

Annual Report: 2019 Work Plan and 2018 Accomplishments



2018, A YEAR IN REVIEW





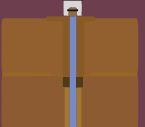

There were many significant changes to the Ramsey Conservation District in 2018, namely effective July 1, 2018, the Ramsey Conservation District became a division of the Ramsey County Parks & Recreation Department. We are now officially the Soil & Water Conservation Division (SWCD). Staff and the division office currently remain in the Public Works building in Arden Hills. We are excited to have found a new home within Ramsey County Parks & Recreation!

As for our work, it's business as usual here at the office. The staff has been working hard to conserve and enhance natural resources in Ramsey County by providing technical, financial and educational support to residents, property owners and local governmental agencies. Our efforts include landscape design, aquatic invasive species (AIS) prevention, well sealing, education and outreach, erosion and stormwater inspections and much more. This report displays the great work our staff was able to complete in 2018, and it also provides a framework for our 2019 goals.

Vision As the Ramsey County Soil & Water Conservation Division, we continue our vision to provide programs and services, whose focus is to promote long-term sustainability of Ramsey County's natural resources, including and especially our rich reserves of groundwater and our lakes, rivers, and wetlands.

We are committed to being fiscally responsible with the public funds entrusted to us and to pursue grant funding to maximize resources and promote intergovernmental cooperative efforts for increased cost-efficiency.

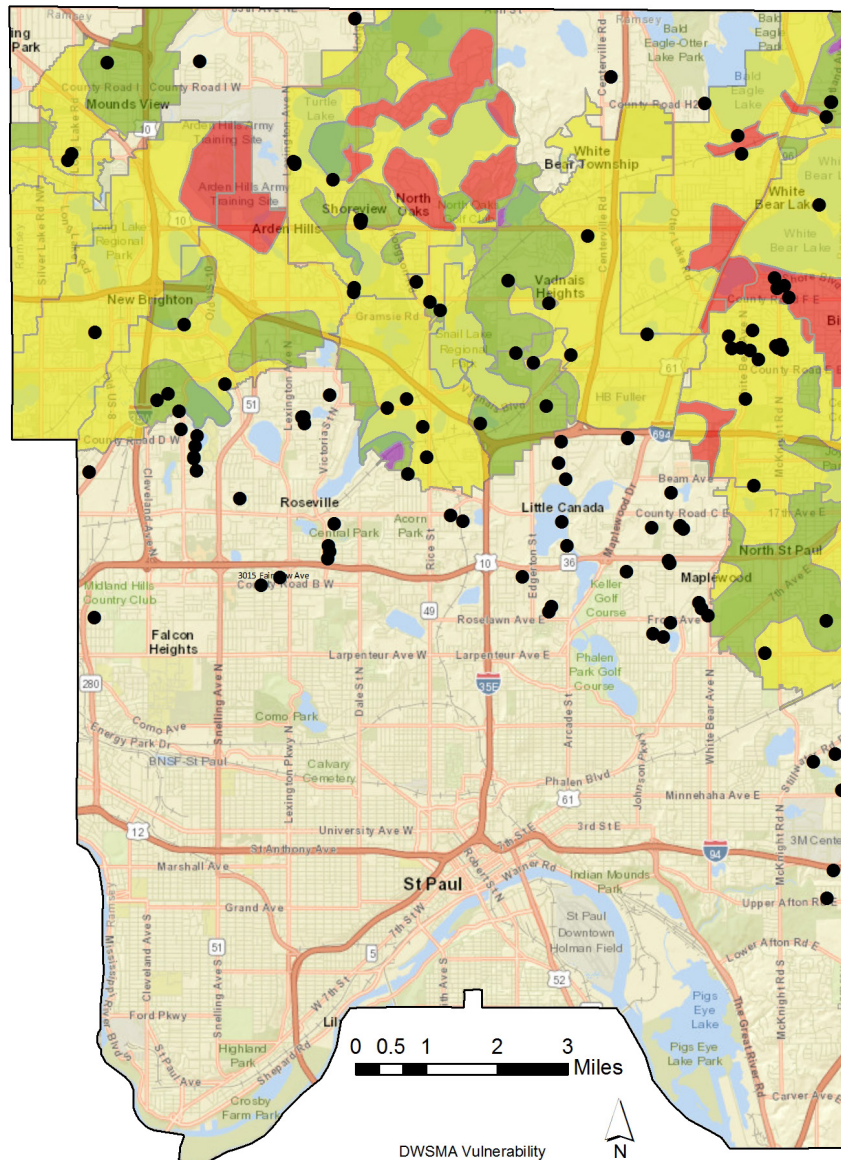
2018 ACCOMPLISHMENTS

| | |
|--|--|
| <p>375 SITES VISITED</p> <p>132 DESIGNED</p> <p>57 INSTALLED</p> <p>WATER QUALITY PROJECTS</p> |  <p>1,012</p> <p>CONSTRUCTION INSPECTIONS</p>  |
| <p>14 OBSERVATION WELLS MONITORED</p> <p>77</p> <p>WELLS SEALED</p>  | <p>18 AQUATIC BIOVOLUME SURVEYS</p> <p>15 WATER BODIES MONITORED FOR AQUATIC INVASIVE SPECIES</p>  |

Well Sealing - Clean Water Fund

- The Ramsey County Soil & Water Conservation Division utilized funding from Clean Water Fund Grants to provide cost-share assistance to landowners to seal their wells.
- Through this program, the SWCD helped to seal 77 wells in 2018.
- Sealing wells, especially in Drinking Water Supply Management Areas, helps to protect groundwater resources from pollutants as unused wells provide a direct connection to groundwater.
- The SWCD was awarded another \$100,00 clean water fund grant to seal wells in 2019

Ramsey County SWCD Well Sealing Cost-Share Program



RAMSEY COUNTY
 Date: 12/31/2018

● 114 Wells Sealed
 2017-2018

DWSMA Vulnerability

- High
- Medium
- Low
- Very Low



Sources: World Street Map; ArcGIS Online
 Well Locations: Ramsey County SWCD, 2018
 Drinking Water Supply Mgmt Area: MDH, 2015

The information on this map is a compilation of Ramsey County records. THE COUNTY DOES NOT WARRANT OR GUARANTEE THE ACCURACY OF THIS DATA. The county disclaims any liability for any losses, time delays, or expenses you may suffer if you rely in any manner on the accuracy of this data.

Invasive Species

Aquatic Invasive Species (AIS)

- 10, 223 Watercraft Inspections performed
- 1 day response time to two new infestations due to development of New Infestation Response Plan
- 5 volunteers participated in Starry Trek blitz day event
- Launched new volunteer detectors program with 4 volunteers searching boat launches monthly from June to September
- Hosted AIS Detectors Class



Zebra Mussel found on vegetation going into Lake Johanna by a watercraft inspector

Terrestrial Invasive Species

- 42 locations (22.33 acres) treated for teasel, black swallowwort, wild parsnip, oriental bittersweet, and poison hemlock under MDA Grant
- Ramsey County SWCD was awarded another MDA grant for 2019 in the amount of \$15,000 to continue further treatments
- 9 other invasive species locations treated under grant from BWSR
- All Ramsey County active use areas inventoried for Ash Tree/Emerald Ash Borer. 500+ trees measured and prioritized for removal. Removal and replacement plan drafted.
- \$224,695 in CPL grants awarded for invasive species removal and restoration



Before/After photos of Oriental Bittersweet removal

Projects - Sucker Lake Channel Restoration

Shoreline Stabilization and Restoration

- Ramsey County Parks & Recreation partnered with St. Paul Regional Water Service, City of Vadnais Heights and the Vadnais Lake Area Water Management Organization to restore 550 feet of streambank along the Sucker Lake Channel located within Vadnais-Sucker Lakes Regional Park.
- This project improves the ecological functions of the channel and improves the aesthetic and programmatic experience by park guests.
- The Sucker Lake Channel is part of the Vadnais chain of lakes, which is the drinking supply for over 400,000 people, including the city of St. Paul and thirteen additional municipalities, being wholly located within a designated Drinking Water Supply Management Area (DWSMA).



Sucker Lake Channel in its original condition



Completed Sucker Lake Channel Restoration with native planting

Projects - Rolling Hills HOA

Community Partners 2017 Grant

Rolling Hills Raingarden

- Project in partnership with Ramsey County Soil & Water Conservation Division, Ramsey-Washington Metro Watershed District, and the Rolling Hills HOA
- 5,400 sq-ft raingarden reduces pollutants running off the HOA property and adjacent property
- Keller Properties, who manages Rolling Hills HOA, has been a great partner in installing stormwater BMPs on several of their properties throughout Ramsey County
- Pollutant Reductions:
 - Total Phosphorous - 1.251 lbs/yr
 - Total Suspended Solids - 288 lbs/yr
 - Volume Reduction - 66,721 lbs/yr
- Project Costs:
 - Total Cost - \$68,450
 - BWSR/SWCD Grant - \$12,149
 - RWMWD Funding - \$50,000
 - Owner Cost - \$6,301



Rolling Hills raingarden original eroding condition



Completed Rolling Hills Raingarden. Project collects, infiltrates, and filters stormwater from the HOA property.

Projects - Lilydale Regional Park

Slope Stabilization and Restoration

- Project on 2.09 acre site in the Lilydale Regional park to implement conservation practices to address human safety, erosion concerns, and water quality problems.

- Funded by Ramsey County SWCD through grant offered by MN Board of Water and Soil Resources with dollars from the Flood Recovery Fund, and the City of St. Paul.

- Project Costs:
 - Construction Cost - \$917,811
 - BWSR Grant - \$925,811
 - City of St. Paul - \$200,000-Engineering Costs



Lilydale restoration site prior to stabilization



Lilydale Regional Park restoration site after construction

Community Engagement

Children's Water Festival

- The metro area hosts a Children's Waterfest each year to introduce fourth and fifth grade students to water resources. The goal of this event is for every student to understand where their water comes from and how to preserve water for future generations. This event is filled with hands-on activities for students to play and learn about water resources.

- Ramsey County Soil & Water Conservation Division provides staff volunteers for this event. One staff member also continued to serve on the Planning Committee for the event this year. With almost 2,000 students at Children's Waterfest, it is important to have knowledgeable professionals teaching students about water resources.



Lake Phalen Waterfest

- The Ramsey-Washington Metro Watershed District hosts the Lake Phalen Waterfest each year to celebrate Minnesota's water resources. The event is filled with hands-on learning opportunities such as fishing lessons, canoe and kayak adventures, arts and crafts, and natural resource games.

- Ramsey County Soil & Water Conservation Division staff enjoys testing Waterfest participants on their native species identification skills. This is a great event to teach the next generation about natural resource preservation!



Staff member Justin interacting with visitors to the Lake Phalen Waterfest

Community Engagement

AIS Detectors Class

- The Ramsey County Soil & Water Conservation Division hosted an AIS Detectors Class put on by the University of Minnesota Extension.
- This class goal was to teach the public identification and detection methods of AIS
- 13 students attended the workshop on April 20th at the SWCD offices
- Certified detectors must complete 25 hours of volunteer service and 8 hours of advanced or refresher training each year to maintain their active status



Attendees of the AIS Detectors Class held at the Ramsey County SWCD

Local Capacity Grant

- SWCDs receive this non-competitive BWSR Clean Water Fund grant for staffing, cost-share incentives, technology/equipment and operations. In 2018 the funding allowed the Ramsey County Soil & Water Conservation Division to accomplish the following:
- Increase technical capacity for designing clean water projects, mapping septic system locations, updating a countywide well inventory and creating a web site Story Map for all completed projects
- Attend conferences and workshops on topics such as, racial equity, lake surveys, pollinator summits, native plant identification, groundwater management, water resources, construction site oversight, new technologies and design software
- Participate in education and outreach opportunities, including the Children’s Waterfest, pollinator puppet shows, newsletters, soil health forums and a video on smart salting practices



Staff of Ramsey SWCD, RWMWD, and legislators attending the Water Resources Conference

Photo above from left to right: Senator Wiger, Tina Carstens (Ramsey-Washington Metro Watershed District), Ann WhiteEagle (Ramsey SWCD), Representative Fischer, Michael Schumann (Ramsey SWCD)


• Find more information at www.ramseycounty.us



2019 WORK PLAN

RAMSEY COUNTY PARKS AND RECREATION SOIL & WATER CONSERVATION DIVISION

| | KEY MESSAGES / CALL TO ACTION | COMMUNITY ENGAGEMENT AUDIENCE | ACTION ITEMS |
|---|---|--|--|
|  <p>CLIMATE CHANGE Reduce Impact, Adapt to Climate Variabilities, & Minimize Flooding</p> | <p>Community Resilience</p> <p>Impacts to climate variabilities in Ramsey County.</p> <p>Resilience in Ramsey County Comprehensive Plan.</p> <p>Reuse potential for Ramsey County.</p> | <p>1. All of Ramsey County</p> <p><u>Specific Audiences:</u></p> <p>2. Community Gardeners 3. People with chronic health issues 4. Parents concerned about future. 5. Children and youth 6. Ramsey County Master Gardeners</p> | <p>1. Host a public forum 2. Hold a technical workshop on BMP design and modeling</p> |
|  <p>BIODIVERSE ECOSYSTEMS Promote Biodiverse Ecosystems</p> | <p>Pledge to Plant for Pollinators! Plant native plants to restore habitat for pollinators.</p> <p>Control Invasive Species Learn what the problem plants and animals are and how to control them.</p> | <p>1. All of Ramsey County</p> <p><u>Specific Audiences:</u></p> <p>2. Community Gardeners 3. Water recreation enthusiasts 4. Children and youth 5. Master Water Stewards</p> | <p>1. Support Ramsey County Cooperative Weed Management Area (CWMA) to address invasive weed management on lands within Ramsey County 2. Complete macrophyte and biovolume studies on lakes and storm ponds 3. Provide staff to inspect boats at the Ramsey County boat launch sites</p> |
|  <p>URBAN AGRICULTURE Increase Urban Agriculture & Improve Soil Health</p> | <p>Healthy Soil Sustains Us. Stop Treating Soil Like Dirt! Plant native plants for habitat and improved soil health.</p> <p>Eating Impacts How much energy goes into producing this? How far did it travel to get to the store/table?</p> | <p><u>Specific Audiences:</u></p> <p>1. Community Gardeners 2. Agricultural Land Owners 3. Land owners</p> | <p>1. Host MAWQCP/NRCS workshop for agricultural landowners 2. Provide site visits</p> |

| | KEY MESSAGES / CALL TO ACTION | COMMUNITY ENGAGEMENT AUDIENCE | ACTION ITEMS |
|---|--|---|---|
|  <p>GROUNDWATER Conserve and Protect Groundwater</p> | <p>Groundwater is a vital natural resource to Ramsey County</p> <p>Understanding the interaction of groundwater and surface water is essential in developing effective policy and planning efforts</p> <p>Protection efforts will be a priority</p> | <p>1. All of Ramsey County</p> <p><u>Specific Audiences:</u></p> <p>2. Residents with unused wells 3. Parents concerned about the future 4. Children and youth</p> | <p>1. Offer cost-share for sealing unused wells 2. Hold public forum on groundwater 3. Report yearly to WMOs the locations of sealed wells 4. Complete a Campus Groundwater Audit Program with the MCD 5. Complete Observation Well Water Level Monitoring for the DNR</p> |
|  <p>LAKES, RIVERS, CREEKS Protect and Restore Surface Water</p> | <p>Your Street Connects to Lakes and Rivers.</p> <p>Reduce stormwater pollution runoff.</p> <p>Salt Smarter</p> <p>80% of Ramsey County residents' drinking water comes from the Mississippi River.</p> | <p>1. All of Ramsey County</p> <p><u>Specific Audiences:</u></p> <p>2. Landowners with large areas of impervious surface i.e. faith-based organizations, schools, businesses 3. Residents interested in improving water quality on their property</p> | <p>1. Conduct a minimum of 250 site visits annually within the county 2. Inspect existing stormwater best management practices 3. Assist partners with workshops on salt management to decrease chloride levels in metro water bodies</p> |
|  <p>WETLANDS Protect and Restore Wetlands</p> | <p>Wetlands Serve Valuable Functions such as Providing Habitat, Water Filtration, and Water Storage.</p> | <p><u>Specific Audiences:</u></p> <p>1. Landowners</p> | <p>1. Serve on Technical Evaluation Panels 2. Administer the annual WCA grant from BWSR, as delegated by Ramsey County</p> |
|  <p>PUBLIC ENGAGEMENT Increase Public Engagement Across All Communities</p> | <p>ALL MESSAGES</p> | <p><u>Specific Audiences:</u></p> <p>1. All residents</p> | <p>1. Support the success of cities and WMOs in their outreach efforts such as RWMWD's Waterfest and the Metro Area Children's Water Festival 2. Hold at least four pollinator puppet shows at schools and parks 3. Publish quarterly newsletter 4. Tour of conservation projects</p> |