



# Trees: A Prospectus

*A Solid Green Investment*



## fact:

Street trees in Minneapolis were estimated in a 2005 study to save annually approximately \$6.8 million in energy costs and \$9.1 million in stormwater treatment and add \$7.1 million to aesthetic and property values.<sup>1</sup>

# Investing In Ourselves

Through a healthy urban forest we grow our investment in our communities. Research in many scientific disciplines underscores why urban forests are a solid investment. Here is a sampling of how an investment in healthy urban forests compounds...with interest.

“In the last 15-20 years the research I have seen is not about mere aesthetics but is fundamental to human health and well-being. From an empirical basis we now have research on the biological and social science impact of urban forests. The information is not just anecdotal.”

Dr. Kathleen Wolf  
University of Washington

## fact:

A study of Mecklenburg County (including the city of Charlotte) in North Carolina reveals the ecological benefits for managing stormwater and mitigating air pollution is valued over \$200 million per year. (Annual stormwater savings based on financing over 20 years at 6%).<sup>2</sup>

## fact:

A study of one Southwest region's six million trees reveals trees remove and store approximately 304,000 tons of atmospheric CO<sub>2</sub>, 12,000 tons of ozone, and 9,000 tons of particulates.<sup>4</sup>

## Cleaner Air

Trees clean the air, helping regions and cities work towards meeting clean air standards and protecting human health.

- Green space and tree canopy reduce heating and cooling needs, thereby reducing polluting fossil fuels and energy costs.
- Mature trees absorb large amounts of CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>x</sub> and other pollutants.
- Shaded parking lots significantly reduce stationary car emissions and resulting ozone concentrations.<sup>3</sup>

## Cohesive Communities and Social Benefits

Trees and other green space have a direct and positive connection to:

- Reduced crime<sup>5</sup>, graffiti, noise and litter
- Increased self-discipline<sup>6</sup> and reduced attention deficit disorders in children<sup>7</sup>
- Reduced risk of skin cancer (due to shade)<sup>8</sup>
- Stronger ties among neighbors, with a greater sense of safety for urban residents<sup>9</sup>

## Positive Economic Impact

Healthy urban forests create a multitude of positive economic benefits in our towns and cities. They include:

- Extending the life of street surfaces through shade<sup>10</sup>
- Providing an alternative to landfills for 'green' waste streams via mulching
- Reducing soil erosion, polluted storm water run-off and thus the need for expensive mechanical water control<sup>11</sup>
- Producing positive consumer responses to retail and business locations<sup>12</sup>
- Greater productivity and work satisfaction for desk workers with views of green<sup>13</sup>
- Increased rental rates for commercial office space with quality landscape<sup>14</sup>

“We quantify the benefits of trees, converting results into real dollars and cents to stimulate more investment in community forests.”



Greg McPherson  
U.S.D.A.  
Forest Service

“Cities like Charlotte and others can look at and learn from the mistakes made by other metropolises. Avoiding fines and the potential loss of federal dollars alone is a big reason to support healthy urban forests beyond the vital air and water issues.”



Deborah Gangloff  
Executive Director,  
American Forests

“Now we have the scientific background information and the models to better understand water flows and green infrastructure. This allows us to better address these issues in urban areas—but it requires smart planning up front. We can’t continue to move out all the trees, build and then go back in and insert them into the city scape.”

Michelle Harvey  
Sustainable Urban  
Forests Coalition



A healthy urban forest impacts so many areas of our lives! The realities of how green space and urban forests improve our daily lives is simple yet complex. The basic premise that trees and green space are vital to the health of the larger community is straightforward enough. However, exactly *how* trees and green space affect the bottom line is more complex. Healthy urban forests connect across many urban issues and have a positive domino effect.

For example, healthy urban forests have a direct positive impact on the quality of our air by absorbing and reducing pollutants. They also reduce the need for energy-intensive heating and cooling of our buildings, thus reducing the need for fossil fuel usage and costs. Of course, the physical presence of a healthy urban forest also has other ripple effects such as more attractive retail areas, increased home values, and increased wildlife habitat.

A negative domino effect can also occur. A declining urban forest can result in reduced air and water quality and economic growth. It can also increase energy costs and lead to possible loss of federal funding by failing to meet EPA air quality standards.



Photos courtesy of Katura Reynolds, TreePeople

# How Should We Invest?

“It is time for a wake-up call... this sector is profoundly under funded and is being relied upon to deliver social services and now, infrastructure.”

Andy Lipkis  
Founder and President of  
TreePeople, Los Angeles



Beyond individual first-hand efforts at tree planting and care in your own neighborhood, there is a greater need for a collective investment in our urban green spaces. This is a smart investment for a solid return. Fortunately, there are already many mechanisms in place to facilitate this investment.

There is an expanding network of urban forestry organizations across the U.S. and in every state.<sup>15</sup> These groups include diverse governmental, commercial and nonprofit organizations. In this *Prospectus* we focus on the indispensable role *urban forestry nonprofits* play in the well-being of our communities. The backbone of these nonprofits are made of dedicated visionaries, forestry and nonprofit professionals and volunteers working to bring green space and urban forestry issues to the forefront.

Urban forestry nonprofits across the U.S. are implementing innovative projects ranging from TreePeople’s stormwater management initiative in Los Angeles, California to the Knox Parks Foundation’s community development efforts in Hartford, Connecticut neighborhoods. Others such as Trees Atlanta are the primary contractors for Atlanta’s urban forestry needs including tree

planting, maintenance, outreach and education. The contributions of urban forestry nonprofits have a huge impact on the quality of life in cities and towns. Without these organizations, the current fragile underpinning of our urban forests would be at greater risk.

Urban forestry nonprofits understand their work is not done in a vacuum. By striving to work closely and collaboratively with municipal foresters and other related agencies, a symbiotic relationship develops to the benefit of all. They also wear many hats and through necessity their leaders have become proficient in educating policy makers, engaging community support, mentoring youth, building diverse partnerships, and becoming innovative fundraisers.

The importance of protecting and caring for our urban and rural forests was recognized as early as the 19<sup>th</sup> century. Organizations such as American Forests (1875) and later The National Arbor Day Foundation (1971) were pioneers and early advocates for trees and urban forests. Over the last 15 years, a larger community of urban forestry nonprofits has steadily grown to fill voids in our communities and patch a quilt of green infrastructure back into our communities. Increased focus on leadership development, organizational development, specialized nonprofit training, and diversification of funding are becoming more common as the urban forestry community continues to mature.

“Several years of environmental education funding through urban and rural forestry channels has given more students a true ‘meaningful experience’ with their environment. We must build, not retreat, from this progress.”



Albert “Abby” Ybarra  
Environmental Education  
Specialist

“Working in collaboration with nonprofits is an essential component to any successful municipal (urban) forestry program. Together we leverage our limited resources, maximizing the benefits for our communities.”



George Gonzalez  
Chief Forester,  
Urban Forestry Division  
City Of Los Angeles

**fact:**  
*Investing in a start-up*  
A study of urban forests in Modesto, California convinced city officials to increase the tree budget and an electric company to invest \$20,000 in developing the Modesto Tree Foundation.<sup>16</sup>

# Profile

## Greening of Detroit, MI

Planting trees in cities is important, but done alone it is no golden arrow. Greening of Detroit, an urban forestry nonprofit, gets the bigger picture. While they have many successful projects, their urban agriculture and tree planting project at Sergeant Romanowski Park in Detroit stands out for many reasons. It has been so successful in part because it took a nominally used portion of the park and converted it to a thriving fruit orchard and working farm.

“We took an ecosystem approach with this project, just planting trees would have had a limited effect,” says Rebecca Salminen Witt, President of Greening of Detroit. “There are three schools surrounding and now utilizing this new green space. People living in Detroit have really limited resources for wholesome produce so this type of green space meets many needs in one community.”

To ensure community involvement, Greening of Detroit use Spanish and Arabic translators at community meetings and signage in several languages. “We have over 66,000 vacant lots in Detroit that can be used for community tree nurseries or other green projects. The potential is obvious,” adds Rebecca.

Greening of Detroit was formed in 1989 and increased their annual operating budget from several hundred thousand in the first few years to approximately \$2 million over the last five years. Working hard to diversify their funding sources, maintaining a committed long-term staff, and meeting each commitment are key factors in their sustainability and success.



Photo courtesy of TreePeople

Photo courtesy of Dr. Kathleen Wolff



Photos courtesy of Greening of Detroit

# Diversifying Our Investments

Now more than ever, the network of urban forestry nonprofits is working to diversify their funding base. The USDA Forest Service has played a fundamental role in supporting many of these programs through pass-through state grants. However, looking ahead, this funding source is not guaranteed.

Nonprofits are educating their local and regional policy makers about why state and local budgets must provide adequate support for their urban forests to realize the triple bottom-line returns. These nonprofits are also reaching out to the philanthropic and corporate communities to explain how and why so many other issues are interrelated with urban forestry.

“Without community members actively participating in tree planting in their neighborhoods, we are just decorating the streets. The survival rate of those same trees planted by and with community residents is measurably higher than those just parachuted in by municipalities, professional tree care companies or even nonprofits.”

“We want the general population to understand more about green building and how community trees are so interrelated to this concept. We want people to understand that we are committed to the bigger picture of building healthy, affordable homes and the communities that surround them.”

DeAnn Fordham, Environmental Program Manager, The Home Depot Foundation



Jack Hale  
Executive Director,  
Knox Parks Foundation

## A Backward Glance

Balancing nature and urban expansion is not a new issue in this country, nor is urban forestry. Yet this tension between the forest and humans has grown and the urban forestry movement has seen exponential growth over the past fifteen years.<sup>17</sup>

## Urban and Community Forestry: Large Steps in a Short Time

1990	1991	1992	1996	2001	2004	2005	2006
The America the Beautiful Act passed under the Farm Bill	Urban and Community Forestry budget grows from \$2.5 million to \$21 million	The Alliance for Community Trees founded	TreeLink founded	Casey Trees Endowment Fund (DC urban forestry nonprofit) created with \$50 million gift	Sustainable Urban Forests Coalition created, advancing a national unified urban forest agenda	iTree Bank created, a vehicle to invest in urban forests across the U.S.	Sustainable Urban Forests Coalition submits joint federal funding recommendations for 2007
Urban Forestry unit created within Cooperative Forestry of the USDA Forest Service			American Forests launches CITYgreen, GIS urban forestry software		Overwhelming voter response to L.A. water quality and green infrastructure proposition		Mayor O'Malley (Baltimore, MD) sets goal to double tree cover by 2036
National Tree Trust founded							
\$1 million annual Urban Forestry National Grants Program created							

## fact:

Federal funding for the Urban and Community Forestry Program within the USDA Forest Service peaked at \$36 million in 2003 and dropped to \$28 million in 2006. This program has successfully leveraged \$3 of nonprofit, community, and private industry funding for every \$1 of federal assistance.<sup>18</sup>

# Capitalizing and Looking Forward

Declining federal dollars for urban forestry means a direct negative impact on our communities. Nonprofits will shoulder even more of the responsibility to maintain and grow urban forests, increasing the need to diversify their portfolio of funding streams.

Beyond basic survival, there are a growing number of urgent urban forestry issues needing support. To maximize health, economic, social and environmental benefits for our communities, *we must act now to fund:*

- + Continued capacity building for nonprofits focusing on urban forestry issues (enhancing leadership skills, promoting replicable models, and providing tools and technical assistance);
- + Further research about the effect of urban forests on social, environmental and health issues and their related economic impacts;
- + Continued exploration of the link between urban forests and meeting clean air standards and the potential reduction of related healthcare spending;
- + Understanding and developing solutions towards urban forestry and environmental justice issues; and
- + Strong state and municipal forestry programs to continue professional management of our urban forests and to facilitate increased collaboration between nonprofits and our communities.

“Environmental injustice is really one of the greatest issues in urban forestry. Even in Washington, DC, which is a pretty green city, we see naked landscapes when we look at the more disadvantaged parts of the city.”

Jim Lyons  
Former Executive  
Director, Casey Trees  
Endowment Fund



“We need a shift in mindset... we need to grow the pie, not compete for scarce resources.”

Alice Ewen Walker  
Executive Director,  
The Alliance for  
Community Trees



Photo courtesy of TreeLink, Philadelphia, PA



Photo courtesy of Katura Reynolds, TreePeople

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## links:

[www.actrees.org](http://www.actrees.org)

[www.americanforests.org](http://www.americanforests.org)

[www.arborday.org](http://www.arborday.org)

[www.cfr.washington.edu/  
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[www.treelink.org](http://www.treelink.org)

[www.treesaregood.com](http://www.treesaregood.com)