National Urban and Community Forestry Advisory Council
2017 Annual Report

EXECUTIVE SUMMARY

The National Urban and Community Forestry Advisory Council (Council), through its enabling legislation, Section 9 of the Cooperative Forestry Assistance Act, as amended by Title XII, Section 1219 of Public Law No. 101-624 (Act) (16 U.S.C. 2105g), advises the Secretary of Agriculture on national community forestry matters, specifically by: developing a national urban and community forestry action plan in accordance with Section 9 (g) (3) (A-F) of the Act; evaluating the implementation of that plan; and developing criteria for and submitting recommendations with respect to the urban and community forestry challenge cost-share program as required by Section 9 (f) (1-2) of the Act. In 2017, the Urban and Community Forestry Program assisted 7,724 communities, who provided $36,889,645 of volunteer labor to support the projects.

The following is the 2017 Accomplishment Report, representing a snapshot of what has been accomplished in the Urban and Community Forestry field of practice in alignment with The Ten Year Urban Forestry Action Plan (2016-2026) (Action Plan), urbanforestplan.org. Accompanying the accomplishments are the 2018 Recommendations to the Secretary, which are developed in consultation with forestry organizations, state forestry agencies, and the USFS.

2017 ACCOMPLISHMENTS

The USFS Urban and Community Forestry program, through extensive public and private partnerships, accomplished several key metrics outlined in the National Urban and Community Forestry Action Plan (2006-2016). Following is a summary of examples of community forestry services being delivered to communities across the country, which help implement the Action Plan. The Action Plan established goals concerning Planning, Human Health, Diversity, Equity and Leadership, Environmental Health, Management, Funding and Education and Awareness. Many of these goals are interrelated. For example, a goal concerning planning may also affect human health. The following projects are a sampling of the projects on the themes of clean water, health, and economy.

💧 CLEAN WATER

University of Florida, Canopy and Stormwater: In March 2017, the University of Florida completed a tree canopy assessment for the City of Gainesville funded by the USFS using the i-Tree software to quantify the economic value of the city's trees in terms of cost savings for heating and cooling, air quality, public health, and decreased storm water costs. The study also examined avoided runoff and rated all of the city's trees in terms of species diversity and health, and quantified leaf area to determine the pollution mitigation and stormwater capture. They estimated that rainfall interception from Gainesville's trees saved $3.8 million in stormwater control costs. They found forested lands account for the highest savings value of all land cover types.

Atlanta, Georgia: Using the USFS i-Tree eco software, Atlanta's tree canopy coverage was shown to provide many benefits for pollution removal, energy savings, and oxygen production for the city. Atlanta's trees were found to produce $13,500,000 annually in energy savings and $6.27 million per year in avoided stormwater runoff. The trees that capture the most runoff for the city are loblolly pine, water oak, and tulip poplar. The study also found ligustro, royal paulownia, and Chinese privet are the most common invasive species in the city.

Iowa, Trees Forever's Working Watersheds: Buffers & Beyond: This program improves water quality, soil retention and habitat by working with landowners to implement conservation practices and promote stewardship by planting riparian buffers. Trees Forever staff assists Working Watersheds participants with project planning, planting and maintenance by providing a 50 percent cost share to implement a water quality project or demonstration planting. Each year, they engage more than 7,000 volunteers and to date, have planted more than three million trees and shrubs throughout Iowa and Illinois.

➕ HEALTH
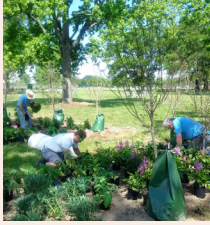
The Phyllis E. Galanti Memorial Arboretum, Richmond, VA: Following on work to map the City of Richmond VA's green infrastructure – forests, water, trails and parks -- the Green Infrastructure Center installed an arboretum at the McGuire Veterans Hospital with funding from the USFS, the Virginia Department of Forestry, Dominion Virginia Power, Alliance for the Chesapeake Bay and Luckstone. More than 83 trees are growing at the arboretum, dedicated by Congress to honor Phyllis E. Galanti, who founded the POW-MIA program. Eight disabled veterans designed and planted the arboretum. The arboretum is used for patient therapy, since patients who can access treed landscapes heal faster and stress is reduced for staff and visitors too.

The Georgia Forestry Commission's Making the Shade Program: Matching funds from the USFS, the program plants trees on elementary school playgrounds across Georgia. Since 2006, the program has selected between two to six elementary schools per year for tree planting. The program reduces the risk of burns from high temperatures on playground equipment, stops skin damage from excessive sun exposure, prevents the formation of ground level ozone and other particulate matter especially harmful to asthmatic children, improves test scores, and reduces energy use.

Project Desert Canopy: This multi-state project is funded by the USFS to conduct forestry ecosystem service assessments in Phoenix, AZ, Albuquerque and Las Cruces, NM, and El Paso, TX. It demonstrates the environmental services of urban trees using i-Tree Eco (a USFS tool). The data were used to assist these communities in setting strategies to attain federal air quality standards. They addressed priorities for Statewide Forest Action Plans of Arizona, New Mexico and Texas. For example, they found that the El Paso urban forest intercepts 318 tons of pollutants annually, valued at $247,100 in savings, while stormwater runoff is reduced by 32.9 million cubic feet annually, saving 2.19 million dollars, and reducing energy costs from residential buildings by $2.7 million.

💲 ECONOMY
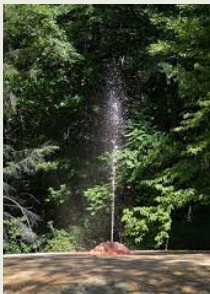
Saratoga Springs, New York: In 2016, the City of Saratoga Springs, a Tree City USA, enlisted volunteers to conduct community street tree inventories. Aided by the USFS i-Tree Streets software, they produced an assessment of the environmental and aesthetic value of the city's 4,800 street trees, which is used to prioritize where to plant more trees, as well as which invasive trees need removal. They found that the inventoried trees produce $610,000 in benefits per year from energy, air quality, storm water, and aesthetic value, thus making the case for managing and expanding their urban forest.

Arizona: The Arizona Urban Tree Map (AZUTM), a project recently completed as part of the Urban Forest Resource Inventories (UFRI) with joint funding from the Arizona State Forest Service and the USFS, collected community tree canopy data for Arizona. The project calculated the environmental and economic benefits of Arizona's community trees. It also helped the state develop goals for where to increase community tree canopy. So far, 15 cities have used the tool to document the benefits of their community forests. For example, Flagstaff found $15,820 in value provided by just 111 inventoried trees, making the case for further inventories and removal of invasive species.

Treasure Valley, Idaho Shade Trees: Treasure Valley Shade Trees is administered by the Treasure Valley Canopy Network and funded by the USFS to provide homeowners in Treasure Valley with shade trees to reduce energy use. Since fall of 2013, more than 7,500 trees were provided to Treasure Valley residents. Treasure Valley's canopy removes 581 tons of air pollutants, thus saving $7 million dollars in avoided health care expenses. By 35 years, a tree saves a resident 5,245 kilowatts of energy resulting in $500 in annual savings. The USFS i-Tree design tool helps residents choose the right tree and shows an interactive on-line map of their canopy. The program has spread to three additional counties.

Energy Saving Trees (EST) Program: In partnership with the Arbor Day Foundation, the USFS provided a $1 million investment to support the Energy Saving Trees (EST) Program. The program is being adapted to serve new audiences by supporting storm water challenge projects to leverage private investment in community tree planting. These programs report key metrics on the benefits provided though the program using the i-Tree Design resource. To date, the program has attracted more than $4.1 million in private investment in community forests, including support from utilities, and has generated more than $100 million in community and energy benefits.
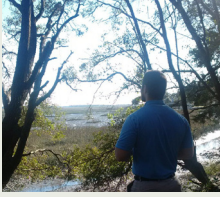
Work Force Entry System, University of Nebraska: Community forestry and green professions – arboriculture, landscape design and maintenance, urban forestry, horticulture, and others – are growth industries with an annual economic impact of $147.8 billion and the potential for tens of thousands of new American jobs. The NatureWORKS report, a Council-recommended grant, provided support for an urban forestry degree program at the College of Agricultural Sciences and Natural Resources, University of Nebraska-Lincoln. The college also used the funding to recruit students and place them in jobs across Nebraska, the Great Plains and Intermountain States.

Hot Times – Fire in the Forest: A week-long forestry camp at the Bonanza Creek Long Term Ecological Research Site teaches kids about the boreal forest of interior Alaska. Supported by the USFS, the National Science Foundation, and the Pacific Northwest Research Station, the camp builds research skills, problem solving, collaboration, and interest in forestry careers.

COST-SHARE AWARDED GRANTS

The Council continues to work with the public and the professional community of practice to support the growth of community forestry through a national grant program based on the priorities of the Action Plan. In 2017, three national grants were recommended for USFS funding consideration and were awarded. These grants serve the nation's rural communities and urban metropolitan areas:

CATEGORY 01. Developing a National Urban Forestry Funding Assessment & Methodology

Environmental Finance Center, University of Maryland

Standardizing the Return on Investment in Urban and Community Forestry

This project designs an easily adoptable assessment methodology that informs forest investment decisions of the private, public, and, nonprofit sectors. Uniformity in the data and construction of standard measures will support aggregation across local, state, and national scales, thereby facilitating 'apple to apple' comparisons across forestry resources.

FEDERAL: $287,156   **MATCH: $287,156**   **TOTAL: $574,312**

CATEGORY 02. Understand Urban & Community Forest Ecosystem/Ecological Services

Tree People

Resilience Through Community Greening and Cooling

This project will define and quantify the relationship between increases in community tree canopy and albedo (i.e. solar reflectivity) and reductions in heat-related mortality and other negative health outcomes. It will determine heat-resilience strategies for disadvantaged communities, design, and, implement solutions at the local scale, and design solutions for scaling interventions for socially-equitable heat resilience across the country.

FEDERAL: $320,943   **MATCH: $320,943**   **TOTAL: $641,886**

Portland State University

The Canopy Continuum: Impacts of Environmental Stressors and Canopy Structure on Maternal and Child Health

This project will expand understanding of the impacts of a particularly harmful air pollutant, fine particulate matter (PM2.5), and urban heat stress on maternal and child health. These environmental stressors have been identified as having an important and acute impact on the public's health, including specifically maternal and child health.

FEDERAL: $291,901   **MATCH: $291,954**   **TOTAL: $583,855**

2018 RECOMMENDATIONS TO THE SECRETARY

The Council recommends the following goals to guide the Department of Agriculture's USFS's Urban and Community Forestry Program during the 2018 calendar year. By aligning the USFS Urban and Community Forestry Program with these key policy recommendations, the Department of Agriculture will provide important leadership, resulting in successful federal programs and partnerships to serve America's communities. Collectively, forestry jobs including urban forestry, arboriculture, horticulture, landscape design and maintenance, are estimated to provide $147.8 billion annually and are growth industries that can provide tens of thousands of new jobs (http://projectevergreen.org/resources/economic-benefits-of-green-spaces/). The Council is honored to continue our charter of assessing progress, listening to our constituents and providing input to guide sustainable growth of USFS programs in support of the Urban and Community Forestry field of practice and the Action Plan. The 2018 recommendations to the Secretary of Agriculture are:

1. Maximize the forestry sector's ability to develop jobs that support stewardship of the nation's community forests to realize their economic and ecological benefits.

Trees provide tremendous ecosystem benefits; realizing these benefits requires an educated and effective community forest workforce to provide stewardship. Increasing university accredited training programs and enhancing existing programs in the forestry sector will help provide an educated and diverse workforce. The forestry sector should enlist diverse partners in technology transfer and delivery of community forest education to expand the forestry workforce.

2. Build healthier communities and address environmental inequity in underserved areas by increasing forest canopy in both rural and urban communities.

Rural and urban communities with vibrant forests tend to have strong economies that can attract new businesses and add jobs.

Communities with low canopy cover provide opportunities for job expansion in the agribusiness sector. Providing resources to increase canopy cover stimulates growth in the local economy in both rural and urban forests and also provides jobs to economically depressed communities. We recommend increasing grant opportunities to advance tree planting, canopy assessments and forestry education.

3. Coordinate the research agendas of federal agencies to expand our understanding of the benefits of trees and their contributions to increased investments in community forestry programs nationwide.

Research shows that healthy trees provide a multitude of benefits such as clean air, clean water, flood attenuation and buffering communities from storms. Research from related departments and agencies can provide valuable information for the USFS.

Southern Regional Extension Forestry

This publication was designed in partnership with the Annual Accomplishment Committee of NUCFAC and the office of the Southern Regional Extension Forester, William G. Hubbard, Regional Forester. For more information please visit www.sref.info.