

SUCCESS STORY

"Urban Ecosystem Analysis"

City of Montgomery

Project Statement: To determine the effect of land cover changes in Montgomery, Autauga, and Elmore Counties Alabama. The results of this assessment will demonstrate the environmental value of an urban forest canopy while giving local communities important information and tools for public policy making decisions regarding land use planning.

Location: The assessment covered more than 1.3 million acres (2,060 square miles) of the three-county area. For the analysis, the City of Montgomery was divided into subwatersheds, council districts, and the riverfront master plan.

Background: The City of Montgomery received a \$72,077 Urban & Community Forestry financial award through Auburn University to contract with American Forest to complete an ecosystem analysis. The project followed up on the City of Montgomery's 2002 Urban Forestry Plan's recommendation to "incorporate, manage, and protect trees as a component of the city's infrastructure." The project followed a time sequence analysis of the area's land use change using Landsat satellite imagery, a detailed assessment of the City of Montgomery's tree cover was also conducted using high-resolution multi-spectral satellite imagery.

Major Findings: The ecosystem assessment found that in Montgomery, Autauga, and Elmore Counties, Alabama that:

- As of 2002, the tricounty area had an urban tree canopy of 47%, open space of 34%, impervious surfaces totaling 9%, bare ground equaling 7%, and water surfaces comprising 3%.
- Between 1986 and 2002, the tricounty area lost 7% of its tree cover.
- During the same period, the area lost storm water storage capacity of 319,000 cubic feet and lost the ability of trees to absorb 8.9 million pounds of pollutants annually.
- As of 2002, the total storm water capacity of trees was 3.3 billion cubic feet
- The tricounty area's urban forest removes 58.6 million pounds of air pollutants each year.

Since the completion of this project, an ad hoc steering committee has been formed to study the assessment's findings and recommendations and to develop strategies for their implementation. The committee has representatives from all three counties. The City of Montgomery is also examining ways to incorporate the green data layer into its municipal GIS system. In addition, the assessment's results are being used to address public policy decisions for land-use planning and growth management.

Contact: Kitty Chamberlain
City of Montgomery
Planning Department
27 Madison Avenue
2nd Floor
Montgomery, Alabama 36104
Phone: (334) 241-2699
Email: kchamberlain@ci.montgomery.al.us