2022 Annual Report

ANOKA CONSERVATION DISTRICT

Protecting water quality, recreation, and wildlife by helping landowners and local government manage natural resources since 1946

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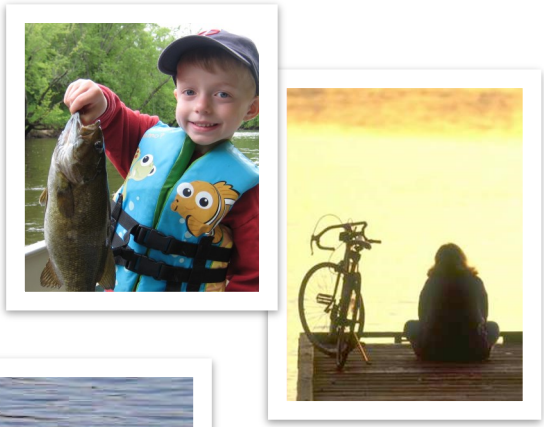
The Anoka Conservation District (ACD), established in 1946 through a voter led petition, celebrated its 76th year of service.

The **Vision** of ACD is: Strong partnerships. Innovative Solutions. Healthy Environments.

ACD's **Mission** is to holistically conserve and enhance Anoka County's natural resources for the benefit of current and future generations through partnerships and innovation.

What We Do

As the character of Anoka County changed, so has ACD. We now offer a wide variety of programs and services in all areas of natural resource management in the county.



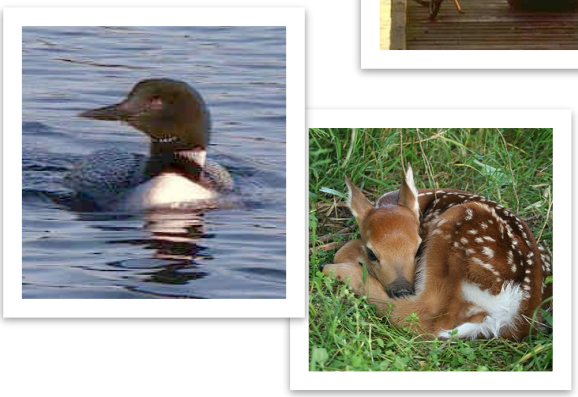
ACD programs are designed to preserve or enhance one or more natural resource benefits. In order of priority they are:

Surface Water: Maintain and improve surface waters for their benefits to pollutant assimilation, flood mitigation, recreation, groundwater recharge, and ecosystem services.

Ecological Resources: Preserve and enhance ecological resources for the benefits they provide in nutrient and carbon cycling, recreation, and wildlife**.**

Groundwater: Maintain and improve groundwater quality and quantity for its benefits for consumption, sanitation, and surface water baseflow.

Soils: Maintain and enhance soil health for its benefits of nutrient cycling and pollutant remediation, sustaining diverse flora and fauna, and providing food, fuel and fiber.



ACD serves all of Anoka County's 363,000 residents spanning 284,000 acres, 72 recreational and natural environment lakes, 446 miles of streams and rivers, and a regionally critical groundwater resource.

Per MN Stat. 103C.005 Soil and Water Conservation Policy:

Maintaining and enhancing the quality of soil and water for the environmental and economic benefits they produce, preventing degradation, and restoring degraded soil and water resources of this state contribute greatly to the health, safety, economic well-being, and general welfare of this state and its citizens. Land occupiers have the responsibility to implement practices that conserve the soil and water resources of the state. Soil and water conservation measures implemented on private lands in this state provide benefits to the general public by reducing erosion, sedimentation, siltation, water pollution, and damages caused by floods. The soil and water conservation policy of the state is to encourage land occupiers to conserve soil, water, and the natural resources they support through the implementation of practices that:

- ***control or prevent erosion, sedimentation, siltation, and related pollution in order to preserve natural resources;***
- ***ensure continued soil productivity;***
- ***protect water quality;***
- ***prevent impairment of dams and reservoirs;***
- ***reduce damages caused by floods;***
- ***preserve wildlife;***
- ***protect the tax base; and***
- ***protect public lands and waters.***

Working to ensure natural resources are managed to sustain benefits for current and future generations will greatly reduce long-term infrastructure maintenance costs by reducing flooding, preventing groundwater contamination, maintaining surface water quality, and preventing sedimentation of stormwater treatment infrastructure. Improved fisheries, wildlife, aesthetics and recreational opportunities further improve the quality of life of Anoka County taxpayers.

Who We Are

The ACD Board of Supervisors is composed of five elected officials serving four-year terms. They determine the direction of the District and oversee its operations.

2022 Supervisors were:

- Chair - Mary Jo Truchon - term thru '24
- Vice Chair - Jim Lindahl - term thru '26
- Treasurer - Glenda Meixell - term thru '26
- Member - Colleen Werdien- term thru '24
- Secretary - Sharon LeMay - term thru '24

Daily activities are attended to by staff.

Guiding Principles

- Focus on long-term resource sustainability
- Make informed and ethical decisions
- Promote cost-effective and efficient resource management
- Collaborate with both public and private sectors
- Utilize technology to achieve efficiency and enhance work products
- Keep natural resource issues visible in Anoka County
- Retain highly qualified, knowledgeable staff
- Seize opportunity and adapt to changing needs
- Develop diverse programs, partners, and funding sources
- Manage natural resources at efficient and effective geographic scales
- Engage the citizenry through outreach to encourage natural resource stewardship
- Consider the economic, social and environmental costs and benefits of our actions

ACD Supervisors (left to right)
Sharon LeMay, Glenda Meixell, Colleen Werdien, Mary Jo Truchon, Jim Lindahl

2022 Staff were:

- District Manager - Chris Lord
- Office Administrator - Kathy Berkness
- Wetland Specialist - Becky Wozney
- Watershed Projects Manager - Jamie Schurbon
- Stormwater and Shoreland Specialist - Mitch Haustein
- Restoration Ecologist - Carrie Taylor
- Water Resource Specialist - Jared Wagner
- Water Resource Specialist - Kris Larson
- District Technician - Breanna Keith
- Natural Resource Technician - Logan Olson
- Outreach and Engagement Coordinator - Lydia Voth
- Assistant District Technician - Sara Belden
- Field Crew - Shannon Hahn
- Field Crew - Ryan Pellow
- Field Crew - Monica Martinez
- Field Crew - Tenley Feinberg
- Field Crew - Savannah Pedersen

GreenCorps Service Member - Ethan Cypull

SWCDs are non-regulatory local governments with elected boards covering 99.3% of Minnesota that provide technical and financial assistance to willing landowners to improve natural resources.

Serving the Community

Working with Local Government Entities

Natural resources valued by Anoka County residents require collaborative management by entities with varying jurisdictions within and across city, county and watershed boundaries. It is important that ACD remains continually engaged with each entity to

- avoid duplication,
- maximize efficiencies,
- capitalize on common interests,
- direct limited financial and staff resources to the most cost-effective approaches, and
- apply management strategies at a scale most appropriate to meet identified goals and objectives (e.g. multi-city lakesheds vs. multi-county aquifer recharge areas).

Working with the Public

Over 78% of Anoka County is privately owned, and over 363,000 residents call Anoka County home. Effective natural resource management requires that we actively partner with those who live, work, and play in Anoka County, whether or not they own land in the county. ACD enlists the public to assist with natural resource management by offering the following services.

- Technical assistance – providing project design and installation management
- Financial assistance – securing, allocating and administering grant funding to install conservation projects
- Regulatory assistance – providing guidance to help keep landowners out of regulatory harm's way with regard to several federal and state laws, and local ordinances
- Outreach and engagement – providing information resources and opportunities to assist with community efforts to improve our natural resources

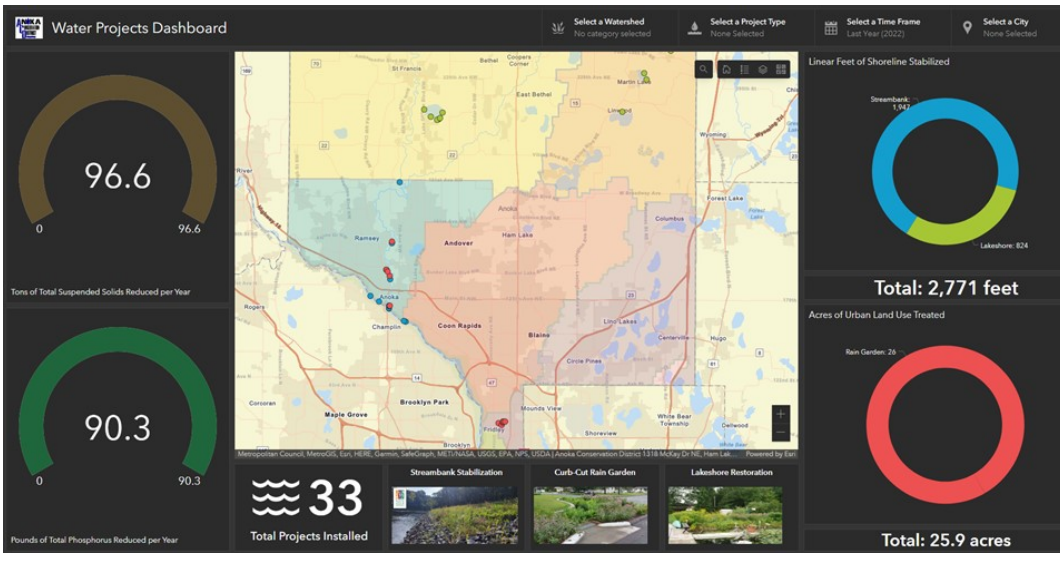
News and Updates

Future Funding Secured

- ~$1.6M - Outdoor Heritage Fund to enhance in-stream and riparian habitat throughout the Rum River Corridor
- ~$770K - Outdoor Heritage Fund to support the Anoka Sandplain Rare Plant Rescue program and ecological restoration in Anoka County
- ~$370K - Clean Water Fund watershed based implementation funding for the metro portion of the Rum River watershed to implement the watershed management plans of the Lower and Upper Rum River WMOs
- ~$78K - Clean Water Fund to stabilize eroding shoreline in the Sunrise River chain of lakes in Anoka County in collaboration with the Sunrise River WMO
- ~$134K - Clean Water Funds to seal unused wells in priority areas and aquifers of Anoka County
- ~$60K - Septic System Fix Up funds to replace failing septic systems in shoreland area
- ~$137K - Clean Water Fund district capacity funding spread across 20 activities including outreach, analysis, technical assistance, and project cost share

Project Dashboards

Late in 2022, ACD staff launched website dashboards to summarize water and ecological project types, quantity, and benefits. Two separate dashboards were needed since water project metrics are very different than those of ecological projects. The dashboards provide summaries by project type, watershed, city, or year and even include a total of all projects that work toward ACD's 2021-2030 Natural Resources Stewardship Plan.



10-year Natural Resource Stewardship Plan

What we do - Action Wheel

ACD identified several keystone endeavors for each of the foundational natural resources: Surface Water, Ecological Resources, Groundwater, and Soils as well as Community and General Operation.

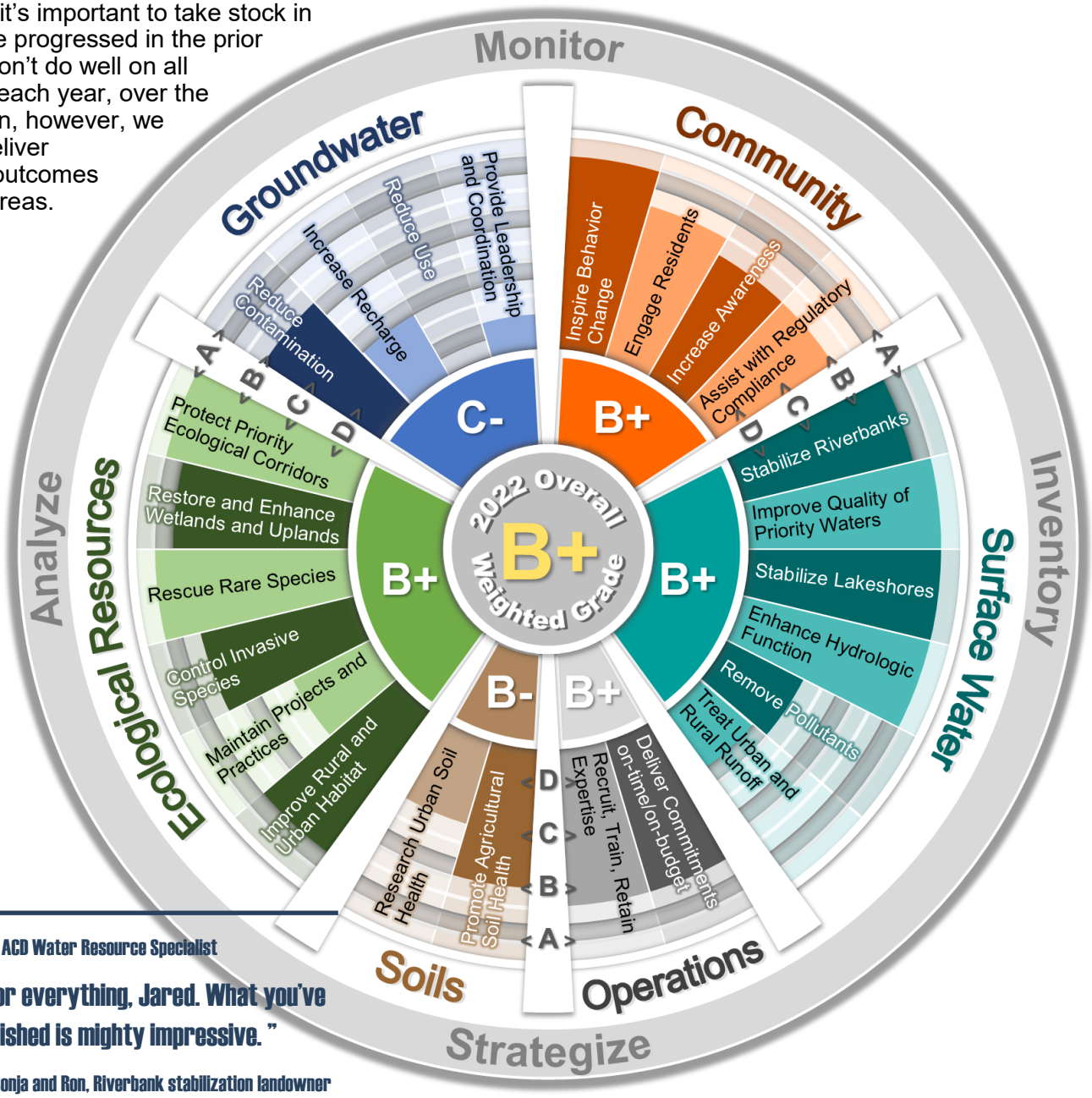
Why it matters - Quality of Life Assessment

As we make progress on these endeavors, we'll have a positive impact on the quality of life in Anoka County.

- Clean plentiful water for drinking and other uses
- Access to abundant high quality outdoor recreation
- Clean lakes and rivers
- Full, but not overflowing, surface waters
- Sustained diversity of plants and animals
- Healthy functioning ecosystems
- An engaged and invested public
- Productive working lands
- Vibrant local economy

How we're doing - Action Wheel

Each year, it's important to take stock in how well we progressed in the prior year. We won't do well on all endeavors each year, over the 10-year plan, however, we intend to deliver significant outcomes across all areas.

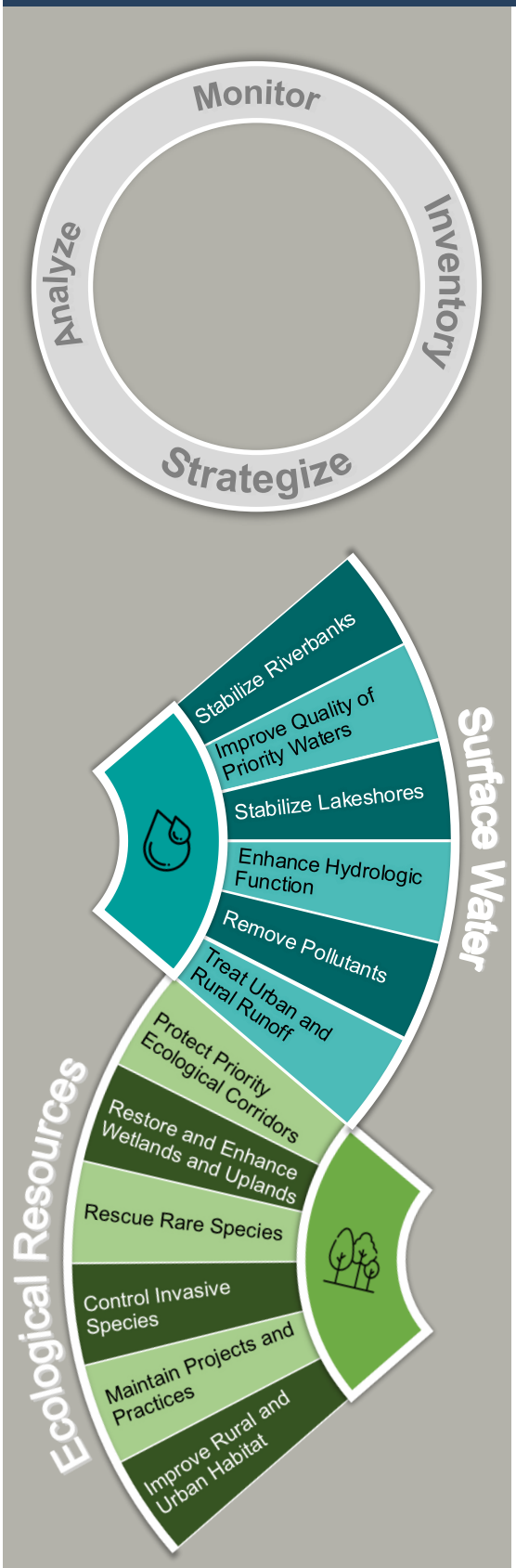


To - Jared Wagner, ACD Water Resource Specialist

"Thank you for everything, Jared. What you've accomplished is mighty impressive."

- Sonja and Ron, Riverbank stabilization landowner

Synopsis - 2022 Progress Toward ACD's 10-year Natural Resource Stewardship Plan



Foundational Knowledge

Monitor - 122 monitoring sites including lakes, rivers, wetlands, groundwater, and precipitation involving quantity, quality and biology. Baseline, trend and diagnostic monitoring are done.

Inventory - Photo inventory of Rum River and Mississippi River north of the dam. AIS inventory of Lake George. Restorable wetlands and buffer law compliance inventories. New county-wide high resolution aerial photos.

Analyze - Centerville Lake and direct Mississippi River discharge Stormwater Retrofit Analysis (SRA) were initiated and Ford Brook Subwatershed Analysis (SWA) was mostly complete. Complete annual Water Almanac.

Strategize - Annual work plans for ACD, local WMOs, Rum and Lower St. Croix One-Watershed One-Plan (1W1P). Participate in regional ecological and groundwater planning initiatives.

Surface Water

Stabilize Riverbanks - 1,947 feet of riverbank across 11 properties on the Rum and Mississippi Rivers.

Improve Quality of Priority Waters - South branch of the Sunrise River delisted. Martin and Typo Lakes improving. Projects on Lake George, Mississippi and Rum Rivers.

Stabilize Lakeshores - 824 feet of lakeshore on 10 properties on Fawn, George, Martin and Sunrise Lakes.

Enhance Hydrologic Function - 16-acre hydrologic wetland restoration and 12 rain gardens installed.

Remove Pollutants - 90 lbs Total Phosphorus (TP), 97 tons Total Suspended Solids (TSS).

Treat Urban and Rural Runoff - 12 rain gardens treating 26 acres removing 1.1 tons-TSS and 6.8 lbs-TP annually.

Ecological Resources

Protect Priority Ecological Corridors - 120-acre RIM conservation easement with 6,000 feet of Rum River frontage.

Restore and Enhance Wetlands and Uplands - 20 acres prairie, 36 acres oak savanna, 22 acres wet meadow.

Rescue Rare Species - 8300 rare plants and 127,500 rare seeds rescued.

Control Invasive Species - 37 acres buckthorn, 20 sites 2.5 acres non-native Phragmites, 8 sites 7 acres wild parsnip, 1 site round-leaf bittersweet, 1 site golden creeper, 8 sites knotweed, 5 sites 0.5 acres spotted knapweed, 2,876 common carp harvested.

Maintain Projects and Practices - 58 site inspected; follow up for many but not all.

Improve Rural and Urban Habitat - 38 pollinator plantings, 11,236 sq. ft. of shoreline buffers, 12 rain gardens.

Synopsis - 2022 Progress Toward ACD's 10-year Natural Resource Stewardship Plan

Groundwater

Provide Leadership and Coordination - Serve on metro groundwater sustainability workgroup. ACD animated groundwater video used by media outlets in many states.

Reduce Use - Ineligible for state grant funds.

Increase Recharge - 12 rain gardens, 16-acre hydrologic wetland restoration.

Reduce Contamination - 4 Subsurface Sewage Treatment System (SSTS) fix ups, 20 wells sealed.

Community

Inspire Behavior Change - 111 projects installed.

Engage Residents - 154 site consultations, 77 project designs, 3 volunteer planting events.

Increase Awareness - Completed Our River Connection video, online quizzes for four videos, 30,840 views of Our Connection video series, monthly snapshot, quarterly newsletter, active blog, and social media.

Assist with Regulatory Compliance - 99.9% buffer law compliance, Wetland Conservation Act guidance.

Soils

Research Urban Soil Health - MPD infiltrometer investment, literature review.

Promote Agricultural Soil Health - Cost share policy updated to include agricultural incentive payments. Cost share funding promotion.

General Operations

Deliver Commitments On Time and On Budget - Closed out 17 grants fully delivered, two closed partially complete, one extension.

Recruit, Train, Retain Expertise - Expanded technical capacity while losing ground on outreach and engagement.

Clean Water, Land, and Legacy

Many projects and activities completed by ACD each year are done in part with funding from The Clean Water Fund and the Outdoor Heritage Fund of the Clean Water, Land and Legacy Constitutional Amendment. When you see the logo to the right, you know the related endeavor received funds from one of these sources. Most often, Water quality improvement projects receive Clean Water Funds and ecological projects receive Outdoor Heritage Funds, but many projects provide water quality and ecological benefits.

CLEAN WATER LAND & LEGACY AMENDMENT

Programs

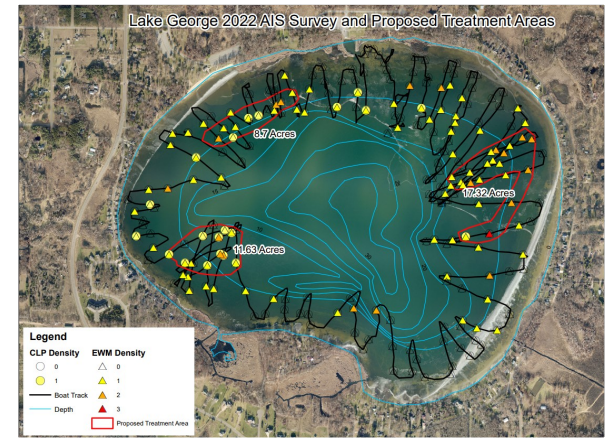
Monitoring and Inventory

Water Monitoring - In order to manage water resources for consumption, recreation, and wildlife, ACD monitors water quality and/or quantity in Anoka County lakes, streams, wetlands, and groundwater. Data summaries and analyses are presented in an annual Water Resources Almanac. Water management organizations and lake associations often contract for these services. 2022 sites included:


Lake clarity monitoring

- *12 manual precipitation gauges*
- *23 electronic reference wetland shallow wells*
- *24 deep groundwater observation wells*
- *7 electronic stream elevation monitoring gauges*
- *24 lake level gauges*
- *8 lake water quality monitoring sites*
- *19 stream water quality monitoring sites*
- *5 stream biomonitoring sites with area high schools*

AIS Inventory - ACD staff completed an inventory of two aquatic invasive species on Lake George; curly-leaf pondweed and Eurasian watermilfoil to enable targeted treatments.



Shoreland Condition Inventory - Photo shoreline inventories were conducted using a camera that takes 360 degree photos. The photos are then uploaded to the internet and can be viewed by the public using Google Streetview. These photos will be used to rank erosion severity and help target future lakeshore restoration sites. Photo inventories for the Rum River and the Mississippi River (upstream of the Coon Rapids Dam) were completed in 2022.

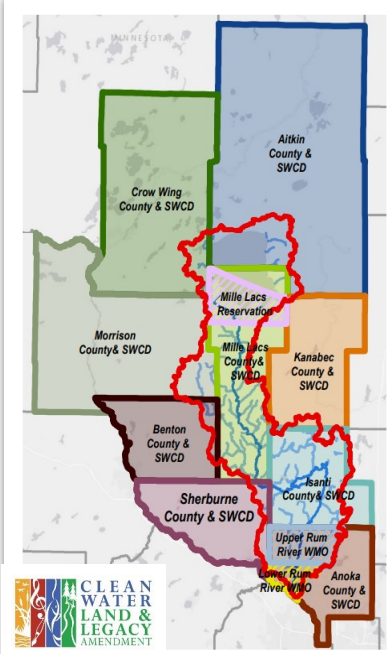
Buffer Law Compliance Inventory - 2022 High resolution aerial photographs were used to identify sites that were non-compliant with the buffer law.

Analysis & Planning

Stormwater Retrofit Analysis (SRA) - SRAs identify and rank potential projects to improve the quality and/or reduce the volume of stormwater runoff that drains to a priority waterbody. Much of the modeling for an SRA for the Centerville Lake watershed was completed in 2022. SRAs for small subwatershed directly draining to the Mississippi River were also initiated.

Subwatershed Analysis (SWA) - SWAs identify water quality improvement practice opportunities in rural landscapes. A SWA for a portion of the Ford Brook watershed was largely completed in 2022. Ford Brook discharges to the Rum River and covers the northwest portion of Anoka County. This area is largely rural, with a mix of agriculture, low density residential development, and open space. The analytical processes are very different for rural (SWA) vs urban (SRA) landscapes. Completion of the Ford Brook SWA is anticipated early in 2023.

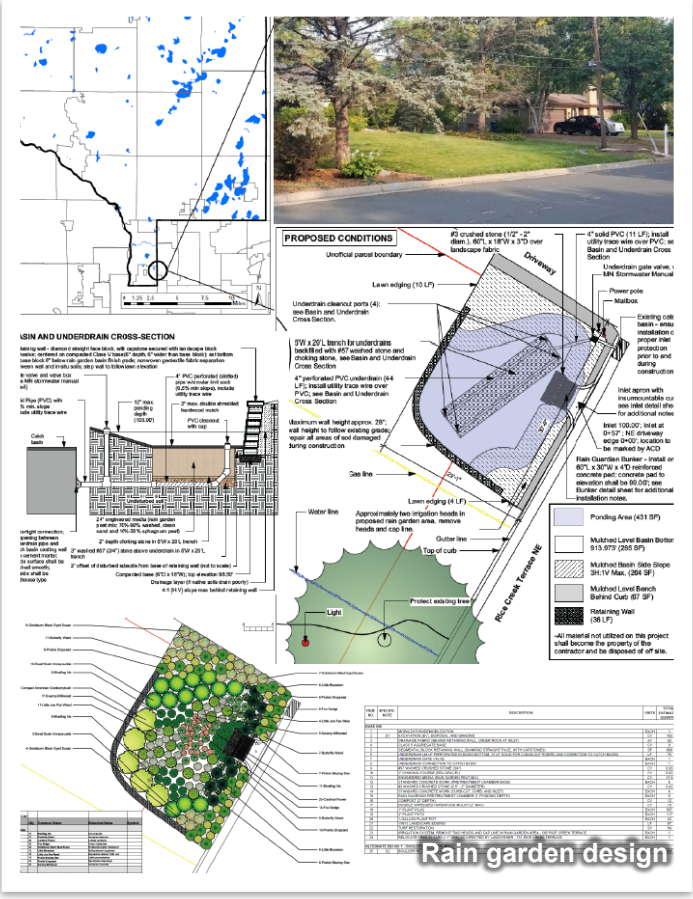
Rum River Watershed 1W1P - Partners throughout the 11-county Rum River watershed from Lake Mille Lacs to the City of Anoka completed a One Watershed, One Plan. The plan identifies shared priorities. A grant work plan was completed and approved for the first of several planned biennial $1M state grants. Local priorities include the Rum River, Lake George, East Twin Lake, Pickerel Lake, and protection of critical riparian lands. These priorities are addressed with a separate $366K grant designated for the Anoka County portion of the Rum River watershed to implement the Water Management Organization (WMO) plans.



Rum River watershed boundary and eligible parties to help implement the watershed plan.

Technical Assistance

Site Planning and Design - ACD provides landowners with consultation and design assistance for projects that attract wildlife, reduce erosion, conserve water, and improve water quality. In 2022, ACD completed site surveys and/or designs for 4 septic system repairs, 3 pond modification, 1 wetland restoration, 1 swale, 6 curb-cut rain gardens, 16 riverbank stabilization projects, 12 habitat enhancements, and 17 lakeshore restorations. Several of these projects were completed under contract with the Rice Creek Watershed District (RCWD). ACD assists Anoka County residents living in the RCWD to vet, design, and install water quality improvement projects, often using cost share funds from RCWD.



Financial Assistance

Natural Resources Block Grant (NRBG) - ACD supports the SSTS program, Local Water Plan implementation, Wetland Conservation Act implementation, and Shoreland rules implementation by passing NRBG funds through to local government units (LGUs) in addition to helping landowners with SSTS fix up efforts. In 2022, $103,624 in grant funds were used to reimburse LGUs and Landowners for their efforts.

Engineering Assistance - ACD accessed $39,577 in funds through a state program to provide ACD staff or consulting engineers to design non-point source pollution projects such as shoreline restoration, gully stabilization, and sediment basins.

Cost Share - ACD passed $535,364 through to landowners to pay for conservation projects with community level benefits. Some incentive programs include the State Cost Share Program, USDA Environmental Quality Incentive Program, DNR Conservation Partners Legacy Grants, MN Clean Water, Land and Legacy Fund, County Ag. Preserves Grants, and Watershed District and WMO cost share programs.

Project Inspection & Maintenance Guidance

ACD provides long-term maintenance oversight. In 2022, ACD staff inspected 58 projects and provided guidance on maintenance needs. Each project installed with public financial assistance must be maintained by the landowner for varying durations depending on the project type and contract terms. Routine inspections are important to ensure contract terms are complied with. Assisting landowners with project maintenance beyond the duration required by grant agreements is a cost-effective way to achieve added benefits.

Regulatory Assistance

Although not regulatory, ACD provides guidance to help keep landowners out of regulatory harm's way.

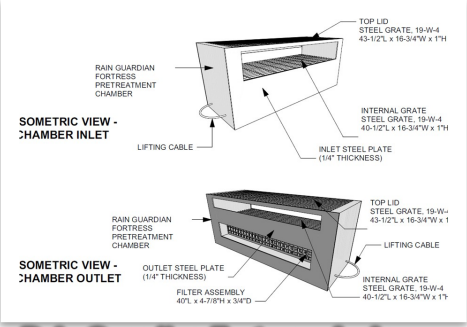
Wetland Conservation Act - ACD employs one full time Wetland Specialist whose responsibilities include serving on Technical Evaluation Panels, processing cease and desist orders, providing quality control reviews of wetland replacement plans and other projects that impact wetlands, and assisting project applicants by providing technical and regulatory interpretations to facilitate project review and permitting at the local level.

Buffer Law Compliance - Of the 112 parcels that an initial 2016 inventory suggested were non-compliant with buffer requirements, ACD assisted landowners to achieve 100% compliance in 2020. Subsequent inventories in 2021 and 2022 revealed more potential violations. ACD worked with landowners to help all but a handful achieve compliance with the buffer law in 2022.

Products

Annual Tree Program - In 2021-2022, ACD sold 24,000 tree and shrub seedlings. The three most important reasons ACD offers this annual sale are: soil and energy conservation, wildlife habitat enhancement, and native ecosystem restoration. We also distribute prairie seed and are available to help landowners develop site-specific plans.

Rain Guardian™ - ACD patented pretreatment chambers to address rain garden maintenance challenges and inlet problems: inlet erosion, inlet plugging and by pass, and excessive accumulation of sediment and debris in the basin. There are currently three product lines; Bunker, Turret, and Foxhole. Prototypes of a new design with metal faceplates called the Fortress, were designed for Philadelphia to fit into small sites in cityscapes. In 2022, nationwide sales neared $720K. Proceeds fund conservation initiatives in Anoka County.



Rain Guardian Fortress design to minimize chamber footprint

Conservation Supplies - Materials and equipment for conservation projects can be hard to come by for landowners. To remove this barrier, ACD provides some items at cost. Common materials include erosion control fabric, concentrated herbicide premixed with surfactant, biologs, and plant materials. Equipment includes herbicide daubers, buckthorn pullers, tree planting bars, and a brush mower.

Administrative Assistance

WMO Administration - ACD provides administrative support to watershed management organizations by completing annual reporting requirements and attending to some operational logistics.

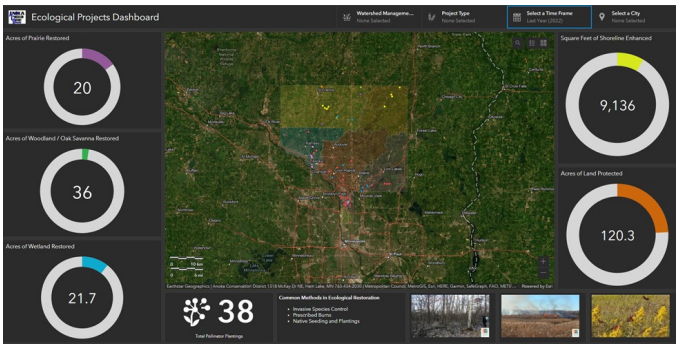
Grant Administration - Grant administration and reporting requirements can be complicated. To help our partners take advantage of grant opportunities, ACD often provides logistical support to comply with myriad grant management and reporting requirements.

Grant Applications - ACD prepares grant applications and work plans to compete for and secure funds on behalf of our partners.

Public Outreach and Information Access

AnokaSWCD.org - Website design and maintenance is all completed in-house by ACD staff. A project map interface features projects, inventories, and analyses. Water monitoring data are accessible. The site also includes current events, policies, board actions, financials, and information on technical and financial assistance programs.

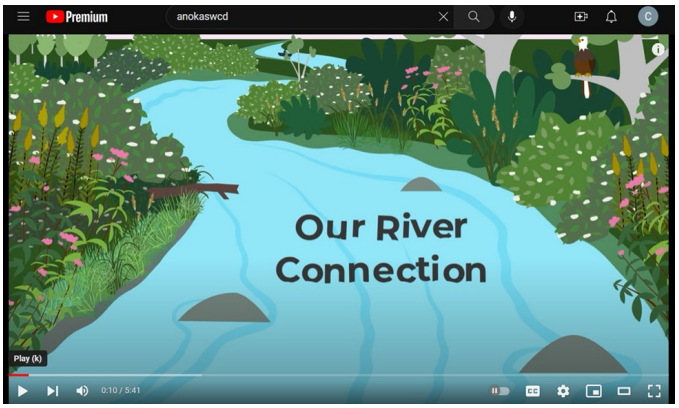
Dashboards - Project dashboards are now available on ACD's website. One highlights ecological projects and the other water projects. These compliment the project mapping tool by summarizing project outputs within a year or across multiple years.



Brochures and Table Top Displays - ACD developed a series of brochures and table top displays on many natural resources topics and offers them for use by our partners. In 2022, a pollinator display and brochure were added. All displays and brochures are listed below.

Topic	Brochure	Display
Lakeshore Restoration: Enhancing water quality and habitat on your shore	x	x
Riverbank Stabilization: Understanding water flow and managing erosion	x	x
Backyard Habitat: Attracting wildlife to your property	x	x
Water-Smart: Conserving water at home	x	x
Rain Gardens: Treating runoff at the source	x	x
Wetlands: Benefitting wildlife and people	x	x
Stormwater Management: Improving water quality and reducing runoff	x	x
Groundwater: Protecting drinking water for generations to come	x	x
Native Plants: Restoring habitat for local wildlife	x	x
Pollinators: Enabling our farms, prairies, forests, and gardens to be fruitful	x	x
Ecosystem Health: Improving landscapes by increasing diversity		x
Threats to our Natural Resource		x
Land Protection: Establishing a legacy		x
Soil Health (US Dept. of Ag. NRCS design)		x
Invasive Species: Combating a threat to native ecosystems		x

Videos for the Web - ACD developed videos on a variety of topics, all of which can be found on AnokaSWCD.org and YouTube. In 2022, ACD added “Our River Connection” to our animated video series. The video covers topics such as river importance, formation, impacts to and from humans, and actions that can be taken to prevent or reduce those impacts.



ACD’s top four animated videos received 30,840 views in 2022 totaling 2050 hours of view time. That’s equivalent to having a full time virtual employee available 24/7 providing information on natural resource conservation activities.

2022	
Rain Gardens 101 - Full Video	12,771
Our Lakeshore Connection - Full Video	1,386
Our Groundwater Connection: Contamination	15,617
Our Groundwater Connection	1,066

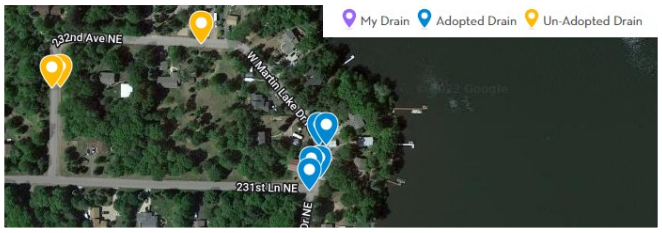
Blog, Snapshot and eNewsletter - ACD updates our weblog, provides monthly snapshot summaries of activities, and quarterly electronic newsletters as outreach tools to engage public officials, colleagues and residents. These can be found at AnokaSWCD.org.

Anoka County Water Resource Outreach Collaborative - ACD serves as the host site for the Anoka County Water Resource Outreach Collaborative (WROC) Coordinator. WROC is a partnership formed in 2018 to coordinate water resource outreach and engagement for watershed and city partners. The goal is to augment and enhance the outreach programming of its partners, inform communities about issues affecting local waterbodies and groundwater resources, and engage people in activities and behavior changes that will help protect and improve the health of these water resources.

Student Scientists - ACD engaged 370 students from 13 classes in five high schools to investigate river biology in three rivers. The biomonitoring program provides useful data on river health while giving students a hands-on environmental learning experience.


Biomonitoring in Rum River

Adopt-a-Drain - As part of a multi-pronged approach to improve Martin Lake water quality and get it removed from the “impaired waters” list, ACD promoted storm drain adoption. Prior to that, we had to get the storm drains that route to Martin Lake added to the Adopt-a-Drain program map. With help from the Martin Lakers and local Facebook groups to promote the program, 11 drains leading to the lake were adopted in 2022!



Shoreland Plant Giveaway - At the 2022 Linwood Lake Improvement Association annual picnic, ACD distributed nearly 200 native shoreline plants to be planted at 25+ properties around the lake. Twelve species were chosen for their beauty, habitat value, and soil shoreline stabilizing characteristics.

Thanks to Minnesota Native Landscapes, Inc. who provided the giveaway plants this year.


Linwood Lake Association picnic with native plan giveaway

Projects

2022 Project Technical Assistance Summary

Project Type	Consult	Design	Install	Maintain
Lakeshore	28	17	14	1
Streambank	28	16	15	7
Rain Garden	19	6	12	0
Habitat Enhancement	52	12	43	37
Subsurface Sewage Treatment Systems	4	0	4	0
Well Sealing	20	0	20	0
Other[1]	3	2	3	0
Total	**154**	**53**	**111**	**45**

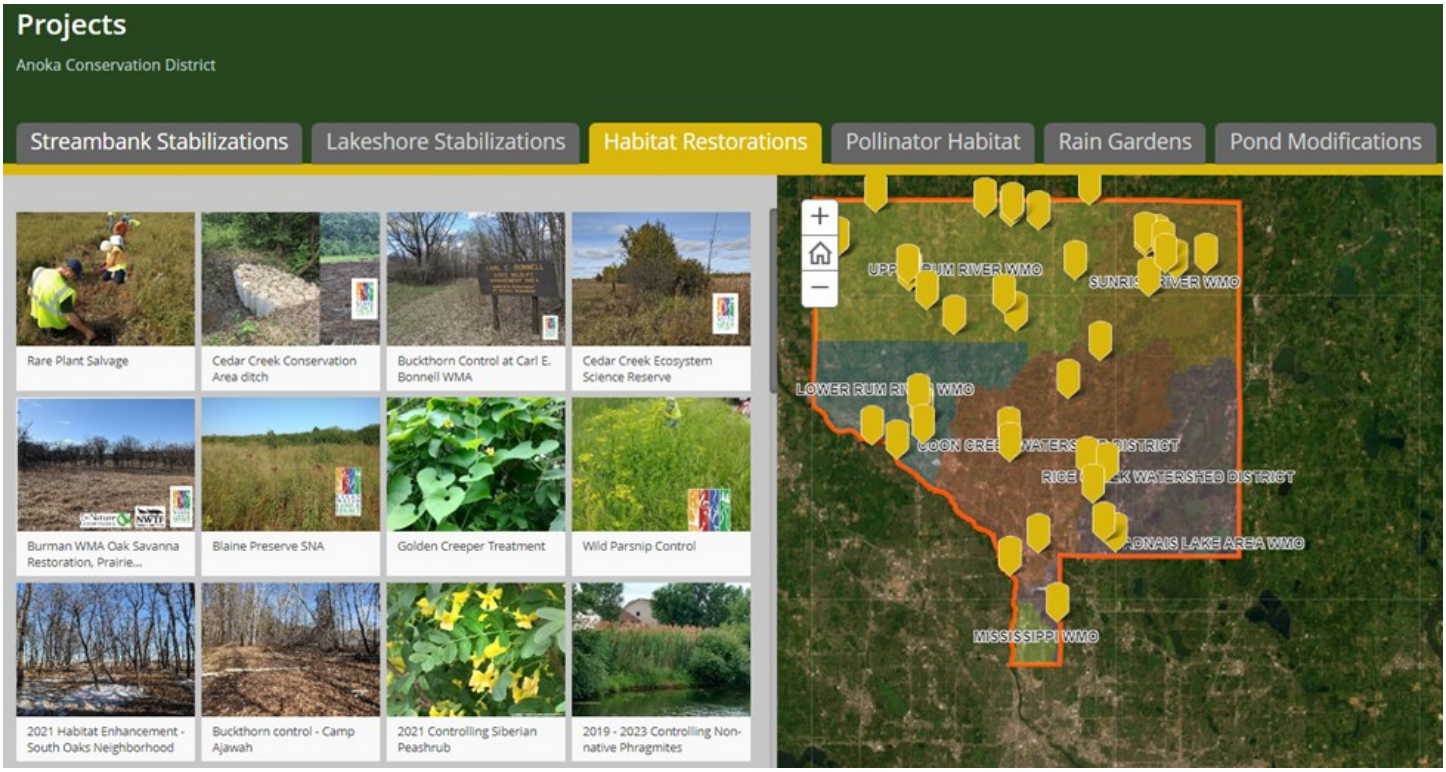
[1]Carp management, pond modifications, swales, and wetland restorations

To - Kris Larson, ACD Water Resource Specialist

"Thank you so very much for all your assistance. What a wonderful thing you are doing! It is so refreshing to get a little help with the hit for a change."

- Lynn, Well sealing cost share recipient

All ACD projects are featured online at www.AnokaSWCD.org using our interactive projects map.



Riverbank Stabilization

Cedar Tree Revetment - Cedar tree revetments provide a cost-effective stabilization approach for mild and moderately eroding riverbanks. Anoka County Parks received funds from the Conservation Partners Legacy Grant Program to install 3,600 linear feet of cedar tree revetments on the Rum River. ACD was hired to do the job from 2020 through 2022. Using ACD staff, grant crew days from the Conservation Corp of Minnesota (CCM), and trees donated from conservation-minded landowners, ACD install the final 1,300 linear feet on seven sites in 2022. ACD's cost saving measures enabled us to install 5,160 linear feet total, far exceeding grant commitments.

The most common cost share projects include:

- *Lakeshore stabilization and buffer restoration*
- *Streambank stabilization and buffer restoration*
- *Wildlife habitat enhancement and invasive species control*
- *Subsurface sewage treatment system repair or replacement*
- *Rain garden installation*
- *Well sealing*

Rum River Central Regional Park Boat Launch - 90 feet of shoreline immediately upstream of the Rum Central Regional Park canoe launch washed out in 2022, compromising the launch and access road. The toe of the slope up to the water line was stabilized with Flexamat Plus. Above that, the site was regraded and vegetated. The project uses the same method as a 250-foot project immediately upstream completed in 2015. On the downstream end, a rock barb was added to direct flow away from the boat ramp and provide fish habitat. We anticipate annual pollutant reductions to the Rum River of 16.2 tons-TSS (sediment) and 13.8 lbs.-TP (phosphorus). The project also enhances ~0.1 acre of riparian habitat. The project was funded through a grant from the Outdoor Heritage Fund (OHF) with contributions from the landowner.

Rum and Mississippi Rivers Confluence Sites - A batch of six eroding riverbanks near the confluence of the Rum and Mississippi Rivers in Anoka totaling 727 feet of shoreline were stabilized as a single project. The stabilization solution used riprap to the two-year flood elevation and native seeding/ plantings on the bank above. Erosion caused by water level fluctuation, scour energy, and large waves from increasingly prevalent wake boats required a hard armoring solution. To eliminated the cost associated with repairing damaged landscaping, the contractor used a small barge rather than entering through yards. In total, the projects reduced annual pollutant loading to the Mississippi River by 35 tons-TSS and 30 lbs-TP.

Mississippi River - Two individual projects were installed to correct 315 feet of eroding riverbank. 8,500 sq. ft. of adjacent buffer was installed to filter runoff and enhance habitat. These projects are expected to reduce pollution annually by 1.9 lbs-TP and 3,780 lbs-TSS.

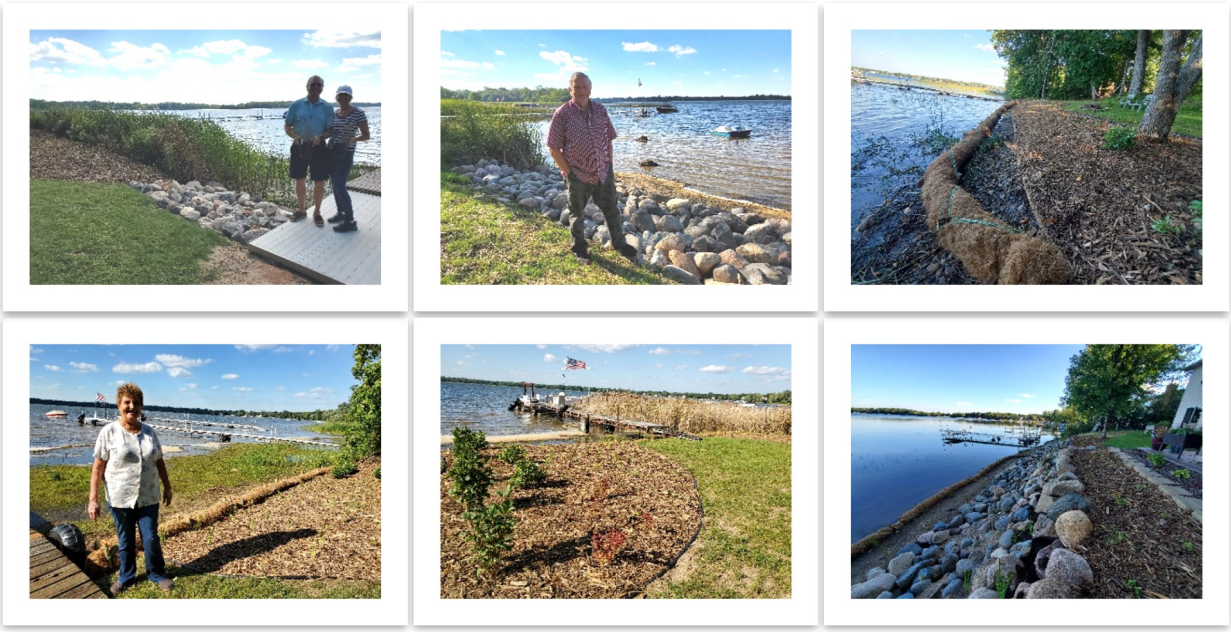
Best Management Practice (BMP) Evaluation

When conducting inspections of BMP installed over the years, such as rain gardens, shoreline restorations, and pollinator plantings, ACD staff also evaluate their performance relative to grant and design expectations. By assessing plant survival, resilience of structures, and shoreline stability, staff are able to discuss areas for improvement in project design, preparation of project sites, species selection, and landowner maintenance expectations. BMP evaluation efforts allow ACD to continue improving project effectiveness, quality and longevity.

Lakeshore Stabilization

ACD partners with lakeshore landowners to stabilize erosion and enhance near-shore habitat. In 2022, we worked with landowners on twelve sites on five different lakes to improve 949 feet of shoreline along with 11,236 square feet of native plant buffer. Each project is custom designed to address site challenges and to meet individual landowner needs. Projects may address bank erosion and/or overland flow using rock armament, or softer approaches like coconut fiber logs. Strategic plantings in the water, along the shoreline, and upslope into a buffer area help hold soil in place, filter water, enhance pollinator habitat, and attract fish and wildlife.

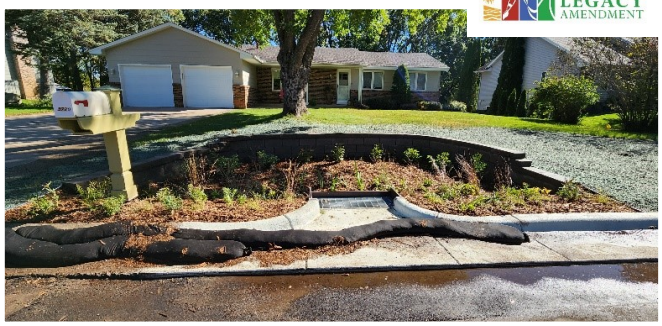
Lake	Site ID	Length ft.	Buffer sq. ft.	TP lbs/yr	TSS lbs/yr
Lake George	6 sites	464	4436	5.4	9000
Martin Lake	Lucas	70	0	1.3	2600
Martin Lake	Ferden	20	0	0.5	600
Linwood Lake	Goldstrand	50	750	0.02	20
Linwood Lake	Lausche	70	700	0.1	210
Fawn Lake	Dale	200	4000	0.3	600
Sunrise Lake	Tiffany	75	1350	0.1	195



Stormwater Runoff Treatment

Projects that treat stormwater are typically in urban settings and including rain gardens, pond modifications, engineered media filters, and hydrodynamic devices. Before installing a retrofit to treat stormwater, ACD conducts detailed analyses of all project opportunities in a subwatershed that could be done to help meet water quality goals. We then rate potential projects based on cost/benefit analysis. Finally, we actively pursue and install the most cost-effective projects at the optimum locations. The Fridley neighborhood shown to the right drains to Rice Creek without any form of treatment. In this neighborhood, road-side rain gardens were the best option. With available funds we were able to install four gardens to treat runoff from the blue shaded areas.

Fridley Rain Gardens - Six curb-cut rain gardens were constructed in Fridley's Rice Creek Terrace neighborhood in late summer, 2022. Collectively, the rain gardens capture and treat stormwater runoff from 7.3 acres that otherwise drained untreated to Rice Creek. These locations were identified as high priorities for stormwater treatment in a Stormwater Retrofit Analysis completed for Lower Rice Creek, which was conducted in partnership with the RCWD and the City of Fridley. ACD reached out to owners of optimally located properties, prepared designs, and oversaw the installation of the rain gardens in conjunction with a road reconstruction project. Landowners will provide long-term maintenance for the rain gardens. Cumulatively, the rain gardens are estimated to infiltrate 455,000 gallons of water, as well as remove 605 pounds of sediment and two pounds of phosphorus loading to Rice Creek annually. All six rain gardens were vegetated with native plants to maximize infiltration and provide the co-benefit of pollinator habitat.



Anoka Rain Gardens - Four curb-cut rain gardens were installed in a City of Anoka neighborhood as part of the city's 2022 Street Surface Improvement Project. Collectively, these gardens capture 9.9 acres of stormwater runoff that would otherwise drain untreated to the Rum River, removing 700,000 gallons of water, 969 lbs-TSS and 3 lbs-TP annually.

Two additional rain gardens were installed in the cities of Anoka and Ramsey that were not part of a street reconstruction project. Combined, they treat 8.72 acres and account for 1.78 lbs-TP and 545 lbs-TSS less going into the Rum River each year.

Carp Management

ACD wrapped up a multi-year effort to remove common carp from Martin and Typo Lakes for the purpose of water quality and habitat improvement. 2,876 carp were removed by box netting. Several attempts were made to conduct commercial netting, but lake and weather conditions thwarted every effort. After the initial program removed 11,642 carp, the remaining carp turned out to be pretty wily. A grant from the Clean Water Fund of the Clean Water, Land and Legacy Amendment funded the project along with cash and time from the Martin Lakers Association, Linwood Lakers Association, and the Sunrise River Water Management Organization.

Wildlife Habitat Enhancement

Some projects ACD installs with landowners are done primarily to enhance habitat for wildlife and pollinators.

Robert and Marilyn Burman WMA - This Wildlife Management Area (WMA) is 204 acres with a diverse mix of habitats including prairie, oak savanna and sedge meadows and has Cedar Creek running through it. Management includes selective thinning, buckthorn treatment, controlling non-native herbaceous weeds, prescribed burns and seeding native species to increase biodiversity. Additionally, a ditch draining a wetland near Cedar Creek was filled to restore hydrology and native vegetation. In total, 9 acres of prairie, 30 acres of woodland, and 5 acres of wetland were enhanced in 2022.

ACD staff dispersing seed at the Robert and Marilyn Burman WMA after a prescribed burn

Carl E. Bonnell WMA - This WMA is 78 acres and contains high quality woodlands and wetlands. Early detection and treatment of common and glossy buckthorn is being conducted throughout the property.

Blaine Preserve SNA - This Scientific Natural Area (SNA) is a 63-acre wet prairie and rich fen that supports some of the rarest wetland plants in Minnesota. Woody encroachment threatens this rare habitat type and the rare plant species found there. 10 acres of glossy buckthorn, aspen and other woody species were mowed to prepare the site for a prescribed burn.

Cedar Creek Conservation Area - The CCCA has a 5-acre wetland area that was ditched. ACD collaborated with US Fish and Wildlife Service to plug and fill the ditch, scrape invasive species, dig basins and enhance the wetland and adjacent 1-acre prairie. The restored hydrology and native vegetation will benefit water quality and improve wildlife habitat.

Cedar Creek Ecosystem Science Reserve - The CCESR contains a diversity of habitats, rare species, and is ranked as Outstanding Biodiversity by the MN Biological Survey. Unfortunately, invasive species infestations have been detected at CCESR across several habitat types that are otherwise high quality and still support a diversity of native plants. Early detection targeted treatment is occurring to prevent the spread of invasive species. 10 acres of prairie and 6 acres of woodland/savanna were enhanced in 2022.

Pine Hills North Park - ACD, U.S. Fish & Wildlife Service, The Nature Conservancy, and the City of Andover are working together to restore hydrology and establish native vegetation to a 6-acre drained wetland in an old farm field at Pine Hills North Park in Andover. A private ditch was plugged and weeds in the basin were scraped and used to fill the ditch. The scraped area will be seeded with a mesic prairie seed mix in 2023.


Pine Hills Park wetland scraping and ditch plug.

Shoreline and Riparian Plantings - ACD worked with 9 landowners on Martin Lake, Fawn Lake, and Lake George to install wildlife friendly native plantings that also filter overland runoff prior to discharge into the adjacent water resource.

Rare Plant Rescue Program – The Anoka Sand Plain Rare Plant Rescue Program is trying to outrace development to salvage, transplant and preserve rare plants. With funding from the Outdoor Heritage Fund of the Water, Land, and Legacy Amendment, it's a partnership ACD, the Minnesota Landscape Arboretum, and Critical Connections Ecological Services who collaborate with MN DNR, local and managers, and many volunteers.

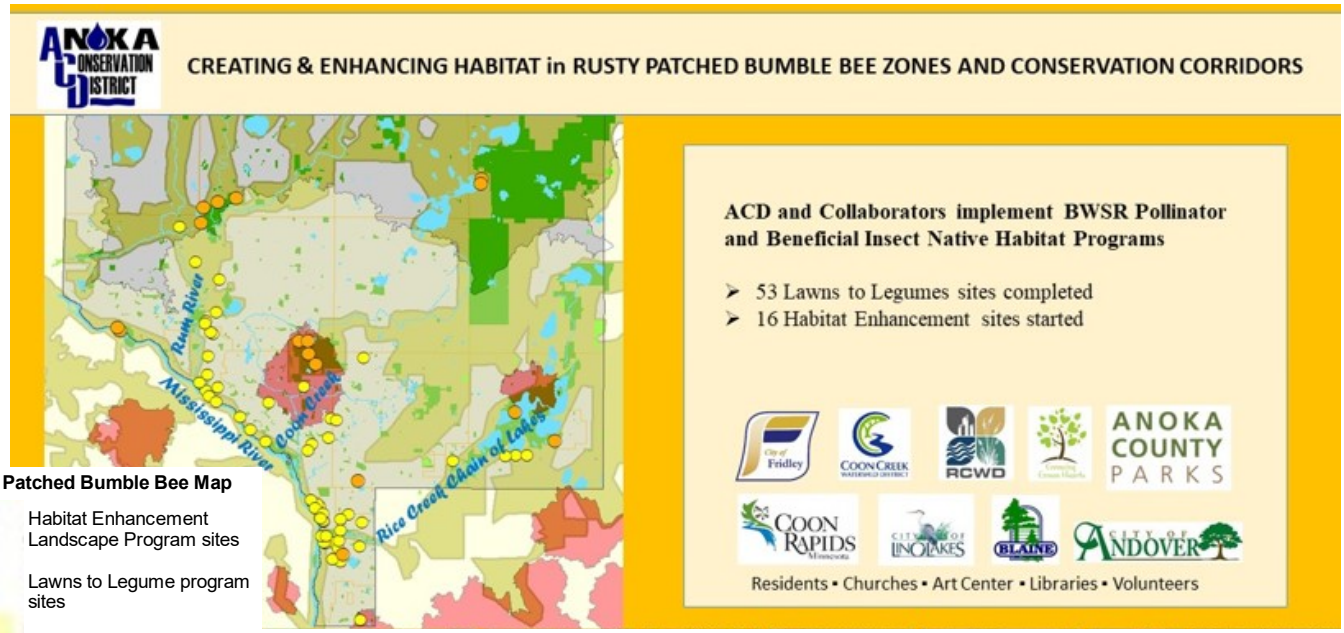
In 2022 ACD, Critical Connections Ecological Services, and University of Minnesota Landscape Arboretum staff worked with volunteers to transplant 8,300 rescued plants, and deposited 127,500 seeds from multiple rare species into the Arboretum's seed bank. Rare plant rescue has been made possible with MN DNR's permit application for the Propagation of Endangered or Threatened Species, which was developed in 2019. Funding for this program is provided through the Outdoor Heritage Fund of the Clean Water, Land, and Legacy Amendment.


Volunteers helping with rare plant rescue and research

In one project, members of the program mobilized to transplant an endangered bristle-berry species, *Rubus stipulatus*, from a road expansion project to Bunker Hills Regional Park. The Star Tribune published an extensive article about the rescue and the necessity of this experimental program.

Lawns to Legumes - The L2L program provided cost share funds for native plants to residents and public spaces such as libraries and churches. ACD worked with local partners to complete 53 pollinator plantings. Those plantings combine to create habitat corridors along the Mississippi and Rum River, Coon Creek and Rice Creek Chain of Lakes.

Habitat Enhancement Landscape Program - HELP provides funds to create pollinator habitat on public lands. ACD is working with Anoka Parks, City of Fridley, and City of Blaine to enhance prairies and convert turf to native plantings; 16 sites were started in 2022.

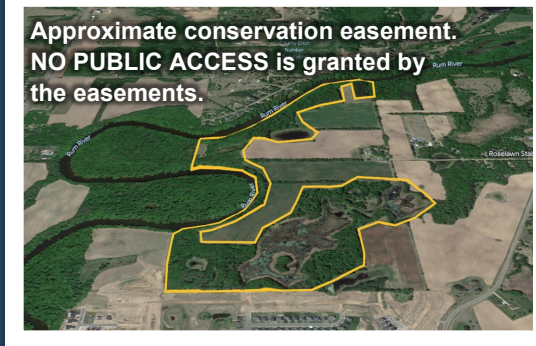


Rusty Patched Bumble Bee Map

- Habitat Enhancement Landscape Program sites
- Lawns to Legume program sites
- Dispersal zones
- High Potential Habitat
- Conservation Corridors
- Public Lands

Land Protection

RIM Rum River - $5.5M in state Reinvest in Minnesota (RIM) funds have been allocated to establish conservation easements on properties in the Rum River watershed. Sensitive and ecologically outstanding lands adjacent to the river were targeted for this round of funding. In 2022 a RIM conservation easement was established on 120 acres of the Stenson and Gamm family property along the Rum River in St. Francis. The property remains their private property but permanently protects those acres and over 6,000 feet of Rum River shoreline.



Cooperative Weed Management Area - ACD facilitates the Anoka CWMA program. 2022 activities include outreach about invasive species ID and management, reviewing early detection reports, monitoring invasive species populations, spreading leafy spurge biocontrols, providing cost share for invasive species treatments, and treating high priority weed infestations including wild parsnip, knotweed, golden creeper, spotted knapweed, and round leaf bittersweet.

Non-native Phragmites Treatment - ACD facilitated treatment of non-native Phragmites at 20 sites in the county in 2022. Invasive Phragmites, or common reed, is a highly invasive, non-native, wetland grass. Due to a rapid identification of the extent of the species in Minnesota and the relatively small size of infestations, we are in position to eliminate invasive Phragmites with a coordinated effort.

Groundwater Projects

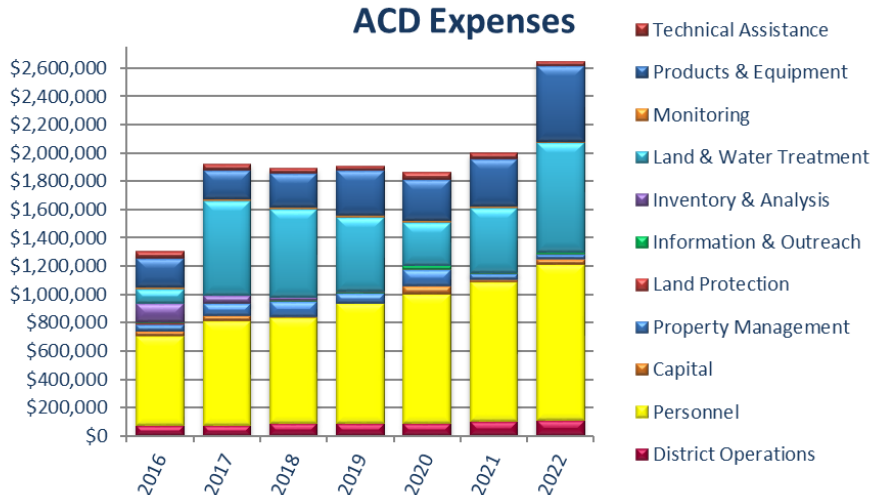
Septic System Repair or Replacement - ACD distributed $77,694 in State funds to assist income-qualified homeowners with repair or replacement of four separate noncompliant septic systems in shoreland areas.

Unused Well Sealing Cost Share - ACD distributed $35K in Clean Water Funds to assist 20 homeowners to hire licensed professionals to seal unused wells in high priority areas. Unused wells threaten drinking water by making our groundwater supplies vulnerable to contamination.

Financials

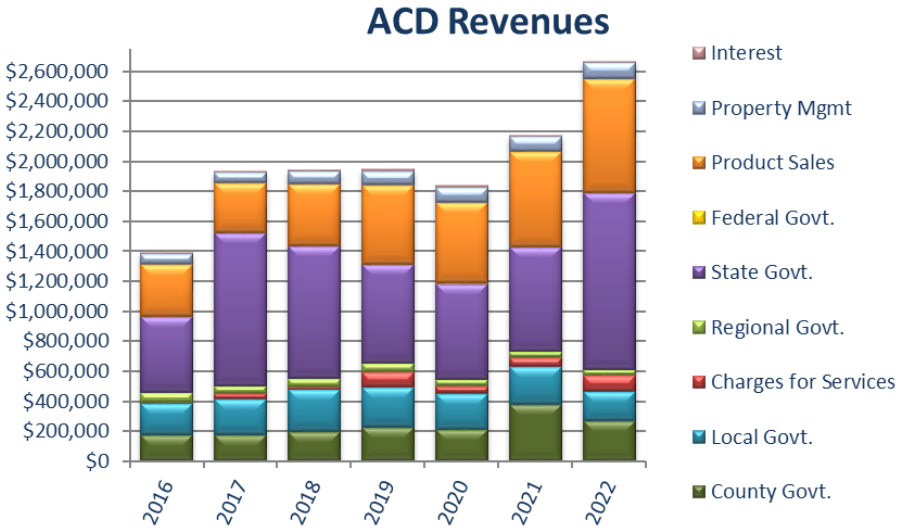
Where the Money Goes

ACD finances vary annually due to the ebb and flow of competitive grants and installing large expensive projects periodically. Many state grants are from sales tax dedicated to natural resource activities. ACD is committed to accessing these funds so Anoka County taxpayers benefit from them in proportion to sales tax paid in the county. ACD strives to keep overhead costs down, while expanding services. Operations costs are consistently low. Personnel has slowly increased with inflation and the addition of staff to deliver on grants. Approximately 66% of personnel is directly related to projects; the rest covers paid leave and general administration.



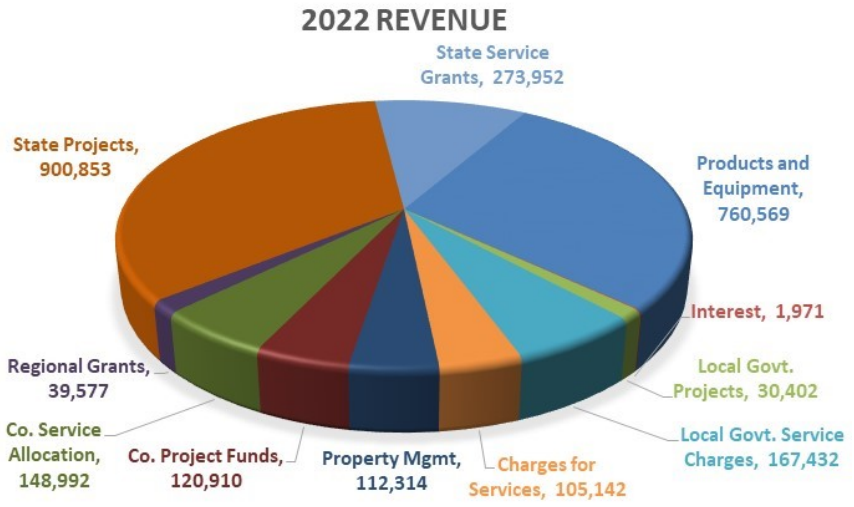
Making Sense of the Dollars

Although governed by an elected board, conservation districts do not yet have taxing authority and must secure funds from many sources to serve the public. Project installation is primarily covered by state grants, while general operations is mostly covered by County funds. County funds are critical because many grants do not cover overhead expenses. Many grants also require matching funds, so county funds must serve as match and cover all ineligible costs under grant rules.



Making Dollars of the Cents

To provide comprehensive natural resource management, ACD collaborates with cities, watershed management entities, state agencies, county departments, non-profits, and landowners on projects of mutual interest. The 2022 revenue chart begins to convey this but does not show the 86 projects and programs supported by 25 distinct funding sources, many of which supported multiple projects and programs. For example, County Project Funds alone is comprised of 11 projects, and State Grants were used in part to fund 41 different initiatives.



On average, for every locally derived dollar, ACD leverages over 4 dollars from outside of the county.