

# Saluda River Basin

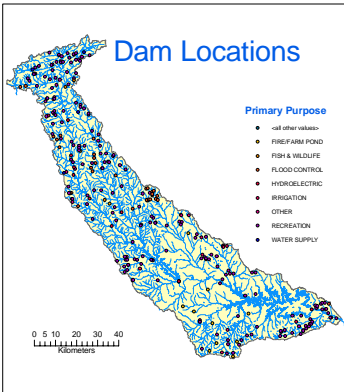
## What is a Watershed?

A watershed is a region of land in which all of the precipitation of surrounding land drains or seeps into a single body of water.

Watersheds are affected by many factors. The main factors are shown here in this presentation.

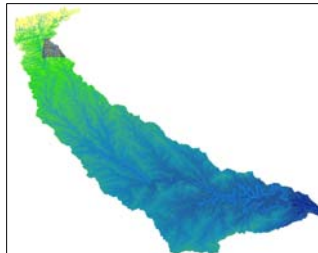
## About the Saluda River Basin

The Saluda River Basin encompasses 2,519 square miles, including 21 watersheds. The majority of the land it covers is forested land. The Saluda River runs past the City of Greenville, which accounts for most of its urban acreage.

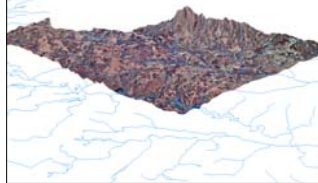


There are 283 dams located within this watershed. Many serve as hydroelectric dams. Their heights range from 8 feet to a maximum of 213 feet. Some dams even date back to the 1800s. Many of them may be abandoned or damaged by earthquakes, and now serve no purpose. Additions or removal of dams can cause ecological and geomorphic damage to the stream system. Hence, a good understanding of dams and their impact on rivers is important.

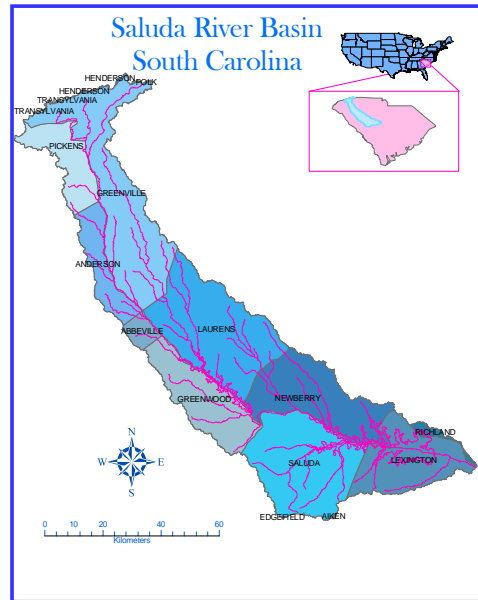
## 3-D Views of the Watershed



View of Paris Mountain  
(Looking East from West)

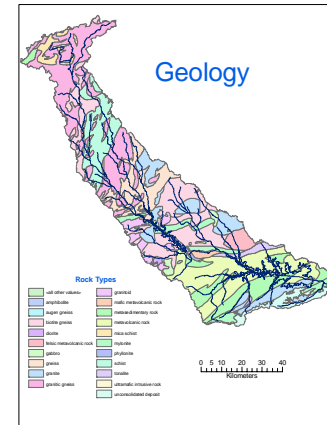


## Lehne Slater

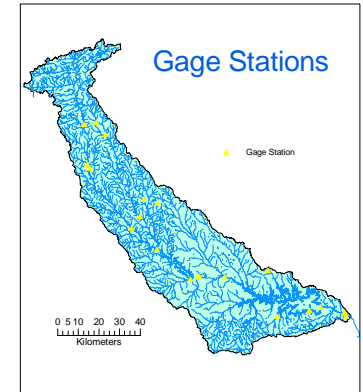


## Human Influence on Watersheds

Humans change the natural rainwater flow by modifying the landcover with streets, gutters, parking lots, and sidewalks. This change in landcover causes increased runoff and flash flooding in streams. Humans also pollute water with fertilizers, pesticides, litter, oil, and many other harmful substances. These disturbances can have a tremendous negative impact on watersheds, and the quantity and quality of water. The River Basin Research Initiative at Furman University investigates the aforementioned disturbances and searches for solutions.

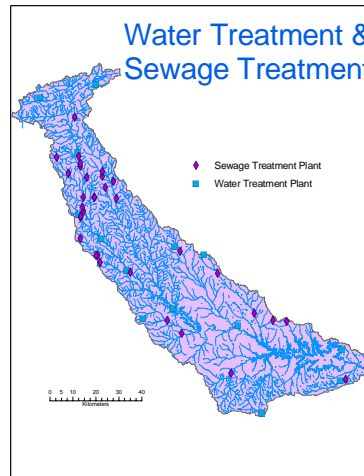


This displays the lithological layout of the basin. Granite, gneiss, and mylonite are among the numerous rock types found in this basin.



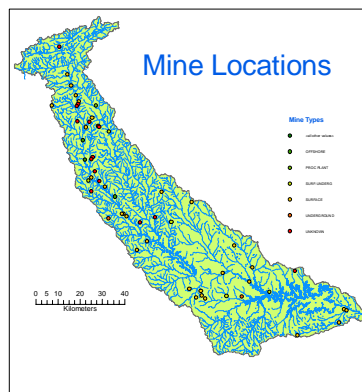
Gage stations are located along watersheds and serve to make observations and obtain hydrologic data. Stream discharge is typically measured at these stations. This basin has 20 gage stations that are evenly spread out across the region.

## Water Treatment & Sewage Treatment



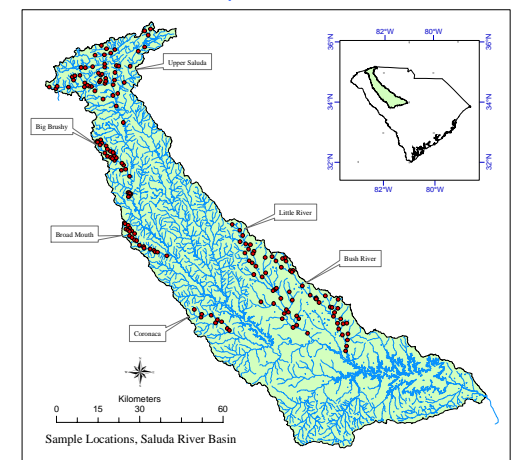
Although the ideal way to obtain clean, high quality water is from a well protected watershed, most watersheds do not fit this description. Water treatment plants are very important for maintaining the quality of potential drinking water. They remove bacteria, viruses, and other pathogens. There are 14 water treatment plants in this watershed.

Sewage is another major problem in most watersheds. Sewage in the form of liquid or solid waste clogs the watershed and hinders the physical, chemical, and biological quality of the water. 35 sewage treatment plants are located in this watershed. These plants remove materials that threaten public health and safety. Both types of treatment plants improve overall water quality and remove harmful substances.



There are 55 mines located in this watershed. Most of these are active clay, mica, and sand and gravel excavation sites. They are monitored by the Mining and Reclamation Division of the Department's Bureau of Land and Waste Management. They are permitted by the state, although drainage from mines may be damaging to the environment and the health of a watershed.

## Sample Locations



Each sub-watershed has numerous sample location stations that serve many purposes. There are 53 sample locations shown for this watershed. They are placed strategically downstream from one another in order to effectively quantify the water chemistry and the entire river barrier.