

EAST METRO

Large-scale rainwater system under Allianz Field 'makes what is invisible, visible'

Underneath the stadium's Great Lawn is a giant tank, sensors, filters and pumps.

By James Walsh (<http://www.startribune.com/james-walsh/10646161/>) Star Tribune |

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It's fitting that on a day when St. Paul and soccer team officials unveiled the new state-of-the-art rainwater collection system at Allianz Field, a sinister-looking wall of dark clouds and a spattering of raindrops drove the festivities inside.

No worries. The real work of this \$2.1 million rainwater reuse system occurs out of sight. A massive 675,000-gallon holding tank beneath the stadium's Great Lawn will store the rainwater that falls onto the roof of Allianz Field. And in the future, nearly 200 mature trees around the stadium will help clean rainwater that falls onto nearby streets and parking lots before it's collected.

Designed to collect and redistribute up to 2 million gallons each year, the system will reuse the rain that falls on Allianz Field, Minnesota United's new Midway area home, and is designed to eventually collect, clean and reuse rainwater from the new construction expected to rise on the 35-acre site that includes the stadium and nearby Midway Shopping Center.

"This is a big deal," said Seitu Jones, a member of the Capitol Region Watershed District Board of Managers. The watershed district contributed a grant of \$416,000 toward the cost of the system, with the Metropolitan Council, the Minnesota Clean Water Fund and the city partnering to develop it. The system is part of \$5.1 million in infrastructure improvements for the Midway area around the stadium.

A series of filters and ultraviolet light will clean the roof runoff, which will then be used to irrigate 150,000 square feet of green space — including the 20,500 square-foot Great Lawn in front of the stadium — and the 192 mature trees surrounding the stadium site.

A "smart hub" of sensors, filters and pumps, contained in a concrete bunker 15 feet below ground will analyze, clean and distribute the water to where it is needed. The hub will read weather forecasts to predict rainfall and adjust water levels accordingly.

City officials said the system will help spur development in the area around the stadium by removing what can be a significant cost — the need to build stormwater collection systems for each building that will go up in the future. In exchange, developers on the Midway superblock will be required to contribute funds for the operation and maintenance of the stormwater system as its use expands to surrounding buildings.

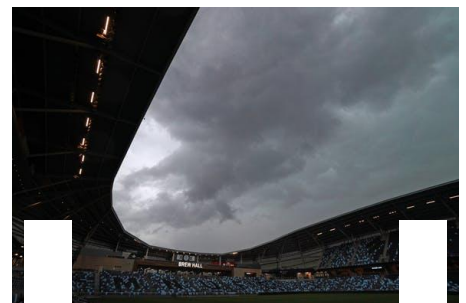
"A rainwater reuse system of this scale in Minnesota is groundbreaking," said Mark Doneux, administrator for the Capitol Region Watershed District. "We applaud the successful public-private partnerships that went into making this innovative reuse system possible and hope this project can serve as an inspiration for future sustainable infrastructure projects in the Twin Cities."

To help explain how the system works, officials on Thursday also unveiled an interpretive monument at the stadium site. Made of Mesabi black granite mined from a quarry near Babbitt, Minn., the sofa-sized monument is laser-etched with diagrams of the water-harvesting process. Officials say their goal is to educate stadium visitors about the water system beneath their feet.

GALLERY

GRID

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Here, storm clouds roll over Allianz Field Thursday morning.
BRIAN PETERSON, STAR TRIBUNE

The city of St. Paul and Minnesota United unveiled their new cutting-edge rainwater reuse system, complete with water harvesting process

Jones said the project is in keeping with the goals of the watershed district: "to protect, manage and improve the water resources of our district." The monument, he said, will help "make what is invisible, visible."

James Walsh is a reporter covering St. Paul and its neighborhoods. He has had myriad assignments in nearly 30 years at the Star Tribune, including federal courts and St. Paul schools.

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