjust the visibility of the layer by clicking on the set visibility range option and then adjusting the toggles as required. As previously sated the layers are set to come on at different zoom extents to increase the Map viewers' performance but you customise it to meet your own requirements and preferences.



(Screenshot of layer list set visibility range menu)

#### iii. Pop ups

Clicking on the disable pop ups will disable the pop ups, to enable them you need to click enable pop ups.

#### iv. Labels

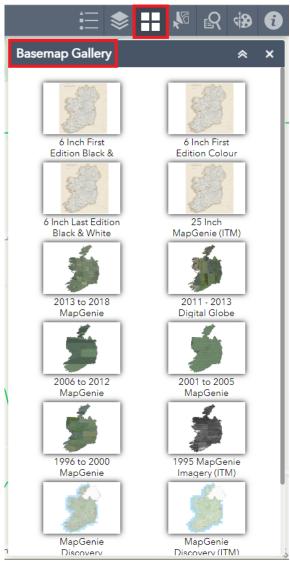
Clicking on the hide labels will hide the labels. You can turn them on by clicking show labels.

#### v. View in attribute table

Clicking on view in attribute table will open the layers associated table in the attribute table which will open at the bottom of the map.

### c. Basemap Gallery

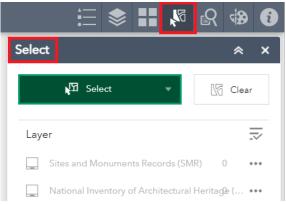
The third widget is the Basemap Gallery. This shows all the basemaps that are available to use in the map viewer. They are arranged in chronological order, oldest to newest, with the historical maps first, then the satellite imagery. To select a basemap click on it and you will see it appear in the map viewer.



(Screenshot of basemap gallery)

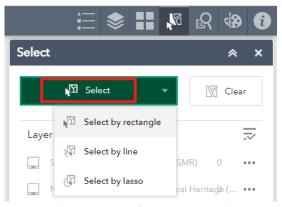
#### d. Select

The fourth widget is the Select tool. It allows you to select SMR and NIAH records on the Map viewer.



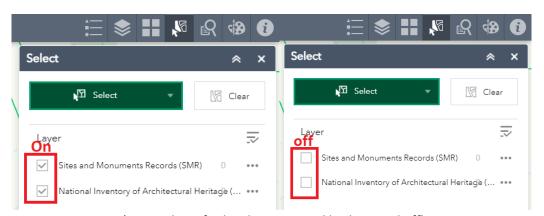
(Screenshot of select)

Clicking on the select button highlighted in the screenshot below will give you options for the select tool.



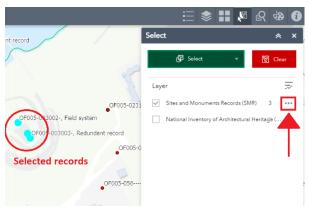
(Screenshot of select options)

Choose your preferred selection type, then click on the map view to select records. By default, both the SMR Records and the NIAH records will be selected. But you can change this by turning the unrequired layers off in the select tool by clicking on the box on the right of the layer to turn it on and off.



(Screenshot of select layers turned both on and off)

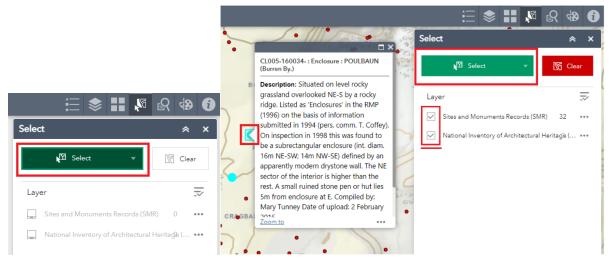
When you select records on the map they will be highlighted in bright light blue. If you click on the ellipsis, highlighted below, you will get more options. If you click on export to csv it will download the attributes for your selected records. The csv can be examined in excel or can be used in spatial software to generate shapefiles. Please see the <a href="MMS open data guide">MMS open data guide</a> for more information.



(Screenshot of selected records and ellipsis button)

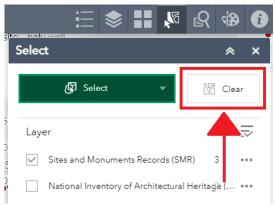
Clicking on the ellipsis button also has the option to view selected results in attribute table, for more information on how the attribute table works please see the Table section of the how to guide.

You can also view the pop up tables of your selected records to get more information on them. First you need to take the mouse out of select mode. To do this click on the dark green select button highlighted in the screenshot below. This will change it to light green and now you can use your mouse as normal on the map viewer and clicking on a record will open the pop up box.



(screenshot of the select button activated and inactive)

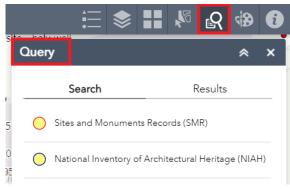
When you are finished with the selection you can press clear to remove it as highlighted below.



(Screenshot of clear selected button)

# e. Query

The fifth widget is the Query tool. It allows you to interrogate the SMR and NIAH records in the Map viewer.



(Screenshot of query)

Click on which ever layer that you would like to search.

#### i. SMR Query

The SMR can be searched in two different ways, by query filter which interrogates the feature attributes and by spatial filter which lets you select different areas on the map and highlights the results in the selected area. You can search using both filters or just one or the other

#### Query Filter

There are four query options in the SMR search. You can use just one or as many as are of interest to you. The query terms as highlighted below are;

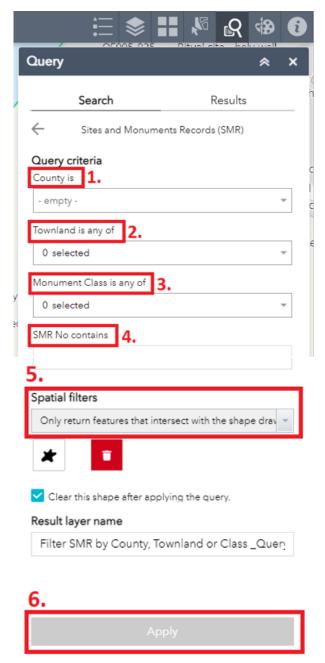
- 1. County
- 2. Townland
- 3. Monument Class
- 4. SMR number

**County;** If you do not select a particular county the query default will be - empty - this will search all counties. If you do wish to select a county you can type it in or scroll and select from the drop down box.

**Townland;** If you wish to search townlands you can, again if you don't wish to search townlands then you don't have to. Please note if you have chosen to select a county the townlands that appear in this drop down will be confined to those that appear in your chosen county. Again you can type in or scroll to your desired townland. You can select as many townlands as you require.

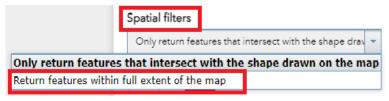
**Monument Class**; If you wish to search monument class you can, again if you don't wish to search monument class then you don't have to. A full list of the monument classes can be found here in the scope notes. Please note if you have chosen to select a county or townland then the monument classes that appear in this drop down will be confined to those that appear in your chosen county and townland. Again you can type in or scroll to your desired monument class. You can select as many monument classes as you require.

**SMR Number;** If you wish to search SMR Number you can, again if you don't wish to search SMR Number then you don't have to. To search the SMR number type the full or partial number in.



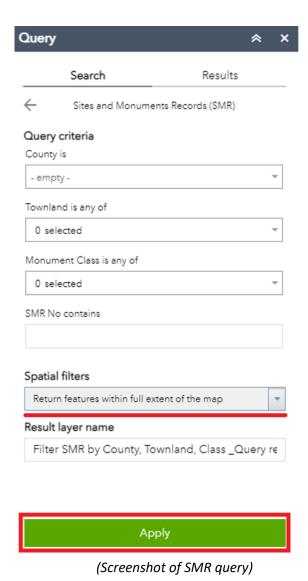
(Screenshot of SMR query)

When you have set your query criteria you must select the correct spatial filter from the dropdown,



(Screenshot of SMR spatial filter drop down list)

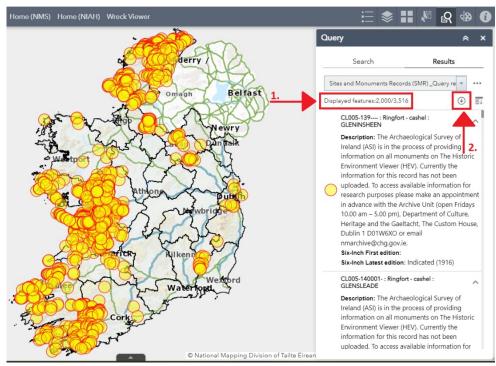
If you do not wish to apply a spatial filter, select the second option 'Return features within the full extent of the map' the apply button will change from grey to green and you can now click on it, as highlighted in screenshot below.



When apply is clicked it will generate the results of your query and the map will zoom to your results which will be highlighted on your map. In the example below the query was to show where the

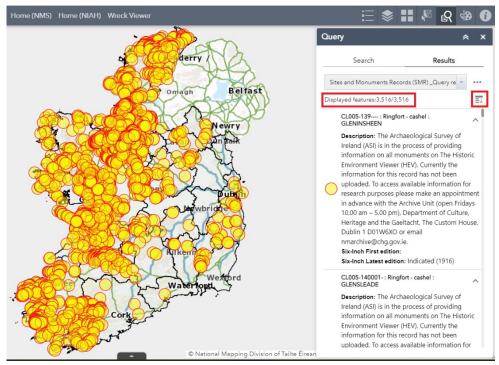
N.B. Please note as highlighted in the screenshot below only the first 2000 results will initially load. To load the rest of the results, click the load more button highlighted below, the results will load in batches of 2000.

monument class was "Ringfort – cashel".



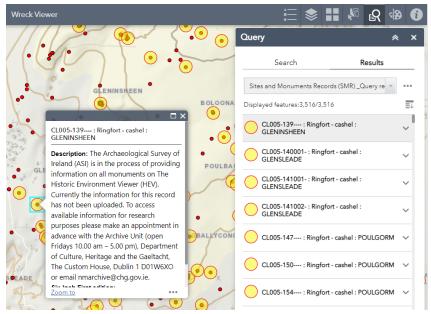
(Screenshot of SMR query results)

Check the displayed features highlighted below to check that all your results have loaded. If you double click on the expand/collapse icon highlighted below it will collapse your search results.



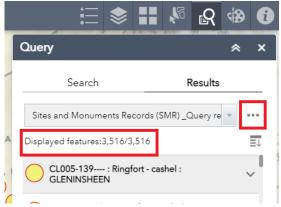
(Screenshot of SMR query full results)

When the results are collapsed you can scroll through the results in the side panel. When you click on a record the map will zoom to that record and highlight it on the map and its associated pop up will open as illustrated in the screenshot below.



(Screenshot of SMR query selected results)

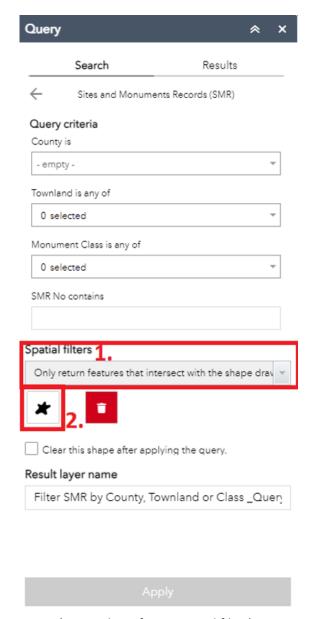
If you click on the ellipsis, highlighted below, you will get more options. If you click on export to csv it will download the attributes for your selected records. The csv can be examined in excel or can be used in spatial software to generate shapefiles. Please see the <a href="MMS open data guide">MMS open data guide</a> for more information. There is also an option to view your results in the attributes table by clicking the ellipsis button then clicking view in attribute table. When you are finished with your query press the ellipsis button and then click remove this result.



(Screenshot of SMR query results feature actions button)

#### Spatial Filter

The spatial filter is below the query filter, you can use both tools together or you can use one or the other To use the spatial filter alone from the spatial filter dropdown box select the option 'Only return features that intersect with the shape drawn on the map' highlighted in the screenshot below.



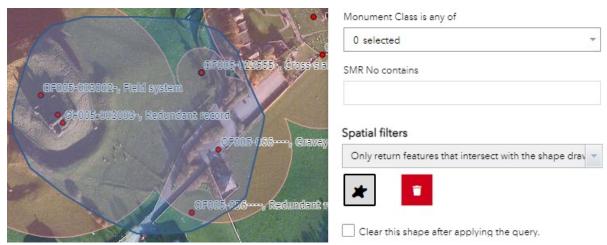
(Screenshot of SMR spatial filter)

Once this has been selected click the drawing shape below, which will highlight in black as shown below.



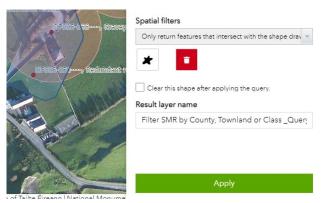
(Screenshot of SMR spatial filter, freehand polygon draw tool)

Now when you hover the mouse over the map the text 'Press down to start and let go to finish' this is how you draw on the map to use the spatial filter. When you have drawn a shape to spatially query it will appear on the map, if you are not happy with the shape you can press the red trash can button to delete it and draw the query area again.



(Screenshot of SMR spatial filter and query shape drawn on map)

Once you have used the freehand polygon tool to draw a shape on the map the 'apply' button will change from grey to green and can now be pressed to see the results of your spatial query.



(Screenshot of SMR spatial filter, when apply button activated)

N.B. Please note similar to the query filter when you use the spatial filter only the first 2000 results will initially load. To load the rest of the results, click the load more button to the right side of the 'Displayed features' text at the top of the results pane, the results will load in batches of 2000.

#### ii. NIAH Query

The NIAH can be searched in two different ways, by query filter which interrogates the feature attributes and by spatial filter which lets you select different areas on the map and highlights the results in the selected area. You can search using both filters or just one or the other

#### Query Filter

There are four query options in the NIAH search. You can use just one or as many as are of interest to you. The query terms as highlighted below are;

- 1. County
- 2. Townland
- 3. Original use
- 4. NIAH reg. no.

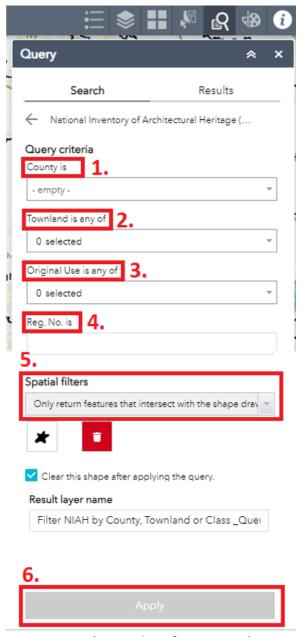
**County;** If you do not select a particular county the query default will be - empty - this will search all counties. If you do wish to select a county you can type it in or scroll and select from the drop down box.

**Townland;** If you wish to search townlands you can, again if you don't wish to search townlands then you don't have to. Please note if you have chosen to select a county the townlands that appear

in this drop down will be confined to those that appear in your chosen county. Again you can type in or scroll to your desired townland. You can select as many townlands as you require.

**Original use**; If you wish to search original use you can, again if you don't wish to search original use then you don't have to. Please note if you have chosen to select a county or townland then the original use types that appear in this drop down will be confined to those that appear in your chosen county and townland. Again you can type in or scroll to your desired original use. You can select as many original use types use as you require.

**NIAH reg. no;** If you wish to search NIAH reg. number you can, again if you don't wish to search NIAH reg. number then you don't have to. To search the NIAH reg. number type the full number in.



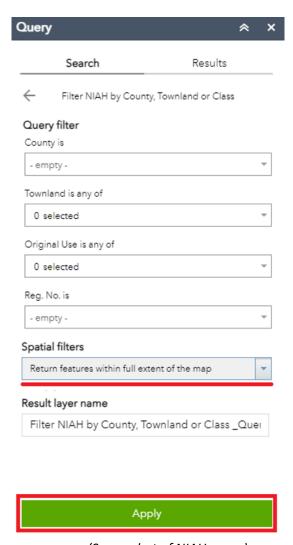
(Screenshot of NIAH query)

When you have set your query criteria you must select the correct spatial filter from the dropdown,



(Screenshot of NIAH spatial filter drop down list)

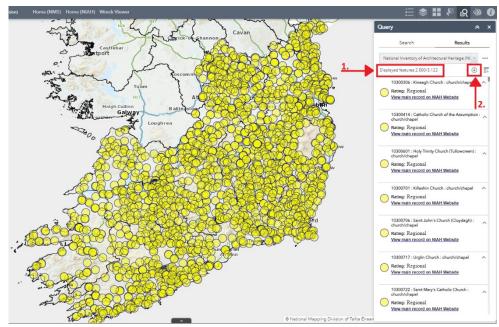
If you do not wish to apply a spatial filter, select the second option 'Return features within the full extent of the map' the apply button will change from grey to green and you can now click on it, as highlighted in screenshot below.



(Screenshot of NIAH query)

When apply is clicked it will generate the results of your query and the map will zoom to your results which will be highlighted on your map. In the example below the query was to show where the original use type was "church/chapel".

N.B. Please note as highlighted in the screenshot below only the first 2000 first results will initially load. To load the rest of the results, click the load more button highlighted below, the results will load in batches of 2000.



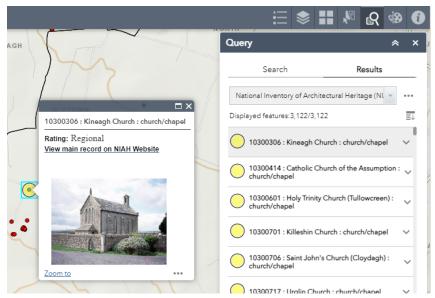
(Screenshot of NIAH query results)

Check the displayed features highlighted below to check that all your results have loaded. If you double click on the expand/collapse icon highlighted below it will collapse your search results.



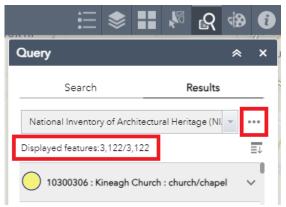
(Screenshot of NIAH query full results)

When the results are collapsed you can scroll through the results in the side panel. When you click on a record the map will zoom to that record and highlight it on the map and its associated pop up will open as illustrated in the screenshot below.



(Screenshot of NIAH query selected results)

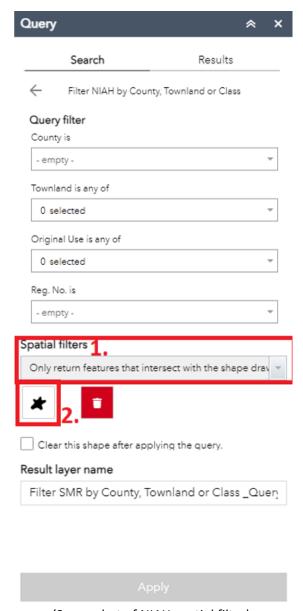
If you click on the ellipsis, highlighted below, you will get more options. If you click on export to csv it will download the attributes for your selected records. The csv can be examined in excel or can be used in spatial software to generate shapefiles. Please see the <a href="MMS open data guide">MMS open data guide</a> for more information. There is also an option to view your results in the attributes table by clicking the ellipsis button then clicking view in attribute table. When you are finished with your query press the ellipsis button and then click remove this result.



(Screenshot of NIAH query results feature actions button)

#### Spatial Filter

The spatial filter is below the query filter, you can use both tools together or you can use one or the other To use the spatial filter alone from the spatial filter dropdown box select the option 'Only return features that intersect with the shape drawn on the map' highlighted in the screenshot below.



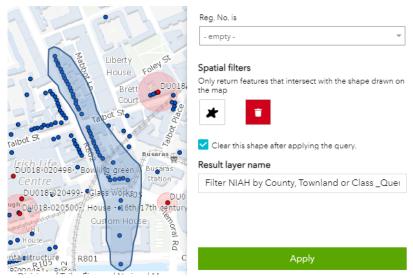
(Screenshot of NIAH spatial filter)

Once this has been selected click the drawing shape below, which will highlight in black as shown below.



(Screenshot of NIAH spatial filter, freehand polygon draw tool)

Now when you hover the mouse over the map the text 'Press down to start and let go to finish' this is how you draw on the map to use the spatial filter. When you have drawn a shape to spatially query it will appear on the map, if you are not happy with the shape you can press the red trash can button to delete it and draw the query area again.



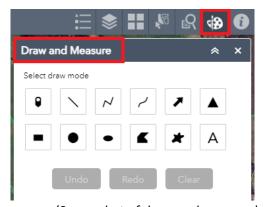
(Screenshot of NIAH spatial filter and query shape drawn on map and apply button activated)

Once you have used the freehand polygon tool to draw a shape on the map the 'apply' button will change from grey to green and can now be pressed to see the results of your spatial query.

N.B. Please note similar to the query filter when you use the spatial filter only the first 2000 results will initially load. To load the rest of the results, click the load more button to the right side of the 'Displayed features' text at the top of the results pane, the results will load in batches of 2000.

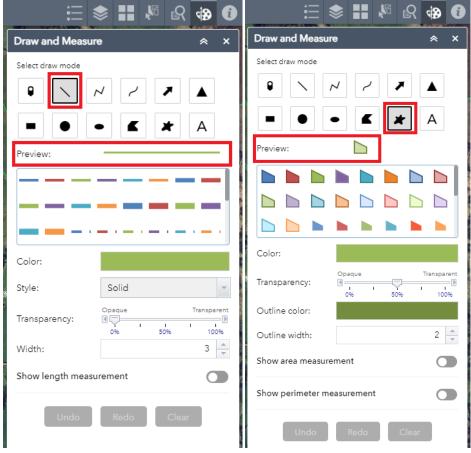
#### f. Draw and Measure

The sixth widget is the Draw and Measure tool. It allows you to draw on, annotate and measure things in the map viewer. First select the type of draw mode that you want. If you do not select a draw type then you cannot draw on the map.



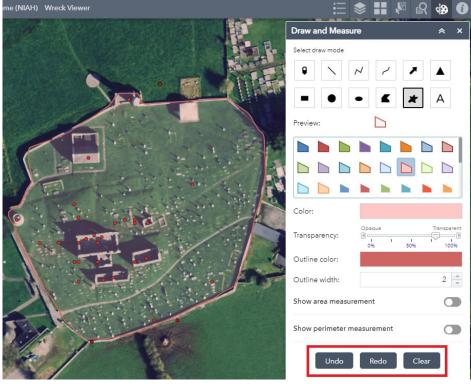
(Screenshot of draw and measure)

The screenshots below show both line draw type and free hand polygon draw type.



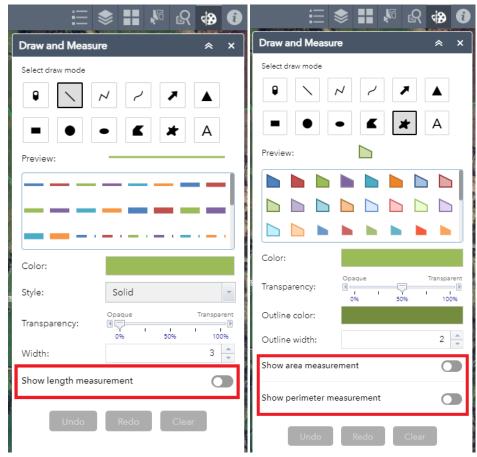
(Screenshot of draw and measure line and freehand polygon type)

The screenshot below shows an example of a freehand polygon drawn on the map. Once you have made a drawing on your map you can undo, redo or clear your drawing by selecting any of these buttons as highlighted below in the bottom of the Draw and Measure panel.



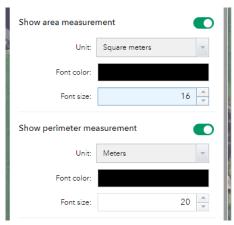
(Screenshot of draw and measure drawing example)

Depending on which draw tool you have selected there will be different measurement options that you can select. Please note if you want to measure something you must turn on measure before you draw the thing you want to measure on the map.



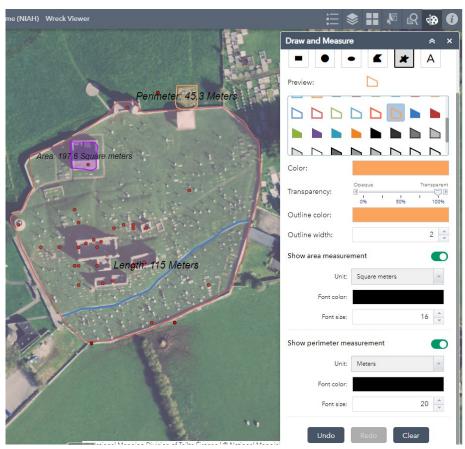
(Screenshot of draw and measure line and freehand polygon type measure options)

When you turn on the measurement tool, as is shown in the screenshot below, you can choose your measurement unit, font colour and font size to your own specifications.



(Screenshot of measure options)

The screenshot bellows illustrates an example of how the draw and measure widget can be used in the HEV.

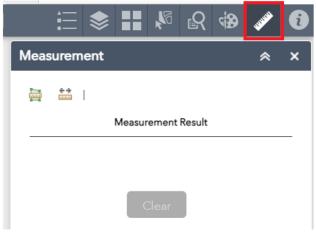


(Screenshot of draw and measure drawing and measurement example)

When you wish to remove the drawing from your map just press clear and it will disappear. Please note that any drawings you make are only temporary and will be lost when you refresh or close the Map Viewer.

### g. Measurement

The seventh widget is the measurement tool. It is different from the draw and measure tool, because the draw and measure tool measurements display on the maps itself, while the measure tool measurements display on the measure widget side panel.



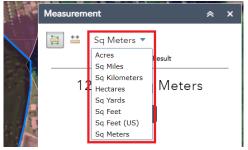
(Screenshot of measurement tool)

There were are two measurement tools, area and line. The area measure tool, is the first button at the top left of the measurement panel. Click on the area measure button to activate it then draw on the map the area that you want to measure, double click to finish measuring. The measurement will appear on the measure panel as highlighted below.



(Measure area option)

You can change the measurement unit by clicking on the unit and selecting the one you want from the drop down as highlighted below.



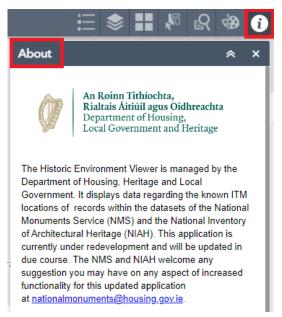
(Measurement unit drop down box)

The line measure tool, is the second button at the top left of the measurement panel. Click on the line measure button to activate it then draw on the map the area that you want to measure, double click to finish measuring. The measurement will appear on the measure panel as highlighted below. You can clear the measurement by clicking the clear button.



### h. About

The eighth widget is the about section. It contains the same information as the splash screen about the HEV, the data with in it and copyright information, as well as links to pertinent information.



(Screenshot of the about widget)