

# Water Data SA – Getting Started Guide



Updated 17/05/2021

## Introduction

Water Data SA (<https://water.data.sa.gov.au>) uses the AQUARIUS WebPortal product to provide access to information about South Australia's water monitoring locations (sites) and data, including near-real time data. See [What you can access](#) for information about the data available in Water Data SA.

This guide provides an overview of the key features and for finding, viewing and exporting water data.

**Note:** Water Data SA is compatible with Microsoft Edge, Google Chrome, Mozilla Firefox, Chrome and Safari.

## Content

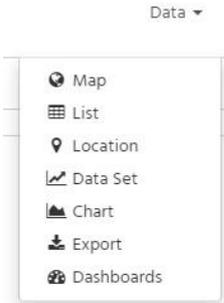
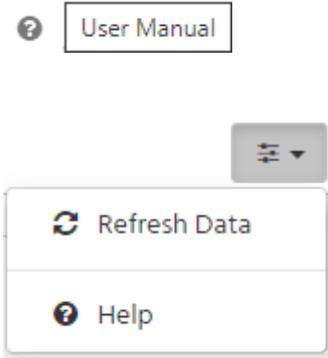
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# Features Overview

This section provides an overview of the Water Data SA features.

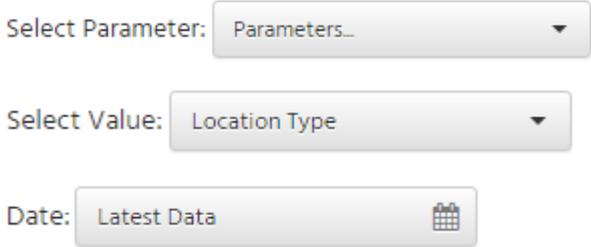
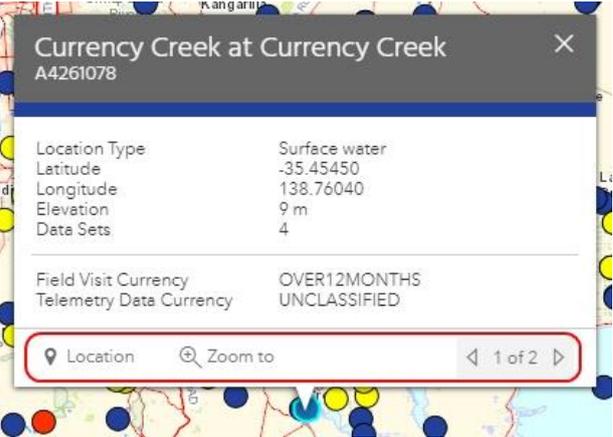
## Navigation

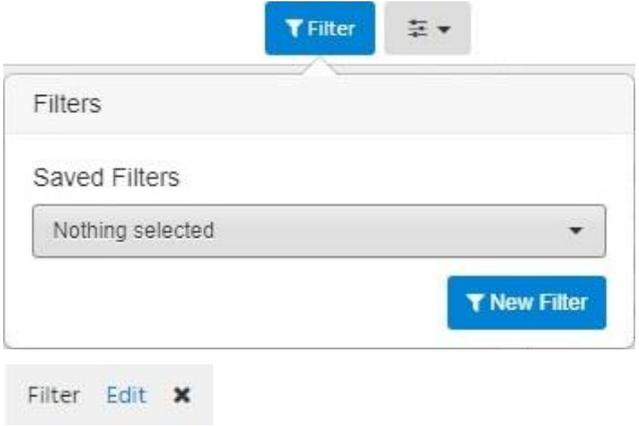
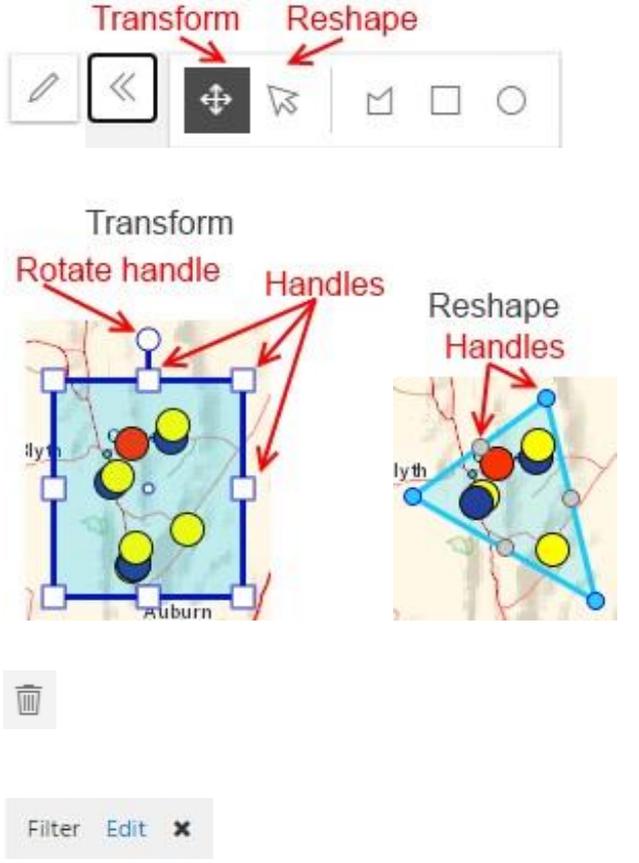
General navigation features are outlined below.

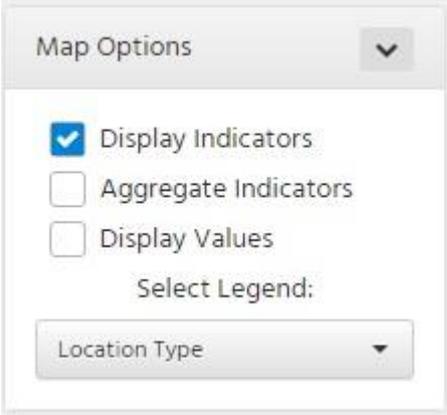
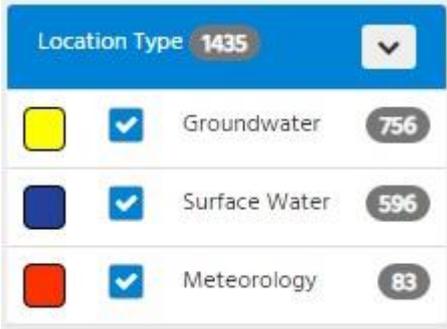
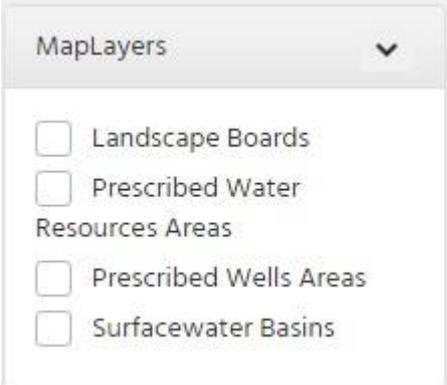
Description	Feature
<p><b>Menu</b> (left panel) for navigating the views. Collapse the panel to show only the icons.</p>	 <p>The screenshot shows a vertical navigation menu with icons for Map, List, Location, Data Set, Chart, Export, and Dashboards. To the right of the menu is a 'Collapse panel' button, which is a small square with a left-pointing arrow.</p>
<p><b>Data menu</b> an alternative way to navigate the views.</p>	 <p>The screenshot shows a dropdown menu titled 'Data' with a downward arrow. The menu items are Map, List, Location, Data Set, Chart, Export, and Dashboards, each with its corresponding icon.</p>
<p><b>Sign In</b> for internal staff only</p>	 <p>A button with a person icon and the text 'Sign In'.</p>
<p><b>Language menu</b> choose the language in which to display the application labels. Note that the data does not change from English.</p>	 <p>A small dropdown menu with a language icon and a downward arrow.</p>
<p><b>Getting Started Guide</b> quick access to this guide.</p>	 <p>A button with an information icon and the text 'Getting Started Guide'.</p>
<p><b>Help - User Manual</b> to access the Aquarius WebPortal application Help.  Aquarius WebPortal is the underlying application of Water Data SA.</p>	 <p>The screenshot shows two buttons: 'User Manual' with a question mark icon, and 'Refresh Data' with a circular arrow icon. Below these is a 'Help' button with a question mark icon. A small menu icon is visible above the buttons.</p>

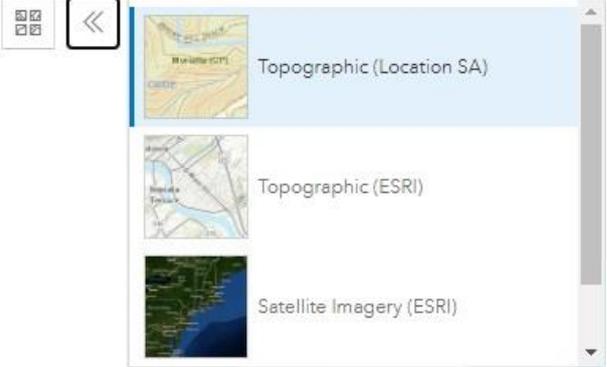
## Map view

The Map view has many of the common features that you see on most maps, e.g. pan, zoom, scale bar, coordinates that change as you move the hover over the map. Features that are unique to Water Data SA are outlined below.

Description	Feature
<p><b>Select options</b></p> <p>Available at the top of the Map view and the List view, these enable you to filter locations:</p> <ul style="list-style-type: none"> <li>• <b>Select Parameter</b> from a list of data types (parameters), e.g. water level, discharge or electrical conductivity (EC).</li> <li>• <b>Select Value</b> to specify statistical value or Location Type.</li> <li>• <b>Date</b> to select a periodic interval (daily, monthly, yearly), a specific date range or Latest.</li> </ul> <p>Other select options are available on the Location, Data Set and Chart views.</p> <p><b>Note:</b> In a Select list, <b>None</b> means no selection, i.e. all.</p>	
<p><b>Location search</b></p> <p>Start typing a location by name, keyword or location identifier (location id), to see a list of results. Select from the list to zoom to the location and open the Location popup (below).</p>	
<p><b>Location popup</b></p> <p>Click a location indicator on the map, or use the Location search feature (above), to see a popup of basic information. A navigation bar is shown at the top or bottom of the popup. Click:</p> <ul style="list-style-type: none"> <li>• <b>Location</b> to navigate to the Location Summary, including a list of data sets.</li> <li>• <b>Zoom</b> to the location on the map</li> <li>• <b>&lt; 1 of 2 &gt;</b> shown if the selected location indicator overlaps others. Use this to cycle through popups for the overlapping locations.</li> </ul>	

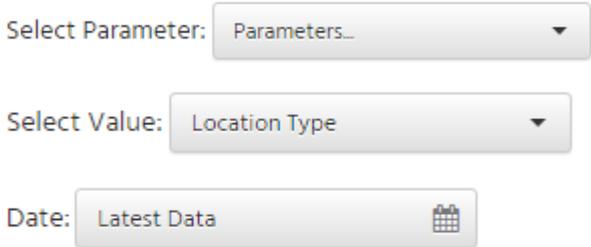
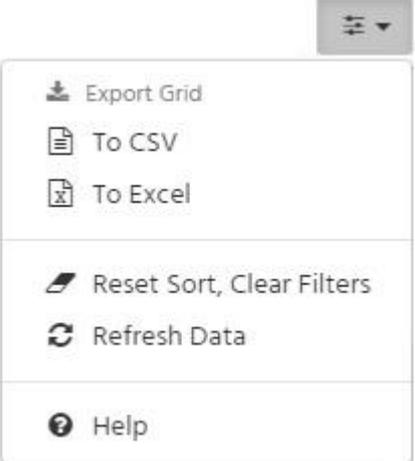
Description	Feature
<p><b>Location Filter</b></p> <p>Filter locations by their attributes and tags, e.g. prescribed area or catchment. You can:</p> <ul style="list-style-type: none"> <li>• Select a pre-defined saved filter, if available.</li> <li>• Click <b>New Filter</b> to open the <b>Filter Locations</b> dialog and apply your own filter settings.</li> <li>• Click <b>Edit</b> to edit the filter.</li> <li>• Click <b>X</b> (dismiss) to remove all filters, including a spatial filter, if relevant.</li> </ul> <p>When you apply a filter to the map, it also applies the filter to the List view.</p> <p>When working in the <b>Filter Locations</b> dialog, be sure to save your selections by clicking <b>Filter</b> at the bottom of the dialog. Clicking <b>X</b> (dismiss) will cancel your selections/edits.</p> <p>You can also draw a shape on the map to apply a spatial filter.</p>	
<p><b>Spatial filter</b></p> <p>Filter locations in an area of interest by drawing a shape (polygon, square or circle) on the map.</p> <p>To edit the shape, click:</p> <ol style="list-style-type: none"> <li>1. <b>Transform</b> to resize the shape by dragging a shape handle, or rotate by dragging the circle handle above the shape.</li> <li>2. <b>Reshape</b> and drag a handle on the shape.</li> </ol> <p>Navigate to the List view to see a list of locations within a spatial filter.</p> <p>The spatial filter can be used in combination with the <b>Filter</b> feature described above. Use <b>Edit</b> to refine your selection.</p> <p>Remove the shape in one of the following ways:</p> <ul style="list-style-type: none"> <li>• Click <b>Delete feature</b>; available when the <b>Transform</b> or <b>Reshape</b> modes are active.</li> <li>• Click <b>X</b> (dismiss) to remove the shape and any other Location Filters.</li> <li>• To retain other Location Filters, click <b>Edit</b>, select <b>Map Selection</b>, and then click <b>Remove Filter</b>. Click <b>Filter</b> to complete</li> </ul>	

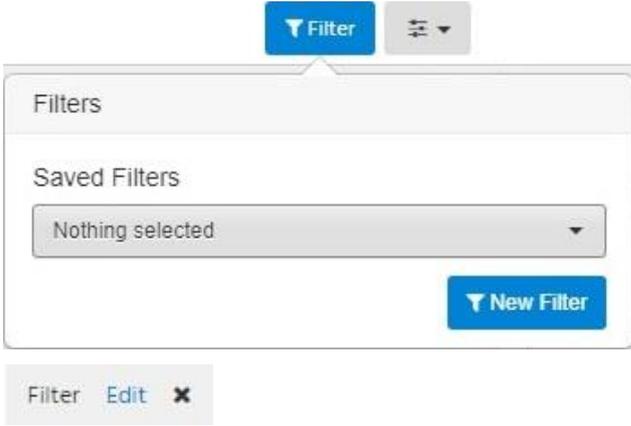
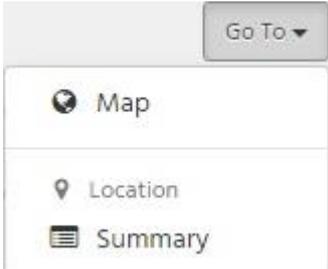
Description	Feature
<p><b>Map Options</b></p> <ul style="list-style-type: none"> <li>• <b>Display indicators:</b> Toggle on/off location indicators (coloured circles) on the map.</li> <li>• <b>Aggregate indicators:</b> Cluster nearby location indicators into one indicator, and show a count of locations in each cluster.</li> <li>• <b>Display a Values:</b> Display a value beside each location indicator. The value shown depends on the selections made above the map.</li> <li>• <b>Location Type:</b> Select the type of location indicators you want to see on the map, e.g. Location Type (default, Field Visit Currency or Telemetry Data Currency). The location indicator colour scheme and legend changes according to your selection.</li> </ul>	
<p><b>Legend</b> of the colour scheme for the location indicators shown on the map. There are several legends available.</p> <p>Each legend shows a location count for each type of location indicator. A total is shown in the legend title. Click a checkbox to show/hide locations types on the map.</p>	
<p><b>Map Layers</b></p> <p>Select a map layer to show the boundaries, and their names, on the map.</p>	

Description	Feature
<p><b>Base map</b></p> <p>Click to select from a list of base maps, e.g. topographic or satellite.</p>	

## List view

The List view shows a list of available locations and provides access to more detail

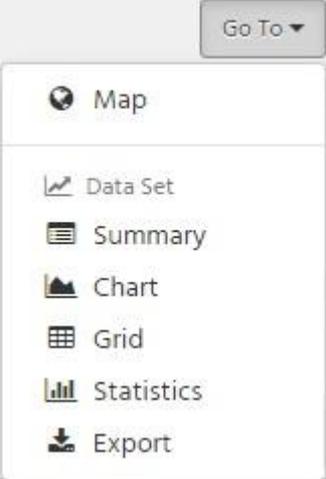
Description	Feature
<p><b>Select options</b></p> <p>Available at the top of the Map view and the List view, these enable you to filter locations:</p> <ul style="list-style-type: none"> <li>• <b>Select Parameter</b> from a list of data types (parameters), e.g. water level, discharge or electrical conductivity (EC).</li> <li>• <b>Select Value</b> to specify statistical value or Location Type.</li> <li>• <b>Date</b> to select a periodic interval (daily, monthly, yearly), a specific date range or Latest.</li> </ul> <p>Other select options are available on the Location, Data Set and Chart views.</p>	
<p><b>Options menu</b></p> <p>Available throughout Water Data SA. The options available on the menu vary according to the current view.</p> <p>In the example shown (right) for the List view, the options available enable you to export the list as a CSV or Excel file, reset the sort order and filters that you may have applied to the list, and refresh the data. The Help option is available on all instances of the menu.</p>	

Description	Feature
<p><b>Filter</b></p> <p>Filter locations by their attributes and tags, e.g. prescribed area or catchment. You can:</p> <ul style="list-style-type: none"> <li>Select a pre-defined saved filter, if available.</li> <li>Click <b>New Filter</b> to apply your own filter.</li> <li>Click <b>Edit</b> to edit the filter</li> <li>Click <b>X</b> (dismiss) to remove the filter.</li> </ul> <p>When you apply a filter to the List view, it also applies it to the Map view.</p>	
<p><b>List</b></p> <p>Click a column title to sort the list.</p> <p>Click the Filter icon (funnel) in the column header for more filter options.</p>	
<p><b>Go To menu</b></p> <p>Shown at the end of a list item and click:</p> <ul style="list-style-type: none"> <li><b>Map</b> to zoom to the location on the map.</li> <li><b>Summary</b> to view the Location Summary for the selected location.</li> </ul>	

## Location view

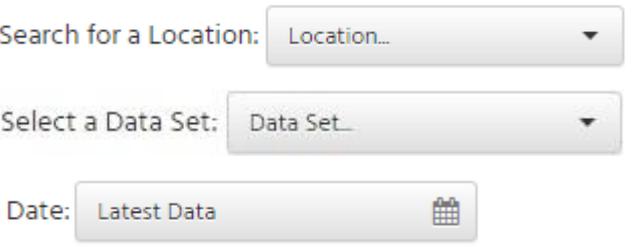
The Location view enables you to search for, and view a summary of, a specific location, including a list of the location's data sets.

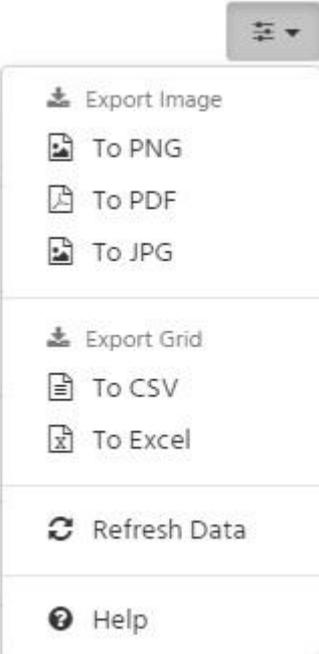
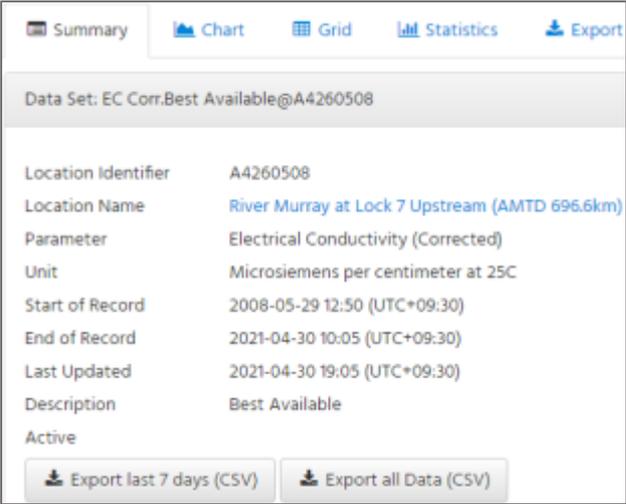
Description	Feature
<p><b>Select option – Search for a location</b> by name, keyword or location identifier (location id), to see a list of results. Select from the list to see the Location Summary showing descriptive metadata for the locations.</p> <p>Scroll down to see a list of data sets available for the location.</p>	
<p><b>Go To Map</b></p> <p>Click to zoom to the location on the Map.</p>	

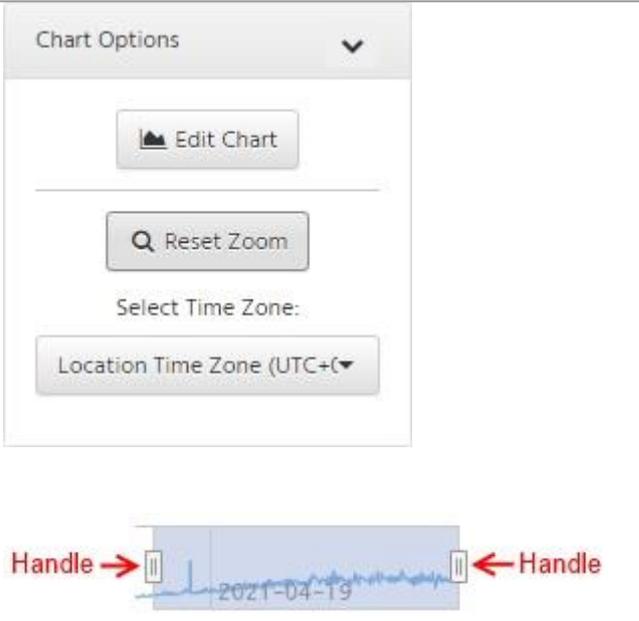
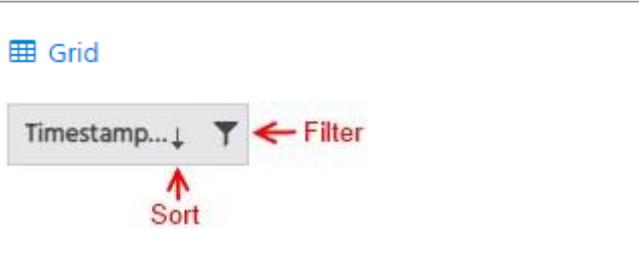
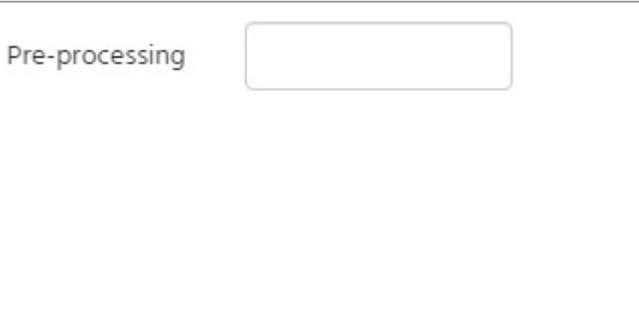
Description	Feature
<p><b>Go To menu</b></p> <p>Shown at the end of each data set listed for the selected location, click:</p> <ul style="list-style-type: none"> <li>• <b>Map</b> to zoom to the location on the map.</li> <li>• <b>Summary, Chart, Grid, Statistics</b> or <b>Export</b> option to navigate to the corresponding tab in the <b>Data Set</b> view.</li> </ul>	

## Data Set view

The Data Set view enables you to view data sets for a selected location.

Description	Feature
<p><b>Select options</b></p> <ul style="list-style-type: none"> <li>• <b>Search for a location</b> by name, keyword or location identifier (location id), to see a list of results. Select from the list to see the Location Summary showing descriptive metadata for the locations.</li> <li>• <b>Select a Data Set</b> from a list of data sets available for the selected location.</li> <li>• <b>Date</b> to select a periodic interval (daily, monthly, yearly), a custom date range, Latest Data or All Data.</li> </ul> <p>Once a data set is selected, the <b>Summary, Chart, Grid, Statistics</b> and <b>Export</b> tabs appear showing the relevant information for the selected data set.</p>	

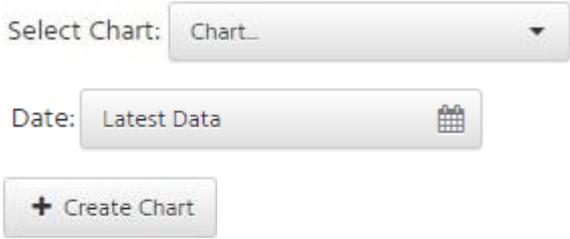
Description	Feature
<p><b>Options menu</b></p> <p>Available throughout Water Data SA. In the example shown (right) for the Data Set view, the options enable you to:</p> <ul style="list-style-type: none"> <li>• export the Chart as an image.</li> <li>• export the Grid as a CSV or Excel file.</li> <li>• refresh the data.</li> <li>• access Help.</li> </ul>	
<p><b>Summary tab</b> shows basic information about the data set. Click:</p> <ul style="list-style-type: none"> <li>• the location name to switch to the Location view showing the location summary and list of available data sets.</li> <li>• <b>Export last 7 days (CSV)</b> for a quick export of the last 7 days of data.</li> <li>• <b>Export all Data (CSV)</b> for a quick export of the entire record of data.</li> </ul> <p>More export options are available on the <b>Export</b> tab.</p> <p>The dataset summary is also shown in the right panel, which remains visible on the other tabs.</p>	
<p><b>Chart tab</b> shows a chart/plot of data points for the selected dataset. Initially, the data range is determined by the <b>Selection Option – Date</b>.</p> <p><b>Note:</b> The Y axis for a Groundwater Depth To Water data set is inverted by default.</p> <p>You can:</p> <ul style="list-style-type: none"> <li>• hover over the chart to see a screen tip showing the value of the data point. The corresponding date/time screen tip appears at the bottom of the chart.</li> <li>• click and drag across the chart to zoom to a specific data range.</li> </ul>	

Description	Feature
<ul style="list-style-type: none"> <li>click <b>Reset Zoom</b> to return to the initial data range.</li> <li>click <b>Edit Chart</b> to edit the chart settings, e.g. plot colour, or add another data set from the same location. To add a data set from a different location, use the Chart view.</li> <li>click and drag the handles of the timeline bar, below the chart, to zoom to a specific data range.</li> <li>click <b>Field Visits</b> to see indicators (diamond) for field visits, on the chart.</li> </ul> <p>The right panel also contains the <b>Grade Code</b> and <b>Approval Level</b> legends.</p>	 <p>The screenshot shows the 'Chart Options' panel with buttons for 'Edit Chart', 'Reset Zoom', and a 'Select Time Zone' dropdown menu. Below the panel is a timeline bar with a blue background and a red line representing data. Two red arrows labeled 'Handle' point to the left and right ends of the timeline bar, which is zoomed in on the date '2021-04-19'.</p>
<p><b>Grid tab</b> shows a list of data points for the current dataset. Initially, the data range is determined by the <b>Selection Option – Date</b>.</p> <ul style="list-style-type: none"> <li>Click a column title to sort the list.</li> <li>Click the <b>Filter</b> icon (funnel) in the column header for more filter options.</li> </ul>	 <p>The screenshot shows the 'Grid' tab with a column header 'Timestamp...' containing a downward arrow icon. A red arrow labeled 'Sort' points to this icon. To the right of the header is a funnel icon labeled 'Filter' with a red arrow pointing to it.</p>
<p><b>Statistics tab</b> shows pre-defined statistics for the current data set, if available.</p>	 <p>The screenshot shows the 'Statistics' tab with a blue bar chart icon.</p>
<p><b>Export tab</b> enables you to specify options for exporting the current data set, including applying a calculation. See <b>Pre-processing</b> below.</p> <p>To export multiple data sets for the same location, select and export each separately, or use the Export page.</p> <p>To export data sets from different locations, use the Export page.</p>	 <p>The screenshot shows the 'Export' tab with a blue download icon.</p>
<p><b>Pre-Processing</b> is available on the Export tab and when editing the Chart. It enables you to apply calculations to the data set before it is displayed on the chart, e.g. hourly or daily totals.</p> <p>For more information, see <a href="#">How Processes are Applied</a>.</p> <p><b>Note:</b> Pre-processing is also available on the Export tab or the Data Set view.</p>	 <p>The screenshot shows the 'Pre-processing' field with a text input box.</p>

## Chart view

The Chart view enables you to:

- Select a pre-defined chart, if available.
- Create a chart with multiple locations and/or data sets.

Description	Feature
<p><b>Select options</b></p> <ul style="list-style-type: none"> <li>• <b>Select Chart</b> from a list of pre-defined charts, if available.</li> <li>• <b>Date</b> to select a periodic interval (daily, monthly, yearly), a custom date range, Latest Data or All Data.</li> <li>• <b>Create Chart</b> to create a chart.</li> </ul>	

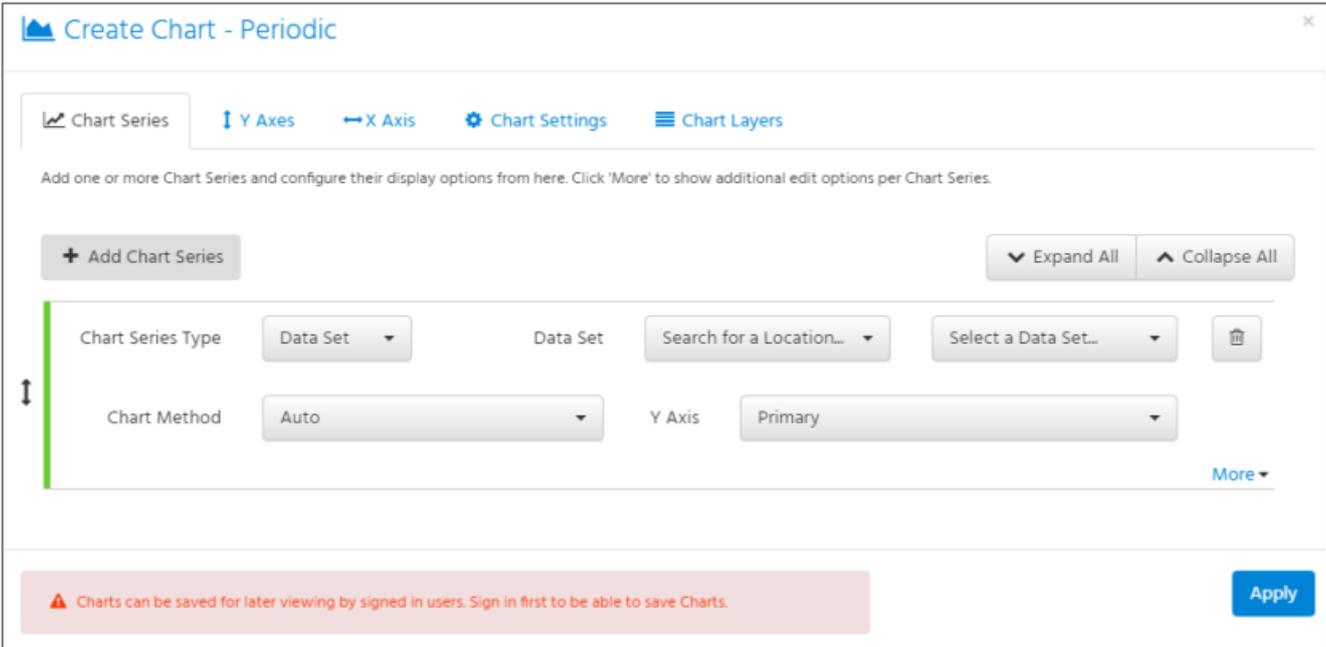
### Create or edit a chart

The following chart settings are available when you:

- edit a chart in the Data Set view; the selected data set is
- create and edit a chart in the Chart view.

**Note:** When you create or edit a chart, it remains available only during the current browser session; you cannot save it for later use. You can navigate to the other views and return to the chart, in the same browser session.

In the example below, **Create Chart** was selected. If you are editing a chart in the Data Set view, the Chart Series is populated with the selected data set.



The **Chart Series** tab enables you to add data sets and apply basic chart settings. The **Y Axis**, **X Axis**, **Chart Settings** and **Chart Layers** tabs enable you to refine the chart settings.

The following table outlines some of the key features.

Description	Feature
<p><b>Add Chart Series</b> enables you to add a data set to the chart.</p> <p>If you are editing a chart in the Data Set view, any additional data sets must be from the same location.</p>	
<p><b>Expand All</b> and <b>Collapse All</b> expands or collapses the additional settings for all Chart Series.</p>	
<p><b>More</b> and <b>Less</b> expands or collapses the additional settings for an individual Chart Series.</p>	
<p><b>Chart Method</b> enables you to choose the chart type of <b>Line</b> (default), <b>Column</b> or <b>Point</b>.</p>	
<p><b>Y Axis</b> enables you to choose from <b>Primary</b>, <b>Secondary</b> or <b>Inverted</b> Y Axis settings, which are defined on the <b>Y Axis</b> tab. If more than one data set is selected, you can apply different Y axis settings.</p> <p>To invert the Y axis, e.g. for a groundwater Depth to Water data set, select <b>Inverted</b>.</p>	
<p><b>Pre-Processing</b> enables you to apply calculations to the data set before it is displayed on the chart, e.g. hourly or daily totals.</p> <p>For more information, see <a href="#">How Processes are Applied</a>.</p> <p><b>Note:</b> Pre-processing is also available on the Export tab and in the Data Set view.</p>	
<p><b>Legend Type</b> applies to the legend bar at the bottom of the chart, below the Grade bar and the Approvals bar.</p> <ul style="list-style-type: none"> <li>• <b>Full</b> displays the data set identifier, location name, parameter and unit.</li> <li>• <b>Brief</b> displays only the data set name.</li> <li>• <b>Custom</b> presents a text field in which you specify the text to display.</li> </ul>	
<p><b>Tooltip Type</b> applies to the tooltip that appears as you hover over data points on the chart:</p> <ul style="list-style-type: none"> <li>• <b>Full</b> displays the data set identifier, location name, parameter, unit and data point value.</li> <li>• <b>Brief</b> displays only the data set name.</li> </ul>	

Description	Feature
<ul style="list-style-type: none"> <li><b>Custom</b> presents a text field in which you specify the text to display.</li> </ul>	
<p><b>Export URL</b> enables you to save your export settings as a URL so that you can repeat it as a direct download, at any time, or share it with others.</p> <p><b>Note:</b> There is a limit of 2000 characters in the export URL. You will receive a warning "Export API URL would exceed maximum URL length" if the URL approached 2000 characters.</p>	<p>Export URL <input type="text" value="https://water.data.sa.gov.au/Export/"/></p> <p> Copy to Clipboard</p>

## Export page

The Export page enables you to:

- Select a pre-defined export template, if available.
- Create an export query with multiple locations and/or data sets.
- Share an export via a URL.

Description	Feature
<p><b>Include Grade Codes</b> and/or <b>Approval Levels</b></p> <p>If you choose either of these, see the <b>Grade Code</b> and/or <b>Approval Level</b> legends in the <b>Data Set</b> view. <b>Grade codes</b> are also listed in <a href="#">What you can access</a>.</p>	<p>Include Grade Codes? <input type="radio"/> Yes <input checked="" type="radio"/> No</p> <p>Include Approval Levels? <input type="radio"/> Yes <input checked="" type="radio"/> No</p>
<p><b>Add Data Set</b> enables you to add a data set by selecting a location and data set combination.</p> <p>You can add up to 20 data sets for an export.</p>	<p></p>
<p><b>Select a Conversion Option</b> enables you to convert the data set unit to a different unit. The available options depend on the data set parameter.</p> <p><b>Note:</b> A default conversion unit may be selected automatically. If you don't want to convert the unit, select the blank option.</p>	<p><input type="text" value="Select a Conversion Opt"/></p>
<p><b>Export URL</b> enables you to save your export settings as a URL so that you can repeat it as a direct download, at any time, or share it with others.</p> <p><b>Note:</b> There is a limit of 2000 characters for the export URL. A warning appears "Export API URL would exceed maximum URL length" if the URL approaches the limit.</p>	<p>Export URL <input type="text" value="https://water.data.sa.gov.au/Export/"/></p> <p> Copy to Clipboard</p>

## Dashboards

Dashboards are customised views of specific information, e.g. River Murray Operations shows a tabular (grid) view of the latest data for the River Murray locations from Lock 9 to the Coorong.

More dashboards may be added later.

## Integrate with API

Water Data SA supports the use of API to integrate with your application(s).

To find out more, [Contact Us](#).