

*Spotlight:***Rain gardens**

Landscaping may be the first thing you do while contemplating what to do inside. Or it's the last thing you do after the house is finished. What you do with your yard can affect the inside of your home as well as the outdoor habitat.

Organizations such as Metro Blooms and various watershed management districts offer classes and/or incentives for homeowners to plant native species in their yards and rain gardens. Rain barrels are often sold at reduced costs, or are relatively easy to make and install.

Seeing rainwater management in action can inspire a person to delve into it further.

This year, two locations on the Home Tour will show how they handle rain and snow melt: the Hawthorne Eco-Village Apartments at 617 Lowry Ave. N., Minneapolis, and Bill Zajicek and Romi Slowiak's home at 1492 East Shore Drive in Saint Paul overlooking Lake Phalen.

We've also put together a list of places along your home tour path that were assisted by their watershed management organizations in installing rain gardens, underground storage and filtration, and



Shown above: St. Mary's Greek Orthodox church's interior garden in summer; for the tour, focus on parking lot and grounds along 3450 Irving Ave. S. Shir Tikvah Temple (below) is at 1360 W. Minnehaha Parkway. (Photos courtesy MCWD and Shir Tikvah)



some pervious paving in parking lots (applicable to home driveways). These are churches, schools, and other location exteriors only — many have interpretive signage. A full list appears on pages 21 and 22 of this Guide.

*Rainwater Spotlight:***Curb Cut Gardens & Light Rail**

Curb cut rain gardens differ from typical private rain gardens. They are designed to capture polluted street runoff before it flows into storm drains, eventually reaching the Mississippi River. When a homeowner was unable to get contractors interested in doing this type of project, Capitol Region Watershed District (CRWD) collaborated with residents, Hamline Midway Coalition, and the City of Saint Paul to garner neighborhood-wide interest in curb cut rain gardens, and bid the project for the group. Five were installed in 2015 and ten in 2017.

"There was no damage to the curbs, since curb removal was performed along existing curb joints. There was also minimal damage to the asphalt. With only a single pour of concrete to create one piece, these cuts are easy to construct. By being one solid structure, as opposed to a combination of parts, these curb cuts ensure durability and strength," according to an article on the crwd.org website.

Tree trenches: Near the Victoria Light Rail Station, between homes #37 and #38 on the tour, you will see part of the five miles of tree trench with over 1,000 trees, constructed by the Metropolitan Council. See the map graphic



This curb cut rain garden is similar to the one visible in front of 1984 Jefferson Ave., between homes #29 and #30 on the tour.

(Photo courtesy of CRWD)

on page 22 for other features along the Green Line between the western edge of Saint Paul and the Capitol/Rice Street. It's estimated that the overall project reduces stormwater runoff by more than 50% and removes 80 pounds of phosphorus and 40,000 pounds of sediment annually. Interpretive signage describes the purpose and function of the clean water projects. The signage has been translated into Hmong and Spanish.

*Spotlight:***How sites can capture their buildings' rainwater, snowmelt**

Here are places you can see best practices homeowners can adapt to keep rain water on your property.

Rain gardens, even if the plants aren't fully up by the time of the tour, will show how the hardscape and terrain help define and make these water-catching areas beautiful and safe. Pervious pavers in parking lots are good examples for home driveways and patios.

a 617 Lowry Ave. N. Hawthorne Eco-Village Apartments

The community greenspace features an outside playground and a plaza area with an arbor, grills, and seating. Sustainable features include a green roof, an underground stormwater reuse tank, filtration systems, two raingardens, and permeable pavers, which together create an integrated stormwater management system. The landscape captures and filters pollution from dirty stormwater runoff, protecting the nearby Mississippi River. When fully grown, the plants and trees will provide a source of healthy habitat for pollinators and other wildlife. Funded in part by Mississippi Watershed Management Organization (MWMO).

b 2522 Marshall St. NE Mississippi Watershed Management Organization's grounds

Note MWMO offices north of Lowry on Marshall Street NE, which runs along the river. The grounds serve as a learning center, from the cistern and tree trench in front through several raingardens alongside a winding pathway to the river. Visitors can watch rain flow into these features, which prevent pollutants from reaching the river. The building is open weekdays and for special events.

c 1500 6th St. NE — Grace Center

got rid of large amounts of paved parking and installed rain gardens and contemplation spaces. The playground at the southwest corner will be fully accessible and inclusive. When spring weather permits, the final surfacing will be installed. In the photo, note also the greenhouse frame where produce for the Little Kitchen Food Shelf (on-site) is grown.



Top: The underground filtration system (left) and storage tank (right) as installation was underway at the Hawthorne Eco-Village Apartments, 617 Lowry Ave. N. Bottom: Some of the Grace Center campus plantings at 1500 6th St. NE. (Photos courtesy of MWMO)



Spotlight: Rainwater Management Examples

d 700 22nd Ave. NE at Monroe Edison High School

The parking lot includes permeable pavers and a tree trench, with rain gardens at the west edge where an alley used to be. Next to the community gym across Monroe Street to the west is the recently completed greenhouse and concession stand. Under the practice field, there's a huge storage tank that gathers rain water to be used for future irrigation. The entire "green" campus provides many opportunities for science education.



e 1612 Second St. NE Sentyrz Supermarket

Sentyrz was one of the neighborhood's first to install rain gardens with interpretive signage (at the northwest corner). Walt Sentyrz reports he gets a monthly \$100+ rebate from the city on his water bill, and he invites neighbors to harvest seed heads in fall to start their own rain gardens. (between #16 & #17)

creating the rain gardens. They discussed the concepts of sustainability, habitat, and pollinators. They also put their work into a larger social context, explaining how the rain gardens help protect the waters of nearby Minnehaha Creek, which flows into the Mississippi River. An expansive native garden is at the synagogue's front entrance.

Shir Tikvah's Gan Tikvah was made possible with the support of the Gendler Grapevine Project and additional grants from the Minnehaha Creek Watershed District (MCWD) and Shir Tikvah's Caryl Barnett Vision Fund.

f 3450 Irving Ave. S. — St. Mary's Greek Orthodox Church (see page 7)

Five on-site rain gardens capture and filter rainwater, and 3,500 square feet of permeable pavers direct runoff to underground storage chambers to slow down the flow of water, protecting nearby Lake Calhoun. The project eliminated the church's \$10,000 annual stormwater fee, and solved problems of poor drainage, inadequate parking and accessibility barriers. The result is a beautiful way to reduce phosphorus from the site by 30% and capture 100% of the rain up to 4.2 inches in 24 hours. (MCWD)

Saint Paul

h Along the Green Line See map below.

i Curb Cut Rain Garden — 1984 W. Jefferson Ave.

See page 15 for an example of a curb cut rain garden. The one in front of water steward David Pasiuk's residence at 1984 W. Jefferson Ave. (between homes #29 and #30 on the tour) takes advantage of the block's extra-wide boulevard.

j 700 Snelling Ave S., Saint Paul Gloria Dei Lutheran Church

Raingardens on the northwest corner adjacent to Eleanor Ave. They also have a very large raingarden on the southeast corner of their property adjacent to Highland Parkway and their parking lot.

g 1360 W. Minnehaha Parkway Shir Tikvah Synagogue (see page 7)

Shir Tikvah's Gan Tikvah – Garden of Hope – created a beautiful, sustainable landscape around their synagogue replete with rain gardens, a vegetable garden, a native plants garden, beehives, a walking trail with benches at strategic spots, and an orchard.

Adults and children were involved in



Photos courtesy of MWMO, which funded the projects: Students learn to take water samples at Edison High School, a young rain garden working its magic at Sentyrz, and one of the colorful cows that attract attention. Below left, water-handling features along the Green Line in the Capitol Region Watershed District, graphic courtesy of Barr Engineering. Below right, one of the informative signs at Lake Phalen, where shoreline restoration is a project of the Ramsey-Washington Metro Watershed District. (Photo by Margo Ashmore)

k 275 Lexington Parkway N. Central High School

Central High School's comprehensive stormwater management plaza runs throughout the entire southeast quadrant of their campus (Lexington & Marshall), including raingardens, tree planters, permeable pavement, underground infiltration chambers and native plantings.

The above locations are in the Capitol Region Watershed District.

m 1492 East Shore Drive, Saint Paul Bill Zajicek & Romi Slowiak's home

Echoing the former residential courtyards in Jiangsu province representing the pinnacle of China's classical garden design, Romi said, "instead of a classical garden of urban Suzhou evoking a beloved country landscape, we have a St. Paul sanctuary with a miniature of our own sacred Swede Hollow Park." Weather permitting, the garden hardscape and plans will be on view during the tour.

Websites: metroblooms.org
mwmo.org • minnehahacreek.org
capitolregionwd.org • rwmwd.org

l Lake Phalen Shoreline Restoration

Heading out to the old Weequah Canoe Club, 1492 East Shore Drive in Saint Paul, you'll see signs at the shoreline parking lots of Lake Phalen talking about the importance of not walking on the plants, and "the water's risky route to our lakes," a project of the Ramsey-Washington Metro Watershed District.

— Compiled by Margo Ashmore, from material & photos supplied by Mississippi Watershed Management Organization (MWMO), Minnehaha Creek Watershed District (MCWD), Capitol Region Watershed District (CRWD), and Ramsey-Washington Metro Watershed District (RWMWD).

Along the Green Line

