



Annual Report ANA ONSERVATION ISTRICT



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

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What We Do

The Anoka Conservation District (ACD), established in 1946 through a voter led petition, celebrated its 77th year of service.

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.

Along with these priorities, Community is embodied in ACD's Action Wheel, which features 24 keystone endeavors against which we measure progress.

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.

ACD's Vision: Strong partnerships. Innovative solutions. Healthy environments.

ACD serves all of Anoka County's 369,000 residents spanning 284,000 acres, 72 recreational and natural environment lakes, 446 miles of streams and rivers, and a regionally critical groundwater resource.

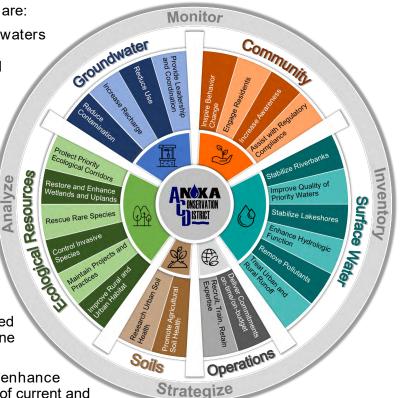
Per MN Stat. 103C.005 Soil and Water Conservation • Policy:

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:



- 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 benefits are sustained 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.



SERVICE FOR

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.

2023 Supervisors were:

- Chair Mary Jo Truchon term 2020 thru 2024
- Vice Chair Jim Lindahl term 2022 thru 2026
- Treasurer Glenda Meixell term 2022 thru 2026
- Member Colleen Werdienterm 2020 thru 2024
- Secretary Sharon LeMay term 2020 thru Oct 2023
- Member Kate Luthner term Nov 2023 thru 2024

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



Daily activities are attended to by staff.

2023 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
- Water Resource Technician Breanna Keith
- Restoration Technician Logan Olson
- Natural Resource Technician—Brian Clark, P.E.
- Seasonal Technician Sally Herman

- Field Crew Adam Egemo
- Field Crew Justin Highum
- Field Crew Addison Tansom
- Field Crew Sara Belden
- Skillbridge Intern Matt Udermann
- GreenCorp 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. multicounty aquifer recharge areas).

News and Updates

Future Funding Secured

- \$569K 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.
- \$107K Clean Water Fund to stabilize eroding shoreline in the Sunrise River chain of lakes in Anoka County in collaboration with the Sunrise River WMO
- State funding for SWCD operations shifted from the Clean Water Fund to the General Fund and is now called SWCD Aid and came with a \$42K increase for two years.
- \$150K Environment and Natural Resources Trust Fund (lottery money) to cost share septic system compliance upgrades.

Gravel Bed

GreenCorps member, Ethan Cypull installed a gravel bed at ACD's headquarters. Gravel beds are useful to hold over bare root trees and shrubs until planting conditions are optimal.

Groundwater Specialist

Efforts to secure half of the funding needed for a Groundwater Specialist from Anoka County failed despite broad-based support from legislators, municipalities, water management entities and the League of Women Voters. With over 350,000 residents drinking groundwater, 10 landfill sites, a shallow groundwater table, and highly permeable sandy soils, Anoka County needs a Groundwater Specialist.

Working with the Public

Over 78% of Anoka County is privately owned, and over 369,000 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.

- <u>Technical assistance</u> providing project design and installation management
- <u>Financial assistance</u> 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

Online Dashboards Enhanced

In 2023, ACD's new online project tracking dashboards were enhanced to better summarize the types, quantity, and benefits of installed water and ecological projects. The dashboards are interactive and can 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. A new 'Financials' dashboard was also produced in 2023 to provide a user-friendly way to explore how ACD's annual funds bring value to the county.





10-year Natural Resource Stewardship Plan

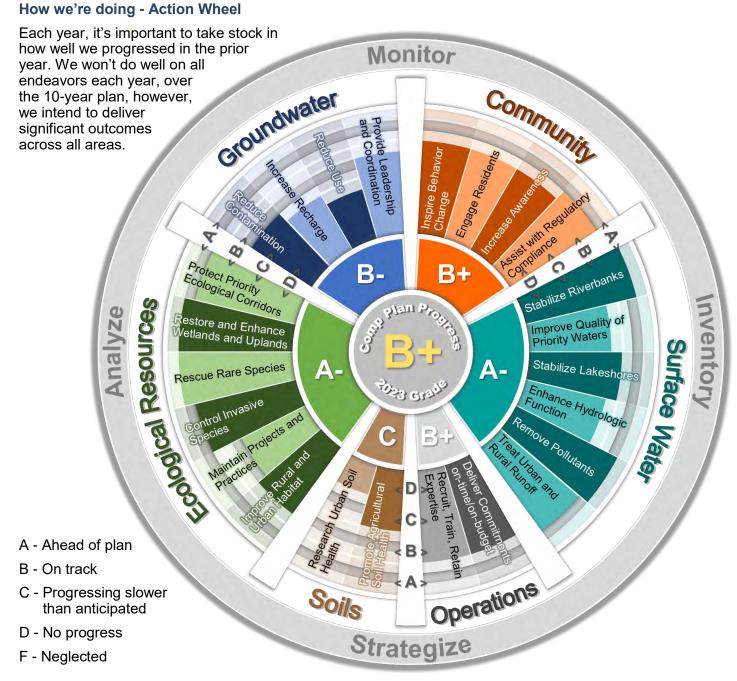
What we do - Action Wheel

ACD identified several keystone endeavors for each of the foundational natural resources: Surface Water, Ecological Resources, Groundwater, and Soils as well as Community and Operation. We also recognize the foundational knowledge provided by monitoring, inventory, analysis and planning.

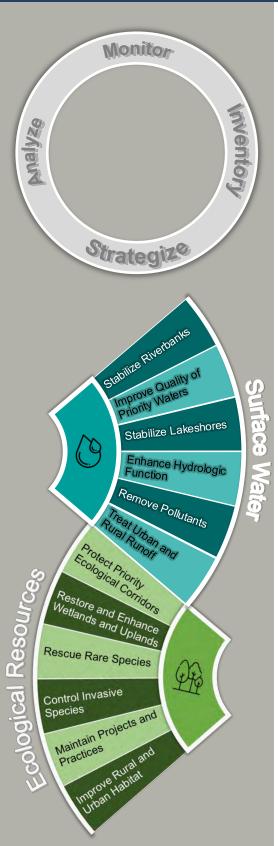
Why it matters - Quality of Life Assessment

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



Synopsis - 2023 Progress Toward ACD's 10-year Natural Resource Stewardship Plan



Foundational Knowledge

<u>Monitor</u> - 123 monitoring sites including lakes, rivers, wetlands, groundwater, and precipitation involving quantity, quality and biology. Baseline, trend and diagnostic monitoring are done.

<u>Inventory</u> - Photo inventory of Rum & Mississippi rivers, Oak Glen Creek, and Martin, Linwood, and Coon Lakes. Aquatic plant inventory of Lake George and Highland Lake. Restorable wetlands and buffer law compliance inventories.

<u>Analyze</u> - Completed Centerville Lake Stormwater Retrofit Analysis (SRA). Advanced Rum and Mississippi urban SRAs. Completed rural Subwatershed Analysis (SWA) for Ford Brook and Rum River direct drainage areas. Water Almanac presenting data and analysis.

<u>Strategize</u> - Annual work plans for ACD, local WMOs, Rum and Lower St. Croix watersheds. Participate in regional ecological and groundwater planning initiatives.

Surface Water

Stabilize Riverbanks - 3,041 feet of riverbank across 11 sites on the Rum River.

<u>Improve Quality of Priority Waters</u> - Martin and Typo Lakes improving. Projects on Lake George, Golden Lake, Mississippi and Rum Rivers.

<u>Stabilize Lakeshores</u> - 180 linear feet of lakeshore on George and Golden Lakes.

<u>Enhance Hydrologic Function</u> - Pond modification treating 86.8 acres for water quality and stormwater attenuation.

Remove Pollutants - 123 lbs Total Phosphorus (TP) and 117 tons Total Suspended Solids (TSS) reduced.

<u>Treat Urban and Rural Runoff</u> - 1 swale and 1 stormwater pond modification enhancing treatment of 97 acres of urban runoff.

Ecological Resources

<u>Protect Priority Ecological Corridors</u> - Two RIM conservation easements totaling 52.4 acres including 3,750 feet of Rum River frontage. Assumed management of 126 acre wetland bank.

Restore and Enhance Wetlands and Uplands - 50 acres prairie, 29 acres oak savanna and woodland, 29 acres wetland. 10,000 2,000 square feet of riparian and lakeshore habitat, respectively.

Rescue Rare Species - 900 rare plants rescued from 3 development sites. Planted into 5 protected sites. Monitored all rare plant transplants.

<u>Control Invasive Species</u> - 41 acres buckthorn, 16 sites 2.6 acres non-native Phragmites, 6 sites 5 acres wild parsnip, 1 site roundleaf bittersweet, 1 site golden creeper, 10 sites knotweed, 1 site tansey, 6 sites 0.5 acres spotted knapweed with 1 biocontrol.

<u>Maintain Projects and Practices</u> - 74 sites inspected; follow up for many but not all.

<u>Improve Rural and Urban Habitat</u> - 18 pollinator plantings, 12,015 sq. ft. of riparian and shoreline buffers.

Synopsis - 2023 Progress Toward ACD's 10-year Natural Resource Stewardship Plan



Groundwater

<u>Provide Leadership and Coordination</u> - Serve on metro groundwater sustainability workgroup. Pursue funding for Groundwater Specialist. Pass MASWCD resolution for groundwater conservation funding from DNR user fees.

<u>Reduce Use</u> - Comment on DNR water appropriation permits to reduce waste.

Increase Recharge - No recharge BMPs in 2023.

<u>Reduce Contamination</u> - 6 Subsurface Sewage Treatment System (SSTS) fix ups, 15 wells sealed.

Community

Inspire Behavior Change - 71 projects installed.

<u>Engage Residents</u> - 167 site consultations, 38 project designs, 5 volunteer planting events, 354 tree sale customers

Increase Awareness - Completed Our Riverbank Connection video and accompanying online quiz, 26,507 views of Our Connection video series, presentations to 400+ participants on a variety of topics, workshops, monthly snapshot, quarterly newsletter, active blog, and social media.

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



Soils

Research Urban Soil Health - Not advanced in 2023

<u>Promote Agricultural Soil Health</u> - Cost share funding promotion, one project cost-shared for 10 acre site.

Operations

<u>Deliver Commitments On Time and On Budget</u> - Extend three grants, closed out 8 grants fully delivered, all other grants progressing on schedule.

Recruit, Train, Retain Expertise - Added P.E. licensure, no resignations. Need a Groundwater Specialist

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.



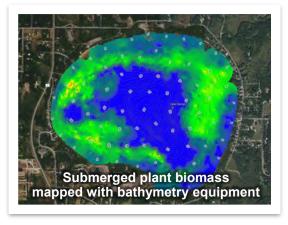
Monitoring and Inventory

<u>Water Monitoring</u> - 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. 2023 sites included:

- 16 manual precipitation gauges
- 22 electronic reference wetland shallow wells
- 24 deep groundwater observation wells
- 7 electronic stream elevation monitoring gauges
- 25 lake level gauges
- 4 lake water quality monitoring sites
- 21 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. ACD's new bathymetry equipment was also used during the survey to test its ability to map submerged plant biomass. A comprehensive aquatic vegetation survey and associated report was also completed for Highland Lake in Fridley.



Shoreland Condition Inventory - Photo shoreline inventories were conducted using a 360 degree camera. The photos are then uploaded to Google 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 & Mississippi River (downstream of the Coon Rapids Dam), Oak Glen Creek, and Martin, Linwood, and Coon Lakes were completed in 2023.

Buffer Law Compliance Inventory - In 2023, compliance inspections were completed at select sites to keep Anoka County 100% compliant. Newly released, high resolution aerial photographs will be used in 2024 to conduct an updated inventory to identify sites that are noncompliant 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. An SRA for the Centerville Lake watershed was completed in 2023. SRAs for subwatersheds draining to the Rum and Mississippi Rivers also progressed, resulting in the analysis of 800 urban acres and identification of over 150 candidate projects. Completion of these reports is anticipated by June 2024.

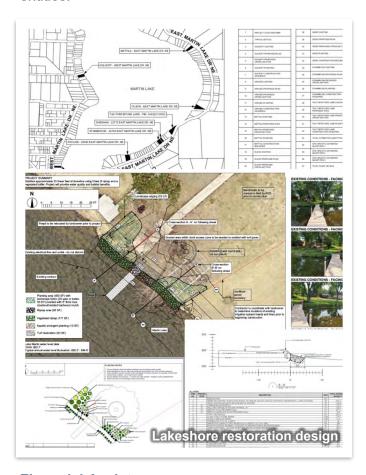
Subwatershed Analysis (SWA) - SWAs identify water quality improvement project opportunities in rural landscapes. Altogether, nearly 300 candidate projects such as agricultural BMPs and wetland restorations were sited across ~30,000 acres draining to the Ford Brook and Rum River. Ford Brook discharges to the Rum River and covers the northwest portion of Anoka County. The areas analyzed are largely rural, with a mix of agriculture, low density residential development, and open space. Analytical processes are very different for rural (SWA) vs urban (SRA) landscapes. The release of these reports is anticipated early in 2024.

Annual Work Plans & Budgets - ACD completes, or assists with, annual plans of work to progress toward comprehensive plan goals and objectives at many levels including: Sunrise, Upper Rum and Lower Rum River WMOs, Rum River and Lower Saint Croix watersheds, and for ACD.

Regional Collaborations and Planning - ACD staff served on the Metro drinking water sustainability workgroup, Metro Conservation Network steering team and restoration affinity group, and the Anoka Sandplain Partnership.

Technical Assistance

Site Planning and Design - ACD provides landowners with consultation and design assistance for projects that attract wildlife, reduce erosion, conserve water, improve water quality, and protect groundwater. In 2023, ACD provided consultations for 167 sites. Of those, site surveys and/or designs were completed for 7 critical area plantings, 21 lakeshore restorations, 8 streambank stabilizations, 1 pond modification, and 1 swale. 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. If project design is beyond the capacity of ACD staff, we have access to funds to hire private consultants or qualified staff from neighboring entities.



Financial Assistance

Cost Share - ACD passed \$469,641 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 2023, ACD staff inspected 74 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 non-regulatory, ACD provides guidance to help keep landowners out of regulatory harm's way. We also access and pass funding through to local government units to help offset the cost of administering the Wetland Conservation Act and subsurface sewage treatment system ordinances.

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. All but two violations were resolved.

<u>Buffer Law Compliance</u> - A full county buffer review was conducted in late 2022. ACD assisted landowners whose parcels were non-compliant with fulfilling buffer requirements. Only one non-compliant parcel remained at the end of 2023 and the landowner is working with ACD to reach compliance in 2024.

<u>Shoreland Rules</u> - Local governments administer shoreland rules for DNR with the exception of Linwood Township. In all cases, ACD keeps an eye out for violations and helps landowners achieve compliance.

Products

Annual Tree Program - In 2022-2023, ACD sold 24,650 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 bypass, and excessive accumulation of sediment and debris in the basin. There are currently four product lines: Bunker, Turret, Foxhole, and Fortress. In 2023, nationwide sales were \$715K. Proceeds fund conservation initiatives in Anoka County.



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, bio-logs,
and plant materials. Equipment
includes buckthorn pullers, tree
planting bars, and a brush
mower.

Administrative Assistance

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

<u>Grant Administration</u> - 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. We're currently administering \$2.3M in grants for others.

<u>Grant Applications</u> - ACD prepares grant applications and work plans to compete for and secure funds on behalf of our partners. As an example, grants secured in collaboration with the Sunrise River Watershed Management organization have exceeded \$1M in the last 10 yrs.

Public Outreach and Information Access

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

<u>Dashboards</u> - Two 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 a variety of natural resources topics and offers them as resources for use by our partners. In 2023, a wetland restoration brochure was added. All displays and brochures are listed below.

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

<u>Videos for the Web</u> - ACD developed videos on a variety of topics, all of which can be found on AnokaSWCD.org and YouTube. In 2023, ACD added "Our Riverbank Connection" to our animated video series. The video covers topics such as signs and causes of erosion, riverfriendly lawn care, and a variety of bank stewardship and stabilization approaches.



ACD's top animated videos received 26,507 views in 2023 totaling over 2000 hours of view time. That's nearly equivalent to having a full time virtual employee available 24/7 providing information on natural resource conservation activities.

2023

•	Our Riverbank Connection	557	
	Rain Gardens 101 - Full Video	8,437	
•	Our Lakeshore Connection - Full Video	2,091	
•	Our Groundwater Connection: Contamination	13,928	
	Our Groundwater Connection	964	
	Our River Connection	530	



Outreach by the Numbers

- 12 monthly snapshots newsletters
- 4 quarterly newsletters
- 7 public presentations.
- 7 event displays
- 9 articles in city newsletters or newspapers
- 5 volunteer events planting or controlling weeds
- 16,400 Facebook distributions (posts, stories and ads)
- 99 new Facebook followers
- 1,600 Facebook page visits
- 47,027 blog article visits

Blog, Snapshot and E-newsletter - ACD publishes blog posts on our website, monthly snaphot summaries of district activities, and quarterly electronic newsletters to serve as outreach tools to engage public officials, colleagues and residents. These can be found at AnokaSWCD.org.

<u>Student Scientists</u> - ACD engaged 560 students across 20 classes and five schools to investigate river biology in four rivers. The biomonitoring program provides useful data on river health while giving students a hands-on environmental learning experience.



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 and maintained in 2023.



To-Becky Wozney, ACD Wetland Specialist

"Thank you for your support through the review process and helping to plant the seed about wetland banking potential at our TEP onsite meeting."

-Eric, Landowner

Projects

2023 Project Technical Assistance Summary

PROJECT TYPE	CONSULT	DESIGN	INSTALL	MAINTAIN
Habitat Enhancement	22		20	35
Critical Area Planting	7	7	7	
Land Protection	12		2	
Agricultural	2		1	
Lakeshore	37	21	4	
Streambank	23	8	7	2
Rain Garden	18			1
Pond Modification	1	1	1	
Swale	2	1	1	
Wetland Restoration	15			
Subsurface Sewage Treatment Systems	11		6	
Well Sealing	17		15	
Other ¹			2	
Total	167	38	66	38

¹Pet waste disposal stations

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

Lakeshore Stabilization

ACD partners with lakeshore landowners to stabilize erosion and enhance near-shore habitat. In 2023, we worked with landowners on Lake George to stabilize 96 linear feet of shore and install 657 sq ft of native plant buffers. At Martin Lake we designed eight projects totaling 650 linear feet to be installed in 2024. Each project is custom designed to address site challenges and to meet individual landowner needs.







Riverbank Stabilization

Cedar Tree Revetment - Cedar tree revetments provide a cost-effective stabilization approach for mild and moderately eroding shoreline. ACD was hired by Anoka County Parks to install 2,000 linear feet of cedar tree revetments on the Rum River for a Conservation Partners Legacy Grant. Using ACD staff, grant crew days from the Conservation Corps of Minnesota & Iowa (CCMI), and tree donations, ACD installed 1,733 linear feet on three sites in 2023. ACD's cost saving measures will enable us to install 2,933 linear feet total, far exceeding grant commitments.



Rum River Dellwood River Park, City of St. Francis— Moderate to severe erosion along 630 feet of Rum Riverbank was causing significant tree and soil loss and was threatening a public walking trail. Several practices were used to armor the bank where needed and to enhance habitat where possible:

- Two severely eroding washout zones totaling 180 feet were built back out and armored with rock riprap and rootwads.
- 450 feet of moderate toe erosion was treated with cedar tree revetment.
- Three rock bendway weirs were installed to redirect flow away from the bank.

The project utilized grant dollars from the Outdoor Heritage Fund and match from the city and county, enhancing 0.72 acres of habitat and reducing annual pollutant loads by 60 tons-TSS and 51 lbs-TP.



Riparian Buffers - Work continued in 2023 to enhance vegetative cover and habitat on six riverbank stabilization sites installed in 2022 plus one neighboring site, all near the confluence of the Mississippi and Rum Rivers. The riverbanks

upslope from the lower bank armament were improved by removing invasive species, thinning branches to increase light to the understory, seeding, and planting. Once established, vegetated banks are more stable, provide better habitat, and filter runoff before it reaches the river.



Rum Central Park Boat Launch Area - A riverbank stabilization project was completed in 2022, and subsequently damaged by spring 2023 floods before vegetation establishment. That flood was the highest in 51 years. ACD and Anoka County Highway Department repaired the damage. The project length was 90 ft. Funding sources were Anoka County and the Outdoor Heritage Fund.



Neilson - A 100 linear foot riverbank was stabilized on the Rum River. Techniques included: protecting the toe of bank with a cedar tree revetment, contouring the slope with brush bundles to hold soil from migrating downslope, revegetation by hydroseeding, and 1,000 native plugs and shrubs. Project benefits included stabilizing 3,200 sq ft, suspended solids reduction of 19.56 tons/yr, and phosphorus reduction of 16.62 lbs/yr.



Stormwater Runoff Treatment

Apex Pond Enhancement - Originally constructed in 1999 with a ponding depth of one foot for rate control of runoff, Apex Pond has an 87 acre contributing drainage area that outlets to Springbrook Creek and ultimately the Mississippi River. Enhancement of the pond increased the depth to approximately six feet, thereby increasing storage capacity and water quality treatment. The design also preserved mature trees and included a native plant buffer on the pond side slopes. Total annual reductions to Springbrook (County

Ditch #17) and the Mississippi River include 11.19 lbs-TP/yr and 4,407 lbs-TSS/yr as a result of the enhancement. Project funding included a combination of Metro Mississippi East Watershed Based Implementation Funds, a Coon Creek Watershed District Water Quality Cost-Share Program grant, the City of Fridley, ACD District Capacity, and technical assistance funds from the Metropolitan Conservation Districts. Long-term maintenance will be conducted by the City of Fridley.



Rum River Blvd Swale Stabilization - A roadside swale

stabilization was completed on the west side of the St. Francis High School campus. The project stabilized a 460 ft eroding swale. The project was a priority because the swale terminates in a stream that drains to the Rum River less than 500 ft downstream.

The swale receives a large amount of runoff from the high school and adjacent lands. The 9.97 ac drainage is more than half impervious surface. Funding was from a Watershed Based Implementation Funding (WBIF) grant and the Upper Rum River Watershed Management Organization. Partners included the City of St. Francis, St. Francis High School, and Anoka Co Highway Department.



Coon Lake Beach Community Center Rain Garden Rehab - ACD staff led a local Boy Scout group in an effort to rehabilitate the rain garden that was constructed in 2015. It became overgrown with black locust trees and weeds, which were removed. The clogged inlet was cleared, and a fresh layer of mulch was installed. The rain garden captures and infiltrates road runoff, which would otherwise flow directly into Coon Lake.

Ramsey Rain Garden: One Year Later - The photos below show a rain garden in Ramsey upon installation in 2022, and again exactly one year later. Satisfyingly beautiful results. The rain garden treats stormwater runoff that otherwise reaches the Rum River with no treatment.







Enhanced Street Sweeping
Linwood Township revised their street
sweeping in 2023 following a 2022 study
that identified specific streets where more
frequent sweeping would be beneficial to
lakes. An additional 3 curb-miles will be
swept four times annually. This will reduce
phosphorus discharge to the lakes by 17.9
lbs/yr. Partial funding is from the Lower St.
Croix Partnership using
Clean Water, Land and
Legacy grant funds.

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.

Groundwater Projects

<u>Septic System Repair or Replacement</u> - ACD distributed \$142,805.15 in State funds to assist low-income homeowners with replacement of six separate noncompliant septic systems in vulnerable areas.

<u>Unused Well Sealing Cost Share</u> - ACD distributed \$12K in Clean Water Funds to assist 15 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.

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 2023, two RIM conservation easements were established along the Rum River in St. Francis. One on 28.9 acres of the Gamm family property and one on 23.5 acres owned by St. Francis Land Development, totaling 3,750 feet of Rum River shoreline protection.



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. Follow up buckthorn treatment, weed control and overseeding occurred in 2023.

<u>Carl E. Bonnell WMA</u> - 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. 7 acres of buckthorn were treated in 2023.

Habitat Enhancement Landscape Program - HELP provides funds to create pollinator habitat on public lands. ACD is working with Anoka Parks, City of Fridley, City of Blaine and City of Ramsey to enhance prairies and convert turf to native plantings; enhancement activities occurred at 16 sites in 2023.





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. Vegetation management occurred in 2023.



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. 8 acres of wetland and 6 acres of woodland/savanna were enhanced in 2023.





Cooperative Weed Management Area - ACD facilitates the Anoka CWMA program. 2023 activities include outreach about invasive species ID and management, reviewing early detection reports, monitoring invasive species populations, releasing spotted knapweed 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 16 sites in the county in 2023. 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.

Rare Plant Rescue Program – The Anoka Sand Plain Rare Plant Rescue Program is a partnership between ACD, MN Landscape Arboretum and Critical Connections Ecological Services. We collaborate with volunteers, the DNR, landowners and developers to rescue rare plants from permitted development project areas before construction begins. Rescued plants are transplanted into permanently protected natural areas with ecologically appropriate habitat and monitored over time.

In 2023, project partners worked with volunteers to rescue 900 plants from three development sites, transplanted into five protected sites, and monitored previously rescued transplants.

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 rescued state threatened *Viola lanceolata*, threatened *Rubus semisetosus* and endangered *Rubus stipulatus* from future development sites.

Financials

Where the Money Goes

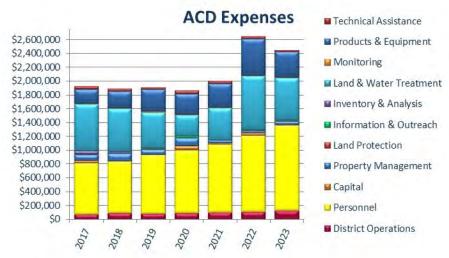
ACD finances vary annually due to the ebb and flow of competitive grants and installing large expensive projects periodically. Many state grants are from sales tax dedicated to natural resource activities. ACD is committed to accessing these funds so Anoka County taxpayers benefit from them in proportion 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.

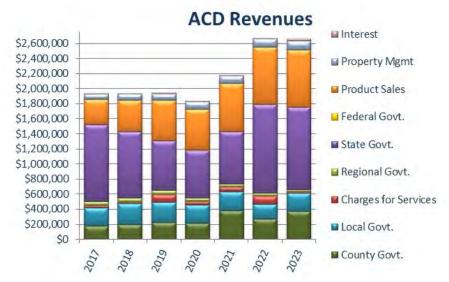
Making Sense of the Dollars

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 2023 revenue chart begins to convey this but does not show the 86 projects and programs supported by 22 distinct funding sources, many of which supported multiple projects and programs. For example, County Project Funds alone is comprised of 20 projects, and State Grants were used in part to fund 55 different initiatives.







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