# Appendix D: Key Regional Technology Transfer Products

## Northeastern Area

http://na.fs.fed.us/urban/inforesources/index.shtm

### Baltimore Ecosystem Study

http://beslter.org/index.html

**Description:** The Baltimore Ecosystem Study (BES) aims to understand metropolitan Baltimore as an ecological system. The program brings together researchers from the biological, physical, and social sciences to collect new data and synthesize existing knowledge on how both the ecological and engineered systems of Baltimore work.

**Benefits:** As one of only two Long-Term Ecological Research sites located in an urban environment, the Baltimore Ecosystem Study has a special opportunity to both contribute to and examine ecological management and decisionmaking practices at a range of scales. The general public, students and teachers, and various policymakers and environmental managers all have a stake in the outcome of such an endeavor. Although all ecology educators would assert that understanding the environment has utility, here is the opportunity to test this relationship in a bold and long-term fashion.

**Funded by:** National Science Foundation, Forest Service, U.S. Department of Agriculture (USDA).
**Location:** Baltimore, MD.
**Partners:** National Science Foundation, Long-Term Ecological Research Network, Forest Service, U.S. Geological Survey, Parks and People of Baltimore, and Natural Resources Conservation Service.

### Conservation Planning Atlas (Midwest Version)

http://www.unl.edu/nac/atlas/index.htm

**Description:** The Conservation Planning Atlas (Midwest Version) is compilation of maps produced by various government and nongovernmental agencies. The purpose of the atlas is to provide a general overview of issues that may affect conservation planning. The atlas consists of both national- and regional-scale maps. Each map includes a description and references or Internet links for additional information.

**Benefits:** The goal of the atlas is to encourage a regional-scale perspective in all areas of conservation planning efforts. The atlas can provide guidance for prioritizing projects and creating policy change.

**Funded by:** Forest Service Rocky Mountain Research Station, and The University of Missouri Center for Agroforestry, Agricultural Research Service—Dale Bumpers Small Farms Research Center at Booneville, AR, and U.S. Environmental Protection Agency (EPA).
**Location:** National Agroforestry Center, Lincoln, NE.
**Partners:** Forest Service Rocky Mountain Research Station, and The University of Missouri Center for Agroforestry, Agricultural Research Service—Dale Bumpers Small Farms Research Center at Booneville, AR, and EPA.

### Landscape Change Integrated Program

http://ncrs.fs.fed.us/4153/deltaIMS/

**Description:** The Landscape Change Integrated Program combines the efforts of scientists to develop a better understanding of land use and land cover change and to develop knowledge and tools to help people make informed choices about how they use natural resources.

**Benefits:** The program answers the following questions: How is the landscape changing, what drives landscape change, what are the consequences of landscape change, and what can be done about it?

**Funded by:** Forest Service.
**Location:** Northern Research Station.

### Living Memorials Project

http://www.livingmemorialsproject.org/landmark.htm
http://www.livingmemorialsproject.org

**Description:** Because of the overwhelming desire to honor and memorialize the tragic losses that occurred on September 11, 2001 (9-11), the United States Congress asked the Forest Service to create the Living Memorials Project (LMP). This initiative invokes the resonating power of trees to bring people together and create lasting, living memorials to the victims of terrorism, their families, communities, and the Nation. Living memorials are spaces created, used, or re-appropriated by people as they employ the landscape to memorialize individuals, places, and events. Ranging from single tree plantings, to the creation of new parks, to the rededication of existing forests, hundreds of groups across the country created a vast network of sites that continues to grow. Land-markings: 12 Journeys through 9/11 Living Memorials is a multimedia exhibition that compresses 4 years of research data and analysis on more than 700 living memorials into 12 digitally authored journeys. Social science researchers, urban ecologists, designers, and architects collaborated to collect, analyze, and present this dispersed collective response to the tragedy of September 11, 2001.

**Benefits:** Researchers created a national registry that serves as an online inventory of hundreds of community-based, living memorial sites. Memorials created from 2001 to 2004 are displayed on a national map, which will continue to be updated as new site locations are identified, registered, and uploaded to the site. Findings from the first years of research, as well as a "toolbox" of resources and designs, are available. This interpretation presents memorials not only as mechanisms by which events and individuals are marked but also as interpretations of the function and spatial location of these remembrances, treating them as emergent forms that outline how people interact with public landscapes.

**Funded by:** Forest Service.
**Location:** Northeastern Area.
**Partners:** Forest Service, NA S&PF, NRS, Urban Resources Initiative, Urban-Interface, OASIS, Parsons The New School, Tishman Environment and Design Center, and Meristem, Inc.

### Northern Trees—Online Selection

http://orb.at.ufl.edu/TREES/index.html

**Description:** This Web site helps guide users through the process of tree selection and provides a list of possible trees in the Northeast United States, hardiness zones 2–7 (Click here if you live in zones 8–11). It is also designed to provide extensive cultural and maintenance information and many photographs.

**Benefits:** The Tree Selector Web site enables users to develop a list of trees based on their soil, site, and plant attributes.

**Funded by:** Forest Service.
**Location:** University of Florida.
**Partners:** Forest Service, University of Florida, and Rutgers Cooperative Extension.

### Trees Pay Us Back

http://www.na.fs.fed.us/urban/treespayusback/index.shtm

**Description:** This Web site lists various important products that supplement the i-Tree program, and help with communicating the benefits of trees including: Minneapolis Municipal Tree Resource Analysis, Assessing Urban Forests Effects and Values, Midwest Tree Guide, Trees in Our City ppt, Human Dimensions of Urban Greening, Conveying the Power of Trees, and Planting the Seeds of Success.

**Benefits:** All the products summarize the values that result from planting and caring for trees in urban environments. They also encourage communities to use the i-Tree results as a guide in strategic planting.

**Funded by:** Forest Service, Northeastern Area.
**Location:** Northeastern Area.

### Tree Emergency Plan Worksheet

http://www.na.fs.fed.us/urban/ucfdisasters/tree_emerg_plan/TreeEmerPlanWkSheetJune2006.pdf

**Description:** This worksheet outlines the important features that need to be decided and assembled to best prepare for a storm. The worksheet is available as a Word or pdf file so users can write or type in responses.

**Benefits:** Communities that complete the form will be well prepared to effectively respond to and recover from a storm, minimizing damage and costs.

**Funded by:** Forest Service, Northeastern Area.
**Location:** Northeastern Area.
**Partners:** Katie Himanga (Urban Forestry Consultant) and Jim Hermann (Minneapolis Park and Recreation Board).

### Urban and Community Forestry Appreciation Tool Kit

http://www.na.fs.fed.us/urban/inforesources/ucftoolkit/ucftoolkit.shtm

**Description:** The tool kit was developed to promote U&CF as a crucial component of livability in communities and targets decisionmakers as champions for message delivery.

**Benefits:** Promotes continued investment in community trees by enlisting support for tree care and planting programs. Kit products include: Top 10 Reasons We Need Trees Flyer, sample letter to the editor, sample action alert, fact sheets on benefits of trees, press articles, and PowerPoint presentation.

**Funded by:** U&CF challenge cost-share program.
**Location:** Newtown Square, PA.
**Partners:** Forest Service, Northeastern Area State and Private Forestry, Ohio DNR, New Jersey DEP Community Forestry program, Maryland DNR Forest Service, Pennsylvania DCNR Rural Section Program, Delaware DOA Forest Service, District of Columbia Urban Forestry Administration, and West Virginia DOF Urban Forestry program.

### Urban Projects Newsletter

http://www.na.fs.fed.us/urban/hottopics/Urban_Projects_Spring_2006.pdf

**Description:** Periodic newsletter produced by the Morgantown field office. The newsletter highlights a particular project and a partner, provides news from the Forest Service and Mid-Atlantic States, presents research findings and new technology transfer products, and lists new calendar items.

**Benefits:** Keeps Mid-Atlantic customers fully apprised of current news, products, and events in U&CF.

**Funded by:** Forest Service, Northeastern Area.
**Location:** Mid-Atlantic Center for Urban and Community Forestry.
**Archived newsletters:** http://www.na.fs.fed.us/urban/newsltr/archives.shtm.

### Urban Watershed Forestry Manual

http://www.cwp.org/Resource_Library/Special_Resource_Management/forestry.htm
**Description:** This three-part manual series is designed to protect and restore urban watersheds and is particularly focused on using trees for stormwater treatment and planting trees in the urban landscape. The three parts of the manual series are as follows:

Part 1: Methods for Increasing Forest Cover in a Watershed.
Part 2: Conserving and Planting Trees at Development Sites.
Part 3: Urban Tree Planting Guide.

**Benefits:** The manual introduces the emerging topic of urban watershed forestry and presents new methods for systematically measuring watershed forest cover and techniques for maintaining or increasing this cover. It presents specific ways to enable developers, engineers, or landscape architects to incorporate more trees into a development site. The manual also introduces conceptual designs for stormwater treatment practices that use trees as part of the design, and it provides detailed guidance on urban tree planting that is applicable at both the development site and the watershed scale.

**Funded by:** Forest Service.
**Location:** Center for Watershed Protection, Ellicott City, MD.
**Partners:** Forest Service, Center for Watershed Protection.

## Southern Area

http://www.urbanforestrysouth.org/
http://www.interfacesouth.org/

### Changing Roles: Wildland-Urban Interface Professional Development Program

http://www.interfacesouth.org/products/training/changing_roles.html

**Description:** This program provides State and Federal natural resource agencies with a set of flexible resources to conduct their own training programs, aimed toward building skills and tools to successfully tackle WUI issues.

**Benefits:** These professional development modules were designed to assist agencies at the forefront of the rapid transition of the southern landscape. The South has the greatest private land ownership and the fastest population growth of any other region of the Nation. This professional development program will help agency staff better understand the wildland-urban interface issues within a local policy framework and communicate the management of forests and other natural areas with the best available science.

**Funded by:** Southern Group of State Foresters, Southern Research Station, U.S. Fish & Wildlife.
**Location:** InterfaceSouth Web site.
**Partners:** University of Florida, Southern Group of State Foresters, and U.S. Fish & Wildlife.
**Cooperators:** Virginia Tech, Auburn University, Southern Regional Extension Forestry, and North Carolina State University.

### Gulf Coast Tree Assessments—Hurricane Katrina

**Description:** The Southern Center for Urban Forestry Research & Information (SCUFR&I) recently coordinated the Gulf Coast Tree Assessment Project (GCTA) in Louisiana and Mississippi. More than 35 Certified Arborists volunteered to work in the area affected by Hurricane Katrina and helped complete assessments in Orleans, Jefferson, and St. Tammany parishes in Louisiana and Harrison and Hancock counties in Mississippi during the past 6 months.

The volunteers, all experienced arborists or urban foresters, were trained in a rapid tree assessment procedure based on current arboricultural practices, which includes the following:

- A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas, 2nd Edition, 1994, Nelda Matheny and James R. Clark, International Society of Arboriculture.
- Urban Tree Risk Management: A Community Guide to Program Design and Implementation, NA-TP-03-03, 2003, Richard J. Hauer and Gary R. Johnson, Forest Service.

During the project, thousands of trees on public and private property were evaluated that represent a risk to the public (e.g., on and along street rights-of-ways and in parks). The objective of the assessment was to make recommendations that would help communities reduce or eliminate that risk. Reducing or eliminating risk is accomplished by either pruning damaged limbs or, when necessary, removing the tree.

Tree assessments that resulted in a recommendation for tree removal included: cracked trunks, broken structural roots, root plate lifted and/or leaning trees, and standing dead trees.

**Benefits:**

- Direct assistance to local communities affected by the disaster.
- Timely risk assessments by professionals along public Rights-of-Way.
- Demonstrate role of professional management to communities.
- Maps & data to facilitate local community discussions with FEMA.
- Opportunity of engage FEMA as professionals.
- National “springboard” for better coordination with FEMA and the Army Corps of Engineers for disaster planning and recovery.

**Funded by:** Many sources of funding were tapped that included Region 8 S&PF, Southern Research Station, Northeastern Area S&PF (St. Paul), State forestry agencies, professional organizations, local communities, and local nonprofits.

**Partners:** The project was a partnership of professional organizations, industry, local communities, and State and Federal agencies that have an interest in urban forestry. The Society of Municipal Arborists and the International Society of Arboriculture asked arborists experienced in storm mitigation and recovery to assist Gulf Coast communities in the evaluation of trees that remained following their initial storm cleanup.

- Mississippi Forestry Commission.
- Louisiana Department of Agriculture & Forestry.

- Mississippi State Cooperative Extension Service.
- International Society of Arboriculture.
- Society of Municipal Arborists.
- Volunteer arborists & urban foresters.
- The Davey Tree Expert Company.
- Land Trust for the Mississippi Coastal Plain.
- City of Biloxi, MS.
- City of Ocean Springs, MS.
- City of New Orleans (City Park).
- Community of Lake Vista.
- City of Kenner, LA.
- Jefferson Parish, LA.
- St. Tamanny Parish, LA.
- City of Mandeville, LA.
- City of Covington, LA.
- Hancock County, MS.
- Local volunteers.

### i-Tree Case Studies

**Description:** i-Tree is a state-of-the-art, peer-reviewed software suite from the  Forest Service that provides U&CF analysis and benefits assessment tools. The Southern Center for Urban Forestry Research & Information is committed to supporting the use of this suite of tools in the Southern Region.

To better understand their role in promoting the use of these tools, the Southern Research Station partnered with urban foresters of the Georgia Forestry Commission to test the data collection protocol and reporting with two small communities near Athens. In addition to presentations to each of the community's Tree Boards, the results of these test inventories will be displayed at the 2006 Annual Conference of the Georgia Urban Forest Council and staff will use the knowledge and experience already gained to train Region U&CF Coordinators at their winter training meeting.

**Benefits:** By the center developing these case studies, local communities benefit by obtaining a street tree valuation, State agency staff get a hands-on introduction to i-Tree, and State U&CF Coordinators have a specific example of i-Tree (STRATUM) implementation. In addition, center staff benefit from the direct experience.

**Funded by:** Region 8, S&PF, Southern Research Station.
**Partners:** Georgia Forestry Commission; City of Newborn, GA; City of Social Circle, GA; and Georgia Urban Forest Council.

### U&CF Web Site

www.UrbanForestrySouth.org

**Description:** The objective of the Urban Forestry South (UFSe) is to provide a user-friendly, accessible, and relevant (useful and up-to-date) Internet site that will help customers easily find information and services they need.

The primary audience for UFSe is described as the "professional" urban forestry community. That is, those individuals who work, on a day-to-day basis, with the creation, protection, and management of urban and community forests. This audience includes State U&CF coordinators, other State forestry agency staff, researchers, State extension foresters, university service and outreach representatives, county and regional extension agents involved locally with urban forestry issues, municipal arborists and urban foresters, other urban foresters and arborists (consulting and commercial), and staff of nongovernmental organizations (i.e., urban forest councils, land trusts, and others).

A secondary audience includes staff and elected officials of local governments and their volunteers serving on tree boards or other advisory committees that deal with U&CF issues.

UFSe is designed as a user-supported site. This designation means that UFSe users who "register" and "log in" to the site will be encouraged to submit information (content) for inclusion.

UFSe is a primary communication tool among the Forest Service, State U&CF Coordinators, and State Urban Forest Councils in this region.

**Key components:**

- Support for State U&CF coordinators and Urban Forest Councils.

- Searchable Tree Ordinance database (December 2006).
- Support for State U&CF Coordinator CARS reporting:
  Tree Ordinances (December 2006):
  http://www.urbanforestrysouth.org/Resources/Ordinances.
  Management Plans (2007).
  Professional Management (2007).
  Organizations (Implemented):
  http://www.urbanforestrysouth.org/Contacts/Organization.
- Support for post-secondary urban forestry education.

**Benefits:**

- State-of-the-Art Content Management System (CMS).
- Provides a flexible framework for knowledge dissemination.
- Enables any user to submit information for inclusion onto the Web site.
- Directly supports State U&CF programs.

**Funded by:** Region 8, S&PF, Southern Research Station, Southern Group of State Foresters, Southern Region Extension, Warnell School of Forestry & Natural Resources.
**Partners:** Warnell School of Forestry & Natural Resources, Southern Region Extension, Southern Group of State Foresters.

## Pacific Southwest Area

http://www.fs.fed.us/psw/programs/cufr/

### Municipal Forest Resources Analyses

http://www.fs.fed.us/psw/programs/cufr/research/studies_detail.php?ProjID=151

**Description:** These reports provide detailed knowledge on a particular city's tree resource. They include urban forest structure, function, and value, along with resource management needs. A summary of annual benefits is provided that includes energy conservation, air quality, stormwater runoff control, and property value increase.

**Benefits:** Each of the cities represented in this research will be better able to justify funding, evaluate program cost-efficiency and alternative management structures, understand the relationship of trees to local quality of life issues, and develop alternative funding sources.

**Funded by:** Forest Service, participating municipality.
**Partners:** Forest Service, University of California Department of Land, Air and Water Resources, and cities of Charleston, SC; Glendale, AZ; Fort Collins, CO; Berkeley, CA; Charlotte, NC; Boulder, CO; Minneapolis, MN; Cheyenne, WY; Santa Monica, CA; Albuquerque, NM; and Bismarck, ND.

### Tree Guides

http://www.fs.fed.us/psw/programs/cufr/tree_guides.php

**Description:** Tree Guides identify and describe the benefits and costs of planting trees in a specific climate region to assist community officials and tree managers increase public awareness and support for tree programs.

**Benefits:** The guides can be used by any of the cities within the particular climate zone covered by the guide. Each guide answers a number of questions about the environmental and aesthetic benefits community trees provide:

- What is their potential to improve environmental quality, conserve energy, and add value to communities?
- Where should residential and public trees be placed to maximize their cost-effectiveness?
- Which tree species will minimize conflicts with powerlines, sidewalks, and buildings?

**Funded by:** Forest Service, reference city municipality.
**Partners:** Forest Service, University of California Department of Land, Air and Water Resources, and cities of Modesto, CA; Glendale, AZ; Fort Collins, CO; Longview, WA; Claremont, CA; Santa Monica, CA; Charlotte, NC; and Minneapolis, MN.

## Appendix E: National Technology Transfer Team

The Urban and Community Forestry (U&CF) National Technology Transfer Team of 23 members is composed of urban forestry professionals, technology transfer specialists, research scientists, university professionals, not-for-profit organizations, and other external partners. The team's ongoing role is to periodically review the technology transfer activities of the Forest Service, U.S. Department of Agriculture (USDA), U&CF Program, establish new directions and goals as needed, and provide project leadership in accomplishing the various team objectives.

The team currently serves at the pleasure of the director of U&CF and is administered by the National Technology Transfer Team Leader (Jim Geiger, Acting). An annual face-to-face meeting is held in conjunction with periodic conference calls and special subgroup meetings as needed.

The team's 5-year objectives, 2006–10, as established at the last annual meeting, are as follows:

- **Increase our partnerships beyond the U&CF community (Customers):** Collaboratively use U&CF technology to include green infrastructure in sustainable community planning.
  Champion, Bill Hubbard
- **Improve delivery of U&CF products and information (Delivery):** Use market research to develop and disseminate user-friendly U&CF material.
  Champion, Jill Johnson
- **Implement feedback process to determine success of technology transfer (Feedback):** Ensure that right messages and products reach intended audiences.
  Champion, Donna Murphy
- **Introduce marketing to the U&CF community (Marketing):** Promote the use of market research and marketing strategies to improve delivery of U&CF products and science-based knowledge for targeted audiences.
  Champion, Jim Geiger

The members for 2007 are as follows:

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**Joe Wilson,** Executive Director, Keep Greater Milwaukee Beautiful/Greening Milwaukee, Milwaukee, WI, joewilson@greeningmilwaukee.org
(Current Chair of NUCFAC)

**Kathy Wolf,** Research Social Scientist, College of Forest Resources, University of Washington, Seattle, WA, kwolf@u.washington.edu

Northeastern Area U&CF State Coordinator, (position open)

**Ex officio members:**

**Peggy Harwood,** U&CF, Forest Service, Washington Office

**Susan Mockenhaupt,** U&CF, Forest Service, Washington Office

**Steve Marshall,** Acting Director, U&CF, Forest Service, Washington Office

**Phillip Rodbell,** U&CF, Forest Service, NA