Online Map Tool: USGS National Water Dashboard

This online map tool provides the users real time information in three areas: river flow data (gauges), weather conditions, and hydrology. For the purpose of the Karst and Watershed Project, use is focused on watersheds (basins) and aquifers, both are in the hydrology layers, and on gauging station information in the USGS stations layer.

NOTE: Layers appear at different scales when you zoom in and out of map. Be aware that a layer may take a while to become visible. If layers do not ever become visible, try to zoom in or out. Keep in mind internet speeds affect loading times. You may need to refresh or clear map and start over.

Getting Loaded:

- Browser search for the **USGS National Water Dashboard** (USGS – United States Geological Survey).
- X out of any pop-up boxes in center of webpage.
- On the top right, click on the **OVERVIEW ICON** and read the section. Then close that box. The map oftentimes pops up with USGS gauging stations. Click that layer OFF for now if the dots are everywhere.
- Click on the **LAYERS ICON** on the top right. There are four major layers: **USGS Stations, Weather Conditions, Hydrology, and Base Maps.**

Hydrology Layer:

- Click **Hydrology Layer** on right. Three sublayers will drop down: **Rivers, Watersheds and Aquifers.**
- Click on the "ON" button to turn on each layer. Observe how the US map changes as you add each layer.
- Once all three of these layers are on, click X to close LAYERS ICON. The watersheds layer shows major watersheds, also called basins.
- **Click on the LEGEND ICON.** Read about each of these three hydrology sublayers. *You will have to scroll up and down to read about all three layers*. Potable water means usable for humans. Note the type of aquifer rocks that make up the Missouri Ozarks and other regions of the USA.

Missouri Location Feature:

- Close out of LEGEND ICON. Leave the Hydrology sublayers on (rivers, watersheds, and aquifers).
- Go to the top left margin. Find the **YOUR LOCATION ICON.** It is a human figure in a circle. Click on that icon. The map will center on your location with a blue pulsing dot.
- Go back to the left margin and find the **MAP LOCATION ICON.** It looks like a partly folded map. When you cross over it a box pops up that says, "*select an area of interest."* Click on this icon and a box will pop up. Inside the box, choose *"click on a*

US State." Click on the outline of Missouri and it will then be highlighted and centered on your screen.

- Drag the map so you can see Arkansas and Missouri together. Note how all of the south-central Missouri Ozarks is part of a larger basin (White River) which flows into the Black River and eventually into the Mississippi River.

USGS Stations Layer:

- Drag the map so it is centered back to Missouri on your screen.
- **Click on LAYER ICON. Click USGS Gauging Stations Layer.** Seven sublayers will pop up. Turn on the first sublayer called **Stream Flow.** Stream flow gauges will pop up as colored dots. Each dot represents a different stream flow level (above normal, normal, etc.). Click on the legend icon to examine the legend colors codes on the right, see map patterns where conditions are wet, dry, etc. Each dot is a different river gauge operated by the USGS and the color represents general river levels in real time.
- Return to the left margin and click on the + icon to zoom until the south-central Missouri Ozarks is mainly visible. Use that watershed (basin) boundary and the Arkansas border to help you. Drag your screen as needed.
- Move your curser over dots to see what river and gauge levels are for various locations.
- Click on any colored dot to see a graph of river discharges over recent dates. Precipitation and temperature is also included.
- View other layers and sublayers as desired.