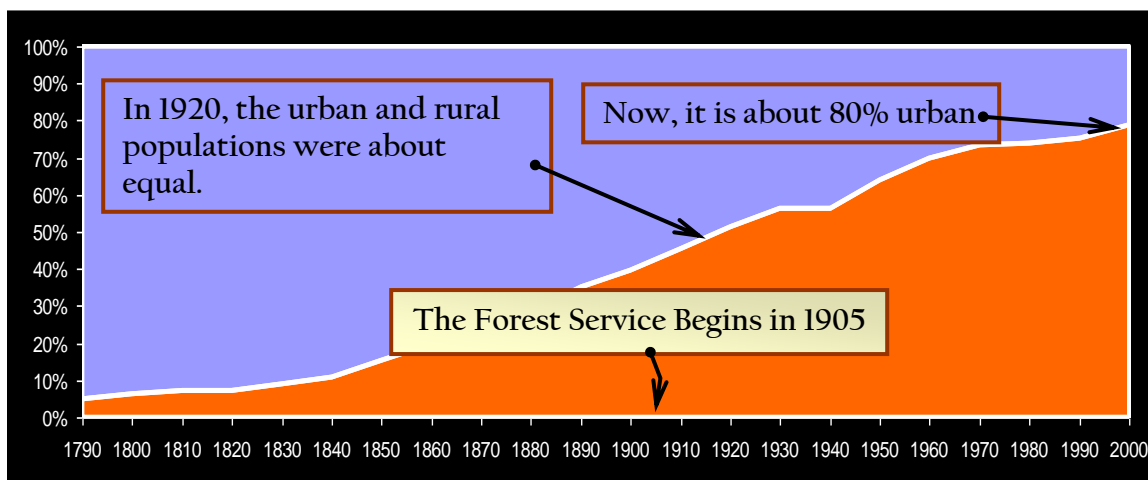


Expanding the Stewardship of America's Urban Natural Resources: Improving the Lives of People through Management and Protection of Trees, Forests, and Related Natural Resources in Urban Areas

Michael T. Rains, Director, Northern Research Station, Research and Development, USDA Forest Service
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Introduction. The United States Forest Service, in partnership with state and local forestry agencies and interests, has been formally engaged with the management and care of trees and forests in cities, towns and communities since the early 1970's. When the Forest Service was created in 1905, only 13 cities worldwide had populations of one million people or more. Eighty years later 230 cities had one million plus populations. In the new millennium, it is projected there will be over 400 cities with a population of one million people and 26 mega-cities with populations of over 10 million. Our urban population was about 50% in 1920 -- today more than 80% of our people live in cities and towns -- fully one-fourth of the nation's counties are now considered to be urbanized. Simply put, this is the first century in our history that the majority of humans live in urban areas. A recent Forest Service assessment shows the size of America's urban forest at about 70 million acres. A driving question we are faced with is: How can Federal agencies, including the Forest Service, and a wide-range of other interests ensure the proper care of our urban natural resources in order to effectively link environmental health with community well-being to improve people's lives?

Urban and Rural Population in the United States (1790 to 2000)



¹ This is a slightly revised version from the original paper dated September 24, 2006.

Growth and Loss of Open Space. One of the major threats facing the stewardship of our natural resources is the loss of open space occurring through forest fragmentation, urban sprawl, and even development within cities. Clearly, people are having an ever-increasing impact on the natural environment. Cities and towns are expanding, stretching their perimeters, taking in more and more people and swallowing up more and more land.

For example, the population of Atlanta has more than doubled in the past twenty years. Accompanying this doubling of the population was a 400-fold increase in urbanized land area and a loss of 60 percent of its trees. Philadelphia and the surrounding suburban area lost one-third of its tree canopy during the last decade. Similar examples are found throughout the U.S. over the past twenty years.



While growth may be inevitable, smarter growth and reducing waste should be guiding principles if we are interested in sustainability. This notion may be particularly significant in our country, where people are becoming more physically or psychologically disconnected from nature and natural resources management. If we take better care of what we have, in this case our urban natural resources, we can help mitigate the threats to other natural resources while creating vibrant urban areas.

Some conclude that the best way to reduce urban sprawl and forest fragmentation is to make cities and towns more livable. The logic behind this idea is that, for the most part, people live where they want. Many really enjoy living in a big city. For others, what they want may be found further and further out from the central city: affordability and good schools with healthy and accessible natural resources.

However, not everyone has a choice. To be sure, many poor or low-income people may live in cities not because they choose to, but for lack of options about where to live or where to school their children. This is one of *the* key reasons why we must strive to maintain high quality cities—so those with less choice in our society also have quality places in which to live, work, and raise their families.

Trees and urban natural resources can play a critical role in providing high quality places for *everyone*, thereby reducing the development pressures at the urban fringe and improving equity in neighborhood quality. This may sound like an over simplification – how do trees provide safe communities and good schools? In fact, research indicates the important role that trees and urban natural resources play in creating healthy places for people to live – linkages have been found with children performing better in school and reduced crime rates. The body of research is becoming too large to ignore—healthy urban natural resources supports healthy urban places and people. For example, we are learning more everyday about the role of urban natural resources in reducing stress, in mitigating Attention Deficit Hyperactivity Disorder (ADHD),

and in other ways contributing to human health and productivity. Well-managed and healthy urban natural resources convey an investment in the social fabric of the city. They say the city, its inhabitants, and its natural resources, are worth caring about. Healthy urban natural resources also provide a means for local control in addressing local problems. For these reasons, a healthy urban forest is a sprout of hope, a green light for more good things to come. I feel this to be true. I love being in the city. For me, the larger, more complex the city, the better. Trees and urban forests tend to pull people into the city. Rhetorically, why would anyone ever want to leave an urban environment and all its possible amenities, including a rich diversity of natural resources? Provided with good choices, most would not want to leave. The proper management of natural resources in urban areas is fundamental to the concept that urban natural resources sustainability is linked to *all* natural resources sustainability. Trees may not be the *only* answer. However, it does seem clear that well-managed urban natural resources can play a pivotal role in the well-being of a city by keeping its soul – the people -- close. We can do this through sound stewardship.

Urban Natural Resources Stewardship. The term *Urban Natural Resources* can be defined broadly to include air, water, wildlife, trees, forests, and other natural features of the environment in urban, suburban, and urban-wildland interface areas. The term *Stewardship* is the management and protection, including restoration, of the *Urban Natural Resources*. *Urban Natural Resources Stewardship* is much broader in concept than the more traditional urban forestry. *Urban Natural Resources Stewardship* is designed to be an umbrella for all the actions involved in caring for urban forest resources. For example, it includes current activities conducted within the more traditional “Urban and Community Forestry Program” of the Forest Service, but also includes less traditional activities such as brownfield redevelopment.



Communities throughout the United States are struggling to address the impacts of growth and sprawl on the viability and function of urban natural resources. This includes increased flooding, water pollution, water shortages, interrupted energy services, poor air quality, declining wildlife and fish diversity and populations, opportunities for recreation and solid waste disposal. Declining environmental quality makes it harder for cities to attract and retain new residents and businesses. Governmental agencies at national, state, and local levels are spending millions of dollars to rectify these problems in a functional manner, with little or no coordination or integrated systems approach.

In basic terms, there is no cohesive strategy for the stewardship of America's urban natural resources; there needs to be.

Implications for the Forest Service. Natural resource agencies and organizations that historically focused efforts in wilder, more remote, rural areas are increasingly acknowledging that many of the challenges they face as natural resource stewards are inseparable from the urban environment and lifestyle. Allow me to use examples from the agency I know best – the United States Forest Service. The mission of the Forest Service is characterized by the slogan, “...Caring for the Land and Serving People.” When the agency was young, and even as the Forest Service approached 100 years of age, the focus was public land management in the west. With over 80 percent of American's living in urban areas, it makes great sense that the Forest Service begin to care for the land and serve the people even more in the environment in which they live – the urban area. Times and programs are changing as we apply our mission more evenly to meet the diverse needs of our country.

Because of the rapid and often unplanned urbanization occurring over the past 30 years, people have become more and more disconnected from a fundamental understanding of our relationship with the land. Many people today do not understand how natural resources contribute to their daily lives. Sometimes we refer to this as *Environmental Literacy*. When our literacy about anything is not high, we tend to make poor choices or at the very least, less than informed choices. A citizenry making poor choices about the stewardship of their natural resources has a dramatically adverse effect on the sustainability of our planet Earth.

About ten years ago, the Forest Service began to think more about the implications and benefits of an environmentally literate urban public. We began to move away from the more narrowly defined street tree management activities into a more comprehensive approach to managing urban natural resources. Now, all mission areas of the agency are beginning to become engaged, to some extent, in caring for urban resources. Today, many of the strategic goals of the Forest Service have direct ties to the urban environment. Accordingly, at least with the Forest Service, the *potential* for a comprehensive approach to *Urban Natural Resources Stewardship* has never been greater.

A Changing Federal Role: Focus, Coordination, and Collaboration. The Cooperative Forestry Assistance Act of 1978 (P.L. 95-313) was and remains today the dominant authority for an urban forestry program in the Forest Service. The focus of this authority has been primarily state assistance.

Since 1978, most states have developed solid urban forestry programs. While a new, more focused Federal role in urban natural resources stewardship has the potential to take shape, arguably the Forest Service approach to urban forestry has not changed all that much. To be sure, much has been accomplished. State and Private Forestry has been very successful in helping states develop urban and community forestry programs. The *Living Memorials* project, for example, has been magnificent. Research has been instrumental in linking urban forests with human health and livability (<http://www.livingmemorialsproject.org/>). The *Urban National Forests* (those National Forests in close proximity to urban areas) have helped improve *Environmental Literacy*. Nevertheless, due to changes in land use and constituency needs, this more traditional program needs adjusting and should become part of a stronger national effort.

The following table illustrates the changes required:

From	To
Formula-based funding	Targeted approaches
Individual actions	Coordinated actions
Individual projects	Addressing themes
Localized impacts	Hard hitting regional and multi-scale impacts
Science	Leading-edge science with University partners
<i>Urban National Forests</i>	Expansion of the <i>Urban National Forests Coalition</i>

In other words, all of the major players involved in *Urban Natural Resources Stewardship* should move towards a more cohesive program addressing a more strategically defined Federal role. The Federal government will never have enough resources to meet all state demands. However, with a more focused approach to our work, a multi-government body, including Non-government Organizations (NGO's) and Universities could have dramatic positive impacts on *Urban Natural Resources Stewardship* throughout our country.

Developing a Unified Urban Natural Resources Stewardship Strategy. An *Urban Natural Resources Stewardship* strategy should be an umbrella for all the actions in the management, protection, and use of urban forest resources. At the International Society of Arboriculture (ISA) Annual Conference in Minneapolis, Minnesota, I suggested the ISA and others convene a "Blue Ribbon Coalition" to develop a national strategy that presents a comprehensive Federal role to better serve Americans. I garnered a high level of grief for not being more specific about who should be the lead on this task. Honestly, I am not sure. Clearly, I think the Forest Service could do a wonderful job as facilitator of this effort and play an important role in the success of this larger strategy. However, I am not suggesting a strategy be limited to the Forest Service. I am arguing for a national program addressing a specific, special Federal role, in which the Forest Service is an important contributor.

Perhaps at this time the critical notion is that a cohesive strategy is required and we should pledge to unify and strengthen our efforts so that we better serve and relate to the people of America. The *Urban Natural Resources Stewardship* program can accomplish this goal. The actual lead of the "Blue Ribbon Coalition" can be determined at a better time.

A critic might suggest that we have numerous planning efforts and visions already in place to help manage America's urban natural resources. I tend to agree there are many efforts in place. I would also suggest these plans and visions vary in scope and purpose and may not compliment each other. Cohesion and oftentimes effectiveness is lacking.

Themes, Outcomes and Benchmarks. The overriding goal of the *Urban Natural Resources Stewardship* program is a comprehensive approach that links social, economic, and ecological resources to create an enhanced quality of life for our diverse population. In other words, we focus available resources to link environmental health with community well-being.

Many themes must interact to fully address this goal, including:

- Sustaining and expanding urban natural resources
- Environmental literacy
- Job and career opportunities
- Economic development and diversification
- Environmental justice
- Generating, managing, and applying information
- Partnerships and intergovernmental coordination
- Citizen engagement and volunteerism

The desired outcomes of the *Urban Natural Resources Stewardship* Program include:

- High quality of urban forest resource protection and care is available.
- All segments of urban areas are engaged and served.
- Timely information is available for policy, planning and management of urban natural resources.
- Multiple agencies cooperate in the protection, management and care of urban forest resources.
- Citizens are engaged, organized, and able to respond to local natural resource concerns.
- Local governments, citizen conservation groups, and businesses are working collaboratively to protect and care for natural resources.
- State and local budgets are adequate to support the protection and care of trees, forests, and other natural features of the environment.

Benchmarks of a Unified Urban Forest Resources Stewardship Strategy. The following are six measures of success or benchmarks of a strong *Urban Natural Resource Stewardship* program:

1. Complexities of the urban forest are recognized and addressed as part of a cohesive Federal role.
2. Sustainability of the urban forest resource is a primary objective.
3. Federal programs are well integrated relative to planning and caring for the urban forest. This includes actions designed to improve the management, protection and restoration of a wide-range of urban natural resources (air, water, wildlife, trees, forests, forest ecosystems, parks, greenways).
4. State and local governments and grassroots citizen groups are actively engaged in planning, funding, and caring for the urban forest.
5. Federal programs and services are supported by a wide-range of constituents and Congress.
6. Activities in urban natural resources stewardship, including the outcomes of major forums and conferences, are well coordinated and linked.

Conclusion. Over 80 percent of Americans live in urban areas. As urban development continues to expand over the landscape, the relationship between urban growth, urban influence, and natural resources will become increasingly important. To reduce the impacts of urban sprawl, we must sustain and expand the existing urban natural resources. Keeping cities vibrant through sound *Urban Natural Resources Stewardship*, in part, can encourage people to stay in cities. Trees are *an* answer; not *the* answer. Accordingly, *Urban Natural Resources Stewardship* can be the elixir to link environmental health with community well-being.

A comprehensive *Urban Natural Resources Stewardship* program addressing a coherent and comprehensive Federal role is required now. A coalition of interests could shape a way to address specific Federal, state and local contributions to improve urban areas and livability within these areas. The Forest Service can be a key contributor to the success of this strategy.

The involvement of people in the stewardship of trees and forests where they live and recreate not only will have a direct positive influence on the quality of life in our cities and towns, it can also influence their perceptions and behaviors concerning trees and forests throughout our land. This changed behavior enhances *Environmental Literacy*, allowing for a more informed citizenry about our natural resources.

Urban Natural Resources Stewardship just may be our final frontier to ensure the health of our planet Earth. We must embrace the notion now and dedicate time to form a stronger program direction for our land and the people we serve.