



## **USDA-CSREES 2007 National Water Quality Conference**

### **Assessment of Pesticides in urbanized watersheds of the Atlanta Metropolitan Area**

Since 1970, the population of Metropolitan Atlanta has more than doubled, from 1.5 to 3.8 million people, resulting in a loss of forest and pasture land for development of urban and suburban uses. Impacts resulting from this urbanization include the runoff of pesticides to surface water from lawns and gardens as well as from commercial and municipal uses. While much of the research for pesticide occurrence in surface water has focused on agricultural areas, previous studies by the U.S. Geological Survey (USGS) indicate that the frequency of pesticide occurrence and concentrations are often greater in urbanized watersheds than in agricultural watersheds. Because of the potential for pesticides to impact water resources, the Georgia Department of Agriculture (GDA) is interested in better understanding pesticides in urban and suburban surface-water systems to aid in management decisions. In cooperation with the GDA, the USGS has begun a study to assess the occurrence of pesticides in Metropolitan Atlanta streams; data from this study will be used by the GDA to manage pesticide use in urban and suburban areas. Five sites were selected: Sope Creek, Suwanee Creek, White Oak Creek, Nickajack Creek, and Noses Creek. These sites are currently being sampled bimonthly for a two-year period to assess the occurrence of pesticides along a gradient of urbanized development. These data will be used to determine temporal distribution of pesticide concentrations in surface water in relation to aquatic-life criteria.

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