

2015

ANNUAL REPORT

Vadnais Lake Area
Water Management
Organization

Vadnais Lake Area Water Management Organization (VLAWMO)

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SECTION 1

Page 2

IN SHORT:

Introduction and background

SECTION 2

Page 8

THE YEAR IN REVIEW:

2015 activities, projects, and improvements

SECTION 3

Page 26

LOOKING AHEAD:

2016 goals, plans, and projections

SECTION 4

Page 32

DUCKS IN A ROW:

Administration and operation

SECTION 5

Page 36

DOLLARS AND CENTS:

Financial statement and budget

SECTION 6

Page 38

IT TAKES A VILLAGE:

The people behind VLAWMO

APPENDICES (AVAILABLE ONLINE AT VLAWMO.ORG)

- A-1: Legal publication
- A-2: Audit
- A-3: Full Monitoring Report

Table of contents

IN SHORT:

Introduction and background

IN THIS SECTION

- » Letter from the Administrator
- » Background
- » Mission Statement
- » Map

LETTER FROM THE ADMINISTRATOR

Greetings!

VLAWMO put a lot of energy into the update of the 10-year Water Management Plan and the Joint Powers Agreement, as well as our many core programs such as monitoring, cost-share grants, and education and outreach. Stakeholder meetings, surveys, and community events took place to identify priorities, goals, and strategies to achieve those goals. Work done in the last 10 years, including the TMDL report on impaired waters, the final subwatershed assessment in 2015 and several Sustainable Lake Management Plans, have been fed into the new 2017-2026 Water Management Plan. Other framework pieces of the watershed, including the Joint Powers Agreement, have been reviewed and updated so that VLAWMO is ready to embrace the next 10 years, improving our water resources and engaging residents and partners.

Partnerships were critical. VLAWMO partnered with the North Oaks Homeowners Association and the MN Conservation Corps to complete the Deep Lake Channel restoration project. Ramsey Conservation District remains a key partner in collecting and analyzing data, and installing projects. Tyler Thompson has brought GIS and other computer software skills to the staff as well as being an able field technician.

The bacteria molecular monitoring program on Lambert Creek completed its second year of monitoring. VLAWMO continues to work with an experienced consultant from California to implement the monitoring process. The St. Paul Regional Water Service (SPRWS) and Ramsey County Lab provided essential help. Early results of dry weather flow conditions are suggestive of an avian bacteria source. In 2016, the monitoring team will tackle wet weather monitoring at two sites on the creek. While more information is needed, a research project involving wetland treatment for bacteria and other contaminants was proposed to the Legislative Commission on Minnesota Resources (LCCMR). Funding of the Whitaker Wetlands Project was recommended by the LCCMR Board in December of 2015 and if secured from the Legislature, this project will start in 2016.

Watch for more details on our website.

-Stephanie McNamara, VLAWMO Administrator

***Planning for the Future***

2015 marked the year in which VLAWMO began the process of regenerating its Comprehensive Watershed Management Plan for the years 2017 through 2026. As required by the Minnesota Board of Water and Soil Resources (BWSR), watersheds are required to have 10 year comprehensive plans to layout and guide their efforts to protect and improve the quality of their jurisdictional waters. VLAWMO's 4th generation Water Plan has been entirely revamped from the previous plan, and it has been a joint effort between VLAWMO staff and specialists from Wenck Associates, Inc. Along with the new Water Plan, a new Education and Outreach Plan and Joint Powers Agreement are being completed to facilitate the Plan.

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 6 cities 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

The watershed approach to protecting 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 400,000 customers in the St. Paul area, VLAWMO frequently partners with the St. Paul Regional Water Service (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

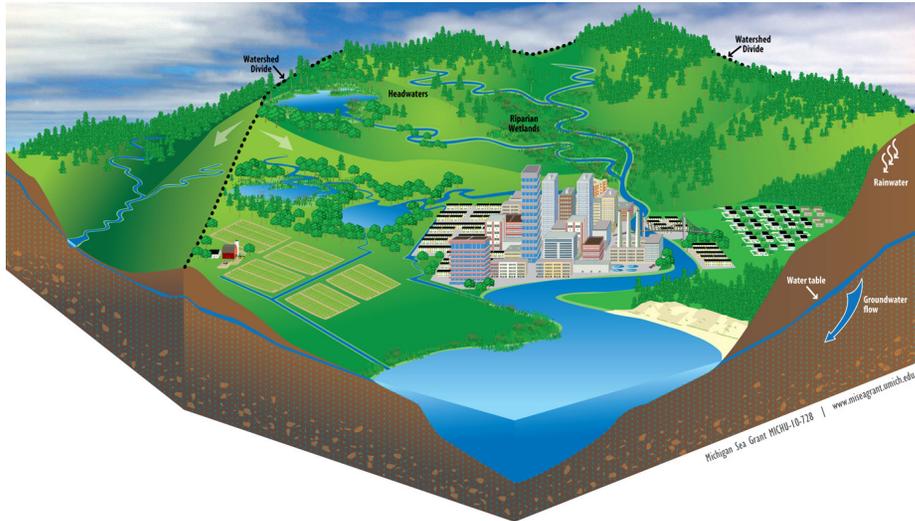


Vadnais Lake pumping house, early 1900s - courtesy of MN Historical Society

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 stormwater 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 (eg 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 underground aquaduct 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

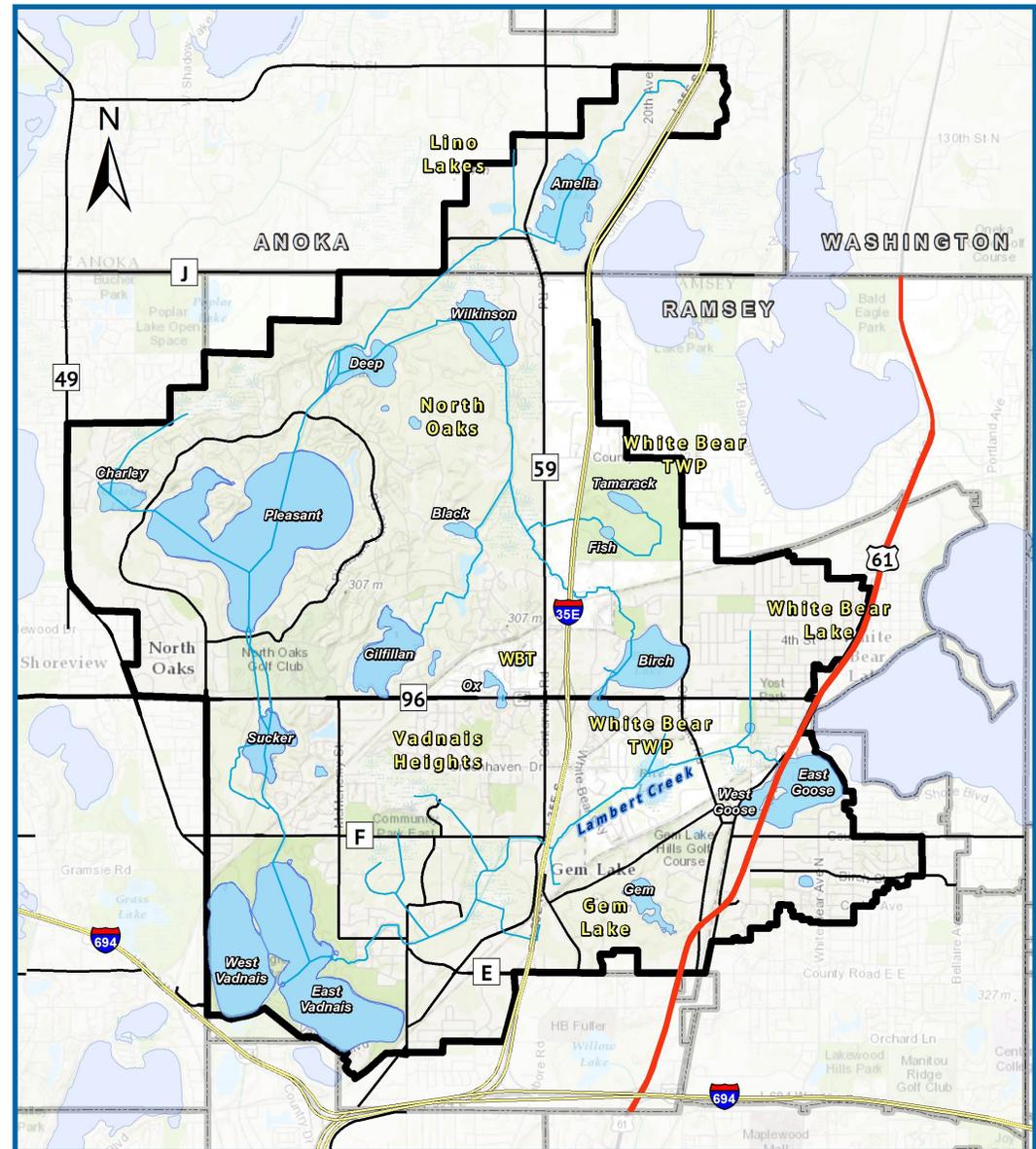
VLAWMO has jurisdiction over Lambert Creek, 4.5 miles of creek and wetland that runs from West Goose Lake and eventually empties into East Vadnais Lake.

WETLANDS

There are over 500 wetlands within VLAWMO. Tamarack, Grass, Rice, Lambert, and Sobota Slough are a few of the largest tracts of wetlands 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:

2015 activities, projects, and improvements

IN THIS SECTION

- » Projects
- » Education Programs
- » Grant Programs
- » Monitoring Program
- » 2015 Work Plan Assessment

PROJECTS

E. COLI SOURCING

Lambert Creek is currently on the State Impaired Waters 303(d) list for high levels of *E. coli* bacteria. The creek was monitored for *E. coli* at 5 sub-watershed sampling locations weekly during the summer from 2008-2012. VLAWMO has been working with a consultant to perform target monitoring and molecular sourcing to discover the source of the *E. coli* impairment (whether the bacteria comes from human, animal or avian sources). The recently approved Total Maximum Daily Load study (TMDL) suggests a 37%-61% reduction in current bacteria loads to the creek.

At the completion of this project we hope to have an understanding of exactly where the *E. coli* is coming from at these locations on the creek and also determine proper best management practices (BMP's) to reduce the amount of bacteria in the creek. 2014 source monitoring focused on the County Road F and Oakmede sites, while 2015 sampling targeted the Whitaker and Oakmede drainage sites.

THE PROCESS

The Bacteria Sourcing study uses an integrated approach to identifying and reducing bacteria loads to meet regulatory requirements, in this case the TMDL MS4 wasteload allocations. The *E. coli* source monitoring was continued in 2015, with *E. coli* culture samples taken 2 days every other week during the summer. Samples were taken during dry conditions (at least 72 hrs from a significant rainfall), concentrating on the Goose and Whitaker sites. To identify biological sources (human, canine, or avian), genetic samples were taken during dry conditions for 3 weeks from the end of August and into September.



Birch Lake looking west

RESULTS

VLAWMO completed the Whitaker and Goose sub-drainages this summer for dry conditions. *E. coli* concentrations were monitored at primary sites as well as tested for the human, canine, and avian genetic markers.

Just as the results from County Road F and Oakmede, *E. coli* concentrations at both sites showed below state chronic standard levels of *E. coli* (less than 126cfu/100ml), indicating the impairment is not dry weather related at these sites. Both sites were also negative for the human genetic marker suggesting there are no septic or sanitary sewer leaks contaminating ground water in these areas leeching into the creek. Both sites were positive for the avian and canine markers, suggesting that waterfowl and dog waste have an influence on the bacteria levels in the creek.

VLAWMO will begin the wet weather monitoring for the Oakmede and County Road F sites in 2016.

COMMUNITY BLUE 2.0

Despite the ending of Board of Water and Soil Resources (BWSR) Community Blue funding, VLAWMO elected to continue the program with its own funds as Community Blue 2.0. This education and outreach-based grant program was renewed to support community service initiatives and citizen engagement efforts which promote stewardship and behavior change in watershed protection. \$20,000 was allotted for the fund in 2015 to reach out to those who normally would not have access to such funds, or would not be able to install these restoration projects without considerable financial assistance.

Grant amounts were offered from \$200 up to \$5,000, with in-kind matching including the value of goods and services donated, volunteer time, and monetary matching.

BACKGROUND

Originally, VLAWMO was awarded a Community Partnership grant from the Board of Water & Soil Resources in 2011 in to promote support of citizen-driven efforts which improve our water resources. The State grant provided \$105,200 with VLAWMO providing a local match of \$39,700 to install seven projects and foster the community relationships.

This was a unique and innovative program with a focus on engaging citizens, and building community partnerships through highly visible, publically accessible restoration projects that beautified community spaces and improved water quality. Installed projects will be utilized in future years for hands on environmental education and community outreach programs. Grants covered 100% of the cost for materials, design, and installation up to \$20,000. A financial match was not required, but it did increase chances of receiving a Community Blue grant.

Groups eligible for the Community Blue program included: schools, non-profits, community and service groups, faith organizations, and certain small businesses. Local government agencies also qualified.

2015 PROJECTS

Two grant recipients were approved for 2015: Tamarack Nature Center in White Bear Township, and Heritage Estates in Vadnais Heights.



Lambert Creek, looking east from Otter Lake Road, White Bear Township

TAMARACK NATURE CENTER BOARD WALK AND EDUCATION PLANNING

Location: White Bear Township

Estimated Completion: June, 2016

Amount Awarded: \$5,000

ABOUT THE PROJECT

The Tamarack Nature Center (TNC) in White Bear Township has a library of programs available to citizens based on environmental education, involvement, and activities. Early childhood education and summer camps focus on human and environment interaction, which includes environmental monitoring activities.

Tamarack Lake is an excellent setting for learning about the science and health of our waters, however, the wetland shoreline surrounding the lake presents the issue of access for the young learners.

TNC submitted a grant application to develop plans for a shoreline boardwalk along a section of the lake, as well as an education plan detailing formal education plans to incorporate into the existing PreK-Grade 5 curriculum. The boardwalk plans will include detailed design, estimated budget, timeline and implementation plan.



Looking north to a view of Tamarack Lake at the Tamarack Nature Center

HERITAGE ESTATES OUTDOOR LEARNING CENTER

Location: Vadnais Heights

Estimated Completion: Winter 2016

Amount Awarded: \$4,950

PROJECT DETAILS

VLAWMO has previously partnered with the Heritage Estates CSHA for the establishment of a community rain garden to conduct educational workshops and gatherings. The grant awarded with the Community Blue Grant program is going towards 7 workshops and events, educational tools (Free Little Library), and promotional and marketing material to promote the HOLC's events and resources.

The focus of the grant is to share knowledge and educate about the importance of implementing practices of native species and how stormwater runoff affects our waterways. 6 workshops and 1 event are included in the project: Raingarden on the Rocks (x2), Art on the Rocks (x2), Reading on the Rocks (x2), and Plant sharing in the spring. There will also be Little Free Library, constructed by the White Bear Lake Senior Center woodworkers, to share books and distribute reading material about our natural resources.



Vicki Johnson and Ruth Kirkevold of the Heritage Estate Countryside Homes Association at the community raingarden on Thornhill Lane, Vadnais Heights

in the community



White Bear Lake Water Conservation Expo



Marketfest in White Bear Lake



Water Plan Update Open House

EDUCATION PROGRAMS

VLAWMO made a push for increased community and stakeholder interaction in 2015 for maximum inclusion and involvement in the 2017-2026 Water Plan update. VLAWMO staff and volunteers continued to connect with more watershed residents through workshops and trainings, community events and stakeholder meetings, and increased outreach using multiple platforms of media.

WORKSHOPS & TRAININGS

Providing effective and relevant workshops and training opportunities are a cornerstone of the public education and stakeholder engagement programs for local government agencies. VLAWMO hosted 2 stakeholder meetings and 3 workshops in 2015. The stakeholder meetings engaged citizens and partners to be a part of the Water Plan update process, and to have an impact in their watershed. These events supported active projects and programs currently being carried out by VLAWMO staff and partners, and correlated Water Plan goals and priorities for 2015.

WHY WATER MATTERS: WATER PLAN OPEN HOUSE - 27 PARTICIPANTS

COST SHARE PROGRAM - 2 RAINGARDEN WORKSHOPS - 38 PARTICIPANTS

DRAGONFLY IDENTIFICATION AND MONITORING - OVER 50 PARTICIPANTS

COMMUNITY EVENTS

VLAWMO has always placed a high priority in reaching out to watershed residents by annually staffing a VLAWMO booth at many of the largest or most innovative events in the community. There is no substitute for interacting with residents face to face in a fun and relaxed environment. By participating in these heavily attended community events VLAWMO has the opportunity to provide brochures, booklets, and handouts about our current projects and programs. Staff and volunteers also have the chance to talk to residents about the work we do and opportunities for the public to get involved. In 2015 VLAWMO staff hosted a booth at the following events:

- » 2015 White Bear Lake Water Conservation Expo- May
- » Marketfest: Conservation and Environment Day- July
- » North Oaks Community Fair- May
- » Taste of Vadnais- June

Displays and informational handouts were also provided for smaller events in North Oaks and White Bear Township.

VOLUNTEER ACTIVITIES

Our volunteer community represents a diverse group of citizens. They include teachers, business executives, parents, retirees, students...you name it. But the one thing all our volunteers have in common is their dedication to change. And the more volunteers we have, the bigger impact we can all make. Together. More about what it means to belong to one of VLAWMO's volunteer programs is found below.

CITIZEN LAKE MONITORING PROGRAM (CLMP)

These volunteers collect water samples and summarized lake conditions bi-weekly from May through September.

VLAWMO would like to thank the following volunteers for their vital role in the Citizens Lake Monitoring Program. The volunteers for 2015 were: Ron Auger & Jim Grisim (Birch Lake), Paul Peterson (Amelia Lake), Sue Fox (Gilfillan Lake), Kurt Carpenter (Goose Lake West & East) and Shannon Stewart (Tamarack Lake).

WATERSHED ACTION VOLUNTEERS (WAV)

Each year Vadnais Lake Area Water Management Organization utilizes individuals to serve on its Watershed Action Volunteers (WAV) committee. Serving as a WAV member is a great way to help protect and preserve the lakes and wetlands within your community. In 2015, WAV members participated in a variety of watershed projects including:

- » assisting staffing VLAWMO booths at community events
- » providing input and feedback for projects, programs and the 2017-2026 Water Management Plan update



Identifying dragonfly species at Tamarack Nature Center

Science and Service

Dragonfly camps for kids are designed to teach children of all ages that science and service learning can be exciting and rewarding.

Camps usually last 2 to 3 hours and start right in the field. Children receive a brief anatomy and biology lesson highlighting the important connection dragonflies have to clean water, followed by proper techniques for catching and handling dragonflies. The bulk of the camp is spent surveying as many specimens as possible. Each child has their own net, field guide, and survey sheet. Pond dipping for nymphs (immature dragonflies and damselflies)

is also included if there is a suitable pond available nearby. At the end of the camp children contribute their survey data to a master survey sheet.

Children are able to take home their survey sheet, an anatomy and activity worksheet, and the ability to catch and identify many of the most common dragonfly species in Minnesota. Tamarack Nature Center has been a significant partner in developing this opportunity.

2015 Kids Camps Included:

- » Hug a Bug
1st & 2nd graders
- » Backyard Bugs
3rd & 4th graders



A Backyard Bugs attendee properly handling a halloween pennant dragonfly

DRAGONFLY MONITORING

VLAWMO has been partnering with the Minnesota Dragonfly Society, and Tamarack Nature Center for the past 4 years to better understand the variety and distribution of dragonflies and damselflies in the Watershed. By monitoring the populations of wildlife, such as dragonflies, we hope to have a better understanding of how local water quality, and pollution affects the ecosystem over time. They are also beautiful and exciting beneficial insects that people of all ages connect with and appreciate. After all, who doesn't love something that spends its whole life eating mosquitoes?!

Everyone gets up close, hands-on experience catching and handling dragonflies from a local expert, while learning about their fascinating biology, and the important connection dragonflies have to clean water and our local lakes, streams, and wetlands. Students and kids camps also learn how to fill out their own survey data sheet, and practice pond dipping to identify dragonfly and damselfly nymphs.

PROGRAM SUMMARY FOR 2015

2015 was a beautiful year for the dragonfly monitoring workshops. One monitoring workshop for all ages, and 2 kids camps were held at Tamarack Nature Center. The programs included a mix of folks who were new to the program, and those that had participated in previous years.

Thanks to the enthusiasm and efforts of all who attended 27 species of dragonflies and damselflies were collected by volunteers, and 4 new species were added to VLAWMO's specimen collection this year.

COMMUNICATIONS

VLAWMO has a very active communication and marketing program for an organization of its size. Realizing that in today's society you must utilize a variety of communication and media strategies to provide information and connect to an increasingly diverse community. There is no longer a single strategy that can effectively reach a broad audience. Often times multiple communication methods must be coordinated during a project or program in order to ensure goals and objectives are met.

In 2015, VLAWMO began work on its a new Education and Outreach Plan (EOP) to coincide with and support the 2017-2026 Watershed Management (comprehensive) Plan. The new E&O Plan "identifies needs and opportunities in the watershed and will guide education, outreach and communication through this 10 year Plan cycle." The Plan was constructed by VLAWMO staff with the assistance of consultants. There are 2 phases laid out in the Plan's objectives. Phase 1 began in June, 2015 to support stakeholder engagement stage of public input for the 2017-2026 Water Plan update. Phase 1 also states that existing education and outreach programs (EOPs) such as workshops, citizen science, partnership efforts, and the Community Blue education grant program would be continued into Phase 2: 10-Year Plan Implementation. The new Education and Outreach Plan identifies potential challenges, such as growing a stakeholder base, and will also evaluate education programs and communication timetables for results and effectiveness. This new Education & Outreach Plan provides a framework, a place to start, and a process to develop future program content and messaging.

PUBLICATIONS AND SOCIAL MEDIA

VLAWMO continued to utilize a variety of communication and media formats in 2015 including:

- » Publishing columns in the local paper Press Publications
- » Newsletters
- » Regular posts on social media platforms such as Facebook
- » Producing brochures, and informational handouts
- » Branding efforts that created a cohesive look and message in order to increase agency recognition and awareness in the community



WATER PLAN UPDATE MARKETING

2014 brought the rebranding of VLAWMO, as well as its new website format to update for a more modern approach to improve communication and outreach with VLAWMO's partners. With the update of the Water Plan in 2015 this was taken further with the development of a theme for the next generation 2017-2026 Water Plan: "Why Water Matters." This new theme was introduced to draw in VLAWMO's stakeholders to take notice and get involved with their watershed, and to include their input into the 2017-2026 Water Plan.

- » "Why Water Matters" website theme
- » Theme banner for use at open houses and community events
- » Theme used in 2015 publications
- » Story boards created for open houses and display for public viewing

COST SHARE

VLAWMO's Cost Share Program exists to provide assistance to public and private landowners for implementing programs and projects that support one or more of the following:

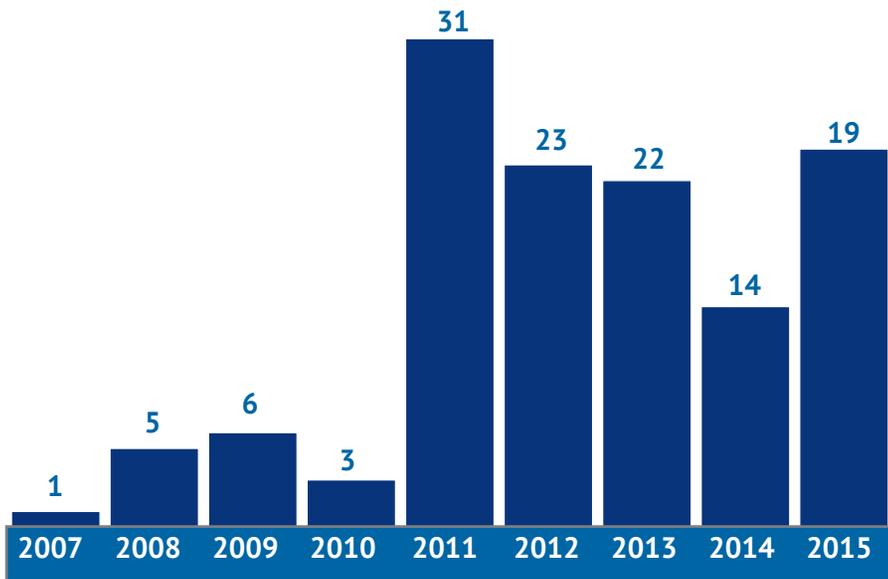
- » Prevention of flooding or mitigation of drought
- » Water quality improvement or increase in watershed storage capacity
- » Preservation, protection, and restoration of native plant and wildlife communities, especially along lakes, rivers, and wetlands
- » Protection and preservation of groundwater quality and quantity

Available funds vary by year. Once the annual amount is depleted, applicants are advised to reapply the following year.

There are 3 Cost Share Programs:

- » Rainbarrel Cost Share Program
- » Landscape Level 1
- » Landscape Level 2

Grants completed annually



A Landscape Level 1 grant in Vadnais Heights



RAINBARREL COST SHARE PROGRAM

The Rainbarrel Program reimburses residents 50% of the cost towards the purchase of up to 2 rainbarrels. Applicants are limited to \$125 maximum reimbursement per rainbarrel. In promotion of the program

RAINBARREL SUMMARY 2015

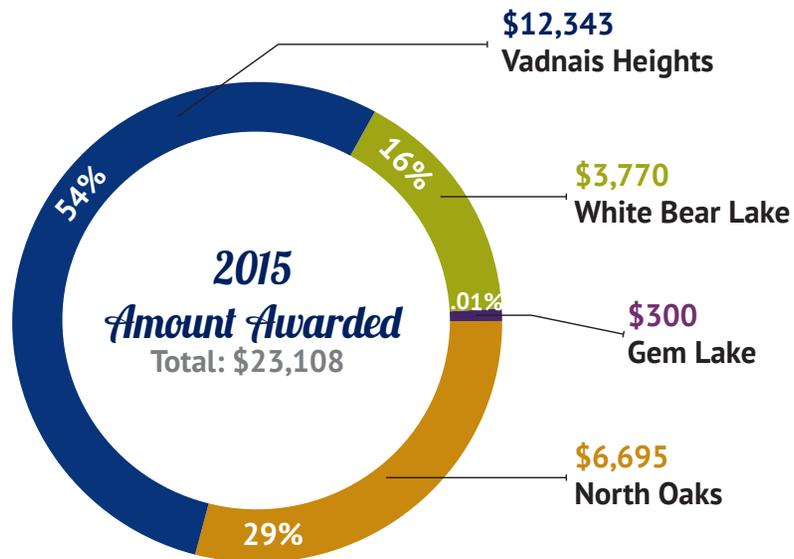
In 2015 VLAWMO awarded grants for 10 rainbarrels, for a total of \$310.28

LANDSCAPE COST SHARE PROGRAMS

The Landscape Level 1 Program reimburses property owners 75% of the costs associated with implementing approved water quality improvement projects. The maximum reimbursement is \$2,000 for this program. Typical projects include raingardens, shoreline restoration, native habitat restoration, or pervious paver installation.

The Landscape Level 2 Program is for projects with a larger total cost (minimum total cost of \$5,000) and will reimburse 75% of the costs, up to \$5,000. The program was updated in 2015 to allow funding to be more available for applicants.

There were 19 projects completed in 2015. One shoreline restoration totaling 450 square feet was completed on Birch Lake. 11 raingardens totaling 3,530 square feet within the cities of White Bear Lake, North Oaks and Vadnais Heights were installed. 3 native plant restoration projects totaling over 2 acres in North Oaks and Gem Lake were initiated as well.



LANDSCAPE LEVEL 1 SUMMARY 2015

For Landscape Level 1, ten grants were awarded funding in 2015 for a total of \$22,808. \$300 was awarded in maintenance funding.

LANDSCAPE LEVEL 2 SUMMARY 2015

There were no Landscape Level 2 grants awarded in 2015.

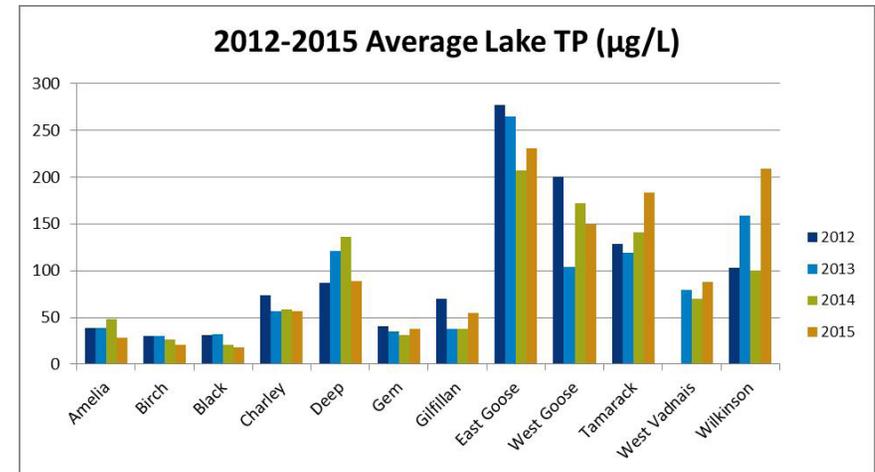


A raingarden installed in Vadnais Heights in June, 2015 thanks to a Landscape 1 grant

MONITORING SUMMARY

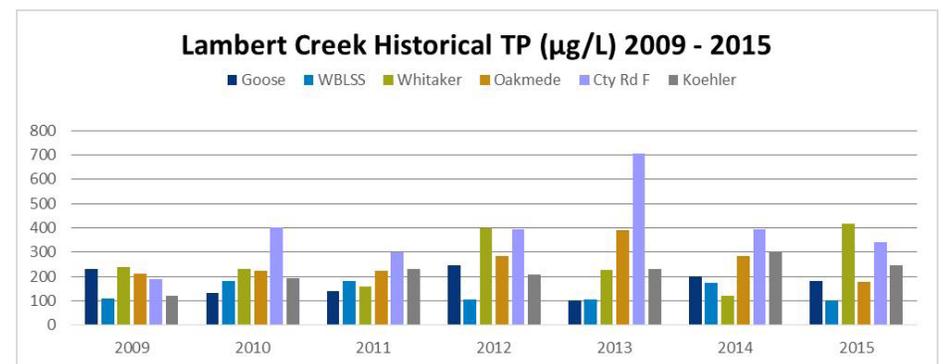
2015 Monitoring Highlights include:

- » Gem Lake’s chemistry in 2015 was slightly less healthy than the past two previous monitoring seasons, though is still under state standards, and much more healthy than just a few years ago. Though there was an algae bloom at the end of summer, VLAWMO anticipates nutrient levels below state standards in 2016. If this trend continues, it is anticipated the lake may be removed from the State Impaired Waters List.
- » Gilfillan Lake also remains on the Impaired List. Since the augmentation system went in to raise the water level, the water quality has improved (most likely due to dilution), and no water augmentation has occurred since 2012. In 2015 average total phosphorus levels were up nearly 45% from the 2013 and 2014 monitoring seasons. It could be that the dilution effect from augmentation is wearing off, increasing nutrients.
- » East Goose has some improved trends the last couple of years but it is still way above State standards. VLAWMO removed bullheads in 2014 and Highway 61 reconstruction may have helped the water quality. Total phosphorus was up from 2014 levels by almost 12% in 2015, but still lower than 2012 and 2013 levels.
- » West Goose nutrient levels are still high as well, with total phosphorus 2.5 times greater than the state standard. However, nutrient levels are lower than its sister lake, East Goose, with 45% less average total phosphorus during the 2015 monitoring season.
- » Wilkinson acts more like a wetland and therefore what goes on in the watershed has a greater effect on the chemistry. 2015 was another year of abnormally high amounts of precipitation, but unlike 2014 numbers, nutrient levels in Wilkinson increased sharply. The average for chlorophyll A levels in 2015 was more than 7 times greater than the state average.
- » Tamarack’s numbers are still high and show no means of improvement; as of yet, the floating wetland has not shown any effect on nutrient reduction. 2015 was the 2nd year in which samples were taken right next to the island and compared it to samples taken off the dock. It



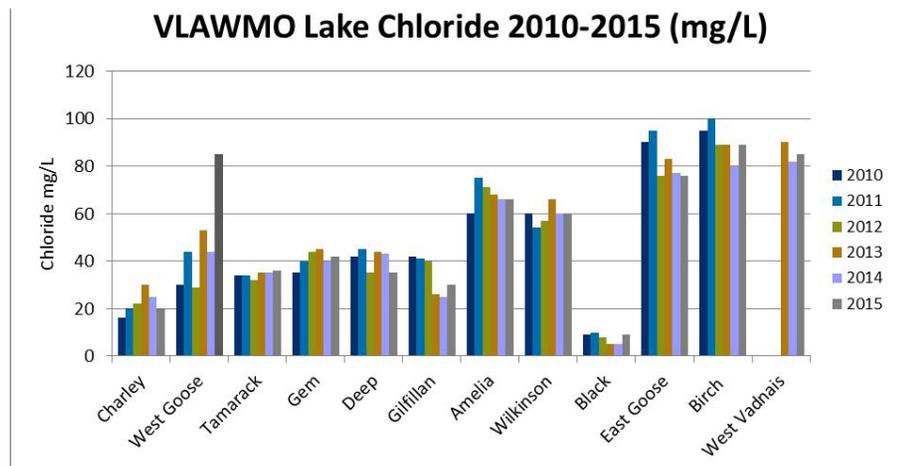
is still unclear if the floating island will increase Tamarack’s water quality, but it provides good habitat and educational opportunities for the Tamarack Nature Center.

- » Overall, the other lakes are doing well. **The complete 2015 Monitoring Report can be found on VLAWMO.org.**
- » **Lambert Creek** phosphorus numbers are still high, however sampling averages show all sampling sites, except for Whitaker, having lower total phosphorus levels than in 2014. Creek samples are collected every 2 weeks during the monitoring season.



- » The two cell system at Whitaker Pond continues to export phosphorus, however, the pond and forebay have shown a positive effect on suspended solids; levels are staying lower than before the forebay was constructed. The forebay was dredged for sediments in October 2015 by Ramsey County. Water quality changes will be monitored in 2016.
- » **Lake Chloride levels** are taken annually at ice-off on all lakes monitored by VLAWMO, and throughout the monitoring season on Birch Lake, as funded by the Birch Lake Improvement District (BLID). Overall, chloride levels were roughly the same as last year, except for elevated levels in West Goose Lake. Results are in line with the average from the last 5 years of sampling. No significant changes within the lakes has been measured since chloride monitoring began in 2010. West Goose' levels were almost double 2014 numbers. Black Lake continues to have the lowest levels, while Birch Lake, East Goose, and West Vadnais have the highest. This may be due to their proximity to major roads. All of the lakes are well below the current State standard of 230 mg/L.
- » Lambert Creek spring chloride sampling showed Whitaker being much higher than in 2014, White Bear Lake storm sewer being much lower, and the other sampling locations were about the same as 2014.
- » Precipitation in 2015 was extraordinary, with all months, except for August, over the historical rainfall average. May received nearly 3 inches above average. These extraordinary rain events caused large flushes of nutrients and bacteria into VLAWMO's lakes and streams.

VLAWMO Lake Chloride 2010-2015 (mg/L)



- » **E. coli sampling** shows a correlation between creek flow volumes and E. coli levels in the creek, fluctuating upon precipitation.
- » The Whitaker and Goose sub-drainage dry study was completed, testing primary and possible source sites, and also for genetic markers.
- » Testing supports that E. coli issues are attributed to rain events, and regrowth. Genetic testing was negative for human contamination, but positive for avian contamination. We know these areas to have consistent bird populations that congregate.
- » VLAWMO will begin wet weather monitoring on two creek sites in 2016.

EAST GOOSE LAKE INTERNAL PHOSPHORUS LOADING ANALYSIS

To determine which of the available management strategies will most effectively reduce internal load in East Goose Lake, additional information was needed. After taking sediment cores, two types of tests were conducted. These helped to provide VLAWMO with numerical evidence to support direction on what types of best management practices would most effectively increase the lake's health.

- » **Particle entrainment study:** This simulates shear stresses at the lake bottom associated with various sources of perturbation (fish, wind, motorboat). Testing Goose lake sediment shows how much sediment is stirred up and for how long. The energy required to suspend sediment particles was very low, meaning that mechanical disturbances (wind mixing, rough fish, motor boats) very easily resuspend lake sediments up from the lake bottom and into the water column. If there are nutrients in the sediment (phosphorus, nitrogen), this can mean increased nutrient availability for algae blooms.
- » **Equilibrium study:** Goose Lake sediments are easily disturbed and remain suspended, leading to this second study to find if the sediments release their phosphorus into the water column. So far, results support that the phosphorus remains attached to the surface of the sediment particles, potentially contributing little to algae blooms. More testing of Soluble Reactive Phosphorus (SRP) will be done in 2016 to provide a better in-depth breakdown of lake chemistry.



Deep Lake Channel restoration completed in September in North Oaks

REVIEW OF 2015 WORK PLAN

2015 proved to be another busy year with the development of VLAWMO's 4th Generation Ten Year Watershed Management Plan taking center stage. The process of producing the new Water Plan was done by VLAWMO staff and Wench Associates, Incorporated. Numerous stakeholder meetings were held to draw input from all parties involved with VLAWMO. This information was used to help form the issues, goals, and strategies for the watershed for 2017-2026. During 2016, the final Plan will be completed for the approval of the Board of Water and Soil Resources (BWSR) and for adoption by the VLAWMO Board of Directors.

It was a big year for VLAWMO's other programs, as well. The cost-share program yielded an impressive amount of projects and the rebooted Community Blue Grant Program was utilized for extended education & outreach development. The monitoring program continued its usual lake and stream monitoring, while completing a dry weather E. coli sourcing study of 3 remaining sub-drainages.

VLAWMO also held booths at local events and festivals throughout the spring and summer, garnering a good deal of interest for local water quality issues and the watershed.



CAPITAL IMPROVEMENT PROJECTS - 2015

Project Name	Description	Goals
Sucker Lake Channel Restoration	This project is a joint effort in partnership with Ramsey Count Parks and the St. Paul Regional Water Service. When completed it will restore approximately 700 linear feet of shoreline that has eroded. Includes fishing access locations to support the current use of the site.	» Continued to work with partners to solidify project plans. Ongoing into 2016.
Deep Lake Channel Restoration	This project has restored approximately 125 linear feet of shoreline that has been eroded. VLAWMO is the lead on the project and working with the City of North Oaks and their homeowners association to implement the project.	» Installation completed in September, 2015. Goals met.
Lambert Creek - Lower Kohler Channel Restoration	This project will restore approximately 200 ft. of streambank downstream of the Kohler flume. Engineered armoring will be part of first section below the flume. Native vegetation will be planted to help stabilize the banks.	» Installation complete by the end of 2016.
Goose Lakes Shoreline Stabilization	Begin installation of projects identified in the 2014 TMDL Implementation Plan for East and West Goose Lakes.	» Reduce the phosphorus impairment in Goose Lakes. » Assist MS4s in achieving their WLA.



GRANT PROGRAMS - 2015

Project Name	Description	Goals
Community Blue	Reboot grant program as CommunityBlue 2.0, funding qualifying projects using only VLAWMO funds. Broad grant program to support education & outreach, and citizen engagement effort to promote stewardship and behavior change in watershed protection.	» Provide grants to support community service initiatives, and citizen engagement efforts. Promote stewardship and behavior change in watershed protection. Two grant recipients; goals met for 2015.



GRANT PROGRAMS - 2015

Project Name	Description	Goals
Landscape Level 1	Establish relationships and provide grants to property owners within the watershed to install water quality enhancement projects.	<ul style="list-style-type: none"> » Spend all 2015 funding, install at least 8 projects. » Spent 87% of funds on 19 projects.
Landscape Level 2	Establish a new policy that better supports the direction of the program, meet with City Planners/Engineers to educate them about the program and help spread the word on projects they may be working on	<ul style="list-style-type: none"> » Provide larger grants to property owners to install BMPs. » No LL2 funds given in 2015. Worked with potential LL2 partners for 2016 projects.



ADMINISTRATION & OPERATIONS - 2015

Project Name	Description	Goals
Joint Powers Agreement Update	The JPA language was reviewed for any recommended updates. Any changed language will be sent to municipal partners for review and approval. Policy & Personnel reviewed proposed updates that will be sent to the VLAWMO attorney for review.	<ul style="list-style-type: none"> » Language changes will be considered by the Board before distribution to the JPA members for approval. » Goals met.
Stormwater Utility	Storm sewer rates are based on the adopted budget and certified to the counties for collection.	<ul style="list-style-type: none"> » Provide necessary financing for watershed. All goals were met for 2015.
Wetland Conservation Act (WCA)	Boundry and type & other determinations in consultation with the TEP were completed with notice. Response were given to WCA questions	<ul style="list-style-type: none"> » Administer WCA Rules with VLAWMO as LGU. Goals met.



MONITORING PROGRAM - 2015

Project Name	Description	Goals
E. coli Sourcing	Finished the dry weather monitoring of the remaining three sub-drainages (Dry flow= no rain prior 72 hours.) Enumeration testing was done by SPRWS. Molecular tests were staff collected, filtered by Ramsey Co labs and sent to Weston Solutions, CA lab for DNA tests.	» Address bacteria impairment on Lambert creek through source and transport mechanism identification. All goals met for 2015.
Chloride Measurements	Sample lakes and Lambert Creek. Partner with Birch Lake Improvement District (BLID)	» Check monthly measurements May - September, and winter . Monthly winter samples when ice allows. All goals were met.
Lambert Creek monitoring program	Basic phosphorus, nitrogen and sediment levels are monitored at 6 sites along with pH, conductivity and DO. Automated flow meter & and precipitation gauge are maintained at Whitaker.	» Document and evaluate the general health of the creek. All goals were met for 2015.
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. All goals were met.
Zebra Mussels	PVC pipe monitoring is being done in targeted lakes	» As zebra mussels are in the main chain of lake, other targeted lakes are being monitored for spread. All goals were met.
Citizen Lake Monitoring Program (CLMP)	Sample 5 different lakes using citizen volunteers	» Monitor water quality on 5 lakes while engaging local residents. Goals met.
East Goose Lake Internal Phosphorus Loading Study	Equilibrium exchange and soluble phosphorus by resuspended sediment studies.	» Determin effect of resuspended sediment on internal loading to determine the scope of a possible alum treatment. Goals met for 2015.



EDUCATION PROGRAMS - 2015

Project Name	Description	Goals
Workshops	Continue popular workshops for raingardens, raingarden maintenance, dragonfly monitoring, and shallow lakes. Add workshops for Watershed Plan Update stakeholders.	» Develop and host workshops throughout the year that 1) inspire stewardship of water resources 2) provide tools and training for citizens and professionals 3) that support VLAWMO's projects and programs. All goals met.
Community Events	Staff a VLAWMO booth at Taste of Vadnais, Marketfest, and North Oaks Community Fair	» Partner with the community through local events providing educational information on VLAWMO's projects, programs, and activities. All goals met.
Citizen Lake Monitoring Program (CLMP)	Sample 12 basins using volunteers and staff monitoring team.	» Monitor basic water quality metrics on 12 lakes while engaging local residents where possible. All goals were met for 2015.
Watershed Action Volunteers (WAV)	Continue to help with community events, education grants, photo contests, and outreach materials. There will be increased involvement with contributing input for the Watershed Plan Update	» Maintain active citizen involvement and support for VLAWMO's programs and community events. Fewer involvement in 2015, but still active with Water Plan.
Website Update	Continue website updates. Resource development as needed to expand information resources. Press Publication – deliver articles as assigned. Social Media - Explore other platforms to determine if there is benefit to vlawmo (pinterest, instagram etc). Enews – 3 publications.	» Defray costs and enhance reach and impact through strong partnerships. The website received ample traffic in 2015, and provided a platform for Water Plan news. Goals met.
Partnerships	Continue support of existing partners and partner activities: Ramsey Conservation District, NEMO, Watershed partners, Blue Thumb etc. Complete student version of Watershed game with NEMO team.	» Partners supported and goals met for 2015.



PLANNING & REPORTS - 2015

Project Name	Description	Goals
Strategic Planning	A consultant was hired to work with staff, TEC & Board to list priority projects and assess resources need to accomplish them before 2016.	<ul style="list-style-type: none"> » Installation of one project and planning on 4 more projects continued in 2015. » Goals met.
Watershed Management Plan Update (Plan)	An update of the Plan is required by December 31st, 2016. The Plan will meet all existing and proposed requirements of Minnesota Rules Chapter 8410, 8420 and 4720.5100 – 4720.5590, Minnesota Statutes 103B, 103D and 471.59. The plan will clearly identify goals, policies, priority concerns, and a strong focus on implementation activities for the Watershed for 2017-2027.	<ul style="list-style-type: none"> » Complete primary process of public input and identification of priority issues. » Goals met.
Sustainable Lake Management Plan (SLMP) - Black Lake	Complete SLMP report for Black Lake	<ul style="list-style-type: none"> » Complete SLMP report. Draft of report was complete in November, 2014, final revisions completed as of 2/9/15. Completed.
RCD Pleasant-Charley-Deep Retrofit Analysis	Final draft of the retrofit report was delivered in December 2015 to identify water quality issues within the subwatershed, and recommended projects to improve water quality in the area.	<ul style="list-style-type: none"> » Provided guidance for BMPs in the subwatershed » Identifies water quality issues within the subwatershed » Goals met for 2015; completed

LOOKING AHEAD:

2016 goals, plans,
and projections

IN THIS SECTION

» 2016 Work Plan



2016 WORK PLAN PROJECTION

The end of 2015 saw the beginning planning stages of the Water Plan Update completed, and laid the ground work for the writing of the Plan. 2016 saw the completion of the first written draft released for public and agency comment.

By the end of 2016, the final draft of the 10 Year Water Plan Update will be completed and ready for implementation, along with an updated Joint Powers agreement between VLAWMO and its cities, and a new Education & Outreach plan. The 10 Year Water Plan Update is the puzzle piece that connects all of VLAWMO's efforts together to reach its goals towards better water quality within the watershed.

Returning springtime waterfowl on Amelia Lake Programs, projects, staff, citizens and partners are the main drivers of VLAWMO's effectiveness at protecting and restoring water quality.

VLAWMO will continue work on its Capital Improvement Projects (CIPs) that are slated for progress and completion in 2016. Regular programs such as the costshare and monitoring programs will be continued as well to achieve identified goals.



CAPITAL IMPROVEMENT PROJECTS - 2016 WORK PLAN

Project Name	Description	Goals	Timeline
Sucker Lake Channel Restoration	This project is a joint effort in partnership with Ramsey Count Parks and the St. Paul Regional Water Service. When completed it will restore approximately 700 linear feet of shoreline that has eroded. Includes fishing access locations to support the current use of the site.	» Further collaboration with Ramsey County Parks to finalize design and cost estimates.	Installation in 2017.
Whitaker Treatment Wetlands	A stormwater treatment project with funding through LCCMR Grant Fund. Stormwater from Whitaker Pond would be routed to constructed underground wetland treatment cells to test for pollution and nutrient removal, and then infiltrated into shallow groundwater.	» Contract with DNR, secure partner agreements and funding. Finalize design and cost estimates. Release project plans for bid.	Geotechnical engineering in 2016. 2017 Installation.
Lambert Creek - Lower Kohler Channel Restoration	This project will restore approximately 200 ft. of streambank downstream of the Kohler flume. Engineered armoring will be part of first section below the flume. Native vegetation will be planted to help stabilize the banks.	» Finalize design and cost, release for contractor bid. » Installation complete by the end of 2016.	Installation in 2016.
Goose Lakes Shoreline Stabilization	Begin installation of projects identified in the 2014 TMDL Implementation Plan for East and West Goose Lakes.	» Reduce the phosphorus impairment in Goose Lakes. » Assist MS4s in achieving their WLAs.	Installation in the fall of 2016.



GRANT PROGRAMS - 2016 WORK PLAN

Project Name	Description	Goals	Timeline
Landscape Level 1	Establish relationships and provide grants to property owners within the watershed to install water quality enhancement projects.	» Install at least 8 projects; addition of nutrient and pollution reduction tracking.	Ongoing



GRANT PROGRAMS - 2016 WORK PLAN

Project Name	Description	Goals	Timeline
Landscape Level 2	Landscape Level 2 Cost Share Program is aimed at assisting landowners with implementing larger BMP projects within the watershed. Preference for projects that have high visibility, educational value and/or local citizen support.	<ul style="list-style-type: none"> » Install at least one project. » Track nutrient and pollution reduction. 	Ongoing
Community Blue	A communication and outreach grant program to provide money for projects big and small that might otherwise might not qualify for other grant awards. Projects must provide education and outreach benefits that directly relate to water quality.	<ul style="list-style-type: none"> » Provide grants to support community service initiatives, and citizen engagement efforts. Promote stewardship and behavior change in watershed protection. 	Ongoing



PUBLIC EDUCATION AND OUTREACH - 2016 WORK PLAN

Project Name	Description	Goals	Timeline
Watershed Action Volunteers (WAV)	Act as a representative of the watershed to continue to help with community events, education grants, photo contests, and outreach materials. Assist in ideas and direction of outreach opportunities and projects.	<ul style="list-style-type: none"> » Maintain active citizen involvement and support for VLAWMO's programs and community events. Meet at least 3 times annually. 	Ongoing
Communications	Create and update material and publications for social media, website, seasonal Enews, and local publications. Make all sections of the website active. Create and maintain communications to promote public awareness for responsible use of our water resources.	<ul style="list-style-type: none"> » Create and maintain communications to promote public awareness for responsible use management of natural resources. 	Ongoing



PUBLIC EDUCATION AND OUTREACH - 2016 WORK PLAN

Project Name	Description	Goals	Timeline
Community Events	Staff a VLAWMO booth at Taste of Vadnais, Marketfest, North Oaks Community Fair, and others. Develop information and engagement components for community events including interchangeable display for non-staffed events.	» Partner with the community through local events providing educational information on VLAWMO's projects, programs, and activities.	April - September
Workshops	Continue popular workshops for raingardens, raingarden maintenance, dragonfly monitoring, and shallow lakes.	» Develop and host workshops throughout the year that 1) inspire stewardship of water resources 2) provide tools and training for citizens and professionals 3) that support VLAWMO projects & programs.	Ongoing
Citizen Science	Develop citizen AIS (aquatic invasive species) monitoring program for the waters of VLAWMO to measure and track infestation within the watershed.	» Create strong adult and youth watershed advocates through citizen science. » Track AIS throughout the watershed.	May - September
Partnerships	Continue support of existing partners and partner activities: NEMO, Watershed partners, Blue Thumb, local businesses, etc. Provide MS4 education summary for SWPPP; Improve stormwater guidance and information.	» Defray costs and enhance reach and impact through strong partnerships.	Ongoing
K-12	Develop youth involvement opportunities and programs that improve/benefit VLAWMO's goals and activities. Partner in school activities and utilize partnerships whenever possible.	» Work with partners to educate youth to promote understanding and personal action for responsible use and management of water resources.	Ongoing



MONITORING PROGRAM - 2016 WORK PLAN

Project Name	Description	Goals	Timeline
<i>E. coli</i> Sourcing	Begin wet weather monitoring of the Oakmede and County Road F sites (wet weather= within 24 hrs of rainfall).	» Address bacteria impairment on Lambert creek through source and transport mechanism identification.	April - September
Lambert Creek monitoring program	Monitor basic phosphorus, nitrogen 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.	» Document and evaluate the general health of the creek.	April - September
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.	May - September
Chloride Measurements	Sample lakes and Lambert Creek. Partner with Birch Lake Improvement District (BLID).	» Check monthly measurement.	Jan. - September
Stream Monitoring	Automated and manual sampling, including flow measurements on targeted streams into Wilkinson Lake.	» Document watershed nutrient loading into Wilkinson to assist selection of implementation strategies	May - September
Lake Monitoring Program	Monitor chemistry of 12 of VLAWMO's lakes through nutrient and sediment sampling, along with pH, conductivity, and dissolved oxygen (DO) measurements. Begin integration of automated sampling.	» Keep water quality record of watershed's lakes. » Utilize water quality data for future projects and CIPs.	March - September



ADMINISTRATION & OPERATIONS - 2016 WORK PLAN

Project Name	Description	Goals	Timeline
Joint Powers Agreement Update	The JPA language will be reviewed for any recommended updates. Changed language will be sent to municipal partners for review and approval. Policy & Personnel will propose updates that will be sent to the VLAWMO attorney for review.	<ul style="list-style-type: none"> » New JPA language will be considered by the JPA members for approval. » JPA will be amended to new Water Plan Update. 	April 2015 - December 2016
Budget & Stormwater Utility	Storm sewer rates are based on the adopted budget and certified to the counties for collection.	<ul style="list-style-type: none"> » Provide necessary financing for watershed. 	April - July
Wetland Conservation Act (WCA)	Complete boundry and type & other determinations in consulltion with the TEP. Respond to WCA questions	<ul style="list-style-type: none"> » Administer WCA Rules with VLAWMO as LGU. 	ongoing
Watershed Management Plan Update (Plan)	An update of the Plan is required by December 31st, 2016. The Plan will meet all existing and proposed requirements of Minnesota Rules Chapter 8410, 8420 and 4720.5100 – 4720.5590, Minnesota Statutes 103B, 103D and 471.59. The plan will clearly identify goals, policies, priority concerns, and a strong focus on implementation activities for the Watershed for 2017-2026.	<ul style="list-style-type: none"> » Complete draft plan for public review and comment on priority issues. » Plan is complete and approved by BWSR and adopted by VLAWMO's Board. 	January - December
Boundary Update	Petition the Board of Water and Soil Resources (BWSR) to update VLAWMO's boundary with a corrected parcel list to refelect to legal boundary between Rice Creek Watershed District (RCWD) and VLAWMO.	<ul style="list-style-type: none"> » Update parcel list to reflect VLAWMO's legal boundary. » Change citizen storm sewer rates from RCWD to VLAWMO. 	March - December

DUCKS IN A ROW:
Administration and operation

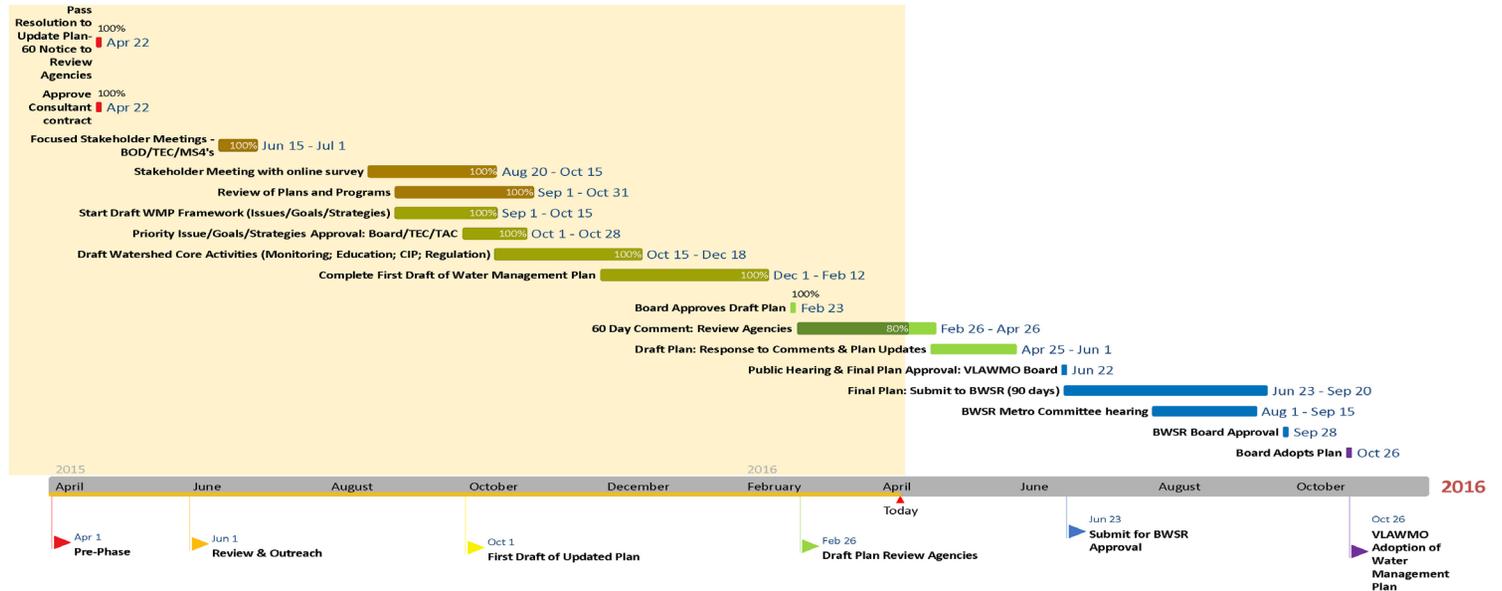
IN THIS SECTION

- » Plans and Reports
- » WCA Summary
- » Local Plan Adoption
- » Biennial Solicitations
- » Partnerships

10 YEAR WATERSHED MANAGEMENT PLAN

In 2016, VLAWMO will complete the 4th Generation Watershed Management Plan (Plan). An update to the Plan is required by December 31, 2016 and must meet all existing and proposed requirements of Minnesota Rules Chapters 8410, 8420, and 4720.5100 through 4720.5590, as well as Minnesota Statutes 103B, 103D, and 471.59. The Plan provides a framework for the management of the water and natural resources in the VLAWMO watershed from 2017 to 2026.

The Plan identifies and prioritizes actions based on over 30 years of water quality monitoring and investigative studies as well as through input gathered through several stakeholder meetings held during 2015. Guided by the theme of “Why Water Matters” and VLAWMO’s mission statement, goals were set and strategies identified to guide the application of our unique abilities and authorities and address our priority issues. The graphic below describes the activities that have taken place in the development of the Plan and what will occur in 2016 to complete the process.



Timeline graphic regularly updated to visually represent VLAWMO’s progress in updating the 10 Year Water Management Plan.

Education & Outreach Plan

A Draft of the Education & Outreach Plan (EOP) was produced in 2015 and will be finalized in 2016. The EOP will provide guidance and direction on how best to implement these important programs within VLAWMO. In 2015, VLAWMO staff, Board, and TEC met with consultants to identify goals and issues for the program areas and identified existing outreach and stakeholder engagement assets, channels, and audiences. The process within this Phase of the EOP development included the creation of the “Why Water Matters” theme which was then used to guide the Watershed Management Plan Update process.

The EOP will be used in conjunction with the Watershed Management Plan and is meant to empower VLAWMO to implement education and outreach elements internally as well as empower the VLAWMO Board to allocate resources necessary to implement other elements.

The EOP provides a framework from which to move forward as well as a process to develop future program content and messaging.

Why Water Matters banner used for displays and promotional materials for the 2017-2026 Watershed Management Plan Update



Why Water Matters



INFO AT:
WWW.VLAWMO.ORG

WETLAND CONSERVATION ACT (WCA)

VLAWMO administers the Wetland Conservation Act with review. There were 15 landowner contacts in which wetland related technical assistance was provided during 2015. There were 7 potential WCA violation sites investigated, 6 were resolved informally, 1 is ongoing into 2016.

WCA SUMMARY

Type of Application	Approved	Denied	Withdrawn
Bounday and Type	12	0	0
No-Loss	1	0	0
Exemption	1	0	0
Sequencing	1	0	0
Replacement Plan	1	0	0

LOCAL PLAN ADOPTION

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

BIENNIAL SOLICITATION FOR PROPOSALS

Proposals for professional auditing services were solicited in 2014 with only one firm providing a proposal again. Proposals for legal services will be solicited in 2016. Engineering services are provided by multiple firms with larger projects going through a bidding process. This was done for both the TMDL Report assistance, competed in 2014 and for the 2014 Strategic planning effort.

PARTNERSHIPS

One of VLAWMO's greatest successes is working together with partners to use resources wisely and maximize our effectiveness and existing capacity.

VLAWMO continued to foster its partnerships in 2015. Staff training on a school version of The Watershed Game was provided via our partnership with NEMO. Training and collaboration on education and outreach efforts were a result of partnerships with Blue Thumb and Watershed Partners. WaterShed Partners also provided services to members including:

- » Professional training on best practices in using social media, a field trip on the river with speakers on managing stormwater for a changing climate, and a talk on using Plain Language in communications.
- » Monthly meetings with presentations about timely issues such as invasive species, the new Nitrogen study and movement in the legislature.
- » A listserv for ongoing sharing of information and resources.
- » Cleanwatermn.org, a site with electronic resources and an image gallery to help water educators with outreach to their service areas.
- » Partnerships with VLAWMO's municipal members, Ramsey Conservation District, state agencies, and a growing array of private entities continue to play a critical role in achieving Watershed goals.

Current member communities Local Water Plan update status

Member Community	Last Local Water Plan Update Year
Gem Lake	2010
Lino Lakes`	2011
North Oaks	2009
Vadnais Heights	2010
White Bear Lake	2007
White Bear Township	2010

2015 PARTNERS

- » **Blue Thumb**
- » **Metro Watershed Partners**
- » **Ramsey County GIS User Group**
- » **Ramey County League of Local Governments**
- » **Minnesota Dragonfly Society**
- » **Ramsey Conservation District**
- » **Birch Lake Improvement District (BLID)**
- » **North Oaks Home Owners Association**
- » **Tamarack Nature Center**
- » **Minnesota Pollution Control Agency**
- » **Metro Blooms**
- » **MN Erosion Control Association**
- » **SEEK**
- » **Member communities**
- » **Conservation Minnesota**

Gem Lake in the springtime



DOLLARS AND CENTS:

Financial statement and budget

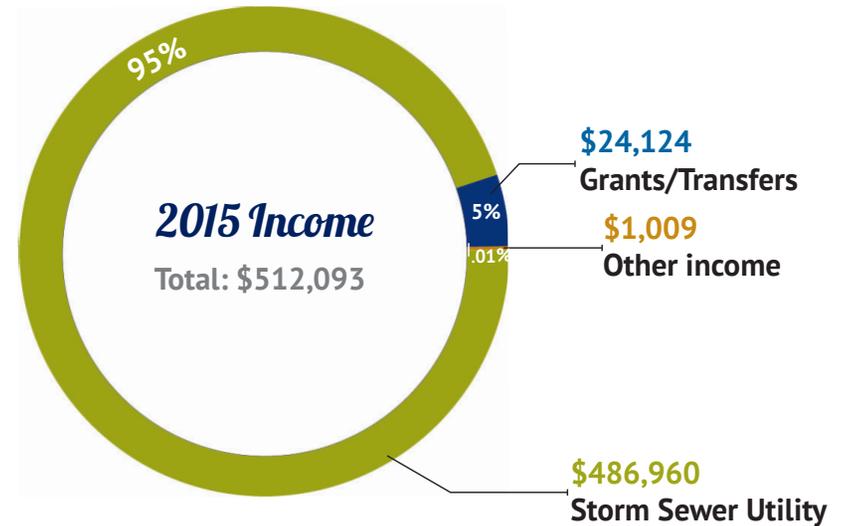
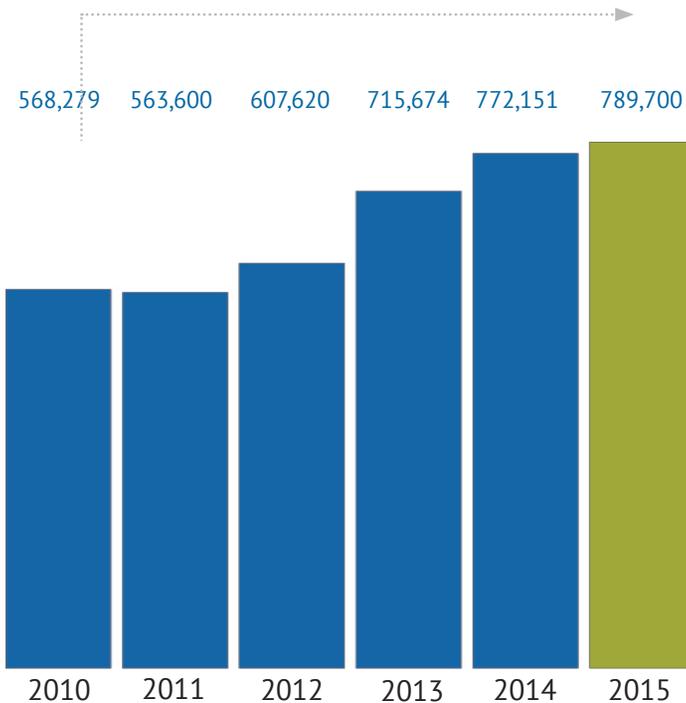
IN THIS SECTION

» Finance and Budget

FINANCE AND BUDGET

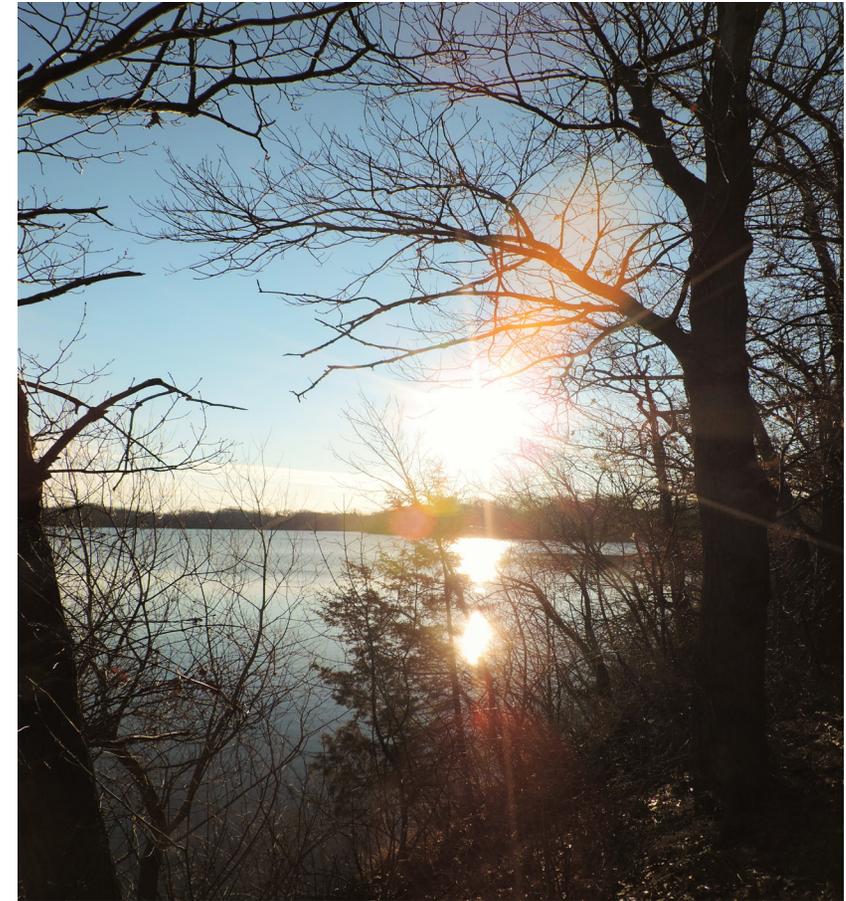
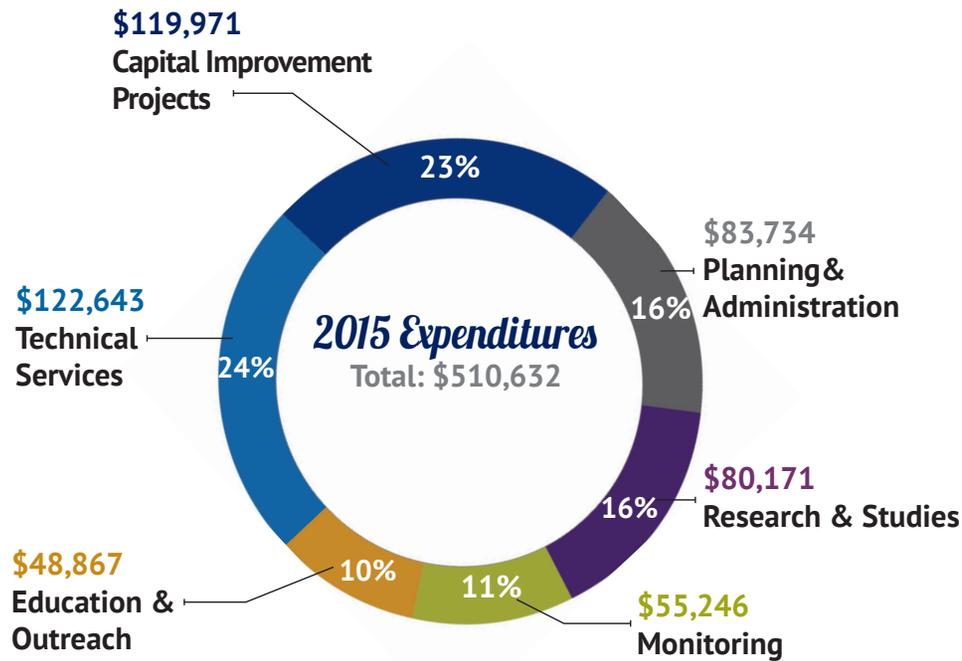
The 2015 budget was established by the Board of Directors at the regular June 2014 with project and program fund balances added in December 2015. The Budget and Finance Committee with members from the Technical Commission and the Board reviews and makes recommendation on the budget to the Board. The working budget total for 2015 was \$789,700.

Budget with fund balance



INCOME

The greatest source of revenue for VLAWMO is Storm Sewer Utility (SSU) fees. \$488,058 in SSU fees were certified to Ramsey and Anoka Counties, though less was taken in by the Watershed due to late payments and no payments. The average single family homeowner paid \$28.20 per year to support all of the projects and programs conducted by the watershed. That's about \$2.35 per month. Grant funding accounted for another revenue source this year, \$14,124. Grants included additional funding for Community Blue (\$10,050), and the annual Wetland Conservation Act support (\$3,604). Both of these were ongoing or installments of existing grants. There was also minor income from interest, service fees and other miscellaneous sources.



Sunrise over East Vadnais Lake in March

EXPENSES

Total cash expenses for 2015 were less than budgeted at \$510,632. This was a decrease from 2014 and reflects funding that will be carried over for planned projects identified in Water Plan amendment approved by the Board during the summer of 2014. Further detail is available in the annual audit attached as an Appendix to this Report.

GRANTS AND PARTNERSHIPS

Grants received included final state funding for the Community Partners Clean Water Legacy grant in 2015 (\$10,520) and annual Wetland Conservation Act support (\$3,604). These were ongoing or installments of existing grant programs. \$17,800 worth of labor was contributed by the Conservation Corps of Minnesota to the Deep Lake Channel Project, and is not quantified in the budget, but value of labor is valued as a grant

Multiple projects benefited from the partnerships that pool local dollars

and resources. NOHOA, the North Oaks Homeowners Association was an invaluable partner, providing public works preparation, coordination and a team of volunteer local residents. This kind of partnership is critical to several ongoing projects but is sometimes difficult to quantify. Ramsey Conservation District served as the fiscal agent of state grant funds for a project within VLAWMO. RCD staff provided analysis, report writing and \$10,000 in Legacy grant funding for final Subwatershed Assessment (SWA) study on Pleasant-Charley-Deep catchment completed in 2015.

IT TAKES A VILLAGE:

The people behind VLAWMO

IN THIS SECTION

- » Staff
- » Consultants
- » Board of Directors
- » Technical Commission (TEC)

IT TAKES A VILLAGE: THE PEOPLE BEHIND VLAWMO

VLAWMO Employs four full-time staff, and one summer intern. 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 six cities 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 cities. The Technical Commission meets to review and consider watershed business as well as make recommendations to the Board for wider scope decisions.

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651.982.2492

Alternate Directors

No Alternate Available
Vadnais Heights

Bill Walsh
White Bear Lake

Gregg Nelson
North Oaks

Bob Kermes
White Bear Township

Rick Bosak
Gem Lake

Dave Roeser
Lino Lakes

TECHNICAL COMMISSION (TEC)

**Commissioners can be reached
by contacting VLAWMO**

Primary**Paul Peterson, Chair**

White Bear Township

Mark Graham, Vice Chair

Vadnais Heights

Jim Grisim

White Bear Lake

Chris Mann

North Oaks

Jim Lindner, Finance Officer

Gem Lake

Marty Asleson

Lino Lakes

Alternate

No Alternate Available
White Bear Township

Kevin Watson
Vadnais Heights

Brent Thompson
White Bear Lake

Bob Larson
North Oaks

Gretchen Artig-Swomley
Gem Lake

No Alternate Available
Lino Lakes

