



USDA Forest Service  
Urban and Community  
Forestry Program

Mark Buscaino, Director

Urban and Community  
Forestry Program  
201 14<sup>th</sup> Street, SW,  
Stop-Code 1123  
Washington, DC 20024  
Voice 202.205.1054  
Facsimile 202.690.5792



## Urban and Community Forestry Program

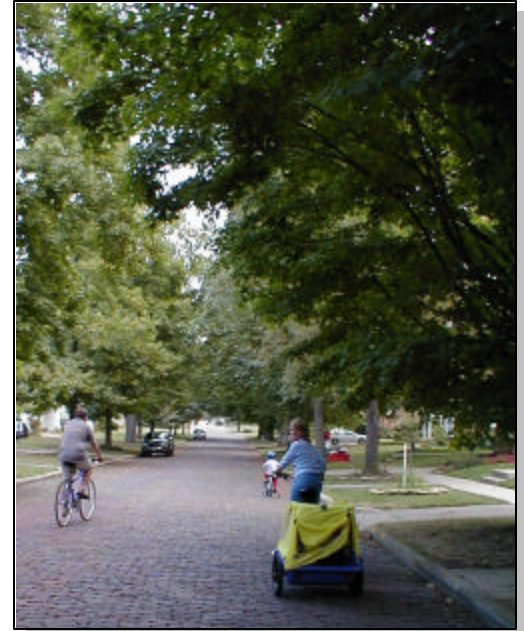
### Urban Forest Health Monitoring

#### Issue Statement

Our nation's landscape, and a large majority of our communities, can no longer be characterized as "small town America." Between 1960 and 2000, total urban land area in the United States doubled from 25 to 50 million acres, and development claims an additional 1.4 million acres each year. A large majority - 80% - of our nation's population lives within these urban areas, and the next 50 years will see accelerated urban expansion bringing with it tremendous opportunities and complex problems, especially concerning public health. Predictions estimate that almost 15% of the US land area will be urban/suburban, an increase of 10% over only 10 years.

Development of forested and non-forested lands usually translates into loss of ecosystem structure and function, reductions in air and water quality; increases in ambient air temperatures; intensification of storm water runoff and increased erosion; elevation of human stress levels; and other negative impacts. Preserving and managing urban green spaces and the trees that occupy them are critical to mitigating these impacts.

Individual trees and forested remnants *within* urban areas account for 25% of the nation's total tree canopy, and the amount of leaf surface area that urban tree canopies support significantly reduces the negative impacts of urbanization. Equally important, using trees as part of the equation for a healthy community environment makes sense because of the strong positive attitude most Americans have toward preserving and planting trees in their neighborhoods. In short, the role trees can play to create healthy, livable communities because of their environmental benefits and social acceptance represents an enormous, but untapped, resource. This resource can provide a major boost in our agency's struggle to provide clean air, clean water, wildlife habitat, recreational opportunities, cool streets, desirable neighborhoods, and other benefits, to our nation's citizens.



#### Need Statement

Despite clear evidence on benefits "community forests" provide, little is known about their overall composition, structure and health. Although the Forest Service is responsible for monitoring all of the nation's forests, currently it monitors only forests classified as "non-urban." To fill this gap and provide a complete picture of all of the nation's forests, a National Urban Forest Health Monitoring (UFHM) program is needed. Urban forest health monitoring will provide the FS and our partners - state government, local government, not-for-profits, private industry and others, reliable baseline data needed to effectively manage this important resource.

#### Current Efforts

By 2002, UFHM pilots were underway in Maryland, Massachusetts, New Jersey, Indiana, and Wisconsin. Preliminary data has been invaluable. In these pilot states, we can now estimate the extent of ash trees in urban areas threatened by Emerald Ash Borer (EAB), replacement costs, and the feasibility of capturing the value of these trees through urban saw milling operations, cogeneration plants, and other use alternatives. We can now also estimate risks in urban tree populations to Sudden Oak Death and Bacterial Leaf Scorch, which may significantly impact oaks other hardwoods nationwide. If this data were

## ***Urban and Community Forestry Program***

### ***Urban Forest Health Monitoring***

---

available during the outbreak of Asian Longhorned Beetle in New York and Chicago several years ago, the damage created by these invasive exotic pests may have been minimized.

In Massachusetts, the data showed an ageing statewide street tree population that is lacking in species diversity. With this information, state forestry officials can now make informed “smart” requests for increased planting budgets and impose species diversity requirements to reduce future statewide economic loss. More generally, Forest Service Research is now using preliminary data in air quality models, and can show what the urban forests in these piloted states contributes to improving air quality statewide. To summarize, UFHM data will provide the basis for sound management for our nation’s community forests to maximize the benefits they provide for all citizens.

### ***UFHM - Addressing Agency Priorities***

The importance of monitoring and maintaining healthy forests is underscored in the Cooperative Forestry Assistance Act, in Chief Bosworth’s Four Threats and by the Healthy Forests Restoration Act of 2003.

Cooperative Forestry Assistance Act (CFAA) – The CFAA directs the Forest Service to “conduct surveys and establish monitoring systems throughout the forests of the United States”. Since forests in urban areas make up 25% of the nations forests, and they are universally recognized as producing many values for communities nationwide, these lands must also be regularly monitored.

Chief Bosworth’s “Four Threats” – A UFHM program addresses two of the Chief’s Four Threats: 1) control of invasive species, and; 2) preservation of open space. An UFHM program will provide data about our nation’s urban forest species diversity, identify regions that may be at risk to specific pests or diseases, show the rate of urban encroachment on rural lands, provide encouragement and information to localities to show them the benefits of preserving more open space in and around urban areas, and provide guidance to natural resource professionals on how to preserve and manage urban forests locally, regionally and nationally.

The Healthy Forests Restoration Act of 2003 (HFRA) provides the Forest Service direction on several fronts, among them: enhance the health of urban watersheds, and; combat infestations of invasive species. A UFHM will assist these efforts by providing data on the forest condition in urban areas and how they can be managed to ameliorate watershed health, and; provide early detection of invasive pests in urban areas where they typically get their start.

---

---

For More Information Contact:

**Mark Buscaino, Director**  
**Urban and Community Forestry Program**  
**201 14<sup>th</sup> Street, SW, Stop-Code 1123**  
**Washington, DC 20024**  
**Tel: 202-205-1054, Fax: 202-690-5792**