Self-guided water quality Best Management Practices sites in Shoreview
Private landowners are granting observation until August 31, 2021

1. **Jennifer Olson & Pat Boudreau joint rain garden – 230 & 234 Galtier Place, Shoreview**: Two owners of side-by-side twin-homes were inspired to transform a rock mound driveway median into a native plant rain garden. The driveway median drains two north facing downspouts off of each twin-home roof. A RWMWD stewardship grant funded the native plant rain garden section (some of the driveway median is also for annual plants and vegetables). Ramsey County approved and designed the project. The Minnesota Water Stewards program provided the background in water pollution understanding and education on how to help protect our waterways.

2. **John and Chris Hoffman – 4674 Dale St, Shoreview:** After 31 years of living on a parcel that was the low spot in the neighborhood, landowners John and Chris Hoffman decided to deal with roof runoff that would torrent out two downspouts, through a mulched landscape area, over the sidewalk, into the street gutter, around the corner and into the nearby storm drain (DEFINITELY not good). After installing two separate rain gardens on the north side of the property, one off each downspout, the area now handles rain events extremely well. Listen to a 5-minute video on how the project came to fruition from the landowners themselves: https://www.youtube.com/watch?v=Pttk-ACwst0

3. **Shoreview Community Center pond – 4580 Victoria St, Shoreview:** Drive to the lower level parking lot around the side of the Shoreview Community Center and walk to the pond adjacent to the Haffeman Pavilion. The native plant buffer garden here helps filter runoff, provides excellent pollinator habitat and is an interpretive feature with signage. It is looking great this summer thanks to the Wild Ones group that helps take care of it. Additionally, the pond is the location of a University of Minnesota, Ramsey-Washington Metro Watershed District (RWMWD), and City of Shoreview research project to assess the effectiveness of adding iron filings to the pond to capture and reduce phosphorus levels. The pond collects and treats water from a large drainage area and over time phosphorus levels have increased in the sediment, reducing overall water quality. 12,000 pounds of iron filings were added to the pond in 2021. The U of MN and RWMWD will monitor the water quality to determine how effective the iron filings are at lowering phosphorus over time. Depending on the results, iron filing treatments may be a cost effective way for municipalities to increase the water quality treatment effectiveness of their ponds.

4. **Paul and Michelle Gardener – 890 Dawn Ave, Shoreview:** After a rapid snow-melt and a heavy rain in early 2014, the Gardner's sump pump seized up and water inundated the basement floor. To reduce the risk of future drainage problems, they worked with the RWMWD and Ramsey County to install a cascading rain garden in the front yard. Three downspouts feed an upper raingarden, which can overflow into a lower raingarden that also treats storm water from the street. Native plants have attracted two dozen pollinator species. In 2020, the Gardner's (again with a RWMWD grant) replaced a crumbling concrete and wood deck with new hardscaping that slopes to a dry creek bed and then to a new rain garden. Two pairs of rain barrels capture water from two downspouts, with overflow traveling to the rain garden. No need to use the hose!

5. **Cherokee Hills Association rain gardens – closest address is 903 Shirlee Lane, Shoreview:** At the corner of Nancy Place and Shirlee Lane is one raingarden. Two additional rain gardens are south of this intersection along Nancy Place. These three (3) rain gardens were installed by two townhome associations to help treat rainwater runoff from the street as well as help solve drainage issues and reduce the size of the area needing mowing. The rain gardens are planted with native plants to attract pollinators. Both associations have been working with the contractor who installed the rain gardens to make sure they are maintained properly to keep them looking beautiful and to ensure they keep filtering pollutants from rainwater as they were designed to do.

6. **Snail Lake Regional Park Boat Launch shoreline restoration, Residential Shoreline Restoration and Wetland A restoration– 4191 Snail Lake Blvd, Shoreview**:

    a. **Snail Lake Regional Park Boat Launch Shoreline Restoration and neighboring residential shoreline restoration projects.** (Park in the beach parking lot, not in the separate lot where vehicles with boat trailers park.) This restoration project on Ramsey County Park-owned land is an attempt to address prolonged high water levels, reduce erosion and improve habitat for birds, insects and wildlife.

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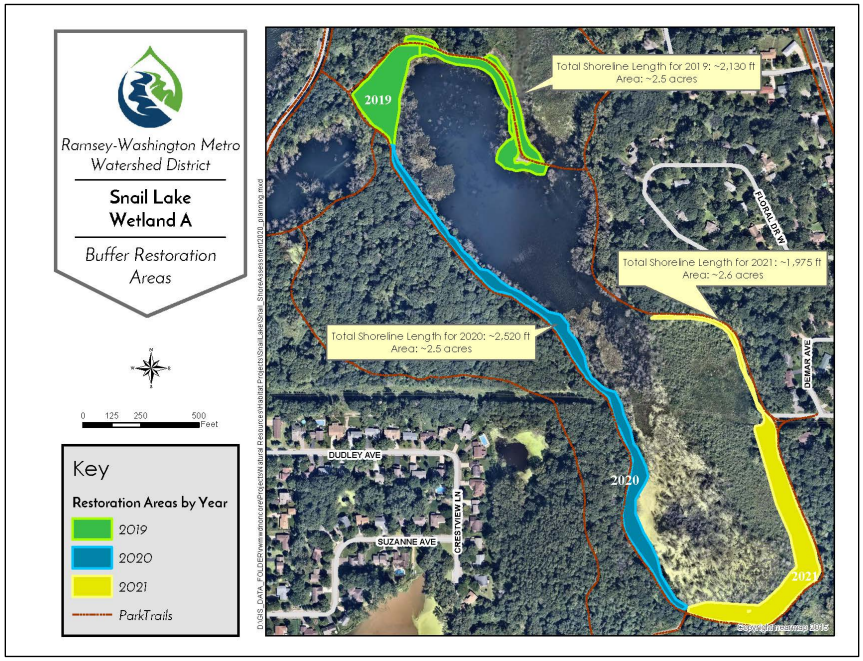
This restoration project was funded by Ramsey-Washington Metro Watershed District and will be maintained by Ramsey County for the next two years. Plant selection made be changed depending on fluctuating water levels. Shoreline restoration projects have also been completed on 15 homes around the shoreline of Snail Lake.

b. **Wetland A Restoration** –The address for the park adjacent to Snail Lake is listed as 4191Snail Lake Blvd which is where the large pavilion is up above the lake) but proceed down the hill and turn in at the beach and park in the beach parking lot, then walk through the boat launch parking lot and cross the street. Head north (left) on the sidewalk until you get to the first trailhead to the park. Turn right into the park, walk a short distance and where the trail splits off--you can choose either trail to navigate around the park to see different parts of the restoration efforts. Watershed District staff have taken a strong interest in this natural area, as it is in one of the largest parks that includes woodland, open water, and wetland ecosystems in our District. (see map),

The total area of this restoration project is 122 acres (See map below).The goal of this partnership between RWMWD and Ramsey County Parks is to create a more resilient wetland buffer around Wetland A in the Snail Lake Regional Park in Shoreview. This area has been challenged by fluctuating high and low water levels with encroaching invasive species such as reed canary grass, buckthorn and other non-native trees and plants. This habitat degradation has been impacting the park for decades. Rebuilding the wetland buffer will help it withstand flooding and provide better habitat for birds, insects, pollinators, amphibians and fish. Fire, a natural tool in environments like this, has not been used for many years, but will be reintroduced as a management tool.




Knowing its potential, RWMWD began working with Ramsey County Parks to restore this wetland to create native habitat for wildlife and provide a wetland buffer. The initial process of removing buckthorn and other invasive species began on the northeastern side of the wetland in 2018 and continued into 2019. Once this material was removed, District staff, along with community and school groups installed more than 4,000 native plants. Over 300 students from 12 classrooms participated in the large scale wetland buffer restoration planting project in 2019. The third year of restoration work continues in 2021.

We are already witnessing a vibrant native plant community supporting many pollinators and other wildlife beginning to emerge. On the western & southern sides of the wetland, a private contractor and

District staff removed buckthorn to support the native woodland habitat currently established. With the help of our Citizen Advisory Committee, we installed 500 emergent plants to increase biodiversity and protect the shoreline. Last year during the pandemic, Water Stewards and other volunteers including Wild Ones Big River Big Woods Chapter assisted our staff with restoration plantings. Additional restoration work is continuing through the 2021 growing season. Volunteers from the Water Stewards program, Master Naturalists, Master Gardeners and students from Lions Gate Academy and neighbors from the surrounding area have been involved in planting large areas of native plants in 2021. Our initial installation and restoration process will be completed at the end of 2021, but our natural resources team will maintain this restoration for years to come.

7. **Island Lake Elementary School wildflower garden – closest address is 3575 Vivian Ave, Shoreview:** Don't park in the school parking lot, but instead park on Vivian Avenue across the street from Bobbie Thiesen Park. The garden is located across the street and up a hill in the NW corner of the playground next to the school. This vibrant, thriving native garden was originally conceived and built by an eagle scout in the summer of 2012 with design and plants supplies by Landscape Alternatives. Funding came from monies given in memory of a local woman scout leader. After several years of neglect, the garden was resurrected in August 2016 by the Shoreview Clean Water committee members, neighboring Wild Ones Big River Big Woods chapter members and the Island Lake principal at the time, his family and neighbors. The garden has 40 or more different species blooming through the spring, summer and fall.

8. **Lionsgate Academy – 599 Cardigan Road, Shoreview**: In 2018, Lionsgate Academy renovated an existing industrial building into a public charter school. The school faculty wanted to improve the grounds to make it a more user-friendly space for the students to get outside and interact with the environment. As part of the renovation, Lionsgate Academy removed 16,300 sq ft of asphalt from the existing parking lot and created an outdoor activity area consisting of an open space planted with pollinator friendly grasses that is surrounded by a native planting area. They also added a rain garden, which was planted by the students, to capture and filter rainwater runoff from the parking lot.

9. **Karen Eckman's gardens - 966 Cobb Road, Shoreview**: What appears to be two native plant gardens in this front yard located in Shoreview, is actually two raingardens – one parallel and one perpendicular to the street. Fed by a dry creek bed, the gardens capture, filter and absorb runoff from the roofs and sloped clay backyards of the adjoined properties. This 14-year old project, created by Karen Eckman, a member of the Wild Ones Big River Big Woods chapter and the St. Paul Audubon Society is constantly evolving through plant editing and new additions.

10. **Lake Owasso County Park – closest address 370 Owasso Blvd, Shoreview**: In 2018, Ramsey County Parks collaborated with the City of Shoreview and Ramsey-Washington Metro Watershed District (RWMWD) to design a phased improvement plan for the Lake Owasso County Park area. Improvements were made to the water main, sanitary sewer, and stormwater infrastructure at the park as well as along North Owasso Boulevard. The water quality improvements include the installation of permeable pavers, permeable asphalt, rain gardens and other native planting areas. The park also features net zero facilities through solar energy and a nature play space. The improvements were installed to help filter rainwater runoff that would otherwise drain untreated into Owasso and Wabasso Lakes.

11. **Shoreview 2019 Street Improvement Projects in Lake Wabasso neighborhood:** Located off Soo Street just north of North Owasso Boulevard – Janice Street, Centre Street, Cottage Place (see map for details). 0.5 acre of permeable concrete block roadway with a rock storage layer that varies in depth from 1 to 2-feet was installed to collect stormwater runoff from the impervious portions of the roadway. The permeable pavement and rock storage layer are able to store and infiltrate over 2-inches of runoff from the impervious portions of the roadway, approximately 1-acre. Due to the installation of the permeable pavement a direct stormwater discharge into Lake Wabasso was eliminated.

12. **Shoreview 2009 Porous Concrete project in Lake Owasso neighborhood:** Located off Rice Street just to the south of North Owasso Boulevard – Jerrold Avenue, Woodbridge Street, Edgewater Avenue and

Owasso Lane East (see map for details). Permeable concrete with a rock storage layer that varies in depth from 1 to 2 feet was installed for all streets in the neighborhood, 1.75-acres. At the time, it was the largest permeable concrete project in the US. The permeable concrete and rock storage layer are able to store and infiltrate over 2-inches of runoff from the surrounding impervious surfaces, approximately 3-acres. Due to the installation of the permeable concrete, two direct stormwater discharges into Lake Owasso were eliminated.