

## ACCESSING CRASHMAP PRO

To access CrashMap Pro, [click on this link](#)

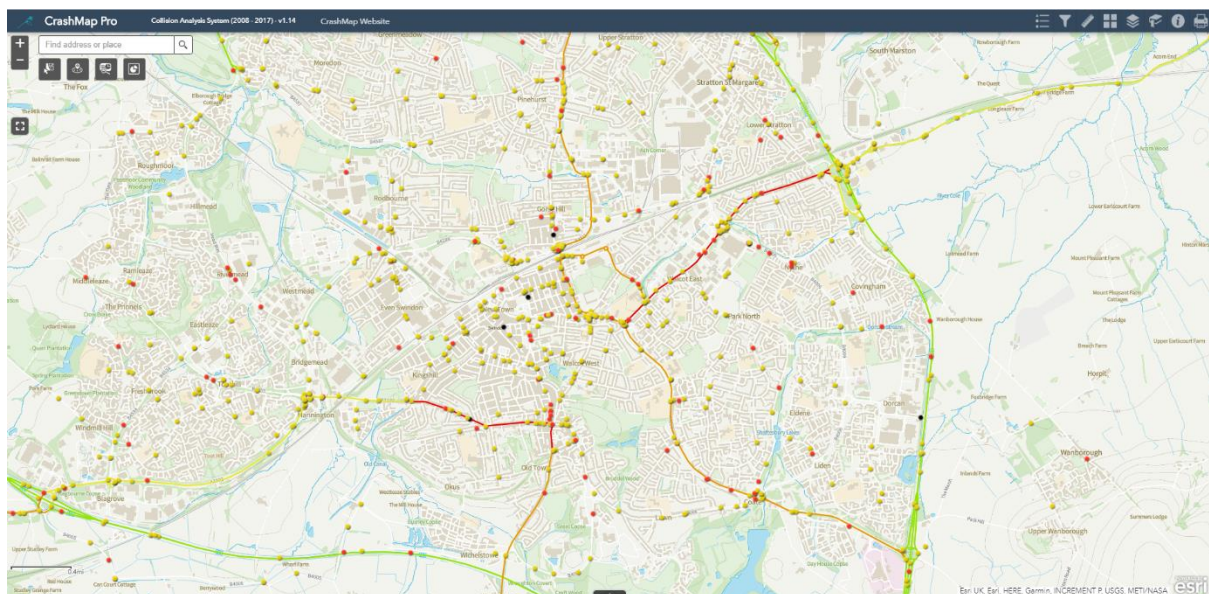
## INTRODUCTION

CrashMap Pro is a new solution created by the developers of the popular [www.crashmap.co.uk](http://www.crashmap.co.uk) website. We have received requests from professional users such as transport planners, local authorities and police forces to create a better online tool which will allow more powerful searches and printing options.

This User Guide has been created to guide you through the system currently in development and we welcome your feedback to [information@crashmap.co.uk](mailto:information@crashmap.co.uk)

## NAVIGATING THE MAP

The CrashMap Pro Web Map consists of a full-page map with a series of buttons along the top banner and in the top right corner of the map, which we will look at in more detail in the following sections of the guide.



Navigating this map is intuitive. To change the *zoom* of the map, click the **+** and **-** buttons in the top left corner. To change the *extent* (the portion of the map visible on the screen), either click and drag the map. The map can be made full screen using the **⊞** button, which can then be undone by pressing the **⊞** button.

There is also a search bar in the top left corner of the map to search by address.






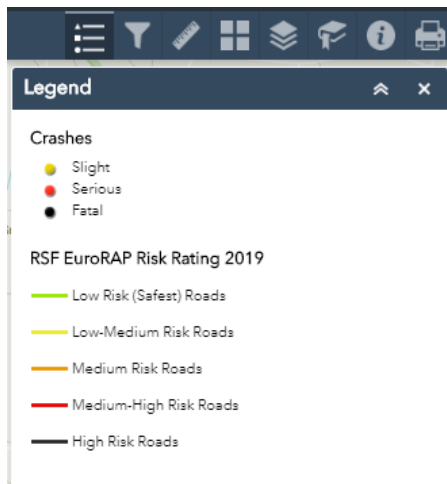
Finally, in the bottom left corner the *scale* of the map is visible.








On the right of the banner at the top of the Web Map there are eight icons:

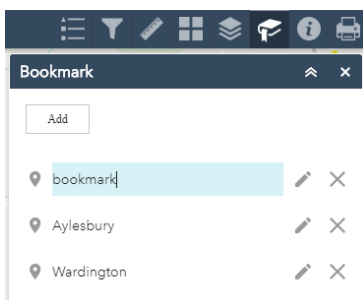





Each of these will open a different window on the right of the screen. Clicking the  button in the banner at the top of each window will collapse the window to the banner, and the  button will expand it again. The  button will close the window. Note that only one of these windows can be open at any time.





Selecting the first 'Legend' icon  displays the *legend* of the map. The second 'Filter' icon  opens the *filters* window, which will be explained in the subsequent *filters* section. The third 'Measurement' icon  opens the measurement window, which will be explained in the *measurements* section. Selecting the fourth 'Basemap Gallery' icon  allows the user to change the underlying *basemap*. There is a selection of OS maps to choose from with various colour schemes and labelling.

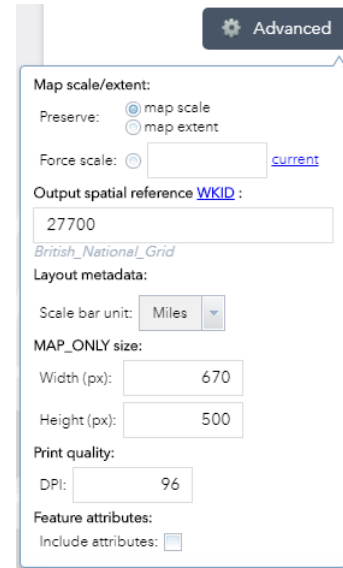
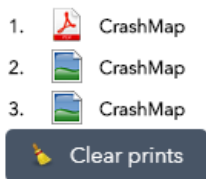
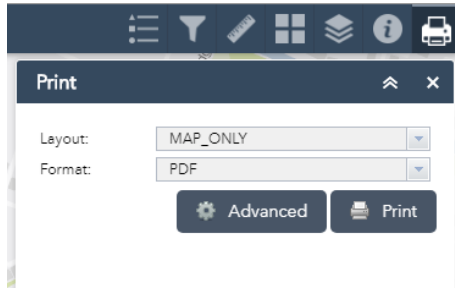
The fifth 'Layer List' icon  opens the *Layer List* window, which will be explained in the *Layers* section.










The sixth 'bookmarks' icon  opens the *Bookmarks* window. This allows you to name and save the current map extent and return to it later. You can add , edit bookmark name  and delete  existing bookmarks. (Please note: Bookmarks are saved in the web browser's cache. They will be removed if you clear the browser cache).

The seventh 'About' icon  opens the *About* window that provides information about CrashMap, including data sources.

The final icon  gives the option to *print* the map. The layout and format of the print are selected using the dropdowns. The 'Advanced' button allows the user to manually set the scale, extent, scale bar units, height, width and quality of the print. Each print appears listed in the pop-up window. Clicking on these opens the print in a new browser tab. The list of prints can be cleared by clicking the 'Clear prints' button.



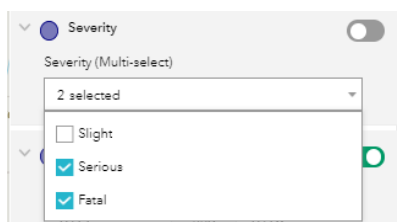
## FILTERS


 On the right of the banner at the top of the map is the 'Filters' icon which opens the Filter widget window. Each of these filters are turned on or off using the switches  to the right. The filters allow the user to filter crashes by year, severity, Highway Authority, the involvement of different road user types and the involvement of certain casualty types. When multiple filters are on, only crashes satisfying all conditions are shown. Each filter can be collapsed or expanded using the  and  buttons on the edge of the left, and the entire pop-up window can be collapsed, expanded or closed using the ,  and  buttons.

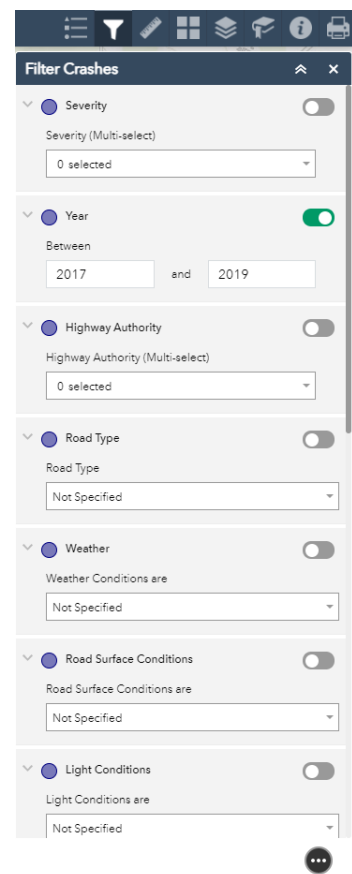
On opening CrashMap Pro the 'Year' filter is active and filters on crashes between 2017 and 2018.

The 'Severity' and 'Highway Authority' filters are multi-select filters.

Multi-select filter options vary depending on the number of unique records in the data.

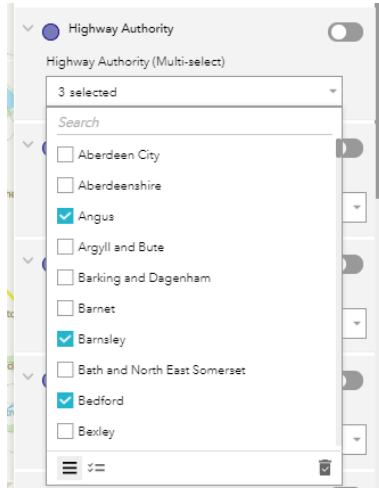
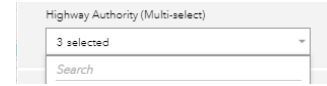





With the 'Severity' filter simply check  or uncheck : any number of the boxes on the drop-down list and apply  the filter to limit the number of crashes displayed.

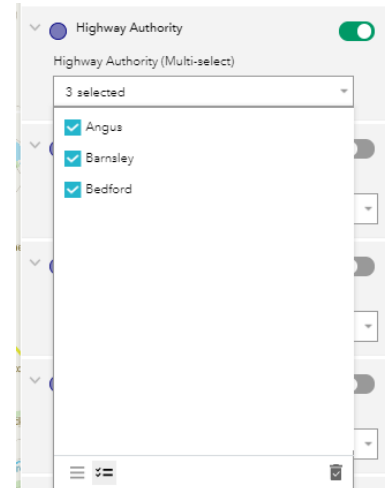



With the 'Highway Authority' filter, due to the number of choices there are more options available.



The user can scroll through the list of Highway Authorities and check all that apply or use the search function to find a Highway Authority by name.




There are three buttons at the bottom of the drop-down. The  button shows the full list of Highway Authorities, whilst clicking the  button will limit the list to those selected. To reset the selection, click on the  button so that no authorities are selected.




When a multi-select filter is off  the selected attributes are remembered, just not applied.

At the bottom right of the Filters panel is the filter actions button . Click on this will open the filter options .



There are 3 options:

Reset Filters (except custom) . This will remove all user values in the pre-set filters and return the filtering to its initial state.

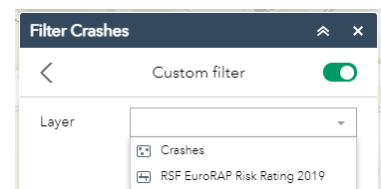
Create a Custom Filter . This will open the Custom Filters panel (see below)

Close Filter Options .

## CUSTOM FILTERS

Clicking the 'Create custom filter' button  under the filter options menu  at the bottom right of the pane allows the user to create their own filter.

Upon clicking this button, the user is prompted to select a layer to apply filters to.



Upon selecting a layer, the user can add *expressions* and *sets* (a combination of expressions) to the filter.

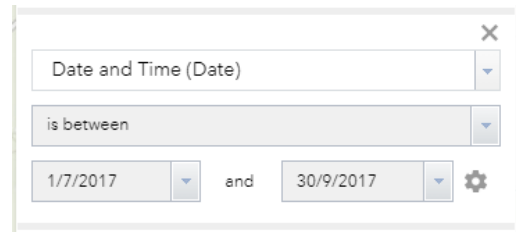


## Add Expression –

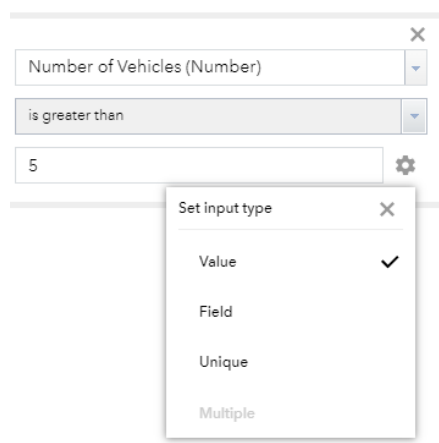
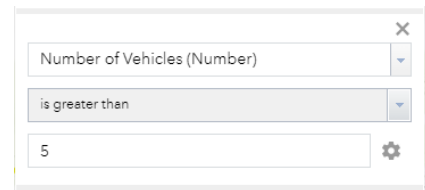
An expression is a single logical statement about objects in your layer. The filter will only show objects for which this statement is true.


For example, the user could filter for a specific date period by adding the following expression:

Where the field is 'Date and Time (Date)' and the query can be between dates, after a certain date or on a specific date.



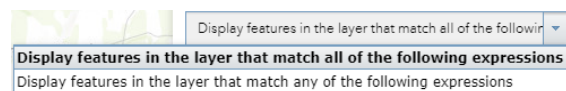
Or the user could be interested in Collisions that involved multiple vehicles. Where you can select a specific value, values between, or values greater than or less than a value.



Clicking the 'Set input type' button  in the bottom right corner allows the user to change whether the last part of the statement is a 'Value' (a single fixed value, as above), a 'Field' (a field from the attribute table), 'Unique' (a specific value taken from the attribute table, for which the user will be offered a drop-down list to choose from) or 'Multiple' (a list of possible values).

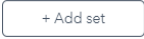
For example, if the user wanted to filter all collisions involving more than 5 vehicles, they would choose 'value'. If the user wanted to filter where vehicles is a specific number (e.g. 24), setting the input category to 'Unique' would give them a drop-down list of specific values to choose from.

The user can continue to add expressions to the custom filters and set the filter rule to be either requires all the expressions held within it to be true or requires any of the expressions to be true.



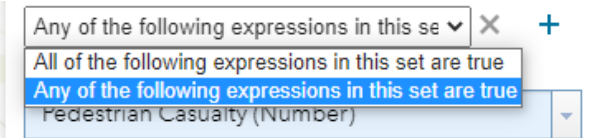
*Note: This is where custom filters are different to pre-set filtering using multiple filters. In custom filtering, the filtering rule can be set to either 'All' or 'Any'. The pre-set filtering is always 'All'.*

## Add Set –

A set is a combination of expressions. To create a 'set' click on the '+Add Set'  button at the bottom of the Custom Filters Pane

A set will start with two expressions and more can be added by clicking on the + symbol

Each 'Set' requires the filtering to be either all the expressions held within it to be true or requires any of the expressions to be true.

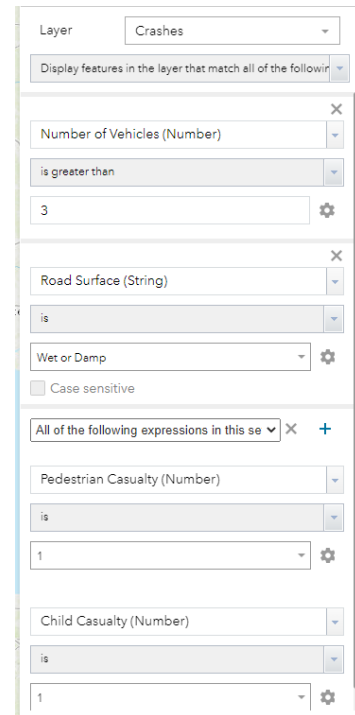


This is where more complex scenarios can be developed as the expressions within a 'set' could be 'Any' while the combination of expressions could be set to 'All'

For example, if a user were interested in collisions involving 3 or more vehicles on wet roads, that 'either' involved a pedestrian or a child, you would use a 'Set' to add two filters, one to select collisions involving a pedestrian casualty and one to select collisions involving a child casualty, and the expression rules to be 'any of the following expressions in this set are true'.

Then for the main custom filter – set the filter rule to be 'display features in the layer that match all of the following expressions'.

The 'Set' expressions would then filter for any collision where there was 'either' a pedestrian casualty or a child casualty rather than collisions involving 'both' a pedestrian and a child, and the main expression would filter only for collisions that involved 'either' a pedestrian or child casualty and more than 3 vehicles on wet roads.



A filter can be removed from the list of expressions or from a set of expressions by clicking on the ✕ icon

The switch  in the top right of the 'Custom filter' pane determines whether the filter is on or off. To return to the main filters click the < button in the top right of the pane. Note that closing this pane does not automatically turn the custom filter off and custom filters will remain until the CrashMap Pro window is closed or the page refreshed.

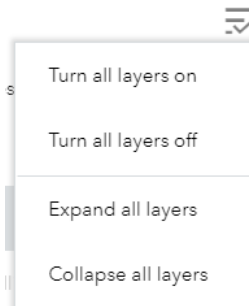
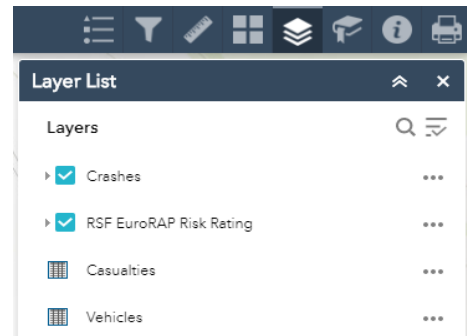



## LAYERS




Selecting the 'Layer List' icon in the top right corner will open the list of available *layers* ('CrashMap' and 'Labels') and *tables* ('Vehicles' and 'Casualties').

The 'CrashMap' layer shows crashes coloured by severity. It is overlaid on the basemap, and can be removed or added to the map by deselecting or selecting the tick box  to the left of 'CrashMap'. Clicking on 'CrashMap' will display/hide the legend for the layer. This legend is also visible in the 'Legend' window when the layer is made visible.



Clicking the  button gives the user the option to turn all layers on/off or to expand/collapse the legends of all layers.

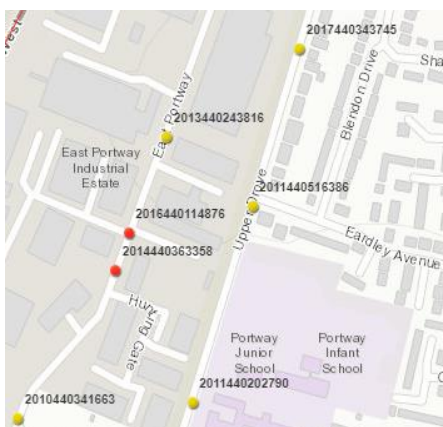
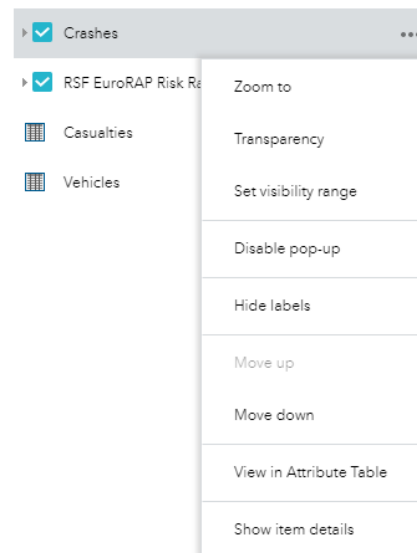
Clicking the  icons to the right of each label give the user further options for the *layer* and *tables*.

The 'Zoom to' option will change the zoom of the map to show the entire layer within the extent. The 'Transparency' option allows the user to adjust the transparency of the layer.




The 'Disable pop-up' option, which is replaced with an 'Enable pop-up' option when selected, toggles whether or not a pop-up showing data appears when selecting an object within the later.

This will be covered more in the following *Viewing Collision Data* section.







When you zoom in beyond a certain level crashes will be labelled with their Accident ID.

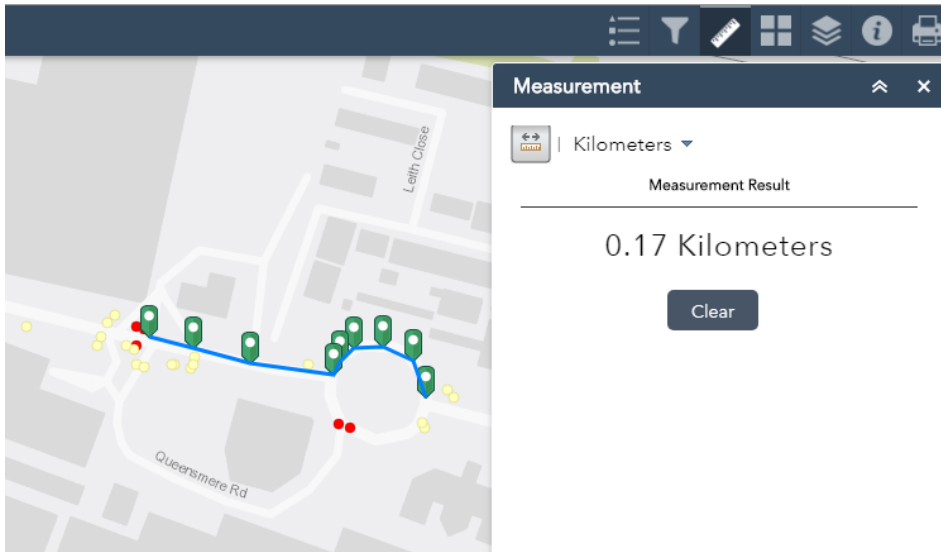
In areas where crashes are close together individual labels will be displayed as you zoom in further.

Labels can be toggled off/on with 'Hide labels' or 'Show labels' from the  menu.







The 'View in Attribute Table' option adds the data from the layer to the set of attribute tables that appear at the bottom of the screen. These attribute tables will also be discussed further in the following section. Finally, the 'Show item details' option will open a new tab in the browser showing the layer or table, and information about the layer or table, in ArcGIS Online.

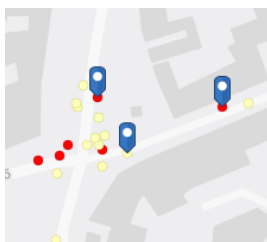
## MEASUREMENTS



Selecting the 'Measurements' icon in the top right corner will open the Measurements window. To begin measuring, click the 'Distance' button  and select the units from the adjacent drop-down list. Clicking consecutively on the map will add a series of green markers  to the map, between which distances are measured. To place the final green marker, double click on the map. The total distance will then display in the measurements window. To clear the previous green markers, click the 'Clear' button . To reset the measuring tool, toggle the 'Distance' button  on and off.

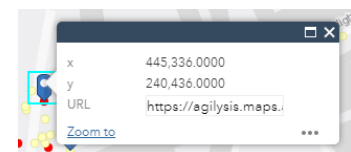
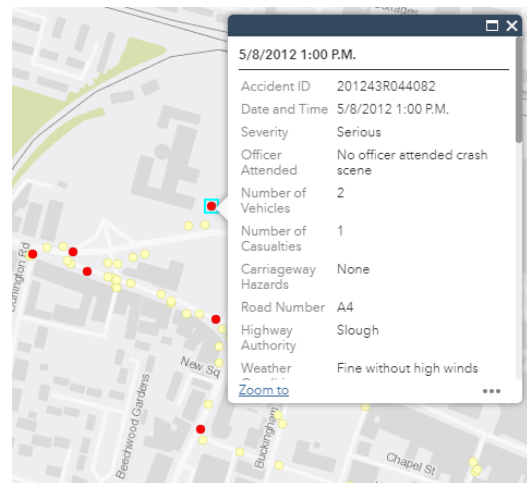


## SELECTING, VIEWING AND EXTRACTING COLLISION DATA

When a collision in the CrashMap layer is clicked on a pop-up window appears. The pop-up window can also be maximised using the 'Maximise' button , returned to normal size using the 'Restore' button , and closed using the 'Close' button . The 'Zoom to' button [Zoom to](#) changes the zoom of the map to focus on the crash. Clicking the  button gives three additional options: 'Pan to'  will change the extent of the map to centre around the crash; 'Add a marker'  will add a blue marker to the map at the chose crash, which will remain visible when printed; 'View in



Attribute Table'  will show the crash as a single record in the attribute table. Clicking on a blue marker will show its co-ordinates in a dropdown box and clicking on the  button will give the option to pan to the marker or remove the marker.




This window lists all the data available for the selected collision, including the severity, the number of vehicles and the number of casualties. At the bottom of this list of data, next to 'Web\_Link', is a link to CrashMap to download the full report on this collision.





Related tables:

Vehicles

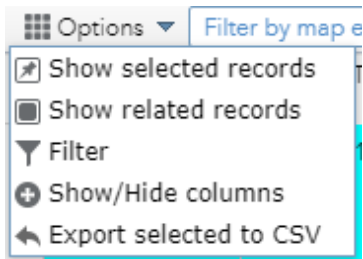
Casualties

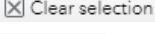

Below the data are links to related tables. Clicking one of these will take you to the data on either the vehicles or casualties related to the collision. Clicking the back button  in the top right corner of the popup window will bring back the

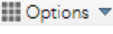

collision data.

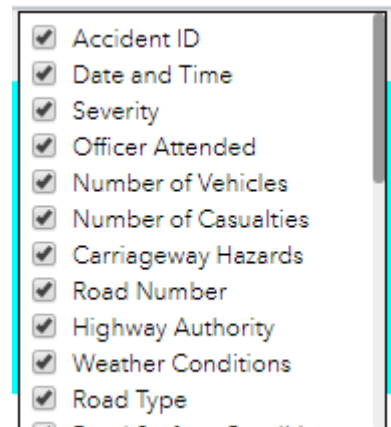
To view data on multiple items in the CrashMap layer, clicking the 'Open Attribute Table' button  at the bottom of the map opens the available *attribute tables*. These collect together all the available data for the crashes within the extent. To view all crashes in the attribute table, regardless of extent, deselect the 'Filter by map extent' button .

Accident ID	Date and Time	Severity	Officer Attended	Number of Vehicles	Number of Casualties	Carriageway Hazards	Road Number	Highway Authority	Weather Conditions	Road Type	Road Surface Conditions	Speed Limit	Light Conditions	Junction Detail	Pedestrian Crossing	Involved Pedal Cycle	Involved Motorcycle	Pedestrian Casualty
2011439010032	2/3/2012 10:30 a.m.	Slight	No officer attended crash scene	1	1	None	A4	Slough	Fine without high winds	Roundabout	Dry	70	Daylight, regardless of presence of streetlights	Roundabout	Pedestrian phase at traffic signal junction	0	0	1
2011439013082	3/8/2012 6:50 p.m.	Slight	Police officer attended crash scene	2	1	None	A4	Slough	Fine without high winds	Dual carriageway	Dry	30	Daylight, regardless of presence of streetlights	Not at or within 20 metres of junction	Pelican, puffin, toucan or similar non-junction pedestrian light crossing	1	0	0
2011439020562	5/6/2012 4:30	Slight	No officer	2	1	None	A4	Slough	Fine without high winds	Dual carriageway	Dry	30	Darkness: street	Crossroads	Pedestrian	0	0	0



Records in the attribute table can be selected by clicking on them. Selected records are highlighted blue. To select multiple records, hold down Ctrl/Command on the keyboard. Records can also be selected using the map, as explained later in this section. The 'Clear selection' button  will clear the selected records. The 'Zoom to' button  changed the extent of the map to include all of the selected records. The 'Options' dropdown

menu  reveals an additional five buttons: 'Show selected records' reduces the attribute table to just the selected records; 'Show related records' opens attribute tables showing the 'Casualties' and 'Vehicles' related to the selected records; 'Filter' allows the user to filter records in a way similar to building a custom filter as described later in the *Filters* section; 'Show/Hide columns' opens a list of field names, which can be selected or deselected; 'Export selected to CSV' exports the selected records to a CSV file. These options are also available in the 'Casualties' and 'Vehicles' tables, which can alternatively be opened using the 'View in Attribute Table' option for the layer in the 'Layer List' window. To collapse the attribute tables, click the 'Hide Attribute Table' button .



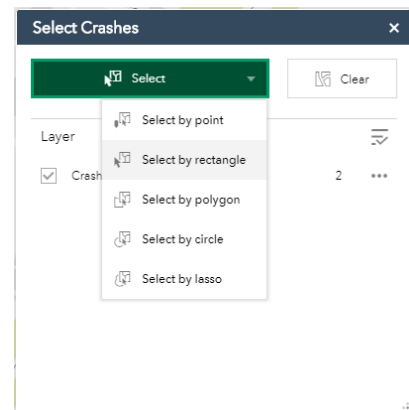
Crashes in the CrashMap layer can also be selected using the map.



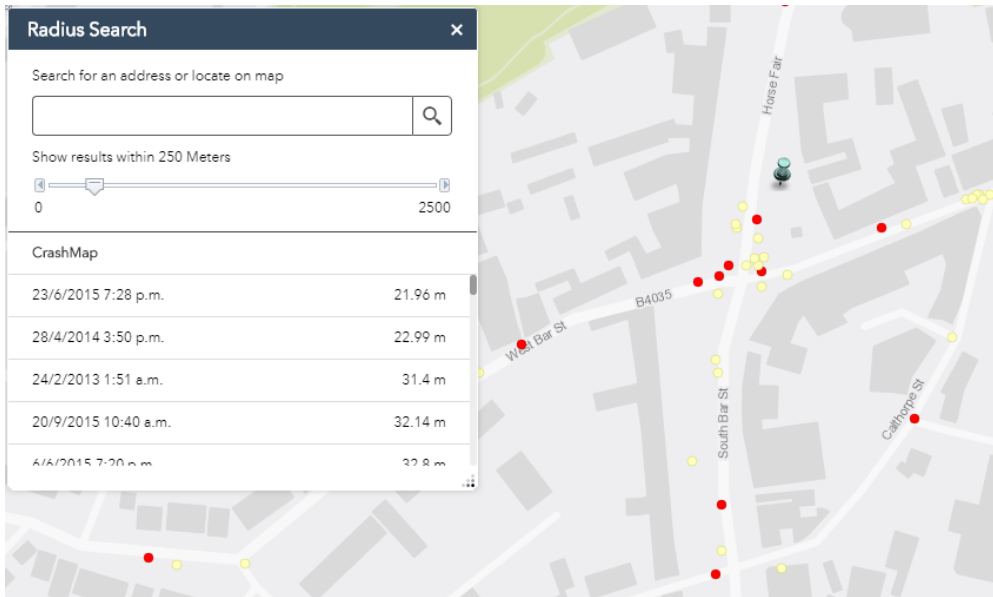
The 'Select Crashes' widget in the top left corner of the map opens a pop-up window. The 'Select' dropdown gives the user the option to draw a point, rectangle, polygon, circle or lasso and then selects all crashes contained within the drawn shape. The selected crashes are then selected and highlighted in the attribute table at the bottom of the map. The 'Clear' button clears the selection.



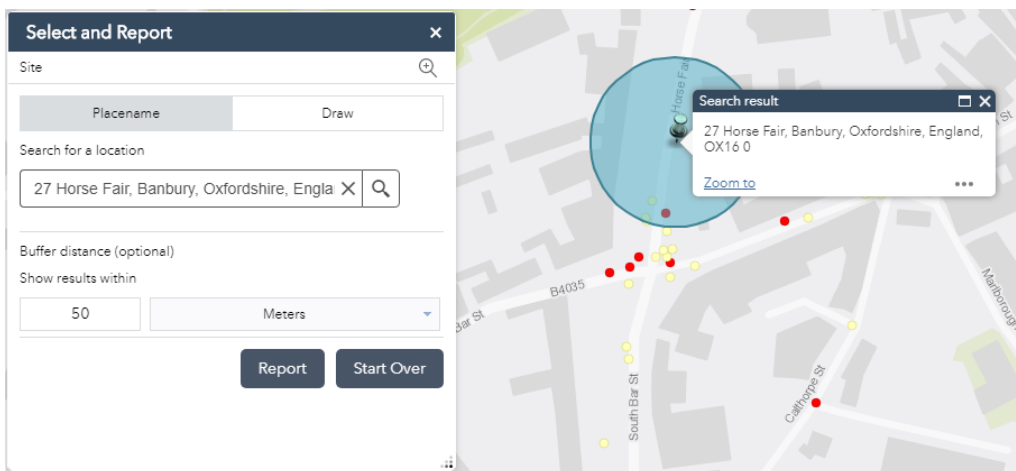
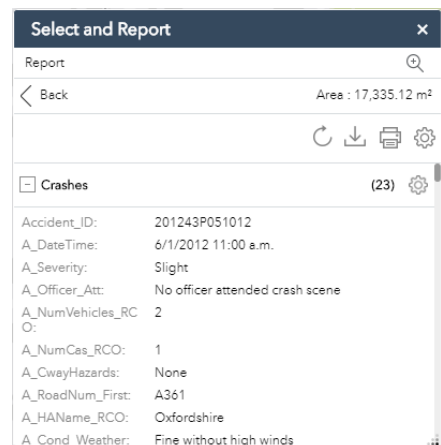
The 'Radius Search' widget allows the user to list all crashes that have occurred within a chosen radius of a point. With the widget pop-up open, clicking the map or using the searchbar will select the centre point, and the radius is set using the sliding bar. Selecting a crash from the resulting list will give further information, including the

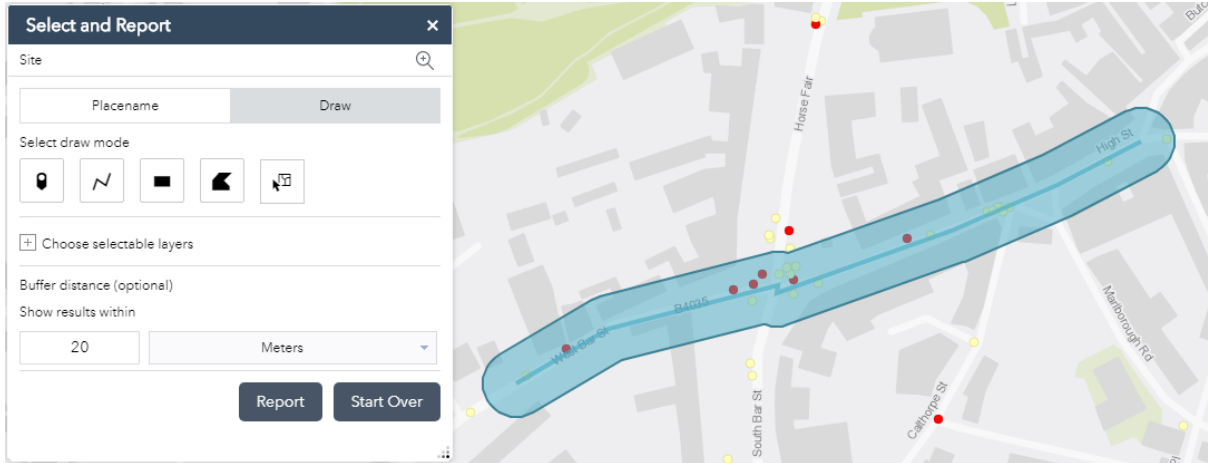





approximate distance to the centre point as well as information about the crash, the related vehicles and the related casualties.



The 'Select and Report' widget allows the user to highlight a region of the map and produce a report on the collisions in the region. The 'Placename' tab of the pop-up window highlights the area around a location, found using the search bar, within a chosen radius. The 'Draw' tab allows the user to draw a Point, Polyline, rectangular Extent, Polygon or selection of crashes, and highlights the region within a chosen radius. Clicking the 'Report' button produces a report on the highlighted crashes. This shows the area of the highlighted region, and the 'Zoom to location' button can be used to change the extent of the map to cover the region. The list of crashes can be expanded using the '+' button, and the 'Choose attributes to display' button to the right allows the user to select/deselect which fields appear in the report.





The measurement units of the report can be changed using the 'Choose units for analysis' button , and the report can be downloaded as a CSV using the 'Download' button  or printed using the 'Print' button . Selecting print will open the report in a new browser tab, and includes comments box to allow the user to add text to the report before printing.

## CrashMap Report

### Area of Interest (AOI) Information

Area : 17,315.62 m<sup>2</sup>

Oct 24 2018 16:55:12 British Summer Time



Enter comments here

### Summary

Name	Count	Area(m <sup>2</sup> )	Length(m)
Crashes	23	N/A	N/A