2023 ANNUAL REPORT

QUALITY WATER *for* QUALITY LIFE

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

ANNUAL REPORT

2023

YEAR IN REVIEW

Looking to be a part of your local watershed? (651) 792-7950 for more information.

Tina Carstens
Administrator

OUR WORK STRIVES TO BE PROACTIVE *and* STRATEGIC IN CREATING A RESILIENT SYSTEM

THE FOCUS OF OUR WORK OVER THE LAST FIVE YEARS HAS BEEN TO NOT ONLY ADJUST TO CHANGE BUT ALSO ADAPT AND THRIVE IN THE MIDST OF IT. THIS CHANGE APPLIES TO RAPIDLY SHIFTING CLIMATE CONDITIONS AND OUR CONTINUING EFFORTS TO SEEK NEW IMPROVEMENTS IN WATERSHED MANAGEMENT AND OUR WAYS OF WORKING.

When it comes to our climate, it can often feel like we are operating in two different worlds on a regular basis. We anticipate the next period of exceptionally wet weather, and we have invested funding, time, and expertise into studies and projects to mitigate flooding risk. At the same time, it is hard to ignore the impact the last few years of drought had on our ecosystems and the water quality of our lakes. Our work strives to be proactive and strategic in creating a resilient system in both conditions. In 2023, we welcomed two familiar faces, Mark Gernes and Benjamin Karp, to our board. Their unique insights and perspectives from their respective fields have enriched our discussions and decisions.

I am deeply grateful for the commitment and expertise each of our board members brings to District leadership, and I look forward our continued collaboration to achieve our strategic goals.

We also saw a transition in our team as two longtime staff, each with over 20 years at the District, retired. Bill Bartodziej and Simba Blood's dedication and hard work have left a lasting legacy at RWMWD. It also provided us an opportunity to consider how to grow and improve the organization as we welcomed new staff onboard. We invested in our commitment to DEIA best practices, which is part of our journey to become a more diverse, equitable, and inclusive organization. Steps on that path have included adjustments to our stewardship grant program, working with similar organizations to diversify the water workforce, creating a more accessible website, and completing an equity audit with a widely reputed contractor.

I invite you to delve into the pages of our 2023 Annual Report, which maps out how we have continued to evolve with the changes in our environment, the watershed management field, and the communities we serve. It is also a testament to our collective dedication to preserving and enhancing our watershed now and into the future, whatever changes may come.

rwmwd.org

Board Members & CAC Advocates Watershed Staff

2023 CITIZEN ADVISORY COMMITTEE MEMBERS

Cliff Aichinger
John Chikkala
Jill Danner
Randee Edmundson
Hallie Finucane
Mark Gernes
Jennifer Gruetzman
Ben Karp
Katheryn Keefer
Stuart Knappmiller
Dana Larsen-Ramsay
Tammy McCulloch
Gary Nelson
Glen Olson
Gary Schroeher
Scott Ramsay
Karen Wold
Stephanie Wang

2023 RWMWD BOARD

Matt Kramer	President
Ben Karp	Vice-President
Pam Skinner	Secretary
Mark Gernes	Treasurer
Val Eisele	Member

2023 STAFF LIAISONS

Sage Passi
Carrie Magnuson

RWMWD Offices

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RWMWD STAFF

2023 RWMWD STAFF

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Watershed Project
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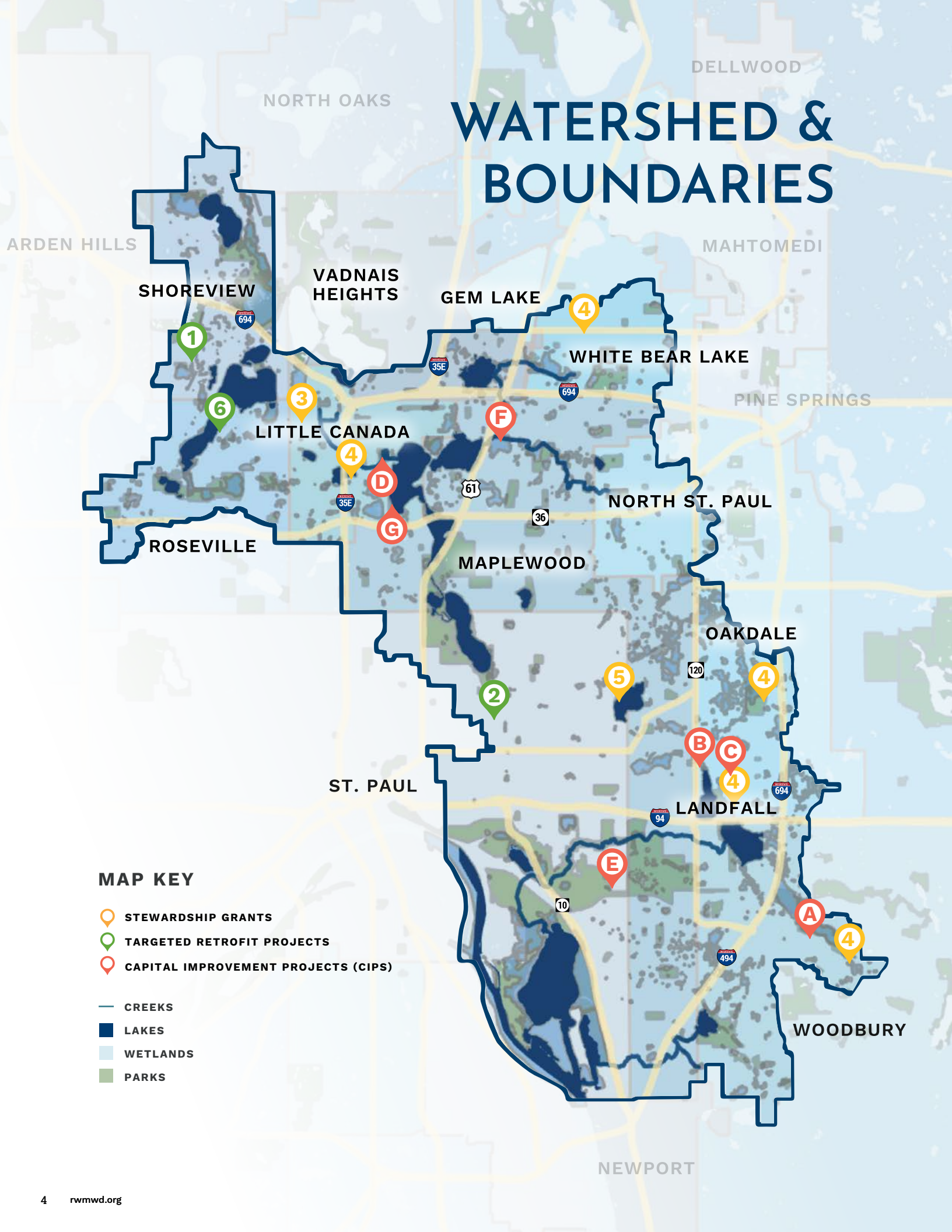
Natural Resources Specialist


WATERSHED & BOUNDARIES
DELLWOOD
NORTH OAKS
ARDEN HILLS
MAHTOMEDI
SHOREVIEW
VADNAIS HEIGHTS
GEM LAKE
WHITE BEAR LAKE
PINE SPRINGS
LITTLE CANADA
NORTH ST. PAUL
ROSEVILLE
MAPLEWOOD
OAKDALE
ST. PAUL
LANDFALL
WOODBURY
NEWPORT
694
35E
61
36
120
94
10
494
MAP KEY
STEWARDSHIP GRANTS
TARGETED RETROFIT PROJECTS
CAPITAL IMPROVEMENT PROJECTS (CIPS)
CREEKS
LAKES
WETLANDS
PARKS

View the watershed map to learn about each of the waters we manage.

rwmwd.org/water

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

OUR MISSION

To **PRESERVE** and **IMPROVE** water resources and related ecosystems to **SUSTAIN** their long-term health & integrity and **CONTRIBUTE** to the well-being and engagement of stakeholders within the community.

OUR BACKGROUND

Ramsey Washington Metro Watershed District works across municipal boundaries to manage about 65 square miles that eventually drain into the Mississippi River, including 25 lakes, five streams and over 1,000 wetlands.

We contribute funding and technical expertise to water infrastructure projects, help regulate development through permitting, manage natural resources and educate the public on watershed issues. As a special-purpose unit of government, we were established in 1975 under what is now the Minnesota Watershed Act. This provides planning, regulatory and taxing authority to coordinate watershed management efforts between city, county and state agencies.

2023 PROJECTS & LOCATIONS

- A PFS Basin Paver Cleaning (East and West)
- B Tanners 7th Street Wetland Weir Maintenance
- C 5th Street Wetland Weir Maintenance
- D Gervais Creek Pond Filter Maintenance & Steep Slope Repair
- E Lower Afton Rd Treatment Bay and Sediment Removal
- F Kohlman Basin Upflow Treatment System Build
- G Gervais Beach Pond Berm Repair
- 1 Arbogast Underground Stormwater Filter
- 2 Roosevelt Homes Phase 1
- 3 Escape Climbing
- 4 Enhanced Street Sweeping Program
- 5 Beaver Lake Shoreline Restoration
- 6 Lake Owasso Phase 2 Shoreline Restoration Project

Capital Improvement & Stewardship Grants

2023 PROJECTS HIGHLIGHTS

CLICK HERE TO LEARN MORE ABOUT PROJECT HIGHLIGHTS

Capital Improvement Projects and the Stewardship Grant Program work in concert to create effective and long-lasting benefits to water quality, manage flood risk, and support local ecology. Capital Improvement Projects are large scale measures to manage flood risk and improve water quality. They include stormwater treatment systems, stormwater outlet control structures, and other stormwater infrastructure improvements. The Stewardship Grant Program offers financial, educational, and technical assistance to protect and improve water resources within our watershed. These grant funds are available to public or private landowners for projects designed to filter and reduce runoff, protect groundwater, restore native ecosystems, prevent flooding, and lessen the effects of drought.

ARBOGAST UNDERGROUND STORMWATER FILTER

This feature in Shoreview captures and treats rainwater runoff from 175 acres of the surrounding neighborhood, improving water quality before discharging to Lake Emily. Water flows into a 62-foot by 24-foot by 7-foot concrete vault underground and through the filter media before rejoining a storm sewer along Arbogast Street. The underground vault design optimizes space and allows us to use external controls to monitor the filter's performance and adjust water flow rates. Sand in the filter compartments removes solids like leaf litter from stormwater and some pollutants, and the added iron dissolves the phosphorus. It is estimated that the filter can treat 90% of the stormwater it receives and will remove approximately 7 lbs of phosphorus annually. This reduction in phosphorus will help prevent algal blooms and eutrophication in the lake.

Woodbury Sweeper Wrap

Owasso Shoreline Restoration

ROOSEVELT HOMES PHASE 1

Roosevelt Homes, a multi-family public housing facility owned and operated by St. Paul Public Housing Agency, was experiencing significant flooding, which impacted the lower level of the Roosevelt Community Center. It also caused local flooding in public spaces and individual housing units across the property. RWMWD completed two modifications to combat this issue in the fall of 2023. These modifications included the installation of one new basin and the expansion of an existing basin to increase temporary stormwater storage onsite, both of which will become raingarden sites in 2024.

ESCAPE CLIMBING

Two rain gardens capture runoff from the rooftop and parking lot at this factory and office building for a climbing equipment manufacturer based in Little Canada. The gardens replaced over 1,550 square feet of asphalt, matching the business sustainability goals of increasing pollinator habitat on campus and installing features to improve water quality.

ENHANCED STREET-SWEEPING PROGRAM

Studies conducted by the University of Minnesota and other research facilities have shown that street sweeping effectively reduces phosphorus in lakes and streams. Street sweeping can significantly reduce the amount of leaf litter, yard waste, road salt, and other pollutants that get swept from the street into grates and then into the stormwater system. RWMWD began a street-sweeping study to determine if and how grant funding could increase street-sweeping in cities within district boundaries. After evaluating existing conditions and identifying areas of the district that could most benefit from additional street sweeping, we determined funding for staff time or contractor costs to complete additional sweepings would make the most impact.

In 2023, RWMWD partnered with neighboring South Washington Watershed District to provide funding for two additional rounds of street sweeping in Woodbury. We also worked with city staff to design a wrap to increase the program's visibility and educate residents on its benefits. Other cities that received grant funding during this project pilot phase were Landfall, Oakdale, Little Canada, and White Bear Lake. The data collected from this pilot allowed us further to assess the costs and benefits of the increased sweeping and adjust the program accordingly before expanding to additional cities. Initial data has been promising, and we will continue the grant program in 2024.

BEAVER LAKE SHORELINE RESTORATION

Ramsey County Soil & Water restored 230 feet of eroding shoreline on Beaver Lake with funding assistance from RWMWD. Ramsey County created a buffer of native plants along the shoreline to address erosion, create pollinator habitat, and improve aesthetics,. They then installed aquatic plants on the lake bottom to secure the sediment. Previously, those fishing at the lake edge trampled native plant vegetation. The county added limestone blocks in two locations for a dedicated fishing space to prevent further impact on shoreline buffer plants.

LAKE OWASSO PHASE 2 — SHORELINE RESTORATION PROJECT

Eight shoreline restorations were completed at homes along the southeast corner of the lake.

The project was designed to create a diverse, natural shoreline buffer, establish wildlife and pollinator habitat, filter pollutants from stormwater runoff, and provide competition for invasive species in an aesthetically pleasing manner. Each site received management for invasive species, bank and shoreline stabilization, and a custom-designed planting of native seed and plant plugs. Each design was adjusted according to the resident's needs, elevation, remnant plant communities, and anticipated soil and hydrologic conditions.

2023

Education Communication & Outreach

THE SEASONS OF SCHOOL-BASED WATERSHED EDUCATION

CLICK HERE TO LEARN MORE ABOUT EDUCATION & OUTREACH

20

CLASSES FROM SEVEN SCHOOLS HELPED W/ ROUND LAKE PLANTING PROJECT

Many of our educational efforts focus on intergenerational collaborations and engagement with projects tied to RWMWD's initiatives, community partnerships and participation in activities initiated by RWMWD restoration work in the spring. Service learning activities and hands-on learning allow students to apply watershed management concepts to their communities and nearby natural spaces.

Each year we appreciate the support that Ramsey County Master Gardeners provide with classroom activities, working with students during our restoration projects, and their engagement in the spring rain garden clean-ups with student teams. We also depend heavily on our water stewards, who support us in classrooms, help with our school planting and shoreline projects, assist at outreach events, provide ongoing chloride education for the public, and conduct many other education and advocacy efforts in their communities.

1,635
NEWSLETTER RECIPIENTS

FALL

When school starts in September and early October, we introduce many of these classes to what a watershed is, where their school is in our Watershed District, and what the water quality issues may be in their nearest body of water. We orient students using maps illustrating how water from their school gets to the closest body of water. As the schedule and weather allow, we plan either bus trips or walking field trips to a nearby lake/creek or wetland.

We introduce students to the pollutants in run-off using authentic materials and discuss what impacts a stream, a lake, or a wetland's water quality. We bring in water samples for students to measure their water quality parameters. The fall season is short, but we try to fit in some opportunities for outdoor exploration with multiple schools in the fall. In contrast, other schools get this hands-on orientation in real-life scenarios in the spring in conjunction with our restoration projects or other field trips.
The education program kicked off the new school year with pre-lessons and walking field trips with L'Etoile du Nord's third, fourth, and fifth-grade classes (two classes per grade) who walked to nearby Ames Lake and explored the habitats around the lake. We went outside with classes from Farnsworth Aerospace and explored the issues of run-off into nearby Lake Phalen from storm drains near their school.

Six Island Lake Elementary fifth-grade classes from Shoreview taught the basics of watersheds, studied maps, and practiced using water quality monitoring tools in the classroom. Field trips to Vadnais Snail Lake Regional Park allowed students to explore the large wetland complex in their watershed. Their buses then drove to Snail Lake so classes could work in teams to monitor water quality. Each class hiked to Snail Lake Regional Park to explore the habitats around the Peanut Pond wetland complex, where we restored and collected plant samples of the native plants growing onsite.

In the fall at Weaver Elementary, in addition to our typical introductory watershed lessons, we included a new activity by pairing the three fifth-grade classes with their kindergarten buddies. The fifth graders took their buddies outside to follow how the water flows from the rooftop, pavement, and into the school's rain garden. They also introduced the kindergarteners to the rain garden's water quality and quantity benefits, including its value as a pollinator habitat.

WINTER

At the start of each calendar year, we engage classes in seed starting and growing native plant seedlings with the support of our education staff, Ramsey County Master Gardeners, and Water Stewards. Over the many years that we have been growing native plants in classrooms, we have developed a strong working relationship with the Ramsey County Master Gardener program that has served us very well both in the classroom and out in the field with our various planting projects.

Twelve classes at American Indian Magnet, Hazel Park Academy, L'Etoile du Nord, Weaver Elementary, and Lionsgate Academy grew native plants from seed with the help of volunteers. We gave some of these plants to the public at our annual WaterFest in June. We also planted some seedlings at the East Side Boys and Girls Club native garden site and other sites around the District. Staff and volunteers shared many of these plants with the public on Earth Day at Harriet Alexander Nature Center in Roseville, the National Night Out celebration on July 31 at the East Side Boys and Girls Club in St. Paul, the Urban Roots' late summer Rivoli Bluff Bash in St. Paul and at the August 1 Pollinator Festival at Lake Phalen organized by Wakan Tipi Awanyankapi, a native-led East Side environmental conservation nonprofit. At these events, we also provided many hand-outs on watershed-related topics for the public.

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SPRING

In spring 2023, our Education team broke our record and doubled the usual number of classes engaged in restoration projects. At Round Lake, twenty classes from seven schools planted native species near Round Lake with the volunteer support of Ramsey and Washington Master Gardeners and Minnesota Water Stewards. These classes also used binoculars onsite to observe birds and other wildlife and performed water quality monitoring tests.

Two L'Etoile du Nord fifth grade classes kicked off our Wilderness in the City project efforts by planting in early June at the large-scale demonstration native garden site in Battle Creek Regional Park in Maplewood with support from Blue Thumb/Metro Blooms staff, our education staff, Water Stewards, Master Gardeners and other volunteers recruited by Wilderness in the City. planting projects.

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2023

In Pictures

Natural Resources

172K
172,000 SQFT OF RESTORATION TREATED WITH PRESCRIBED BURNS

2000+
PLANT PLUGS INSTALLED ON SHORELINE OF LAKE OWASSO

100+
ACRES OF RESTORATION MAINTAINED

CONSERVE & RESTORE

CLICK HERE TO LEARN MORE ABOUT NATURAL RESOURCE ACTIONS

Natural Resources conserves and restores aquatic habitats, wetlands, and their surrounding subwatersheds to improve water quality, mitigate flood risk, reduce erosion, and provide critical resources for wildlife. We also manage aquatic invasive species, such as common carp, through innovative monitoring and removal methods. After projects are complete, our comprehensive maintenance work ensures the continued success of these restorations.

KELLER REGIONAL PARK RESTORATION

Round Lake, located in the Keller Regional Park in Maplewood, is a small, 30-acre lake surrounded by parkland that flows to Lake Phalen through two channels. We began restoration work in the area as part of a multi-phase project that will convert over 6 acres of mowed turf grass to native prairie, providing water quality and wildlife habitat

benefits. Project work began with grass treatment and buckthorn removal in early 2023. Natural Resources teamed up with Education staff to deliver classroom curricula centered around the restoration. These students then assisted with installing over 5,000 plants along the Round Lake shoreline. In the fall, the Citizen Advisory Committee volunteers assisted with a second round of buckthorn removal to prepare more of the site for planting. Further improvements to the Keller Creek buffer and Keller Lake shoreland will be completed in later phases of the project.

LAKE OWASSO SHORELINE RESTORATION EXPANSION

Lake Owasso County Park in Shoreview underwent partial reconstruction, which included pervious pavement on Owasso Boulevard and other stormwater improvements. After construction was completed, RWMWD partnered with Ramsey County through a Conservation Partners Legacy Grant to restore 500 feet of shoreline between the beach and boat ramp at Lake Owasso in Shoreview from what was previously grass and invasive plants. In 2023, restoration work expanded further into turf grass areas with over 2,000 native plants added and further seeding in the fall. Plants and seeds used for this project focused on diversity and early blooming forbs that are critical for pollinators and other native plants for a robust and healthy native buffer. The project aims to reduce erosion and improve water quality, provide high-quality habitat to benefit fish, pollinators, and other wildlife, and create a resilient and beautiful shoreline for park patrons. Many thanks to Ramsey County staff, Conservation Corps Minnesota & Iowa, Young Adult Career Academy interns, and Ramsey County Corrections for their assistance on this restoration.

SNAIL REGIONAL PARK: WETLAND A RESTORATION MAINTENANCE

RWMWD continues its commitment to high-quality, long-term maintenance of restoration areas with its care of the Wetland A restoration at Snail Lake Regional Park in Shoreview. Continuing drought and falling water levels created ideal conditions for an increase in reed canary grass populations along the north shoreline of Wetland A. Exposed, moist soils from the declining water levels allowed the reed canary grass to spread easily, which puts stress on the recently restored area. Natural Resources staff successfully treated the population with an aquatic-safe herbicide and sowed native seeds in the management areas that staff previously collected from the site.

KELLER GOLF COURSE: CELEBRATING 20 YEARS OF PARTNERSHIP AND RESTORATION

RWMWD has partnered with Keller Golf Course since 2003 to efficiently manage water runoff and create extensive ecologically diverse natural areas. In 2003, RWMWD provided financial and technical support to install a natural shore buffer around a water hazard, an innovative practice at the time. When the course closed for two years to undergo a $12 million renovation, RWMWD foresaw the opportunity to complete a large scale restoration of no-play areas. This renovation presented an opportunity for a large-scale $250,000 ecological restoration and water management project funded by RWMWD, Ramsey County, and the Minnesota Board of Water and Soil Resources. The network of 30 restored natural areas contributes to bird, pollinator, and wildlife habitat in the greater Phalen Chain of Lakes Corridor. Overall, in these past two decades, we have restored 30 acres of natural space, supporting well over 200 native plant species. Keller Golf Course is a nationally certified Audubon Cooperative Sanctuary, with more than 110 species of birds documented onsite.

CARP MANAGEMENT

Overall, the carp population throughout the District appears to be either under or slightly above the sustainable threshold, showing that efforts made over the past several years have proven successful. We anticipate carp management methods will be similar in 2024, utilizing various surveys, removals, and monitoring of carp and native fish populations. Staff plans to monitor the goldfish population in Markham Pond and determine if any management efforts are needed at that location.

2023

Events & Awards

WATERFEST COMMUNITY EVENT JUNE 3, 2023

LAKE PHALEN, MN
WaterFest
RWMWD
EXPLORE. LEARN. EXPERIENCE.

Celebrating clean lakes with our watershed community

ANNUAL AWARDS


Sri Sidabathuni and Linda Jones


Nick Gasho


Koreena Moua


Konrad Schmidt


Craig Andresen

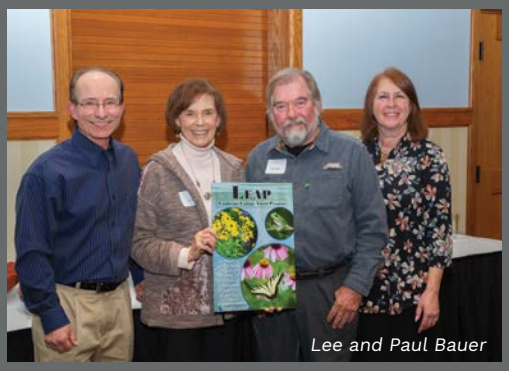
NOV. 16, 2023


Mark Maloney


Mark Nelson, Laura Heaslip, Ryan Nelson


Dr. Pam Skinner


Maplewood's Prairie Farm Preserve


Lee and Paul Bauer

Landscape Ecology Awards Program

The Landscape Ecology Awards Program recognizes landowners in the Ramsey-Washington Metro Watershed District, including private residences, public and commercial properties, who use management practices that support clean water and wildlife habitat.

2023 L.E.A.P. RECIPIENTS

- Linda Jones & Sri Sidabathuni (Saint Paul)
- Prairie Farm Preserve (Maplewood)
- Lee & Paul Bauer (Roseville)
- Laura Heaslip, Mark Nelson, Ryan Nelson (Shoreview)

Watershed Excellence Awards

Watershed Excellence Awards recognize our volunteers and partners who make an extraordinary contribution to watershed conservation, education, and community outreach. These clean water champions are celebrated at our annual ceremony.

CONSERVATION CHAMPION AWARD recognizes an individual or organization that demonstrates innovative leadership and is a significant role model in the protection of our water resources.

Awarded to Konrad Schmidt—Konrad has invested significant time and money to complete important and valuable fish research that public agencies do not have the staffing or resources to conduct in RWMWD, the metro area, and the state.

OUTSTANDING EDUCATOR AWARD recognizes a teacher or educational leader who has shown exceptional commitment and capacity to engage students or the public in watershed education and stewardship initiatives.

Awarded to Nick Gasho—Since 2009, Nick has led over 350 students in watershed-related service-learning projects.

OUTSTANDING PARTNER AWARD recognizes an individual, organization, entity's capacity to forge and demonstrate significant long-term partnerships and increase environmental stewardship/ awareness in our district.

Awarded to Mark Maloney—A retired public works director at shoreview, Mark worked in partnership with RWMWD to bring the city to the cutting edge of sustainability and helped Shoreview become a leader in water conservation.

COMMUNITY STEWARD AWARD recognizes an individual or group who has taken on the mission of caring for a lake, pond, wetland, stream, natural area or stormwater feature adjacent to a water body.

Awarded to Craig Andresen—Craig has dedicated himself and his business ventures to manage remnant natural communities and to preserve plants that improve habitat for wildlife.

COMMUNITY LEADERSHIP AWARD recognizes an individual or group who has taken on the mission of caring for a lake, pond, wetland, stream, natural area or stormwater feature adjacent to a water body and giving it your special attention, love and care.

Awarded to Koreena Moua—Program director of the Eastside Boys & Girls Club. Through her partnership with rwmwd, she has inspired reverence for the beauty of wetlands and responsibility sustaining our wetland health through multiple onsite projects and activities.

COMMUNITY CONSERVATION ADVOCATE AWARD recognizes an individual who has demonstrated exceptional leadership and played a significant role in watershed stewardship and community engagement.

Awarded to Kathy Sidles—A long-time Saint Paul parks volunteer who embodies the definition of stewardship through hundreds of hours of volunteer service to parks and trails.

ROGER LAKE STEWARDSHIP EXCELLENCE AWARD recognizes an individual who has played a significant role in watershed education, community empowerment and demonstrated outstanding leadership and organizational support in water resources stewardship.

Awarded to Dr. Pam Skinner—For nearly 30 years, the board has benefited from Pam's dedicated service, commitment, guidance, enthusiasm, and long-range vision.

Inspection & Permitting

PROTECTING OUR WATERS

LEARN MORE ABOUT PROJECT HIGHLIGHTS

Multiple government entities can have distinct roles in protecting our waters at the local, state, and national levels. RWMWD, like other watershed districts, acts as a local regulator. Our permitting standards include requirements for stormwater management, flood control, wetland management, erosion and sediment control, and illicit discharge and connection to the District's stormwater conveyance systems. Permits are required for development and redevelopment projects that disturb 1 acre or more of soil or involve land alteration to wetlands or floodplains. Permitting rules require that sites greater than 1 acre capture 1.1" of rainfall and take measures to prevent erosion and runoff pollution during and after construction.

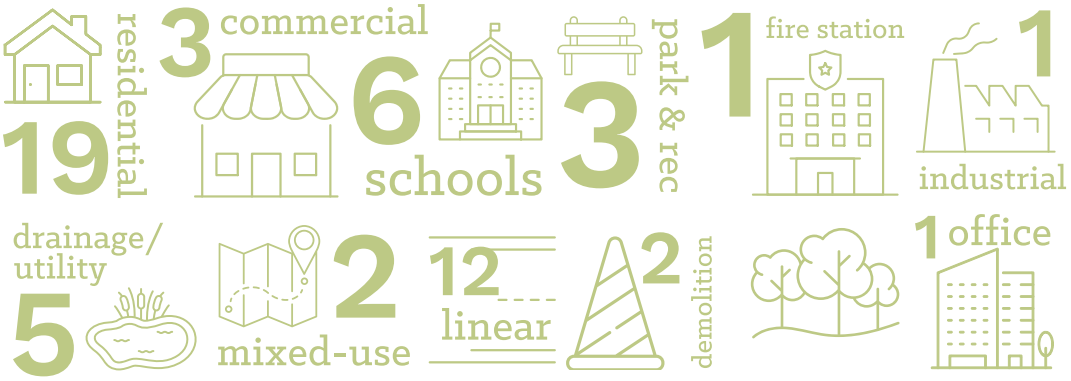
WETLAND CONSERVATION ACT ADMINISTRATION

RWMWD is the Local Government Unit responsible for administering the Wetland Conservation Act within its boundaries, except in the City of St. Paul and the Minnesota Department of Transportation right-of-way. As a Local Government Unit, the District regulates wetlands in the watershed, including reviewing wetland boundaries. RWMWD has also completed a District-wide wetland inventory and classification that determines required wetland setbacks for development projects for natural resource protection and erosion prevention.

2023 INSPECTIONS AND PERMITTING HIGHLIGHTS

The Heights Phase 1 (St. Paul) The Heights is a 112-acre project at the former Hillcrest Golf Club off Larpenteur Avenue in St. Paul. The St. Paul Port Authority is redeveloping the site into a mixed-use residential, commercial, light industrial, and green space. In 2023, developers completed contamination remediation from the soil and mass grading is ongoing to prepare for future construction. RWMWD has a "no net loss" wetlands policy, which means that all wetlands impacted by the redevelopment will be replaced at a 1:1 ratio. RWMWD

2023 Active Construction Sites by Project Type



inspection staff have conducted biweekly inspections at the site since August 2023, when soil began to be moved onsite. They will continue these regular inspections throughout the many phases of the project.

METRO TRANSIT—GOLD LINE BRT

METRO Gold Line bus rapid transit is a 10-mile line that aims to connect people across the region to job centers, housing options, transit stations, and key destinations in the Interstate 94 corridor. It is Minnesota's first rapid bus line to operate primarily within bus-only lanes. The line will connect cities in the District, including St. Paul, Maplewood, Landfall, Oakdale, and Woodbury. Passenger service on the Gold Line is expected to be available in 2025.

As part of this project, 34 permanent stormwater Best Management Practices (BMPs) will be constructed within RWMWD, surpassing our stormwater treatment requirements. These BMPs, including infiltration basins, filtration basins, dry detention ponds, wet detention ponds, underground storage systems, and structural pollutant control devices for pretreatment, are designed to ensure the project's full compliance with regulations.

RWMWD GOLD LINE PROJECT INSPECTIONS

District staff have regularly inspected the Gold Line construction site within district boundaries since fall 2022 alongside the general contractor, transit consultants, and MnDOT to ensure proper function and maintenance of erosion and sediment control Best Management Practices (BMPs). These practices help prevent negative impacts on downstream water bodies and nearby properties during rainfall or snowmelt events. We anticipate 2024 will be another full construction season with lots of active work within the corridor. District staff will continue inspections and enforcement at the site until site work is finished, land is restored, and all stormwater treatment BMPs are functioning properly.

BEST MANAGEMENT PRACTICE INSPECTIONS

A seasonal inspection intern, Nicole, focused on inspections of permanent permitted best management practices on small and midsize private properties. These inspections ensure that each stormwater treatment BMP functions properly and identifies repair or maintenance needs. During her tenure with the District, Nicole inspected 246 rain gardens, filtration basins, porous pavers, and wet ponds.

2023

Water Monitoring

CLEAN, HEALTHY & SAFE WATERS

CLICK FOR WATER MONITORING DETAILS

Throughout the year, RWMWD engages in comprehensive water quality monitoring, tracking, and enhancement initiatives to ensure our waters remain clean, healthy, and safe. Utilizing scientifically sound methods, our Lake and Pond Water Quality Monitoring Program, in collaboration with Ramsey County, collects samples from district lakes every two to three weeks from June through September. This data helps prioritize water quality improvement projects across the watershed and is accessible to both public and private entities.

In 2023, we observed an improvement in the water quality of Carver Lake and Lake Owasso, while the water quality in Kohlman Lake worsened. Importantly, there has been a consistent long-term trend of improving water quality for the streams we monitor, including Battle Creek, Fish Creek, Kohlman Creek, Beltline Interceptor, and Gervais Creek. This sustained improvement is a testament to the effectiveness of our water quality improvement efforts. However, it's crucial to note that this improvement has slowed down in recent years, and some trends have started to reverse over the past decade. Based on the data we have so far, chloride levels in our lakes and streams are either getting worse or staying the same rather than improving. This matches an overall statewide trend where chloride pollution is a growing concern.

The long-term improvements in water quality suggest that our efforts to implement various Best Management Practices (BMPs) have been successful. Best Management Practices in the field of watershed management are practical methods, typically the installation of projects to improve water quality, reduce flooding, or control erosion. However, changes in weather patterns, such as increased rainfall, might also have helped improve water quality. Over the past two decades, we've started using newer BMPs that help remove dissolved phosphorus in addition to particulate phosphorus.

BEAM AVENUE FILTER

This iron-enhanced sand filter has been monitored since 2009. From 2009 to 2018, it removed 70-93% of total phosphorus and 10-80% of orthophosphate. However, from 2021 to 2023, performance has varied, possibly due to drought conditions and media replacement in 2022.

WOODLYN AVENUE FILTER:

This vegetative filter was monitored from 2012 to 2018, with total phosphorus removal ranging from 22-75%. In 2018, it removed 75% of total phosphorus but had no orthophosphate removal. In 2022, it showed over 90% removal for total phosphorus, orthophosphate, and total suspended solids, likely due to drought conditions. However, performance declined again in 2023, indicating the need to replace the media that filters out pollutants.

SPENT-LIME MEDIA FILTRATION SYSTEMS

We have three of these systems in the District. Comparing them to iron-enhanced sand filters helps us understand their strengths and weaknesses. The Wakefield Experimental Filter was monitored from 2012 to 2016, showing varied performance. The Frost Kennard Filter showed decreased performance from 2018 to 2019 and mixed results in 2022 and 2023. Willow Pond is a new system and will start monitoring in 2024.

IN 2023, KOHLMAN LAKE WAS REMOVED FROM THE MPCA LIST OF IMPAIRED WATERS.

THE LAKE HAS BEEN LISTED AS IMPAIRED SINCE 2003.

WAKEFIELD FILTER

In 2022, the Wakefield filter, which previously contained spent lime, had its media replaced with iron and granite sand. The filter's performance for phosphorus and orthophosphate improved significantly in 2023, achieving over 70% removal for these pollutants and total suspended solids. Our continued efforts and monitoring will help us maintain and improve the water quality in our lakes and streams.

By the Numbers

2023 GENERAL FUND BUDGET

Engineering	$ 671,000
Attorney	$ 45,000
Managers	$ 10,000
Finance/Auditing	$ 75,000
Miscellaneous	$ 83,500
Administrative	$ 2,445,000
Program Activities	$ 1,032,000

TOTAL = $ 4,361,500

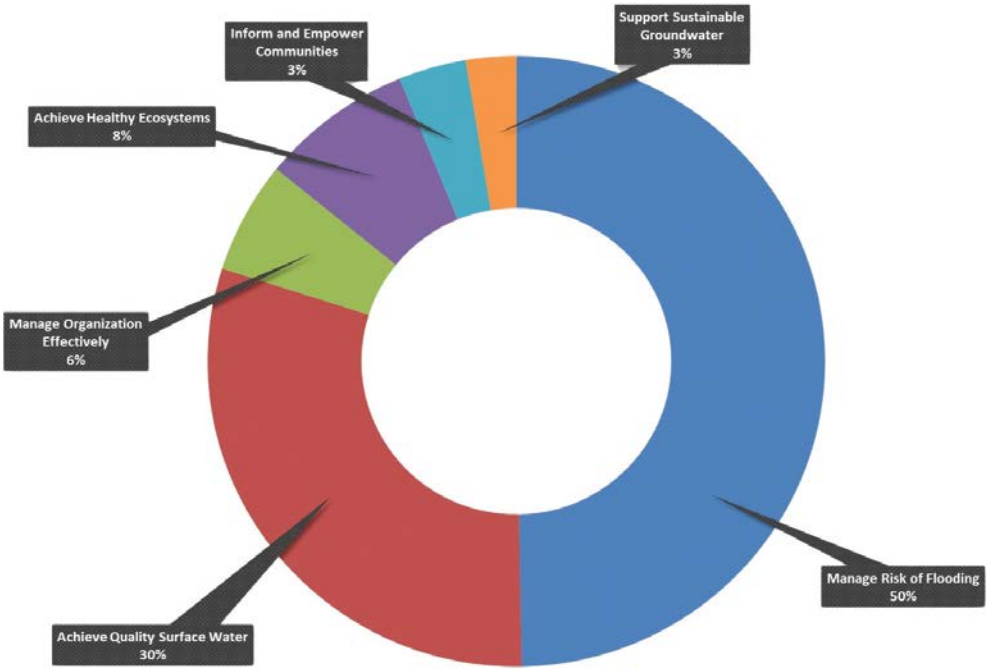
2023 CAPITAL IMPROVEMENT BUDGET

Maplewood Mall SRF Loan Debt Service	$ 92,441
Beltline and Battle Creek Tunnel Repair Debt Service	$ 302,963
Targeted Retrofit Projects	$ 1,500,000
Stewardship Grant Fund	$ 1,128,000
Fish Creek Tributary Restoration	$675,000
Project Repair & Maintenance	$ 1,500,000
Wetland Restoration Projects	$ 500,000
Flood Risk Reduction Fund	$ 5,200,000

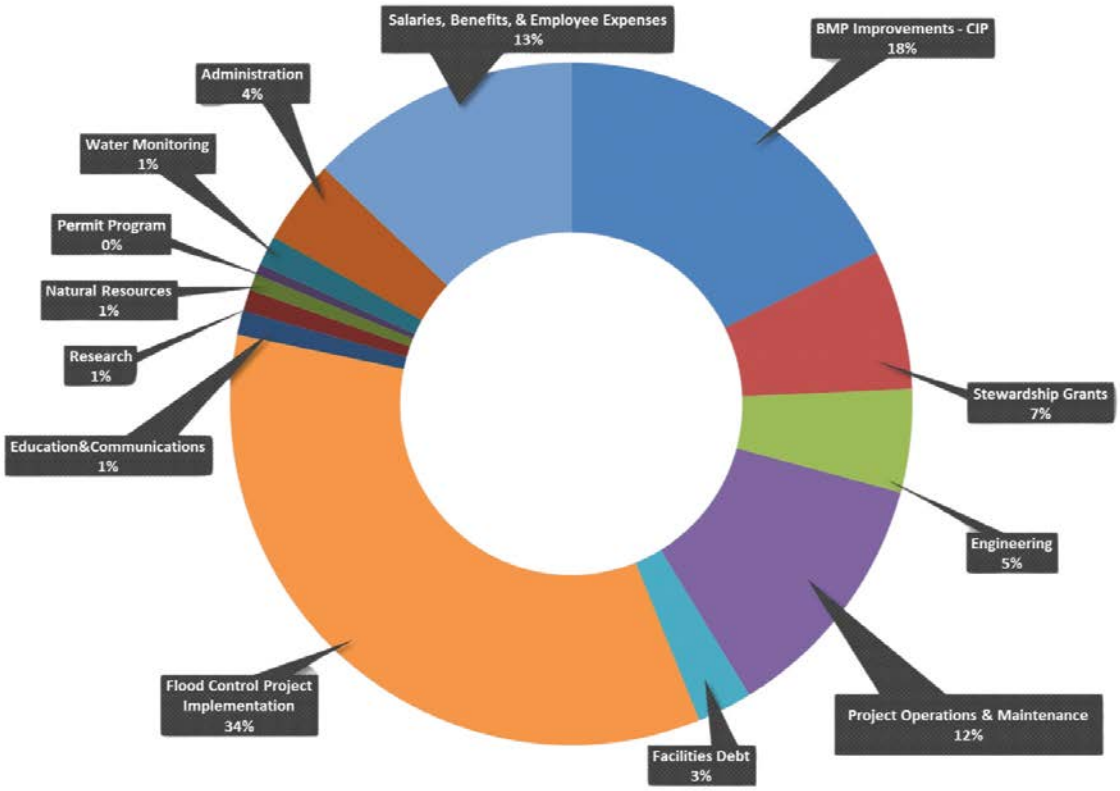
TOTAL = $10,898,404

2023 Total Budget	**$15,259,904**
2023 Total Levy	$7,116,500
Levy Increase from 2022 to 2023	5.22%

2023 BUDGET BY PLAN/GOAL



2023 BUDGET BY PROGRAM



RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

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