

SUSTAINABLE URBAN & COMMUNITY FORESTRY

WHAT IS IT?

CHAPTER ONE



Milwaukee is considered by many to be a model for sustainable community forestry.



Photos by James R. Fazio

Milwaukee, Wisconsin, is often held up as a model urban forestry program. Milwaukee’s leadership considers the city’s street and park trees so important that the logo of the Public Works Capital Improvements Program includes a tree right next to a stylized highway, water pipes, and other basics of the city’s infrastructure.

The enviable status of urban forestry in Milwaukee did not happen by accident or because of the city’s size. It developed as the city worked toward a sustainable community forestry program. Elements of the program, which are feasible regardless of community size, include a strong tree ordinance; a complete tree inventory; a city tree nursery; careful planting of the right species in the right place; regular training of all tree workers; systematic protection of trees during street construction projects; professional management staff; and the cultivated support of elected officials and city administrators.

What Does Sustainable Urban & Community Forestry Mean?

With the dawn of tree management in towns and cities, a jungle of terms was created. These words can cause confusion and exasperation, when they should serve by clearly communicating what we are trying to discuss and improve. Although there will never be complete agreement about definitions, here is what we mean in the pages of this guide.

Urban & Community Forestry

It is mostly a matter of size that determines whether you use the term urban forestry or community forestry where you live. Small, rural-oriented municipalities may not relate well to the word “urban,” so community forestry is the preferred term. In large cities, urban forestry is entirely appropriate. To cover all bases in a single expression, urban and community forestry is widely used, as in the National Urban & Community Forestry Advisory Council.

For convenience only, we usually use the term urban forestry in this book. However, in virtually all cases, what is being discussed is just as applicable in Calvin, North Dakota (pop. 26) as it is in Los Angeles or its individual neighborhoods.

So, what is urban forestry? And how does it differ from arboriculture? Most importantly, what does sustainability mean? Let’s set aside the academic definitions that attempt to cover all possible conditions and scenarios and please forget the legalese you might find in a tree ordinance. For basic understanding, here are some working definitions:

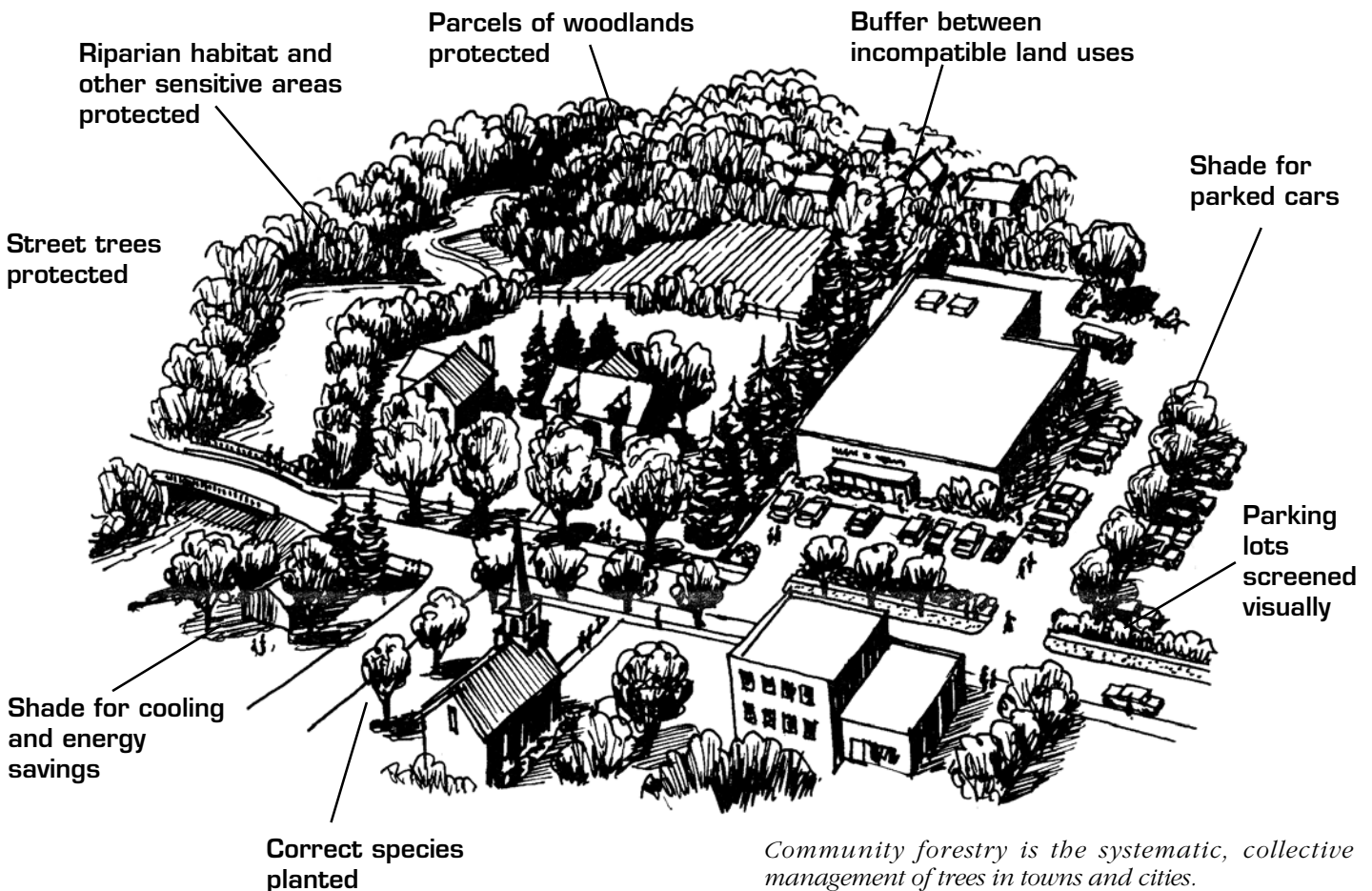
Arboriculture

The planting and care of amenity, or landscape, trees, shrubs and woody vines.

The focus in arboriculture is on individual plants, not unlike the focus of a doctor on one patient at a time. By amenity or landscape trees, we are talking about trees grown for purposes other than commercial production such as pulp, lumber or fruit.

Urban or Community Forestry

The systematic management and care of amenity, or landscape, trees, collectively, in human settlements.



Community forestry is the systematic, collective management of trees in towns and cities.

Certainly individual tree care is included, but the emphasis is on all the trees in a municipality. An analogy might be hospital administration as opposed to individual patient care. This systematic, collective management of trees is the focus of this book.

Sustainable Urban Forestry

Sustainable urban forestry is based on the concept of sustainable urban ecosystems, or landscapes designed and managed to minimize impact on the environment and maximize value received for dollars expended in the long term.

This relatively new concept stresses the inter-relatedness of all components of the urban forest, including people, and how management actions have positive or negative impacts on all else. Importantly, when thinking in terms of ‘sustainability,’ it is necessary to ask the question: Is this action or management practice sustainable

- ecologically?
- socially?
- economically?

Why Sustainability Is Important

At first glance nothing could be more innocuous than urban forestry. Beautiful green trees, summertime shade, a home for birds that sweeten the air with song. And all of it a free gift from nature.

But something is wrong with this view of Paradise. First of all, it is not free. Each year communities spend large sums of scarce tax dollars planting and caring

for trees. The utility industry alone spends \$1.5 billion a year trying to keep tree limbs and power lines apart. Trees sometimes become hazardous and kill people, resulting not only in human suffering but expensive lawsuits. Trees are sometimes blamed for damaging sidewalks, blocking signs, dropping fruits on walkways, harboring insects, wasting water, adding pesticides and fertilizers to water supplies, and overburdening landfills with leaves and wood.

Dr. Greg McPherson of the Western Center for Urban Forest Research and Education points out that for the last 50 years the establishment and care of urban forests have relied on the use of increasingly sophisticated machines, chemical formulations and technologies with the goal of maximizing plant growth and appearance. He suggests that we have viewed the urban forests as “pictures” rather than as urban ecosystems in which all natural elements and human resources are interconnected.

Today’s challenge is to stop viewing urban trees as pretty pictures and begin treating them as urban ecosystems and essential parts of a city’s infrastructure, as assets, not liabilities. Dr. McPherson has been a leader in showing that landscapes and their trees can be designed and managed to minimize negative impacts and maximize financial returns on dollars invested. A purpose of this book is to show how planning, collaboration and careful management can assure that the urban forest contributes to the urban ecosystem in positive, productive and socially beneficial ways. Trees will more than pay their way if we do our part to think both ecologically and in terms of sustainability – then act accordingly.

Some Examples of Sustainability

Unsustainable Actions

- Overusing pesticides
- Paving surfaces
- Including all materials in landfills
- Clearing woodlands for houses
- Building more power plants
- Tolerating social injustices
- Excluding or marginalizing minority populations
- Operating solely on grant money
- Unplanned plantings

Sustainable Alternatives

- Adopting principles of Plant Health Care
- Using porous materials; preserving open spaces
- Recycling; making products out of waste
- Building with trees; planting new trees
- Conserving energy by using shade effectively
- Assuring healthy living conditions for all
- Including and partnering with all people, making special efforts to reach out to all
- Obtaining local, broad-based financial support, and encouraging entrepreneurship
- Well-designed plantings

A Brief History of Urban Forestry

In the United States urban forestry can be traced back to a Philadelphia ordinance that required homeowners to plant trees outside their doors. That was in 1700, fifty years before Philadelphia began systematically planting street trees. In 1872, J. Sterling Morton introduced Arbor Day to encourage tree planting on Nebraska farms, but his idea was soon taken up by school children and the tree planting holiday spread to every state in the nation.

To care for trees in the city, Philadelphia again pioneered, this time in 1896 when the city hired its first “chief forester.” Three years later in 1899 the Tree Warden Act of Massachusetts required every town in that state to elect a person to care for its trees.

Although the value of community trees was recognized quite early, it took the onslaught of Dutch Elm Disease in the 1930’s to truly wake up America to the need for continuous, organized municipal tree care. The disease in some Midwest communities took out virtually all the graceful elms that beautified lawns and arched over the streets and avenues.

In 1965, Erik Jorgensen of the University of Toronto is credited with coining the term “urban forestry” and applying it “not... (to) city trees or...single tree management, but rather...tree management in the entire area influenced by and utilized by the urban population.”

In 1972 Congress passed legislation amending the Cooperative Forest Management Act of 1950 and charged the U.S. Forest Service with developing a program to address urban forestry, primarily by working with state foresters to provide technical assistance to local governments, organizations and individuals. Another major event in 1972 was the founding of The National Arbor Day Foundation, with its Tree City USA program following four years later.

A lasting contribution to the spread of urban forestry took place in 1978 when the first National Urban Forestry Conference was held in Washington, DC. The first conference was sponsored by the U.S. Forest Service and the State

University of New York College of Environmental Science and Forestry. In 1982, the American Forestry Association (now American Forests) partnered with the Forest Service to make the event possible and has carried on the tradition ever since.

In 1990, the Farm Bill of that year was signed into law and with it the most significant urban forestry legislation in history. Its provisions:

- expanded Forest Service authority to provide grants to state and local governments, volunteer groups and nonprofit organizations to plan and carry out urban forestry projects. Over \$21 million were appropriated for fiscal year 1991. This became a major incentive for states nationwide to create advisory councils and urban and community forestry and volunteer coordinator positions, and to develop urban and community forestry plans.
- established The National Tree Trust and an endowment of \$20 million to assist nonprofit organizations and help municipalities obtain trees for planting on public property.
- created the National Urban and Community Forestry Advisory Council, charging it with developing a national action plan and authorizing it to award grants to help implement provisions of the plan.

This is only a thumbnail sketch of the many contributions that have made urban forestry what it is today. The important thing is to note the relative recency of this field. It is truly young and rapidly growing. What began centuries ago with the planting of a few shade trees along the dirt streets of an eastern city has emerged in just the last few decades into a far more comprehensive endeavor of national importance. From the very beginning, it has been a joint venture of government and ordinary citizens. Now you are part of urban forestry and there is still time and need for leadership decisions that will make an important difference in how it contributes to the quality of American life.