Living Labs Aquarius WebPortal

The following Quick Start Guide is intended for new users who are just getting started with Aquarius WebPortal. The information below summarizes how to navigate through different views in data mode. Please click the hyperlink to access more information and details related to Aquarius WebPortal.

Contents

1 Quick Start Guide

Living Labs Aquarius WebPortal is a web-based visualization and download tool to make time series data generated under the Living Labs available to participants. These data include, among others, meteorological, hydrological, GHG emissions, and soil temperature and moisture data from across the Living Labs Network. All data are stored, managed, and approved in AAFC Aquarius Time-Series platform by authorized and licensed users and then synchronized to the WebPortal. The tool allows you to graphically view data, reports, statistics chart and download data. Click the hyperlink to access Living Labs Aquarius WebPortal.

1.1 Disclaimer

Data Usage Disclaimer: The data/information on the Portal is from sources internal and external to the Government of Canada. The Portal may only be used to visualize and download unclassified data/information (climate, soil moisture, hydrographs, greenhouse gas emissions, etc.) that pertain to approve Living Labs. AAFC grants the authorized user a non-exclusive and royalty-free permission to use the data and information for any purposes on the condition that the authorized user identifies the source and the holders of the data. The permissions set herein do not transfer ownership of the data and information to the authorized user. The authorized user may not transfer or assign this permission to a third party in any way or form without AAFC's prior's authorization. Unauthorized use of the Portal may result in the user's access being revoked immediately by AAFC without notice.

When you launch the tool, you will be prompted to read the AAFC disclaimer. By clicking "Accept", you agree to the AAFC disclaimer. Once accepted, you will be redirected to the main page.

1.2 Data Quality Assurance & Quality Coding

The data undergoes a quality control process where suspect data is flagged. Detailed description of the quality control process is located in the Data Flag sections.

Note: It is strongly suggested authorized users perform additional quality control on the data before use.

1.3 Sign In and Authorized Access, View Groups

There are three levels of view group:

1. Public
2. Living Lab project (individual or multiple)
3. Network-wide

The Public view group (default) display data which are accessible to everybody without signing in. Data under Living Lab project and Network-wide view groups are accessible only by authorized Living Lab's participants. To view these data, you need to "Sign In" using your username and password provided. Contact aafc.datalivinglaboratoriesdonneeslaboratoiresvivants.aac@agr.gc.ca to obtain an authorization. If you are a new user and would like to create an account, please use the email address mentioned above and provide your full name and email address.

2 Homepage

The homepage (**Figure *1***) is known as the functional area in which most tasks are performed on a regular basis. Once data is open, you will be presented by the following pages which contain information related to various locations.

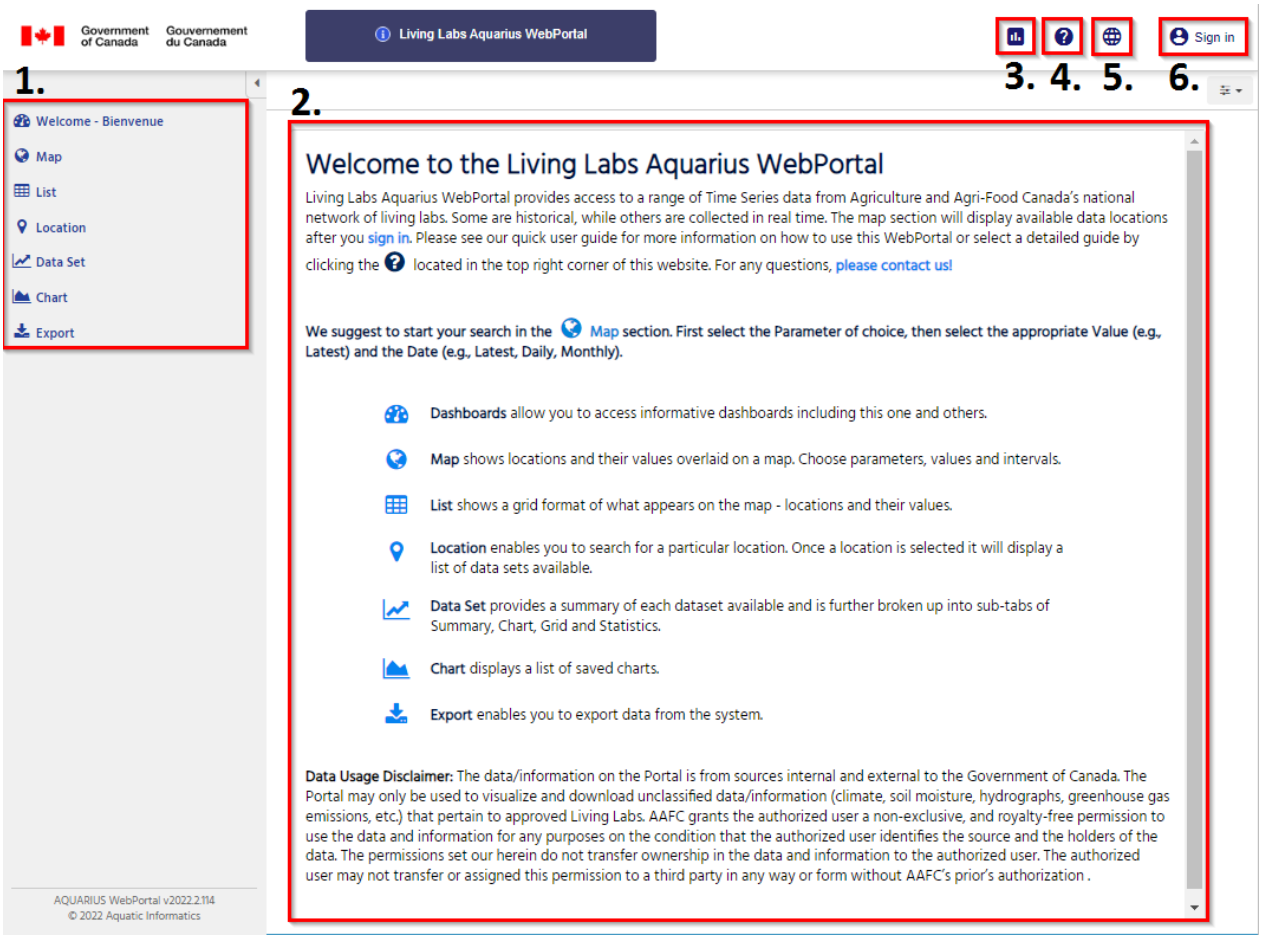

Figure 1: The AQWP Home Screen

1. **Navigation Menu** – Located at the left side of the window. It provides breadcrumb navigation that enables you access to different pages.
2. **Welcome Message** – Contains brief information of AQWP and Data Usage Disclaimer
3. **Return to Homepage** – Click on the **Data** to return to the Homepage.
4. **Check User Guide** – Click on **Help** to get detailed information about AQWP in the User Guide.
5. **Language Setting** – Click on **Language** to access AQWP in the desired language. Currently, four languages are available to choose, which are English, Deutsch, Español, and Français.
6. **Sign in** – If an account is available, click **Sign In** to enter the account information and have authorized access.

2.1 Map

This is a plot of points for which the host organization has data. They can then be selected or filtered to meet your specific requirements. The Map view (**Figure *2***) shows all available locations across Canada, color-coded by Location Type and defined in the Location Type Legend on the right side of the interface.

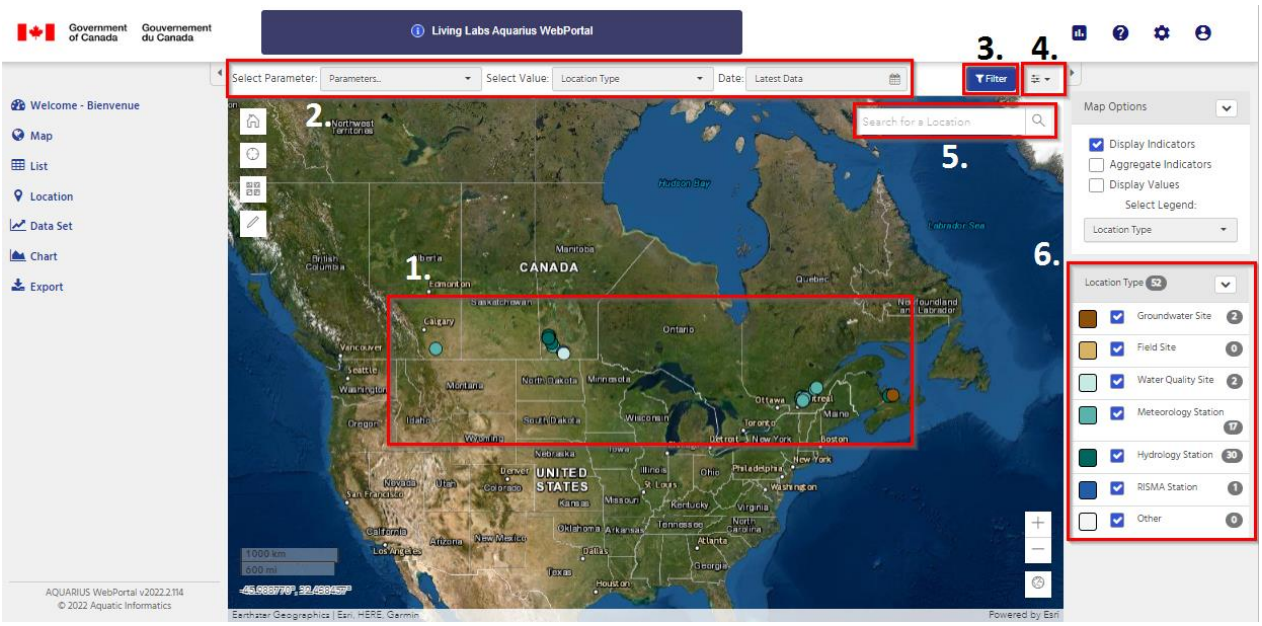

Figure 2: The Map Screen View;

1. **Location Indicators** – Includes all available locations across Canada;
2. ***Data Context Selectors*** - Allow you to choose which **parameters**, **values**, and **dates** should be displayed in your data view;
3. Filter Locations by Themes – Click the **Filter** button to filter locations by different themes;
4. Export/Refresh Location Data – Click on **Options Menu** to export a list of locations and their associated data;
5. Search Locations – Type the name of a location in the widget and click search;
6. **Filter Locations by Location Types** – If a legend is available for the selected parameter, it will be displayed on the right side of the interface. Click/unclick the check box to select desired locations from the **Legends**.

1. Begin on the Map by clicking Select Parameter (**Figure 3**), then select a parameter from the drop-down list (for example: Air Temperature). Then, choose a value (for example, Last Recorded Value) and a date (for example: Latest date). If no parameter is selected, only Location name, type, and state are available in the Value drop down.

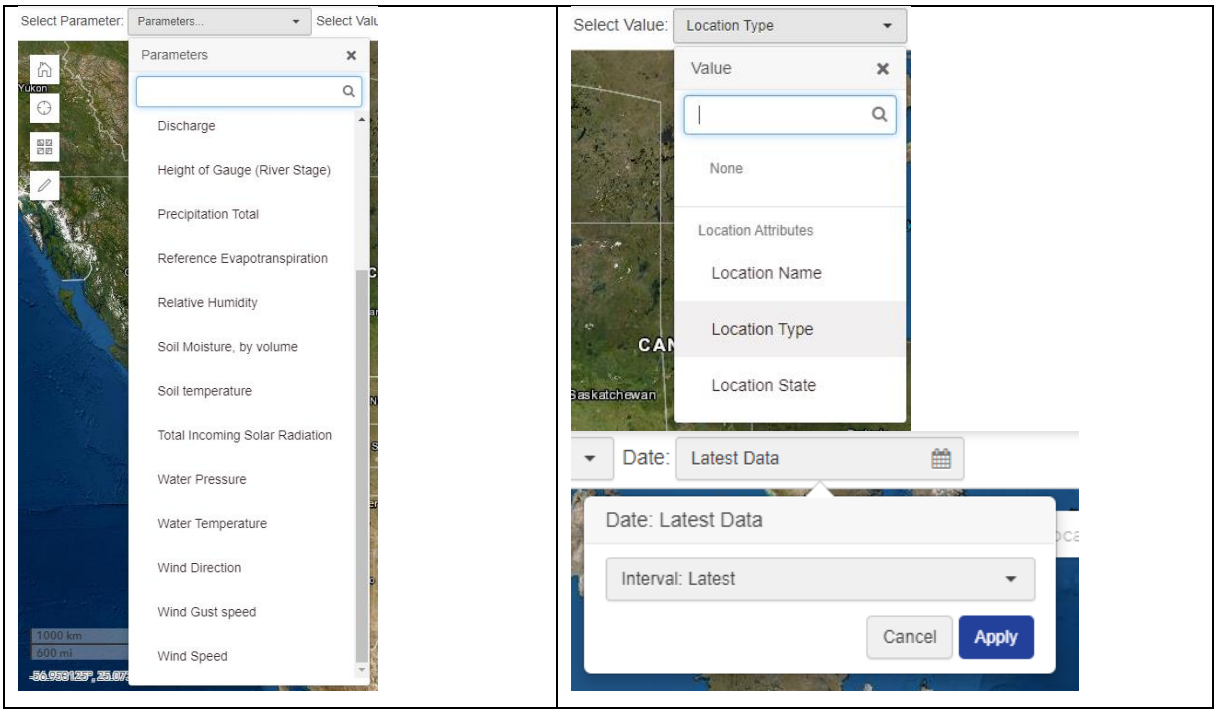

Figure 3: Drop-down lists for the data context selectors

2. When you click on an indicator of a desired location (color-coded points on the map), a pop-up window (**Figure *4***) with additional information about the location and Time-Series will appear.

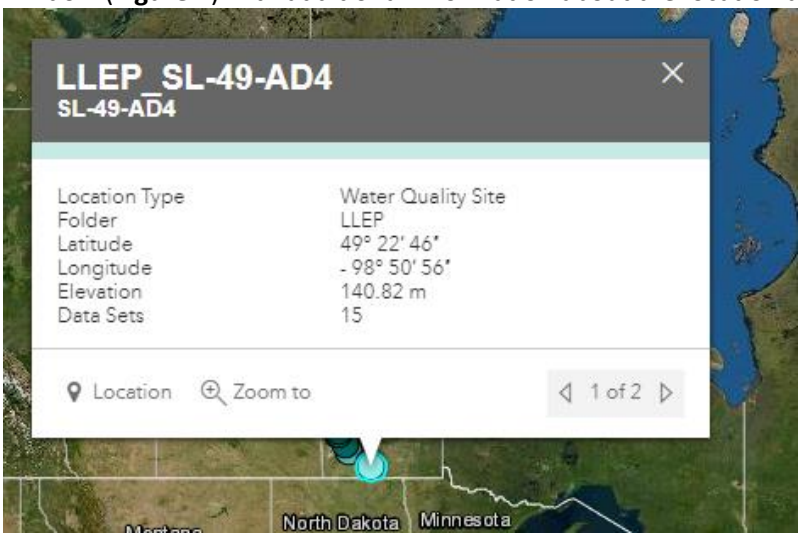

Figure 4: Additional information for a selected location

3. Legend

A collapsible item in the Info panel shows the Legend (**Figure *5***) that classifies the data currently displayed on the Map. Initial map view displays Legend for Location types.

Note: Depending on the selected Parameter, Value and date, the legend will be displayed with different categories or parameters' interval range.

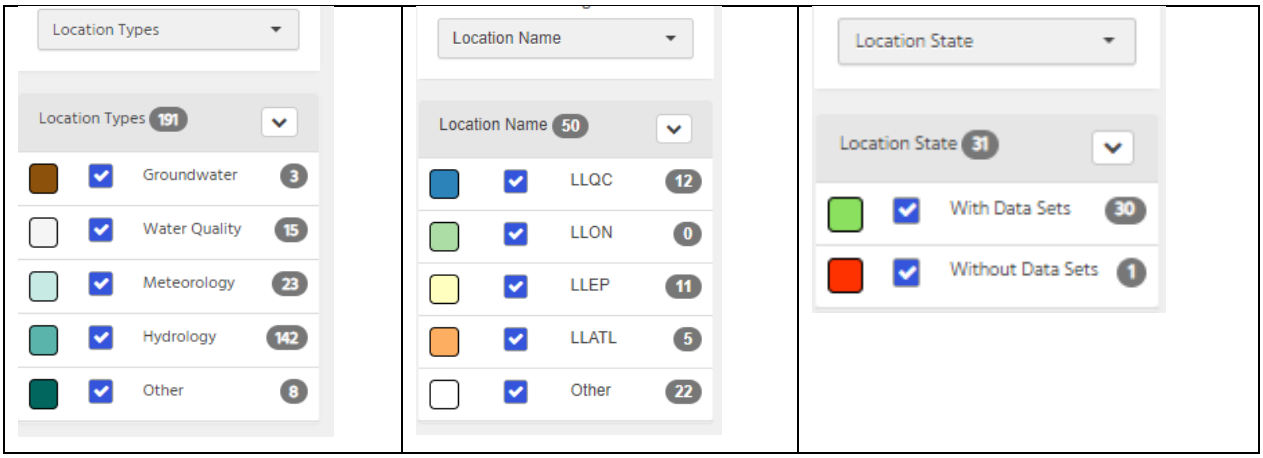

Figure 5: Addition *legends that classify the selected data*

2.2 List

The same information displayed in Map view is also available in the List view (The List View page provides the data currently displayed on the map). The data in this view is displayed in a grid format. You can select data, statistic, sort and filter or export data to variety of formats (***Figure 6***).

Note: Filters developed for the Map can also be applied to the Grid view.

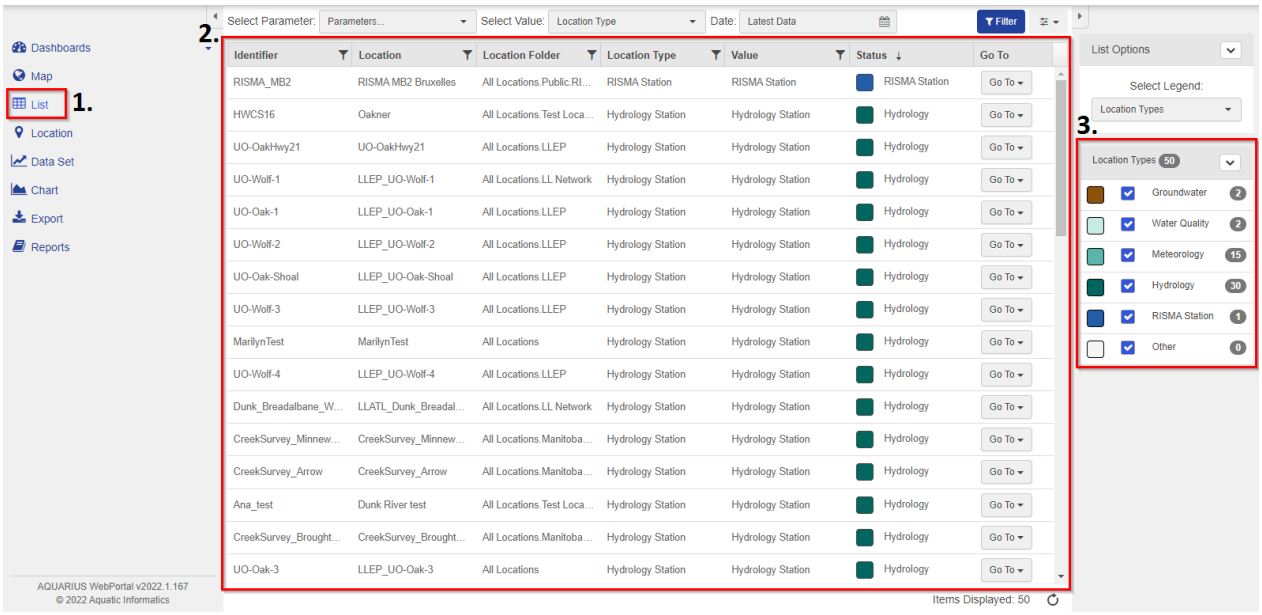

Figure 6: The List View; 1. *Click on List from the* Navigation Menu*; 2.* The list of available *data; 3*. Legend available to filter data

Filtering Grids

You can also apply filters based on the grid's columns. You will find a filter icon on each column's name and when you click on one of these icons, you will be presented with a filter interface similar to the one shown below. This option helps to select the desired information. You can also sort dataset arrangement by clicking on a column setting.

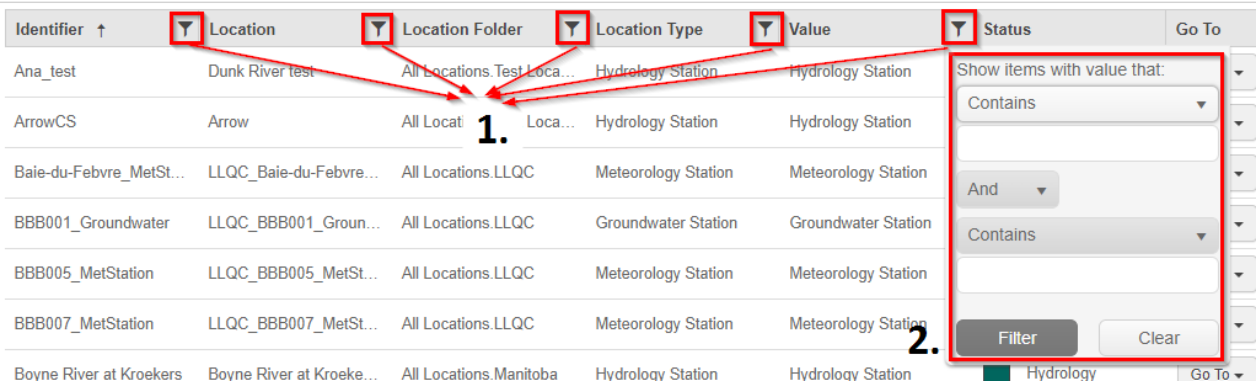

Figure 7: Apply filters based on a column header; 1. Click on Column Settings; 2. Select desired options from filter interface

Each location in the list view has a Go To button on the far-right side that allows you to navigate to different views of the dataset, as shown below:

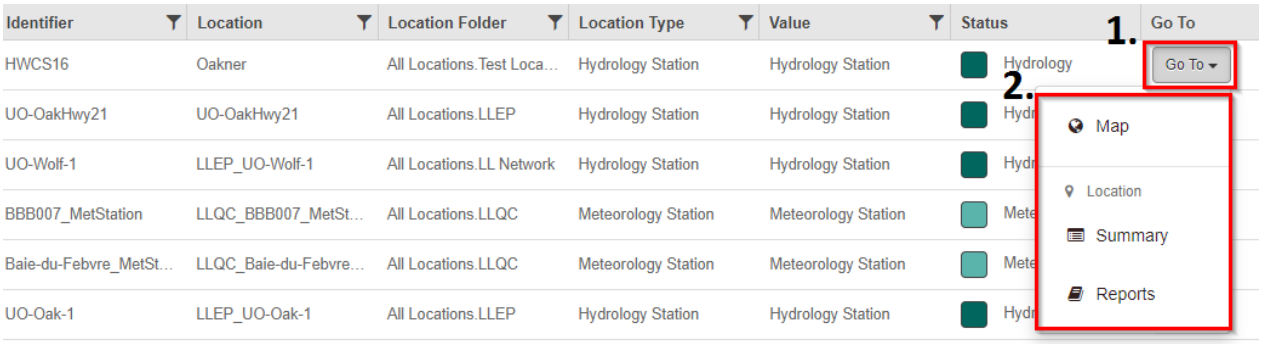

Figure 8: Navigate different views of the dataset. 1. Click on the Go To button; 2. Select desired view from the interface

Filter data

Filter Data is a method of locating a subset of locations or data sets based on the search system and extended metadata attributes. The filter data is a blue button and appears in both Map and List views. This button is located near the top right of the screen, just below the Mode menu. There are options for filtering data based on Location attributes or by using map selection.

For example, if you select a parameter (e.g., Air Temperature) and click the Blue 'Filter' Button, you will be able to filter all data sets that contain that parameter (**Figure *9***). You can basically drill down to find what you're looking for.

Note: The global filters which are visible to the public are preconfigured by the administrator (Atmosphere Theme is an example of global filter). Users can configure their own filters or select a preconfigured filter already saved in their profile.

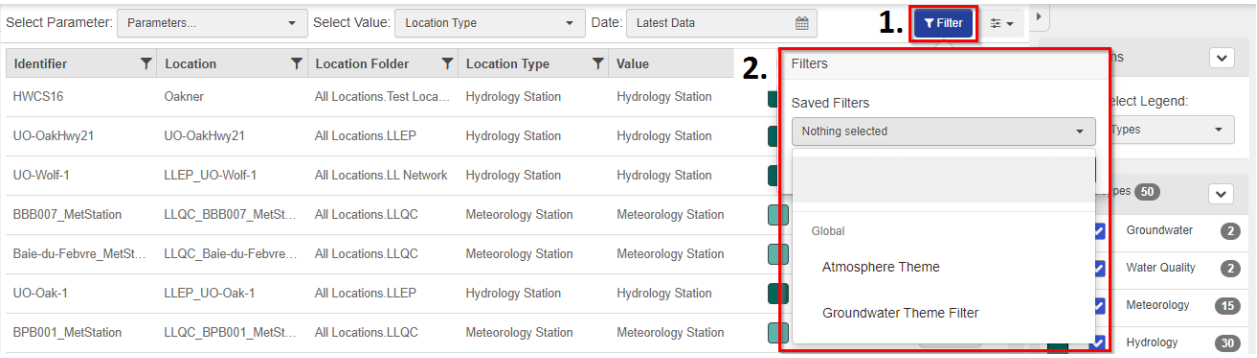

Figure 9: Filter all data sets that contain selected parameter; 1. Click on the Filter button; 2. Select the desired theme

A new filter is configured through this button by clicking on new filter, location attribute and add a filter on a tag, name and save it on your profile list of filters. An owner type filter is created through account settings, account filters tab.

2.3 Location

Location view (**Figure *10***) displays all the information for a Location. This view includes features such as summary table, well as files and reports options. In this view, you can search for a location by name or browse a pre-defined location set. You can also search by site name or site ID.

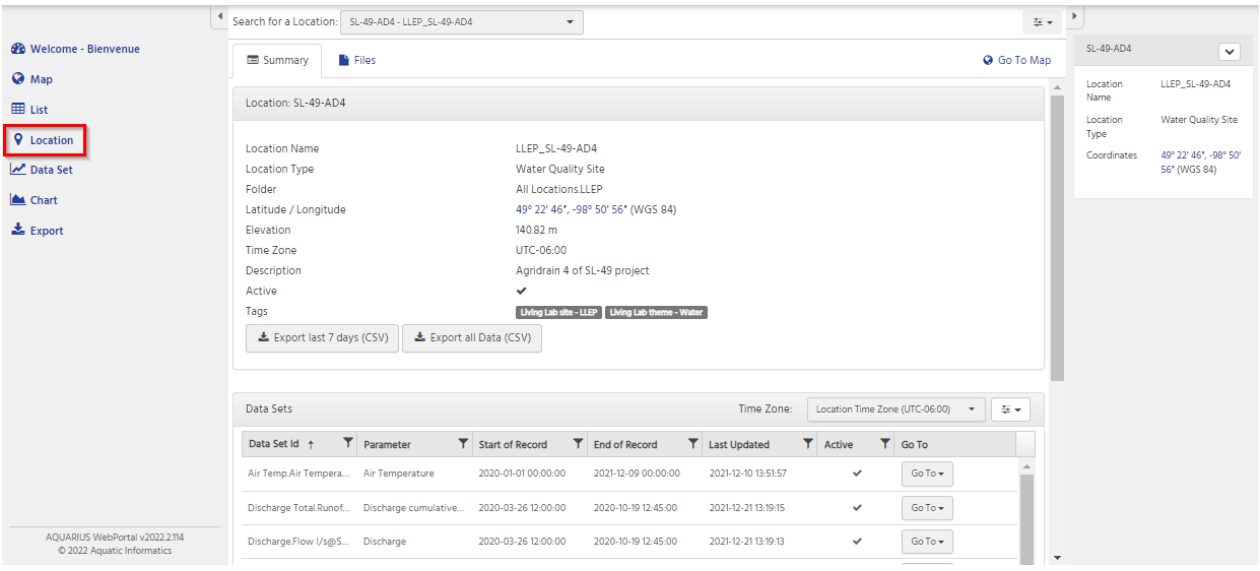

Figure 10: The Location View

Similar to List view, Location view has also a “Go To” button on the far-right side that allows you to navigate to different views of the dataset.

By clicking on the “Go To” drop down beside the dataset you can view different options related to your selected dataset (***11***).

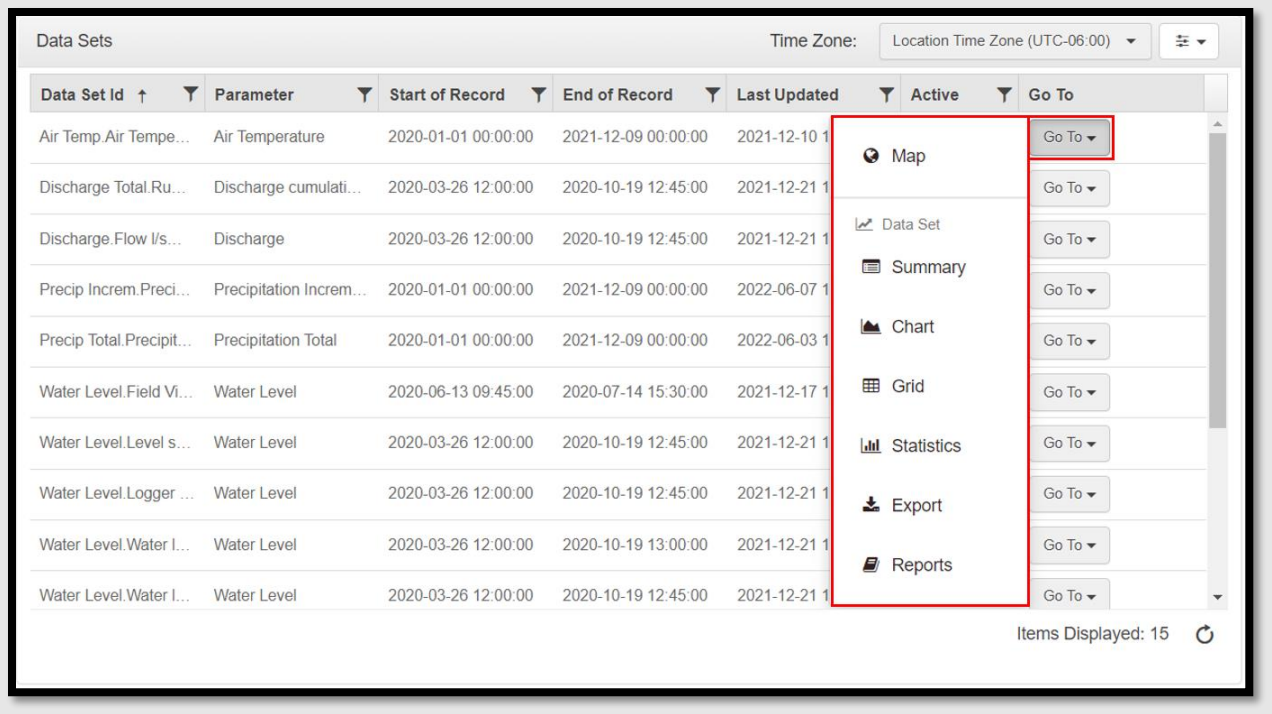

Figure 11: The Go To drop down list that contains different options related to selected dataset

2.4 Data Set

Allows you to search for a location and instantly view the location's data sets

The Data Set View (**Figure *12***) serves as a starting point for viewing data summary, charts, grids, or statistics for the selected site. Other useful features of this interface include the ability to export data and view alerts and reports.

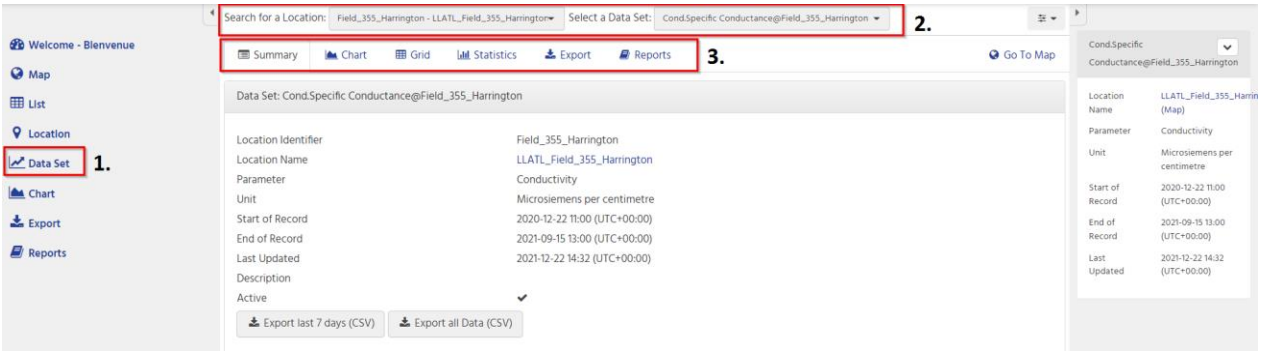

Figure 12: The Data Set View

1. Click on Data Set button from the menu
2. The drop-down menus are used to select a desired location and dataset.
3. The tabbed items at the top of the page display the selected data in a variety of formats such as a chart, grid (tabular), statistics or alerts.

One of the important tab in the Data Set View is Export. You can export data from a pre-set time frame or export all data using the buttons in the Data Set summary. To create a custom export, use the export

tab located below the Data Context Selectors (**Figure *13***). Data can be exported to either CSV, Excel, or JSON.

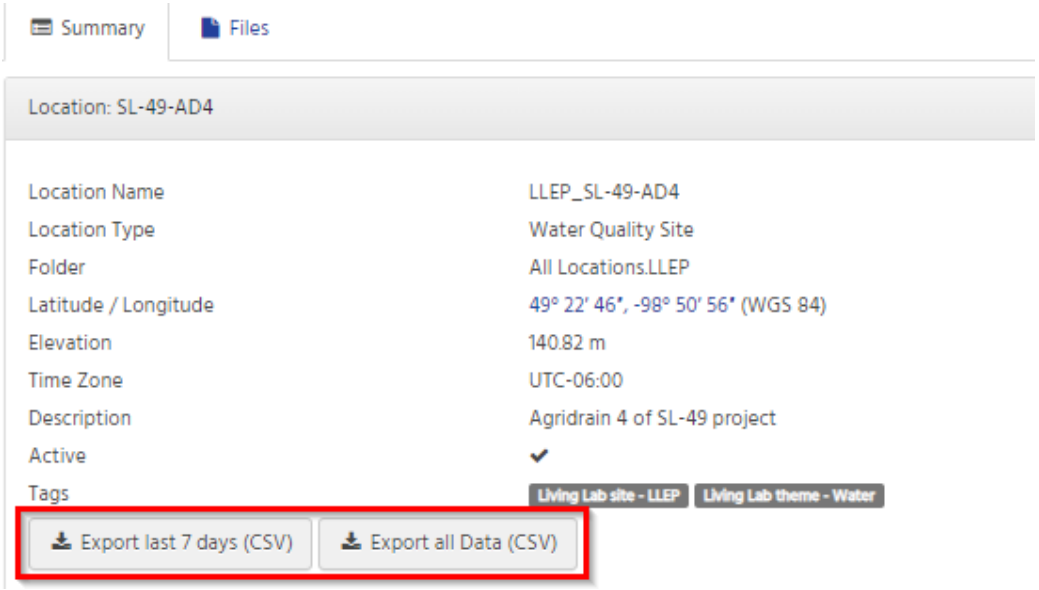

Figure 13: Export Data

1. Other important tabs in the Data Set View are Chart, Grid, statistics, and Reports.

The Chart tab (**Figure *14***) is the second tab within the Data Set View. This tab displays values and changes over various time periods. You can use the preconfigured charts or create your own and save them as PNG, JPG, or PDF files.

Tips:

1. You can view single data values by hovering over a data point in the chart interface.
2. You can select a desired range of interval in the chart using your computer mouse by clicking and drag across the chart to zoom in to a date range of interest or use the blue navigation screen at the bottom.
3. The option menu (Top right corner) can be used to export an image of the chart to PNG, PDF, or JPG. Alternatively, export the selected data to Excel, PDF, or CSV.
4. On the right side of the screen, you will see an Edit chart button in the chart option. You can change the chart type using that button, add or format axis. In addition, you can add more data sets and save your custom chart.

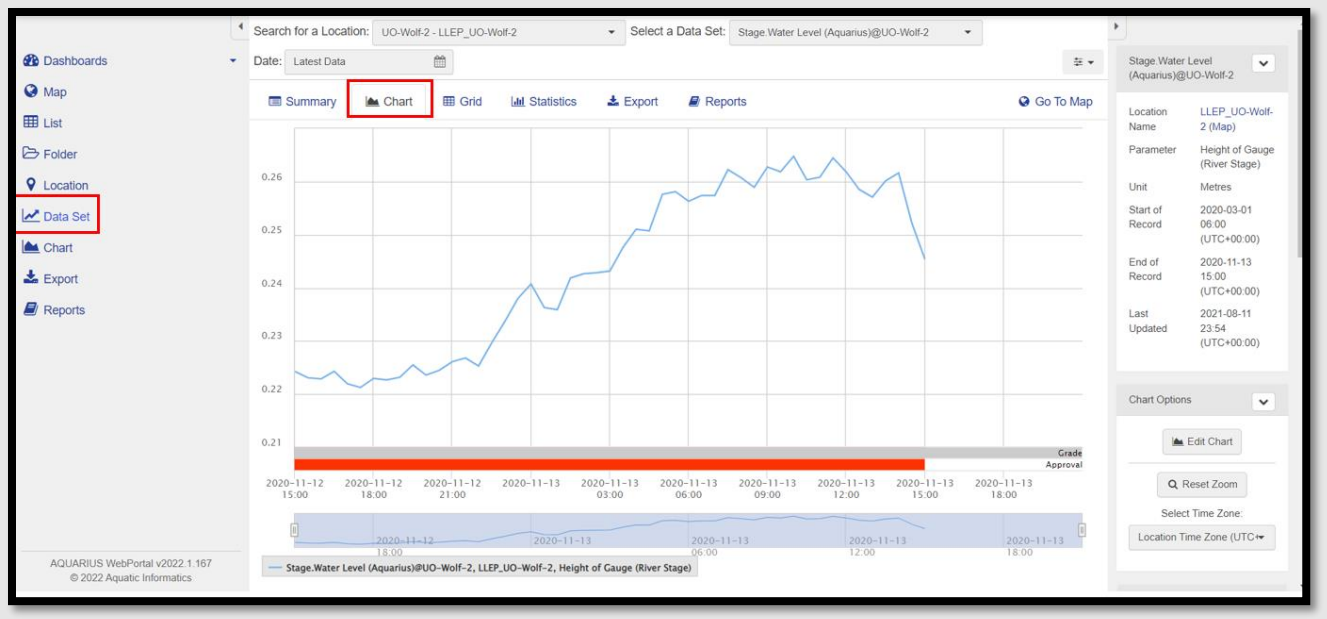

Figure 14: The Chart Tab

The Grid tab (**Figure 15**) is the third tab within the Data Set view. It shows the same time-series data from the chart tab but displayed in tabular format. You can also sort, filter, and export data using this tab. In addition, this tab displays other information about each data point such as Grade Code, Approval Level, and Interpolation Type.

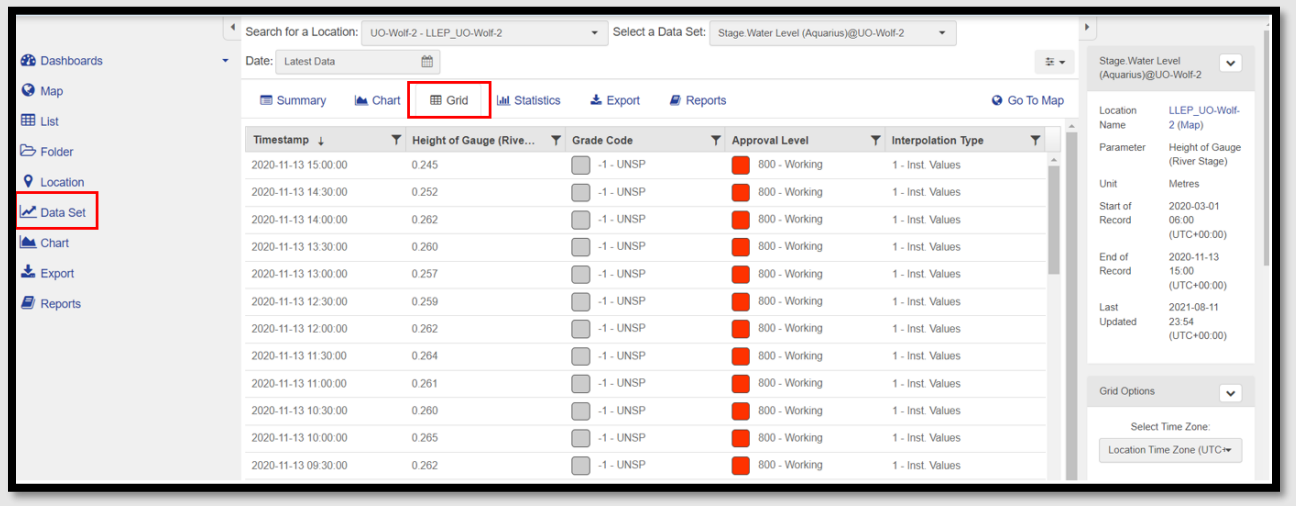

Figure 15: The Grid Tab

1. **Sort and Filter Columns:** select the filter icon to narrow down data of interest. Clicking on a column header changes the sort order of the dataset.
2. **Options Menu:** use this menu to export data, reset sort order, clear filters, refresh data, and access the full user guide.

Statistics tab (**Figure 16**) displays all statistics that are calculated for the Data Set over the selected Interval. Note that all statistics are pre-calculated for the defined intervals.

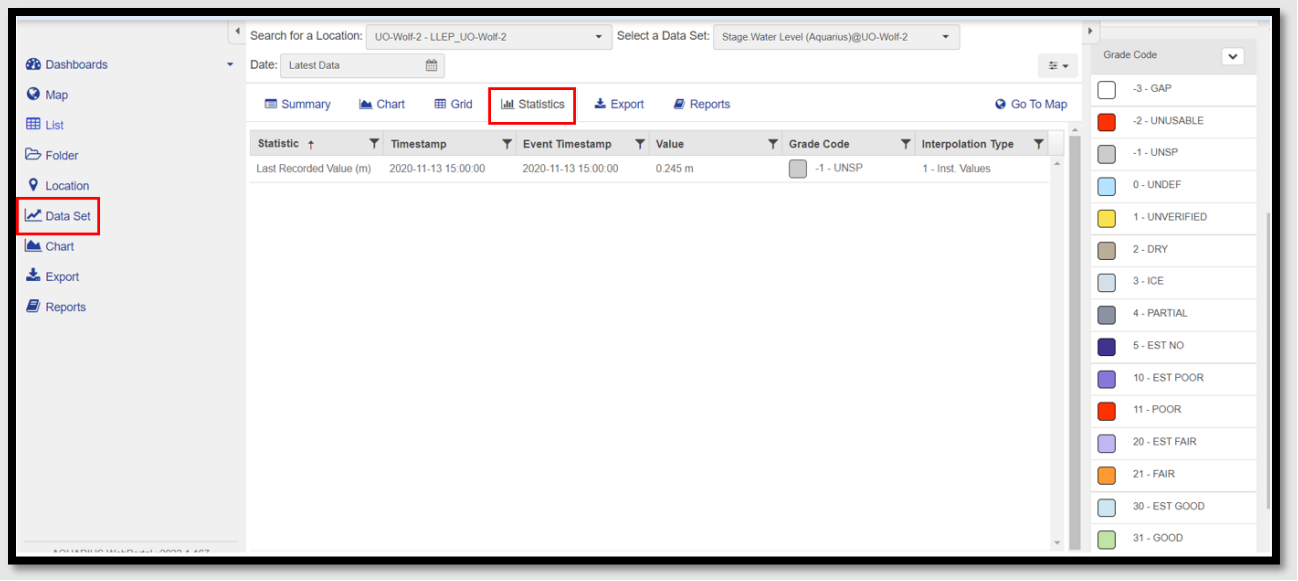

Figure 16: The Statistics Tab

1. **Select Statistics:** use the drop-down menus to select the data set, interval, and date range of interest. Not all options in the drop-down menu will have statistics calculated, so some selections will result in an empty data set.
2. **Sort and Filter Columns:** select the filter icon to narrow down data of interest. Clicking on a column header changes the sort order of the dataset.
3. **Options Menu:** use this menu to export data, reset sort order, clear filters, refresh data, and access the full user guide.

You can **Export** (**Figure 17**) the full period of record to various file formats. This tab gives another option to export URL or copy to clipboard for automatically downloading the data.

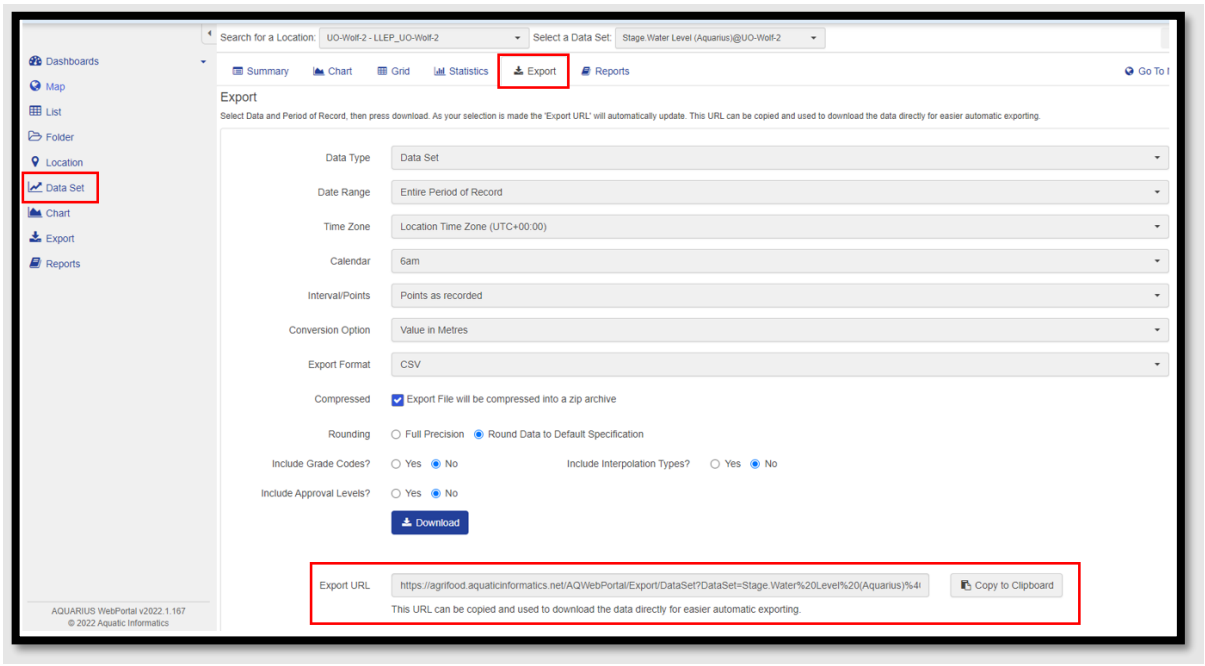

Figure 17: The Export Tab

2.5 Charts

The chart view (**Figure 18**) displays a preconfigured chart (Global) for a selected data set location and time interval. You can view a chart by selecting a chart in the drop-down menu (1) and date (2).

You can also create custom charts by pressing the 'Create Chart' button (3) to the right. Custom charts will be saved in your profile.

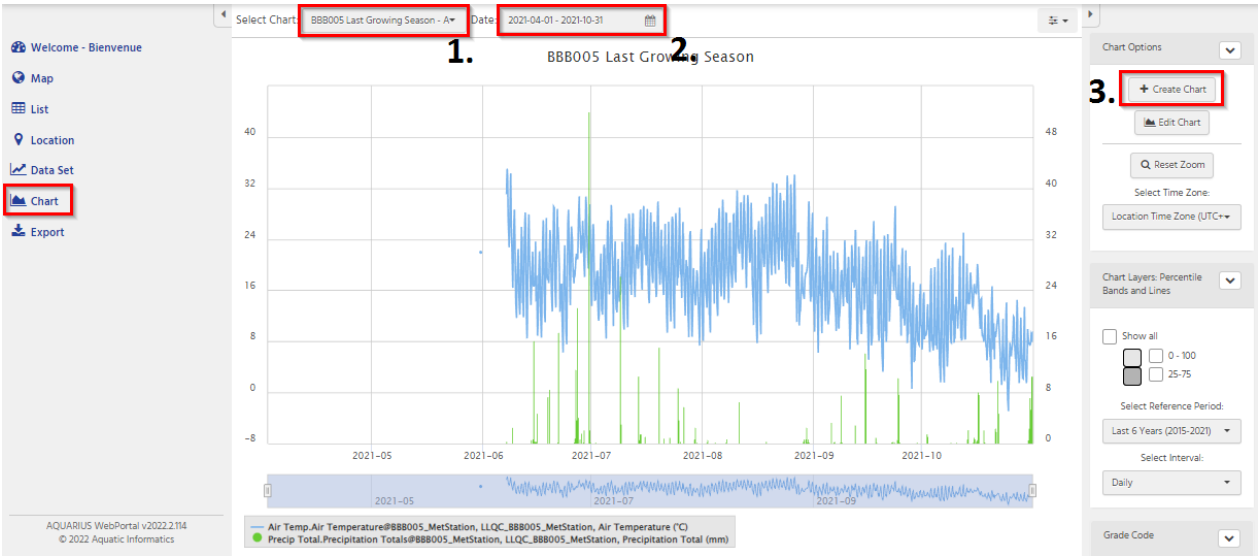

Figure 18: The Charts View

2.6 Export

The Export view (**Figure *19***) contains configuration options for bulk exporting your data sets. Multiple data sets for multiple parameters from multiple locations can be exported to a single, time-aligned file. You can also export them to separate files for each data set, depending on your export preferences.

1. When you use this page to export your data sets, you can specify the date range, interval, output file format, and what metadata to include or exclude.

In addition, you can also export data sets using URL by:

2. Copy Export URL to Clipboard. Configure the export form as desired, click the Copy button next to the Export URL field, and you now have a link that can be used to begin an automatic download of the data you have specified on the form. In addition to being shared with others, the link can be used in conjunction with the WebPortal API.

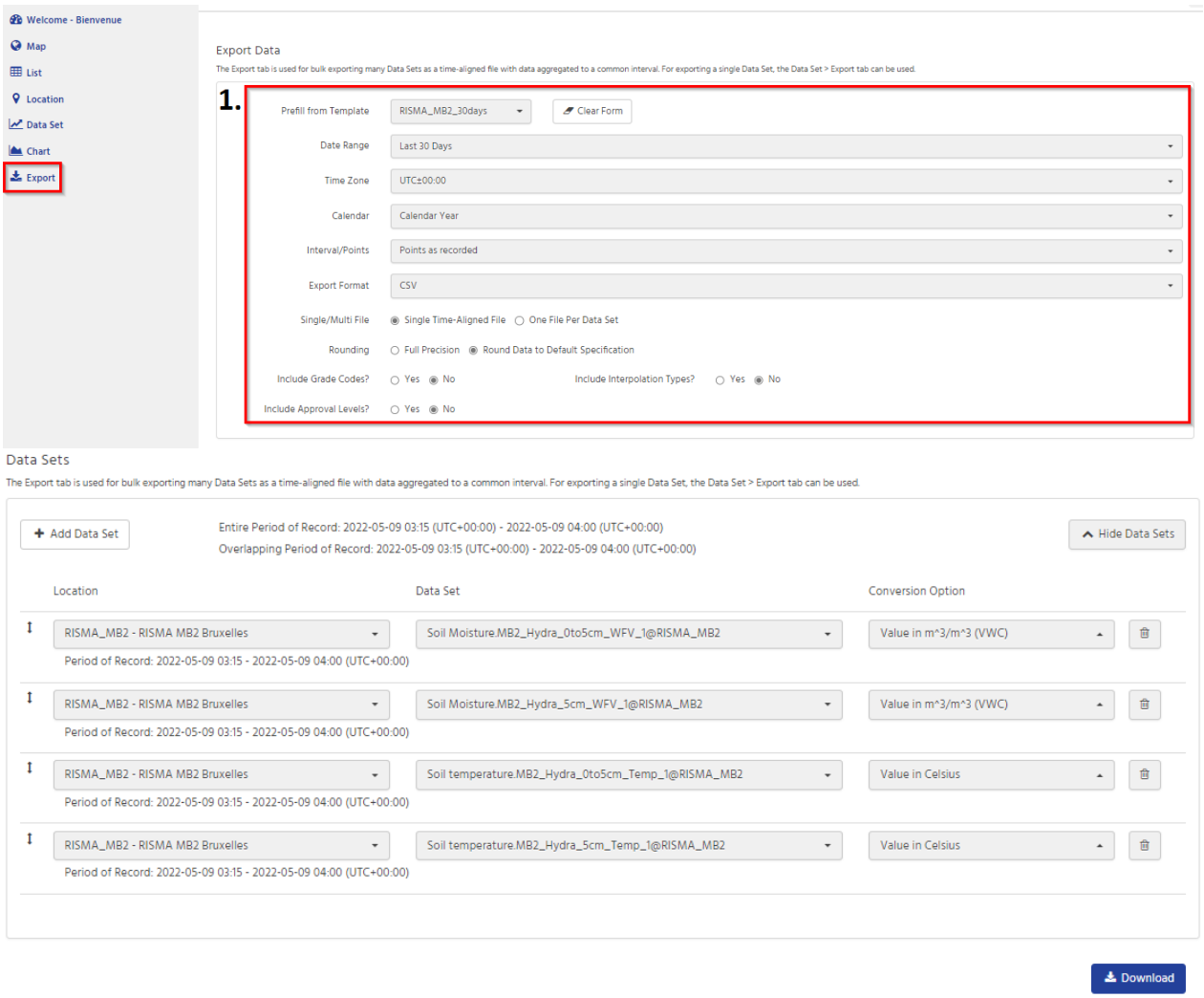

Figure 19: The Export View