

**Savannah River Site (SRS)
Proposed Gradient Site
Southeast Domain (Domain 3)**

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Location: The Savannah River Site (SRS) is located on the upper Coastal Plain in South Carolina, and is the northernmost site of the proposed southeastern national ecological observatory gradient.

History: The SRS was acquired by the Federal Government as a nuclear industrial facility in 1950 and is currently owned by the U.S. Department of Energy (DOE). The University of Georgia's Savannah River Ecology Laboratory (SREL) was established on the site in 1951 and SREL scientists, in collaboration with Savannah River National Laboratory (SRNL), U.S. Forest Service (USFS), and other scientists, have been examining the ecology of the site since then.



Key Characteristics: The SRS is 80,290 ha in size. Major landforms include upland sandy ridges and flats, mesic slopes, floodplains of small streams and large rivers, shallow depression wetlands, and constructed reservoirs. The mosaic of vegetation types includes managed pine plantations (primarily longleaf and loblolly), mixed pine-hardwood forests, xeric sandhill scrub, upland and bottomland hardwood forests, cypress-tupelo swamps, and wetland depression meadows. Approximately two-thirds of the SRS is managed as pine stands or as habitat for the federally-endangered red-cockaded woodpecker. Fire is frequently used as a management tool.

Facilities and Existing Infrastructure: The SRS has a rich legacy of ecological research and environmental monitoring spanning over 50 years. The Atmospheric Technologies Group at SRNL has maintained records on meteorological conditions for more than 50 years, and the USFS has extensive information on land management history. There also is an extensive record of aerial imagery (e.g., photography, periodic multi- and hyper-spectral, LIDAR). The SRS is fenced and gated and not open to the general public. Easy vehicle access to all field sites is provided by an extensive network of paved and unimproved roads. Facilities at SREL include office space, greenhouses, and laboratories for chemistry, stable isotopes, genetics, remote sensing and GIS, radioecology, and other uses, and numerous other facilities including a conference center, herbarium/museum collection, and a computer facility. SRNL operates a network of 14 regional meteorological towers with real time data stream as well as sensors located on a nearby 1450m tall tower, and an eddy flux tower is expected to be established under a recent AmeriFlux award. In addition, a large number of groundwater monitoring stations are well distributed across the SRS.