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(FORM UPDATED: 08/11/2010)

**WISCONSIN STATE LEGISLATURE ...
PUBLIC HEARING - COMMITTEE RECORDS**

2007-08

(session year)

Senate

(Assembly, Senate or Joint)

**Committee on ... Environment and Natural
Resources (SC-ENR)**

COMMITTEE NOTICES ...

- Committee Reports ... **CR**
- Executive Sessions ... **ES**
- Public Hearings ... **PH**

INFORMATION COLLECTED BY COMMITTEE FOR AND AGAINST PROPOSAL

- Appointments ... **Appt** (w/Record of Comm. Proceedings)
- Clearinghouse Rules ... **CRule** (w/Record of Comm. Proceedings)
- Hearing Records ... **HR** ... **bills and resolutions** (w/Record of Comm. Proceedings)
 - (**ab** = Assembly Bill) (**ar** = Assembly Resolution) (**ajr** = Assembly Joint Resolution)
 - (**sb** = Senate Bill) (**sr** = Senate Resolution) (**sjr** = Senate Joint Resolution)
- Miscellaneous ... **Misc**

* Contents organized for archiving by: Mike Barman (LRB) (August 2012)

June-2014

Senate

Record of Committee Proceedings

Committee on Environment and Natural Resources

Assembly Bill 36

Relating to: grants for catastrophic damage caused to urban forests.

By Representatives M. Williams, Grönemus, Mursau, Musser, Albers, Ballweg, Gunderson, Hubler, Nerison and Townsend; cosponsored by Senators Wirch, Roessler and Schultz.

March 15, 2007 Referred to Committee on Environment and Natural Resources.

May 1, 2007 **PUBLIC HEARING HELD**

Present: (5) Senators Miller, Jauch, Wirch, Kedzie and Schultz.
Absent: (0) None.

Appearances For

- Mary Williams, Medford — Representative, Wisconsin State Assembly
- Richard Rideout, Madison — Wisconsin Department of Natural Resources

Appearances Against

- None.

Appearances for Information Only

- None.

Registrations For

- None.

Registrations Against

- None.

Registrations for Information Only

- None.

May 3, 2007 **EXECUTIVE SESSION HELD**

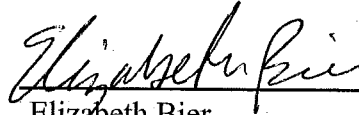
Present: (5) Senators Miller, Jauch, Wirch, Kedzie and Schultz.
Absent: (0) None.

Moved by Senator Wirch, seconded by Senator Kedzie that
Assembly Bill 36 be recommended for concurrence.

Ayes: (5) Senators Miller, Jauch, Wirch, Kedzie and
Schultz.

Noes: (0) None.

CONCURRENCE RECOMMENDED, Ayes 5, Noes 0



Elizabeth Bier
Committee Clerk

Moved by Representative Schneider, seconded by Representative Musser that **Assembly Bill 36** be recommended for passage.

Ayes: (7) Representatives Ballweg, Musser, Hines, Petersen, Schneider, Ziegelbauer and Benedict.

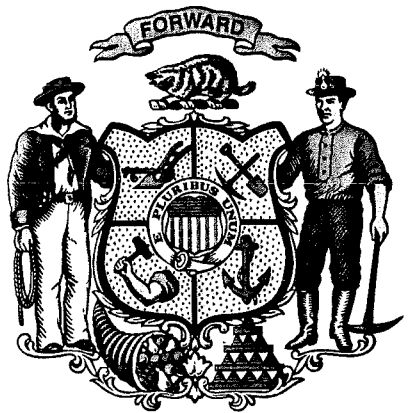
Noes: (0) None.

Absent: (2) Representatives Kerkman and Sinicki.

PASSAGE RECOMMENDED, Ayes 7, Noes 0



Vincent Williams
Committee Clerk



Vote Record

Committee on Environment and Natural Resources

Date: 5/3/07

Moved by: Wirch

Seconded by: Kedzie

AB 36 SB _____ Clearinghouse Rule _____
 AJR _____ SJR _____ Appointment _____
 AR _____ SR _____ Other _____

A/S Amdt _____
 A/S Amdt _____ to A/S Amdt _____
 A/S Sub Amdt _____
 A/S Amdt _____ to A/S Sub Amdt _____
 A/S Amdt _____ to A/S Amdt _____ to A/S Sub Amdt _____

Be recommended for:
 Passage Adoption Confirmation Concurrence Indefinite Postponement
 Introduction Rejection Tabling Nonconcurrency

<u>Committee Member</u>	<u>Aye</u>	<u>No</u>	<u>Absent</u>	<u>Not Voting</u>
Senator Mark Miller, Chair	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senator Robert Jauch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senator Robert Wirch	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senator Neal Kedzie	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Senator Dale Schultz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Totals:	<u>5</u>	<u>0</u>	_____	_____



WISCONSIN STATE LEGISLATURE



Bier, Beth

From: Kuhn, Jamie
Sent: Tuesday, May 01, 2007 12:48 PM
To: Bier, Beth
Subject: FW: Assembly Bill 36

From: Greg Bell [mailto:tgreg.bell@charter.net]
Sent: Monday, April 30, 2007 10:00 AM
To: Sen.Miller; Sen.Risser
Cc: Denise Lamb; MARLA EDDY; Roe, Jeffrey C - DNR; tphamremmele@gmail.com
Subject: RE:Assembly Bill 36

Dear Senator Miller:

I live in Sen. Fred Risser's Senatorial Dist. I have just learned that The Wisconsin Senate Committee on Environment and Natural Resources will conduct a public hearing on Tuesday, May 1st, regarding Assembly Bill 36. A bill authorizing the DNR to provide match-free urban forestry grants to communities in catastrophic storm situations. I live in the Madison neighborhood (Midvale Heights) struck by the June, 2004, Tornado! I will gladly endorse any bill for replacement of trees for two key reasons:

TREES are: #1 the most important cleaner of the AIR we breathe! Trees take in CO2 (carbon dioxide) and convert it, FREE OF CHARGE mind you, into OXYGEN. Tons and tons of it! As our City Forester claims, "trees are the lungs of the city." This fact alone makes trees a top 5 natural resource with earth, sun, air and water. When you discuss global warming and greenhouse gases, trees and plants are far and away the most important partner in keeping our air CLEAN. This is especially true in Madison where we burn coal for our energy!

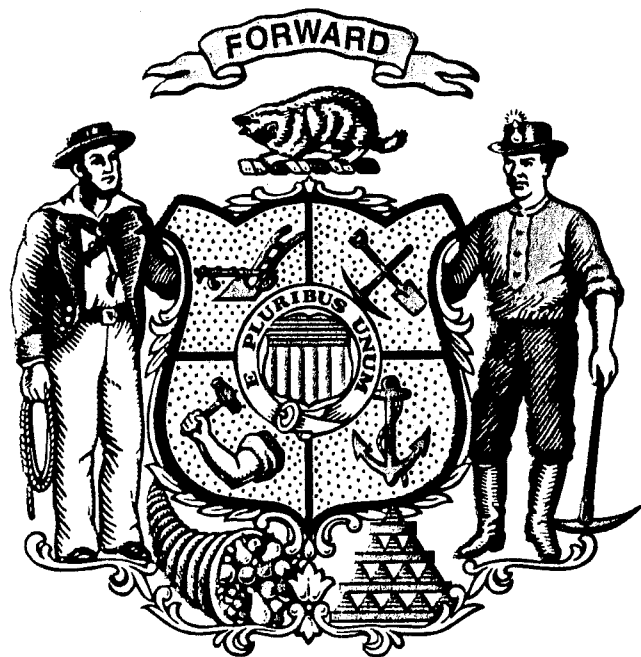
TREES are: #2 the single most important holder of lands and cleaner of water. Trees hold the land in place and keep it from blowing away, eroding away, and washing away. The Northeastern States have an abundance of trees in their cities and countryside. Around here trees are not everywhere, but thanks to our many City Parks, our own yards, small wooded gatherings and even on the top of buildings like Monona Terrace, trees are holding the land and cleaning the air.

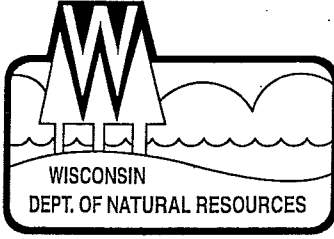
Lastly, The Mayors of New York City, Chicago, and Los Angeles have recently endorsed ambitious plans to plant millions of trees as their 1st choice in the battle against CO2 emissions! We should do no less.

Thank you for considering this bill and feel free to ask me for any help passing it.

Please pass a copy of my points on to the committee discussing this bill.

Greg Bell, 529 Charles Lane, Madison 53711 608-238-1890





State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary

101 S. Webster St.
Box 7921
Madison, Wisconsin 53707-7921
Telephone 608-266-2621
FAX 608-267-3579
TTY Access via relay - 711

Assembly Bill 36

Senate Committee on Environment and Natural Resources

Department of Natural Resources Testimony
Richard Rideout, State Urban Forestry Coordinator
Division of Forestry
May 1, 2007

Thank you Mr. Chairman and Committee Members:

Good morning. My name is Dick Rideout and I am the State Urban Forestry Coordinator with the Bureau of Forest Management in the Department of Natural Resources' Division of Forestry. I appreciate this opportunity to appear before you to discuss AB 36.

First, so everyone understands the terminology, I would like to explain what urban forests are and their significance to the people of Wisconsin. An urban forest is all the trees and vegetation on public and private property in a city, village or other concentrated development. Fly over your community and you will see the network of green that is the urban forest. This is the forest where over 80% of Wisconsin's residents live.

Wisconsin's urban forests contain about 27 million trees with a conservative replacement value of about \$11 billion. These trees not only provide shade and beauty, but are part of a community's "green infrastructure" providing millions of dollars of environmental, social and economic services each year. Community trees reduce storm water runoff, extend the life of pavement, clean the air, reduce energy costs and increase property values and tax revenue. And they are the only part of the infrastructure that appreciates over time. These services are important to policy makers. But to the residents, the community's trees are part of their life, like family. When a catastrophic storm hits, it rips away not only all the services trees provide, but it rips away the community's sense of place, its legacy. One of the simplest and yet most effective ways to help a community recover from a storm is to replant its trees.

The Department of Natural Resources strongly supports AB 36. The bill allows the Department to react quickly and provide financial grant assistance to communities who have experienced extensive damage to their urban trees due to a major storm event, but would be ineligible for FEMA assistance under current rules. Since 1990 there have been 14 natural disasters that caused significant damage to thousand of trees in the urban areas of Wisconsin. In recent years, major storms have devastated urban trees in Ladysmith, Stoughton, Viola, Siren and the Fox cities.

The bill will allow for a more flexible application timeline for storm damage assistance grants than is currently required for other urban forestry grants. It will also eliminate the 50 percent local cost-share requirement. The removal of the cost-share requirement for these specific grants will reduce the paperwork required by the recipient and ease the strain on local budgets during a time of emergency.

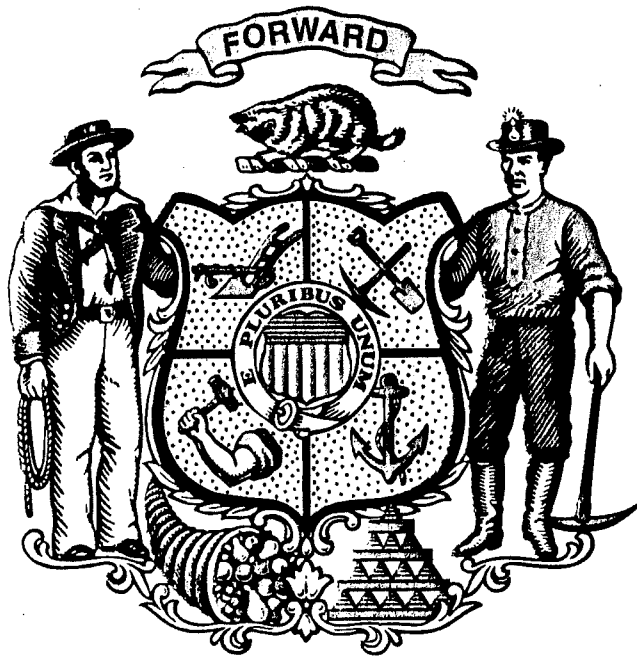
I'd like to give you two examples of where this bill would have helped communities in need. In June of 2001 a large thunderstorm complex ripped through the Fox cities with winds exceeding 70 mph. Exactly one week later a tornado roared through Burnett county and the village of Siren. Thousands of community trees were damaged or destroyed by these storms. The DNR provided technical assistance, but was unable to provide immediate funding to help repair, remove or replace the trees. The legislature ear-marked \$95,000 to provide emergency urban forestry grants for communities in Burnett, Outagamie and Winnebago counties, but unfortunately the funds were added to our regular urban forestry grant program. This meant that the communities would have to follow the rules to apply for the grants and match the grants 50-50. The documentation of the match was a tremendous burden on the communities who were literally trying to dig themselves out of a storm. It caused great frustration with the DNR and also caused us and the local legislators great frustration. We worked it out, but not without some hard feelings. Exactly the opposite of what we and the legislators were hoping for.

The August 2005 tornado in Stoughton is another example. The Governor declared a state of emergency, but the President did not declare a disaster. This meant that FEMA funds were not available. Again DNR provided technical assistance, but could not provide urban forestry funds. The timing was excellent for local governments to apply for an urban forestry grant, but the application and match requirements were too difficult for them to meet in the 1 month they had to apply. In both cases, were the statute change in AB 36 in place, we could have responded with grants within 3 weeks or less to help repair, remove or replace the trees.

In conclusion, if AB 36 becomes law, the department will continue to use its authority and expertise to monitor grant projects, assuring funds are used specifically for storm related tree restoration, tree removal and/or replacement. If this legislation becomes law, the Department will promulgate the required changes to the Administrative Rules for the urban forestry grant program.

The Department urges this Committee to support AB 36.

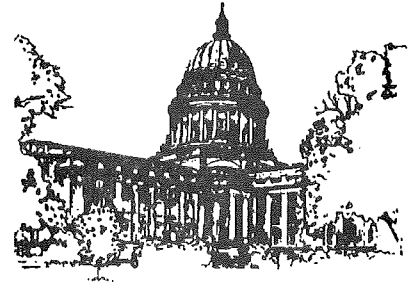
I appreciate this opportunity to express the Department's support for AB 36 and would be glad to answer any questions you might have.



MARY WILLIAMS

STATE REPRESENTATIVE • 87TH ASSEMBLY DISTRICT

Committees: Property Rights (Chair) • Tourism, Recreation and State Properties (Vice Chair) • Natural Resources • Agriculture Forestry • Rural Economic Development • Rules Committee



May 1, 2007

Mr. Chair, Members of the Committee,

Thank you for holding a public hearing on AB 36. This piece of legislation was originally brought to me on behalf of staff within the division of Urban and Community Forestry of the DNR. They are the ones within the department that actually work with providing aid for these instances. After experiencing recent storms in Ladysmith and Siren, they felt constricted by the bureaucratic process the state statutes currently dictate for communities seeking assistance in replacing trees destroyed by a catastrophic storm event.

This bill will help us provide real relief and help to those communities that are affected by a catastrophic storm by cutting through the bureaucratic red tape and allowing help to come sooner, rather than later.

As some of you may remember, on Labor Day of 2002, a tornado ripped through the community of Ladysmith in my district. Damages were estimated at over \$20 million. Part of this was damage to trees, many of which were blown over, splintered, or even completely uprooted as a result of the tornado.

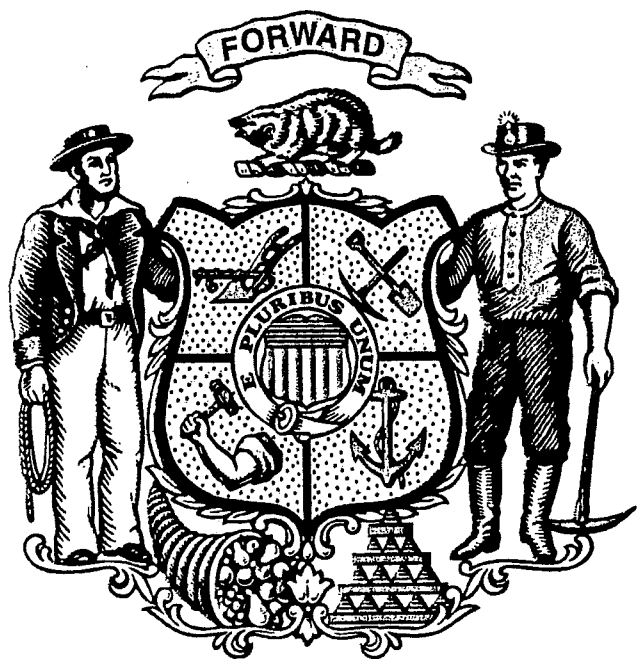
Under our current system, when communities such as Ladysmith are affected by a catastrophic storm, they have to apply for a DNR urban forestry grant to repair and replace their trees during the established grant cycle. Applications are due October 1st and are awarded in late December of that year. If a community is hit in late fall or winter, they have a long wait for aid. Also, they already have to use so much of their resources to restore critical infrastructure that they do not always have enough left to provide the required 50 % matching funds needed for the grant.

This bill will provide a new process for replacing trees damaged by a catastrophic storm event. For areas designated a disaster area by the governor, aid will be approved or denied within 60 days of application. The bill does not require communities to contribute matching funds. Yet, since it sets aside a portion of the current Urban Forestry appropriation for this disaster relief, it will not increase costs.

Restoring the beauty of these areas in a timely manner can be invaluable to the process of getting the community back on its feet. I would like to thank Don Kissinger, Dick Rideout, Jim Warren, and others in the Urban Forestry program who assisted for their help with this bill. I hope you members of the committee will give it your full support.

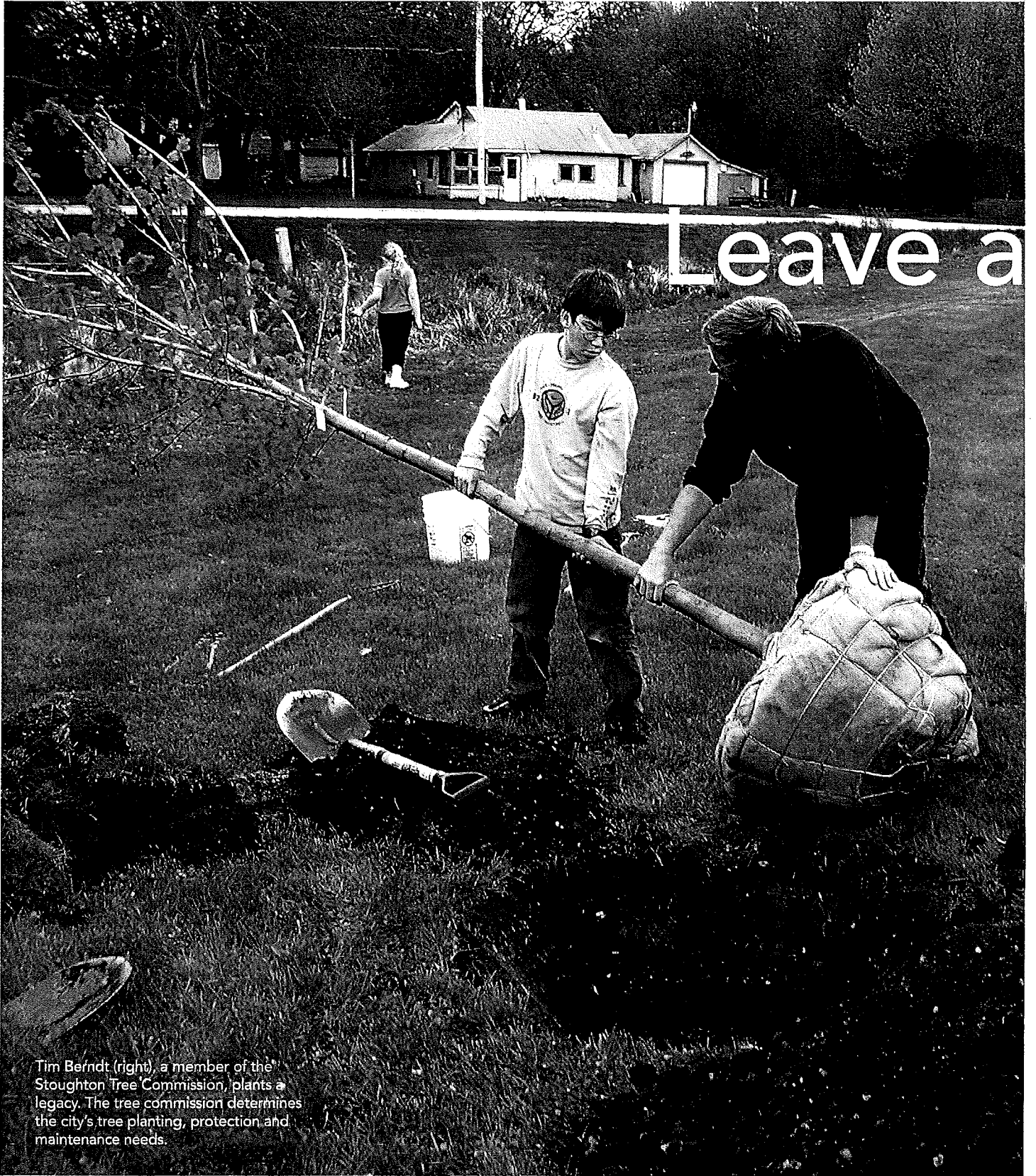
Thank you.

Representative Mary Williams





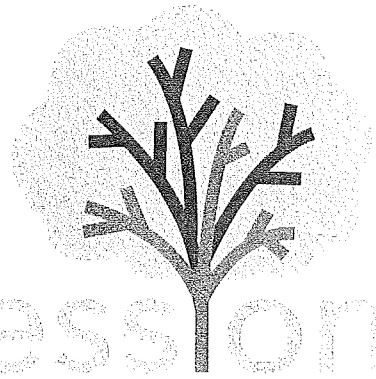
The forest where we live
Growing a legacy.



Tim Berndt (right), a member of the Stoughton Tree Commission, plants a legacy. The tree commission determines the city's tree planting, protection and maintenance needs.

RICK WOJCIAK

"The best friend on earth of man is the tree. When we use the tree respectfully and economically, we have one of the greatest resources on earth." — Frank Lloyd Wright



Lasting impression

Plant trees to grow a legacy.

Maple Bluff. Elm Grove. Cedarburg. Hickory Corners. Elmwood. Oakfield. Ashland. Wisconsin derives personality from trees. Community trees often define the look, the name and the character of streets, neighborhoods, cities, subdivisions and shopping areas.

When supplemented by good municipal services and schools, the urban forest forms the positive impression that residents and visitors alike have of a community.

"It is often trees and other mature vegetation that give residents and visi-

tors the impression that an area is safe or inviting," says State Urban Forester Dick Rideout. "Trees add to the social and economic well-being of the community, and provide environmental services such as stormwater management and air cleansing."



ROBERT QUEEN

"I could never imagine a Superior without its urban trees or municipal forest. Trees are extremely beloved here."

— Mary Morgan, Superior parks and recreation director and city forester

Many communities, large and small, urban and rural, have municipal tree programs. Their investment in trees means a safer and healthier future for their community. By planting and nurturing trees, local governments and citizens can leave a mark on the community that they can point to with pride — a legacy.

This legacy is a vibrant, thriving community — a desirable place to visit, work, do business and live. The City of Superior (pop. 27,368) is one of Wisconsin's best examples of a community with a strong urban forest legacy. Besides having an urban forestry program with about 11,000 public trees, the city houses the third largest municipal forest in the United States. This largest remaining boreal forest in Wisconsin and a wetland that is home to rare and endangered plant and animal species have been permanently protected as Wisconsin's 300th State Natural Area.

Superior officials worked with local citizens to develop a protection strategy for this property, says Mary Morgan, Superior parks and recreation director and city forester.

"I could never imagine a Superior without its urban trees or municipal forest," Morgan says. "Trees are extremely beloved here."

Payback

An investment in trees also can build business as the City of Neenah has discovered. Today, you can enjoy a cup of coffee or shop along shaded sidewalks in downtown Neenah.

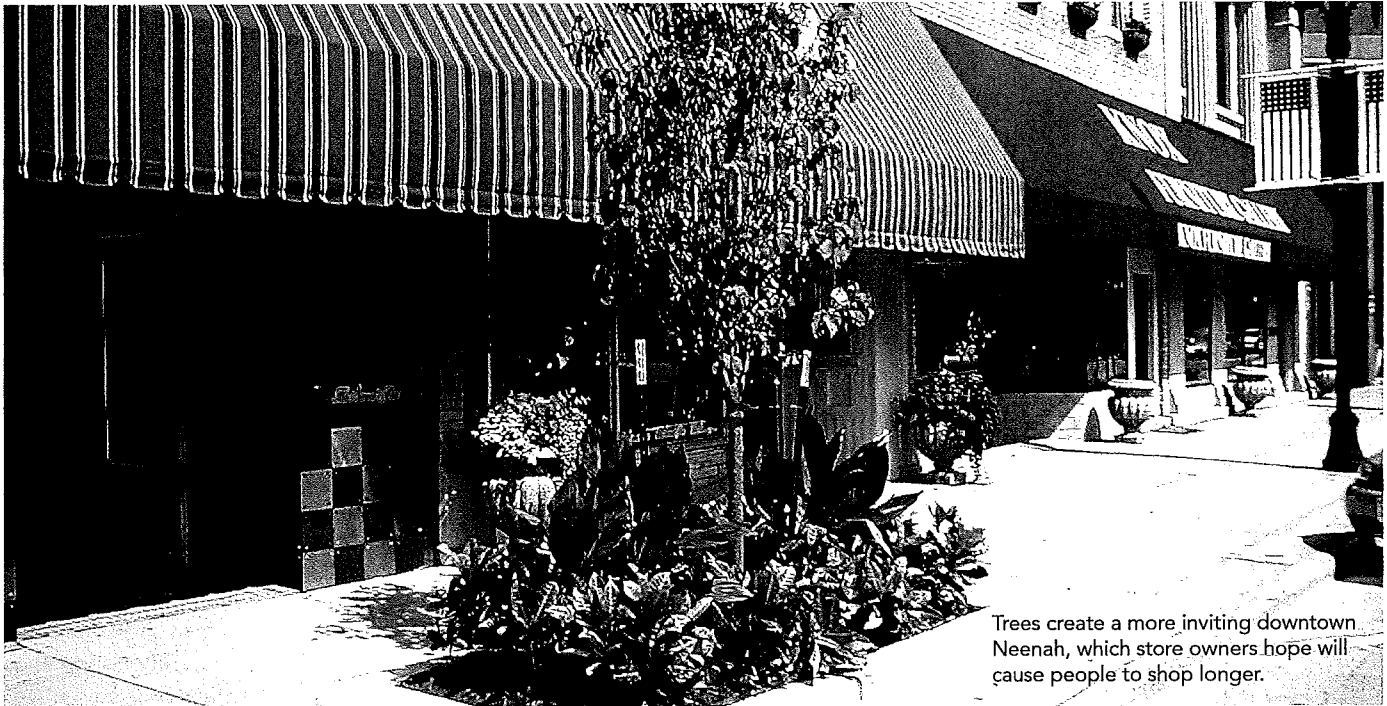
"A community's trees make an impression on its visitors and are an extension of the community's pride and spirit," says Karen Harkness, executive director of Future Neenah, a nonprofit dedicated to improving Neenah's economic and cultural vitality.

Neenah is one of several communities across Wisconsin revitalizing its business district with healthy and well-maintained trees. The community has come to know what other business owners across the country are realizing — trees are good for business.

A study by University of Washington social scientist Kathleen Wolf on the role of trees in revitalizing business districts across the country shows that trees attract business and tourists. People linger and shop longer along tree-lined streets. She also found that people believed that merchants in a heavily treed district would be more knowledgeable and helpful than those in an area without trees. They felt product quality was higher in areas surrounded by trees and were willing to pay more for those products.

According to Wolf, people claim that they are willing to spend nine percent more on products in small towns and 12 percent more in large cities for identical products in places that have trees versus those that don't.

American Forests, a nonprofit conservation organization, suggests that business districts maintain 15 percent tree canopy cover. Most retail environ-



Trees create a more inviting downtown Neenah, which store owners hope will cause people to shop longer.

Communities all over Wisconsin have come to realize that trees provide far-reaching and ever growing returns. We're not talking about intangible, aesthetic returns — we're talking about the quantifiable, cold hard cash variety. According to U.S. Forest Service researchers, properly cared for trees in the upper Midwest can be worth three times their investment. Studies have shown:

- The presence of trees increases a property's value three percent to seven percent.
- Strategically placed trees can cut summer air conditioning costs by as much as 50 percent.
- Trees can intercept between seven percent to 22 percent of storm water runoff from impermeable surfaces.
- Shoppers are willing to pay up to 12 percent more for products purchased in shops along tree-lined streets than they would pay for the same items in a barren setting.
- Employers report greater employee productivity, satisfaction and retention at properties enriched with trees and other vegetation.

ments in the United States, however, have five percent cover or less.

Future Neenah received a DNR Urban Forestry Grant to replace trees that had been damaged by reflected heat from nearby buildings. The city planted 42 trees selected to tolerate



"I could not imagine the downtown anymore without the trees and flowers."

— Karen Harkness, executive director of Future Neenah

harsh conditions. Flower beds also were planted.

"People were concerned when the original trees were cut down," Harkness recalls. "I got lots of phone calls. But now people love the results."

The trees and flowers have beautified the downtown, shaded the sidewalks, attracted people to sit outside in the summer, built a sense of community and softened the storefronts.

"I could not imagine the downtown anymore without the trees and flowers," Harkness says.

Property values

Healthy, attractive trees improve the "curb appeal" of real estate. Research by L.M. Anderson and H.K. Cordell of USDA Forest Service on some 800

single-family houses sold over a two-year period in Athens, Georgia found that people are willing to pay three to seven percent more for property with well-maintained trees versus properties with few or no trees. A comprehensive study conducted by Dan Neely, Univer-

sity of Illinois, utilizing actual sales prices found each large front-yard tree was associated with one percent increase in sales price. A large specimen tree could result in a 10 percent increase in property value.

The value of this benefit, depending on the average home sales price, can contribute significantly to a community's property tax revenues.

The USDA Forest Service has found that the amount of taxes contributed to communities throughout the United States due to the added value of privately owned trees on residential property is conservatively estimated at over \$1.5 billion per year.

Steve Ziegler, a licensed landscape architect who has been practicing in Wisconsin since 1983, says he has many

clients who are interested in installing rain gardens and planting a diversity of native trees and shrubs.

"More and more people are getting the idea that trees are a good investment," Ziegler says. "Trees add value — they give us short-term enjoyment in their beauty and environmental benefits, and long-term satisfaction in what they add to a property's real estate value."

A green workforce

Trees also support the state's economy by creating jobs. A recent Wisconsin green industry survey showed that trees attract business and people to an area, in turn, increasing the tax base.

The "green industry" describes businesses that produce, install and maintain flowers, shrubs and trees as well as items related to their maintenance. The Wisconsin Green Industry Economic Impact Survey, completed in 2004, indicates that the green industry has a \$2.7 billion impact on the state's economy annually. Total retail sales of lawn and garden supplies increased 49 percent from 1997 to 2003.

The Wisconsin green industry includes over 4,700 businesses employing over 43,000 workers. The Wisconsin Green Industry Federation contracted with the Wisconsin Agricultural Statistics Service to develop and perform the survey.

"What we found is that gardening is growing as a hobby and people are more and more valuing green space," says Brian Swingle, executive director of the Wisconsin Green Industry Federation. "People are landscaping, adding water features and they like the tranquility that plants and trees add to their homes."

Swingle says there is a consistent eight percent growth in the green industry. "It's evidence that people are paying more attention to the environment," he says.

Healthy trees for healthy cities

Trees are important working components of community infrastructure, just like streets, sewers, public buildings and recreational facilities. A healthy tree canopy functions as "green infra-



JEFF ROE

Employees at the Teton Wood office building in Madison can connect with nature with a lush view of trees from their windows.

structure" reducing the need and expense to manage air quality and waste. The major difference is that trees increase in value over time. Trees need care to survive, but the longer they live, the more benefits they provide. Trees are utilities that pay us back for this care by:

- conserving energy by shading buildings and paved surfaces;
- extending the useful life of asphalt pavement;
- reducing and filtering airborne pollutants;
- removing atmospheric carbon dioxide, the major "greenhouse" gas;
- reducing stormwater runoff and noise pollution;
- filtering and reducing surface and groundwater pollution;
- providing wildlife habitat.

A study of Chicago's urban forest found that increasing tree cover by 10 percent (three additional trees per building) would reduce total heating and cooling energy use by up to 10 percent. At a national level, researchers estimate that planting three additional trees per building could cut more than

\$2 billion in energy costs.

A reduction in energy demand reduces fossil fuel consumption by power plants to generate energy, resulting in additional energy savings and improved air quality. Trees further improve air quality as leaves filter and remove dust and other particulates. Leaves also absorb carbon dioxide, the major greenhouse gas, and give off oxygen. A single tree stores on average 13 pounds of carbon annually. One acre of trees generates enough oxygen each day for 18 people.

According to research by Rachel Kaplan, University of Michigan, workers who had a view of nature from their desks were less frustrated, more enthusiastic and reported higher life satisfaction when compared to workers who couldn't see a view of nature from their desks.

Other studies have shown that trees help workers focus and stay focused. A view of trees can boost worker wellness. Kaplan found that workers without a view of nature from their desks reported 23 percent more instances of illness.

Edible urban forests

Troy Gardens on Madison's North Side, is not only feeding a community's need for trees, but is putting something on the table.

Steve Ziegler, a Madison landscape architect, was the lead designer for the 31-acre urban agricultural center and natural area, which was once an overgrown state-owned vacant lot. Ziegler believes interaction with the landscape is an important way for people to connect to their environment. That's why Troy Gardens today provides family garden plots, a maple forest, tallgrass prairie, an interpretive trail, and fruit and nut trees.

"There are the obvious environmental benefits, but trees also bring stability to an environment and growth as they are living and thriving," Ziegler says.

In this case, Troy Gardens and the surrounding woodland are providing people with apples, pears, plums — 18 kinds of fruit trees. Add to that berry patches, nuts and currant bushes. There are also edible foods for wildlife — an urban buffet with lots of environmental benefit.

Trees soften the glare and hard lines of built-up city streets and they screen buildings, making houses both more attractive and private. The shade from street trees can also help offset pavement costs by protecting asphalt from UV radiation. Streets with little or no shade need to be repaved twice as often as those with tree cover.

Trees also reduce noise pollution. Concrete and asphalt echo noise, while trees absorb and reduce it. Trees can act as sound barriers and create gentle and natural noise amidst the often harsh city sounds.

Healthy community trees intercept, slow and store water, helping to control erosion and flooding, and limiting water runoff that can lead to sewer overflows. Leaf and branch surfaces intercept and store rainfall, reducing runoff volume. Roots increase the rate at which rainfall infiltrates soil and tree canopies reduce soil erosion by softening the impact of raindrops on the soil surface.

A U.S. Forest Service study of Midwestern trees found that a typical 20-year-old hackberry intercepts 1,394 gallons of rainfall per year. After 40 years, this figure increases to 5,387 gallons per year, nearly enough to fill a

milk tanker.

Rain gardens and vegetated swales bring native plants into the landscape. Rather than using curb and gutter to channel runoff into storm sewers, where there is no chance to mitigate its quality or quantity, runoff is filtered through swales planted with native vegetation. Vegetated swales remove sediment, nutrients and other contaminants, increase infiltration and add beauty.

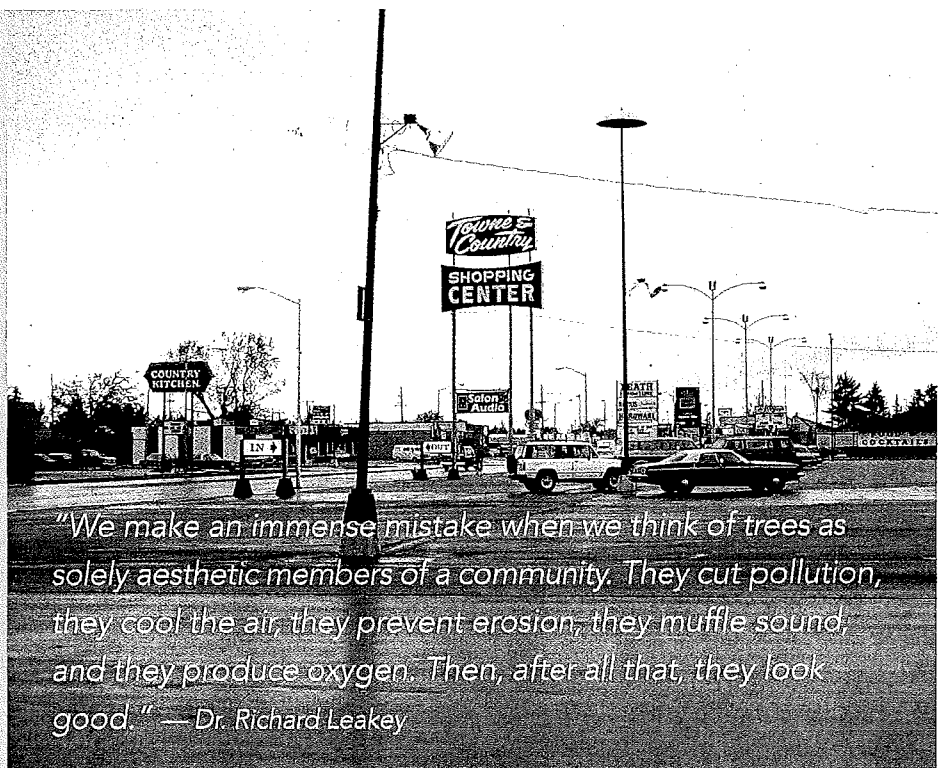
Leaves in fall are often viewed as an environmental problem, but can provide an opportunity to mulch trees and shrub beds for free, eliminating leaf pickup costs and the nutrient flush from piled leaves on the street. The easiest way to dispose of leaves is to simply mow them into the turf.

"Trees don't take a break," says State Urban Forester Dick Rideout. "They are on the job every day and all day improving the environment and quality of life."

Strategic tree planting can be incorporated into state implementation plans to help meet air quality standards set by the Environmental Protection Agency. Due to new ozone standards, many urban sites are designated as non-attainment areas for ozone clean air standards and are required to reach

Parking lots

Parking lots occupy about 20 to 30 percent of the land surface in most downtowns. But they don't have to be eyesores or steaming masses of asphalt under the summer sun. Incorporating trees and other vegetation into parking lot design provides shade, cools the air, lessens runoff, muffles noise, controls speed and directs traffic, provides reference points for entrances and exits and helps people locate their cars. According to the *Journal of Arboriculture*, trees reduce asphalt temperatures by as much as 36 degrees and car interior cabin temperatures by over 47 degrees. By shading parked cars, trees reduce emissions caused by the evaporation of fuel from gas tanks and smog-producing compounds from hosing and vinyl car parts.



"We make an immense mistake when we think of trees as solely aesthetic members of a community. They cut pollution, they cool the air, they prevent erosion, they muffle sound, and they produce oxygen. Then, after all that, they look good." — Dr. Richard Leakey

CINDY CASEY

attainment typically by 2007-2010.

Trees attract wildlife to the area. Certain trees provide food, shelter and resting areas to migrating and wintering birds. Urban forests are especially important stopovers for migratory birds such as Tennessee warblers and red-eyed vireos, says Owen Boyle, DNR ecologist in the Bureau of Endangered Resources. Tree height is likely the first characteristic that migrants use to choose stopover sites. Insects in the urban forest canopy are a primary food

"Trees don't take a break. They are on the job every day and all day improving the environment and quality of life." — State Urban Forester Dick Rideout

source for most long-distance migrants.

American Forests, a nonprofit conservation organization, advocates that every community set a tree canopy goal to ensure that their valuable green infrastructure is maintained at working thresholds, even as the community continues to develop. American Forests offers some general goal guidelines based on climate conditions and zone categories.

After identifying what their tree canopy cover is, a community can then set its goals to include an annual work

plan to help meet environmental and quality-of-life goals, including federal and local clean air and water standards.

Once a specific goal is determined, the local government can pursue that goal using policies, procedures and budget.

Social benefits

So, when was the last time you were bird watching? Climbed a tree? Spent the night in a tree house? Jumped into a giant crunchy colorful pile of leaves?

Children discover early on that they are at home with trees.

And as adults, some still admit to taking detours to stroll in a shaded park. Others feel a sense of despair

when a neighbor cuts down a wonderful tree. Some search longer than necessary just to find a parking spot in the shade. Others savor the lazy Sunday afternoons in the hammock under a tree.

"The simple act of planting trees provides opportunities to connect residents with nature and each other," says Dr. Greg McPherson, director of the USDA Center for Urban Forest Research. "Neighborhood tree plantings and stewardship projects stimulate investment by local citizens, business and government in the betterment of their communities."

DNR Southeast Region Urban Forestry Coordinator Kim Sebastian says, "People don't always make the connection about why they were drawn to live close to the park or why they feel comfortable in their neighborhood, but maybe it is because of the trees."

An Illinois study documented the calming effect of trees and their value

"A people without children would face a hopeless future; a country without trees is almost as hopeless; forests which are so used that they cannot renew themselves will soon vanish, and with them, all their benefits." — Theodore Roosevelt

Trees pay us back

Look at what 100 large public trees give over 40 years.

Benefits = \$379,000

Energy savings

Air quality

Runoff management

Real estate values

Cost = \$148,000

Planting and pruning

Removal and disposal

Irrigation

Sidewalk repair

Litter

Legal and administrative costs

Net benefits = \$231,000

US Forest Service 2005



Friends enjoy playtime on the shaded swings of Joannes Park in Green Bay.

TRACY SALISBURY

NO PRICE TAG ON PRESERVATION

It's tough to put a price tag on trees treasured for what they mean to the heart. How do you put a price on a tree planted by a parent for a child? Or a tree that stood at a crossroads where Civil War soldiers marched? Preserving some trees may be as important to communities as preserving historic buildings. Here are two stories: the Forest Home Cemetery and the Dunbar Oak.

In the late 1800s the Forest Home Cemetery was considered Milwaukee's first park. Today, the South Side cemetery has over 148 types of trees with new trees planted each year to shade Milwaukee mayors and Wisconsin governors laid to rest there.

Some people visit the cemetery to see the famous "Beer Baron" corner where the Blatz, Schlitz and Pabst families have plots overlooking each other, but Paul Haubrich, president of the Forest Home Preservation Association, says many people also seek serenity under the towering trees. Of the more than 2,500 trees in the cemetery, some are more than 100 years old. The cemetery offers a self-guided tour to see trees in their early stages of development.

"I'm often telling people to save themselves some money and instead of driving north to see the trees in the fall, to come to Forest Home and see our trees," Haubrich says.

David Liska, Waukesha's city forester, says no other tree in the city is more loved than the legendary Dunbar Oak.

Suffering from diabetes, Civil War veteran Col. Richard Dunbar stopped to rest against a large white oak while traveling in Waukesha County in 1868. During that visit he drank water from a nearby spring and he came to believe the spring water had healing properties and declared himself cured. As news of Dunbar's "miracle" spread, Waukesha's tourist and resort industries flourished. Dunbar called the spring "Bethesda" which signifies mercy.

In 1991, the mighty Dunbar Oak fell during a windstorm. Several shoots were carefully cut and nurtured at a Menomonee Falls tree nursery. In May 2004, in celebration of Waukesha's 25th anniversary as a Tree City USA and Wisconsin's forestry centennial year, a clone was planted at the site where the Dunbar Oak had grown.

for stability and neighborhood crime reduction in the inner city. The study by University of Illinois researchers Frances E. Kuo and William C. Sullivan explored how well residents of the Chicago Robert Taylor Housing Project were doing in their daily lives based upon the amount of contact they had with trees.

ties and decrease the incidence of child abuse. Buildings with high levels of greenery had 52 percent fewer total crimes than apartment buildings with little or no greenery. Residents of buildings with more vegetation knew their neighbors better because they were more apt to come outside. Based on

"People don't always make the connection about why they were drawn to live close to the park or why they feel comfortable in their neighborhood but maybe it is because of the trees."

— DNR Southeast Region Urban Forestry Coordinator Kim Sebastian

Kuo and Sullivan found that trees are a canopy against crime. Trees have the potential to reduce social service budgets, decrease police calls for domestic violence, strengthen urban communi-

study findings, the city of Chicago spent \$10 million to plant 20,000 trees as a means of social change.

In another study, University of Illinois researchers Andrea Faber Taylor,



Trees on the State Capitol lawn invite people to take time out of their busy lives to talk, walk and picnic.

JEFF ROE

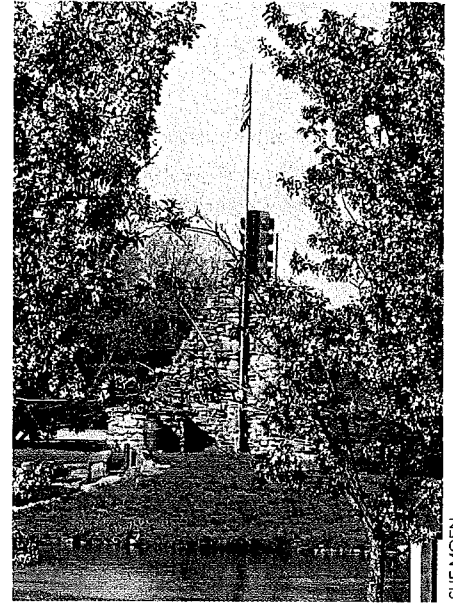
Frances Kuo and William Sullivan found that when children with attention deficit disorder played outside in a green environment they were better able to concentrate and complete simple tasks. Another study showed that girls with a view of nature at home scored higher on tests of self-discipline compared to girls with views of man-made settings.

Scientists at the USDA Forest Service in Chicago believe that people make a psychological tie to trees because trees help us reflect on life changes as we observe the changing seasons, tree growth and death.

Research also has provided evidence that the overall hospital environment has an important impact on recovery time. Roger Ulrich, Texas A&M University,

found that patients with vibrant surroundings such as flowers and an outside view, recovered three-quarters of a day faster, and needed fewer painkillers than those with dull surroundings. Patients also responded by having slower heartbeats, lower blood pressure and more relaxed brain wave patterns than people who view urban scenes without vegetation.

An article in the February/March 2005 issue of *National Wildlife* ("Take two hikes and call me in the morning") cites a study that found a group of breast cancer patients who spent 30 minutes watching birds or strolling in a park three times a week had increased attention span and significant gains in quality of life ratings, compared to those who did not take these actions.



Montesian Gardens and Park, Village of Monticello.

SUE MOEN

Wisconsin Champion Trees

Everybody likes a huge, old tree. The largest specimen of a particular tree species is called a "champion." There is a national registry, a state registry and even some communities who keep local registries of champion trees. The Wisconsin Champion Tree Program identifies and recognizes these large trees and is a great way to encourage appreciation of your community's urban forest. A local champion tree contest puts people in touch with the community's oldest "residents" and is always good for media coverage. You might even find a new state or national champion!

The official registry of Wisconsin's largest trees is maintained by the Department of Natural Resources. Information on the location, dimensions and rank of these champions, representing over 270 tree species and cultivars, totals over 2,200 records. The registry is available on the DNR website at dnr.wi.gov/org/land/forestry/uf/champion/. How to measure and nominate new champions and links to other useful information are there as well.



Richard Rideout, DNR urban forestry program coordinator, measures a walnut tree in Wyalusing State Park.

PAUL PINGREY

"It's about the right tree for the right place at the right time for the right person. Picking a tree is like picking a pet. You need to know its personality and how it will mesh with yours."

— Joe Wilson, executive director of Keep Greater Milwaukee Beautiful/Greening Milwaukee

WEBSITE RESOURCES

The following websites provide research behind the benefits of urban forestry and ideas for using this information.

USDA Forest Service Center for Urban Forest Research, wcufrf.ucdavis.edu/

USDA Forest Service Northeastern Research Station, www.fs.fed.us/ne/syracuse/

USDA Forest Service North Central Research Station, www.ncrs.fs.fed.us/4902/

Center for Urban Horticulture, College of Forest Resources at the University of Washington, www.cfr.washington.edu/research.envmind/

Human-Environment Research Laboratory of the University of Illinois at Urbana-Champaign, www.herl.uiuc.edu

Center for Watershed Protection
Urban Watershed Forestry Manual,
www.cwp.org/forestry/index.htm

USDA Forest Service Trees
Pay Us Back research results,
www.na.fs.fed.us/urban/treespayusback/

USDA Forest Service Northeastern Area
Urban & Community Forestry Program
www.na.fs.fed.us/urban/

The Local Government Environmental Assistance Network (LGEAN) with American Forests hosted a webcast in 2004 called "Seeing Green with Trees: The Economic and Environmental Benefits of Urban Forests." The webcast demonstrated how trees have been used by local government to meet environmental regulations, save money and improve the quality of life. A multimedia CD-ROM recording of the webcast is available for free. To order a copy, call (877) TO-LGEAN or e-mail to lgean@icma.org.



DNR FILE PHOTO

Quality of life

Less crime. More shopping. Healthier and happier workplaces. A clean and more comfortable environment. A place to play hide-and-seek. Trees are key.

A drive through Stevens Point (pop. 25,000) has earned the city comparisons from other convention and visitors bureaus to driving through a gigantic park.

"Every mayor talks about quality of life for his or her community," says Stevens Point Mayor Gary Wescott. "In Stevens Point, urban forestry is very important to our quality of life."



JEFF ROE

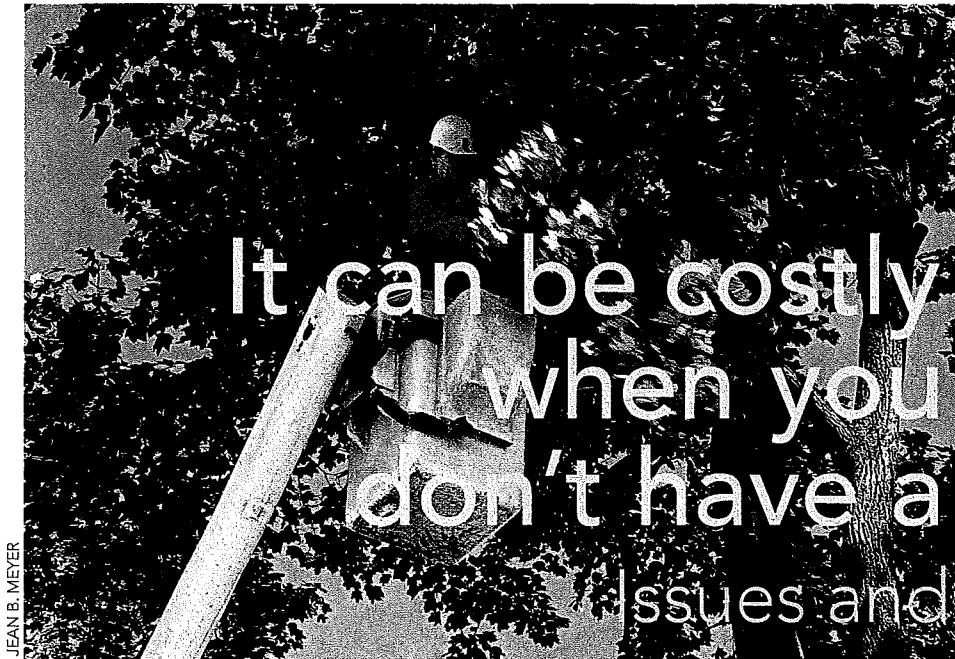
"Every mayor talks about quality of life for his or her community. In Stevens Point, urban forestry is very important to our quality of life." — Stevens Point Mayor Gary Wescott

In fact, after the onslaught of Dutch elm disease, the community launched an urban forestry program and has built on it ever since. Stevens Point has a full-time forester, Todd Ernster, and embraces the forestry department's use of the city's website (www.StevensPoint.com/forestry) to provide information to citizens regard-

ing gypsy moth, emerald ash borer, home construction and trees, proper pruning, the city's tree ordinance, general services of the forestry department and a picture of the forestry crew for residents to recognize when they see them working with community trees.

The newest addition to the website is the "Right Tree, Right Place," which gives examples of small trees appropriate for planting under overhead utility lines and explains where these plants can be viewed. This project was carried out in cooperation with UW-Stevens Point and Wisconsin Public Service.

"Having UW-Stevens Point, an undergraduate natural resource college, in our community helps in the overall appreciation of the environment," Wescott says. "I don't think it takes as much convincing [here] as maybe in some communities of the benefits of trees."



U.S. Forest Service researchers conclude that properly cared for municipal trees can be worth three times their investment. Neglected, these trees can become liabilities.

Yet, urban forestry is not a priority for many communities, and their green infrastructure is typically in disrepair as a result. Without programs or policies to protect and replenish trees, canopy declines and tree benefits are sacrificed. Life is tough on trees in people-dominated settings. The American Forests reports that the average life expectancy for an urban tree is only 32 years compared to the 150 years or more that same tree could expect to live in its native habitat.

had a city forester and cities typically devoted less than half of one percent of their budgets to tree care.

"Urban forestry is often seen as a luxury, rather than infrastructure development and maintenance," says Cindy Casey, DNR's West Central Region urban forestry coordinator. "The issue should not be about choosing between police and trees. It should be about how to achieve both."

The onslaught of Dutch elm disease in the 1930s was a wake up call to some communities to the need for a municipal tree care program. Nearly all Midwest communities were ravaged by the disease and lost many elms that arched

habitat, which would assist in keeping these pests in check in their new environment.

Competition for space causes the demise of many urban trees. According to the National Arbor Day Foundation, the utility industry spends \$1.5 billion a year trying to keep tree limbs and power lines apart. Road widening, construction and redevelopment projects, and similar public improvements take more trees. Many street trees are doomed to early destruction because they were poorly chosen for the amount of space available, eventually leading to sidewalk damage, obstructed views, clearance problems, poor tree health, excessive maintenance and similar concerns.

Development takes a large toll on trees, according to American Forests. An estimated 630 million trees are currently missing from metropolitan areas across the United States as the result of urban and suburban development.

Hazardous trees can kill and injure people, and damage property. When damage, injury or death occurs because of a defective tree, the law usually holds the tree's owner responsible. In a public place, responsibility shifts to tree managers. The best defense against litigation is a sound and comprehensive community forestry program.

"The issue should not be about choosing between police and trees. It should be about how to achieve both."

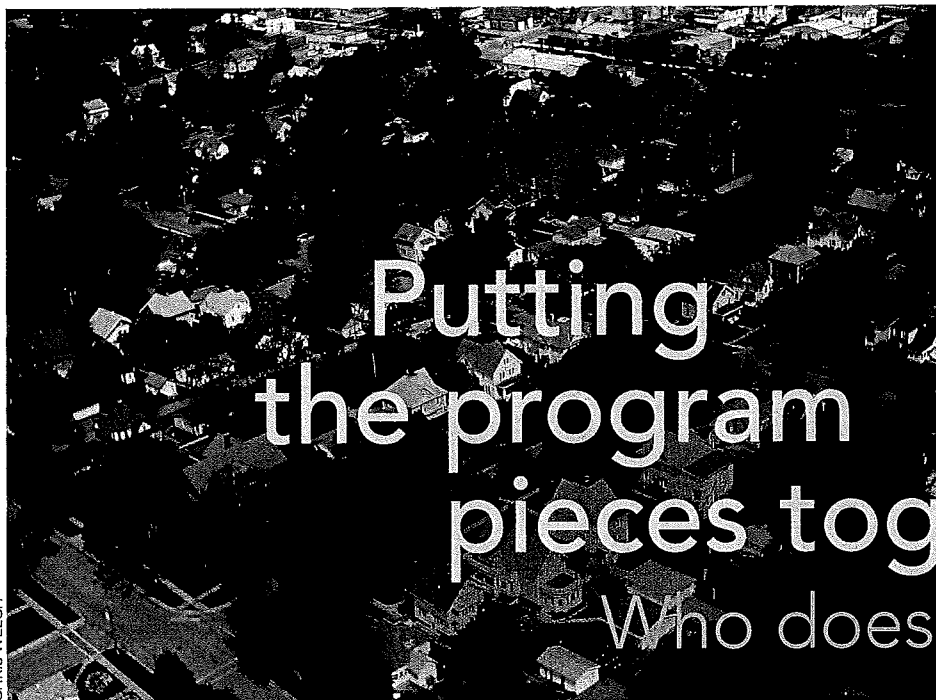
— Cindy Casey, DNR's West Central Region urban forestry coordinator

Tree management budgets are rarely sufficient and many municipal tree workers do not have adequate training. This training is important because it helps staff properly plant, protect and maintain trees, leading to longer tree life and greater benefits to the community.

A study of urban forestry by James Kielbaso and Vincent Cotroneo of Michigan State University concluded that only 23 percent of the cities surveyed

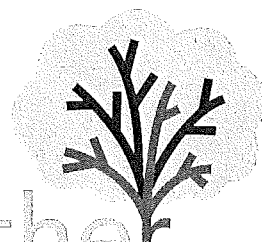
over the streets and yards. Milwaukee lost 128,000 elms from 1956 to 1988 due to the disease. There was little shade and fewer places to play hide-and-seek.

Even today, our urban forests continue to be threatened by the introduction of exotic insects and diseases. Asian long horned beetle, sudden oak death and the emerald ash borer are examples of newly introduced pests which lack the natural controls found in their native



Putting the program pieces together

Who does what?



An overview of the Village of Mount Horeb, a Tree City USA community, shows its commitment to trees.

So, maybe you've been sold on the benefits of an urban forest. But how do you turn that conviction into a program of ongoing tree planting, pruning, protection, removal and replacement? What does it take to pull it off? Where do you start? Who does what? Where does the funding come from? Large and small, Wisconsin communities are finding ways to plant and nurture urban forest programs from the ground up.

Some tree programs start at the grassroots level with a small group of citizens concerned about one or more tree issues. Dutch elm disease was just such an issue and citizen reaction spawned local tree programs across the country.

Menomonie's modest tree program underwent major expansion in the early 1990s over citizen concerns about preserving the city's tree canopy amid growth and development pressure. Sanctioned as an advisory board, the group was instrumental in shaping an ordinance that protects existing trees during development and requires tree and shrub planting with new commercial construction.

Menomonie (pop. 16,000) has been recognized by the National Arbor Day

Foundation as a Tree City USA since 1990, and has an ongoing tree-planting and care program to ensure that its wooded areas continue to thrive. Menomonie Mayor Dennis Kropp is a strong supporter of the city's urban forestry program. Before he retired as an elementary schoolteacher, Kropp involved his students in planting trees on the school ground and at the fairgrounds.

"Now some of those pines we planted are 25 to 30 feet tall," Kropp says. "It always brings back memories of my teaching days when I drive by those trees."

Like Menomonie, advisory tree boards in many communities raise public awareness and advocate for community trees. Tree boards can also develop and facilitate long-range, strategic program plans and spearhead various other forestry projects.

A decision to make early on, is who will have authority and responsibility for the tree program. Municipal governments generally have responsibility for managing the forest in their parks, along streets and on other public properties, so the job of forester is typically delegated to someone on staff, such as public works director, parks and recreation director, or administrator.

City forester

A city forester is the person responsible for administering tree-related programs and activities and the human and material resources to carry these out. While specific duties vary with each community, a city forester can be responsible for planning and overseeing tree planting, pruning, other tree maintenance and removals; maintaining a tree inventory; developing a tree management plan; assessing and responding to tree health conditions; providing input in community development projects; working with volunteers and urban forest education and advocacy.

The City of De Pere south of Green Bay (pop. 22,000) has a city forester, Don Melichar, who oversees maintenance and a pruning cycle for the large old trees as well as planting new trees. Melichar also monitors for and educates about invasive species as well as reviews landscaping plans with developers and architects. The city forester program came out of a step to advance the city's urban forest program in 2000.

"Before we had the city forester position, the director of parks and recreation was responsible for all city forestry issues, but the community came

to realize that more time was needed for urban forestry than that position could give," Melichar says.

Sharing staff

Not every community has staff devoted to urban forestry issues. Tracy Salisbury, DNR urban forestry coordinator in the Northeast Region, says that sometimes it isn't until a huge storm hits a community that urban forestry gets attention and cities start to work together.

Networking groups of municipal tree managers now exist in each region of Wisconsin to get communities talking about urban forest issues and even sharing funding, staffing and equipment.

"The urban forestry program took hold here because of a greater awareness of the importance of trees," says Tim Bauknecht, Ashwaubenon city forester.

That awareness came in the 1980s, as trees in the village created potentially hazardous situations with low-hanging limbs and weak, dead trees. In the early 1990s Ashwaubenon set out to correct those hazards and the village was revitalized under the guidance of a new director of parks, recreation and forestry. A tree board was created and the villages of Ashwaubenon and Howard jointly contracted for an urban forester to better manage their respective programs.

"Start small," Bauknecht says. "Share staff and equipment with other communities if you need to, like we did at first." — Tim Bauknecht, Ashwaubenon city forester

As a result of the project's success, both communities budgeted for and hired full-time urban foresters beginning in 1998. Today, Ashwaubenon not only has a full-time forester but six seasonal part-time staff to help with tree maintenance. Not bad for a community with a population of about 18,000.

Bauknecht's advice to other communities that think they can't afford an urban forest program or forester is to find innovative ways to initiate a program.

"Start small," Bauknecht says. "Share staff and equipment with other communities if you need to, like we did at first."



DNR FILE PHOTO

A tree board meeting brings concerned citizens together to advocate for community trees and develop strategic urban forestry plans.

Other options

Contracting for forestry services can be another option, particularly for communities whose forestry needs may not warrant a full-time position. Some communities have been fortunate enough to find a volunteer forester in their midst. Regardless of who wears

the hat, the person should have the time, training and skills necessary to protect the community's investment in its green infrastructure. Proper planting, protection and maintenance of trees require considerable science-based knowledge.

For many years, the city of Menomonie contracted with a nearby tree service for urban forestry management services. The company's professional foresters trained city staff, conducted public education campaigns and managed the city's tree inventory — tasks that at the time exceeded the capacity of city personnel. This investment in contract-

ed management not only enhanced the forestry program's credibility, but expanded tree awareness and program support, heightened effectiveness of the tree board and increased the skill level of the city's parks and streets workforce.

Community partnerships

Partnerships are a key way to manage community forests, particularly in communities with minimal resources. In some communities, garden groups, Master Gardeners, and neighborhood groups lead tree planting and protection efforts. Banks have become involved in forestry efforts through donations and low or no-interest project loans. The Wisconsin Environmental Education Board (WEEB) program has many grants to further the education and understanding of the environment for adults and children alike. Many businesses from local to multinational now have "green" programs or provide grants or products to local organizations to build their tree programs. Most utility companies have programs for tree replacement under power lines and tree planting for energy conservation.

Many service organizations do tree planting including Kiwanis, Rotary and 4-H. Nonprofits also provide grants and support. Two national examples are the National Arbor Day Foundation and the Main Street Program. Two Wisconsin examples are Greening Milwaukee and the Urban Open Space Foundation.

Schools can be another source of help. Mid-State Technical College has received grants to develop an education center on the college's Wisconsin Rapids campus. Two demonstration areas specific to the utility industry include low-growing trees under or near power lines and installation of a non-energized power line. A \$25,000 DNR Urban Forestry Grant, and \$5,000 grants each from Alliant Energy and Madison Gas and Electric fund the project. Over 150 trees and 50 shrubs have been planted on the Wisconsin Rapids campus with help from area high school students. The education center is used for training students, the general public and forestry professionals.

In Rosendale, the grade school is actively planting trees. A local artisan made a plaque and etched into it the names of the students involved.

"The students will take ownership of those trees until they graduate," says Olivia Witthun, DNR urban forestry assistant for the Northeast Region.

Board approval

Some communities rely on tree boards to develop and facilitate a plan for urban forest care. Residents with an interest in trees and related resources may work in cooperation with a city forester and advise the mayor, city council and other departments on matters concerning trees.

The town of Greenville (pop. 7,200), located west of Appleton, has accomplished most of its projects through the Greenville Urban Forestry Board. This talented group of people has accomplished a lot in a short time.

Steve Nagy, a founding member of the Urban Forestry Board, describes Greenville as a fast-growing community where many farm fields have been converted to lawns. Nagy says the town's urban forest program has been

successful because it has direction and a long-term plan.

Since its formation in 1999, the Greenville Urban Forestry Board published operating guidelines that outlined the board's role and established responsibilities. With help from volunteers and town staff, they have

planted over 1,000 trees. Seed-to-shade nurseries at Greenville's elementary schools educate and involve children in nurturing trees that can eventually be transplanted to the Greenville landscape.

Essential to its success is an urban forestry preservation ordinance. Greenville



GREENVILLE URBAN FORESTRY BOARD

Boy Scouts lend a hand at the Greenville Crabapple Tree Demonstration Project.



CINDY CASEY

The street tree replacement program in downtown Black River Falls won the Wisconsin Urban Forestry Council's 2004 Project Partnership Award.

adopted its ordinance in 2001 and the town board began collecting a \$300 fee on each new lot to cover street tree planting. The Urban Forestry Board worked with town staff to develop appropriate tree planting plans for new subdivisions.

Tree plantings also are being incorporated into the community's recreational trail. The Yellowstone Trail was the first coast-to-coast cross-country roadway in the United States,

Growing Amherst's legacy

The Village of Amherst (pop. 1,039) has had a concerted urban forestry program since 1996. Prior to that, it had a village forester who worked for a small annual salary to survey for Dutch elm disease and work with homeowners to remove diseased and hazardous trees.

The village tree board was formed out of a tree crisis. Many in the community were upset when some maples were removed to make room for storm sewer installation. LaVerne Peterson, one of those concerned, approached the village board.

"I thought it was a good time to propose that we have a tree board to oversee these situations," Peterson recalls. The village board agreed and the first tree board was formed.



AMHERST VOLUNTEER FIRE DEPARTMENT

Students from Amherst help DNR Urban Forestry Coordinator Don Kissinger plant a serviceberry tree on Arbor Day 2006.

In the last 10 years, the tree board has developed a tree ordinance, completed a management plan which they continuously update and use, worked with the Portage County Master Gardeners and other volunteers on special projects, submitted an annual

budget, applied for grants and solicited bids for tree purchases and removal. Tree board members are paid a small sum for attending monthly meetings. The stipend makes members feel valued and stresses the importance of the tree board's work.

extending from Plymouth Rock to Puget Sound. The original roadbed traversed the Town of Greenville. Today, the community is rallying around the historical significance of the trail and has been planting trees along it to help restore the trail to its former glory.

Tony Nowak, director of parks and forestry for the Town of Greenville, was hired in 2003. "Before I came here there was one department that did everything from water to sewers to roads. The town

In addition to backing the program with funding, Peterson suggests involving your DNR regional urban forester early on as you form an urban forest program. Training is also key. Village Forester Mike Hinrichs attends workshops and the annual state urban forestry conference.

Much of the tree board's time is spent maintaining the village's tree nursery. After the village was awarded its first Tree City USA recognition, tree board member Mark Boll learned about the National Tree Trust's Community Tree Planting Program. The tree board asked the village board for property for a tree nursery and was given a one-acre parcel.

The initial phase of planning, site preparation, tree installation and irrigation hookup involved seven youth, seven adults and over 140 hours of work. The nursery continues to grow and houses about 900 trees today.

The tree board also received the 2001 Landscape Beautification Award from the International Society of Arboriculture (ISA). The ISA recognizes individuals, organizations and communities for outstanding Arbor Day programs or community landscape beautification projects that have significant impact upon a community or region.

Another success story has been a restoration effort on the Tomorrow

of Greenville is growing rapidly and there is an increasing workload," he says.

They hired out the pruning work with assistance from a DNR urban forestry grant. Nowak says the key to securing funding is to keep projects unique and varied.

"The key to success is to have a group of citizens such as our tree board, that is passionate about what it does," Nowak says. "Their drive and determination are important."

River, which winds through the village. Trees had fallen into the river, the banks were eroding and the view was cluttered with brush. The river, once a popular place to go tubing and hunt for crayfish, was nearly impassable. The DNR and the Department of Transportation granted the village permission to stabilize the bank with about 15 truckloads of rock. Community service workers helped move the rock into place. Boxelders and willows were extricated from the riverway and nuisance trees were removed from the riverbank. The two-year project involved many volunteers and was completed in February 2006.

"Having so many people in the community involved takes some of the pressure off the village employees to do all the work with limited staff resources," Hinrichs says.

Linda Sook, tree board president, says one of the greatest challenges facing the community today is growth. As contractors develop subdivisions and the business park, she says the tree board is hoping to work with them to preserve the trees and even add plantings. The board is gathering construction information to include in its ordinance.

While all of these projects point to a strong urban forestry program, Peterson considers the tree board budget as one of the most telling signs of the village's tree program success. Their first budget was \$2,000 in 1997 but has since grown to \$9,250. The village has also received six growth awards along with about \$15,000 in urban forestry grants.

This year, Greenville's Arbor Day celebration garnered widespread media attention for wide community involvement in planting 23 varieties of crabapple trees.

"The little town of Greenville was on the local news for Arbor Day and that's pretty big," Nowak says.

People power

Individuals can play an important role in their community's urban forest, says Jeff Roe, DNR's urban forestry coordinator in South Central Region. Individuals can

help establish long-term goals for the community forest, fund programs for maintenance and care, support volunteer organizations and champion community trees.

Roe suggests that individuals can volunteer to serve on a community tree board, help with work days and plantings, write articles about urban forestry issues for their local newspapers and newsletters, volunteer with schools and neighborhood groups to increase public awareness, adopt-a-park or tree and effectively manage their own back-

yards by forming a property plan to plant trees.

If you don't know where to begin, Roe suggests contacting your city forester or parks and recreation staff. They can direct you to the right source. Or, try your county extension office or the DNR's urban forestry coordinator for your area if you don't have a forester.

"Talk to your elected officials and let them know that urban forestry is important to you," Roe says.

Though public interest in community trees is generally strong, this support doesn't automatically translate into support for an ongoing program of tree care. Forestry programs are well supported when residents more fully understand how they reap the benefits of the trees they help pay for.

For many years, La Crosse has required homeowners receiving terrace trees to attend a brief training session where they learn about caring for new trees. The sessions have built awareness and support for the forestry program, improved tree care in general, reduced planting mortality and cut back on staff time for maintenance.

Kristina Skowronski, a former DNR Southeast Region urban forestry assistant, cites Mequon as a good example of a community that supports its urban forestry program by engaging the public. The city hosts an Arbor Day fair with free trees for residents.

"Recognizing the importance of educating residents, the Mequon tree board is proactive and provides the community with information on how to care for their trees," Skowronski says.

When the city crew planted 15 Northwood maple Tribute Trees, the Superior Urban Forest Tree Board had cause to celebrate. In the four years since the program started, 33 new trees have become a part of the city landscape. Superior's Tribute Tree Program was established in 2001 as a way for citizens as well as civic and business organizations to honor individuals and recognize special occasions.

After reviewing several municipal tree donation and memorial programs, the tree board went back to its strategic plan and decided to structure the Tribute

Growing Phillips' legacy

The City of Phillips' (pop. 1,700) forestry program can be traced back to 1977 when a windstorm caused about \$12 million in damage. After the storm, the county forest administrator was joined by citizen groups, 4-H and Scout groups and others to replant about 1,000 trees.



Phillips Tree Committee Chair Linda Windmoeller (right).

About 30 years later, Phillips' community forestry program thrives thanks to continued citizen input and the hard work of a city tree committee. For a small community, the city is lucky to have several citizen tree committee members who are degreed foresters or botanists. Among them, is tree committee chair Linda Windmoeller who has a degree in forestry administration from University of Wisconsin-Stevens Point.

In 2001, the committee led an effort to complete an inventory and management plan and then used the plan to leverage DNR grant funding. The grant helped their small staff rent an aerial lift

truck to perform the work that the management plans called for including tree removal. The community hired an arborist from a neighboring community to evaluate its trees for risk. The arborist used a rating system developed by the U.S. Forest Service and found that about a dozen trees were at high risk to community safety and needed to be removed.

"It is important for communities to get good information and data to base their decisions," Windmoeller says.

Most recently the committee took on the task of creating a stand-alone tree ordinance for the city. The committee went through several drafts and reviews with DNR Urban Forestry Coordinator Don Kissinger to complete the ordinance, which was the missing piece to become a Tree City USA community. Phillips achieved this goal in 2005.

The tree committee now stresses public education. High school students write a "Tree Tips" column for the local newspaper. Tips include avoiding insect infestation, mulching, and Arbor Day. The committee hosted a pruning class that was well attended.

"The key to getting people interested in a tree program is to find those who are civic minded and to catch them at the right time in their lives to get involved," Windmoeller says. "It's just fun to do something for which you can see the results."

Tree Program to increase tree populations on the city's boulevards.

Corporations, individuals and families are donating trees for memories that they have of being in a park. The Superior program is an excellent example of how people can get involved in city improvement. The Tribute Tree Program encourages good stewardship and provides lasting benefits for donors and the city.

Have a plan

Imagine building a house without a plan. Few would try! Building and managing a community forest are equally difficult and wasteful without a plan. With 134 trees per mile lining the streets of an average American city, a street tree inventory is the way many communities begin developing a plan for their trees.

In fact, the best management decisions are based on facts. An inventory can provide the facts. What species and sizes are present? Where and how many empty planting sites exist? Are there hazardous trees? What maintenance is



COREY GEORGE

Healthy and colorful street trees help define the character of Shorewood Hills.

Growing Appleton's legacy

Appleton's forestry program earns an "A." In fact, since the mid-1950s Appleton (pop. 72,000) has had one of the top urban forestry programs in the



OLIVIA WITTHUN

state combining citizen and staff involvement and backing its urban forestry program with the resources it needs.

"Citizens are very involved and we have a proactive tree pruning program, street design and construction pro-

gram," says Mike Michlig, city forester. "The original design for Drew Street was to clear-cut it and the public process saved all of the trees."

Bill Lecker, city parks and recreation director, attributes much of the program's success to community involvement and a budget that supports the staff and the equipment necessary to do the job.

"When we remove and plant trees, we communicate with property owners and send them a letter," he says. "People ask to participate in the process because we are visible in the community and people understand the benefits of planting street trees."

On June 11, 2001, a strong wind storm toppled many trees. One park lost 55 large trees. The city of Green Bay pitched in to help Appleton remove the fallen trees and replant the park. The storm brought the communities together and the park has rebounded with a diversity of trees.



CINDY CASEY

Oak trees next to a Black River Falls parking lot shade pavement and cars, and control stormwater.

Growing Dresser's legacy

The welcome sign to the village of Dresser tells a story. Small communities can have tree programs. In fact, this village of 750 people has been a Tree City USA since 1998 and, as a very small community, is one of the greatly under-represented in the mix of Wisconsin communities with tree programs.



Urban forestry's impact and appeal extends to small communities like this where the village clerk and public works department partnered with a local utility (Northern States Power, now Xcel Energy), volunteers, and a DNR urban forestry coordinator to form a tree board, conduct a tree inventory, develop and adopt a tree ordinance and management plan, replace trees, develop a tree care brochure and annually celebrate Arbor Day. Urban forestry is now a distinguishing characteristic of this small rural village.

Dan Nord, of the village's public works department, says that because it is so small, the village relies on residents to help. Residents are trained in proper tree maintenance and the village hosts spring and fall clean ups. Brush is regularly chipped on site and made available for free as mulch at the public works building.

"We received a grant from the DNR and from Xcel Energy to remove high trees out of the power lines and then replant low-growth trees," Nord says. Residents helped choose trees to replant on their property.

needed? Are there heritage trees that should be given special care? What's best for the community?

Based on a detailed tree inventory, a management plan identifies and prioritizes site-specific tree planting, maintenance and removal activities within a multi-year timeframe.

A good tree management plan can make the difference between cost-effective, proactive management and costly crisis management. Plans establish focus and direction. They provide the framework for program implementation and a basis for consistent decision making. They are tools for determining budgets and other support needs.

Merrill made tough choices

After a tree inventory and management plan were completed and later presented to the Merrill (pop. 10,146) City Council in 1999, the council members were flabbergasted and dismayed to learn

that a significant number of their boulevard trees presented high risks.

Some council members went as far as touring the designated boulevards only to agree that there were some serious problems that needed to be addressed.

"This case is similar to other historic communities," says current City Parks and Recreation Director and City Forester Dan Wendorf. "The trees were older and becoming hazards. People asked who should do something because Merrill didn't have an urban forest program and only had a parks and recreation program."

The city council, public works, and parks and recreation department got together and sought funding to start with a tree inventory and management plan. The parks and recreation department applied for a DNR Urban Forestry Grant to pay for a street tree inventory. Wendorf says they first needed to

Growing Algoma's legacy

The City of Algoma (pop. 3,357), located east of Green Bay, is a great example of how a community can go from little interest in urban forestry to one of the most successful programs in the region. This is due to a dedicated group of people including public works superintendent Gary Paape.

Paape joined Algoma's staff in 1998 and noticed that there was a lot of tree topping and many trees that needed maintenance were not getting attention. Paape went to the public works department and asked the community to tackle the problem.

The city organized the Algoma Tree Committee, applied for a DNR urban forestry grant in 2001 and hired a consultant to conduct a tree inventory and develop a management plan. They have built on that plan and gone on to accomplish much over the past five years including implementing a memorial tree program, offering educational programs for residents and city employees, producing a tree

maintenance video that was shown on cable television, planting trees and setting up a pruning and removal cycle with their municipal utility company.

Algoma's Tree Line program is an initiative to replace large trees under power lines with smaller, more suitable species. Tree maintenance under power lines can be time consuming and costly. Paape used dollar figures to show that maintaining large trees over time was more expensive than removing them and replacing them with smaller species. He estimates that the cost savings in labor and equipment through the Tree Line program could be as much as \$400 per tree. He says the best way to sell a community on a tree program is to show its value.

"When you have a tree program you are not just paying a tax bill, you are getting something of value in return that you can actually see makes a difference," Paape says. "Each community is different, but I can now go through a community and tell you from looking around which one has a tree program and which one doesn't."

identify how many trees the city has, tree health, pruning and removal needs, and diversity.

Wendorf worked with a consultant to catalogue the tree species and over

"You are never too small to have a management plan."

— Merrill City Parks and Recreation Director and City Forester Dan Wendorf

several months they mapped out what the city had. When they found that Merrill had 40 percent maple on its boulevards they realized the need to diversify. They also found out that of 6,000 trees, about 580 needed to be removed, including 300 that were immediately removed because they posed high risk to public safety. They also found that there were about 800 sites that could potentially be planted. By working with local media and distributing neon-green door hangers to homes they were able to keep the community informed.

Along with the management plan and street tree inventory, Merrill now has a set of urban forestry ordinances that empowers the city forester.

"The goal of the street tree inventory

is to get to the point where we can plant more trees than we remove," Wendorf says. "The key is to use the resources that we have: volunteers, DNR grant funding and work with other organizations."

"You are never too small to have a management plan," he says.

Tree ordinance

Why have tree ordinances? Tree ordinances are tools to help communities achieve goals. Matters pertaining to tree damage, health and safety, and general welfare are often best codified

in an ordinance. Tree ordinances are not new. The first is believed to have been enacted in 1807 when a Detroit ordinance specified tree planting along the city's streets.

Tree ordinances provide authorization and standards for management activities.

The effectiveness of a tree ordinance is influenced by many factors. The key is to write an ordinance simply, clearly and tailored to the community's needs. An ordinance that works well in one community may be unworkable in another. Do the residents support or oppose various ordinance provisions, or are they even aware of them? Is there sufficient capacity to enforce the ordinance? Does the ordinance account for environmental limitations that affect tree health, growth and survival? Does the local government have the financial resources to fulfill ordinance requirements? Since the answers to these



USDA FOREST SERVICE

Defective trees can cause personal injury and property damage. Identifying high-risk trees and taking proper corrective actions can protect property and save lives.

DNR'S URBAN FORESTRY ASSISTANCE PROGRAM

Many Wisconsin communities cite the DNR's urban forestry program for assisting their community officials, green industry professionals, businesses, schools, nonprofits and the public in working together to expand, improve and manage the urban forest.

This assistance takes four forms:

Technical — help communities develop management plans, inventories, ordinances, plant health care and training plans.

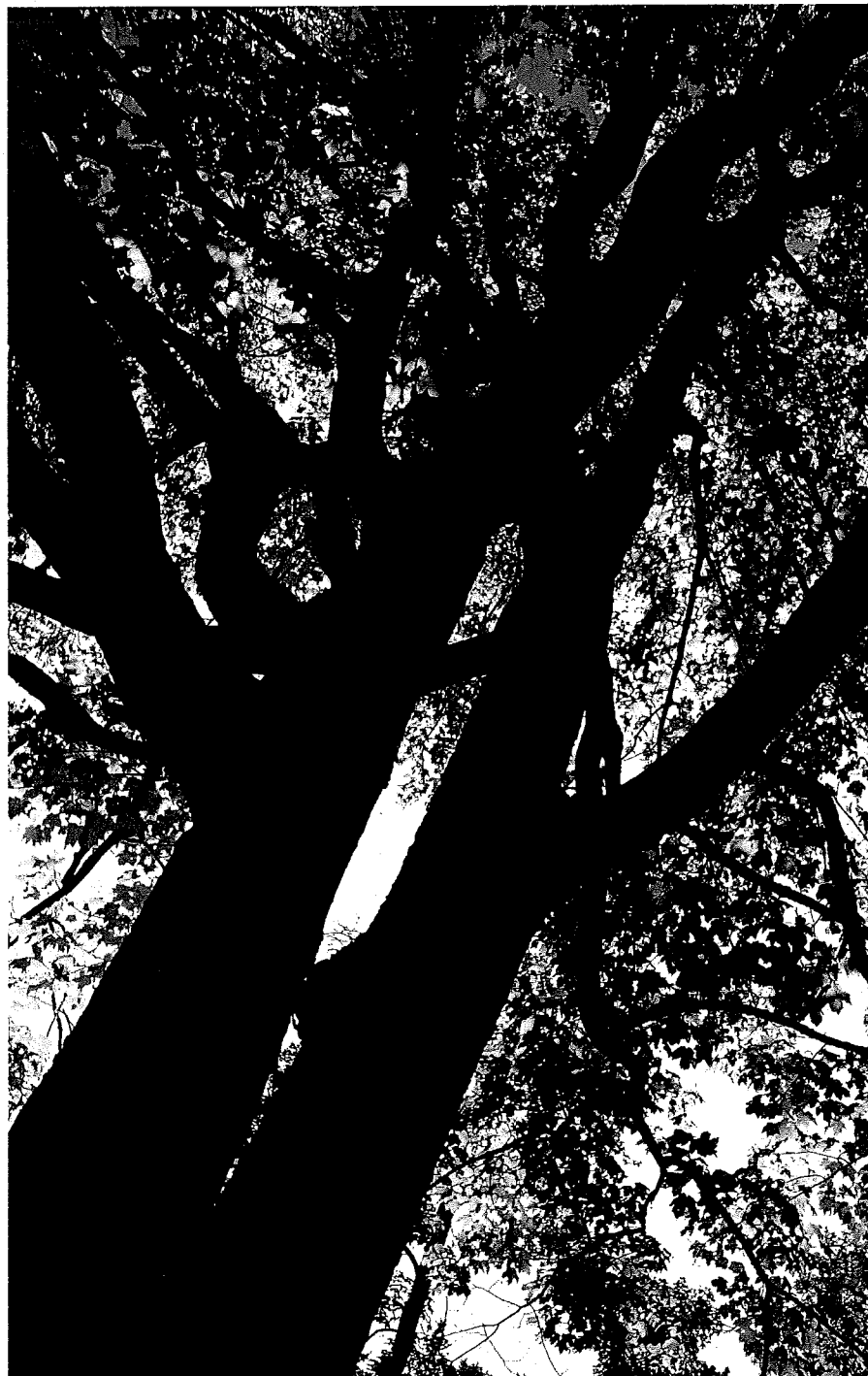
Education and training — develop and coordinate programs and materials for forestry professionals, elected officials, planners, developers, school children and volunteers.

Funding — administer state and federal cost-sharing grants and suggest alternate sources of funding, staff and support for community programs.

Public awareness — develop awareness and support for the value of urban forests and their need for management through the media, recognition programs, celebrations and events.

The program is advised by the Wisconsin Urban Forestry Council, a 23-member committee of citizens and professionals that represents everyone from community officials to businesses and neighborhood activists. The Council also presents awards to communities, groups and individuals for exceptional urban forestry efforts and advocates for the urban forest and urban forestry.

For more information on the program visit dnr.wi.gov/org/land/forestry/UF/



DON BLEGEN

questions will vary from place to place, even very similar ordinances can have quite different outcomes in different communities. **Visit www.isa-arbor.com/publications/ordinance.aspx**

**If money grows on trees
mine are in recession**

Tree care costs money but it's an investment that pays back over time. Community trees are a local responsi-

bility, but federal and state assistance is available to help plant trees and establish community forestry programs.

American Forests suggests that 20 percent of an urban forestry budget should be directed at planting and early care. A program of pruning young trees is a wise long-term investment. It is estimated that municipalities with forestry programs spend between \$8 and \$11 per tree each year. However,

the total value of the nation's street trees is estimated at \$30 billion. Communities must find ways to balance income with the cost of tree care.

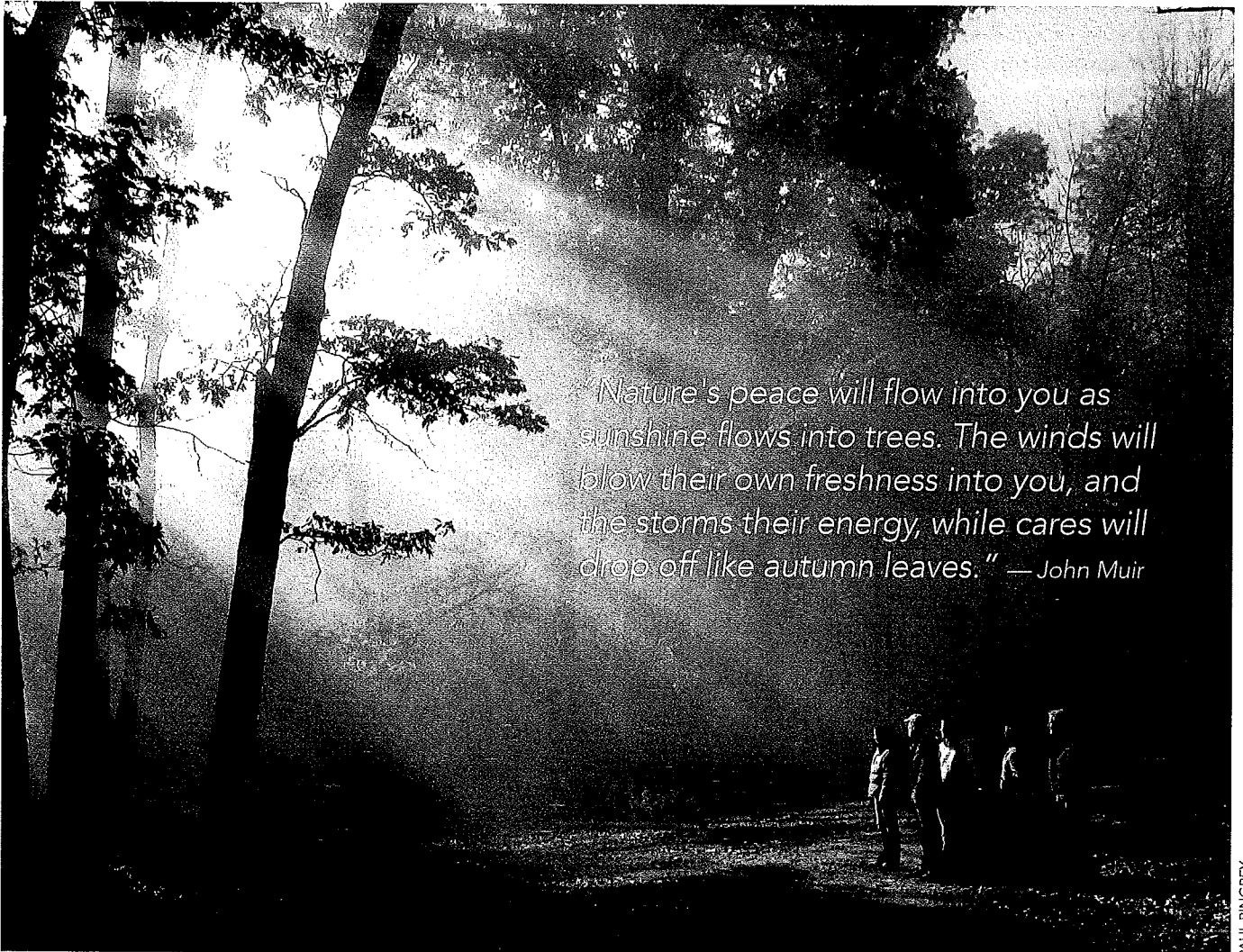
From local donations to state and federal grants, money is available to fund community forestry. Federal Emergency Management Agency (FEMA) helps victims of natural disasters. The key to collecting from FEMA to replace lost trees, is to prove that your community regularly maintained its trees and replaced them under normal circumstances.

State government can help. The obvious candidate here is the DNR with its urban forestry grants but the departments of Transportation and Corrections (inmates or those sentenced to community service), and local fire and police departments are sources of labor or grants. Check with your county extension office for additional grants and volunteer sources.



DNR FILE PHOTO

The DNR Urban Forestry Grant Program helps communities plant trees that will pay back over time.



"Nature's peace will flow into you as sunshine flows into trees. The winds will blow their own freshness into you, and the storms their energy, while cares will drop off like autumn leaves." — John Muir

PAUL PINGREY

WHO TO CALL?

Q: My community doesn't have a tree program. How can I help start one?

A: Contact your DNR regional urban forestry coordinator. Visit dnr.wi.gov/org/land/forestry/uf/.

Q: I'm responsible for the trees in my community. Where can I go to get technical training?

A: There are a variety of training, education and networking opportunities available in Wisconsin, as well as private consultants that provide customized instruction. Contact your DNR regional urban forestry coordinator to find out more. Visit dnr.wi.gov/org/land/forestry/uf/.

Q: There is something wrong with my tree. Who should I call?

A: Contact your county extension office. These are listed on the web at www.uwex.edu/ces/cty/. Some counties have horticulturists on staff and others will refer you to the University of Wisconsin Insect Diagnostic lab, www.entomology.wisc.edu/entodiag.html or the University of Wisconsin Plant Disease Diagnostics Clinic, www.plantpath.wisc.edu/pddc/. A list of certified arborists in Wisconsin also is found at www.waa-isa.org/arborists/search.asp. Local nurseries, garden centers and botanical gardens may be able to help.

Q: What do I do about trees in power lines?

A: Contact your local utility company. You can find their name and address on your monthly utility bill. You may also contact your community forestry, parks or public works department.

Q: What other resources are there?

A: There are numerous websites that provide information or links to other sites. Check out:

TreeLink, www.treelink.org; International Society of Arboriculture, www.treesaregood.com; National Arbor Day Foundation, www.arborday.org. Others can be found at the DNR urban forestry resources web page at <http://dnr.wi.gov/org/land/forestry/UF/resources/>

Local funding might come from taxes, local tree trusts, municipal utility bill donations, memorials and cost-sharing. Consider including tree planting as part of infrastructure improvement projects such as street and road improvement. In some areas, money from recycling programs is used to purchase trees.

Appleton has become creative when it comes to funding. For Arbor Day, it hosted a tree planting at the local sports complex. A \$5 surcharge per player was put on the Babe Ruth teams and they were able to raise enough

money to plant 20 trees.

Greening Milwaukee is a nonprofit that shows people how easy it can be to plant trees and shares information on the positive effect of trees in the urban environment. Greening Milwaukee has received innovative funding that includes an Adopt-A-Tree Initiative, Mayor's Landscape Awards, Tree Gift Program, Greening Milwaukee Schools program and volunteer opportunities. Greening Milwaukee also hosts an informative website at www.greeningmilwaukee.org.



Students from New Glarus High School helped the city become a Tree City USA.

Tree City USA

Since 1976, Tree City USA has been a catalyst for community tree care and a powerful force for promoting urban forestry. This program, sponsored by the National Arbor Day Foundation and administered in Wisconsin by the DNR, provides communities with a tangible goal and national recognition for their community forestry efforts. Today, over 3,000 communities fly Tree City USA flags over areas that house over 93 million Americans. Wisconsin has over 160 Tree City USAs, ranking it third in the nation!

At the heart of the Tree City USA program are four basic requirements. The community must have: a tree board or department, an annual community forestry program backed by an expenditure of at least \$2 per capita for trees and tree care, an annual

Arbor Day proclamation and observance, and a tree care ordinance. In addition, communities that have achieved Tree City USA certification can strive for a growth award that recognizes effort over and above the four standards. Typically around 25 Wisconsin communities achieve this commendation each year.

On May 10, 1990, Waukesha experienced a late-season snow storm that damaged 60 percent of the city street trees. The city's finance committee used emergency funds to restore and repair the trees. City Forester David Liska says that the fact that Waukesha is a Tree City USA was a tremendous influence in securing the support for the necessary repairs and the continuation of Waukesha's urban forestry programs.



JEFF ROE

Planting seeds of hope

A star magnolia is a symbol.

Bruce Slagoski, terrace operations supervisor for the City of Beloit, celebrates Arbor Day 2006 with the planting of a star magnolia dedicated to Slidell, Louisiana.

On August 29, 2005, Hurricane Katrina ripped through the Gulf States. The National Weather Service reported that Slidell, Louisiana, located on the north shore of Lake Pontchartrain, sustained winds of more than 176 mph and gusts of over 190 mph, and was hit by a 23- to 26-foot storm surge. The deadly storm damaged over 90 percent of the community and left 40 percent of its citizens homeless.

Though it was dubbed “The Forgotten City” because it had been hit by the eye of the storm but received less press coverage than the flashier New Orleans, Slidell has not been forgotten in Wisconsin and has received support from the city of Beloit to bring back part of what Hurricane Katrina swept away.

In fact, this year, citizens of Beloit (pop. 35,000, which is similar to the size of Slidell) raised about \$2,500 and

donated it on Arbor Day 2006 for tree plantings in John Slidell Park in Slidell. Like Beloit, Slidell valued its urban forest in the pre-hurricane days, for the sense of beauty it gave the community. As people in Beloit discussed the

“None of us can really imagine going through what the people of Slidell did. We can’t imagine a Beloit without its trees.” — Bruce Slagoski

project, some came to learn that they had relatives in Slidell.

Bruce Slagoski, terrace operations supervisor for the City of Beloit is proud of how the community has come together to support plantings for trees most of them will never see. One couple, he recalls, donated \$200 toward the project to mark their wedding anniversary. On Arbor Day, Congress-

woman Tammy Baldwin visited Beloit as it celebrated its 18th year as a Tree City USA by planting a star magnolia dedicated to Slidell.

“Beloit reached out to help Slidell and people here have said that if they

needed help someday – if a storm devastated their community – they hoped some other community would do the same for them and help them replant their trees,” Slagoski says. “None of us can really imagine going through what the people of Slidell did. We can’t imagine a Beloit without its trees.”

Viola

On August 18, 2005, a strong storm roared through Viola. The storm eventually spawned a tornado that devastated the small village, destroying nine homes, one business, and damaging more than 100 other buildings. Additionally, about 1,000 of the community's trees were damaged or destroyed. Total damage was estimated at \$2.4 million.

Immediately, volunteers began to arrive to assist with the cleanup effort and the replanting of Viola began. The group that formed to put Viola's urban forest back together was named "Trees for Viola."

Because FEMA funding was overextended due to multiple disasters, the Wisconsin Department of Commerce contributed a \$600,000 reconstruction grant and another \$821,000 came from a block grant. Trees for Viola raised over \$29,000 for replanting and other restoration projects and an additional nonprofit organization, the Vernon-Richland Recovery Project, raised over \$85,000 in private donations.

On the weekend of April 29, 2006, about 390 volunteers from over 30 volunteer organizations chipped in to help restore Viola's tree-lined streets and yards. About 300 trees were planted that weekend and a celebration dance was held at Viola's community building.

"The elderly of Viola feel the loss of their tree canopy more deeply than the newer residents," says Harley McMillen, director of the Vernon-Richland Recovery Project Inc. and treasurer of Trees for Viola. They lived under the canopy of trees that was destroyed so quickly, and although they are happy that we are now planting new trees, they are saddened that they will not live long enough to see these new trees grow into the beautiful canopy that they treasured so much as residents of Viola."

Trees for Viola plans to build on the replanting efforts over the next two years with the goal of planting its 1,000th tree in April 2008.

— This story excerpted from articles by Dan Simmons that appeared in the *La Crosse Tribune*.

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DNR Urban Forestry Editing Team:
Cindy Casey, Michael LaBissoniere,
Jeff Roe, Dick Rideout, Laura Wyatt

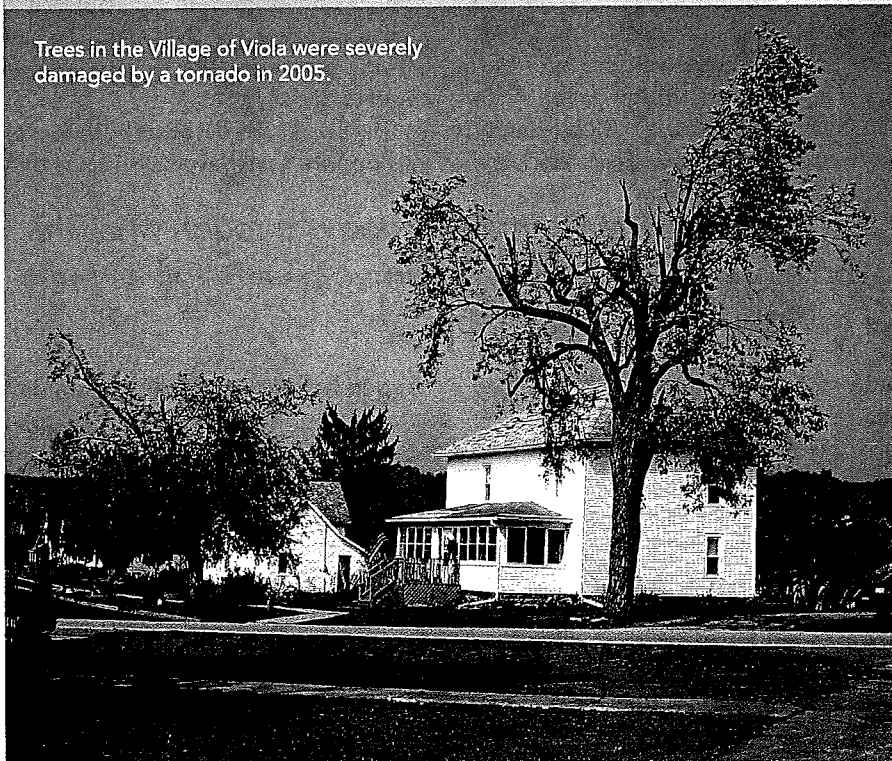
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Trees in the Village of Viola were severely damaged by a tornado in 2005.



JEFF ROE