

1997 Annual Report

The National Urban and Community Forestry Advisory Council was created under the "Urban and Community Forestry Assistance" provision of the 1990 "Farm Bill" legislation. This act of Congress amended the Cooperative Forestry Assistance Act (16 USC 2105) to fundamentally change this Nation's approach to managing urban and community forests.

The specific purposes of the Council are to:

- Develop a national urban and community forestry action plan.
- Evaluate the implementation of that plan.
- Develop criteria for, and submit recommendations with respect to, an urban and community forestry challenge cost-share grant program.

The Council is composed of 15 members appointed by the Secretary of Agriculture to represent all levels of government, citizen action groups, industry and trade associations, educational institutions, and non-profit organizations related to urban and community forestry.

A Vision for the Future...

The National Urban and Community Forestry Advisory Council seeks to generate the resolve, the necessary support, and the essential abilities necessary to ensure safe, sustainable, and healthy trees and ecosystems within American communities of all sizes.

As a result of its activities and the enhancement of the nation's urban and community forests, the Council strives to:

- Improve the quality of life for all citizens where they live and work.
- Use trees and vegetation to enhance community pride and identity.
- Create a better understanding of our biological, psychological and cultural connections to the ecological systems that sustain our lives.
- Cultivate appreciation of the social, economic, environmental and aesthetic value of trees and community forests.
- Foster self-sustaining municipal forestry programs and volunteer-based organizations.
- Encourage the coordination and development of multicultural professional training and educational programs related to urban forestry.
- Stimulate additional urban forestry funding from traditional and nontraditional sources.
- Support expanded research and assure widespread distribution of findings.

- Promote partnerships that include the private sector and that lead to the creation of new jobs and contribute to healthier economies.

Recommendations to the Secretary of Agriculture

To the Honorable Dan Glickman:

The National Urban and Community Forestry Advisory Council wishes to express appreciation for your support in helping the Council meet its mandates as expressed by Congress in the 1990 "Farm Bill" legislation and subsequent acts. Your personal interest, as well as that of Undersecretary Jim Lyons, and the exemplary staff support provided by the USDA Forest Service, State and Private Forestry, have been essential in helping the Council to move closer to its vision of enhancing urban and community forestry throughout the Nation.

In the coming year, the Council respectfully recommends that:

- efforts by the USDA Forest Service continue on the development of criteria and standards for assessing and inventorying our nation's urban forests.
- linkages across federal, state and local levels be strengthened through financial incentives and technical assistance.
- the Challenge Cost-Share Grant Program remain as a critical component of the Urban and Community Forestry Program. The Challenge Cost-Share Program will: encourage education, communication and outreach that fosters public understanding of and appreciation for urban ecosystems, (2) facilitate creative and innovative projects that address the intent of the founding legislation and the vision of the Council, and (3) help expanded research and technology transfer that will serve as the foundation for all aspects of improved community forestry.
- coordinated approaches among all USDA agencies be developed to strengthen information and assistance provided to communities for urban forestry and related conservation programs.
- all USDA procedures and policies concerned with urban and community forestry cover the full spectrum of community sizes from large metropolitan areas and urbanized regions to the smallest town in rural America.
- within the Cooperative State Research, Education and Extension Service structure, extension expertise at land grant colleges be created and maintained to assist organizations and individuals involved in urban and community forestry programs.

Urban Forestry—What's in a name?

A Message From The Chair, Genni Cross

Shakespeare tells us that a rose by any other name would smell as sweet, but Madison Avenue might disagree. We live in a nation and in an age where marketing affects how

we feel, how we think, and how we spend our time and money. Everything from politics and soft drinks to popular beliefs and computers are packaged, polished, and sold to us. What something is called and how it is presented can be the deciding factor in the success or failure of a product, a movement, an idea, or an endeavor. Urban forestry, community forestry, urban resource management, urban ecosystem management, and urban greening all conjure up slightly different, or in some cases very different, images. And make no mistake about it, image counts.

Whether we are talking to a Congressional representative, a group of Master Gardeners, or giving career advice to a student, how we talk about the work we do can change the outcome of our discussions. How we define ourselves and our work, in part, determines how successful we will be at doing it and what that success will look like when we achieve it. Did urban forests exist before we started calling them that? Of course they did. Will they continue to exist if we decide to call them something else? Of course they will. What's important is that we continue to evaluate what we are trying to achieve and that we make sure our message reflects the broad commitment we have.

What then are we trying to achieve and what is our commitment? Caring for trees in urban areas; educating people about the value of urban trees; putting people in touch with the natural(or nearly natural) resources that exist in urban areas; applying good arboricultural and horticultural principles when growing, planting, and caring for trees on public and private property; applying forestry and natural resource management principles to urban vegetation; advocating for economic resources to ensure the health of natural resources in urban areas; and educating urban residents about the need to actively manage natural resources wherever they are.

The challenge for the U. S. Department of Agriculture is to expand and continue its commitment to a long-term, meaningful strategy that will develop and preserve healthy urban and community forests across the country. Whatever we call ourselves, we have a great deal of work to do and we need the support and cooperation of many people to do it. Political leaders, elementary school teachers, tree nursery professionals, city planners, natural resource professionals, researchers, and ordinary citizens all have a stake in the health of our urban environments and they all have a role to play if we are to ensure the future health of these resources no matter what we call them.

A Statement of Principles

Through the collective experience of members of the National Urban and Community Forestry Advisory Council and with the input of the nation's experts from a wide range of disciplines, a body of principles has emerged to provide guidance for developing future urban and community forestry policy.

- Good research, information, communication and the exchange of technological knowledge are keys to strengthening urban forestry programs and empowering communities and urban forestry professionals.

- A holistic view of urban forestry reveals a continuum of urban and community forestry-related issues and concerns from inner city gardening programs to wildfire and pest problems at the urban/rural interface. Similarly, concern for urban trees cannot be separated from concerns about air quality, storm water runoff, wildlife habitat and other parts of the urban ecosystem.
- Providing information to people about the importance of urban and community forestry programs is a necessary first step in a long-term strategy to develop and maintain safe, healthy urban and community forests.
- As part of a long-term plan for meeting public needs and building healthy urban and community forestry programs nationwide, it is important to assess and address the perceptions, values and needs of our nation's growing multi-cultural population with respect to urban vegetation and its management.
- The development of multi-lingual educational materials will be important for reaching new and often under-served populations with information about urban and community forestry.
- Urban ecosystems damaged by construction, storms or invasive species require special attention, tools and techniques. Planning for species diversity and the use of indigenous species where appropriate are among the ways to prevent recurrence of past problems.
- Understanding and practicing good urban forestry can benefit many small communities that are struggling to retain businesses or attract businesses back to newly revitalized downtown areas. Healthy urban forests give communities a more livable image and can assist in improving the economic strength of individual malls, shopping areas, or entire cities.

The Challenge Cost-Share Grant Program

An important way the National Urban and Community Forestry Advisory Council can fulfill its vision and make a positive impact on community forests nationwide, both now and in the future, is through its annual challenge cost-share program.

Each autumn, a request for pre-proposals is distributed nationwide. Short, pre-proposals are then evaluated by the Council on the basis of meeting the specified criteria and demonstrating merit relative to the other proposals. Selected applicants are then invited to submit full proposals for final judging in this competitive program. In all cases, project funding must be matched on at least a 50-50 basis from non-federal sources.

Grant categories are established annually and are used to meet the Council's goals. For the past two years the categories have been:

Research and Technology Development

Goal: To understand the relationship between urban and community forest resources and humans.

These are projects that examine the effects of urban and community forest resources on human development, experience and behavior, as well as the effects

of human activities on trees and community forests. Other research-related projects are considered that have the potential to contribute in a practical way to the better understanding of other social or biological aspects of urban ecosystems.

Education, Communication and Outreach

Goal: To increase the knowledge of the general public and/or specific audiences about urban and community forestry.

Successful projects in this category either communicate effectively to a large number of people or they provide innovative and workable ways to reach specific groups with important and sometimes complex information. Messages delivered through these projects vary widely and can range from an appreciation of the value of trees to detailed information about proper pruning or the legal liabilities of hazard trees.

Creative and Innovative Projects

Goal: To support creative and innovative urban forestry ideas, messages or projects.

This category opens the way for projects that are creative, innovative, timely, and have national scope, but are not necessarily addressed by criteria in the other two categories. In some cases, projects not of a national scope, but that can serve as models, are also considered.

Project Examples

Below are examples of recently completed projects. To receive notification of future requests for proposals, please contact the Council's executive assistant listed on the inside of the back cover.

The Value of Nature in Urban Public Housing

The objective of this study was to find out if people who live in or nearby an area with trees treat each other better than people who have less contact with the urban forest. The setting for the study was in Chicago at the nation's largest public housing development. Interviews were conducted and observations were made at two kinds of buildings: those surrounded only by concrete and asphalt, and those having trees and grass.

Key Findings:

- The presence and density of trees in neighborhood spaces increases the use of these common spaces. This leads to increases in informal territorial control and social interaction among neighbors.
- The urban forest is associated with higher levels of neighborhood safety.

including lower incidence of aggression and physical violence, and greater persistence and more proactive behavior in the residents' struggles against poverty.

- The density of the urban forest contributes to stronger social ties among neighbors and a stronger sense of community for both young adults and the elderly.
- Other positive influences attributable to the green areas include less family violence and lower incidence of vandalism and other incivilities.

For more information:

The results of this and related projects have been widely published in both technical and popular media. For a list of references or other information, please contact the principal investigators:

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The Benefits of Large Trees

Large, mature shade trees provide a wide range of environmental benefits such as improving air quality, reducing storm water runoff, reducing greenhouse gases, and lowering building energy use. Many of these benefits have positive economic impacts on a community, making them particularly important. Despite these attributes, maintenance programs for large trees are rare, especially in comparison to tree planting programs. This may be primarily due to the value of large trees being unrecognized. To address this problem, a Windows-based computer model was developed to demonstrate the scope of environmental benefits provided by individual, large urban trees.

Key Results:

- Software was developed, reviewed and evaluated.
- The computer model demonstrates the economic value of a large tree's environmental benefits relative to forecasted maintenance costs. Tree location, species, site quality and health are among the factors considered in the estimate.
- The computer program "grows" the tree and accrues a range of environmental benefits and related economic values over a 15 year period. Graphic and numerical formats are used to summarize the projected results.
- Arborists in the National Arborist Association who have reviewed this software believe that community foresters and others in the green industry would find this software to be a useful tool for appraising and demonstrating the contributions of individual large trees.

For more information:

National Arborist Foundation
P.O. Box 1094
Amherst, NH 03031

The Effect of Vegetation on Residential Energy Use

Computer models have shown that proper placement of trees around climate-controlled buildings can significantly contribute to energy conservation by lowering cooling requirements in summer and heating requirements in winter. This study was conducted 'on the ground' in an attempt to verify the theoretical models. It was conducted in Ann Arbor, Michigan, and used electric and natural gas utility company records to examine energy demand for homes in three areas with distinctly different levels of tree stocking. Field measurements were used to quantify the density of vegetation that cast shade directly on the homes in the study, and aerial photos were used to evaluate potential wind shielding from vegetation adjacent to the buildings.

Key Results:

- Directly measuring the effects of vegetation on energy use is significantly complicated by such variables as construction of the structure, levels of insulation, and efficiencies of heating and air conditioning appliances. Similarly, the energy use habits of individual homeowners further mask the effects of vegetation.
- Despite the difficulties of direct field measurements, trends were observed that verify that the proper placement of trees with regard to wind patterns and the sun's seasonal positions may yield significant energy savings. Improper placement of trees may significantly increase net levels of energy use.
- Evidence suggests that vegetation management can significantly affect heating and cooling costs and provide environmental benefits. The proper placement of new tree plantings can: (1) lower cooling costs through shading of windows, walls exposed to summer sun, and air conditioners, (2) lower heating costs through shielding buildings from winter winds, (3) lower line clearance costs by having large trees planted away from power lines and closer to homes where shade patterns can be optimally used, (4) provide energy conservation and thus reduce carbon emissions from additional power generation facilities, and (5) sequester carbon, helping to offset emissions from energy production.
- Follow-up research is being conducted to isolate the effects of vegetation on microclimates while minimizing variables not related to vegetation.

For more information:

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Urban Forest Benefit/Cost Identification Summary

The purpose of this project was to develop materials that would enable urban foresters to identify and communicate the benefits and costs of any specific urban or community forest. Seventy-five decision-makers were surveyed nationwide to guide the creation of educational program materials. Part of the materials that were developed included computer software called QuantiTree 2.0. The intent was that QuantiTree and the other communication materials might be used to gain public support for a well-maintained urban forest.

Key Results:

- Analysis of decision-maker beliefs, values and knowledge regarding the benefits/costs of urban forests revealed that public education programs should focus on three key messages: (a) that the benefits of the urban forest outweigh its costs (the survey participants had an accurate picture of costs but only a general understanding of benefits), (b) that problems related to the urban forest have solutions (participants perceived problems to be limited budgets, lack of public knowledge or caring, development conflicts and cost of infrastructure damage from trees), and (c) decision-makers should develop and tap urban forest information networks to find solutions to related problems, and urban forest advocates should help establish information-gathering networks.
- QuantiTree software that is user friendly and calculates numerical values for the benefits and costs of urban forests was developed and made available via the Internet to obtain feedback from its initial users.
- Other materials were developed that help explain the benefits of urban forests to individuals outside the green professions. For more information: The results from this project are available free on the Internet at <http://www.quantitree.com/>. From this site, interested parties can review the work, print the research findings, e-mail [Davey Resource Group](#) with questions, and download the QuantiTree 2.0 software and user's guide.

Questions may be directed to:

[Sandra L. Burns](#)

The Davey Tree Expert Company

1500 N. Mantua St.

Kent, OH 44240

Economic Benefits and Costs of the Urban Forest in Low Income and Non-Low Income Communities

A new method of mapping, measuring and analyzing the urban ecosystem was developed to obtain quantifiable benefits provided by urban forests. The method maps existing ecological conditions and used Geographic Information Systems (GIS) to analyze the

importance of the ecological resources. Methodology from scientific research was used to interpret resource functions and quantify the financial contributions they make. The project was conducted in Austin, Texas, Baltimore, Maryland, and Milwaukee, Wisconsin. It focused on how trees save energy and reduce stormwater flow. A second grant expanded the study to include how trees improve air quality through carbon storage and long-term sequestration.

Key Results:

Specific, quantified results were obtained for each of the three cities studied. The results also contributed to a new video, *Greening Our Cities: Bringing Nature Into the Places we Live*. General findings and conclusions are summarized below:

- More trees need to be planted and the greatest opportunity is on private property.
- Increasing canopy cover by 20 percent in the three cities studied should result in significant environmental and economic impacts.
- Flooding and stormwater problems can be reduced by increasing tree cover and reducing impervious surfaces throughout a community.
- The technique used for mapping ecological conditions, "Urban Ecosystem Analysis," can be used to incorporate natural resources effectively into city planning and development. The technique is now available for use at high-end work stations or inexpensive desktop computers.
- Selecting the right tree for planting in the right place will greatly improve the ecological benefits provided.

For more information:

Results have been reported in the Spring 1996 issue of *American Forests* and other publications. The full report is available at cost from American Forests. Related information is also available on [American Forests' homepage](#). The contact person for this project is:

Cheryl Kollin
American Forests
P.O. Box 2000
Washington, D.C. 20013

Building Effective Partnerships for City Trees

The concept behind this project is that urban and community forest resources are too valuable for their care to be left to any single entity. An effective partnership between a community (especially as represented by a nonprofit tree group) and the governmental agency responsible for tree care is necessary to build support for improving an urban forest. A strong public-private partnership can strengthen a local urban forestry program by: advocating for political support; increasing management; leveraging funding; conducting educational outreach; and obtaining technical expertise and media attention.

Project Description and Products This project was designed to help both nonprofit groups and city agencies appreciate the strengths and expertise each entity could bring

to a partnership and to provide a process for creating such a partnership to work on urban forestry issues. It achieved this by:

- developing an assessment questionnaire to use in a survey of potential workshop participants to identify issues and barriers to creating effective partnerships.
- creating a slide show and script to introduce partnership concepts to citizen groups, nonprofit organizations, and government agencies.
- developing a handbook, *Building Effective Partnerships for City Trees*.
- testing strategies at workshops held in Savannah, Georgia, and Los Angeles, California.
- revising materials based on the outcomes of the workshops.

For more information:

The model developed through this project is available to be used in communities nationwide. Assessment questionnaires, sample agendas and the handbook are available by contacting:

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Urban Forestry in Native American Communities

This project was conducted from 1994-1997 for Native American communities located in Washington, Oregon, Idaho, Montana, Wyoming, North Dakota and South Dakota. The goal was to increase Native American participation in existing state and federal programs by evaluating how existing programs could be modified to meet the needs of Native American communities and developing community forestry outreach methodology that is sensitive to the local needs and traditions of these communities.

Project Description and Products

The project was conducted in three phases: (1) a needs assessment for interested tribal communities, (2) education and training workshops, and (3) the development and distribution of resource materials. It also resulted in recommendations to urban forestry agencies that want to work effectively in Native American communities. These included:

- Make sure that the structure and policies for program development are flexible enough to allow tribal communities to apply for assistance.
- Allow adequate time for communities that do not have established programs to respond to grant proposals. A two or three week timeline may not be enough.
- Gain an understanding of the land base of the reservation in which you are working. Many of the conflicts of proposal guidelines may be a result of how the reservation is divided.

- Make appropriate contacts and keep them apprised of all training workshops and funding opportunities. Stay in touch with your contacts and follow up on projects.
- Understand the Federal Trust relationship that exists in the United States.
- Make sure the community forestry initiatives are the tribe's, not yours.

For More Information:

Additional project findings and copies of several reports based on this project are available, as well as the resource packets compiled for the tribes as part of this project. Contact:

Mark Duntemann
 Natural Path Forestry Consultants, Inc.
 P.O. Box 7723
 Missoula, MT 59807
 E-mail: natpath@montana.com

The Economics of Tree Preservation

Developers and builders are increasingly being called upon by ordinance or consumer demand to protect selected trees during construction. This project addressed the costs related to protective efforts and provided a means to calculate those costs.

Project Description and Products

During a period of two and one-half years, tree preservation ordinances from several regions of the U.S. were reviewed for common requirements and language. Data on time and materials were also collected from home construction and tree preservation activities on building sites through interviews with professionals in the industry. In another part of the project, a survey of homeowners was conducted to reveal what, if any, expenses were incurred for removing or repairing trees following construction.

The homeowner survey found that approximately 40 percent did encounter construction-related tree expenses, averaging \$500 per household. As a result of the research phase of the project, two key communication tools were developed: (1) a 12-minute training video, *The Economics of Tree Preservation*, and (2) a 17-page booklet, *Tree Preservation During Construction: A Guide to Estimating Costs*. In addition, the following recommendations are offered to community foresters:

- Conduct workshops on tree preservation techniques and local requirements for builders and developers.
- Use the estimating guide and video to help builders include the costs of preservation in the purchase price of property.
- Standardize the language of tree preservation ordinances to reduce confusion and increase compliance.
- Communicate to potential homeowners that expenses for tree removal and repair after construction are likely, particularly if appropriate preventative measures are not taken.
- Too many variables are involved to allow for general formulas to calculate

costs. Each site must be examined closely and "costed" out individually.

For more information

Copies of the video and estimating guide have been sent to all state urban and community forestry coordinators. Other information is available from:

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Young Citizen Pruners for Today & Tomorrow

Trees New York is a nonprofit organization working to motivate, educate, train, and integrate youth into activities that will result in such benefits as increased environmental awareness, social skills, greater community spirit, and job skills.

Project Description and Products

Working in cooperation with the New York City Department of Parks and Recreation and the New York City Board of Education, a two-component model program was developed with a third component currently in the pilot stage. The components are:

- Primary education: "The Great Cookie Lessons - Interactive Field Curriculum for Young Children." This is instruction designed around tree cross sections ("cookies"). Its goal is to stimulate the natural curiosity of children by looking at what the tree sections reveal about the tree's life within a historical, sociological, meteorological, ecological, and botanical context. Participation has included 37 schools and 1,205 children in the first 18 months.
- Secondary education: The project's "Young Citizen Pruner Program" provides training in tree care and includes academic credit, development of lifetime skills, and community service opportunities. It is a course within the curriculum as well as an after-school and summer training program. Over 1,400 young people have participated, with some graduates finding jobs in the field and others receiving partial college tuition waivers for continuing to use their skills on college campuses.
- Youth and young adults: The project phase now in pilot testing is "Forestry Career Training for Youth and Young Adults." This provides basic job training and expanded, in-depth technical education that builds on the Young Citizen Pruner Program. It also adds a small business education component. The goal is to provide employment opportunities in the labor force or as entrepreneurs in tree care within inner city areas.

For more information:

Arnold Cuba
Trees New York
51 Chambers St.

Suite 1412A
New York, NY 10007

Hometown Forests Action Kit

This project was conducted by Tree Musketeers, a nonprofit organization that began in 1987 as a result of 13 Girl Scouts and a tree-planting project. The organization attempts to empower young people to work on behalf of a greener and cleaner environment.

Project Description and Products

The Hometown Forest Action Kit reflects a tree-based project developed by and for kids, documented, and packaged for dissemination nationwide. The purpose of this project was to develop a technically accurate community forestry action kit with step by step information for implementing local urban forestry projects. Literature on the benefits of trees and how to plant and care for trees was supplemented with tips on project management to empower young people to understand all phases of a project from initial planning to actual planting of the trees. The project resulted in:

- 1,000 kits that were mailed to hotline callers, schools, youth groups, city governments, utilities, and professionals on request.
- workshops held and handouts presented at the 1995 National Partners for the Planet Youth Summit.
- the kit being used as a key resource in the expanded "One in a Million Campaign" to empower one million kids to dedicate one million volunteer hours to plant one million trees by the year 2000.

For more information:

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