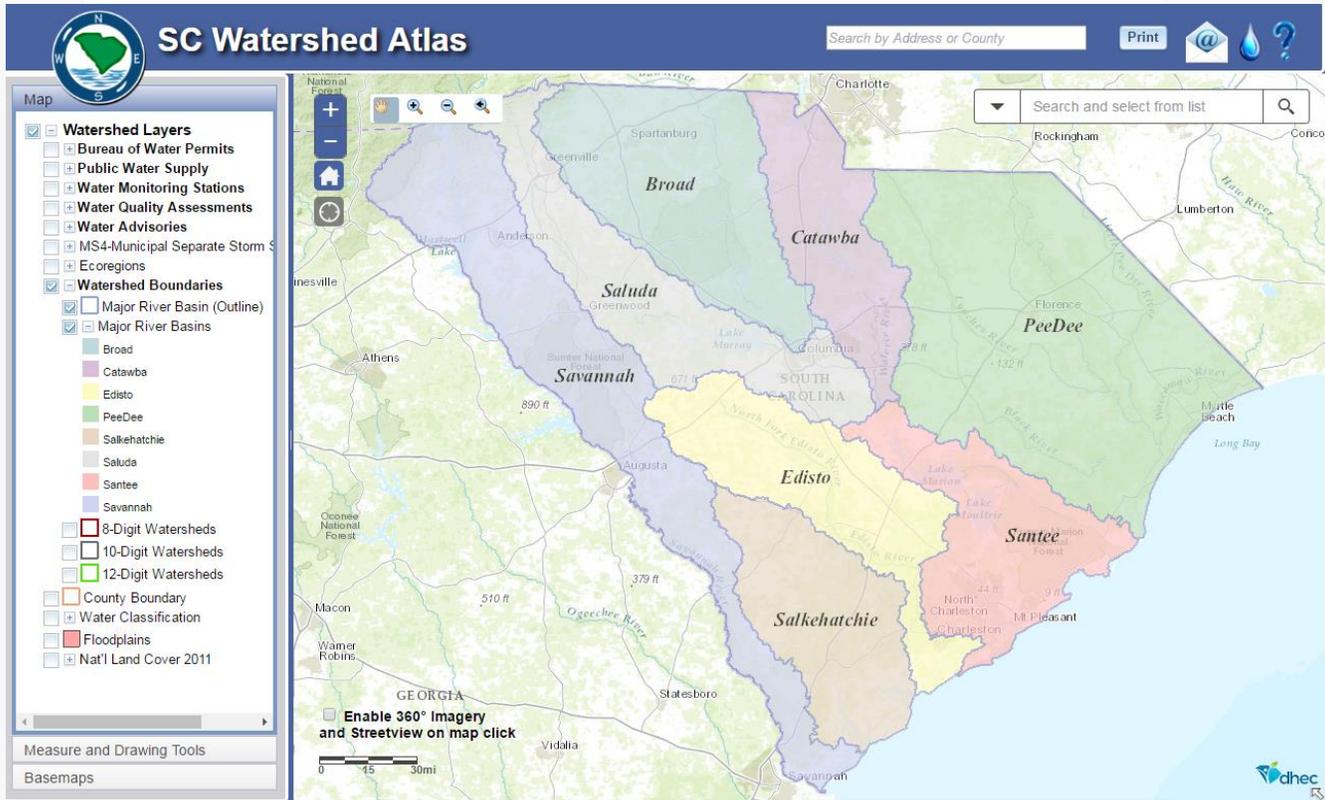




South Carolina Watershed Atlas Online Help



Disclaimer

The South Carolina Department of Health and Environmental Control (SCDHEC) maintains this website/application as a service to the public. While SCDHEC makes every effort to provide accurate and complete information, data may change prior to updating. SCDHEC provides no warranty, expressed or implied, as to the accuracy, reliability or completeness of furnished data.

Rest Services:

The state web based services can be incorporated into GIS desktop or application by adding:
https://gis.dhec.sc.gov/arcgis/rest/services/environment/Watershed_Atlas/MapServer.

Please note: This link is for clients who can consume Web Mapping Services (WMS).

Map Table of Contents

- Watershed Layers**
- Bureau of Water Permits**
- Public Water Supply**
- Water Monitoring Stations**
- Water Quality Assessments**
- Water Advisories**
- MS4-Municipal Separate Storm Sewer System**
- Ecoregions**
- Watershed Boundaries**
- County Boundary**
- Water Classification**
- National Wetland Inventory**
- Floodplains**
- County Parcels**
- Nat'l Land Cover 2011**

TO DRAW INDIVIDUAL LAYERS

Click on the "+" to see all the layers associated with a category.

Check the individual layers of interest to display on the map.

Uncheck the individual layers to turn off.

TO DRAW ALL LAYERS UNDER A CATEGORY

If the "check box" at the category level is checked before expanding, all the layers under the category will be drawn.

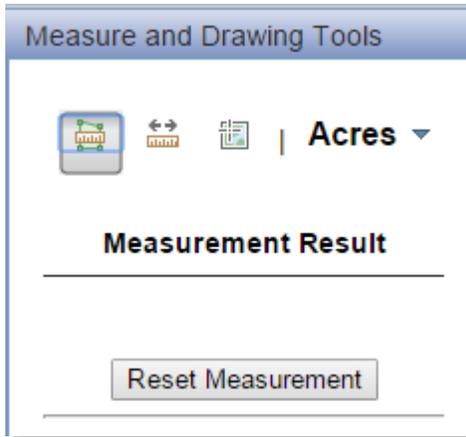
Uncheck the category level to turn them all off or uncheck individual layers.

This screenshot shows the 'Watershed Layers' category expanded. The 'Bureau of Water Permits' sub-category is also expanded, showing individual layers like 'NPDES Discharges', 'Land Applications-Provisional', 'Mines', 'Livestock Operations', 'Natural Swimming Areas', 'Marinas', 'State Regulated Dams', 'Surface Water Withdrawals', 'Agriculture Irrigation Registrations', 'Navigable Waters Permits', 'NationWide Permits', and '401 Certifications'. The 'Public Water Supply' sub-category is also visible. A bracket on the right labels this as 'Category Layers'.

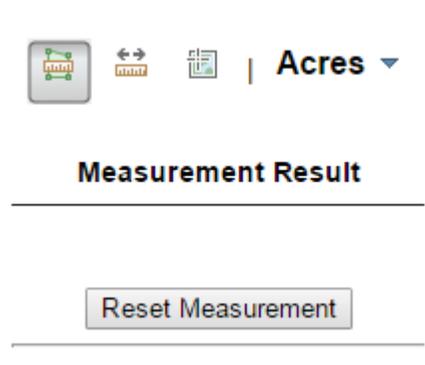
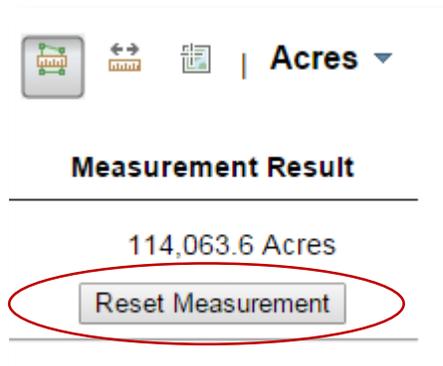
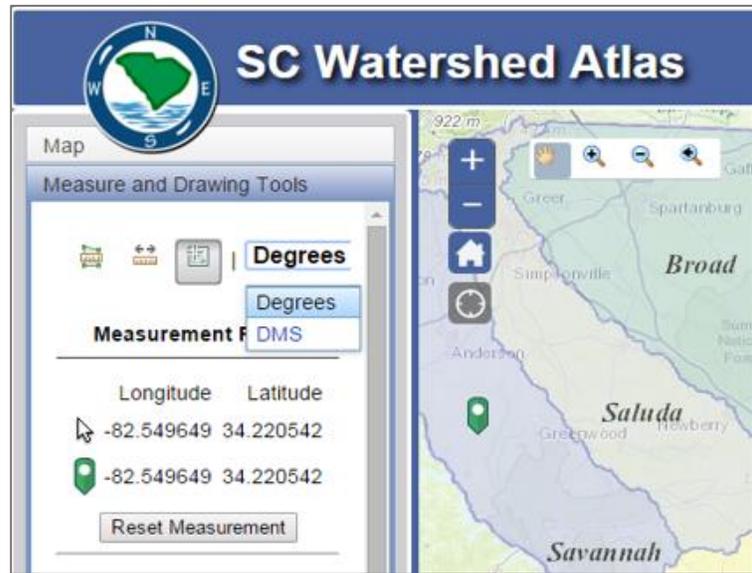
This screenshot shows the 'Watershed Layers' category expanded, with all sub-categories and individual layers checked. The 'Bureau of Water Permits' sub-category is also checked. A bracket on the right labels this as 'Category Layers'.

Measuring Tools

Select the appropriate units and single click on map to initiate measurement, double click to end measurement. Additional single clicks on distance measurement will present accumulative measurements.



Measure area, distance or retrieve location coordinates.



To clear measurement, click on "Reset Measurement".

Measure and Drawing Tools

Specify options then select a shape to add graphic to map. Right clicking the graphic will allow you to interact with it.

Graphics Options

Color: 

Size/Thickness:

Add Coordinates/Measurements

Add Buffer to Shape

Calculate Population within Buffer

Buffer Radius Distance(s):

- 1 mile
- 2 miles
- 3 miles
- 4 miles
- 5 miles
- 10 miles

The estimated population within the 5 mile buffered graphic is **151897**.

Transparency:

Select Shape then Click Map to Add Graphic

Point

Polyline

Polygon

Arrow

Triangle

Circle

Right Click Map to Add Text

Font Size: **B** U

I

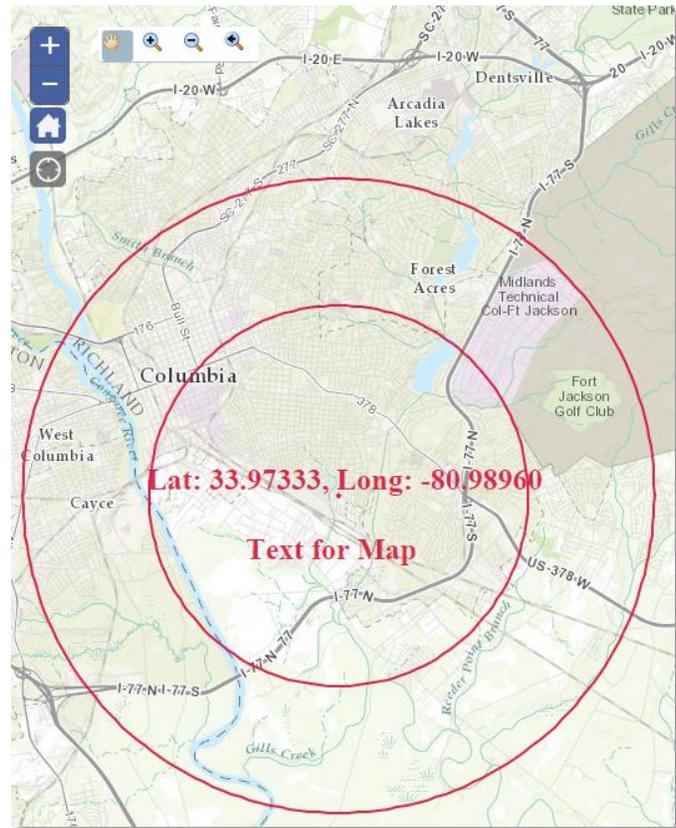
Text for Map



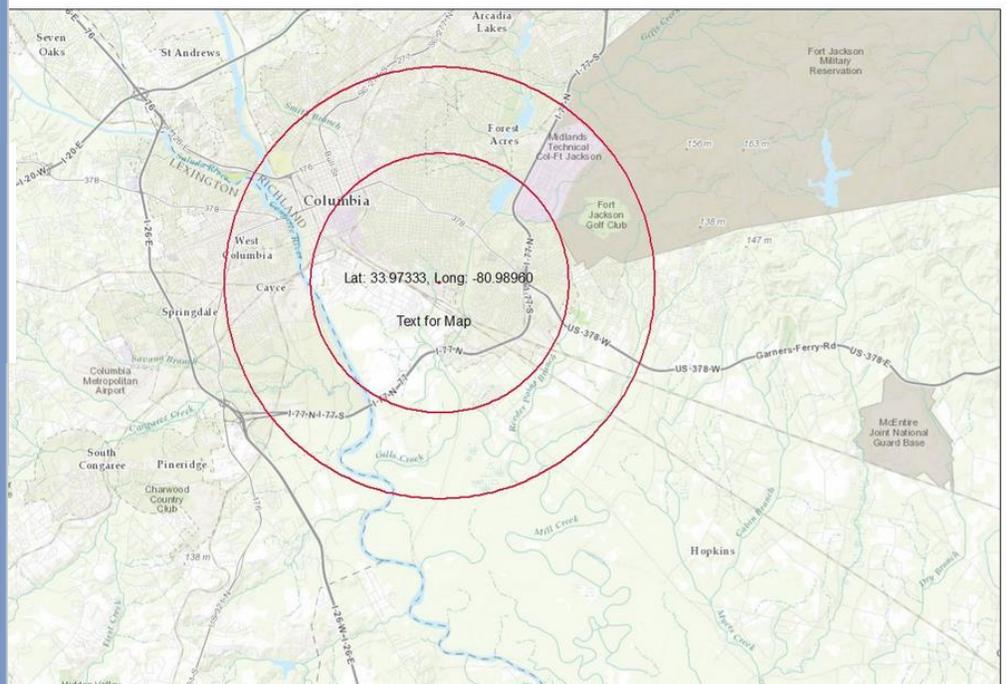
Clear all graphics

Drawing Tools

Narrative under "Drawing Tools" tab explains options.



Text color will be black on map when printing !



To clear last graphic, hit the back arrow.
To recover a deleted graphic, hit the forward arrow.



SC Watershed Atlas

Map

Measure and Drawing Tools

Basemaps



Imagery



Imagery with Labels



Streets



Topographic



Dark Gray Canvas



Light Gray Canvas



National Geographic



Oceans



Terrain with Labels



OpenStreetMap



USA Topo Maps

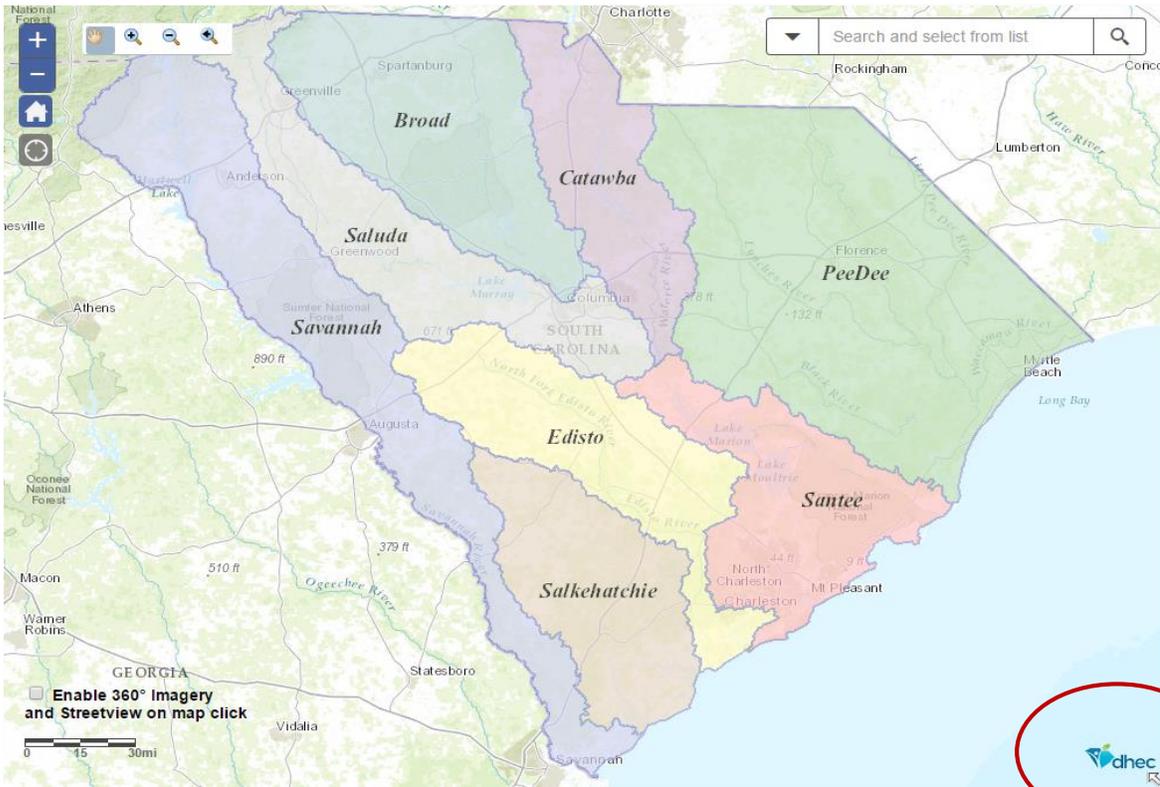


USGS National Map



Base Maps

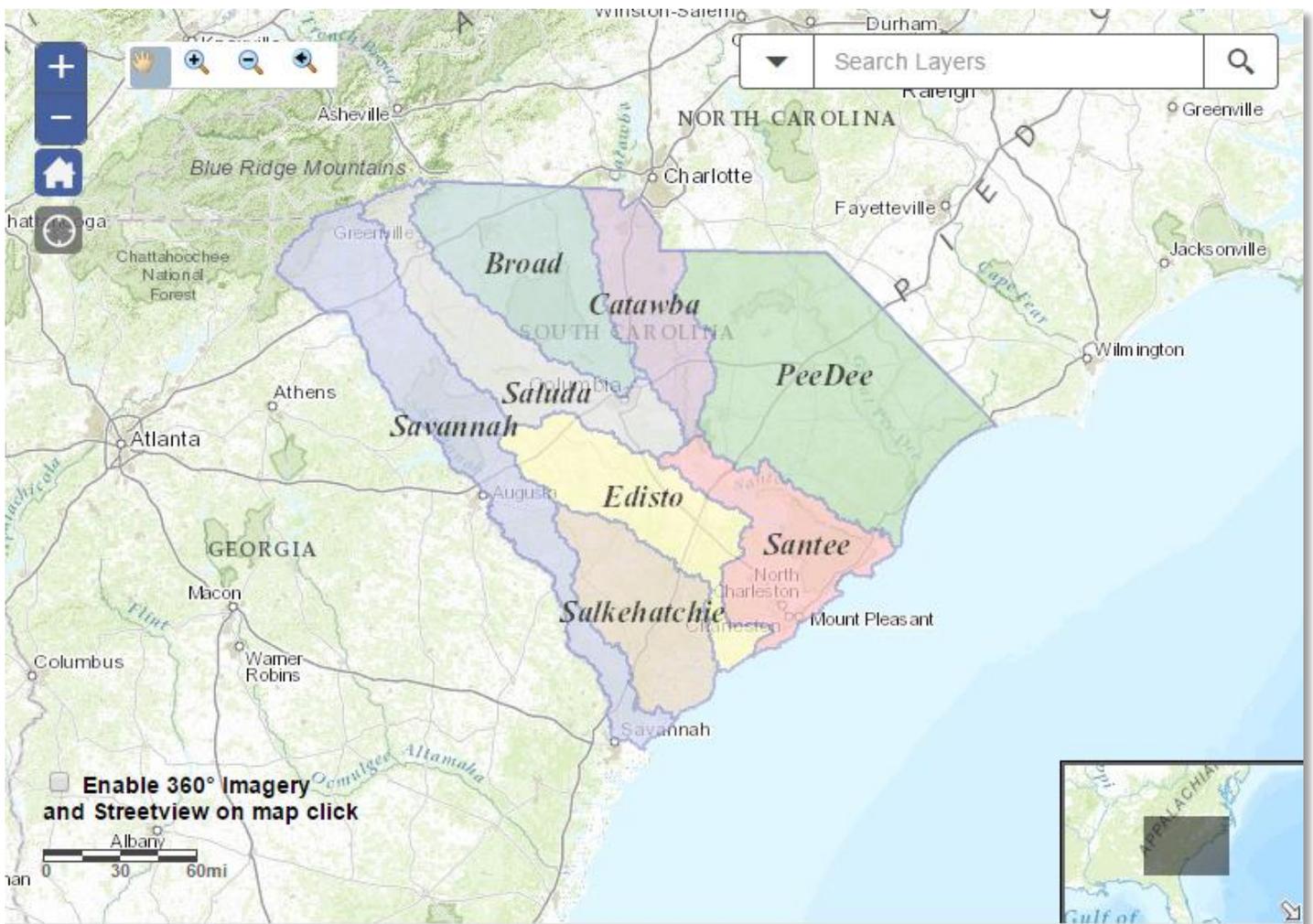
Change the base map by clicking on the "Basemaps" tab and selecting the map background of choice.

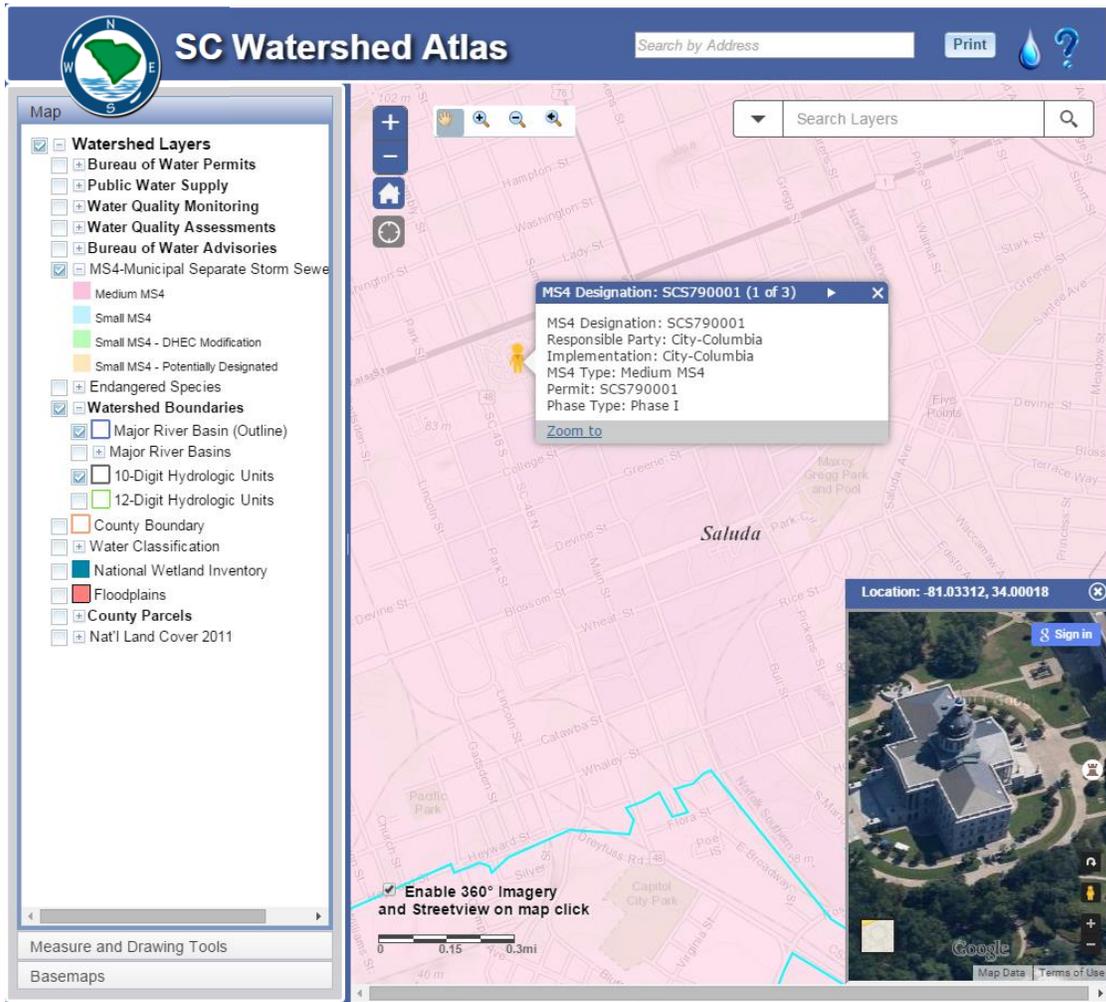


Map Overview

The arrow in the right corner will open an overview map when clicked.

Clicking the arrow again, closes the window.





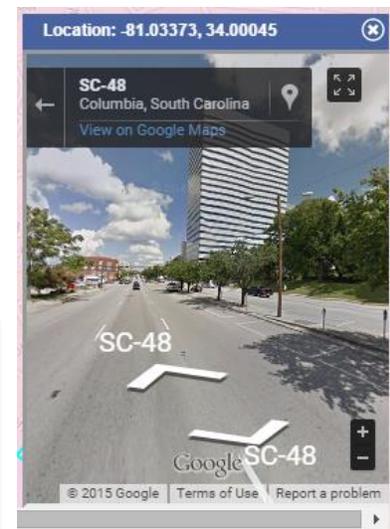
360° Imagery and Street View

Click on the 'checkbox' to view 360° Imagery and Street View (lower left corner of the map).

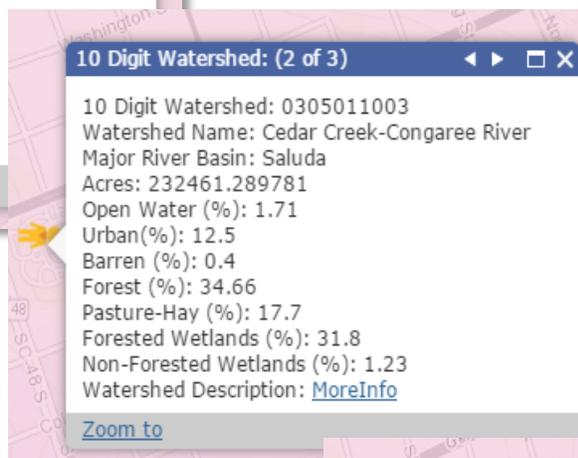
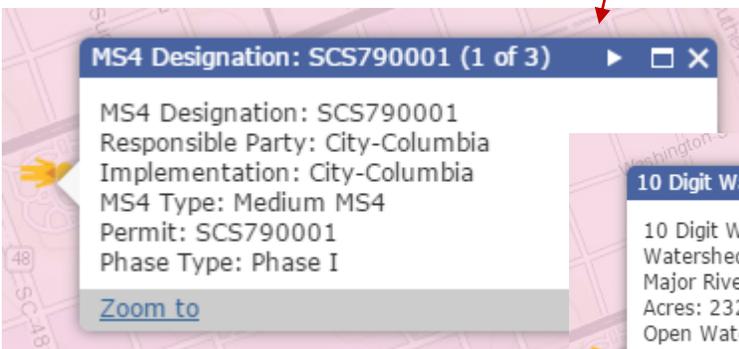
The "arrow" in the image window view rotates the imagery.



Where available, drag the 'person' symbol onto the blue highlighted roads to initiate Street View.

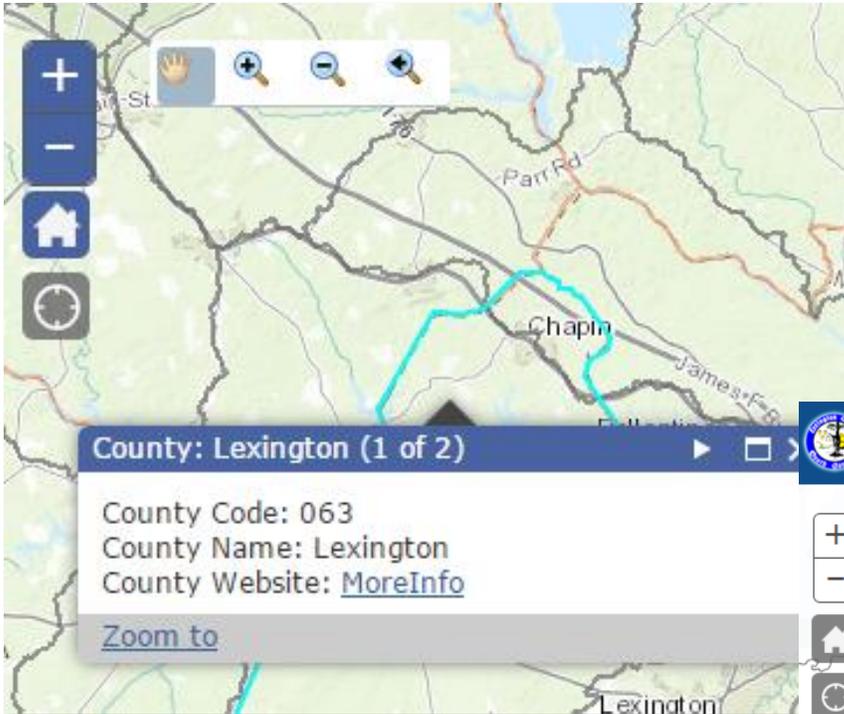


Info Pop-ups



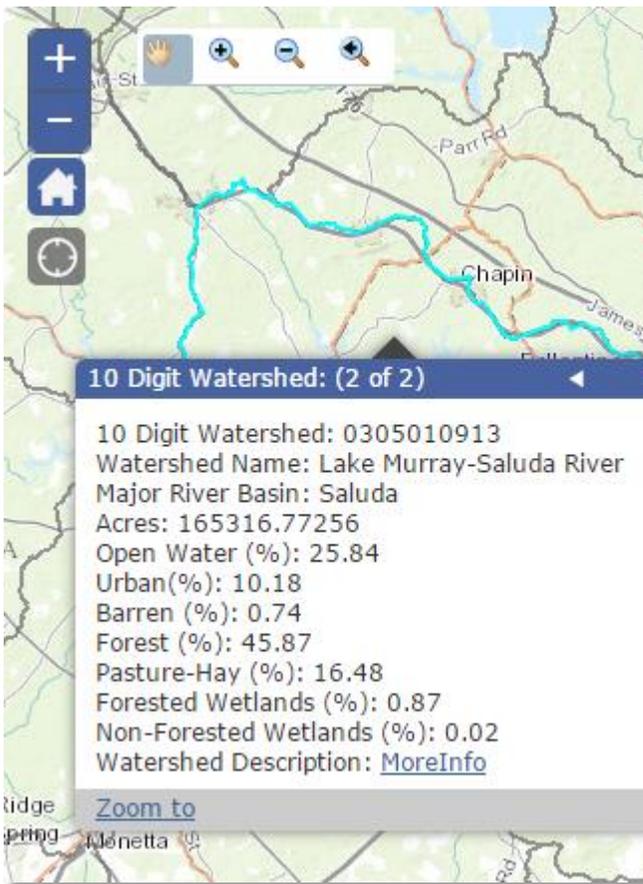
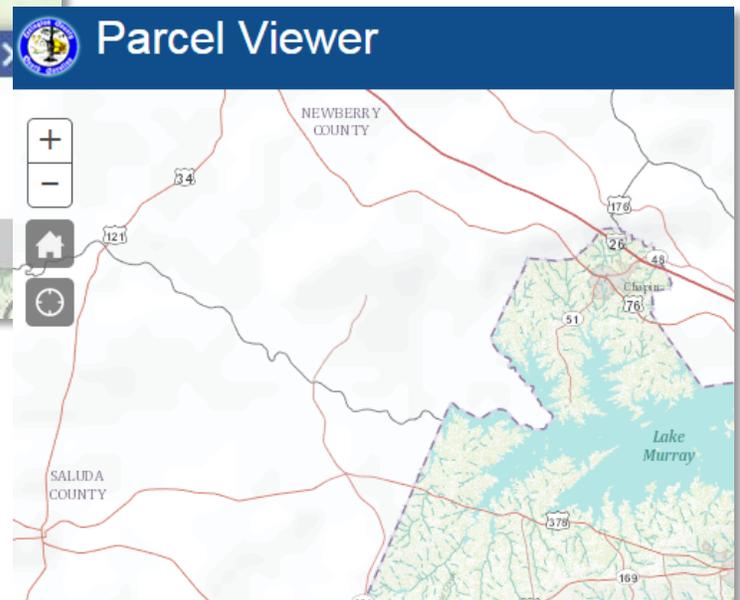
When clicking on the map, info pop-ups appear providing data associated with the layers "checked on" in the table of contents. In this example, MS4 Designations, Watersheds and River Basins were checked. Therefore, three info pop-ups become available, indicated by the count (ex. 1 of 3) . Click on the arrow adjacent to the order description to transition back and forth between the info pop-ups. Click on "X" to close.

Layers with Special Features: MoreInfo



Layers with “MoreInfo” listed in the info popup link to affiliated web sites or documents.

Counties link to county parcel data websites for additional information.



03050109-13 *(Saluda River/Lake Murray)*

General Description

Watershed 03050109-13 is located in Newberry, Saluda, Lexington, and Richland Counties and consists primarily of the **Saluda River** and its tributaries from the **Lake Murray** headwaters to the dam. The watershed occupies 165,195 acres of the Piedmont region of South Carolina. Land use/land cover in the watershed includes: 45.8% forested land, 25.8% water, 17.6% agricultural land, 9.1% urban land, 0.9% forested wetland (swamp), and 0.8% barren land.

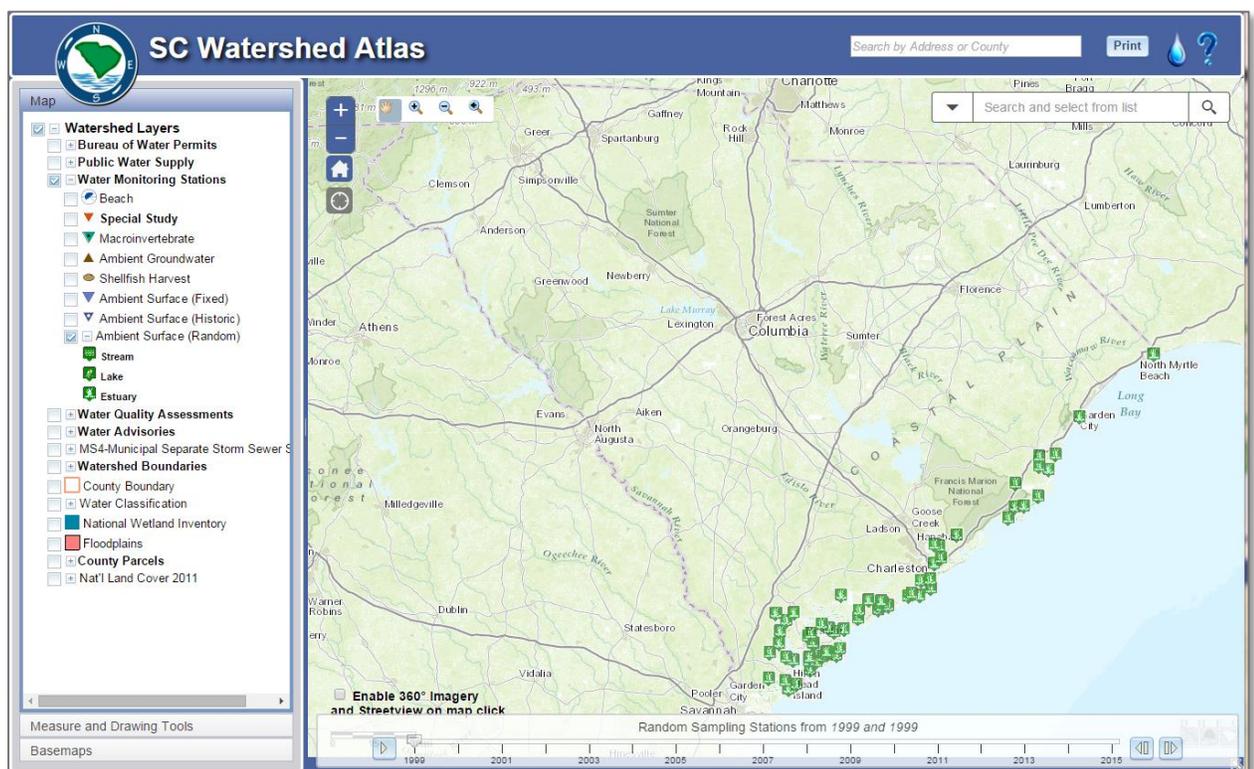
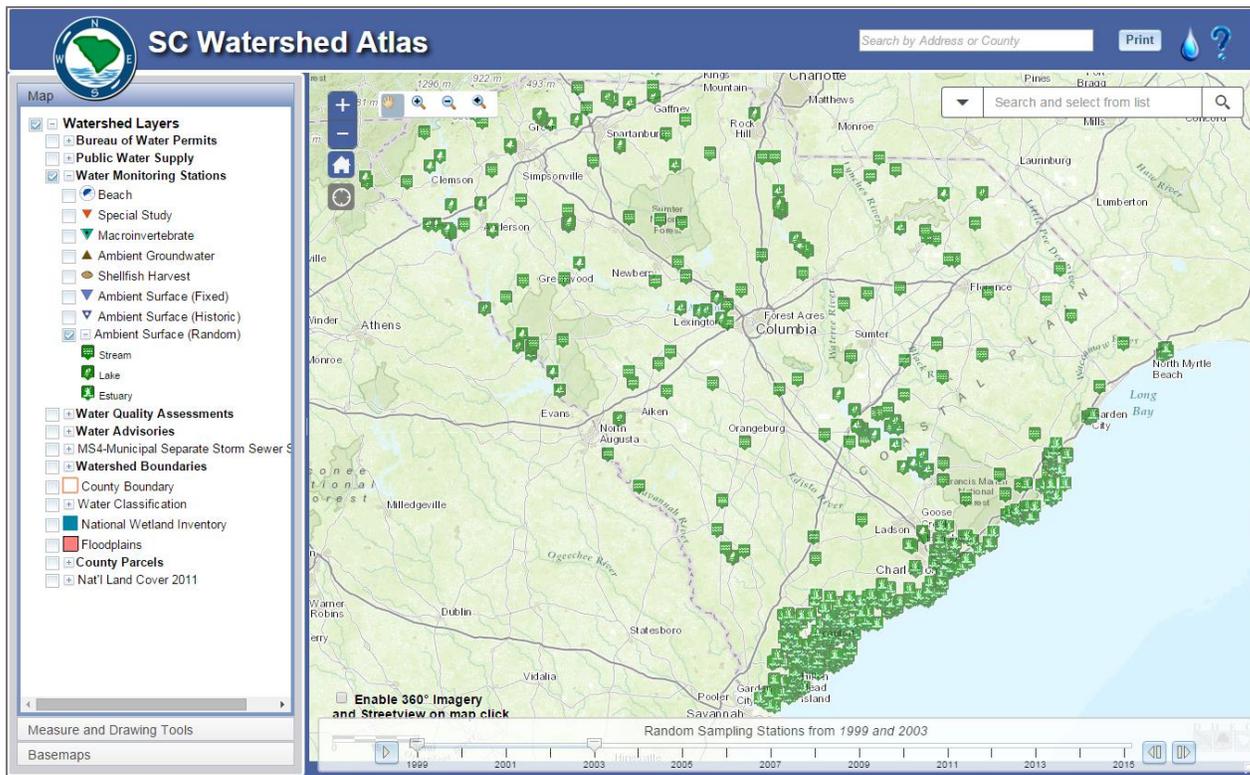
The Saluda River watershed is joined by the Little Saluda River watershed to form the headwaters of Lake Murray. Spring Creek, Hawleek Creek, Rocky Creek (Whetstone Creek), Buffalo Creek, Hancock Creek, and Shirey Branch flow into the waters of upper Lake Murray. Camping Creek (Susannah Branch, Snap Branch, Stevens Creek, Millers Branch) and Bear Creek (Rocky Branch, Buzzards Branch, Stinking Creek) enter midlake on the northern shore, and Hollow Creek (Caney Branch, Little Creek, Horse Creek, Little Horse Creek, Little Hollow Creek, Hollow Branch), Beaverdam Creek (John Seay Creek), and Rocky Creek (Clemons Branch, Beech Creek) enter midlake on the southern shore of the lake. Johns Creek (Wyse Branch) and High Hill Creek (Lowman Creek, Cedar Creek, Mets Creek, Beards Creek, Sites Branch, Indian Fork) enter downlake on the northern shore, and Dudley Creek, Twentymile Creek, Frey Branch, and Eighteenmile Creek (Sixteenmile Creek) enter downlake on the southern shore near the dam. Lake Murray is owned and operated by SCE&G Company and is used for power production, recreation, and water supply. Billy Dreher State Park, located midlake on Billy Dreher Island is another natural resource in the watershed. There are a total of 325.6 stream miles (tributaries of Lake Murray) and 43,766.0 acres of lake waters in this watershed, all classified FW.

10-Digit Hydrologic Units (watersheds) link to descriptive information.

Layers with Special Features: Time Slider

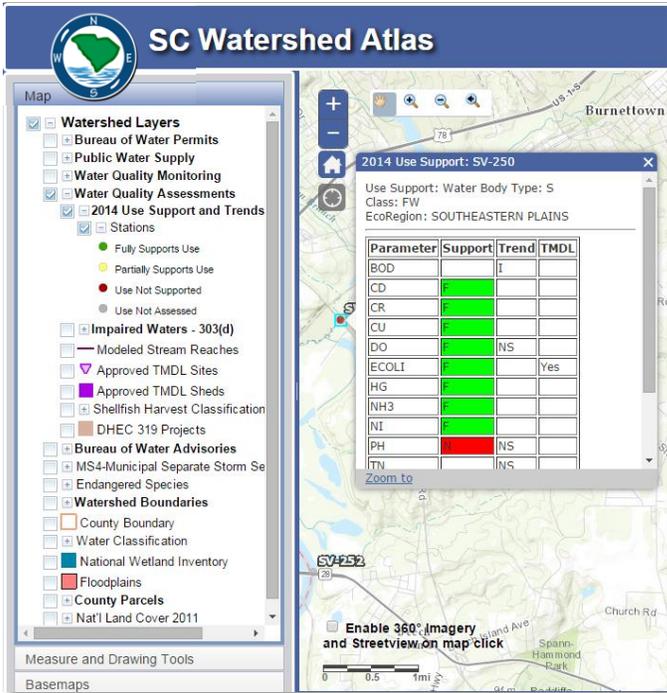
Random Water Quality Stations have a time slider feature that automatically appears when the layer is turned on. By adjusting the two tabs within the slider all the sites throughout the years can be displayed (leaving one tab at 1999 and placing the second tab on the current year) or limit the sites to specific years. To limit to one year place both tabs on top of each other.

The time span chosen is listed in the slider tool title.



Layers with Special Features: Use Support Table

Use Support and Trends has a table feature associated with the info pop-up. Information on water body types, classifications and ecoregions are provided, as well as support levels for a 3 or 5 year assessment period dependent on the parameter, trends over a 15 year period and TMDL status at the time of assessment. Definitions are listed below.



2014 Use Support: SV-250

Use Support: Water Body Type: S
Class: FW
EcoRegion: SOUTHEASTERN PLAINS

Parameter	Support	Trend	TMDL
BOD		I	
CD	F		
CR	F		
CU	F		
DO	F	NS	
ECOLI	F		Yes
HG	F		
NH3	F		
NI	F		
PH	N	NS	
TN		NS	

Zoom to

Water Body Type

S=Stream

L=Lake

E=Estuary

Trend Definitions

I = Increasing

D = Decreasing

NS = Not Significant

2014 Use Support and Trends

Stations

● Fully Supports Use

● Partially Supports Use

● Use Not Supported

● Use Not Assessed

Total Maximum Daily Load (TMDL) Definitions

Yes = Within a TMDL watershed

Blank = Not within a TMDL watershed

Class

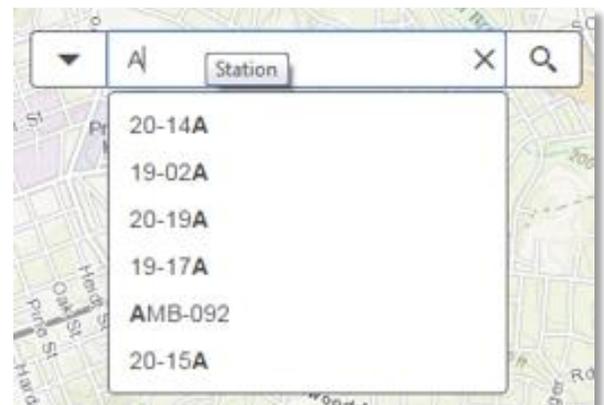
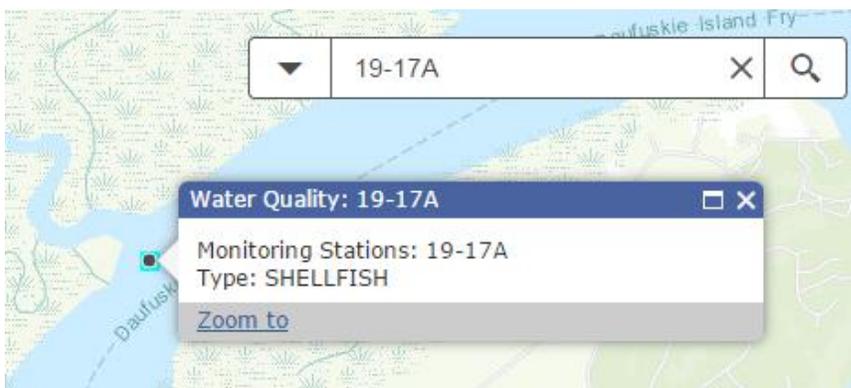
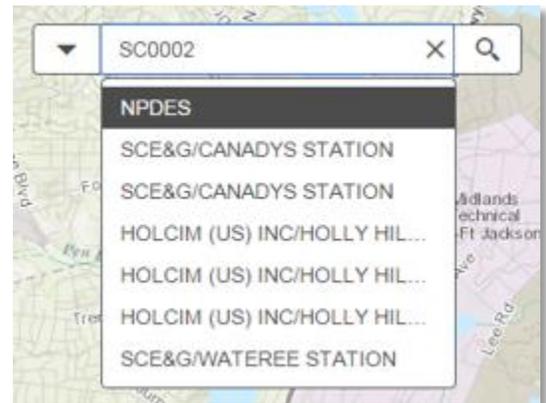
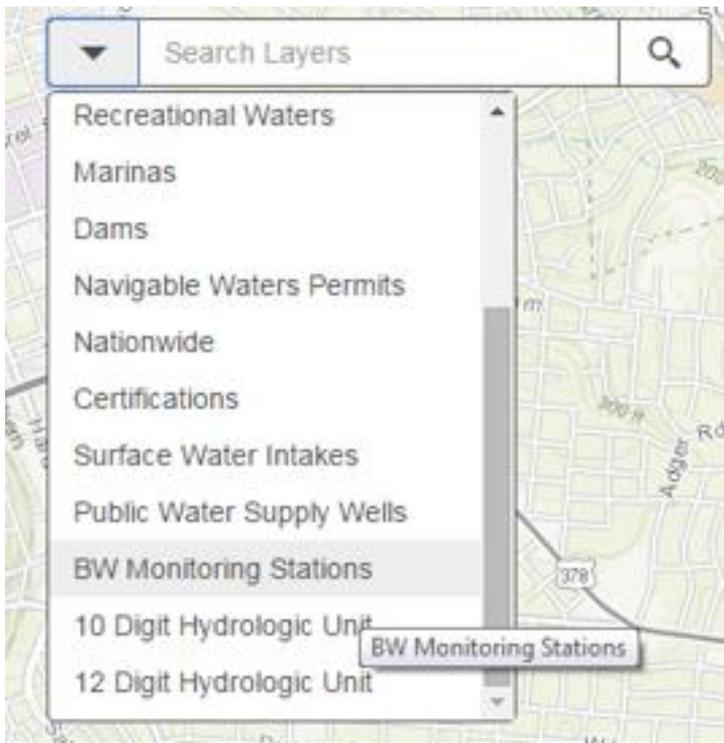
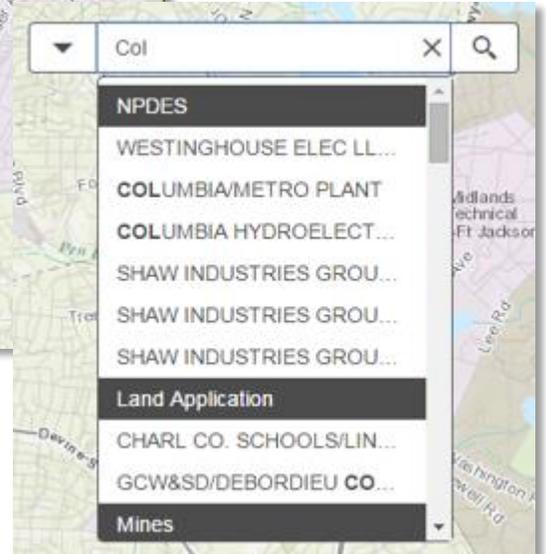
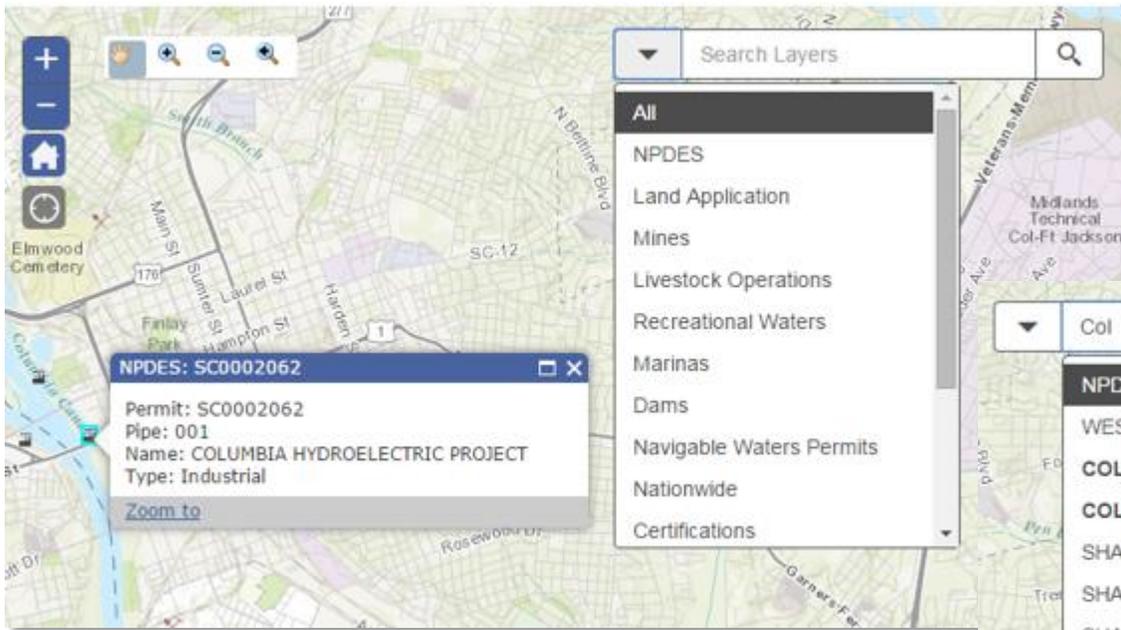
Refer to Water Classifications Definitions
in Table of Contents

Parameter Definitions

BOD	5-Day Biological Oxygen Demand
CD	Cadmium
CR	Chromium
CU	Copper
DO	Dissolved Oxygen
ECOLI	E-Coli
HG	Mercury
NH3	Ammonia
NI	Nickel
PH	pH
TN	Total Nitrogen
TP	Total Phosphorus
TSS	Total Suspended Solids
TURB	Turbidity
ZN	Zinc

Search "All" Layers by typing name, permit number or station. Typing 'text' will auto-populate a list of all associated names for all layers. Typing a permit number will also show name affiliation, not permit number. Select a **unique layer** from pull down if interested only in that layer. Selecting a site from the search list will initiate an immediate zoom to the site and an info window appearance. To release the search and selection color, click on the "X" in the search window.

Searches



Open Layer Table

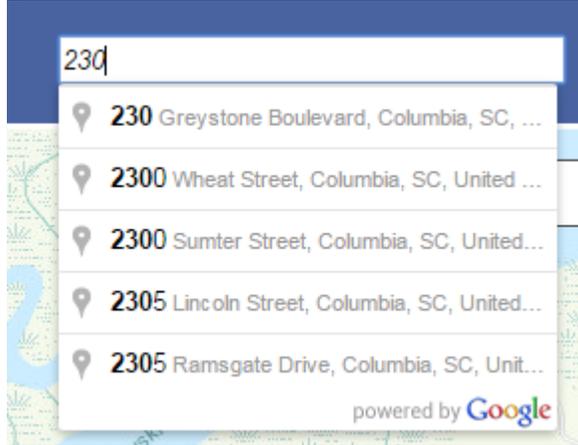
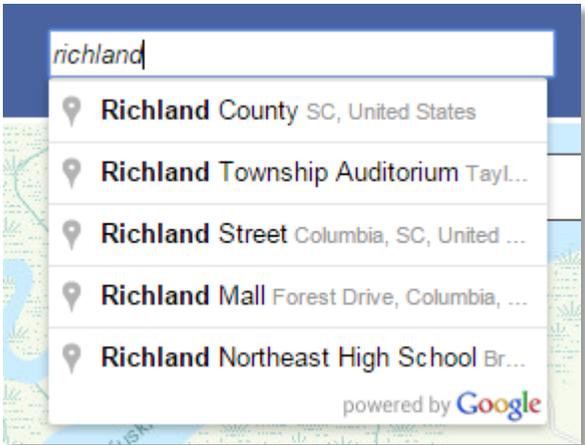
The screenshot displays the SC Watershed Atlas web application. The top navigation bar includes the logo, the title 'SC Watershed Atlas', a search bar, and utility icons for print, home, and help. The main map area shows a topographic view of the Anderson region with various watershed layers overlaid. A popup window for 'Natural Swimming Area: DARWIN WRIGHT' is open, showing the name and a 'Zoom to' button. Below the map is an attribute table for 'Natural Swimming Areas (52 features, 1 selected)'. The table has columns for Name, STATUS, and PERMIT. The 'DARWIN WRIGHT' record is highlighted. An 'Options' menu is open over the table, providing options to sort records, show the selected record, clear the selection, and show/hide columns.

Name	STATUS	PERMIT
DARWIN WRIGHT	A	04-N09
MCCALL RA CAMP	A	39-N03
CAMP GREENVILLE	A	23-N11
LOOK UP LODGE	A	23-N14
CHERAW STATE PARK	A	13-N01
JOHNSONS LANDING	A	16-N07
EASTERLING'S LANDING	A	16-N06
CAMP LONGRIDGE	A	20-N01
YMCA LEXINGTON CAMP	A	32-N10

Right click on a layer to open the tables (Show Attribute Table). Under “Option” you can sort the records, show only the selected record, clear the selection and show/hide columns. By left clicking on a column, records can be assorted in ascending or descending order. If a record is highlighted, the map should zoom to the site of interest and highlight the selected site. Please note, with large datasets there is a time lag between selecting and zooming to and displaying the site.

GOOGLE Address and Place Search

Search by Address or County



Type in an address or place. Autocomplete will populate the box until enough information is entered for the selection of the exact location of interest.

Accessing Water Quality Data



NATIONAL WATER QUALITY MONITORING COUNCIL

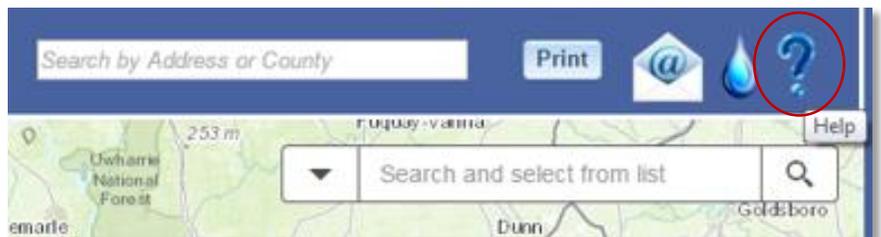
Working Together for Clean Water

Water Quality Portal

The Water Quality Portal (WQP) is a cooperative service sponsored by the United States Geological Survey (USGS), the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC). It serves data collected by over 400 state, federal, tribal, and local agencies.

Click on the waterdrop to link to a water quality portal for downloading monitoring data.

Watershed Atlas Help



SC Watershed Atlas Online Help

Welcome to the SC Watershed Atlas !

Provides documentation on the SC Watershed Atlas

Printing A Map

Allow pop-ups and trust the site for the map image to display !

Print

If additional maps will be generated during the web session, DO NOT check "Prevent this page from creating additional dialogs".

You will not be able to title and author additional maps without refreshing the browser.

Name of Map

Major River Basins.....

OK

Author of Map

Jeannie P. Eidson

Prevent this page

Please wait, your map will be available shortly

Prevent this page from creating additional dialogs

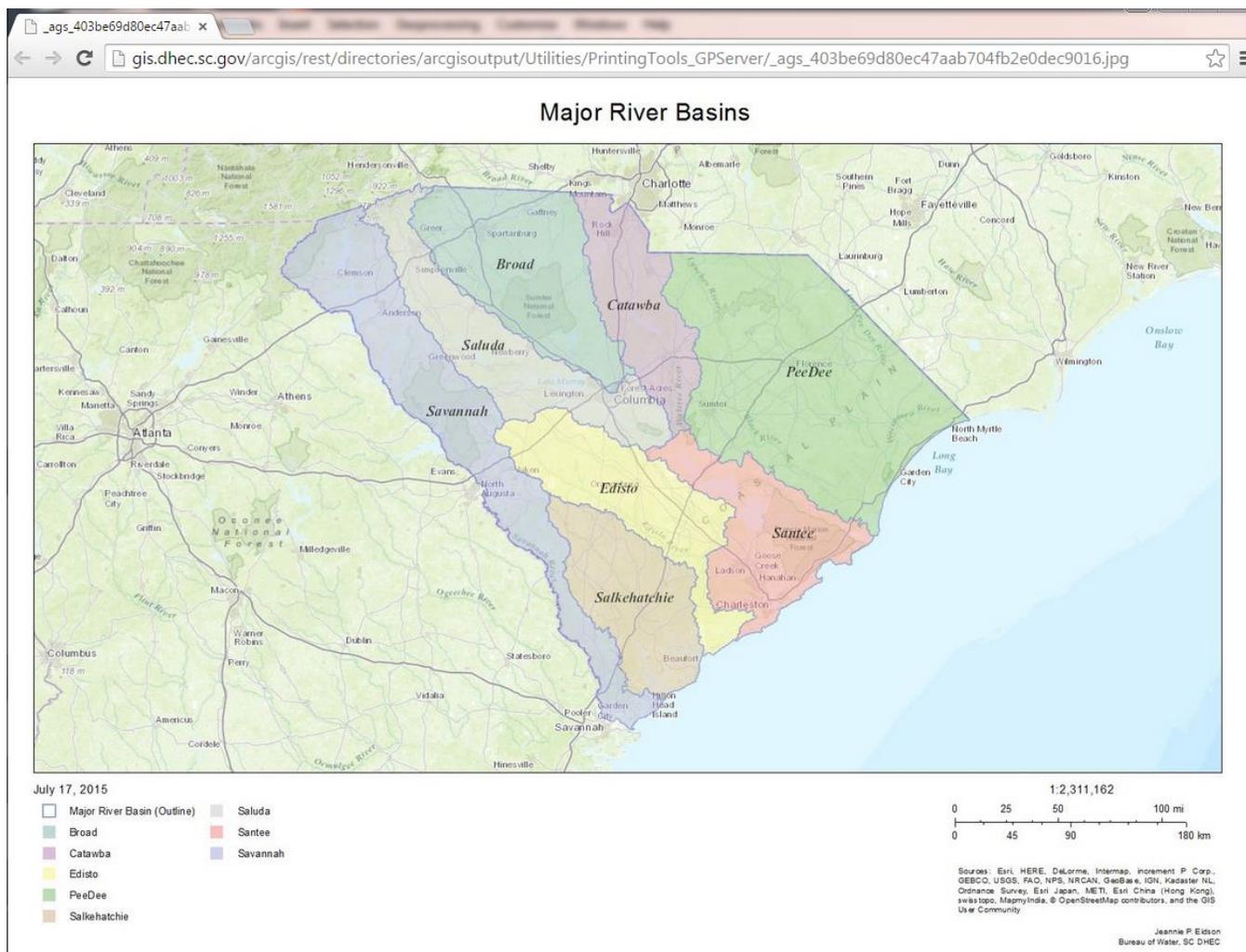
OK

Printing

The "Print" button will change to "Printing" after entering title and author.

It will remain as "Printing" until the image is created.

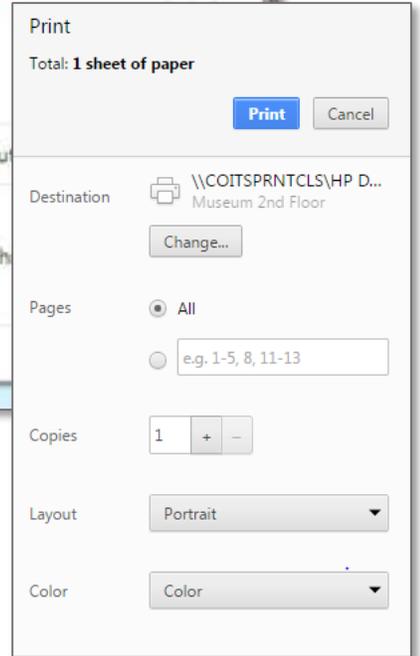
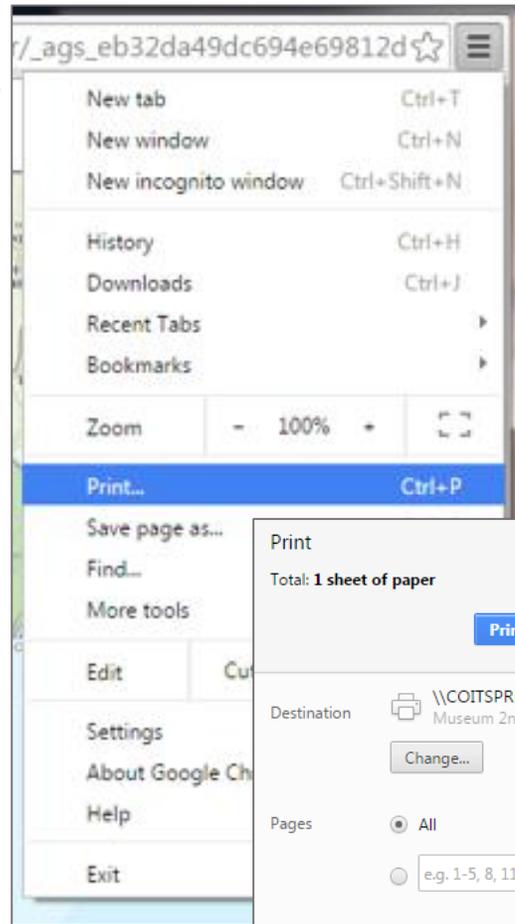
If the site is trusted and pop-ups are allowed a map image will appear in a new window.



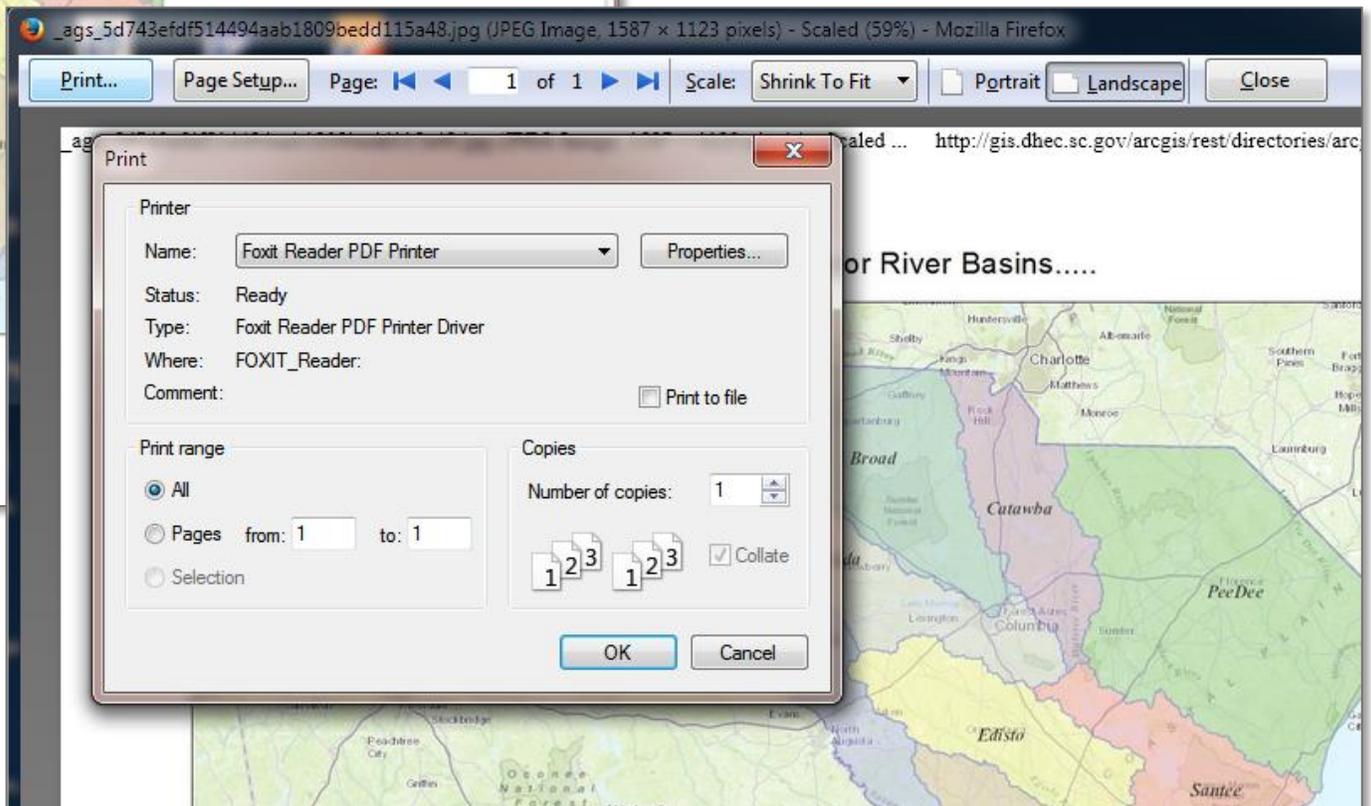
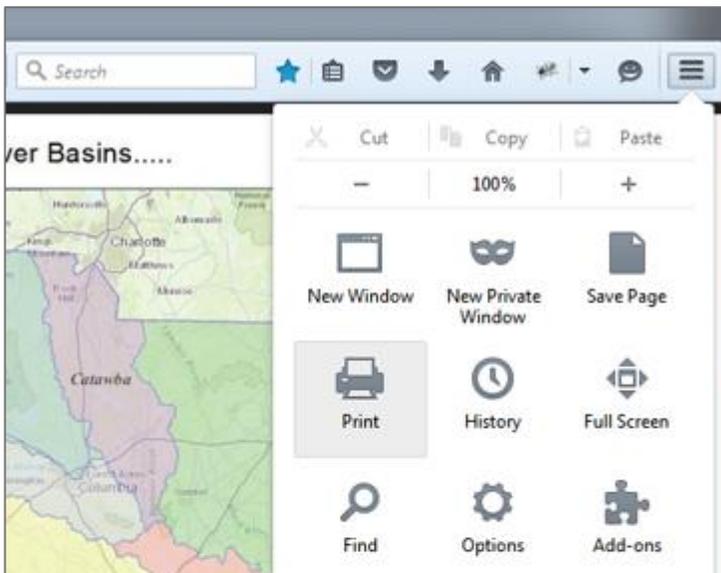
Printing Via Chrome

Printing

... produces a temporary image (JPG)
that must be printed or saved
in a known workspace or directory.



Printing Via Firefox





South Carolina Department of Health and Environmental Control

Promoting and Protecting the Health of the Public and the Environment



SC Watershed Atlas

CONTACT US

Bureau of Water
Watershed Management Staff



Follow us on Twitter.
[@scdhec](https://twitter.com/scdhec)



Like us on Facebook.
www.facebook.com/scdhec



Check us out on YouTube.
www.youtube.com/scdhec