

## MAKE AN ACCOUNT

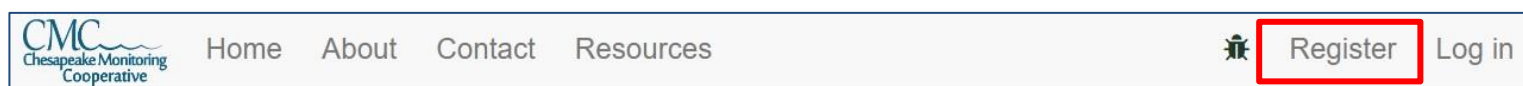
Before you can upload your data, you must register with an account on the CMC Data Explorer.

1. Visit the data explorer [link](http://cmc.vims.edu) and select **Manage Data** on the top of the page.

[cmc.vims.edu](http://cmc.vims.edu)



2. Select **Register** at the top right corner of the page.



3. Fill out the entire registration form with the following highlighted information.

Email\*

Provide a valid email address  
The Email\* field is required.

Password\*

Create a password and remember it  
The Password\* field is required.

Confirm password\*

You will need the password every time you enter data

First Name\*

Enter your preferred name

Last Name\*

Enter your last name

Select Group\*

Select the appropriate group you are monitoring with

Profile Image

No file chosen

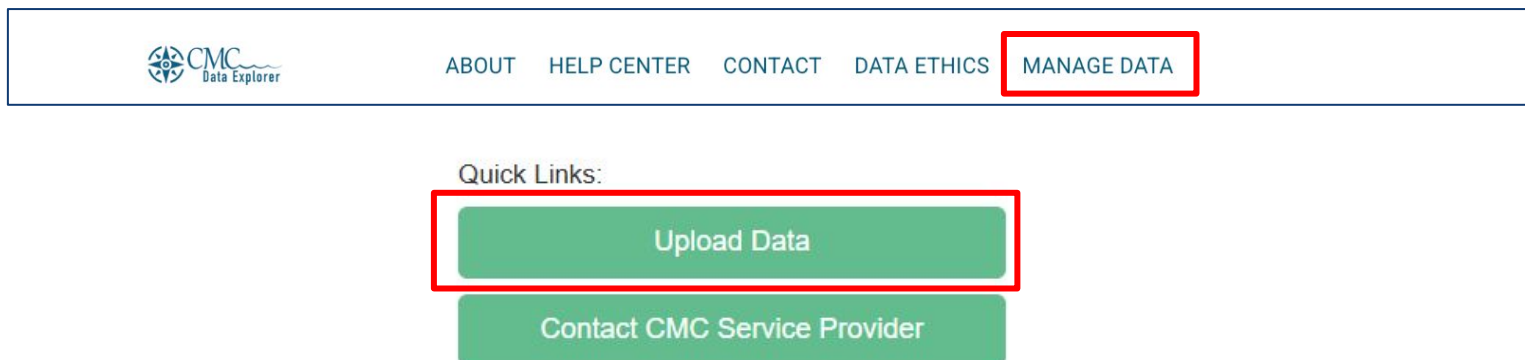
**\*\*Select Group:** select the group you are associated with. If you do not see your group listed, please select "Alliance for the Chesapeake Bay"

4. Click **Register** when completed, then go to your email and **click the link to confirm your email address**. An Alliance staff member will confirm your registration within 24 hours. You will then be able to login to upload data.

# ENTERING DATA: GENERAL INFO

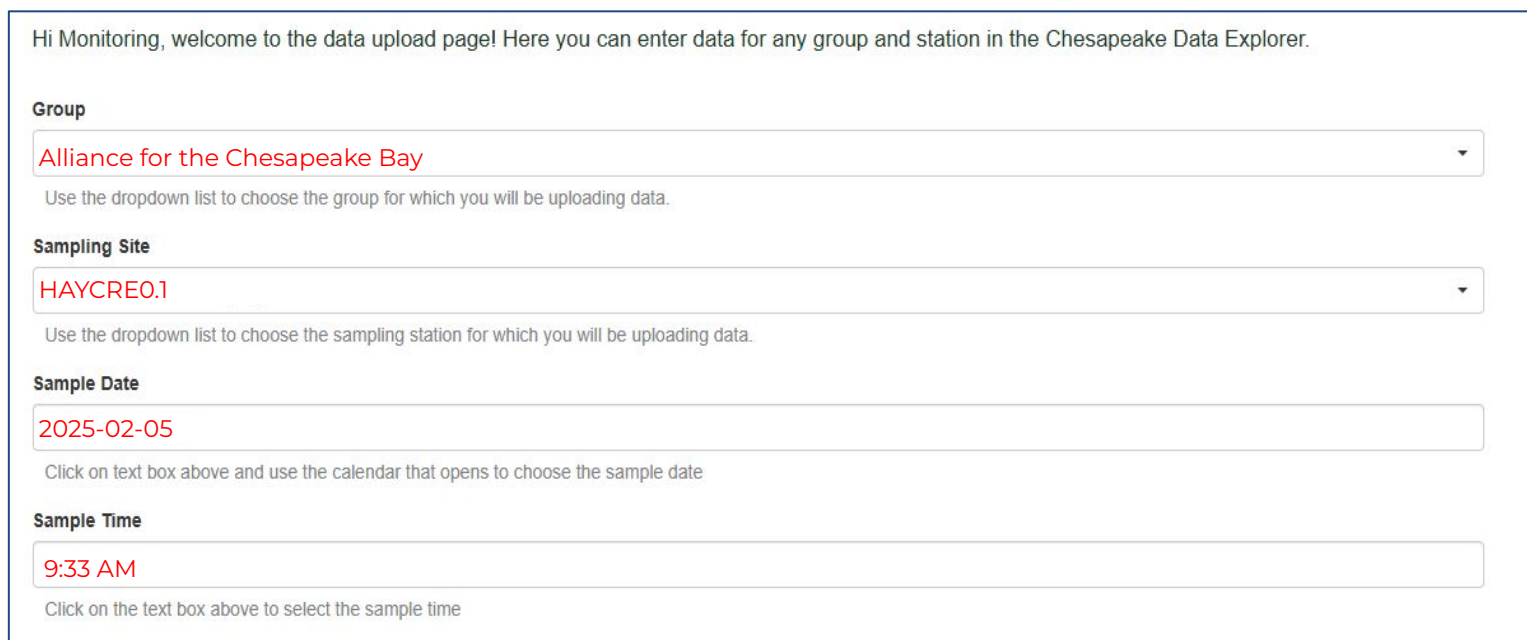
To upload data, first log in to your account on the CMC Data Explorer. Select **Manage Data** from the top menu, then select the **Upload Data** quick link.

[cmc.vims.edu](http://cmc.vims.edu)



The screenshot shows the CMC Data Explorer website. The top navigation bar includes links for ABOUT, HELP CENTER, CONTACT, DATA ETHICS, and MANAGE DATA. The MANAGE DATA link is highlighted with a red box. Below the navigation bar, there is a 'Quick Links' section with two buttons: 'Upload Data' and 'Contact CMC Service Provider'. The 'Upload Data' button is highlighted with a red box.

Fill out the top section of the data upload form with the information corresponding to your datasheet.



The screenshot shows the data upload form. It includes a welcome message and four input fields: Group, Sampling Site, Sample Date, and Sample Time. Each field has a dropdown menu or text box with a red border. The Group field is set to 'Alliance for the Chesapeake Bay', the Sampling Site field is set to 'HAYCRE0.1', the Sample Date field is set to '2025-02-05', and the Sample Time field is set to '9:33 AM'. Below each field is a small instruction text.

Hi Monitoring, welcome to the data upload page! Here you can enter data for any group and station in the Chesapeake Data Explorer.

**Group**  
Alliance for the Chesapeake Bay  
Use the dropdown list to choose the group for which you will be uploading data.

**Sampling Site**  
HAYCRE0.1  
Use the dropdown list to choose the sampling station for which you will be uploading data.

**Sample Date**  
2025-02-05  
Click on text box above and use the calendar that opens to choose the sample date

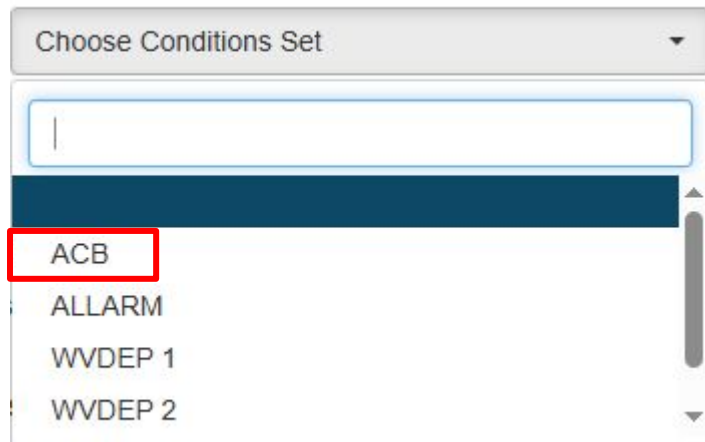
**Sample Time**  
9:33 AM  
Click on the text box above to select the sample time

- **Group:** This will be selected for you based on the group you choose at registration.
- **Sampling Site:** Select your sampling site from the drop down list provided. If you do not see your station, contact the RiverTrends Coordinator.
  - Use caution as some sampling sites may have similar names. Double check you have selected the appropriate site
- **Sample Date:** Enter your sampling date from your datasheet (mm/dd/yyyy).
- **Sample Time:** Enter your sampling time from your datasheet (HH:MM AM/PM)

# ENTERING DATA: CONDITIONS DURING SAMPLING

From the "Choose Conditions Set" drop down box, **select ACB**.

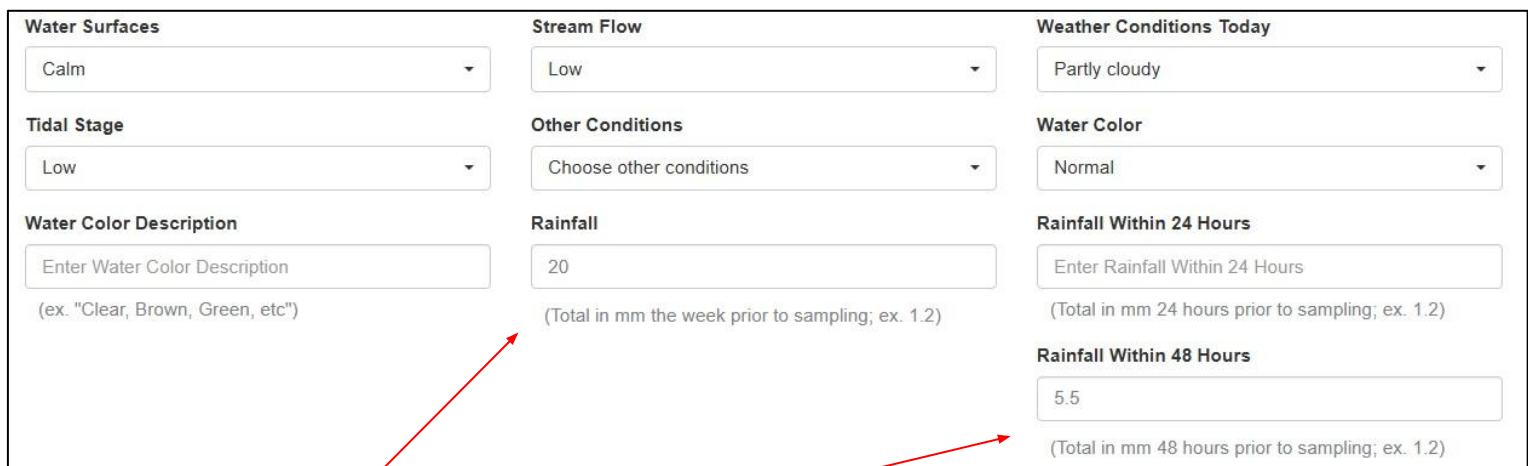
Fill out the conditions during sampling that correspond to your datasheet by using the dropdown menus or text boxes. Leave any unused fields blank.



The image shows a dropdown menu titled "Choose Conditions Set". The menu is open, displaying a list of options: "ACB", "ALLARM", "WVDEP 1", and "WVDEP 2". The option "ACB" is highlighted with a red rectangular box, indicating it is the selected condition.

## RiverTrends monitors should have complete observational data for:

- water surface, stream flow rate, weather conditions today, water color, tidal stage (if applicable), other conditions (if applicable). The drop down menus correspond to observational data section on the back of your datasheet.



The image shows a form for entering observational data, organized into three columns. The first column contains "Water Surfaces" (set to "Calm"), "Tidal Stage" (set to "Low"), and "Water Color Description" (a text box with the placeholder "Enter Water Color Description" and an example "(ex. 'Clear, Brown, Green, etc')"). The second column contains "Stream Flow" (set to "Low"), "Other Conditions" (a dropdown menu set to "Choose other conditions"), and "Rainfall" (a text box with the value "20" and a note "(Total in mm the week prior to sampling; ex. 1.2)"). The third column contains "Weather Conditions Today" (set to "Partly cloudy"), "Water Color" (set to "Normal"), "Rainfall Within 24 Hours" (a text box with the placeholder "Enter Rainfall Within 24 Hours" and a note "(Total in mm 24 hours prior to sampling; ex. 1.2)"), and "Rainfall Within 48 Hours" (a text box with the value "5.5" and a note "(Total in mm 48 hours prior to sampling; ex. 1.2)"). Two red arrows originate from the "Rainfall Data:" section below and point to the "Rainfall" and "Rainfall Within 48 Hours" fields.

## Rainfall Data:

To source your rainfall data, please visit the RiverTrends Resource Page and utilize Wunderground or your local rainfall station to collect accurate rainfall data.

- **Rainfall:** type in the weekly accumulation total (mm) before sampling
- **Rainfall Within 48 Hours:** type in the total of rainfall (mm) 48 hours before sampling

# ENTERING DATA: CALIBRATIONS

This section records the calibration/standardization procedures that correspond to the front of the RiverTrends datasheet, including pH, dissolved oxygen, and bacteria (if applicable).

## DISSOLVED OXYGEN

**Sodium Thiosulfate Check (mg/L):** Type in the value of your sodium thiosulfate check. If a second and third check were completed, report the two closest values. Click the blue plus sign to “add a second value” and type in the value for the second sodium thiosulfate check. If your sodium thiosulfate check is not between 9.4 and 10, submit a supply request for new sodium thiosulfate on the [RiverTrends Resource Page](#).

### Data Sheet:

Check 1	Check 2	Check 3
<u>9.2</u> mg/L	<u>9.6</u> mg/L	<u>9.4</u> mg/L

### Upload:

Dissolved Oxygen Sodium Thiosulfate  
Check (mg/L)

+

9.6

9.4

## BACTERIA (R-CARD)

E. coli Bacteria Measurements (R-Card)				
Disregard any pink, red, green-blue, or white colonies. These are not E. coli bacteria. Only count purple and blue-purple colonies.	Incubation Time	Incubation Temperature	Sample water used (1-3mL)	Total colonies counted on plate
	<u>24</u> hours	<u>38.5</u> °C	Sample 1: _____ mL Sample 2: _____ mL <small>(only March/October)</small>	 

**To calculate the Total Colonies of E. coli bacteria per 100 ml of water:**

1. Divide 100 by the ml of water used. 2. Multiply this quotient by the number of purple colonies counted

**Sample 1:**  $([100 \div \text{mL of water used}] * \text{colonies counted}) = \text{_____ CFU/100mL}$  (report this number on back of datasheet)

**Sample 2:**  $([100 \div \text{mL of water used}] * \text{colonies counted}) = \text{_____ CFU/100mL}$  (report this number on back of datasheet)

Bacteria Incubation Temperature (deg C)

24

Bacteria Incubation Time (hours)

38.5

# ENTERING DATA: CALIBRATIONS CONT'D

## pH

Type in the value of your pH meter quality assurance checks Most monitors complete a 2-point calibration, using pH 7 and pH 4 **or** pH 10. Leave the other one blank. Use the guide below to match up the numbers on your datasheet with the correct sections on the data upload page.

### Data Sheet:

pH Meter Quality Assurance Checks				
If your calibration values differ by more than +/- 0.20 from the standard, do not take sample and contact coordinator.	Pre-sample Calibration and Temperature		Post Sample Check and Temperature	
	7.00	<u>7 . 00</u>	7.00	<u>7 . 02</u>
	4.01	<u>     .     </u>	4.01	<u>     .     </u>
	10.01	<u>10 . 00</u>	10.01	<u>10 . 01</u>
		<u>21 . 2</u> °C		<u>23 . 0</u> °C



### Upload:

pH Calibration Temperature (deg C)

pH Calibration Value (4) (SU)

pH Calibration Value (7) (SU)

pH Calibration Value (10) (SU)

pH Post-Sample Check (4) (SU)

pH Post-Sample Check (7) (SU)

pH Post-Sample Check (10) (SU)

pH Post-Sample Temperature (deg C)

# ENTERING DATA: SURFACE SAMPLES




## Section 4: Surface Samples



This section records the surface samples that correspond to the back of the RiverTrends datasheet. If you do not have data for a listed parameter, leave the box blank. Do not enter "0" unless that is the actual recorded value.




### Data Sheet:




Parameter	Field Readings
<b>Air Temperature</b> (nearest tenth)	<u>12 . 5</u> °C
<b>Dissolved Oxygen</b> <small>Note: Tests should be within 0.6 of each other. If not, perform 3rd test and report two closest results.</small>	Test 1: <u>11 . 2</u> mg/L Test 2: <u>11 . 0</u> mg/L
<b>Bacteria</b>	<u>133</u> CFU/100mL
<b>pH</b> (nearest hundredth)	<u>8 . 02</u> SU
<b>Salinity</b> (nearest tenth)	<u>16 . 0</u> ppt
<b>Total Depth</b> (nearest tenth of meter)	<u>1 . 5</u> m
<b>Water Clarity - Secchi Disk</b> (nearest tenth of meter)	<u>        </u> m <input type="checkbox"/> Check box if value is > than that recorded
<b>Water Clarity - Turbidity Tube</b> (nearest tenth of cm)	<u>110 . 6</u> cm <input type="checkbox"/> Check box if value is > than that recorded
<b>Water Temperature</b> (nearest tenth)	<u>5 . 0</u> °C




### Upload:




**Air Temperature (deg C)**  
  
  




**Dissolved Oxygen (mg/L)**  
  
  
 




**Bacteria (E.coli) (CFU)**  
  
  




**pH (SU)**  
  
  

**Salinity (Refractometer) (ppt)**  
  
  

**Total Depth (M)**  
  
  


**Secchi Disk (M)**  
  
  

**Turbidity Tube (cm)**  
  
  

**Water Temperature (deg C)**  
  
  

## REMINDERS:

- Upload TWO dissolved oxygen samples each month
- Upload TWO samples for each parameter in March and October when you collect field replicates
- Use QUALIFIER CODES when the reading is greater than your equipment is able to record See pg. 7 for more information on how to use qualifier codes.

Click  **Save** at the bottom of the page after entering your data.



# REPLICATES AND QUALIFIER CODES

## REPLICATE SAMPLES

RiverTrends monitors collect two dissolved oxygen samples each month, indicated by Test 1 and Test 2 on the field data sheet. Additionally, replicate samples of all parameters are collected in March and October. When this happens, both samples need to be uploaded to the Data Explorer by using the blue plus sign symbol to open a second value box.

Data Sheet:




<b>Dissolved Oxygen</b> <i>Note: Tests should be within 0.6 of each other. If not, perform 3rd test and report two closest results.</i>	Test 1: <u>9</u> . <u>6</u> mg/L
	Test 2: <u>9</u> . <u>8</u> mg/L



Upload:

**Dissolved Oxygen (mg/L)**



Enter Dissolved Oxygen (mg/L)

**Dissolved Oxygen (mg/L)**

9.6

9.8

## QUALIFIER CODES

For secchi disk or turbidity tube measurements, you may have a reading that is greater than the value able to be recorded by your equipment. If this happens, click the orange circle and select the ">" symbol from the drop down menu.

Data Sheet:




<b>Water Clarity - Secchi Disk</b> (nearest tenth of meter)	_____ . _____ m	<input type="checkbox"/> Check box if value is > than that recorded
<b>Water Clarity - Turbidity Tube</b> (nearest tenth of cm)	<u>120</u> . <u>0</u> cm	<input type="checkbox"/> Check box if value is > than that recorded



Upload:

**Turbidity Tube (cm)**

120

Note: If reading is greater than the value entered choose the > symbol from the qualifier code field.

>

# PROBLEM CODES

Occasionally you may notice that your data is not meeting **quality assurance standards**. When this happens, a problem code needs to be associated with the datapoint. RiverTrends volunteers may add the problem codes A, B, V or C themselves, or the RiverTrends coordinator will add it on the back end when reviewing data.

Code	Name	When should I use this?
A	Calibration or Standardization failed	Do not take your field reading if calibration or standardization fails. If you proceed with a field reading, the data will be flagged with this code.  <b>Dissolved Oxygen:</b> Sodium thiosulfate check failed, reported lower than 9.4 <b>pH:</b> calibration failed (7, 4, or 10 more than 0.20 from standard value)
B	Post-sample check failed	<b>pH:</b> post-sample checks failed (7, 4, or 10 more than 0.20 from standard value)
C	Field replicate out of range	For use by RiverTrends Coordinator <b>only</b>
V	Other Field QA/QC issue	<b>pH:</b> calibration not performed or failed <b>DO:</b> Sodium thiosulfate check not performed, failed or are more than 0.4 mg/L apart <b>Bacteria:</b> incubation time greater than 24 hours, temperature incorrect outside of 38-40°C range
X	No routine sample taken - see comments	If you are unable to record a routine measurement, use X. This <b>must</b> be accompanied by an explanation in the comments section.

## PROBLEM CODE USE SCENARIO

The pH meter post-sample checks were outside of the acceptable range for buffer 10, reading 9.78. This data must now have a problem code associated with it. Find the field reading of the pH value for this sampling event, select the red circle to open the problem code dropdown menu, then select the appropriate code. For this scenario, select problem code B to indicate that the post sample check failed.

The diagram illustrates the process of selecting a problem code for a pH reading. The top part shows a pH (SU) input field with a value of 6.63 and three icons: a blue plus, a red circle with an exclamation mark (highlighted with a red square), and a yellow plus. A red arrow points from the red circle icon to a dropdown menu. The dropdown menu lists the following options: "If needed, select problem code", "A - Calibration/Standardization Failed", "B - Post-Sample Check Failed" (highlighted in blue), "C - Field Replicate out of range", "V - Other Field QA Issue", and "B - Post-Sample Check Failed" at the bottom.