Right – **Maggie Karschnia, water resources project manager of the Prior Lake-Spring Lake Watershed District, and Pete Young, a Prior Lake water resources engineer, go over some of the materials for the city's restoration projects.**

PHOTO BY HANNAH JONES

Above – **An example of a rain garden in Prior Lake being used to collect runoff from a roof.**

SUBMITTED PHOTO

Lower right – **Examples of (from left) marsh milkweed, purple coneflower and blue flag iris.**

STOCK PHOTOS

Plant a solution

What problems can native plants dig into?

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Maggie Karschnia's backyard used to get wet. Too wet. In winter, she said, her yard would turn into an "ice skating rink" from all the standing water freezing into a solid shell.

Karschnia needed a solution. So, she planted one.

She raised up a garden bed and laid down some sand, and she added some native plants: grassy plants and shrubs with deep, anchoring roots. The result:

"It stopped the flooding in my basement," she said.

Karschnia works for the Prior Lake-Spring Lake Watershed District, and she's been trying to convince a few homeowners that native plants can help their yards, too — plants like purple coneflower, marsh milkweed, blue flag iris and ironweed. And not just their yards — the community of Prior Lake overall.

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GARDENS

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Karschnia's backyard is a good example of how native plants could possibly make a local impact.

One of the watershed district's recent projects is encouraging residents to plant rain gardens. Pete Young, Prior Lake water resources engineer, is one of the city officials working on the project to raise awareness of what a few native plants can do to help out Prior Lake.

"The idea is to put in as many rain gardens as we can to mimic natural hydrology," he said. "Kind of a not-so-great way to put it, but I'm an engineer."

The gardens are one plan out of many to meet a mandate from the Minnesota Pollution Control Agency to clean up area lakes. Both Spring Lake and Upper Prior Lake were declared "impaired" some years ago due to excess phosphorus levels. Excess phosphorus causes excess algae, which damages lakes, stresses wildlife, is unpleasant to look at and smell and is even toxic to pets. If the problem isn't cleaned up in Spring and Upper Prior lakes, it could make its way downstream to Lower Prior Lake.

Part of the pollution problem comes from polluted runoff after rain. Water that doesn't get trapped in the soil eventually makes its way to the lakes, and it takes all the fertilizer and chemicals it runs through on the way with it. These days, less and less of the community's surface area is fit to absorb anything, thanks to impermeable surfaces like roofs and pavement, plus lawns full of turf grass, which has short roots and little capacity for stopping runoff. So, part of the solution is to plant something that can — native species — in shallow depressions on residents' properties.

"The plants capture runoff water and infiltrate it into the ground," he said. Even as these native plants' roots die off, they leave pockets in the soil that serve as reservoirs for the runoff.

The watershed district is willing to reimburse homeowners up to $250 for putting in a rain garden on their property. They also have a similar program for shoreline restoration, offering homeowners compensation to plant vegetation on shorelines to reduce erosion and create a lakeside buffer.

Sometimes it's difficult to convince homeowners to trade out some of their green turfgrass and petunias for lanky prairie plants, Karschnia said. But she sees this as a sort of win-win for residents and administrators — a win-win-win if you count the native species.

Besides getting a beautiful, relatively low-maintenance garden, if enough people plant rain gardens on their property, it may contribute to the overall health and water quality of the lake.

"We're happy to be working in partnerships with landowners," she said.

There are other problems native plants can solve. Just ask Shawn Kelley, the lead environmental scientist at the Shakopee Mdewakanton Sioux Community Land Department. He's the proud owner of a prairie garden at his home in Carver. His garden is in its second year, he said, and coming along quite nicely.

"It's looking very much like a two-year-old prairie," he said. That may not sound like a fresh bed of roses, but to Kelley, that's a beautiful thing.

Using native plants in lawns and gardens is also a big hit with another involved party: native pollinators. Lilacs and lilies may be a popular choice for gardeners, but a honey bee in Prior Lake would much prefer a type of flower that's been growing here naturally for centuries.

"The cultivated plants people are used to planting in their lawns are plants pollinators are unused to going after," Kelley said. Prairies are full of black-eyed and brown-eyed Susans, clovers, wild bergamot, big and little bluestem grasses and sunflower varieties. The soil and the wildlife of Minnesota love them. That's part of why Kelley loves them, too.

Minnesota is in dire need of bees and butterflies. In recent years, pollinator populations have declined rapidly. The Minnesota Department of Agriculture attributes the loss in part to pesticides, diseases and pests, and in part to a massive loss in habitat.

"The prairie is a critically endangered ecosystem," Kelley said. "There's less than 1 percent of native grass prairie left in the state."

Since pollinators are responsible for about a third of the plants we eat — including almonds, blueberries and apples — it's become a statewide priority to protect them and the environment they need to survive.

Homeowners like Kelley have worked to reverse that loss by turning their backyards into prairies. It requires a little fuss in the setup. Prairies need to be closely mowed from the onset, and it takes three to four years for native species to truly emerge on their own. Besides that, they need to be burned regularly every few years to eliminate any above-ground plants that may have sprouted, keeping them from progressing into brushlands and forests.

But once the prairie takes and becomes established, Kel-

Shoreline buffers and rain gardens

To learn more about the cost-share programs for rain gardens and shoreline restoration, or to visit the next workshop on native plants and protecting local bodies of water, visit the Prior Lake-Spring Lake Watershed District's webpage:

http://www.plslwd.org/get-involved/cost-share/

See lists of approved native plants and nurseries where they're available for purchase:

Blue Thumb: www.bluethumb.org

Metro Blooms: https://www.metroblooms.org/index.php

ley said, it's easy to keep in check. The plants come back every year, and so do the butterflies and honey bees. Even if a homeowner isn't ready to jump into full-fledged prairie in his or her backyard, even planting a few plots of native species will help provide a habitat for pollinators.

"Regardless of how small — even if you're just doing a butterfly garden," he said. "Any homeowner interested in planting some native plants, that goes a long way."