**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. Adequate capability to meet goals and accomplish strategies requires data, analysis, financing, and administrative capacity

5. Invasive and exotic species infestation

6. Localized flooding

**PRIORITY ISSUES, GOALS & STRATEGIES**

**1. Threatened and impaired surface water and natural resources**

Gem Lake, Goose Lake (East & West), Wilkinson Lake, Gilfillan Lake, Pleasant Lake, Tamarack Lake, West Vadnais Lake, and Lambert Creek are listed on the MPCA’s Impaired Waters List. VLAWMO will perform activities and provide support to our partners to work towards delisting of these water bodies. Several high-value water resources within VLAWMO also require protection to maintain existing water quality.

***Goal 1-1: Delist all impaired waters within VLAWMO***

Strategy 1-1-1: Target three impaired waters in accordance with subwatershed plans and schedule implementation activities accordingly. Focus implementation dollars in the first five years on targeted resources with the intent of delisting. This allows for organizational adaptation to larger projects and achieves successes early on in the plan to lay the groundwork for the remainder of the planning period.

Strategy 1-1-2: TMDL studies show internal load management is necessary to meet in-lake water quality goals for some lakes (East & West Goose Lake for example). Conduct internal load management feasibility studies to identify strategies in accordance with subwatershed plan schedule.

Strategy 1-1-3: Use the annual evaluation process to organize funding, technical and staff resources in line with the schedule set forth subwatershed plans. Identify gaps in funding, technical and staff resources and set a plan to fill those gaps (e.g. grants or additional revenue, additional staff capacity, consulting services).

Strategy 1-1-4: Support the MS4s in achieving their identified Waste Load Allocations (WLAs). Offer technical support, education, and cost share funding for BMPs identified in the subwatershed plans and TMDL Implementation Plan. Conduct annual meetings or other communications with MS4s to identify opportunities, develop action items, assign roles and evaluate progress annually.

Strategy 1-1-5: Support watershed load reductions prescribed in TMDL studies by providing stormwater management program assistance for local government agencies with development review authority to meet their regulatory requirements (NPDES/SWPPP), and the goals identified in their Local Surface Water Management Plans. Meet or communicate with MS4s at least once per year to identify opportunities and gaps where VLAWMO can provide support through education programs, cost share, and technical support. Checklist of communication topics includes:

* Discuss MS4 concerns and issues regarding natural and water resource protection and restoration and identify strategies for VLAWMO to assist MS4s where consistent with Priority Issues.
* Develop and implement a coordinated communications schedule with each MS4 to support mutually beneficial messaging surrounding water and natural resource protection.
* Coordinate consistent stormwater management standards, such as MIDS, across the watershed.
* Identify cost share prioritization areas.
* Review capital projects lists for the MS4 and for VLAWMO to identify coordination and cost share opportunities.
* Annually evaluate progress towards implementing these action steps, report and adjust resources as necessary.

***Goal 1-2: Provide for no net loss of wetland function and value within the watershed.***

Strategy 1-2-1: Continue to administer the Wetland Conservation Act rules as the local government unit.

Strategy 1-2-2: Locate optimal wetland restoration sites and restore degraded wetland values with a plan for maintenance. Pursue partnerships to assist with funding, monitoring, maintenance or other activities. Restoration of mitigation sites may be considered.

Strategy 1-2-3: Establish a wetland monitoring program, using MNRAM or similar tool, on targeted wetland complexes within the watershed on a five year rotational schedule. Conduct a map review to prioritize and schedule monitoring by January 1, 2018. Major wetland complexes may include Tamarack-Rotary Park, Birch Lake complex, Rice Lake/Sobota, Lambert Lake, Gem Lake, Greenhaven complex, Sucker complex, Gilfillan-Black complex, Long Marsh-Charley Lake, Pleasant Lake complex, Wilkinson-Deep Lake complex, and Amelia Lake.

Strategy 1-2-4: Evaluate options for buffer requirements in the context of emerging requirements and VLAWMO Priority Issues. Identify a buffer strategy, whether this is to implement buffers or to leave this to other agencies. Continue to follow VLAWMO wetland standards as established in the 2007 Water Plan and located in this plan under Appendix ***XX***.

***Goal 1-3: Demonstrate stable or improving water quality trends in all VLAWMO lakes and streams by 2026.***

Strategy 1-3-1: VLAWMO will continue its water quality monitoring. Monitoring results will be reported to the State and member communities annually and used to guide water quality efforts within the watershed.

Strategy 1-3-2: For VLAWMO impaired waters, monitoring will focus on identifying and tracking trends. VLAWMO will review monitoring results and share this information with MS4s during annual communication to identify opportunities for achieving waste load allocations.

Strategy 1-3-3: Annually evaluate monitoring program and adjust course as necessary.

Strategy 1-3-4: Develop and implement Sustainable Lake Management Plans for each major lakes within VLAWMO by 2026. Update SLMPs every 10 years. Table XX gives the timeline.

***Goal 1-4: Implement statutory requirements as a Public Drainage System for Lambert Creek (CD 14)***

Strategy 1-4-1: Review requirements under 103E and establish a schedule with roles to implement statutory requirements.

Strategy 1-4-2: VLAWMO will continue to manage Lambert Creek (County Ditch 14) public drainage system.

Strategy 1-4-3: VLAWMO will play a lead role in the implementation of the State Buffer Initiative through regulatory, outreach, and cost share programs.

Strategy 1-4-4: Evaluate the opportunities to integrate water quality management with all elements of drainage system maintenance and operation and implement where possible. Establish a schedule and goals.

**2. Threatened or impaired groundwater quality and quantity**

WMOs are statutorily required to consider groundwater as it relates to surface water and their protection in their Water Plans. VLAWMO’s general approach to integrating groundwater into the Plan is to complement the extensive work in groundwater resource protection already underway by State and Local governments and to use its unique abilities and authorities to support these efforts. VLAWMO will prioritize those efforts that provide the largest cost benefit in terms of surface water quality improvement.

***Goal 2-1: Support MS4s in implementation of shallow groundwater recharge which benefits surface water quality/ recreational uses.***

Strategy 2-1-1: While the infiltration of the first 1.1” of runoff will be the minimum requirement, VLAWMO will maintain cost share and technical support programs to promote infiltration projects above that rate.

Strategy 2-1-2: VLAWMO will document the number of acres converted from standard turf grass to native landscaping per year via GIS. VLAWMO will track this information through grant application forms and provide this information to the MS4s to support MS4 permit compliance.

***Goal 2-2: Support conservation of deep groundwater typically used as drinking water supplies through the use of LID practices on new and redeveloped property.***

Strategy 2-2-1: To reduce runoff and the need for irrigation, VLAWMO will implement cost share and technical assistance programs to promote infiltration, raingardens, and conversion from turf grass to native prairie and stormwater capture and reuse.

***Goal 2-3: Enhance education and communication on the use of groundwater and increase the focus on water conservation. Improve the understanding and management of water use by those with private wells as well as those not currently required to hold DNR appropriation permits. Develop conservation and water use goals for various users that can be measured and enforced.***

Strategy 2-3-1: Coordinate with partner organizations to publish groundwater education materials through social media, community events, and other venues, multiple times per year. These measures are further described in the communications plan.

Strategy 2-3-2: Work with partner communities to address a method of consistent testing of private drinking water wells within VLAWMO.

Strategy 2-3-3: Work with North and East Metro Groundwater Management Areas to implement identified protection strategies. Attend meetings, report to Board, Staff and TEC. Develop task list as necessary and assign roles. Evaluate annually.

**3. Need for education and involvement from citizens and stakeholders**

An important aspect for sustainable watershed resources is delivering programs that are effective in changing people’s behavior. Communication, education and participation are vital to this effort. Education and participation build knowledge and understanding of natural resource systems and issues, which creates personal connections and drive active stewardship and engagement. We will use strategies that address behaviors relating to our priority issues and become the “go-to” organization within the watershed for water and natural resource protection and improvement.

***Goal 3-1: Evaluate priority concerns and goals for the best education and involvement opportunities annually.***

Strategy 3-1-1: Select one significant stakeholder behavior related to each of the priority concerns and goals and identify the barriers and behaviors involved. Develop educational and outreach strategies for behaviors. Re-evaluate every 2 years.

Strategy 3-1-2: Develop and implement an education program plan based on priority concerns and goals by December 31, 2017. The plan will examine partnership opportunities and gaps in existing metro watershed education programs.

***Goal 3-2: Support MS4 partners in implementation of their MS4 permits through VLAWMO’s Stormwater Pollution Prevention Education Program.***

Strategy 3-2-1: Improve stormwater guidance and information. Develop and implement NPDES and MS4 information and documents to assist municipal compliance. Assist MS4s with regulatory questions and information. Collaborate with local governments in achieving a consistent and streamlined municipal education program to meet MS4 requirements. Develop and facilitate MS4 staff trainings for best practices and compliance as required, including knowledge and implementation of BMPs.

Strategy 3-2-2: Conduct meetings at least annually with MS4 stakeholders to assess their needs and opportunities for collaboration on water resource management.

***Goal 3-3: Implement the strategic communications plan.***

Strategy 3-3-1: Coordinate partnerships with governmental entities and diverse stakeholders to maximize effectiveness and eliminate gaps in communication and education. This will be addressed through annual communications with our MS4s and timely communication with other stakeholders.

Strategy 3-3-2: Be a resource to residents, business owners, and developers by providing permit information and requirements related to water and natural resources.

***Goal 3-4: Continue to implement programs and activities that engage the general public.***

Strategy 3-4-1: Continue to implement citizen-based science programs and volunteer opportunities which may include CLMP, WAV, Community Blue, Dragonfly Monitoring Program and/or others as opportunities are identified. Programs should focus primarily on water quality benefits, though secondary habitat benefits that can be easily incorporated and support engagement may be included.

***Goal 3-5: Evaluate communication plan implementation, calendar and messaging annually.***

Strategy 3-5-1: Publish an annual report to meet regulatory requirements. Reports shall include the resource and plan progress report cards. The report will indicate load reductions for MS4s where possible. The report shall contain results of annual meetings with MS4s.

**4. Adequate capability to meet goals and accomplish strategies requires data, analysis, financing, and administrative capacity**

VLAWMO needs adequate resources to achieve its goals. Providing a solid Plan, sufficient administrative and staff support, and the necessary data and tools is a main element of this Plan. While the financial needs of the plan are quantified and funding sources for core functions and most of the high priority projects and programs are identified, the Plan also includes some larger goals for projects and programs as they relate to individual resources.

**Goal 4-1: VLAWMO will have adequate resources to address our priority issues.**

Strategy 4-1-1: Continue to operate a robust data collection program to support assessment of progress towards goals by taking a broad-based approach to assessing water quality and water quantity conditions and trends in the lakes and streams of the watershed over time. Prioritize baseline monitoring.VLAWMO will publish an annual water quality monitoring report by December of each year.

Strategy 4-1-2: SLMPs will be written and updated (see table XX) to assess lake and drainage area conditions and include such things as land use and vegetative cover, as well as water quality data.

Strategy 4-1-3: Minimize overlap with other agencies in providing services.

Strategy 4-1-4: Evaluate job descriptions and needed qualifications and training for staff every 5 years or at employee turnover to ensure consistency with VLAWMO’s needs.

**5. Invasive and exotic species infestation**

There is a high level of interest and concern over AIS throughout Minnesota. While VLAWMO’s main focus is surface water and natural resource protection, we recognize our work is complementary to the efforts already initiated by other governments and watershed partners. We seek to support activities already underway by the state and local governments and to use our unique abilities and authorities to support these efforts. We prioritize those efforts that provide the largest cost benefit in terms of surface water quality improvement.

***Goal 5-1: In cases where AIS management overlaps with water quality improvement efforts, especially in shallow lakes (for example rough fish and curly leaf pondweed management), VLAWMO will look for opportunities to improve water quality as they align with the priorities of the VLAWMO Capital Improvements and Programs Plan.***

Strategy 5-1-1: Implement rough fish management (harvesting, fish migration barriers, and curly leaf pondweed treatment). These implementation activities should be tied to both the VLAWMO overall prioritization of projects and programs as well as linked to probable improvements in water quality for the resource.

***Goal 5-2: Support other LGUs and partners in AIS management.***

Strategy 5-2-1: Where appropriate, VLAWMO may act as a partner and fiscal agent to lake associations or other interest groups to manage AIS.

Strategy 5-2-2: Where appropriate, VLAWMO may partner with other agencies or lake associations to provide education on AIS. These partnerships will be described and approved by the Board and will evaluate each opportunity to ensure consistency with VLAWMO’s priorities, other goals and strategies and statutory responsibilities.

**6. Localized Flooding**

A statutory responsibility of water management organizations is prevention and mitigation of flooding. While flooding is not a primary issue in the watershed at this time, development and changing precipitation patters require watchfulness. This plan provides protection against localized flooding by relying primarily on the MS4s with development authority to ensure that development and redevelopment does not create excessive new volumes and rates of runoff that may cause downstream flooding. VLAWMO supports MS4s in these activities by providing technical assistance and through the goal and strategies below.

***Goal 6-1: Minimize flood damage to private and public property within VLAWMO.***

Strategy 6-1-1: Meet with member cities annually to assess what they need to address new flooding concerns.

Strategy 6-1-2: Collect hydrologic and hydraulic data to support needed H & H modeling by the municipalities to prevent or address flooding and water quality issues. Communicate with municipalities annually on the necessity of H&H modeling and data. Limit modeling support to only those instances where its geographic boundaries and watershed boundaries make use of VLAWMO’s unique abilities and authorities.

Strategy 6-1-3: Support floodplain management in accordance with city, state, and federal regulations.

Strategy 6-1-4: Support floodplain management in accordance with city, state, and federal regulations.

Strategy 6-1-5: Facilitate the management of intercommunity stormwater flows if necessary. No MS4s complain of flooding currently, however if flooding complaints arise that cross municipal boundaries, mediate and coordinate the necessary modeling and implementation solutions. This can include convening meetings, providing technical support, or implementation support.

Strategy 6-1-6: Use cost share programs and technical support to encourage local partners with land use authority to promote infiltration and shallow groundwater recharge where wellhead protection plans allow. Meet annually with MS4s to discuss roles and develop annual action steps. Evaluate effectiveness toward action steps annually.