

# Planning for the Future

2021–2030 Watershed Management Plan Overview





# WHO IS CAPITOL REGION WATERSHED DISTRICT?

Capitol Region Watershed District (District) is a special purpose local government unit that manages water resources within portions of Lauderdale, Falcon Heights, Maplewood, Roseville and Saint Paul, Minnesota. Starting with a small group of residents concerned about Como Lake, it was formally established by the Minnesota Board of Water and Soil Resources in 1998.

The District adopted a Watershed Management Plan to guide its actions from 2021–2030. This document summarizes the Plan.

To learn more about the updated watershed management plan visit: [capitolregionwd.org/watershed-management-plan/](https://capitolregionwd.org/watershed-management-plan/)

## EXAMPLES OF OUR WORK

You've probably seen our work as you've traveled throughout the 40-square mile watershed that eventually drains to the Mississippi River.



### Green Line Infrastructure:

Several types of green infrastructure projects—including rain gardens, stormwater planters, infiltration trenches, and tree trenches—improve water quality, control flooding, and beautify the light-rail corridor along University Avenue in Saint Paul.

Image: Adrian Danciu



### Trout Brook Nature Sanctuary:

This 40-acre wilderness area in Saint Paul has been restored, including the reestablishment of an open stream channel that flows through a series of ponds and wetlands, cleaning stormwater before it flows back into the underground storm sewer and the Mississippi River.



**Allianz Field:** Innovative stormwater management systems, like the 600,000 gallon rainwater cistern at the Minnesota United FC stadium in Saint Paul, help improve water quality, reduce the use of drinking water supplies, and provide community resiliency for a changing climate. Image: Sara Rubinstein



### Boulevard Rain Gardens:

Hundreds of rain gardens have been built in neighborhoods throughout the watershed to capture and clean street runoff. Rain gardens also provide habitat for pollinators such as hummingbirds, bees, and butterflies. Image: Sara Rubinstein

## THE COMMUNITIES WE SERVE

The population of the District has grown more racially and ethnically diverse over time, with the percentage of people of color increasing from 36 to 46% between 2000 and 2015. The District uses local demographic information to tailor activities to our diverse populations. This helps the District meet the needs of traditionally underserved communities and work towards providing an equitable distribution of services.

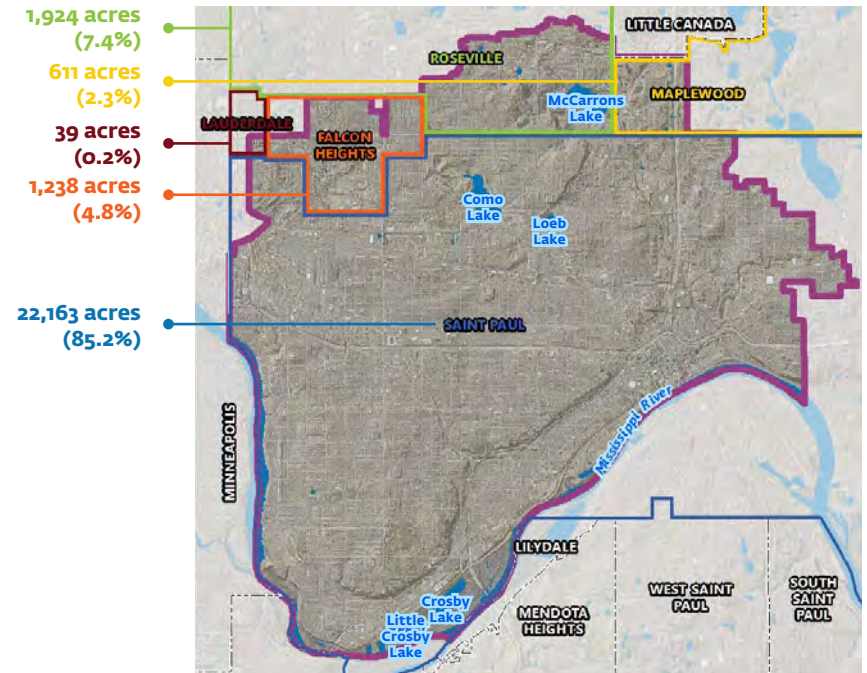


Como Lake residents participate in the curb clean-up. Image: Clean Water MN

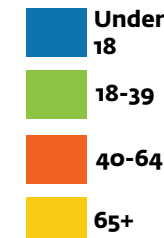
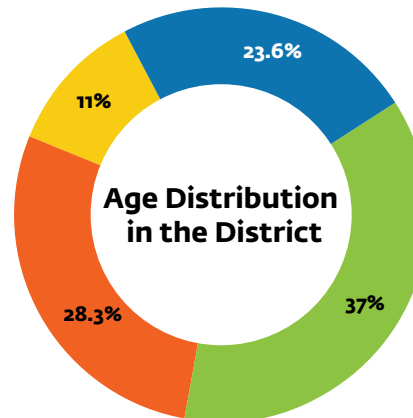
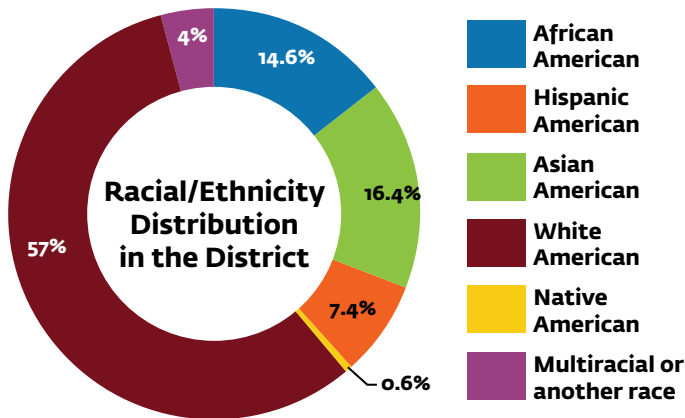


Public Art Saint Paul, a partner Grant recipient, leads art-making at Western Sculpture Park. Image: Caroline Yang

### Distribution of Land in the District



The District includes five lakes—Como, Loeb, Crosby and Little Crosby Lakes in Saint Paul and Lake McCarrons in Roseville.



Demographic Source:  
US Census data;  
Metropolitan Council  
Thrive MSP 2040  
(12/2018)



# LOOKING AHEAD

To achieve its vision, District staff implement a range of programs, projects, and capital improvements designed to protect, manage, and improve the resources within its boundaries, including creeks, wetlands, lakes, natural areas, and the Mississippi River.

The District developed the Plan in collaboration with stakeholders and partners who serve key roles in achieving District goals. This diverse group of stakeholders included residents, community and non-profit groups, state agencies, local government, and other organizations to provide technical expertise during the planning process. The Plan is centered around the following organizational values.

- **Integrity:** The District will carry out its mission with transparency, accountability, and fiscal responsibility.
- **Diversity:** The District will promote equity, inclusion, and openness to engage all communities.
- **Collaboration:** The District will strengthen its impact through strategic partnerships and community engagement.
- **Innovation:** The District seeks to lead through bold actions supported by science.

This Plan addresses the most immediate water resource management needs and will increase the effectiveness of our efforts in the face of new and evolving challenges.



A neighborhood nature walk led by Frogtown Green. Image: Caroline Yang



A community conversation for the Plan hosted by CRWD.



CRWD staff monitor water levels at Como Lake Golf Course pond.



Parkview Center School captures and cleans 12.5 million gallons of runoff annually. Image: Sara Rubinstein

## THEMES FOR WORK

Throughout the execution of this Plan, the District will consider how each of the themes described below is incorporated into our operations, programs, and projects:



Image: Sara Rubinstein

### **Bring Water Back**

The District's goal is to bring water back into the consciousness of the community by restoring resources and engaging residents.



Image: Steve Silverman

### **Rain as a Resource**

By using natural methods to collect and reuse rainwater, the District will reduce the amount of stormwater runoff, minimize flooding and improve water quality.



Image: Adrian Danciu

### **Climate Change and Resilience**

As our climate changes over time, the District will prioritize sustainable ways to lessen impacts to the watershed and in our community.



Image: Anita Jader

### **Community Equity and Engaging Underrepresented Groups**

The District will prioritize engaging residents in the central and eastern portions of the District, including people of color, immigrants, younger generations, and those living in poverty.



Image: Caroline Yang

### **Recreation**

Water and natural resources are important recreational assets. The District will support efforts to improve water-based recreation opportunities as a way to connect District residents to water resources.



Image: Sara Rubinstein

### **Quality of Life**

Healthy natural resources positively impact the quality of life for District residents beyond providing ecological benefits and can decrease urban heat island effects and reduce flood risk.



Image: Caroline Yang

### **Partnerships**

The District will continue to foster new and existing partnerships with our cities, government agencies, institutions, neighborhood groups, and residents to protect and improve the District's water resources.



Image: Sara Rubinstein

### **Innovation**

The District will strive to stay informed about advances in science, design, and engineering related to water resource management and apply these innovations in our work.



Image: Barr Engineering Co.

### **Adaptive Management**

The District recognizes that water and natural resources are living systems that may require adjustments to planned activities based on the latest data.

## ISSUES

The District faces both water and natural resource issues as well as organizational issues in its day-to-day work. Water and natural resource issues are often more visible to the public and have measurable outcomes. Organizational issues are those that are frequently addressed behind the scenes through administrative planning and strategic thinking, and can be more difficult to measure.

The District's Board of Managers identified priority issues to be addressed by the Plan and organized them according to the eight topic areas. Some issues are new, while others have become more important since the 2010 Plan. Some reflect a more comprehensive view of the area and communities we serve. Resource and organizational issues also both relate back to the themes developed through stakeholder engagement. Below are "notable" issues for each focus area within the two categories.

### Resource Issues



**Built Environment** (Man-made buildings, infrastructure, or facilities where we live and work)

**ISSUE:** The urban landscape limits natural methods of water management



**Water Quality** (Biological, physical, chemical conditions of water for drinking or recreational use)

**ISSUE:** Polluted stormwater runoff impairs water quality



**Ecosystem Health** (The ability to function and adapt to the physical, chemical, and biological changes of our environment)

**ISSUE:** Impaired and/or depleted natural resources are due to development, climate change, and other reasons



**Water Quantity** (The amount of water in individual waterbodies and concerns relative to drought or flood risk)

**ISSUE:** Current and projected climate and precipitation trends are increasing runoff

### Organizational Issues



**Communications & Engagement** (How the District communicates with its stakeholders, encourages their participation and contributions)

**ISSUE:** Relationships with community groups serving diverse audiences, media, and elected officials are lacking.



**Regulation** (Rules that protect the quality and quantity of the District's water resources)

**ISSUE:** Inability to adequately address all of the environmental issues in a highly urbanized watershed with current regulations



**Infrastructure Management** (Management of structures and facilities needed to control water flow in our community)

**ISSUE:** Large cost to replace or repair aging stormwater infrastructure



**Organization** (The operation and organization of the District)

**ISSUE:** Some areas and communities within the watershed have been underserved.



## IDENTIFIED GOALS

A wide range of stakeholders identified goals during development of the Plan. Many of these goals reinforce the connections between water, natural resources, and land use management. Some of the District's goals are applicable District wide, while others are specific to individual water resources. Examples of measurable goals and objectives to address issues identified in the Plan are included below.



# OUR WORK OVER THE NEXT DECADE

The District's Plan includes the continuation of ongoing activities as well as new activities to address priority issues and achieve District goals.

## PRIORITIZATION AND FOCUS AREAS

The District prioritizes programs and projects that promote efficient use of our staff and financial resources. As part of Plan development, each activity is assigned one of the following three priority levels:

**Critical** – Activities necessary to perform the core functions and required duties of the District, as required by law, rule, or statute

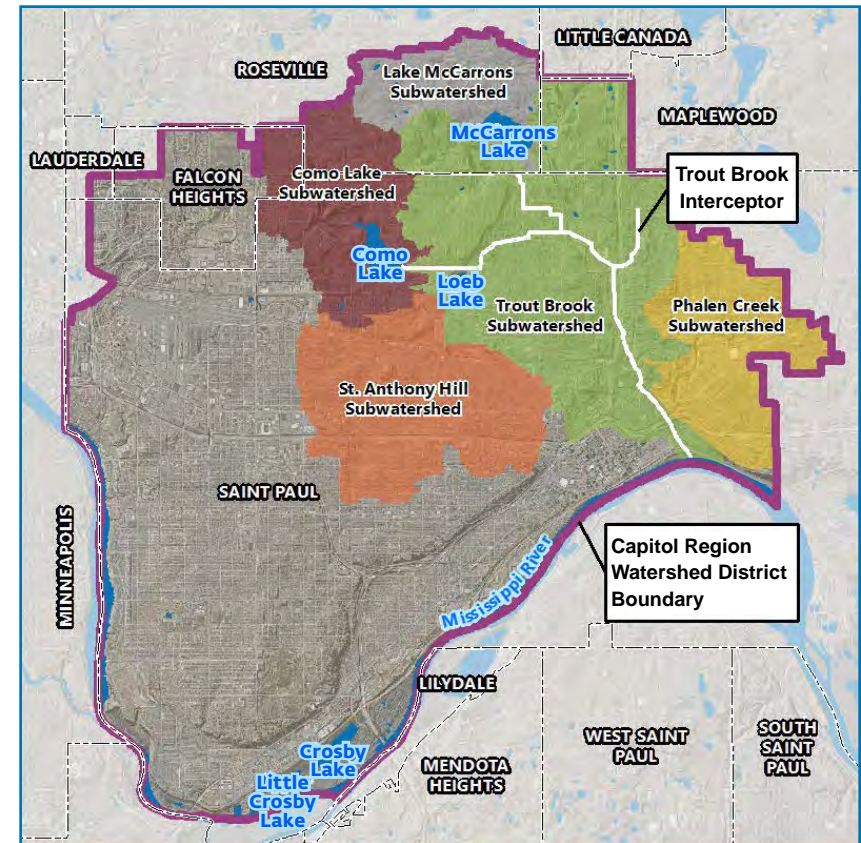
**Important** – Activities led by the District in support of our goals and objectives but not required by law, rule, or statute, and that do not rise to the level of "critical"

**Beneficial** – Activities aligned with the District goals and objectives but likely to be deferred to a future date, performed only if an opportunity arises, or to be led by our partners, with District support through limited funding, technical assistance, and/or other cooperative efforts

Classification of an activity as critical, important, or beneficial does not, by itself, determine timing of an activity relative to other activities or its planned schedule.

Programs, projects, and capital improvements include work in priority geographic areas as shown on the map. The Trout Brook, Saint Anthony Hill, and Phalen Creek subwatersheds are more racially and ethnically diverse compared to other areas in the District. These areas were prioritized because they have fewer water quality improvement projects funded through the District's Stewardship Grant Program compared

to other areas in the District. Como Lake and Lake McCarrons subwatersheds are also prioritized as they continue to build on the work and investments made by the District and our partners over the past 10 years.





## OUR WORK OVER THE NEXT DECADE

### FUNDING

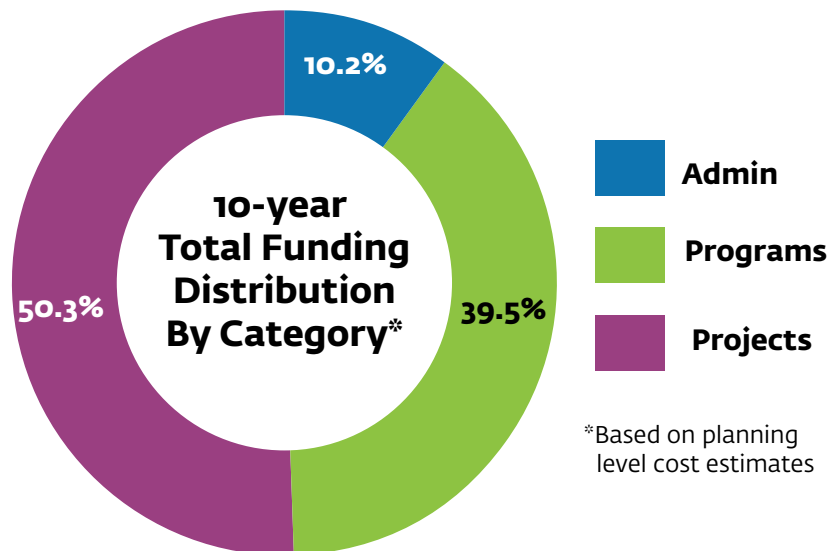
Administration, programs, projects, and capital improvements are funded by four primary sources: property tax levy, local partner funding, bonds and loans, and grants (which have funded a large part of our work). A planning-level cost estimate for all activities in the 10-year plan is just over \$109 million, averaging nearly \$11 million each year.

The District regularly evaluates its annual tax levy and property tax impacts and continues to be sensitive to the economic conditions faced by our partners, local businesses, and residents as it sets the annual levy.

The District's work plan is organized into three major categories:

- Administration
- Programs
- Projects

The Administration and Programs categories generally include ongoing activities performed by District staff, such as monitoring, assessment and research, communications and engagement, grants, facility/infrastructure management, and regulations.



The Projects category includes two subcategories: one for feasibility studies, modeling efforts, planning, and projects and one for capital improvement projects, typically large scale projects that include engineering, design, and construction.

### DISTRICT ADMINISTRATION

The District administration work includes ongoing annual activities to satisfy Minnesota Rules for watershed districts, developing annual budgets, supporting and communicating with the Community Advisory Committee, identifying and pursuing additional funding, and biennially evaluating progress toward Plan goals. In addition, the District is responsible for site management, maintenance, and repairs of its own building. It also provides office space and administrative/programmatic support to the Minnesota Association of Watershed Districts.



The District's new office in the Hamline-Midway neighborhood in Saint Paul.  
Image: Steve Silverman

## DISTRICT PROGRAMS

District programs are divided into five areas: Regulatory Program; Grants Program; Monitoring, Assessment, and Research Program; Communication and Engagement Program; Infrastructure Management Program. These areas are described below.

### Regulatory Program

In 2006, the District adopted water quality and stormwater management rules, as well as a permitting program to carry out these rules. The District Rules apply to stormwater management, flood control, wetlands, erosion and sediment control, and connections to the Trout Brook Interceptor. They also require stormwater management permits for construction projects disturbing 1 acre or more of land.

As new science identifies more efficient and effective stormwater volume control methods, water quality treatment, or erosion and sediment control approaches, District rules are reviewed and updated. The last District Rule update occurred in 2019. Current regulatory program information is available at [capitolregionwd.org/permits/](https://capitolregionwd.org/permits/)



District staff inspecting the Smith Bridge Project.  
Image: Sara Rubinstein

### Grants Program

The District offers several grant programs designed for different audiences to support practices that protect local lakes and the Mississippi River. Much of the land in the District is already developed and privately owned, so we work with residents, schools, faith-based and community organizations, and businesses to build clean water projects. Grant types include:

**Stewardship Grants**—Provide technical and financial assistance to District property owners to build clean water projects (e.g. rain gardens, cisterns, permeable pavement, shoreline restoration, etc.)

**Partner Grants**—Help fund programs led by organizations that engage residents and promote clean water actions

**Well Sealing Grants**—Help landowners seal abandoned wells to reduce groundwater contamination potential

**Planning Grants**—Help public, private, and non-profit organizations determine the feasibility and design of large-scale, cost-effective and/or innovative clean water projects

Current grant program information and eligibility requirements are available from the District at [capitolregionwd.org/grants/](https://capitolregionwd.org/grants/)



Stewardship Grantee Bang Brewing's rain gardens. Image: Sara Rubinstein



Partner grant recipient Public Art Saint Paul's art-making at Western Sculpture Park.  
Image: Caroline Yang



## DISTRICT PROGRAMS

### Monitoring, Assessment, and Research Program

This program includes the monitoring and assessment of District lakes and wetlands, and the performance of stormwater best management practices. It enables the District to stay informed about resource conditions and identify pollution hot spots and trends.

The District uses this information to determine progress toward District goals at least biennially and reports monitoring data to public and technical audiences on its Water Data Reporting Tool:

[capitolregionwd.org/monitoring-research/data/](https://capitolregionwd.org/monitoring-research/data/)



District staff install a buoy to monitor water quality in Como Lake

### Communication and Engagement Program

The District's Communications and Engagement Program works to increase the knowledge of residents and partners about clean water and encourage their participation in protecting our water resources. Residents are invited to participate in ongoing initiatives including the Minnesota Water Stewards and Adopt-a-Drain programs as well as events such as Bug's Night Out at Como Lake, Fishing in the Neighborhood at Loeb Lake, and Bug Bonanza at Trout Brook Nature Sanctuary, among others.

Staff regularly participate in community events, lead hands-on activities at schools, offer workshops, and invite residents and partners to explore the demonstration projects at our building.



Looking for dragonflies at Trout Brook Nature Sanctuary Image: Caroline Yang

### Infrastructure Management Program

Over the course of 20 years, the District and its partners have constructed hundreds of stormwater best management practices (BMPs) to improve water quality. The BMPs require regular inspections and maintenance to ensure that performance goals are met over their expected lifespan.

Beginning in 2021, the District will develop a facility management program for publicly owned and/or regional stormwater management systems. The program will include regular inspections, maintenance, and replacement of stormwater systems that are not performing properly. The District will focus on the systems it owns and helps maintain as well as those owned by our partners to protect our investment in clean water.



District Trout Brook Interceptor inspections

## DISTRICT PROJECTS AND CAPITAL IMPROVEMENTS

Every year the District works on exciting projects to improve water quality. Some key District projects are described on this page.

**Learn how you can help by visiting:**  
[capitolregionwd.org/act-now/](https://capitolregionwd.org/act-now/)

Image: Sara Rubenstein



### Ford Redevelopment (Highland Bridge) Regional Stormwater Project

The District and the City of Saint Paul reimagined the former Ford site using a shared regional stormwater management approach. Several large clean water practices will capture and filter stormwater runoff from the 122-acre site to reuse in the central water feature and Hidden Falls Creek.



### District Chloride Source Assessment and Prevention Plan

Chloride from winter salt application is a significant water quality issue in Minnesota. The District and its partners will develop a watershed-specific chloride management plan to identify its main sources and the activities and methods to minimize usage and prevent it from reaching our water resources.



### Lake McCarrons Alum Treatment

Alum (aluminum sulfate) was applied in 2004 to improve water clarity and reduce algae blooms in Lake McCarrons. The District and its partners will evaluate monitoring data to determine the need for another alum treatment during the 10-year life of the Plan.

Image: Sky Candy Studios



### Trout Brook Storm Sewer Interceptor Repairs

The District inspects the 6-mile storm sewer system every 5 years and determines which sections of tunnel are in fair-to-poor condition and need major repairs. Two major repairs, totaling 4,000 feet, are anticipated between 2021 and 2030.

Image: Barr Engineering Co.



### Como Lake Pavilion Clean Water Projects

The District and City of Saint Paul are designing green infrastructure practices for the Como Lake Pavilion parking lots to reduce polluted stormwater runoff and improve water quality of the lake. Reconstruction of the parking lots with the water quality improvements is anticipated in 2022–2023.

Image: Sky Candy Studios



### Phalen Creek Daylighting Project

Future construction of the Rush Line Bus Rapid Transit Corridor along Phalen Boulevard in Saint Paul offers an opportunity to “daylight” or bring above ground Phalen Creek. The District and Lower Phalen Creek Project are conducting a detailed feasibility study with design recommendations.

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