

URBAN FOREST HEALTH MONITORING IN THE UNITED STATES — Part 2

By David J. Nowak, Daniel Twardus, Robert Hoehn, Manfred Mielke, Bill Smith,
Jeffrey T. Walton, Daniel E. Crane, Anne Cumming, and Jack C. Stevens

A second pilot study in Wisconsin in 2002 was conducted in cooperation with the Wisconsin Department of Natural Resources. In all, 119 urban non-forest plots were sampled (plus 28 previously measured FIA forest plots in urban areas). All urban non-forest plots in Wisconsin (1 plot every 6,000 acres) were established and measured in the first year. After the first year of complete data collection, the inventory was designed to monitor one-fifth of the plots each year so that all plots are updated in 5 years. A third inventory pilot was initiated in New Jersey in 2003.

Urban forest inventory plots consist of four 24-foot, fixed-radius subplots spaced 120 feet apart. This particular plot layout, although useful in forested situations, has proven more difficult in urban settings. The distance between subplots often results in

numerous contacts with property owners to establish a plot. In Wisconsin, an average of five owner contacts was made per plot, and 12 owner contacts were recorded for a single plot. Training of field crews included extensive manual review and field demonstrations of plot layout and tree measurements. Plot re-measurements and checks were conducted to maintain data quality.

The FIA National Core Field Guide was modified for urban non-forest data collection to include urban land-use codes; plantable space; and subplot tree, shrub, and ground cover information. An extended tree species code list has been incorporated, and all trees one inch and larger in diameter on urban non-forest plots are measured. An urban FIA field guide can be accessed at <http://www.fs.fed.us/ne/syracuse/Tools/tools.htm>.