

CONSERVATION VOLUNTEER

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rites of spring

Western grebes return to the lakes of western Minnesota every spring to court, mate, and raise their young. To see the often-hidden rituals of their spectacular courtship, turn to the story and photographs by Don Enger, beginning on page 32. Photograph by Don Enger.

WESTERN GREBES

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Greening

BEN THOMPSON, ARTIST'S CONCEPTION OF A REVITALIZED ST. PAUL RIVERFRONT, COURTESY THE SAINT PAUL FOUNDATION



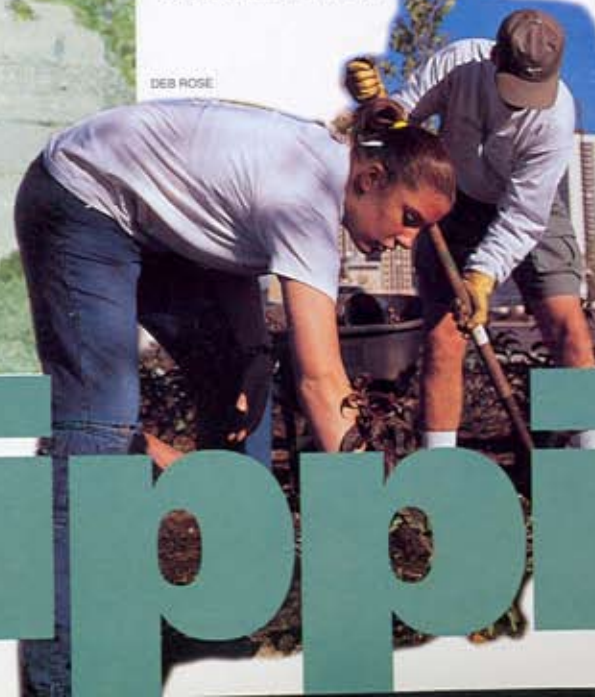
A TINY NONPROFIT CONVINCED 7,000 VOLUNTEERS AND 450 ORGANIZATIONS TO DIG IN AND HELP.



DEB ROSE

The image of a green, natural Mississippi riverfront (left) inspired an extensive volunteer effort to plant and restore the industrial area across the river from downtown St. Paul.

DEB ROSE



the great

Mississippi

Greening the Mississippi

ELLEN BROWN WAS starting to panic. She had recently been hired by the Saint Paul Foundation to reforest industrial areas of downtown St. Paul. Though Brown was a well-regarded management consultant, she had little knowledge of trees or the complexities of tree planting. So far, she and a handful of other St.

Paul boosters had pulled off one minor miracle after another to get the project off the ground—first by garnering the support of Mayor Norm Coleman, and then getting start-up money from the foundation.

The proposed tree-planting project had grown from a report Brown had written for the city in 1993 on the many issues related to riverfront development in St. Paul. She'd inter-

COURTESY GREAT RIVER GREENING



MAP BY MATT BARRA

Railway and industry usurped the flood plain near St. Paul's Holman Field (left), which was once covered with bottom-land forest. The planting area (above) repaired a missing link in the river valley's vegetation.

viewed dozens of people to get a range of viewpoints.

"One recurring idea, which had bounced around since the mid-1980s, was that of reforesting the Mississippi river flats," Brown recalls, referring to an industrial and business zone across the river from downtown. "By the time Coleman was elected mayor and we presented him with the

report, I was convinced that this idea of putting in trees was a good one."

So was Coleman. The mayor had recently taken part in a Jewish National Fund reforestation project in Israel. He and others were also inspired by a painting by Ordway music theater architect Ben Thompson, who'd been hired in 1992 by a group of civic leaders to envision a revitalized riverfront. Thompson's painting showed St. Paul overlooking river flats lush with trees interspersed with shops, trails, and small businesses—an area Thompson dubbed the Great River Park.

Greening the Mississippi

Also inspired by Thompson's vision was Paul Verret, president of the Saint Paul Foundation. In early 1994 he had agreed to partially fund a program to plant 25,000 trees—a figure Brown admits she simply "plucked from the air" because it was large enough to be noticeable "but also potentially doable." The proposed planting area was roughly 4,000 acres of industrial land on both

the planting proposal and solicit concerns resulted in few replies. It appeared that the newly launched project was sinking fast.

Hockey Hero

Then along came Bob Paradise. A construction consultant and retired professional hockey player, Paradise had grown up in St. Paul and starred on the Cretin High School,



before

sides of the river within the boundaries of downtown St. Paul.

By the summer of 1994, Brown had run into a dead end. Most of the targeted land belonged to 93 corporations and business owners, whose cooperation was essential.

"We needed to get property records and have the landowners sign agreements," Brown says. "But we were just getting nowhere with them."

Though the trees were to be free, the landowners showed little interest. A survey sent to inform them of

St. Mary's College, and Pittsburgh Penguins hockey teams. The tree-planting endeavor, by now called Greening the Great River Park, hired Paradise to explain the project to the landowners and get them to sign a letter of acceptance.

Paradise was no environmental expert, but he worked in the area and saw the value of making it parklike. "I just went around and told people it wouldn't cost them anything, and it was going to make the area look better," Paradise says. Within a

couple of months, the local hockey hero had pocketed 92 signatures.

Convincing dozens of skeptical landowners they'd benefit from tree plantings was just one in a series of hurdles the project overcame during its successful five-year operation. Just as important were the project's knack for recruiting more than 7,000 volunteers to plant the trees, its ability to attract public and private funding, and its strong focus on native species and ecological stewardship.

450 Organizations


Massive volunteer involvement was an essential part of the greening project. Assistant director Kathy Dougherty says the project attracted 450 organizations and businesses, from local primary schools to utility

giant Northern States Power Co. Up to 1,000 volunteers did large plantings in spring and fall each year from 1995 to '99. School and civic groups did dozens of smaller plantings.

Jenny Thao, a 12th-grader with the Humboldt High School Friendship Club, is one of the 7,000 volunteers who dug holes, watered plants, and laid mulch. Thao guesses she planted 30 fragrant sumac, oaks, maples, and other trees and shrubs during the past five years.

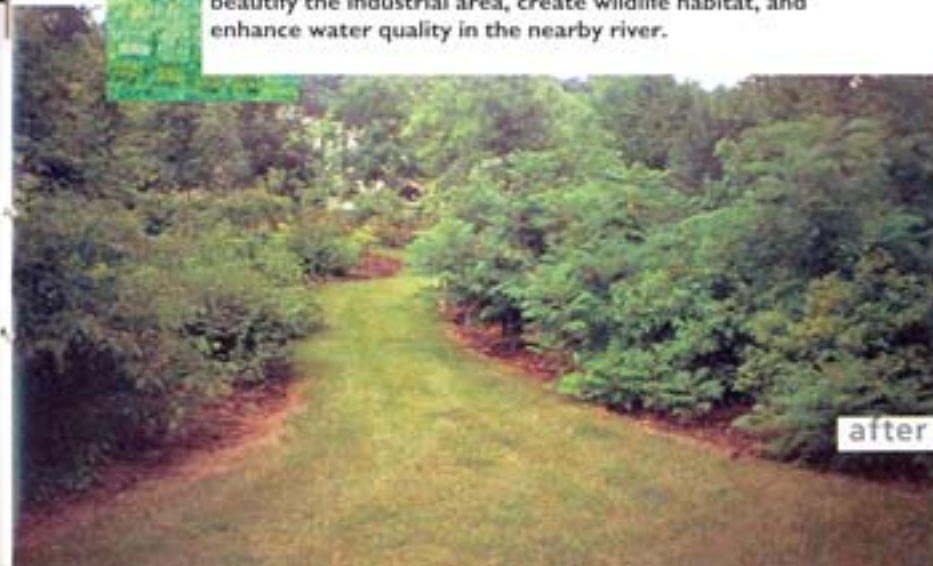
"Planting is a fun time for us," she says. "And it's good for the air because these trees produce oxygen."

Jenny Shillcox of St. Paul thinks the work produces stronger communities too. "When you take part in these tree plantings, you start to take ownership of where you live," Shillcox says.



Abundant plantings of native vegetation beautify the industrial area, create wildlife habitat, and enhance water quality in the nearby river.

COURTESY GREAT RIVER GREENING



after

Greening the Mississippi

However, it takes more than civic goodwill to pay for trees, soil testing, landscape plans, wood chips, and other major planting costs. The Saint Paul Foundation contributed \$560,000 over five years to pay for staff and operating expenses. Other donations from individuals, businesses, and foundations such as Bigelow and McKnight added roughly \$400,000. The biggest single chunks have come from the state.

"I read about the greening project in the paper one day and knew it would be a perfect fit for RIM [Reinvest in Minnesota]," says Roger Holmes, recently retired director of the DNR Division of Fish and Wildlife. "We were looking for a way to restore an important migratory bird corridor that's interrupted by the city of St. Paul."

With Holmes's support, the project received \$300,000 through the RIM program, which the DNR administers to buy and restore important wildlife habitat.

In 1996 the greening project received \$400,000 from the state general fund. In 1998 the Legislative Commission on Minnesota Resources gave it a two-year, \$800,000 allocation to be matched with \$450,000 from other sources.

The Need for Natives

Another challenge of the project, says greening project director Rob Buffler, was to ensure that plantings were native to the specific plant

communities that historically occupied the area. Native species make the best food and habitat for native wildlife such as warblers, he says. They also reduce infestations of new weeds and restore a natural heritage increasingly valued by citizens.

The project pushed for plantings of hardwoods and shrubs to be in groups rather than the more typical approach of planting an individual tree here and shrub there. Buffler had previously worked for Hennepin Parks, which was pioneering native plant community restorations in woodlands. He'd learned that large, cohesive plantings of a dozen or more trees require less watering and other maintenance, provide greater value to wildlife, and can naturally replace dead trees with seeds of nearby trees. "The ecological strength of a unified native planting exceeds the sum of individual

DAVID VILLELLA, COURTESY GREAT RIVER SPENDING



plantings," Buffler says.

Eventually the project settled on a planting plan developed by students at the University of Minnesota Center for Landscape Studies. The plan broke the river flats into four original native plant communities: flood-plain forest, maple-basswood forest, oak savanna, and prairie.

Despite careful planning, the project hit another snag when it came time to dig holes. "In most of the proposed planting sites, there essentially was no soil," Buffler says, explaining that several feet of concrete, bricks, and asphalt lay beneath the surface. "We had to do soil analysis and then soil restoration before we could even consider planting."

After hiring plant ecologist Cynthia Lane, the project began exploring newly developed methods of getting plants to thrive in the industrial wasteland. For example,


Lane figured out a way to enrich the compacted, nutrient-poor soil with a composted mixture of wood chips and manure. And she developed planting designs that mimicked the composition and structure of natural plant communities.

And then there was the problem with native plantings looking "too wild" in traditional landscape settings. At first, many landowners balked at drawings showing proposed woods, shrub clusters, and long grasses. "It's a big change from the tidy, mowed, putting-green look so prevalent in America," says Buffler.

But most landowners eventually accepted the richer, more complex aesthetic. "We trim our sumac, gooseberries, and other shrubs so they look neat," says Karla Haas of W.J. Haas Manufacturing. "It looks a lot nicer than the weeds and dead lawn we used to have."

Filtered Water

In addition to the obvious value of softening the hard edges of the business park, the new natives add ample environmental benefits. Rain and snow melt filter through the softened soil below native prairie grasses and wildflowers; previously



Rob Buffler, director of the greening project, says that landscape planners have tried to match newly planted species to the historic vegetational patterns of the area.

Greening the Mississippi

the water had run off hard bluegrass lawns into the streets, carrying fertilizer and pesticides into the river. Native plantings also reduce landscaping maintenance costs, such as mowing and chemical treatments.

Planted near the Holman Field airport, tall prairie grasses discourage geese from feeding and flying where the big waterfowl pose a safety hazard to aircraft.

Other birds should flock to the new trees and shrubs. Dozens of species, including 28 warbler species, migrate along the valley. Buffler likens the flow of wildlife up and down the river to a giant zipper, "and downtown St. Paul, because it lacks native vegetation needed by birds to make their migration, has been like a broken tooth in the zipper," he says. The goal of the greening project, he says, "is to repair the broken tooth."

It could take decades to learn how much birds actually benefit from the greening project, according to Joan Galli, DNR urban nongame wildlife specialist. Galli reviewed the project's planting plans to ensure they help wildlife species. But already, some business owners report seeing more wildlife. "Last week right out my office window a small tree of some

Tom Dickson is the staff writer for the DNR Division of Fish and Wildlife and a frequent contributor to the Volunteer. He is on the board of directors of Great River Greening.

sort that they'd planted was filled with cedar waxwings feeding on the berries," says Rob Crepeau, president of Crepeau Graphics Group.

Stewardship Ensured

When the greening project ended in 1999, it had exceeded its goal by planting 31,000 native trees and shrubs, 25,000 wildflowers, and 50 acres of prairie. Along the way, Greening the Great River Park garnered a national award from American Rivers, a Washington, D.C.-based conservation and education organization. The total investment for the project was nearly \$3 million in financial contributions, 21,000 hours of volunteer labor, and \$150,000 worth of in-kind donations such as food and equipment.

Anticipating that some businesses might someday cut down trees on their property, the Saint Paul Foundation created a \$100,000 mitigation fund to cover replacement costs. To further protect the plantings, the project hired river steward Carolyn Carr to advise landowners on management and upkeep.

"It will be decades before the plantings mature to reach their full social, economic, and ecological value," says Carr. "Between now and then, we need to monitor the plantings and protect them from drought, disease, road salt, weeds, and other ongoing threats."

Though the original project is complete, the greening organization

is continuing and expanding its work as a new nonprofit, Great River Greening. In addition to its stewardship program, the new organization operates the Big Rivers Partnership, which involves 13 nonprofit and government agencies. The partnership, funded with the \$800,000 LCMR grant, is providing community-based ecological planning, restoration, and management to 250,000 acres of urban area along the Mississippi and Minnesota rivers in the Twin Cities metro region.

Great River Greening also offers consulting services to

communities and businesses on using volunteers to do ecological restorations. Already the organization has a contract with the Science Museum of Minnesota and the St. Paul Port Authority. Buffler notes that more volunteers and donations will be required to help the project restore other blighted lands.

"We're trying to develop a new urban land ethic," Buffler says. "Just because many of us live in highly urbanized areas doesn't mean we can't have high-quality natural resources. Too many people think that to experience the beauty and wonder of nature you have to travel to the Boundary Waters, and that's just not true. The Twin Cities are filled with natural resources, and what we're trying to do is protect and restore them while at the same time open people's eyes to what's right in their own back yard." □

Great River Greening is looking for volunteers to help remove harmful exotic plant species or take inventory of native plant species along the Mississippi River bluffs. Its Big Rivers Partnership also has funding opportunities for communities and neighborhood groups interested in native plant restoration along the Twin Cities metro Mississippi and Minnesota rivers. To take part, call 651-665-9500.

DEB HULSE

