Tennessee Watershed Address & Watershed Word Cloud Activity

This teaching resource is intended for Tennessee Extension Agents, teachers, and other educators for adult and youth education (recommended middle and high school).

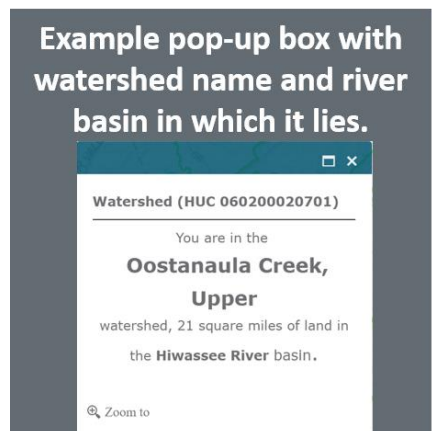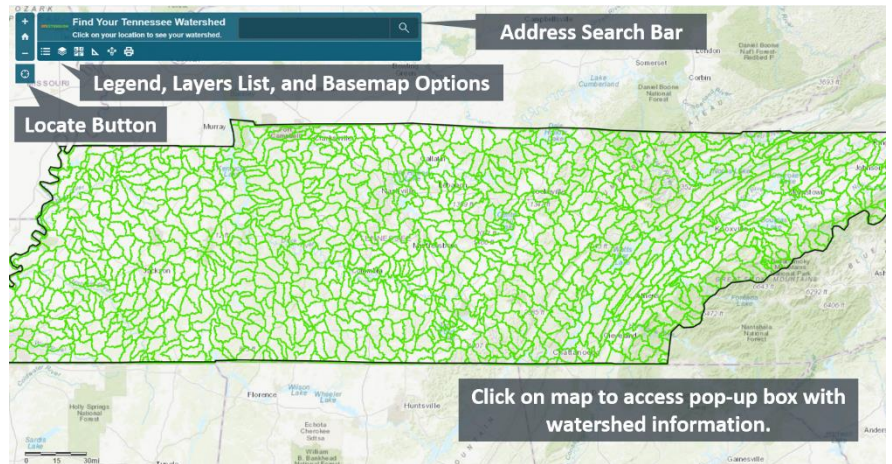The objectives in creating this resource were to:
- Create a ready-made resource for use in Extension programs, classrooms, and self-guided learning to provide education on watersheds and hydrology concepts.
- Provide a web-based tool for learners to discover information about local watersheds and major river basins in Tennessee.
- Share an interactive activity to engage learners in sharing their new knowledge.

Resources:
- Tennessee Watersheds Web Map App – tiny.utk.edu/watersheds
- Tennessee Smart Yards example – utia.tennessee.edu/tnyards/what-is-a-watershed
- Word cloud-generating application.
   o Example websites: wordle.net/create, wordart.com
   o Example applications: mentimeter.com polleverywhere.com (free options)

Using the Tennessee Watershed Web Map App:
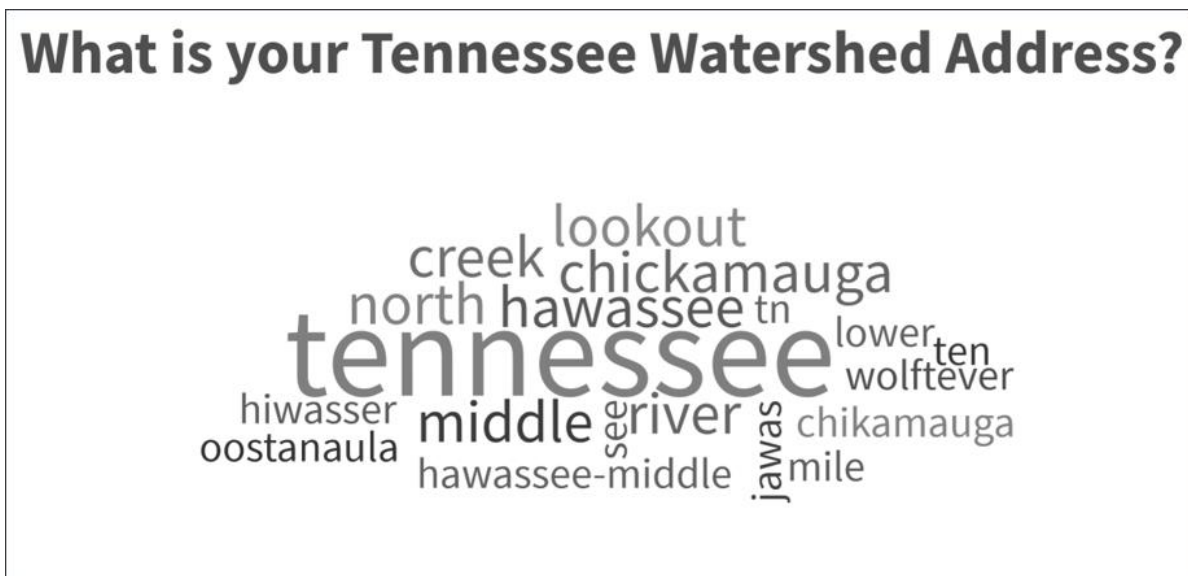1. Access the site: tiny.utk.edu/watersheds
2. Find the location of interest.
   a. Type the physical address in the search bar and hit enter, zoom out as needed to see landmarks.
   b. Use the locate button if location sharing is activated on the device.
   c. Use the zoom features with a mouse or touchscreen device.

3. Click on the map at the location of interest to access a pop-up box.
4. Read the watershed name and river basin in which it lies.
   a. Much like a physical address has a city and state, locations in the landscape are in a watershed and river basin and have a watershed address. Example comparison:
      i. Physical Address - Knoxville, Tennessee
      ii. Watershed Address - Third Creek, Upper Tennessee River Basin.
   b. If the watershed and river basin name are the same, then that indicates the location is relatively close to a large river. Drainage from that area flows into the larger river instead of first into a smaller creek and then the river.

Example pop-up box with watershed name and river basin in which it lies.

Watershed (HUC 060200020701)

You are in the

Oostanaula Creek, Upper

watershed, 21 square miles of land in the **Hiwassee River** basin.

Zoom to

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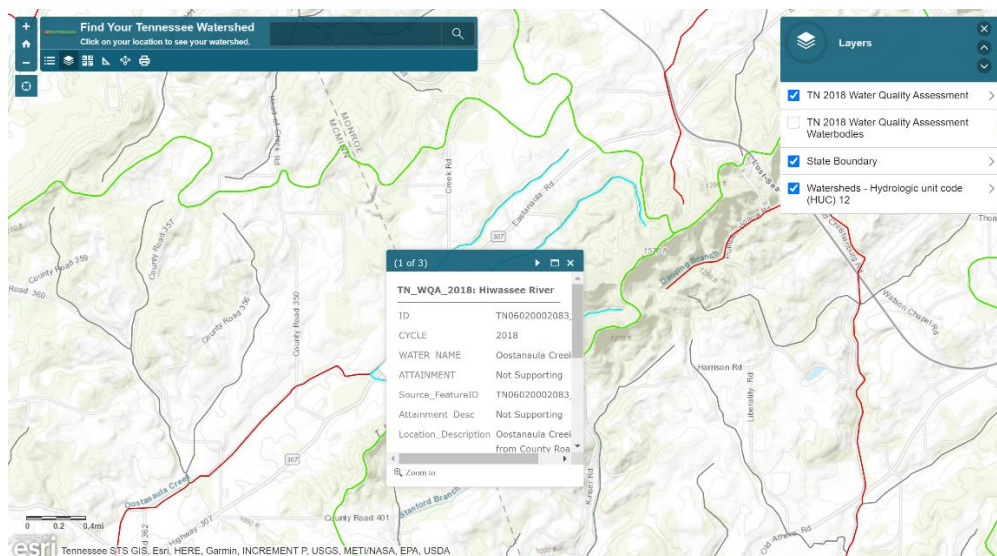**Creating a Watershed Word Cloud with your Small Group**:

A word cloud is a fun and informative way to display watershed and river basin names. A word cloud is a collection of words where font size relates to frequency or importance – the more frequent a word occurs, the larger the font size. When members of a group share their watershed and river basin names in a word cloud, the smaller watersheds will generally be entered less frequently than the larger river basin in which they are nested. Use a word cloud generator to facilitate this activity. Some available resources include:

1. If groups that can submit responses individually via text or a website, then an interactive poll can be created with online applications (like Mentimeter or Poll Everywhere) and embedded into a powerpoint presentation or displayed in a browser. Free accounts may have limited responses. This creates a dynamic word cloud that repopulates with each entry.
2. Alternatively, collect all watershed and river basin names and type into a word cloud generator, like wordart.com or wordle.net/create. This will generate a static word cloud using all entries. Be sure to include duplicate names to ensure the font size varies with frequency.

Investigating Water Quality in your Community:

When zoomed into the scale of local watersheds, a layer can be made visible that displays the Tennessee 2018 Water Quality Assessment for Waterways and Waterbodies published by the Tennessee Department of Environment and Conservation. Turn on the layer to discover the status of waterways in your community.

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What's Your Tennessee Watershed Address?

Activity Worksheet

Activity Website: **https://tiny.utk.edu/watersheds**

1. What is your physical address (to be entered in search bar)?

   Street: _____

   City, State: _____

2. What is your ***Watershed Address***?

   Watershed Name: _____

   River Basin Name: _____

   Creek Name, River Basin Name: _____

3. What are some of the other watershed addresses from the group? List names below.

Local Creek Watersheds	River Basins

4. What is the water quality assessment for the creek or river nearest your home and for those throughout your community? List the waterbody names in the status below.

Fully Supporting	Not Supporting	Not Assessed

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