Overwatering lawns — and pavement — is the norm in the Twin Cities

A survey of 1,000 homeowners shows thirsty turf is sucking down the metro's water. On average, residents watered 500 square feet of pavement.

By Josephine Marcotty Star Tribune
October 3, 2017 — 10:32am

Most homeowners overwater their lawns — to say nothing of their pavement — and have a love affair with a type of grass that doesn’t really belong in Minnesota.

That's the wrap-up from a survey of 1,000 Twin Cities residents conducted in an effort to reduce the pointless lawn watering that is draining the metro area’s aquifers and was one of the major issues behind a legal battle over shrinking White Bear Lake.

Conducted by University of Minnesota researchers and the Metropolitan Council, the survey found that more than half of homeowners leave their sprinkling systems on the automatic cycle. That means their lawns get watered whether they need it or not.

Three-fourths of the systems had at least one leaking sprinkler head.

On average, residents watered 500 square feet of pavement — which doesn’t need it and increases runoff and water pollution.
And the majority of lawns are planted with Kentucky bluegrass. It needs more water, fertilizer and maintenance than other types of grass more suited to Minnesota’s weather that are now being developed at the U.

Jerry Holt, Star Tribune
Ryan Schwab, a graduate research assistant rated the different grasses while working in the experimental growing fields at the UMN St. Paul campus Monday October 2, 2017 in St. Paul, MN.

“I don’t know if alarming is the right word,” said Sam Bauer, a turf expert the U’s Extension Service who conducted the survey. “Eye-opening anyway.” One of the most important findings, he said, is that most people never check their irrigation systems for leaks.

The survey also provides evidence that the water use problems at the heart of the contentious lawsuit over White Bear Lake are not exclusive to that part of the Twin Cities.

Groundwater use around White Bear Lake has doubled since the 1980s, and today 30 percent of it is devoted to lawns just in the summer. That leads to a lopsided — and costly — ratio in which communities use three and four times more water in summer than in winter.

“A higher ratio is more expensive for a city,” said Brian Davis, an engineer with the Met Council. “It means there are more wells that need to be drilled so summer peak can be met — like sizing freeways for rush hour.”

The overuse of water was found to be the primary reason White Bear Lake, which is unusually dependent on groundwater, shrank during dry years.

In what may prove to be a landmark decision if it survives the expected appeals process, a Ramsey County judge ruled in August that the state had failed to adequately protect the lake from overuse of water.

Officials from the Minnesota Department of Natural Resources said they dispute Judge Margaret Marrinan’s conclusions and will appeal her decision.
Still, she imposed restrictions on groundwater pumping, which may become a new reality for suburban homeowners around the Twin Cities if existing water use trends continue.

The metropolitan area could swell by more than 400,000 people in the next 25 years, much of it in suburban developments where irrigation systems for wide, green lawns have become an expected perk in a new home.

At today’s water-use rates, that means aquifer levels in some areas could drop more than 40 feet by 2040, according to Met Council estimates.

Overwatering lawns is primarily a problem in the suburbs, where big lots and social pressure drive enormous efforts to have lush grass, Bauer said.

Mow once a year?

“That’s what homeowners want,” he said. “A really nice lawn and they think they need an irrigation system to have that.”

In the cities, with smaller lots and older homes, irrigation systems are less common and weeds are more accepted, he said. “Which is fantastic, because you don’t need an irrigation system to have a nice lawn,” he said.

One of the worst problems is that homeowners tend to set their systems to automatic, which means the sprinklers turn on every other day, rain or shine.

Often, they are set for early morning, which means homeowners never see the water that falls uselessly onto pavement or puddles that form around leaky sprinkler heads.

And Kentucky bluegrass, the standard turf in Minnesota, surrounds three-fourths of homes. But it doesn’t do well in the temperature swings and precipitation typical here. Kentucky bluegrass became the norm, Bauer said, because the dark black soil that grass needs is often scraped off during construction of suburban developments and not adequately replaced when the homes are finished.

Contractors simply spread rolls of Kentucky bluegrass over poor soils, which then require copious amounts of water, mowing, fertilizing and weed killer to flourish, he said.

Bauer said there are better, hardier grasses that are also far less trouble for homeowners.

More are on the way through research he and others are conducting at the U, where they are testing different varieties for drought tolerance.

Some low-grow, low-maintenance fescue mixes are increasingly available at garden stores, like the ones he uses for his lawn.

“I mow once a year, pull 10 weeds and fertilize once a year,” he said. “I haven’t watered it in five years.”