



Vadnais Lake Area Water Management Organization

Education & Outreach Plan 2017-2026



Why Water Matters

VADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION EDUCATION AND OUTREACH PLAN (EOP) OCTOBER, 2016

Adopted by the VLAWMO Board of Directors on 10/26/2017 Last Updated 11/9/2018

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TERMS & ACRONYMS

Outreach Terms:

Audience: A particular group with unique, defining qualities or values, at which a campaign is aimed.

Citizens/Residents: Citizens are all who either work or live within VLAWMO, while residents live in VLAWMO.

Community members: An over-arching term that includes all target audiences, stakeholders, and key personnel.

Fieldwork: Projects, or programs that VLAWMO conducts in the community, external from the office. Fieldwork is an outreach tool that facilitates any tactic that relates to the community external to the VLAWMO office.

Implementation strategies: Categories which delineate the goals, objectives, and tactics based on their level of planning, timeframe, visibility, and results. Strategies range from high, intermediate, to low. See section 4 for further description.

Latent audience: Problems or issues are present and relatable to the audience, but the audience is not aware of them.

Stakeholders: Individuals or entities with an interest, concern, or investment into an organization.

Tactic: Tangible programs within VLAWMO that carry out the goals and objectives.

Education Terms:

Environmental Education: A process that allows individuals to explore environmental issues, engage in problem solving, and take action to improve the environment. As a result, individuals develop a deeper understanding of environmental issues and have the skills to make informed and responsible decisions (US EPA).

Formal education: Planned, curriculum-based education within a school or similar community setting.

Informal education: Education outside of a formal school setting. Flexible, adaptable, and experience-based.

Interpretation: An education activity which aims to reveal meanings and relationships through the use of original objects, first hand experience, and illustrative media (Freeman Tilden).

Nonpoint source: Rainfall or snowmelt moving over and through the ground, picking up natural and human-made pollutants, and depositing them into lakes, rivers, wetlands, and ground waters.

Outreach: An activity providing information, resources, or services to populations who might not otherwise have access to such resources.

Place-based watershed education: Educational philosophy emphasizing learning and understanding that focuses on the history and ecology of a specific place. In this case, the place is the VLAWMO watershed.

Tbilisi Declaration: Foundational environmental education principles established in 1977 by the United Nations.

Stewardship: An ethic that embodies the responsible planning and management of resources.

Watershed behaviors: Behaviors that relate to as well as adhere to an understanding of the watershed.

Watershed literacy: The capacity of an individual to act successfully in daily life on a broad understanding of how people and society relate to the watershed, and how they can do so sustainably.

Acronyms:

AIS: Aquatic Invasive Species

BOD: VLAWMO board of directors

BMP: Best Management Practice

CAC: Citizen Advisory Commission

EOC: Education and Outreach Coordinator

EOP: Education and Outreach Plan

MS4: Municipal Separate Storm Sewer System

MS4: Municipal Separate Storm Sewer System

PI: VLAWMO Priority Issue from Water Plan

TEC: Technical Commission

WMO: Watershed Management Organization

WAV: Watershed Action Volunteers

Executive Summary

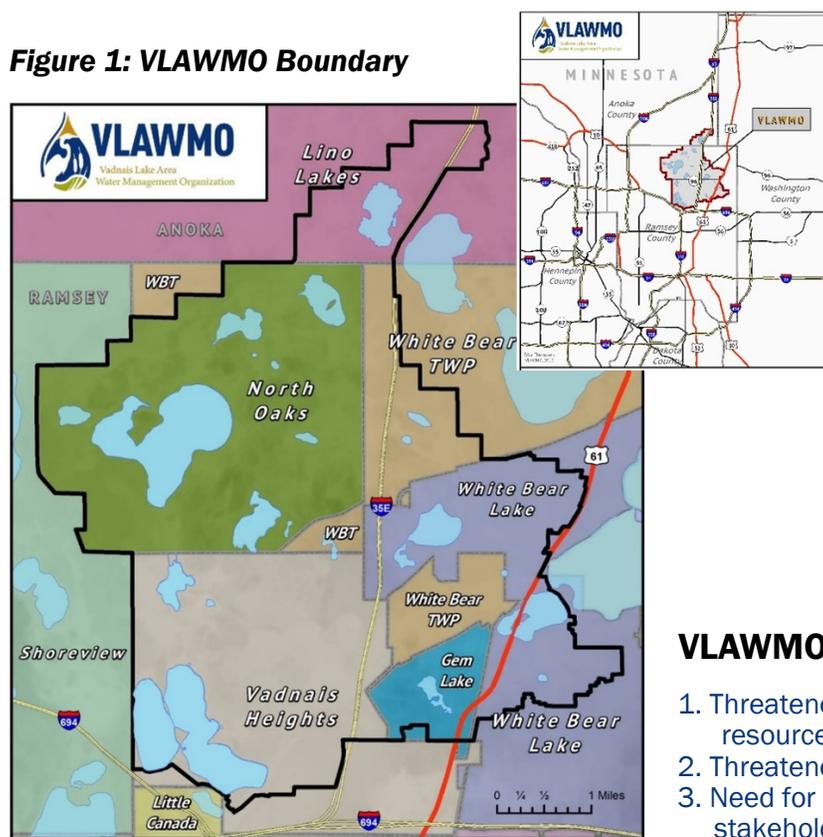
The Education and Outreach Plan (EOP) describes how the Vadnais Lake Area Water Management Organization (VLAWMO) will prioritize and organize its education and outreach activities in the watershed from the years 2017 through 2026. The plan describes the goals, objectives, target audiences, strategies, and tactics that will be used to support VLAWMO's Comprehensive Watershed Management Plan. Each of these components are situated in a sequence to bring the plan from theory to action. The EOP is an extension of the Comprehensive Watershed Management Plan, particularly *Priority Issue 3: Need for education and involvement from citizens and stakeholders*. This executive summary provides an overview of the EOP.

Introduction

VLAWMO was organized in 1983 using a Joint Powers Agreement (JPA) developed under authority conferred by Minnesota Statutes, Sections 471.59 and 103B.201. The 24.2 square mile watershed is located in the northeast metro area within Ramsey and Anoka counties. The watershed encompasses the City of North Oaks, along with portions of the Cities of White Bear Lake, Gem Lake, Vadnais Heights, Lino Lakes, and White Bear Township. The watershed also includes 17 lakes, 1 creek, and over 1000 wetlands.

VLAWMO LOCATION & POLITICAL BOUNDARY

Figure 1: VLAWMO Boundary



VLAWMO's mission is
“to protect and enhance the water and natural resources within the watershed through water quality monitoring, education and outreach projects, wetland protection, and water quality enhancement projects and programs.”

VLAWMO Priority Issues

1. Threatened and impaired surface water and natural resources.
2. Threatened or impaired groundwater quality and quantity.
3. Need for education and involvement from citizens and stakeholders.
4. Need for adequate data, analysis, financing, and staff capacity in order to meet goals and accomplish strategies.
5. Invasive and exotic species management.
6. Localized flooding

EXECUTIVE SUMMARY

The EOP is theoretically structured to keep all education and outreach relevant to a core purpose. As shown in Figure 2, the EOP includes reference to external support mechanisms as well as internally planned frameworks. To organize and balance efforts, three EOP programs delineate the target audiences and therefore the programming geared towards each audience. VLAWMO aspires to balance investment into each EOP program equally. EOP goals are broad statements of general intentions, while objectives are specific and measurable.

Figure 2: EOP Layout

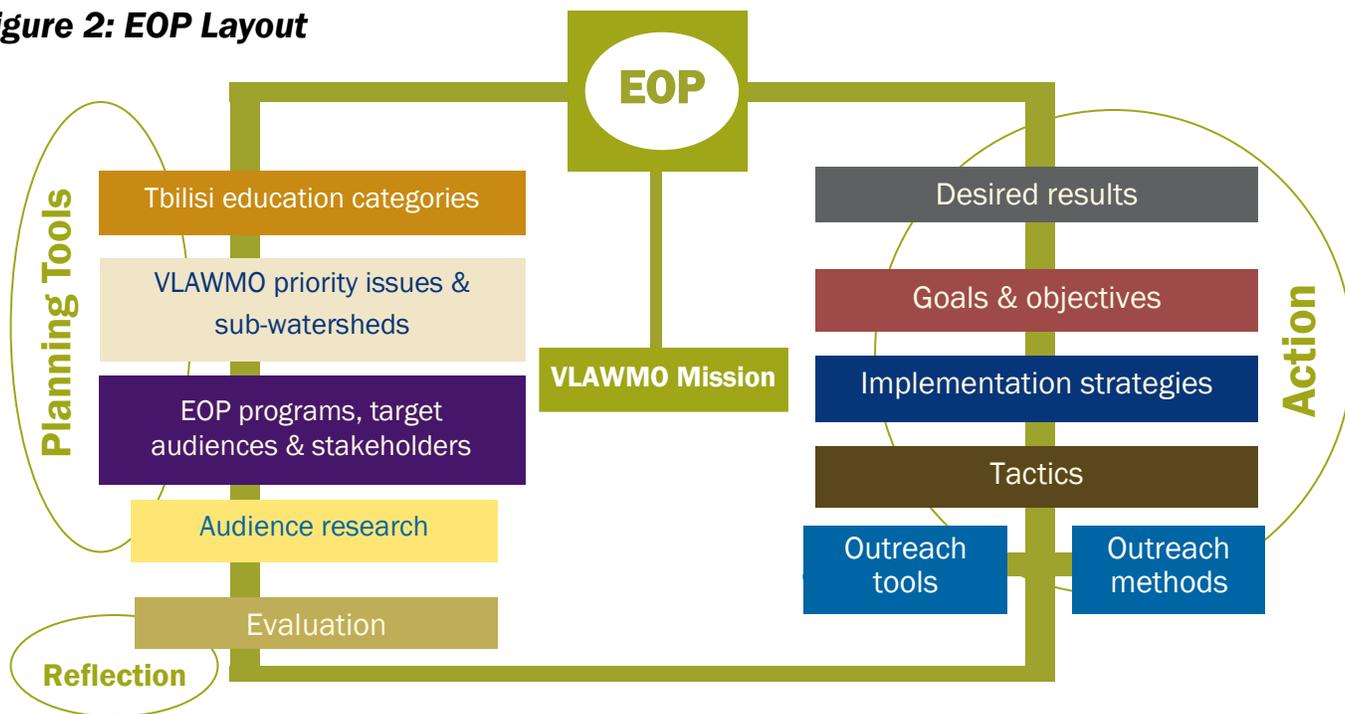


Figure 3: EOP programs and target audience layout



Desired Results

1. Have a citizenry that understands natural resource protection and responsible use.
2. To observe citizens demonstrating watershed protection behaviors.
3. To observe resident volunteers educating their fellow citizens.
4. To confirm that MS4 partners are collaborating, using resources, and making progress on MS4/SWPPP
5. To have active programs and partnerships that foster participation, relevant to residents and VLAWMO alike.
6. To observe evidence that VLAWMO residents are knowledgeable and engaged in VLAWMO's direction, policies, meetings, and projects.

Goals and Objectives: Compressed *Specifications in expanded version (p. 18-25)*

Professional Support

1. VLAWMO supports its partner Cities in making progress in their MS4's.
Support and collaboration for MS4 Minimum Control Measures #1, 2. Staff training in turf and salt use.
2. Key personnel have continued to advance their knowledge of water and related natural resources.
Enrichment opportunities for Board of Directors (BOD) and Technical Commission (TEC).

Formal Education

3. Establish place-based watershed education that applies to multiple age demographics.
Develop and modify existing water curriculum to connect local schools to local water resources.
4. Schools have established and maintained stormwater BMP's, embracing their educational value.
Provide leadership assistance in BMP maintenance as well as resources for ongoing upkeep.

Informal Education, Interpretation, and Outreach

5. Community members are educated on VLAWMO water issues and projects.
Set up educational booths at community events, utilize the local newspaper and cable channel for outreach, and maintain an active social media, blog, and email presence.
6. Community members utilize watershed knowledge to act on watershed issues, with help from VLAWMO's tools and resources.
Workshops, ongoing surveys, Aquatic Invasive Species (AIS) monitoring, Community Blue
7. An appreciation of local natural resources is established in the community, fostering ecological awareness and community reflection.
Remote cameras, phenology, nature writing, neighborhood spotlight articles.
8. A continually growing volunteer base that learns and leads.
Master Water Stewards, Watershed Action Volunteers (WAV), Citizen Advisory Commission (CAC)
9. A water-focused congruency between community groups and agendas exists in VLAWMO.
Form creative partnerships with organizations of diverse missions, hold events that combine missions.

Strategies and Tactics

Recognizing that watershed stewardship requires both front-end action in addition to behind the scenes planning, VLAWMO utilizes strategy levels and corresponding tactics to create a realistic work load.

Tactics are organized with high, intermediate, and low strategies. A strategy reflects the extent of planning and results in a program. High strategy tactics are long-term, future-oriented, require the most planning, are behind the scenes, and show few direct results. Low strategy tactics are short-term, highly visible, focused on the present, and yield direct results. Each goal and objective fits into a certain strategy. A balance of these strategies keeps VLAWMO’s education and outreach initiatives producing results visible to the community while still planning for the future. Goals are listed numerically, with objectives represented with letters.

Table 1: Strategies, goals and objectives, tactics

<p>High Strategies</p> <p><u>Goals:</u> 1, 2, 9</p> <p><u>Tactics:</u> Internal planning, stakeholder networking</p>
<p>Intermediate Strategies</p> <p><u>Goals and objectives:</u> 3, 4, 7 a, c, 8 a, b</p> <p><u>Tactics:</u> Community Blue, cost-share promotion, citizen science, school programing, Workshops, Watershed Action Volunteers (WAV)</p>
<p>Low Strategies</p> <p><u>Goals and objectives:</u> 5, 6, 7 b, 8 c</p> <p><u>Tactics:</u> Watershed Action Volunteers (WAV), events, branding, school visits, media, tours, supplies for rent.</p>

Table 2: Outreach Methods and Tools

<p>Outreach Methods</p> <p>How VLAWMO carries out education and outreach.</p>	<p>Outreach Tools</p> <p>Planned and created content from VLAWMO staff. Tangible materials and documents.</p>
<p>Meeting notes/ agendas</p> <p>Planning/WAV meetings</p> <p>Face-to-face</p> <p>Phone</p> <p>Email</p> <p>Mass email</p> <p>Website</p> <p>Social media</p> <p>Events, Workshops</p>	<p>Reports and summaries</p> <p>Print materials</p> <p>Curriculum</p> <p>Branding</p> <p>Workshop content</p> <p>Fieldwork</p> <p>Multimedia: articles, photo, video</p> <p>Booth Displays</p> <p>Education materials available for rent</p>

Evaluation

Annual evaluation will complete the measurement of the goals and objectives outlined in chapter two: Education and Outreach Goals. Goals and objectives are modified annually to improve programs, ensure accountability, and maximize effectiveness. Goals may be added or omitted depending on the evaluation. See pages 34-36 for the evaluation table.

1.1 Purpose



Roughly the same amount of water exists on Earth today as when it first formed on the planet. Only about 2.5% of this water is freshwater. Of this 2.5%, about half is tied into glaciers and groundwater, and half is available as surface water. While the world's water is relatively constant, the demand for freshwater however, has increased. According to some specialists, world water usage has tripled since 1950. With an increased demand for a finite resource such as fresh water, comes complex issues for human and environmental communities. The resolution of these issues depends on a populace sensitive to and knowledgeable of freshwater and water resources. As water related issues and conflicts continue to present

themselves both locally and globally into the 21st century, water and watershed education will provide one of the best tools to ensure protection of this precious resource. Through education comes the ability to act collectively.

This Education and Outreach Plan (EOP) serves priority issue #3 of the VLAWMO the Comprehensive Water Plan. Education and Outreach is also one of the core activities of VLAWMO (p.11). With the theme of “Why Water Matters”, it will guide the education, outreach, and communication of the Vadnais Lake Area Water Management Organization (VLAWMO) through it's 10-year plan cycle of 2017-2026. This EOP is a living document that is to be updated upon yearly evaluation of VLAWMO's education and outreach activities.

Why Water Matters

The desired results of this EOP are:



1. Have a citizenry that understands natural resource protection and responsible use.
2. To observe citizens demonstrating watershed protection behaviors.
3. To observe resident volunteers educating their fellow citizens.
4. To confirm that MS4 partners are collaborating, using resources, and making progress on MS4/SWPPP reporting.
5. To have active programs and partnerships that foster participation, and are relevant to both residents and VLAWMO's mission.
6. To observe evidence that VLAWMO residents are knowledgeable and engaged in VLAWMO's direction, policies, meetings, and projects.

The EOP is not meant to prescriptively define each step over the entire 10-year process, but to serve as a guide for VLAWMO's education and outreach. It is to be an aid in public transparency, and to provide a structure for evaluation and documentation to the board, who reviews and allocates supporting resources. Evaluation will be a valuable tool for fine-tuning future programming, and will provide an informed basis for modifying VLAWMO's goals and objectives over time.

1.2 History of the EOP

June, 2015-September, 2016: Identify goals, objectives, potential barriers, target audiences, and stakeholder feedback. Consultants and staff facilitated the use of the “Why Water Matters” theme. Banners, storyboards, and games were used at stakeholder meetings as well as public community events.

October, 2016-September, 2017: Implement EOP and begin the period which is to be annually evaluated.

December, 2017: First annual edit: re-writing measurable goals and objectives.

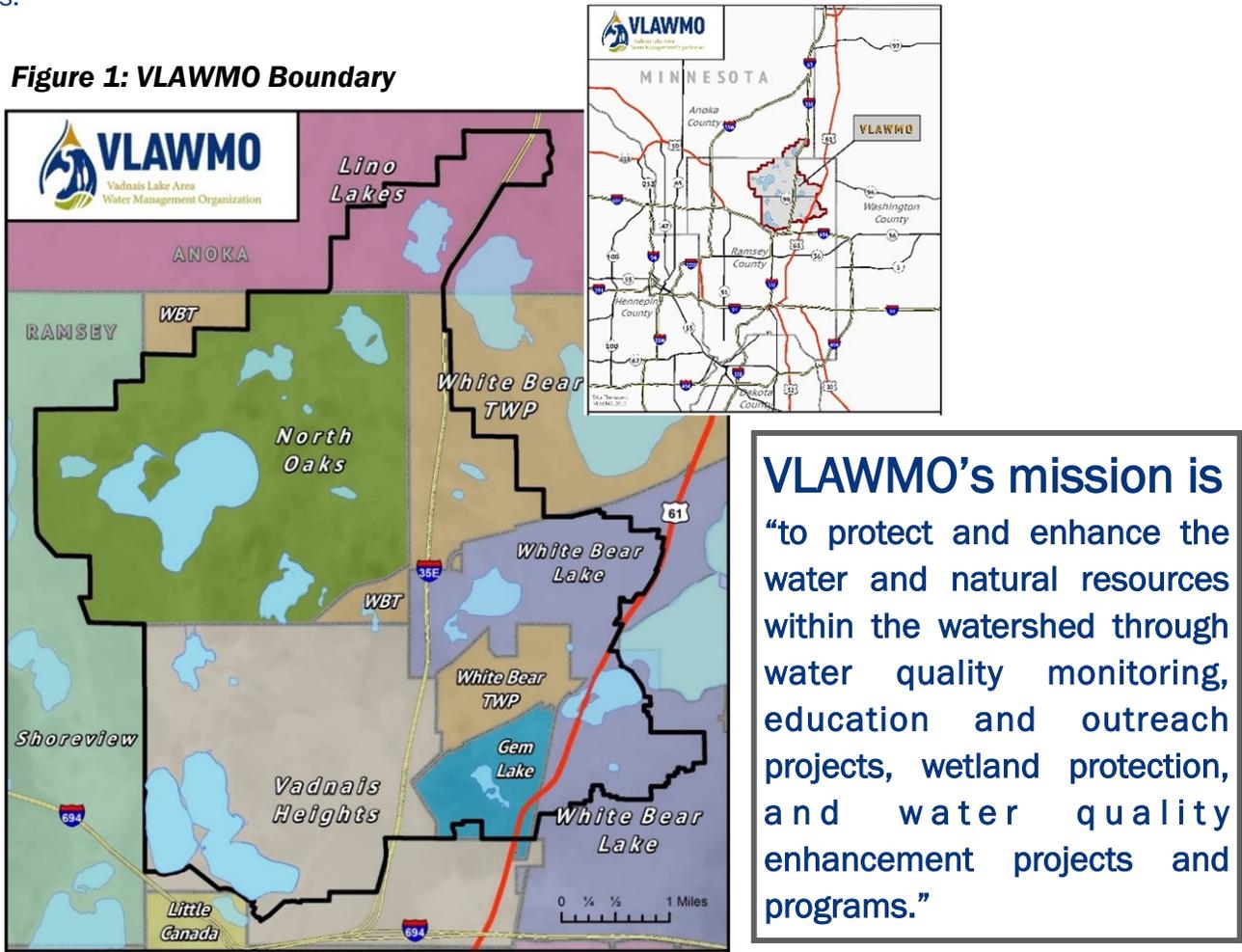
November, 2018: Second annual edit: Fine-tune measurable goals and objectives, trim down text in EOP, fine-tune desired results.

1.3 Background

Map & Mission

The VLAWMO watershed encompasses the City of North Oaks, along with portions of the Cities of White Bear Lake, Gem Lake, Vadnais Heights, Lino Lakes, and White Bear Township. It includes 17 lakes, 1 creek, and 1137 wetlands.

Figure 1: VLAWMO Boundary

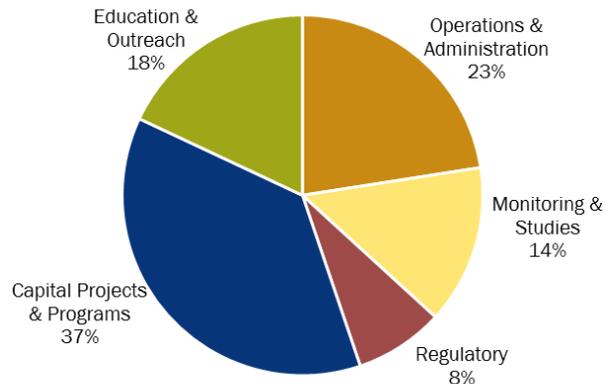


VLAWMO's mission is
 "to protect and enhance the water and natural resources within the watershed through water quality monitoring, education and outreach projects, wetland protection, and water quality enhancement projects and programs."

Figure 4: Core activities and budget
VLAWMO Core activities



Budget allocation



1.3 Background

VLAWMO Priority Issues

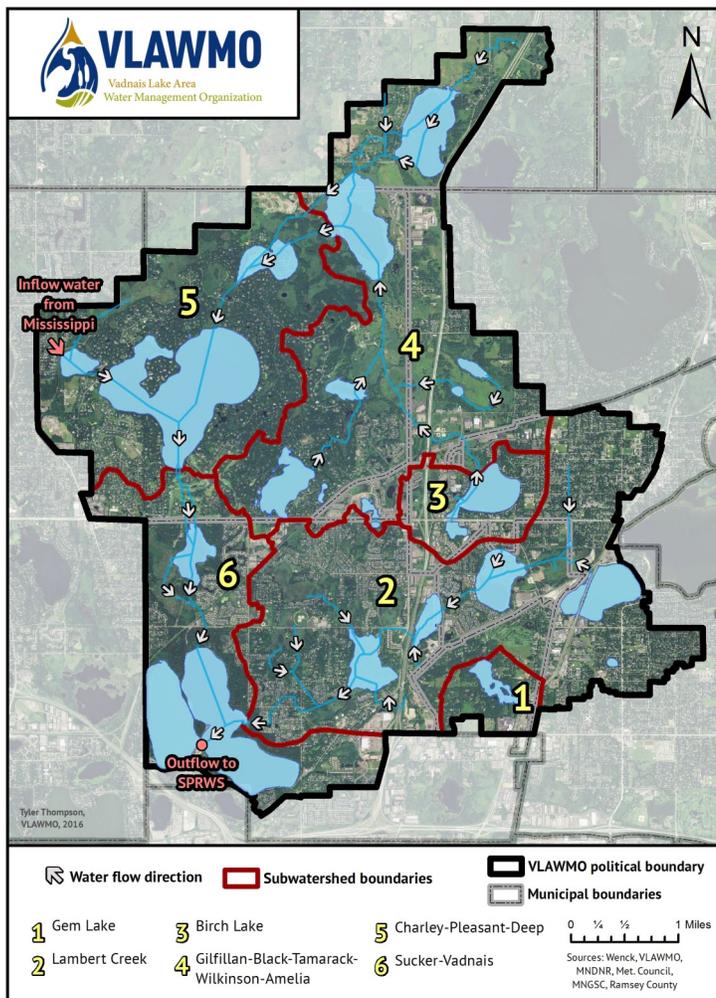
Reference to VLAWMO’s priority issues keeps the EOP consistent and relevant to VLAWMO’s 2017-2026 Comprehensive Water Plan. This plan is available at the VLWMO website (www.vlawmo.org). It contains description on the rest of VLAWMO’s core activities, found on page 7 of this document. The VLAWMO priority issues are:

1. Threatened and impaired surface water and natural resources.
2. Threatened or impaired groundwater quality and quantity.
3. Need for education and involvement from citizens and stakeholders.
4. Need for adequate data, analysis, financing, and staff capacity in order to meet goals and accomplish strategies.
5. Invasive and exotic species management.
6. Localized flooding

VLAWMO Sub-watersheds

Inclusion of VLAWMO’s sub-watersheds in the EOP allows VLAWMO to target certain initiatives geographically and ecologically. As one of the smaller WMO’s in the Twin Cities Metro, planning that balances time and energy is crucial. Directing education and outreach programs to where they are most relevant and needed supports this balance of time and energy, and helps VLAWMO continually progress towards its goals.

Figure 5: VLAWMO Sub-watersheds



The specification of sub-watersheds in the EOP allows for VLAWMO to integrate this component into future goals and objectives in the future. As the comprehensive water plan will be active from 2017-2026, additional insights, opportunities, and lessons learned will create an understanding as to how to direct education and outreach efforts to more precise, localized areas based on the needs of the watershed.

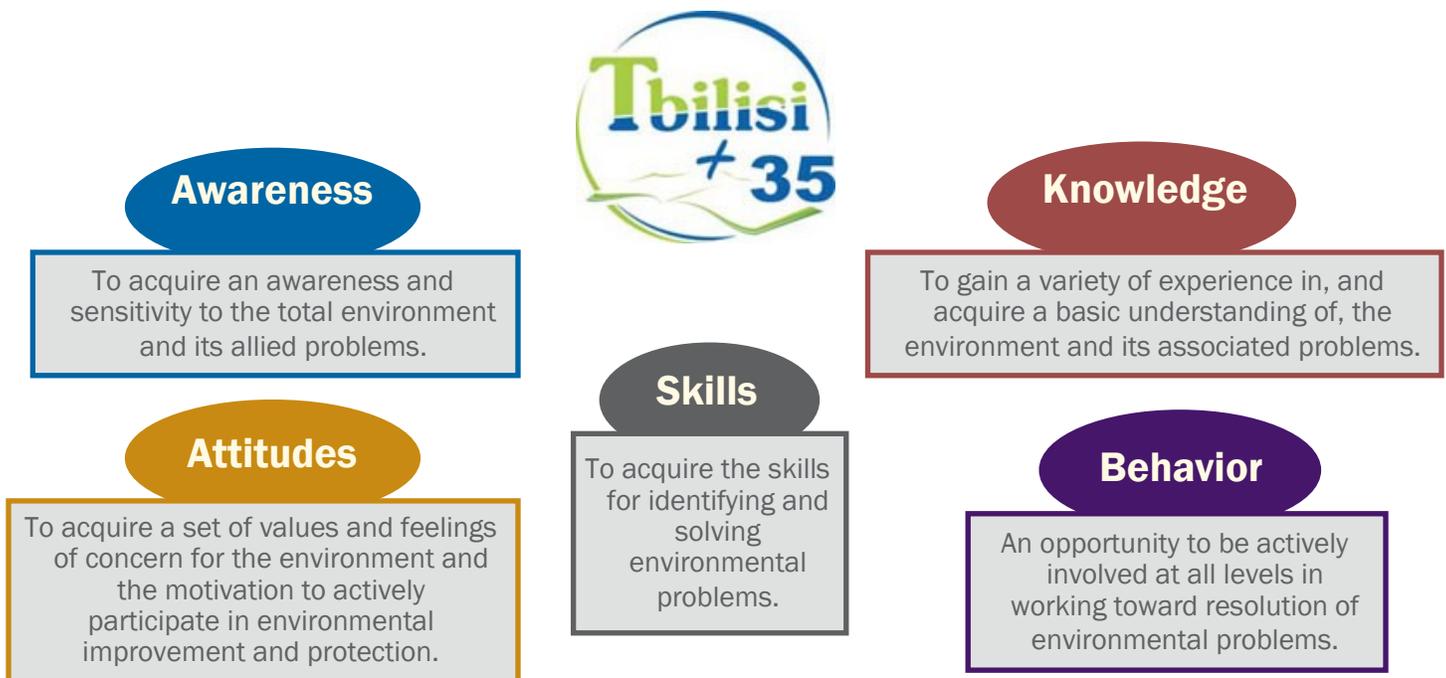
1.4 EOP Supporting Structures

To support the plan, environmental education theory is integrated into the goals and objectives. This helps ensure that the EOP is striving for a complete spectrum of education, ranging from awareness to action.

Tbilisi Environmental Education Categories

The Tbilisi Education categories help this EOP to be aligned with methods familiar to the field of environmental education. In 1977, the world's first intergovernmental conference was organized by the United Nations Education, Scientific, and Cultural Organization (UNESCO) in Tbilisi, Georgia. The outcome of this conference was the Tbilisi Declaration, which stated the importance of environmental education in the preservation and improvement of the world's environment and communities. Today, these educational categories are still utilized by hundreds of organizations, including the North American Association for Environmental Education (NAAEE).

Figure 7: Tbilisi environmental education categories



1.4 EOP Supporting Structures

EOP program Descriptions

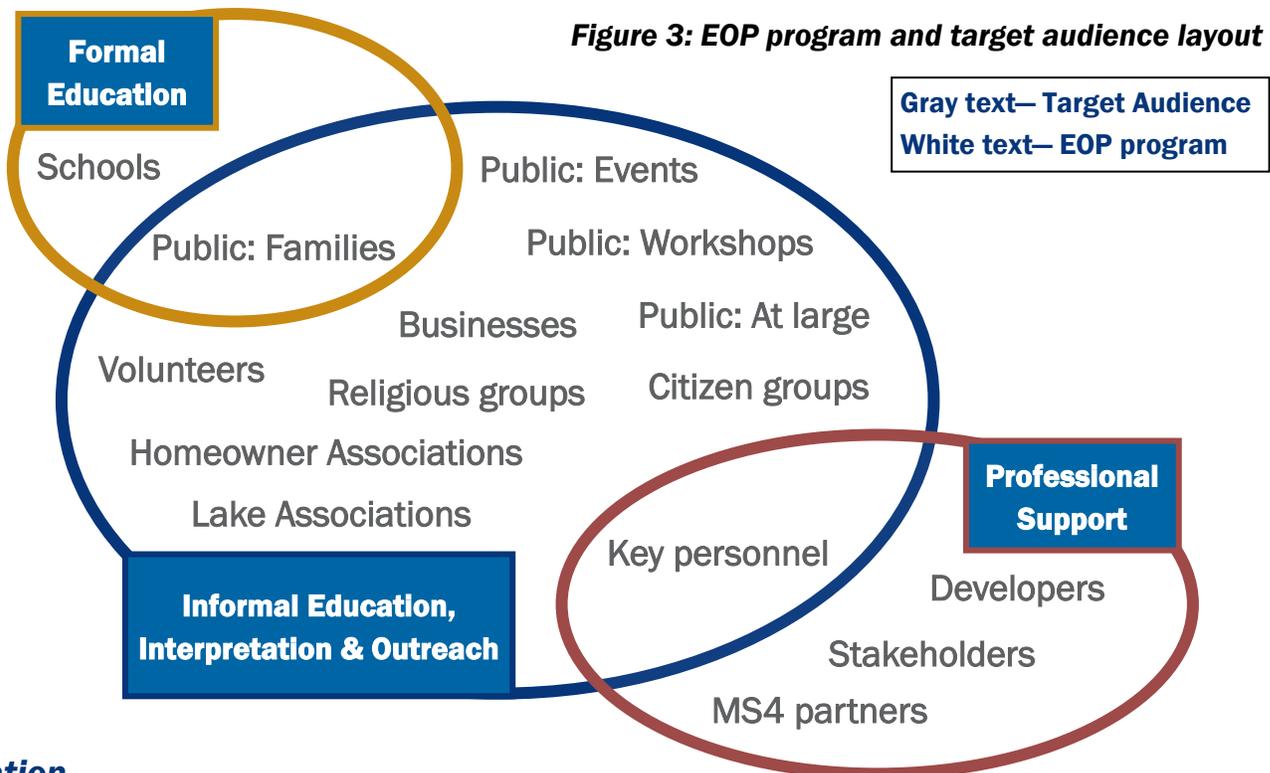
To organize VLAWMO’s education and outreach efforts, the EOP organizes the target audiences into three EOP programs. Generally, VLAWMO’s efforts are evenly divided between each sub-program. Certain times of the year or certain opportunities external to VLAWMO may validate extra focus to be placed on a certain EOP program.

Formal Education	Informal Education, Interpretation & Outreach	Professional Support
Partnering with local teachers, watershed curriculum development, and class visits to schools. Curriculum is designed to bring VLAWMO topics into the household, engaging the whole family through homework assignments.	Online communication such as website and social media, community involvement such as local TV and newspapers, watershed tours, community events, raingarden workshops, promoting VLAWMO cost-share programs, volunteer projects, custom initiatives with local associations and groups.	Providing MS4 assistance to city staff and council members, referencing the WCA with developers, and networking with stakeholders for programming and sharing of resources.

Table 3: EOP program descriptions

EOP program and target audience layout

The various target audiences VLAWMO serves are also integrated into the EOP goals. Target audiences are defined as a particular group of people with distinguishing characteristics, priorities, and values. The public is therefore divided into four different audiences (families, events, workshops, at large) depending on the interests and purpose of various settings. VLAWMO’s target audiences are outlined in gray text below, are paired to the goals and objectives in part two, and are expanded upon in part three.



Evaluation

Annual evaluation will derive from the measurement of the goals and objectives outlined in part two. Goals and objectives are modified to improve programs, ensure accountability, and maximize effectiveness. Goals may be added or omitted depending on the evaluation. See pages XX-XX for the evaluation table.

1.4 Supportive Materials

Supporting research conducted

To gather essential insight from VLAWMO's community members, three surveys were conducted for the EOP. One survey was devoted to each EOP program. Surveys assessed current needs, interests, and possible barriers in engaging with various audiences. Survey findings were directly applied to the planning of each program. Copies of each survey can be found in the appendices section, and a comprehensive summary of each survey is available upon request. Each survey was distributed in both hardcopy and with SurveyMonkey web service.

Community for Clean Water Survey: Written to gather values, interests, and watershed familiarity, this survey gathers insight for each target audience. Questions such as why water matters to them, how familiar they claim to be with local water, and what barriers are present when engaging with local water are asked. This survey was primarily distributed in hardcopy during VLAWMO community events, accompanying a booth, informational display, and other water-based educational games. Because this survey is the most foundational for the EOP, a summary of results can be found in section 3.2.

Educator Survey: Written to gather insight as well as initiate new networks with local educators. Various water-focused curriculums are currently being used at local schools within VLAWMO, however VLAWMO offers unique assets that connect students to their local water resources. This survey aims to find the areas of need as well as school's preferences to best fit place-based watershed curriculum into local VLAWMO schools.

Grade levels: 2nd (29%), Pre-K, K, 3rd, 5th (24%)

STEM standards that could use curriculum development: Life cycles (33%), practice of engineering (33%), interdependence (26%)

STEM standards capable of partnerships: Practice of science (54%), life cycles (46%), practice of engineering (46%)

Thoughts on take-home assignments: Flexible to any in-class/ take home assignment to go along with visit (60%)

Subjects to be explored in applying to water topics: Art (62%), creative writing (56%)

Barriers in covering watershed topics: Time constraints (73%), lack of experience (53%)

Barriers in hosting guest visitors: Time constraints (38%), difficulty in planning (38%)

Municipal Stormwater (MS4) Support Survey: Each municipality as well as the counties and other entities hold MS4 permits within VLAWMO. As VLAWMO aims to be a resource in MS4 activity, this survey gathers guiding insight to create an active, local, and informational network between local MS4 holders, as well as finds the needs of MS4's for future progress.

How often are trainings conducted? A few times each year (100%)

What education methods work best? Single-event workshops (80%), attending meetings with qualified professionals (60%)

Regulation activities that require assistance: Public participation, public education and outreach, pollution prevention (all 66%)

What are the barriers to improving MS4 performance? Funding (75%)

MS4 initiatives undertaken in the last year: IDDE training, surface water management program inspections education, outfall inspections, storm structure repairs, pond inspections.

How can VLAWMO help? Provide data, education, templates for inspections, help meet mandates, project and drainage coordination

EOP Layout

The VLAWMO EOP is composed of internal, external, and reflective components.

External components include entities and concepts originating outside of the VLAWMO EOP.

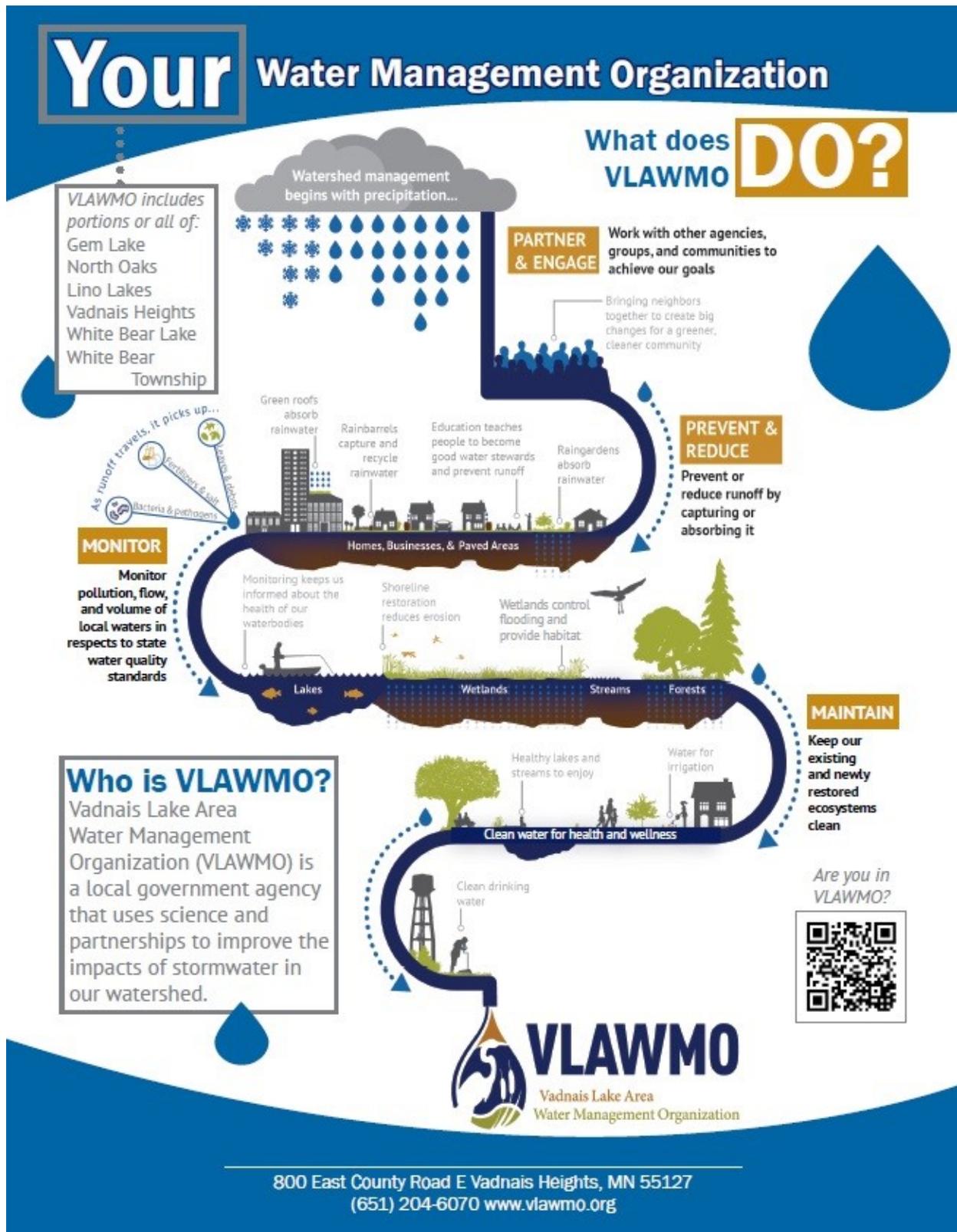
Internal frameworks are designed in a hierarchical fashion. The purpose guides the desired results, and the desired results create a foundation for the goals and objectives. The goals and objectives are divided into high/intermediate/low strategy levels, supported by outreach strategies, and lastly assigned to various tactics.

Reflection consists of ongoing, annual evaluation. This evaluation allows for critique on the EOP's efficiency as well as relevancy to VLAWMO's mission. Adjustments are to be made accordingly.

Figure 2: EOP Layout



Figure 8: VLAWMO infographic



2.1 Desired Results & General Outcomes

How is Education and Outreach Measured? While the Water Plan’s priority issues are referenced on the bottom each page in chapter two, some priority issues are especially relevant to certain goals and objectives. This reference is included in parenthesis after the objectives, phrased as “(PI #-#-#)”.

Desired outcomes are the final results specific to the EOP. The completion of the objectives (specific measurements) assumes progress towards the goals (ongoing initiative), and continued pursuit of the goals is assumed to create the desired results. Because education and outreach is a participatory, malleable, and cultural field that relies on relationships, VLAWMO strives to measure collective results rather than count the number of activities conducted by the watershed.

Some objectives in the EOP have measurements listed in bold text, while others are general efforts that fall to the general outcomes, listed below. The combination of specific measurements and general outcomes allows VLAWMO’s Education and Outreach effort to be focused yet somewhat flexible throughout the year. This allows for a dynamic space for relationships, community building, and learning.

Desired Results: *“Through the EOP, VLAWMO desires to...”*

1. Have a citizenry that understands natural resource protection and responsible use.
2. To observe citizens demonstrating watershed protection behaviors.
3. To observe resident volunteers educating their fellow citizens.
4. To confirm that MS4 partners are collaborating, using resources, and making progress on MS4/SWPPP
5. To have active programs and partnerships that foster participation, relevant to residents and VLAWMO alike.
6. To observe evidence that VLAWMO residents are knowledgeable and engaged in VLAWMO’s direction, policies, meetings, and projects.

General Outcomes: *Basic participation indicating program participation and an active watershed community.*

Goals referring to the General Outcomes include promotion of these measurements as the goal is pursued.

- Utilize the entire budget for Landscape Level 1 cost-share funding.
- Complete at least one Landscape Level 2 cost-share grant.
- Utilize the entire budget for rainbarrel cost-share funding.
- Observe a minimum of 10% annual growth in adopt-a-drain volunteers, all raingardens in adopt-a-raingarden program are adopted by volunteers.
- Observe a minimum of 20 public visitors at TEC/BOD meetings and Water Matters sessions annually.
- Observe active citizen engagement on VLAWMO social media, website, and seasonal E-newsletter.
- A minimum of 12 Watershed Action Volunteer (WAV) members will participate in watershed leadership by leading a short-term service project, advising VLAWMO through the Citizen Advisory Committee (CAC), or utilizing a VLAWMO education display at an existing community event.

2.2 Goals and Objectives

How VLAWMO directs education/outreach efforts to achieve the desired outcomes. The following goals in each EOP program are intended to achieve the desired outcomes. Measurable objectives follow each goal.

Professional Support: Cities, Townships, MS4's, BOD, TEC

Goals

1. VLAWMO supports its partner Cities in making progress in their MS4's.
 - A. VLAWMO will survey and document at least **one instance for each City annually where the City utilized VLAWMO tools and programs to support Minimum Control Measure #1 (Education and Outreach)** Options include:
 - Hosting VLAWMO staff and stakeholders to facilitate the Watershed Game.
 - Hosting meetings to educate public on low impact development (LID).
 - Announcements and articles within City newsletters and/or utility bills.
 - Posting announcements and information on City social media, content provided by VLAWMO. Documenting VLAWMO's presence at community events (Goal 5.A.)
 - Posting operations/maintenance posters from VLAWMO in public works facilities.
 - Mass mailings or surveys in collaboration with VLAWMO, specific to watershed education, yard care practices, local lake/wetland/ditch information, and stormwater (recommended as more effective than inserts in existing utility bills/newsletters).
 - B. VLAWMO will survey and document at least **one instance for each City annually where the City utilized VLAWMO tools and programs to support Minimum Control Measure #2 (Public Participation)** Options include:
 - Promoting Adopt-a-Drain and communicating with VLAWMO to obtain annual results.
 - Promoting or hosting storm drain clean-up events, trash pick-up events. Host standalone events or implement into existing clean-up days and events, collaborating with VLAWMO.
 - Pet waste programming: education accompanying pet licenses, public signage, developing ordinances, enforcement strategies.
 - Collaborate with VLAWMO in utilizing citizen leaders for reporting illicit discharge detection (IDDE) and construction site runoff infringements.
 - Keep track of hazardous waste properly disposed on clean-up days, trash removed during clean-up events, and/or debris removed from stormdrain clean-up events.
 - C. VLAWMO will inform communities of at least 3 MS4 trainings/yr or host one training/yr: Smart Salting and Turf Maintenance Best Practices. **At least 2 City staff will articulate something they've adjusted in their operations as a result of the training.**

Desired Result #4, 6

Sub-watershed: all

Tbilisi education category: knowledge

Outreach Tool(s): Reports/summaries, print materials, workshops, events

Priority issue: #3

Target audience: MS4 partners, key personnel

2.2 Goals and Objectives

How VLAWMO directs education/outreach efforts to achieve the desired outcomes. The following goals in each EOP program are intended to achieve the desired outcomes. Measurable objectives follow each goal.

Professional Support: Cities, Townships, MS4's, BOD, TEC

Goals

2. Key personnel have continued to advance their knowledge of water and related natural resources.

- A. VLAWMO will provide two enrichment opportunities annually, titled "Water Matters". Presentations will invite guest speakers on watershed related topics. Each presentation will be recorded with public invitation and posting on the VLAWMO website.
75% attendance annually, General Outcomes (page 18).

Desired outcome: #4, 5

Sub-watershed: all

Tbilisi education category: knowledge

Outreach tool(s): Reports/summaries, print materials, workshops, events

Priority issue: #4

Target audience: MS4 partners, key personnel

2.2 Goals and Objectives

Formal Education: Schools

Goals

3. Establish place-based watershed education that applies to multiple age demographics.
 - A. Adults contacting VLAWMO, attending a workshop, or seeking a cost-share program stating that they read a our school brochure (designed by VLAWMO) from their child's school program will be the measure of this effort. This displays that the message is coming through the schools into action. **A minimum of 3 survey responses annually.**
 - B. **Reach 10% of the school age population per year through programs (PI 3-3-2).**
 - C. With customized guidance, **at least 3 classrooms will utilize a school raingarden** to support their planned curriculum activities, such as Race to Reduce.
4. Schools have established and maintained stormwater BMP's, embracing their educational value.
 - A. VLAWMO will provide at least one BMP maintenance event annually within the WMO, either in school hours or during after hours care. (PI 3-2-2) **One school each year will schedule and complete raingarden maintenance in conjunction with a VLAWMO on-site visit.**
 - B. Local teachers will express use and understanding of tools and resources that VLAWMO provides to schools to help them partake in maintenance independently. **One school each year will schedule and complete raingarden maintenance independently.**

Desired Result: #2, 5

Target audience: Schools, Public: families

Tbilisi education category: awareness, knowledge, attitudes

Outreach tool(s): Curriculum, surveys, print materials, fieldwork

Priority issue: #3

Sub-watershed: all

2.2 Goals and Objectives

Informal Education and Interpretation

Goals

5. Community members are educated on VLAWMO issues and projects.
 - A. VLAWMO will attend and present relevant water information and project updates at annual community events as opportunities arise. Examples include MarketFest in White Bear Lake and Hot Dog with a Cop in Vadnais Heights (PI 3-2-2). **50 new registrations to our email newsletter will result from this effort.**
 - B. VLAWMO will utilize community partnerships to promote VLAWMO events and projects. (PI 3-2-1) Examples include education events derived from Community Blue, wetland walks, or presentations on remote camera efforts. An educational, partnership-derived event will occur at least once VLAWMO annually. Measurements for this effort fall to the **general outcomes** found on **page 18**.
 - C. VLAWMO will utilize the VLAWMO.org blog, VLAWMO YouTube channel, E-newsletter, and social media a minimum of twice each week to promote awareness and build community report. Topics will include lake and stream monitoring, annual reports, VLAWMO publications, local ecology, tips on water-friendly behaviors such as yard care practices, and current news relating to water resources SLMP's (3-2-2). **200 website hits annually will measure** this based on the assumption that if a viewer is directed to our website they're engaged in watershed-focused content and are more likely to take action on the content.

Desired outcome: #2, 6

Sub-watershed: all, Goose Lake

Tbilisi education category: awareness, attitudes

Outreach tool(s): Booth displays, branding, multimedia

Priority issue: #1, 3

Target audience: Public: at large, events

2.2 Goals and Objectives

Informal Education and Interpretation

Goals

6. Community members utilize watershed knowledge to act on watershed issues, with help from VLAWMO’s tools and resources.
- A. VLAWMO will offer native plant, raingarden, and/or yard-care workshops annually. In the past two years, **4 raingardens, native plantings, or permeable paver systems will have been installed through VLAWMO cost-share** as a result of raingarden workshops.
 - B. In the past year, **4 workshop attendees will have engaged VLAWMO in ways other than raingarden cost-share** (WAV, presentations, TEC/BOD meetings, events, etc). To find this a survey to workshop attendees will be administered annually.
 - C. VLAWMO will continually promote and evaluate the use of watershed stewardship activities through social media, newspaper submissions, and surveys (PI 3-3-1). Watershed stewardship activities include:
 - Water-friendly yard care strategies (keeping lawn at 3” height, keeping grass clippings on the lawn, etc.)
 - Adopting a stormdrain
 - Adopting a raingarden
 - Properly disposing hazardous waste
 - Planting a raingarden, bioswale, or native plant buffer. Installing permeable pavers.
 - Redirecting downspouts away from pavement.
 - Practicing salt and de-icer best practices

A 10% increase in stewardship activities (business and residential) will be documented annually. To find 10% increase in stewardship activities, a public survey will be administered annually.
 - D. An engaged citizenry will help monitor the status of Aquatic Invasive Species (AIS) in the watershed. **One trained volunteer will report and monitor as an active AIS volunteer on each lake in VLAWMO annually.**
 - E. Workshops, outreach, programs, social media, and events will all promote the Community Blue program. **A minimum of one Community Blue program will be completed annually,** assuming that a Community Blue grant inherently engages VLAWMO’s external communities and builds relationships.

Desired outcome: #2, 6

Sub-watershed: all, Goose Lake

Tbilisi education category: skills, behavior

Outreach tool(s): Workshops, print materials, multimedia

Priority issue: #1, 2, 3, 6

Target audience: Public: at large, workshops

Informal Education and Interpretation—continued

7. An appreciation of local natural resources is established in the community, fostering ecological awareness and community reflection.
- A. VLAWMO will utilize remote camera traps to photograph local wildlife and use photos for educational messaging, schools, blogs, and presentations. **A minimum of 10 new public engagements (new WAV members, calls from the public, IDDE reporters, AIS detectors, meeting attendance, changed yard-care practice) will measure this effort via annual survey.**
 - B. VLAWMO will produce and publish neighborhood spotlight articles (highlighting cost-share and yard-care success stories for community reflection) and educational wetlands articles. A minimum of 6 articles will be published annually. **12 cost-share or rainbarrel recipients will be the result of this effort, general outcomes (page 18).** All cost-share and rainbarrel applicants will receive a brief survey to document what inspired them to apply (wetlands article, neighborhood spotlight, other, etc.)
 - C. VLAWMO will organize and interpret citizen science/service initiatives for community members to participate in. These include waterfowl monitoring, macroinvertebrate monitoring, pollinator monitoring, or picture posts (phenology) volunteers. Resulting data will be displayed on the website and interpreted in terms of watershed health (PI 3-3-1). Measurements for this effort fall to the **general outcomes** found on **page 18**.
8. A volunteer base that learns and leads.
- A. VLAWMO will creatively recruit volunteers through relationship building, and nurture its existing volunteer base. Examples include Master Water Stewards, VLAWMO-designed volunteer positions, and the Citizen Advisory Commission (CAC). This will be done through expressed appreciation on social media, newspaper/cable TV announcements, appreciation dinners in collaboration with neighboring watersheds, and hand-written thank-you cards (PI 3-3-1). **A minimum of five volunteers will act as educators to their local citizen peers annually.**
 - B. VLAWMO strives to maintain an active pool of volunteers who if aren't able to physically attend a volunteer event, are still engaged. A volunteer-specific email list will be utilized a minimum of 4 times annually with news, information, and ways to be involved. Measurements for this effort fall to the **general outcomes** found on **page 18**.
 - C. VLAWMO provides a variety of short-term opportunities for volunteers to act as educators to their local citizens (PI 3-3-1). Examples include community stormdrain clean-ups—VLAWMO keeps a database of stormdrains labeled in this program. **General outcomes (page 18), minimum of 30 stormdrains labeled.**

Desired outcome: #2, 6, 7

Sub-watershed: all, Goose Lake

Tbilisi education category: awareness, attitudes, behavior, skills

Outreach tool(s): Workshops, print materials, multimedia, branding, fieldwork

Priority issue: #1, 5, 6

Target audience: Public: at large, events

Informal Education and Interpretation—continued

9. A watershed focused congruency between community groups exists in VLAWMO.

- A. Notes and minutes from VLAWMO each meeting will be posted on the website for stakeholders and the public. Measurements for this effort fall to the **general outcomes** found on **page 18**. (PI 3-2-1, 3-2-3).
- B. At least once annually, VLAWMO will host an event that results form a unique, creative partnership with a community group. Event will combine different organization values and bring people together on the focus of water. Examples include a shallow lakes forum with a homeowner association, a youth leadership event with a local congregation, an ice-cream social or film screening with a citizen group, a service project with a youth group, or a water reuse/smart irrigation presentation to local businesses (PI 3-2-1, 3-3-1) **A minimum of one event will be a result of this effort, complete with a summary on the VLAWMO blog.**

Desired outcome: #2, 6, 7

Sub-watershed: all, goose lake

Tbilisi education category: awareness, attitudes, behavior

Outreach Tool(s): Multimedia, reports/summaries, multimedia

Priority issue: #1, 5, 6

Target audience: Public: At large

Barriers: What are the challenges along the way?

1. Many watershed features in VLAWMO (lakes, wetlands) are difficult to access and are also generally out of sight to the public. This creates difficulty in building personal interaction and appreciation with local natural resources. Finding ways to foster local, place-based appreciation of water resources (lakes, wetlands, etc.) is an important strategy for inspiring behavior change and watershed stewardship (water friendly yard care, etc.).
2. Maintaining a variety of activities that appeal to a wide range of communities on a limited budget. With a wide range of age groups, political affiliations, and professions in the watershed, VLAWMO is unable to completely focus on one particular group.
3. Competing for attention and focus from the public. To get educational messages across in newspapers, social media, or email, it has to compete with many more news stories, email distributions, advertisements, and political messages. Many interactions between VLAWMO and the public therefore have to be quick, direct, and easy to comprehend
4. A trend of disassociation to place and water resources. Having many causes, priorities, and interests active in the watershed allows for many different focuses and niches. A particular niche may or may not require attention to the local environment or water resources to function. This creates space for an assumption that water resources are irrelevant to some, and the responsibility of others. As a watershed organization, VLAWMO focuses on the interconnectivity of water resources, recognizing that everyone who lives or works in the watershed impacts water resources. A challenge VLAWMO faces is to assist in making this interconnectivity visible, relevant, and accessible to all interests and priorities.
5. Challenges in scheduling. Cities, schools, and other community organizations all have their own timelines that they work within. To partner with these entities, VLAWMO must blend into other timelines other than it's own.

TARGET AUDIENCES & STAKEHOLDERS

3.1

Target audience and stakeholder identification

Table 4: Target audiences

Target Audiences/Stakeholders	
Public ¹	Lake associations
Schools	Home owner associations
Community groups ²	Volunteers ³
Businesses	Developers
Churches/religious groups	
MS4 Partners (9): City of North Oaks, City of Lino Lakes, City of Vadnais Heights, City of White Bear Lake, White Bear Township, City of Gem Lake, White Bear Township, Ramsey County, Anoka County, MNDOT	

Table 5: Stakeholders

Partners			
Saint Paul Regional Water Service (SPRWS)	MN Department of Transportation (MNDOT)	Conservation Minnesota, H ₂ O for Life	City of Gem Lake
Ramsey Soil and Water Conservation Division, Ramsey County, Tamarack Nature Center	MN Department of Natural Resources (DNR)	Washington Conservation District (East Metro Water Resource Education Program)	City of North Oaks
Anoka Conservation District, Anoka County	MN Department of Agriculture	Other metro area Watershed Districts and Water Management Organizations	City of Lino Lakes
Board of Soil and Water Resources (BWSR)	U.S. Army Corps of Engineers	Metro Watershed Partners, adopt-a-drain.org, Master Water Stewards	City of Vadnais Heights
Minnesota Pollution Control Agency (MPCA), Sharing Environmental Education and Knowledge (SEEK)	Ramsey County Geographic Information Systems User Group (RCGISUG)	Birch Lake Improvement District (BLID), North Oaks Home Owner's Association (NOHOA), John Mitchell Assc.	City of White Bear Lake
Minnesota Erosion Control Association (MECA)	Northland NEMO (Nonpoint Education for Municipal Officials)	Key personnel (Board, technical commission, and policy committee)	White Bear Township

Table 6: Target audience/ stakeholder overlap

Partner/Stakeholder overlap		
Homeowner associations	Cities and Townships	Community groups
Lake associations		Key personnel ⁴
Volunteers ³		Schools

1– Public is divided into four target audiences based on their interests and roles: events, workshops, families, and at large

2– Community groups are entities with any sort of organizational structure: Scouts, Lions, Rotary, performing arts groups, local organizations, etc.

3– Volunteers working with VLAWMO are referred to as WAV: the Watershed Action Volunteers

TARGET AUDIENCES & STAKEHOLDERS

3.2

[Table 7:](#) A summary of the results from the *community for clean water survey*, which can be found in the appendices section.

[Table 8:](#) For planning purposes, VLAWMO organizes the public into four groups based on their place and role in the community. Organizing the public in this way allows for VLAWMO to provide flexible outreach that is equipped to meet the level of engagement most likely to be found in that group. See the *Terms & Acronyms* section under *outreach terms* for audience definitions.

Table 7: Organization of public audiences

Public groups	At-large	Events	Families	Workshops
Audience description	Latent audience. For broad outreach measures such as newspaper articles, VLAWMO caters to members of the public who are unaware of watershed issues, problems, or watershed literacy. Messaging is most likely to be received if basic and approachable to all.	Latent, active, and aware audiences. Public events bring all three types of audiences, as individuals from any opinion or awareness can openly approach VLAWMO.	Aware audience. Families are made aware of watershed literacy and behaviors through the formal education sub-program.	Active audience. Workshop attendees have individually chosen to act on an existing awareness of watershed issues, and are therefore seeking watershed behaviors.

Table 8: Community for Clean Water Survey results

Target Audience	Why does water matter to this audience?	How familiar with local water does this audience claim to be?	What barrier does this audience list as preventing them from engaging in water issues?	What water-related issue does this audience indicate as most important?
Public	Clean drinking water, future generations, scenery	Average	Time constraints, not enough experience	Water pollution
Schools	Future generations, clean drinking water, recreation	Above average	Time constraints, other priorities	Water supply (quantity)
Community groups	Future generations	Average	Other priorities, time constraints	Water supply (quantity)
Businesses	Clean drinking water	Maybe a little	Not enough experience	Water pollution
Churches/religious groups	Clean drinking water, future generations	Average	Not enough experience, time constraints	Water supply
Lake associations	Future generations	Above average	Time constraints, not enough experience, don't see the purpose	Water supply, (quantity), water pollution
Home owner associations	Scenery, future generations	Average	Not enough experience, time constraints, other priorities	Water supply (quantity), water pollution, wetland habitat, wetland conservation
Volunteers (WAV)	Scenery, clean drinking water, gardening/lawn care, animals, recreation, plants, and future generations	Above average	Time constraints	Water supply (quantity), water pollution
Cities and municipalities	Scenery, clean drinking water, future generations.	Above average	Time constraints	Water pollution
Key personnel	Scenery, clean drinking water, future generations	Above average	Time constraints	Water pollution, wetland conservation

TARGET AUDIENCES & STAKEHOLDERS

3.2

Table 9: Target Audience and Partner Planning

Target Audience	What knowledge and awareness will VLAWMO strive for with this audience?	What behavior is VLAWMO asking for from this audience?	Primary tactics used: How will VLAWMO engage them?	Subprogram & Most Applicable Goal(s)
Public	The physical definition of a watershed, aware of water as a finite resource. Has heard of VLAWMO and could name something VLAWMO does.	Watershed behaviors such as water-friendly yard maintenance, initiative to engage in VLAWMO's cost-share programs. Can name one thing a watershed does, and engages social media, website, or news articles.	Events, branding, media, citizen science, WAV	Informal ed. 6-10
Schools	Children: awareness that they can make a positive impact on water, know of ways to enjoy water. Adults: connected to schools to know the resources available to them through student work.	Children: Demonstrate water knowledge to groups, families Adult : Seek or participate in workshops on water	School planning, school visits, cost-share promotion	Formal ed. 4, 5
Community groups	Is familiar with VLAWMO's mission and programs. Knows what a watershed is and their watershed address.	Service project activities, events, and projects that promote water quality awareness. Help VLAWMO spread the word on water conservation.	Community Blue, stakeholder networking, watershed tours, media	Informal ed. 7, 8, 10
Businesses	Developers understand when and where to seek regulation guidance (WCA, etc.) Is aware of VLAWMO and other watershed districts as well as what they do.	Knows their watershed address and could name what a watershed does. Knows and seeks partnership potential.	Community blue, cost-share promotion, media, WAV	Informal ed. 1, 6, 8
Churches/religious groups	Is aware of mission overlap in terms of stewardship of the earth.	Is practicing water conservation measures and promotes stewardship through site BMP's and/or education efforts.	Community Blue, cost-share promotion, WAV	Informal ed. 6, 7, 10
Lake associations	An exceptional understanding of water resources, lake ecosystems, drainage area, and watersheds. Sense of responsibility in lake stewardship extends to the whole watershed.	To be leaders in water resource protection, advocating native shorelines and sound landscaping to benefit their lake and watershed health.	Citizen science, media, stakeholder networking	Informal ed. 6, 7, 10
Home owner associations	An understanding of how a watershed works, which watershed they're in, and how we affect our water resources.	Practicing water conservation measures, demonstrates appropriate BMP's for area, and assists with disperses education materials.	Citizen science, media, stakeholder networking	Informal ed. 6, 7, 8, 10
Volunteers (WAV)	Exceptional understanding of watershed processes as well as current needs. Exceptional knowledge of VLAWMO's processes and current work.	Proactively advocate for VLAWMO and our work. Engage with all other target audiences to support VLAWMO programs, feeling engaged as well as valued. Communicate with VLAWMO.	Internal planning, workshops, events	Informal ed. 9
Cities and municipalities	Aware of Water Plan, Policy, and EOP Knows what a watershed is and does.	Will meet periodically to discuss partnership plans. Looks to VLAWMO for MS4 help Will be consistent with water policy	Internal planning, watershed tours, workshops, media	Prof. support 2, 3
Key personnel	Staff: Expert level understanding of watersheds and VLAWMO's work. BOD/TEC: Solid understanding of what a watershed is from both a hydrologic and regulatory perspective. Basic understanding of VLAWMO programs and projects.	Staff: Operations and support for all projects and programs with increased knowledge base and expanding partnerships. BOD/TEC: Engagement in training and outreach efforts; continued effort to increase watershed understanding.	Internal planning, watershed tours	Prof. support 1

TARGET AUDIENCES & STAKEHOLDERS

3.3

Table 10: Partner Descriptions

Stakeholder Category	Stakeholder entities	What specialties does this group of entities have?	How does this group relate to VLAWMO's mission?	How will VLAWMO work with this group?
State and National	MN Board of Soil and Water Resources, Minnesota Erosion Control Association (MECA), MN Department of Transportation (MNDOT), MN Department of Natural Resources (DNR), MN Department of Agriculture, U.S. Army Corps of Engineers, MN Pollution Control Agency (MPCA)	Permitting, water plan technicalities, watershed planning guidance, construction and development regulations. Knowledge of state-level operations, policies, and processes. Provides training and interprets legislative mandates.	Provides technical essentials for enhancing and protecting water.	Board meetings, custom meetings, official notices, email, phone
County	Ramsey Conservation District, Ramsey County, Anoka County, Anoka Conservation District, Tamarack Nature Center, Ramsey County Geographic Information Systems User Group (RCGISUG), Washington Conservation District (East Metro Water Resource Education Program)	Knowledge of county operations and processes, an existing structure of workshops, networking and training meetings, and resources pertaining to watersheds. Partnership opportunities.	Provides a network of groups that reflect VLAWMO's mission, expands VLAWMO's knowledge and resource pool to keep current on the watershed field. Provides professional consultation and technical support.	Attendance of workshops and planning meetings, input and assistance in planning workshops, custom meetings, email, phone
Nonprofits & Academic	Conservation Minnesota, Northland NEMO, H ₂ O for Life	Civic engagement, resources in education, programming, and state environmental issues.	Actively reaches out to the public to protect and enhance environmental quality. Advocates and inspires personal action.	Creative partnerships where missions align, workshops, sharing of advocacy materials and resources. Email, phone
Local	Metro Watershed Partners, City of Gem Lake, City of North Oaks, City of Lino Lakes, City of Vadnais Heights, City of White Bear Lake, White Bear Township, Rice Creek and Ramsey Washington Metro Watershed Districts.	Community networks, media resources and outlets, knowledge of local watershed issues, conflicts, and assets.	Strives to protect water quality, solve local issues, and disperse corresponding knowledge and information to the public.	Newsletters, social media, trainings, custom meetings, email, phone
Internal	Key Personnel	Knowledge and support of VLAWMO, connection to various communities. Trainings.	Members of the local community that directly support and guide VLAWMO.	Board and TEC meetings, email, phone
Public	Homeowner associations, Lake associations, Volunteers (WAV), community groups	Close connection and understanding to community ideas, values, and preferences. On-the-ground results, potential for action.	Seeking improvement of quality of life and the strengthening of community networks.	Training workshops, custom meetings, social media, email blasts

Strategy Levels

Three strategy levels organize the goals and objectives into a balanced work load. Tactics are the actual tools that give the goals and objective traction.

Table 1: Strategies, goals and objectives, tactics

High Strategies

Strategic planning, future-oriented partnership formation and maintenance, and allocation of resources.

Goals and objectives: 1a, 2a, 3a, 4a, 9c,

Tactic: Internal planning, office communication stakeholder networking, relationship building, article writing.

Intermediate Strategies

A segue between long and short term results, feeding into low and high strategies. Internal relationships, process-building, gradual yet identifiable results.

Goals and objectives: 1b, 4b, 4c, 6b, 7a, 7c, 7e. 8a, 8b, 9a,

Tactic: Community Blue, cost-share promotion, long-term WAV (official volunteer positions), school planning, annual workshops.

Low Strategies

The fun and most visible aspects of an organization, oriented toward physical things and single actions in the present.

Goals and objectives: 5a, 6a, 6c, 7b, 7d, 9b,

Tactic: Short-term WAV events (stormdrain clean-up, renting education displays, bothing at events), branding, media, school visits, presentations, tours.



Tactic Descriptions

Three strategy levels organize the goals and objectives into a balanced work load.

High strategies: Planning and program development, focused on the long-term

Internal planning: Office-based calls, emails, meetings, documentation, and planning. Creating and updating the Comprehensive Water Plan, articles, annual reports, water monitoring reports, Water Policy, or Education and Outreach Plan.

Stakeholder networking: Sharing resources and accruing knowledge through ongoing correspondence with stakeholders. Staff education, building relationships in the community, implementing grants.

Intermediate strategies: Segue between low and high, containing aspects of both

Community Blue: A grant program in which grants are awarded to those who support community service initiatives and citizen engagement through education, collaboration, innovation, and interactions between citizens and local water resources.

Cost-share promotion: The promotion of existing cost-share programs, from rainbarrel to landscape level I and II.

Workshops: Formal instruction and training on watershed topics such as raingardens, shoreline restoration, wetlands, or citizen science. Materials, fees, and reserved public space included.

School planning: Networking, surveying, meeting with, and piloting school programs.

Watershed Action Volunteers (WAV): The recruitment and fostering of an active volunteer group. Volunteers help grow VLAWMO's presence in the community. Programs include the Master Waster Stewards and Citizen Advisory Commission (CAC).

Citizen science and service: Volunteers, community groups, or school groups either gathering ecological data in the watershed or engaging in service projects such as trash pick-up or storm drain stenciling.

Low strategies: Action-oriented and focused on the short-term

Media: Physical or digital (social media, website) messaging and promotion of VLAWMO.

School visits: Formal instruction visits to schools upon the completion of planning, materials development, curriculum planning, and piloting.

Tours: Live, on-site watershed demonstrations and interpretation throughout the watershed. Conveying watershed ecology and history.

Events: Any booth set-up, educational event (videos, ice cream social, etc.) or open house in the watershed.

Branding: Planning and developing tangible products for VLAWMO promotion. Tote bags, hats, shirts, etc.

Supplies: Education materials and tools for rent allow the general public to be empowered to participate in watershed improvement and leadership.

Nature awareness: Remote cameras and phenology picture posts help to instill water resource awareness and stewardship into the local culture.

Outreach Methods and Tools

Various methods and tools support the tactics, physically bringing them to the community. In the implementation of the EOP, VLAWMO staff may utilize any of the outreach methods and tools to carry out any of the tactics as needed.

Table 11: From Tactics to Outreach

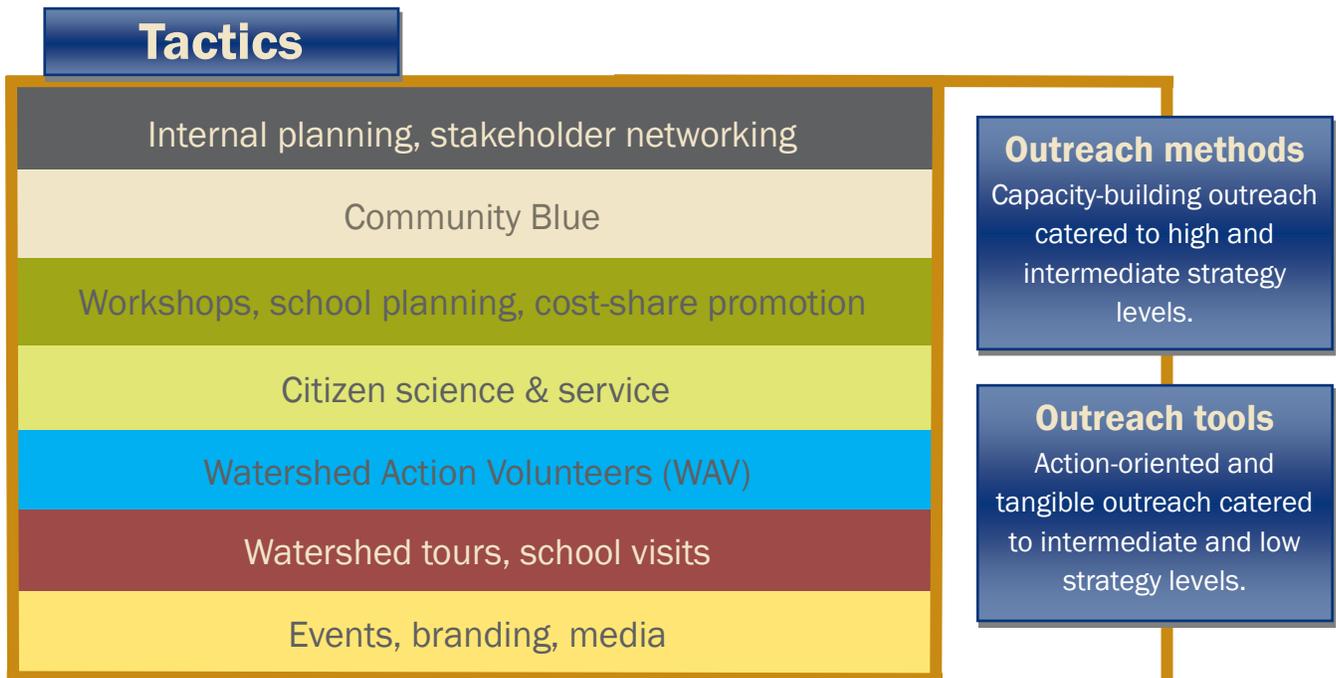


Table 12: Outreach Methods and Tools

Outreach Methods	Outreach Tools
<p>Meeting notes/agendas: Summaries of the decision-making and dialogue that occurs in VLAWMO TEC and BOD meetings.</p> <p>Face-to-face: Any in-person communication.</p> <p>Phone: Incoming and outgoing calls.</p> <p>Email & mass email: Individual email as well as newsletters and special announcements through mass mailing lists using MailChimp.</p> <p>Website: Blog, news, calendar, reports, and relevant information to be posted and updated on www.vlawmo.org.</p> <p>Social media: Facebook, Twitter, and blog usage. See Appendix B—social media policy. Used for process-building, distinguished from multimedia.</p> <p>Events and Workshops: Community events coordinated by VLAWMO, cities in VLAWMO, or partnering groups, workshops led or hosted by VLAWMO.</p>	<p>Reports/summaries: Annual reports and spotlight summaries of certain VLAWMO programs.</p> <p>Print materials: Educational and promotional prints.</p> <p>Curriculum: Lesson plans, materials, and resources focused on the VLAWMO watershed.</p> <p>Branding: Giveaways, signage, or promotional items. Hats, shirts, pens, brochures, and infographics.</p> <p>Workshops: Formal teach-ins instructing about raingardens, yard care, or similar BMP's.</p> <p>Fieldwork: Volunteer projects, class visits, tours, adopt-a-drain, adopt-a-raingarden, other events.</p> <p>Multimedia: Non-internet newspaper/newsletter articles, videos, and photos (TV, presentations, etc.).</p> <p>Displays: Tools for visual or auditory representation during community events.</p> <p>Supplies: Materials for rent to foster education and volunteer engagement (see page 33).</p>

How goals and their underlying objectives brought about the EOP desired outcomes

Table 13: Evaluation of how goals bring about the desired outcomes

★ = Goal for next year

Goals

		EOP Desired Outcome					
		1	2	3	4	5	6
Professional Support	1						
	2						
Formal Education	3						
	4						
Informal Education / Interpretation	5						
	6						
	7						
	8						
	9						

How goals and their underlying objectives supported the VLAWMO Priority Issues

Table 13: Evaluation of how goals bring about the desired outcomes

★ = Goal for next year

Goals

		VLAWMO Priority Issue					
		1	2	3	4	5	6
Professional Support	1	180 salt cups given out, 1 smart salting workshop.			Outreach and correspondence with 3/5 MS4s		
	2				Survey to stakeholders—5 responses		
	3	50% of BOD attended tour of water utility treatment plant					TEC is briefed in reviewing Community Blue applications
Formal Education	4	2% of school age population reached, 6 in-school visits	3 planning meetings attended between VLAWMO and teachers				
	5						3 school BMP maintenance events
Informal Education / Interpretation	6	7 community events, 93 registrations for our email list				2 partnership programs—North Oaks phenology, GTN cable TV	
	7	3 educational tools created – posters & videos					1 community blue grant program
	8	8 participants in 'tour watershed' 1st year of EOP, unable to measure % growth.		23 volunteers served as educators to peers through stormdrain stenciling			5 incoming calls/emails concerning North Oaks projects
	9			6 volunteers served as educators to their peers in drain cleaning & booths			
	10				8 staff in VLAWMO took Smart Salting	3 custom partnerships	Lambert Creek video

APPENDIX A: LIST OF FIGURES AND TABLES

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APPENDIX B: SURVEYS CONDUCTED

Research Description: Public Survey

Community for Clean Water Survey

As VLAWMO enters a new 10-year plan, we hope to understand our audiences to best serve them. Your feedback is **greatly** appreciated and will allow us to work **together** to build fun, relevant, and effective ways to protect our **water**.



Vadnais Lake Area Water Management Organization
800 East County Road E
Vadnais Heights, MN
55127

(651) 204-6070

1. Why does water matter to YOU? (circle any/all)

scenery clean drinking water gardening/lawn care
animals recreation plants future generations
other: _____

2. What are your favorite outdoor activities? (circle any/all)

fishing swimming organized team sports (softball, etc.)
archery boating hiking hunting
outdoor BBQ/grill yoga canoe/kayak paintball biking
 orienteering golf gardening
 wildlife watching/photography family-friendly events
other: _____

3. What best describes your local affiliations? (circle any/all)

resident schools church/religious group
 VLAWMO volunteer (past/present)
 local business owner/staff
community group (scouts/food shelf/etc.) lake association
homeowner association city staff/council
Other -OR- type of community group/business (optional): _____

4. How do you get local news? (circle any/all)

local newspaper Facebook Twitter
specific websites city/township council meetings
homeowner associations local cable channel
other: _____

5. How do you get information on topics relating to water and/or nature in general? (circle any/all)

Local newspaper Facebook Twitter Specific websites
City/township council meetings homeowner associations
 books magazines local cable channel
Metro-wide news station national news station
other: _____

6. Which give-away would you most likely KEEP? (circle any/all)

pen/pencil stickers tote bags t-shirts (circle any/all)
hats Frisbees Umbrellas mesh/string backpack
water bottle flashlights jump drives coasters
carabineer bracelets beverage cozies cellphone cases
cellphone case/wallet combo stress relievers
other: _____

7. Which activity seems most appealing? (circle any/all)

planting a garden
weeding a garden managing a booth community clean-ups
helping narrate an educational video citizen science/
monitoring helping disperse flyers local history tour
serving as an on-call resource to the public
helping spread events/information via social media

8. How familiar are you with local water? (circle one)

Issues/topics/quality (circle one)
Not at all Maybe a little Average Above average Expert
1 2 3 4 5

9. What barriers might prevent you from engaging in local water issues? (circle any/all)

it's confusing time constraints not enough experience
other priorities not sure where to look don't see the point
other: _____

10. Which issues are most important to you? (rank 1-6)

water supply (quantity) water pollution
 wildlife habitat wetland conservation pollinators
 stormwater runoff other: _____

Thank you for taking our survey! To be eligible for winning the prizes on the reverse side of this page, please leave your name, email, and address below. Must live or work within VLAWMO's boundaries to be eligible to win.

Name: _____

Address (home/work): _____

Email: _____

Sign me up to receive seasonal updates and info on VLAWMO.

APPENDIX B: SURVEYS CONDUCTED

Research Description:

VLAWMO Educator Survey

As VLAWMO enters a new 10-year plan (2017-2026), we at VLAWMO are excited to form new partnerships and programs with **local educators**.

Your feedback will greatly help us in designing relevant, engaging, and useful programming for students.



Vadnais Lake Area Water
Management Organization
800 East County Road E
Vadnais Heights, MN
55127
(651) 204-6070
www.vlawmo.org

1. What grade level(s) do you work with?

(circle any/all)

Pre-K K 1 2 3 4
 5 6 7 8

2. What water/nature topics will you cover in class this year?

(circle any/all)

Stormwater Pollinators Watersheds
The water cycle Plants The food chain

Other: _____

3. In your experience, which STEM standards could use additional curriculum development? If STEM doesn't apply to you, which subjects?

(circle any/all)

Natural Systems Scientists Earth Materials Life Cycles
Practice of Science Practice of Engineering Interdependence
Structure & Function Systems Inquiry Society's Influence

4. In your experience, which STEM standards are easy to target through partnerships and guest visits?

(circle any/all)

Natural Systems Scientists Earth Materials Life Cycles
Practice of Science Practice of Engineering Interdependence
Structure & Function Systems Inquiry Society's Influence

Other: _____

None

5. What water-focused curriculum have you utilized in the past?

(circle any/all)

Project Wet H₂O for Life MinnAqua

Other: _____

None

6. Concerning take-home assignments that accompany a class visit, which option is most appealing?

(check one)

- Graded preparation before a class visit
- Participatory preparation before a class visit
- Graded homework for after a class visit
- Participatory homework for after a class visit
- I'm flexible towards any take-home assignment strategy

7. Outside of STEM, which arts/humanities subjects would you infuse with local water topics?

(circle any)

Communication/conciliation Multi-cultural studies
Theater Paint/drawing Creative writing
Physical education Other: _____

8. If your school has a stormwater feature such as a raingarden, what is your perspective on its maintenance?

(circle one)

N/A

Excellent Could use some maintenance
Could use considerable maintenance Neglected

9. What barriers might prevent you from covering watershed topics in your class?

(circle any/all)

Time constraints Lack of materials Lack of expertise
A focus on state testing Other subjects take priority

Other: _____

10. What barriers would prevent you from partnering with external organizations such as VLAWMO?

(circle any/all)

Other subjects take priority A focus on state testing
Difficulty in planning A need to know more about the org.

Other: _____

11. VLAWMO would like to support watershed education in your area. Are there additional events or functions at your school that VLAWMO could partner with (science fairs, open houses, etc.)?

(list name and date)

Thank you

for taking our survey! Please leave your name and position to assist our analysis. To be involved in our curriculum planning, please leave your contact information.

Name: _____

Position & School: _____

Email: _____

Phone: _____

- Please send me updates on planning meetings, curriculum review, and pilot programs

APPENDIX B: SURVEYS CONDUCTED

Research Description:

Municipal Stormwater (MS4) Support

As VLAWMO enters a new 10-year plan (2017-2026), we at VLAWMO are excited to offer support and resources for local MS4 permitting.

Your feedback will greatly help us in designing relevant, engaging, and useful programming for local municipalities and MS4 holders.



Vadnais Lake Area Water Management Organization
800 East County Road E
Vadnais Heights, MN 55127
(651) 204-6070
www.vlawmo.org

1. How often do you focus on stormwater in your regular workload? (circle one)

Daily Weekly Monthly
A few times each year

2. How often does your department conduct formal training in stormwater permit regulations?

(circle one)
Daily Weekly Monthly
A few times each year

3. Which education method(s) work best for you? (circle any)

Brochures Training and demonstration videos
Articles Demonstration photos
Single-event workshops Workshop series
Attending meetings with qualified professionals

Other: _____

4. Which regulation activities do you need assistance with? (check any)

- Public education and outreach
- Public participation
- Illicit discharge detection and elimination
- Construction site stormwater runoff control
- Post construction stormwater management
- Pollution prevention and housekeeping in municipal operations

5. Which of the following are beneficial to improving your MS4 reporting?

- (check any)
- Staff maintenance best practices
 - Machinery and operations best practices
 - Updates on the latest technology
 - Updates on state policies
 - Public engagement best practices

Other: _____

6. What is your opinion on the maintenance of your agency's stormwater infrastructure?

(circle any)
Excellent Could use some maintenance
Could use considerable maintenance
Neglected

7. What barriers prevent you from engaging in MS4 improvements? (circle any)

Other needs take priority Funding
Difficulty in planning
Not sure of a direction to take

Other: _____

8. In the past year, what MS4 initiatives have you taken? (list)

9. What resources have you utilized for MS4 information, assistance, or examples? (list)

10. As your WMO, how can we help you? (list)

Thank you for taking our survey! Please leave your name, position, and department to assist our analysis.

Name: _____

Position: _____

Department: _____

Email: _____

APPENDIX C: SOCIAL MEDIA POLICY

Social Media Policy



800 East county Rd E
Vadnais Heights, MN 55127
Vlawmo.org
(651) 204-6070

Approved by: VLAWMO Board of Directors

Date: June 22, 2016

APPENDIX C: SOCIAL MEDIA POLICY

I. Background

To support its mission, Vadnais Lake Area Watershed Management Organization (hereby referred to as “VLAWMO”) speaks with individuals through many outlets, such as direct contact with landowners, public meetings, events, displays, the website, email, and workshops. To maintain steady relevant communications, VLAWMO sees social media as a tool to help residents and partners be more informed and more effectively communicate.

Social media has been an effective tool for many institutions to increase communication with people who are unlikely to attend a meeting, such as youth who partake in sports or residents who travel frequently.

Additionally, social media can be a useful tool for receiving community feedback. It is from this premise that VLAWMO will engage in strategic social media efforts.

The social media platforms VLWMO chooses to partake in are Facebook, Twitter, YouTube, and a blog through the VLAWMO.org website. The use of additional platforms must have the permission of the VLAWMO administrator.

II. Goals

Provide relevant informational content concerning watershed operations

Increase awareness on water issues

Reach those who don't come to public meetings

Inform the public about VLAWMO projects, programs, and events

Establish and maintain relationships with residents and volunteers

Receive community feedback

Obtain insight into community values, opinions, and demographics to better inform VLAWMO outreach content.

III. Regulations

Transparency:

When posting as VLAWMO: Staff will hold the responsibility to positively convey VLAWMO's best interests to the public (e.g. “At VLAWMO, we usually say...” or “According to VAWMO's goals and water plan, the position we take is...”)

When posting as an individual: VLAWMO staff, TEC, and board must identify their connection to VLAWMO when posting or commenting on any social media page. Staff will also distinguish personal viewpoints from VLAWMO when commenting as an individual (e.g. “In my personal view...”). This protects VLAWMO reputation as well as instills a sense of authority into posts.

Copyright:

Respect the copyright of other individuals and organizations, citing the original sources of any content created by others.

Confidentiality:

Employees may not share the organization's confidential information, such as unreleased details of current and future projects. Please consult the administrator if unsure whether information you wish to discuss online is confidential.

All VLAWMO staff will adhere to Minnesota State Statute 626.556 - Reporting of Maltreatment of Minors.

Financial information:

Staff may not discuss matters relating to the organization's finances – including grants applied for or received, donations or donor identity, fund balances and funding shortfalls- without prior approval from the administrator. Commenting on financial information already released to the public by VLAWMO is acceptable.

APPENDIX C: SOCIAL MEDIA POLICY

Data:

All data stored through social media platforms is public and will be consistent with the VLAWMO Data Practices Policy. The VLAWMO Data Practices Policy complies with the requirements of the Minnesota Data Practices Act: Minnesota Statutes Sections 13.025, 13.03, subdivision 2 and 13.05 subdivisions 5 and 8.

Comments and posts that fail to follow these regulations may damage VLAWMO's standing in the community and ability to accomplish its mission and goals. Violations of the social media regulations will be treated on a case-by-case basis by the administrator and board. Consequences may include verbal or written reprimands, negative performance reviews and reassignment from duties dealing with the public. Extreme abuse of the policy rendering an employee "unfit for further service" under the legal guidelines established by the National Labor Relations Act may result in an employee's dismissal.

IV. Policy measures

1. Assign a staff person(s) to moderate content.
 - i. Ensure appropriateness
 - ii. Encourage positive questions and responses
2. Manage updating of multiple social media sites in a time-effective manner.

Staff will share responsibility for posting on social media a minimum of twice/week. The education and outreach coordinator will maintain the website and a social media schedule, which contains the posting times and staff responsibility allocation for various posts and their social media platforms.
3. Select content for posting based on relevancy to VLAWMO priority issues:
 - i. Threatened and Impaired natural and surface water resources
 - ii. Threatened or Impaired Groundwater
 - iii. Need for education and involvement from citizens and stakeholders
 - iv. Need for adequate data, as well as analytic, financial and administrative capacity to accomplish goals and strategies
 - v. Invasive and exotic species infestation
 - vi. Localized flooding
4. Utilize the Education Outreach plan's desired outcomes as a supportive guide for selecting social media content and phrasing language:
 - i. Document water quality improvements such as reduced phosphorous
 - ii. Have a citizenry that's knowledgeable and aware of responsible natural resource use
 - iii. Witness citizens demonstrating watershed protection behaviors
 - iv. Witness trained volunteers educating citizens
 - v. Confirm that MS4 partners are collaborating, using resources, and meeting state requirements to the best of their ability.
 - vi. Readily harness existing partnerships that expand reach, cultivate citizen science, enhance education, and defray costs.
 - vii. Have strong capital improvement projects through complimentary education and interpretation
 - viii. Witness proof of clear, effective communication amongst internal staff, TECH, board, partnering organizations, state and county entities, and the public

APPENDIX C: SOCIAL MEDIA POLICY

Policy measures continued

5. Refer to the VLAWMO comprehensive water plan theme “why water matters” whenever possible. For example, “Another reason why water matters...”.
6. The North American Association for Environmental Education defines environmental education in terms of the 1977 Tbilisi definition: “*EE is a learning process that increases people’s knowledge and awareness about the environment and its associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action.*” Postings should be mindful of maintaining a balance between knowledge, awareness, skills, attitudes, and actions.
7. Monitor and evaluate the effectiveness of social media use according to the evaluation protocol described in the VLAWMO Education Outreach plan.
 - i. Record measurables such as likes, retweets, comments, and link clicks. Compare how these measurables correspond to various topics, events, and seasons.

V. Resources

To assist efficient content generation and to keep consistent weekly postings, additional resources can be sought from the following trusted sources:

Blue Thumb
Metro Blooms
Freshwater Society
Metro Watershed Partners
East Metro Water
Friends of the Mississippi River
Great River Greening
Star Tribune, Pioneer Press
Minnesota Association of Watershed Partners
Minnesota Landscape Arboretum
Minnesota Pollution Control Agency (MPCA)
Minnesota Board of Water & Soil Resources (BWSR)
Minnesota Department of Natural Resources (DNR)
US Environmental Protection Agency (EPA)
Metropolitan Council

