



**RAMSEY-WASHINGTON**  
METRO WATERSHED DISTRICT



**ANNUAL  
REPORT  
2020**



# TABLE OF CONTENTS

## FEATURES

### INTRO

Message from the Administrator.... 1

### OVERVIEW

The Watershed .....4-5

Staff & Board ..... 2-3

RWMWD Boundary Map ..... 4

2020 Projects ..... 6

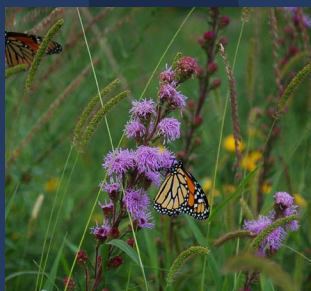
Education & Outreach..... 8-11

Natural Resources..... 12

Water Quality ..... 14

By the Numbers .....16-17

Financial Report Breakdown..... 18





**Tina Carstens**  
Administrator

# ADAPTING DURING A PANDEMIC

2020 required our staff, volunteers, and partners to adapt to unprecedented conditions due to the COVID-19 pandemic. Board meetings were moved online, and our office remained closed to the public as staff worked to engage residents and project partners remotely. Despite these challenges, it remained a year of many successes for the District. Habitat restoration work continued at Vadnais-Snail Regional Park, which provided exceptional opportunities to interact with visitors at a safe distance as park attendance increased throughout the 2020 growing season. We accomplished significant projects like the Eastside St. Paul Target project within our original timeframe. Although 2020 brought us a more typical rainfall year after several years of extreme rainfall, we continued studying the flood risk priority areas throughout the District. We looked more closely at Owasso Basin, Willow Creek, and Ames Lake areas in particular and worked with our partners and stakeholders to plan for reducing those flood risks.

Throughout the year, our priority was keeping board, staff, volunteers, and residents safe. I am proud of our Board and staff for quickly and comprehensively adopting COVID safety measures while continuing their exemplary work of preserving and protecting our water resources. We look forward to new opportunities to provide **Quality Water for Quality Life** to the District in the coming year.





## 2020 STAFF & PARTICIPANTS

### Watershed Staff, Board Members & CAC Advocates

#### 2020 RWMWD BOARD

Cliff Aichinger  
Marj Ebensteiner  
Pam Skinner  
Larry Swope  
Dianne Ward



#### 2020 CITIZEN ADVISORY COMMITTEE MEMBERS

Cliff Aichinger  
Jill Danner  
Randee Edmundson  
Hallie Finucane  
Mark Gernes

Jennifer Gruetzman  
Michele Hanson  
Kathryn Keefer  
Dana Larsen-Ramsay  
Dennis McComas

Linda Neilson  
Scott Ramsay  
Karen Wold

#### STAFF LIAISONS

Carrie Magnuson  
Sage Passi

### RWMWD Offices

2665 NOEL DRIVE  
LITTLE CANADA, MN 55117







**Tina Carstens**  
ADMINISTRATOR



**Paige Ahlborg**  
WATERSHED  
PROJECT MANAGER



**Debbie Barnes**  
DISTRICT SECRETARY



**Bill Bartodziej**  
NATURAL RESOURCES  
SPECIALIST



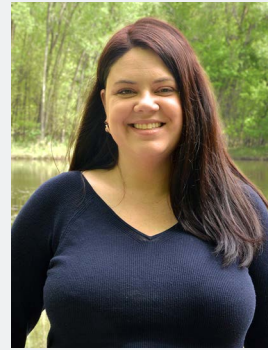
**Simba Blood**  
NATURAL RESOURCES  
TECHNICIAN



**Matt Doneaux**  
NATURAL RESOURCES  
TECHNICIAN



**Mary Fitzgerald**  
DISTRICT INSPECTOR



**Lauren Hazenson**  
COMMUNICATIONS &  
OUTREACH COORDINATOR



**Eric Korte**  
WATER MONITORING  
COORDINATOR



**Kyle Kubitza**  
WATER MONITORING  
TECHNICIAN



**Carrie Magnuson**  
GIS TECHNICIAN



**Shelly Melser**  
OFFICE MANAGER



**Sage Passi**  
WATERSHED EDUCATION  
SPECIALIST



**Lyndsey Provos**  
WATER MONITORING  
TECHNICIAN



**Nicole Soderholm**  
PERMIT COORDINATOR

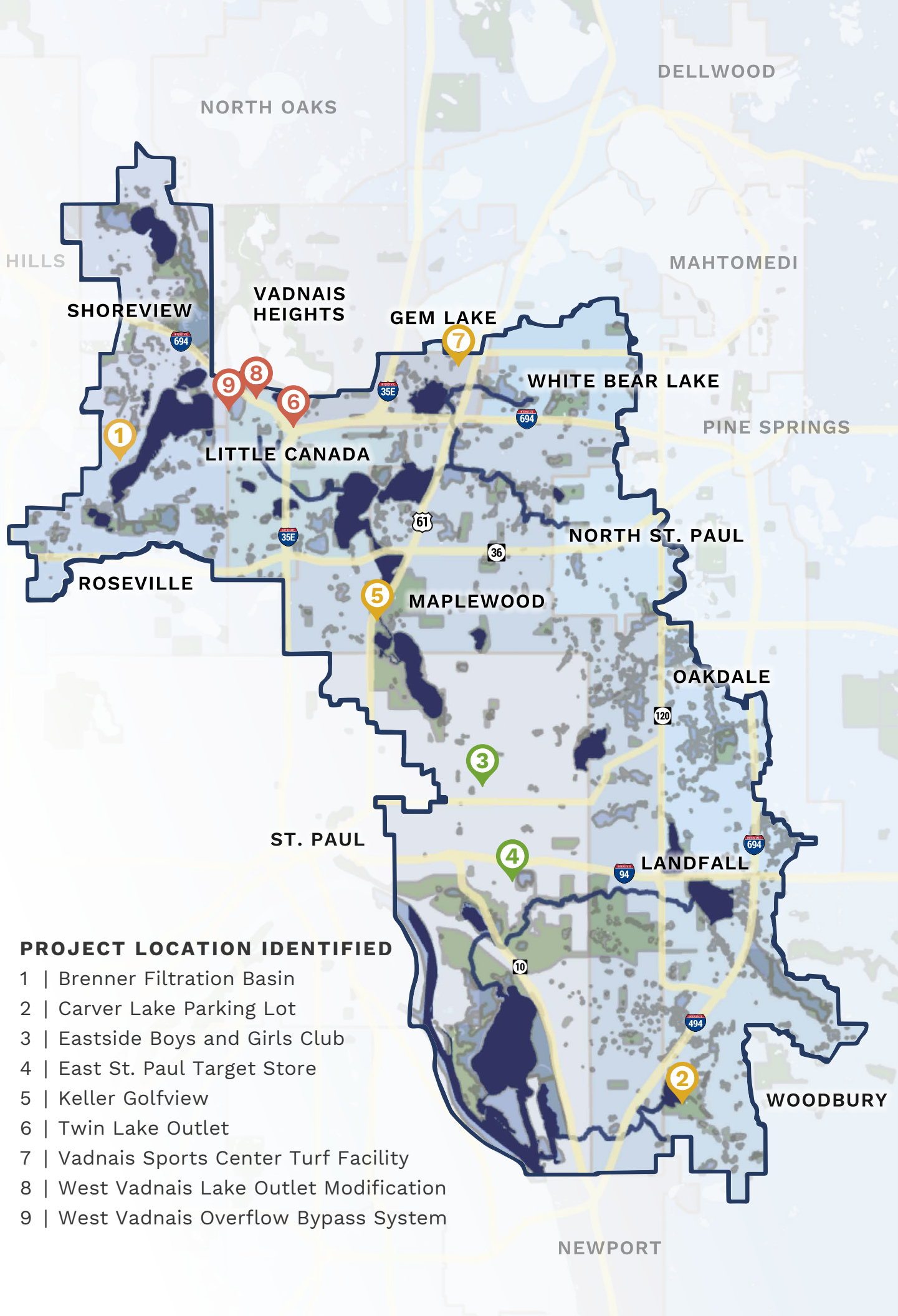


**Dave Vlasin**  
WATERSHED PROJECT  
COORDINATOR

# RWMWD STAFF



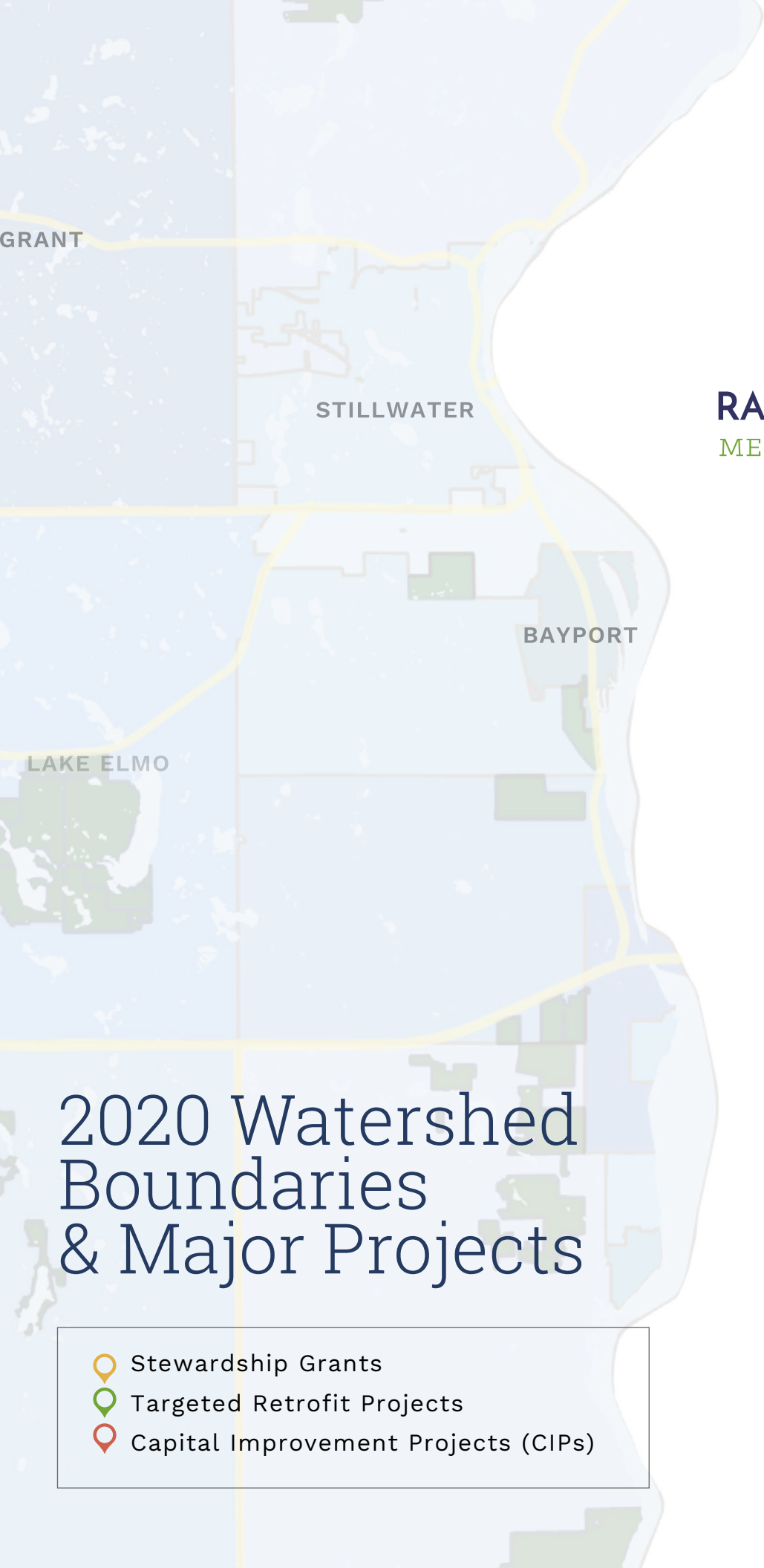
# BOUNDARIES & MAJOR PROJECTS



## PROJECT LOCATION IDENTIFIED

- 1 | Brenner Filtration Basin
- 2 | Carver Lake Parking Lot
- 3 | Eastside Boys and Girls Club
- 4 | East St. Paul Target Store
- 5 | Keller Golfview
- 6 | Twin Lake Outlet
- 7 | Vadnais Sports Center Turf Facility
- 8 | West Vadnais Lake Outlet Modification
- 9 | West Vadnais Overflow Bypass System





## 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 20 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.

# 2020 Watershed Boundaries & Major Projects

-  Stewardship Grants
-  Targeted Retrofit Projects
-  Capital Improvement Projects (CIPs)

## Stewardship Grants

“

*Our parking lot was a challenge before the Stewardship Grant project. For some events, we would be out with buckets trying to bail out large puddles before our youth showcase. Now it drains well and the plantings along the street are beautiful. We'll use the project to teach our youth about the impact to water and as a volunteer opportunity in the future.*

KOREENA MOUA (DIRECTOR AT  
EASTSIDE BOYS AND GIRLS CLUB)  
Targeted Retrofit

”

**Both Capital Improvement Projects and the Stewardship Grant Program work in concert to create resilient, effective, and long-lasting solutions to water quality, flood risk, and ecological concerns in the watershed.**

Both 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.

### **EAST ST. PAUL TARGET STORE—TARGETED RETROFIT**

Commercial properties have some of the largest impervious areas within RWMWD, and as a result are a priority area for our targeted retrofit projects. RWMWD made connections with the Target Corporation to install stormwater best management practices at their St. Paul store off Suburban Ave. The project consists of seven rain gardens and a tree trench to capture parking lot runoff. The design is structured so that over half of the parking lot will drain to a rain garden or tree trench so that an average of 0.74 inches of stormwater will be captured and treated before draining into Battle Creek.

### **EASTSIDE BOYS AND GIRLS CLUB—TARGETED RETROFIT**

The Eastside Boys and Girls Club (ESBGC) experienced severe drainage issues in their parking lot for many years. Water pooled in areas of the







lot, which reduced parking for activities and events. RWMWD worked with ESBGC to install a porous paver parking lot that mitigates standing water problems. We also installed a native plant area between the parking lot and the street to attract more pollinators and filter stormwater runoff. Now the entire parking lot is accessible for year-round events.

### **CARVER LAKE PARKING LOT**

The City of Woodbury completed a parking lot reconstruction project during the summer of 2020 at Carver Lake Park. As part of this project, the RWMWD Stewardship Grant program and the Clean Water Fund funded a 5,220 square foot rain garden and 8,000 square feet of native plantings. This rain garden captures enough phosphorus to prevent about 350 pounds of algae from growing in Carver Lake.

### **BRENNER FILTRATION BASIN**

In 2020 the City of Roseville opted to install an iron-enhanced filtration

basin on a vacant parcel of land as part of a mill-and-overlay street improvement project. A portion of the cost of this project was funded by the RWMWD Stewardship Grant Program. The basin addresses local drainage and flooding concerns. The project also helps improve the water quality to Lake Owasso by capturing 1.7 inches of rain and filtering 11,450 cubic feet of water. Roseville estimates the completed project will remove 19 pounds in total phosphorus going to Lake Owasso each year.

### **KELLER GOLFVIEW**

This project is located at Keller Regional Park off Highway 61 in the City of Maplewood and is the oldest park in the Ramsey County Park system. Over the last several years, Ramsey County Parks and Recreation has made many improvements to the park facilities, including adding shelters, restrooms, and Tuj Lub courts. The next project phase aimed to repair existing parking lots and trails and add parking spaces to

account for increased visitor volume at the park. The new parking area features a 15,000 sq ft permeable asphalt system with a 12-inch deep storage section that will capture and filter stormwater that previously drained to a county ditch along Highway 61 and into Keller Lake. Ramsey County Parks and Recreation received an RWMWD stewardship grant to help cover a portion of this cost.

### **VADNAIS SPORTS CENTER**

In 2020 Ramsey County constructed a new building to enclose the synthetic turf field at the sports center in Vadnais Heights. Ramsey County Parks and Recreation received an RWMWD stewardship grant to help cover the cost of installing 4,446 square feet of permeable pavement along the western edge of the parking lot as part of the sports center project. The permeable pavement will help filter stormwater before it runs into Willow Creek.



2020

## Education & Outreach

# INFORM & EMPOWER

**RWMWD'S EDUCATION AND OUTREACH PROGRAMS FOCUS ON INFORMING AND EMPOWERING THE COMMUNITY TO IMPROVE AND PROTECT THEIR WATERSHED. WE PROMOTE BEST MANAGEMENT PRACTICES SUCH AS SUSTAINABLE LANDSCAPING, ECOLOGICAL RESTORATION, REDUCTION OF POLLUTION, SMART SALTING, AND CONSERVATION OF GROUNDWATER RESOURCES.**





### Program Highlights

Collaboration with schools has been a large part of our education program trademark for over twenty years. In February and March 2020, we engaged 18 classrooms with 440 youth and 28 Master Gardeners and Master Naturalists in our native plant growing operation at five schools. In February, two L'Etoile du Nord French Immersion School fourth grade classes joined our water quality monitoring staff to measure dissolved oxygen, water clarity, temperature to collect lab samples through the ice on Ames Lake to test for chlorides.

Then Covid-19 disrupted our numerous seedling transplant sessions at schools in mid-March. We pivoted and moved seedling transplantation from schools to the Ramsey County Corrections Nursery in Maplewood. When WaterFest was canceled due to the pandemic, we had to get creative with other ways to share our plants and accomplish our outreach, education, and field project goals.

### Water Stewards

This year, Water Stewards played many pivotal and leadership roles in our educational outreach initiatives and garden and restoration efforts. Our 2020 Roseville Water Steward team-in-training distributed over twenty flats of native plants they grew to Willow Pond residents, along with information about ways to make their yards more water-friendly and sustainable. This outreach expanded to include multiple newsletters and emails, introducing their neighbors to resources, training, and the Adopt-A-Drain program. This team also coordinated a tour for the Roseville League of Women Voters Environmental Task Force.

### Additional Accomplishments

included teaching a five-week course for 40 elders on watershed issues, creating a pollinator “café”, installing an erosion control planting at a Carver Lake neighborhood townhome complex, leading a clean-up at Ames Lake, planting sessions at the Snail Lake Regional Park restoration area, distributing native plants at drive-up food shelves, and creating Tamarack Nature Preserve wayfinding and information signs for the new boardwalk. Two other Water Stewards completed their capstone projects that included a shoreline restoration project on Lake Gervais, a complete turf replacement project with native plants and a rain garden at an East St. Paul home.

### Adopt-A-Drain Program

In 2020, this program grew as 140 residents adopted 239 additional storm drains, bringing our total to 715 adopted drains as of the end of 2020. Water Stewards and district staff distributed 153 Adopt-A-Drain yard signs to residents in fifteen subwatersheds in eight cities to bring awareness to this program.

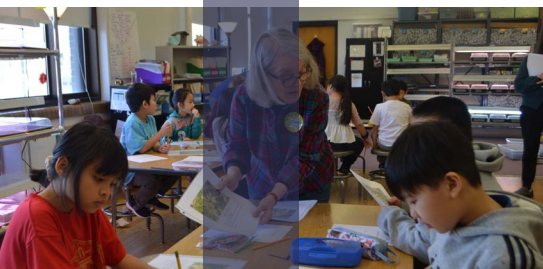
### Summer Watershed Education Outreach Activity in Washington County Parks

RWMWD set up a Water Pollution Mystery Game in three locations for families at Tanners Lake in Oakdale, Carver Lake Park, and Tamarack Nature Preserve in Woodbury with the help of the East Metro Water Resources Education Program (EMWREP). The game incorporated safe social distancing for individuals or families to search for hidden clues to solve a water pollution mystery. It generated good publicity and spurred lots of conversations in community Facebook groups.

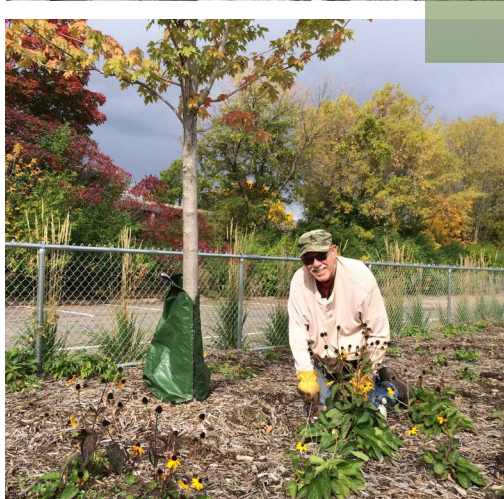


2020

# Education & Outreach









## Natural Resources

# CREATE. PRESERVE. RESTORE.

Our natural resources program creates, preserves, restores aquatic, wetland, and surrounding watershed habitats to ensure residents can enjoy their benefits for years to come. RWMWD has completed multiple large-scale restoration projects over the last 20 years and actively manages invasive species. We accomplish this through active partnerships with numerous organizations and the University of Minnesota on applied natural resources research. We are also committed to long-term monitoring and maintenance of restoration projects to sustain the benefits of these habitats well into the future.

### **WETLAND & ECOLOGICAL RESTORATION**

Wetland A, situated near Snail Lake in Shoreview, is one of the most substantial natural wetland remnants in the watershed. RWMWD partnered with Ramsey County and other organizations to conduct a three-year ecological restoration project in the area, with an expected completion date in late 2021. In 2020, RWMWD staff and volunteers restored 2.2 acres of shoreline that stretched 2,520 feet long, completing the second stage of restoration along the southwest corner of the site. Over 75 species of native plants were installed as natural buffers in place of invasive species like common buckthorn.

### **SEED COLLECTION**

RWMWD has an extensive history of

partnering with local schools to raise native plant seedlings later installed at restoration sites. This practice allows for experiential learning for students and positively impacts the overall cost of restoration projects. As 2020 the pandemic caused school closures and remote learning, RWMWD adapted by partnering with Ramsey County Corrections Nursery and collecting seeds from existing restoration sites. Staff collected over 20 lbs from 59 species of plants at nine locations to be used for future habitat restoration and maintenance.

### **OWASSO CHAIN OF LAKES CARP MANAGEMENT**

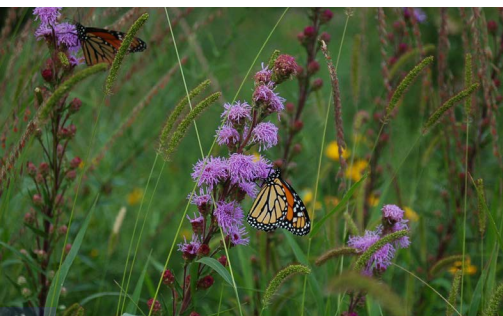
The removal of invasive carp results in reduced phosphorus pollution and improved water clarity in shallow lakes. RWMWD has removed carp from the Owasso Chain of Lakes

in the past several years, showing conclusive water quality benefits. In 2020 a total of 1,620 carp were removed from the lake chain and electric barriers were installed to keep the remaining carp from moving into spawning areas.

### **KELLER GOLF COURSE**

For eight years, district natural resources staff have been working to restore no-play zones, or protected areas, on Keller Golf Course to native prairie habitat. In 2020, over .75 of an acre was added to the existing 25 acres of restored space on the course, replacing turf grass with diverse native prairie plantings. These efforts have enhanced the course's natural beauty, created a habitat for native pollinators and wildlife, and improved water quality.







## Water Quality



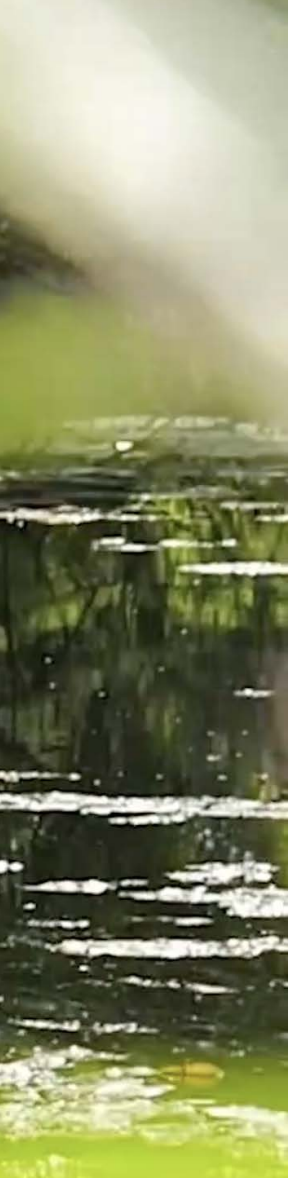
# QUALITY WATER FOR QUALITY LIFE

Our rivers, lakes, and streams served as a welcome respite for a growing number of residents throughout 2020. We recognize the continuing importance of these water bodies to our communities and to our local ecosystems well into the future. This is why RWMWD conducts regular water quality monitoring, tracking, and improvement activities throughout the year to keep our waters clean, healthy, and safe.

### LAKE MONITORING

Automated lake level stations were added to Phalen, Owasso, Snail, Wabasso, and West Vadnais Lakes to offer continuous lake level monitoring. RWMWD worked with Barr Engineering to complete tracking pages for each lake station, which are now available to the public on the website. The reports update every two hours and will eventually include longitudinal data to show lake level trends over time.





**VIEW THE WATERSHED MAP AT [RMMWD.ORG](http://RMMWD.ORG) TO LEARN ABOUT EACH OF THE WATERS WE MANAGE.**

In a typical year, RMMWD staff monitor 15 lakes in Ramsey County every 2-3 weeks from May–September. In 2020, much of water quality monitoring at lakes was paused as the required procedures were not feasible with social distancing and other Coronavirus health requirements in place.

### **CREEK MONITORING**

RMMWD contributes to the Metropolitan Council's Stream Monitoring and Assessment Programming by sampling at Fish Creek, Battle Creek, Kohlman Creek, and Gervais Creek. These streams continued to be monitored every two weeks and after every rain event throughout 2020.

### **BELTLINE STORM SEWER MONITORING**

The Beltline Interceptor is a 5-mile long tunnel that stretches from Lake Phalen and Beaver Lake to the Mississippi River. Approximately half of the stormwater that flows through the District to the Mississippi River travels through this tunnel. RMMWD tracks chloride, e. coli, temperature, conductivity, pH, phosphorus levels and other attributes of surface water runoff in the Beltline.

### **SPECIAL PROJECTS MAINTENANCE AND MONITORING**

In addition to lakes and creeks, RMMWD monitors the Beam Ave. Iron Enhanced Sand Filter, Shoreview Commons Pond, and Frost Kennard Spent Lime Filter.

Testing was completed after every storm occurring between April and November 2020.

### **ALUM TREATMENT**

RMMWD owns and operates an alum treatment facility in Maplewood. Alum treatment safely limits phosphorus and algae, and can even prevent algae blooms. This facility was designed to automatically treat nutrient-rich water with alum (aluminum sulfate) prior to discharging into Tanners Lake. Alum chemically binds with phosphorus. Eventually, this alum/ phosphorus compound, known as “floc”, is taken out of the treated water. The result is clearer water for all Tanners Lake visitors.



## 2020 STATS

Although Covid limitations have impacted numbers for our 2020 programming, these statistics tell the story of a year of perseverance. Like many other organizations, RWMWD adapted to pandemic restrictions and found creative ways to deliver services to our communities. The impressive seed collection effort is a prime example of this creativity, where seeds from existing restoration sites were saved to supplement limited plant supply.

# BY THE NUMBERS



14,542

PLANT PLUGS INSTALLED,  
IN 77 SPECIES



20

FLATS OF NATIVE PLANTS  
GIVEN TO WILLOW POND  
RESIDENTS





# 2,520

FEET OF SHORELINE  
RESTORATION



# 20

POUNDS OF SEEDS  
COLLECTED,  
IN 59 SPECIES



# 239

**NEW**  
ADOPT-A-DRAIN  
PARTICIPANTS  
(140 RESIDENTS!)

715 TOTAL TO DATE



# 440

TOTAL YOUTH ENGAGED



# 1,379

TRASHRACKS VISITED



# 18

TOTAL  
CLASSROOMS  
ENGAGED

# 28

MASTER GARDENERS &  
MASTER NATURALISTS

# 196

HOURS CLEANING /  
SCRAPING



# 94

STORMWATER  
TREATMENT  
WORK DAYS THAT  
INVOLVED FACILITY



# By the Numbers

## 2020 GENERAL FUND BUDGET

Engineering	\$723,000
Attorney	\$40,000
Managers	\$12,000
Finance/Auditing	\$60,000
Miscellaneous	\$59,500
Administrative	\$2,109,000
Program Activities	\$986,000

<b>TOTAL</b>	<b>\$3,989,500</b>
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## 2020 CAPITAL IMPROVEMENT BUDGET

Debt Service	\$594,959
(Maplewood Mall, Beltline/Battle Creek Tunnel Repair, District Office)	
Targeted Retrofit Projects	\$1,012,000
Stewardship Grant Fund	\$1,000,000
Project Repair and Maintenance	\$1,115,000
Wakefield Park Project	\$100,000
Volume Reduction Opportunity Fund	\$1,600,000
Flood Risk Reduction Fund	\$4,000,000

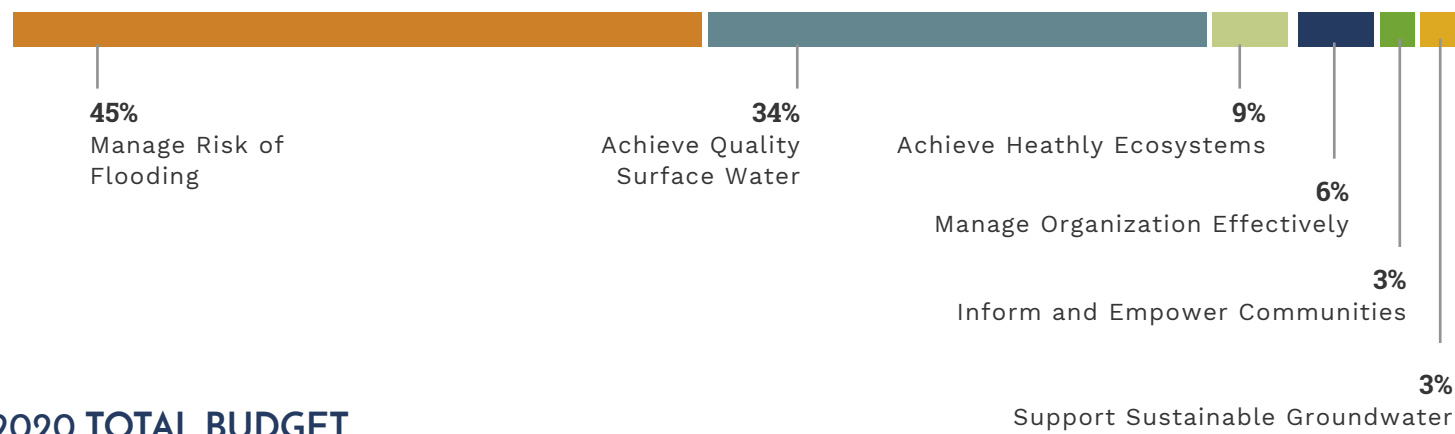
<b>TOTAL</b>	<b>\$9,421,959</b>
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<b>TOTAL 2020 BUDGET</b>	<b>\$13,411,459</b>
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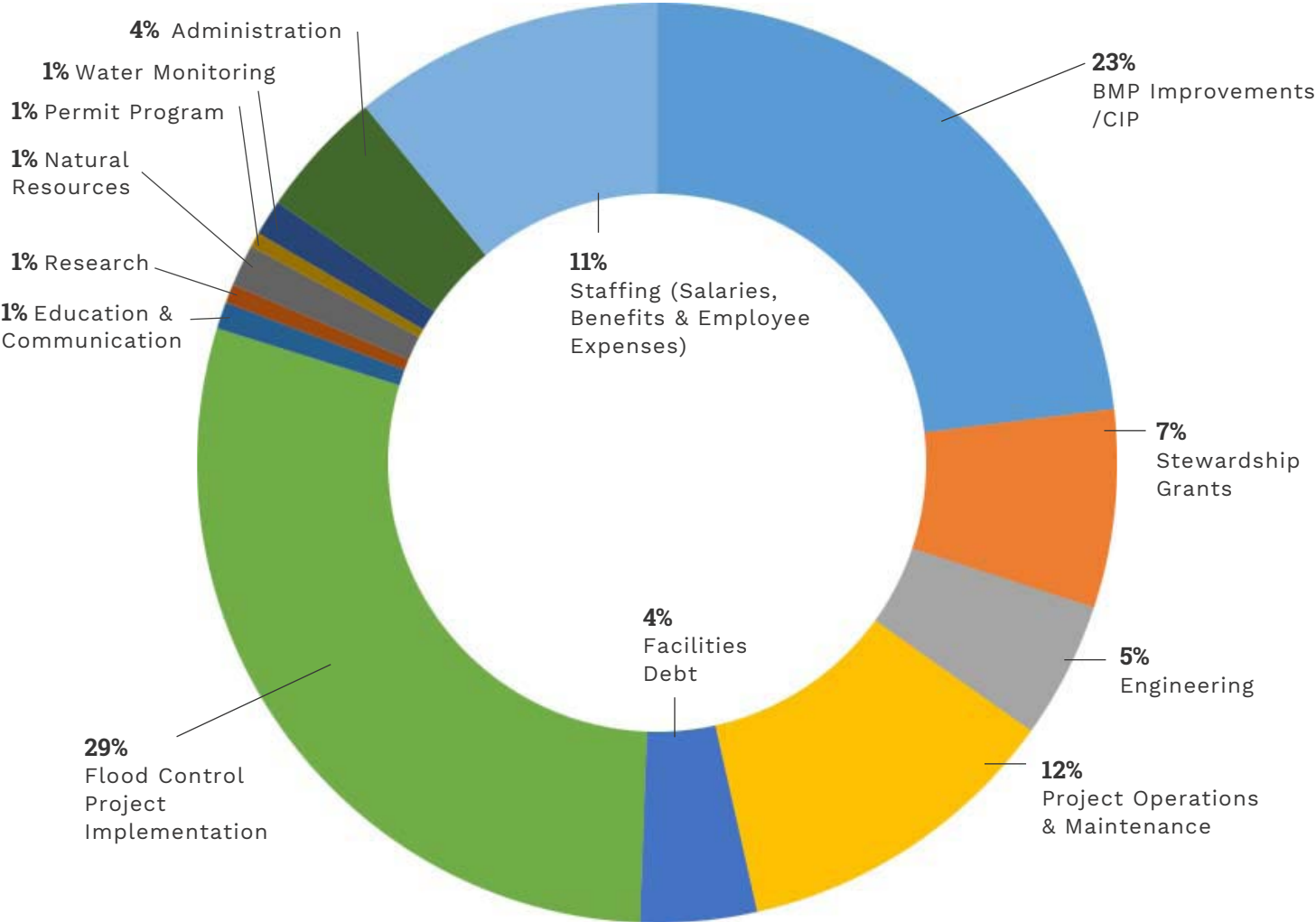
2020 PLAN/GOALS

Budget Percentage by Goal



2020 TOTAL BUDGET

Detailed View







**RAMSEY-WASHINGTON**  
METRO WATERSHED DISTRICT



[rwmwd.org](http://rwmwd.org)

2665 NOEL DRIVE  
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