



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

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TERMS & ACRONYMS

Outreach Terms:

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

Active audience: Audience is responding to the issues and relatable problems.

Aware audience: Audience recognizes the issues and relatable problems that are present.

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 and practices emphasizing learning experiences that are derived from and focused on the history and ecology of a place, presented to the present.

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:

BOD: VLAWMO board of directors

BMP: Best Management Practice

EOC: Education and Outreach Coordinator

EOP: Education and Outreach Plan

MS4: Municipal Separate Storm Sewer System

PI: VLAWMO Priority Issue from Water Plan

TEC: Technical Commission

WMO: Watershed Management Organization

WAV: Watershed Action Volunteers

VLAWMO: Vadnais Lake Area Water Mngmt Org

Executive Summary

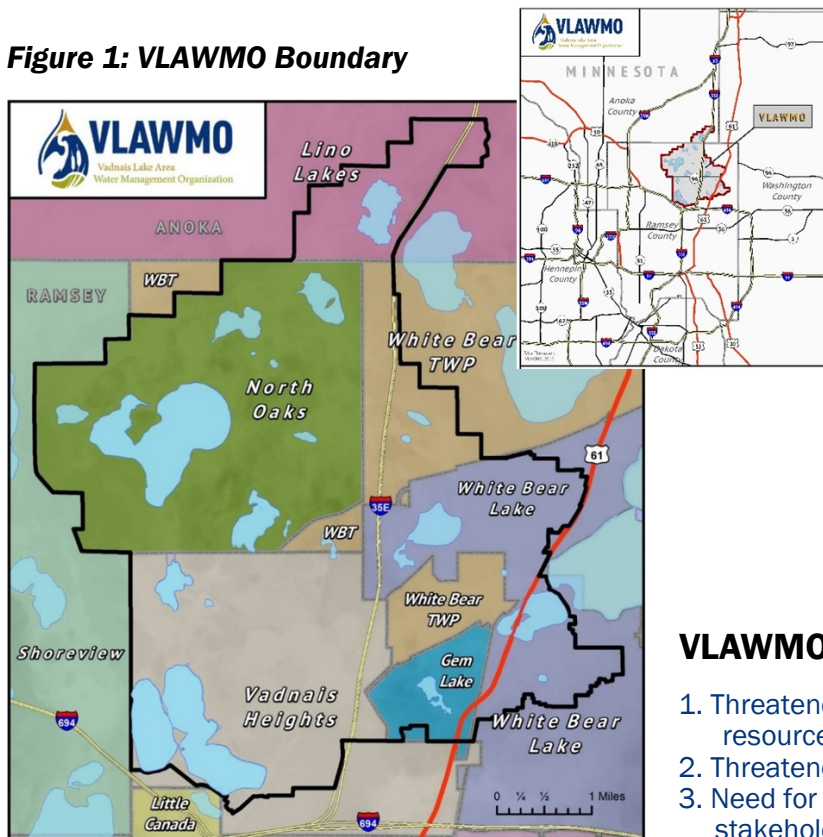
The Education and Outreach Plan (EOP) describes how the Vadnais Lake Area Water Management Organization (VLAWMO) will prioritize and organize its education and outreach activities in the watershed from the years 2017 through 2026. The plan describes the goals, objectives, target audiences, strategies, 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

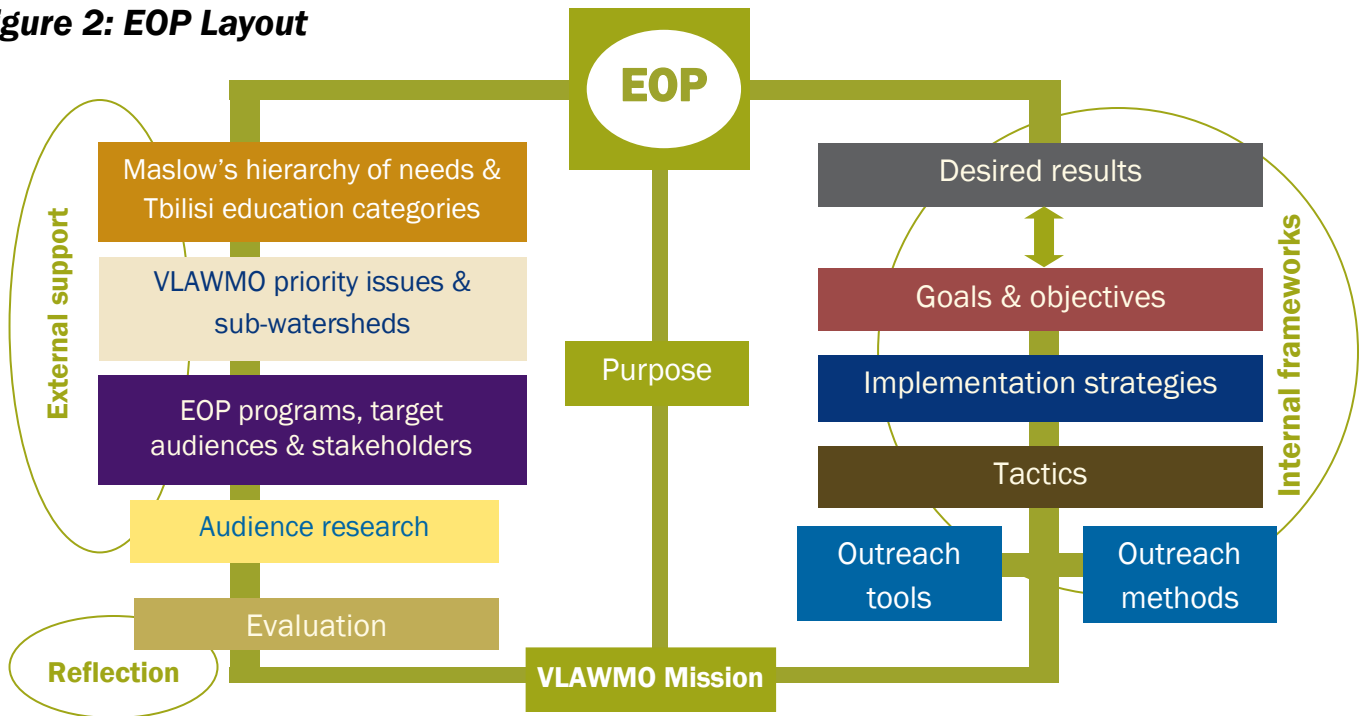


Figure 3: EOP programs and target audience layout



Desired Results

1. Have a citizenry that continually seeks knowledge and awareness of natural resources.
2. Observe citizens demonstrating watershed protection behaviors.
3. Observe trained volunteers educating citizens.
4. Confirm that MS4 partners are collaborating, using resources, and meeting state requirements to the best of their ability.
5. Have programs and partnerships that foster education and participation that build on the interests and abilities of VLAWMO residents.
6. Witness evidence that VLAWMO residents are knowledgeable and up to date on actions being taken to address VLAWMO's priority issues.

Goals and Objectives: Compressed *Specifications in expanded version (p. 19-24)*

Professional Support

1. VLAWMO will be a go-to resource in MS4 permitting assistance:
Educational stormwater efforts such as trainings and guest speakers, promoting awareness in the benefits of improving MS4 management.
2. Improve city-to-VLAWMO communication in the MS4 permitting process:
Maintain a record of MS4 needs and opportunities with each municipality in VLAWMO.
3. Key personnel will continue to advance their knowledge of water and related natural resources:
Enrichment education opportunities with the VLAWMO Technical Commission (TEC) and Board (BOD).

Formal Education

4. Provide place-based watershed education that applies to multiple age demographics:
Develop and modify existing water curriculum to fit VLAWMO, and visit local schools for presentations.
5. Assist schools in establishing and maintaining educational stormwater BMP's:
Provide leadership assistance in BMP maintenance as well as resources for ongoing upkeep.

Informal Education, Interpretation, and Outreach

6. Educate community members on VLAWMO's 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 presence.
7. Encourage community members to increase their own knowledge and act on watershed issues.
Workshops, articles, and videos educating residents on raingardens, watershed function, water-friendly lawn care, and more.
8. Build a VLAWMO sense of place that both fosters ecological awareness and provides a space for community reflection.
Conducting interpretive tours and citizen science efforts. Conveying activities on website.
9. Grow a volunteer base that is empowered to lead and learn.
Provide volunteer opportunity projects and publically thank volunteers.
10. Foster a water-focused congruency between various community groups and agendas.
Form creative partnerships with organizations of diverse missions, list our stakeholders on our webpage, and interpret partnerships on our webpage to display collaboration focused on water.

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 & Objectives:</u> 1c, 2a, 3b, 6b, 10a, 10b, 10d</p> <p><u>Tactics:</u> Internal planning, stakeholder networking</p>
<p>Intermediate Strategies</p> <p><u>Goals & Objectives:</u> 1a, 1b, 4a, 4b, 5b, 7a, 7b, 7c, 8b</p> <p><u>Tactics:</u> Community Blue, cost-share promotion, citizen science, school programing, workshops</p>
<p>Low Strategies</p> <p><u>Goals & Objectives:</u> 3a, 4c, 5a, 6a, 6c, 8a, 9a, 9b, 10c</p> <p><u>Tactics:</u> Watershed Action Volunteers (WAV), events, branding, school visits, media, tours</p>

Outreach methods and tools

Table 2: Outreach methods and tools

<p>Outreach methods</p> <p>Capacity-building outreach catered to intermediate and high strategy levels.</p>	<p>Outreach tools</p> <p>Action-oriented and tangible outreach catered to intermediate and low strategy levels.</p>
<p>Meeting notes/ agendas</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</p>	<p>Reports and summaries</p> <p>Print materials</p> <p>Curriculum</p> <p>Branding</p> <p>Workshops</p> <p>Fieldwork</p> <p>Multimedia: articles, photo, video</p> <p>Booth Displays</p>

Evaluation

Annual evaluation will derive from the measurement of the goals and objectives outlined in chapter two: Education and Outreach Goals. 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 32-34 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, come complex issues in both human and non-human spheres. 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 and in turn, the longevity of society.

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's knowledgeable and aware of responsible natural resource use.
2. Observe citizens demonstrating watershed protection behaviors.
3. Observe resident volunteers educating their fellow citizens.
4. Confirm that MS4 partners are collaborating, using resources, and meeting state requirements to the best of their ability.
5. Have programs and partnerships that promote education and participation relevant to the interests and abilities of VLAWMO residents.
6. Observe evidence that VLAWMO residents are knowledgeable and up to date on actions being taken to address VLAWMO's priority issues.

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 Phases

Phase 1 – 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 such as MarketFest in White Bear Lake.

Phase 2 – October, 2016-September, 2017: Implement EOP and begin the period which is to be annually evaluated. There is not yet a base of plan implementation or data to inform future years.

Phase 3 – September, 2017– December, 2026: Continue to implement the EOP in regards to previous years' EOP.

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

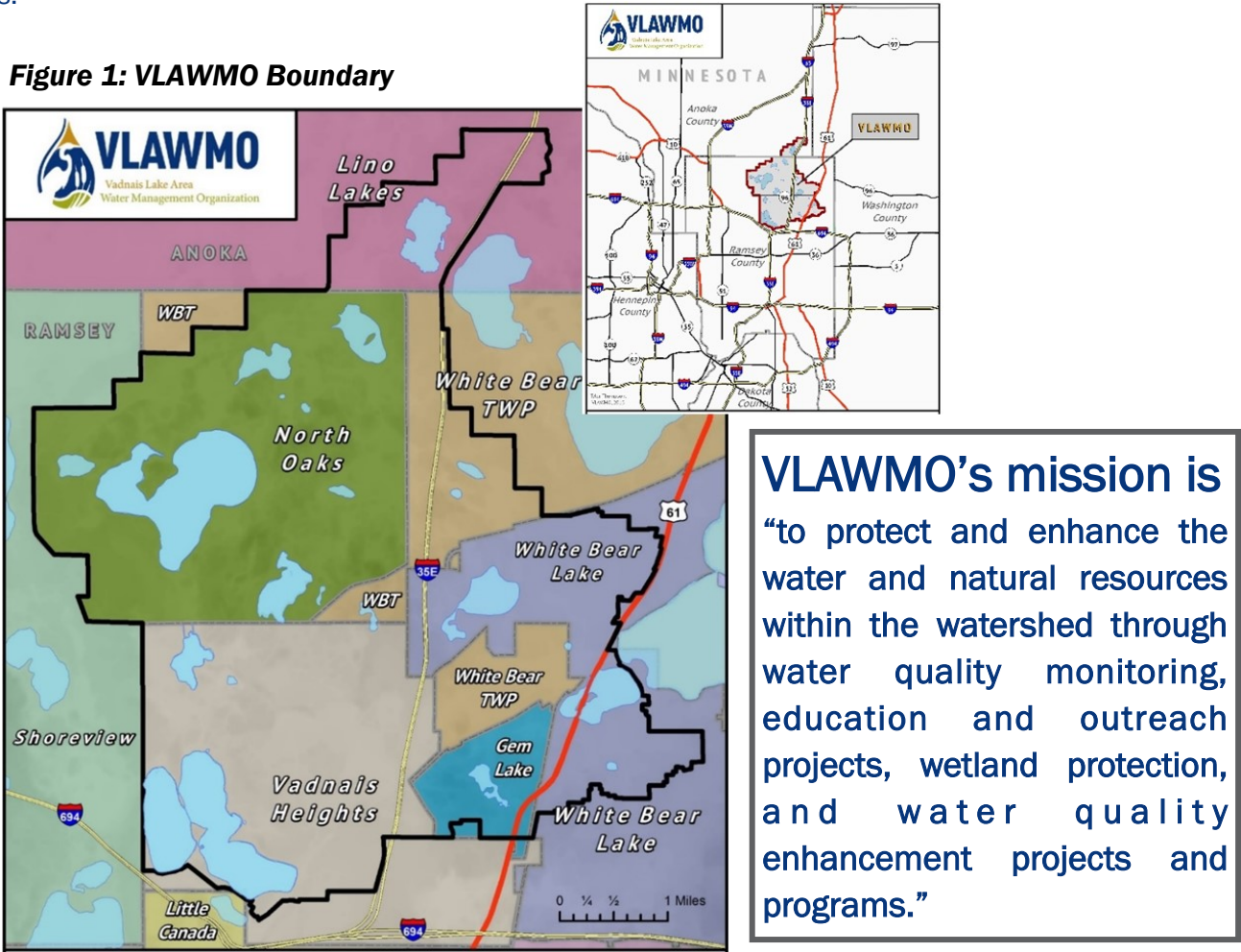
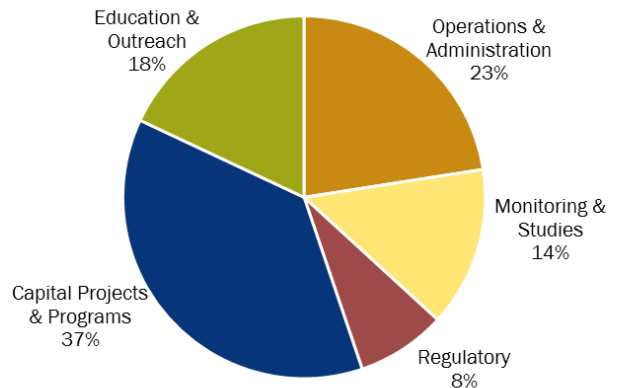


Figure 4: Core activities and budget
VLAWMO Core activities



Budget allocation



1.3 Background

VLAWMO Priority Issues

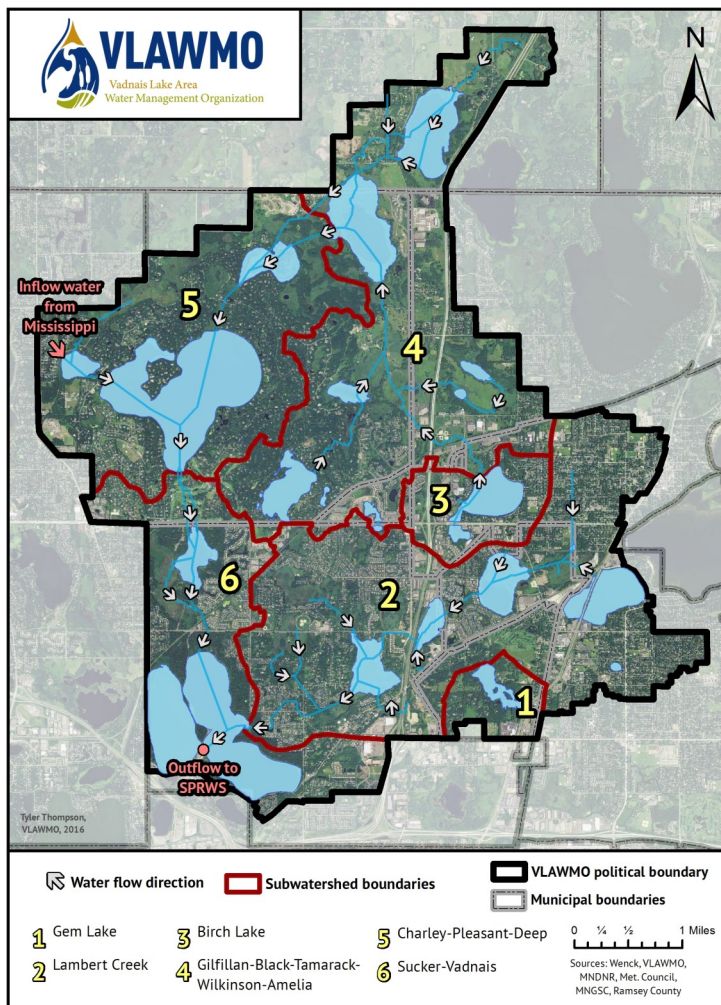
Reference to VLAWMO’s priority issues keeps the EOP consistent and relevant to VLAWMO’s 2017-2026 Comprehensive Water Plan. This plan is available at the VLWMO website (www.vlawmo.org). It contains description on the rest of VLAWMO’s core activities, found on page 7 of this document. The VLAWMO priority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

The design of this plan builds off of its initial purpose and goals (page 6), while integrating supporting educational theories and practices. These support mechanisms allow for long-term cohesiveness in the EOP, providing structure as well as space for adaptability and improvement.

Maslow's Hierarchy of Needs

Many institutions who work with human subjects refer to Maslow's Hierarchy of Needs to provide a balanced approach to engagement and participation that is also realistic to human needs. As a public entity focused on scientific principles and professional protocol, reference to these needs will support VLAWMO in serving families, students, and community members of various demographics.



Figure 6: Maslow's Hierarchy of Needs

Tbilisi Environmental Education Categories

Reference and inclusion of the Tbilisi Education Categories allows 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). The inclusion of these categories supports VLAWMO in designing effective and lasting programs. VLAWMO strives for successful educational planning that progresses through each of these categories.



Figure 7: Tbilisi environmental education categories

1.4 EOP Supporting Structures

EOP program Descriptions

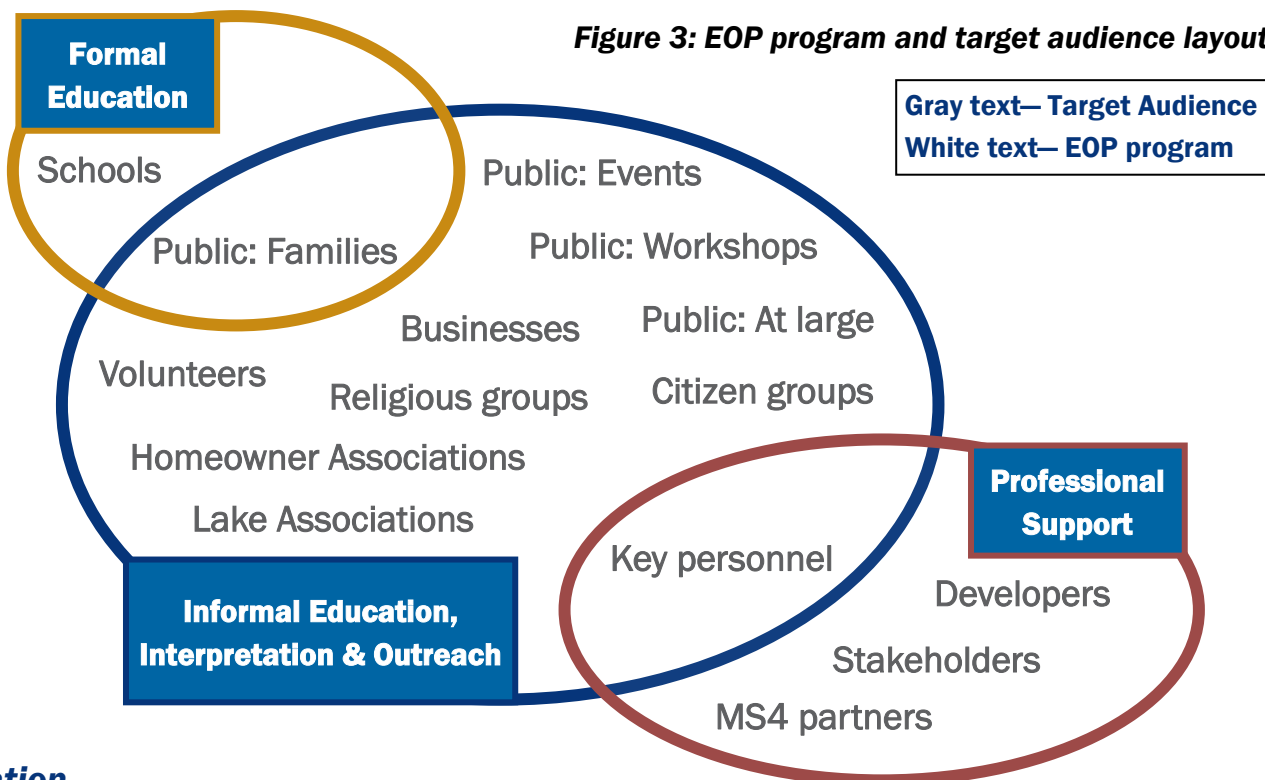
To organize VLAWMO’s education and outreach efforts, the EOP organizes the target audiences into three EOP programs. Generally, VLAWMO’s efforts are evenly divided between each sub-program. Certain times of the year or certain opportunities external to VLAWMO may validate extra focus to be placed on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

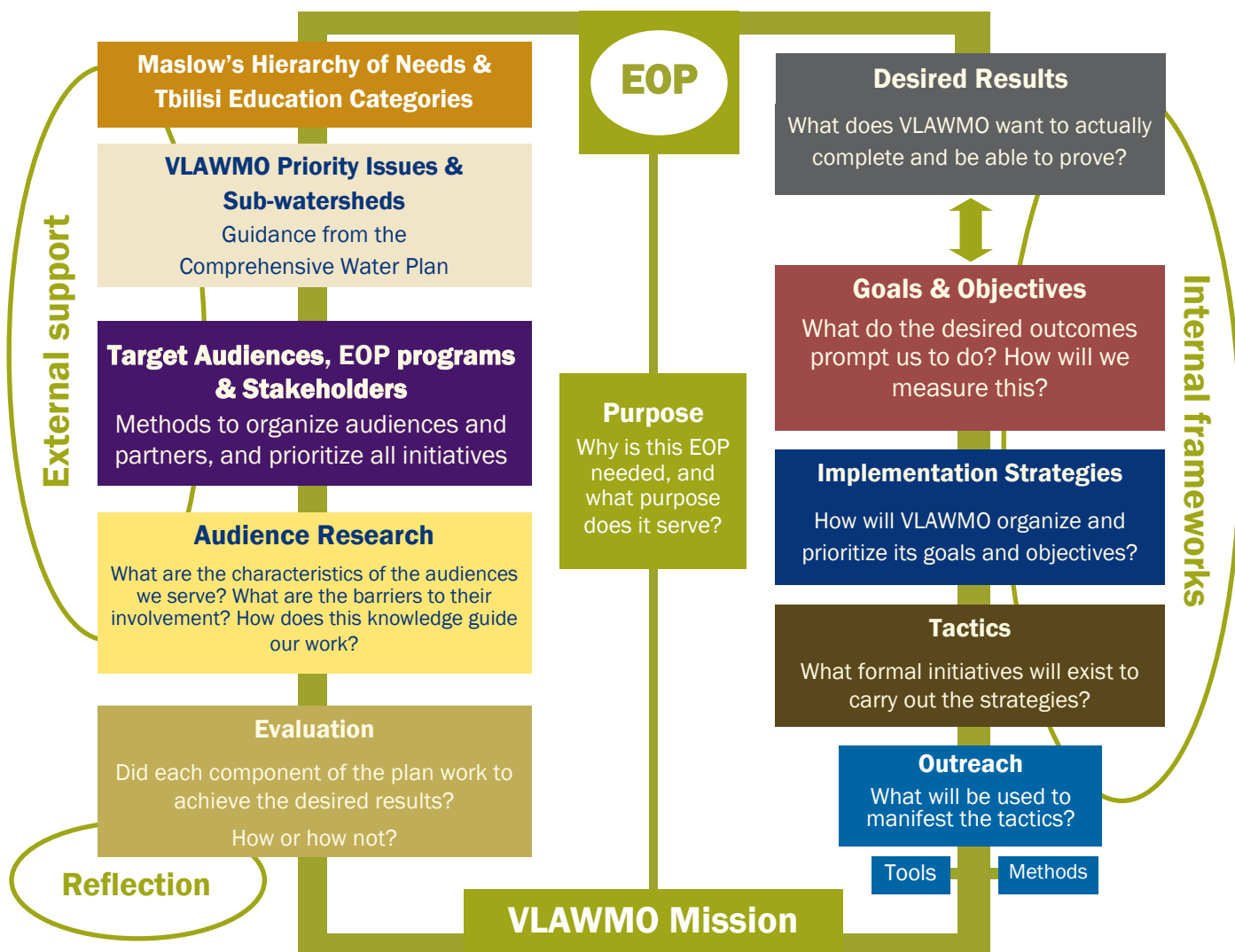
The VLAWMO EOP is composed of internal, external, and reflective components.

External components include entities and concepts originating outside of the VLAWMO EOP. Examples include existing educational theories, pre-existing VLAWMO documents outside of the education and outreach core activity, the definition and organization of audiences and stakeholders, and research that analyzes external trends (public values, interests, etc.) in order to design internal frameworks that are relevant and appropriate.

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, and are assigned to suitable tactics. Lastly, the outreach tools and methods are the final catalysts that materialize the purpose and desired results.

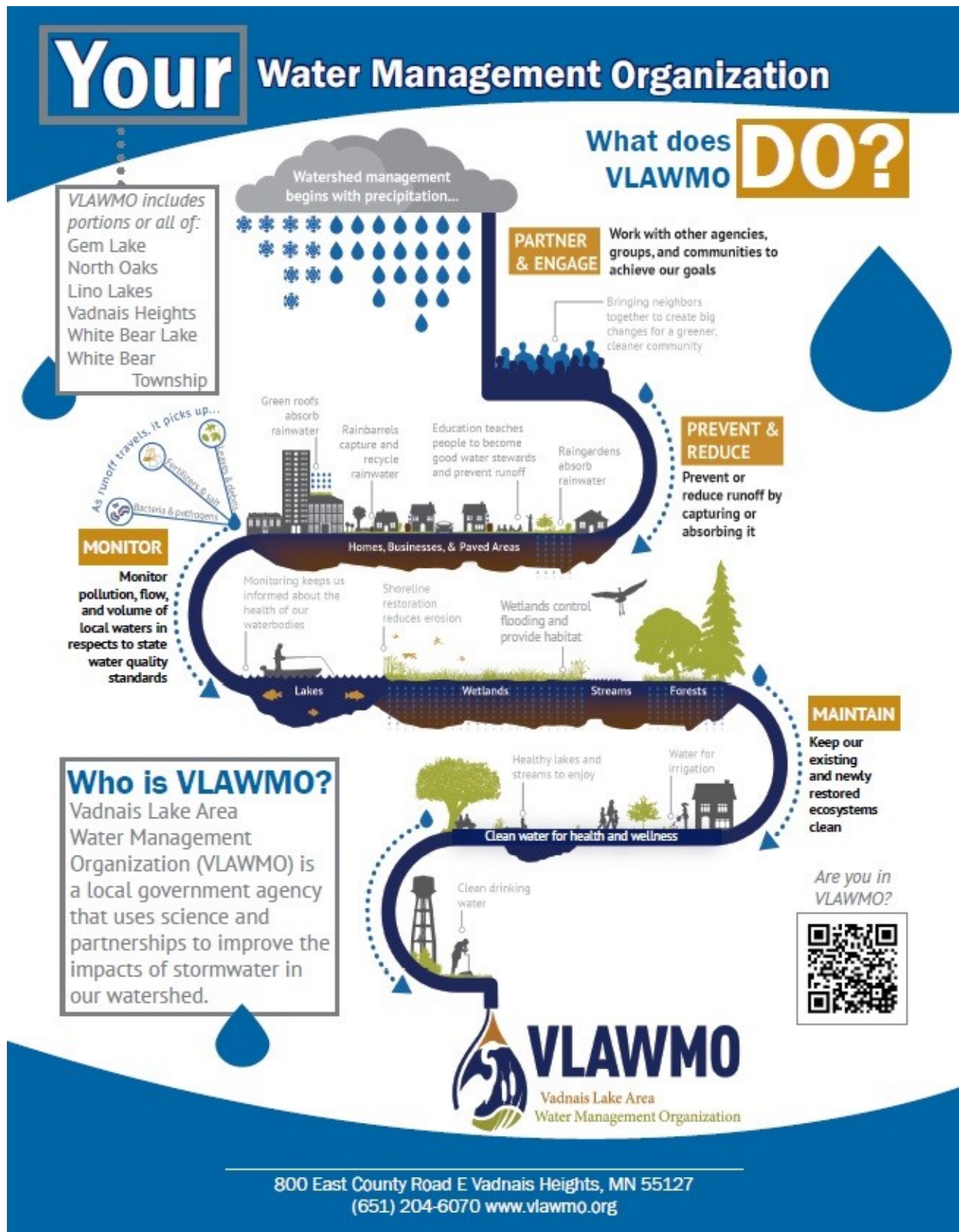
Reflection consists of ongoing, annual evaluation. This evaluation allows for critique on the EOP's efficiency as well as relevancy to VLAWMO's mission. Adjustments are to be made accordingly.

Figure 2: EOP Layout



Sample VLAWMO infographic

Figure 8: Sample VLAWMO infographic



2.1 Desired Results

While the Water Plan's priority issues are referenced on the bottom each page in chapter two, priority issue is more specifically referenced within the text of the goals. This is because the desired results, goals, and objectives are the expanded and detailed prescriptions for priority issue #3 from the Comprehensive Water Plan: "Need for education and involvement from citizens and stakeholders." Not every goal and objective in the EOP is referenced because the EOP Portions of the EOP will support other VLAWMO priority issues and their strategies. This reference is included in parenthesis after objectives with "PI".

On the bottom of each page of section 2.2 are the challenges and barriers that coincide with each goal. Additionally, each goal lists applicable desired outcomes, external supports, and outreach tools. Outreach *methods* and *tools* are both used flexibly according to the situation at hand. The *methods* inherently apply to each goal, while the *tools* are more likely to be implemented with a particular goal. Outreach *tools* are therefore listed as corresponding with the following goals.

"Through the EOP, VLAWMO desires to..."

1. Have a citizenry that's knowledgeable and aware of responsible natural resource use.
2. Observe citizens demonstrating watershed protection behaviors.
3. Observe trained volunteers educating citizens.
4. Confirm that MS4 partners are collaborating, using resources, and meeting state requirements to the best of their ability.
5. Have programs and partnerships that foster education and participation that build on the interests and abilities of VLAWMO residents.
6. Observe evidence that VLAWMO residents are aware of actions being taken to address VLAWMO's priority issues.



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 and are identified by letters.

Professional Support

Goals

1. VLAWMO provide assistance in MS4 permitting
 - A. VLAWMO will document at least three instances annually when a City was able to benefit from a VLAWMO project in their MS4 permitting and reporting.
 - B. VLAWMO will provide at least one educational storm water support effort to each MS4 annually: Guest speakers, forums, trainings, presentations, or written guides. A minimum of 12 attendees representing both public and private sectors will be the result of this effort.
 - C. VLAWMO will inform MS4's of the advantages of adequate permitting in the case of being audited.
2. Improve city-to-VLAWMO communication in the MS4 permitting process
 - A. VLAWMO will keep an ongoing list of MS4 needs, opportunities in terms of water resource management, and points of follow-up for each of the cities in it's boundary.
3. Key personnel will continue to advance their knowledge of water and related natural resources
 - A. At least 75% of the board and TEC will attend one or more VLAWMO educational events annually.
 - B. VLAWMO will provide an enrichment education opportunity to board and TEC members. 2 board meetings and 3 TEC meetings annually.

Barriers

- 1.A. Meeting the wide variety of circumstances that each MS4 brings. Providing consistency yet adjusting according to city staff size, city capacity, and city needs
- 1.B. Working within the confines of staff and city funding
- 2.A. Maintaining clarity between a complex network of professional entities, each with independent roles and responsibilities
- 3.A. Keeping high engagement and involvement levels with volunteer-based Board and TEC
- 3.B. Scheduling educational activities and trainings in the midst of busy schedules
- 3.B. Finding topics and issues that are of interest and engaging for board and TEC enrichment education.

Desired outcome: #4, 5

Priority issue: #3

Sub-watershed: all

Target audience: MS4 partners, key personnel

Tbilisi education category: knowledge

Maslow's need: #1

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

2.2 Goals and Objectives

Formal Education

Goals

4. Provide place-based watershed education that applies to multiple age demographics
 - A. In the first year of the EOP, VLAWMO will develop a curriculum kit of at least three adapted or created lesson plans focusing on place-based watershed stewardship, and will be coordinated to Minnesota STEM standards. Target 10% of the school age population per year through programs (PI 3-3-2). Adults contacting VLAWMO stating that they read a specific brochure (designed by VLAWMO) from their child's school program will be the measure of this effort: A minimum of 5 contacts annually.
 - B. In the first year of the EOP, VLAWMO will develop relationships with teachers through at least one in-person meeting that assess local teacher's needs and interests for watershed education in the classroom.
 - C. VLAWMO will provide at least three teach-in school visits annually within the WMO boundary.
5. Assist schools in establishing and maintaining educational stormwater BMPs
 - A. VLAWMO will provide at least two BMP maintenance events annually within the WMO boundary (PI 3-2-2). School feedback of what was accomplished and useful will be the result of this measure.
 - B. VLAWMO will provide schools with resources and instruction in how to maintain BMP's as needed. All schools will be informed, and two schools will contact VLAWMO for these resources annually as a result of this effort.

Barriers

- 4.A. Targeting programming into a small window of time in which school is in session as well as with favorable weather.
- 4.B. Blending VLAWMO curriculum with curriculum of both public and private schools.
- 4.C. Measuring the extent in which residential adults engage with their children's schoolwork.
- 5.A. Complications from scheduling around mandatory testing and multiple teacher's class schedules.
- 5.B. Maintaining BMP's that may be negatively influenced by the public outside of the school community.

Desired outcome: #2, 5

Target audience: Schools, Public: families

Tbilisi education category: awareness, knowledge, attitudes

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

Priority issue: #3

Sub-watershed: all

Maslow's need: #4, 5

2.2 Goals and Objectives

Informal Education and Interpretation

Goals

6. Educate community members on VLAWMO water 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 Taste of Vadnais in Vadnais Heights (PI 3-2-2). 30 new registrations for our email newsletter will result from this effort.
 - B. In the first year of the EOP, VLAWMO will expand its partnerships to include local newspapers and the local cable channel. VLAWMO will utilize these partnerships to promote a VLAWMO event or watershed instruction a minimum of once annually (PI 3-2-1). Increased website traffic will result from the effort, as this will be the primary tool to direct the public to our website instead of our social media.
 - C. VLAWMO will utilize social media a minimum of once each week to market and promote its work, utilizing methods conveyed in the Part 5 (Outreach) of the EOP. At least once annually, VLAWMO will provide a description of VLAWMO lake and stream sampling activities, summarizing the scientific findings and explaining the implications on the watershed (3-2-2). Ten new Facebook likes will be a result of the efforts, as partner cities will be asked to share and therefore spread the content to new audiences.
-

Barriers

- 6.A. Adapting and relating to the various communities at each event: some targeting kids with games, some targeting adults with live music.
 - 6.B. Creating spaces of understanding for residents that are skeptical of VLAWMO's work.
 - 6.C. Maintaining a variety of activities to appeal to a wide range of communities on a limited budget.
 - 6.C. Engaging a citizenry that doesn't know who VLAWMO is or what VLAWMO does.
-

Desired outcome: #2, 6, 7

Sub-watershed: all, Goose Lake

Tbilisi education category: awareness, attitudes, behavior

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

Priority issue: #1, 6

Target audience: Public: at large, events

Maslow's need: #4, 5

2.2 Goals and Objectives

Informal Education and Interpretation

Goals

7. Encourage community members to increase their own knowledge as well as act on watershed issues, and provide tools to do so.
 - A. VLAWMO will conduct raingarden outreach to citizens according to road maintenance in the WMO. A minimum of one street each year will be targeted for raingarden promotion with the assistance from volunteers (PI 3-2-2). Four raingardens will be installed annually as a result of this effort.
 - B. VLAWMO will provide an educational series educating residents on water resources, water-friendly lawn care, and stormwater BMP's. The series will contain videos, newspaper articles, ice-cream socials, and posters. VLAWMO will produce a minimum of three contributions from any of these methods (PI 3-3-1).
 - C. VLAWMO will host a minimum of two raingarden workshops annually, and host a shoreline restoration workshop as staff identifies the need. Workshops will promote the Community Blue Program. One Community Blue Program will be enacted each year, and three new raingardens will result from workshops.
-

Barriers

- 7.A. Gathering new interest to maintain high workshop registration for raingarden installation as well as maintenance classes.
 7. B-1. Creating spaces of understanding for residents that are skeptical of VLAWMO's work.
 7. B-2. Maintaining a variety of activities that appeal to a wide range of communities on a limited budget.
 7. C. Engaging a citizenry that doesn't know who VLAWMO is or what VLAWMO does.
-

Desired outcome: #2, 6, 7

Sub-watershed: all, Goose Lake

Tbilisi education category: awareness, attitudes, behavior

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

Priority issue: #1, 6

Target audience: Public: at large ,workshops

Maslow's need: #4, 5

Informal Education and Interpretation—continued

8. Build a VLAWMO sense of place that both fosters ecological awareness and provides a space for community reflection.
 - A. VLAWMO will plan and deliver a minimum of one annual interpretive tour of the WMO that includes description of BMP's, water issues, and local history (PI 3-3-1). A minimum of 12 attendees will be a result of this effort.
 - B. VLAWMO will organize and interpret citizen science/service initiatives for community members to participate in. At least one of the following will be updated annually: waterfowl monitoring, checking for invasive species, macroinvertebrate monitoring, pollinator monitoring, ice watch, fish kill watch, or picture posts (phenology), storm drain stenciling, etc. All resulting data will be displayed on the website and interpreted in terms of watershed health (PI 3-3-1). Calls or emails received from the community stating that they heard/read a specific brochure (designed by VLAWMO) that corresponded to one of these programs will be the measure of this effort. A minimum of five calls/emails annually.
9. Grow a volunteer base that is empowered to lead and learn.
 - A. VLAWMO will publically thank its active volunteers annually through social media, newspaper/cable TV announcements, appreciation dinners, or hand-written thank-you cards (PI 3-3-1). Twelve volunteers attending an appreciation dinner will be the result of this effort.
 - B. VLAWMO will provide at least one opportunity annually for volunteers to act as educators to their local citizens (PI 3-3-1). Two volunteers serving in this role more than once will be a result of this effort.

Barriers

8. A-1. Balancing transportation needs, convenience, safety, accessibility, and costs
8. A-2. Speaking to yard-specific watershed drainage issues, local history, and stormwater runoff to form a coherent theme for the tour.
8. B. Maintaining consistency in participation and collection.
8. B. Gathering and interpreting data that are relevant to the big picture of the watershed and VLAWMO's comprehensive water plan.
9. A. Keeping a variety of volunteers involved so that thank-you's are diverse and therefore encourage new residents to become involved.
9. B. Keeping several future volunteer opportunities on-hand to keep the volunteer program from

Desired outcome: #2, 6, 7

Sub-watershed: all, Goose Lake

Tbilisi education category: awareness, attitudes, behavior

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

Priority issue: #1, 5, 6

Target audience: Public: at large, events

Maslow's need: #4, 5

Informal Education and Interpretation—continued

10. Foster a water-focused congruency between various community groups and agendas
 - A. Within the first year of the EOP, the agencies tab on the VLAWMO website will contain a list of links to VLAWMO stakeholders (PI 3-2-1, 3-2-3). At least 30 website hits to this portion of the site will be the measure of this effort.
 - B. Notes and minutes from VLAWMO each meeting will be posted on the website for stakeholders and the public.
 - C. VLAWMO will provide an annual general summary for complex and potentially contentious issues in the watershed. The summary will be posted on the VLAWMO website, and other local venues as needed (PI 3-2-2). At least one helpful reference to this summary when working with complex issues in the watershed will be a measure of this effort.
 - D. At least once annually, VLAWMO will form a unique, creative partnership with a community group to host a watershed stewardship event, ice-cream social, film screening, or workshop. Event will combine different organization values and bring people together on the focus of water. Examples include a shallow lakes forum, storm drain stenciling, macroinvertebrate training, or community trash pick-up (PI 3-2-1, 3-3-1) A minimum of one event will be a result of this effort.
-

Barriers

10. A. Keeping the list accurate as networks and partnerships expand and change.
 10. B. Maintaining consistency and timeliness in postings
 10. C. Keeping a neutral tone while striving to be first and foremost educational. Use summaries to build comradery, understanding, and initiative for our water resources.
 10. D. Consistently creating new partnerships while still maintaining previous partnerships.
-

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

Maslow's need: #4, 5

TARGET AUDIENCES & STAKEHOLDERS

3.1

Target audience and stakeholder identification

Table 4: Target audiences

Target audiences	
Public ¹	Lake associations
Schools	Home owner associations
Community groups ²	Volunteers ³
Businesses	Developers
Churches/religious groups	
MS4 Partners: 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

Stakeholders			
Saint Paul Regional Water Service (SPRWS)	MN Department of Transportation (MNDOT)	Conservation Minnesota, H ₂ O for Life	City of Gem Lake
Ramsey Conservation District, 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	U.S. Army Corps of Engineers	Metro Watershed Partners	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)	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

Target audience/stakeholder overlap		
Homeowner associations	Cities and municipalities	Community groups
Lake associations		Public at large
Volunteers ³		Key personnel ⁴

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 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: Stakeholder 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 situate the goals and objectives into a balanced work load. Tactics arise from the strategy levels, and become the tangible vessel in which to carry out the goals and objectives within a particular strategy.

Table 1: Strategies, goals and objectives, tactics

High Strategies

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

Goals and objectives: 1c, 2a, 3b, 6b, 10a, 10b, 10d

Tactic: Internal planning, stakeholder networking

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: 1a, 1b, 4a, 4b, 5b, 7a, 7b, 7c, 8b

Tactic: Community Blue, cost-share promotion, citizen science & service, school planning, 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: 3a, 4c, 5a, 6a, 6c, 8a, 9a, 9b, 10c

Tactic: Watershed Action Volunteers (WAV), events, branding, media, school visits, tours



Tactic Descriptions

Three strategy levels situate the goals and objectives into a balanced work load. Tactics arise from the strategy levels, and become the tangible vessel in which to carry out the goals and objectives within a particular strategy.

High strategies: Future program development

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

Stakeholder networking: Sharing resources and accruing knowledge through ongoing correspondence with stakeholders. Staff education, planning for future partnerships, implementing grants and events.

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.

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.

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

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

Low strategies: Action-oriented and focused on the present

Watershed Action Volunteers (WAV): The recruitment and fostering of an active volunteer group. Volunteers help plan action-oriented projects and grow VLAWMO's presence in the community.

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.

Media: Physical or non-physical messaging and promotion of VLAWMO. Social media includes internet-based outreach, while Multi-media includes TV, newspaper, and other non-internet outreach.

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.

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 Tactics to Outreach

VLAWMO divides “media” into either “social” or “multi” and uses them according to the definition of outreach methods vs. tools. This is because a large portion of VLAWMO’s residents don’t use the internet for news and information.



Table 2: 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: Outgoing and incoming correspondence.</p> <p>Email & mass email: Individual email as well as newsletters and special announcements through large-scale mailing lists using MailChimp.</p> <p>Website: Blog, news, calendar, official documents, 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: Community events coordinated by VLAWMO, cities in VLAWMO, or partnering groups.</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 for local educators.</p> <p>Branding: Giveaways, signage, or promotional items. Hats, shirts, pens, brochures, and infographics.</p> <p>Workshops: Formal teach-ins instructing raingardens or similar stormwater BMP’s.</p> <p>Fieldwork: Live interpretation of VLAWMO’s mission. Projects, class visits, and watershed tours.</p> <p>Multimedia: Non-internet newspaper/newsletter articles, videos, and photos (TV, presentations, etc.).</p> <p>Booth displays: Tools for visual or auditory representation during community events.</p>

How the objectives met the goals

Table 12: Evaluation of how objectives met the goals

	Goals				
	1	2	3	4	5
Changes in supportive materials (target audience, sub-watershed, watershed priority issue, Tbilisi, Maslow, outreach mechanisms) -if any					
Objectives: A, B, C, D					
Key event review: Successes/lessons learned					
Barriers: 1, 2, 3, 4					
Assessment of how objectives overcame barrier					
New barriers identified					
New objectives identified					
Insight as to “why water matters”					
New goals identified					

How the objectives met the goals

Table 12 continued: Evaluation of how objectives met the goals

	Goals				
	6	7	8	9	10
Changes in supportive materials (target audience, sub-watershed, watershed priority issue, Tbilisi, Maslow, outreach mechanisms) -if any					
Objectives: A, B, C, D					
Key event review: Successes/lessons learned					
Barriers: 1, 2, 3, 4					
Assessment of how objectives overcame barrier					
New barriers identified					
New objectives identified					
Insight as to "why water matters"					
New goals identified					

How goals brought about the desired outcomes

Table 13: Evaluation of how goals brought about the desired

		Desired Outcome					
		1	2	3	4	5	6
Goals	1		How goal #1 supported desired outcome #2				
	2			Blocked out if N/A			
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						

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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: _____

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

