

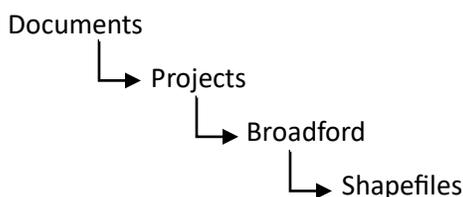


How to use StreamStats for Creating Watershed Shapefiles For use with the Maryland Dam Safety's "PMP Evaluation Tool"

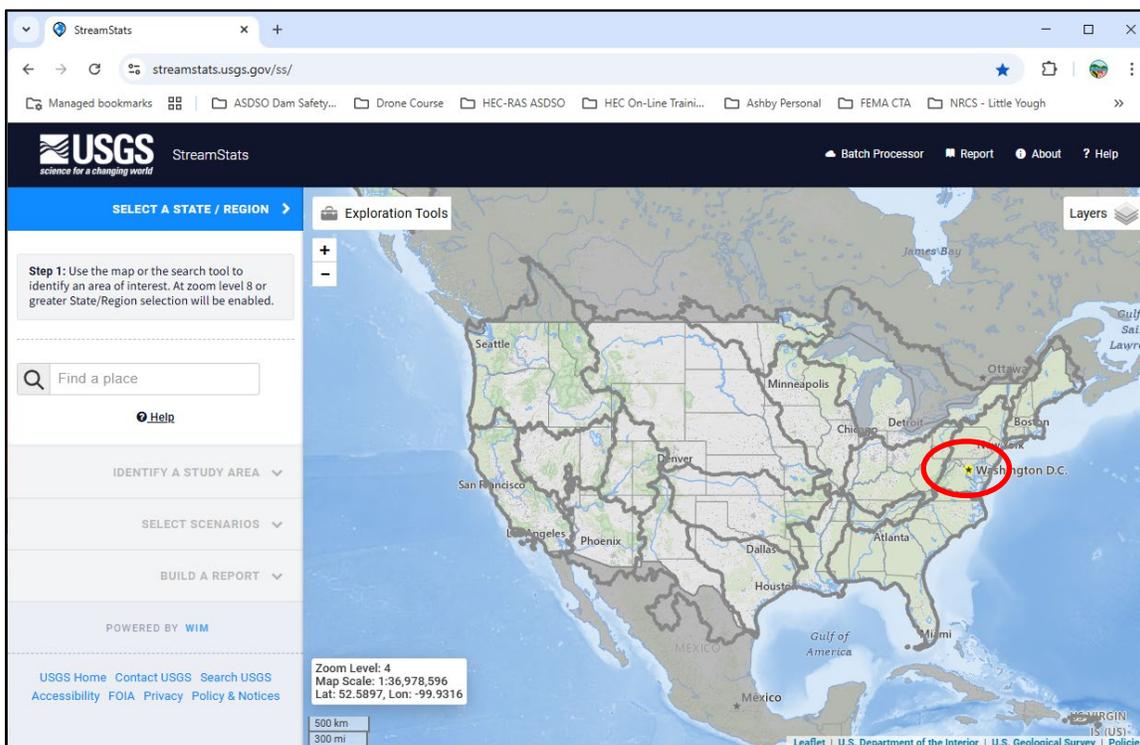
March 2025

This tutorial is prepared to assist in creating watershed shapefiles that can then be used with the ArcGIS Pro based Maryland PMP Evaluation Tool. Note that StreamStats is not a precise watershed tool, but it is an acceptable application in determining the regional characteristics that are used in determining PMP.

1. Create a project folder where the final shapefiles that are generated by StreamStats will be saved. This example will look at a flood control/water supply dam in Western Maryland near the Town of Oakland, called Broadford Lake. The chosen file structure does not need to follow this example.

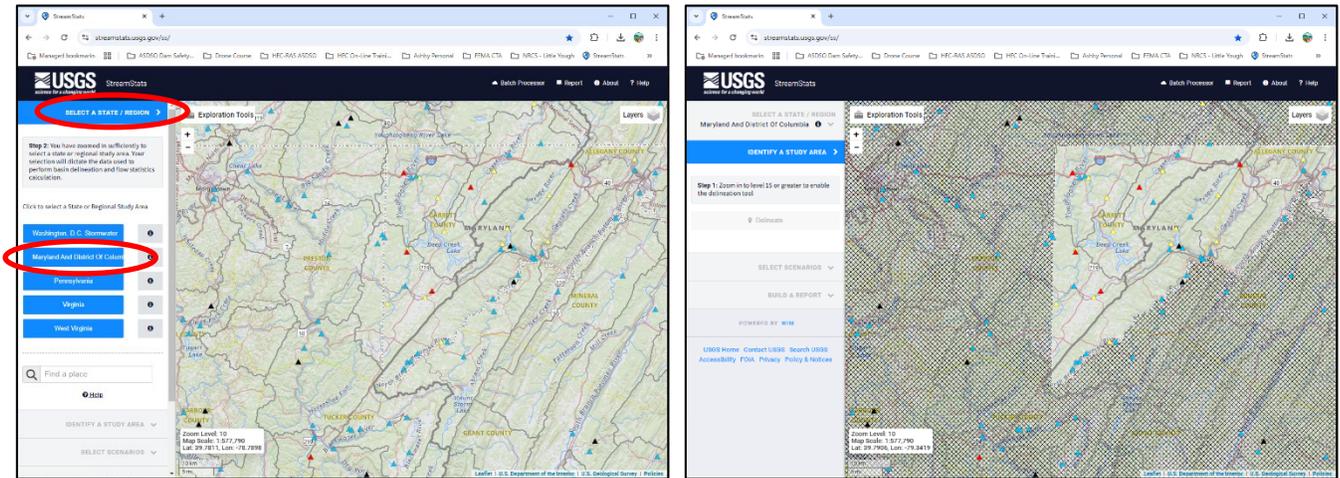


2. Launch USGS StreamStats (<https://streamstats.usgs.gov/ss/>)

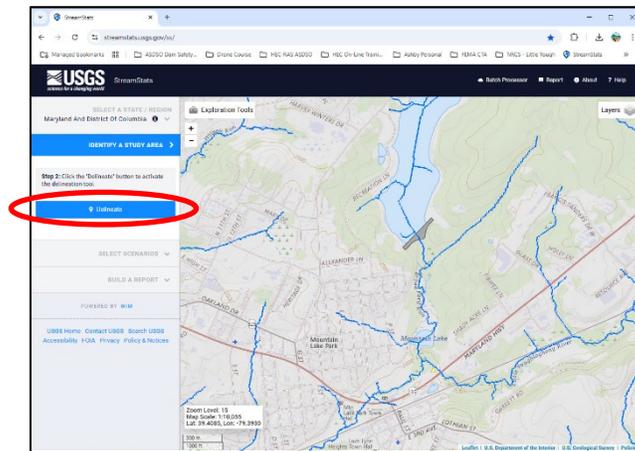


3. Enter a "Place" in the search box or scroll into the location of the project. In this example, to get to Western Maryland, double click near Washington, DC then scroll in from there.

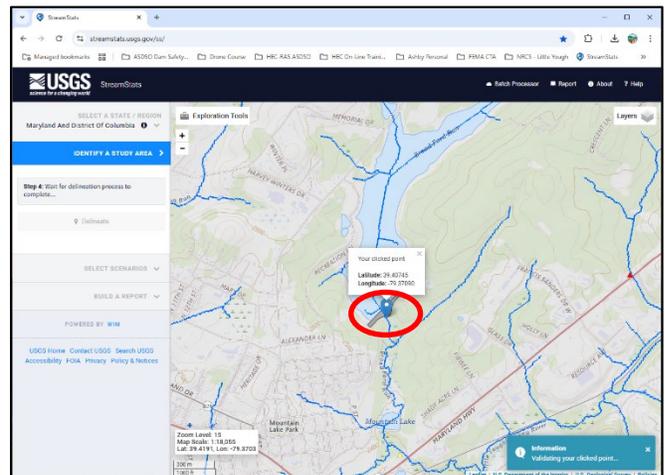
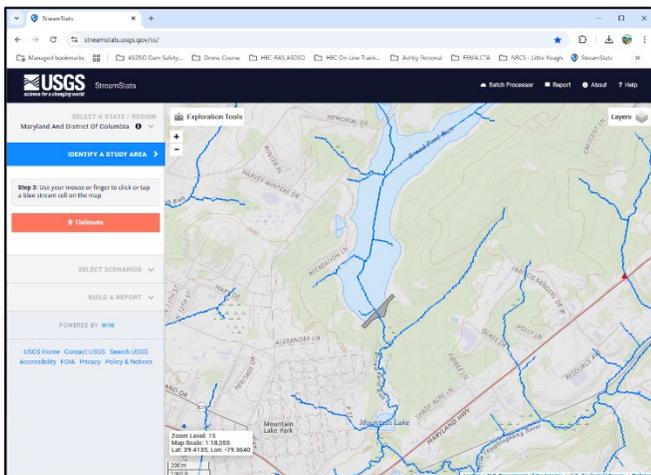
- Once near the watershed area, select the **“State / Region”** along the left side of the screen which in this example is **“Maryland And District of Columbia”**.



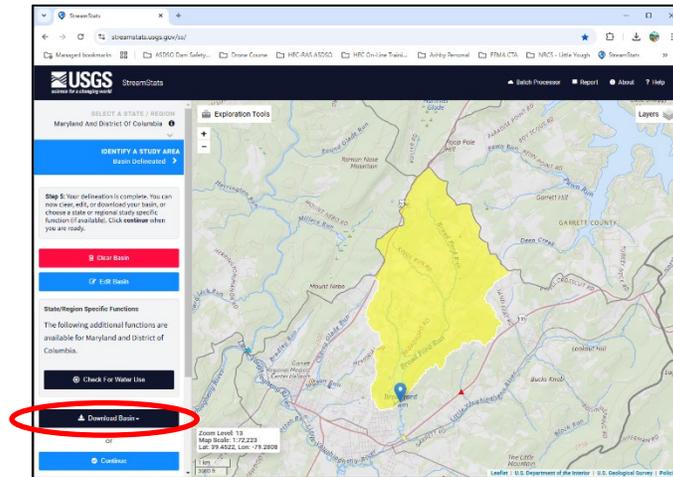
- Zoom in tighter to your area of interest to enable the delineation tool. The blue squares indicate the stream cell locations. Once those squares appear, you may then delineate the watershed.



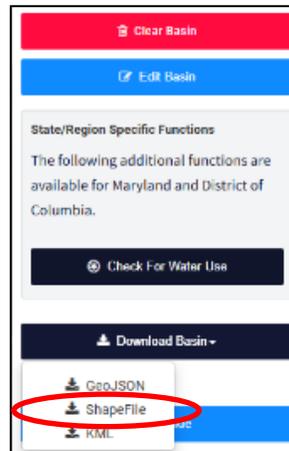
- (a.) Select the **Delineate** bar on the left of the screen. (b.) Once that button turns orange, click on a blue stream square at the desired watershed study location. A message will appear if the selected point is a valid stream location. The processor will then delineate the watershed. This may take some time.



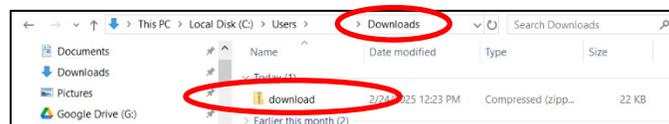
- Once the delineation is complete, the watershed will show on the screen.



- If the watershed is not as expected, select “Clear Basin” and try again. You can also “Continue” to have StreamStats develop its own runoff information about the basin. The “Continue” button will also have other variables that can be used for its analysis.
- For the purposes of this tutorial, only the watershed shape files are needed. (a.) Select “Download Basin”. Various choices will be given for file types: GeoJSON, Shapefile and KML. (b.) Select “Shapefile”.



- A zip file named “download” will be placed in your computers “Downloads” folder. You may now extract those files into your “Shapefiles” directory that you created under your project name that you first created.



- In that Shapefile directory will be a “layers” folder. In that folder will be several files with the name “globalwatershed” and “globalwatershedpoint”. The “globalwatershed” files are the watershed shapefiles that can now be used with the ArcGIS Pro based Maryland PMP Evaluation Tool.

