At the root of every vibrant city is an urban forest.

VIBRANT CITIES & URBAN FORESTS

A NATIONAL CALL TO ACTION

TABLE OF CONTENTS

Pittsburgh, PA. *Photo courtesy of Alliance for Community Trees (ACTrees)*

A LETTER FROM THE TASK FORCE

Dear Reader,

The *Vibrant Cities & Urban Forests: A National Call to Action* report before you is a milestone for U.S. cities and the lives of their residents. This report merges ongoing conversations about and notable efforts towards improving the nation's urban ecosystems and urban forests in particular.

Over the past 12 months, we – the members of the *Vibrant Cities & Urban Forests* Task Force – have put our heads together to give a more integrative and collaborative perspective to the world of urban forestry and natural resources. We aren't just talking about trees in this report; we're talking about health and social services, landscape design and architecture, city infrastructure and economics, and myriad other factors affecting urban areas. Our urban environments are highly complex; and we believe that through considering the more integrative approaches to urban life within this report, we can better serve our cities' residents.

Of course, as we developed the 12 recommendations you will find in this report, we struggled with how to define a "vibrant city." Urban forests are different from city to city. Green infrastructure can encompass a number of different services and structures. And urban ecosystems can represent a variety of dynamics in cities. That being said, we did our best to address these ambiguities in a way that reflects the vision of the *Vibrant Cities* initiative.

It is not entirely up to our Task Force to realize these recommendations. Nor can any single entity be responsible for progress in all areas addressed here. Rather, it is up to all of us. We challenge you to embrace the spirit of these recommendations by fostering greater collaboration and integration among federal agencies, state and local governments, NGOs, the private sector and the public to solve important issues facing urban ecosystems. To this end, we hope that one or more of these recommendations will find its way across a congress member's desk, instigate grant-writing, provide impetus for corporate funding or galvanize a community's greening objectives – only a few of the ways we can all do our part to realize the greater goal of vibrant cities from coast to coast.

Sincerely,

The *Vibrant Cities & Urban Forests* Task Force

FOR MORE INFORMATION, VISIT VIBRANTCITIES.ORG

OUR VISION

Society, as a whole, has long viewed cities and nature as distinct from one another. More recently, however, cross-disciplinary research and cross-sector discourse are changing the way we think about and understand our urban environments. We are becoming increasingly aware not only of the complexities of urban issues, but also of the benefits that arise from the dynamic relationships of urban ecosystems.

So, what if we acknowledge that cities and nature aren't separate? What if we understand them as whole urban ecosystems? **That is the purpose of the *Vibrant Cities & Urban Forests: A National Call to Action* initiative – to explore the implications of integrated natural and built urban environments and their possibilities for the future.**

Through the lens of urban forestry, natural resources stewardship and green infrastructure, we, the Task Force, have established recommendations that we feel strongly will help change the way we live in, manage, study and rebuild our cities and towns over the next few decades.

It is our hope that the efforts of *Vibrant Cities* will contribute to a changed shared consciousness about urban life; that a diverse, growing, accessible urban forest will be considered fundamental to healthy, sustainable communities, neighborhoods and people. And that our recommendations will both bolster current and inspire new efforts and supporters – helping to guide cities and their citizens closer to making theirs a truly vibrant place to live, work and play.

Portland, Oregon. *Photo courtesy of Mike Houck*

CITIES AS ECOSYSTEMS

Recognizing that cities are ecosystems – with interacting human, structural and ecological components – creates great potential for urban forests and green infrastructure to improve life in urban areas.

GREEN INFRASTRUCTURE

Green infrastructure encompasses the naturally occurring and human-built features that manage stormwater, remove pollutants, conserve energy, reduce erosion and provide other ecological, cost-effective and environmentally sustainable services.

URBAN FORESTS

Urban forests are systems of trees, other vegetation and water within any urban area. They can be understood as dynamic green infrastructure that provides cities and municipalities with environmental, economic and social benefits. Urban forests are forests for people.

Chicago, IL. *Photo courtesy of the City of Chicago*

INTRODUCTION

Thanks to ongoing achievements of both public and private proponents of urban forestry and natural resources stewardship, our society knows more than ever about the unique dynamism of urban environments. Collaboration in these fields has begun a shift towards understanding cities as ecosystems; towards valuing both the aesthetic and instrumental benefits of urban forests.

Building on this knowledge, our *Vibrant Cities & Urban Forests* Task Force – a 25-member, peer-designated group – has crafted 12 recommendations for the future of urban forestry. We represent a broad cross-section of national and local non-profit leaders, municipal and state officials, foundation and industry principals, and authorities in health, urban planning, ecosystems management, urban forestry, sustainability and other fields.

Each of us brings a diversity of experience, expertise and perspective to this effort, and yet we all share a common vision: that green infrastructure – in particular, sustaining and expanding vibrant urban forests – is critical to the health and well-being of cities and their residents.

EMERGING TRENDS & POTENTIAL BENEFITS

Currently, 83.7% of all Americans live in metropolitan areas. This fact alone underscores the scale of positive impact that the *Vibrant Cities* recommendations can have on cities and municipalities nationwide.

As urban areas face significant challenges over the coming decades, it is imperative that we develop an understanding of the transformative role of green infrastructure in making cities healthier and more vibrant; and change local policies that do not reflect the comprehensive benefits and efficiencies of green infrastructure.

The following emerging trends touch on environmental, economic and social processes that we anticipate will profoundly shape urban life in the next decade and beyond. Juxtaposing these trends with the potential benefits of green infrastructure serves to illustrate a need and place for improved, integrated urban ecosystems. Neither the emerging trends nor potential benefits listed here are intended to be exhaustive.

Source: Benefits of Trees and Urban Forests: A Research List published by Alliance for Community Trees, College Park, MD 2011.

ENVIRONMENTAL

Environmental trends include ecology and climate-based phenomena that affect our urban environments.

CLIMATE

- **EMERGING TREND:** Increased frequency of extreme climate events – including storms, heat waves and droughts – will place higher demands on city services and infrastructure; particularly concerning flood control and rising average temperatures.
- **POTENTIAL BENEFIT:** Trees and other green infrastructure mitigate stormwater runoff, thereby decreasing the need for costly stormwater control and treatment facilities. They also improve air quality, sequester carbon and reduce energy consumption by lowering temperatures through shading surfaces and evapotranspiration.

BIODIVERSITY

- **EMERGING TREND:** Expansion of urban areas, increasing climate pressures and growing global commerce will threaten the biodiversity and increase the risk of invasive species and diseases in our urban ecosystems.
- **POTENTIAL BENEFIT:** Urban forests are important for biodiversity. They can provide habitat for native species of birds and other animals as well as a reserve for endangered species. Serving as indicators of local environmental health, urban forests mitigate the impact of invasive species and diseases.

ECONOMIC

Economic trends include incorporating “green thinking” into the financial aspects of city planning to foster efficiencies.

FUNDING

- **EMERGING TREND:** Shrinking federal, state and local budgets and expanding deficits may limit traditional, government-mediated responses to environmental problems, creating a need for new avenues of effective and productive public-private collaborations, programs and funding.
- **POTENTIAL BENEFIT:** The horticultural industry – including all businesses and government units involved in distributing, installing and maintaining plants, landscapes, trees and related equipment – was estimated, in 2002, at $147.8 billion in output, 1,964,339 jobs, $95.1 billion in value added and $64.3 billion in labor income.

VALUATION

- **EMERGING TREND:** Especially considering the recent economic downturn, financial support of urban forestry hinges on accurate valuation of the benefits of trees and other green infrastructure. Policymakers, researchers and funders are empowered by clear fiscal justification for urban forestry funding.
- **POTENTIAL BENEFIT:** Improved techniques in urban forestry valuation have shed light on the benefits of trees and green infrastructure. Urban forests in the United States contain about 3.8 billion trees with an estimated structural asset value of $2.4 trillion. Trees in New York City provide $5.60 in benefits for every dollar spent on tree planting and care.

SOCIAL

Social trends include human health, urban design and community issues that shape the quality of life in urban areas.

QUALITY OF LIFE

- **EMERGING TREND:** Concentrated urban populations, especially minority and low-income communities, have limited access to green spaces and urban forests. Due to lack of interaction with nature, children are more likely to suffer from physical and mental health problems – a phenomenon known as Nature Deficit Disorder. Likewise, adults face diminished health and increased stress.
- **POTENTIAL BENEFIT:** Urban forests mitigate strain on human health, urban resources and social services: schoolchildren with Attention Deficit Hyperactive Disorder (ADHD) show fewer symptoms if they have access to natural settings; public housing residents with nearby trees and natural landscapes report 25% fewer acts of domestic aggression and violence; workers without nature views from their desks claim 23% more sick days than workers with views of nature; and visual exposure to trees helps recovery from stress as indicated by changes in blood pressure and muscle tension.

HEALTH

- **EMERGING TREND:** Healthcare systems and social services, already burdened by limited resources, face additional strain from the aging of the population in this country.
- **POTENTIAL BENEFIT:** The health benefits of urban forests ameliorate strain on health and social services. Tree-lined walkways and accessible parks promote physical activity; community gardens and local farms support enhanced nutrition; and landscape design – incorporating shaded benches and green spaces – fosters a sense of community.

RECOMMENDATIONS

If you could create a new pathway that would guide cities to a more vibrant and healthy existence – with programs, policies, partnerships and resources to support thriving urban ecosystems – what would it look like?

Our recommendations take an all-encompassing approach to the future of urban ecosystems and enable residents to improve their cities through urban forestry and green infrastructure.

Since drafting more than 100 specific proposals in April 2011, we have refined our ideas into the 12 recommendations presented in the pages that follow. These recommendations call for a new governmental approach to urban forestry, new and innovative resources and research, and recognition of the economic opportunity that can be achieved through partnerships and collaboration.

We recognize that many of these recommendations speak to programs, policies and partnerships that are already in motion in some cities. The true innovation of these ideas lives in the collective effort of our diverse Task Force to create broadly applicable recommendations for the future of urban forestry; particularly by framing urban forestry as a solution to the environmental, economic and social issues that cities face nationwide.

Our recommendations are intended to inspire and engage a variety of stakeholders. Federal agencies, state and local governments, NGOs, the private sector and the public are encouraged to take up any number of recommendations that will have the most relevance and impact in their communities.

As a reader of this report and stakeholder in the future of your city, it is within your power to heed our call to action.

Portland, Oregon. *Photo courtesy of Mike Houck*

INDEX
OF RECOMMENDATIONS

RECOMMENDATION

1. Create a national education and awareness campaign exposing all Americans to the value of urban ecosystems and their integration with other urban resources.

RATIONALE

This recommendation calls for the creation of an education and awareness campaign that expands public interest and investment in urban forests and inspires natural resources stewardship. Environmental education and stewardship have been shown to have profoundly positive social and psychological effects on urban residents[1]. City residents are highly susceptible to Nature Deficit Disorder (see Emerging Trends); and, therefore, have much to gain from learning about the benefits of urban forests.

[1] Wolf, K.L., and EarthCorps. 2007. Trees and Youth in the City: Research on Urban Forest Stewardship & Positive Youth Development. In: Sustaining America's Forests: Proceedings of the Society of American Foresters 2007 National Convention. Bethesda MD: Society of American Foresters (Portland, OR).

Carmel, IN. *Photo courtesy of Alliance for Community Trees (ACTrees)*

EXAMPLES

Previous examples of effective and transformational campaigns include the Keep American Beautiful pollution prevention campaign of the 1970s, featuring the "Crying Indian," which became synonymous with environmental concern.

Smokey Bear is the longest-running PSA campaign in the history of the United States. Since his debut in 1944, Smokey's warning about fire prevention has effectively reached a wide audience. According to the Ad Council, in 2009 Smokey Bear and his message were recognized by 95% of adults and 77% of children in the U.S.

RECOMMENDATION #1

SUGGESTED ACTION STEPS

- Assemble a working group among key stakeholders to identify and coordinate appropriate professional resources (e.g., media consultants and graphic designers).
- Create an extensive and inspirational national education and awareness campaign.
- Work with *Vibrant Cities & Urban Forests* stakeholders and partners to develop shared branding and messages for the campaign.
- Identify and engage national partners to help achieve grassroots rollout.

VIBRANT CITIES & URBAN FORESTS
A NATIONAL CALL TO ACTION
vibrantcities.org

RECOMMENDATION

2. Foster urban forestry and natural resources stewardship and volunteerism.

RATIONALE

In these economically challenging times, with limited job capacity in all sectors, it is particularly important to support and broaden volunteer and stewardship efforts. Through developing a volunteer corps, such efforts can help sustain and expand urban forests and other urban natural resources.

Efforts to foster meaningful existing and develop new volunteer service opportunities – particularly among NGOs – enable communities to recognize the connection between neighborhoods and their green infrastructure. These efforts can lead to changed behaviors, positive perceptions and better treatment of urban forests and their greater ecosystems.

New York, NY. *Photo courtesy of New York Restoration Project (NYRP)*

EXAMPLES

TreeKeepers, celebrating its 20th year and over 1,000 trained volunteers, cares for Chicago's street and park trees. Run by Openlands, a regional non-profit, TreeKeepers trains interested citizens in tree physiology, proper basic pruning and mulching techniques and tree planting. TreeKeepers volunteer in myriad ways, offering thousands of hours annually to care for Chicago's urban forest.

Green Seattle Partnership (GSP) is a unique public-private venture initiated in 2004 by the City of Seattle and the Cascade Land Conservancy to restore 2,500 acres of forested parklands by 2025. GSP's success depends in part on trained volunteers called Forest Stewards that are dedicated to planning restoration and engaging other volunteers through events in their parks. Between 2005 and 2010, 81,176 individual volunteers provided 415,162 volunteer hours.

RECOMMENDATION #2

SUGGESTED ACTION STEPS

- Create a national Citizen Forester curriculum and certification based on current models.
- Increase research efforts to foster better understanding of and changed attitudes towards urban forests and other natural resources and their importance to a healthy, safe and sustainable community.
- Utilize public lands as outdoor classrooms in better and more active efforts to educate and involve communities and their residents in urban forestry and greening issues.
- Encourage and support efforts to further urban natural resources education and stewardship within the home and among families.
- Work with local school systems, principals and teachers to incorporate lessons – particularly place-based lessons – relating to urban forestry and green infrastructure issues in order to increase environmental literacy among schoolchildren.
- Build stewardship capacity, including leadership, either via new initiatives or in partnership with existing organizations by integrating open space managers into community-based projects.
- Ensure that mechanisms – whether individual or organizational – exist within communities to offer an entry point into urban forestry and green infrastructure volunteerism in order to minimize missed opportunities.
- Promote volunteer days for neighborhood residents and local businesses to focus on communal tree planting, care and related greening goals – initiating connections that ultimately serve to strengthen both stewardship and social capital within a community.
- Promote community stewardship by identifying needs with community organizers and devising means to address those needs through green infrastructure solutions.

VIBRANT CITIES & URBAN FORESTS

A NATIONAL CALL TO ACTION

vibrantcities.org

RECOMMENDATION

3. Create sustainable jobs in urban forestry and green infrastructure fields.

RATIONALE

High unemployment and the call for augmented urban green infrastructure initiatives – in large part to address a significant deterioration of gray infrastructure (e.g., transportation systems and sewer networks) – create a timely impetus to strengthen the green jobs workforce. Particularly among urban and minority youth and young adults, there is a disproportionate and growing need for sustainable employment. However, opportunities that provide necessary training and skills – especially in a highly competitive market – are greatly lacking. Simultaneously, there is increasing focus on green-gray infrastructure rehabilitation and development and the need for trained, skilled professionals in this area.

Providing quality training, employment opportunities and career pathways in areas related to urban forestry and green infrastructure creates a mutually beneficial situation that can bolster local and regional economies, improve individual and public health and welfare, and promote lasting stewardship practices, even as new public funding may be constrained due to economic and political forces.

There are many ways to generate additional job training, open doors and increase employment opportunities in this sector. Reassessing and repurposing existing programs and resources to expand their mandates to encompass efforts in urban forestry and natural resources management have been proven successful. The private sector can also be further encouraged to incorporate the multiple benefits of trees and sustainability elements into development and redevelopment efforts – necessitating a specialized workforce to create and maintain resulting assets. And, any number of existing jobs can be redefined to emphasize or include better stewardship practices for urban forests and green infrastructure.

EXAMPLES

Since 1994, Greencorps Chicago has provided green jobs training to more than 500 hard-to-employ individuals and ex-offenders through a 12-month program that affords on-the-job experience.

Parks & People, a Baltimore-based non-profit, combined a Housing and Urban Development (a non-traditional green infrastructure agency) initiative to address issues facing blighted communities and aging urban infrastructure with federal Community Development Block Grants (CDBGs) to develop programs whereby children and young adults learn to plant trees, improve bioswales and gain marketable green infrastructure skills.

RECOMMENDATION #3

SUGGESTED ACTION STEPS

- Streamline federal agencies' hiring systems in order to better coordinate with each other and with state, local and private sector partners regarding urban forestry and green infrastructure jobs.
- Identify and leverage opportunities where existing federal policies and initiatives can be linked with local urban forestry and green infrastructure initiatives to create jobs and job training programs – especially within under-recognized or under-utilized programs already in place.
- Develop career-track training programs in urban forestry, green infrastructure and urban natural resources stewardship.
- Foster training programs and job creation that emphasize non-traditional applicants and underserved communities.
- Expand the number of jobs available to program graduates by establishing sustainable support mechanisms for ecosystem management businesses.
- Expand model programs nationwide.

New York, NY. *Photo courtesy of New York Restoration Project (NYRP)*

VIBRANT CITIES & URBAN FORESTS
A NATIONAL CALL TO ACTION
vibrantcities.org

RECOMMENDATION

4. Cultivate strategic partnerships between public and private sectors to create a pipeline of support for urban and community forestry programs, through services, materials, funding and other forms of capital.

RATIONALE

There is growing awareness that making real, sustainable progress in urban forestry and green infrastructure programs requires collaboration among citizens, organizations, industry and local, state and federal governments. Partnerships have proven to be effective tools for working across public and private entities at all levels – from local community boards, interest groups and businesses to government agencies, national non-profits and Fortune 100 companies. As a result, public-private partnerships are emerging to supplement municipal forestry programs and becoming instrumental to the conservation and expansion of urban ecosystem resources across the country.

In fact, the private sector reaps many benefits from partnerships with the public sector. Stewardship and greening efforts boost employee morale and help companies achieve corporate social responsibility objectives.

As government resources become more limited, it is imperative that the private sector become more involved not only in supporting urban and community forestry, but also in taking on leadership roles in developing and implementing the strategic approaches necessary to make the *Vibrant Cities & Urban Forests* initiative a success.

University of Maryland.
Photo courtesy of the Arbor Day Foundation

EXAMPLE

The Tree Campus USA® program is an environmental initiative created in partnership with Toyota Motor North America, Inc., and the Arbor Day Foundation. The program recognizes college campuses for properly planting and managing their campus trees and green space and involving students in conservation efforts. Since the launch of the program in 2008, the Arbor Day Foundation and Toyota have recognized 116 college campuses with Tree Campus USA distinction, hosted nearly 30 campus tree-planting events with college students and funded the planting of over 2,000 large trees. These 116 Tree Campus USA colleges and universities are home to over 1.5 million students.

RECOMMENDATION #4

SUGGESTED ACTION STEPS

- Form a diverse working group whose members are currently involved in urban forestry and green infrastructure to seek out partnerships and outline objectives for the allocation of resources.
- Seek out a mechanism through which to funnel resources to urban and community forestry (e.g., National Forest Foundation).
- Encourage active private sector and corporate involvement in urban and community forestry to attract investment in urban ecosystems resources at the local, state, regional and national levels.
- Support technical and research and education-based urban ecosystems programs.
- Engage networks to educate and inform about issues, develop resources and create partnership roles in support of urban forestry and green infrastructure (e.g., Funders for Smart Growth).

VIBRANT CITIES & URBAN FORESTS

A NATIONAL CALL TO ACTION

vibrantcities.org

RECOMMENDATION

5. Convene multi-disciplinary working groups to develop new public administration models to better respond to urban ecosystem issues at the federal, state and local levels.

RATIONALE

Because urban ecosystems issues surrounding and emanating from environmental considerations typically impact a broad range of departments, practitioners and decision makers, getting projects from the approval to the execution stages can often be a cumbersome process. Hence, in several cities and states, new coalitions – with representation by a wide cross-section of public, private and non-profit interests in green infrastructure and ecosystem management – have been established under visionary administrations.

By integrating public works, environmental protection, parks and recreation, energy and other relevant municipal input, these coalitions often serve as liaisons among or coordinators of efforts to ensure that greening policies (e.g., regulations, incentives, stewardship) are being effectively and efficiently implemented across the board. Many of these initiatives are already effective at aligning agendas, integrating protocols and facilitating general communication, public outreach and civic engagement related to urban ecosystem issues in communities of all sizes – serving as models for government efforts in this area at all levels of the process.

Philadelphia, PA. *Photo courtesy of Pennsylvania Horticultural Society*

EXAMPLE

The California Strategic Growth Council is a multi-disciplinary working group tasked with coordinating the activities of member state agencies to:

- Improve air and water quality
- Protect natural resources and agricultural lands
- Increase the availability of affordable housing
- Promote public health
- Improve transportation[2]

[2] Strategic Growth Council Objectives. The California Strategic Growth Council. http://sgc.ca.gov/

RECOMMENDATION #5

SUGGESTED ACTION STEPS

- Create working groups of various partners – including federal agencies, state and municipal agencies, local and regional organizations (e.g., the Conference of Mayors and the International City/County Management Association) and diverse professional associations – that serve as forums for sharing effective strategies among agencies, governments and communities currently integrating ecosystem concepts into their administration outreach.

- Review existing public administration models to assess:
  – which best serve ecosystems management efforts.
  – improvements that could be made to promote integration of ecosystems management in various cities.

- Outline and share among all levels – federal, state and city agencies – public administration models that best integrate ecosystem concepts and benefits into urban natural resources management.

VIBRANT CITIES & URBAN FORESTS
A NATIONAL CALL TO ACTION
vibrantcities.org

RECOMMENDATION

6. Assist in the creation of and provide support for metropolitan alliances within every metropolitan region that will develop comprehensive, multi-jurisdictional Urban Regional Natural Resource Plans.

RATIONALE

Across the country, a number of dynamic, grassroots-driven efforts have emerged among organizations whose missions seek to elevate the importance of protecting, restoring and managing urban natural resources within metropolitan regions – making them more livable and ecologically sustainable.

This recommendation encourages existing alliances and helps create new ones aligned with the philosophy and goals of the *Vibrant Cities & Urban Forests* initiative. The heart of each metropolitan alliance's work will be the creation of comprehensive, multi-jurisdictional plans that address urban natural resource planning across public and private ownerships – encompassing landscape features such as urban forests, urban tree canopy, parks and recreational assets, urban ecosystem health, ecological corridors, green infrastructure and biodiversity not only within urban borders, but also extending to the surrounding region.

Urban Regional Natural Resource Plans – within which urban forests are major components – will be the result of community collaboration and public engagement and will provide a unified roadmap for federal, state and local interagency coordination in support of urban natural resources. These alliances will function as a diverse body of NGOs, government entities, academia and the private sector – ensuring better integration of built and natural environments across urban, suburban and rural landscapes. The regional plans developed by such alliances will provide substantial social, public health, environmental and economic benefits, including the creation of green jobs and the mitigation of and adaptation to climate change.

EXAMPLES

Chicago Wilderness is comprised of more than 250 member organizations from local, state and federal agencies, conservation groups, cultural and education institutions, volunteer organizations and other stakeholders. The alliance exists to connect people and nature through initiatives that protect the local environment, promote green infrastructure, combat climate change and encourage children to explore and steward the environment[3].

The Metropolitan Greenspaces Alliance – whose members include Chicago Wilderness, Houston Wilderness, Cleveland's Lake Erie Allegheny Partnership for Biodiversity, Southeastern Wisconsin Watersheds Trust, Los Angeles' Amigos De Los Rios, Milwaukee's Sweet Water and The Intertwine Alliance of Portland-Vancouver – is an existing model of one such grassroots-driven metropolitan alliance effort.

[3] About. Chicago Wilderness. http://www.chicagowilderness.org

RECOMMENDATION #6

SUGGESTED ACTION STEPS

- Support existing and form new alliances to develop comprehensive Urban Regional Natural Resource Plans in every census-defined metropolitan area.
- Develop a pipeline of resources to metropolitan regions that create alliances to address key issues.
- Support interagency coordination and removal of barriers to implementation of Urban Regional Natural Resource Plans.
- Align existing federal programs (e.g., the U.S. Department of Housing and Urban Development and the U.S. Department of Transportation) to support local priorities identified in Urban Regional Natural Resource Plans.
- Encourage collaboration between the U.S. Forest Service and other federal agencies to provide technical and financial assistance to support regional-scale environmental planning efforts by metropolitan alliances made up of non-profits, federal and state agencies, local jurisdictions and the private sector supporting on-the-ground implementation of plan elements.
- Support the creation of sustainable economic development, smart-growth/ low-impact development and green jobs as an outcome of regional plan implementation.

VIBRANT CITIES & URBAN FORESTS
A NATIONAL CALL TO ACTION
vibrantcities.org

RECOMMENDATION

7. Integrate federal agencies' green infrastructure goals for urban areas to achieve greater coordination and consistency of policies and regulations.

RATIONALE

As gray infrastructure continues its decline in many cities, rebuilding and new urban development efforts increasingly look to incorporate the multitude of benefits that green infrastructure affords into planning efforts.

With growing attention to federal agencies' green infrastructure efforts, inefficiencies arising from compartmentalized research, support and regulatory efforts are becoming apparent. As state and local governments and NGOs place increasing emphasis on green infrastructure projects, they seek clearer guidance from federal agencies who are proponents of these efforts – calling for greater coordination, interpretation and communication of directives, requirements and regulations concerning green infrastructure within and among agencies.

As a result, federal agencies involved with green infrastructure need to capitalize more fully and cooperatively on current and future programs aimed at furthering gray-green implementation as a viable and valuable alternative to traditional approaches in both the public and private sector.

Chicago, IL. *Photo courtesy of the City of Chicago.*

EXAMPLES

The Partnership for Sustainable Communities unites multiple federal agencies – the U.S. Department of Housing and Urban Development's (HUD) Office of Sustainable Housing, the U.S. Department of Transportation (DOT) and the Environmental Protection Agency (EPA) – with the mission of creating strong, sustainable communities. To fulfill its mission, The Partnership connects jobs to housing, fosters local innovation and promotes a clean energy economy[4] and is a strong model for federal green infrastructure collaboration.

The White House Council on Environmental Quality's (CEQ) Climate Adaptation Task Force – co-chaired by CEQ, the Office of Science and Technology Policy and the National Oceanic and Atmospheric Administration – sees to it that other agencies are taking adequate steps toward climate change adaptation. In March of 2011, the CEQ issued a set of implementing instructions for Federal Agency Adaptation Planning that aim to inform agencies on how to integrate climate change adaptation into their planning, operations, policies and programs.

[4] Overview. Office of Sustainable Housing and Communities. http://portal.hud.gov/hudportal/HUD?src=/program_offices/sustainable_housing_communities

RECOMMENDATION #7

SUGGESTED ACTION STEPS

- Conduct a review of current green infrastructure goals among federal agencies.
- Identify gaps in knowledge and green infrastructure opportunities in urban ecosystem management.
- Examine existing initiatives that could be used as models to integrate the work of different agencies (see Examples).
- Continue to work with state and local governments to standardize the use of urban forests and green infrastructure as tools to meet stormwater quality, clean air, energy efficiency and carbon dioxide mitigation objectives, targets or goals.
- Work with state and local governments to strengthen understanding of urban forest systems and green infrastructure as vehicles to improve public health, perhaps coordinating with the U.S. Department of Health & Human Services (HHS) or National Institutes of Health (NIH).
- Work with state and local governments to support alternatives or enhancements to existing utilities. Look for and evaluate highly innovative options.
- Coordinate with state and local governments and private partners to develop a green infrastructure fund, implemented as federal Community Development Block Grants (CDBGs) or through other innovative mechanisms.

VIBRANT CITIES & URBAN FORESTS
A NATIONAL CALL TO ACTION
vibrantcities.org

RECOMMENDATION

8. Establish energy efficiency programs that emphasize the use of trees as a best management practice for energy conservation.

RATIONALE

While renewable energy sources like solar, geothermal or wind garner national media headlines, it is a well-established, yet less attention-grabbing fact that trees provide a simple and relatively inexpensive means to abate energy demand. Systematic and strategic planting of trees leads to significant savings – not only in terms of lessening harmful outputs from traditional, primarily coal-based energy sources, but also by reducing energy-related expenses, particularly among individual property owners.

A number of programs – including new initiatives advocated and supported by municipalities and utilities in collaboration with the Federal Energy Regulatory Commission and the U.S. Department of Energy, as well as state regulatory agencies – are ongoing or anticipated in cities across the country. Yet they seldom receive the accolades or funding levels afforded to what are perceived as the next great breakthroughs in energy-related thinking. Nonetheless, these programs have shown that established trees can shade a house for 50 years or longer. And, with more than 55 million residential property owners in the United States, potential reductions in energy needs and long-term, energy-related consumer costs add up quickly.

Still, these initiatives occur largely on a local scale (see Examples). Federal officials, agencies and policymakers need to look to cities that have implemented such programs – drawing on their lessons and successes to create more regional and national efforts and incentive-based programs to promote the pursuance of this “low-hanging fruit” in the realm of energy conservation, environmental impact and energy-related consumer cost savings.

EXAMPLES

The City of San Antonio, Texas, is taking an innovative approach to improving residential energy efficiency through tree planting. The Green Shade Tree Rebate program is a public-private, interagency partnership that rewards homeowners who plant qualified trees in strategic locations with a reimbursement of $50 per tree, for up to three trees. The justification for this program is in the numbers. According to the Houston Advanced Research Center, a mature medium or large tree planted within 10 to 30 feet of a building on the west, south or east side can save a home approximately 381 kWh, or roughly $37, per year in energy costs.

The City of Chicago’s Sustainable Backyard Program promotes the many ways residents can create more sustainable landscapes through green infrastructure. Rebates to residents are based on ecosystem services – including air and water quality, flooding reduction and fostering wildlife – provided by locally-purchased trees, native plants, rain barrels and compost bins. Funding for rebates comes from the U.S. Environmental Protection Agency’s Pollution Prevention Program and a U.S. Forest Service Great Lakes Restoration Initiative Grant.

RECOMMENDATION #8

SUGGESTED ACTION STEPS

- Create a national working group to review energy efficiency and conservation programs that successfully use trees and other green infrastructure to lower residential energy use and reduce Urban Heat Island effects.
- Prepare and publish a report on successful public-private partnership models.
- Create legislation that incentivizes investor owned, municipal and co-op energy providers to include tree planting, Urban Heat Island reduction and green infrastructure as demand reduction measures in their energy efficiency and conservation programs.
- Target a cohort of municipalities across multiple regions to implement large scale, cost-effective forestation demonstration programs for energy conservation by 2020.
- Gather data on existing programs to develop benchmarks and assessment models for municipalities to measure progress in tree planting and green infrastructure-related energy conservation efforts.
- Direct funds to program development as well as research and assessment of program designs.
- Create new measurement tools to track benefits, including lowering temperatures, ozone levels and energy bills and improving health effects and overall quality of life.
- Work towards a goal of reducing national residential energy use by three percent as the result of strategic tree planting by 2025.

VIBRANT CITIES & URBAN FORESTS
A NATIONAL CALL TO ACTION

vibrantcities.org

RECOMMENDATION

9. Ensure equal access to urban forestry and green infrastructure resources so that communities of all demographics, size and location can reap their benefits.

RATIONALE

Programs that support urban forestry and green infrastructure, however well-intentioned, often fall short of serving low-income and minority communities. As a result, these urban communities lack the environmental, economic and social benefits that urban forestry and green infrastructure provide.

By viewing urban forestry as a means to overcome environmental injustice, this recommendation calls for equitable access to urban trees and open spaces. It seeks to increase programs within communities of all sizes, locations, races, ethnicities and levels of socio-economic status.

New York, NY. *Photo courtesy of New York Restoration Project (NYRP)*

EXAMPLES

Through the MillionTreesNYC initiative, New York Restoration Project (NYRP) and the New York City Department of Parks and Recreation seeks to address gaps in access to trees and green spaces. Priority neighborhoods for urban forestry and green infrastructure programming have been identified as Trees for Public Health (TPH) neighborhoods – or those with fewer-than-average street trees and higher-than-average adolescent asthma rates[5].

Plan EJ 2014 is a strategy that the EPA will use as a roadmap to ensure that environmental justice is incorporated in the Agency's programs. The Plan calls for partnerships with local, state, tribal and federal organizations to empower communities to take steps toward improving their environment[6].

[5] http://www.milliontreesnyc.org/html/million_trees/neighborhoods.shtml

[6] Plan EJ 2014. http://www.epa.gov/environmentaljustice/resources/ policy/plan-ej-2014.pdf

RECOMMENDATION #9

SUGGESTED ACTION STEPS

- Identify target communities using existing federal criteria for environmental justice (e.g., the U.S. Department of Housing and Urban Development and the U.S. Environmental Protection Agency) and how green infrastructure and urban forestry can best serve those communities.

- Collaborate with communities to build support and capacity for green infrastructure, and thereby obtain input for regionally appropriate green infrastructure investment and programming.

- Establish measurement standards of green infrastructure, urban forestry and ecosystem services and their distribution based on the current needs of targeted communities.

- Assist local governments in applying standards across a variety of communities in order to create baselines by which to evaluate progress in the fair and equitable distribution of green infrastructure benefits.

- Create tools that reflect bottom-line costs and benefits (i.e., Sustainable Return on Investment tools) including job creation, local economic development, pollution reduction and prevention, community cohesiveness, etc.

VIBRANT CITIES & URBAN FORESTS

A NATIONAL CALL TO ACTION

vibrantcities.org

RECOMMENDATION

10.

Support urban ecosystem-focused, collaborative research by developing new tools and increasing funding for these efforts among all relevant federal agencies by 50% (over 2010 levels) by 2015.

RATIONALE

Better-coordinated research is crucial to advance efforts to plan and implement building and rebuilding in cities that put restoring, preserving and augmenting local ecosystems at the forefront. Yet, critical research has either lagged or not been effectively integrated in the face of emerging trends that demand imminent reassessment of urban landscapes.

Municipal planning principles of the past are no longer relevant to today's cities. Thus, research efforts must evaluate a wide range of alternative approaches in order to transition our cities from traditional, predominantly gray infrastructure to a common-sense, well-conceived and justifiable combination of gray and green elements.

Furthermore, local stakeholders and researchers can work together to improve their local urban ecosystems. When community members collaborate with experts and researchers they become more aware of their local ecosystems and ways of getting involved in transforming their cities. Likewise, even the most knowledgeable experts gain meaningful insight into communities when they collaborate with local stakeholders.

New York, NY. *Photo courtesy of New York Restoration Project (NYRP)*

EXAMPLE

The National Science Foundation (NSF) and U.S. Environmental Protection Agency (EPA) collaborated through the EPA/NSF Partnership for Environmental Research to support research in the areas of Water and Watersheds, Technology for a Sustainable Environment and Decision Making and Valuation for Environmental Policy.

RECOMMENDATION #10

SUGGESTED ACTION STEPS

- Form multi-disciplinary working groups to achieve greater integration of research efforts across agencies and attract potential private-sector research suppliers and sponsors (e.g., Cooperative Ecosystems Studies Units (CESUs)).
- Initiate a comprehensive study of where and how much federal research money is currently directed at urban ecosystem research, including a fresh look at new ideas for strengthening urban forestry support (e.g., Urban Long-Term Research Areas (ULTRAs)).
- Monitor, measure and evaluate the benefits of regional ecosystem profiles – taking into account variations in local ecosystem profiles – in order to meet regulatory requirements.
- Build off successful urban field research station models by collaborating with the Cooperative Extension Service to provide regional equity for technology transfer, including a focus on underserved areas (e.g., Long-Term Ecological Research Networks (LTERs) in Baltimore, MD, and Phoenix, AZ).
- Develop tools that:
  - Involve local stakeholders in the processes of crafting research agendas, undertaking field research and interpreting results.
  - Aggregate time-sensitive data regularly and widely across urban ecosystems.
  - Process data, standardize its publication and make it openly accessible to the public.
  - Provide researchers with an increasingly nuanced picture of urban ecosystem processes over time.

POTENTIAL AREAS OF CRITICAL RESEARCH

- Basic research in urban forest functions and plant health requirements.
- Integrative research addressing the critical role of urban forests and ecosystems in CO_2 mitigation and climate change adaptation.
- Analysis of effective design and functional integration of natural, human-made, social and cultural infrastructures.
- Improved understanding of the relationship between healthy ecosystems and human health.
- Detailed economic analysis of green infrastructure components as capital assets to demonstrate how they qualify to be treated as such in city and regional planning.
- Appreciation of the intrinsic value of nature.

VIBRANT CITIES & URBAN FORESTS
A NATIONAL CALL TO ACTION
vibrantcities.org

RECOMMENDATION

11. Encourage open access to and use of social assessment tools that amass and distill data regarding all aspects of urban green infrastructure.

RATIONALE

The development of easy-to-use scientific tools that facilitate access to information relating not only to the surrounding biophysical environment, but also to stewardship efforts are changing the way cities and their residents understand their urban environments. Such innovations in information technology and new media allow civic science collaborators to quickly and widely share their findings.

Many highly valuable, peer-reviewed and user-friendly mechanisms currently exist – created by the U.S. Forest Service and others and are available in the public domain. These tools help cities and organizations collect data related to urban green infrastructure and evaluate how neighborhoods and groups interact with each other regarding local natural resources.

These new insights can help guide researchers, government officials and city residents to make better day-to-day decisions about managing and maintaining the urban environment. In particular, such tools allow municipalities to create a legacy of information with which they can develop and evaluate strategic, long-term plans that recognize and account for trees and other green infrastructure as capital investments. However, wider application and adaptation according to local needs and preferences and more integration of existing tools are necessary – particularly with a view towards extended resource limitations (e.g., personnel, funding, etc.) in this area.

EXAMPLES

Civic science projects need not be expensive. Sometimes, inexpensive materials and methods lead to fascinating new discoveries about urban ecosystems. The Public Laboratory for Open Technology and Science is working with people across the country to make detailed aerial images of the urban environment – using off-the-shelf Mylar balloons and digital cameras.

The following tools, developed by the U.S. Forest Service in collaboration with university and industry partners, are complementary in their objectives and can be used in conjunction with each other to get a richer, fuller, more meaningful assessment of a city's natural resources and related social underpinnings:

- i-Tree and Urban Tree Canopy Assessment (UTC) are green mapping and biophysical measurement tools.
- STEW-Map is both an empirical study of a municipality's stewardship network as well as a publicly available online tool to help support that network.

To learn more about these tools, visit:

- http://www.itreetools.org/
- http://nrs.fs.fed.us/urban/utc/
- http://stewmap.cnt.org/

RECOMMENDATION #11

SUGGESTED ACTION STEPS

- Evaluate the scope of current tools and their objectives.
- Integrate existing and develop new protocols that incorporate different types of assessment (i.e., biophysical and social).
- Create an urban forest inventory clearinghouse that contains open source data and both professional and public protocols.
- Promote broader evaluation and usage of protocols by emphasizing accessibility and applicability.
- Use data from civic science projects to guide urban ecosystem management decisions within government agencies and at the grassroots level.
- Develop an online portal or similar mechanism with features allowing users to:
  - Assess tools (provide examples of existing applications using range of city sizes, etc.).
  - Download tools (including self-implementation instructions).
  - Share and compare data with other cities of similar characteristics.
- Select at least 25 cities of various sizes and in multiple regions to test new data-gathering tools, providing for standard collection of assessment using identical methodologies and allowing comparison across municipalities.
- Encourage implementation of these tools by 2020 in:
  - 25% of cities with populations less than 250,000
  - 50% of cities with populations of 250,000 to 1 million
  - 100% of cities with populations greater than 1 million

VIBRANT CITIES & URBAN FORESTS
A NATIONAL CALL TO ACTION

vibrantcities.org

RECOMMENDATION

12. Develop a process to establish national Vibrant Cities Standards that provide guidance and measures of success for communities as they advance urban forestry and green infrastructure efforts.

RATIONALE

The *Vibrant Cities & Urban Forests* Task Force calls upon advocates of green infrastructure and urban forestry to collaborate on the realization of what constitutes a Vibrant City – and ultimately to craft a set of common standards that will guide communities towards achieving Vibrant City status.

It is neither the Task Force's mission nor intent to dictate such standards, but rather to create a process by which agencies, organizations, associations and individuals share experiences and ideas leading to overall best-practice guidelines that will inspire communities to pursue greater goals in all forms of green infrastructure implementation.

By providing guidelines that help define a Vibrant City – emphasizing the critical role that trees play in any healthy urban ecosystem and encouraging interaction among stakeholders – a shared understanding, terminology and standards will evolve. These Vibrant City Standards will provide relevant, ratable and achievable objectives and means assessments – empowering municipalities across the country and motivating residents to advance urban forestry and green infrastructure, working towards a much-coveted "Vibrant City" designation.

EXAMPLE

Designations provide a means for monitoring and ranking, encourage reporting and can be used to gauge performance. The Arbor Day Foundation, in cooperation with the U.S. Forest Service and the National Association of State Foresters, confers the status of Tree City USA to communities, regardless of size, that meet four standards:

1. A Tree Board or Department
2. A Tree Care Ordinance
3. A Community Forestry Program with an annual budget of at least $2 per capita
4. An Arbor Day Observance and Proclamation

Tree City USA status provides communities with a wealth of benefits, including a framework for urban forestry action, public education, bolstered public image, citizen pride, preference for financial assistance and publicity.

TREE CITY USA

RECOMMENDATION #12

SUGGESTED ACTION STEPS

- Convene a *Vibrant Cities* Task Force member-led committee that would develop a “Vibrant City” designation for cities that achieve standards.
- Integrate Vibrant Cities Standards into LEED-ND, ANSI A300, Tree City USA and other appropriate standards.
- Develop or redirect federal incentives to help cities achieve Vibrant Cities Standards.
- Obtain signatures of 1,000 mayors on a letter of commitment to implement Vibrant Cities Standards.
- Incorporate Vibrant Cities Standards into Capital Improvement Program processes in all 50 states; the District of Columbia; eight territories, commonwealths and freely associated Pacific islands; and 1,000 cities. Examples of incorporation: trees counted as capital assets, distribution of ecosystems services provided, etc.

VIBRANT CITIES & URBAN FORESTS
A NATIONAL CALL TO ACTION

vibrantcities.org

BACKGROUND & STRATEGY

The Vibrant Cities Task Force at the April workshop. Washington, DC 2011. *Photo courtesy of New York Restoration Project. By Pablo Benavente.*

ORIGIN

The *Vibrant Cities & Urban Forests: A National Call to Action* initiative was conceived by U.S. Forest Service Chief Tom Tidwell, Deputy Chief of State and Private Forestry Jim Hubbard, and Northern Research Station Director Michael Rains. The non-profit New York Restoration Project (NYRP) was chosen by the U.S. Forest Service to lead the initiative because of NYRP’s proven successes in urban forestry and natural resources management through its partnership in the MillionTreesNYC initiative.

TASK FORCE SELECTION

The *Vibrant Cities & Urban Forests* Committee – comprised of passionate and motivated leaders from Alliance for Community Trees, the National Urban and Community Forestry Advisory Council, NYRP, the Society of Municipal Arborists, the Sustainable Urban Forests Coalition and the U.S. Forest Service – was responsible for selecting the Task Force members.

At the beginning of 2011, the Committee reviewed more than 150 nominations from which the 25 individuals were selected for Task Force membership. In choosing Task Force members, the Committee sought to identify a group of individuals who collectively demonstrate leadership, expertise, and perspective from across the country.

TASK FORCE STRATEGY

The Task Force united 25 diverse experts and innovators – national and local non-profit leaders; municipal and state officials; industry, academic and foundation representatives; and others – at a three-day workshop held April 5-7, 2011. Their goal: to launch a fresh discourse on the future of urban ecosystems that will shape the future of the United States’ urban forests.

Over the months leading up to the April workshop, the at-large community was engaged through an interactive website – from which hundreds of suggestions were compiled. Taking into consideration these collective contributions and bearing in mind the fundamental question: “where do we want to be in 15 years?”, the Task Force established seven values they believed to be most crucial to the future of our cities’ urban ecosystems and forests, their management and stewardship, and their impact on and benefit to the broader urban environment:

- Engagement, Education & Awareness to Action
- Realignment of Resources
- Building Capacity
- Collaborative & Integrated Planning
- Equity
- Knowledge & Research for Decision Making & Evaluation
- Standards & Best Practices

Referring to these values as collective recognition of urban priorities and needs, the Task Force identified more than 100 recommendations intended to inform the policies, programs, public-private partnerships and funding mechanisms that will enhance and sustain the growth, maintenance and protection of vibrant cities and urban forests. The resulting 12 recommendations are ambitious and visionary, and yet they give significant weight to the realities of current economic, environmental and social dynamics.

Following the April workshop, Task Force members spent months refining their recommendations and developing a strategy for promoting their work among federal agencies, national organizations, corporations, foundations, local non-profits and the general public.

TASK FORCE MEMBERS

JACKIE CARRERA

President and CEO of Parks and People Foundation (Baltimore, MD), a non-profit that supports a wide range of recreational and educational opportunities, creating and sustaining lively parks and promoting a healthy, natural environment for Baltimore. Ms. Carrera is the former chair of Revitalizing Baltimore, a USFS Urban and Community Forestry project and is a co-principal investigator for the Baltimore Ecosystem Study. She also serves as Secretary for the national advocacy City Parks Alliance and as co-chair for Governor O'Malley's Partnership for Children in Nature's Community and Public Lands Working Group.

MARTIN J. CHÁVEZ

Executive Director of ICLEI Local Governments for Sustainability USA (Washington, DC), the nation's leading advocate for more than 600 local governments on climate change and sustainability. Prior to becoming ICLEI USA's Executive Director, Mr. Chávez, a three-term former mayor of Albuquerque, NM, served as a trustee of the United States Conference of Mayors and chaired the Urban Water Council. He is currently the Chair of the Advisory Board for the Center for Green Schools at the U.S. Green Building Council.

AARON DURNBAUGH

Deputy Commissioner for Chicago Department of Environment (Chicago, IL), the lead agency developing and implementing the Chicago Climate Action Plan, and Vice Chair of Chicago Wilderness, a regional alliance of more than 260 organizations connecting people and nature towards biodiversity conservation for landscapes at the southwest corner of Lake Michigan. Mr. Durnbaugh is a LEED™ accredited professional. He serves as Co-Chair for Chicago's Nature and Wildlife Advisory Committee, Chair for the Chicago Trees Initiative and coordinates the adaptation and preparation strategies of the city's climate action plan.

MARK GARVIN

President of Tree Care Industry Association (Londonderry, NH), a public and professional resource on trees and arboriculture representing approximately 2,000 tree services and affiliated companies. Mr. Garvin joined TCIA, then the National Arborist Association, in 1996 as editor of Tree Care Industry Magazine. He is a member of the Sustainable Urban Forest Coalition, Greenscape Business Alliance and Turf and Ornamental Communicators Association.

JOHN GIEDRAITIS

Texas Urban Forestry Program Manager for Texas Forest Service (College Station, TX), assists local communities with trees throughout Texas. Prior to his 13-years' work with the Texas Forest Service, Mr. Giedraitis was City Forester for the City of Austin, a position he also held for 13 years. He is an SAF Certified Forester and ISA Certified Arborist and has served on the board of the Texas Urban Forestry Council since 1987. He is past president of the Texas Chapter ISA and is currently the Secretary of the ISA Council of Representatives.

MIKE HOUCK

Executive Director of Urban Greenspaces Institute (Portland, OR), an organization dedicated to integrating green spaces with the built environment of the Portland-Vancouver region. Mr. Houck has worked on local, regional and national urban park and greenspace issues since 1980, when he founded the Urban Naturalist Program at the Audubon Society of Portland. He is Co-Founder of The Intertwine Alliance, which is dedicated to creating a world-class park, trail and natural area system for the Portland-Vancouver metropolitan region. The Alliance is also a member of the national Metropolitan Greenspaces Alliance.

LIAM KAVANAGH

First Deputy Commissioner for the New York City Department of Parks & Recreation (New York, NY). A lifelong New Yorker, Mr. Kavanagh joined the NYC Department of Parks & Recreation in 1981. He has formerly served as Brooklyn Forestry Director, Deputy Chief of Operations in Brooklyn and Manhattan, and Chief of Operations in Manhattan prior to his appointment as Deputy Commissioner in 2002.

LARRY A. KOTCHMAN

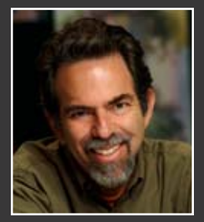
State Forester for the North Dakota Forest Service (Bottineau, ND), an entity of North Dakota State University, is responsible for the administration of the North Dakota Forest Service. Mr. Kotchman has more than 35 years of professional forestry and administrative experience, having previously served as a past president of the National Association of State Foresters. He currently chairs the Urban and Community Forestry Committee of the National Association of State Foresters. Mr. Kotchman currently chairs the Urban and Community Forestry Committee of the National Association of State Foresters.

DAN LAMBE

Vice President of Programs for the Arbor Day Foundation (Lincoln, NE), oversees the various innovative programs through which the Arbor Day Foundation strives to educate, recognize and empower people to plant, nurture and celebrate trees, including Tree City USA, Tree Line USA, the Partners in Community Forestry National Conference and more. Mr. Lambe also currently serves as a member of the National Urban and Community Forestry Advisory Council and is a board member of the Urban Forest Foundation.

MONICA LEAR

Acting Associate Director, Urban Forestry Administration, District Department of Transportation and District of Columbia State Forester (Washington, DC). Dr. Lear is currently the council member representing state forestry agencies on the National Urban and Community Forestry Advisory Council to the Secretary of Agriculture, a member of the National Association of State Foresters Urban and Community Forestry Committee and Vice President of the Northeastern Area Association of State Foresters.



ANDY LIPKIS

President of TreePeople, Inc. (Beverly Hills, CA), founded TreePeople at age 18 in 1973. For nearly 40 years, TreePeople has inspired, mobilized and supported volunteers in planting and caring for trees in the Los Angeles region. TreePeople's "Functioning Community Forests" engages people, trees and forest – inspiring infrastructure to protect cities against droughts and floods, prevent water and air pollution, and mitigate and adapt to global warming. TreePeople's work in LA provides a model for environmental, economic and social sustainability in cities worldwide.

DEAN MARRIOTT

Director of Environmental Services, City of Portland, OR (Portland, OR). Prior to his appointment as Director in 1994, Mr. Marriott was Commissioner of Environmental Protection for the State of Maine. He was also previously the Director of Planning for the largest consulting engineering firm in Maine, served as legal counsel for a landscape architecture and planning firm in Pennsylvania, and was an environmental planner for a suburban Philadelphia county planning agency.

TASK FORCE MEMBERS (CONT.)

GAVIN MCMILLAN

Principal-in-Charge for Hargreaves Associates (Cambridge, MA), is a landscape architect. Mr. McMillan began his career as a surveyor, nurseryman and contractor more than 30 years ago and has since worked on designs for both the 2000 and 2012 Olympic Games. His award-winning work has garnered him projects around the globe and he contributes articles in Urban Land Institute and Earth Pledge Foundation publications, speaks on landscape and urban design issues, judges excellence in development awards and instructs at Harvard's Graduate School of Design landscape studio.

GREG NICKELS

Board Member of Cascade Land Conservancy (Seattle, WA), a non-profit organization dedicated to creating livable urban communities and protecting rural working and natural lands. During his eight years as the 51st Mayor of Seattle, Mr. Nickels was instrumental in creating the Green Seattle Partnership, a city-wide urban forest restoration effort. In 2009, Mr. Nickels was elected the 67th President of the U.S. Conference of Mayors. Prior to his position as mayor, he was an elected member of the King County Council for 14 years. Mr. Nickels was appointed a resident Fellow at Harvard University's Institute of Politics in the Kennedy School of Government for Spring 2010 and became a Distinguished Urban Fellow for Living Cities in May 2010.

JOHN NORQUIST

President and CEO of Congress for New Urbanism (Chicago, IL). Under Mr. Norquist's leadership as Mayor of Milwaukee from 1988-2004, the city experienced a revision of the city's zoning code and reoriented development around walkable streets and public amenities such as the 3.1-mile Riverwalk. Mr. Norquist is the author of *The Wealth of Cities* (Addison-Wesley, 1998) and has taught courses in urban planning and development at the University of Chicago, Marquette University and the University of Wisconsin-Milwaukee's School of Architecture and Urban Planning.

MARY EVELYN NORTHRIDGE

Editor-in-Chief of the American Journal of Public Health and Assistant Professor of Epidemiology & Health Promotion at New York University College of Dentistry (New York, NY). Dr. Northridge also holds a part-time appointment as Professor at the Columbia University Mailman School of Public Health. She has enduring interests in social and environmental determinants of health, including oral health, and a current focus in the utility of systems science to integrate and sustain holistic health and health care.

STEPHANIE PINCETL

Adjunct Professor and Director of the Center for Sustainable Urban Systems at the University of California, Los Angeles, Institute of the Environment and Sustainability (Los Angeles, CA). Dr. Pincetl conducts research on environmental policies and governance and analyzes how institutional rules construct how natural resources are enrolled to support human activities. She has written extensively about land use in California, habitat conservation efforts and water policy.

PATRICIA PINEDA

Toyota Motor North America, Inc., Group Vice President, National Philanthropy and the Toyota USA Foundation (New York, NY), is responsible for national philanthropy through the Toyota USA Foundation. Ms. Pineda joined TMA in 2004 as Group Vice President of Corporate Communications and General Counsel. Prior to that, she spent 20 years at New United Motor Manufacturing, Inc., the corporate joint venture between Toyota Motor Corporation and General Motors Corporation where she served as Vice President, Human Resources, Government and Legal Affairs and Corporate Secretary.

SHANNON RAMSAY

President and CEO of Trees Forever (Marion, IA), founded Trees Forever in 1989, working as a volunteer for more than two years to launch the organization. Ms. Ramsay is the immediate past Chair of the Board of the National Alliance for Community Trees and was recently awarded the Women of Influence Award in her region of Iowa. Ms. Ramsay has been a featured speaker at the White House Conference on Cooperative Conservation, National Urban and Community Forest Conferences and numerous other regional and national conferences.

SCOTT ROBSON

Executive Director, Evergreen Park & Recreation District (Evergreen, CO). During his tenure as Manager of Parks and Recreation for the City of Denver, Mr. Robson oversaw over 20,000 acres of urban and mountain parks along with 26 recreation centers and seven municipal golf courses. Mr. Robson also played significant roles in planning the 2008 Democratic National Convention and the 2010 Biennial of the Americas in Denver. Before joining the Hickenlooper administration in 2007, Mr. Robson worked for the U.S. National Park Service, Boulder County Government and Grand County Government in Colorado.

MAITREYI ROY

Vice President for Programs at the Pennsylvania Horticultural Society (Philadelphia, PA), oversees PHS's nationally recognized urban greening program, Philadelphia Green, its education programs and its publications. Ms. Roy was selected as a 2007 Eisenhower Fellow to travel to urban centers in Spain, Germany, Belgium, France and Ireland to study best practices in urban open space policies, planning standards and landscape design.

STEPHEN SHURTZ

Urban Forestry and Landscape Manager for the East Baton Rouge City-Parish Department of Public Works (Baton Rouge, LA). A registered Landscape Architect and ISA Certified Arborist, Mr. Shurtz has more than 30 years' experience in municipal landscape design and urban forestry management. He has twice served as president of the Society of Municipal Arborists (SMA), was recently elected to the Board of Trustees of the ASLA, is currently President of the Louisiana Urban Forestry Council and a member of the National Urban and Community Forestry Advisory Council. Since 1978, Mr. Shurtz has maintained a private landscape design practice, Stephen A. Shurtz, ASLA, Landscape Architect, in Baton Rouge.

PHILIP SILVA

Co-Founder and Co-Director of TreeKIT, a project of the Open Space Institute (Brooklyn, NY), an initiative to map, measure and manage New York City's urban forest with citizen scientists.
Mr. Silva is an environmental professional living and working in the New York City Metropolitan Area. He is also an adjunct faculty member at The New School, teaching courses in urban forestry and environmental history and has worked with some of New York City's leading environmental advocacy organizations, including Sustainable South Bronx and the Brooklyn Botanic Garden.

JIM SKIERA

Executive Director of International Society of Arboriculture (Champaign, IL), a professional membership organization with over 22,000 members in 50 countries. Mr. Skiera has practiced as a landscape architect, serving as president and founder of the Landscape Guild in Denver, CO; as City Arborist for the City of Urbana, IL; and as the landscape superintendent for the University of California, Davis. He was founding Chair of the Sustainable Urban Forest Coalition; a member of the executive board of i-Tree and has served on the European Arboriculture Council, ANSI Z133 Arboricultural Safety Standards Committee, ANSI A300 Standards Committee for Arboricultural Operations.

RAY TRETHEWAY

Executive Director of Sacramento Tree Foundation (Sacramento, CA). Mr. Tretheway has also served as Board Chair of the Alliance for Community Trees since 2010; a position he formerly held from 1994 to 1996. From 2001-2010, he was a member of the Sacramento City Council.

New York, NY. *Photo courtesy of New York Restoration Project. By Avi Gerver.*

THE COMMITTEE

Jan Davis, *U.S. Forest Service*
Alice Ewen, *U.S. Forest Service*
Carrie Gallagher, *Alliance for Community Trees*
Jennifer Hinrichs, *Sustainable Urban Forests Coalition*
Darin Johnson, *New York Restoration Project*
Jerri LaHaie, *Society of Municipal Arborists*
Leland Milstein, *Alliance for Community Trees*
Paul Ries, *U.S. Forest Service*
Erika Svendsen, *U.S. Forest Service*
Lynne Westphal, *U.S. Forest Service*
Larry Wiseman, *National Urban & Community Forestry Advisory Council*

PROJECT MANAGER
Sarah Pfeifer, *New York Restoration Project*

FACILITATOR
David Maddox, *Sound Science LLC*

WRITER
Lisa Mackintosh, *ThEME Co.*

DESIGNER
Alexandra Felsenstein, *New York Restoration Project*

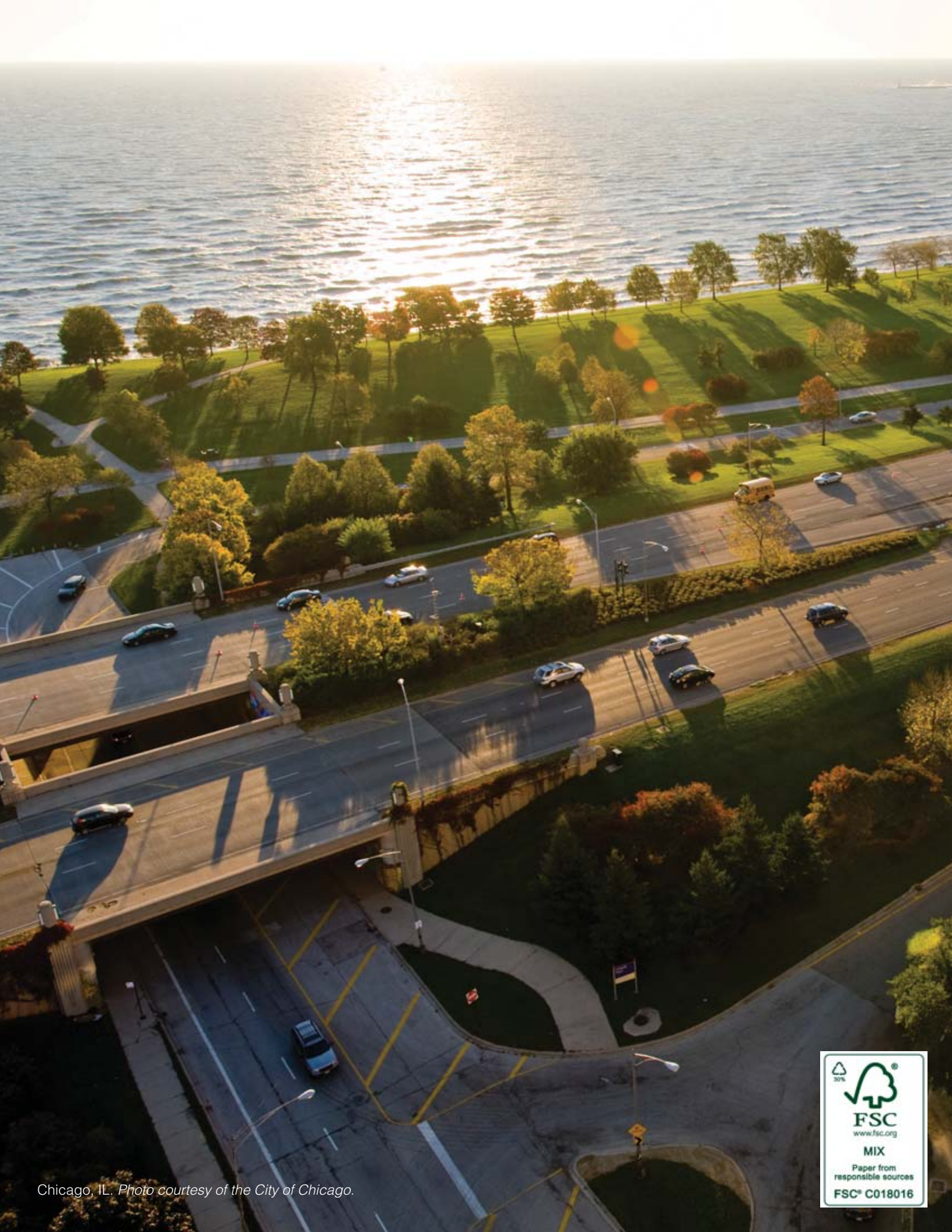
STAFF
Max Litt, *New York Restoration Project*
Christine Wisnewski, *Sound Science LLC*

VIBRANT CITIES ORIGINATORS

UNITED STATES FOREST SERVICE
The mission of the U.S. Forest Service (USFS) is to sustain the health, diversity and productivity of the nation's forests and grasslands to meet the needs of present and future generations. The agency manages 193 million acres of public land, provides assistance to State and private landowners, and maintains the largest forestry research organization in the world. For more information on the U.S. Forest Service, visit http://www.fs.fed.us/

NEW YORK RESTORATION PROJECT
New York Restoration Project (NYRP) is a non-profit organization dedicated to restoring and maintaining public parks and community gardens – and a driving force in the advancement of open spaces and urban forestry – in New York City. Since the organization's founding by Bette Midler in 1995, NYRP has achieved dramatic results by investing in the greening of underserved communities throughout New York City and educating thousands of residents about environmental issues. As the non-profit partner of MillionTreesNYC, NYRP also works with the New York City Department of Parks & Recreation to plant and care for one million new trees across the city's five boroughs by 2017. For more information on NYRP, visit www.nyrp.org

for more information,
visit vibrantcities.org



Chicago, IL. *Photo courtesy of the City of Chicago.*