VLAWMO
Vadnais Lake Area
Water Management Organization

2023 ANNUAL REPORT

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Introduction and background

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Letter from the Administrator

Greetings!

It was a very active year for VLAWMO, from several on-the-ground installations to valuable local collaborations. We've celebrated milestones and accomplishments, saw a passing of the torch, and marveled at the inspiring dedication of our watershed community.

2023 marked VLAWMO's 40th Anniversary, which was celebrated throughout the summer in a series of tours and events. The series culminated in a celebration picnic at the Vadnais-Sucker Lake Regional Park in August. It brought together dozens of partners from past and present, and also commemorated former VLAWMO administrator Stephanie McNamara for her retirement and 30 years of service, as well as the Ramsey County Soil and Water Conservation Division (RCSWCD), which was celebrating it's 50th Anniversary.

VLAWMO Board recognized and congratulated Board member Dan Jones for his service on the VLAWMO Board, representing the City of White Bear Lake. Staff and the Board were proud to present Dan an award at his final Board meeting in December 2023, and the VLAWMO community wishes him well in his next chapter. We're now excited to welcome White Bear Lake Councilmember Andrea West to the VLAWMO Board.

In the realm of projects, we're thrilled about the construction of the Wilkinson Lake Deep-Water Wetland Restoration. This project improves water storage capacity and reduces nutrient pollution into Wilkinson Lake. This project is a partnership between VLAWMO and the North Oaks Company (NOC). Grant funds through the US Environmental Protection Agency (EPA) 319 funds administered by the Minnesota Pollution Control Agency (MPCA), are administered with local cash match that is being shared equally between VLAWMO and NOC.

The Westfield Park Bioswale was a successful cost share collaborative with the City of Vadnais Heights, treating runoff and improving storage for the Lambert Creek drainage area. 2023 also saw the launch of new programs and studies such as smart irrigation pilot programs at the City of Vadnais Heights and White Bear Township. We look forward to the insights on water conservation across five public properties that were selected for the program. Monitoring and data collection will occur for the next five years.

Other studies in the works include an East Vadnais Lake subwatershed resiliency study (City of Vadnais Heights, Ramsey County, St. Paul Regional Water Services), and a private ditch management study with the City of Lino Lakes. We hope you find the following pages insightful and a worthwhile glimpse into our everyday work.

Congratulations to VLAWMO's 4th annual Watershed Award recipients, Kristie Elfering of NOHOA and Carol Nelson of the White Bear Lake Rotary Club. Thank you for your time and dedication to the watershed, and to all of our unsung heroes that keep our watershed community flowing. It is an honor to work with VLAWMO's array of outstanding municipal and local partners, the Board of Directors and Technical Commission, and the outstanding VLAWMO staff team of Brian, Lauren, Nick, and Dawn.

We look forward to another exciting year in 2024!

Phil Belfiori

Background

The Vadnais Lake Area Water Management Organization (VLAWMO) was formed in 1983 to protect the Vadnais Lake watershed area in northern Ramsey County and a small portion of Anoka County. Our organization was formed through a Joint Powers Agreement (JPA) that was ratified by the 5 cities and 1 township within VLAWMO boundaries to comply with the State of Minnesota Metropolitan Surface Water Management Act (Minnesota statute Chapters 103A – 103H). We are governed by a 6 member Board of Directors that is represented by an elected official from each of the communities. VLAWMO covers approximately 25 square miles and includes portions of Vadnais Heights, White Bear Township, White Bear Lake, Gem Lake, Lino Lakes, and all of North Oaks.

OUR APPROACH

Managing a watershed area to protect our vital water resources has become the primary approach across the country. Since water flows across political boundaries, partnerships among local governments, regional, state and federal agencies are vital. Because Vadnais Lake is used as the drinking water reservoir for approximately 450,000 customers in the St. Paul area, VLAWMO frequently partners with the St. Paul Regional Water Services (SPRWS) on a variety of water quality monitoring and improvement projects.

OUR CORE PRINCIPLES

To guide our efforts towards achieving our mission, VLAWMO shares responsibility with its member communities to:

- Protect surface water quality
- Protect groundwater quality and recharge areas
- Provide public education to promote good stewardship of water resources
- Protect and manage wetlands through the Wetland Conservation Act
- Collaborate with other public and private organizations
- Manage stormwater and control flooding through the use of best management practices
- Require good erosion control practices, both during development and as a part of good stewardship

Volunteers from AFSA Academy maintained the Vadnais Heights City Hall raingarden in May, 2023.

Mission Statement

Our mission at the Vadnais Lake Area Water Management Organization is to protect and enhance the water resources within the watershed.

Activities we work on include: Water quality monitoring, education and outreach projects, wetland protection, and water quality enhancement projects.

"How Watersheds Work" courtesy of Michigan Sea Grant (MICHU-10-728)

What is a Watershed?

A watershed is all the land area that drains to a specific water resource, such as a lake or stream. Watersheds range in size from a few square miles to an entire continent. As rain and melting snow run downhill, they carry sediment and other materials into streams, lakes, and groundwater.

The land use activities within a watershed have a direct impact on the quality of the water. 96% of the land use within VLAWMO is urban with a small area of agricultural land in the northern end.

Watersheds provide water for drinking, irrigation, streams, and activities such as fishing, swimming, and boating. In addition, watersheds also provide food and shelter for wildlife.

OUR GOALS

Accomplishing our mission requires a focus on common goals. The VLAWMO will pursue the following goals as a way of proceeding towards the mission.

- Protect and improve surface water quality
- Protect and enhance wetland resources
- Protect and improve waters for wildlife habitat and recreation
- Enhance public participation and stewardship
- Make and enable informed decisions
- Optimize public resources
- Protect and improve groundwater quality and quantity
- Analyze and use alternative funding sources
- Improve communications
- Prevent flooding

WHAT IS A WMO?

A watershed management organization (WMO) is a local government agency charged with protecting water resources within its boundaries. All land within the metropolitan area must be within an organized watershed (State Statutes Chapters 103B & 103D). Watershed Districts are governed by County Commissioners while Water Management Organizations are governed on the municipal level.

WHO PAYS FOR IT?

The Vadnais Lake Area Water Management Organization is funded by a storm sewer utility fee. Property owners within the watershed are charged a fee to manage the stormwater that runs off their property. This public utility fee is determined by land use (ex. Residential, commercial etc), and is included on Ramsey County property tax statements. The authority to charge and collect a stormwater utility fee is governed by Minnesota State Law.

Water Resources in the Watershed

LAKES

There are 17 lakes within VLAWMO. East Goose Lake, West Goose Lake and Birch Lake are located in White Bear Lake. Tamarack Lake, Fish Lake and Ox Lake are located in White Bear Township. Gem Lake is located in Gem Lake. Amelia Lake is Located in Lino Lakes. Pleasant Lake, Charley Lake, Deep Lake, Black Lake, Wilkinson Lake and Gilfillan Lake are located in North Oaks. Sucker Lake, East and West Vadnais Lake are located in Vadnais Heights.

East Vadnais Lake is the drinking water reservoir for the City of Saint Paul. East Vadnais Lake is supplied with water pumped from the Mississippi River in Fridley that flows via an underground aqueduct into Lake Charley in North Oaks. The water then flows east to Pleasant Lake, then south into Sucker Lake, and then into East Vadnais.

LAMBERT CREEK

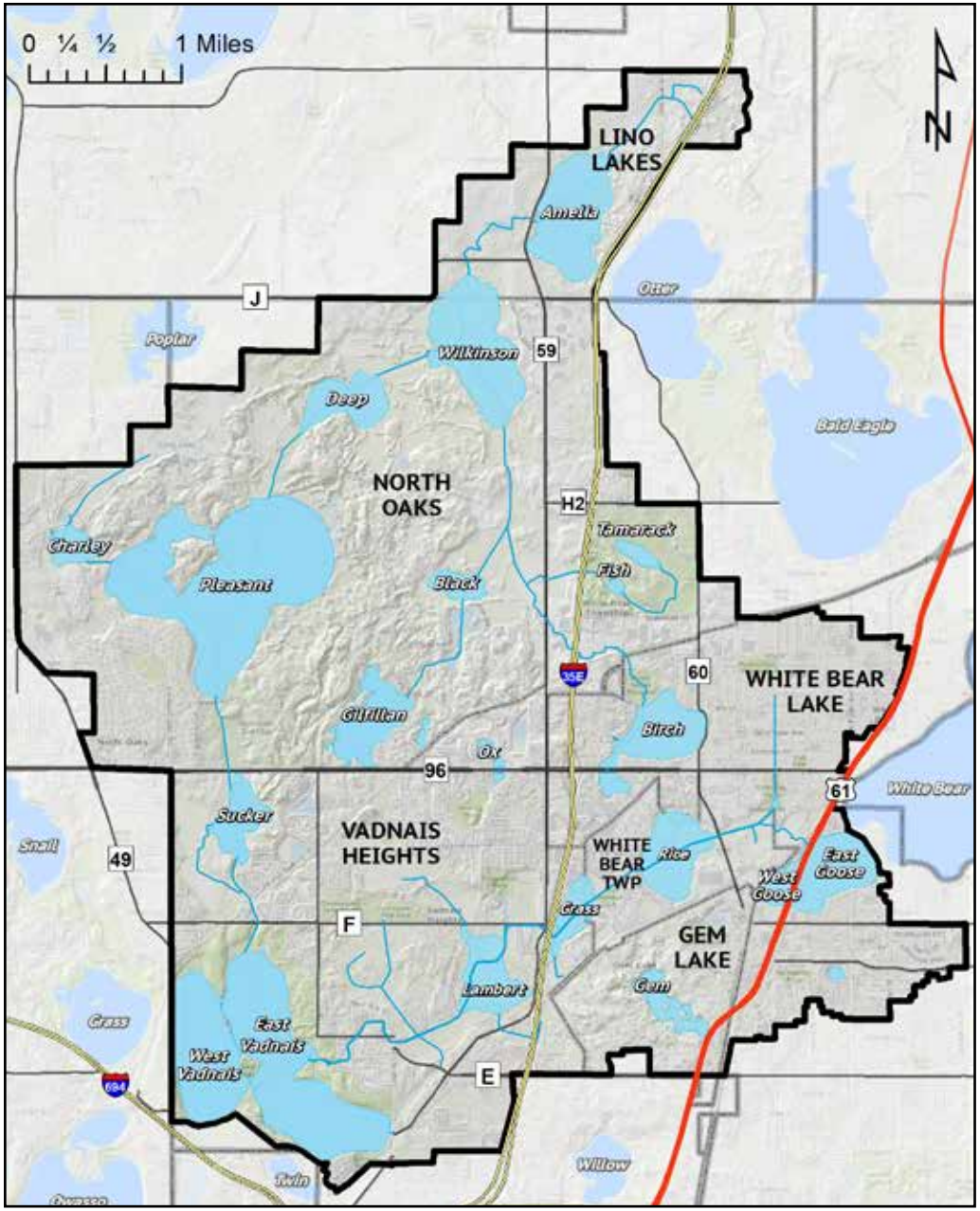
VLAWMO has jurisdiction over Lambert Creek, 4.5 miles of creek and wetland that runs from West Goose Lake and Whitaker Pond and eventually empties into East Vadnais Lake.

WETLANDS

There are over 500 wetlands within VLAWMO. Tamarack, Grass, Wilkinson, Rice, Lambert, and Sobota Slough are a few of the largest wetland complexes in the watershed.

GROUNDWATER

Groundwater beneath the land surface of the watershed flows to local lakes, the Mississippi River, and aquifers including the Prairie du Chien aquifer.



THE YEAR IN REVIEW:
Activities, projects, and highlights

What issues does the watershed face?

IMPAIRED WATERS:

Several lakes in the watershed are on the State Impaired List for high nutrients. These include Wilkinson, Goose, West Vadnais, Tamarack, Pleasant, and Gilfillan Lakes. Lambert Creek has an impairment of high E. coli bacteria levels. Studies show that the E. coli is coming from canine and avian sources.

Improving these waterbodies requires cooperation between cities, land owners, businesses, and the watershed organization. Each home, park, and property connects to a waterbody through stormwater runoff and is part of the puzzle.

PRESSURES ON GROUNDWATER:

Similar to finances, groundwater has many "deposits" that work out of sight. Groundwater can be stored for days, years, or decades, can be either deep or shallow, and can move up, down, or side to side. Drought conditions can put stress on groundwater supply, so it is important to take steps to conserve our precious groundwater resources. Examples of regional groundwater challenges include:

- Changes on the landscape can change how and where groundwater recharges.
- When groundwater is used heavily, changes in aquifer pressures can contaminate wells with increased sediment or metals. This creates a need to dig deeper wells and can be a source of conflict.

SEDIMENTATION:

Erosion and sedimentation is a natural process that can be accelerated with human activity. Bare soil, degraded slopes, and poorly protected drainage routes are common sources of excess sediment.

Small amounts of sediment accumulate in stormwater runoff to create a big issue for lakes and streams. Sediment clogs wetlands, culverts, and drainage ditches, suffocates aquatic plants that stabilize lake beds, and carries excess nutrients with it.

DEGRADED WETLANDS:

Many shorelines on lakes and ponds contain turf grass up to the water's edge. This causes problems for water quality and degrades nature's ability to protect water resources.

Sometimes wetlands are altered or filled in illegally. Even small infringements on wetland boundaries contribute to a state-wide struggle in preventing the gradual loss and degradation of wetlands. Preventing this loss supports clean and secure surface and groundwater for the future.

Be part of the solution:

Easy steps to help improve the watershed.

WINTER:

Practice Smart Salting:

- Shovel and scrape early after a snowfall.
- Spread salt with 2-3" between crystals.
- Don't over-salt: 1/2 - 2/3 of a coffee mug holds enough salt for one parking space.
- Practice spot-treatment, apply salt, sand, or grit in cold temps and as a salt alternative.
- Visit vlawmo.org/residents/water-stewardship/ for more info.
- Sweep up extra salt and sand when pavement is dry.
- Select your product according to the temperature.

SPRING & SUMMER:

- Adopt a stormdrain to promote local water quality.

Water with care:

- Use sprinklers that keep water low to the ground.
- Direct sprinklers away from pavement.
- Water lawn in the morning and evening to reduce evaporation. Install smart irrigation controllers.

Mow with care:

- Mow grass at 3" to hold moisture on the lawn and reduce runoff.
- Keep grass clippings out of the street.
- Leave grass clippings on lawn for free fertilizer, or fertilize sparingly.
- Plant a raingarden or help maintain a public or community raingarden.

FALL:

- Core aerate the lawn to increase root depth, durability, and water absorption.
- Continue adopt-a-drain efforts, cleaning out leaves and debris from stormdrains and the curb.
- Mulch leaves into lawn with a mower for free fertilizer.
- If you must use weed killer, do so now to make a bigger impact and use less compared to Spring/Summer.
- Dispose of leaves and grass clippings responsibly at a compost site or through a hauler service- never in a ditch, wetland.

ALL YEAR LONG:

- Prevent illegal dumping into ditches and stormdrains: "only rain down the drain".
- Install a native planting, raingarden, or bee lawn.
- Plan with VLAWMO to make planting and installation easy and effective.
- Restore shorelines with deep-rooted native vegetation.
- If you're involved with contractors, seek contractors certified in smart salting or turf maintenance best practices.
- Respect wetland boundaries. Each wetland plays a role in the watershed no matter how small.
- Pick up pet waste promptly and dispose of it in the trash.

Photos: Clean Water MN

In the Community

PURPLE LOOSESTRIFE BIOCONTROL

VLAWMO's latest MN Water Steward Megan Sigmon-Olsen completed a loosestrife beetle rearing and release to complete the capstone requirement of the MN Water Steward program. The goal was to support the loosestrife beetle population at the Rice Lake wetland in White Bear Township, which was first established in 2016. Loosestrife beetles are used in the field of wetland management not to eradicate purple loosestrife, but to help contain its spread. Purple loosestrife is a wetland plant that can dominate wetlands to the point of inhibiting native vegetation and water flow.
Megan complemented her wetland efforts by hosting a National Night Out event in her neighborhood, providing tours of her raingarden and wetland native plant buffer.

NEIGHBORHOOD TOURS

2023 was the biggest year yet for neighborhood tours. MN Water Stewards Ceci and Ed Shapland coordinated three tour events from June to August with residents who have completed VLAWMO Landscape Grants. This provided a space for new and curious folks to see water-friendly landscaping techniques up close and in-person, hearing directly from the property owner on the project vision, function, and ongoing maintenance needs. Projects in focus included various styles of raingardens, lo-mow and other alternative turfs, small native plantings, and large prairie restorations.

WORKSHOPS AND WEBINARS

VLAWMO's workshop series included:

- Winter Seed Sowing with Native Plants: February 23
- Grant Program Open House: March 23
- Turf Alternatives: March 30
- Raingardens 101: April 20
- "But it fell in my cart!" Tips for Smarter Plant Planning: April 11
- MPCA Smart Salting for Community Leaders: December 7
- MPCA Smart Salting for Property Managers: December 14

PUBLIC EVENT EDUCATION BOOTHS

VLAWMO staff and excellent volunteers helped maintain a public presence to educate folks about the local watershed, ways to support local water, and ways to stay in the know of VLAWMO's work. Events attended in 2023 included White Bear Township Day, White Bear Lake MarketFest, Vadnais Heights Heritage Day, and the Landscape Revival Native Plant Sale.

Watershed Action Volunteers

Volunteers bring VLAWMO's work into the community. In addition to the volunteer programs outlined on this page, volunteers help present booths at public events, conduct wetland surveys, and photograph wildlife in the watershed.

ADOPT-A-RAINGARDEN & ADOPT-A-DRAIN

Volunteers help maintain public raingardens throughout the watershed. VLAWMO would like to thank Christ the Servant Lutheran Church, Laurie Kuduk, Judy Lissick, Kathy Hellen, Jennifer Jensen, Susan Miller, and the Vadnais Heights City Hall staff for making raingarden maintenance a regular part of their community routine.

The VLAWMO watershed also now boasts over 4,200 stormdrains adopted by everyday residents! Visit adopt-a-drain.org to add to the effort and increase the positive impact.

ADOPT A STORM DRAIN

CITIZEN SCIENCE: MACROINVERTEBRATES

Citizen science can allow nature enthusiasts of all kinds to participate in valuable watershed monitoring at their own pace. Using the Leaf Pack Method, VLAWMO volunteers help monitor six locations along Lambert Creek as well as Sucker, Pleasant, and Deep Lakes for aquatic macroinvertebrates.

Leaf Pack Network

CITIZEN ADVISORY COMMITTEE (CAC)

The CAC is a venue for residents to help advise and guide VLAWMO education and outreach efforts, help plan and gather public feedback (surveys, etc.), and convey public interests, concerns, and opportunities for networking to staff and the VLAWMO Board of Directors. VLAWMO's CAC is a subset of the primary volunteer group, the Watershed Action Volunteers (WAV).

AQUATIC INVASIVE SPECIES (AIS)

Partnering with Ramsey County Soil and Water Conservation Division (RCSWCD), VLAWMO gathers volunteers to serve as citizen AIS detectors. RCSWCD provides training and records of aquatic invasives across the county. Together we're able to have eyes-on-the-water for quick detection and response should new infestations occur.

MINNESOTA WATER STEWARDS

VLAWMO joined the MN Water Stewards program in 2018. This program is coordinated through the nonprofit Freshwater, who trains and prepares volunteers to be citizen champions in watershed projects and outreach. As of December, 2022 VLAWMO's MN Water Steward team consists of seven invaluable team members.

MINNESOTA WATER STEWARDS
Community Leadership for Clean Water

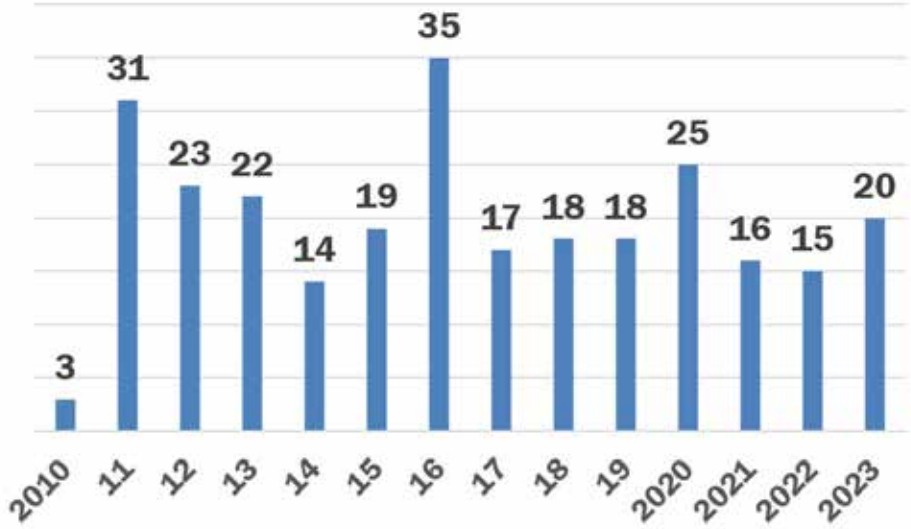
Cost Share Programs

VLAWMO's cost share programs assist public and private landowners to install stormwater reduction and water quality improvement projects. Four programs are available including: Rain Barrel Grant Program, Soil Health Grant Program, Landscape Level 1 Grant Program, and the Landscape Level 2 Grant Program. Projects completed through these programs support:

- Water quality improvement and reduction of nutrient loading
- Prevention of flooding and increase in flood storage capacity
- Reduction of stormwater rate and volume
- Preservation, protection, and restoration of native plant communities, especially along lakes, streams, and wetlands
- Protection and preservation of groundwater quality and quantity

Funds are granted on a first come, first served basis. VLAWMO's 2023 program allocations were $500 to Rain Barrel, $7,500 to Soil Health, $30,000 to Landscape Level 1, and $35,000 to Landscape Level 2. 20 grants were awarded, totaling $73,990.

Grants Awarded By Year



COST SHARE PROGRAM DESCRIPTIONS

Soil Health: The Soil Health Grant Program reimburses small-scale projects that protect and improve water quality and native plant communities including native plantings and pollinator gardens, downspout raingardens, turf replacement and bee lawns, and buffer strips. VLAWMO funds 75% of the cost of the projects up to $750 or up to $1,500 if located in a priority area.

Landscape Level 1: The Landscape Level 1 Grant Program reimburses water quality improvement projects like raingardens, curb cut raingardens, shoreline and streambank restorations, critical erosion control or stabilization, and permeable pavement. VLAWMO funds 50-75% of the cost of the projects up to $5,000 or $7,500 if a curb cut raingarden.

Landscape Level 2: The Landscape Level 2 Grant Program supports partnership projects with communities and municipalities to install larger-scale water quality improvement projects such as raingardens or infiltration basins, stormwater reuse, and reconstruction projects that reduce stormwater rate and volume.
VLAWMO funds 25-90% of the cost of projects based on projected water quality benefits.

2023 IMPACT

VLAWMO uses Minimal Impact Design Standards (MIDS) to measure the impact of landscape improvement projects. The impact of 2023's projects are estimated to improve water quality by:

- Reducing total phosphorus by **15.5 lb** per year.
- Reducing suspended solids by **24,848 lbs** per year.
- Infiltrating **968,166 gallons** of water into the ground annually

SOIL HEALTH SUMMARY

VLAWMO awarded 6 grants for 2 bee lawn/no mow lawns, 2 native plant restorations, and 2 downspout raingardens totaling $7,000.

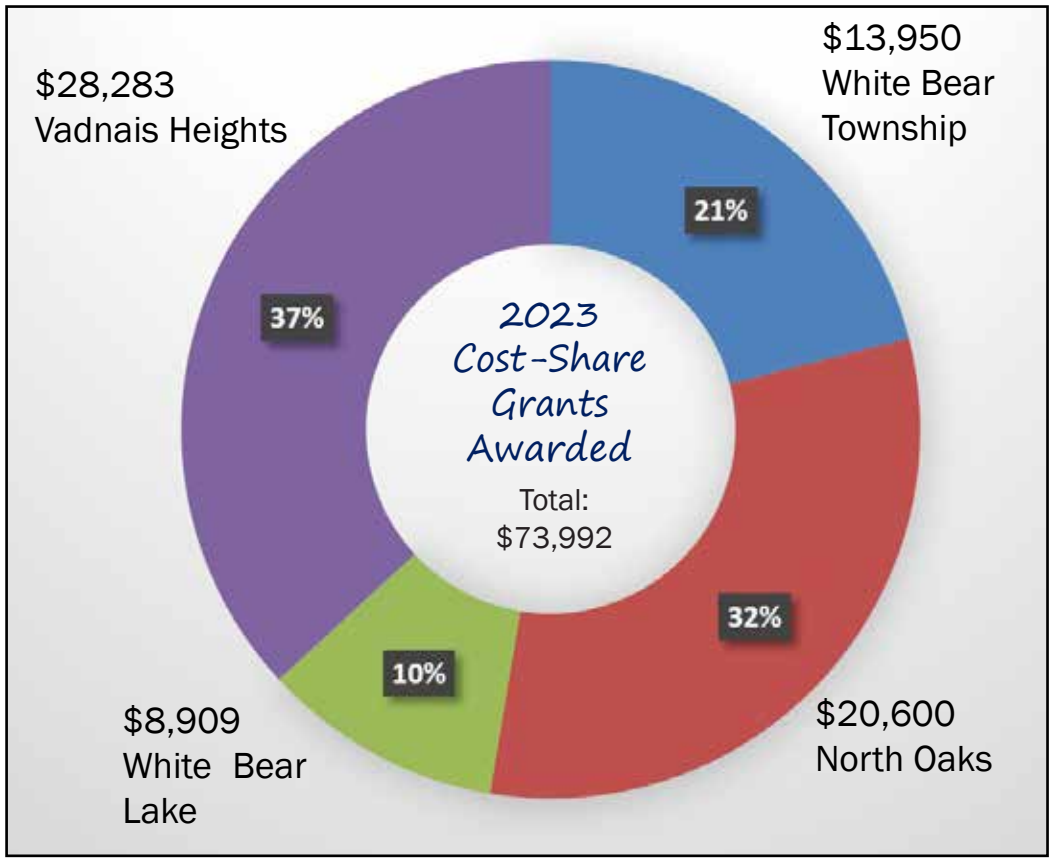
A 2023 downspout raingarden in White Bear Lake.

LANDSCAPE LEVEL 1 SUMMARY

VLAWMO awarded 6 grants for 1 raingarden, 3 shoreline restorations, 3 vegetated swales, and 1 permeable pavement driveway totaling $30,000.

LANDSCAPE LEVEL 2 SUMMARY

VLAWMO awarded 4 grants for 1 native plant restoration, 2 smart irrigation controllers, and 1 bioswale totaling $36,755.



RAIN BARREL GRANT PROGRAM

The Rain Barrel Grant Program reimburses residents 50% of the cost for the purchase of up to 2 rain barrels. Applicants are limited to $100 for each rain barrel, no more than $200 total.

RAIN BARREL SUMMARY

VLAWMO awarded 3 grants for 4 rain barrels, totaling $237.

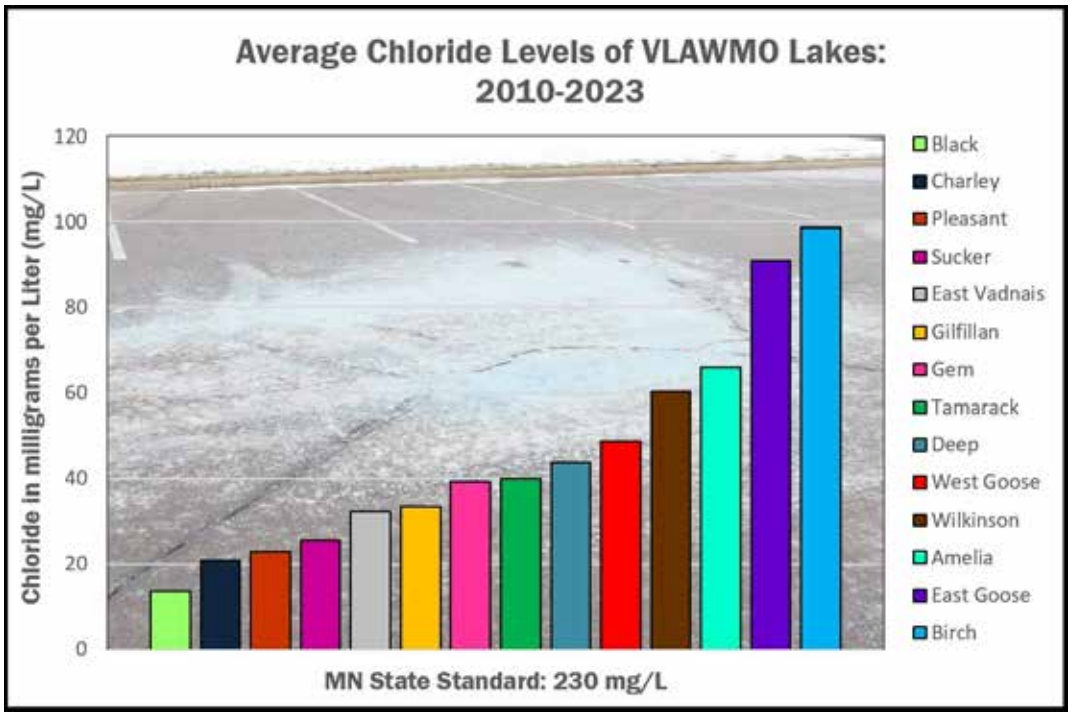
Water Monitoring

INTRODUCTION

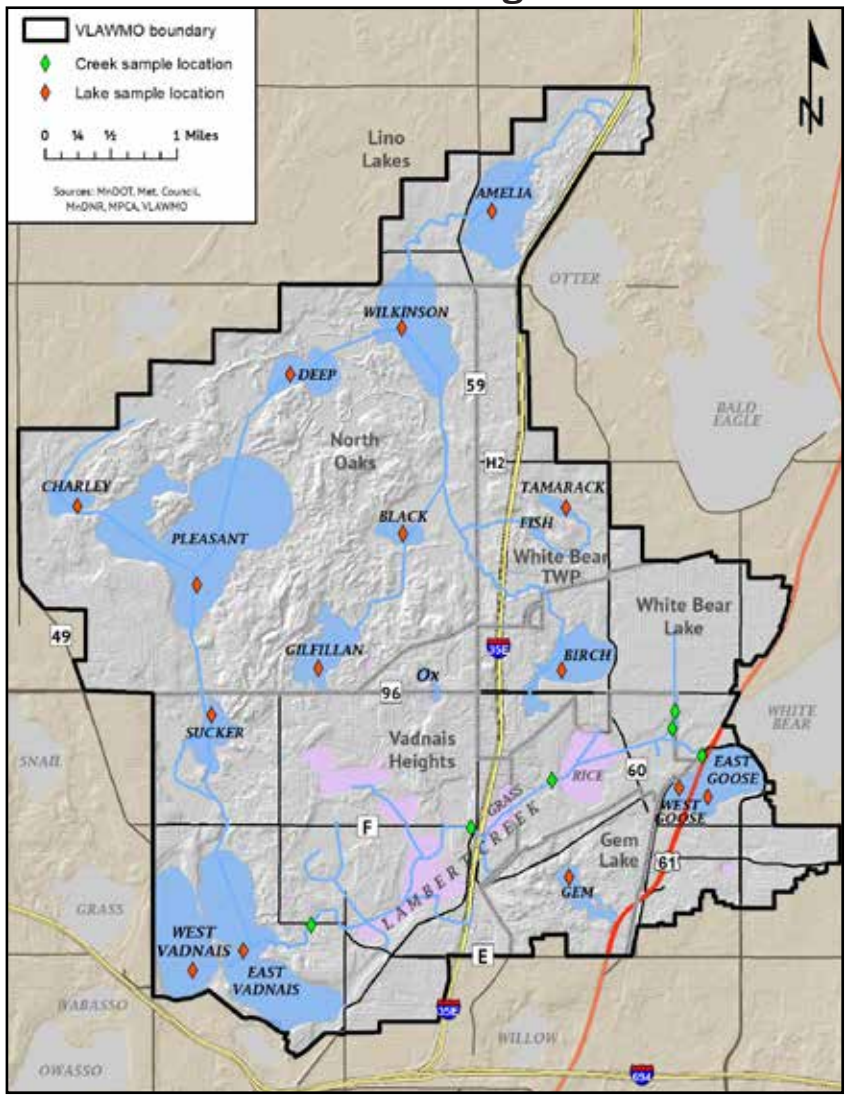
VLAWMO's regular water quality monitoring program includes nutrient sampling on 6 Lambert Creek sites, and nutrient sampling on 15 of the Vadnais Lake Area Watershed lakes. Nutrients and pollutants sampled for data include: total phosphorus, chlorophyll-A, soluble-reactive phosphorus, iron, total nitrogen, nitrate, total suspended solids, and chloride. VLAWMO's specialty monitoring programs, such as project BMP's and storm sampling, will continue. See the map of current monitoring locations to the right.

Part of VLAWMO's water monitoring includes rainfall measurements because rainfall and the timing of rainfall are factors that influence water quality. Typically, more precipitation implies more water runoff, which carries more contaminants from the land surface into water bodies.

Lakes are summarized with a grading system called the Carlson Trophic State Index (TSI). This system was developed in the 1970's to calculate average phosphorus, chlorophyll-A, and Secchi disk readings, and generate a summarizing number.



VLAWMO Monitoring Locations



Monitoring results are used to guide local water policies and management, and to help prioritize and locate future water quality projects such as raingardens, underground retention basins, and shoreline restorations.

WATER MONITORING HIGHLIGHTS

Pleasant Lake: Roughly 384 carp were removed from Pleasant Lake in 2023. Monitoring in 2024 will show whether or not this had an effect on water quality.

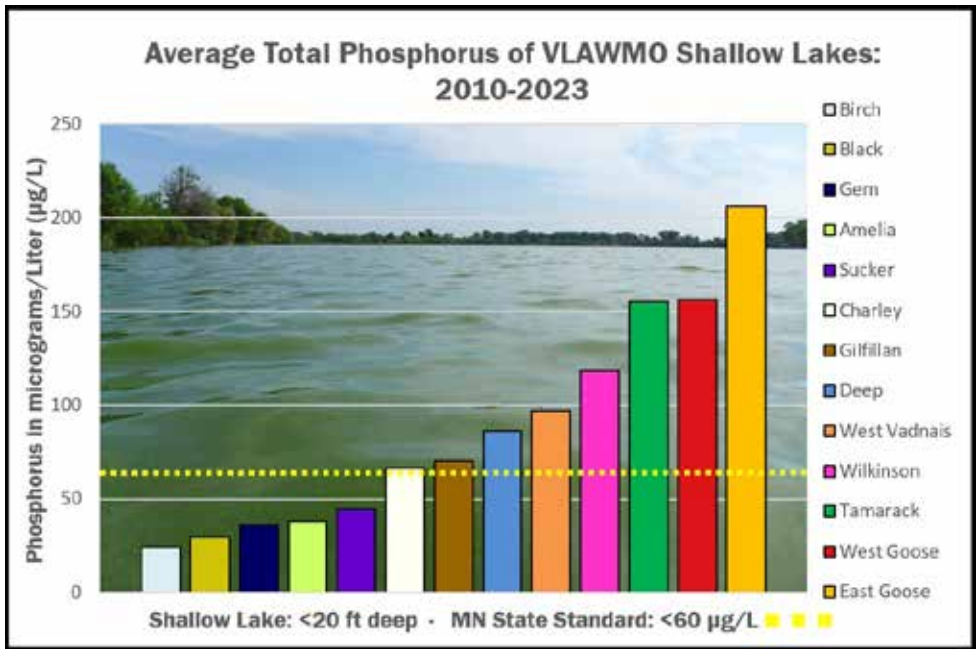
Remote Monitoring Devices: 2023 was the fourth full year of automated creek flow monitoring. Live information can be found here for the 4 sites monitored on Lambert Creek. www.monitormywatershed.org (search VLAWMO under "browse sites").

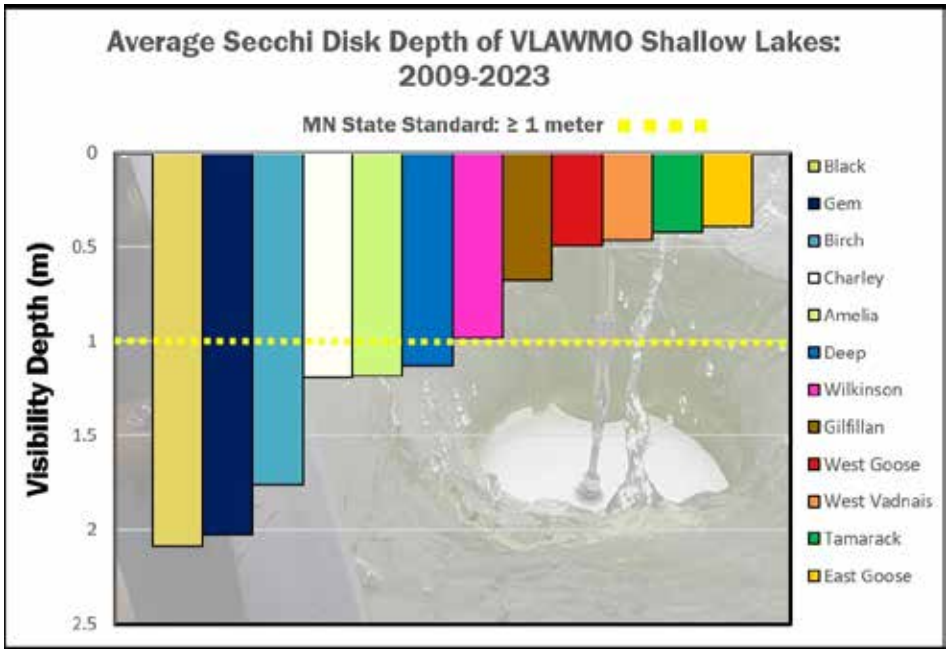
Lambert Creek: Creek flow was extremely low in 2023. Rainfall was 7.10 inches below average for the season. Multiple monitoring sites were dry for portions of the monitoring season.

Oak Knoll Pond/Wood Lake Spent Lime Demonstration Study: A spent lime study was done on Oak Knoll pond in White Bear Lake to investigate the feasibility of spent lime as a potential tool for reducing Total Phosphorus levels. Seven applications were applied in 2023. Monitoring was done throughout the season. More applications will be applied in 2024 along with continued monitoring to track the effectiveness of the spent lime treatment.

Chloride: VLAWMO has been sampling lake chloride for 14 years and while rises are documented, there have been no major changes. Black Lake has the lowest chloride levels while Birch Lake and East Goose are the highest, which coincides with their proximity to major roads and storm drainage. All of the lakes are below the current State standard of 230 mg/L.

Use of Monitoring Data: The VLAWMO monitoring data was used for multiple subwatershed studies and grant applications in 2023. These aided in possible water quality projects moving forward with local partners in 2024.



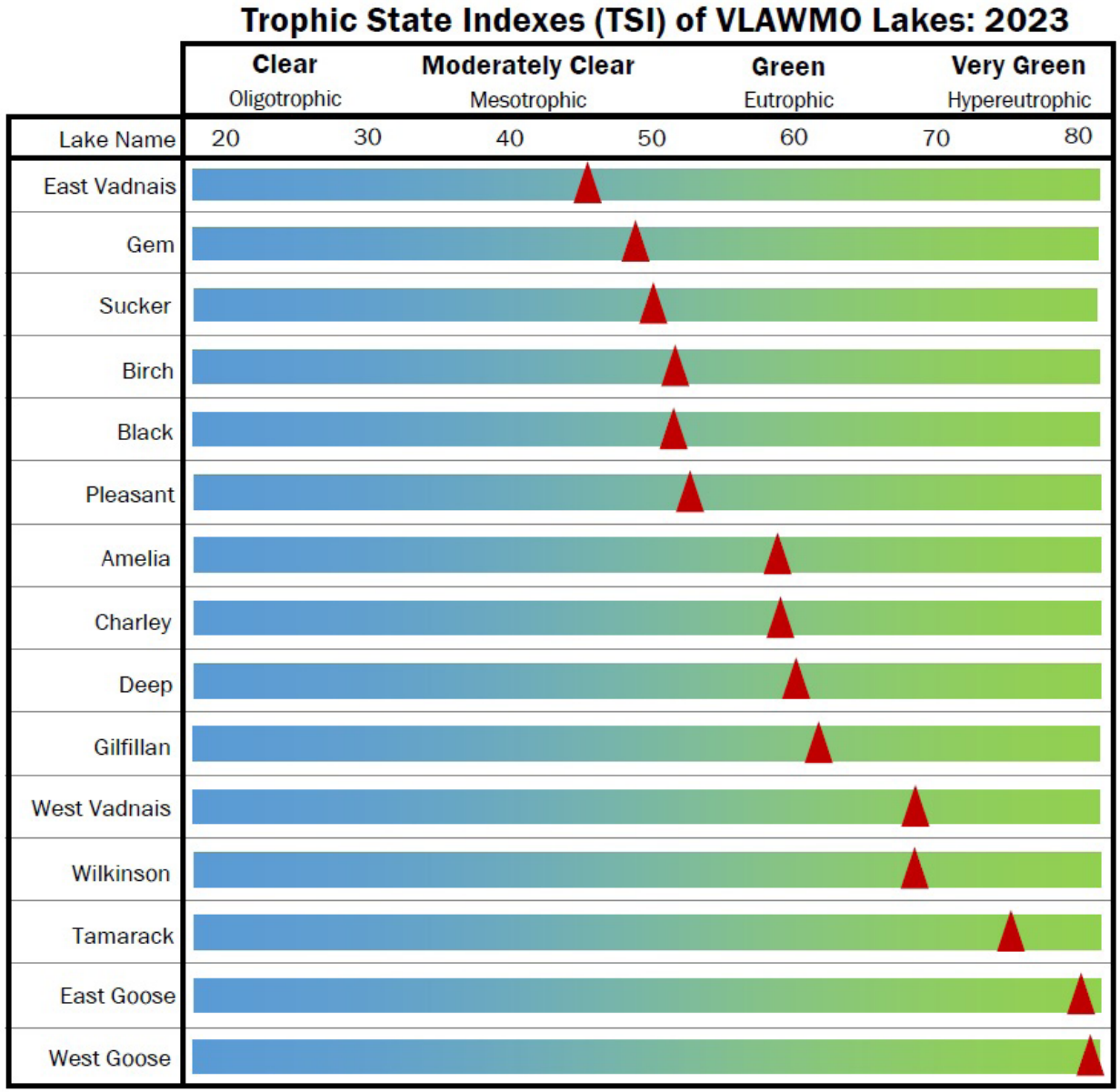


Find this year's complete Monitoring Report and a summary at VLAWMO.org/resources/reports

MONITORING SUMMARY: CONTINUED

STATE OF THE LAKES

VLAWMO uses the Carlson Trophic Status Indicator (TSI) to summarize lake health. TSI is calculated from annual monitoring data by combining total phosphorus, chlorophyll-a, and transparency (Secchi) readings.



A water sample on the shore of East Goose Lake.

VLAWMO staff taking a monitoring sample at Birch Lake

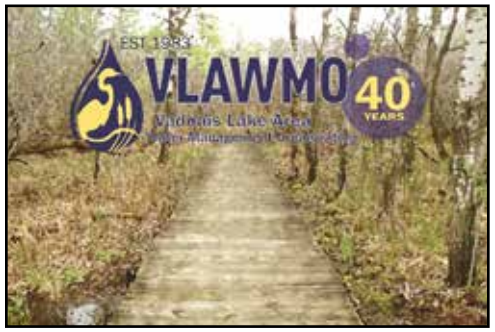
Project Highlights

VLAWMO'S 40TH ANNIVERSARY CELEBRATION

VLAWMO was pleased to celebrate its 40th Anniversary through a series of events and media that spanned the summer of 2023. Activities included neighborhood raingarden and native plant tours, public booths, a special web page summarizing VLAWMO's history, a video with interviews from VLAWMO leadership, and a celebration event at the Vadnais-Sucker Regional Park.

The event was a double-header of local conservation. The Ramsey County Soil and Water Conservation Division (RCSWCD) was celebrating their 50th anniversary, and partnered with VLAWMO on event planning. Dozens of stakeholders, affiliates, members of the public, past and present board and commission members, and staff shared a picnic and stories from many years and all celebrated the service of recently retired VLAWMO administrator Stephanie McNamara.

VLAWMO has grown much since its humble beginnings in 1983, and the field of water resource management has evolved and expanded with the development of research, technology, and innovative Best Management Practices (BMPs). Through it all VLAWMO has also remained grounded in its small watershed style of collaboration and partnerships.



Above: Ramsey County SWCD staff and guests at the live macroinvertebrates activity. Left: VLAWMO is presented with a plaque from the MN Board of Soil and Water Resources.

SMART IRRIGATION PILOT PROGRAMS

Sprinkler systems can seem as mysterious as a magic wand. Where does the water come from, how did it get there? If something goes awry, can we blame it on goblins? For those without a ticket to Hogwarts, groundwater is a limited resource and needs careful attention to maintain it for years to come.

In 2023 VLAWMO teamed up with the City of Vadnais Heights and White Bear Township to install smart irrigation controllers at 5 public properties. The new systems monitor weather patterns or soil moisture, and adapt the watering schedule accordingly. On an average precipitation year, the systems are expected to save as much as 271 football fields filled with 1 inch of water. While 2023 was a continuation of the drought cycle that began in 2021, these tools will help adapt and conserve when heavy precipitation returns. Visit our website at vlawmo.org/residents for more on water conservation in and around the home.

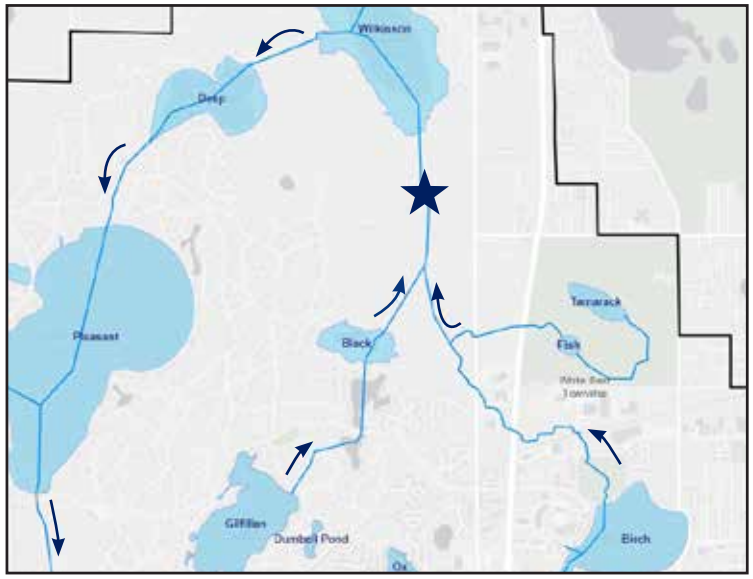
Right: Staff at White Bear Township installing smart irrigation at Columbia Park.
Below: Staff at City of Vadnais Heights

Project Highlights

WILKINSON DEEP-WATER WETLAND RESTORATION

Wilkinson Lake is listed as impaired by the MN Pollution Control Agency for high nutrient levels. While nutrients are needed for people, wildlife, and ecosystems alike, too much of a good thing creates an imbalance. As a shallow lake easily stirred up by wind and warmed by summer sun, Wilkinson Lake is susceptible to dramatic changes. When extra nutrients are free-floating in the water column and not anchored by plant life, warm water temps create conditions for algae blooms. These blooms can harm fish and wildlife by reducing lake oxygen levels, and can potentially be toxic.

Studies from as early as 2013 have indicated that the area south of Wilkinson Lake is a key location for excess nutrients to enter into the lake. As VLAWMO and its affiliates have gained a better understanding on how the lake and its surrounding watershed are acting, a variety of projects in and around the lake have been proposed to help address the lake's nutrient impairment. The Wilkinson Deep-Water Wetland Restoration is the first in an anticipated series of efforts to restore balance to Wilkinson Lake and other lakes downstream.



Above: Project area marked by a star within the City of North Oaks. Water flow marked by blue arrows.

This project is located at a strategic spot where several waterways come together, draining from Birch, Tamarack, Gilfillan, and Black Lakes. This adds up to a drainage area of about 3,115 acres. The Deep-Water Wetland design converts a former agricultural ditch and introduces valuable wetland function to the system. Where water once flowed through the straight ditch, it will now have time to move slowly, spread out, and settle out nutrients and sediment before it reaches the Lake. The gentle, elongated slopes of the wetland provide a gradient for vegetation to establish and support the water filtration action in the wetland. Grant funds are through US Environmental Protection Agency (EPA) 319 funds administered by the Minnesota Pollution Control Agency (MPCA), with a local cash match shared equally between VLAWMO and the North Oaks Company (NOC).

The effort was excavated in the Fall of 2023 and is being planted with native upland and wetland vegetation in the spring of 2024. Follow the project page at vlawmo.org/projects for updates and photos showing the finishing touches.

Left: Looking north towards Wilkinson Lake from the project site, pre-construction.

Right: Looking north towards Wilkinson Lake, post-construction.

Project Highlights

WESTFIELD PARK BIOSWALE

The Westfield Park Bioswale was installed in the summer of 2023 through a partnership with the City of Vadnais Heights. The bioswale takes water from 8.5 acres of nearby neighborhood before it drains into the Basswood Wetland, also known as Branch Ditch #3. Branch Ditch #3 eventually drains into Lambert Creek and East Vadnais Lake.

The effort is part of a larger effort to collect more stormwater from yards, roads, and other hard surfaces before it drains into streams, ditches, wetlands, and lakes. This goal improves stormwater rate and volume control for the local watershed, helping to store more water on the landscape and reduce downstream flooding and erosion. As bioswales and similar stormwater Best Management Practices (BMPs) store and slow stormwater runoff, they also reduce the amount of sediment, excess nutrients, and contaminants that travel downstream into lakes, streams, and wetlands. The use of Stormwater BMPs helps maintenance of the drainage system become more cost effective, incremental, and ongoing, opposed to large and costly projects to dredge and repair downstream areas where sediment and pollutants collect and amplify their impact.

Westfield Park was formerly a wetland, but was filled before current Minnesota wetland protection laws went into place. The park's underlying soil still function as wetland soil that holds water. The presence of the bioswale helps provide an intentional place for water storage while helping to restore wetland function in the larger drainage system.

Top: The newly constructed and newly planted bioswale looking southwest towards the Basswood wetland. The culvert beneath the walking path was pre-existing and the bioswale was built around it.

Center: VLAWMO and City of Vadnais Heights staff with Minnesota Master Gardeners on the Westfield Bioswale event kick-off in August.

Left: Landscaping contractors pose for a picture at the swale under construction.

CHARTING IT OUT:

Review of this year's goals and next year's projections

VLAWMO CORE ACTIVITIES

WATER PLAN STRUCTURE

2024 WORK PLAN PROJECTION

VLAWMO continues to put the 2017-2026 comprehensive watershed management plan into action. A minor plan amendment was made in 2022 which focused on drainage policy updates. The watershed management plan structure (above) informs issues that will be addressed, goals that VLAWMO will set, and the strategies employed to reach those goals. See the 2017-2026 comprehensive watershed management plan on our website under "About" for a more in-depth look at these plan components.

The tables for the previous year's review and the upcoming year work plan are color coded according to the VLAWMO core activities diagram (above). Each core activity also has a number, conveyed in the 2017-2026 comprehensive watershed management plan.

ACRONYMS:

WLA: Waste Load Allocation
DNR: Department of Natural Resources
MS4: Municipal Separate Storm Sewer System
SWPPP: Storm Water Pollution Prevention Program
STEM: Science, Technology, Engineering, Mathematics
BMP: Best Management Practice
CIP: Capital Improvement Project
LGU: Local Government Unit
LCCMR: Legislative Citizen Commission on Minnesota Resources
AIS: Aquatic Invasive Species
TMDL: Total Maximum Daily Load
TEP: Technical Evaluation Panel
BOD: Board of Directors
RFP: Request for Proposal
TEC: Technical Commission

CAPITAL PROJECTS & PROGRAMS

Review of 2023 Work Plan

Project Name	Description	Goal: Going into 2023	2023 Result
Wilkinson Deep-Water Wetland BMP	A deep water wetland restoration is planned to help improve Wilkinson Lake, an impaired waterbody. Partners in this project include the North Oaks Company, Minnesota Land Trust, and Houston Engineering Inc. Funded by EPA 319 administered by MPCA with shared match between VLAWMO and the North Oaks Company.	Continue with design and planning for construction of BMP with project partners.	Construction completed. Vegetation establishment coming in 2024.
Vadnais/Sucker Regional Park Habitat Restoration	28 acres of restoration in Vadnais-Sucker Lakes Regional Park. Removal and treatment of invasive buckthorn and reseeding/planting with natives with ongoing maintenance. Partners in this project include Great River Greening, Ramsey County Parks, and St. Paul Regional Water Services. Funds provided by the Outdoor Heritage grant program administered by the MN DNR.	Minimum 28 acres restoration completed. On-site public outreach event.	Invasive removal complete in woodland areas. Interpretive signs created, overlap with VLAWMO 40th Anniversary event Aug 2023.
Oak Knoll Pond Spent Lime Study	Financial and social feasibility study with Barr Engineering to determine potential for scaling up small pond treatments to a large pond.	Report development and consideration, pond access pursued with property owners around pond.	7 spent lime applications made in 2023. Report development continuing into 2024. Pond access with property owners granted.
Groundwater Conservation Pilot Project	Pilot program in partnership with member communities to install smart irrigation controllers on public properties with high groundwater usage. Evaluate effectiveness for providing groundwater conservation benefits.	Complete 1 pilot project.	Two projects completed.

Review of 2023 Work Plan

GRANT PROGRAMS

Project Name	Description	Goal: Going into 2023	2023 results
Rain barrel Grant	Reimburse 50% of a rain barrel purchase (up to $200) with proof of purchase.	Fund 3 rain barrel reimbursements.	Complete.
Landscape Level 1	Establish relationships and provide grants to property owners within the watershed to install water quality enhancement projects.	Fund at least 1 LL1 infiltration project.	Complete. Three infiltration projects awarded funding.
Landscape Level 2	Assist landowners with implementing larger BMP projects focused on stormwater capture and treatment within the watershed.	Fund 2 LL2 projects.	Complete. Three LL2 projects awarded funding.
Soil Health Grant	A grant program that reimburses landowners for installing small-scale practices that improve water quality and soil health with a focus on native plant restorations.	Fund 5 SHG projects.	Complete. Six SHG projects awarded funding.
Community Blue Grant	A communication and outreach grant program for projects that relate to water quality. Available to MN Water Stewards, volunteers, and community partners.	1 public education initiative. 1 raingarden renovation or service project.	One education initiative complete. One service project initiated, continues in ‘24.

EDUCATION AND OUTREACH

Review of 2023 Work Plan

Project Name	Description	Goal: Going into 2023	2023 Result
Watershed Action Volunteers (WAV)	The WAV consists of Minnesota Water Stewards (Freshwater), Citizen Advisory Commission (CAC), and volunteers with individual job descriptions.	Complete 1 Minnesota Water Steward Capstone Project Hold spring and fall WAV/CAC meetings Facilitate public booths (3+). 2 Macroinvertebrates monitoring activities	Complete. Complete. Complete. Complete.
Community Engaged Learners (CEL)	The Community Engaged Learning (CEL) Partnership with the U of M includes habitat improvement projects such as buckthorn removal, prairie and native woodland establishment, wooded wetland restoration, and various forms of wildlife monitoring.	Complete 8 or more field work days in habitat management and site maintenance.	Complete.
Workshops	Educate residents on watershed processes, raingarden and native plant function, smart salting, and VLAWMO grant programs.	4 residential workshops (raingardens, etc.). 1 municipal staff workshop (smart salting, etc.).	Complete. Complete.
Community Events	Staff a VLAWMO booth, develop watershed information, brochures, and resources for community events.	5 community events. 1 watershed/BMP tour.	Complete. 3 watershed tours complete.
Commun-ications	Create and update material and publications for social media, website, seasonal E-news, and local publications. Create and maintain communications on VLAWMO projects and to promote responsible use of water resources.	10+ E-newsletters. Website renovation. 3 communications items provided to member Cities/Township.	Complete. Website renovation initiated, continue in 2024. Complete.
K-12	Provide watershed activities and resources for schools. Assist schools in establishing and maintaining stormwater best management practices (BMP's).	1 school collaboration/yr. 2 school raingarden maintenance activities.	Complete. 1 school raingarden maintenance.

Review of 2023 Work Plan

MONITORING PROGRAM

Project Name	Description	Goals: Going into 2023	2023 Result
Lambert Creek monitoring program	Monitor basic phosphorus, nitrogen, Chlorophyll-A, chloride, and sediment levels at 6 sites along with pH, conductivity and DO at the 3 flumes. Maintain automated flow meter and precipitation gauge at Whitaker. Four remote sensors installed along creek, live updated volume and water levels displayed on line.	Document and evaluate creek water quality.	Complete.
Lake Level program	Gilfillan, Birch, Gem & Goose Lake gauges are calibrated in the spring and read up to 11 times during the summer.	Monitor lake levels on 4 targeted lakes in the watershed to track short & long term trends.	Complete.
Chloride measurements	Sample lakes and Lambert Creek during spring snow melt and ice out.	Check Spring measurements	Complete.
Lake monitoring program	Monitor chemistry of 15 of VLAWMO's lakes for nutrients, turbidity, pH, conductivity, and dissolved oxygen (DO).	Keep water quality record of watershed's lakes. Utilize water quality data for future projects and CIPs.	Complete.

Review of 2023 Work Plan

ADMINISTRATION & REGULATION

Project Name	Description	Goals: Going into 2023	2023 Results
Budget & Stormwater Utility	Storm sewer utility rates are based on the adopted budget and certified to the counties for collection.	Continued county participation and budgeting for future years.	Complete.
Wetland Conservation Act (WCA)	Complete boundary and type & other determinations in consultation with the TEP. Respond to WCA questions.	Continued administration of WCA.	Complete.

SUSTAINABLE LAKE MANAGEMENT REPORTS (SLMRs) AND STUDIES

Project Name	Description	Goals: Going into 2023	2023 Results
Tamarack Lake SLMR update	Update previous SLMPs with new survey, monitoring, and other relevant information. Post on the VLAWMO website.	Complete update and display on VLAWMO website.	Complete.
Gem Lake SLMR update	Update previous SLMPs with new survey, monitoring, and other relevant information. Post on the VLAWMO website.	Bathymetry survey. Aquatic macrophyte survey. Display on VLAWMO website.	Complete.
SLMP/SLMR reports for watershed lakes.	SLMP/SLMR reports will be maintained to retain ongoing usefulness and will be posted on the website.	Establish an SLMP/SLMR for each lake in the VLAWMO Watershed.	Complete.

CAPITAL IMPROVEMENT AND MAINTENANCE PROJECTS

2024 Work Plan

Project Name	Description	Goals	Timeline
Wilkinson Deep-Water Wetland BMP	A deep water wetland restoration to help improve Wilkinson Lake, an impaired waterbody. Partners in this project include the North Oaks Company, Minnesota Land Trust, and Houston Engineering Inc. Funded by EPA 319 with shared match between VLAWMO and the North Oaks Company.	Monitor vegetation establishment, conduct monitoring with HEI, consider enhancement of the site, and conduct ongoing maintenance.	Ongoing grant completion August 2025.
Vadnais/Sucker Regional Park Habitat Restoration	28 acres of restoration consisting of removal and treatment of invasive buckthorn and reseeding/planting with natives with ongoing maintenance. Partners in this project include Great River Greening, Ramsey County Parks, and St. Paul Regional Water Services. Funds provided by the Outdoor Heritage grant program administered by the MN DNR.	Restoration project complete including woody invasive removal and native plant seeding.	December 2024.
Oak Knoll Pond Spent Lime Study	Financial and social feasibility study with Barr Engineering to determine potential for scaling up small pond treatments to a large pond.	Complete demonstration project and report initial monitoring results.	Extension time frame November 2025.
Groundwater Conservation Pilot Project	Pilot program in partnership with member communities to install smart irrigation controllers on public properties with high groundwater usage. Evaluate effectiveness for providing groundwater conservation benefits.	Complete 2 pilot projects.	December 2024.
Tamarack Lake Alum Treatment	Alum treatment project in Tamarack Lake.	Improve water quality toward meeting nutrient standards.	Fall 2024.
Birch Lake AIS Removal	Eurasian watermilfoil (EWM) and curly-leaf pondweed (CLP) hand pulling in Birch Lake. Partnership with Birch Lake Improvement District (BLID).	Continue to reduce EWM in Birch Lake. Eradicate new CLP infestation.	Ongoing.
Pleasant Lake Carp Removal	Remove invasive common carp from the Pleasant Lake system. Partnership with Carp Solutions to target spring removals during migration.	Reduce biomass to 100 kg/ha and maintain biomass below this threshold.	Ongoing.

CAPITAL IMPROVEMENT AND MAINTENANCE PROJECTS

2024 Work Plan

Project Name	Description	Goals	Timeline
East Vadnais Lake Subwatershed Resiliency Study	Feasibility study to evaluate opportunities to improve resiliency in the East Vadnais Lake subwatershed. Include Best Management Practices (BMPs) such as flood mitigation, water quality improvement, and drinking water source protection opportunities.	Study complete with BMP opportunities and potential grant funding sources identified.	Summer 2024.

GRANT PROGRAMS

Project Name	Description	Goals	Timeline
Rain barrel Grant	Reimburse 50% of a rain barrel purchase (up to $200) with proof of purchase.	Fund 3 rain barrel reimbursements.	December 2024.
Landscape Level 1	Establish relationships and provide grants to property owners within the watershed to install water quality enhancement projects.	Fund at least 2 LL1 infiltration projects.	December 2024.
Landscape Level 2	Assist landowners with implementing larger BMP projects focused on stormwater capture and treatment within the watershed.	Fund 3 LL2 projects.	December 2024.
Soil Health Grant	A grant program that reimburses landowners for installing small-scale practices that improve water quality and soil health with a focus on native plant restorations.	Fund 5 SHG projects.	December 2024.
Community Blue Grant	A communication and outreach grant program for projects that relate to water quality. Available to MN Water Stewards, volunteers, and community partners.	1 public education initiative. 1 raingarden renovation or service project.	Ongoing.

PUBLIC EDUCATION AND OUTREACH

2024 Work Plan

Project Name	Description	Goals	Timeline
Watershed Action Volunteers (WAV)	The WAV consists of Minnesota Water Stewards (Freshwater), Citizen Advisory Commission (CAC), and volunteers with individual job descriptions.	Launch Local Leaders Stormwater BMP consult initiative. Hold spring and fall WAV/CAC meetings. Facilitate public booths (3+).	April. March-Oct. April-Sept.
Community Engaged Learners (CEL)	The Community Engaged Learning (CEL) Partnership with the U of M includes habitat improvement projects such as buckthorn removal, prairie and native woodland establishment, wooded wetland restoration, and various wildlife and macroinvertebrates monitoring.	Complete 4 field work days in habitat management and site maintenance.	Fall.
Workshops	Educate residents on watershed processes, raingarden and native plant function, smart salting, and VLAWMO grant programs.	4 residential workshops (raingardens, etc.). 1 municipal staff workshop (smart salting, etc.).	Spring-Fall.
Community Events	Staff a VLAWMO booth, develop watershed information, brochures, and resources for community events.	5 community events. 1 watershed/BMP tour.	Spring-Summer.
Communications	Create and update material and publications for social media, website, seasonal E-news, and local publications. Create and maintain communications on VLAWMO projects and to promote responsible use of water resources.	10+ E-newsletters. Complete website renovation. 3 communications items provided to member Cities/Township.	Ongoing. September. May-Nov.
K-12	Provide watershed activities and resources for schools. Assist schools in establishing and maintaining stormwater best management practices (BMP's).	1 school collaboration/yr. 1 school raingarden maintenance activity.	Ongoing.

2024 Work Plan

MONITORING PROGRAM

Project Name	Description	Goals	Timeline
Lambert Creek monitoring program	Monitor basic phosphorus, nitrogen, Chlorophyll-A, chloride, and sediment levels at 6 sites along with pH, conductivity and DO at the 3 flumes. Maintain automated flow meter and precipitation gauge at Whitaker. Four remote sensors installed along creek, live updated volume and water levels displayed on line.	Document and evaluate creek water quality.	Monitoring May-Sept.
Lake Level program	Gilfillan, Birch, Gem & Goose Lake gauges are calibrated in the spring and read up to 11 times during the summer.	Monitor lake levels on 4 targeted lakes in the watershed to track short & long term trends.	Monitoring May-Sept.
Chloride measurements	Sample lakes and Lambert Creek during spring snow melt and ice out.	Check Spring measurements	Spring.
Lake monitoring program	Monitor chemistry of 15 of VLAWMO's lakes for nutrients, turbidity, pH, conductivity, and dissolved oxygen (DO).	Keep water quality record of watershed's lakes. Utilize water quality data for future projects and CIPs.	Monitoring May-Sept.

2024 Work Plan

ADMINISTRATION & REGULATION

Project Name	Description	Goals	Timeline
Budget & Stormwater Utility	Storm sewer utility rates are based on the adopted budget and certified to the counties for collection.	Continued county participation and budgeting for future years.	Ongoing.
Wetland Conservation Act (WCA)	Complete boundary and type & other determinations in consultation with the TEP. Respond to WCA questions.	Continued administration of WCA.	Ongoing.

SUSTAINABLE LAKE PLAN REPORTS (SLMRs) AND STUDIES

Project Name	Description	Goals	Timeline
SLMRs watershed-wide.	Maintain SLMRs with updates as new data and information becomes available.	Update SLMRs, convey on website.	Ongoing.

Left: VLAWMO staff Dawn Tanner with Saint Paul Regional Water Services (SPRWS) staff.

Center: VLAWMO bids farewell to Board member Dan Jones as he closes his 15 years of service to VLAWMO.

Right: VLAWMO and Ramsey-Washington Metro Watershed District teamed up for the 2023 VH Scarecrow competition.

MS4 Summary

Above: Smart salting infographic campaign sample. Below: Example of stormwater infrastructure, image used for trainings and presentations.

VLAWMO has worked with its member communities from 2020-2022 to prepare tools and resources for the 2020-2025 General MS4 Permit.

The Municipal Separate Storm Sewer System (MS4) Permit is a program administered by the Minnesota Pollution Control Agency (MS4). It organizes tasks and responsibilities for communities that generate stormwater runoff to protect and improve their local water resources. The permit is organized into 6 categories called Minimum Control Measures (MCMs). The MCMs cover topics such as public education, public participation, illegal dumping (illicit discharge), construction and development protocols, as well as general house keeping such as staff training. As a Joint Powers Association (JPA), VLAWMO offers its expertise in water resources and public communications to help expand and streamline its member communitys' permits.

VLAWMO resources that member communities utilized in their MS4 reporting include:

Minimum Control Measure #1:
- Info-graphic distribution: Help out in a drought, water conservation and irrigation, construction stormwater BMPs, grass clippings mailing slip, pool drainage guide, smart salting flyer, smart salting social media graphics and language campaign.

Minimum Control Measure #2:
- Adopt-a-Raingarden partnership with City of Vadnais Heights (June, Sept)
- Adopt-a-Raingarden volunteer training (Aug 11)
- Native plant and BMP tours: June - Aug
- Winter seed sowing workshop (Feb 23)
- Blue Thumb turf alternative workshop (March 30)

Minimum Control Measure #3:
- Illicit Discharge Detection and Elimination (IDDE) pre-written newsletter text
- IDDE recorded training

Minimum Control Measure #6:
- Smart Salting for Community Leaders (Dec 7) and property managers (Dec 14)
- Raingarden maintenance training with City of Vadnais Heights (June 8)
- White Bear Township utility mailer - grass clippings (March 10)
- Lino Lakes newsletter - yard waste (Aug 9)

LOGISTICS:
Financial statement and budget

Wetland Conservation Act (WCA)

VLAWMO administers the Wetland Conservation Act as the LGU for its member communities. There were 27 landowner contacts in which wetland related technical assistance were provided this year. There were 2 potential WCA violation sites investigated, 2 of 2 were resolved.

WCA SUMMARY

Type of Application	Approved	Denied	Withdrawn
Boundary and Type	9	0	0
No-Loss	4	0	0
Exemption	1	0	0
Sequencing	0	0	0
Replacement Plan	0	0	0

Local Water Plan Adoption

Adoption of Local Water Plans: Gem Lake, Lino Lakes, North Oaks, White Bear Lake, White Bear Township, Vadnais Heights are all complete and have been adopted.

Member Community	Last Local Water Plan Update Year
Gem Lake	2018
Lino Lakes	2018
North Oaks	2008
Vadnais Heights	2018
White Bear Lake	2021
White Bear Township	2019

Partnerships

One of VLAWMO's greatest successes is working together with partners to use resources wisely and maximize effectiveness. Workshops, meetings, and webinars allow VLAWMO to be on the cutting edge of the water resources in the Northeast Metro.

- Metro Watershed Partners and Blue Thumb provide regular meetings to keep updated with other watersheds, utilize education resources, and learn from guest speaker specialists on up and coming topics.
- Ramsey County GIS User Group focuses on sharing, developing, and promoting GIS data and technology. As a member agency, VLAWMO contributes and receives data, and has a voting hand in the content the Group funds and develops. Regular RCGISUG membership fees go to producing aerial images of Ramsey County and other GIS data.
- Ramsey County Soil and Water Conservation Division holds informative forums on topics of general concern (AIS, State of the Waters, groundwater). They also provide technical assistance for lake studies and BMP design. Lastly, they provide financial partnership in grant funding of projects.
- Many other organizations and groups (p. 35) help carry out VLAWMO's mission through events, outreach strategies, and project planning.

Biennial Solicitation for Proposals

Proposals for professional auditing services were solicited in 2020. Legal and Engineering in 2021.

2023 Partners

Each year our fabulous partners provide leadership, guidance, and resources to support our goals. This year saw the completion of some efforts and the continued investment of others. VLAWMO would like to thank:
Municipal Partners:

» Cities of Gem Lake, Lino Lakes, North Oaks, Vadnais Heights, White Bear Lake, and White Bear Township

Other partners:

» Ramsey County, Ramsey County Soil and Water Conservation Division
» Saint Paul Regional Water Services (SPRWS)
» Minnesota Land Trust
» Great River Greening
» White Bear Lake Area Historical Society
» AFSA High School
» Get the Lead Out MN
» Vadnais Heights and Birch Lake Elementary Schools
» Vadnais Heights Green Team
» Ramsey County GIS User Group
» Freshwater
» Natural Shore Technologies
» White Bear Montessori
» City of Vadnais Heights Parks Commission
» Carp Solutions
» Birch Lake Improvement District (BLID)
» The North Oaks Company, North Oaks Home Owners' Assc (NOHOA), North Oaks Natural Resources Commission, Natural Environment Stewardship Team
» Vadnais Heights Economic Development Corp/ Partners for Good
» Tamarack Nature Center
» UMN Community-engaged Learning Program

Rob Thomas of the White Bear Lake Area Historical Society poses with the VLAWMO mascot at the WBLAHS native planting.

VLAWMO volunteers celebrate the year at the 2023 banquet at Tamarack Nature Center.

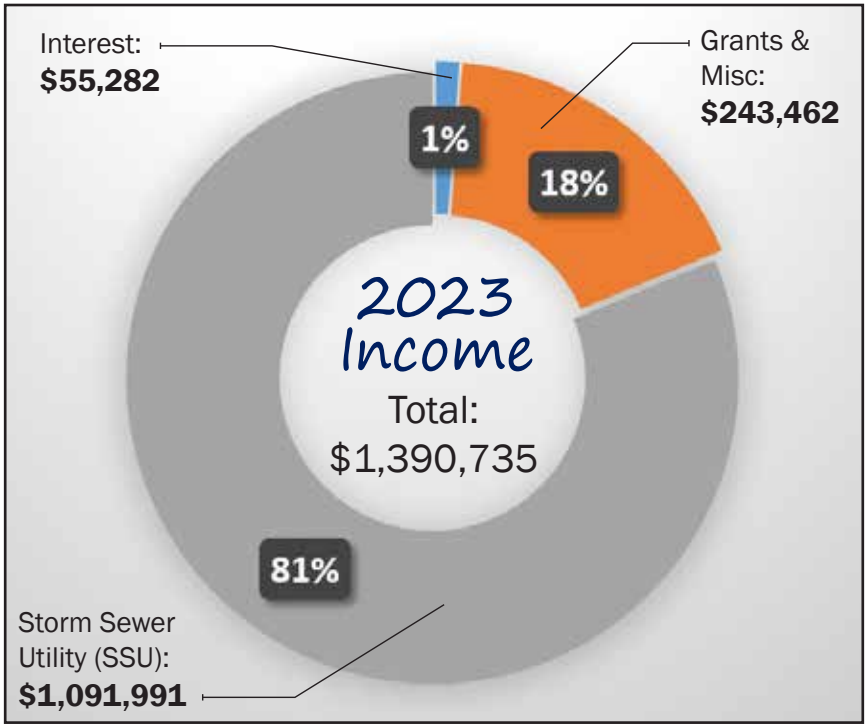
Finance and Budget

The 2023 budget was established by the Board of Directors in June 2022 with designated project and program funds carried over in December, 2022. The Finance and Policy Subcommittee with a representative from the Technical Commission and the Board reviewed and made recommendations on the 2023 budget to the Board in June, 2022. The Board-approved budget included funds to address a capital improvement project associated with the construction of the Wilkinson Lake Deep-Water Wetland Restoration Project and the carp harvest project at Pleasant and Deep Lakes. These projects focused on addressing water quality protection for high priority waterbodies in the watershed. The other programmatic focus in 2023 was the VLAWMO cost-share grant program and development of several policies and technical studies. These included a public drainage policy and completion of a feasibility study to guide the design of a proposed alum project on Tamarack Lake.

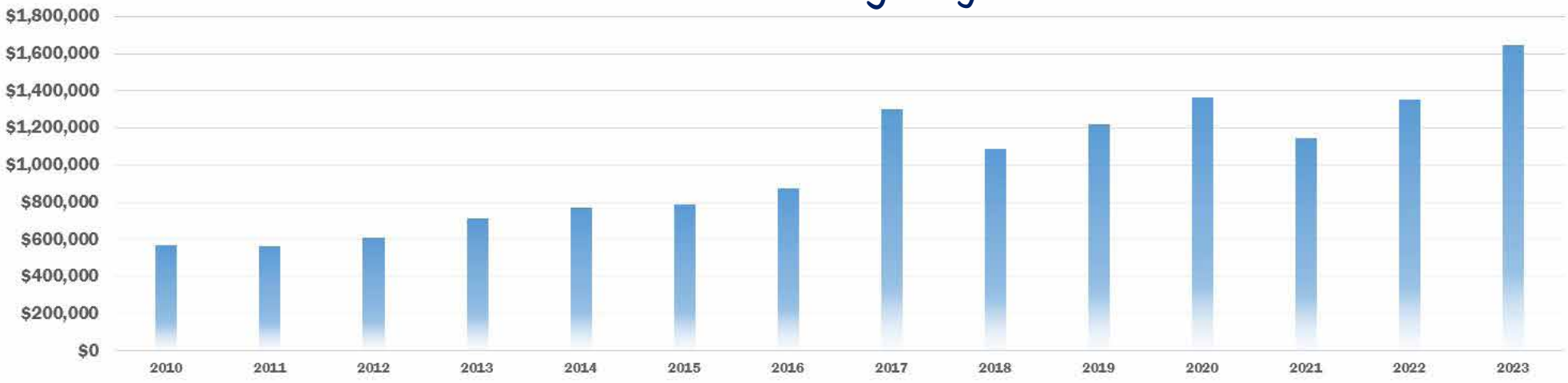
Approved budget for 2023:
$1,621,450

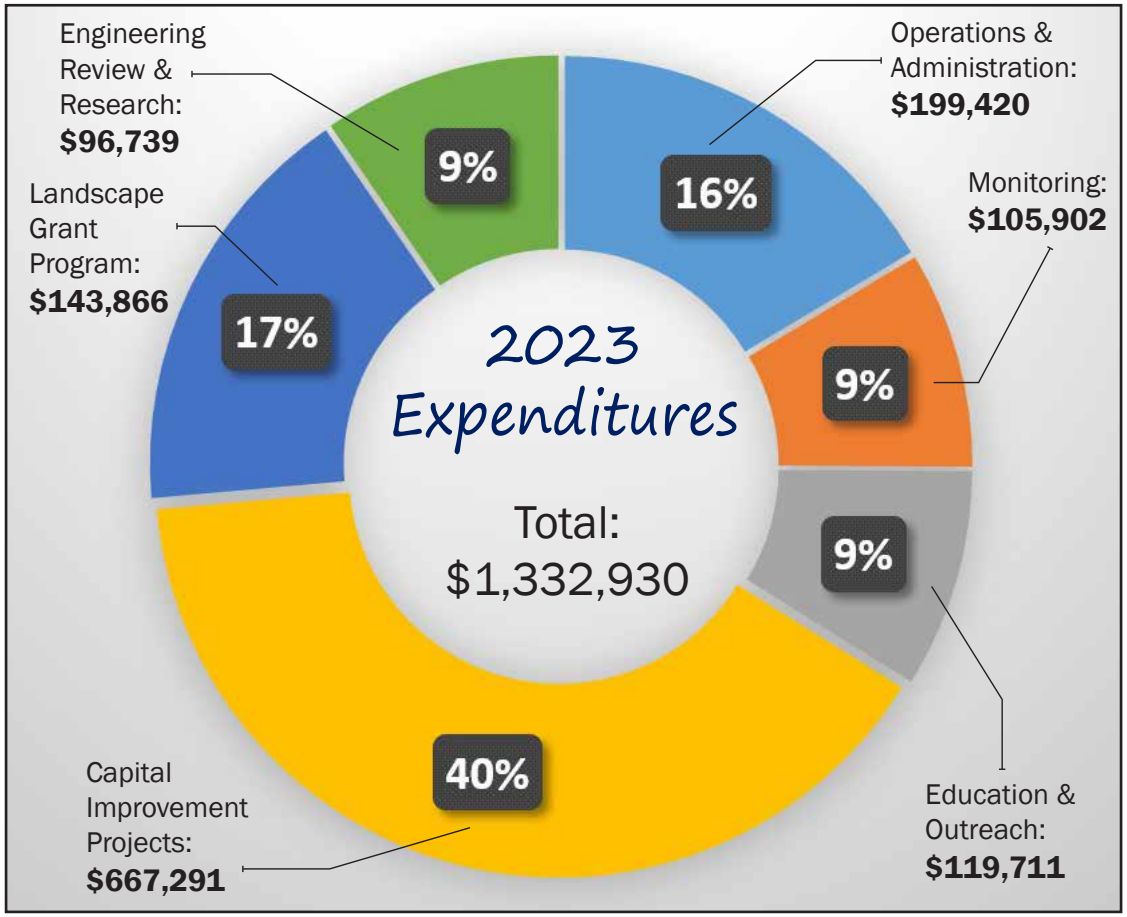
Actual income from 2023:
$1,390,735

Money spent in 2023:
$1,332,930



Annual Budget by Year





EXPENSES

The total cash expenses for 2023 was $1,332,930. Engineering and planning efforts initiated in 2023 in the Lambert Creek and Wilkinson/Gilfillan/ Black/Tamarack subwatersheds will be carried over into 2024 for project implementation.

GRANTS AND PARTNERSHIPS

Grant funds and related miscellaneous and partnership income received in 2023 totaled $243,462 including US Environmental Protection Agency (EPA) 319 funds administered by the Minnesota Pollution Control Agency (MPCA).

CLEAN WATER LAND & LEGACY AMENDMENT

INCOME

The mainstay of support for VLAWMO work comes from its Storm Sewer Utility (SSU) fees. These fees are based on an estimate of impervious surface for each parcel of land with reference to land use classification. $1,091,991 in SSU was collected in Ramsey and Anoka Counties in 2023 for 11, 546 parcels. The average single-family homeowner paid $61.80 per year, about $5.15 per month to support projects and programs conducted by the watershed. The 7% increase in storm sewer utility fees supported sustainable coverage of key priority programs and projects outlined in the VLAWMO Watershed Management Plan. Some grant/loan income was utilized to cover project implementation costs.

Volunteers help with raingarden brush-up at Vadnais Heights Elementary

WHO WE ARE:
The people and partnerships that make VLAWMO thrive

Who we are:

VLAWMO Employs five full-time staff for everyday operations. Consultants are required for a variety of purposes including auditing, bookkeeping, engineering, and technical assistance. The VLAWMO Board of Directors consists of one elected official from each of the five cities and one township within the watershed. Each board member is appointed for a three year term. The VLAWMO Technical Commission consists of one citizen representative from each of the six communities. The Technical Commission meets to review and consider watershed business as well as make recommendations to the Board for wider scope decisions.

2023 BOARD OF DIRECTORS (BOD)

Jim Lindner, Chair
City of Gem Lake
651.492.5083

Dan Jones, Vice Chair
City of White Bear Lake
651.283.6097

Katherine Doll Kanne, Treasurer
City of Vadnais Heights
320.905.3606

John Shuman
City of North Oaks
612.212.9575

Ed Prudhon
White Bear Township
651.426.2311

Rob Rafferty
City of Lino Lakes
651.429.6772

2023 TECHNICAL COMMISSION (TEC)

Gloria Tessier, Chair
Gem Lake

Nick Ousky
Vadnais Heights

Susan Miller
North Oaks

Terry Huntrods
White Bear Lake

Jami Philip
White Bear Township

Andy Nelson
Lino Lakes

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Vadnais Heights, MN 55110
800.325.2055

Ehlers & Associates
3060 Centre Point Dr
Roseville, MN 55113
651.697.8500

HDR Engineering, Inc.
701 Xenia Ave. S. Ste. 600
Minneapolis, MN 55416
763.591.5400

Houston Engineering Inc.
6901 E Fish Lake Rd
Maple Grove, MN 55369
763.493.4522

Kennedy & Graven, Chartered
200 South Sixth St Ste. 470
Minneapolis, MN 55402
612.337.9215

Ramsey County Soil and Water
Conservation Division
2015 Van Dyke Street
Maplewood, MN 55109
651.266.0300

SRF Consulting Group, Inc.
3701 Wayzata Boulevard, Ste. 100
Minneapolis, MN 55416

Barr Engineering
4300 Market Pointe
Minneapolis, MN 55435
952.832.2600

Carp Solutions LLC
1380 Pike Lake Court
New Brighton, MN 55112
612.275.3792

WSB and Associates
701 Zenia Ave. S. Ste. 300
Golden Valley, MN 55416
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Resilient Resources LLC
3235 Fernbrook Lane N
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Natural Shore Technologies, Inc.
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CliftonLarsonAllen, LLP
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Minneapolis, MN 55402
612.397.3266

VLAWMO