Otago Regional Council

ENVIRONMENTAL DATA PORTAL

Getting Started Guide

Content

Section	Page

1. Introduction

This Getting Started Guide covers the basics of how to use the Otago Regional Council's (ORC's) Environmental Data Portal.

The Environmental Data Portal (EDP) provides access to a range of environmental monitoring data from across the Otago region. The data presented was collected to support Council's active and historical routine environmental monitoring programmes. This EDP does not present all available data held by the Otago Regional Council (ORC). The EDP is under constant development, and more data sets will become available to the public over time. We recommend checking back periodically to see what new parameters have been added.

If you would like to request data that is not currently available through the EDP, please **email us**.

The ORC EDP also displays some environmental monitoring data from other authorities, including NIWA, Environment Southland (ES), Environment Canterbury (ECAN), and Fire and Emergency New Zealand (FENZ). The purpose of this data is to display information relating to the Otago region — this data is not available to download. If the user wants to download any of these data sets, they should go directly to the relevant organisation. Links to each organisation can be found on the **Welcome** dashboard in the EDP.

For detailed information relating to **grades** and **approval levels** used at ORC, please refer to the **Data Grades and Approval Levels Guide,** which can be accessed via the **Welcome** dashboard 'user guide' link or via the question mark (help) icon at the top right of the EDP window.

2. Accessing the portal

In a browser (we recommend using Google Chrome), navigate to **envdata.orc.govt.nz**. Please note that the user will be required to accept the **Disclaimer and Copyright Conditions** the first time the EDP is accessed before being allowed to continue.

Every user accessing the EDP will land on the **Welcome** dashboard. This dashboard contains basic information and advice to help users find their way around the portal. The links on the **Welcome** dashboard are a great place to start exploring.
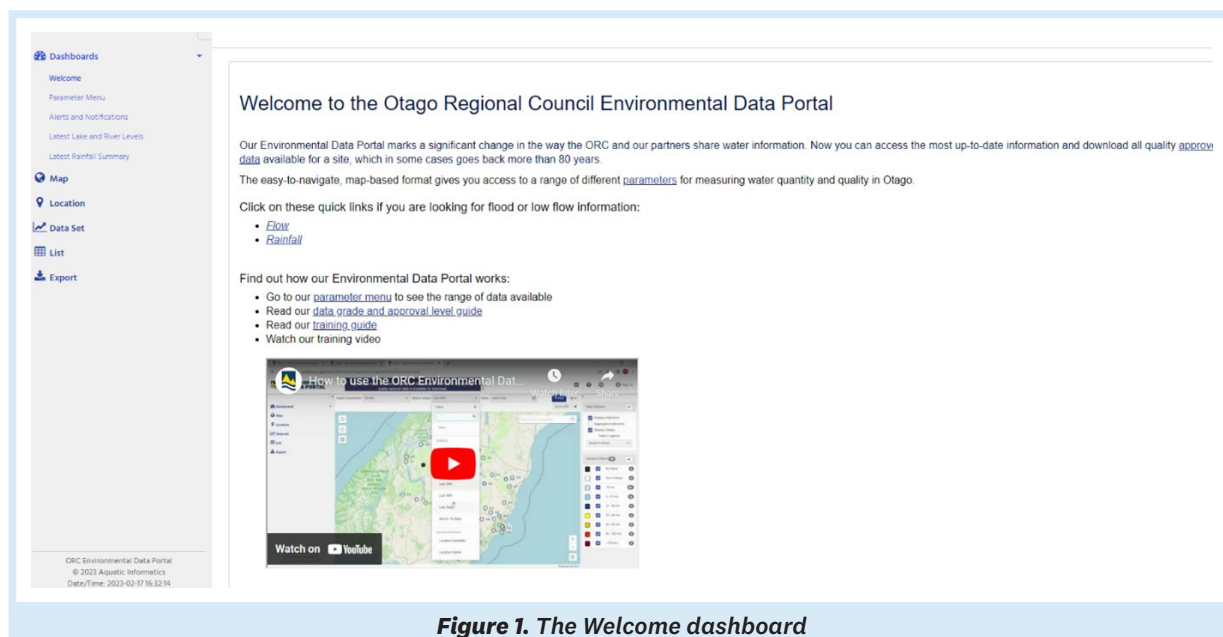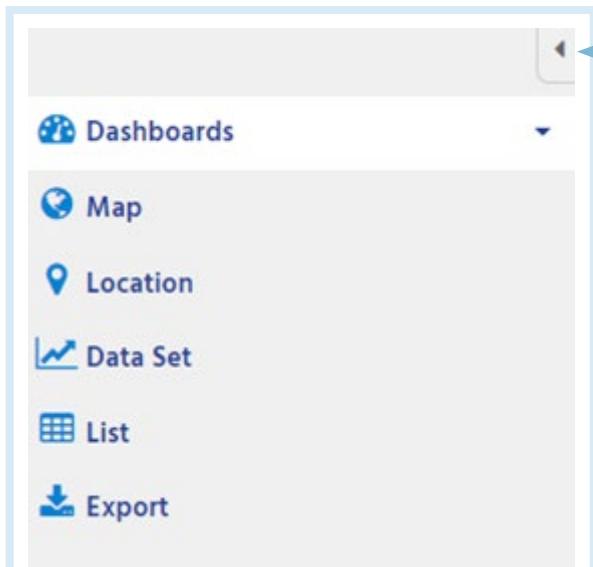

Figure 1. *The Welcome dashboard*

3. Navigation and Reference Panels

The **navigation panel** is located on the left side of the screen. From here, the user can access various sections of the EDP — descriptions of each section are included below.


Selecting this arrow will hide the navigation panel, allowing more screen space to view charts, maps, dashboards, etc.

Figure 2. *Hide or expand the navigation panel on the left side of the screen*

To the right of the screen is a **reference panel** that contains supplementary information and options relating to the specific data being shown, such as legends, map/chart options, and data set information. Options within this panel will vary depending on what data has been selected.

Selecting this arrow will hide the reference panel, allowing more screen space to view charts, maps, dashboards, etc.
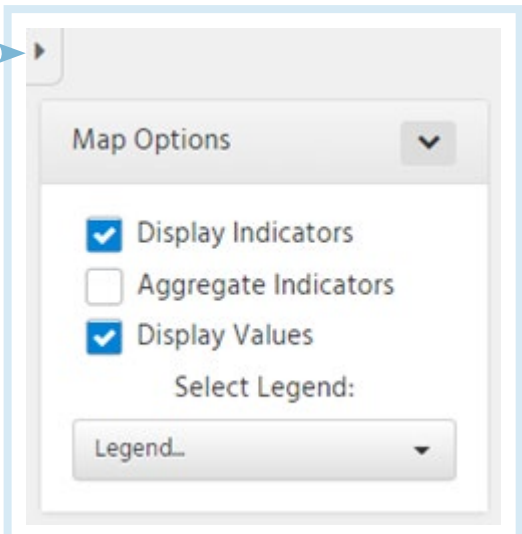
Figure 3. *Hide or expand the reference panel on the right side of the screen*

4. Dashboards

The **Dashboards** section contains multiple interactive dashboards that are used to display key summary information for the end user. Over time, more dashboards could be added to the system.

Some of the dashboards provide context to the data that is displayed, and others provide summaries of the latest information.

Select the arrow beside **Dashboards** in the navigation panel to expand the section and view all available menu options.
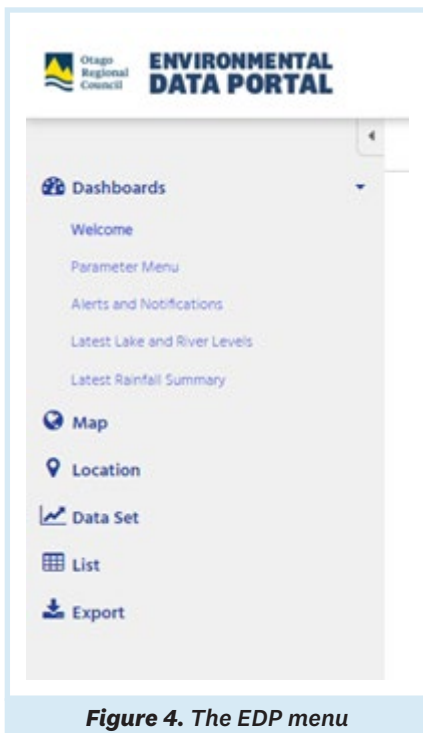
Figure 4. The EDP menu

The **Welcome** dashboard contains basic information and advice to help users find their way around the EDP. It also contains links to map views for rainfall and river flow data and links to useful external agencies, as well as access to this guide, the **Data Grade and Approval Level Guide**, and our short training video.

The **Parameter Menu** dashboard contains a list of the parameters that are currently available on the EDP along with definitions and links to map views for each of the available parameters. This dashboard will be updated as and when more data sets become available on the EDP.

We recommend that users use the **Welcome** and **Parameter Menu** dashboards to get to map views for the data they are interested in. If the user gets lost when exploring the EDP, the **Parameter Menu** is an easy place to come back to.

The **Alerts and Notifications** dashboard contains a list of any currently active alerts, such as floods or low flow conditions, and any notifications that apply to the data being displayed on the EDP.

Any information about network, site issues or rating changes that are applied to flow data sets will also be notified here.
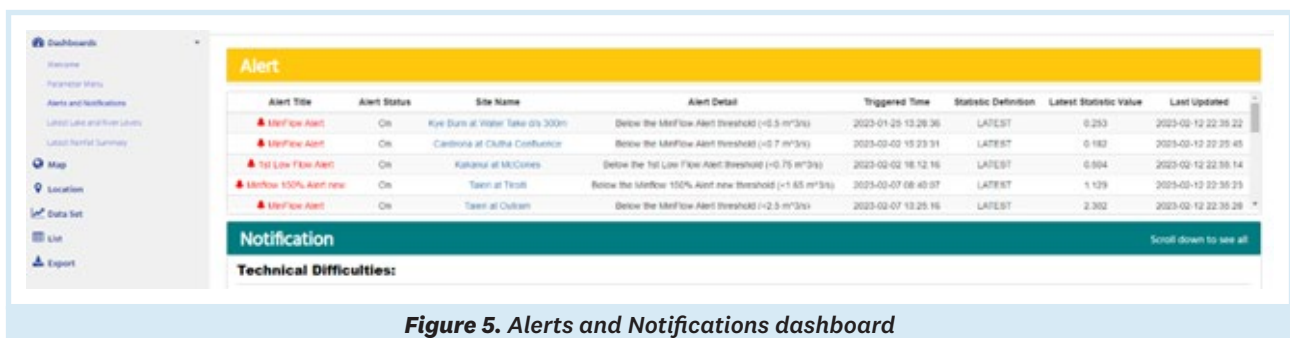
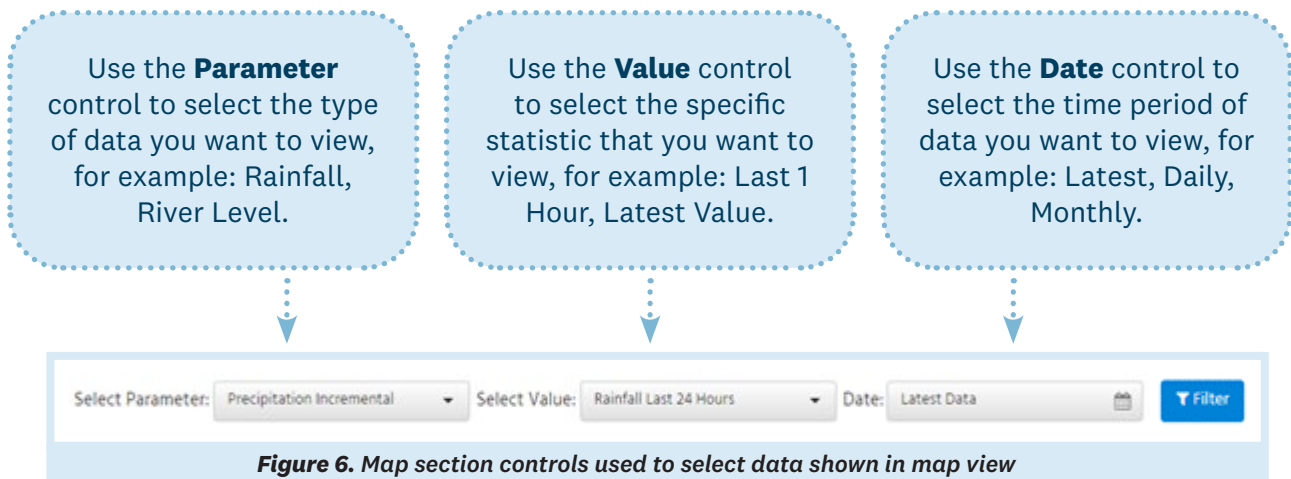*Figure 5. Alerts and Notifications dashboard*

Finally, the **Latest Lake and River Levels** and **Latest Rainfall Summary** dashboards contain the most recent available data for all monitored sites in one place.

These summary tables are broken up into broad catchment areas, and sites are listed in alphabetical order within these catchments. Selecting the name of a site will take the user to a location dashboard for that site, containing graphs of the latest data as well as contextual information such as alert trigger levels and historic flood information.

Please note: the dates and times displayed in the EDP are in New Zealand Standard Time (NZST, UTC+12) and that during the summer, **this is not adjusted for Daylight Saving.**

5. Map Section

The **Map** section displays data values on a map of New Zealand for each location, depending on what parameter is selected. In this section, there are three main controls that, when set, will determine what is displayed on the screen. These controls are located at the top of the screen above the map.

Use the **Parameter** control to select the type of data you want to view, for example: Rainfall, River Level.

Use the **Value** control to select the specific statistic that you want to view, for example: Last 1 Hour, Latest Value.

Use the **Date** control to select the time period of data you want to view, for example: Latest, Daily, Monthly.

Figure 6. *Map section controls used to select data shown in map view*

Once each control has been set, the map will display a coloured indicator dot and the data value related to the value (i.e., the statistic) that you have chosen at each relevant location. The indicator dot colours relate to the ranges described in the relevant legend located in the reference panel on the right side of the screen.

The links in the **Welcome** and **Parameter Menu** dashboards will take users to pre-set maps with relevant legends displayed to provide context to the data points. The maps are a great way of seeing what is going on with a parameter across the entire Otago region.

Options to turn on/off display indicators and values are in the **Map Options** area in the top right of the reference panel (see Figure 7). The option to aggregate indicators on the map is also available.
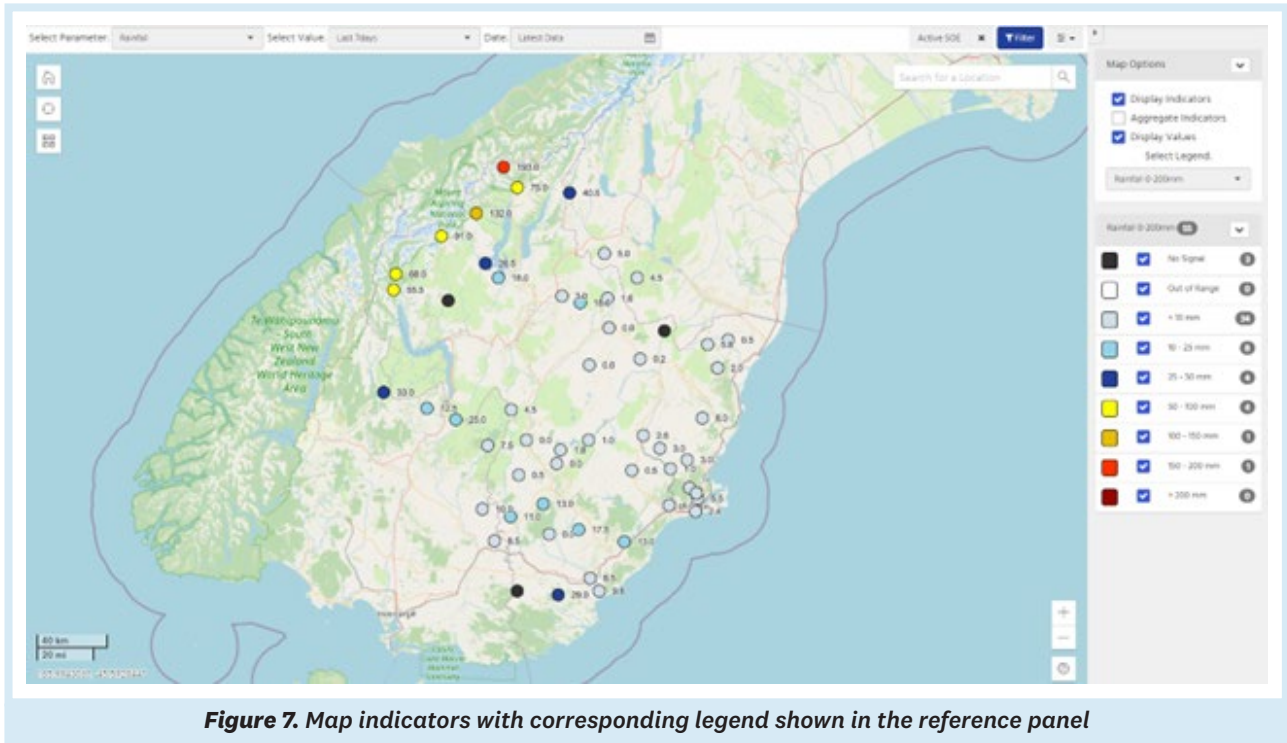
Figure 7. Map indicators with corresponding legend shown in the reference panel

Selecting an indicator dot on the map will display a pop-up window with summary information for the parameter and site selected, including the start and end of record date/time and the date/time that the data set was last updated in the system.
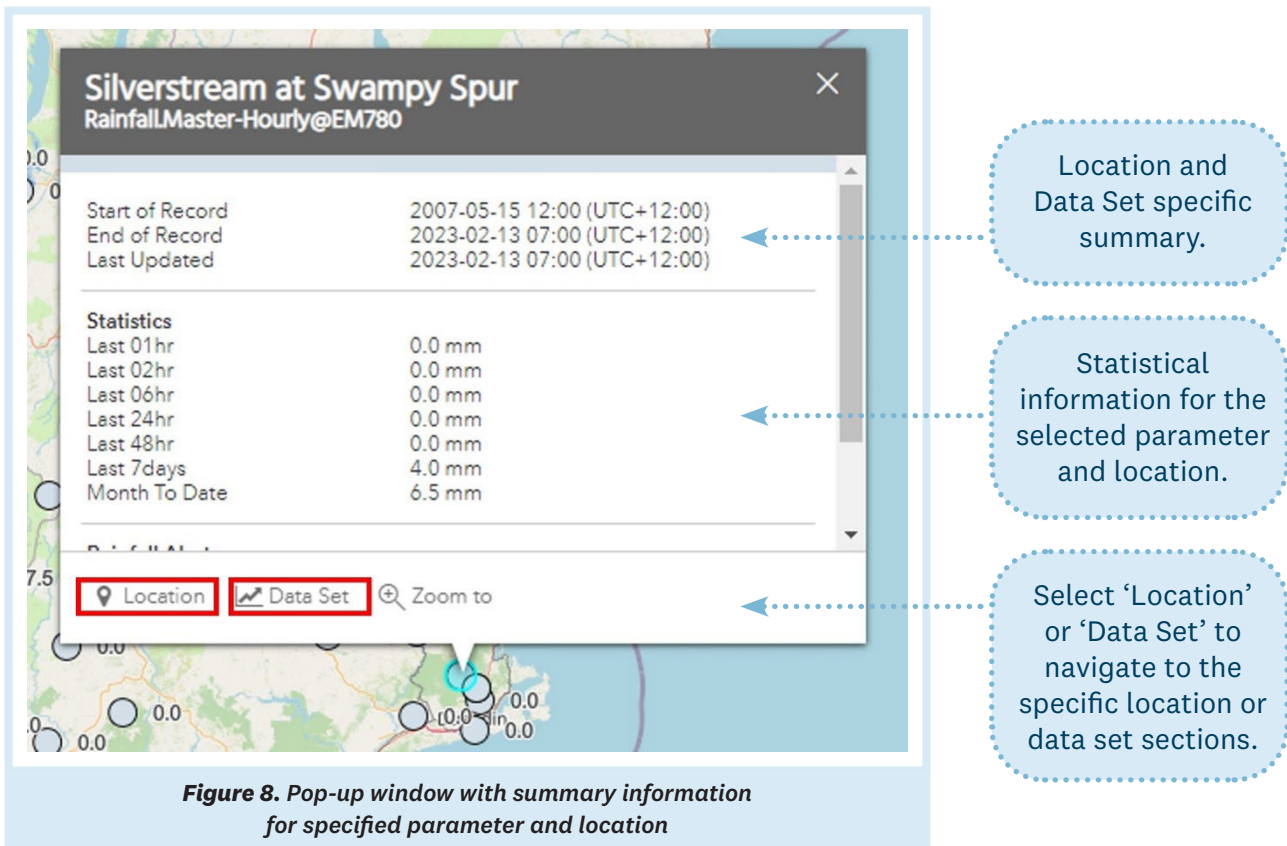
Figure 8. Pop-up window with summary information for specified parameter and location

From the summary box, the user can select to go to the **Location** or **Data Set**. When viewing **Flow**, **Lake Level**, or **Rainfall** data in the map, selecting the **Location** button at the bottom of the summary box will take the user to a location dashboard containing graphs of the latest data for that site, along with context such as site alert levels and any notifications.

6. Location Section

The **Location** section contains relevant information related to the selected site, such as its coordinates and description, and any dashboards related to the site. The **Location** section can be accessed either from the left-hand menu or by selecting a data point on the map and choosing a location from the summary box as pictured below.
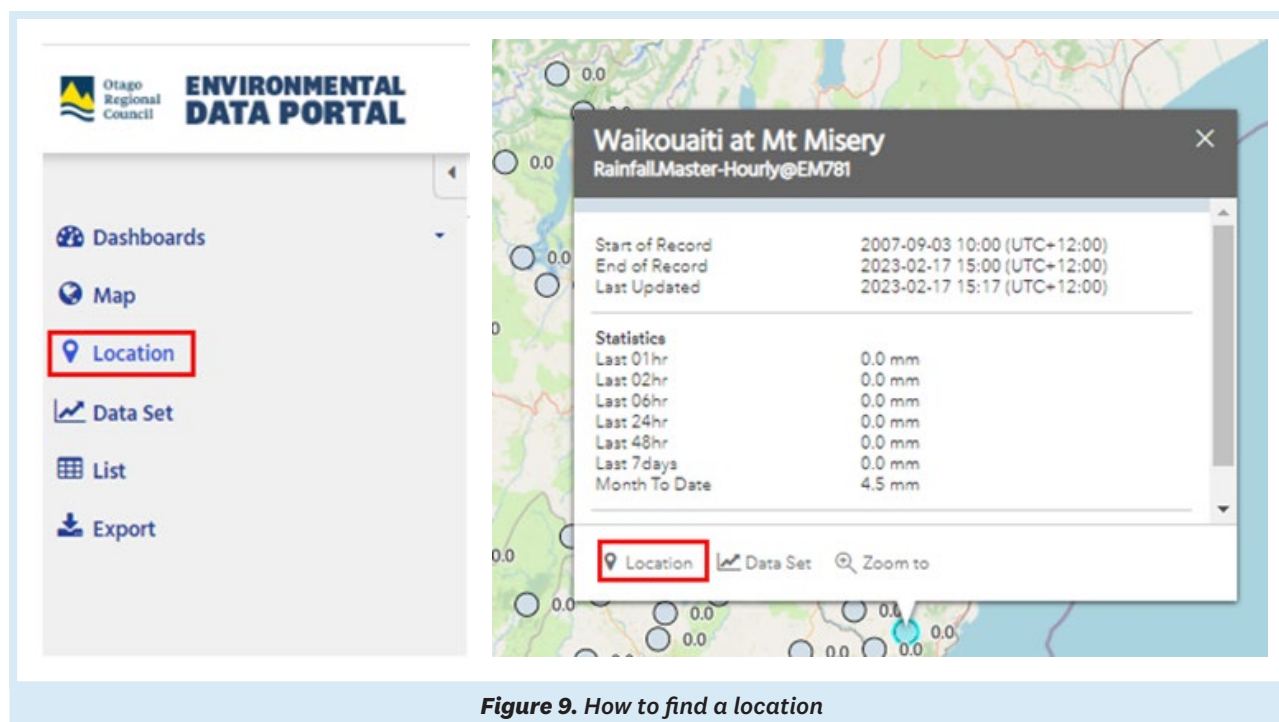
Figure 9. *How to find a location*

If navigating from the left side menu, search for a location in the drop-down box. The user can search for any part of the location name or the unique site identifier (e.g. EM140) if it is known.

The **Summary** tab includes general location metadata and a list of the available data sets with their start and end dates/times. Use the **Go To** menu options at the end of each data set row to go to the specified section.
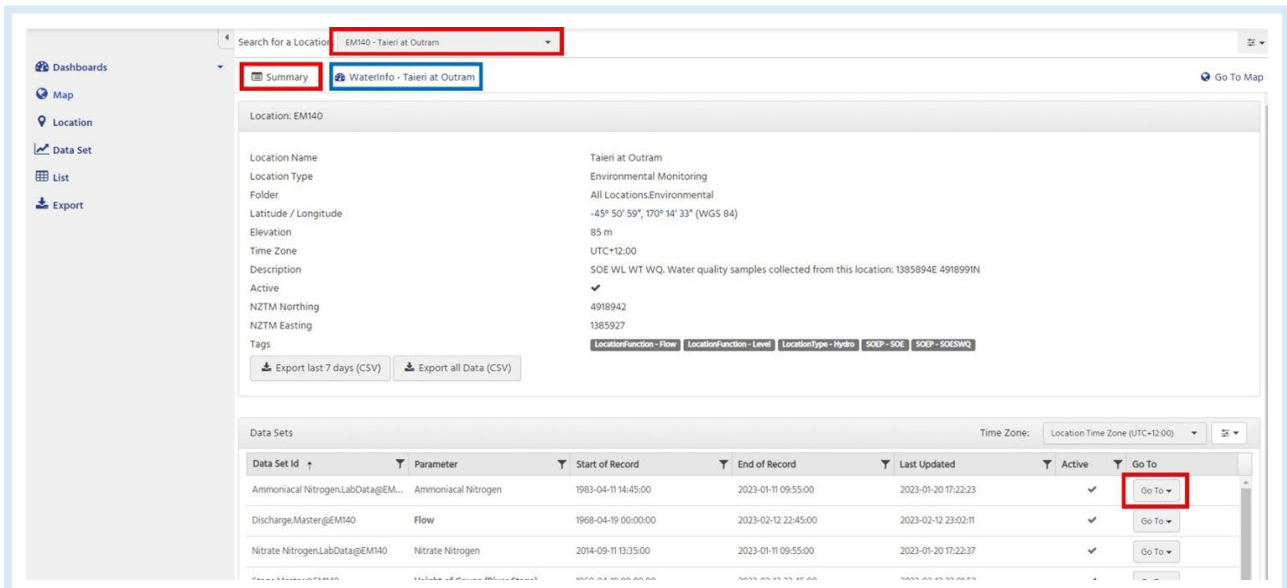
Figure 10. The Summary tab and the Go To menu

The **WaterInfo** tab of the **Location** section (outlined in blue above) displays pre-set graphs of the latest data for the selected location along with any alert threshold levels and notifications. The graphs on this page are interactive, so the user can zoom in to sections of interest.

If data is collected for multiple parameters at a site (e.g. river flow and rainfall), the **WaterInfo** dashboard will have graphs for each of these data sets.

This section has been designed to be the most similar to the previous Water Monitoring and Alerts website. Users can save the link to these pages and bookmark them for quick and easy future access.
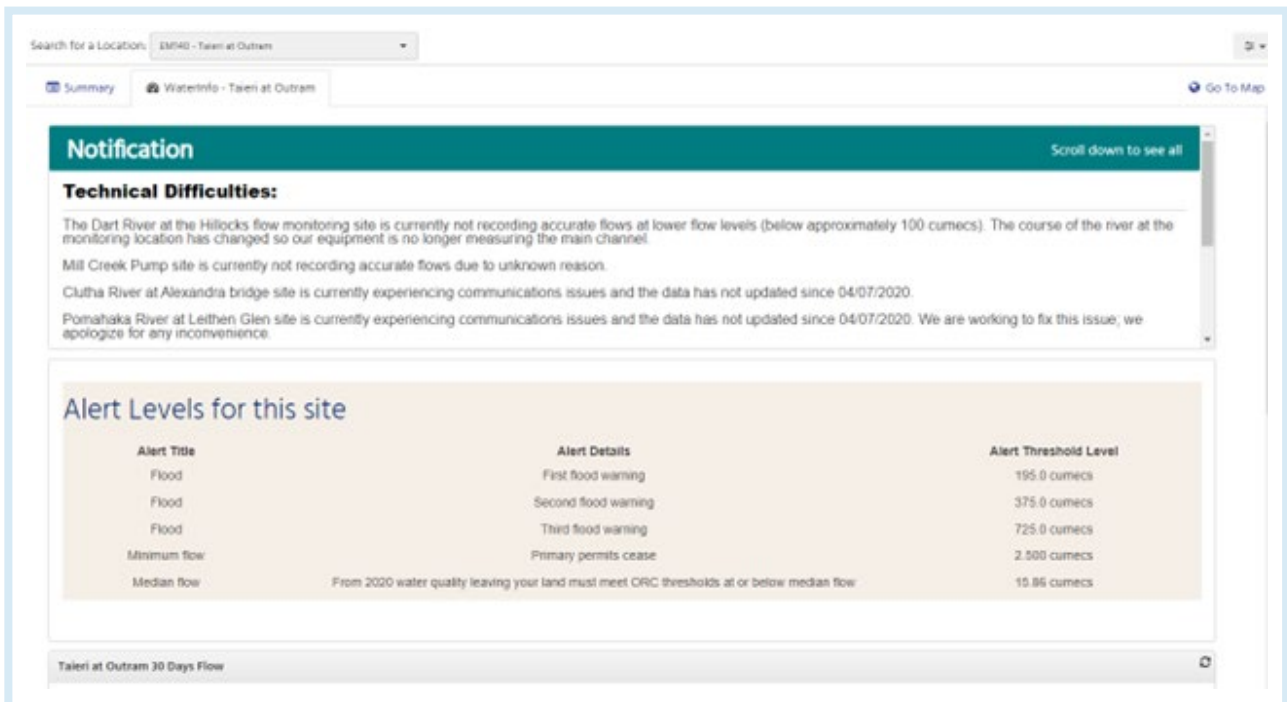
Figure 11. The Waterinfo location dashboard showing the notifications and alert levels for a site

7. Data Set Section

The **Data Set** section contains several tabs: **Chart**, **Grid**, **Statistics** and **Export**.

7.1 Charts Tab

The presented charts are fully interactive, allowing for zooming and panning by selecting and dragging the mouse or tapping and then either pinching or dragging the screen. There are full chart display options available on the right-side reference panel by selecting the **Edit Chart** button. Sliders to the left and right of a small summary graph on the bottom of the chart allow users to zoom in to particular parts of the chart. Hovering the mouse over the line on the chart will dynamically bring up a display with the recorded value. For mobile users, tapping anywhere on the chart will bring up the recorded value, and the recorded value will show up wherever the user's finger is placed on the graph. The data selected to view in the chart can be changed in the **Date** control. The option to select **All Data** in the **Date** control will show all available data.

Please note that for some larger data sets, selecting **All Data** may take some time to load.
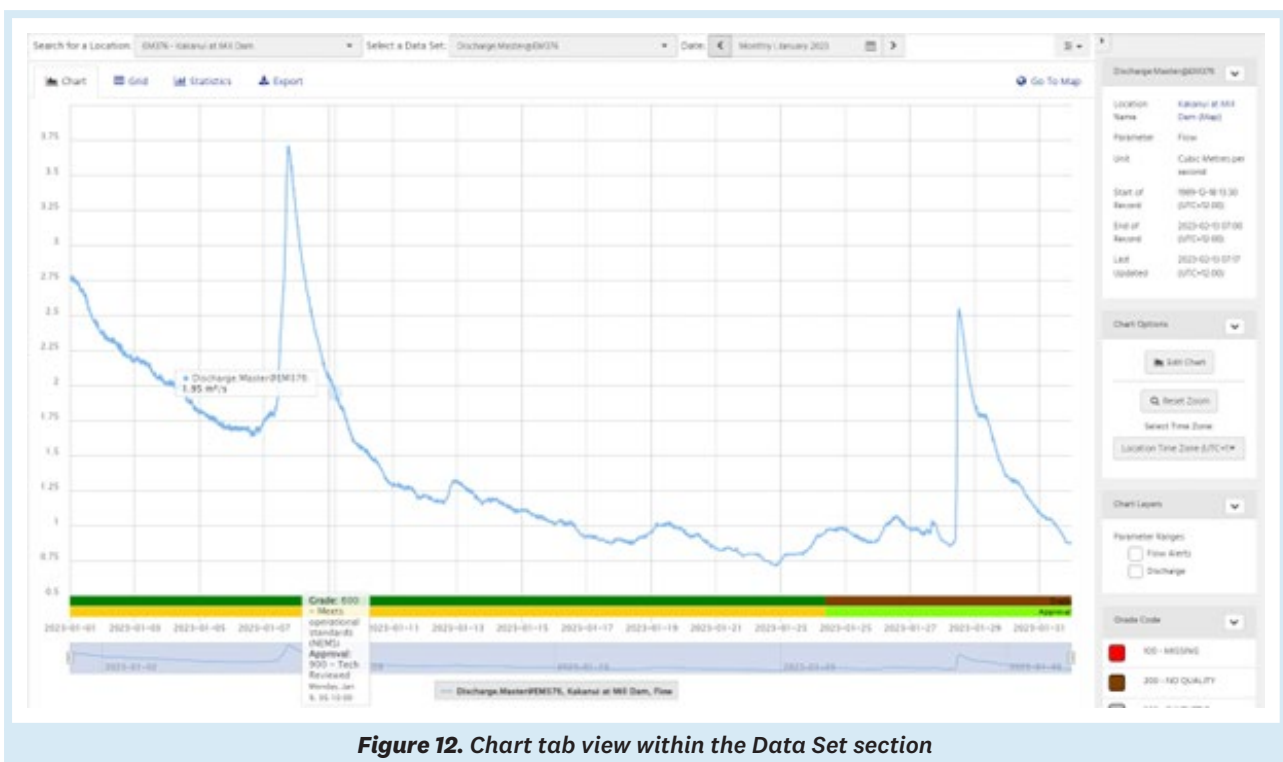
***Figure 12.** Chart tab view within the Data Set section*

Users can add data sets and create customised charts. To do this, on the right side of the **Chart** section there is a **Chart Options** box. Select **Edit Chart** and the pop-up box gives the user options to add data sets, set the X and Y axis, and configure the chart as they wish. To add more data sets to a chart, select the **Add Chart Series** button and use the drop-down boxes to select the site and data set to be displayed, then select **Apply**. A maximum of 20 data sets can be added to a chart.

Users cannot save the charts for future use.
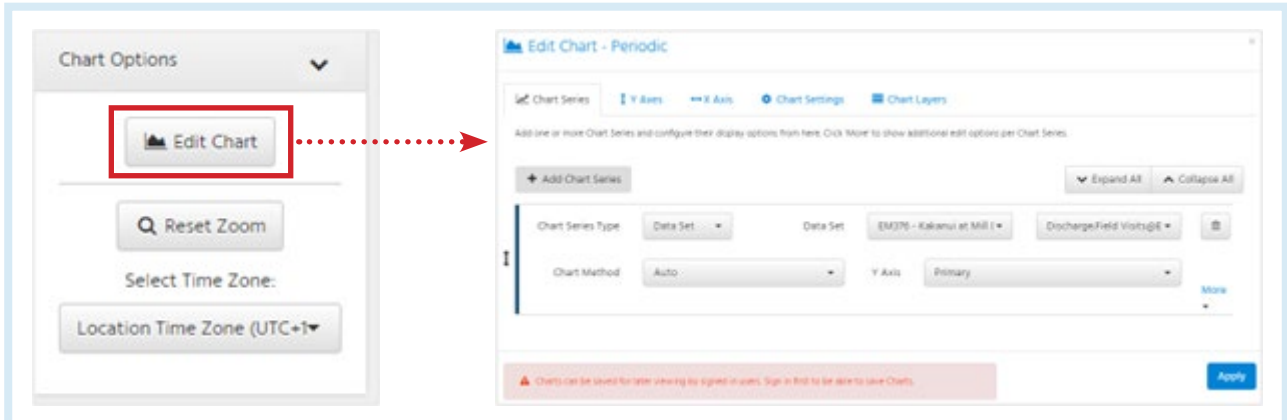
Figure 13. *Chart editing within data set Chart tab*

Figure 14. *Customised chart showing multiple data sets*

7.2 Grid Tab

The **Grid** tab will display the same data as was selected in the **Chart** tab, but instead in an interactive table format. This allows for sorting and filtering of the data. The data selected to view in the grid can be changed in the date control. The option to select **All Data** in the date control will show all available data.
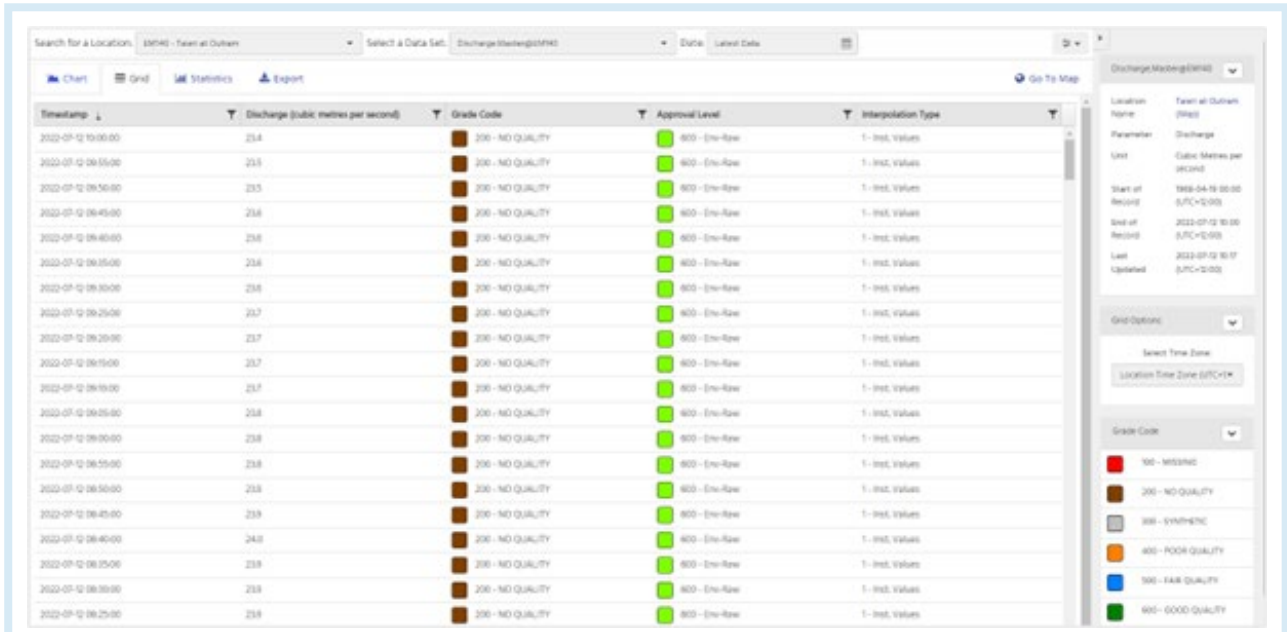
***Figure 15.** Grid tab view within the Data Set section*

7.3 Statistics Tab

The **Statistics** tab displays parameter-specific statistics that have been calculated against the data set. The available statistics shown are predefined for each available option in the date control. Statistics are not available for the custom date range option.
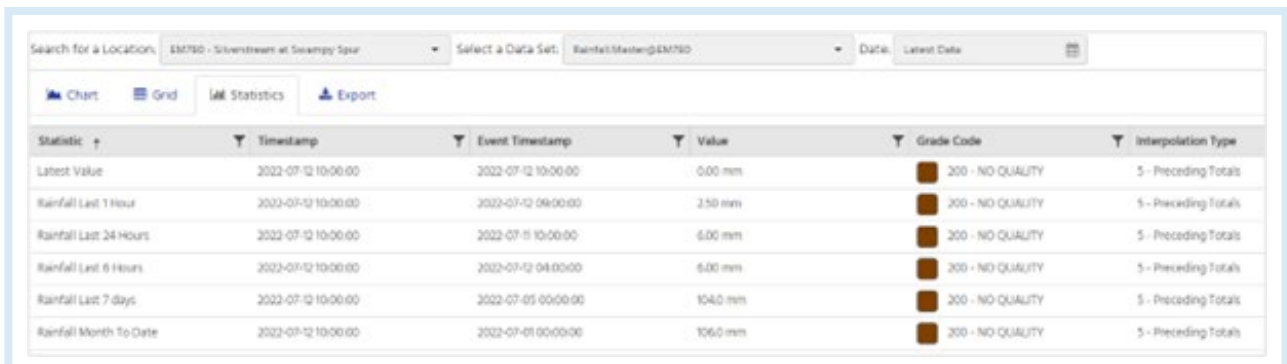
***Figure 16.** Statistics tab view within the Data Set section*

7.4 Export Tab

The **Export** tab can be used to download the selected data set for a specified period to either CSV or Excel format. For more options, including exporting multiple data sets and selecting the data point interval, we recommend using the **Export** tab from the navigation panel. There is further information on how to use this section below.
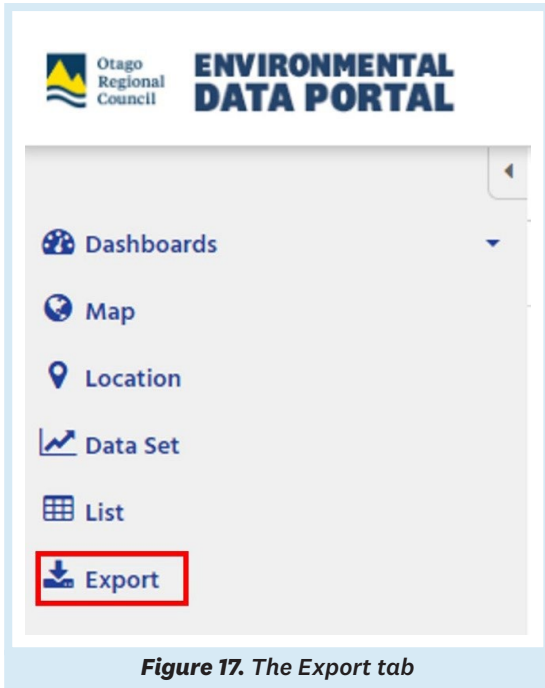
Figure 17. The Export tab

Please note: only approved data is available to download. If you would like to request data that is not currently available through the EDP, please email us with the site, parameter, and date range that you require.

8. List Section

The **List** section provides a grid-based view of the data currently displayed on the map. As with the **Map** section, you can use the **List** section's data filters to specify the parameter, value, or date to display.
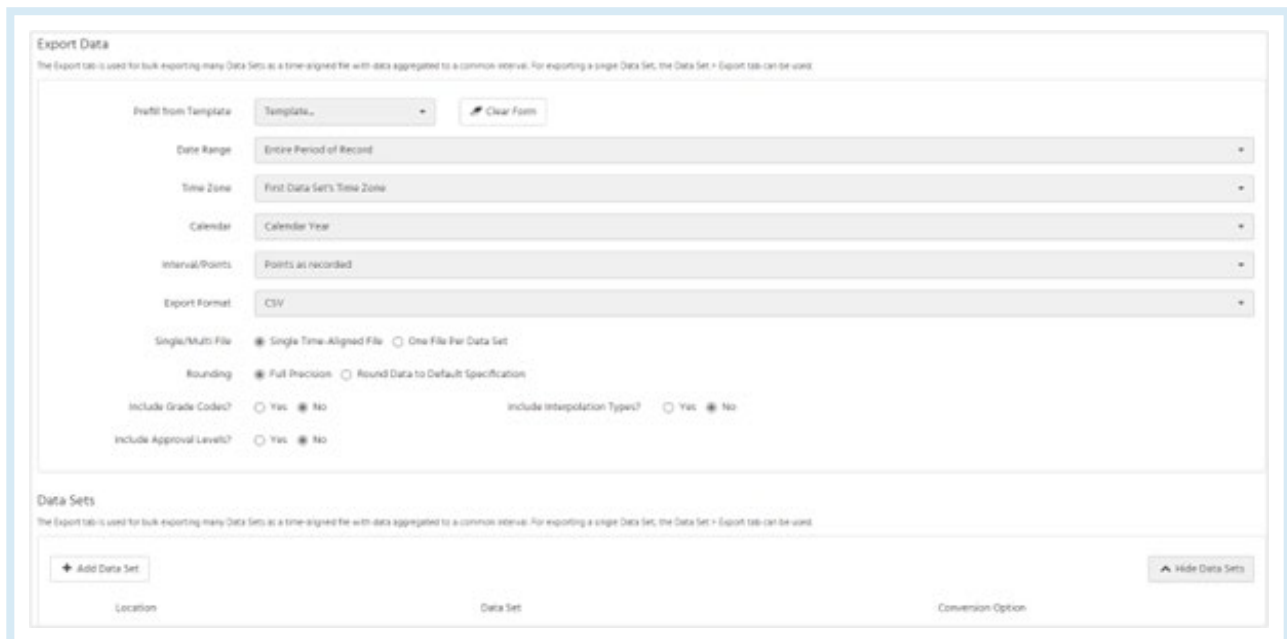

Figure 18. List section

9. Export Section

The **Export** section allows the user to customise their exported data more extensively than the **Data Set** section. The user can select multiple data sets from the same or different locations for download and can also choose to download data in CSV, Excel or JSON formats.

To export data in this section, select the period to export in the **Date Range** field and the type of data in the **Interval/Points** field (e.g., daily or hourly data points). Choose to either export data in a single time-aligned file or have one file per data set selected. The user has the option to select whether they want to export grade codes (data quality codes), approval levels, or interpolation types with the data, and their preferred rounding option. Please note: the **Approval levels** choice is only available when **Points as recorded** is selected in the **Interval/Points** field.

We recommend downloading the grade codes with the data and familiarising yourself with the information in the **Data Grade and Approval Level Guide**. Use the grade information exported with the data, along with the guide, to determine whether the data is fit for purpose for the individual user's needs and whether any further metadata is required. For any further metadata, please **contact us**.

Figure 19. Export Data options available within the Export section

The **Data Sets** area of the **Export** section allows the user to select the specific data sets to be exported. Select **+ Add Data Set** to add data sets to be exported, then select the specific location and data set (parameter) in the respective drop-down fields. The option to convert units is available in the **Conversion Option** drop-down menu for each data set added. If the user chooses anything other than **Points as recorded** from the **Interval/Points** drop-down box, they have the option to select to export the minimum, maximum, average, or data point at the beginning or end of a period in the **Conversion Option** dropdown.

Select download at the bottom of the screen to finalise the export process.
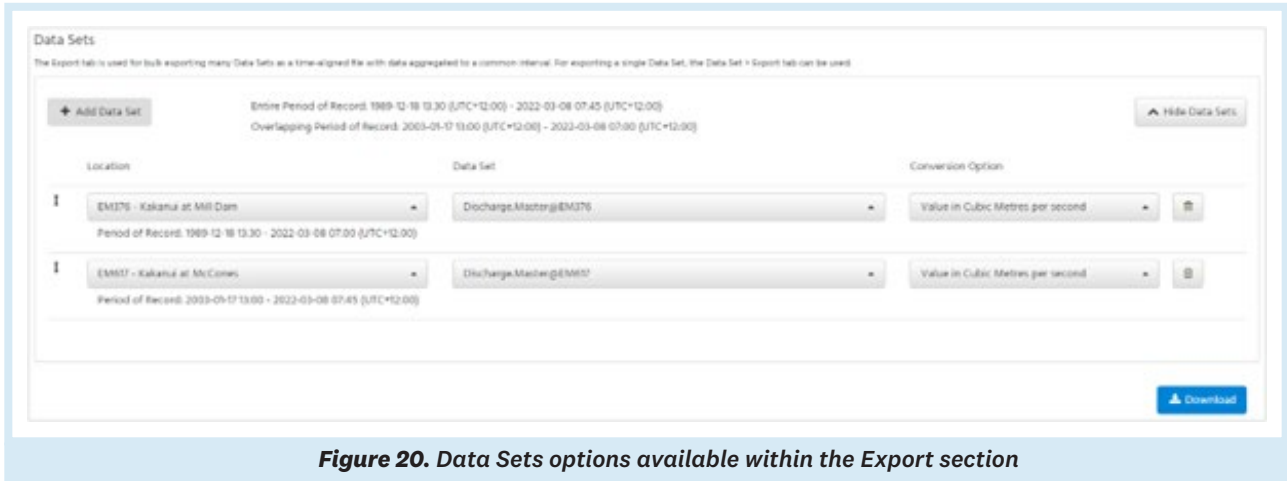
Figure 20. Data Sets options available within the Export section

In the example below, the daily mean flows for the entire period of the record for Kakanui at Mill Dam will be exported in a CSV file.