
Bay of Plenty Regional Council

Environmental Data Portal

Getting Started Guide

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1. Introduction

This getting started guide covers the basics of how to use the Bay of Plenty Regional Council's Environmental Data Portal.

The Environmental Data Portal (ED Portal) provides access to a range of environmental monitoring data from across the Bay of Plenty region. The data presented was collected to support Council's active and historical routine environmental monitoring programmes. This environmental data portal does not present all available data held by the Bay of Plenty Regional Council (BOPRC).

If you would like to request data that is not currently available through the ED Portal, please [email us](#) and direct your data request to the Data Services team within Council.

Every user accessing the ED Portal will land on the Welcome dashboard. This dashboard contains basic information and advice to help users navigate the various sections available and some useful links to external websites. It also contains a brief overview of BOPRC's data quality assurance process.

For detailed information relating to grades and approval levels used at BOPRC, please refer to the *Data Grades and Approval Levels Guide* document by clicking on the information icon in the top right of the screen.

2. Accessing the Environmental Data Portal

In your browser (best viewed in a Google Chrome browser) navigate to the ED Portal.

Web Address: <https://envdata.boprc.govt.nz/>

You will be required to accept the *Disclaimer and Copyright Conditions* before being able to access the ED Portal.

NOTE: If you have a designated user profile you can sign in to the ED Portal using the sign in option at the top right of the screen.



Sign in

3. Navigation and Reference Panels

The navigation panel is located on the left side of the screen. Accessibility to some sections and individual dashboards within this panel will vary depending on your designated user profile.

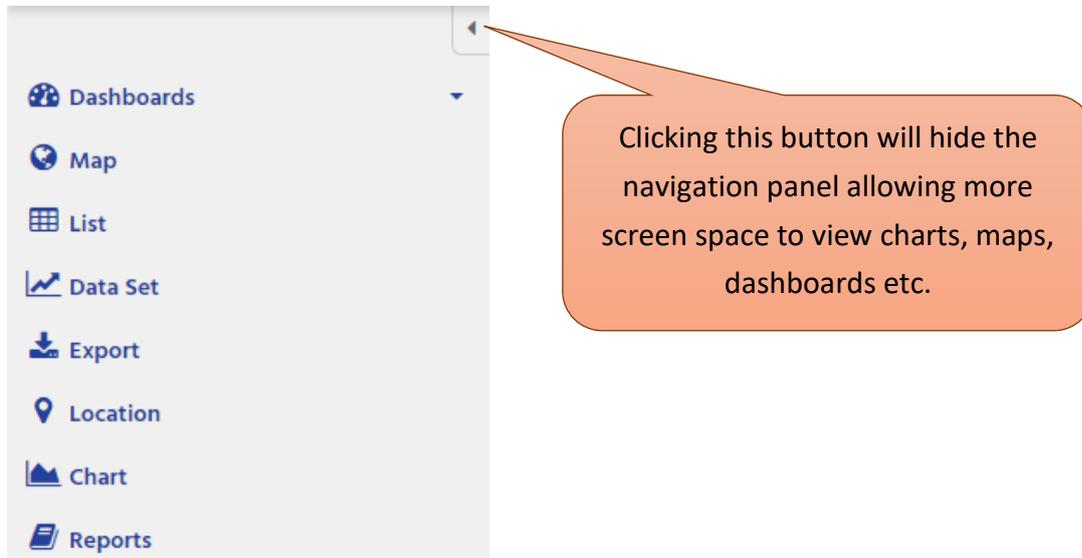


Figure 1. Hide or expand tabbed navigation panel on the left side of the screen.

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, chart layers, data set information, heat maps and isoline overlays. Options within this panel will vary depending on your designated user profile and what data you have selected to be shown.

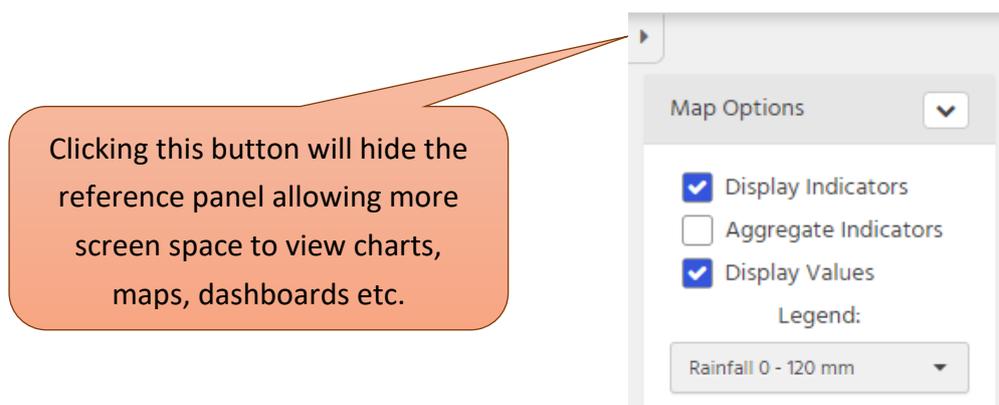


Figure 2. Hide or expand the reference panel on the right side of the screen.

4. Dashboards Section

The dashboards section contains multiple interactive dashboards that are used to display key summary information for the end user. Accessibility to some dashboards within the ED Portal will vary depending on your designated user profile. Over time, as demand dictates, more dashboards will be added to the ED Portal.

5. Map Section

The map section displays data values on a map of New Zealand for each location depending on what 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.

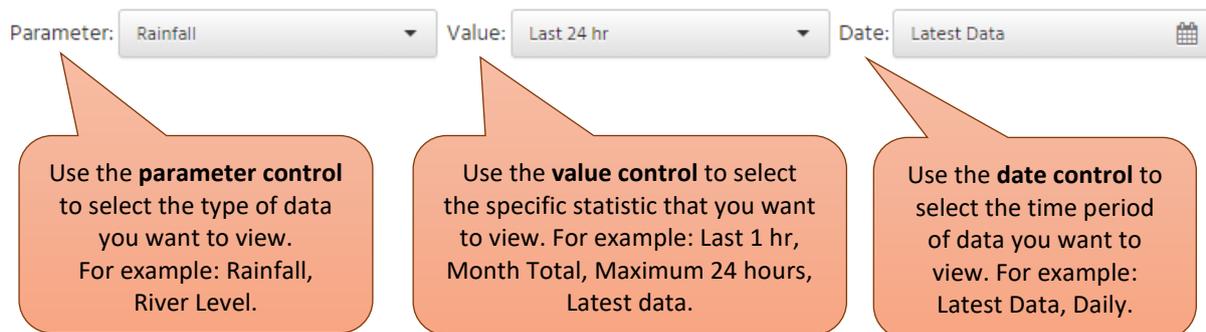


Figure 3. Map section controls used to select data shown in map view.

Once you have set each control, the map will display a coloured indicator dot and the data value related to the value (i.e., the statistic) 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.

Options to turn on/off display indicators and display values are located in the *Map Options* area in the top right of the reference panel (see Figure 2). The option to aggregate indicators on the map is also available.

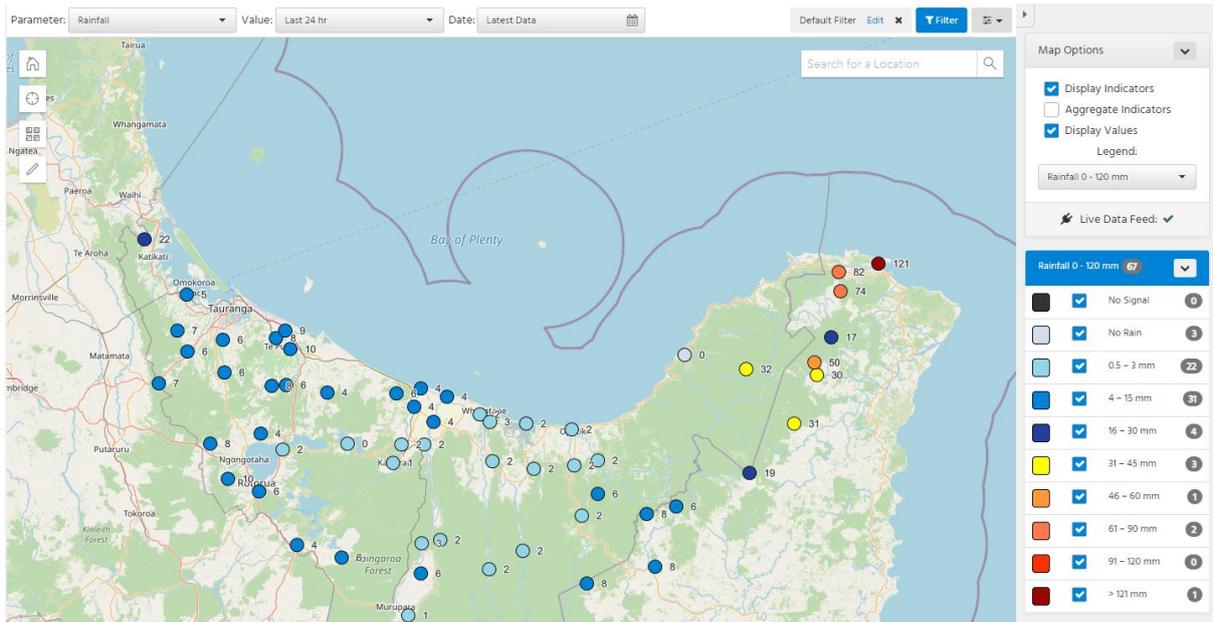


Figure 4. Map indicators with corresponding legend shown in the reference panel.

Clicking on an indicator dot on the map will display a pop-up window which displays summary information for the parameter specified, including the start and end of record date/times and the date/time that the data set was last updated in the system.

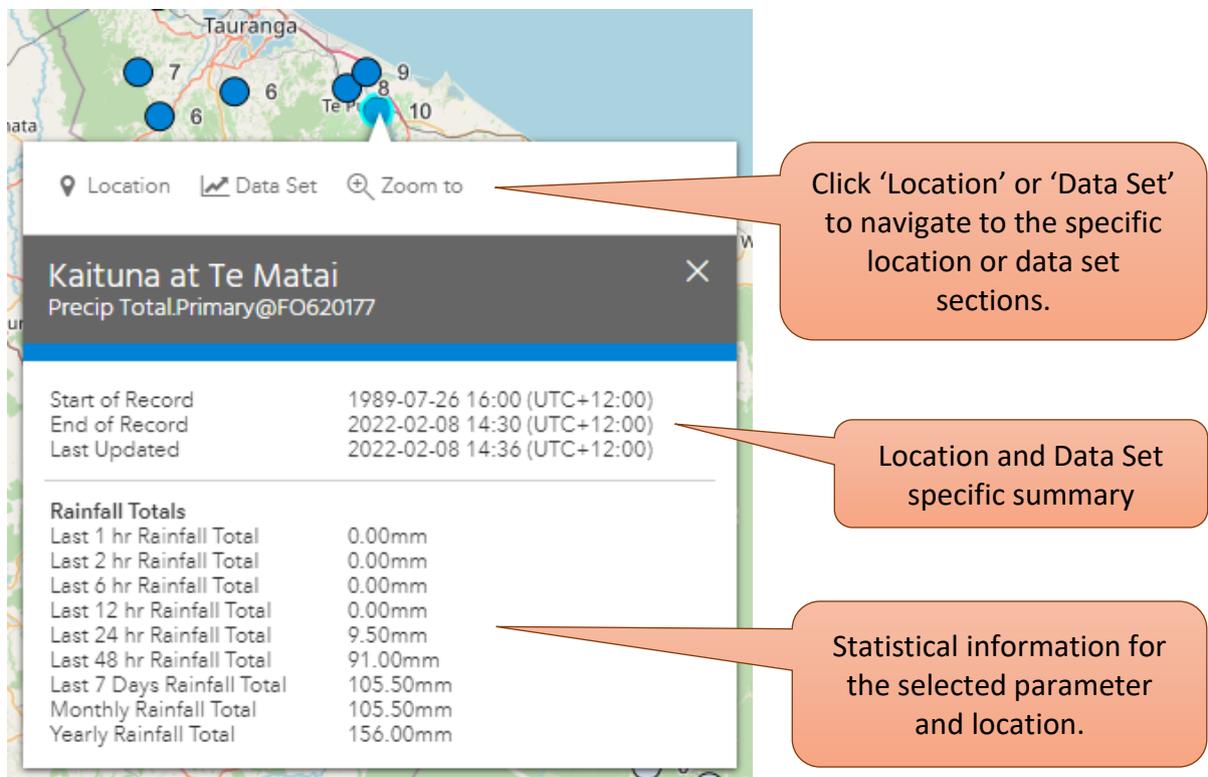


Figure 5. Pop-up window with summary information for specified parameter.

6. Data Set Section

The data set section consists of a number of tabs; Chart, Grid, Statistics, Export and Reports.

6.1 Charts Tab

The presented charts are fully interactive allowing for zooming and panning by clicking and dragging the mouse. There are full chart display options available on the right-side reference panel by clicking the *Edit Chart* button. If there are any applicable *Chart Layers*, these will be shown below the *Chart Options* section. Sliders to the left and right of a small summary graph on the bottom of the chart allow users to zoom in to particular sections of the chart. Hovering the mouse over the line on the chart will dynamically bring up a display with the recorded value. 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.



Figure 6. Chart tab view within the Data Set section.

6.2 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.

Location: Data Set: Date:

[Chart](#)
[Grid](#)
[Statistics](#)
[Export](#)
[Reports](#)

Timestamp ↓	River Level (metres) ↓	Grade Code ↓	Approval Level ↓	Interpolation Type ↓
2021-10-06 06:20:00	0.593	500 - QC500 (NEMS)	1200 - Approved	1 - Inst. Values
2021-10-06 06:15:00	0.592	500 - QC500 (NEMS)	1200 - Approved	1 - Inst. Values
2021-10-06 06:10:00	0.594	500 - QC500 (NEMS)	1200 - Approved	1 - Inst. Values
2021-10-06 06:05:00	0.595	500 - QC500 (NEMS)	1200 - Approved	1 - Inst. Values
2021-10-06 06:00:00	0.594	500 - QC500 (NEMS)	1200 - Approved	1 - Inst. Values
2021-10-06 05:55:00	0.594	500 - QC500 (NEMS)	1200 - Approved	1 - Inst. Values

Figure 7. Grid tab view within the Data Set section.

6.3 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.

Location: Data Set: Date:

[Chart](#)
[Grid](#)
[Statistics](#)
[Export](#)
[Reports](#)

Statistic ↑	Timestamp ↓	Event Timestamp ↓	Value ↓	Grade Code ↓	Interpolation Type ↓
Total	2018-02-13 00:00:00	2018-02-12 00:00:00	36.4 mm	500 - QC500 (NEMS)	5 - Preceding Totals
Maximum 01 hr	2018-02-13 00:00:00	2018-02-12 00:00:00	10.0 mm	500 - QC500 (NEMS)	3 - Preceding Max.
Maximum 01hr ARI	2018-02-13 00:00:00		0.00 mm	500 - QC500 (NEMS)	2 - Preceding Avg.
Maximum 02 hr	2018-02-13 00:00:00	2018-02-12 00:00:00	11.0 mm	500 - QC500 (NEMS)	3 - Preceding Max.
Maximum 02hr ARI	2018-02-13 00:00:00		0.00 mm	500 - QC500 (NEMS)	2 - Preceding Avg.
Maximum 06 hr	2018-02-13 00:00:00	2018-02-12 00:00:00	26.0 mm	500 - QC500 (NEMS)	3 - Preceding Max.
Maximum 06hr ARI	2018-02-13 00:00:00		0.00 mm	500 - QC500 (NEMS)	2 - Preceding Avg.
Maximum 12 hr	2018-02-13 00:00:00	2018-02-12 00:00:00	27.0 mm	500 - QC500 (NEMS)	3 - Preceding Max.
Maximum 12hr AEP	2018-02-13 00:00:00			-2 - UNUSABLE	2 - Preceding Avg.
Maximum 12hr ARI	2018-02-13 00:00:00		0.00 mm	500 - QC500 (NEMS)	2 - Preceding Avg.
Maximum 24 hr	2018-02-13 00:00:00	2018-02-12 00:00:00	36.0 mm	500 - QC500 (NEMS)	3 - Preceding Max.
Maximum 24hr AEP	2018-02-13 00:00:00			-2 - UNUSABLE	2 - Preceding Avg.
Maximum 24hr AEP2	2018-02-13 00:00:00			-2 - UNUSABLE	2 - Preceding Avg.
Maximum 24hr ARI	2018-02-13 00:00:00		0.00 mm	500 - QC500 (NEMS)	2 - Preceding Avg.
Maximum 48 hr	2018-02-13 00:00:00	2018-02-12 00:00:00	38.0 mm	500 - QC500 (NEMS)	3 - Preceding Max.
Maximum 48hr ARI	2018-02-13 00:00:00		0.00 mm	500 - QC500 (NEMS)	2 - Preceding Avg.

Figure 8. Statistics tab view within the Data Set section.

6.4 Export Tab

The export tab can be used to download the selected data set for a specified time period to either CSV or Excel format. Options to include the grade codes, approval levels, interpolation types and qualifiers can be set, along with the specific interval/points required (i.e., minutely, hourly, daily, monthly, yearly).

6.5 Reports Tab

The reports tab displays any available reports for the selected location and data set chosen in the data Set control option. An orange dot is used to show the number of reports available. Click on the name of the report you want to view and it will open in a new tab in your browser.

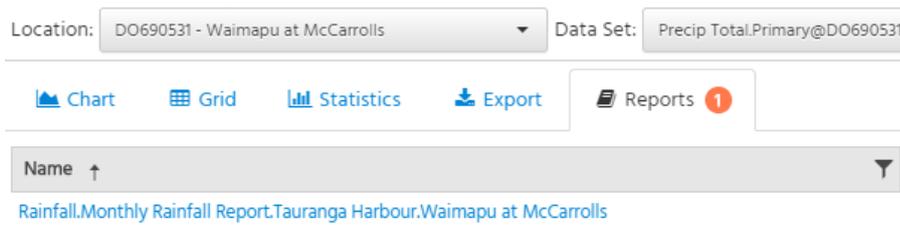


Figure 9. Reports tab view with Precip Total (Rainfall) data set selected.

7. Location Section

The location section contains relevant information related to the selected location.

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.

The *Reports* tab displays any available reports for the selected location. A coloured dot is used to show the number of reports available. Click on the download button next to the report you want to view and it will open in a new tab in your browser.

If there are any additional tabs in this section, these will contain dashboards that have been specifically tagged to the selected location for added information, e.g., River Water Quality.

Location: JM102399 - Tarawera at Awakaponga

Summary Reports **4** River Water Quality Go To Map

Location: JM102399

Location Name: Tarawera at Awakaponga
 Location Type: Environmental Monitoring
 Folder: All Locations
 Latitude / Longitude: -37° 56' 29", 176° 46' 0" (WGS 84)
 Elevation: 5 m
 Time Zone: UTC+12:00
 Description: QS=20.17 Rainfall Max QC = 500, site points = 6
 Active:
 Northing NZTM: 5793990
 Easting NZTM: 1931027

Tags: LAWa - Rainfall LAWa - SWQual LAWa - SWQuan NERMN - Rainfall NERMN - RiverFlow NERMN - RiverLevel NERMN - RiverWaterQuality

Export all Data (CSV)

Data Sets Time Zone: Location Time Zone (UTC+12:00)

Data Set Id ↑	Parameter	Start of Record	End of Record	Last Updated	Active	Go To
440nm UV Abs.LabResult@J...	440nm UV Absorbance	1991-09-11 14:40:00	2023-02-23 10:20:00	2023-02-27 22:14:35	<input checked="" type="checkbox"/>	Go To
Discharge.ConsentReferenc...	Flow	2021-09-22 00:00:00	2023-02-28 23:59:59	2023-02-28 23:59:59	<input checked="" type="checkbox"/>	Go To
Discharge.ManagementFlo...	Flow	2021-09-22 00:00:00	2023-02-28 23:59:59	2023-02-28 23:59:59	<input checked="" type="checkbox"/>	Go To
Discharge.MinimumFlow@J...	Flow	2021-09-22 00:00:00	2023-02-28 23:59:59	2023-02-28 23:59:59	<input checked="" type="checkbox"/>	Go To
Discharge.Primary@JM102399	Flow	1948-05-28 00:00:00	2023-02-28 12:30:00	2023-02-28 12:36:31	<input checked="" type="checkbox"/>	Go To
DO.Primary@JM102399	Dissolved oxygen	2000-10-25 08:45:00	2023-02-28 12:30:00	2023-02-28 12:36:17	<input checked="" type="checkbox"/>	Go To
DRP.LabResult@JM102399	Dissolved Reactive Phospho...	1985-10-07 14:15:00	2023-02-07 11:30:00	2023-02-17 22:15:54	<input checked="" type="checkbox"/>	Go To
E.coli.LabResult@JM102399	E. coli (Escherichia coli)	1991-04-30 12:54:00	2023-02-15 00:00:01	2023-02-27 20:31:08	<input checked="" type="checkbox"/>	Go To
NH4-N.LabResult@JM102399	Ammoniacal nitrogen	1985-08-26 00:00:00	2023-02-07 11:30:00	2023-02-17 22:15:54	<input checked="" type="checkbox"/>	Go To
NNN.LabResult@JM102399	Nitrite-nitrate nitrogen	1992-01-15 13:11:00	2023-02-07 11:30:00	2023-02-17 22:15:55	<input checked="" type="checkbox"/>	Go To
NO3-N.LabResult@JM102399	Nitrate nitrogen	1985-10-07 14:15:00	1999-07-22 11:45:00	2020-05-01 08:11:41	<input checked="" type="checkbox"/>	Go To
Precip.Total.HourTotal@JM1...	Rainfall	1989-08-28 07:00:00	2023-02-28 12:00:00	2023-02-28 12:36:35	<input checked="" type="checkbox"/>	Go To

Map
Data Set
Chart
Grid
Statistics
Export
Reports

Figure 10. Summary tab view within the Location section.

Location: JM102399 - Tarawera at Awakaponga

Summary Reports **4** River Water Quality

Name ↑	Description	Download
Flow.Tarawera.Daily Mean Flow Plots.Tarawera at Awakaponga		Download
Flow.Tarawera.Flow Duration.Tarawera at Awakaponga		Download
Rainfall.Monthly Rainfall Report.Tarawera.Tarawera at Awakaponga		Download
River Water Quality.State and Trends.Tarawera.Tarawera at Awakaponga		Download

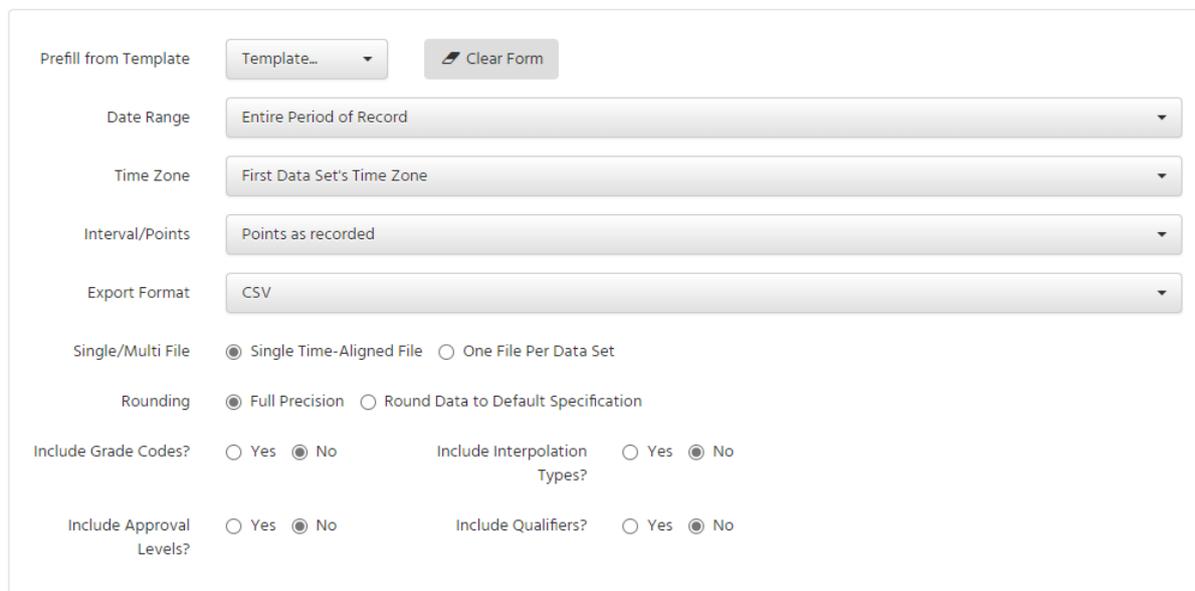
Figure 11. Reports tab within the Locations section showing all available reports for the selected location. The 'River Water Quality' dashboard is available to view in the location section for this selected location.

8. Export Section

The *Export Data* area of the export section allows the user to select multiple data sets from multiple locations for download in either CSV, Excel or JSON format. Select the time period you want to export in the *Date Range* field and the type of data in the *Interval/Points* field (e.g., daily, hourly). Choose to either export data in a single time-aligned file or have one file per data set selected. Select whether or not you would like grade codes (data quality codes), approval levels, interpolation types and/or data qualifiers included and your preferred rounding option. Please note, the approval levels and qualifiers options are only available when ‘Points as recorded’ is selected in the *Interval/Points* field.

Export Data

The Export tab is used for bulk exporting many Data Sets as a time-aligned file with data aggregated to a common interval. For exporting a single Data Set, the Data Set > Export tab can be used.



The screenshot shows a form with the following fields and options:

- Prefill from Template:** A dropdown menu with 'Template...' and a 'Clear Form' button.
- Date Range:** A dropdown menu with 'Entire Period of Record'.
- Time Zone:** A dropdown menu with 'First Data Set's Time Zone'.
- Interval/Points:** A dropdown menu with 'Points as recorded'.
- Export Format:** A dropdown menu with 'CSV'.
- Single/Multi File:** Radio buttons for 'Single Time-Aligned File' (selected) and 'One File Per Data Set'.
- Rounding:** Radio buttons for 'Full Precision' (selected) and 'Round Data to Default Specification'.
- Include Grade Codes?:** Radio buttons for 'Yes' and 'No' (selected).
- Include Interpolation Types?:** Radio buttons for 'Yes' and 'No' (selected).
- Include Approval Levels?:** Radio buttons for 'Yes' and 'No' (selected).
- Include Qualifiers?:** Radio buttons for 'Yes' and 'No' (selected).

Figure 12. Export Data options available within the Export section.

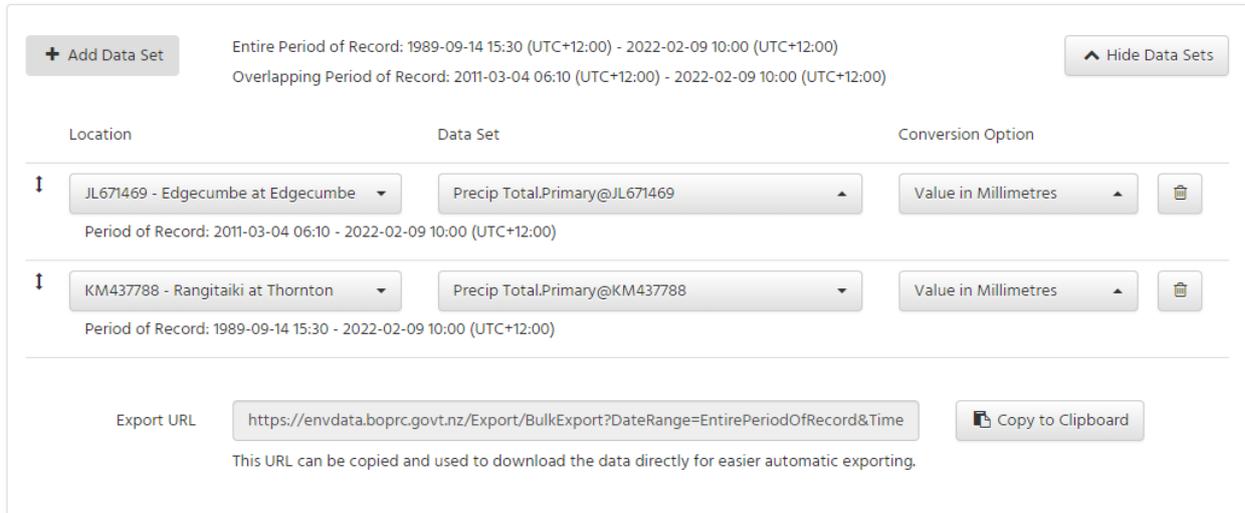
The *Data Sets* area of the Export section allows the user to select the specific data sets to be exported. Click ‘+ Add Data Set’ to add data sets to be exported, then select the specific location and data set in the respective drop down fields. The option to convert units is available in the *Conversion Option* drop-down menu for each data set added.

Click *Download* at the bottom of the screen to finalise the export process.

For easier automated data exporting, copy the *Export URL* provided at the bottom of the *Data Sets* area.

Data Sets

The Export tab is used for bulk exporting many Data Sets as a time-aligned file with data aggregated to a common interval. For exporting a single Data Set, the Data Set > Export tab can be used.



Entire Period of Record: 1989-09-14 15:30 (UTC+12:00) - 2022-02-09 10:00 (UTC+12:00)

Overlapping Period of Record: 2011-03-04 06:10 (UTC+12:00) - 2022-02-09 10:00 (UTC+12:00)

Location	Data Set	Conversion Option
JL671469 - Edgecumbe at Edgecumbe	Precip Total.Primary@JL671469	Value in Millimetres
Period of Record: 2011-03-04 06:10 - 2022-02-09 10:00 (UTC+12:00)		
KM437788 - Rangitaiki at Thornton	Precip Total.Primary@KM437788	Value in Millimetres
Period of Record: 1989-09-14 15:30 - 2022-02-09 10:00 (UTC+12:00)		

Export URL: <https://envdata.boprc.govt.nz/Export/BulkExport?DateRange=EntirePeriodOfRecord&Time>

This URL can be copied and used to download the data directly for easier automatic exporting.

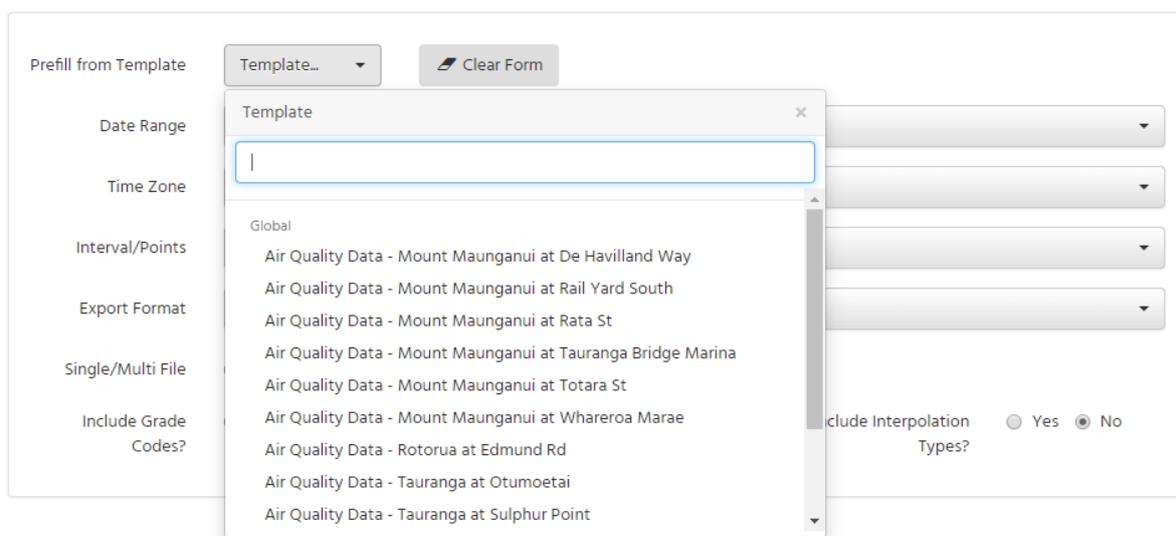


Figure 13. Data Sets options available within the Export section.

The *Prefill from Template* drop-down menu within the *Export* section contains some predefined download options. For example, the *Air Quality Data – Mount Maunganui at Rata St* template will populate the data sets area with all available data sets at that particular monitoring location.

Export Data

The Export tab is used for bulk exporting many Data Sets as a time-aligned file with data aggregated to a common interval. For exporting a single Data Set, the Data Set > Export tab can be used.



Prefill from Template:

Date Range:

Time Zone:

Interval/Points:

Export Format:

Single/Multi File:

Include Grade Codes?:

Template

Global

- Air Quality Data - Mount Maunganui at De Havilland Way
- Air Quality Data - Mount Maunganui at Rail Yard South
- Air Quality Data - Mount Maunganui at Rata St
- Air Quality Data - Mount Maunganui at Tauranga Bridge Marina
- Air Quality Data - Mount Maunganui at Totara St
- Air Quality Data - Mount Maunganui at Whareroa Marae
- Air Quality Data - Rotorua at Edmund Rd
- Air Quality Data - Tauranga at Otumoetai
- Air Quality Data - Tauranga at Sulphur Point

Include Interpolation Types? Yes No

Figure 14. Export template options available within the Export section.

9. Chart Section

The chart tab displays pre-configured fully interactive charts. Users also have the ability to create their own custom charts using the *Create Chart* option in the *Chart Options* area in the right-side reference panel.

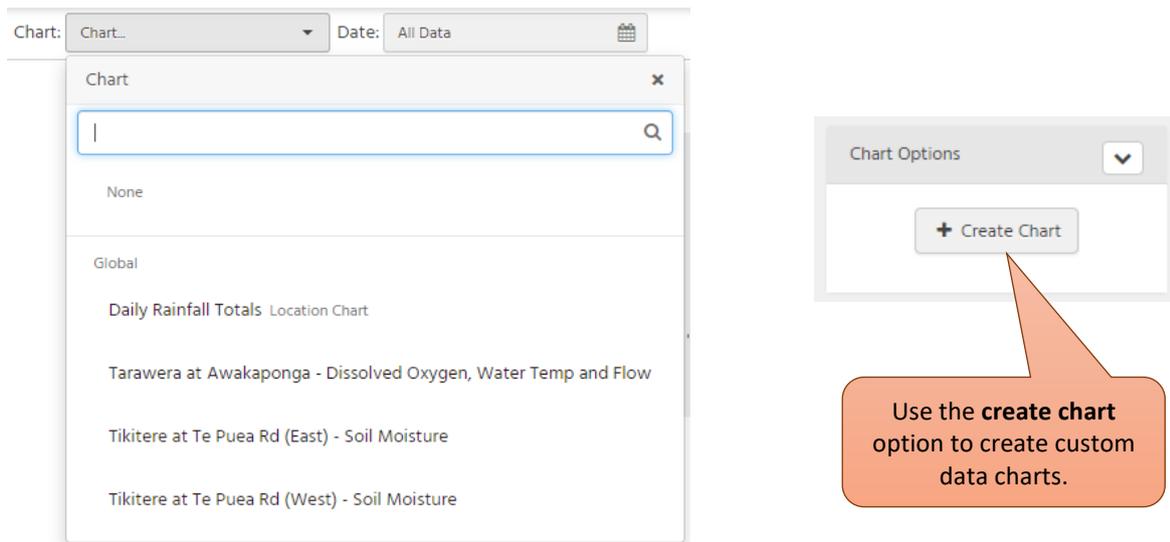


Figure 15. List of pre-configured charts available in the Chart drop down menu, or alternatively, the create custom chart option.

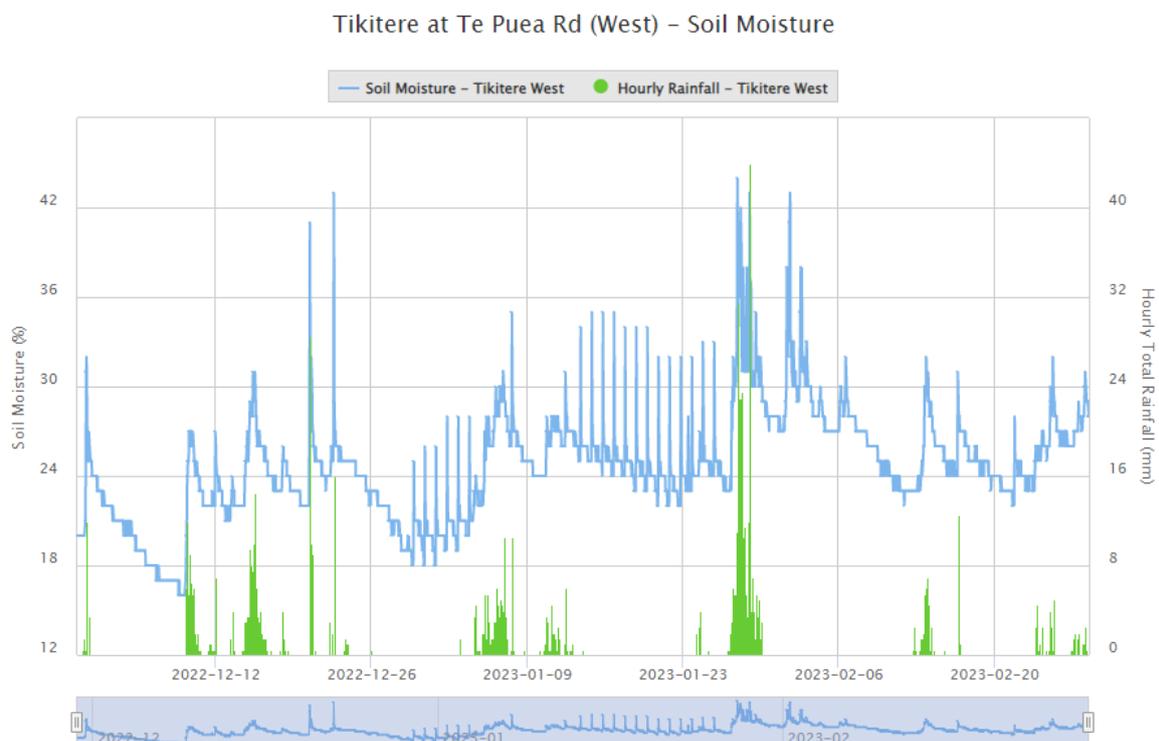


Figure 16. Pre-configured chart 'Tikitere at Te Puea Rd (West) – Soil Moisture'.

Chart display options are available on the right-side reference panel by clicking the *Edit Chart* button. Data sets can be overplotted and chart axis and settings can be custom formatted by the user. If there are any applicable *Chart Layers*, these will be shown below the *Chart Options* section. *Chart Layers* will show as either parameter or location specific bands or lines on the chart.

 x

Chart Series |
 Y Axes |
 X Axis |
 Chart Settings |
 Chart Layers

Add one or more Chart Series and configure their display options from here. Click 'More' to show additional edit options per Chart Series.

+ Add Chart Series
Expand All / Collapse All

Chart Series Type	Data Set	Data Set	FL354175 - Tikitere at Te	Soil Moisture.Primary@F	🗑️
Chart Method	Auto	Y Axis	Primary		
Line Colour	#7cb5ec	Line Type	Solid	Line Width	2
Marker Colour	#7cb5ec	Marker Shape	Diamond	Marker Size	1
Pre-processing	<input type="text"/>				
Legend Type	Custom	Tooltip Type	Custom		
Legend Text	Soil Moisture - Tikitere West		Tooltip Text: Soil Moisture		

[Less](#)

Chart Series Type	Data Set	Data Set	FL354175 - Tikitere at Te	Precip Total.HourTotal@	🗑️
Chart Method	Auto	Y Axis	Secondary		

[More](#)

Figure 17. Editable chart options available by clicking either the Create Chart or Edit Chart buttons.

Chart Layers ▼

Parameter Ranges

Clarity Indicators

Figure 18. Any available parameter specific chart layers will be displayed. Tick the box to activate.

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Users can zoom and pan through the charts by clicking and dragging the mouse. Sliders to the left and right of a small summary graph on the bottom of the chart allow users to zoom in to particular sections of the chart. Hovering the mouse over the line(s) on the chart will dynamically bring up a display with the recorded value(s).

The data selected to view in the chart can be changed in the *Date* control located above the chart. The option to select *All Data* in the date control will show all available data.

10. Reports Section

The reports tab displays published reports, generally as PDF files.

Reports are displayed within a folder structure on the screen and are grouped depending on the type of data being reported on (e.g., flow, lake level, rainfall) and the Water Management Area (WMA) or catchment the location is part of (e.g., East Coast, Rangitāiki, Tarawera). Click on any available report name to download and view in a new tab in your browser.

Downloadable Reports

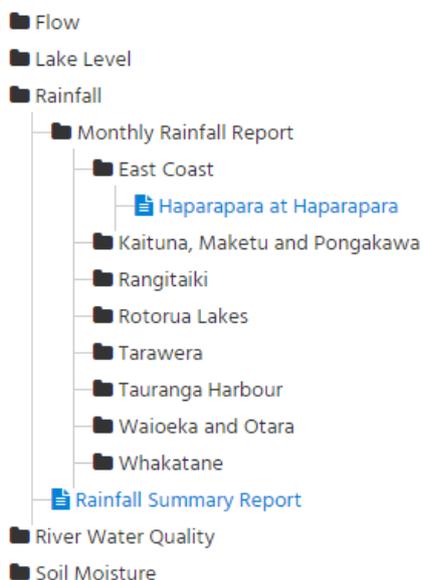


Figure 19. Example of Reports section structure.