

Vadnais Lake Area Water Management Organization Education & Outreach Plan 2017-2026

# 2020 Edition









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**

**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.

Citizen Advisory Committee (CAC): Volunteer-based program of residents who assist in advising Education and Outreach Staff, Technical Commission, and the Board of directors in programs and operations.

**Fieldwork:** Projects, or programs that VLAWMO conducts in the community, external from the 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.

**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.

**Key Personnel:** VLAWMO Technical Commission (TEC), Board of Directors (BOD), and Citizen Advisory Committee (CAC).

Master Water Stewards (MWS): Volunteer program partnership between VLAWMO and the nonprofit Freshwater Society. Volunteers selected by VLAWMO staff receive a one year training through Freshwater, complete a capstone project in the VLAWMO watershed, and engage in various volunteer activities.

**Sense of Place:** Experience and learning opportunities focused on the history and ecology of a specific place. In this case, the place is the VLAWMO watershed.

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.

**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 Committee

EOC: Education and Outreach Coordinator

EOP: Education and Outreach Plan

EJ: Environmental Justice

MS4: Municipal Separate Storm Sewer System SWPPP: Stormwater Pollution Prevention Plan PI: VLAWMO Priority Issue from Water Plan

**TEC: Technical Commission** 

WMO: Watershed Management Organization

WAV: Watershed Action Volunteers MWS: Master Water Stewards



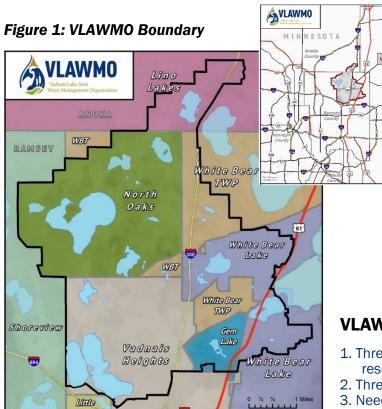
# **Executive Summary**

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 Statues, 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**



# VLAWMO's mission is

"to protect and enhance the water and natural resources within the watershed through water quality monitoring. outreach education and projects, wetland protection, a n d 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.
- 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

Canada

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.

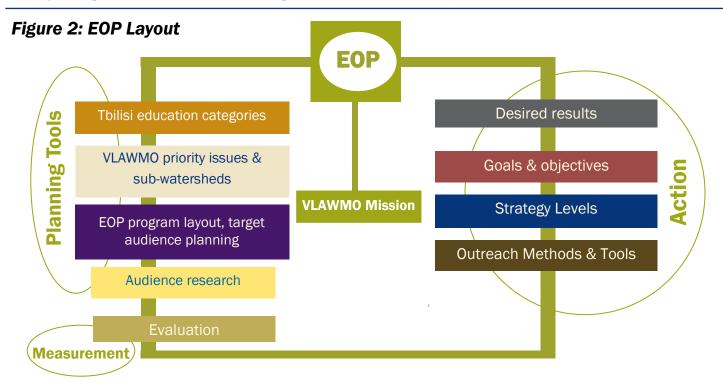


Figure 3: EOP programs and target audience layout



#### **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: Summary Professional Support

**Specifications in expanded version (p. 18-25)** 

1. VLAWMO supports its partner Cities in making progress in their MS4's.

Support and collaboration for MS4 Minimum Control Measures #1, #2, and #6.

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 in local schools.

Develop resources and supplements 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.

## **Implementation 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

#### **High Strategies**

Goals: 1, 2, 9

Tactics: Internal planning, stakeholder networking

#### **Intermediate Strategies**

Goals and objectives: 3, 4, 7 a, c, 8 a, b

<u>Tactics</u>: Community Blue, cost-share promotion, citizen science, school programing, Workshops, Watershed Action Volunteers (WAV)

#### **Low Strategies**

Goals and objectives: 5, 6, 7 b, 8 c

<u>Tactics</u>: Watershed Action Volunteers (WAV), events, branding, school visits, media, tours, supplies for rent.

**Table 2: Tactics: Outreach Methods and Tools** 

#### **Outreach Methods**

How VLAWMO carries out education and outreach.

Meeting notes/ agendas
Planning/WAV meetings
Face-to-face
Phone
Email
Mass email
Website
Social media
Events, Workshops

#### **Outreach Tools**

Planned and created content from VLAWMO staff. Tangible materials and documents.

Reports and summaries
Print materials
Curriculum
Branding
Workshop content
Fieldwork
Multimedia: articles, photo, video
Booth Displays
Education materials available for
rent

#### **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.

# INTRODUCTION

#### 1.1 Purpose



oughly 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.



#### 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, and desired results.

December, 2019: Third annual edit

#### 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.

VLAWMO Figure 1: VLAWMO Boundary MINNESOTA Lino Lakes WET RAMSEY bite Bear TWP North Oaks 61 White Bear Lake WBT White Bear TWP Shoreview Gem Vadnais Helghts White Bear 694 Lake Little Canada

# VLAWMO's mission is

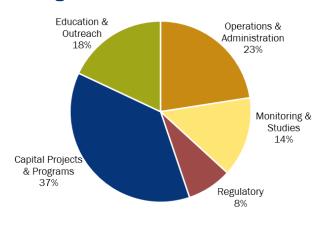
VLAWMO

"to protect and enhance the water and natural resources within the watershed through water quality monitoring, education and outreach projects, wetland protection, a n d 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.

Water flow direction

Subwatershed boundaries

Municipal boundaries

Gem Lake

Lambert Creek

Gilfillan-Black-Tamarack-Wilkinson-Amelia

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 EOP, environmental education theory is considered in the creation of the goals and objectives. Striving for results under all five of the Tbilisi categories supports long-term, perpetual results both culturally and environmentally.

#### **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



To acquire an awareness and sensitivity to the total environment and its allied problems.

#### **Attitudes**

To acquire a set of values and feelings of concern for the environment and the motivation to actively participate in environmental improvement and protection.



# **Skills**

To acquire the skills for identifying and solving environmental problems.

# **Knowledge**

To gain a variety of experience in, and acquire a basic understanding of, the environment and its associated problems.

#### **Behavior**

An opportunity to be actively involved at all levels in working toward resolution of environmental problems.

# INTRODUCTION

#### **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 VLAMWO may validate extra focus to be placed on a certain EOP program.

#### **Formal Education**

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.

# Informal Education, Interpretation & Outreach

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.

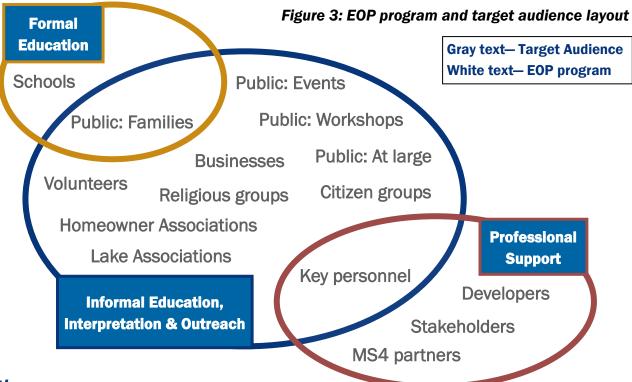
#### **Professional Support**

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.

INTRODUCTION 1.4

#### **1.4 Supportive Materials**

**End-of-year Survey:** VLAWMO staff distributes an annual review survey that reflects the initial research that was completed at the start of the VLAWMO 2017-2026 water plan. Adjustments are made each year according to the projects, issues, and local events that occurred in that year. Survey findings help plan the following year.

#### **Initial Research**

To gather essential insight from VLAWMO's community members, three surveys were conducted for the start of the VLAWMO's 2017-2026 water plan. One survey was devoted to each EOP program. Surveys assessed 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, summaries available upon request. Each survey was distributed in both hardcopy and with SurveyMonkey web service.

Community for Clean Water Survey: Written in the first year of VLAWMO's 10-year water plan 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 is distributed annually primarily online during VLAWMO community events, accompanying a booth, informational display, and other water-based educational games.

**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: 2<sup>nd</sup> (29%), Pre-K, K, 3<sup>rd</sup>, 5<sup>th</sup> (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

# INTRODUCTION 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

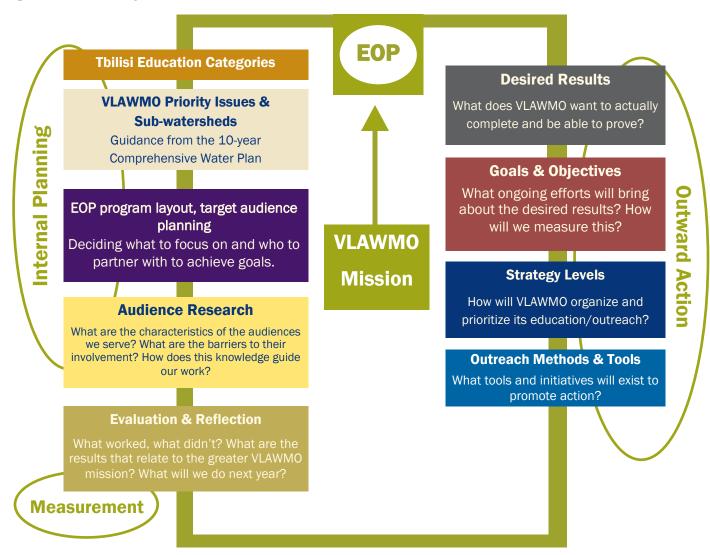
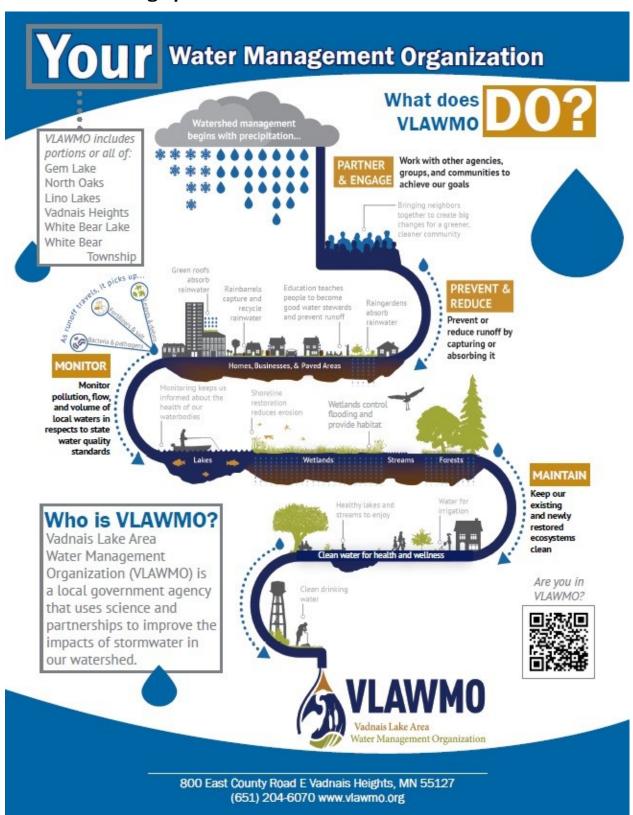


Figure 8: VLAWMO infographic



#### 2.1 Desired Results & General Outcomes

#### How is Education and Outreach Measured?

VLAWMO designs education and outreach goals as a means to accomplish specific desired results. The desired results exemplify programs, knowledge, and cultural habits that VLAWMO deems is evidence of progress in its 10-year Water Plan. Each goal has one or more measurable objectives, which are either specific tasks VLAWMO strives to complete throughout the year, or countable outcomes that represent tangible action in connection to its corresponding goal.

The goals and objectives function as the fulfillment of the VLAWMO Water Plan Priority Issue #3: Need for education and outreach. Some objectives are especially relevant to this or other priority issues. These references are included in parenthesis after the objectives, phrased as "(PI #-#-#)".

# Desired Results: "Through the EOP, VLAWMO desires to..."

- 1. Witness a citizenry that grapples with the complexity of water resources, culture, and climate change, and advocates for solutions that promote water quality improvement and long-term stewardship to local governments.
- 2. To observe citizens independently demonstrating watershed protection behaviors.
- 3. To observe resident volunteers educating their fellow citizens, supported by knowledge and skills.
- 4. To confirm that MS4 partners are collaborating, using resources, and making progress in their MS4 permits and SWPPP reports.
- 5. To have active programs and partnerships that foster participation and are relevant to residents.
- 6. To observe participation and an active pursuit of learning among key personnel and the public at VLAWMO meetings such as TEC, BOD, and CAC.

**General Outcomes:** Tangible program participation that indicates the fulfillment of the goals. Because many outreach tactics can have diverse results depending on public reception, interest, and motivation, objectives in pages 19-25 with no specified outcomes revert to this outcome pool.

- Utilize at least 75% of the budget for Landscape Level 1 and rainbarrel cost-share funding.
- Complete at least one Landscape Level 2 cost-share grant.
- Observe a minimum of 10% annual growth in adopt-a-drain volunteers, exceed 20 reported hours, 500 lbs debris
- Grow email subscriptions and social media following by 15% annually.
- Reach 200 students annually through school visits.
- 5% increase in end-of-year public survey results in knowledge, awareness, attitude, and behavior concerning water resources. Compare from previous year survey results. Measured by annual public review survey, questions #3, 7 (Appendix B, p. 37).
- Monthly phenology posts made at each picture post, at least one new participant engaging in program.
- Complete at least one Community Blue grant annually.
- At least 15 workshop and/or cost-share participants participate in two or more VLAWMO events/workshops.
- At least 5 public raingardens are adopted and annually maintained by volunteers.
- Observe at least 20 public and VLAWMO visitors at TEC/BOD meetings and Water Matters sessions annually.
- Achieve over 500 reported volunteer hours through volunteer opportunities such as leading a short-term service
  projects, citizen science, specific or custom volunteer roles, advising VLAWMO through the Citizen Advisory
  Committee (CAC), or utilizing a VLAWMO education display at an existing community event.

# **EDUCATION & OUTREACH GOALS**

2.2

# 2.2 Goals and Objectives

Annual education/outreach goals strive to achieve the long-term desired outcomes. Each goal has one or more measurable objectives for VLAWMO to track progress and identify opportunities for improvement.

# Professional Support: MS4 permit support, VLAWMO BOD/TEC

#### Goals

- 1. VLAWMO supports its partner Cities and Townships in making progress in their MS4's.
  - **A.** MS4's in VLAWMO comply with MS4 permit guidelines and seek collaboration with VLAWMO under **Minimum Control Measure #1 (Education and Outreach).** Annual required tasks include:
    - Distribute educational materials on salt use for deicing (impacts on receiving waters, methods to reduce salt use, proper storage protocols).
    - Distribute educational materials on pet waste (impacts on water quality, proper management of pet waste, permittee regulatory mechanisms)
    - Give consideration to Environmental Justice (EJ) audience
    - Document estimated audience for completed activities.
    - Additional optional actions for supporting MCM #1 and annual SWPPP report:
      - Hosting VLAWMO staff and stakeholders to facilitate The Watershed Game.
      - Hosting commission/board workshops or including presentations on meeting agendas to educate city councils and commissions on the watershed, VLAWMO programs, or low impact development (LID).
      - Watershed relevant articles and promotions in City newsletters and/or utility bills.
      - Posting announcements and information on the City web page and social media, content provided by VLAWMO. Document VLAWMO's presence at community events (Goal 5.A.)
      - Educating public on proper hazardous waste disposal, chlorinated water discharge, and who to call to report ilicit discharge (IDDE) and improper construction site runoff control. Document hazardous waste disposals.
      - Custom flyer creation in collaboration with VLAWMO regarding wetland buffers, yard waste disposal, lawn irrigation, or other watershed related topic. Collaboration in web dispersal and hardcopy mailing, with the establishment of seasonal routines and communication of tasks among staffs.
  - **B.** Each MS4 in VLAWMO will utilize VLAWMO for at least **one** project under **Minimum Control Measure #2 (Public Participation/Involvement)** Annual project options include:
    - Becoming a member of Adopt-a-Drain and working with VLAWMO for program promotion.
    - Promoting or hosting storm drain clean-up events and/or trash pick-up events. Host standalone events or integrate effort into existing city/township clean-up days and events.
    - Collaborate with VLAWMO in hosting or promoting annual raingarden, native plant, groundcover, shoreline restoration, or BlueThumb sponsored workshop.
    - Collaborate with VLAWMO in utilizing citizen leaders for reporting illicit discharge detection (IDDE) and construction site runoff infringements.
    - Documentation of annual activities including date(s), location(s), description of activities, and estimated number of participants.
  - **C.** City/Township staff attend one or more annual trainings in Smart Salting, BMP, or turf maintenance best practices. Annual progress made in **MCM #6: Good Housekeeping.**

Desired Result #4 Priority issue: #3

Sub-watershed: all Target audience: MS4 partners, key personnel

Outreach Tool(s): Print materials, workshops, multimedia, displays, supplies

# **EDUCATION & OUTREACH GOALS**

2.2

## 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, CAC**

#### Goals

- 2. Key personnel (BOD, TEC, CAC) have continued to advance their knowledge of water and related natural resources.
  - A. VLAWMO will provide two enrichment opportunities annually in the form of a supplementary presentation titled "Water Matters". Presentations will invite guest speakers on watershed related topics from the greater Twin Cities metro. Each presentation will be recorded and posted on the VLAWMO website, and the public invited.
    - 75% BOD and TEC attendance annually.
  - B. VLAWMO staff will forward relevant news and research to TEC and BOD members for supplementary learning when available. Presentation summaries made during meetings when time allows and when necessary for conveyance. Measurements for this effort fall to the general outcomes found on page 18.

Desired outcome: #1, 6 Priority issue: #4

Sub-watershed: all Target audience: Key personnel

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

#### 2.2 Goals and Objectives

#### **Formal Education: Schools**

#### Goals

- 3. Establish place-based watershed education in local schools.
  - A. **Visit each school at least once/year** for water-focused lesson and activity. Education activities are listed at vlawmo.org/students (PI 3-3-2).
  - B. VLAWMO will strive for having 3 classrooms utilize local watershed maps, lake fact sheets, or basic talking points independently of VLAWMO in support of their planned curriculum activities, such as Race to Reduce.
- 4. Schools have established and maintained stormwater BMP's while 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 with or without VLAWMO staff present.
  - B. Local teachers, school staff, or parent volunteers will use and understand the 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

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). Measurements for this effort fall to the general outcomes found on page 18.
  - 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). Measurements for this effort fall to the general outcomes found on page 18.

Desired outcome: #2, 6

Sub-watershed: all, Goose Lake

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, **10 workshop attendees will pursue a cost-share consultation visit, 5** workshop attendees from the same year or year before will complete a cost-share grant as a result of attending VLAWMO workshops.
  - B. In the past year, **4** workshop attendees will have engaged VLAWMO in ways other than the cost-share program (WAV, presentations, TEC/BOD meetings, events, etc). To find this, question #2 in the annual review public survey will capture this measure (See Appendix B).
  - 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.) A full list of strategies is listed at vlawmo.org/residents/waterstewardship/
    - Adopting a stormdrain (Adopt-a-Drain.org)
    - Adopting a raingarden (vlawmo.org/get-involved)
    - 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

Measurements for this effort fall to the **general outcomes** found on **page 18**.

D. VLAWMO will produce and publish neighborhood spotlight articles that highlight cost-share and yard-care success stories. A minimum of 3 articles will be developed annually. Measurements for this effort fall to the **general outcomes** found on **page 18**.

Desired outcome: #1, 2

Sub-watershed: all, Goose Lake Target audience: Public: at large, workshops

**Priority issue:** #1, 2, 3, 6

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

# **Informal Education and Interpretation—continued**

- 7. An appreciation of natural resources is established in the community, fostering ecological awareness, participation, and a sense of place.
  - A. Continued use of remote cameras to photograph local wildlife and use photos for educational messaging, schools, newspapers, blogs, and presentations. Measurements for this effort fall to the **general outcomes** found on **page 18**.
  - B. VLAWMO staff will host at least 1 Frog and Toad call education event annually. Measurements for this effort fall to the **general outcomes** found on **page 18**.
  - C. VLAWMO will produce and publish an article series titled 'Faces of Wetlands', featuring ecological knowledge on wetland wildlife while relating it to a local sense of place.

    Measurements for this effort fall to the **general outcomes** found on **page 18**.
  - D. VLAWMO will organize and interpret citizen science/service initiatives for community members to participate in. These include LeafPack macroinvertebrate monitoring, pollinator monitoring, or picture posts (phenology). 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. Coordinate an active 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) (PI 3-3-1). **A minimum of five volunteers will act as educators to their local citizen peers annually.**
  - **B.** VLAWMO plans out annual projects for the Watershed Action Volunteers (WAV) with volunteer and CAC input. Activities for 2020 include: Neighborhood BMP tour, Leaf Pack Macroinvertebrate monitoring at four sites on Lambert Creek, Shoreline restoration open house, native plant swap, raingarden maintenance. **All five 2020 volunteer events completed.**
  - 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 for Scouts and community groups, a water-friendly carwash kit, and promotion of Adopt-a-Drain and Adopt-a-Raingarden programs. Measurements for this effort fall to the **general outcomes** found on **page 18**.
  - D. Trained volunteers will help monitor the status of Aquatic Invasive Species (AIS) in the watershed. VLAWMO will partner with the Ramsey County Soil and Water Conservation Division to host volunteer trainings. One trained AIS volunteer will report and monitor at least once on each lake in VLAWMO annually.

Desired outcome: #1. 2. 3 Priority issue: #1, 5, 6

Sub-watershed: all, Goose Lake Target audience: Public: at large, events

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

# **Informal Education and Interpretation—continued**

- 9. A watershed 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. 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. Examples include a shallow lakes forum with a homeowner association, a youth leadership event with local congregations, 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)
  - C. VLAWMO will produce and submit at least 10 newspaper articles annually. Measurements for this effort fall to the **general outcomes** found on **page 18**.

Desired outcome: #5 Priority issue: #1, 5, 6

Sub-watershed: all, goose lake Target audience: Public: At large

# Barriers: What challenges will be faced when pursuing the goals?

- 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 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, they must compete with many more news stories, email distributions, advertisements, and social functions. This inundation of information has the potential to turn community members off to watershed education and messages.
- 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. 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. Perceived complexity, intimidation, or conflict concerning water management. The notion of not being an expert may inhibit some from pursuing actions or policies that strive to improve water quality. Education focused on new behaviors regarding land use and watershed connectivity may also reveal differences in attitudes, norms, and priorities. Gridlock, conflict, or disengagement may occur when these differences require cultural, political, or social reflection within the discussion. Such reflection demands a degree of voluntary personal interest and a receptiveness to difference, which can vary. Potential reflective topics include land use and water use, climate change, private property ethics, or yard care routines.

# **TARGET AUDIENCES & STAKEHOLDERS**

Target audience and stakeholder identification

Table 4: Target audiences

Target Audiences/Stakeholders				
Public <sup>1</sup>	Lake associations			
Schools	Home owner associations			
Community groups <sup>2</sup>	Volunteers <sup>3</sup>			
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 Par					
Saint Paul Regional Water Service (SPRWS)	MN Department of Natural Resources (DNR)	Conservation MN, Blue Thumb, H₂o for Life	City of Gem Lake		
Ramsey Soil and Water Conservation Division, Ramsey County, Tamarack Nature Center	Freshwater Society	Washington Conservation District (East Metro Water Resource Education Program)	City of North Oaks		
Anoka Conservation District, Anoka County	Watershed Partners/ Hamline University, Adopt-a- Drain.org	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, MN Department of Agriculture	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	Community groups			
Lake associations	and Townships	Key personnel <sup>4</sup>			
Volunteers <sup>3</sup>		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 form the community for clean water survey, which can be found in the appendices section.

<u>Table 8:</u> 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.		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 Why does water matter Audience 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

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?	Methods and tools 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, print materials, citizen science, WAV, website, displays, citizen science	Informal ed. 5-9
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, Community Blue, curriculum	Formal ed. 3, 4
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, fieldwork	Informal ed. 5, 6
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, fieldwork	Informal ed. 5, 6, 7, 9
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. 5, 6, 7, 9
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. 5, 6, 7, 9
Volunteers (WAV)	Exceptional understanding of watershed processes as well as current needs. Exceptional knowledge of VLAWMO's processes and current work.	Proactively advocate for VLAMWO 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, supplies	Informal ed.
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
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, website	Prof. support

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 Soil and Water, 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	Metro Watershed Partners/ Hamline University, Adopt-a- Drain.org, Freshwater Society, Blue Thumb, Conservation Minnesota, Northland NEMO, H <sub>2</sub> O for Life	Civic engagement, resources in education, programming, and state environmental issues.	Provides programs to reach out to the public to protect and enhance environmental quality. Resources and tools for public engagement.	Creative partnerships where missions align, workshops, sharing of advocacy materials and resources. Email, phone
Local	Schools, 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

# IMPLEMENTATION STRATEGIES

# **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: 1c, 2a, b, 5c, 6d, 7a, c, 9a, c

**Methods & Tools:** Internal planning, office communication stakeholder networking, relationship building, original content development.

# Intermediate Strategies

A segue between long and short term results, requiring intentional planning yet produces tangible results. Includes internal relationships and networking.

Goals and objectives: 1a, b, 3a, b, 4a, 6b, c, 7d, 8a, b, d

Methods & Tools: Community Blue, watershed steward award, cost-share promotion, Watershed Action Volunteers (WAV), Citizen Advisory Committee (CAC) Master Water Stewards (MWS), school planning, workshops, citizen science and service.

## Low Strategies

The fun and most visible aspects of outreach, oriented toward physical things, individual events, and short-term actions.

Goals and objectives: 4a, 5a, 6a, 7b, 8c, 5b

**Methods & Tools:** Short-term WAV events (stormdrain clean-up, renting education displays, Adopt-a-Drain, Adopt-a-Raingarden), branding, media, school visits,

presentations, tour, nature awareness.

4.0

Three strategy levels organize the goals and objectives into a balanced and self-perpetuating education program.

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

**Internal planning:** Communications, branding, 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.

Watershed Steward Award: Peer-nominated acknowledgement of watershed leadership.

**Workshops:** Formal instruction and training on watershed topics such as raingardens, shoreline restoration, wetlands, or citizen science.

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

Watershed Action Volunteers (WAV): The recruitment and fostering of an active volunteer group. Formal volunteer positions and Citizen Advisory (CAC) members are designed and filled annually, in addition to a serving as a host site for the Master Waster Stewards program.

Master Water Stewards Community Leadership for Clean Water

Citizen science and service: Volunteers, community groups, or school groups gathering ecological data in the watershed or engaging in service projects. Service projects include trash pick-up or raingarden/BMP maintenance. The citizen science program includes LeafPack macroinvertebrate monitoring and phenology picture posts. Descriptions of these projects are available at: leafpacknetwork.org picturepost.unh.edu.





# 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:** Booth set-up, educational event (videos, ice cream social, etc.) or open house that occurs in the watershed or targeting watershed constituents.

**Short-term volunteer:** Adopt-a-Drain, Adopt-a-Raingadren programs and promotion. Description at adopt-a-drain.org.





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

Nature awareness: The public at large being aware of watershed natural resources. Remote cameras, original staff wildlife and wetlands articles, and phenology picture posts. Non-volunteer public interact with and learn from the content generated from these efforts, each effort contains opportunities and invitations on how to be more involved in supporting the watershed.

OUTREACH 5.0

#### **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 Strategies to Outreach Methods and Tools

# **Strategies**

Internal planning, stakeholder networking

Community Blue, Watershed steward award

Workshops, school planning, cost-share promotion

Citizen science & service

Watershed Action Volunteers (WAV, CAC, MWS)

Watershed tours, school visits

Events, branding, media, nature awareness

#### **Outreach methods**

Capacity-building outreach catered to high and intermediate strategy levels.

#### **Outreach tools**

Action-oriented and tangible outreach catered to intermediate and low strategy levels.

#### **Outreach Methods**

Meeting notes/agendas: Summaries of the decision-making and dialogue that occurs in VLAWMO TEC and BOD meetings.

Face-to-face: Any in-person communication.

Phone: Incoming and outgoing calls.

**Email & mass email:** Individual email as well as newsletters and special announcements through mass mailing lists using MailChimp.

**Website:** Blog, news, calendar, reports, and relevant information to be posted and updated on www.vlawmo.org.

**Social media:** Facebook, Twitter, and blog usage. See Appendix B—social media policy. Used for process-building, distinguished from multimedia.

**Events and Workshops:** Community events coordinated by VLAWMO, cities in VLAWMO, or partnering groups, workshops led or hosted by VLAWMO.

#### **Outreach Tools**

**Reports/summaries:** Annual reports and spotlight summaries of certain VLAWMO programs.

**Print materials:** Educational and promotional prints.

**Curriculum:** Lesson plans, materials, and resources focused on the VLAWMO watershed.

**Branding:** Giveaways, signage, or promotional items. Hats, shirts, pens, brochures, and infographics.

**Workshops:** Formal teach-ins instructing about raingardens, yard care, or similar BMP's.

**Fieldwork:** Volunteer projects, class visits, tours, adopt-a-drain, adopt-a-raingarden, other events.

**Multimedia:** Non-internet newspaper/newsletter articles, videos, and photos (TV, presentations, etc.).

**Displays:** Tools for visual or auditory representation during community events.

**Supplies:** Materials for rent to foster education and volunteer engagement (see page 33).

OUTREACH 5.0

## **Outreach Tools: Supplies**

VLAWMO has a variety of tools, displays, and materials that are available to the public. Watershed Action Volunteers help present them to the community in various social circles and organizations, but materials are also available to all. The supplies help support short-term volunteering and work well for scouts, students, and congregations in completing service hours. Posted at vlawmo.org/get-involved.















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

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

7	=	Goal for next year

	EOP Desired Outcome						
		1	2	3	4	5	6
Professional Support	1						
Profe Sup	2						
Formal Education	3						
	4						
ation	5						
' Interpret	6						
Informal Education / Interpretation	7						
Informal	8						
	9						

# **EVALUATION**

# How goals and their underlying objectives supported the VLAWMO Priority Is-

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

🐈 = Goal for next year

VLAWMO Priority Issue								
	1 2 3 4 5 6							
pport	1	180 salt cups given out, 1 smart salting workshop.			Outreach and correspondence with 3/5 MS4s			
Professional Support	2				Survey to stakeholders—5 responses			
Profess	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					
Formal	5						3 school BMP maintenance events	
	6	7 community events, 93 registrations for our email list				2 partnership programs— North Oaks phenology, GTN cable TV		
/ Interpretation	7	3 educational tools created – posters & videos					1 community blue grant program	
cation / Inte	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	
Informal Education	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: Annual Public Survey**

## 2019 VLAWMO Review

Each year VLAWMO evaluates its education and outreach effort in hopes to improve it for better outreach in the future. Your feedback is greatly appreciated and will allow us to work together to build fun, relevant,



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and effective ways to	prot	ect o	ur W	ater.	(651) 204-6070		
1. Where did you see VLAWMO in 2019? (circle any/all)  None Facebook Local newspaper Email Newsletter					5. What's your impression of VLAWMO's 2019 education materials? (circle any/all) Review at survey booth or with online survey link at VLAWMO.org/news		
Twitter Instagram City Snail mail Neighborhood newsle VLAWMO websit	etter		eting/a	agenda oth	Just right Too much jargon Confusing Too long/too many words Compelling Interestin Other:  6. What inspires you to take action? (circle two MAX)		
2. What VLAWMO initiatives we 2019?	1,035	ircle a	ny/ali	1)	Understanding the problem Something urgent Facts A clear result Improving the environment Something affects you personally Seeing others participate		
Adopt-a-Drain Swans & lead Lake studies  Whitaker Treatment Wetlands Wildlife Remote Cameras Goose Lake efforts Water monitoring					7. How familiar are you with local water?  Issues/topics/quality (circle one)  Not at all Maybe a little Average Above average Expert		
Remote water monitoring on Lambert Creek Tours					1 2 3 4 5		
Raingarden maintenance Workshops	/pres	entati	ons		8. What would you like to see in 2020? (circle any/all)		
Project construction (raingarden/native restoration)	plant	ts/sho	oreline	e	Projects Volunteer opportunities Information other:		
Awareness of local water issues: 1	(c 2 2	ircle a	any/ali 4 4	1) 5 5	9. Hypothetically, what are you willing to do for the watershed in 2020? (circle any/all) Improve lawn care practices Volunteer Adopt-a-Drain Learn more and be engaged with my City/Township other:		
Attitude towards lakes/wetlands: 1 Behavior/habits around water: 1	2	3		5 5	10. Which of these is most important to you?		
4. What VLAWMO initiatives do	you	thin	k are	most			
important for water resources?	(circle	three	MAX)	)	wildlife habitat wetland conservation pollinators		
Adopt-a-Drain Swans & lead		Lak	e stud	dies	stormwater runoff other:		
Whitaker Treatment Wetlands Bo	icktho	orn rei	moval				
Wildlife Remote Cameras Goos	e Lak	e effo	rts		Thank you for taking our survey! To be eligible for winning a free rainbarrel, please leave your name, email, and		
Water monitoring Remote water maintenance Workshops/presentatio		itoring	g Rain	garden	address below. Must live or work within VLAWMO's		
Project construction (raingarden/native plants/shoreline restoration)					Address (home/work):		
Other:					Email:		
	8 8	100	32		☐ Sign me up to receive seasonal updates and info on VLAWM		

# 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 programing for students.



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userur programmig for students.	
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?  Stormwater Pollinators Watersheds The water cycle Plants The food chain  Other:	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
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	9. What barriers might prevent you from covering watershed topics in your class? (circle any/all) Time constraints   Lack of materials   Lack of expertise
Practice of Science Practice of Engineering Interdependence Structure & Function Systems Inquiry Society's Influence	Other:
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 H <sub>2</sub> o for Life MinnAqua Other: None	(list name and date)
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	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:

# 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 programing for local municipalities and MS4 holders.



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userui programing for local municipalities and MS4	noluers.		
How often do you focus on stomwater     in your regular workload? (circle one)	6. What is your opinion on the maintenance of yo agency's stormwater infrastructure?		
Daily Weekly Monthly	(circle any)		
A few times each year	Excellent Could use some maintenan		
A ton amos cash your	Could use considerable maintenance		
2. How often does your department conduct	Neglected		
formal training in stormwater permit regulations?	7. What barriers prevent you from engaging in MS		
Daily Weekly Monthly	improvements? (circle any)		
	Other needs take priority Funding		
A few times each year	1913 September 1918 September 1918 September 1918 September 1918		
3. Which education method(s) work best for you?	Difficulty in planning		
(circle any)	Not sure of a direction to take		
Brochures Training and demonstration videos	Other:		
Articles Demonstration photos	8. In the past year, what MS4 initiatives have you taken? (list)		
Single-event workshops Workshop series			
Attending meetings with qualified professionals			
Other:			
4. Which regulation activities do you need			
assistance with? (check any)	What resources have you utilized for MS4 information, assistance, or examples? (list)		
☐ Public education and outreach	information, assistantee, or examples. (list)		
☐ Public participation			
☐ Illicit discharge detection and elimination			
Construction site stormwater runoff control			
☐ Post construction stormwater management	10. As your WMO, how can we help you? (list)		
Pollution prevention and housekeeping in			
municipal operations			
5. Which of the following are beneficial to			
improving your MS4 reporting?			
(check any)	Thank you for taking our survey! Please leave yo		
☐ Staff maintenance best practices	name, position, and department to assist our analysis.  Name:		
☐ Machinery and operations best practices			
Updates on the latest technology	Position:		
Updates on state policies	Department:		
☐ Public engagement best practices	Email:		
Other:			

# **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

#### 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.

#### 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

#### 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