A User's Manual for the Chesapeake Data Explorer

Version 1.0 March 2019

ALLIANCE for the Chesapeake Bay

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University of Maryland Center for Environmental Science

Chesapeake Bay Program
Science. Restoration. Partnership.

CEC
Chesapeake Environmental Communications

Welcome to the Chesapeake Monitoring Cooperative's Chesapeake Data Explorer! The Data Explorer is an online application that allows groups around the Chesapeake Bay watershed to upload water quality and benthic macroinvertebrate data to a centralized database. Data in this database will be routinely uploaded to the Environmental Protection Agency's STOrage and RETrieval (STORET) data warehouse. These data will also be used by the Chesapeake Bay Program Office in annual assessments of Chesapeake Bay health.

This User's Manual will provide you with all of the information you need to obtain a Chesapeake Data Explorer account and to upload data. The Chesapeake Monitoring Cooperative appreciates your participation in this program and wishes you happy monitoring!

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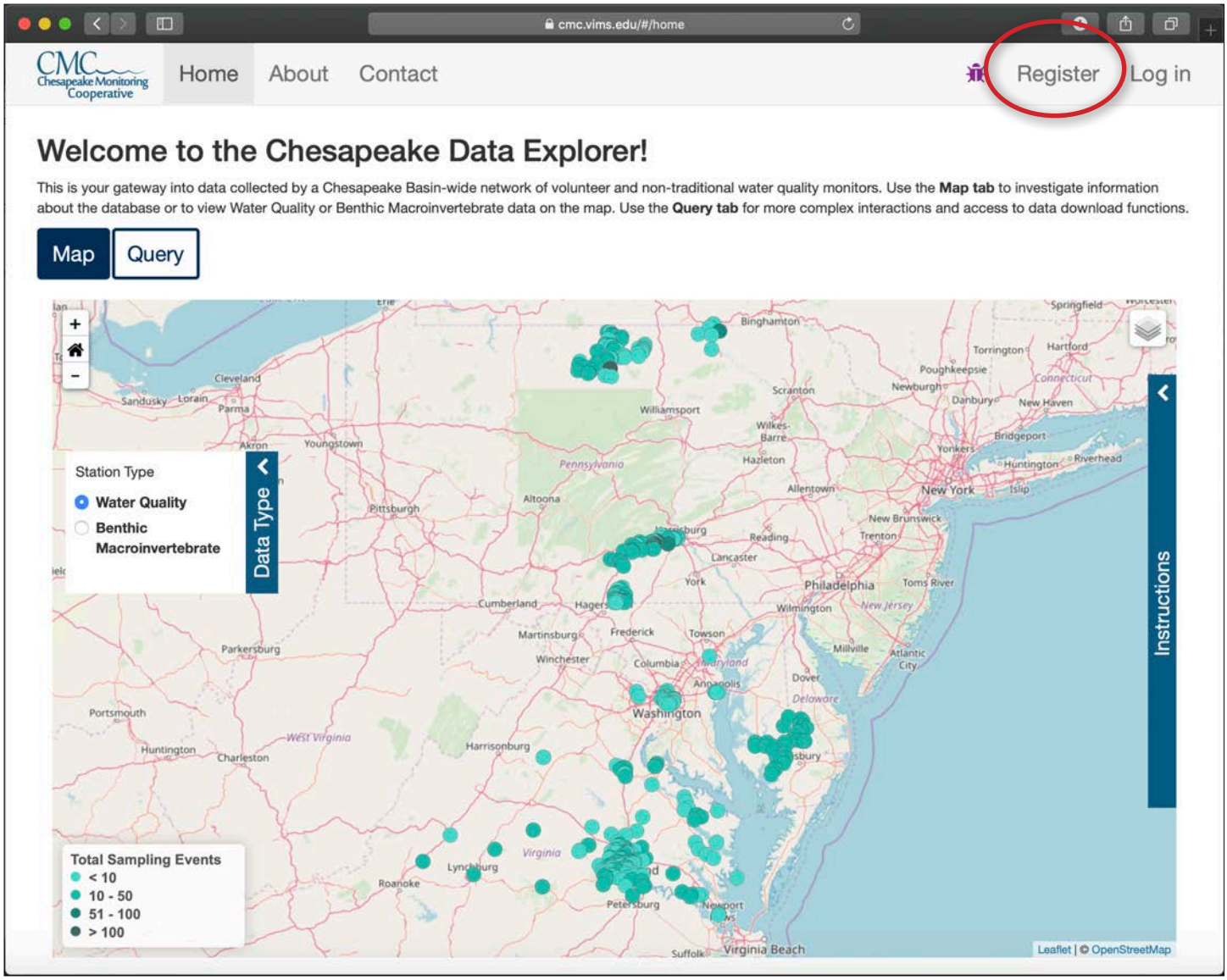
1 Create An Account

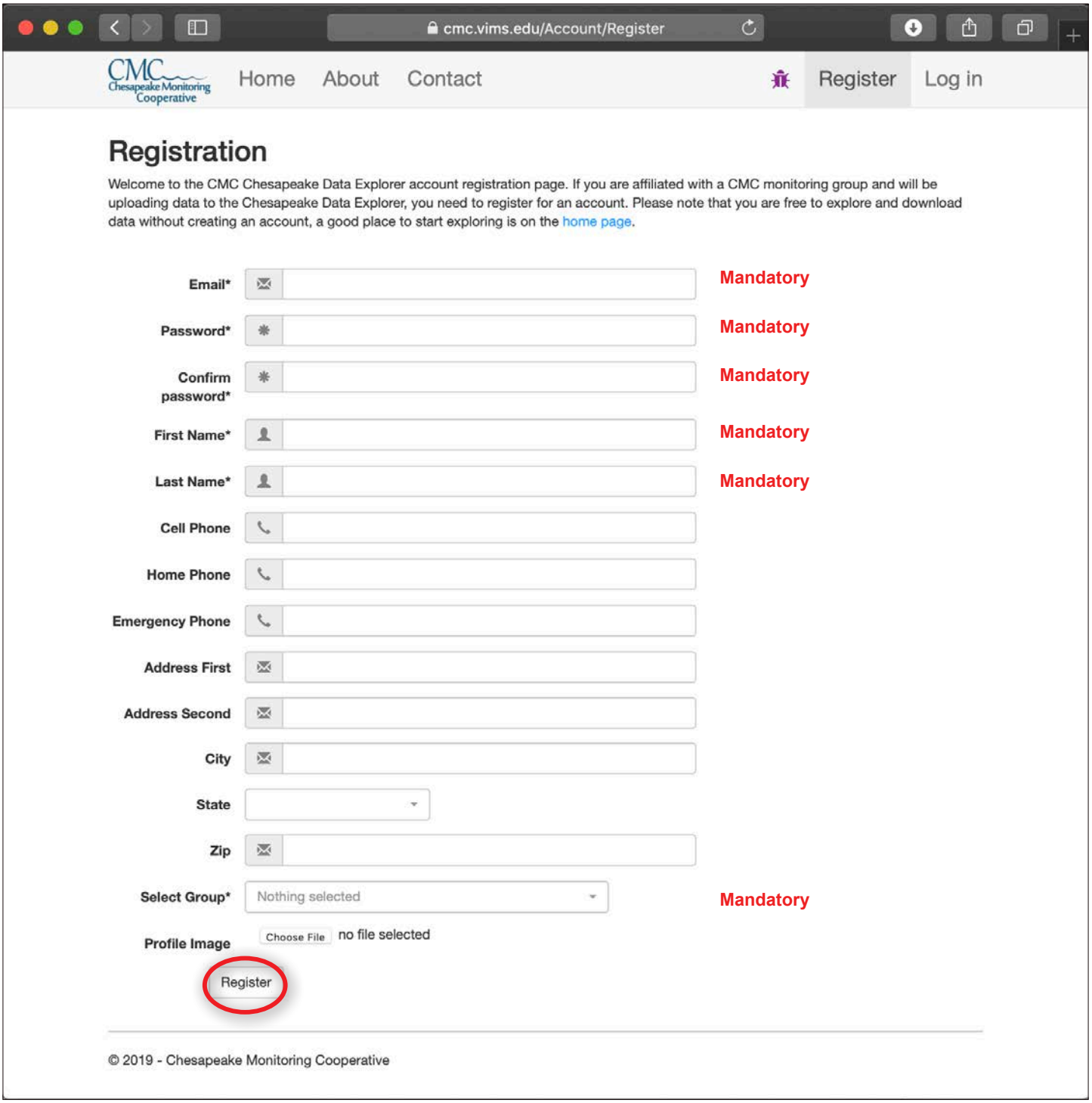
To be able to upload data to the Chesapeake Data Explorer, you need to create a user account. In this chapter, we will review the steps involved in this process.

Step 1 - Go to https://cmc.vims.edu. ***Note – it is important to use https NOT http.*** From the Menu Bar at the top of the screen, click the "Register" button.

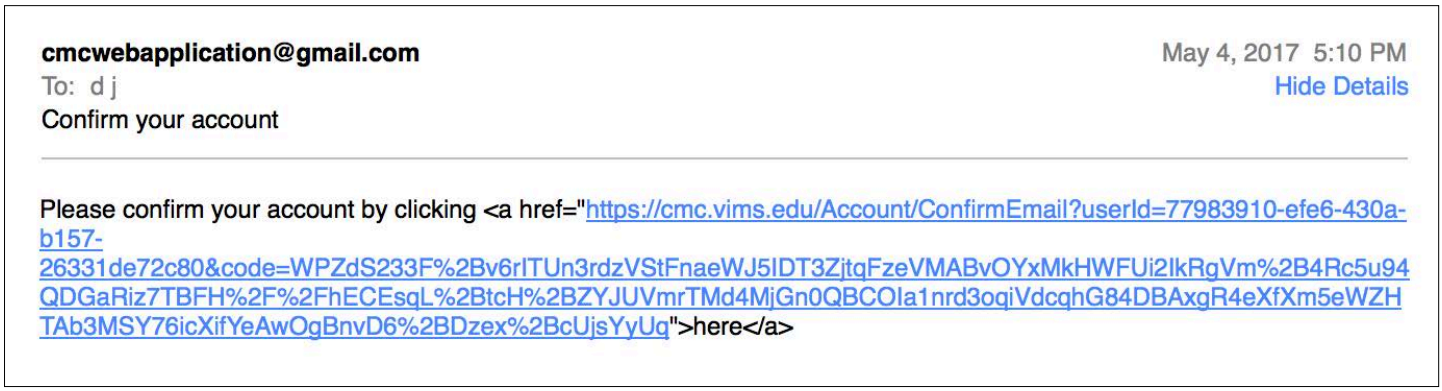


Step 2 - On the register page, fill in the requested information.

1. Email address, password, first name, last name, and monitoring group are mandatory.
2. Your username will be your email address and your password will be the one you created in this step. Please make a note of it!
3. Click the arrow next to the “Select Group” box to select your monitoring group. In order to access your site you need to be registered under the correct group, so please double check that your group name is correct.
4. After clicking “Register”, you will receive an email asking you to confirm your email address. ***Note - If you don’t receive an email, please check your spam folder.***



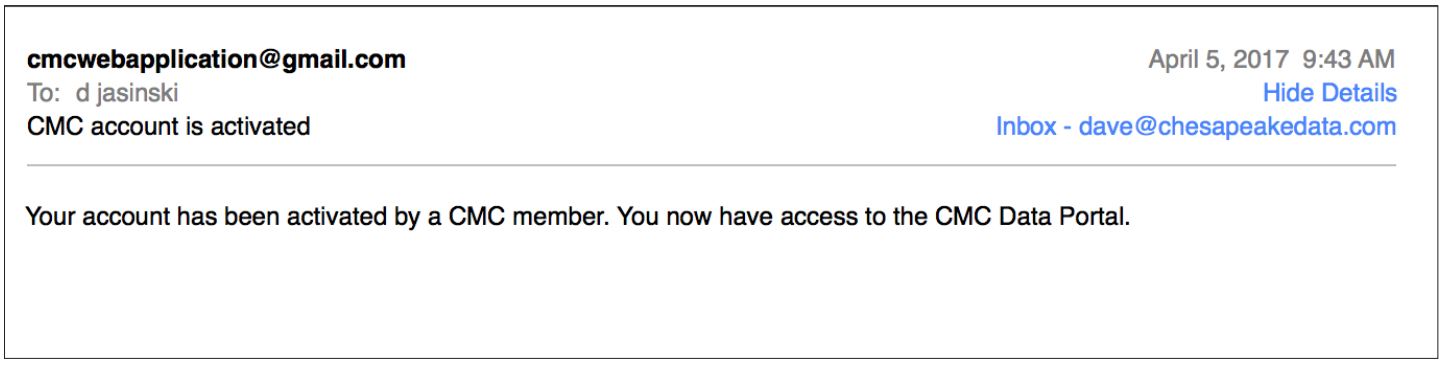
Step 3 - Click the link in the email to confirm your email address.
Once you verify your email address, your account request will be approved by a CMC service provider. Please allow a few days for your account to be activated. ***Note - If you are the coordinator for your monitoring group, you will be granted Coordinator privileges by the CMC service provider that activates your account.***



cmcwebapplication@gmail.com May 4, 2017 5:10 PM
To: d j Hide Details
Confirm your account

Please confirm your account by clicking here

Step 4 - Once your account is activated, you will receive an email and be able to log into the CMC Chesapeake Data Explorer using your email address and password.



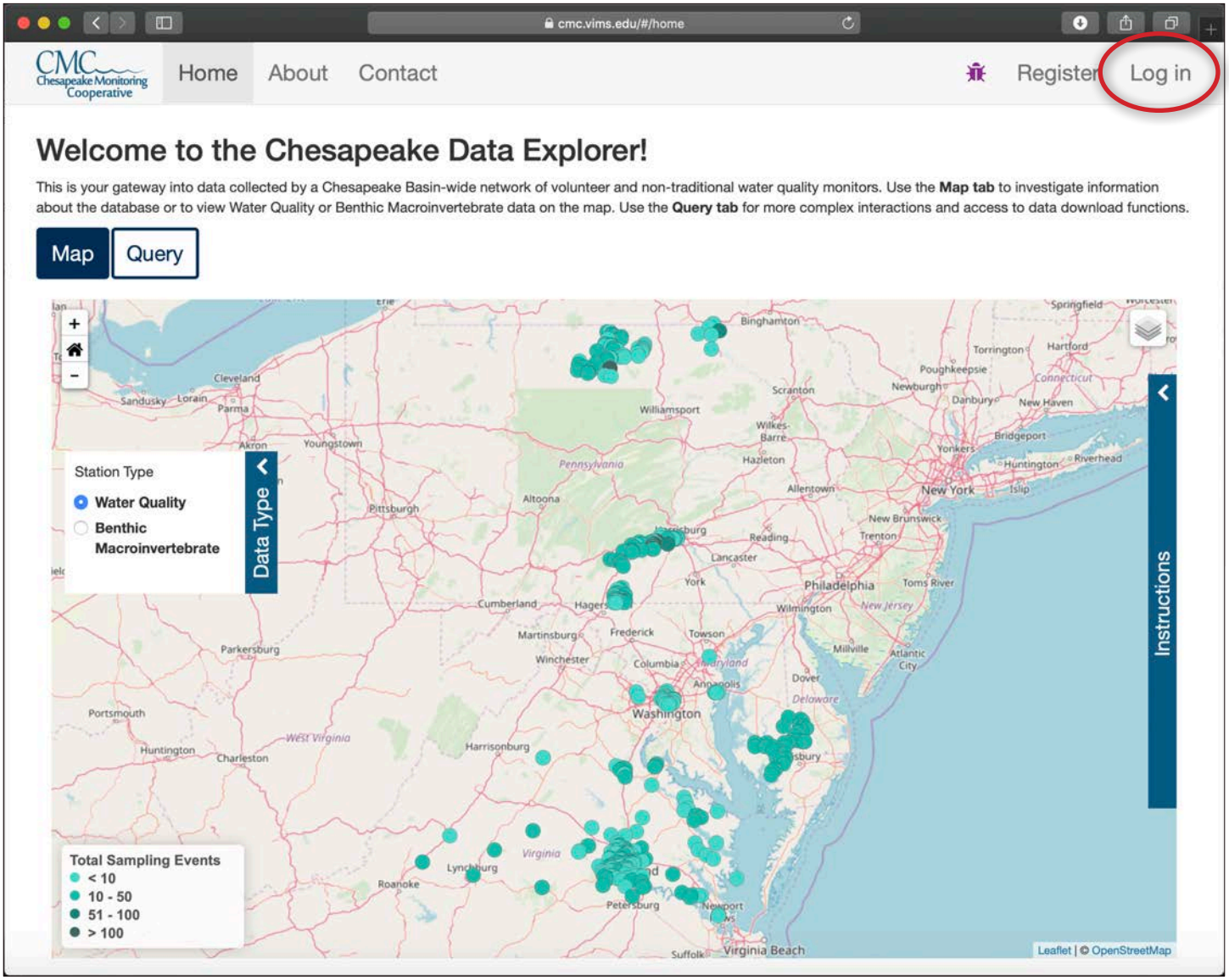
cmcwebapplication@gmail.com April 5, 2017 9:43 AM
To: d jasinski Hide Details
CMC account is activated Inbox - dave@chesapeakedata.com

Your account has been activated by a CMC member. You now have access to the CMC Data Portal.

2 Log In

In this chapter, we will review how to log in to the Chesapeake Data Explorer. It is assumed that you have completed the steps outlined in Chapter 1 to create your user account.

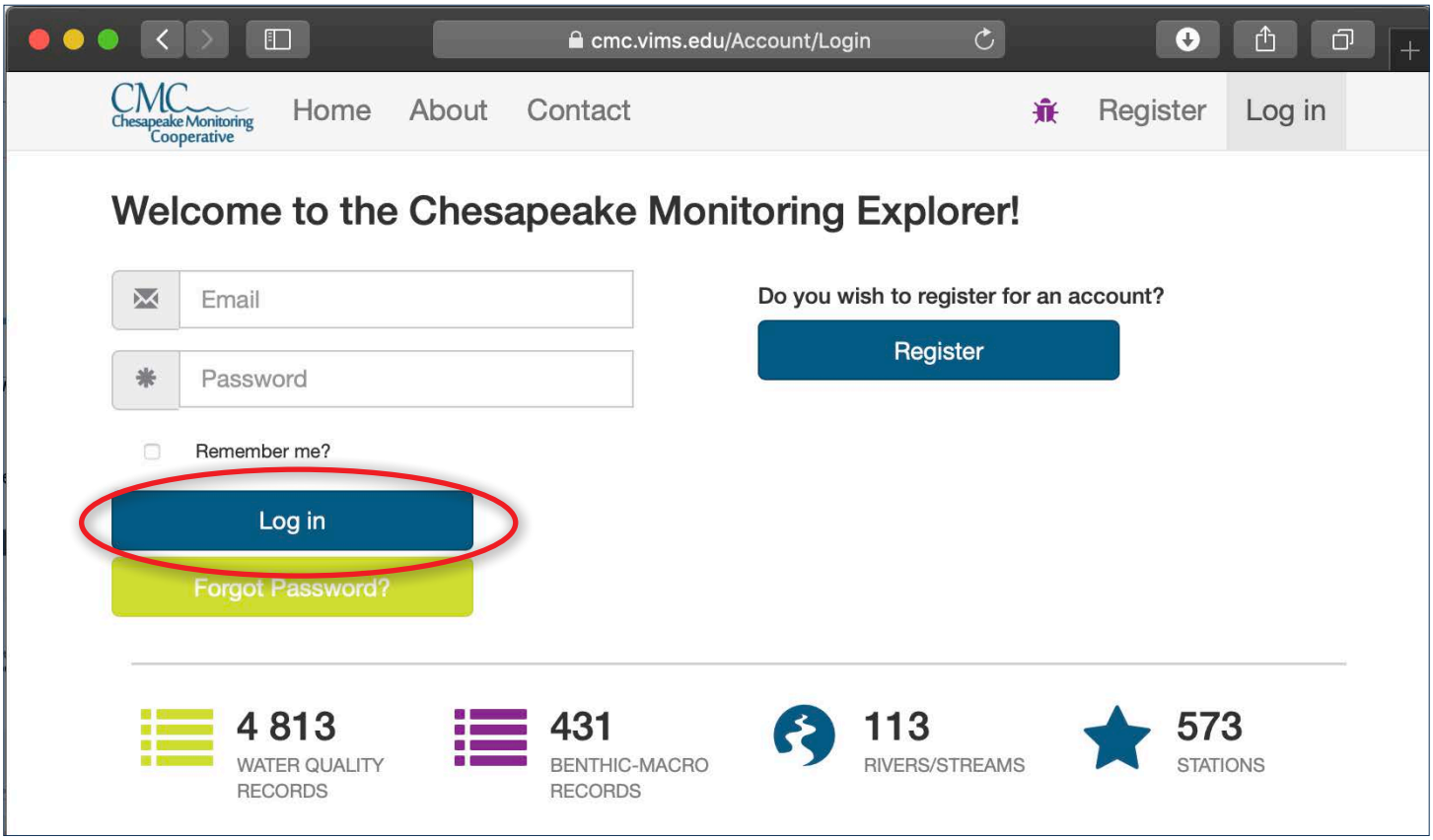
Step 1 - Once your account has been activated, go to https://cmc.vims.edu. ***Note – it is important to use https NOT http.*** From the Menu Bar at the top of the screen, click the "Log in" button.



Step 2 - On the log in screen:

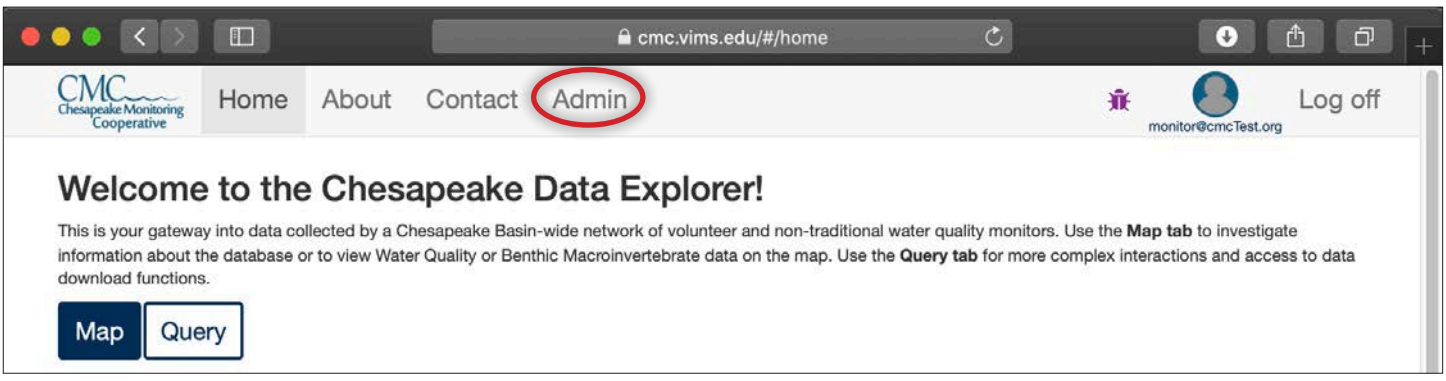
1. Enter your username and password.
2. Click the “Log in” button.
3. If you have forgotten your password, you can click “Forgot Password?” and step through the password recovery process.

Icons at the bottom of the screen provide summary information about the Data Explorer database.



Step 3 - Once you log in:

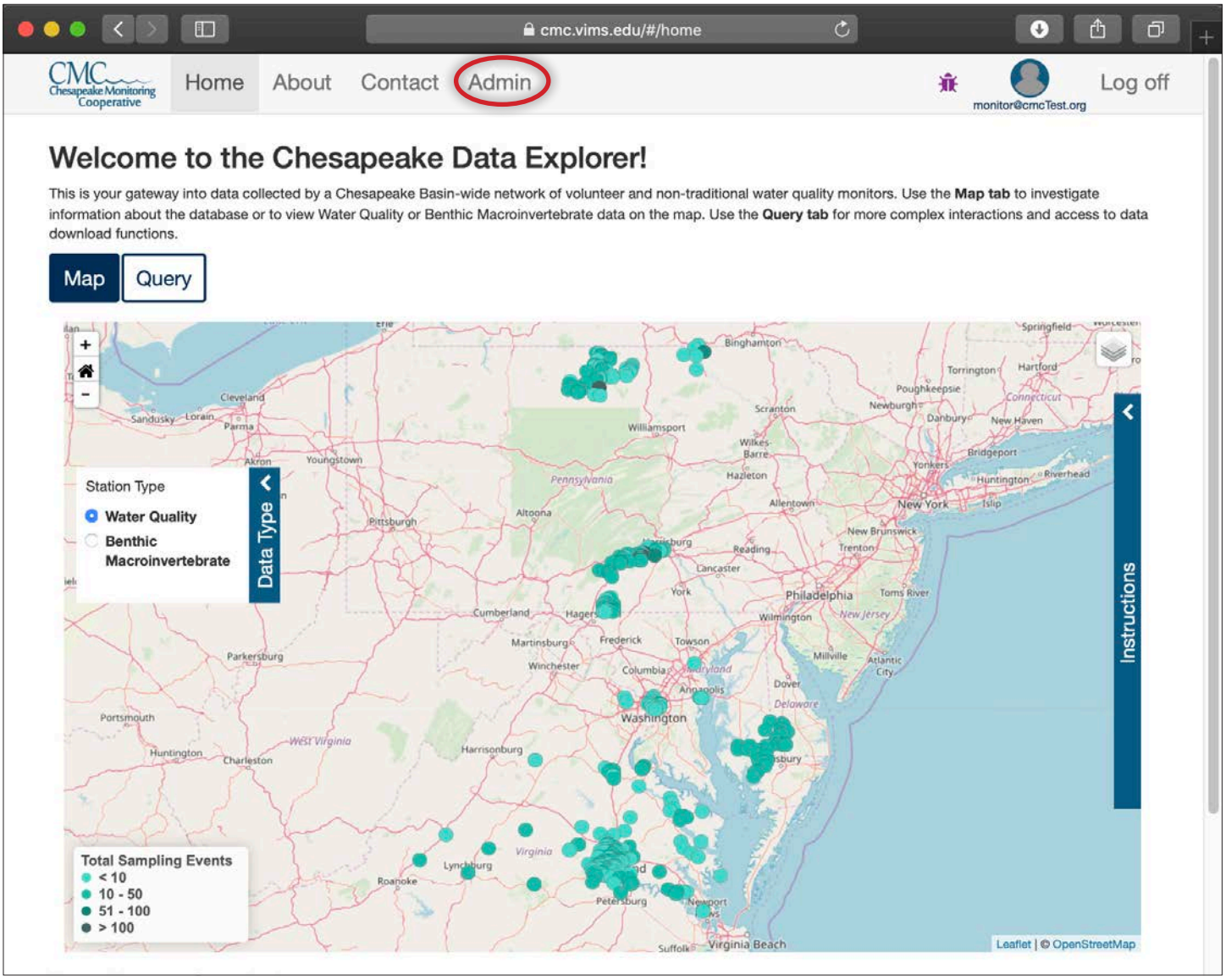
- The main page of the Chesapeake Data Explorer will open.
- “Admin” now appears in the navigation bar.
- Your username and a placeholder profile picture appears in the navigation bar. You will learn how to replace the placeholder image in Chapter 4.



3 Admin Page

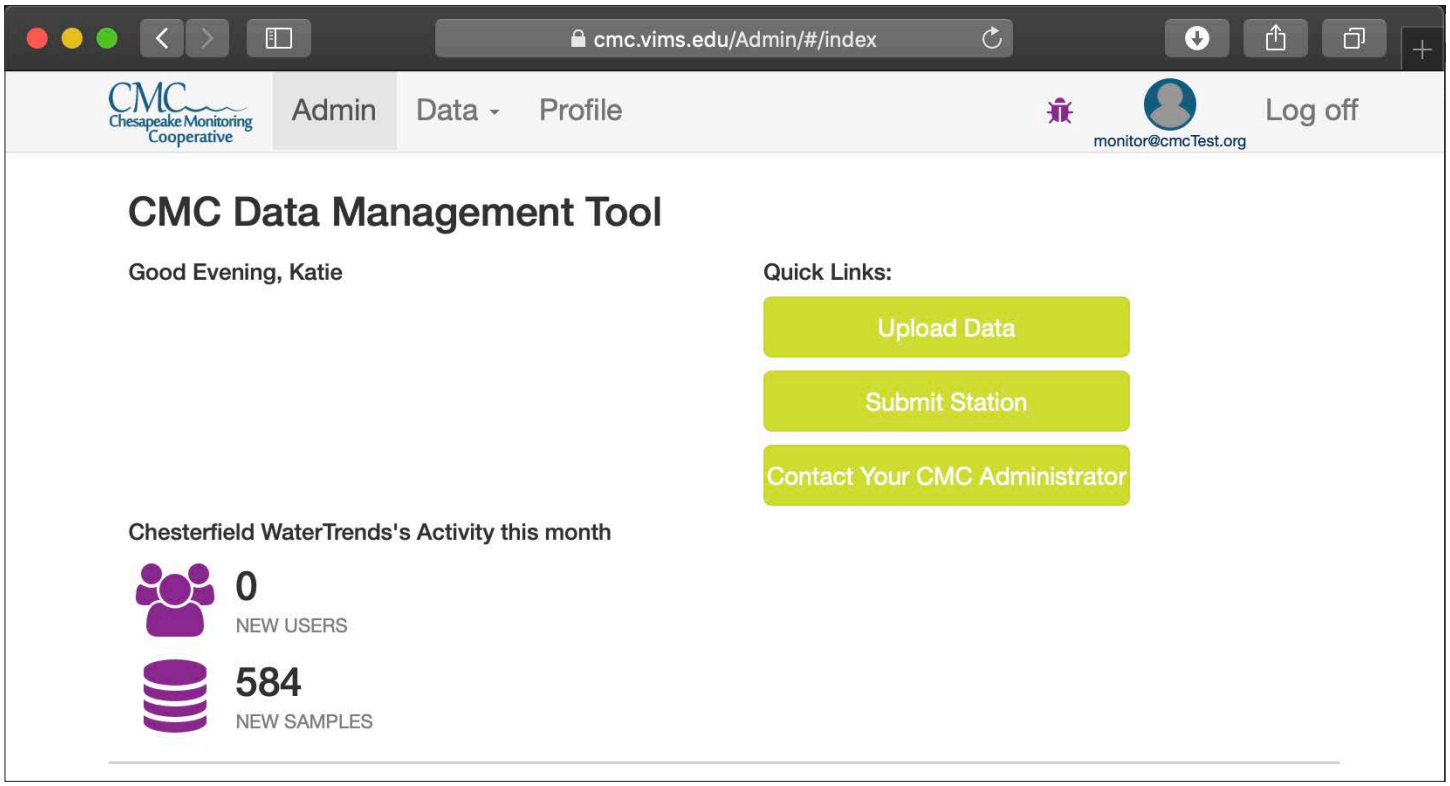
In this chapter, we'll review how to access the Admin or administrative page of the Chesapeake Data Explorer. If you collect data for a monitoring group, you will upload this data in the Admin area. You can also update your Chesapeake Data Explorer profile information here. If you are a Coordinator of a monitoring group, you will also be able to manage your group members, their sampling locations, and the parameters your group samples from the Admin page. All of these functionalities will be covered in subsequent chapters.

Step 1 - From https://cmc.vims.edu, click "Admin" in the navigation bar to get to the Admin area of the Chesapeake Data Explorer.

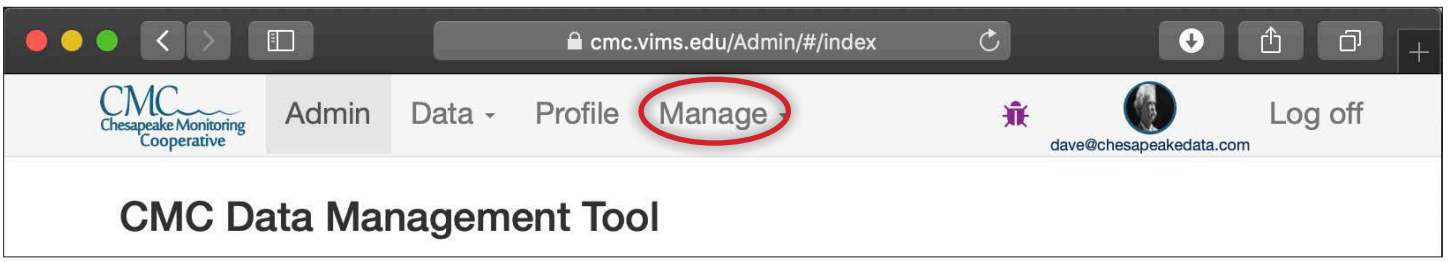


Step 2 - On the Admin page:

- The navigation bar will change to show buttons for “Admin”, “Data”, and “Profile”.
- The area under the greeting displays messages about items needing your attention.
- The Quick Links area has buttons serving as short cuts to frequently used functions.
- The area at the bottom of the screen graphically displays statistics about your monitoring group.



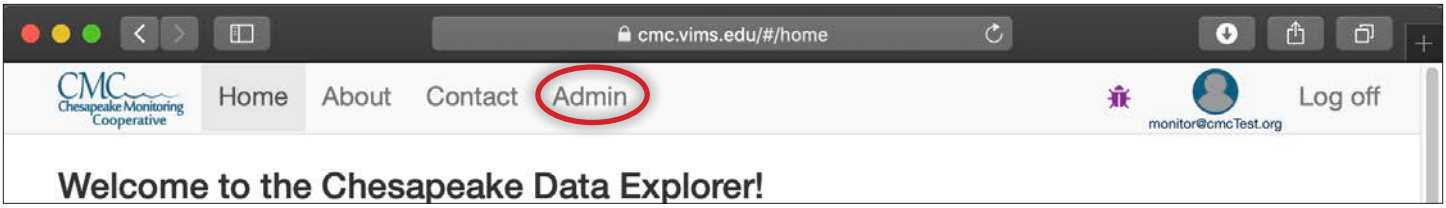
Note: Coordinators will see a “Manage” button in their navigation bar, as seen below.



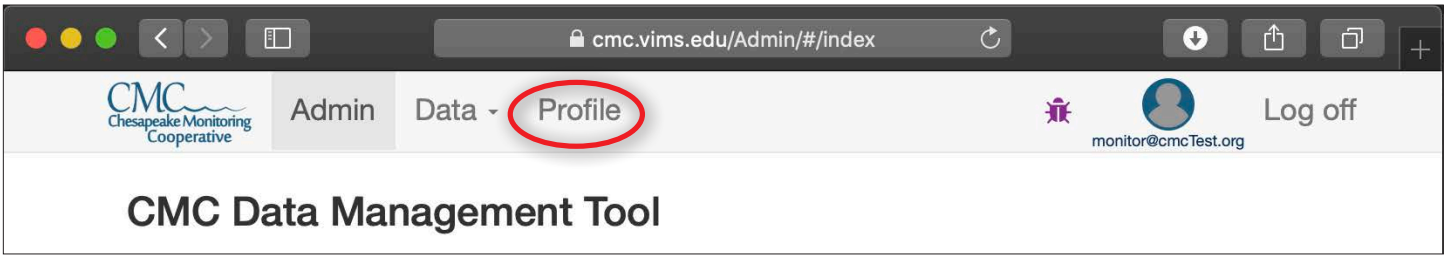
4 Update Your Profile

In this chapter, we'll review how to update your Chesapeake Data Explorer profile information from the Admin Page. When you edit your profile, you'll be able to change all of the information you submitted when you registered for an account as well as upload a profile picture and change your password.

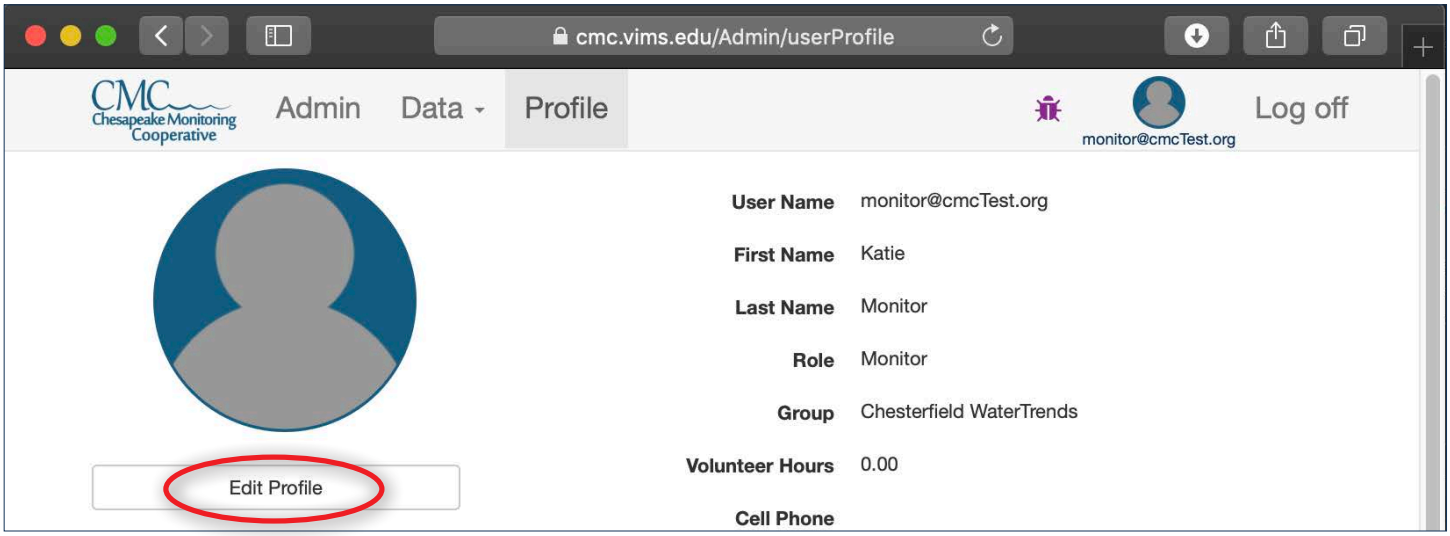
Step 1 - From https://cmc.vims.edu, click "Admin" in the navigation bar to get to the Admin area of the Chesapeake Data Explorer.



Step 2 - Click the "Profile" button in the navigation bar.



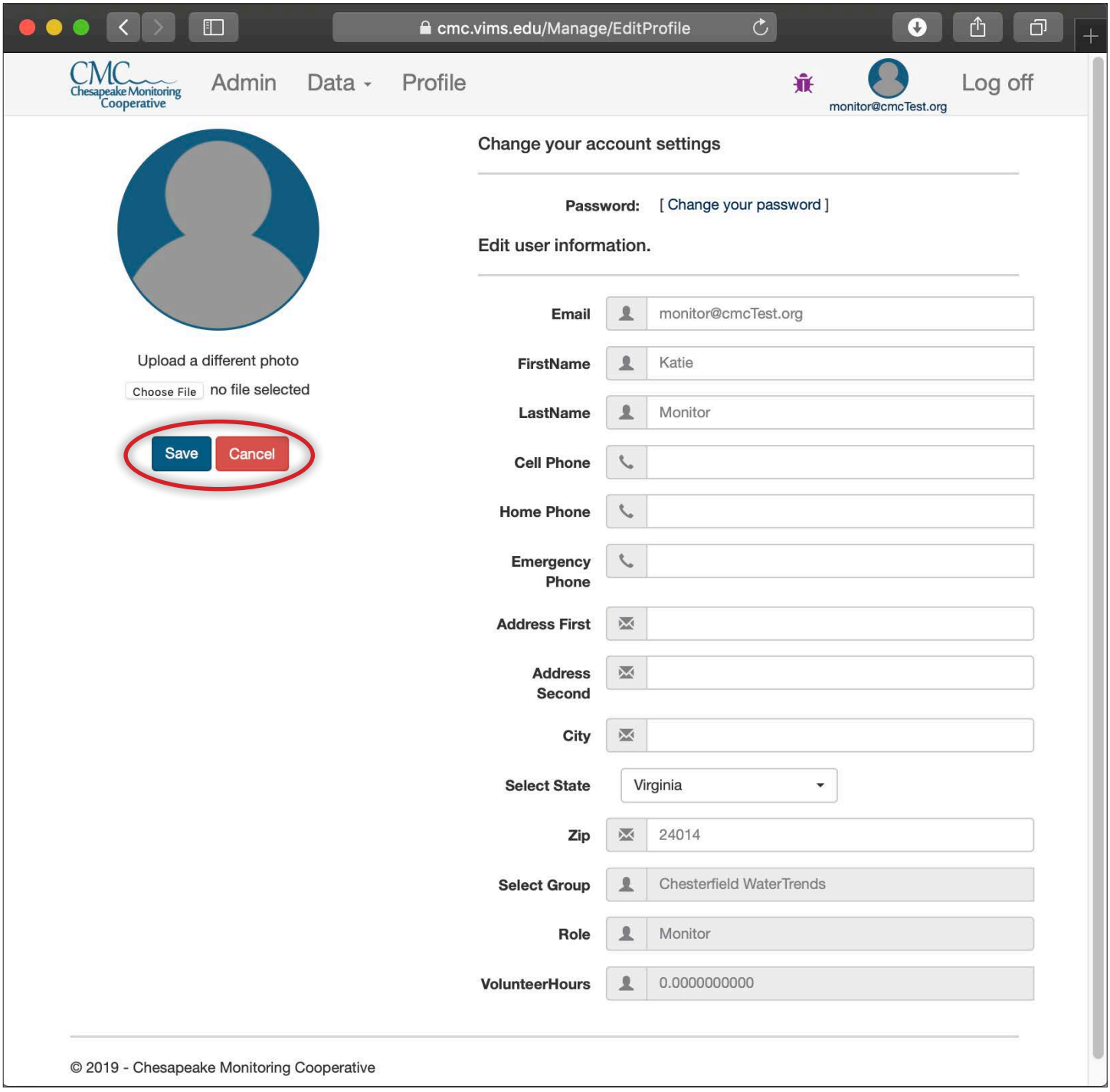
Step 3 - The profile page displays the information you entered when you registered for access to the Chesapeake Data Explorer. Click the "Edit Profile" button to change your profile information.



Step 4 - On the edit profile page you can:

- Edit all of your profile information (except monitoring group, role, or volunteer hours).
- Upload or change the picture that the Date Explorer uses for your profile.
- Change your password.

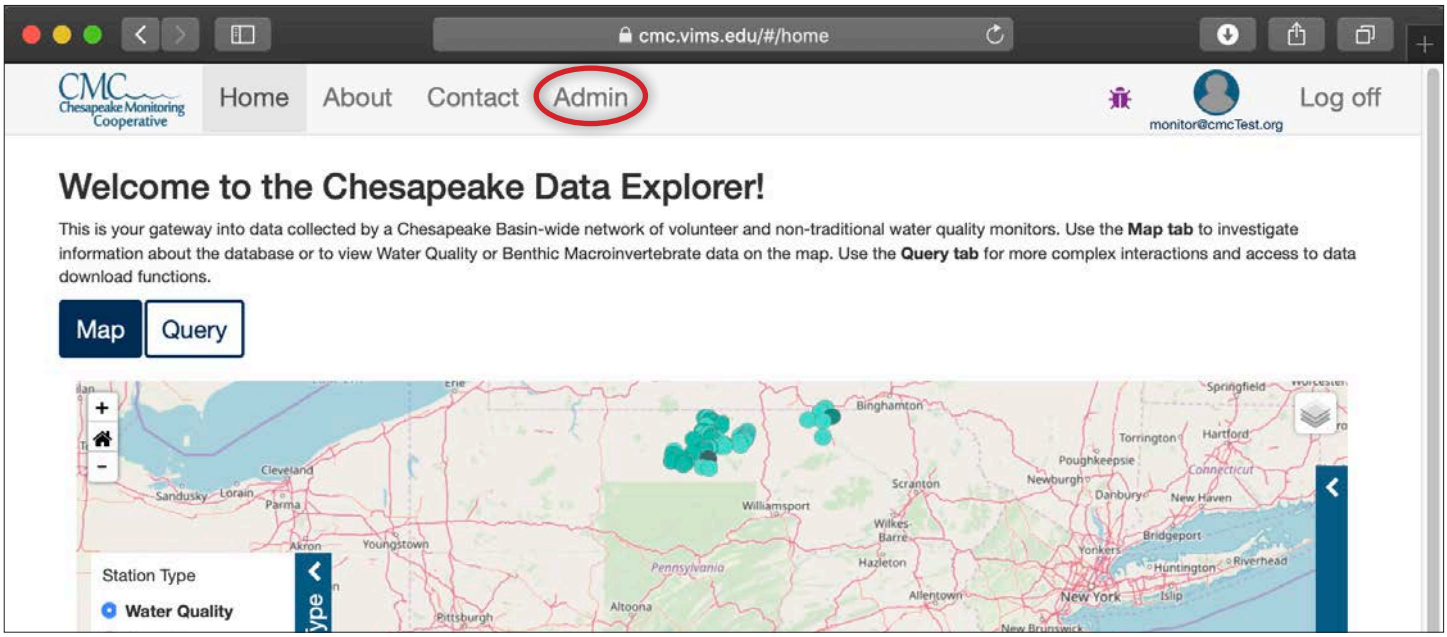
Once you have made any changes, click “Save” to save the changes or “Cancel” to discard the changes.



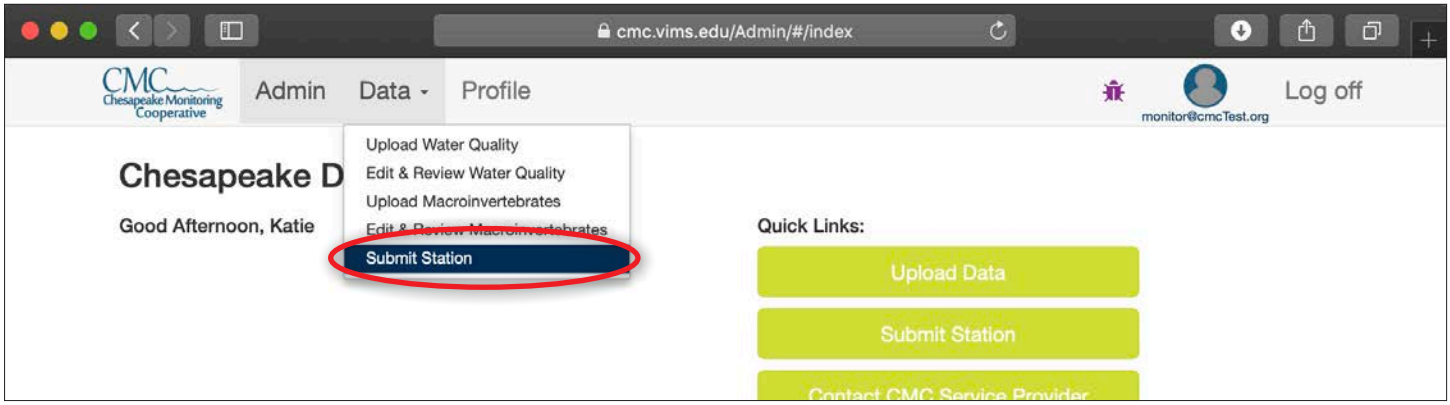
5 Submit a Station

Before data can be uploaded, the station must be entered into the Data Explorer. If a station does not appear on the drop down list on the upload form, registered users can submit a station location. Any stations suggested through the submit a station form will need to be reviewed and accepted by a coordinator or administrator.

Step 1 - Click “Admin” in the navigation bar to get to the Admin area of the Chesapeake Data Explorer.

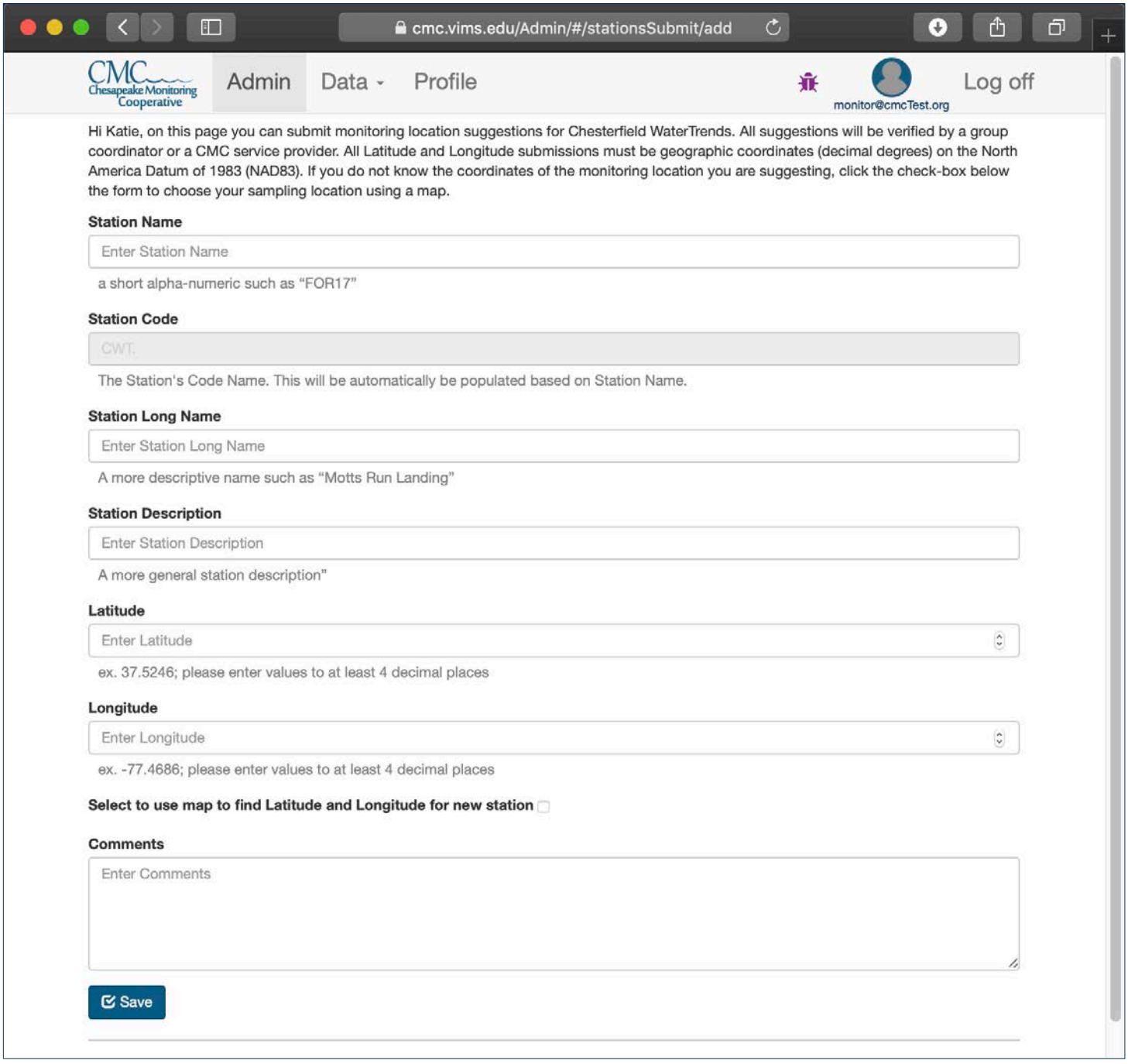


Step 2 - Click the “Data” button in the navigation bar and then choose “Submit Station” from the drop down list.



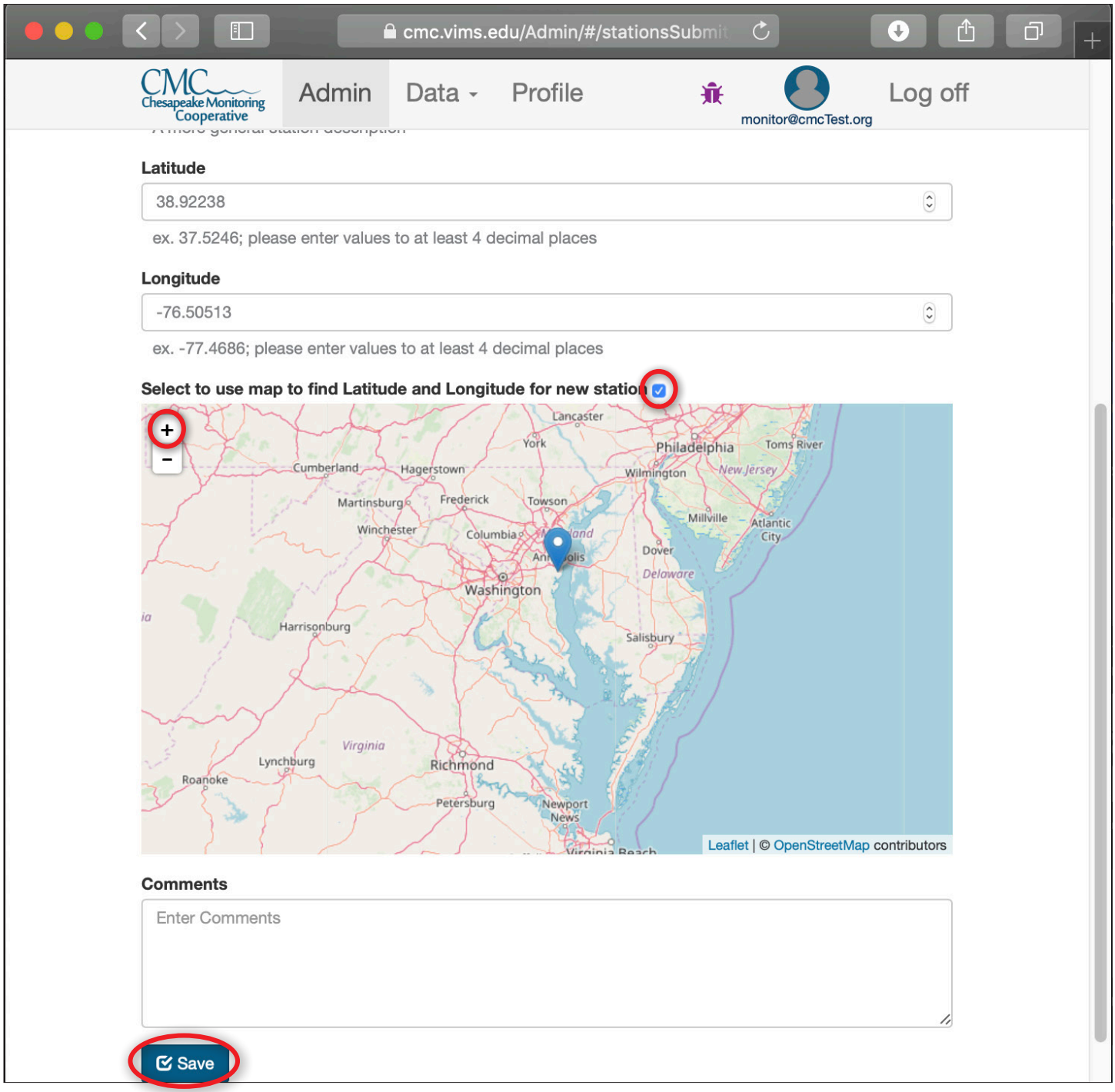
Step 3a - Fill in the requested information within the form.

1. “Station Name” is a short alpha-numeric name for a station. If you do not typically use a shortened name, put the first three letters of each word of the name and the stream mile, if you know it. Ex. Mill Creek 1.56 becomes MILCRE1.56.
2. “Station Long Name” is the full name of the stream or creek. If it does not have a known name, refer to it as Unnamed Tributary X Ex. Unnamed Tributary to Mill Creek 0.88 (short name UNTMILCRE0.88).
3. “Latitude” and “Longitude” values must be in decimal degrees (ex. 37.419912, -76.97541) on the North American Datum of 1983 (NAD83). If your coordinates are in degrees, minutes, seconds (DMS), you can convert them to decimal degrees here - https://www.fcc.gov/media/radio/dms-decimal. If you do not have coordinates, see below.



Step 3b - If you do not have access to GPS coordinates for the station you are submitting, you can enter your station's coordinates by clicking on a map.

1. Select the box next to "Select to use map to find Latitude and Longitude for new station".
2. Use the "+" button on the map to zoom in on your station location. ***Note - the more you zoom in, the more accurate your location selection will be.***
3. Click your station's location on the map. The Latitude and Longitude fields in the form will be filled in with the correct coordinates. If you need to adjust your location selection, just click again.
4. Click the "Save" button to submit your station suggestion.
5. Once a station is submitted it will need to be verified by a coordinator before data is submitted.

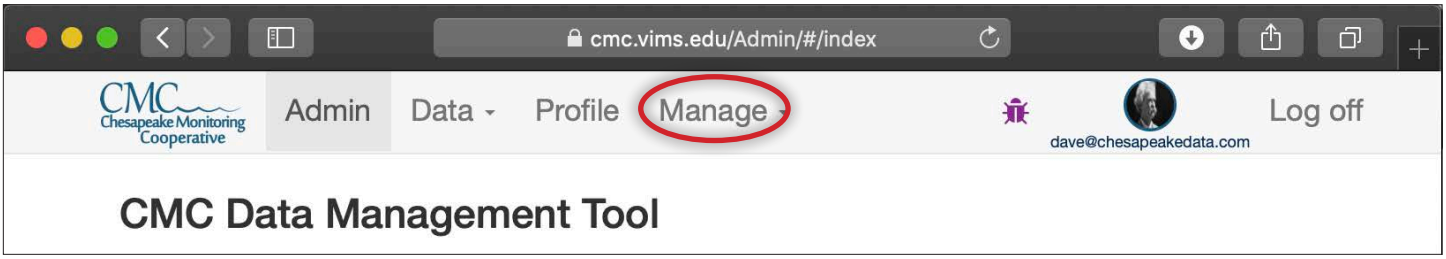


6 Managing Users, Groups, and Stations (Coordinators Only)

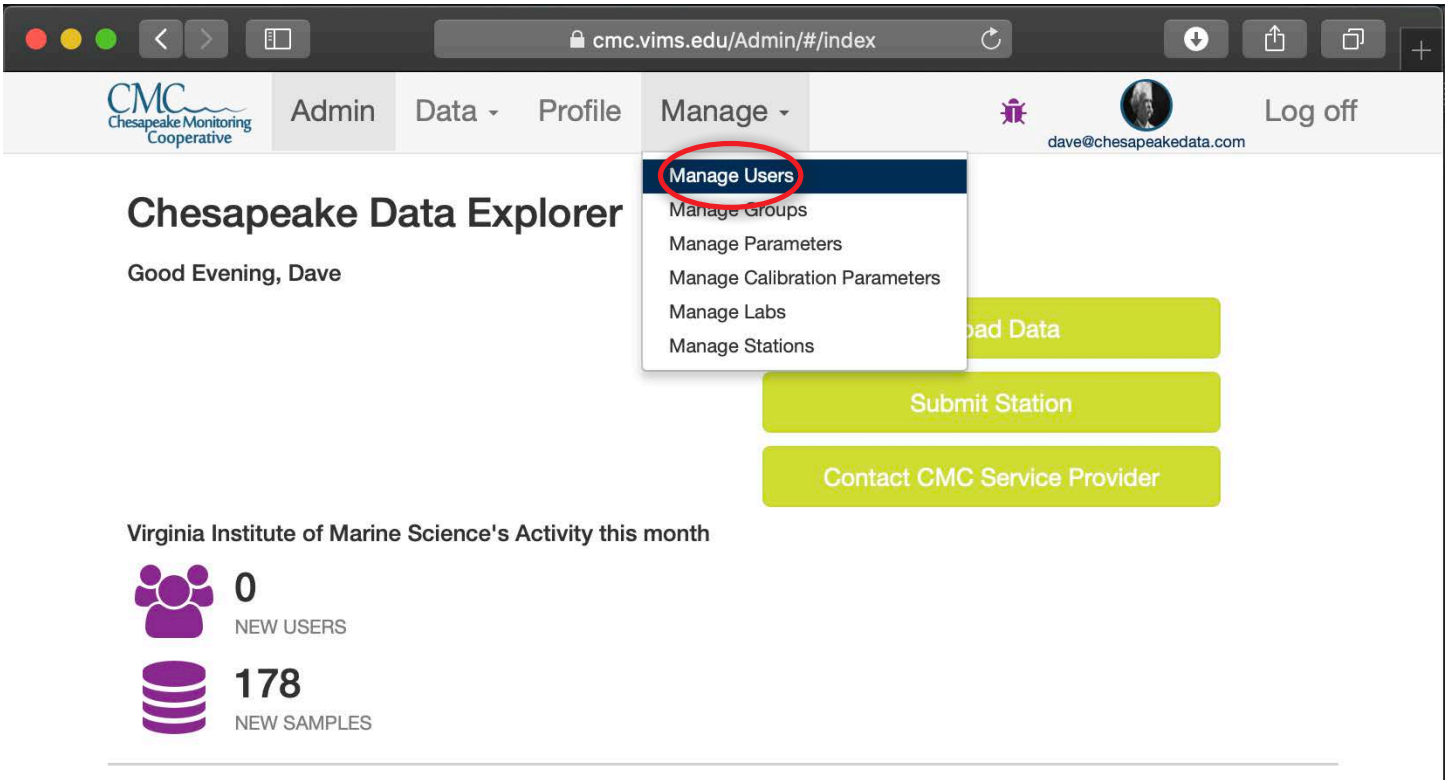
Monitoring group coordinators have additional capabilities in the Chesapeake Data Explorer. These include managing users, groups, and stations. Coordinators can also bulk upload data which is covered in chapter 8.

Manage Users

Step 1 - Click “Manage” in the navigation bar to get to the Manage area of the Chesapeake Data Explorer.

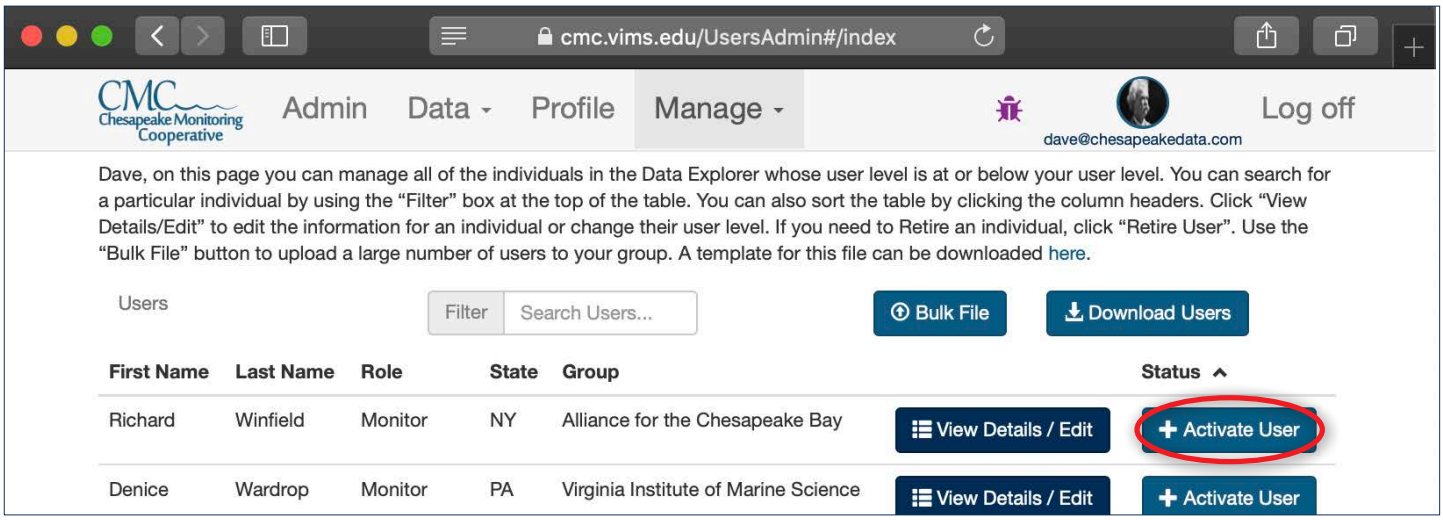


Step 2 - To manage users, click “Manage Users” from the drop down menu.

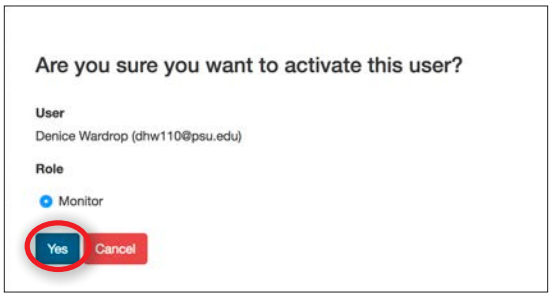


Step 3 - From this page, you can upload, edit and download users registered under your monitoring program. Users can be registered in two ways, by creating an account or via a bulk upload.

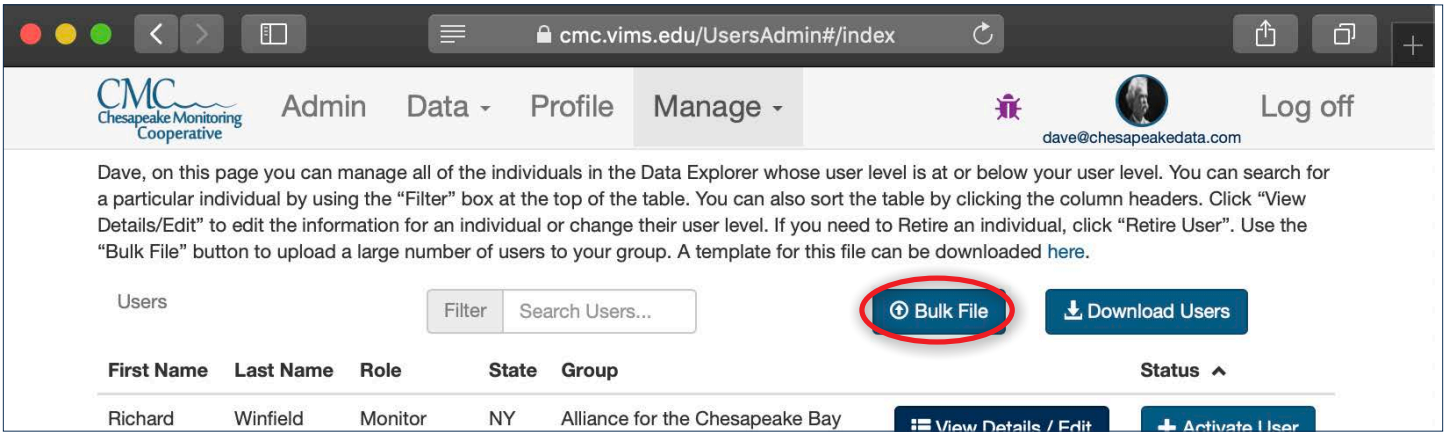
Monitors who will be uploading data to the Data Explorer will need to create an account and select your monitoring program. As a coordinator, you will need to activate each account by clicking the "Activate User" button that appears next to their name.



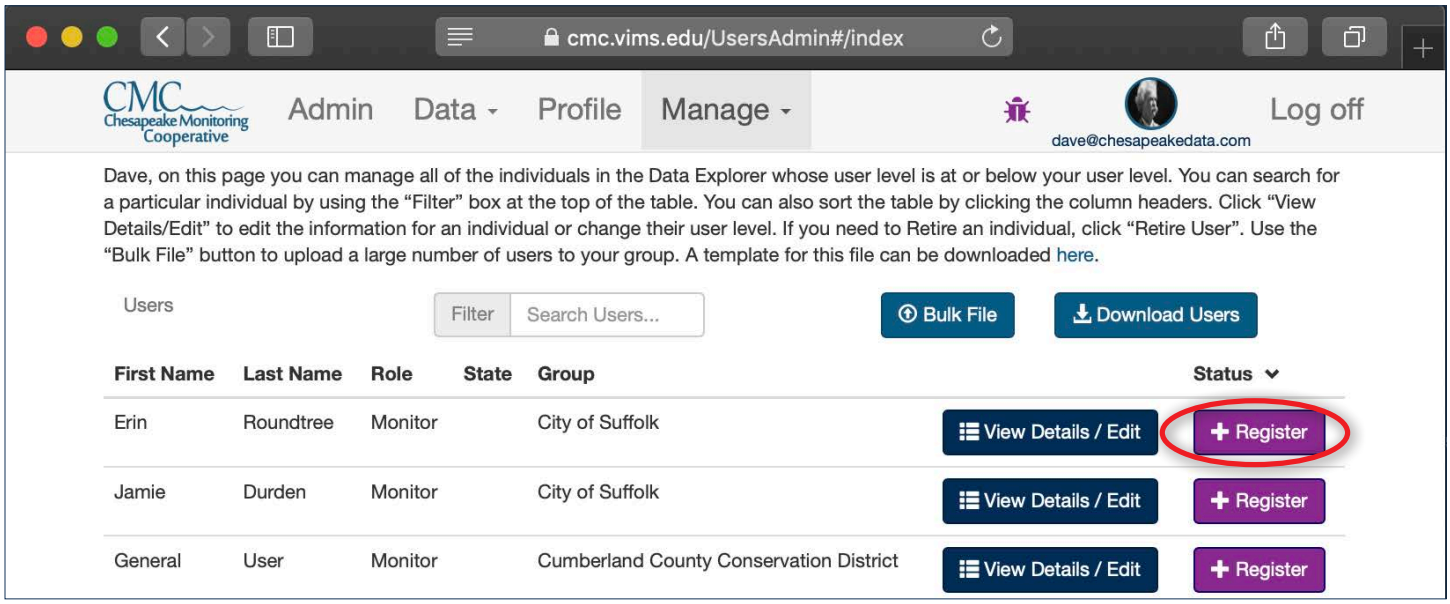
Step 4 - Once you click activate, a confirmation box will appear. Click yes to activate. The monitor will then receive and email to alert them their account is activated and they can then log on to the Data Explorer.



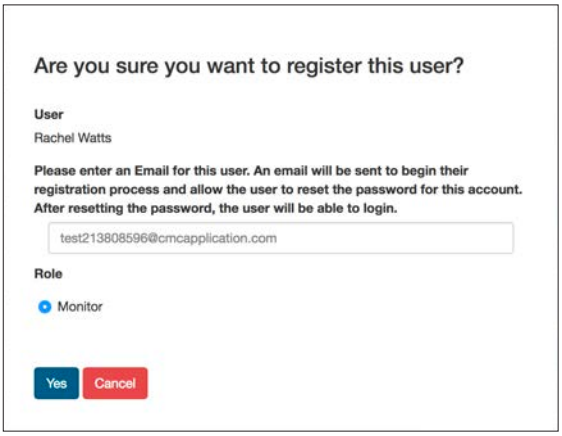
Step 5 - You can bulk upload users by clicking the "Bulk File" button at the top of the screen. Users uploaded via this method will appear in the database to track volunteer hours, but will not be able to upload data themselves. See Table 8 in the Appendix for a list of error messages you may encounter.



Step 6 - If a bulk uploaded user would like to start entering data, you can click the purple “Register” button next to their name.



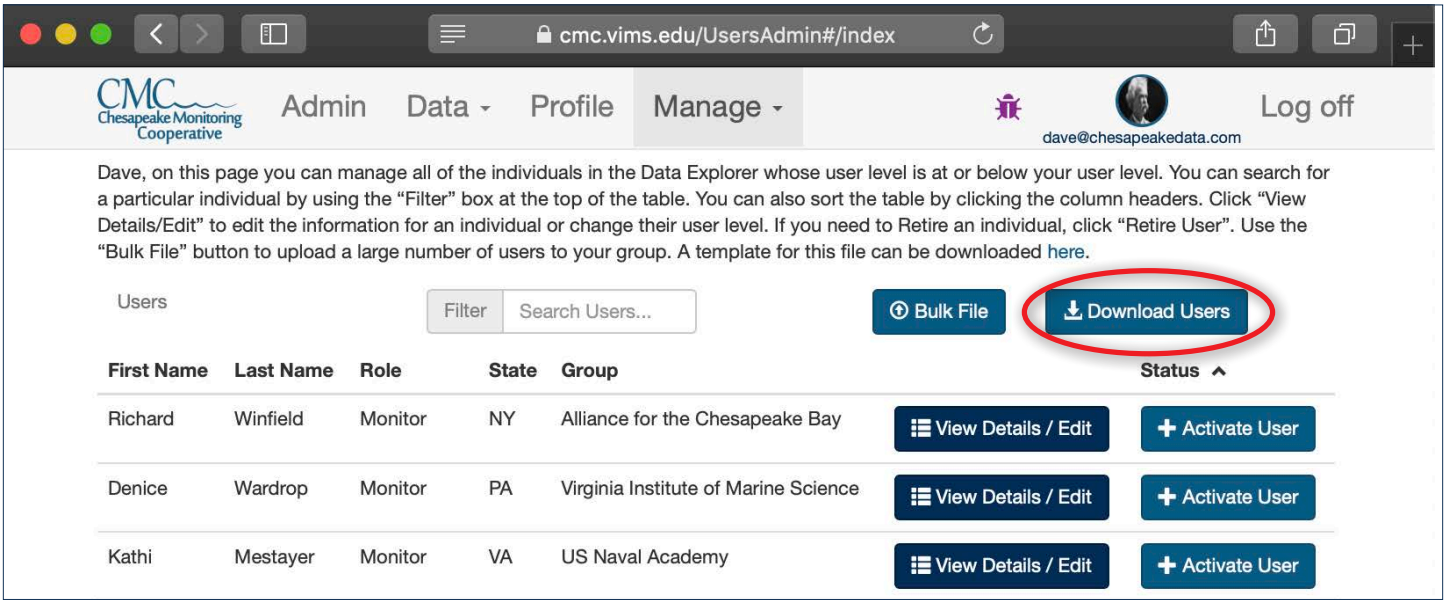
Step 7 - A confirmation box will appear, you will need to enter a valid email address for the user and click yes. An email will then be sent to the user with the link for them to create a username and password.



Step 8 - Once a user is bulk uploaded or registered, you can edit details including their name, email, group, volunteer hours, etc by click the “View Details/Edit” button next to their name.

Step 9 - You can retire inactive monitors by click the green “Retire User” button next to their name. Retired monitors will appear at the end of the list and can be reactivated at any time by clicked “Activate User”.

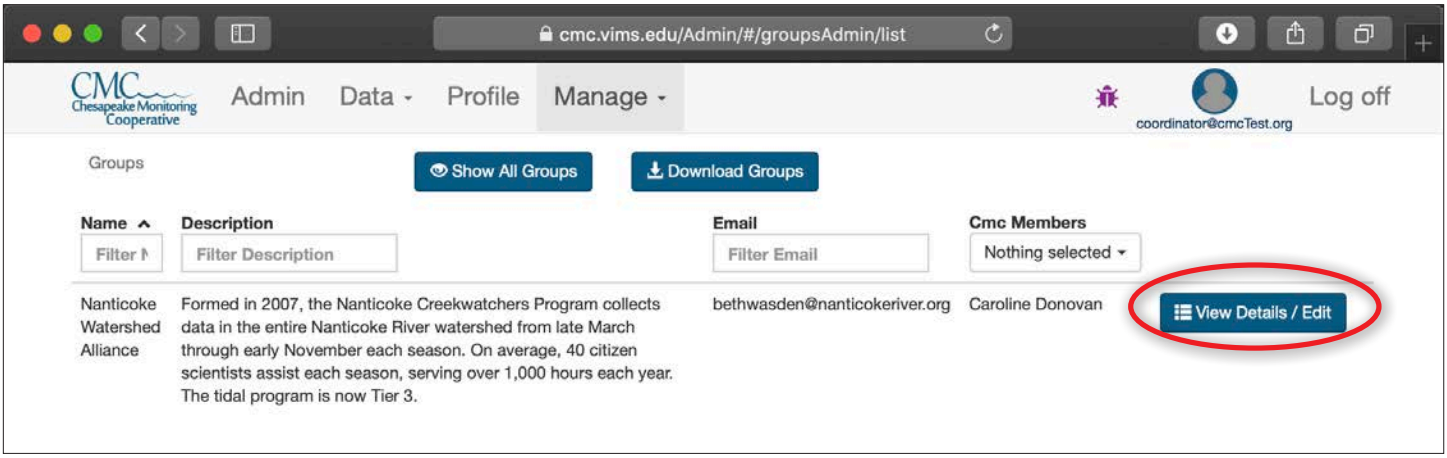
Step 10 - You can download a complete list of all monitors associated with your monitoring group by clicking the “Download Users” button at the top of the table. This will automatically download a .csv file with the list of monitors associated with your group.



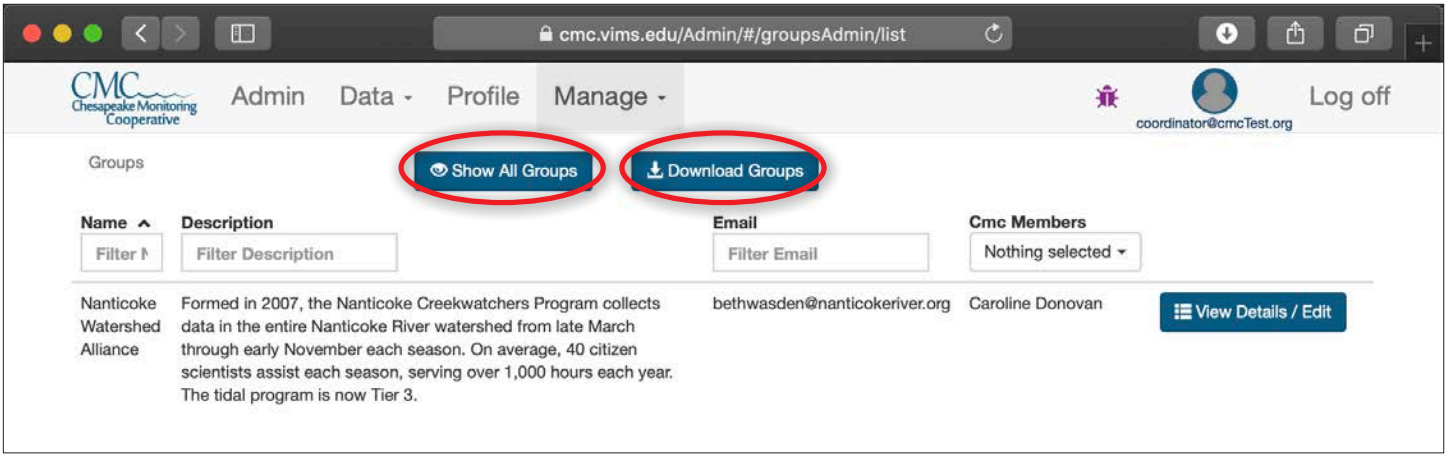
Manage Groups

Step 1 - To manage groups, click “Manage Groups” from the “Manage” drop down menu. From this page, Coordinators can manage information about their group, including contact info, address, and website, by clicking “View Details/Edit” next to your group name.

This page also contains three tables with information about the parameters, labs and calibration parameters assigned to your group. Contact your CMC service provider if you have questions about updating any of this information.

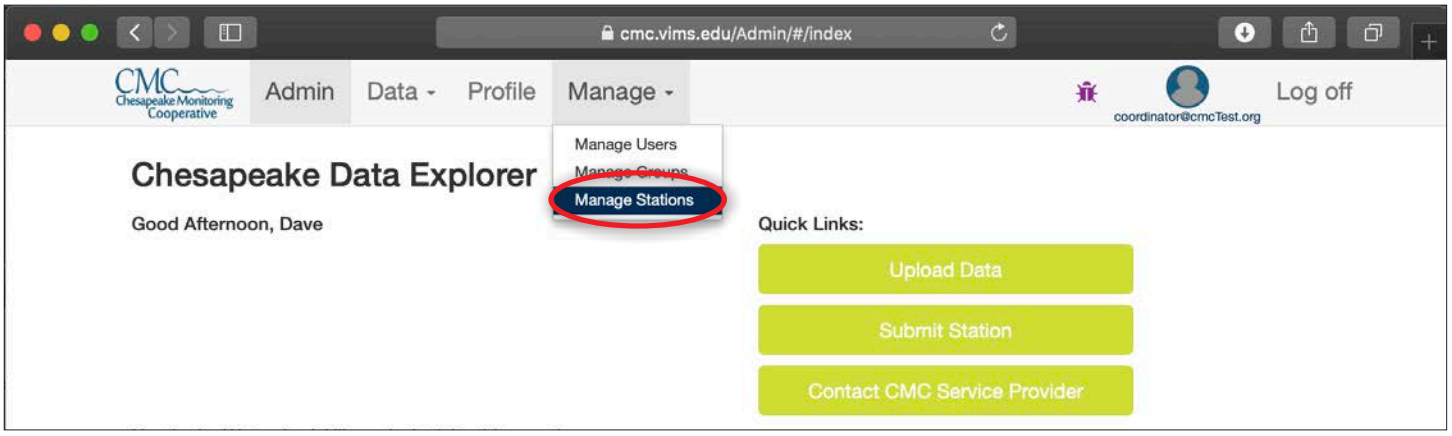


Step 2 - Additionally, you can view all groups registered in the database by clicking the “Show All Groups” button at the top of the table. From this page, you can filter groups by name, description, or by individual users’ email. You will only be able to view details/edit for your group. To view additional details for other groups, click “Download Groups” at the top of the table.

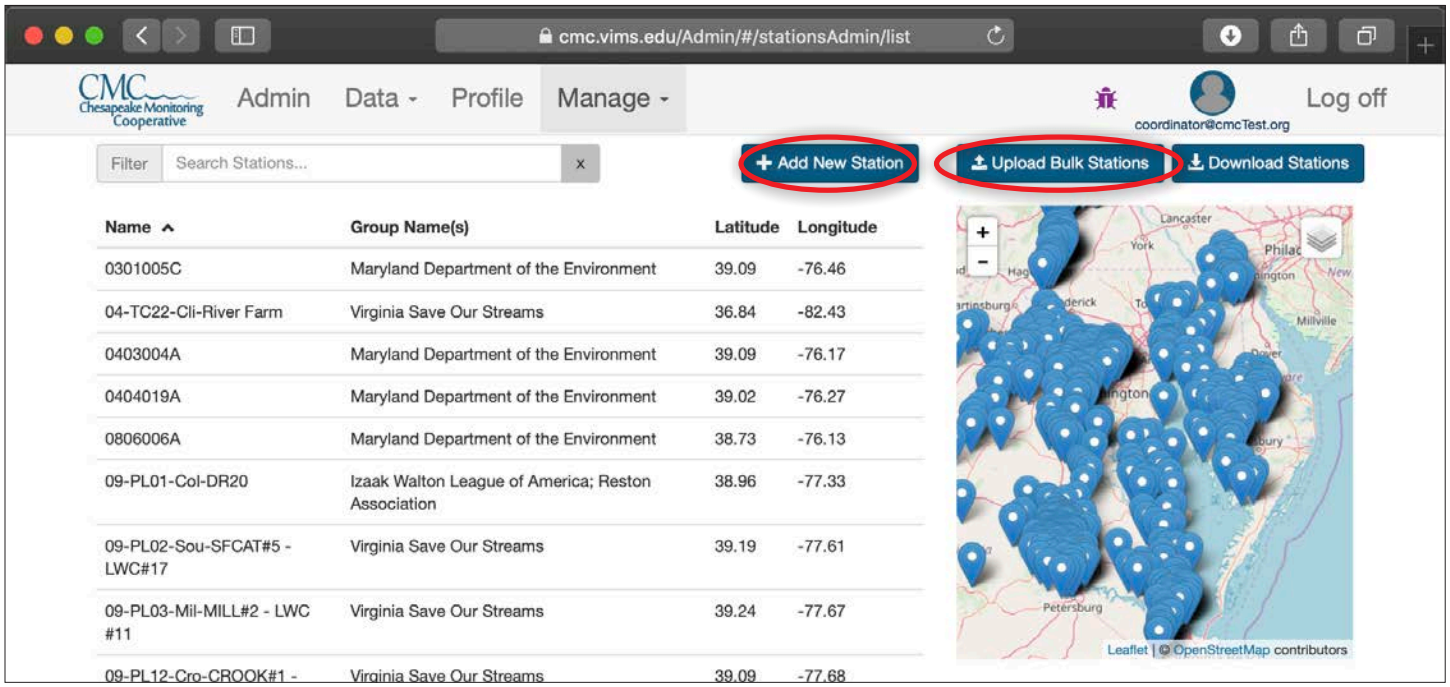


Manage Stations

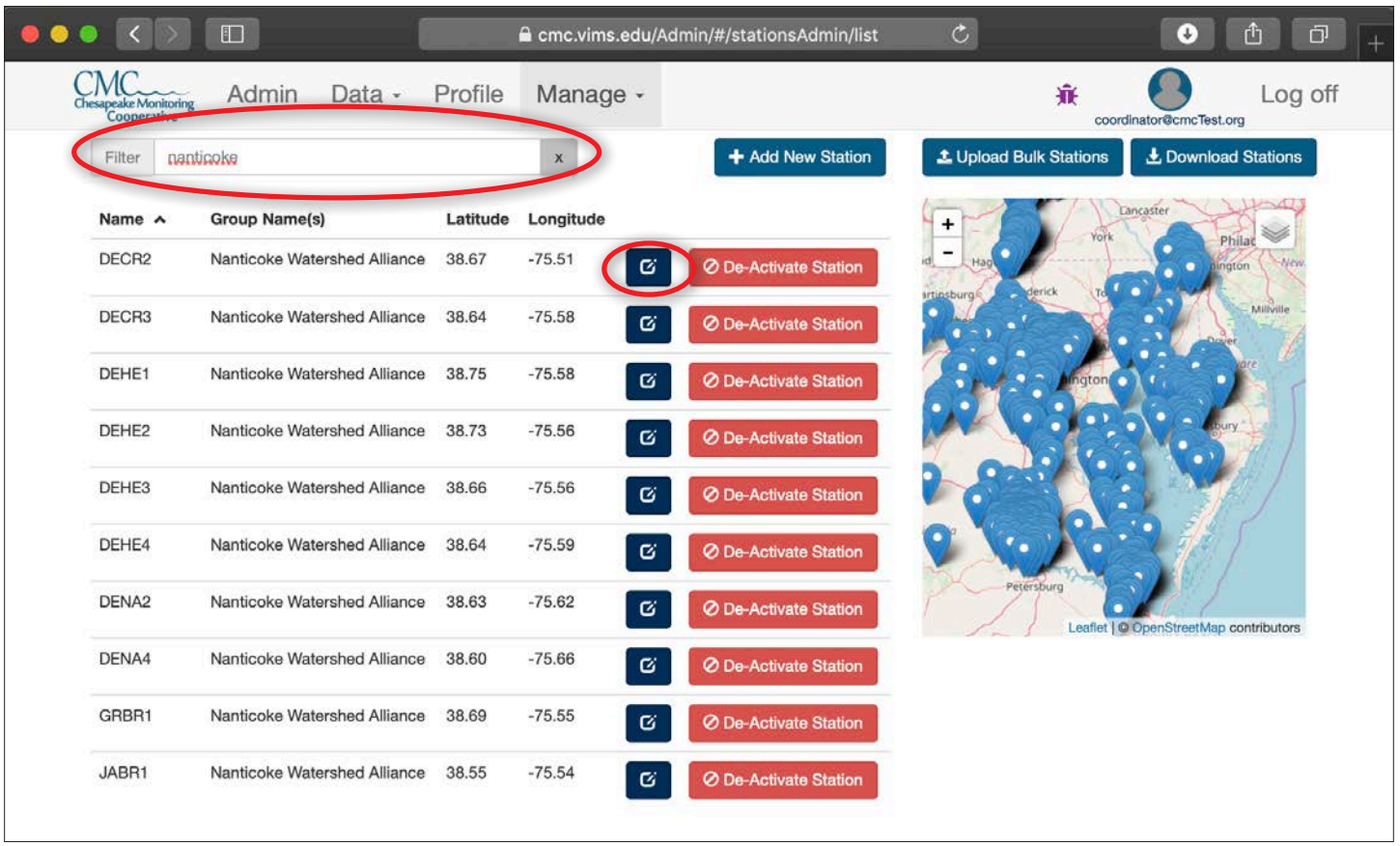
Step 1 - To manage stations, click “Manage Stations” from the drop down menu. From this page, Coordinators can view a list of all stations in the Data Explorer, but will only be able to upload and edit the stations associated with your group.



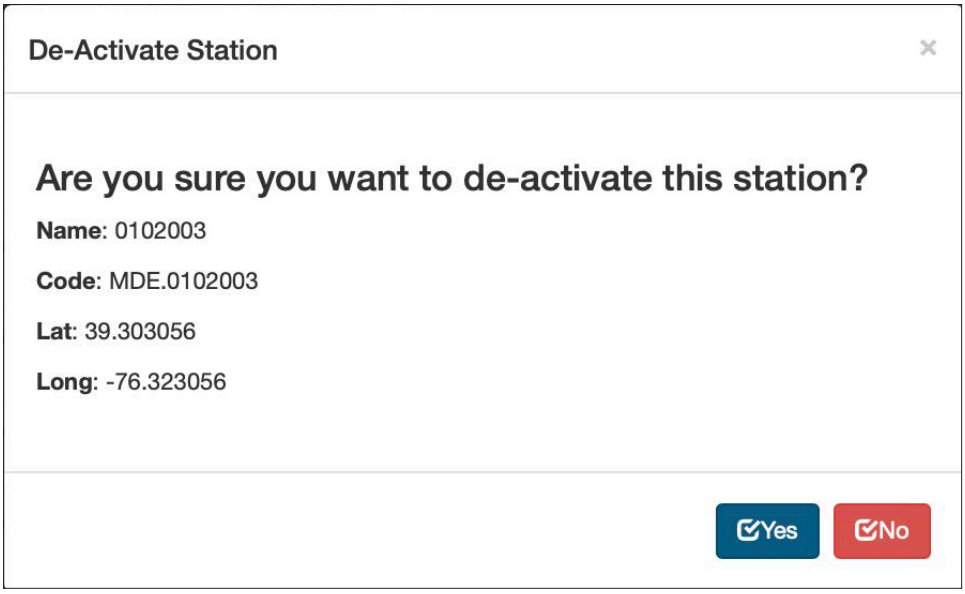
Step 2 - To upload stations either click the “Add New Station” button to upload a single station or “Upload Bulk Stations” to upload multiple stations at once. See Table 7 in the Appendix for a list of error messages you may encounter during bulk uploads.



Step 3 - To edit one of your group’s stations, enter your group name in the “Filter” text box near the top left of the page. The list of stations will be reduced to those belonging to your group. If you need



Step 4 - To de-activate a station, click the red “De-Activate Station” button. A pop-up box will open asking you to confirm this decision.

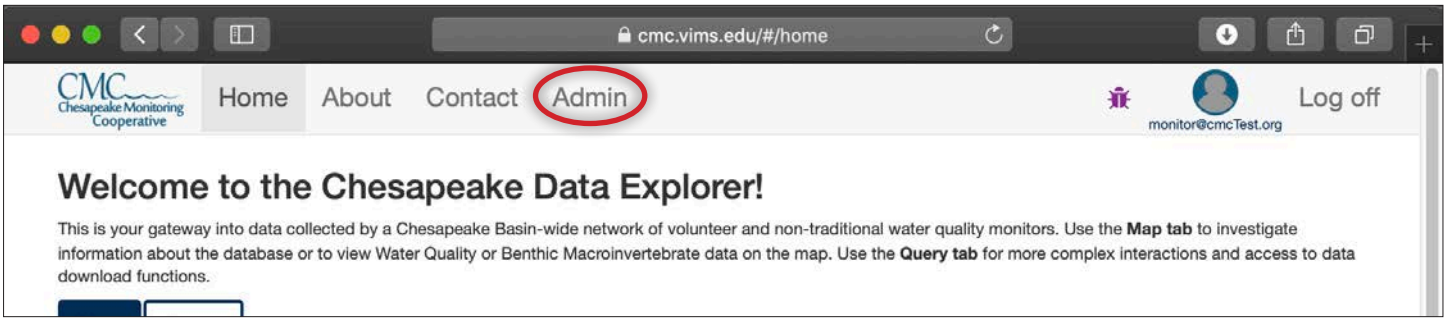


7 Upload Data

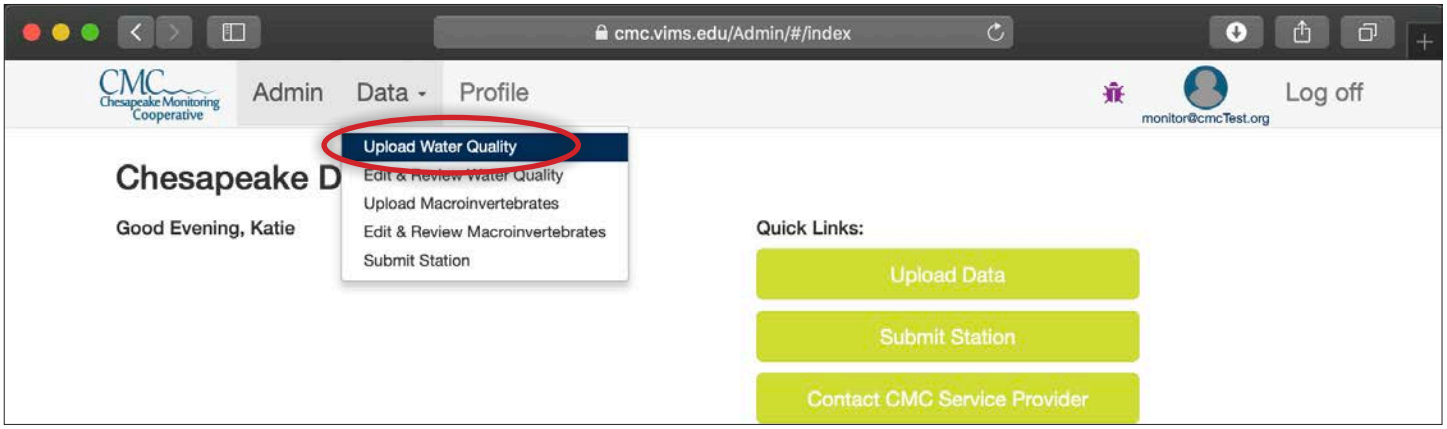
In this chapter, we will review how to upload water quality and macroinvertebrate data using the online data upload forms. These forms allow you to upload data for one monitoring location and date at a time.

Upload Water Quality Data

Step 1 - Click “Admin” in the navigation bar to get to the Admin area of the Chesapeake Data Explorer.

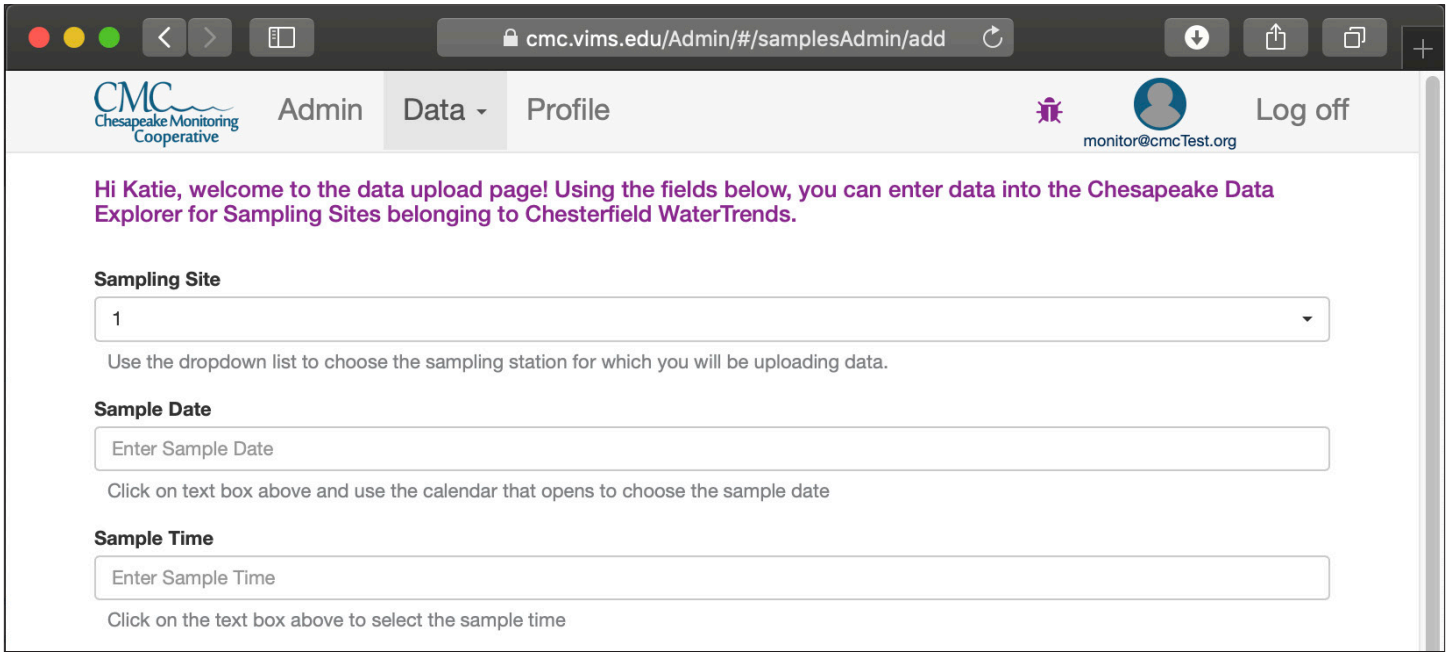


Step 2 - From the Data drop down menu, choose “Upload Water Quality”.



Step 3 *Sampling Event Information* -The first section of the data upload form includes sample event information.

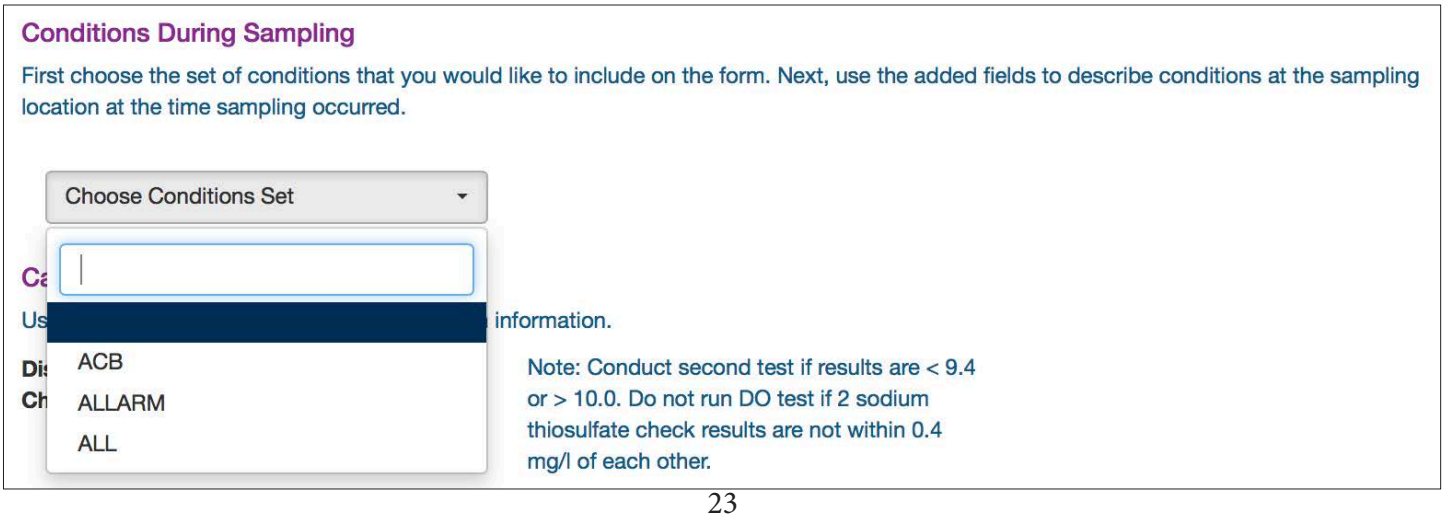
1. Sampling Site: Select your sampling station from the drop down menu. You can use the search bar at the top to easily find your site. This drop-down menu is only filled with sites assigned to your group. ***Note - check that you choose the correct sampling site for the data you are uploading.***
2. Sample Date: Select the year, then month, then day.
3. Sample Time: Select hour and then minutes.



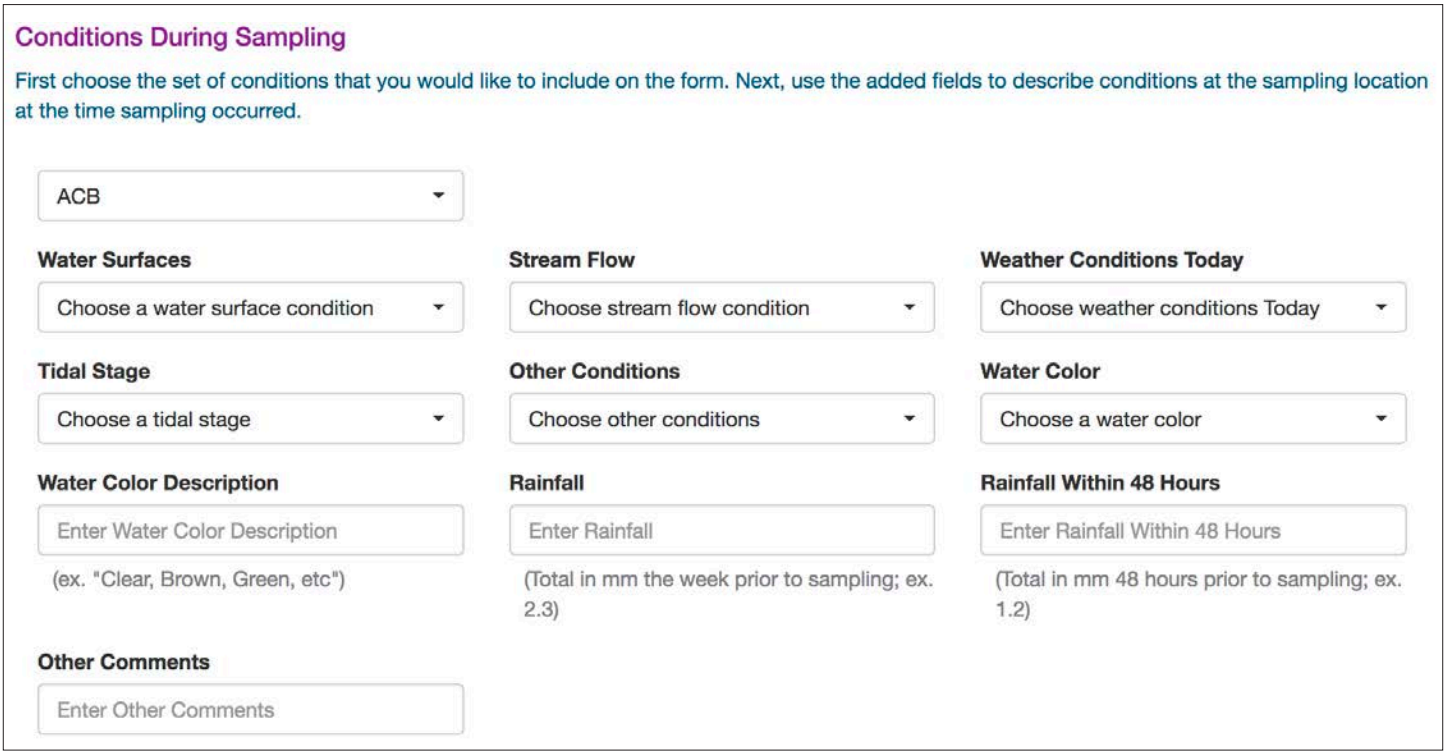
Step 4 *Conditions During Sampling* **-** Use this section of the form to describe conditions at the sample site at the time sampling occurred. ***Note - it is not mandatory to enter values for any of the "Conditions During Sampling." Please leave blank if the data is not present in your field datasheet.***

If conditions data is on your field datasheet, select one of the three options from "Choose Conditions Set":

- ACB - conditions parameters according to Alliance for the Chesapeake Bay protocols.
- ALLARM - conditions parameters according to Alliance for Aquatic Resource Monitoring.
- ALL - All conditions parameters accepted by the Data Explorer.

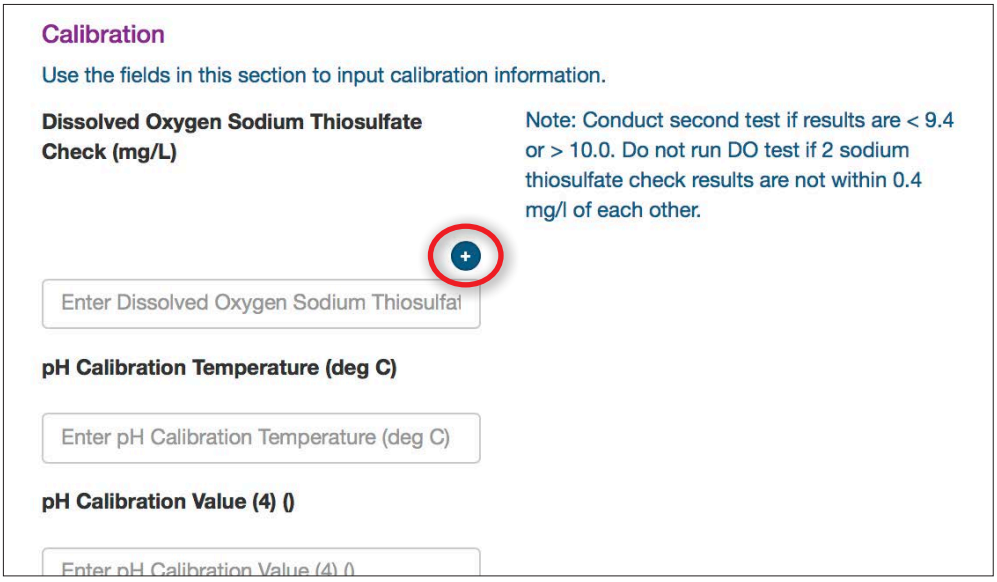


The image below shows the “Conditions During Sampling” section after choosing “ACB”.
Use the selection boxes and text boxes to enter the values for the conditions parameters on your field datasheet.
NOTE: leave any conditions not collected on your field datasheet blank.



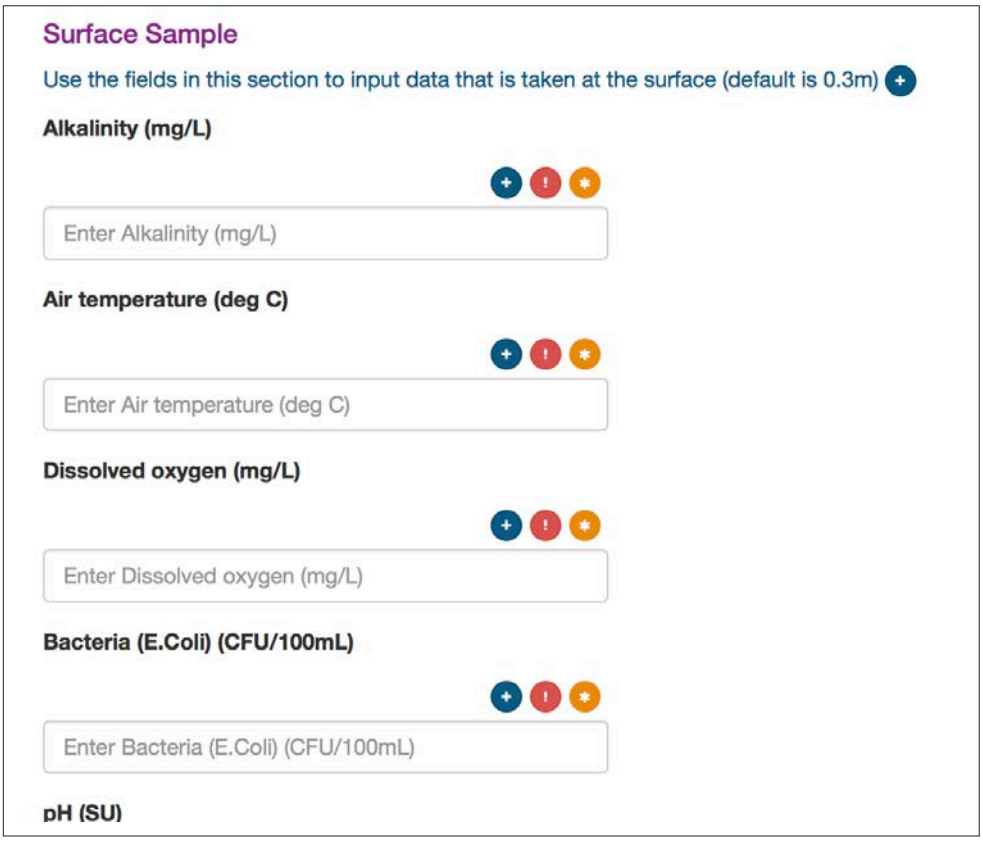
Step 4 *Calibration Data* **-** If your monitoring group collects instrument calibration data, a “Calibration” section will be on the form. This data can be found on your field sheet. ***(Note - If your monitoring group does not collect calibration data, skip to Step 5)***

- Fill in the appropriate fields with the calibration values from your field sheet.
- If a second calibration check was conducted for a parameter, click the ⊕ button to add a duplicate field.

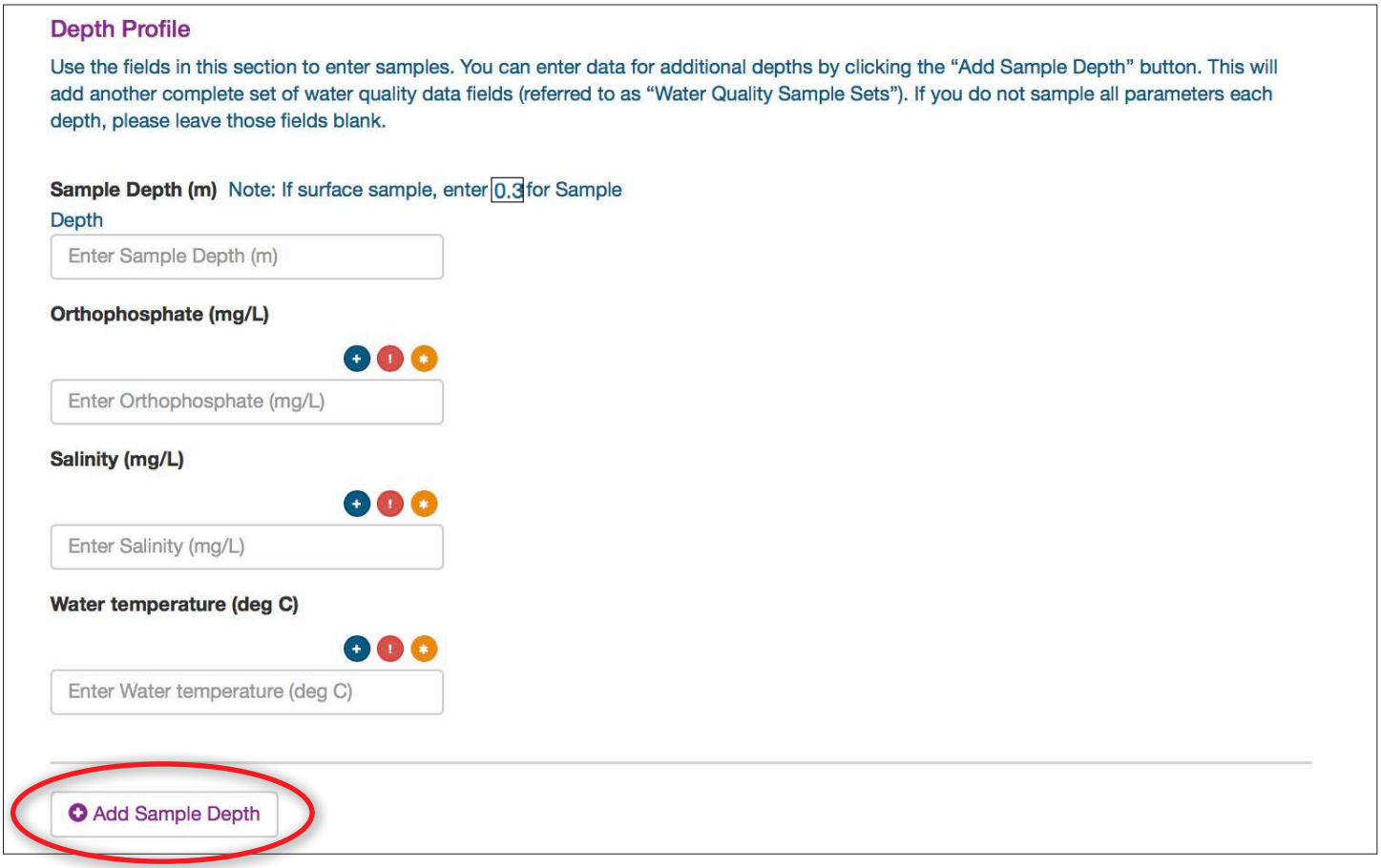


Step 5 *Surface Sample* **-** Enter the water quality values from your field datasheet for each parameter in the fields provided. ***Note - if a parameter was not measured, leave the data entry field blank.***

- If your sample depth is different than 0.3m, click the + button to enter your depth. If you do not know or did not record your sampling depth, use the default (0.3 m) option.
- If a parameter was not measured, leave the data entry field blank.
- If a duplicate measurement was taken for a parameter, click the + button above the data entry field for that parameter.
- If you need to enter a Problem Code, click the ! button and choose a problem code from the list.
- If you need to add a Qualifier to the value you entered, click the * button and choose a Qualifier from the list.
- ***Note - A list of Qualifiers and Problem Codes can be found in tables 1 and 2 in the Appendix.***

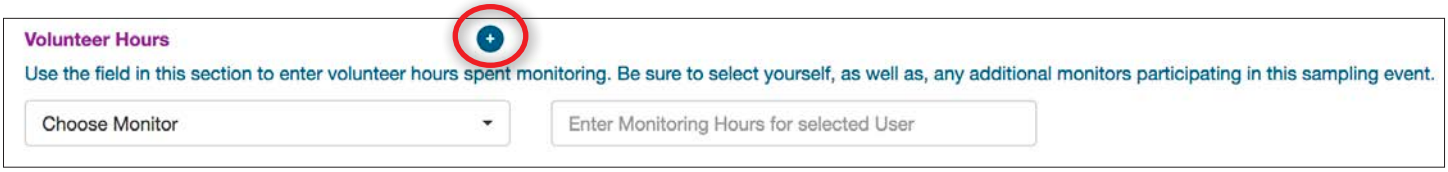


Step 6 *Depth Profile* **-** If data is collected at additional depths at this sampling location, this section will appear. Check with your program coordinator if you are unsure about this section.
Note - Skip to Step 7 if you do not have data for additional depths.
Data entry, duplicate measurements, Problem Codes, and Qualifiers are handled the same way here as they are in the **Surface Sample** section. Additional depths can be added using the "Add Sample Depth" button.

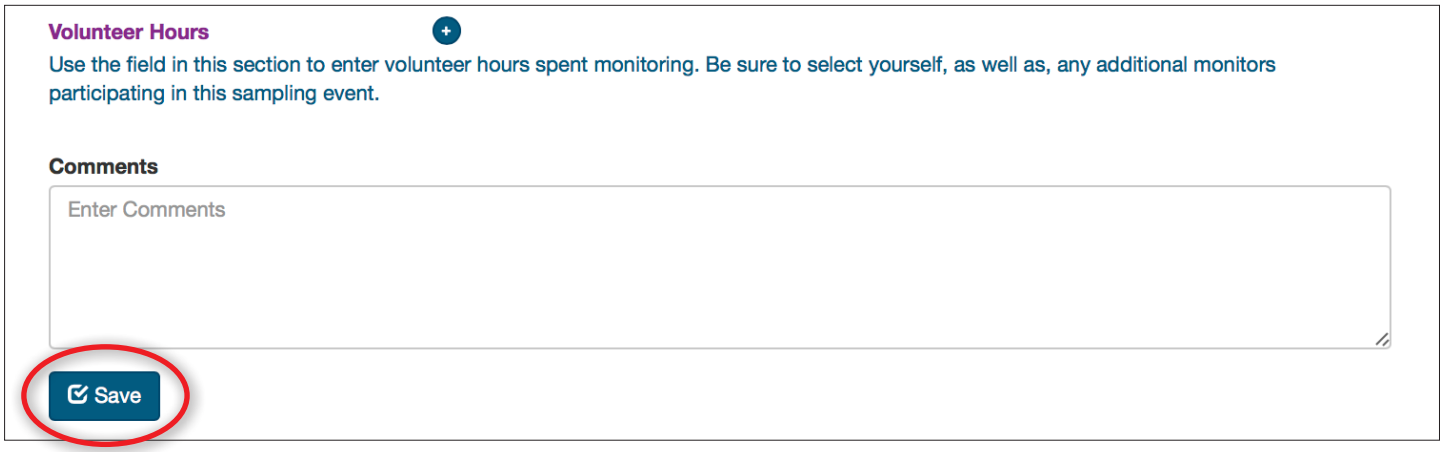


Step 7 *Volunteer Hours* **-** You can enter the number of hours spent collecting and entering data by yourself and members from your team. ***Note - please make sure you add your own volunteer hours.***

- Click on the ⊕ button in the Volunteer Hours section, choose yourself and enter the number of hours.
- Click the ⊕ button again to add another entry for members of your monitoring team. Continue clicking the ⊕ button to enter hours for all members of your team.



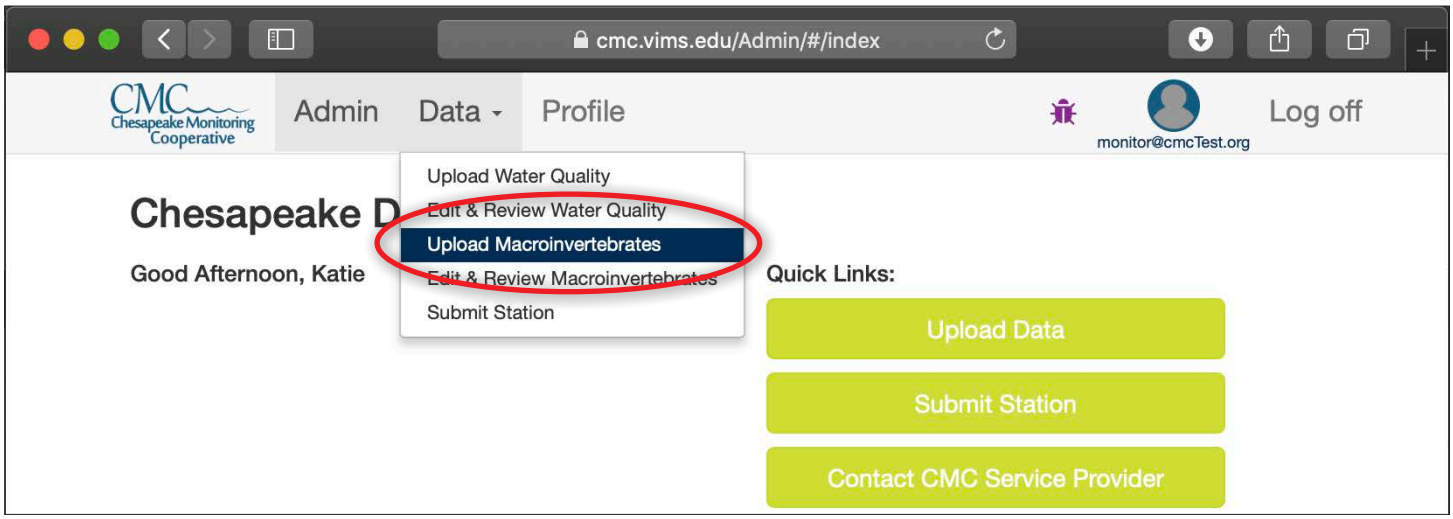
Step 8 *Save* - Once you have finished entering data, click the “Save” button.



Monitors can edit data they have uploaded through the Edit and Review page until a Coordinator or CMC service provider has published the data. If you find a mistake contact your program coordinator to make any additional changes.

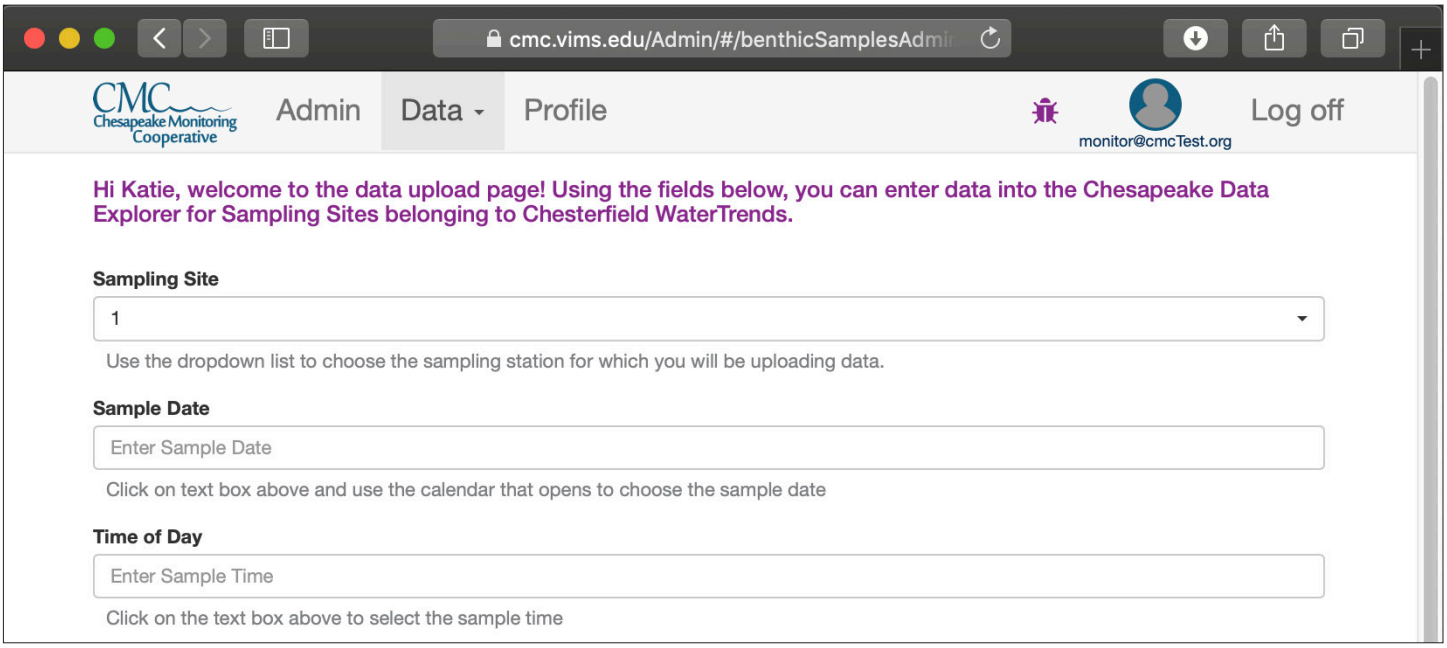
Upload Macroinvertebrate Data

Step 1 - From the Data drop down menu, choose “**Upload Macroinvertebrates**”. ***NOTE - macroinvertebrate data can only be entered by groups using the IWLA or ALLARM collection methods. If another collection method is used, data can be uploaded via the bulk upload functionality. (see Chapter 8).*** Because the data collected and the metrics calculated differ between the IWLA and ALLARM methods, the data upload form that opens will be different for each method. We will indicate where the forms differ in the instructions that follow.



Step 2 *Sampling Event Information* -The first section of the data upload form includes sample event information.

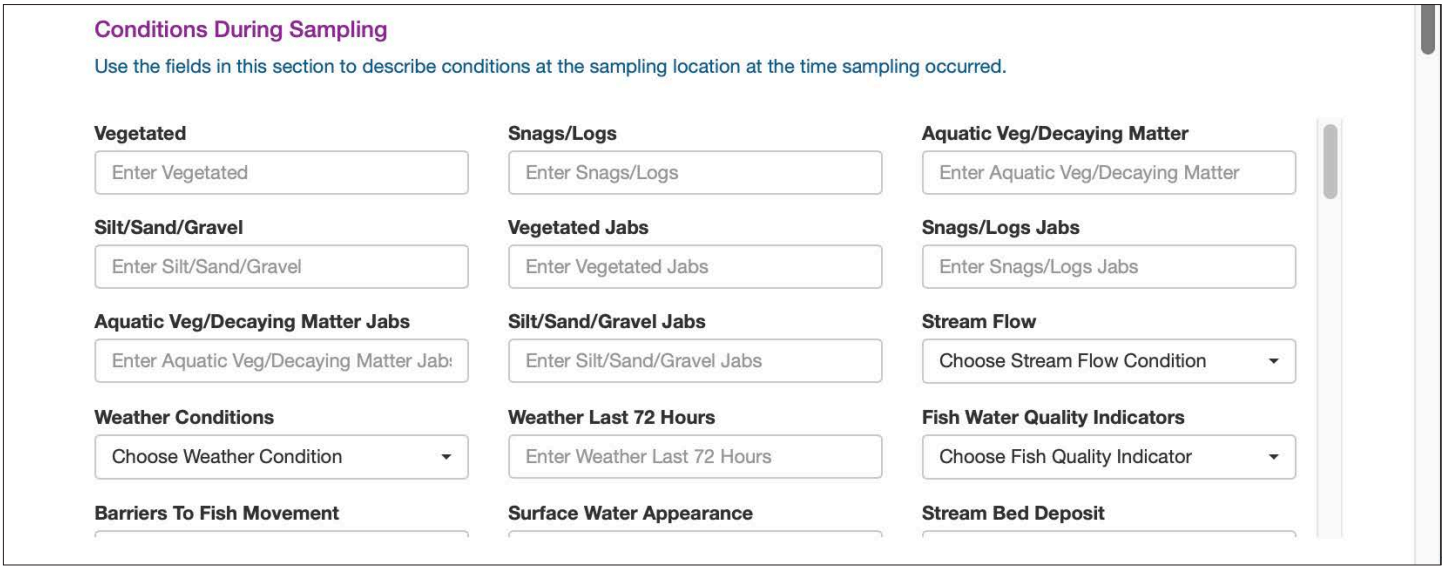
1. Sampling Site: Select your sampling site from the drop down menu. You can use the search bar at the top to easily find your site. This drop-down menu is only filled with sites assigned to your group. ***Note - check that you choose the correct sampling site for the data you are uploading.***
2. Sample Date: Select the year, then month, then day.
3. Sample Time: Select hour and then minutes.

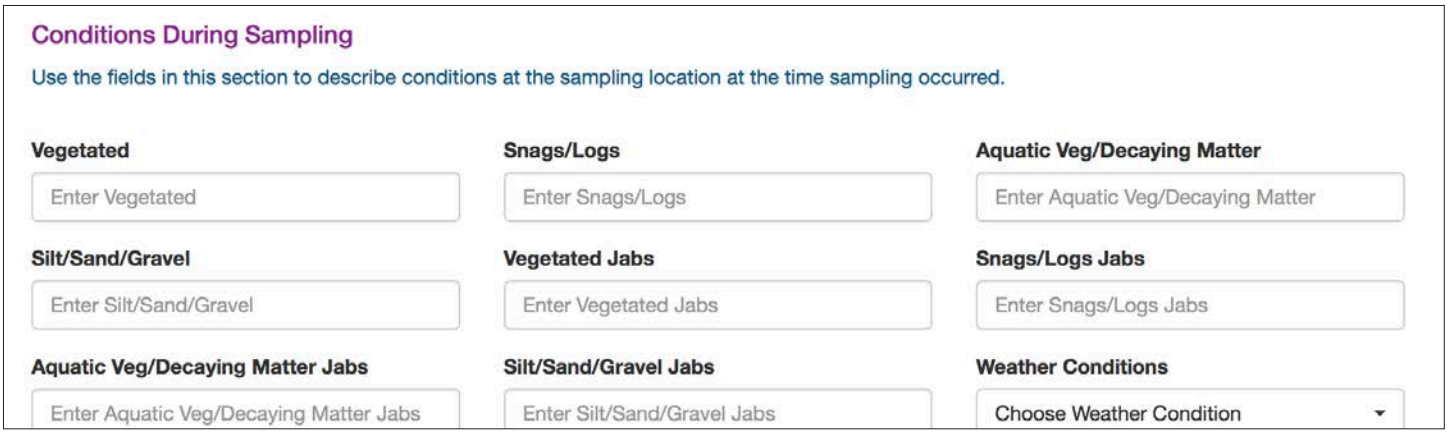


Step 3 *Conditions During Sampling* **-** The fields in the "Conditions During Sampling" section should match the same fields from your field sheet. Any missing values should be left blank.

ISWL condition parameters

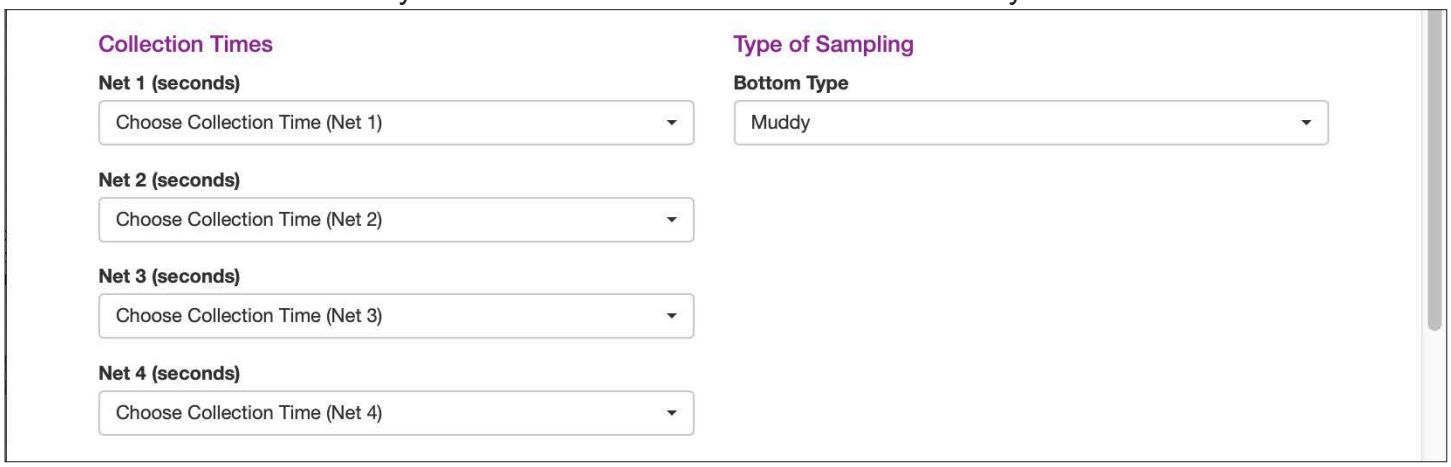
ALLARM condition parameters





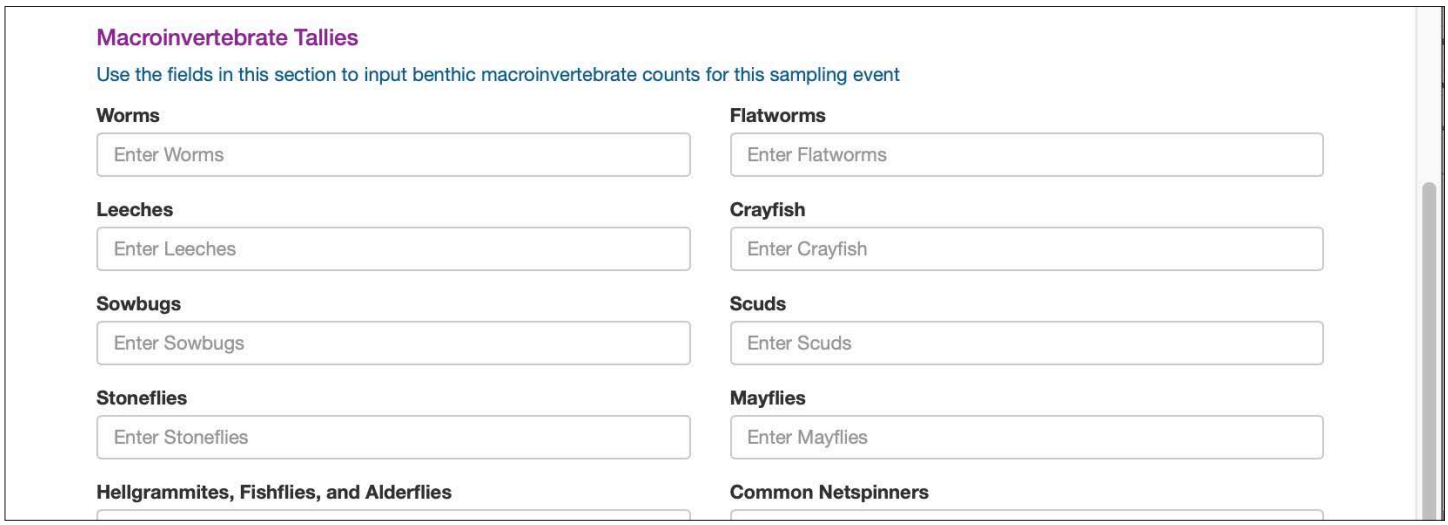
Step 4 *Sampling Details (ISWL Method Only)* **-** The ISWL sampling method requires some additional details about how the sampling was conducted. Enter these details from your field sheet here.

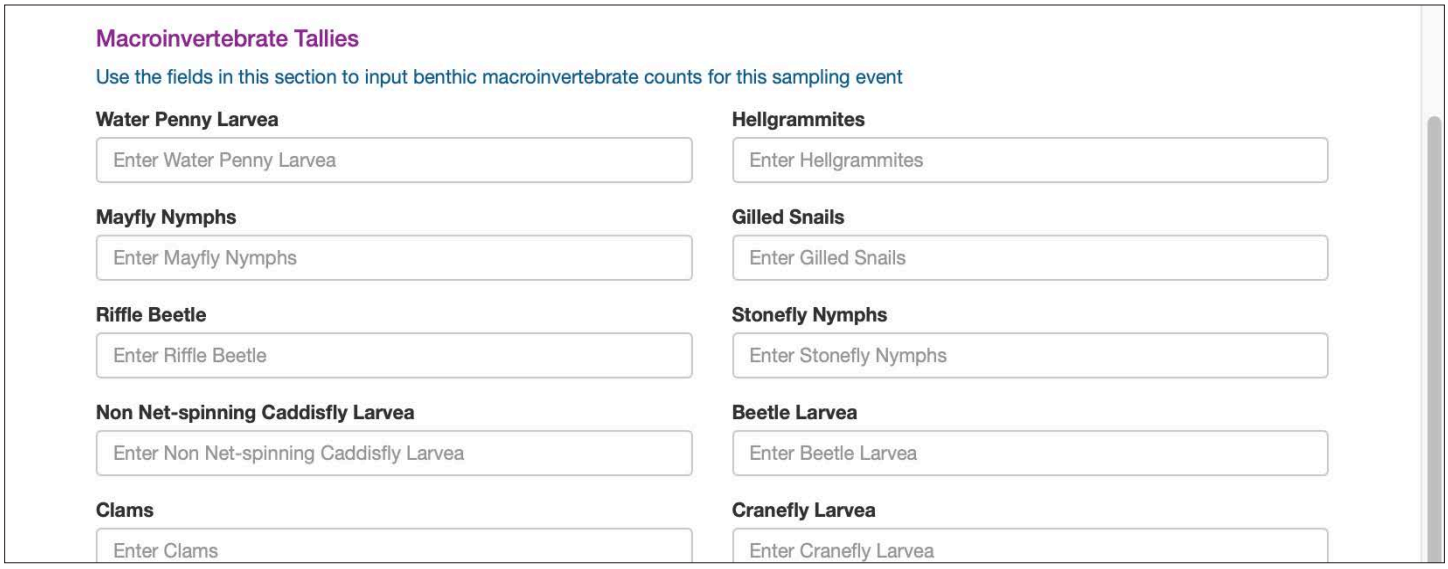
Step 5 *Macroinvertebrate Tallies* - The fields in the "Macroinvertebrate Tallies" section will match the same fields from your field datasheet. Enter the values from your field datasheet in the



corresponding fields in the online form.

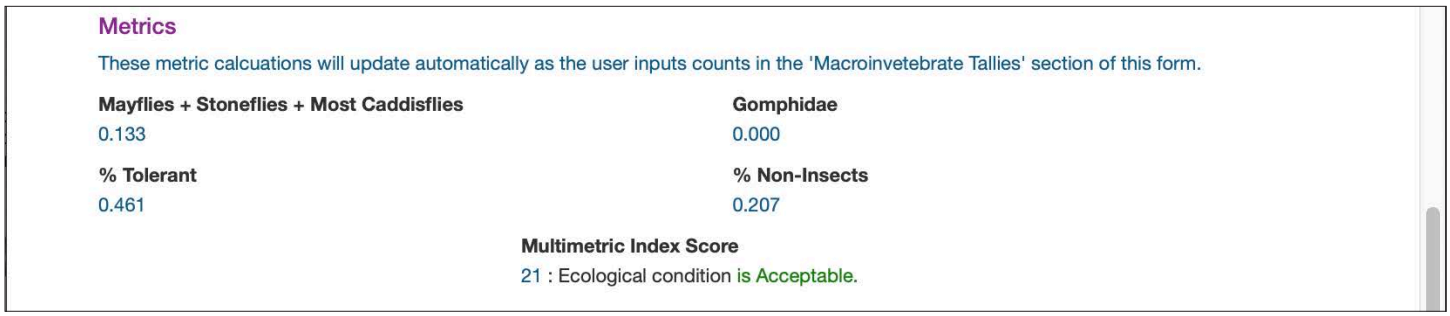
ISWL tallies
ALLARM tallies



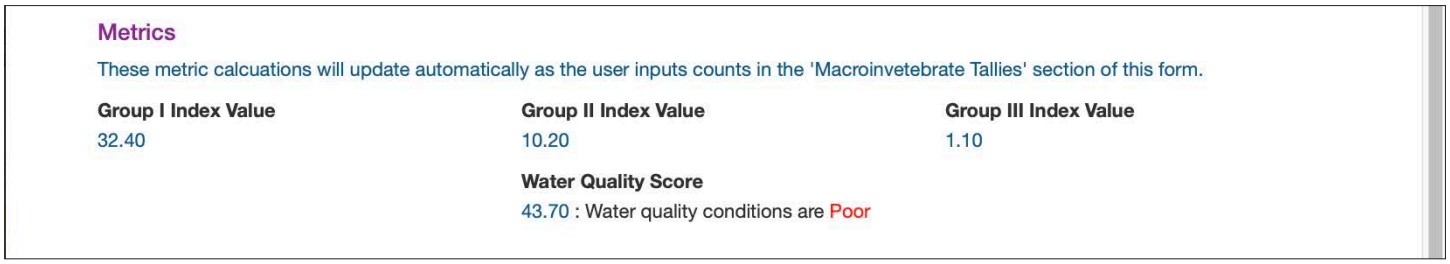


Step 6 *Metrics* - The values in the “Metrics” section will calculate automatically once you start entering values in the “Macroinvertebrate Tallies” section.

ISWL metrics



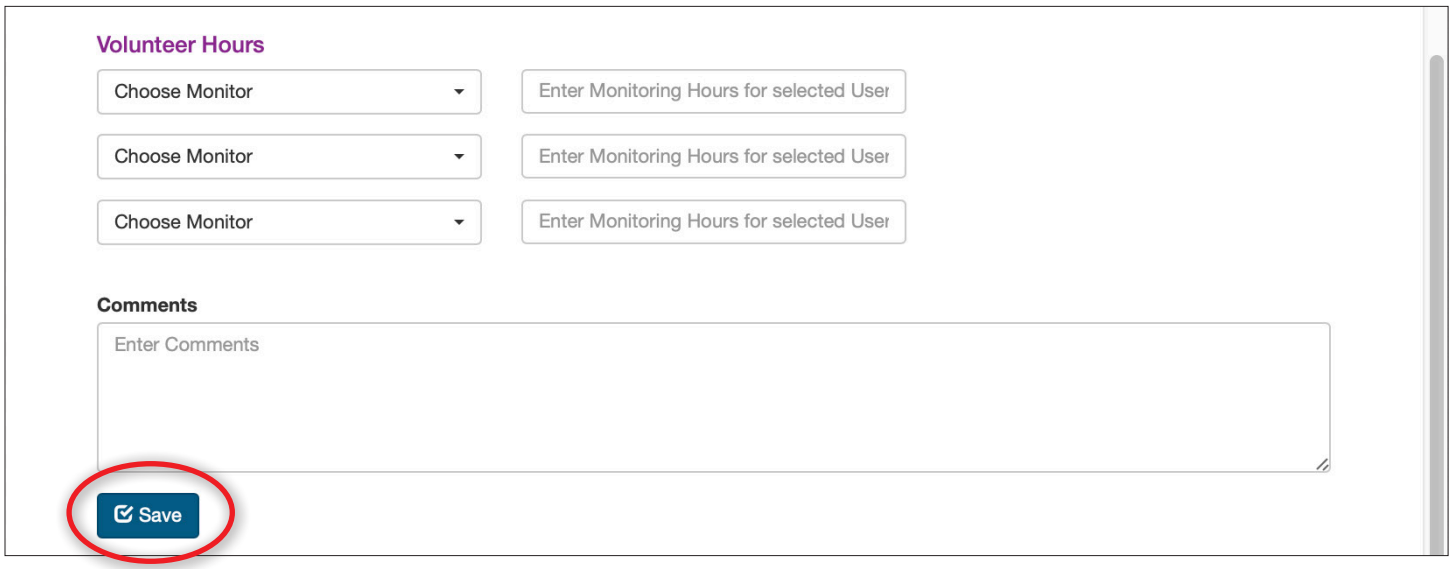
ALLARM metrics



Step 7 *Volunteer Hours* **-** Enter the number of hours spent collecting and entering data by yourself or others in your group buy using the drop-down lists to select the volunteer(s) and enter the hours in

the fields to the right.

Step 8 *Save* **-** Once you have finished entering data, click the Save button.



8 Bulk Upload Data (Coordinators Only)

Monitoring group coordinators have the ability to streamline the data upload process by uploading data sheets containing data for multiple stations and dates. We refer to this process as a "Bulk" data upload. This chapter will review the process of doing a bulk data upload for both water quality and macroinvertebrate data.

Bulk Upload Water Quality Data

Step 1 - If you have not done this before, the **first step** is to obtain a copy of the Bulk Data Upload Template. This template displays some example data to illustrate how to properly format your data.

Step 2 - In order for the Data Explorer to receive your data, it must be in a specific format. An example of correctly formatted data sheet is shown below.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Source	Station	Date	Time	SampleDepth	SampleId	ParameterType	ParameterName	Value	Qualifier	Problem	Comments			
2	ACB	ACB.35	1/11/2017	1:00:00 PM			Condition	R	33.274			Very high - snow melt and rain in previous week			
3	ACB	ACB.35	1/11/2017	1:00:00 PM			Condition	SC	Calm			Very high - snow melt and rain in previous week			
4	ACB	ACB.35	1/11/2017	1:00:00 PM			Condition	SF	High			Very high - snow melt and rain in previous week			
5	ACB	ACB.35	1/11/2017	1:00:00 PM			Condition	WC	Normal			Very high - snow melt and rain in previous week			
6	ACB	ACB.35	1/11/2017	1:00:00 PM			Condition	WCD	Dark brown			Very high - snow melt and rain in previous week			
7	ACB	ACB.35	1/11/2017	1:00:00 PM			Condition	WTHRC	Overcast			Very high - snow melt and rain in previous week			
8	ACB	ACB.35	1/11/2017	1:00:00 PM			Monitor	ACB.Alexis.Klocek	2			Very high - snow melt and rain in previous week			
9	ACB	ACB.35	1/11/2017	1:00:00 PM	0.25	1	WaterQuality	AT.2	8.9			Very high - snow melt and rain in previous week			
10	ACB	ACB.35	1/11/2017	1:00:00 PM	0.25	1	WaterQuality	DO.1	9.7			Very high - snow melt and rain in previous week			
11	ACB	ACB.35	1/11/2017	1:00:00 PM	0.25	2	WaterQuality	DO.1	9.4			Very high - snow melt and rain in previous week			
12	ACB	ACB.35	1/11/2017	1:00:00 PM	0.25	1	WaterQuality	PH.1	6.87			Very high - snow melt and rain in previous week			
13	ACB	ACB.35	1/11/2017	1:00:00 PM	0.25	1	WaterQuality	TD.1	0.5			Very high - snow melt and rain in previous week			
14	ACB	ACB.35	1/11/2017	1:00:00 PM	0.25	1	WaterQuality	TU.1	30.6			Very high - snow melt and rain in previous week			
15	ACB	ACB.35	1/11/2017	1:00:00 PM	0.25	1	WaterQuality	WC.1	47			Very high - snow melt and rain in previous week			
16	ACB	ACB.35	1/11/2017	1:00:00 PM	0.25	1	WaterQuality	WT.2	7.4			Very high - snow melt and rain in previous week			

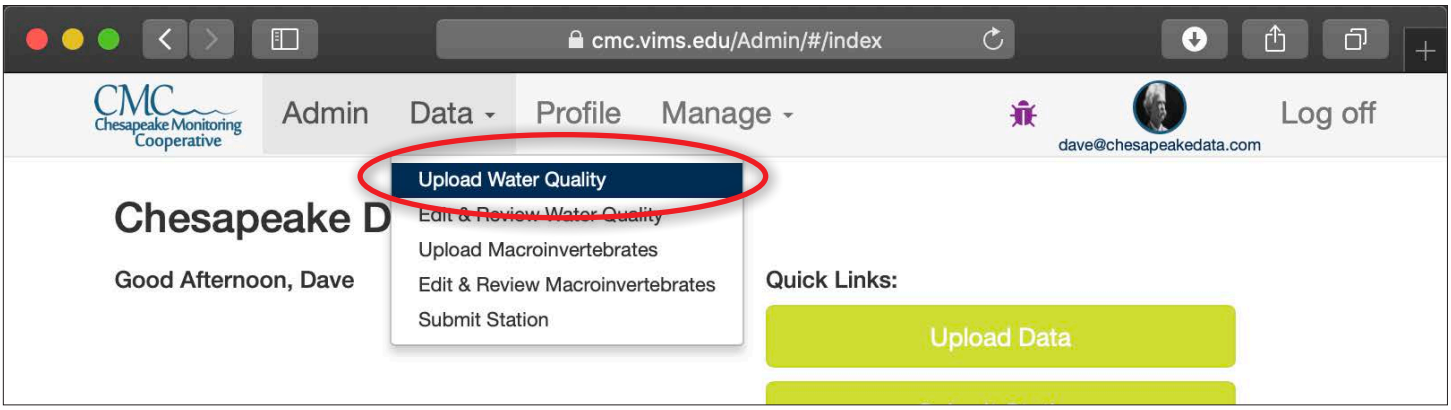
Some important details:

- Each parameter measured during a sampling event has its own row in the data table. This includes water quality and site condition parameters and monitor(s) who collected the data.
- Source, Station, Date, Time, and Comments fields are repeated for every parameter at every depth measured during a sampling event.
- Failure to format your data as shown above will result in errors when attempt to upload it. You will not be able to upload the data until these errors are resolved.
- Once your data is formatted, it must be saved as a .csv file. ***Note - If you are storing your data in Excel and exporting as a .csv, please be sure the date is displaying in the proper "m/d/yyyy" format before exporting. If the date is displaying as "m/d/yy", Excel will truncate the date and you will not be able to upload your data! Also be sure to avoid using commas in the comments, as this will affect the formatting when the file is uploaded.***
- An explanation of each of the columns in the upload sheet can be found in Table 1 below.
- Please contact your CMC Administrator if you need assistance formatting your data.

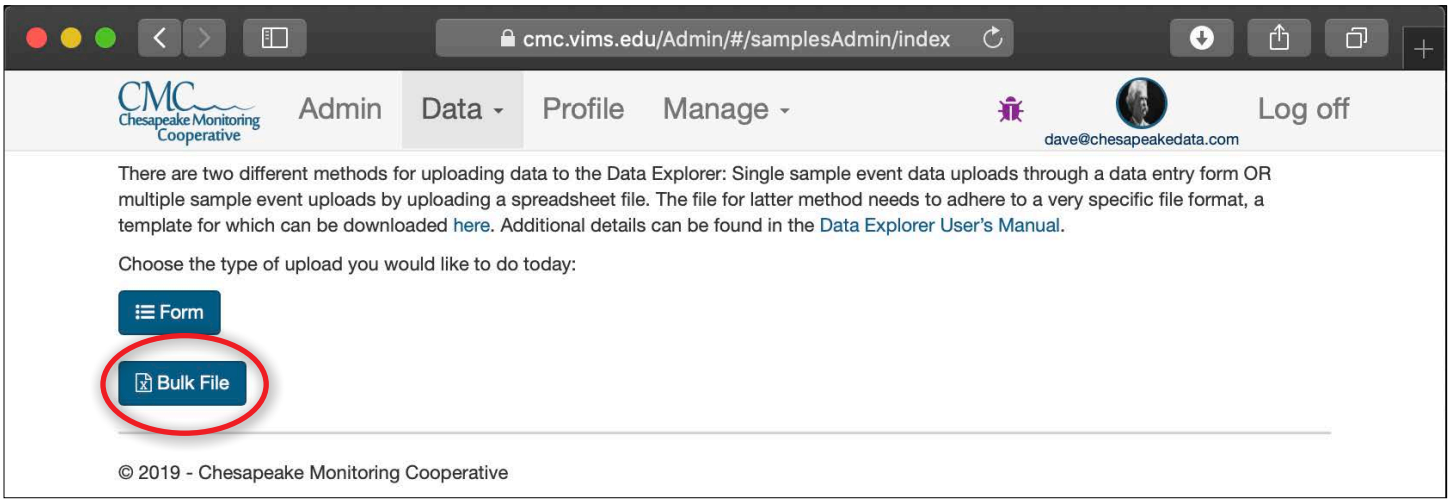
Table 1 - An explanation of the columns in a water quality bulk upload data sheet.

Column	Explanation	Example
Source	This refers to the monitoring group that collected the data. The value entered into the source field should be the "Group Code" for that group. Group coordinators can find the Group Code for their group on their group's profile page.	The group code for the Alliance for the Chesapeake Bay is ACB.
Station	This is the sampling location name. Sampling locations generally have 2 names: a short alpha-numeric name and a longer, more descriptive name. Use the shorter alpha-numeric preceded by the group code and a period ("..").	ACB.35
Date	The date that the sampling event took place. This must be in m/d/yyyy format.	2/5/2016
Time	The time of day sampling occurred. This must be in hh:mm:ss AM/PM format.	1:00:00 PM
Depth	The depth at which sampling occurred in meters.	0.5 meters
SampleID	First replicate SampleID will be 1 and second replicate SampleID will be 2. If no replicate is taken, the SampleID is 1.	1
ParameterType	Indicates if the parameter is a "Condition", "Monitor", or "WaterQuality" parameter.	• Condition parameters are variables like Tide and Water Color. • Monitor is the name of the person who took the sample. • WaterQuality parameters are the chemical parameters measured during the sampling event.
ParameterName	Indicates the name of the parameter being measured in that row. This is a shortened parameter code followed by a period (".") and then an index number.	• Water Quality parameters have a shortened parameter code followed by a period (.) and then an index number based on equipment used and tier level. Example: dissolved oxygen sampled with a Winkler Titration is DO.1. A complete list of Water Quality parameters can be found from the link in the top right corner of the parameter management page. • Condition parameters have a shortened parameter code. A list of conditions and possible values are listed in Table 3. • Monitor data is enter using the [Groupcode].[FirstName].[LastName]. Example: ACB.Jane.Smith
Value	The parameter value. If the parameter is the Monitor who collected the data, then the value is the monitoring or volunteer hours associated with collecting data for this monitoring event.	One hour and 30 minutes would be entered as 1.5.
Qualifier	Any necessary qualifier code is entered here.	Acceptable qualifiers are shown in Table 1.
Problem	Any necessary problem code is entered here.	Acceptable problem codes are shown in Table 2.
Comments	Any needed comments descriptive of the entire sampling event are entered here.	Heavy rain the night before

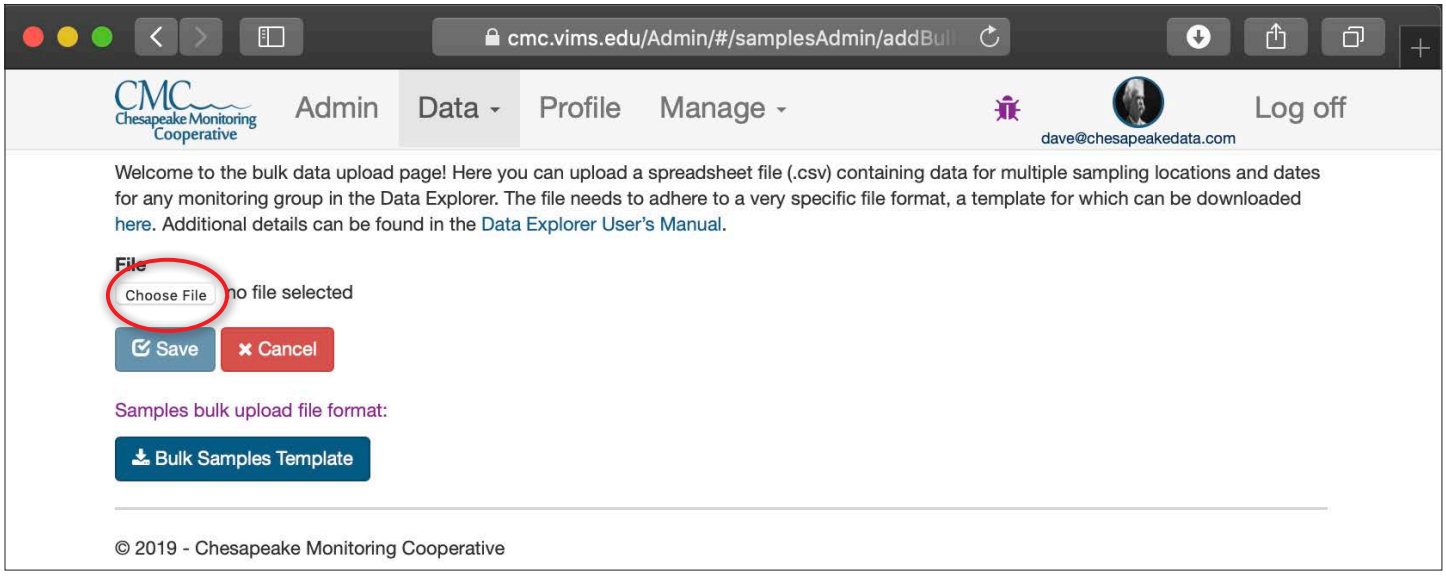
Step 3 - To begin the bulk data upload process, from the Admin area home screen, choose “Upload Water Quality” from the Data drop down menu.



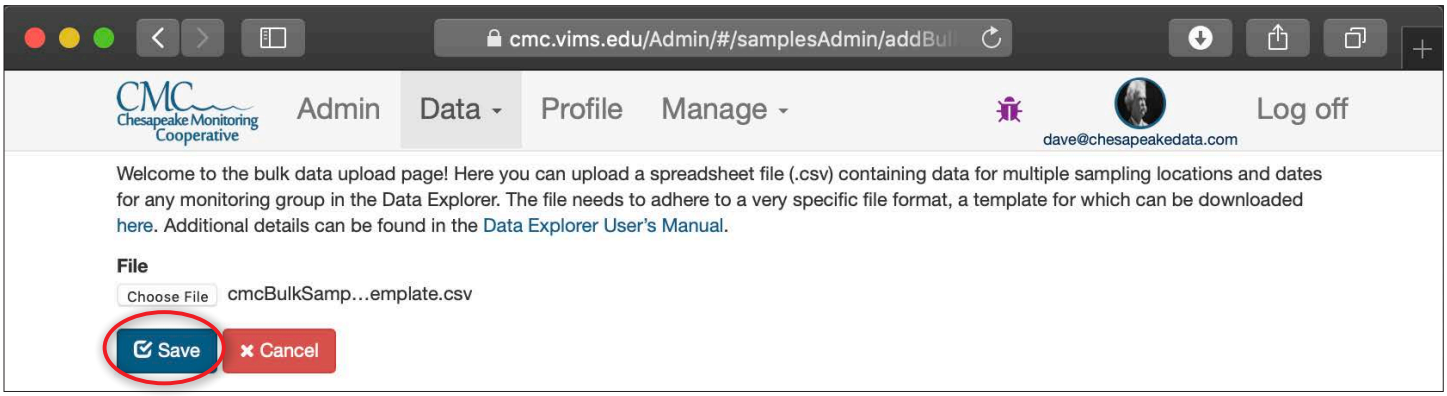
Step 4 - Click the “Bulk file” button.



Step 5 - Click “Choose File” from the screen that opens. A window will open, allowing you to choose the bulk upload file that you have pre-prepared using the format detailed above.

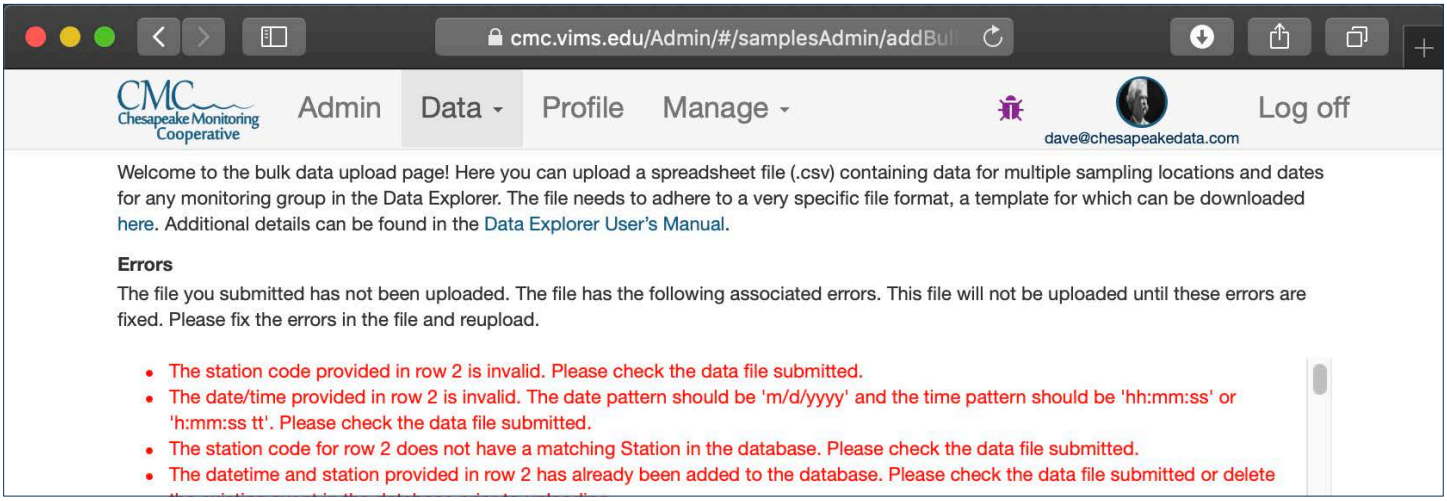


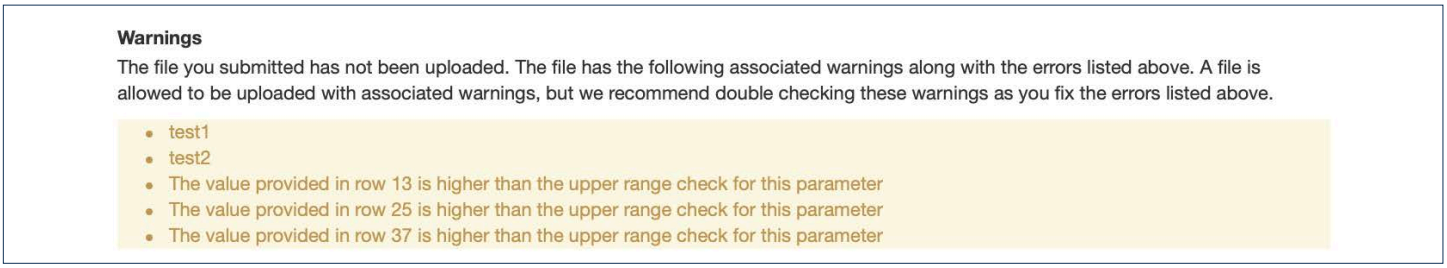
Step 6 - Your file name will appear next to the “Choose File” button. Click “Save”.



Step 7A - If your file uploads successfully, a green box will appear in the lower right hand corner of your screen indicating that the data was successfully added.

Step 7B - If your file was not uploaded successfully, the errors in your file needing correction will be shown in red text. Review your file, fix the errors, and attempt to upload it again. The Data Explorer may also identify potentially erroneous data values which it will display in a yellow box. These values should be verified prior to attempting to re-upload the data. See Table 5 in the Appendix for a list of error messages you may encounter.





Step 8 - Once your data has been successfully uploaded, you can publish and edit that data using the functionality described in Chapter 9. If you need assistance fixing upload errors, please contact your CMC Administrator.

Bulk Upload Macroinvertebrate Data

Step 1 - If you have not done this before, the **first step** is to obtain a copy of the Bulk Data Upload Template. This template displays some example data to illustrate how to properly format your data.

Step 2 - In order for the Data Explorer to receive your data, it must be in a specific format. An example of correctly formatted data sheet is shown below.

	A	B	C	D	E	F	G	H
1	Source	Station	Date	Time	ParameterType	ParameterName	Value	Comments
2	VIMS	VIMS.gi	7/2/17	12:39:00 PM	condition	CT.1	21-89	
3	VIMS	VIMS.gi	7/2/17	12:39:00 PM	condition	CT.2	20	
4	VIMS	VIMS.gi	7/2/17	12:39:00 PM	condition	CT.3	90	
5	VIMS	VIMS.gi	7/2/17	12:39:00 PM	condition	CT.4	21-89	
6	VIMS	VIMS.gi	7/2/17	12:39:00 PM	Monitor	VIMS.david.parrish	1.5	
7	VIMS	VIMS.gi	7/2/17	12:39:00 PM	condition	V	7	
8	VIMS	VIMS.gi	7/2/17	12:39:00 PM	condition	SL	10	
9	VIMS	VIMS.gi	7/2/17	12:39:00 PM	condition	M	Moderate	
10	VIMS	VIMS.gi	7/2/17	12:39:00 PM	condition	TM	coal	
11	VIMS	VIMS.gi	7/2/17	12:39:00 PM	tally	W	10	
12	VIMS	VIMS.gi	7/2/17	12:39:00 PM	tally	F	1	
13	VIMS	VIMS.gi	7/2/17	12:39:00 PM	tally	L	0	

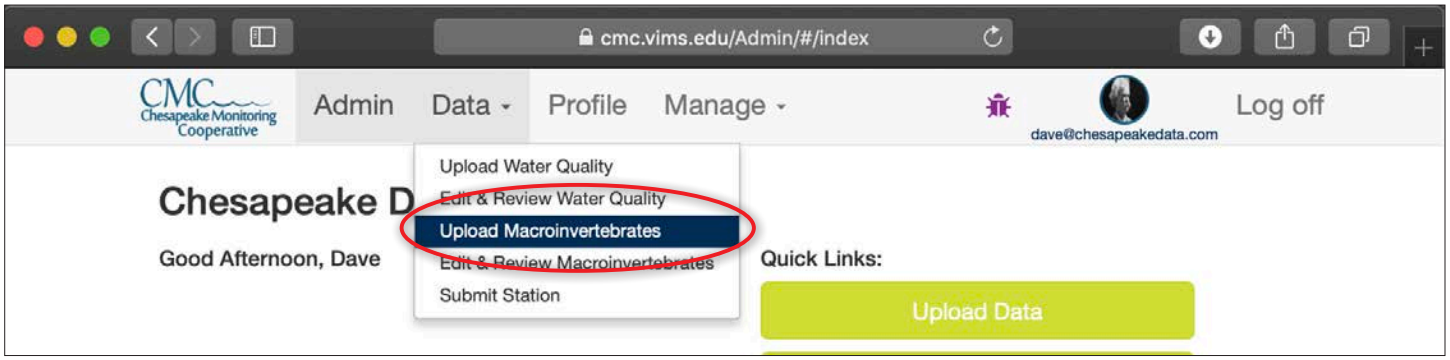
Some important details:

- Each parameter measured during a sampling event has its own row in the data table. This macroinvertebrate tallies, site condition parameters, and monitor(s) who collected the data.
- Source, Station, Date, Time, and Comments fields are repeated for every parameter at every depth measured during a sampling event.
- Failure to format your data as shown above will result in errors when attempt to upload it. You will not be able to upload the data until these errors are resolved.
- Once your data is formatted, it must be saved as a .csv file. ***Note - If you are storing your data in Excel and exporting as a .csv, please be sure the date is displaying in the proper "m/d/yyyy" format before exporting. If the date is displaying as "m/d/yy", Excel will truncate the date and you will not be able to upload your data! Also be sure to avoid using commas in the comments, as this will affect the formatting when the file is uploaded.***
- An explanation of each of the columns in the upload sheet can be found in Table 2 below.
- Please contact your CMC Administrator if you need assistance formatting your data.

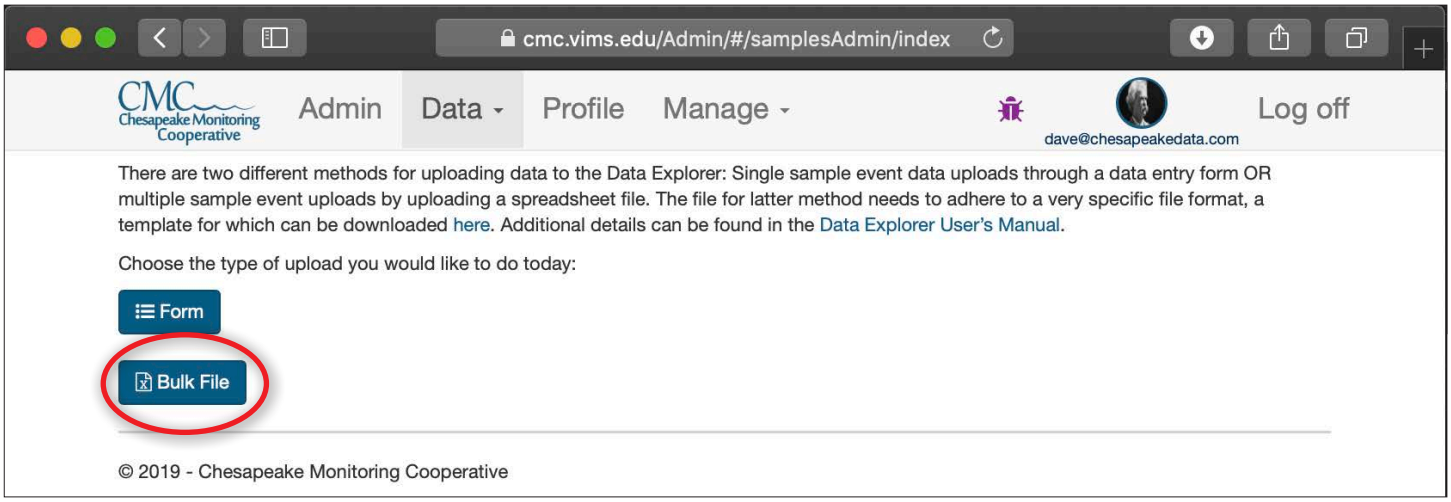
Table 2 - An explanation of the columns in a macroinvertebrate bulk upload data sheet.

Column	Explanation	Example
Source	This refers to the monitoring group that collected the data. The value entered into the source field should be the "Group Code" for that group. Group coordinators can find their Group Code on their group's profile page.	The group code for the Virginia Institute of Marine Science is VIMS.
Station	This is the sampling location name. Sampling locations generally have 2 names: a short alpha-numeric name and a longer, more descriptive name. Use the shorter alpha-numeric preceded by the group code and a period (".").	VIMS.gi
Date	The date that the sampling event took place. This must be in m/d/yyyy format.	2/5/2016
Time	The time of day sampling occurred. This must be in hh:mm:ss AM/PM format.	1:00:00 PM
ParameterType	Indicates if the parameter is a "Condition", "Monitor", or "Tally" parameter. Condition parameters are variables like Tide and Water Color. If the parameter type is "Condition", a list of allowed conditions and possible values for each are listed in Table 4 in the Appendix.	"condition" "tally"
ParameterName	The name of the parameter. This is a shortened parameter code followed by a period (".") and then an index number.	• W, F, L, C, etc. • A complete list of parameters can be found from the link in the top right corner of the parameter management page. • If the parameter is the monitor who collected the data, the parameter name is **[Groupcode].[FirstName].[LastName]** . For example "ACB.Jane.Smith".
Value	The parameter value. If the parameter is the Monitor who collected the data, then the value is the monitoring or volunteer hours associated with collecting data for this monitoring event.	One hour and 30 minutes would be entered as 1.5.
Comments	Any needed comments descriptive of the entire sampling event are entered here.	"hot, humid day"

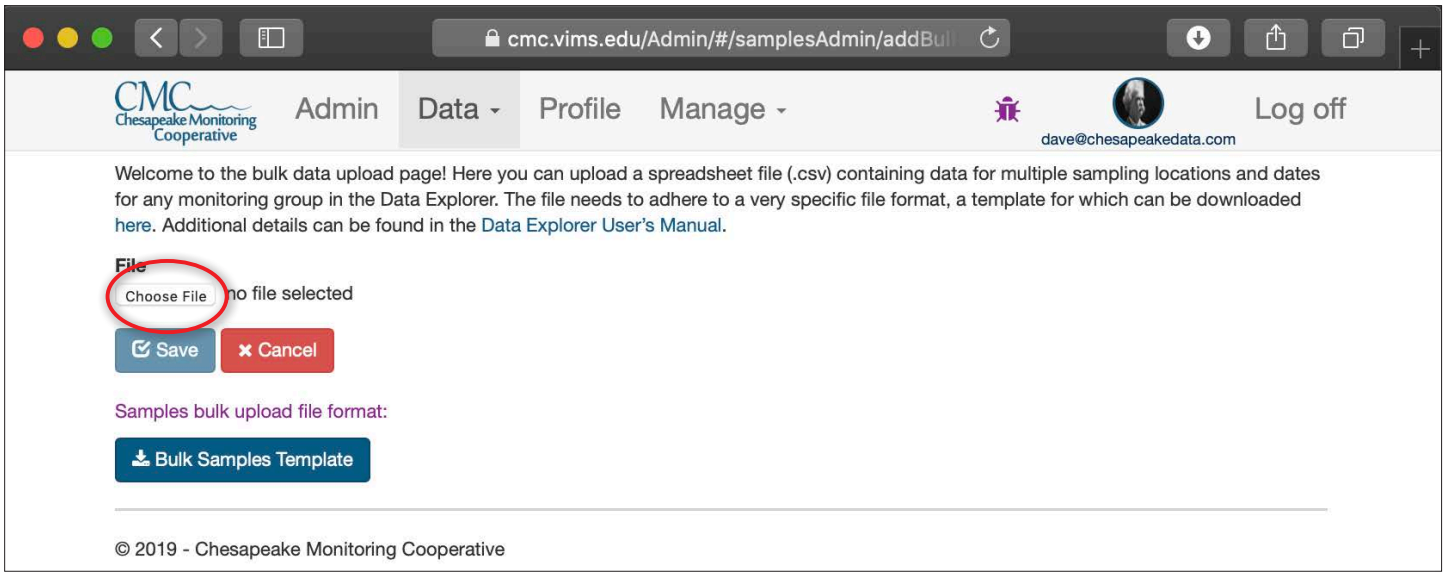
Step 3 - To begin the bulk data upload process, from the Admin Area Home screen, choose “Upload Water Quality” from the Data drop down menu.



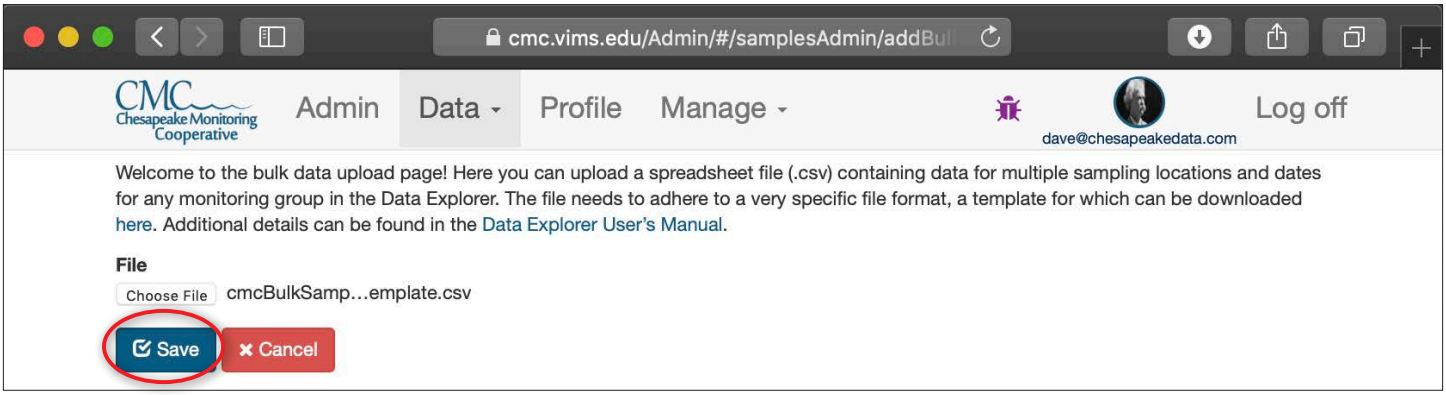
Step 4 - Click the “Bulk file” button.



Step 5 - Click “Choose File” from the screen that opens. A window will open, allowing you to choose the bulk upload file that you have pre-prepared using the format detailed above.

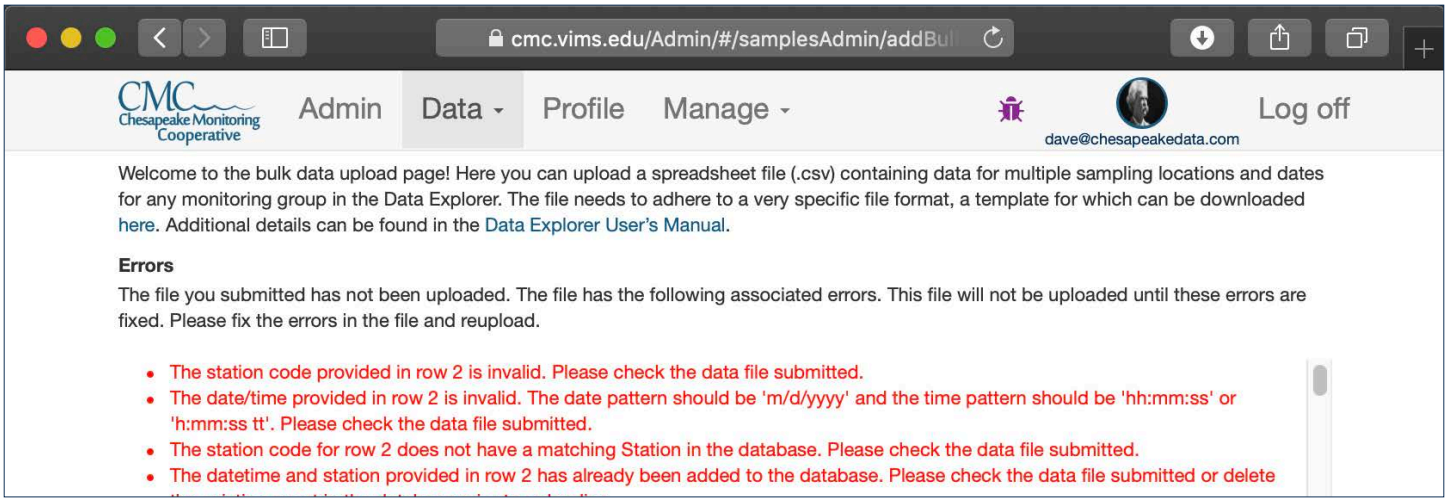


Step 6 - Your file name will appear next to the “Choose File” button. Click “Save”.



Step 7A - If your file uploads successfully, a green box will appear in the lower right hand corner of your screen indicating that the data was successfully added.

Step 7B - If your file was not uploaded successfully, the errors in your file needing correction will be shown in red text. Review your file, fix the errors, and attempt to upload it again. See Table 6 in the Appendix for a list of error messages you may encounter.



Step 8 - Once your data has been successfully uploaded, you can verify and edit that data using the functionality described in Chapter 9. If you need assistance fixing upload errors, please contact your CMC Administrator.

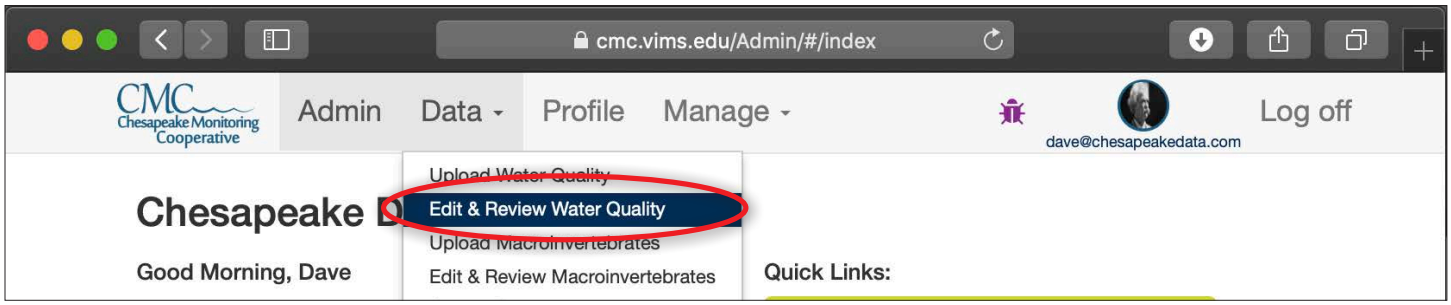
9 Edit & Review Data

The edit and review section of the Chesapeake Data Explorer is where data can be viewed, edited and published. Monitors and coordinators have different capabilities to edit and review data, and data is published by either a coordinator or a CMC service provider. We will review the capabilities of monitors and coordinators in the chapter. When data is published, it means that it has gone through the appropriate quality assurance processes and can be made available for download and use. Only published data is uploaded to the Chesapeake Bay Program database.

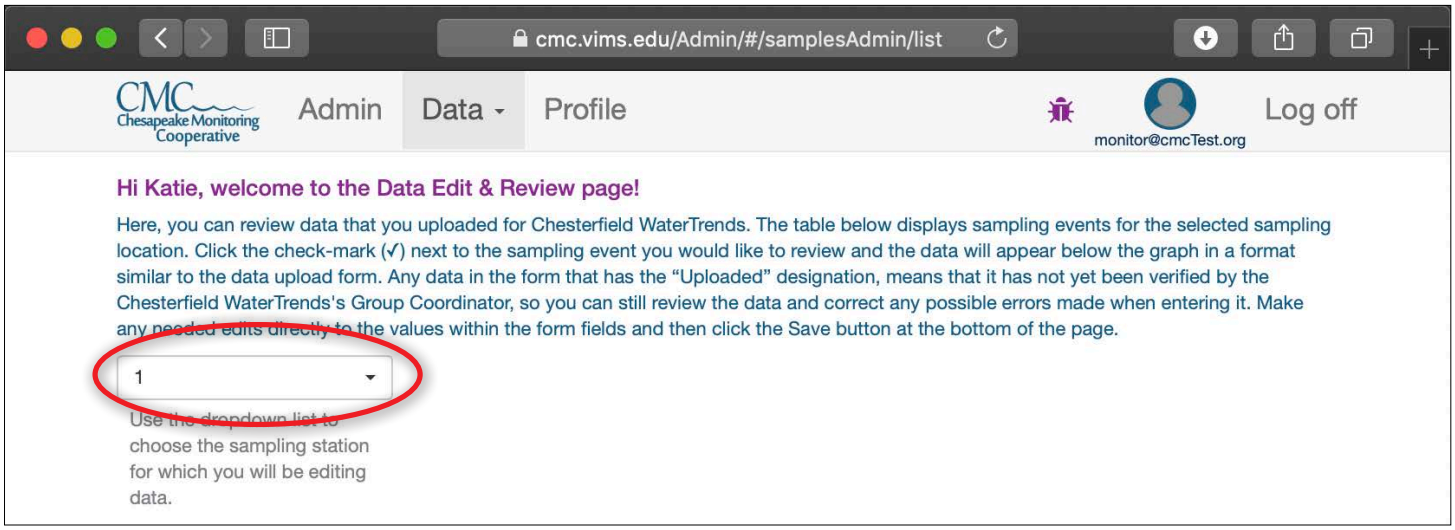
Editing Water Quality Data - *Monitors*

Monitors are only able to view and edit data they upload into the Data Explorer. Monitors are not able to publish data and are not able to edit data once it is published. Monitors need to contact their program coordinator if they need to edit published data.

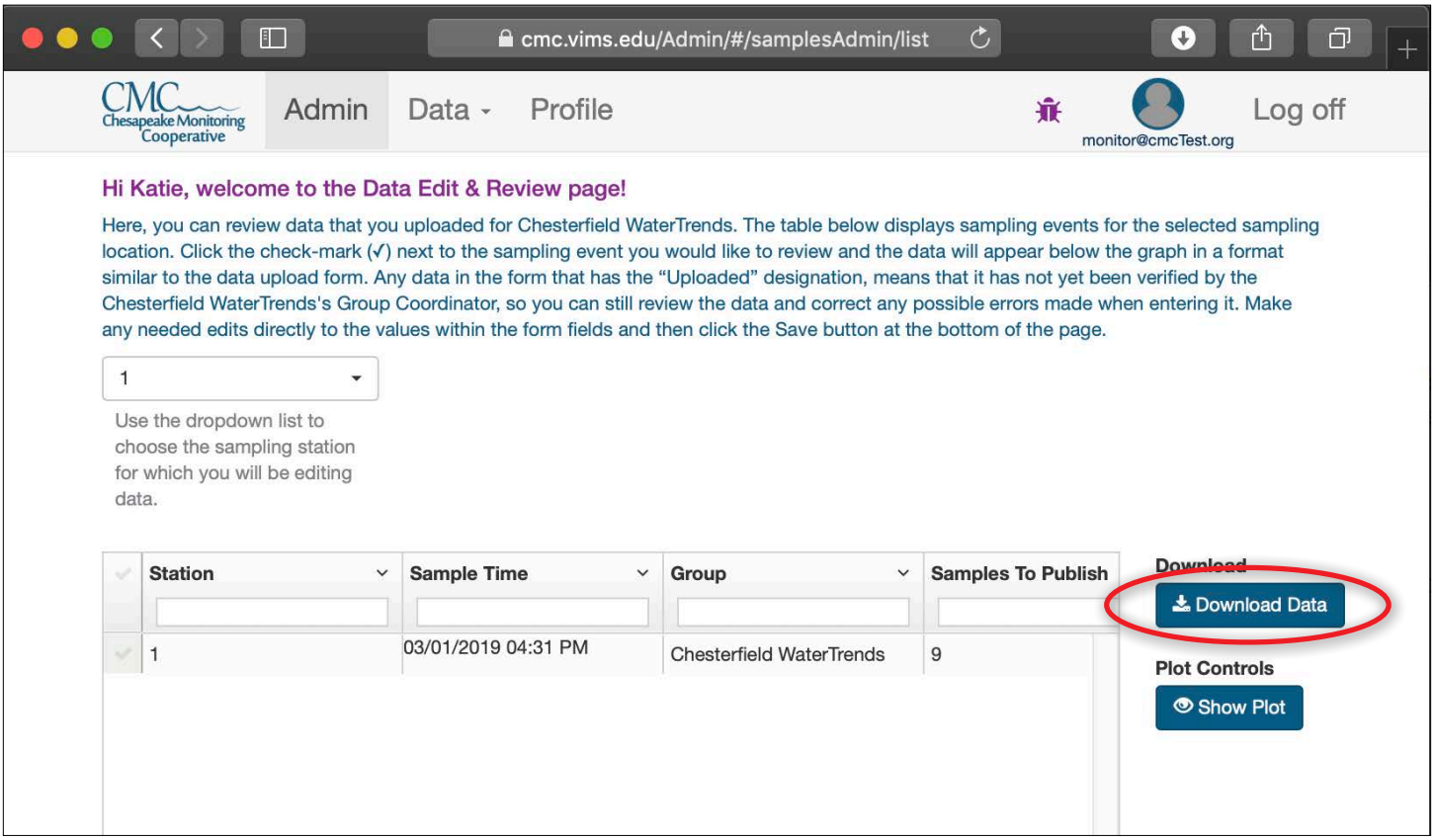
Step 1 - From the Admin area home screen, select “Edit & Review Water Quality” from the Data drop down menu.



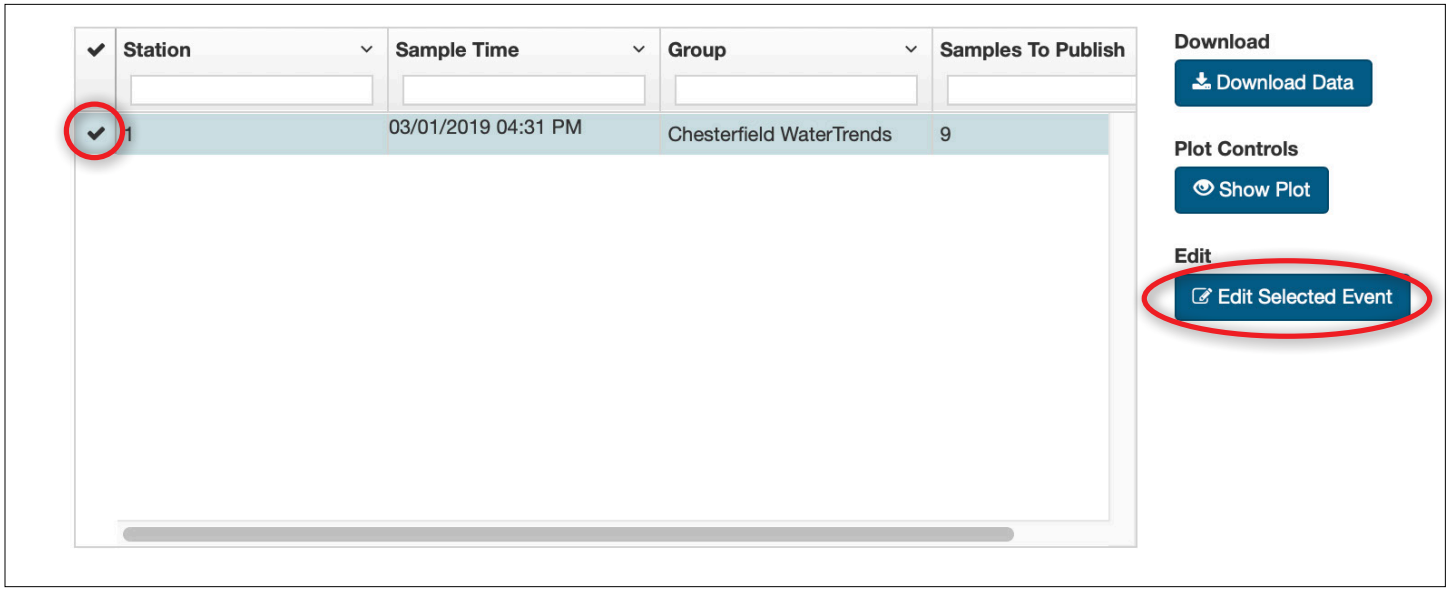
Step 2 - Select the station for which you want to edit data from the drop down list.



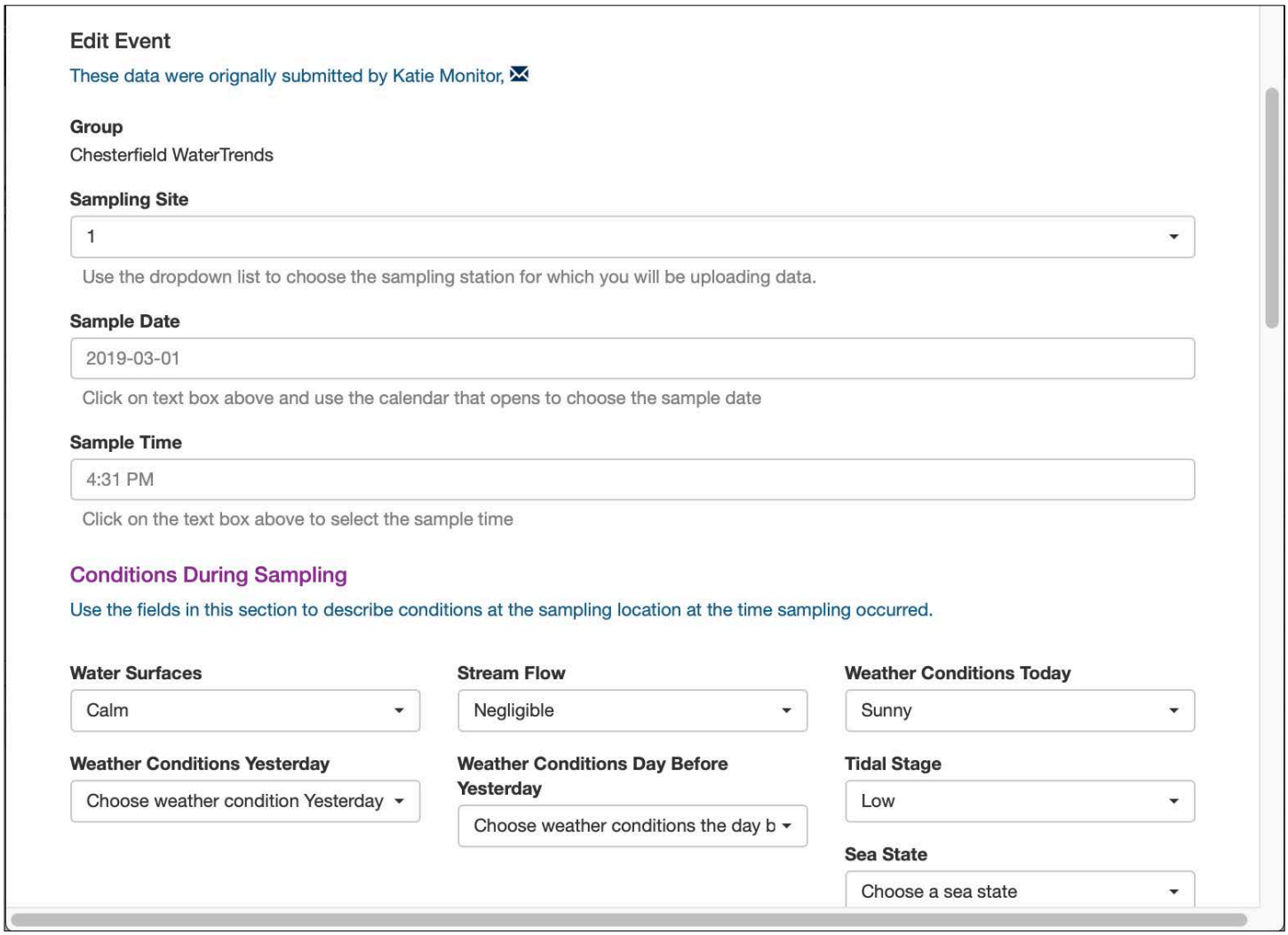
Step 3 - Sampling events where data is available to view and edit for the station you selected will appear in a list below. Clicking “Download Data” will download the data for all of these sampling events.



Step 4 - To edit data, click the check mark next to the sampling event row and click “Edit Selected Event” that appears to the right of the list.



Step 5 - The data for the selected sampling event will appear on the page below the table. Edit any values you wish to update.



Step 6 - Click the save button once you have finished making updates.

Editing Water Quality Data - *Coordinators*

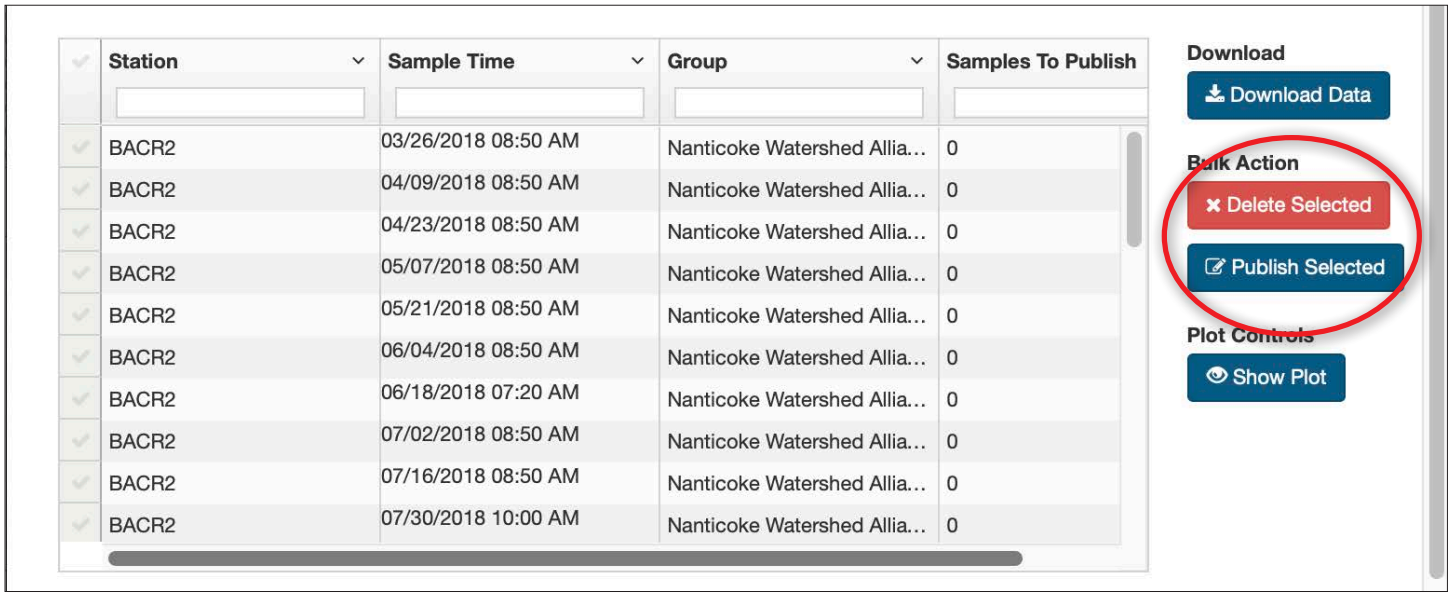
Coordinators can view and edit data from all monitors/stations associated with their group and some coordinators with special permissions have the ability to publish data.

Step 1 - Coordinators can navigate to the Edit & Review Water Quality section in the same way as Monitors. All functionality is the same with the exception that coordinators can view and edit data for all monitoring locations in their group. Please refer to the instructions for Editing Water Quality Data - *Monitors*.

Editing Water Quality Data - *Coordinators with Special Permissions*

Sampling Event Bulk Action

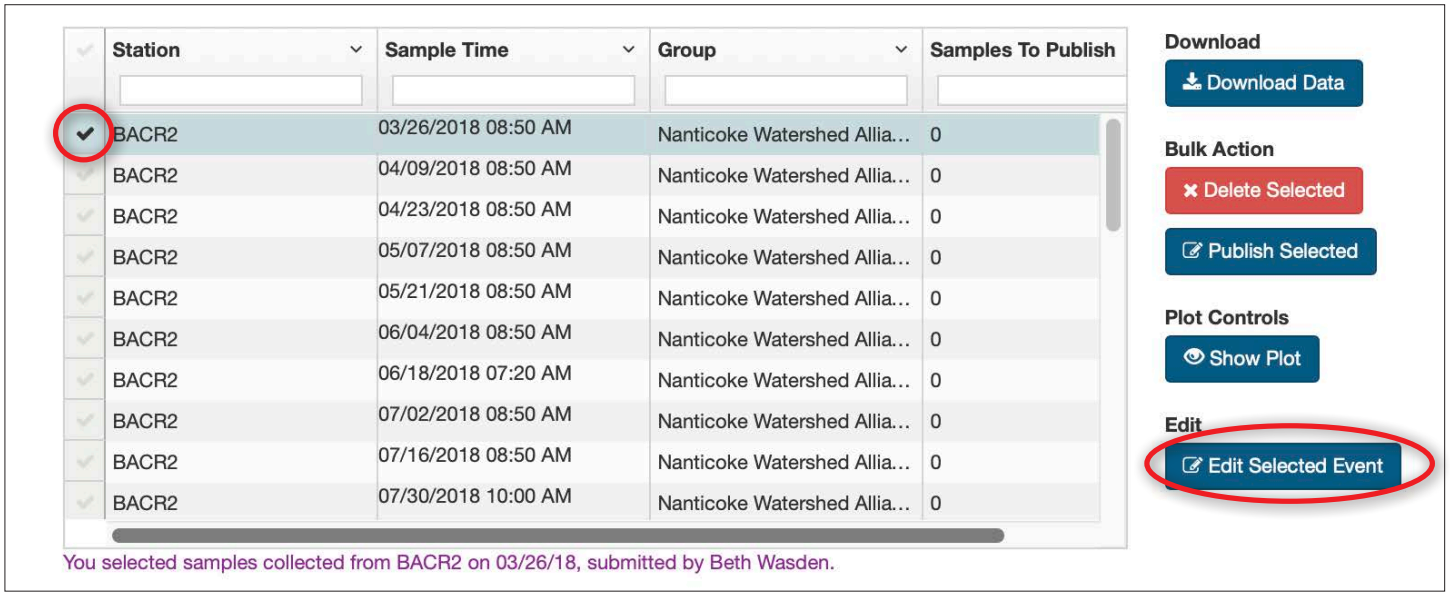
Step 1 - Coordinators who have publishing permission will see a “Bulk Action” section in their tables. To publish or delete multiple data events, click the check mark next to each sampling event row and choose your desired “Bulk Action”. Alternatively, to perform an action on all sampling events in the table, click the check mark in the top left corner of the table to select all sampling events.



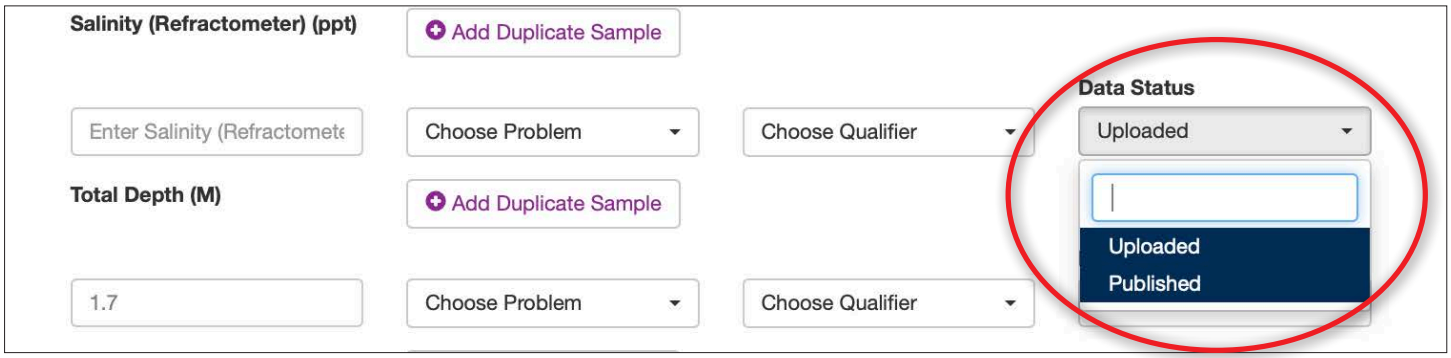
Step 2 - Before you can delete or publish data, pop-up boxes will appear asking you to confirm your choice before your action is completed. ***Note - Once data is published, it will be available for public download and sent to the Chesapeake Bay Program, and can only be edited by a CMC service provider.***

Publishing Individual Event Data

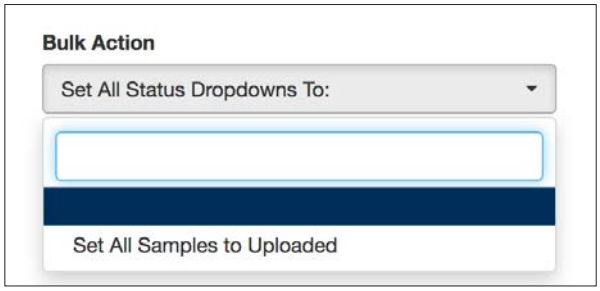
Step 1 - You can publish all or just some of the data associated with a sampling event. Click the check mark next to the event you would like to publish data for and then click “Edit Selected Event”.



Step 2a - To update the status of a select parameter or parameters to published, change the “Data Status” drop down to the right of the parameter to Published.



Step 2b - To update the status of all parameters for this sampling event to published, use the “Bulk Action” drop down in the upper right to “Set All Samples to Published”.



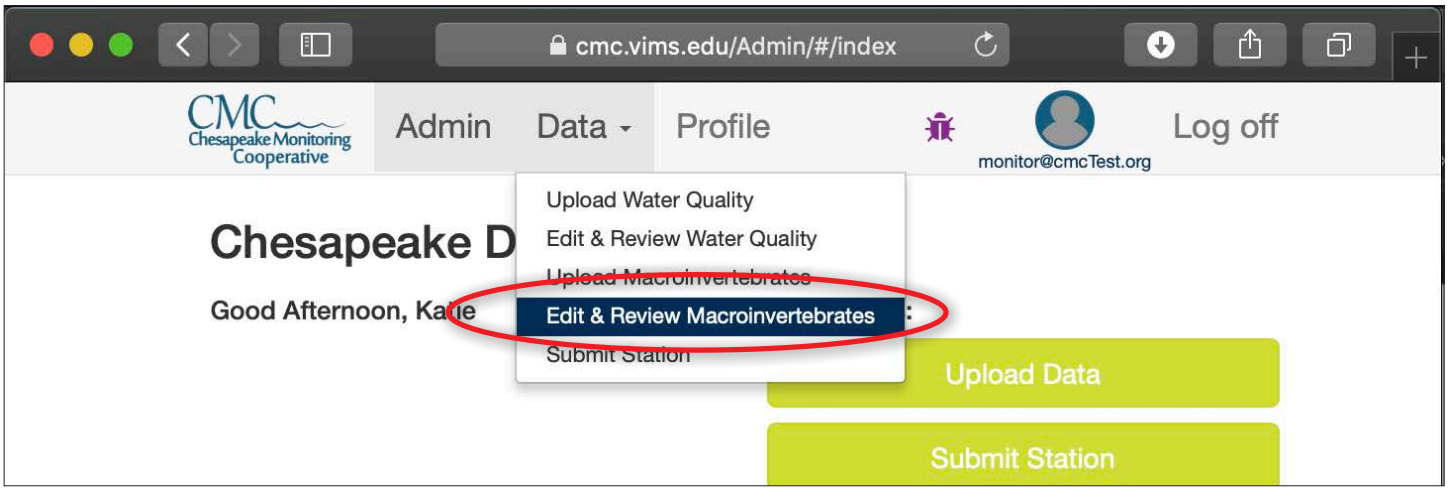
Step 3 - Click the save button at the bottom of the data form.

Step 4 - Before you can delete or publish data, pop-up boxes will appear asking you to confirm your choice before your action is completed. ***Note - Once data is published, it will be available for public download and sent to the Chesapeake Bay Program, and can only be edited by a CMC service provider.***

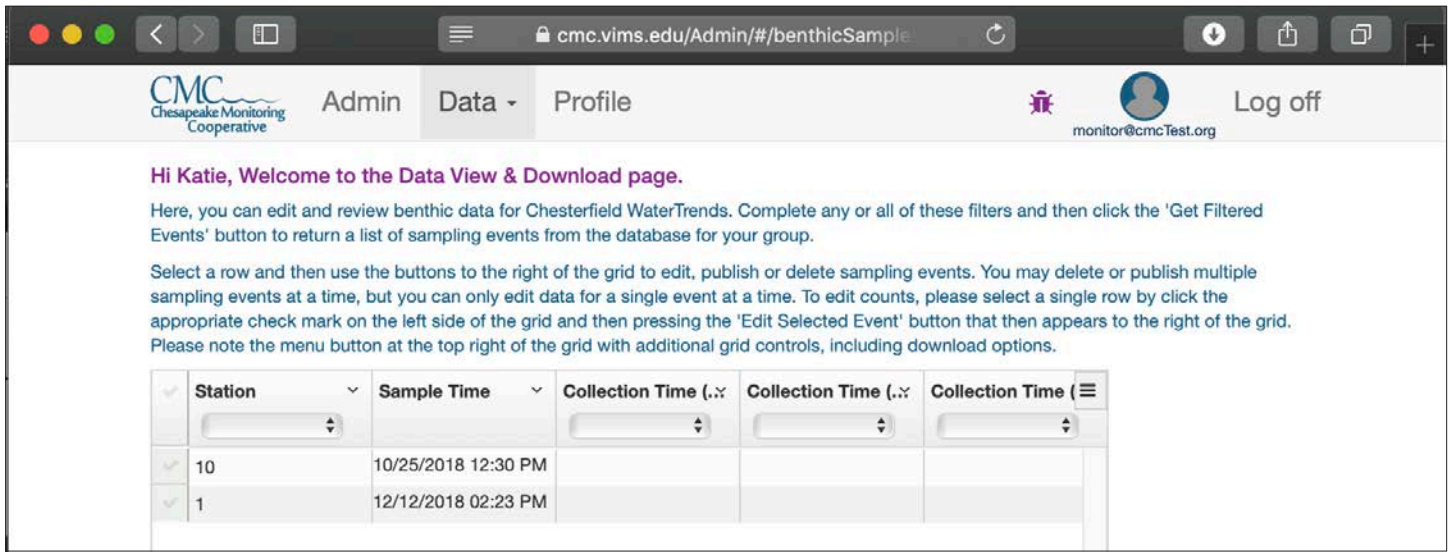
Editing Macroinvertebrate Data - *Monitors*

Monitors are only able to view and edit data they upload into the Data Explorer.
Monitors are not able to publish data and are not able to edit data once it is published. Monitors need to contact their program coordinator if they need to edit published data.

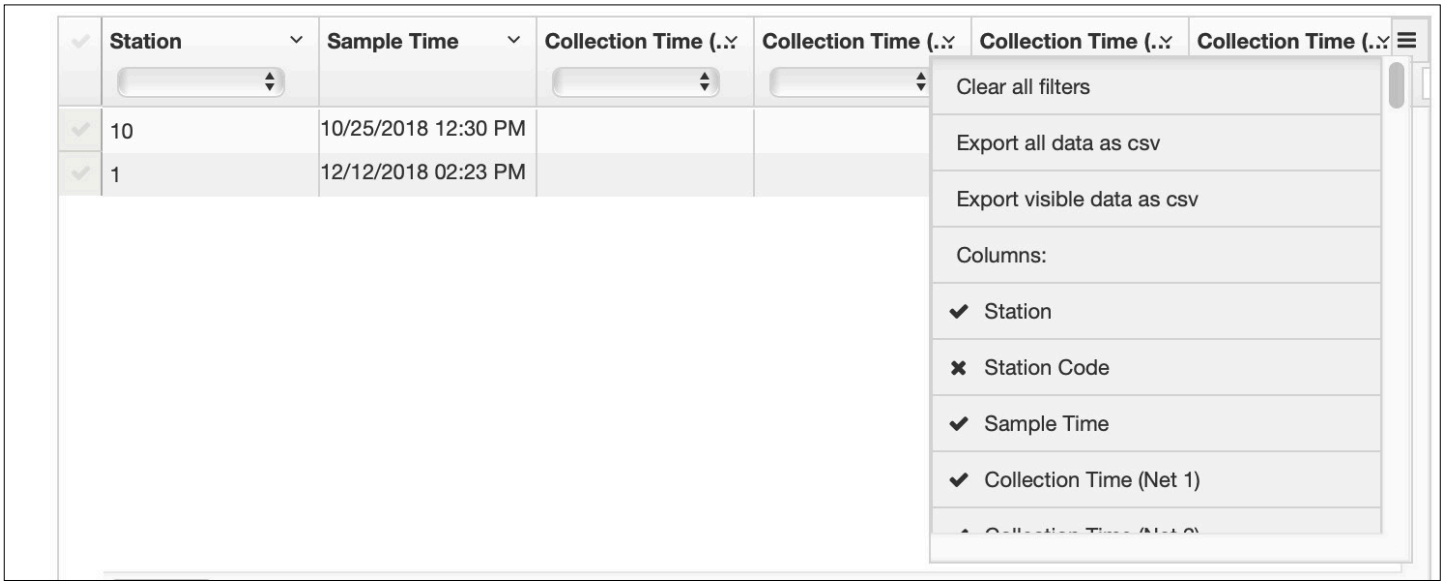
Step 1 - From the Admin area home screen, select “Edit & Review Macroinvertebrates” from the Data drop down menu.



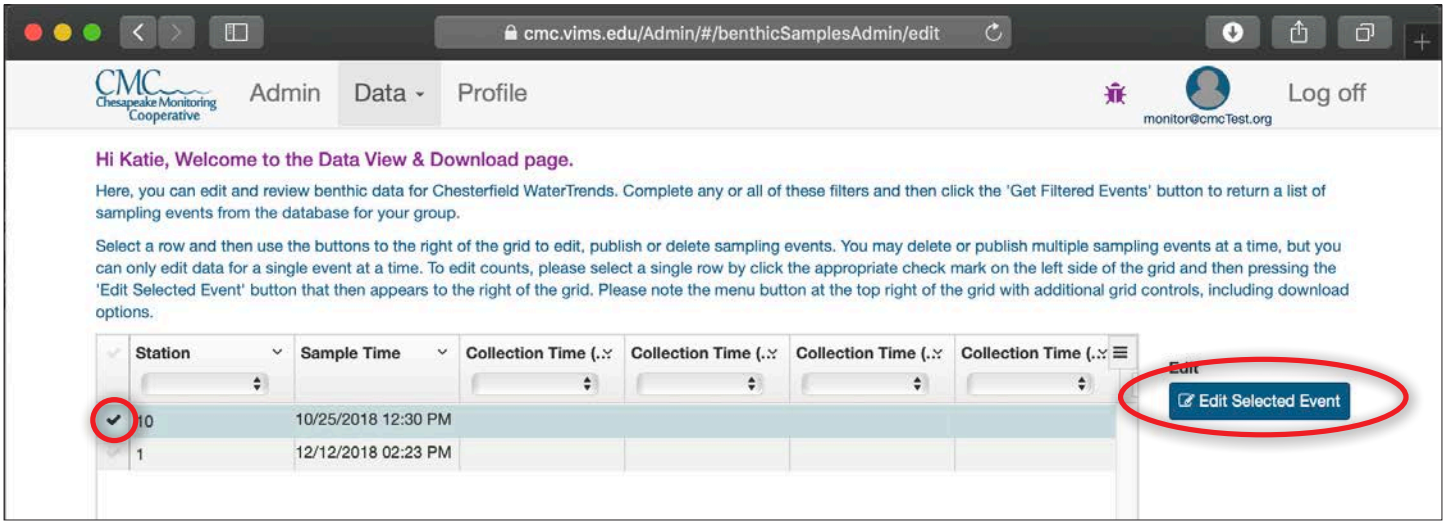
Step 2 - On the page that opens, a table will display the sampling events that you are able to edit.



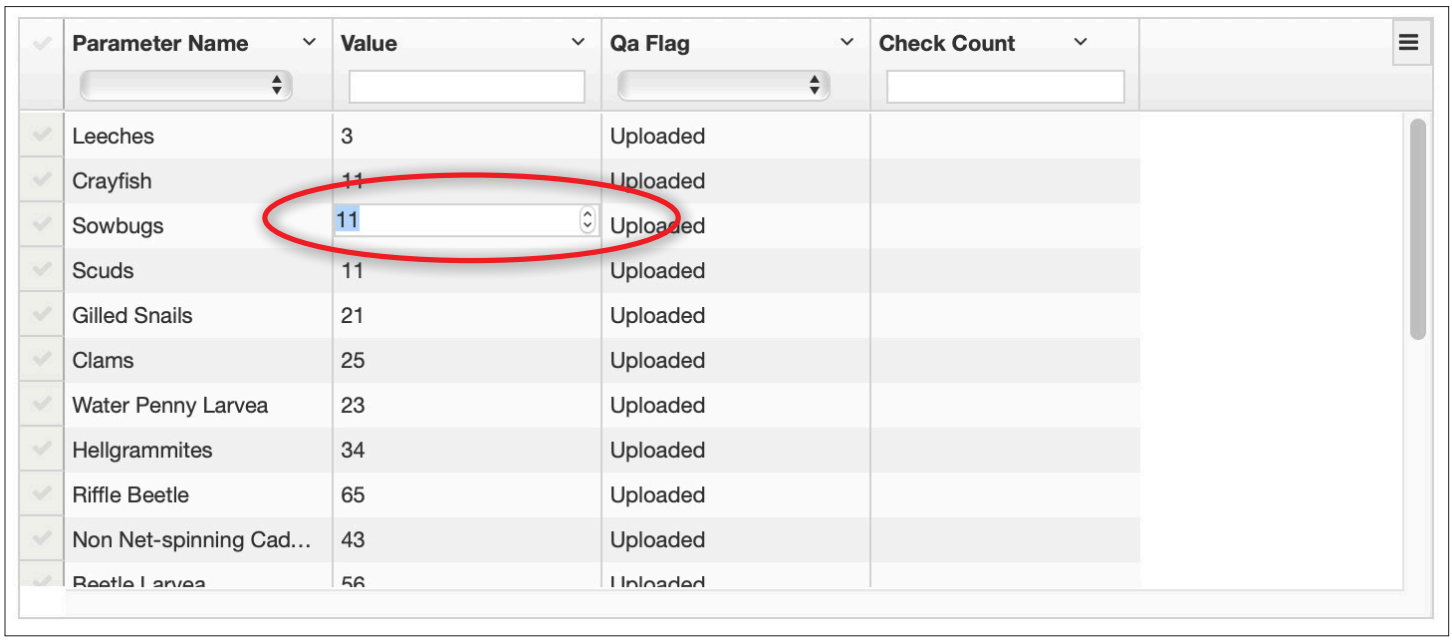
Step 3 - Click the ≡ button to access data download and table display options.



Step 4 - Click the check mark next to the sampling event you would like to edit. Arrayed out to the right of the station name and sampling time are the parameters for conditions during sampling. These values can be edited right in their respective cells in the table. Double-click the values to edit. Click your “Return” key on your keyboard to accept each edit. Click the “Edit Selected Event’ button to edit the Macroinvertebrate data for this event.



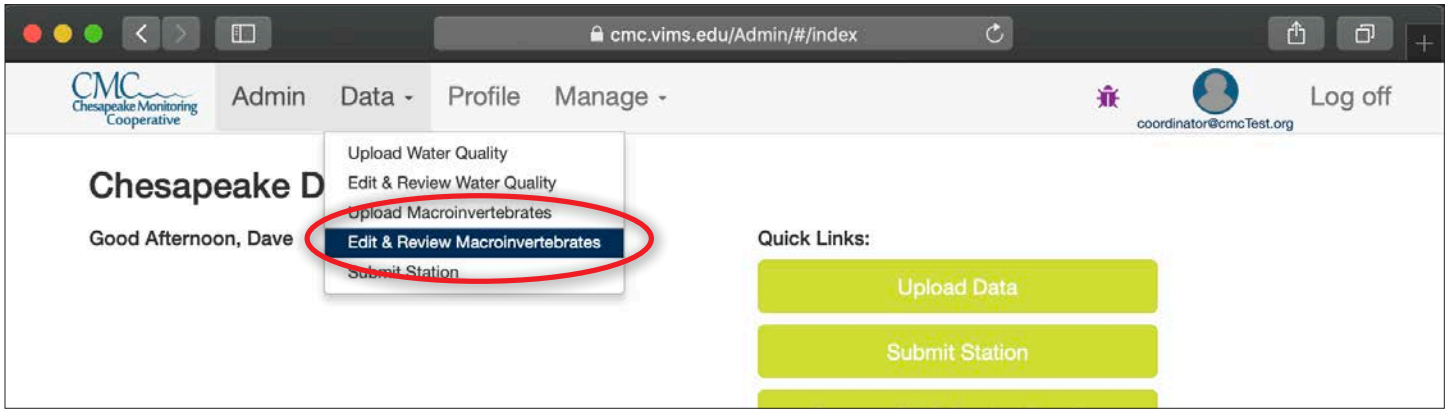
Step 5 -Two tables will open on the page. The first table contains all of the tallies and the second contains the volunteer hours. Values can be edited by double-clicking. Make your edit, hit your return key, and the value will be updated. (Parameter Names cannot be changed, and Check Counts will automatically change when the value is over 100).



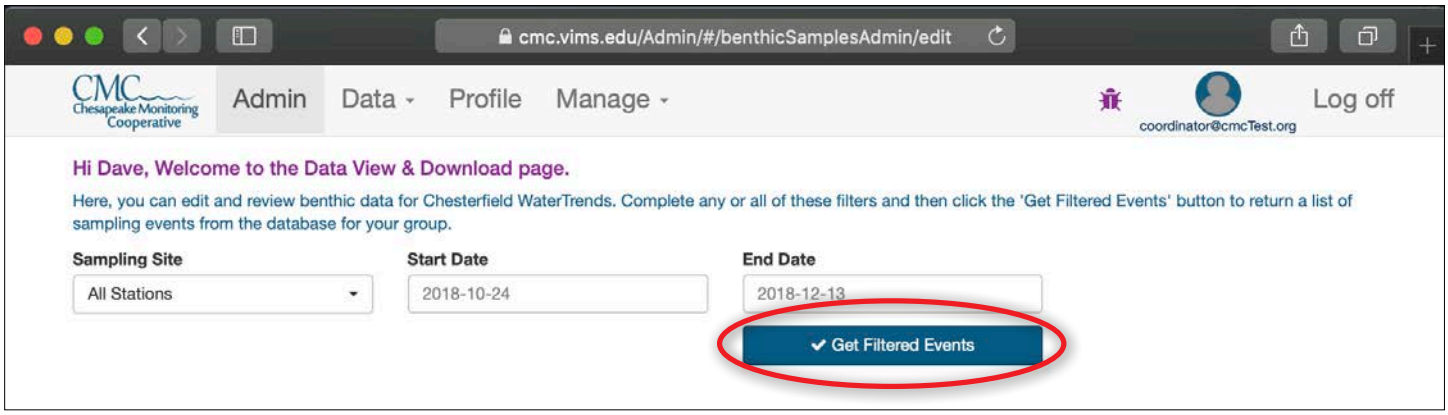
Editing Macroinvertebrate Data - *Coordinators*

Coordinators can view and edit data from all monitors/stations associated with their group.

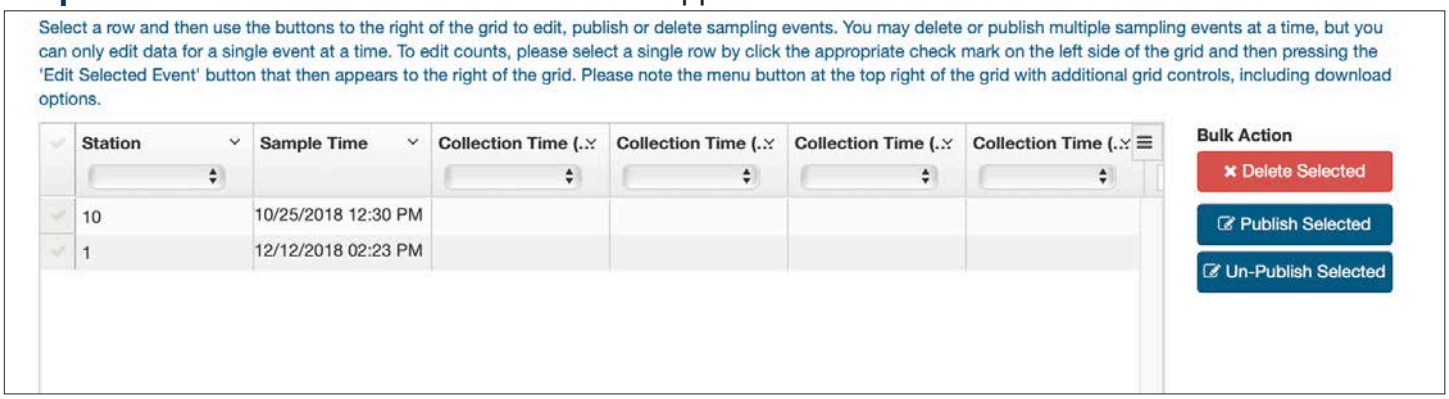
Step 1 - From the Admin area home screen, select “Edit & Review Macroinvertebrates” from the Data drop down menu.



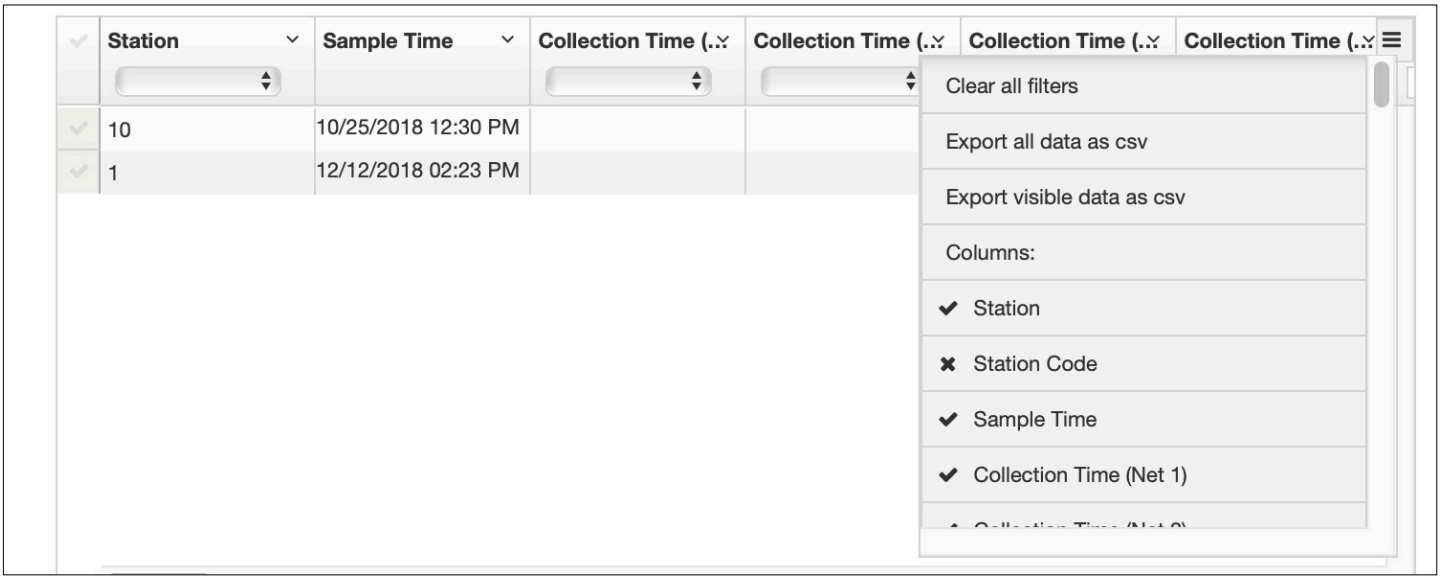
Step 2 - On the page that opens, you can choose which stations and date range you want to edit data. Once you have made your selection, click “Get Filtered Events”.



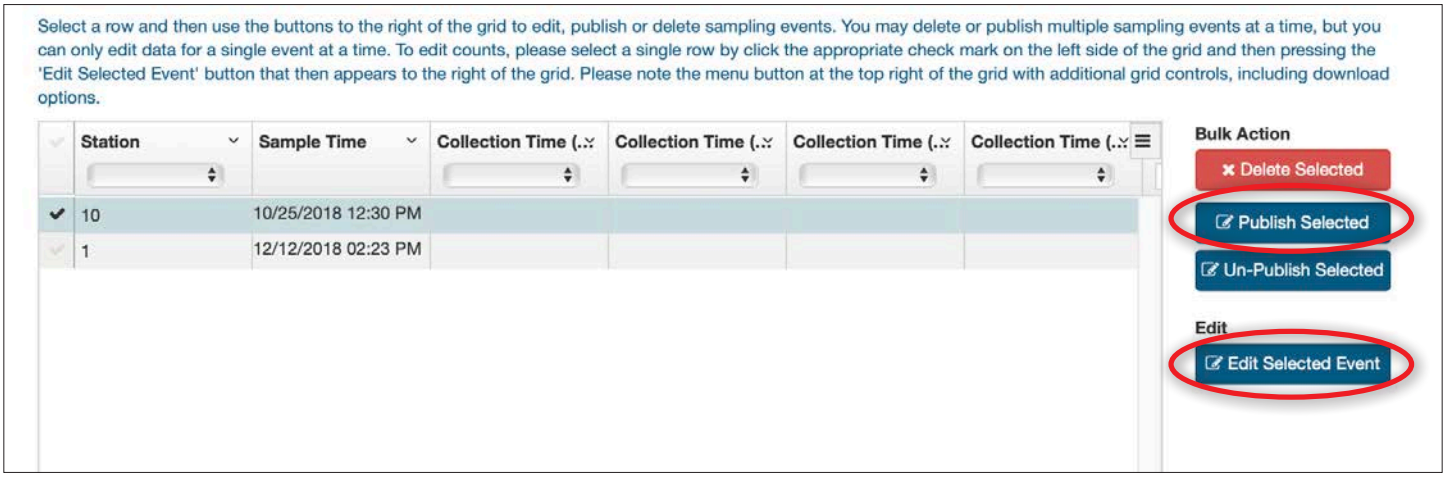
Step 3 - Your selected stations and dates will appear in a table.



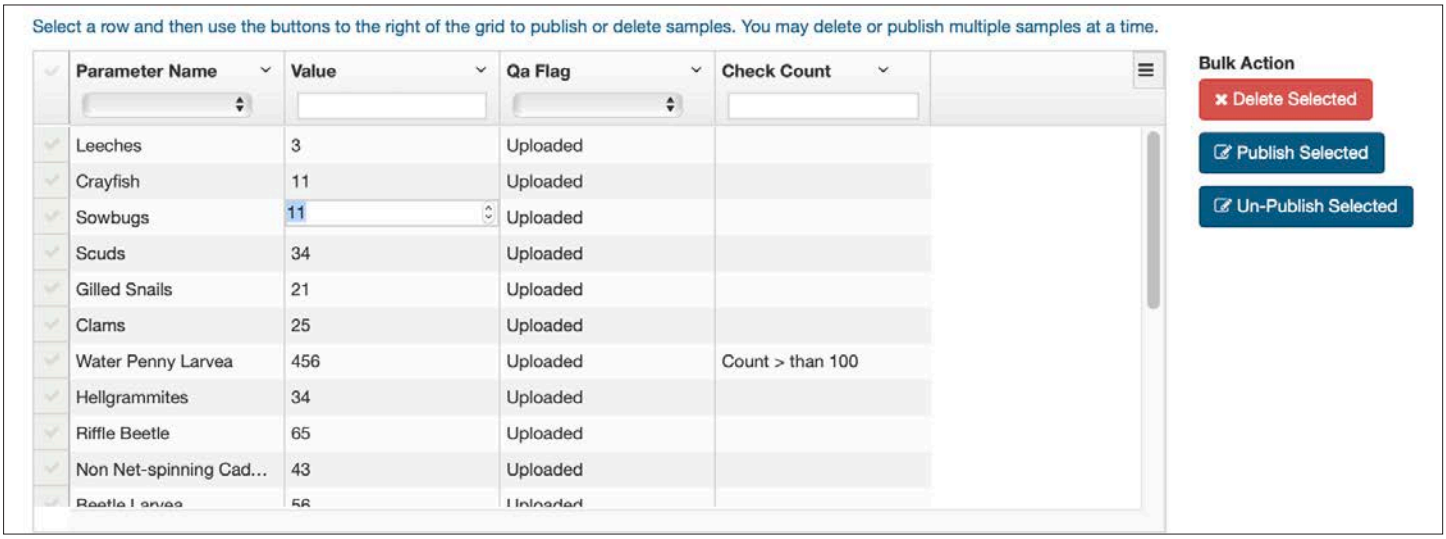
Step 4 - Click the ≡ button to access data download and table display options.



Step 5 - Click the check mark next to the sampling event you would like to edit. Arrayed out to the right of the station name and sampling time are the parameters for conditions during sampling. These values can be edited right in their respective cells in the table. Click your “Return” key on your keyboard to accept each edit. Click the “Publish Selected” Button to publish the selected event. Click the “Edit Selected Event’ button to edit the Macroinvertebrate data for this event.



Step 6 -Two tables will open on the page. The first table contains all of the tallies and the second contains the volunteer hours. Values can be edited by double-clicking. Make your edit, hit your return key, and the value will be updated. (Parameter Names cannot be changed, and Check Counts will automatically change when the value is over 100). You can publish individual values by clicking the check marks next each value and then clicking “Publish Selected” or you can double-click the Uploaded text in the “Qa Flag” column and change it to Published.



Appendix

Table 1 - Qualifiers

Code	Definition
<	Less than the Lower Method Detection Limit (MDL)
>	Greater than the Upper Method Detection Limit (MDL)
E	Estimated Value

Table 2 - Problem Codes

Code	Definition
A	Laboratory Accident
B	Chemical Matrix Interference
BB	Torn Filter Pad
C	Instrument Failure
D	Insufficient Sample
DD	Sample Size Not Reported (assumed)
E	Sample Received After Holding Time
FF	Poor Replication Between Pads, Mean reported
GG	Sample Analyzed After Holding Time
I	Suspect Value Has Been Verified Correct
J	Incorrect Sample Fraction For Analysis
JJ	Volume Filtered Not Recorded (assumed)
L	Licor Calibration of By >=10% Per Year. Use With Calc KD Where Prob of LU, LS, LB Exist In Raw
LB	Licor Calibration of By >=10% Per Year for Both Air and Upward Facing Sensors
LS	Licor Calibration of By >=10% Per Year for Air Sensor
LU	Licor Calibration of By >=10% Per Year for Upward Facing Sensor
MM	Over 20% of Sample Adhered to Pouch and Outside of Pad
NN	Particulates Found in Filtered Sample
P	Provisional Data
QQ	Part Exceeds Whole Value Yet Difference Is Within Analytical Precision
R	Sample Contaminated
RR	No Sample Received
SS	Sample Rejected, High Suspended Sediment Concentration
U	Matrix Problem resulting From the Internal relationship Between Variables such as pH and Ammonia
V	Sample Results Rejected Due To Bad Field Conditions
VV	Station Was Not Sampled Due To Bad Field Conditions
WW	High Optical Density (750nm); Actual Value Recorded
X	Sample Not Preserved Properly

Table 3 - Conditions for Water Quality Bulk Uploads

Code	Name	Categories
CC	Cloud Cover	Clear, Cloudy (no percentage), Foggy, Hazy, Overcast (>90%), Partially cloudy (10-50%), Partially cloudy (50-90%)
OC	Other Conditions	Bubbles, Dead Crabs, Dead Fish, Debris, Erosion, Foam, Ice, Odor, Oil Slick, SAV, Sea Nettles
OCMNTS	Other Comments	OPEN
R	Rainfall	OPEN
R48	Rainfall Within 48 Hours	OPEN
SF	Stream Flow	Dry (Negligible), High, Low, Normal
SS	Sea State	<1 Foot, <2 Feet, <3 Feet, <4 Feet, >4 Feet, Calm
TS	Tidal Stage	High, Incoming (Flood), Low, Outgoing (ebb)
WC	Water Color	Abnormal, Normal
WCD	Water Color Description	OPEN
WNDD	Wind Direction	E, ENE, ESE, N, NE, NNE, NNW, NW, S, SE, SSE, SSW, SW, VAR, W, WNW, WSW
WNDS	Wind Speed	>40 knots, 1-10 knots, 10-20 knots, 20-30 knots, 30-40 knots, Calm
WO	Water Odor	Earthy, Fishy, None, Other, Rotten Eggs, Sewage
WOD	Water Odor Description	OPEN
WS	Water Surfaces	Calm, Ripple, Waves, White Caps
WTHRCT	Weather Conditions Today	Drizzle, Fog/haze, Intermittent rain, Overcast, Partly cloudy, Rain, Snow, Sunny
WTHRCY	Weather Conditions Yesterday	Drizzle, Fog/haze, Intermittent rain, Overcast, Partly cloudy, Rain, Snow, Sunny
WTHRDBY	Weather Conditions Day Before Yesterday	Drizzle, Fog/haze, Intermittent rain, Overcast, Partly cloudy, Rain, Snow, Sunny

Table 4 - Conditions for Macroinvertebrate Bulk Uploads

Code	Name	Method	Categories
AC	Algae Color	IWLA	Brown Coated, Dark Green, Hairy, Light Green, Matted on Streambed, No Algae
ACNSTR	Active Construction	IWLA	High, Moderate, No Potential, Slight
AL	Algae Located	IWLA	Everywhere, In Spots, No Algae
AS.1	Area 1 Sampled	IWLA	OPEN
AS.2	Area 2 Sampled	IWLA	OPEN
AS.3	Area 3 Sampled	IWLA	OPEN
AS.4	Area 4 Sampled	IWLA	OPEN
AVDM	Aquatic Veg/Decaying Matter	both	OPEN
AVDMJ	Aquatic Veg/Decaying Matter Jabs	both	OPEN
BFM	Barriers To Fish Movement	IWLA	Beaver Dams, Man-made Dams, No Barriers, Waterfalls
BT	Bottom Type	IWLA	Muddy, Rocky
C	Cropland	IWLA	High, Moderate, No Potential, Slight
CT.1	Collection Time (Net 1)	IWLA	20, 21-89, 90
CT.2	Collection Time (Net 2)	IWLA	20, 21-89, 90
CT.3	Collection Time (Net 3)	IWLA	20, 21-89, 90
CT.4	Collection Time (Net 4)	IWLA	20, 21-89, 90
CW	Channel Width	IWLA	OPEN
DATL	Describe the Amount and Type of Litter	IWLA	OPEN
DOBC	Define Other Bank Composition	IWLA	OPEN
DOLU	Define Other Land Use	IWLA	OPEN
DOO	Define Other Organism	both	OPEN
DP	Discharge Pipes	IWLA	OPEN
F	Forest	IWLA	High, Moderate, No Potential, Slight
FLDS	Fields	IWLA	High, Moderate, No Potential, Slight
FWQI	Fish Water Quality Indicators	IWLA	Bass, Carp, Catfish, No Fish, Scattered Individuals, Scattered Schools, Trout
HD	Housing Development	IWLA	High, Moderate, No Potential, Slight
ICPT	Indicate Current and Potential Threats	IWLA	OPEN
L	Logging	IWLA	High, Moderate, No Potential, Slight
LP	Livestock Pasture	IWLA	High, Moderate, No Potential, Slight

Table 4 continued

Code	Name	Method	Categories
M	Mining	IWLA	High, Moderate, No Potential, Slight
NDP	Number of Discharge Pipes	IWLA	OPEN
NS	Number of Squirts	IWLA	OPEN
O	Odor	IWLA	Musky, No Odor, Oil, Other, Sewage
OGD	Oil and Gas Drilling	IWLA	High, Moderate, No Potential, Slight
OLU	Other Land Use	IWLA	High, Moderate, No Potential, Slight
P	Precipitation	ALLARM	Drizzle, None, Rain
PA	Percent Algae	IWLA	OPEN
PB	Percent Boulders	IWLA	OPEN
PBS	Percent Bare Soil	IWLA	OPEN
PC	Percent Cobbles	IWLA	OPEN
PG	Percent Grass	IWLA	OPEN
PGRVL	Percent Gravel	IWLA	OPEN
PO	Percent Other	IWLA	OPEN
PR	Percent Rocks	IWLA	OPEN
PS	Percent Shrubs	IWLA	OPEN
PSLT	Percent Silt	IWLA	OPEN
PSND	Percent Sand	IWLA	OPEN
PT	Percent Trees	IWLA	OPEN
SBD	Stream Bed Deposit	IWLA	Black, Brown, Gray, Orange Red, Other, Sand, Silt, Yellow
SCE	Stream Channel Erosion	IWLA	High, Moderate, None, Severe, Slight
SCS	Stream Channel Shade	IWLA	Full, High, Moderate, None, Slight
SF	Stream Flow	IWLA	High, Low, Negligible, Normal
SL	Snags/Logs	both	OPEN
SLF	Sanitary Landfill	IWLA	High, Moderate, No Potential, Slight
SLJ	Snags/Logs Jabs	both	OPEN
SOS	Stability of Stream	IWLA	A Few Spots, Many Spots, No Spots
SSG	Silt/Sand/Gravel	both	OPEN
SSGJ	Silt/Sand/Gravel Jabs	both	OPEN
SWA	Surface Water Appearance	IWLA	Black, Clear, Clear But Tea-Colored, Colored Sheen, Foamy, Gray, Milky, Muddy, Other
TC	Type of Cropland	IWLA	OPEN
TD	Trash Dump	IWLA	High, Moderate, No Potential, Slight
TM	Type of Mining	IWLA	OPEN
TP	Type of Pipes	IWLA	OPEN
UU	Urban Uses	IWLA	High, Moderate, No Potential, Slight
V	Vegetated	both	OPEN
VJ	Vegetated Jabs	both	OPEN
W72	Weather Last 72 Hours	IWLA	OPEN
WC	Weather Conditions	both	Fog/Haze, Overcast, Partly Cloudy, Sunny

Table 5 - Possible water quality upload error codes and solutions.

Error Code	Solution
The row at line X is invalid. Please check the data file submitted. This row could not be parsed.	Check the format of the row at line X for errors.
The row at line X is invalid. Please check the data file submitted. This row should have 12 columns, but this row has less than 12.	Check that there are 12 columns in row X. If there are 12 columns, check for a new line or return characters and remove from any fields in this row.
The row at line X is invalid. Please check the data file submitted. This row should have 12 columns, but this row has more than 12. This can often happen if commas are included in the one of the fields.	Check that there are 12 columns in row X. If there are 12 columns, check for comma's and either remove the commas or surround the field in double quotes.
The source code for row X does not have a matching Group in the database.	Check the group code in Column A at row X, it should match your associated group code from the database.
The station code for row X does not have a matching Station in the database.	Check the station code in Column B at row X, it should match a station code associated with your group in the database.
The Sample Date value for row X is invalid.	Check the date format in Column C at row X is in the correct format, m/d/yyyy.
The datetime and station provided in row X has already been added to the database.	Please check the data file submitted or delete the existing event in the database prior to uploading.
The sample depth provided in row X is invalid. The value could not be converted to a decimal and the value is not null.	Check the sample depth value in Column E provide at row X is numeric.
The sample depth provided in row X is null. However, the associated parameter requires a sample depth.	Check the sample depth value in Column E provided at row X. All rows that contain "WaterQuality" in Column G must contain a sample depth. Either enter a sample depth or change Column G.
The sample depth provided in row X is not equal to a valid surface sample depth (.3, .5, or 1). The associated parameter is a surface sample parameter and requires a valid surface sample depth.	The sample depth in Column E must be either 0.3, 0.5, or 1.0 for this parameter.
The sample id provided in row X is invalid. The value could not be converted to an integer.	Please check the Sample Id in Column F at row X, the column should contain either "1" for a single sample or "2" for a duplicate sample.
The parameter type provided in row X is unknown.	Check that Column G provides one of the following values - WaterQuality, Monitor, Condition. Also check for any extra spaces at the end of the string.

Table 5 continued

The sample value and problem code provided in row X are both null. You cannot upload a null value without an associated problem code.	Check the value in Column I at line X. Delete the row or select a problem code if there was no sample taken.
The value provided in row X is lower than the lower range check for this parameter.	Check the value in Column I at row X.
The value provided in row X is higher than the upper range check for this parameter.	Check the value in Column I at row X.
The water quality sample provided in row X has already been added to the database.	The water quality sample for this sampling event already exists in the database. Remove the water quality sample from the spreadsheet or delete the existing sample in the database prior to uploading.
The condition code X provided in row X does not match a condition in the database.	Revise the code in Column H in row X to match a condition code from Table X.
The condition value provided in row X is invalid. The value provided for the condition cannot be null.	Delete this row if null or add a valid condition value in Column I of row X.
The condition value provided in row X is invalid. The value provided for the condition in this row is not a valid category.	Revise the condition value in Column I of row X to match a condition value in the database. View condition values in Table X.
The condition provided in row X is invalid. This condition already exists in the database.	The condition for this sampling event already exists in the database. Remove this condition from this sampling event on the spreadsheet or delete the condition from this sampling event in the database prior to uploading.
You have reached the maximum 200 errors. There may be more errors associated with this file.	Correct indicated errors and resubmit data to view additional errors.

Table 6 - Possible benthic macroinvertebrate upload error codes and solutions

Error Code	**Solution**
The row at line X is invalid. Please check the data file submitted. This row could not be parsed.	Check the format of this row for errors.
The row at line X is invalid. Please check the data file submitted. This row should have 8 columns, but this row has more than 8.	Check that there are 8 columns in row X. If there are 8 columns, check the row for comma's and either remove the commas or surround the field in double quotes.
The row at line X is invalid. Please check the data file submitted. This row should have 8 columns, but this row has less than 8.	Check that there are 8 columns in row X. If there are 8 columns, check the row for a new line or return character and remove from any fields in this row.
The Sampling Event for X is missing a bottom type condition. This is required for all groups that follow Izaac Walton League's benthic methodology.	Include a bottom type condition in Column X.
The group code provided in row X is invalid.	Check the group code in Column A at row X, it should match your associated group code from the database.
The station code provided in row X is invalid.	Check the station code in Column B at row X, it should match a station code associated with your group in the database.
The date/time provided in row X is invalid. The date pattern should be 'm/d/yyyy' and the time pattern should be 'hh:mm:ss' or 'h:mm:ss tt'.	Please check the date and format, set the date format to m/d/yyyy and time to hh:mm:ss.
The date/time and station provided in row X has already been added to the database.	The datetime and station for this sampling event already exists in the database. Remove the date-time and station from the spreadsheet or delete the existing event in the database prior to upload-ing.
Unable to create or find the event. The row at line X is invalid.	Verify the data at row X.
The sample value provided in row X is invalid. The value could not be parsed to a decimal and is not null.	Check the sample value in Column X at row X is numeric.
The parameter code provided in row X does not match a parameter code in the database.	Revise the code in Column X in row X to match a parameter code in the database. View condition codes in Table X.

Table 6 continued

The benthic sample provided in row X has already been added to the database.	Please check the data file submitted or delete the existing sample in the database prior to uploading.
The benthic condition code, X provided in row X does not match a benthic condition in the database.	Please check the data file submitted. To resolve, revise the code in column 'ParameterName' in this row to match a benthic condition code in the database.
The benthic condition value provided in row X is invalid. The value provided for the benthic condition cannot be null.	To resolve, either delete this row or add a valid benthic condition category.
The benthic condition value provided in row X is invalid. The value provided for the benthic condition in this row is not a valid category.	To resolve, either delete this row or add a valid benthic condition category.
The benthic condition provided in row X is invalid. This benthic condition already exists in the database.	Consider deleting the benthic condition prior to upload.

Table 7 - Possible station upload error codes and solutions

Error Code	Solution
The row at line X is invalid. Please check the data file submitted. This row should have 6 columns/ fields, but this row has less than 6. This can often happen if there are return characters in one of the fields.	Remove any return or new line characters from each field in row X. Also check that there are only 6 columns.
The station latitude provided in row X is invalid. Unable to convert to number.	Check the latitude at row X is numeric.
The station latitude provided in row X is invalid. The latitude must contain at least 4 decimal places.	Check the latitude at row X contains at least 4 decimal places.
The station longitude provided in row X is invalid.	Check the longitude at row X is numeric.
The station longitude provided in row X is invalid. The longitude must contain at least 4 decimal places.	Check the longitude at row X contains at least 4 decimals places.
The station code provided in row X matches a station that already exists in the database.	Remove this station from the spreadsheet or create a different station code if it is a different station.
The group code identified before the '.' in the Name column in row X does not match a group code in the database.	Check the group code in Column A in row X matches your group code.

Table 8 - Possible user upload error codes and solutions

Error Code	Solution
The row at line X is invalid. Please check the data file submitted. This row should have 4 columns/ fields, but this row has less than 4.	Check that row X has 4 columns. If it has 4 columns, check for return or new line characeters and remove from each field in the row.
The row at line X is invalid. Please check the data file submitted. This row should have 4 columns/ fields, but this row has greater than 4. This can often happen if commas are included in the one of the fields.	Check that row X has 4 columns. If it has 4 columns, check for comma's and either remove the commas or surround the field in double quotes.
The username at line X is already taken.	This user already exists for this group, change the name to something unique.