

MAPPING A LOCAL STREAM SITE AND ITS DATA

Local Stream Site Requirements

Your *Local Stream Site* must be located in the Chesapeake Bay Watershed in order to use the Chesapeake FieldScope online mapping tool.

Your *Local Stream Site* should be on a second or third order stream (i.e. two or four streams should flow together upstream of the site). This makes it easier and more interesting for students to delineate its watershed while still providing a site where students can safely sample the middle of the stream (i.e. not a large river). On the other hand, the stream network for your *Local Stream Site* (i.e., all the streams that flow downhill to your stream site) should not be too large. Students should be able to see and draw the entire network. To confirm your proposed stream site meets these requirements, create a map (see *Creating a FieldScope Map* Steps 1-4 and 7) and use the search tool (magnifying glass) to search for and zoom to a known address near your stream site. If it doesn't meet these requirements, look for another stream site near your ideal location. You may change the basemap to *Street Map* to see the names of streets in the area.

Lastly, you will also need to consider logistical issues like permission to access this site.

Adding Proposed Local Stream Site (“Station”) to FieldScope on a Computer

1. Go to <http://chesapeake.fieldscope.org/v3> and **Login**. If you do not have a FieldScope account, in the Log In to FieldScope window, click the **New to FieldScope? Click Here to Register** link. Complete the registration form, and click **Register**. Once National Geographic accepts your application, they will send to you a confirmation email. If you do not see an email from FieldScope in your Inbox within two business days, please check your junk mail folder. Open the message, and then click your mouse on the link in it as directed to activate your account.
2. Click on the **Enter Data** tab at the top of the page. When the **Learn to Enter Data** window pops up, just select the appropriate response.
3. Add your site – referred to as a “station” – to the map by clicking on the **Create New Station** tab. In the **Name:** box.
 - Type a descriptive name for this station (e.g., *Sand Spring near Mountain Ridge HS*).
 - Select **Click on a point in the map at the right**; and then zoom and pan to find your stream site on that map, and click on the map at that location. You may need to use the search tool (magnifying glass) to search for and zoom to a known address near your stream site.
 - If you would like to add a photo of your stream site, click the **Add Photo...** button, navigate to the photo, open it, provide a title and description, and then **Save** it.
 - Click the **Save Station** button; you will receive a notification that your data is saved, and you may opt to save an image of the data form for your files if you wish (not required).

Adding Proposed Local Stream Site (“Station”) to FieldScope on a Hand-held Device

1. To add your proposed local stream site to FieldScope using a smartphone, iPad or tablet, first download to your hand-held device the *FieldScope Data Collector* application from the appropriate application store.
2. Launch the application, and then click on the project to which you would like to add observation data; for this unit, select the **Chesapeake Water Quality** project.
3. Select the study within the project to which you would to add observation data; for this unit, select the **Water Quality** study.
4. On the *Data Collector* page, select **Add Location**.
5. Enter the name, latitude and longitude of your location; you may select **Use Current Location** (device’s GPS capability must be enabled).
6. Click **Save**. If you have a wireless internet connection, click **Transmit to FieldScope**. If you do not, you can select **Transmit to FieldScope** from the *Data Collector* page later when you do have a wireless internet connection.

Adding Local Stream Site (“Station”) Observation Data to FieldScope on a Computer

1. To add stream observation data to your mapped local stream site using a computer, return to FieldScope, go to the **Enter Data** tab, click on **Select Existing Station** and use **Select from a list of my stations** to locate and select your station.
2. Click the **Next >** button to **Enter Observations** data. Use the pull-down menus and text boxes to complete the form with data for all of the observations you recorded (i.e., *Field Notes, Atmospheric, Physical, Chemical, Macroinvertebrates, Riffle Composition, and Stream Bank Composition* data); leave blank any observations you did not make. For the macroinvertebrates, click in the box next to each one you found, then enter the quantity found. After you have completed the form, click on the **Save** button.
3. If you cannot enter all of your station’s observation data at one time or if you need to edit data you have entered, return to your station in the **Enter Data** tab, click on the desired **Observation Date** in the window at the right to auto-fill the data form with the last data you entered, edit as desired, and then click **Save**.
4. To update your station’s observation data (which you should do every year or so), create a new record. To do this, follow the steps for editing data, except do NOT select a previous **Observation Date**. Instead simply select your station, complete the data form and **Save it**.

Adding, Viewing and Editing Local Stream Site (“Station”) Observation Data to FieldScope on a Hand-held Device

1. To add stream observation data to your mapped local stream site using a smartphone, iPad or tablet, first – if you have not already done so – download to your hand-held device the *FieldScope Data Collector* application from the appropriate application store.
2. Launch the application, and then click on the project to which you would like to add observation data; for this unit, select the **Chesapeake Water Quality** project.
3. Select the study within the project to which you would to add observation data; for this unit, select the **Water Quality** study.
4. On the *Data Collector* page, select **Add Observation** or **View Or Edit Observation**, as desired.
5. Find your stream site location by one of the following methods, and then click on it:
 - Select **Use Current Location** (device’s GPS capability must be enabled).
 - Select **Add New Location**, and then add the name and latitude and longitude for your location and click **Save**.
 - Select **Select Radius** [from current location], enter a radius, then select desired site from list.
 - Scroll through the list of sites to yours.
6. Add, view or edit your data, and then click **Save** if editing or adding new data. If you have a wireless internet connection, click **Transmit to FieldScope**. If you do not, you can select **Transmit to FieldScope** from the *Data Collector* page later when you do have a wireless internet connection.