


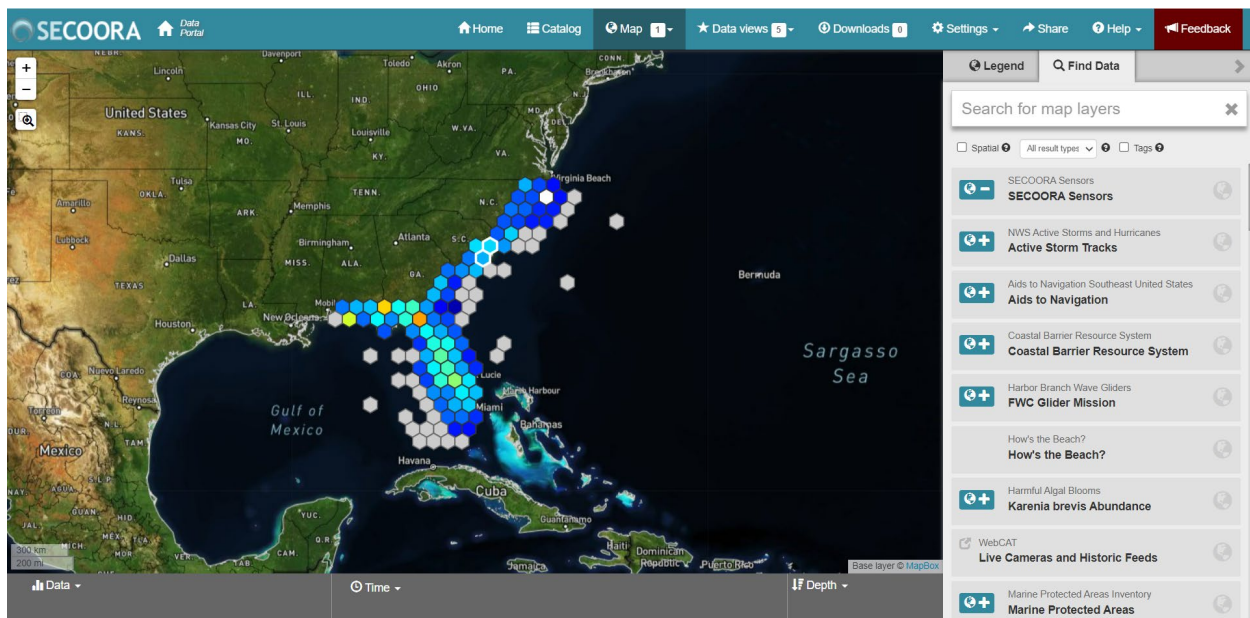
# SECOORA Map Tutorial

Created March 2023

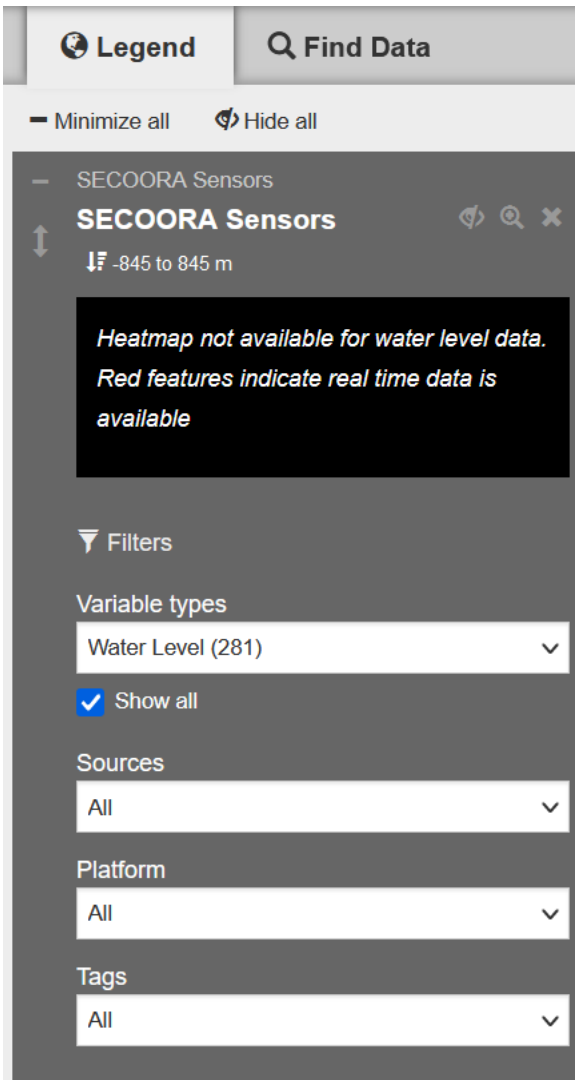
1. To view and download data from a water level sensor, go to <https://portal.secoora.org/#map>.
2. On the right hand side of the screen the map layers that can be added to the map are visible.
3. Under 'Find Data' you should see an option called 'SECOORA Sensors' you can add this

layer to the map by pressing the '+' symbol beside the title of the layer. 

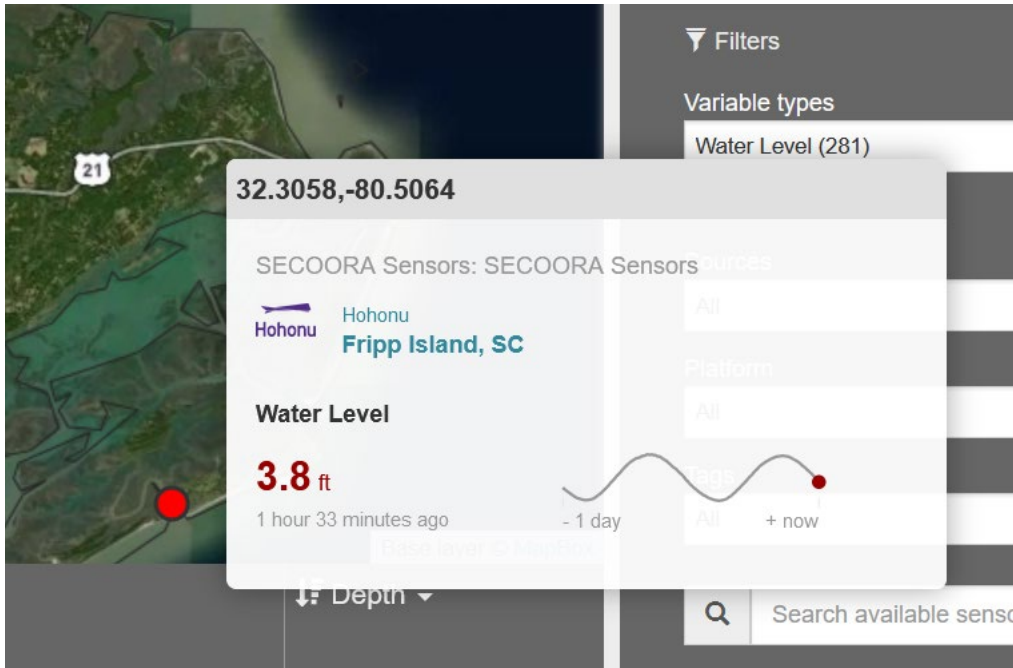
- a. This data layer shows, National Oceanic and Atmospheric Administration (NOAA), Sensestream, and Hohonu water level sensors.





4. After the 'SECOORA Sensors' layer is added to the map, switch to the 'Legend' tab on the right hand side of the screen. Under 'Variable types' you can filter to 'Water Level' so that only this data is shown on the map.
  - a. If you are searching for a sensor installed by a specific SECOORA partner under 'Sources' you can add that filter so that only those locations will be displayed in red on the map.



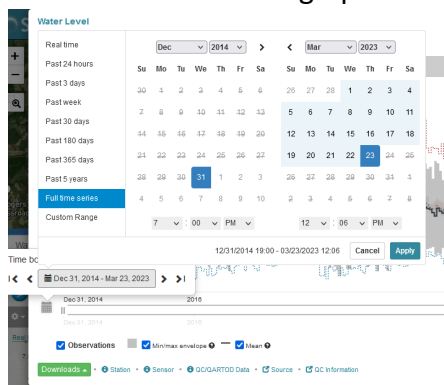
5. The easiest way to view and find a specific sensor will be to zoom into an area of the map where it is generally located. As you hover over the red circles a little information window should pop up that will display the station coordinates, the source of the data, and a little graph of recent data from that sensor.



- a. Red circles are active Water Level SECOORA Sensors, white circles are inactive Water Level SECOORA Sensors, and smaller gray circles are other SECOORA Sensors that have been filtered out (when applied filter for 'Water Level' in previous step). You can still hover over the white and gray circles to click on them to view the data.
6. When you click on a red circle for the sensor, a graph will show up in the lower left hand corner of your screen.
  - a. 'Water Level' should appear in the white box above the graph and also written in blue lettering above the graph.
  - b. Clicking the 'Station' option at the bottom of the graph will take you to another page where you can view more information on the sensor including installation date, owner of sensor, metadata, a map of the sensor location, as well as the graph of recent data. Use the back arrow of your internet browser to return to the Sensor map.
 
  - c. Clicking the 'Sensor' option at the bottom of the graph will take you to another page where you can view the graph of the data as well as the various quality control configurations for the data. Use the back arrow of your browser to return to the Sensor map.
 
7. The graph can be adjusted as needed.
  - a. Depending on the sensor, you may also have the ability to change the datum on the y-axis with a drop down menu above the graph. For example Hohonu sensors offer you to view the data in Mean Lower Low Water ([MLLW](#)), North

American Vertical Datum ([NAVD88](#)), and RAW. All y-axis datum options should be in feet.

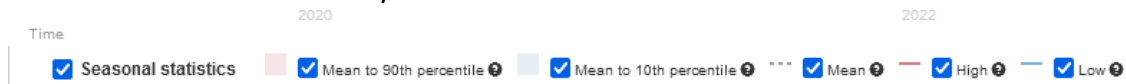
- The date will be shown on the x-axis.
- Make the graph full screen by clicking the symbol above the graph with four arrows pointing outwards.
- Zoom in by clicking and dragging your mouse over the area you would like to look at closer. The area you are zooming into should highlight with a yellow box.
- To view the full range of historical data available for the sensor, click on the symbol above the graph with the two arrows pointing outward.
- To change the range of days of data that you are viewing click on the calendar at the bottom left of the graph.



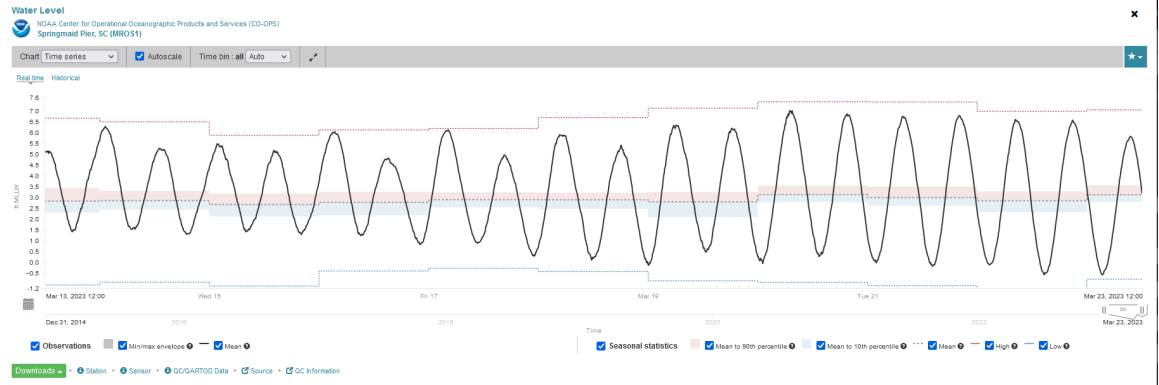
- Click the 'X' at the top right to exit the calendar.

## 8. Graph statistics

- A gray colored 'min/max' envelope can be checked on and off when viewing data. The envelope shows the extent of observations within the time bin.
- The mean shows the average value of all observations within each time bin.
- If a sensor has enough historical data available, seasonal statistics are available for viewing. Hovering your mouse over the gray question mark beside these seasonal statistics will allow you to see the definition of each statistic.



- Click the 'X' at the top right to exit the graph.



## To download data:

1. Click on the green 'Downloads' button in lower left hand corner of the graph.
 

Downloads ▾
2. To download an excel sheet in CSV format, click on the green download button under the CSV label.
  - a. Other download options include ERDDAP, NetCDF, and the current graph image.
3. To open the excel CSV file click on the file in the downloads for your internet browser.
  - a. Data will be displayed with time in [Coordinated Universal Time](#) (UTC) and water level data in meters. These units are noted in the downloaded file.