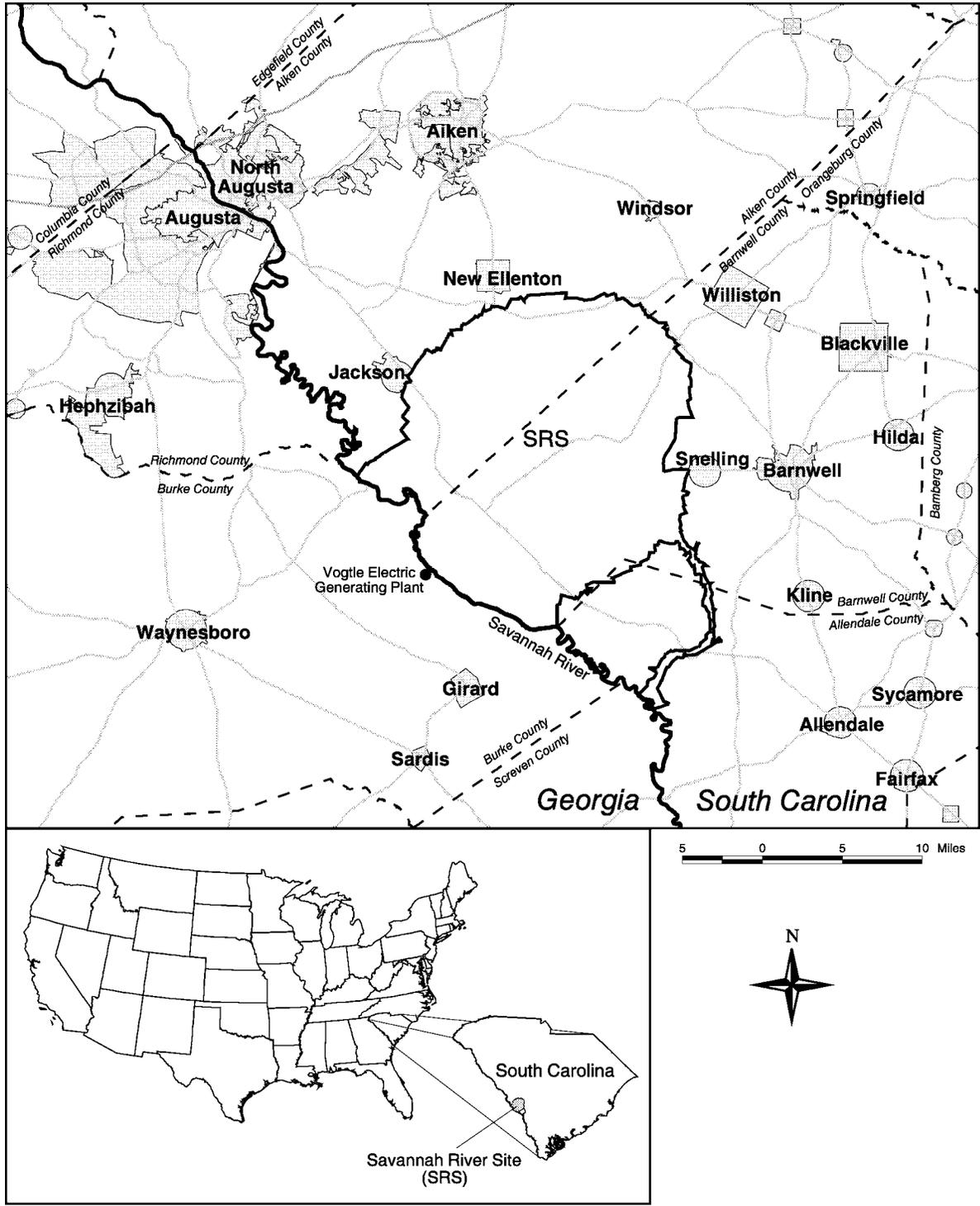


SRS Maps

- **The Site**
- **The Sampling Locations**
- **The Doses**
- **The Groundwater**

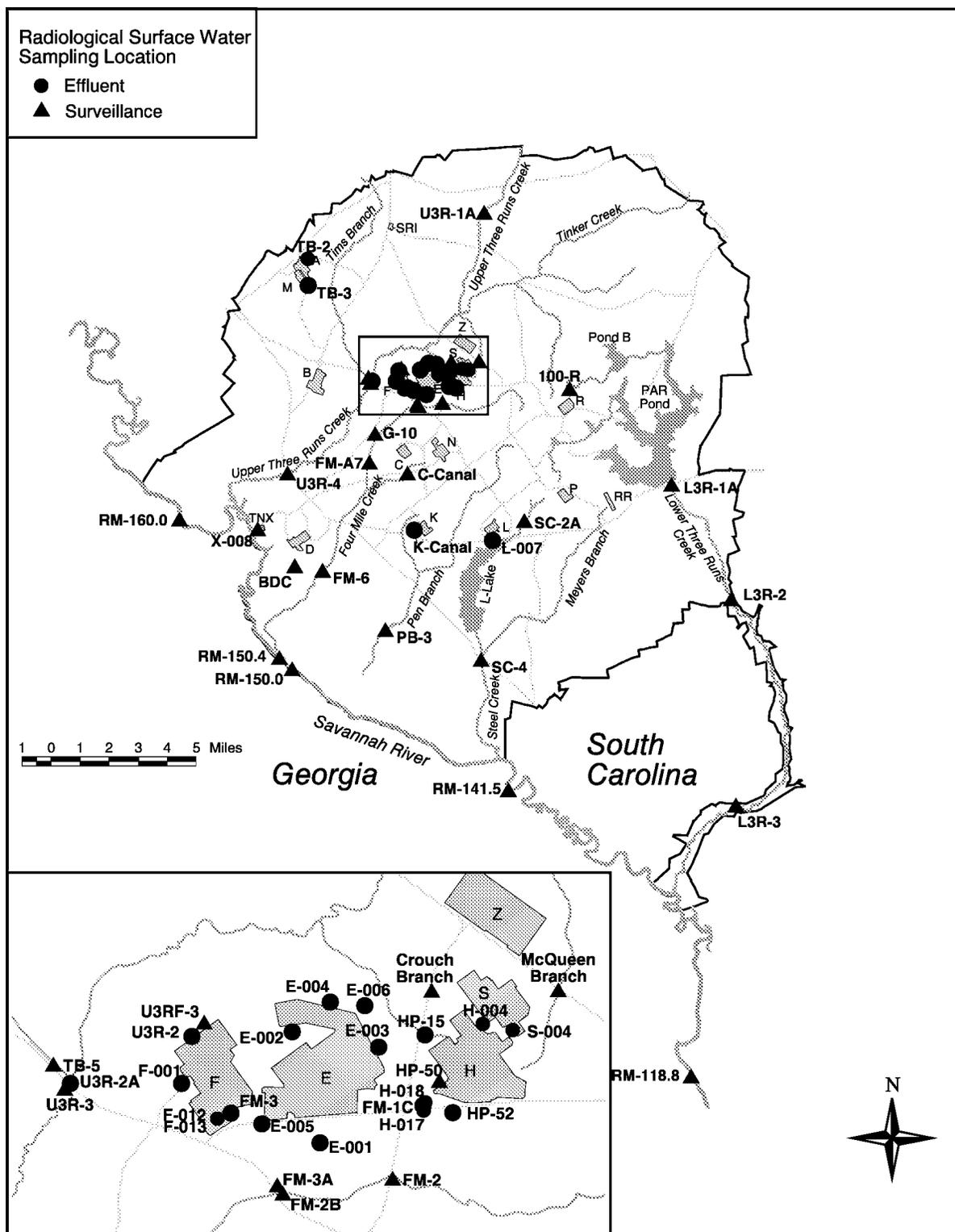
Savannah River Site Environmental Report for 2002



ESS/GIS Map

Figure 1 The Savannah River Site

SRS is located in South Carolina, about 12 miles south of Aiken, South Carolina, and about 15 miles southeast of Augusta, Georgia. The Savannah River flows along a portion of its southwestern border.



ESS/GIS Map

Figure 2 Radiological Surface Water Sampling Locations

Surveillance and effluent sampling points are at SRS seepage basins and streams and on the Savannah River.

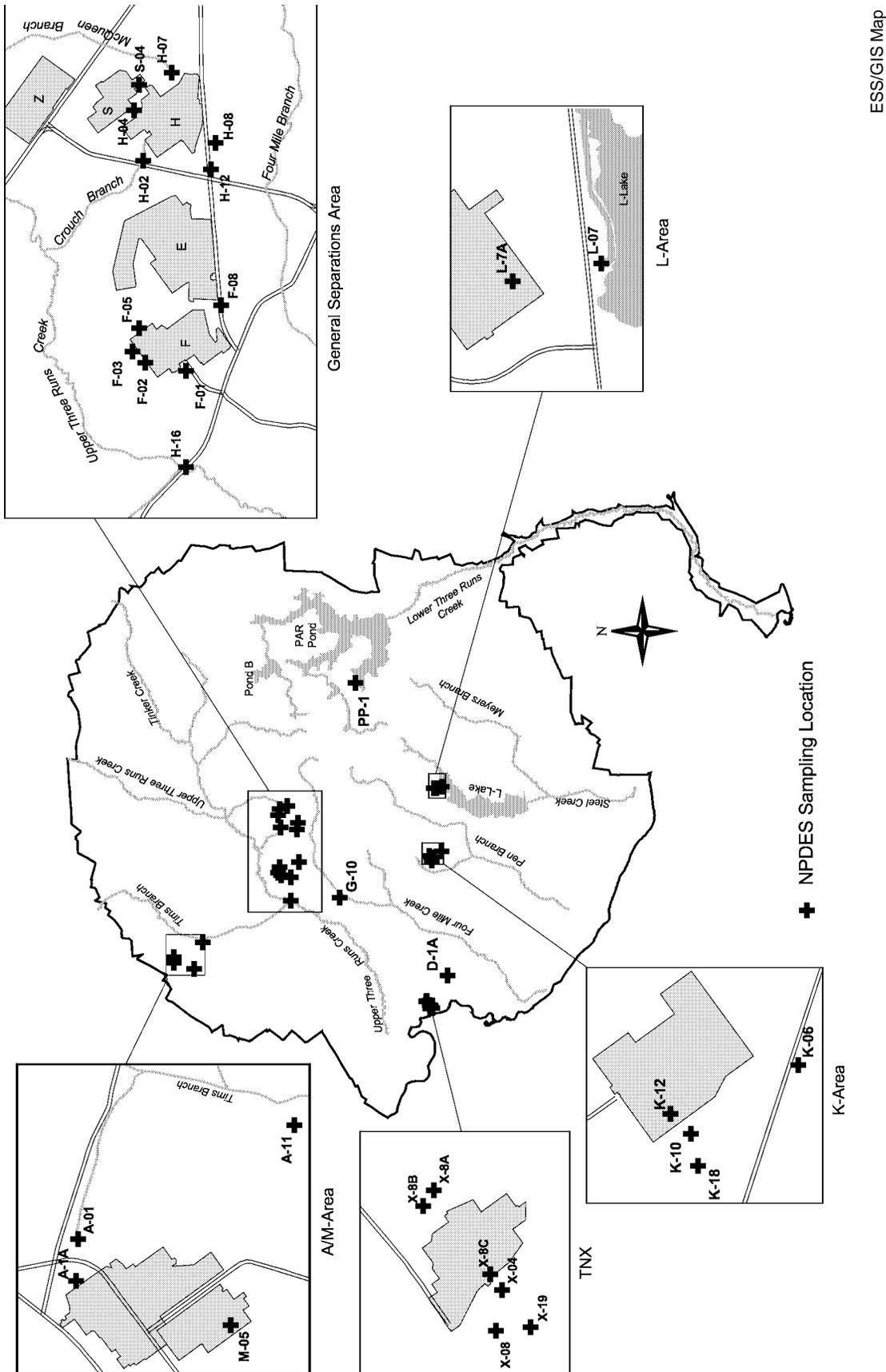
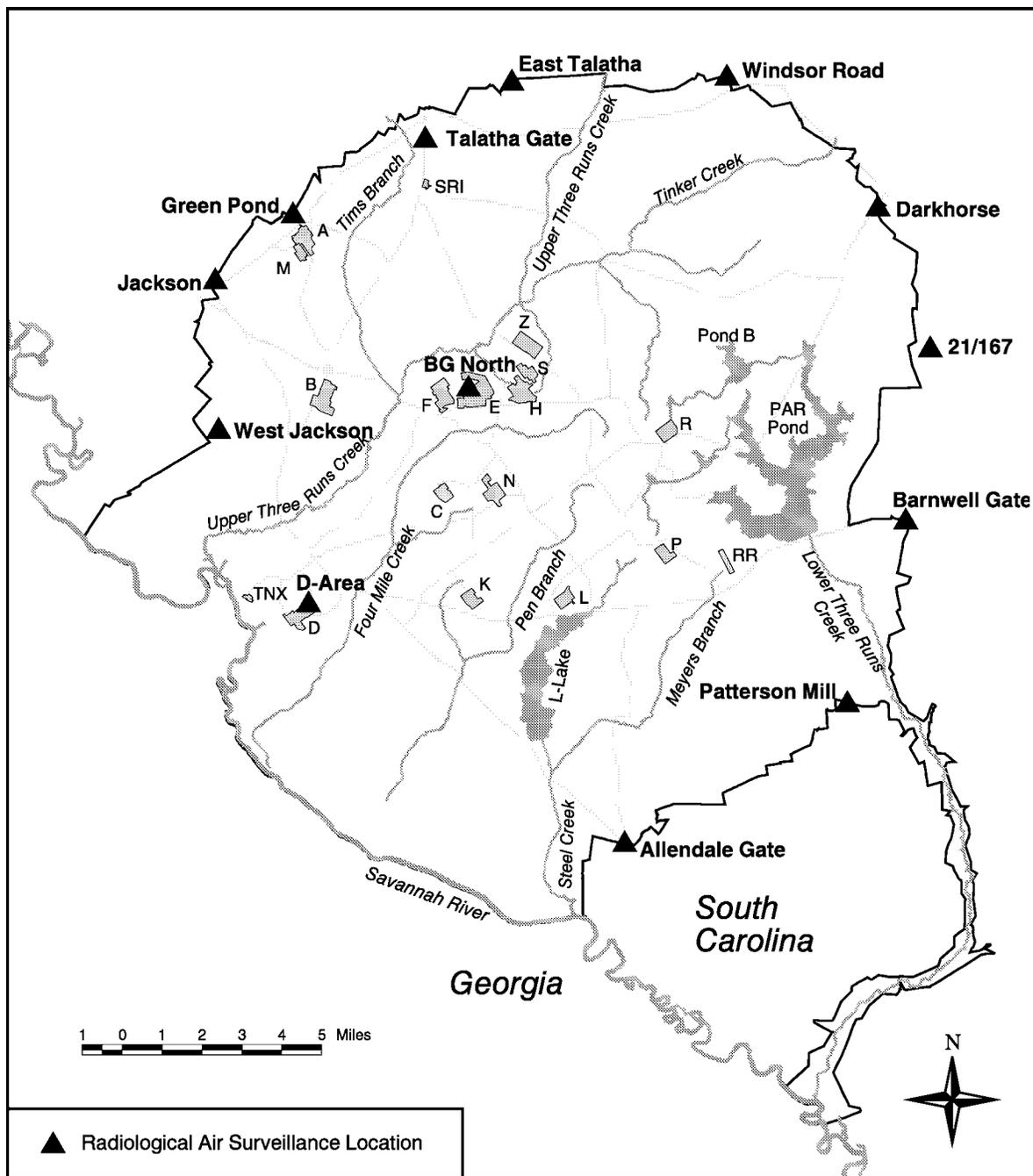


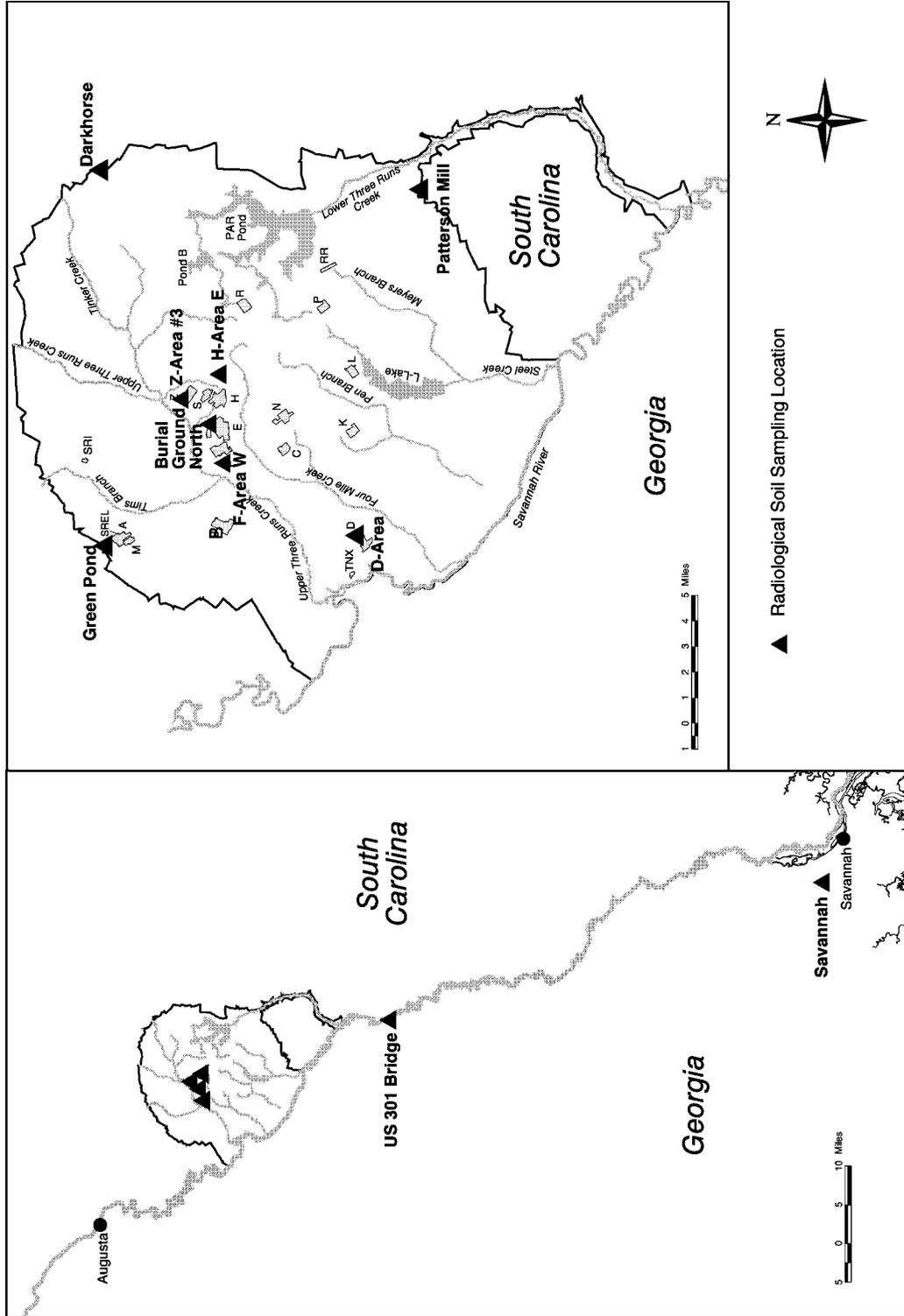
Figure 3 NPDES Sampling Locations
 Thirty-one industrial wastewater outfalls were regulated at SRS under NPDES Permit SC0000175 during 2002.



ESS/GIS Map

Figure 4 Radiological Air Surveillance Sampling Locations

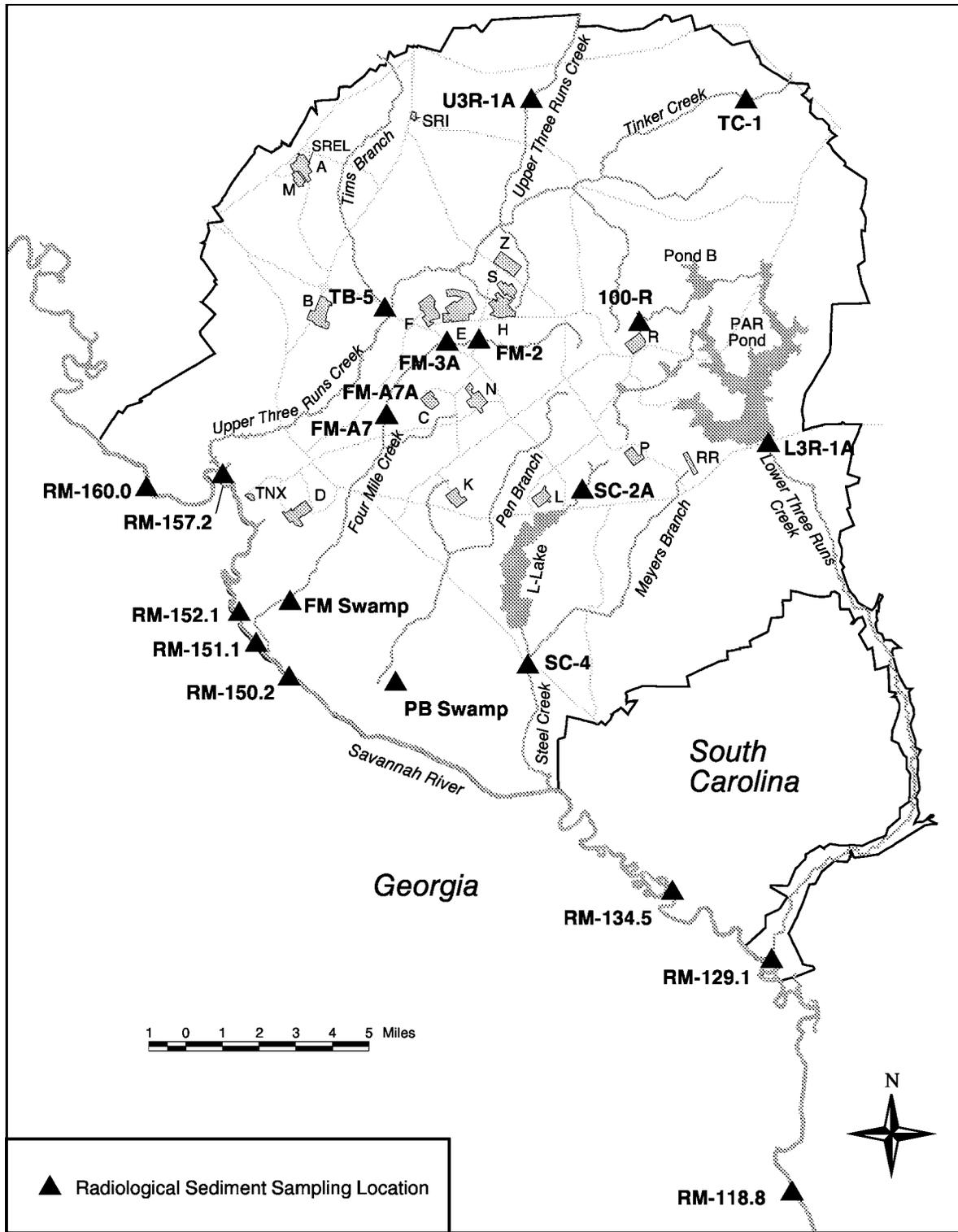
The SRS air surveillance program consists of 13 stations located on site or along the site perimeter, as well as (not shown) three stations approximately 25 miles from the site perimeter (located near the U.S. Highway 301 Bridge over the Savannah River; the New Savannah Bluff Lock and Dam, also known as the Augusta Lock and Dam; and the Aiken airport) and one about 100 miles from the site perimeter (near Savannah, Georgia).



ESS/GIS Map

Figure 6 Radiological Soil Sampling Locations

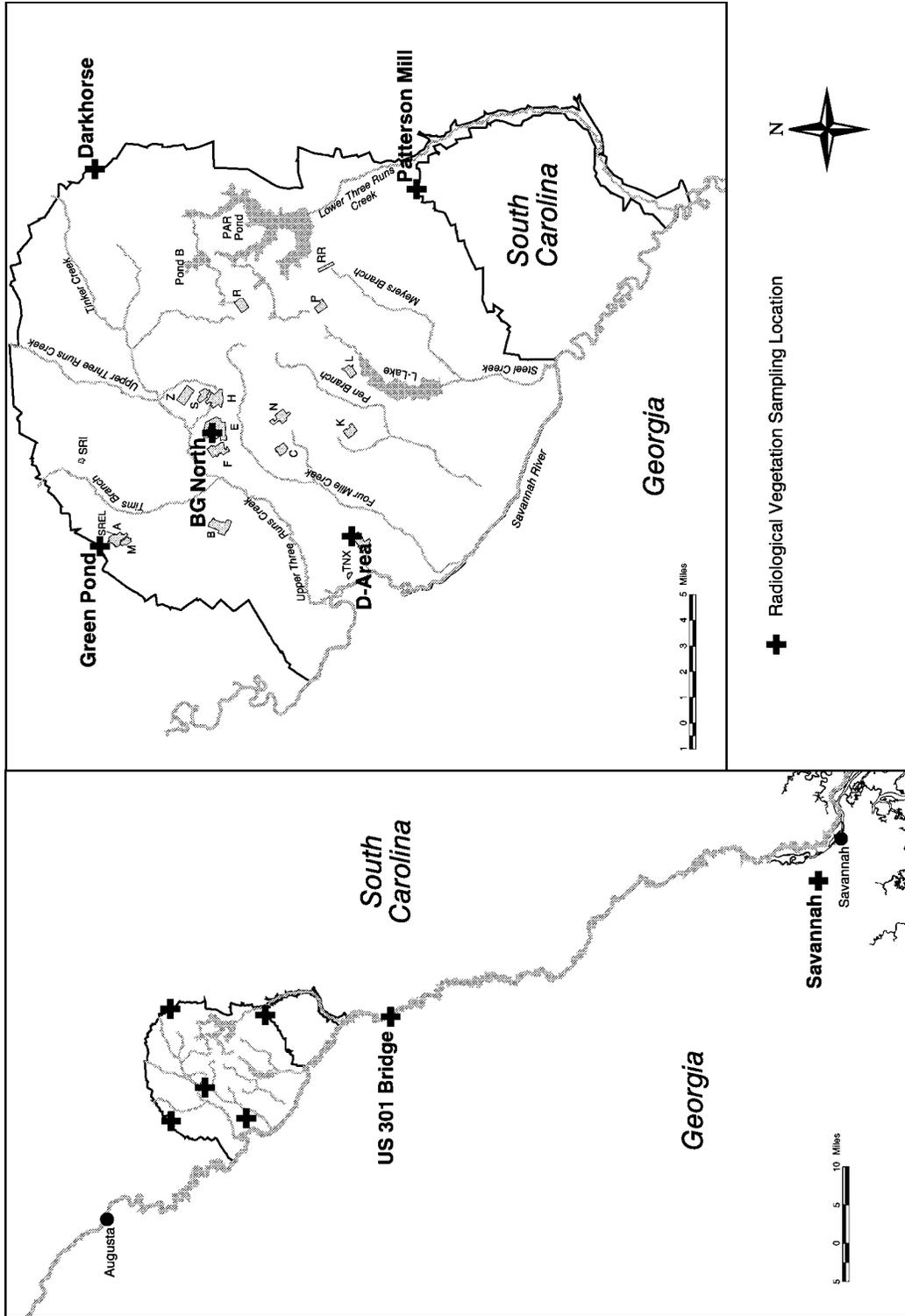
SRS collected soil samples in 2002 from four onsite locations, four site perimeter locations, and two offsite locations—one near the U.S. Highway 301 Bridge over the Savannah River and one near Savannah, Georgia..



ESS/GIS Map

Figure 7 Radiological Sediment Sampling Locations

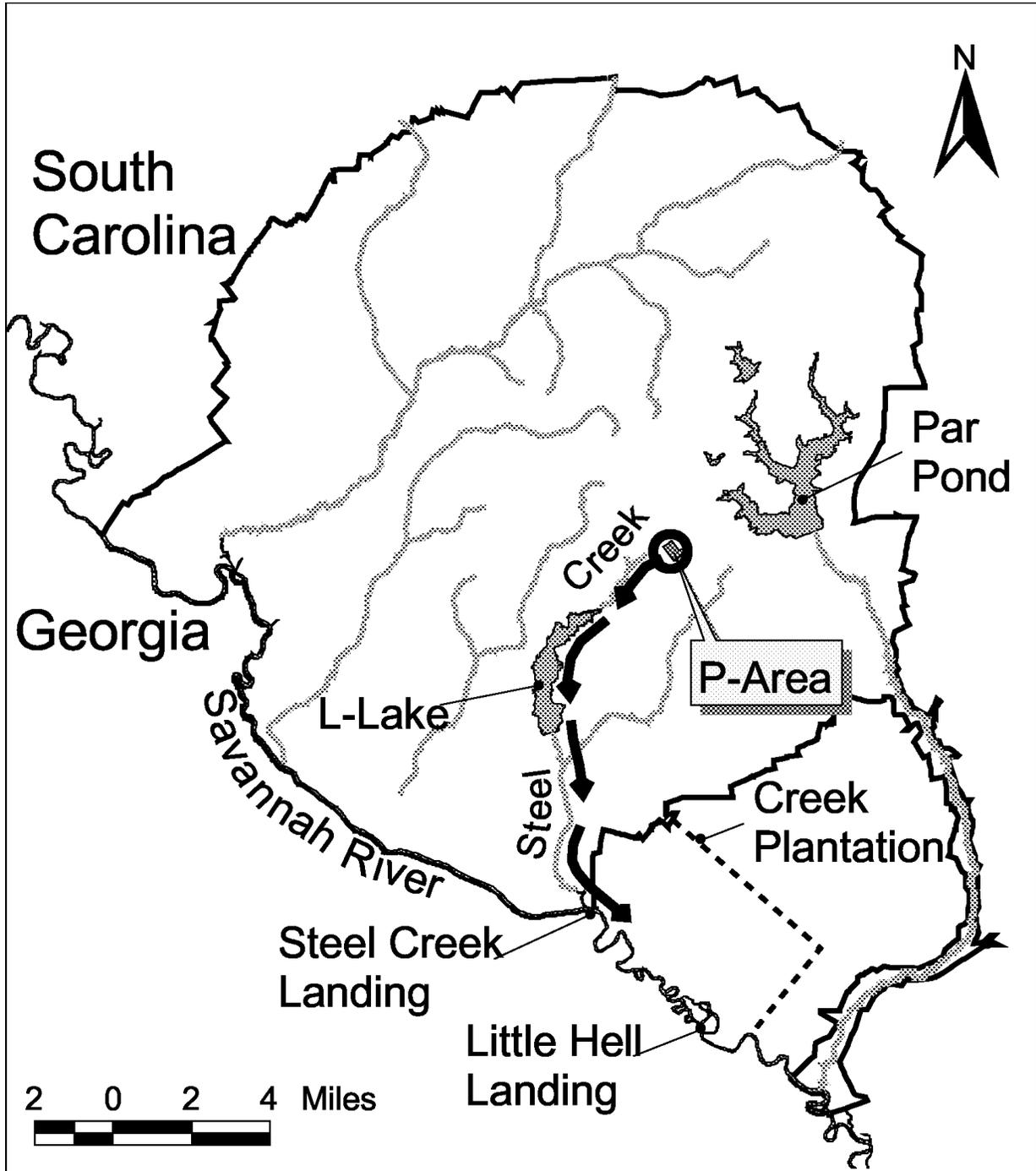
Sediment samples were collected in 2002 at eight Savannah River locations—upriver of, adjacent to, and downriver of the site—and 13 site stream locations.



ESS/GIS Map

Figure 8 SRS Vegetation Sampling Locations

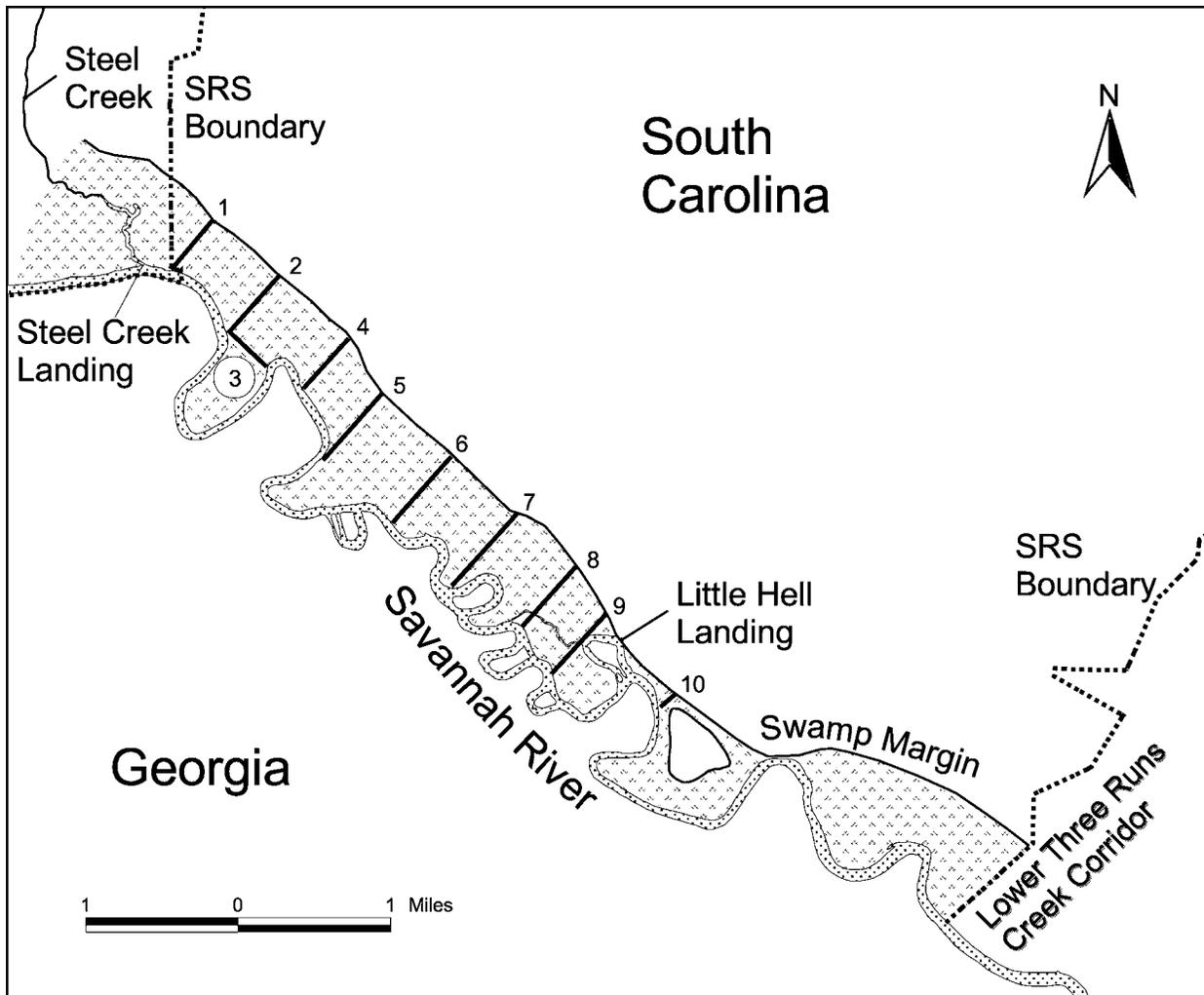
Vegetation samples were collected for radiological analysis in 2001 from five locations on site and two off site (near Savannah, Georgia, and at the U.S. Highway 301 Bridge over the Savannah River).



SRTC Map

Figure 9 Swamp Contamination

Radioactivity released from SRS operations contaminated the Savannah River Swamp between Steel Creek and Little Hell Landing—an area outside the SRS boundary—during the 1960s. Approximately 25 Ci of cesium-137 and 1 Ci of cobalt-60 were released from the P-Area storage basin to Steel Creek and migrated downstream to a part of the swamp.



SRTC Map

Figure 10 Savannah River Swamp Sampling Trails

Ten sampling trails were established in the Savannah River Swamp in 1974 so that surveys could be conducted on the movement of contamination from SRS operations.

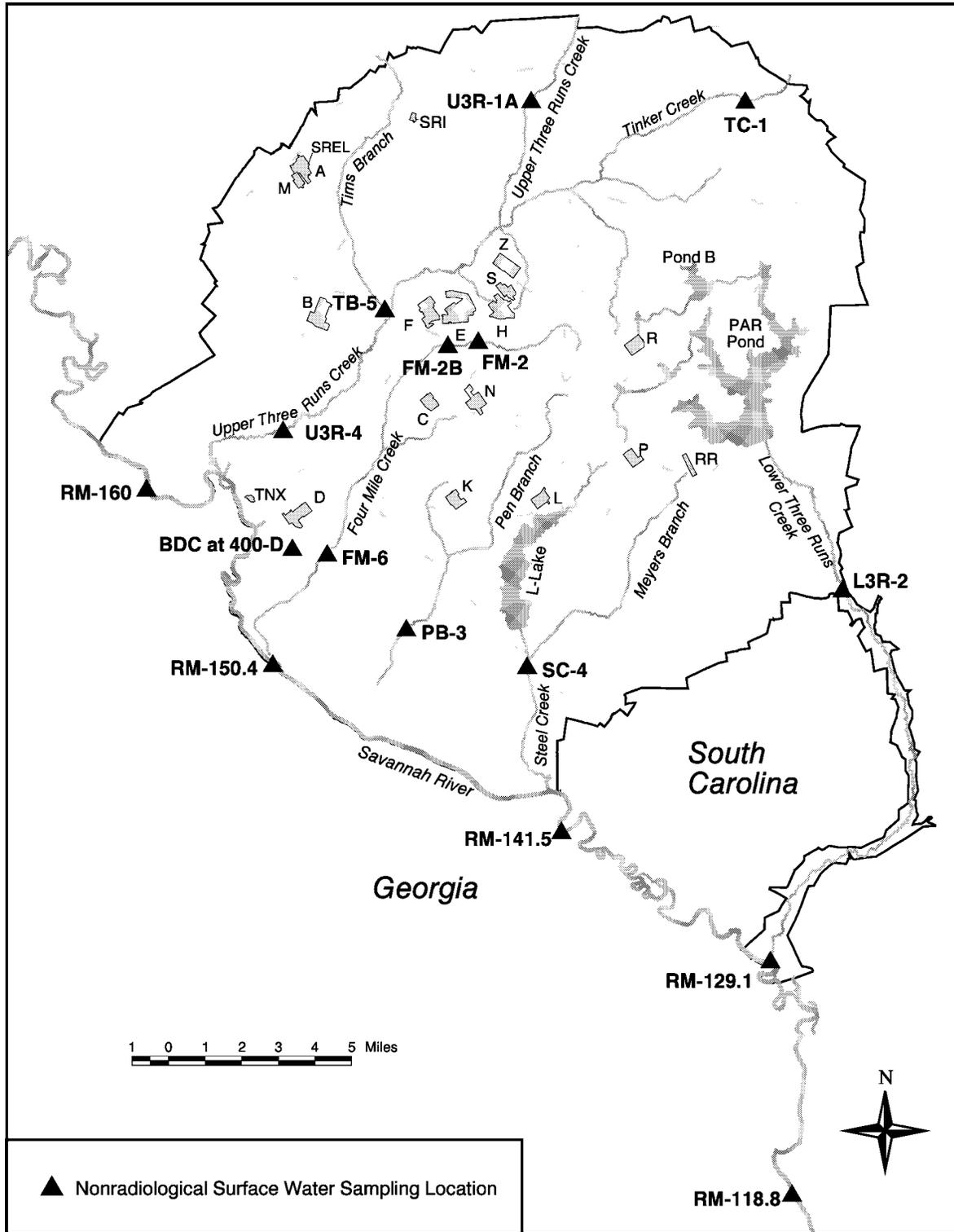
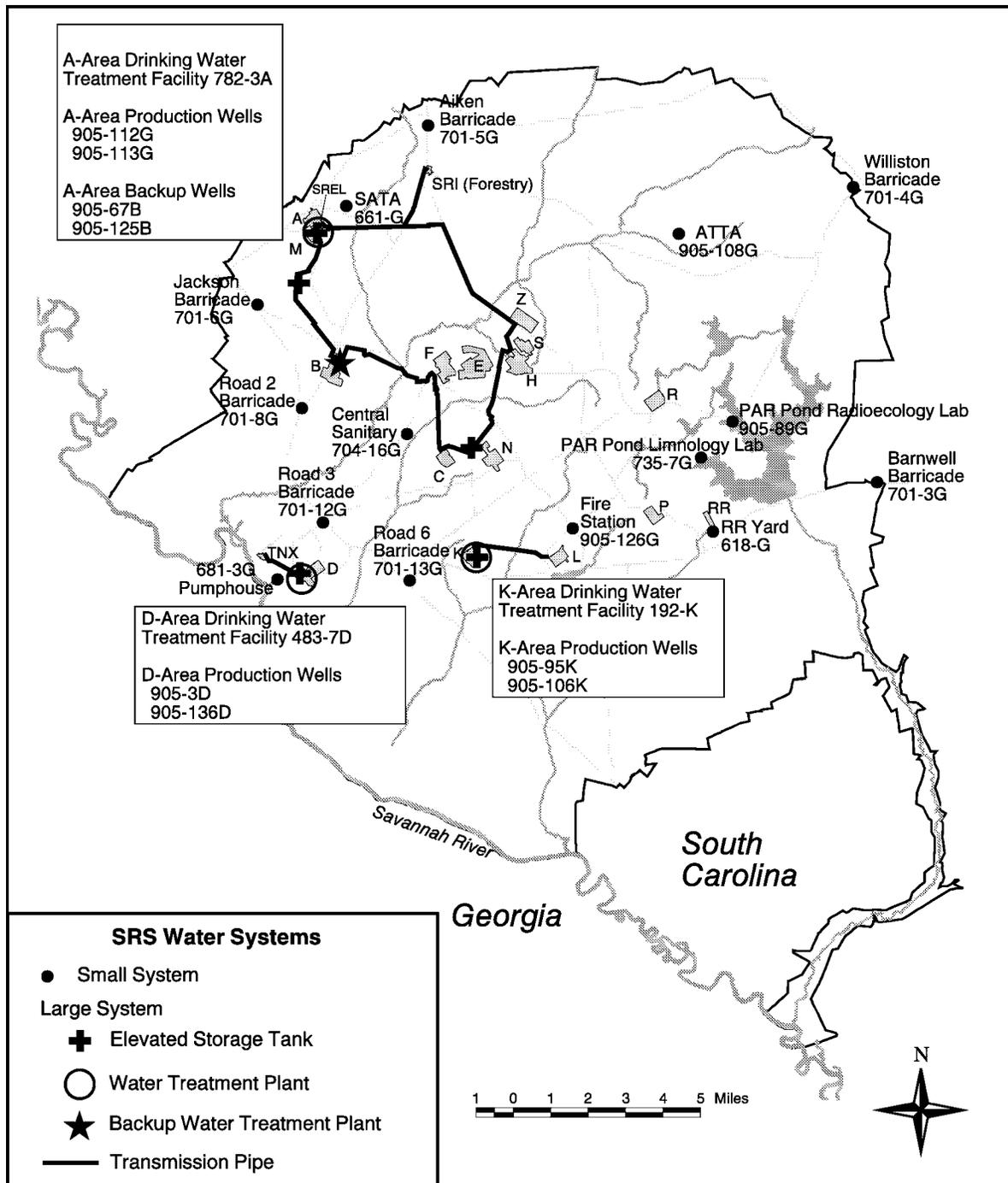


Figure 11 Nonradiological Surface Water Sampling Locations

Surface water samples are collected from five Savannah River and 11 SRS stream locations and are analyzed for various chemical and physical properties.



ESS/GIS Map

Figure 12 Drinking Water Systems

Most of the drinking water at SRS is supplied by three systems. The site also has 15 small drinking water facilities that serve populations of fewer than 25 persons. The three larger systems are depicted by transmission pipes, elevated storage tanks, water treatment plants, and a backup water treatment plant.

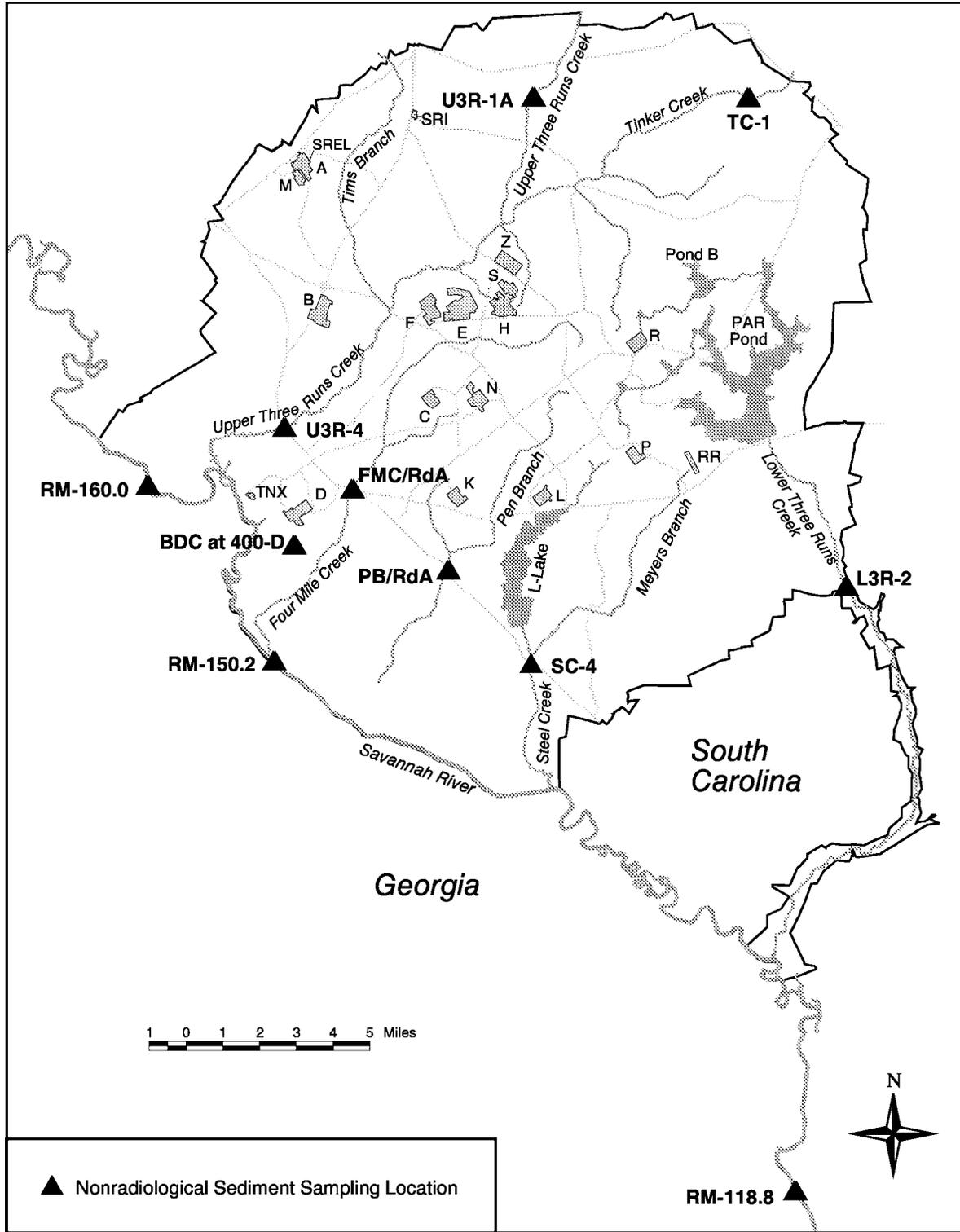
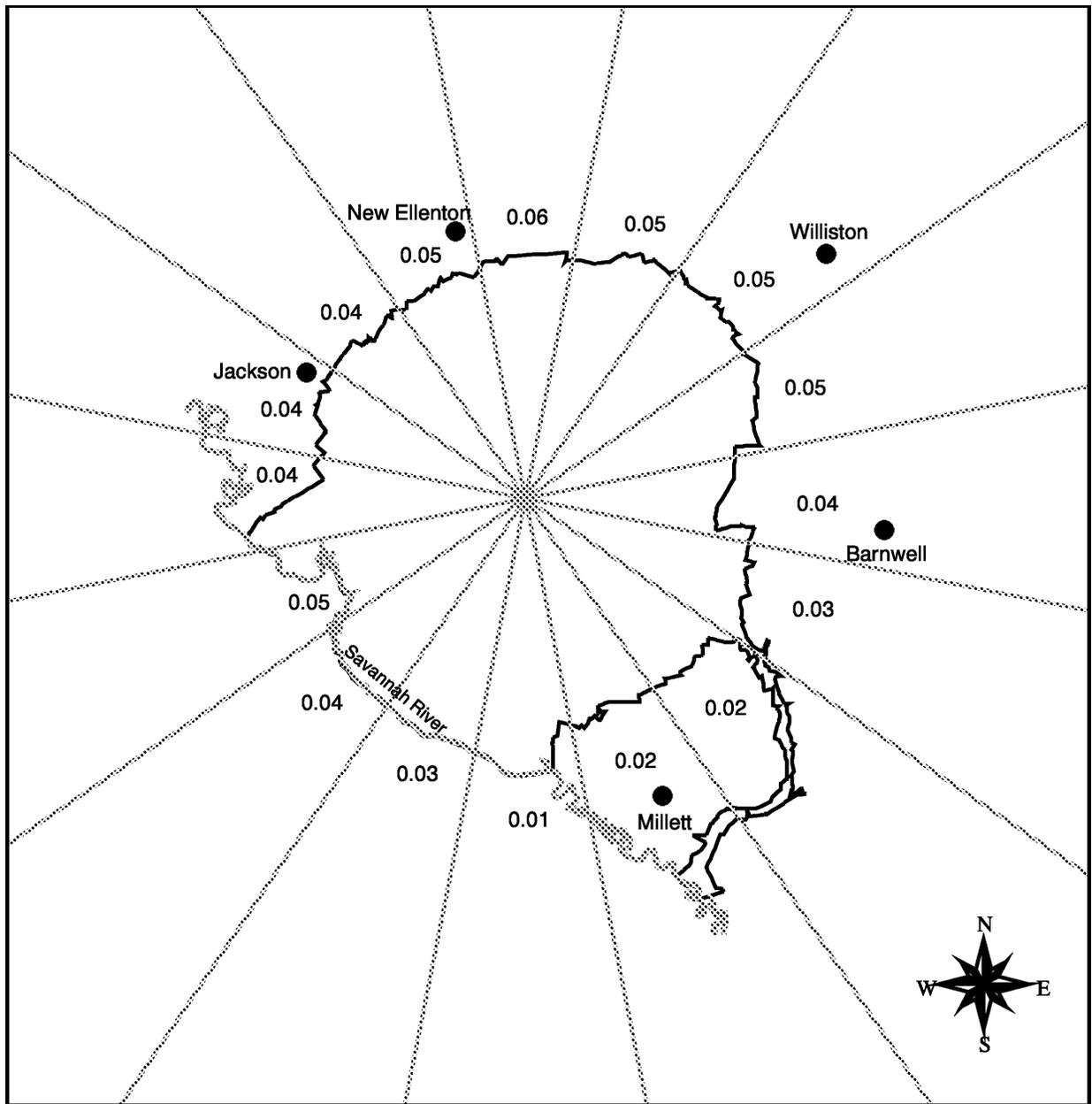


Figure 13 Nonradiological Sediment Sampling Locations

Sediment samples are collected at eight onsite stream locations and three Savannah River locations. The samples are analyzed for various inorganic contaminants (metals) and pesticides/herbicides.

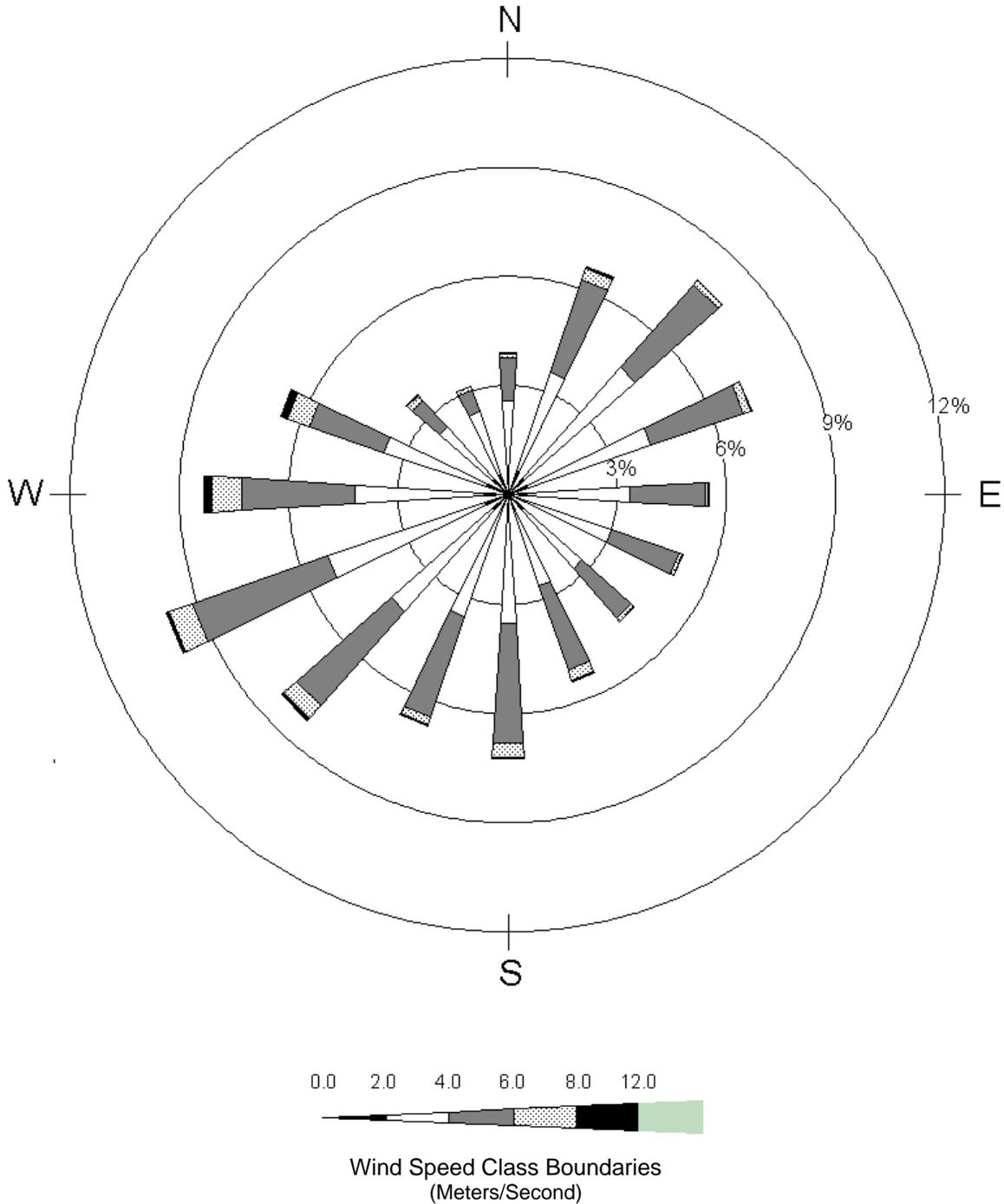


ESS/GIS Map

Figure 14 Sector-Specific Adult Maximally Exposed Individual Air Pathway Doses (in mrem) for 2002

Maximally exposed individual site boundary doses from airborne releases are shown for each of the 16 major compass point directions surrounding SRS. For 2002, the due-north sector was the location of the highest dose (0.06 mrem) to the maximally exposed individual dose.

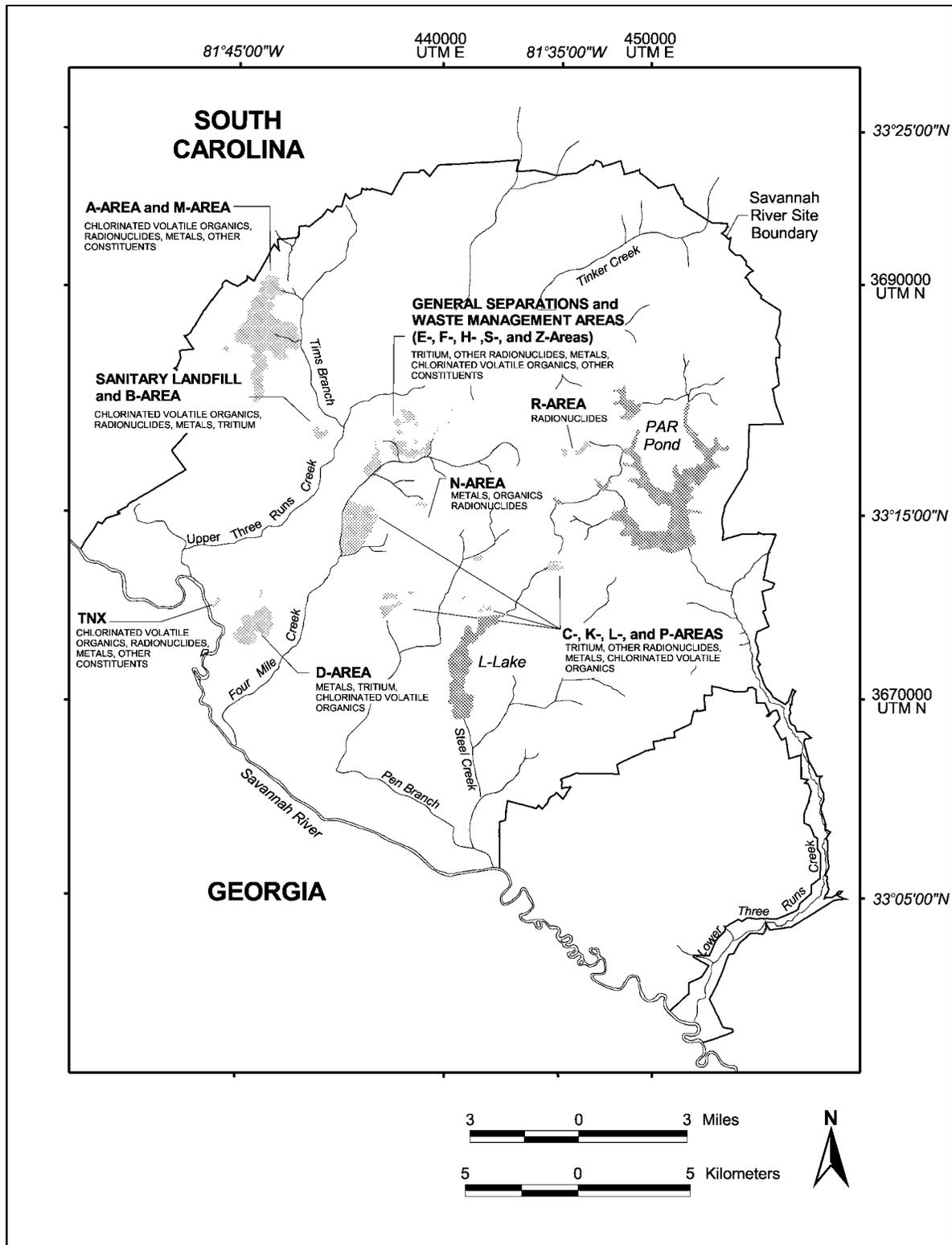
**Wind Rose for the H-Area Composite Data Set
Five-Year Period 1997–2001**



SRS Atmospheric Technologies Graphic

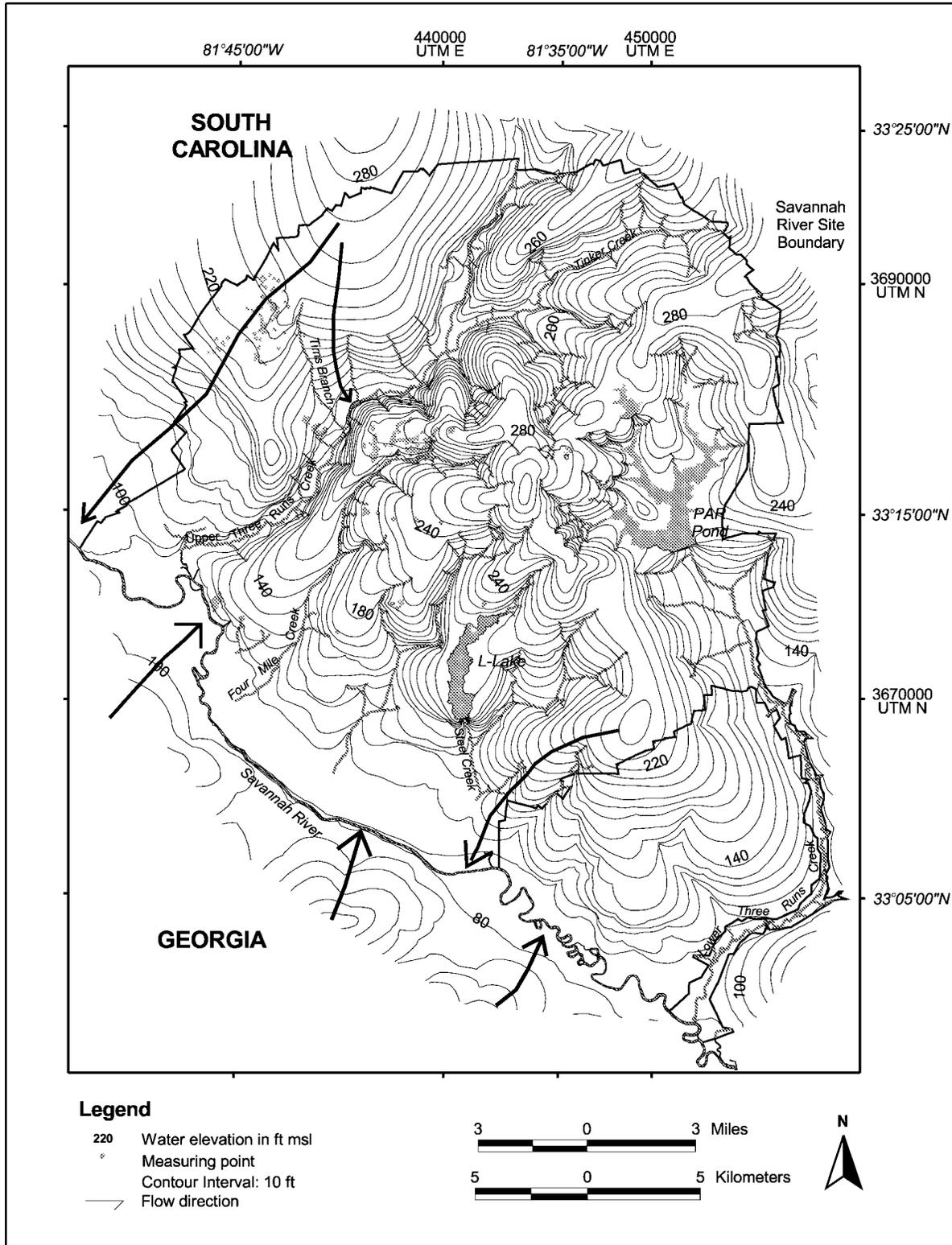
Figure 15 Wind Rose for SRS, 1997–2001

This wind rose graphically depicts the percent of occurrence frequencies of six wind speed categories by 16 cardinal wind direction sectors at SRS. The wind speed categories are defined on the plot; direction is defined as the sector from which the wind blows. The data used to generate the wind rose consist of hourly averages of wind speed and direction at the H-Area meteorological tower for the 5-year period 1997–2001; measurements were taken 200 feet above the ground.



SRTC/ER Map

Figure 16 Facilities Monitored by the SRS Monitoring Well Network; Shaded Areas Indicate Extent of Groundwater Contamination in 2002.



SRTC/EST Map

Figure 17 Water Table Contours at SRS

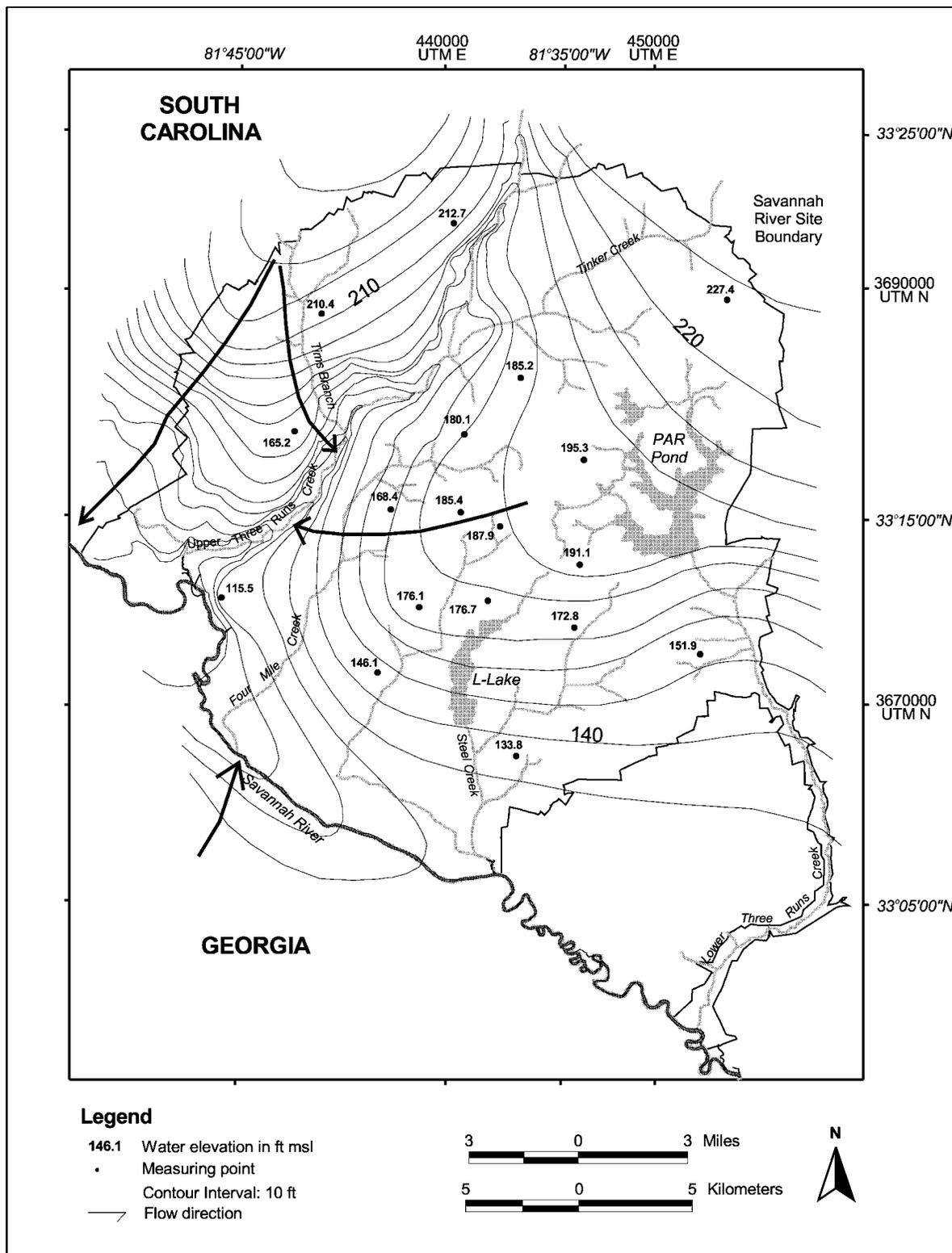
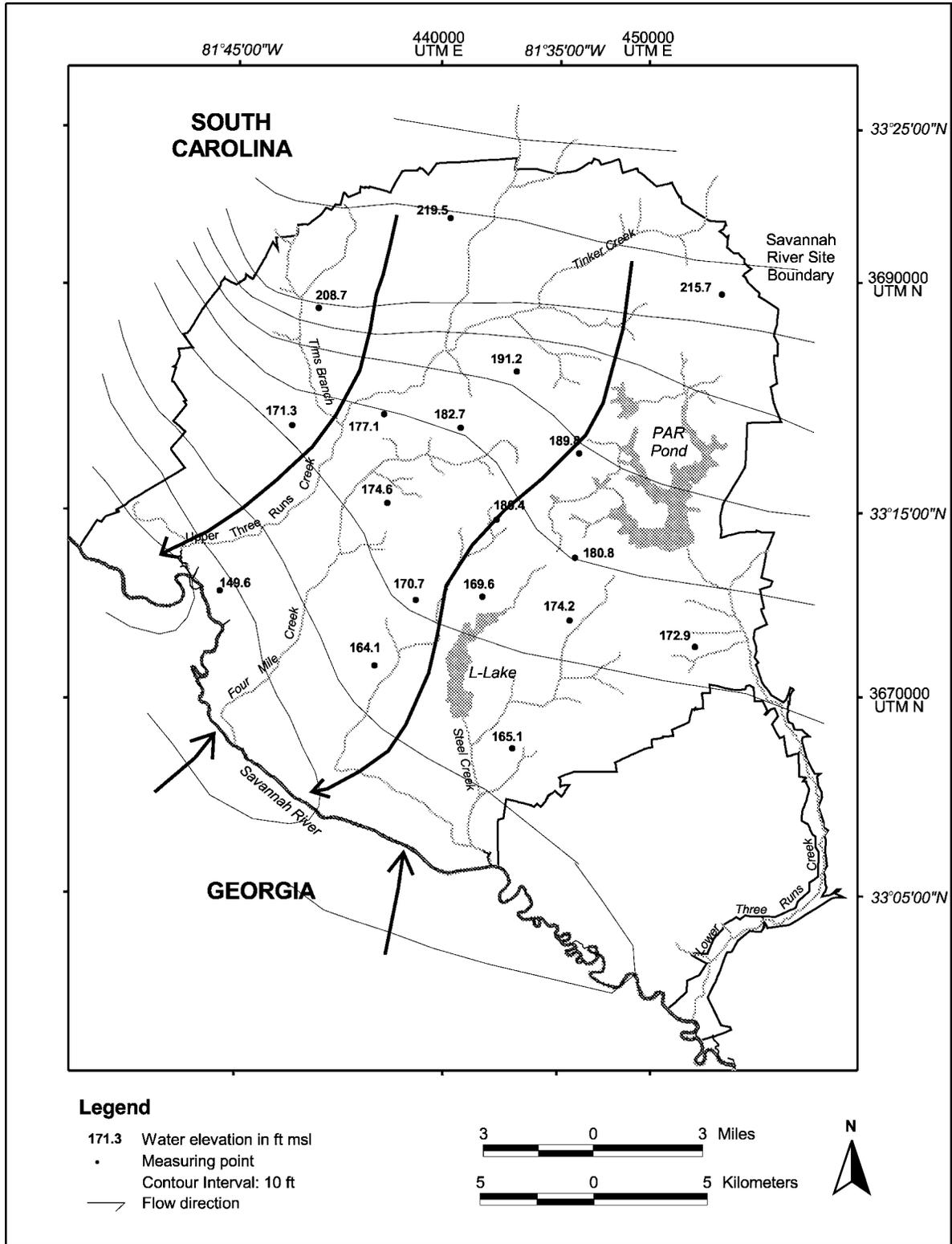


Figure 18 Potentiometric Surface of the Gordon Aquifer at SRS



SRTC/EST Map

Figure 19 Potentiometric Surface of the Crouch Branch Aquifer at SRS

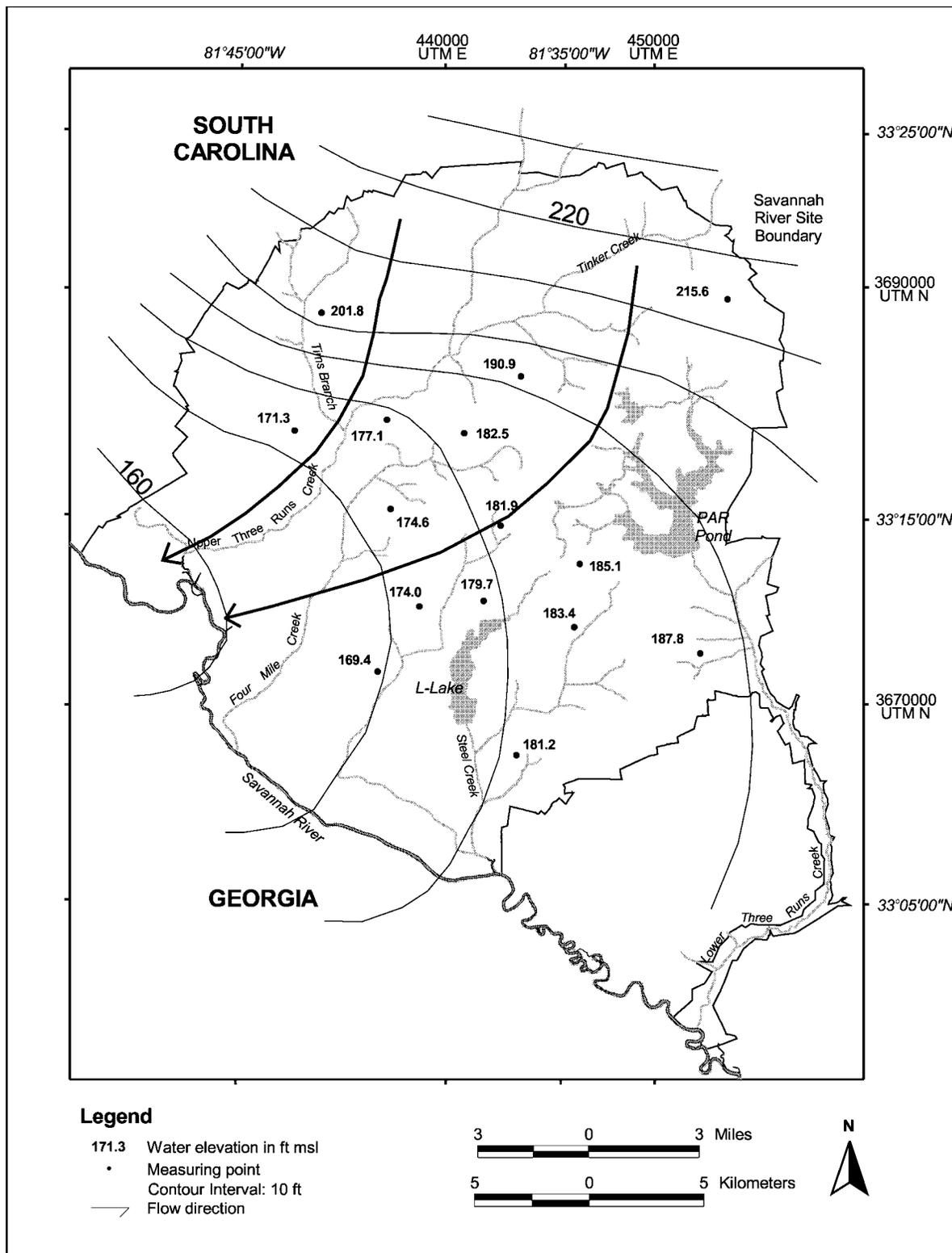


Figure 20 Potentiometric Surface of the McQueen Branch Aquifer at SRS

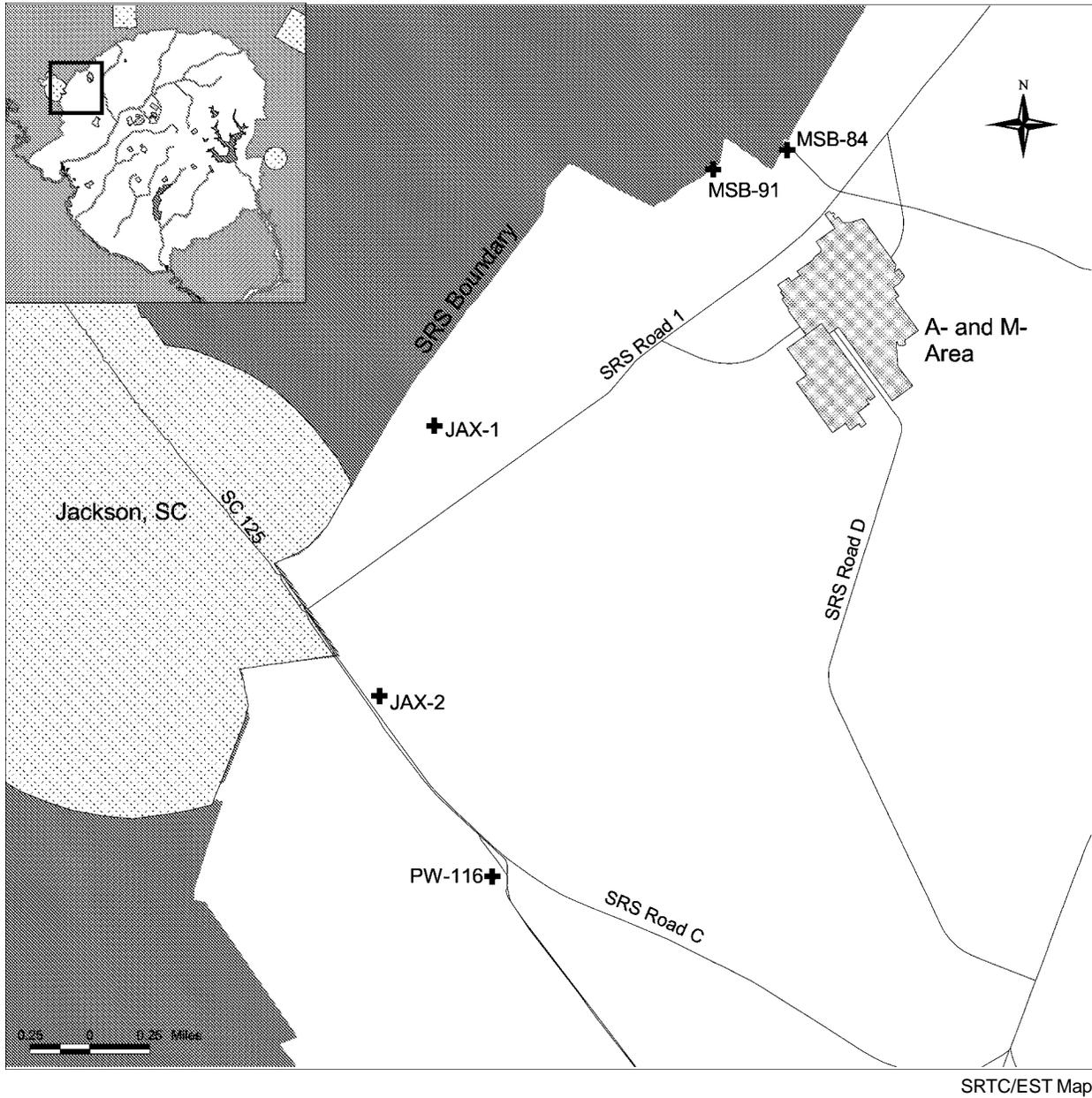
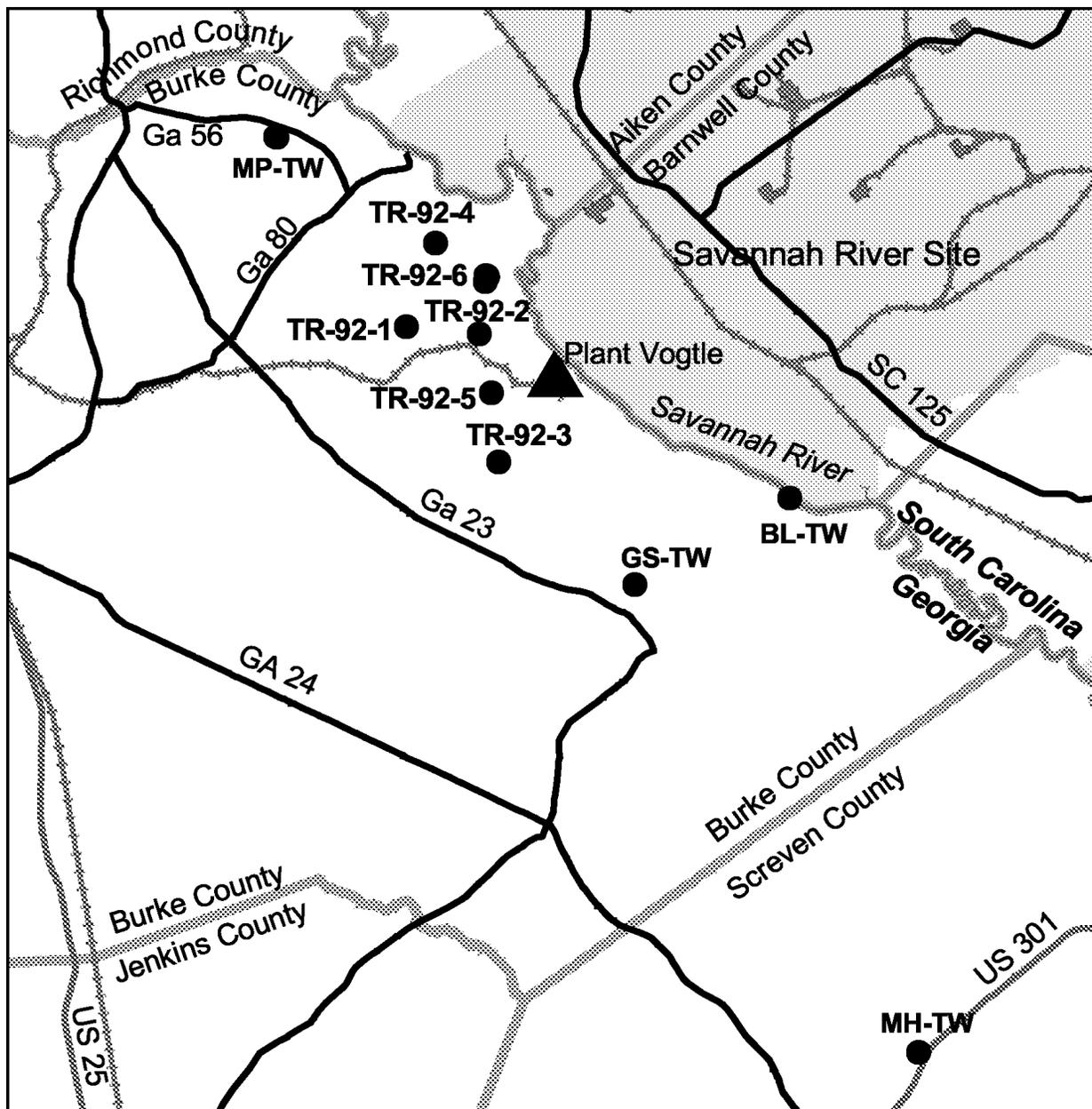


Figure 21 Wells Along Site Boundary Between A-Area/M-Area and Jackson, South Carolina (Nearest Population Center)



ESS/GIS Map

Figure 22 Burke/Screven County, Georgia, Well Locations