

# **CARNELIAN-MARINE-ST. CROIX WATERSHED MANAGEMENT PLAN**

## **APPENDIX G**

### **Public Input Summary**

**CARNELIAN-MARINE-ST. CROIX  
WATERSHED MANAGEMENT PLAN**

**Early Agency Input**

**APPENDIX G**

**From:** [Mike Isensee](#)  
**To:** [Jeanne.Daniels@state.mn.us](#); [Karen.s.Voz@state.mn.us](#); [John.Freitag@state.mn.us](#); [Jeffrey.Berg@state.mn.us](#); [Judy.Sventek@metc.state.mn.us](#); [Jeff.Risberg@state.mn.us](#); [Beth.Neuendorf@state.mn.us](#); [Dan.Fabian@state.mn.us](#); [Michael.Kinney](#); [Karen.Kill](#); [Matt.Downing](#); [Maureen.Hoffman@co.washington.mn.us](#); [Wayne.Sandberg](#); [PHE@co.washington.mn.us](#); [Ken.Cammilleri\(k.cammilleri@ci.scandia.mn.us\)](#); [jcrotty@midconetwork.com](#); [a.hawkinson@ci.scandia.mn.us](#); [mosc@cityofmarine.org](#); [kathy.schmoeckel@stillwatertownship.com](#); [linda@townofmay.org](#); [Bryan Bear](#); "City of Stillwater - (McCarty, J Thomas)"; [clerk@cityofgrant.us](#); [Jay Riggs](#); [Angie Hong](#)  
**Cc:** [weavera@stillwater.k12.mn.us](#); [ericlindberg@q.com](#); [ketuenge50@gmail.com](#); [wajohnson23@gmail.com](#); [grand\\_ma06@msn.com](#); [storseth@galowitzolson.com](#); [Carl Almer](#); [Bobbie Law](#)  
**Subject:** CMSCWD Watershed Management Plan Update Initial 60-Day Agency Notice  
**Date:** Wednesday, March 11, 2020 10:14:27 AM

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Dear Plan Reviewer:

The Carnelian-Marine-St. Croix Watershed District (CMSCWD) will be updating its Watershed Management Plan, which is due for completion by early 2022. We are providing you and all plan reviewers with this notification of plan initiation. We look forward to working with you over for the next couple of years. To develop the best plan possible for our water resources, the CMSCWD requests the following information, as available, from you in the next 60 days relevant to the Carnelian-Marine-St. Croix Watershed District:

- Description of management expectations for priority issues
- Inventory and mapping of known flood prone areas and/or drainage issues
- Listing of relevant local or regional water resources reports relevant to CMSCWD
- Summaries of relevant local water resources management goals
- Any other water resources information deemed relevant to CMSCWD

**Please submit information by May 15, 2020** by email to Mike Isensee [mike.isensee@cmscwd.org](mailto:mike.isensee@cmscwd.org) or by mail at 21150 Ozark Ave N, Scandia, MN 55073.

You are also invited to an initial planning meeting, which will be held sometime in June or July of 2020. Please respond to the Doodle Poll (link below) **within 2 weeks** so the District can maximize participation at this meeting. We will discuss the planning process, issues and relevant information identified during the initial 60-day agency comment period, potential goals and priorities, and public input opportunities. We will send a meeting invitation after the poll closes.

<https://www.doodle.com/poll/45y9zs8x9dy5stay>

Feel free to contact me with any questions at 651-433-2150. Thank you for your help.

Best Regards,

**Mikael Isensee, CPESC**

**Administrator | Carnelian Marine St. Croix Watershed District**

21150 Ozark Ave N | Scandia, MN 55073 | ☎ (651) 433-2150

Cell: 612-839-6492 🌐 [www.cmscwd.org](http://www.cmscwd.org)

May 15, 2020

CMSCWD Board of Managers,  
% Mike Isensee, District Administrator (transmitted via email)  
Carnelian-Marine-St. Croix Watershed District  
P.O. Box 188  
21150 Ozark Avenue  
Scandia, MN 55073

Re: CMSCWD Watershed Management Plan 10 Year Update  
BWSR Upfront Input Letter

Dear Managers:

Thank you for this opportunity to provide up-front input to your plan development process. This will be an excellent opportunity for both newer and longer-term Managers to gain a common understanding of the water management issues and priorities that they will be addressing over the next 10-yrs of implementing their Watershed District (WD) plan. A good starting place is the BWSR guidance for updating metro watershed management plans that can be found on the BWSR website at: <https://bwsr.state.mn.us/metro-update>.

The WD will be preparing the plan update in accordance with Minnesota Rule 8410 (<https://www.revisor.mn.gov/rules/8410/>) and Minnesota Statute 103B (<https://www.revisor.mn.gov/statutes/?id=103B>) which give the WD both the responsibility and authority to:

- (1) protect, preserve, and use natural surface and groundwater storage and retention systems;
- (2) minimize public capital expenditures needed to correct flooding and water quality problems;
- (3) identify and plan for means to effectively protect and improve surface and groundwater quality;
- (4) establish more uniform local policies and official controls for surface and groundwater management;
- (5) prevent erosion of soil into surface water systems;
- (6) promote groundwater recharge;
- (7) protect and enhance fish and wildlife habitat and water recreational facilities; and
- (8) secure the other benefits associated with the proper management of surface and ground water.

Based on experience with both writing and reviewing WD Plan updates by far the most cost effective and successful plans are those in which the WD Managers take personal ownership in the development and subsequent implementation of the plan. Managers will want to start by asking themselves what they want their watershed to look like in ten years (or longer) and then strive for a plan that accomplishes that vision.

In general the key components of Metro Watershed Plans are: a) a comprehensive, inclusive and interactive development process during which significant effort is put into proactively identifying watershed issues/problems and priorities (note issues can vary from the need to restore impaired waters to the need to protect valued resources from threats such as development and other land use changes); b) Measurable goals that produce measurable results addressing the prioritized issues; and c) a comprehensive prioritized implementation section that addresses plan funding, and also coordinates the activities of the WD with the other stakeholders and other entities managing water and land resources in the watershed.

A few specific plan items that I want to call your attention to are identified below:

- *Inclusive Plan Development (Issue Identification and Prioritization) Process:*
  - Start with putting together a proposed plan development process and timeline. Submit the proposed process and timeline to BWSR for review and acceptance. The process should also identify what steps the WD will take if the first try does not generate the desired participation and input.
  - After requesting the early input from review agencies and other stakeholders, the WD should complete a detailed gap analysis, defining activities and regulations in the watershed relative to the requirements of MN Rule 8410, MN Statute 103B and local needs. Some questions to ask include: Who's doing what? What are the township and cities' requirements related resource protection? What is missing? Who is/will take the lead for each? Who will fund? The WD needs to provide effective oversight for the WD required activities done primarily by the cities and townships.
  - Complete a detailed self-assessment of the WD's success in implementing the previous plan and meeting the goals set in that plan. The assessment should consider the annual evaluations contained in the WD's annual reports. Another suggestion is that the WD compare the current plan's 10-yr implementation program budget against the WD's corresponding annual income and the actual annual expenditures on implementation items. If the WD's annual expenditures for each of these items is significantly out of balance (on a percent basis) the WD should determine why and make changes as needed in the new plan. For example, if the 10-yr implementation program budget is significantly greater than actual expenditures it would indicate the WD had a problem implementing its previous plan. Another useful exercise is to compare WD expenditures per tax base with that of other Metro MWO's and WD's to help determine if the WD's tax burden on residents is reasonable.
  - As required by State law, there needs to be a mechanism to gain LGU/citizen/public/other stakeholder input in the identification of issues and potential solutions during the plan update process and beyond. Be sure to document the process followed in obtaining input, assessing the input and identifying priority issues and solutions. Related to this is a recommendation to leverage the WD's participation in the Lower St. Croix Watershed 1W1P planning process for issue identification and prioritization. The plan will also need to detail the WD's participation in the Lower St. Croix Watershed Planning Partnership and 1W1P.
  - Be sure to include stakeholders such as: sporting groups, farm groups, and other conservation/environmental groups focused on the WD's high valued resources. These groups will provide opportunities for potential partners that can assist in both identifying priority issues and implementing identified projects. The stakeholder partnerships may also provide a funding source to leverage WD funds.
  - The WD should make use of the available TMDL reports and implementation plans that have been completed for WD lakes and the St. Croix River (Lake St. Croix) when identifying and prioritizing WD issues.
- *Measurable Goals:* The WD will need to set clear measurable goals with specific implementation items and measurable results. The plan will need to identify the procedure the WD will follow for evaluating the progress in meeting the established goals, which must be done a minimum of every two years. When writing both goals and implementation actions use positive action verbs like "can", "shall", "will", rather than passives verbs like "encourage", "promote", "support", "recommend", and "whenever possible".
  - The various TMDLs that have been completed for WD lakes and streams will be useful in helping the WD establish water quality goals for the next 10-years.
  - Goals will need to address both impaired waters as well as the protection of high value resources found in the WD.

- *Implementation Actions (refer to Rule 8410 for additional requirements):*
  - Prioritized Implementation Program (Capital Improvement Program). The implementation program should be clear in identifying what implementation actions the WD will accomplish in the next ten years regardless of whether or not they receive any new grant funding. The WD could then include additional, prioritized implementation activities that would be implemented if grant funds for implementation of higher priority projects are obtained.
  - If the WD is delegating implementation activities to the member LGU's the activity still needs to be clearly defined in the plan so the LGU knows what it is required to do. The process the WD will follow to provide oversight of the LGU implementation activities, including what steps the WD will take if the LGU is found to not be implementing those activities, needs to be defined in the WD Plan.
  - Include a procedure to evaluate progress on implementation activities a minimum of every two years.
  - Define the WD's process for evaluating implementation of local water plans including what actions the WD will take if the local water plans are not being implemented.
  - Define what entity is responsible for inspection, operation and maintenance of water resource management facilities in the WD. Include procedures the WD will follow to ensure these responsibilities are met if the WD is not the responsible party.
  - If the WD has or proposes an incentive type program it needs to be defined in the plan (the plan can also include a reference to WD website for more detailed information on the program).
  - The WD Plan will need to address the impacts of the Atlas 14 precipitation data on planning activities and WD standards. Related to this, it is recommended that the WD consider the need to improve the resiliency of WD resources and public infrastructure to adapt to potential climate change related issues.

Please invite me to both CAC/Public Input and TAC meetings. My priority will be the TAC meetings, but I will try to attend some of the other CAC/Public input meetings to help me better understand the issues in the WD. I can also be available to help at some of the CAC/Public Input meetings if needed.

Sincerely,

Daniel A. Fabian, P.E.  
BWSR Central Region BC

cc: Kevin Bigalke, BWSR, (via email)  
State Review Agencies and MNDOT (via email)

- John Gleason, MNDNR
- Jenifer Sorensen, MNDNR
- John Freitag, MDH
- Jeff Berg, MDA
- Judy Sventek, METC
- Jeff Risberg, MPCA
- Beth Neuendorf, MNDOT



**MNDNR Central Region**  
**Division of Ecological and Water Resources**  
**1200 Warner Road, St. Paul, MN 55106**

Date: 05/17/2018

Jim Shaver  
Administrator  
Carnelian-Marine-St. Croix Watershed District  
PO Box 188  
Scandia, MN 55073

Re: DNR Resource Assessment Letter – Carnelian-Marine-St. Croix Watershed District WMP

Jim:

This is an exciting time for Carnelian-Marine-St. Croix Watershed District as work begins on the organization's fifth generation Watershed Management Plan (WMP). This process allows time to review and update past goals, strategies, and actions, and to think through watershed district plans for the next ten years. To aid in this process, DNR has compiled this resource assessment letter to provide up-to-date information on DNR's priority issues for the watershed, DNR's water management goals, DNR-Watershed District partnership opportunities, and useful data available through DNR that can help support watershed district planning, program management, and project development/design. The following narrative is divided into topics relevant to watershed resource management and included under each topic are DNR recommended actions.

I will be participating on the Technical Advisory Committee for Carnelian-Marine-St. Croix Watershed District's WMP plan preparation process. If you have questions regarding the content of this letter or would like to discuss individual topics or recommendations further, please do not hesitate to contact me. I look forward to working with the Carnelian-Marine-St. Croix Watershed District on your next generation WMP and on future public waters projects.

Sincerely,

Jenifer Sorensen, East Metro Area Hydrologist  
DNR Central Region, 1200 Warner Road, St. Paul, MN 55106  
651-259-5754; [jenifer.sorensen@state.mn.us](mailto:jenifer.sorensen@state.mn.us)

CC: Dan Fabian, BWSR Board Conservationist; Dan Lais, Central Region EWR Manager; Jeanne Daniels, Central Region EWR District Manager; Kate Drewry, DNR Hydrologist; TJ Debates, DNR Area Fisheries Supervisor; Mark Nemeth, DNR Trout Stream Habitat Specialist; Nick Proulx, DNR Clean Water Specialist; Becky Horton, DNR Regional Environmental Assessment Ecologist; Keegan Lund, DNR Invasive Species Specialist; Scott Noland, DNR Area Wildlife Supervisor; Michelle Martin, DNR Forestry Specialist

### ***General watershed management strategies***

DNR recommended Action: DNR recommends that the following general watershed management strategies be a part of your watershed management plan (WMP):

- Keep water where it falls by protecting and restoring wetlands, ensuring water courses are connected to their floodplains, and managing stormwater runoff with rate control and volume reduction standards.
- Protect and create buffers of native perennial vegetation along watercourses and water bodies.
- Reduce the flow of water volume and nutrients through ditches and drainage systems.
- Design culverts and bridges to retain floodplain functions and bank stability on natural channels and other drainage systems.
- Support land use planning and practices that protect, restore, and enhance priority ecological resources.
- Maintain and enhance perennial vegetation including protection of working forest lands.
- Promote conservation practices on agricultural lands and drainage systems.
- Use water efficiently and implement conservation measures that further reduce water demand.

### ***Tool to help integrate goals and strategies across a watershed***

As Carnelian-Marine-St. Croix Watershed District begins the WMP update process, it's important that water resource issues and goals be addressed not as independent prescriptions, but as integrated activities strategically applied toward the improvement of the entire watershed system. DNR's Watershed Health Assessment Framework approach uses a five component framework (hydrology, biology, connectivity, geomorphology, and water quality) to address the interdependent nature of ecological systems that operate within a watershed. Placing the goals and actions identified by the District into this framework may help to:

- Evaluate watershed district goals and actions in the context of the five aspects of watershed health.
- Identify gaps between goals and actions.
- Prioritize chosen actions effectively.
- Examine the potential for unintended consequences.

DNR Recommended Action: Use the [Watershed Health Assessment Framework](#) interactive online map and [downloadable data sets](#) to help refine and organize the WMP within the context of a comprehensive watershed landscape.

### ***DNR water management goal: groundwater sustainability***

DNR continues to manage the state's groundwater resources to meet sustainability goals set out in statute. Through the establishment of the [North & East Metro Groundwater Management Area Plan](#), DNR is prioritizing groundwater sustainability and expanding its resources dedicated to managing groundwater resources in Ramsey and Washington Counties and portions of Anoka and Hennepin Counties.

DNR Recommended Action: DNR recommends that Carnelian-Marine-St. Croix Watershed District staff have a working knowledge of DNR's N&E Metro GWMA Plan and that the Watershed District's WMP reflect some of the key objectives and actions in the plan, including:



- Increase communication about the risks of overuse and degradation of groundwater resources and promote water conservation.
- Maintain and enhance aquifer recharge
- Maintaining and enhancing quality of water recharging aquifers in the N&E Metro GWMA
- Increased coordination of monitoring activities between organizations with water management responsibilities
- Increased coordination of communication activities between organizations with water management responsibilities
- Improve coordination on studies of specific trout streams in the N&E Metro GWMA. DNR recommends that our organizations work together to complete studies of the effects of groundwater appropriations on trout streams.

***DNR water management goal and opportunity for DNR-Watershed District partnerships: stream and lake bank stabilization and restoration***

DNR’s underlying philosophy regarding stream management is that streams are self-forming and self-maintaining systems. When they are artificially manipulated (e.g. structures placed in-stream for various purposes), there can be negative impacts to channel stability. Channel stability is defined as a stream’s ability to transport water and sediment from its watershed, while maintaining its dimension, pattern and profile, over time, without either aggrading or degrading. Alterations in pattern, dimension, or profile of a stream can lead to an increase in stream bank erosion, increased turbidity, embedded sediments, and a general reduction in biological productivity. DNR encourages Carnelian-Marine St. Croix Watershed District to consider these stream dynamics when planning stream maintenance or restoration projects.

DNR Recommended Action: Outline a process for identifying when a public waters work permit will be necessary for stream bank stabilization and erosion control projects within the Watershed District and develop an early review process for projects to establish early and continued communication on stream restoration projects. Contact Jenifer Sorensen, area hydrologist ([jenifer.sorensen@state.mn.us](mailto:jenifer.sorensen@state.mn.us); 651-259-5754) for public waters permitting coordination. As potential stream bank stabilization and restoration projects arise, contact clean water specialist Nick Proulx (651-259-5850; [nick.proulx@state.mn.us](mailto:nick.proulx@state.mn.us)) for technical input on potential solutions and designs.

DNR’s [Restore Your Shore website](#) provides information on implementing shoreland restoration and protection projects, including innovative approaches for solving lakeshore problems, creating plant lists suitable for your site area, and a step-by-step guide for implementing a lakeshore project. The [Aquatic Habitat Restoration Grant Program](#) offers opportunities for watershed districts to cost-share with DNR to restore shoreline habitat in ways that demonstrate good shoreland stewardship.

DNR Recommended Action: Participate in the Aquatic Habitat Restoration Grant Program where possible. As potential shoreline projects arise, contact John Hiebert, DNR’s lake habitat consultant ([john.hiebert@state.mn.us](mailto:john.hiebert@state.mn.us); 651-259-5212) for technical input on potential solutions and designs. The DNR and Carnelian-Marine-St. Croix Watershed District should outline a process for identifying when a public waters work permit will be necessary for lakeshore restoration and stabilization projects within the Watershed District and develop an early review process for projects to establish early and continued communication on lakeshore projects. Contact Jenifer Sorensen, area hydrologist ([jenifer.sorensen@state.mn.us](mailto:jenifer.sorensen@state.mn.us); 651-259-5754) for public waters permitting coordination.

### ***Tools to help identify bluffs***

There are significant bluffs and associated ravines located along the St. Croix River in the Carnelian-Marine-St. Croix Watershed District. The destabilization of bluffs erodes slopes and creates long-term contributing sources of sediment and nutrients to receiving waters that drain into the St. Croix River. Under the St. Croix Riverway land use rules, bluffs are lands with a slope of 12 percent or greater.

DNR has two tools to help identify where a bluff may be present, both of which are available on DNR's [Bluff and Slope Protections](#) website. GIS users can use the [Bluff Mapping Tool](#), an ArcMap GIS extension that analyzes a Digital Elevation Model (DEM) to map slopes of any steepness based on a given horizontal and/or vertical parameter. For non-GIS users, there is a link to a [guidance document for analyzing bluffs using MnTOPO](#). Both methods will provide fairly accurate "planning level" estimates of slopes. A land survey should always be conducted to establish bluff setback lines prior to permitting activities on and near bluffs.

DNR Recommended Action: Use the [Bluff Mapping Tool](#) to locate bluff areas in the Watershed District along the St. Croix River and map the priority area that the Watershed District will focus on for stabilization projects, to assist with the reduction of phosphorus nutrient loading to the St. Croix River.

### ***DNR water management goal: properly functioning stream sediment transport and fish passage***

Improperly installed and designed road and trail crossings are one of the larger threats to the ecological health of Minnesota's stream networks. Dams and improperly installed culverts impede downstream sediment transport in streams and impede the ability of aquatic organisms to move up and down streams. This is one of the major contributors to the decline of species diversity and aquatic ecosystem health in rivers and streams. Common types of barriers include: velocity barriers (caused by too steep a slope or undersized structures), jump barriers (i.e. perched culverts), turbulence barriers (which create high concentrations of air bubbles in water which diminish the ability of fish to swim), lack of substrate, debris as a barrier, and low water barriers.

DNR recognizes the value in simulating the in-stream conditions when designing culvert slope, size (width), and channel alignment, as well as the benefits of burying culverts to allow sediment transport and fish passage during most flows ([Best Practices for Meeting DNR General Public Waters Work Permit GP 2004-0001](#)). The [US Forest Service has written an extensive manual](#) on their stream simulation design approach.

DNR Recommended Action: Review the design of new culvert installations with fish and sediment transport in mind. Culvert size, shape, and elevation should be designed to simulate the dimension, pattern, and profile of the local channel.

### ***DNR water management goal: promote installation of floodplain culverts***

Floodplain culverts are additional culvert(s) set under a road or trail crossing, to allow additional flood flow to remain in the adjacent natural floodplain of a stream instead of being confined to the main culvert or bridge, as is often found in traditional culvert design. Floodplain culverts are set at a slightly higher elevation than the main crossing's structure. When a stream and its floodplain are connected, water is able to flow above the banks and disperse excess velocity and sediment across the adjacent floodplain.

**DNR Recommended Action:** When reviewing and permitting culvert and bridge installations and other crossings, promote the installation of floodplain culverts. Floodplain culverts provide the following benefits: minimize bank erosion, improve water quality by protecting the natural beneficial functions of floodplains, reduce road maintenance costs, and reduce the risk of damage to roads from flooding.

***DNR water management goal: aquatic invasive species***

Aquatic invasive species (AIS) pose a significant threat to Minnesota’s lakes and rivers and continue to be a high priority issue for DNR. Aquatic invasive plants such as Eurasian watermilfoil and curly-leaf pondweed form thick vegetative mats on the water surface, limiting recreational opportunities and often negatively affecting water quality. Both the control of existing AIS and the prevention of new infestations are important efforts in terms of AIS management.

In most cases, eradication of invasive aquatic plants is not an option. Therefore, herbicide treatments are generally used to target abundant beds of invasive plants that may create a recreational nuisance. In most cases, the use of herbicides on lakes classified as Natural Environment (NE) lakes is not appropriate, and mechanical means (e.g. commercial aquatic plant harvester) may be a management option.

**DNR Recommended Action:** The establishment of both aquatic and terrestrial invasive species is a major threat to the ecological functions of both wetland and upland plant communities. Include plans to combat invasive species and best management practices (BMPs) in watershed project plans and designs. Promote education of the public on the control and spread of invasive species – public awareness efforts targeting riparian property owners (lakeshore owners) are needed to increase overall compliance with AIS laws. DNR will continue to support local efforts to educate the public in AIS prevention and encourage local units of government to take a leadership role. For more information on the AIS Program, contact Keegan Lund ([keegan.lund@state.mn.us](mailto:keegan.lund@state.mn.us); 651-259-5828), invasive species specialist.

***DNR water management goal: in-lake water quality treatment considerations***

In-lake lakewide chemical treatment should be attempted only after external sources of nutrients are reduced. Alum treatment, an in-lake nutrient management technique, is designed in general to be used one time to manage historical internal reservoirs of nutrients in a lake once external sources of nutrients are reduced. This treatment method is not meant to be applied repeatedly as a method to meet water quality goals because of the potential to negatively affect aquatic communities.

**DNR Recommended Action:** Before deciding to attempt alum treatment, please consider using the [framework developed by the Prior Lake – Spring Lake Watershed District](#) for evaluating whether and when alum treatment of a lake is appropriate. The framework is a series of questions with parameters for evaluation, that relate to internal and external phosphorus loading, rough fish, aquatic vegetation, cost, and water quality. Additional DNR recommendations include:

- Alum treatment should be considered to address the historical internal reservoirs of nutrients only after external sources of nutrients have been addressed.
- Alum treatments need to be timed to minimize fish management impacts as well as other non-target organisms such as benthic invertebrates.

- Complete pre- and post-treatment assessments to document the amount and duration of the alum treatment response.
- Due to potential non-target impacts, consider completing pre- and post-treatment assessments of benthic invertebrates and amphibians.
- Take into consideration factors that could disrupt the alum layer, thus reducing the length of time you would expect water quality benefits, such as wind fetch, carp and/or other benthic feeding fish species, recreational activities, and shallow basins in general.
- When considering alum treatment on a lake, coordinate with MPCA and DNR's area fisheries supervisor, TJ Debates (651-259-5770; [timothy.debates@dnr.state.mn.us](mailto:timothy.debates@dnr.state.mn.us)).

***DNR water management goal: minimum impact design standards for stormwater management***

One of the primary drivers of degraded water quality and habitat in streams, lakes and wetlands is nutrient and sediment laden runoff from surrounding commercial, residential, and agricultural land uses. Minimum Impact Design Standards (MIDS) were developed by the Minnesota Pollution Control Agency to minimize stormwater runoff, minimize the amount of pollution reaching lakes, rivers, and streams, and to recharge groundwater. The development of MIDS is based on low impact development (LID), an approach to storm water management that mimics a site's natural hydrology as the landscape is developed.

DNR Recommended Action: Support the incorporation of MIDS (and the LID approach) into future development and redevelopment in the watershed and consider adopting MIDS standards.

***DNR water management goal and opportunity for DNR-Watershed District partnerships: fisheries***

Big Marine Lake is one of the top quality fishing lakes in the Metro area and, as a result, it receives a lot of fishing pressure. It is a high quality bass and panfish lake, with northern pike and stocked walleye. Big Marine Lake also has a lot of undeveloped shoreline, which is important to maintaining a strong fishery and high water quality. Big Carnelian Lake, while smaller, has a fishery similar to Big Marine Lake but is stocked by DNR with surplus walleye only. Many of DNR's regional walleye rearing ponds are located in public water wetlands in northern Washington County. The trout stocking moratorium will continue on Square Lake and DNR Fisheries plans to survey this bass-panfish-pike lake about every 10 years. For more information and coordination on fisheries management projects, please contact area fisheries supervisor TJ DeBates ([timothy.debates@state.mn.us](mailto:timothy.debates@state.mn.us); 651-259-5770).

New northern pike fishing regulations were implemented in March 2018 for inland lakes and are designed to restore pike populations for better harvest opportunities of fish sized up to about 28 inches. Lakes in the north part of the Metro have too many small pike and the objective of the new regulations are to allow more harvest of abundant small pike and shift the population size structure over time to more medium-sized pike. More information can be found on [DNR's Northern Pike Zones website](#).

There are a number of designated trout streams located within the Carnelian-Marine-St. Croix Watershed District that flow into the St. Croix River. Each of these streams is a rare regional resource that requires constant consideration and protection as development progresses. For projects on trout streams, please contact trout stream habitat specialist Mark Nemeth ([mark.nemeth@state.mn.us](mailto:mark.nemeth@state.mn.us); 651-259-5786).

The St. Croix River is a tremendous mid-size river fishery, but there is a need for additional public access. DNR is tracking carp and other fish in the Mississippi River and St. Croix River by installing radio transmitters into fish and using sonar receivers to collect information on their movement through sections of these river systems within the Metro area. If you are interested in learning more about this study and the data collected, contact fish management specialist Joel Stiras, ([joel.stiras@state.mn.us](mailto:joel.stiras@state.mn.us); 651-259-5806).

Shallow lakes and the shallow water (littoral) zone, characterized by aquatic plants and shallow depth (less than 15 feet) provide the most important wildlife habitat areas in lakes and wetlands. This habitat has been impacted over time by water quality degradation, altered watersheds, modified outlets, urban development, intensive agriculture, and exotic species. DNR's Shallow Lakes Program works to protect and enhance wildlife habitat on shallow lakes and provides DNR-Watershed District partnership opportunities on individual projects.

DNR Recommended Action: Participate in the Shallow Lakes Program where possible. Contact wildlife lake specialist Peter Borash ([peter.borash@state.mn.us](mailto:peter.borash@state.mn.us); 320-223-7870), when considering a rough fish eradication project on a lake to improve native fish populations and restore native vegetation.

#### ***Opportunity for DNR-Watershed District partnerships: Conservation Partners Legacy Grant Program***

The Conservation Partners Legacy (CPL) Grant Program funds conservation projects that restore, enhance, or protect forests, wetlands, prairies and habitat for fish, game, and wildlife. The types of projects funded under this grant program include prairie restoration, river restoration, lake habitat enhancement, wildlife habitat restoration, floodplain forest restoration, bluff prairie restoration, fish barrier installation, buckthorn removal, fish passage restoration, and others.

DNR Recommended Action: Participate in the [Conservation Partners Legacy \(CPL\) Grant Program](#) where possible. To learn more about this grant program, contact the CPL Grant Program coordinator ([LSCPLGrants.DNR@state.mn.us](mailto:LSCPLGrants.DNR@state.mn.us); 651-259-5233).

#### ***Consideration of plant communities, rare species, and special features***

Information on the biology, distribution, ecology, habitat use, conservation, and management of rare species of interest is available in the [DNR's Rare Species Guide](#). The locations of state-listed species maintained in the Rare Features Database are considered sensitive information and is protected under the Minnesota Data Practices Act. This information is only available through a Natural Heritage Information System (NHIS) data request or by license agreement, and should be used for internal planning purposes only.

The NHIS is continually updated as new information becomes available and will include current records and surveys. An NHIS review is considered valid if performed within one year of project implementation. The [NHIS data request form](#), used to obtain a NHIS review, and the [license agreement form](#) to enter into a license agreement with DNR to receive the Rare Features Database as a GIS data file are both available online. Questions regarding the NHIS should be directed to endangered species review coordinator Lisa Joyal ([lisa.joyal@state.mn.us](mailto:lisa.joyal@state.mn.us), 651-259-5109).

DNR Recommended Action: DNR recommends using assessment data of watershed characteristics and natural resource features when completing long-range watershed planning efforts. The assessment of watershed characteristics and natural resource features is valuable for evaluating landscape functions and guiding land

management decisions. These assessments provide important information on a landscape's integrity and its ability to provide benefits to ecosystems. For example, assessment data can be used to examine how projects will improve or affect flora and fauna, determine the cumulative impacts of land use, make regional scale land use decisions, and to balance land use development and natural resource protection.

DNR Recommended Action: The presence of rare species can be an indication of the health of a watershed, and plant and animal diversity helps landscapes to maintain important watershed functions. DNR recommends that the Carnelian-Marine-St. Croix Watershed District's WMP include goals and policies to address how rare species and habitat will be protected.

DNR data layers have been developed that are helpful in watershed planning. These are free and available to the public from the [Minnesota Geospatial Commons](#). Some key data layers include:

- DNR managed lands such as Scientific and Natural Areas, Wildlife Management Areas, and Aquatic Management Areas
- DNR native plant communities
- Trout waters
- Karst features
- Calcareous fens
- Minnesota Biological Survey (MBS) Sites of Biodiversity Significance
- Central Region Regionally Significant Ecological Areas (CRRSEA) – The purpose of this data is to inform regional scale land use decisions, especially as it relates to balancing development and natural resource protection.
- Regionally Significant Ecological Areas and Regional Ecological Corridors – Identifies potential habitat movement corridors that may be important for wildlife connections.

DNR Recommended Action: DNR encourages the use of site-appropriate native plants for shoreline stabilization, buffers, and erosion control for all watershed projects. These species provide important stabilization and erosion control functions, have the greatest chance of establishment success, and contribute to biodiversity of landscape vegetation. Query the DNR's [Restore Your Shore Native Plant Encyclopedia](#) for a list of plants tailored to specific site characteristics.

DNR Recommended Action: DNR recommends the establishment of native grassland and herbaceous plant communities in the place of mowed turf grasses on watershed and highway projects as a means to support native insect pollinator communities. Interest in pollinators has grown since the term Colony Collapse Disorder appeared in 2006. This phrase refers to the puzzling disappearance of honey bees from their hives. While this disorder does not affect native pollinators, many of the challenges that face honey bees also affect native insects, including pesticide use, habitat loss, pathogens, parasites, climate change, and invasive species. DNR has developed a [Best Management Practices Guide](#) for restoring and enhancing native plant community habitat for native insect pollinators.

### ***Forest management considerations***

Forested riparian areas are very important to water resources and provides for plant diversity, wildlife and fish habitat, nutrient, sediment, and water interception and storage, and recreational opportunities. The Minnesota

Forest Resource Council's *Voluntary Site-Level Forest Management Guidelines for Landowners, Loggers, and Resources Managers* is a valuable resource for managing riparian forests.

Greenway corridors (linear open spaces connecting recreational, cultural, and natural areas) provide intrinsic environmental and recreational benefits. They also provide economic benefits to communities in which they are located and are important to the well-being of communities.

DNR Recommended Action: DNR recommends that Carnelian-Marine-St. Croix Watershed District create a map showing greenway corridors to be included in the next generation WMP and use this mapping to prioritize land preservation efforts, vegetation management (such as buckthorn eradication), and vegetation restoration.

DNR Recommended Action: The [Minnesota Forest Legacy Program](#) protects environmentally important private forests threatened by conversion to non-forest uses. DNR recommends that Carnelian-Marine-St. Croix Watershed District learn more about the program by exploring the program's website and contacting program coordinator Dick Peterson ([richard.f.peterson@state.mn.us](mailto:richard.f.peterson@state.mn.us); 507-333-2012). Forests within the active forest legacy area of the Lower St. Croix River (which includes most of your Watershed District's area) are eligible for the program. Encourage private landowners with these environmentally important forests to participate in the program. If accepted to the program, federal and local matching funds can be used to purchase development rights and conservation easements to keep key forest areas intact and continuing to provide forest benefits.

DNR Recommended Action: The [Forest Stewardship Program](#) helps woodland owners (with at least 20 acres) manage their woods through advice, education, cost-share programs, and Woodland Stewardship Plans. DNR recommends that Carnelian-Marine-St. Croix Watershed District learn more about the program by exploring the program's website and encourage private landowners to participate in the program.

DNR Recommended Action: Hire a staff person at the local government level to address forest management (including restoration), and whose job is dedicated to helping private forest landowners with maintaining forest cover (and the corresponding water quality benefits that forests provide).

Emerald Ash Borer (EAB) is a nonnative invasive insect that kills ash trees and is a serious invasive tree pest. EAB is currently impacting communities in Carnelian-Marine-St. Croix Watershed District and will continue to do so during the Watershed District's next 10-year plan cycle. In the Metro area, a quarantine has been placed on a number of counties including Washington County, to help slow the spread of EAB to new areas. It is spread through transported firewood. Minnesota has the highest volume of ash trees in the United States.

Communities should start planning for EAB's arrival and take action now to reduce the sudden financial burden that comes with EAB. More information can be found on [DNR's EAB website](#).

DNR Recommended Action: DNR recommends that an inventory of ash forest resources in the Carnelian-Marine-St. Croix Watershed District be completed and a plan developed for combating EAB. Contact Brian Schwingle, forest health specialist ([brian.schwingle@state.mn.us](mailto:brian.schwingle@state.mn.us); 651-259-5821) for more information on mitigating the impacts from this and other forest insects and diseases.

May 15, 2020

Mike Isensee  
District Administrator  
Carnelian Marine St. Croix Watershed District  
21150 Ozark Ave N, Scandia, MN 55073

RE: Carnelian Marine St. Croix Watershed District Local Water Plan Updated - 60-Day Initial Priority Concerns Comment Period

Dear Mike Isensee

The MPCA appreciates the opportunity to provide input throughout the CMSCWD Watershed Management Plan 10 Year Update process. As part of the agency's review we are providing the following comments as part of the 60-day Review and Comment Period.

**a. Carnelian-Marine St. Croix WD Lakes - Excess Nutrients: TMDL Project,**  
<https://www.pca.state.mn.us/water/tmdl/carnelian-marine-st-croix-wd-lakes-excess-nutrients-tmdl-project>

The Carnelian-Marine St. Croix Watershed District – Lakes Excess Nutrients TMDL Project and associated implementation plan addresses excess nutrient impairments in East Boot, Fish, Goose, Hay, Jellum's, Long, Loon, Louise, Mud, and South Twin lakes. This series of studies used multiple sources of information (models, identified phosphorous sources, fish/plant surveys, etc) to build lake response models and determine necessary phosphorus reductions. The paired implementation plan provides strategies to reduce internal and external loading.

Please see tables 1 and 2 at the end of this letter for a comprehensive list of impaired water bodies we identified within the boundaries of the CMSCWD and their TMDL status.

**b. Minnesota Nutrient Reduction Strategy**

Excessive phosphorus and nitrogen losses to water pose a significant problem for Minnesota's rivers, lakes and groundwater, as well as the downstream to Lake Winnipeg and Gulf of Mexico. The Nutrient Reduction Strategy is a joint effort of state and federal agencies and organizations that provides tactics and strategies to meet long term successful reduction of phosphorus from being exported from Minnesota's watersheds. This is a cooperative effort to make progress toward a 45 percent reduction in nitrogen and phosphorus exporting the State through the Mississippi River

**c. Municipal and Construction Stormwater** – The City of Grant and Stillwater are currently the only MS4 permitted entities within the boundaries of the CMSCWD with the City of Scandia potentially being added if population requirements are triggered. The MPCA recommends that next generation storm-water management requirements and low impact design standards be considered for adoption in the next iteration of the district's plan surrounding language for new development and redevelopment activities. Ordinance goals along with other information can be found on the MPCA website:



[https://stormwater.pca.state.mn.us/index.php/Overview\\_of\\_Minimal\\_Impact\\_Design\\_Standards\\_\(MIDS\)](https://stormwater.pca.state.mn.us/index.php/Overview_of_Minimal_Impact_Design_Standards_(MIDS))

**d. Draft Lower St. Croix 1W1P**

Many of the Lower St. Croix HUC 8 watershed partners recently completed a draft One Watershed One Plan that is currently under review. Although many of the watershed districts are electing to use their own local water plans in place of the 1W1P, we believe the common goal of improving surface water quality throughout the watershed is inherently a cooperative process and there are many benefits to engaging with other watershed management organizations throughout the watershed. We encourage the continued communication and partnerships that developed through the planning process.

Please feel free to invite me to the TAC meetings that are held as the revisions for plan progress. Again, thank you for the opportunity to review and comment on the draft Plan. If we may be of further assistance, please contact Eric Alms at 651-757-2589 at the MPCA's St. Paul Office.

Sincerely,



*This document has been electronically signed.*

Eric Alms  
Watershed Project Manager  
St. Paul Office  
Watersheds Division

**Table 1: Carnelian Marine St. Croix Impaired Streams**

auid	NAME	LOC_DESC	USE_CLASS	CYCLE_LA ST	Water_bo _2	Year_add ed	HUC_8 9	Affected_d	Pollutant	TMDL _targ et	EPA_cat
07030005-601	Unnamed creek	Unnamed lk to Big Carnelian Lk	2Bg, 3C	2016	Stream	2012	7030005	Aquatic Life	Fish bioassessments	2023	5
07030005-713	Unnamed creek	Unnamed cr to St Croix R	2Bg, 3C	2016	Stream	2010	7030005	Aquatic Recreation	Escherichia coli (E.coli)	2023	5
07030005-913	Unnamed creek	Headwaters to St Croix R	1B, 2Ag, 3B	2016	Stream	2012	7030005	Aquatic Recreation	Escherichia coli (E.coli)	2023	5

**Table 2. Carnelian Marine St. Croix Impaired Lakes**

AUID	NAME	LOC_DESC	USE_CLASS	Year_added	HUC_89	Affected_use	Pollutant	EPA_catego	Year_TMDL
82-0014-00	Little Carnelian	6 MI S OF MARINE	2B, 3C	2002	7030005	Aquatic Consumption	Mercury in fish tissue	4A	2007
82-0015-02	Loon (Main Lake)	3 MI N OF STILLWATER	2B, 3C	2004	7030005	Aquatic Recreation	Nutrients	4A	2012
82-0019-00	South Twin	1.5 MI NW OF STILLWATER	2B, 3C	2006	7030005	Aquatic Recreation	Nutrients	4A	2012
82-0025-00	Louise	4 MI NW OF STILLWATER	2B, 3C	2004	7030005	Aquatic Recreation	Nutrients	4A	2012
82-0026-02	Mud (main lake)	None	2B, 3C	2010	7030005	Aquatic Recreation	Nutrients	4A	2012
82-0034-00	East Boot	3.5 MI E OF HUGO	2B, 3C	2004	7030005	Aquatic Recreation	Nutrients	4A	2012
82-0046-00	Square	3 MI S OF MARINE	2B, 3C	2002	7030005	Aquatic Consumption	Mercury in fish tissue	4A	2007
82-0049-00	Big Carnelian	4 MI S OF MARINE	2B, 3C	1998	7030005	Aquatic Consumption	Mercury in fish tissue	4A	2007
82-0052-02	Big Marine (Jellums)	3 MI W OF MARINE	2B, 3C	2004	7030005	Aquatic Recreation	Nutrients	4A	2012
82-0052-04	Big Marine (Main)	None	2B, 3C	1998	7030005	Aquatic Consumption	Mercury in fish tissue	4A	2008

	Lake)								
82-0059-00	Goose	1.5 MI NNW OF SCANDIA	2B, 3C	2012	7030005	Aquatic Consumption	Mercury in fish tissue	5	na
82-0064-00	Fish	2 MI SW OF SCANDIA	2B, 3C	2004	7030005	Aquatic Recreation	Nutrients	4A	2012
82-0065-00	Hay	2 MI N OF MARINE ON ST	2B, 3C	2002	7030005	Aquatic Recreation	Nutrients	4A	2012
82-0068-00	Long	1 MI W OF MARINE	2B, 3C	2004	7030005	Aquatic Recreation	Nutrients	4A	2012
82-0076-00	Barker	IN HUGO	2B, 3C	2012	7030005	Aquatic Recreation	Nutrients	5	na

March 18, 2020

Mr. Mikael Isensee, Administrator  
Carnelian-Marine-St. Croix Watershed District  
21150 Ozark Avenue  
Scandia, MN 55073

RE: Carnelian-Marine-St. Croix Watershed District Plan Request for Information

Dear Mr. Isensee:

I am providing information as requested for the preparation of the District's Watershed Management Plan Update.

The direction and policy that follows comes from the Council's *Thrive MSP 2040* Regional Development Framework and the *2040 Water Resources Policy Plan*, both of which can be found on the Council's web page ([www.metrocouncil.org](http://www.metrocouncil.org)).

In particular, the *2040 Water Resources Policy Plan* (Policy Plan) includes policies and strategies to achieve the following goal:

*To protect, conserve, and utilize the region's groundwater and surface water in ways that protect public health, support economic growth and development, maintain habitat and ecosystem health, and provide for recreational opportunities, which are essential to our region's quality of life.*

The Policy Plan takes an integrated approach to water supply, water quality, and wastewater issues. This approach moves beyond managing wastewater and stormwater only to meet regulatory requirements by viewing wastewater and stormwater as resources, with the goal of protecting the quantity and quality of water our region's needs now and for future generations.

The Policy Plan includes policies and strategies to:

- Maximize regional benefits from regional investments in the areas of wastewater, water supply and surface water management and protection.
- Pursue reuse of wastewater and stormwater to offset demands on groundwater supplies.
- Promote greater collaboration, financial support, and technical support in working with partners to address wastewater, water quality, water quantity and water supply issues.
- Promote the concept of sustainable water resources through collaboration and cooperation, with the region taking steps to manage its water resources in a sustainable way with goals of:
  - ✓ Providing an adequate water supply for the region
  - ✓ Promoting and implementing best management practices aimed at protecting the quality and quantity of our resources
  - ✓ Providing efficient and cost-effective wastewater services to the region
  - ✓ Efficiently addressing nonpoint and point sources pollution issues and solutions, and,
  - ✓ Assessment and monitoring of lakes, rivers, and streams to direct adequate management, protection, and restoration

of the region's valued water resources.

The updated watershed management plan should include policies related to the protection of area water resources with these strategies in mind with the end goal of water sustainability.

In addition to being consistent with the Council's new policy plans, the plan also needs to include quantifiable and measurable goals and policies that address water quantity, water quality, recreation, fish and wildlife, enhancement of public participation, groundwater, wetlands, and erosion issues.

Council staff will be looking for the plan to address the issues and problems in the watershed and to include projects or actions and funding to address the issues and problems. At a minimum the watershed should address:

1. Any problems with lake and stream water quality and quantity including information on impaired waters in the watershed and the District's role in addressing the impairments,
2. Flooding issues in the watershed,
3. Storm water rate control issues in the watershed,
4. Impacts of water management on the recreation opportunities,
5. Impact of soil erosion problems on water quantity and quality,
6. The general impact of land use practices on water quantity and quality
7. Policies and strategies related to monitoring of area water resources
8. Policies and strategies related to use of best management practices
9. Issues concerning the interaction of surface water and groundwater in the watershed
10. A list of the requirements for local surface water management plans
11. Erosion and sediment control standards and requirements
12. Volume reduction goals at least as restrictive as requirements in the NPDES construction general permit,
13. Capital improvement plan with itemized list of actions, estimated costs, and timeline, and
14. Specifics on long-term maintenance of projects identified in the capital improvement plan, including identification of entities responsible for funding and conducting maintenance, as well as long-term maintenance should be documented.

The Council has resources that might be beneficial in the creation of your watershed plan. We have water quality and flow data, reports and assessments, interactive maps, and tools - the details are provided below. Please feel free to access any of this information.

The Council has stream water quality monitoring data, flow, and annual loads for Silver Creek and the Carnelian-Marine Outlet (monitoring station retired in 2009), all of which are available as part of our report *Comprehensive Water Quality Assessment of Select Metropolitan Area Streams*, available at [www.metrocouncil.org/streams/](http://www.metrocouncil.org/streams/). Contact me to receive load spreadsheets and any other data and analyses in the report.

The Council also has monitoring data on the following lakes in the District:

Site	Monitoring Program <sup>†</sup>	Years Data Available
Alice Lake	CAMP	2014-2017

Site	Monitoring Program <sup>†</sup>	Years Data Available
Barker Lake	CAMP	2000-2001, 2004-2009, 2013-2014, 2017-2019
Bass Lake (May Township)	CAMP	2000-2001, 2003-2009, 2012-2014, 2017-2019
Big Carnelian Lake*	MCES Lake Monitoring, CAMP	1984, 1989, 1994, 1997, 2000-2010, 2012-2019
Big Marine Lake*	MCES Lake Monitoring, CAMP	1980-1981, 1984, 1989, 1994, 1997, 2000-2011, 2013-2019
Carol Lake	CAMP	2000-2001, 2003-2009, 2012-2013, 2016-2019
Clear Lake (May Township)*	CAMP	2008-2015, 2018-2019
East Boot Lake	CAMP	2000-2015, 2017-2019
Fish Lake (Scandia)	CAMP	1999-2011, 2015-2019
German Lake	CAMP	2002-2009, 2012, 2014-2017, 2019
Goose Lake (Scandia)	MCES Lake Monitoring, CAMP	1994-1998, 2004-2019
Hay Lake	CAMP	1998-2001, 2003-2011, 2013-2019
Herber Pond (Loon Lake South Bay)	CAMP	2004-2007
Jellums Lake	CAMP	2000-2011, 2015-2019
Little Carnelian Lake*	CAMP	2000-2007, 2012-2019
Long Lake (May Township)	CAMP	1993-1997, 1999-2011, 2013-2015, 2018-2019
Long Lake (Scandia)	CAMP	2000-2011, 2015-2017
Loon Lake	CAMP	2000-2012, 2016-2019
Lake Louise	CAMP	2000-2002, 2004-2011, 2016-2019
MacDonald Lake	CAMP	2004-2007
Maple Marsh Lake	CAMP	2000-2001, 2004-2007
Mays Lake*	CAMP	2008-2015, 2018-2019
Mud Lake	CAMP	2000-2001, 2004-2007, 2010-2011, 2017-2019
North Twin Lake	CAMP	2000-2001, 2003-2010, 2012-2013, 2016-2019
Sand Lake	CAMP	1993-1996, 2002-2011, 2013-2019
Schroeder Pond	CAMP	2004-2007
Silver Lake (Stillwater Township)	CAMP	2000-2001, 2004-2010, 2016-2019
South Twin Lake	CAMP	2000-2001, 2003-2011, 2016-2019

Site	Monitoring Program <sup>†</sup>	Years Data Available
Square Lake*	MCES Lake Monitoring, CAMP	1980-2019
Staples Lake	CAMP	2000-2001, 2004-2009, 2013-2015, 2018-2019
Terrapin Lake*	CAMP	2004-2015, 2018-2019
Turtle Lake	CAMP	2000-2001, 2003-2010, 2012-2014, 2017-2019
Twin Lake*	CAMP	1997-1998, 2008-2015, 2018-2019
West Boot Lake*	CAMP	2000-2010, 2012-2015, 2018-2019

<sup>†</sup>CAMP = Citizen Assisted Monitoring Program; WOMP = Watershed Outlet Monitoring Program; \*Council's Priority Lake

River, stream, and lake data can be downloaded by visiting the Council's EIMS website (<https://eims.metc.state.mn.us/>).

The Council Local Planning Handbook webpage (<https://metro council.org/handbook.aspx>) has 2016 land use information for all of the communities in the watershed.

In 2018, the Council created a Climate Vulnerability Assessment for the region. The localized flooding screening tool might be of use to identify areas in your watershed that are prone to flooding during intense storms. The information about our Climate Vulnerability Assessment, interactive maps, and screening tools can be found on the Council's webpage (<https://metro council.org/Communities/Planning/Local-Planning-Assistance/CVA.aspx>)

Please feel free to me call at (651) 602-1078 with questions about my comments or for any assistance during the plan preparation.

Sincerely,

Jen Kostrzewski  
 Environmental Analyst  
 Metropolitan Council – Environmental Services  
 651-602-1078  
[jennifer.kostrzewski@metc.state.mn.us](mailto:jennifer.kostrzewski@metc.state.mn.us)



May 31, 2018

Jim Shaver, Administrator  
Carnelian Marine St. Croix Watershed District  
21150 Ozark Ave. N.  
Scandia, MN 55073

**RE: Carnelian Marine St. Croix Watershed District Watershed District Watershed Management Plan Update**

Dear Jim,

Thank you for the opportunity to provide early comments to the CMSCWD 2020 Watershed Management Plan update.

Please consider the following recommendations during the plan update process:

- Revisit the ten year water quality monitoring plan created for the 2010 CMSCWD Watershed Management Plan.
- Create a strategic ten year plan to conduct subwatershed analysis on high priority water bodies to identify potential high loading land areas, conduct site visits to evaluate potential project areas, and create cost benefit summaries for potential projects.
- Consider cost share for voluntary projects within the groundwater watershed of groundwater dependent natural resources.
- Catalog and make available on the website technical studies and recommendations that have been completed by the watershed. The watershed has an extensive archive of thorough studies and technical evaluations; many of which are referenced in the Watershed Management Plan. Having these documents available on the web would increase access to the technical details of practices and recommendations.
- Consider synchronizing wetland rules with the WCA.

Thank you for the opportunity to provide comments. The WCD looks forward to continuing to work closely with the watershed district to achieve our mutual goals of resource protection and conservation. Please call or email if you have any questions.

Regards,

A handwritten signature in black ink, appearing to read 'Jay Riggs', is written over a light blue horizontal line.

Jay Riggs, District Manager



**CARNELIAN-MARINE-ST. CROIX  
WATERSHED MANAGEMENT PLAN**

**Citizen Advisory Committee Input**

**APPENDIX G**



## **Carnelian-Marine-St. Croix Watershed District**

Scandia Plaza II • 21150 Ozark Avenue • P.O. Box 188 • Scandia, MN 55073 • Tel 651.433.2150

Date: October 1, 2020

To: Carnelian Marine St. Croix Board of Managers

From: CMSCWD Citizen Advisory Committee

Re: 2020 CMSCWD Watershed Management Plan Recommendations

At the direction of the Board of Managers, Watershed District staff have completed a survey of citizen opinions. The survey included thirteen questions related to the values, issues, and priority actions related to water resources and land conservation.

The survey targeted owners of shoreland property (N=820) in the District through direct mail. A link to the survey was also included in the District's newsletter which is distributed to all property owners (N ≈3,680) within the 81 square mile CMSCWD. Responses from 145 shoreland parcel owners (18%), as well as an additional 165 responses from other properties were received, resulting in an overall response to the survey of approximately 8.4% of parcels in watershed.

The Citizen Advisory Committee (CAC) has reviewed findings from the survey and believe they are representative of the diverse viewpoints of the constituency and communities within the CMSCWD. The CAC concurs with citizen concerns and values expressed in the survey and believe the findings will be useful to the Board by informing their decisions about priorities within the District's Watershed Management Plan.

### General Observations

It should be noted that in reviewing survey results CAC members identified a strong overarching need for improved public education and engagement. This need was identified by the CAC members as they believed the survey results reveal a general lack of understanding among many landowners as to the District's agenda, programs, and resources.

### Concerns of Survey Respondents

Results from all respondent to survey can be ranked in terms of areas of greatest concern for the Carnelian Marine St. Croix Watershed District:

1. **aquatic invasive species 84%** (260/310)
2. **terrestrial invasive species 84%** (260/310)
3. **storm water runoff pollutants 82%** (253/310)
4. **river bluff, stream, and lake shore erosion 61%** (188/310)
5. **groundwater quality 47%** (146/310)
6. **failing septic systems 30%** (93/165)

We note and call the Board's attention to an increased awareness and concern for ground water resources being expressed by the public.

When survey results are stratified to focus on shoreland properties, priorities change. This group demonstrated an overwhelming support for **preserving natural shoreland areas 90%** (130/145) and **maintaining septic systems 56%** (129/145) as actions people should take to be good stewards of their shoreland properties.

## Priorities of Survey Respondents

- ✓ **Preventing the spread of Aquatic Invasive Species** was identified as the highest priority action by **70%** (217/310) of respondents. The CAC believes this priority is driven by the threat of AIS significantly impacting the quality and recreational value of water resources.
- ✓ **Enforcing rules** was identified by **64%** (197/310) of shoreland and general survey respondents. The CAC believes this is one manifestation resulting from a general lack of awareness water related regulations.
- ✓ **Ensuring clean and safe streams, lakes, rivers, and wetlands** was identified by **62%** (191/310) of shoreland and general survey respondents. When asked what factors are problems for local water resources were, 82% of respondents identified storm water runoff pollutants as the most problematic.
- ✓ **Planning and constructing water quality projects and providing expert assistance to landowners** were identified as a priority by **39%** (122/310) and **38%** (117/310) respondents, respectively. The CAC believes this priority is predominately driven by concerns related to terrestrial invasive species, stormwater runoff pollutants, and eroding shoreland, streambank, and bluff land areas as primary sources of water degradation in the District.

## CAC Recommendations

Having reviewed the survey results the CAC offers the following recommendations:

### Public Education and Outreach

- Expand existing programs and develop new education programs and approaches to increase knowledge and to inspire and engage communities and landowners in resource protection and restoration.
- Ensure landowners understand the existence and importance of rules and that they are enacted in a coordinated and consistent manner.

### Aquatic and Terrestrial Invasive Species

- Increase protection programs to prevent new introductions of Aquatic Invasive Species (AIS).
- Coordinate AIS rapid response planning and actions within the District.
- Increase management of AIS infestations that negatively impact the ecology and water quality.
- Manage Terrestrial Invasive Species that negatively impact ecology and water quality.

## Enforcing Rules

- Continue to consistently enact rules for managing the collective impacts to water resources.
- Enhanced public education (see above) to ensure landowners understand the existence and importance of rules
- Ensure rules are enacted in a coordinated and consistent manner.

## Ensuring Clean and Safe Lakes, Streams, River, and Wetlands

- Improve efforts to protect and restore water resources within the District.
- Continue evaluating the health of water resources within the District.
- Promote voluntary behaviors and actions that support clean and safe water resources.

## Planning and Constructing Water Quality Projects and Providing Expert Assistance to Landowners

- Focus funding to install effective water quality improvement projects.
- Continue providing expert assistance to landowners.

## Groundwater

- Increase monitoring and education about the importance and health of groundwater in the District.

## Shoreland Conservation

- Enhance shoreland landowner programs on lakes, streams, rivers, and wetlands to value, protect and enhance shoreland areas.

The Citizen Advisory Committee looks forward to working in partnership with the Board of Managers, as well as the residents, and visitors of the Carnelian Marine St. Croix Watershed District to enact practices, policies and procedures to achieve the measurable goals for the protection and restoration of the watershed district's water resources over the next ten years.



## **Carnelian-Marine-St. Croix Watershed District**

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11660 Myeron Rd N • Stillwater MN 55082 • Tel 651-275-7451

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TO: Carnelian Marine St. Croix Board of Managers

FROM: Citizen Advisory Committee

DATE: 7/8/2021

SUBJECT: Watershed Management Plan Letter of Support and Recommendation

The Citizen Advisory Committee (CAC) has met eight times over the last two years to review public input, provide guidance on priority issues, guide the development of the CMSCWD 10-Year Education Plan, and prioritize implementation actions. Based on our analysis, evaluation and prioritization we offer the following input for consideration:

### **Communication and Outreach including Education**

The CAC strongly supports improved communication, outreach and education of the residents within the watershed. After careful contemplation, the CAC advises the District to target activities that support improved education and engagement with landowners needing permits, landowners whose property include shoreland riparian areas, local elected officials, septic and system owners.

The CAC also advises the District to partner with existing educational and governmental entities to provide learning tools and enhancements to current educational systems available to the public.

### **Regulatory Programs Review and Implementation**

In its October 1, 2020, letter to the Board of Managers, the CAC noted that shoreland property owners who responded to the survey demonstrated overwhelming support for preserving natural shorelines areas 90% (129/145) as actions people should take to be good stewards of their shoreland properties. Concurrently, 64% of survey respondents identified enforcing rules as the highest priority of the District in the next 10 years.

### **Regulatory Programs Review and Implementation (continued)**

To address these issues, the CAC supports the district's proposed multifaceted approach to protecting water resources:

- Increased education and engagement of riparian property owners,
- Improving rules to maintain a high level of protection, but be simpler and more consistent with other authorities,
- Enhancing coordination with other permitting authorities and,
- Effective enforcement when voluntary compliance is not effective.

The CAC strongly advocates for these core processes to be consistently implemented over the next decade.

### **Analysis and Prioritization of Activities**

The CAC supports the investment in prioritization of potential water quality improvement projects along the St. Croix River and inclusive of the spring streams; improved climate resiliency modeling, reporting, and engagement; internal load evaluation for impaired lakes; degraded wetland monitoring to prioritize wetland restorations that reduce algae in lakes and improve stream water quality; and evaluating stream stability to proactively address erosion issues. Investing in these priorities increase the environment improvements achievable with limited resources.

### **Capital Improvement Projects and Cost Sharing**

The majority of land within the Carnelian Marine St. Croix Watershed District is owned by private landowners. To achieve the goals of protecting or improving water quality, the district must work collaboratively with private landowners. Providing high quality technical assistance is an effective tool to encourage landowners to pursue and promote good watershed stewardship on their properties. The CAC supports the districts proposed efforts to provide both technical assistance and cost share assistance to improve water quality.

### **Aquatic Invasive Species Control**

The CAC applauds Washington County's coordinated activities for AIS prevention and rapid response. The CAC supports managing AIS populations where water quality is impacted and incentivizing local residents to become certified AIS detectors by covering the registration cost of enrollment. The CAC also appreciates the effort to continue the reduction of AIS violations each year by working with Washington County to increase enforcement of AIS laws.

### **Lake, Stream and River Monitoring**

The CAC supports the District's initiatives in the monitoring program. Specifically, the CAC supports an increased investment to evaluate the health of the 21 streams of the district with the assistance of volunteer stream monitoring.

## **Conclusion**

The CAC sincerely appreciates the opportunity to be involved in the development of the Watershed's goals and actions in a meaningful and substantive way. The committee wishes to emphasize the need for:

1. Proactive engagement with the watershed's constituency including watershed district staff and board members, local government officials, property owners that are impacted by Watershed District policies and citizens of the watershed.
2. Increased emphasis on stream conservation.
3. Continued active engagement of residents to help address issues of concern in the watershed.

The more people that become involved in the care, conservation and stewardship of the waterways, streams and lakes we live by, recreate on and obtain drinking water from, the greater our reach will be to all who benefit from this unique and special environment.

Sincerely,

### **CMSCWD Citizens Advisory Committee**

Scott Alexander, May Township

Pam Arnold, Scandia

John Bower, May Township

Steve Dibb, May Township

Greg Glenn, May Township

John Goodfellow, Marine on St. Croix

Diane Rohan, May Township

Jim Schoeller, Stillwater Township

**CARNELIAN-MARINE-ST. CROIX  
WATERSHED MANAGEMENT PLAN**

**Survey Results**

**APPENDIX G**



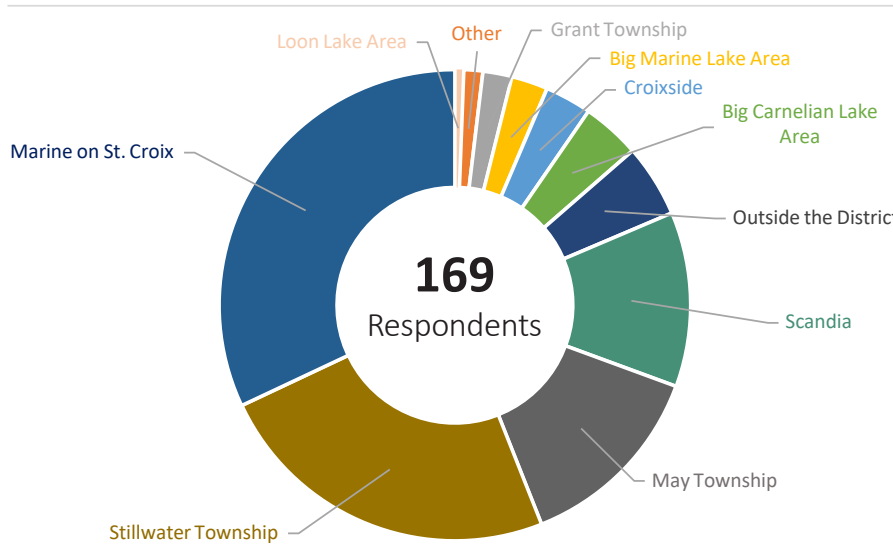


## General Landowner Survey Results

169 Responses

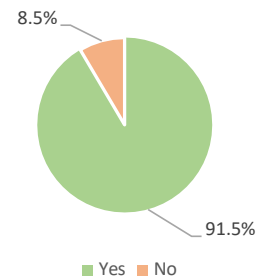
April – July 2020

### Who Responded?

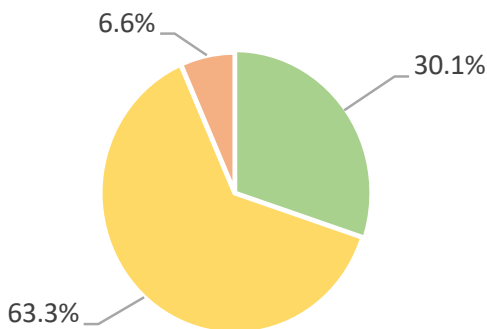


### Are you a year round resident?

The bulk of survey respondents answered that they were year-round residents of the District. The percentage of year-round residents was 91.5%. Some responses received were from seasonal residents. The percentage of seasonal residents was 8.5%.



### How familiar are you with what the Carnelian-Marine-St. Croix Watershed District does?

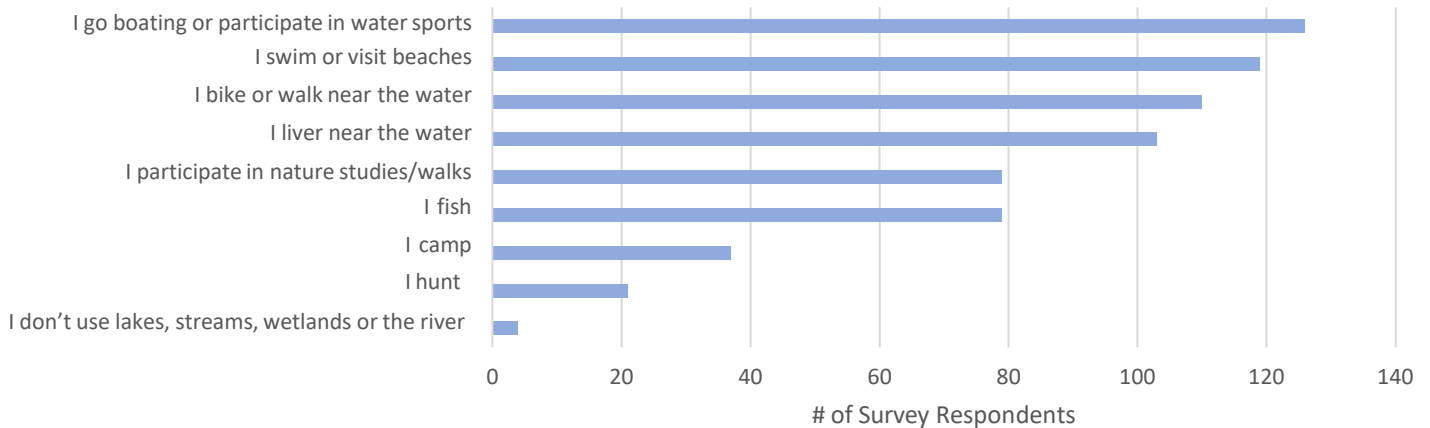


Very Familiar    Somewhat Familiar    Not at all Familiar

To get a deeper understanding our survey respondents knowledge of the District we asked them how familiar they were with what the Carnelian Marine St. Croix Watershed District (CMSCWD) does? The bulk of respondents admitted that they were somewhat familiar but not confident or knowledgeable enough to respond with very familiar. 30.1% of respondents said they were very familiar with what the District does. 63.3% of survey responses indicated that they were somewhat familiar with what the District does. 6.6% said they were not at all familiar with what the District does.

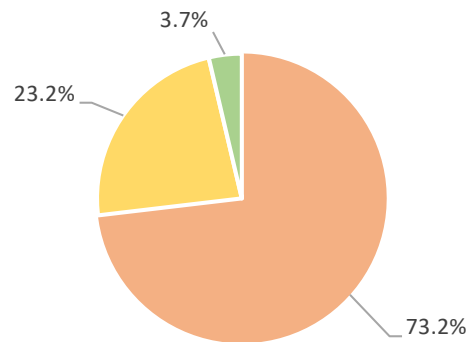
## How do you use lakes, streams, wetlands and the St. Croix River in our District?

When asked how they use lakes, streams, wetlands and the St. Croix River most survey respondents said they use these waterbodies in some way. The most popular way people use the waterbodies in our district is boating and water sports. The second most popular activities were to swim or visit beaches. The least popular activity survey respondents participate in was hunting. Four survey respondents noted that they did not use lakes, streams, wetlands, or the river.



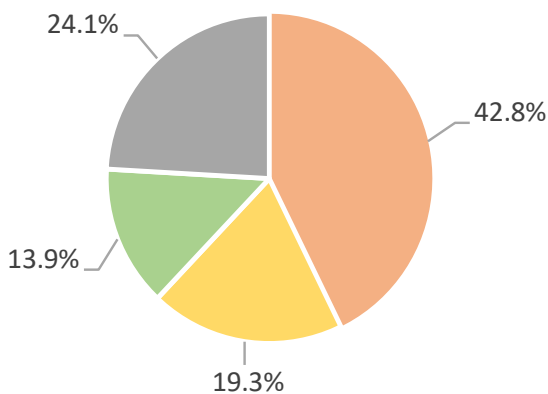
## How concerned are you about water pollution in our area?

The survey results found that people are generally very concerned about water pollution in our area. 73.2% of survey respondents said they were very concerned. 23.3% were somewhat concerned with water pollution in our area. 3.7% answered that they were not at all concerned with this topic.



Very Concerned Somewhat Concerned Not at all Concerned

## In general, do you think that streams, lakes, and wetlands in the Watershed District are:

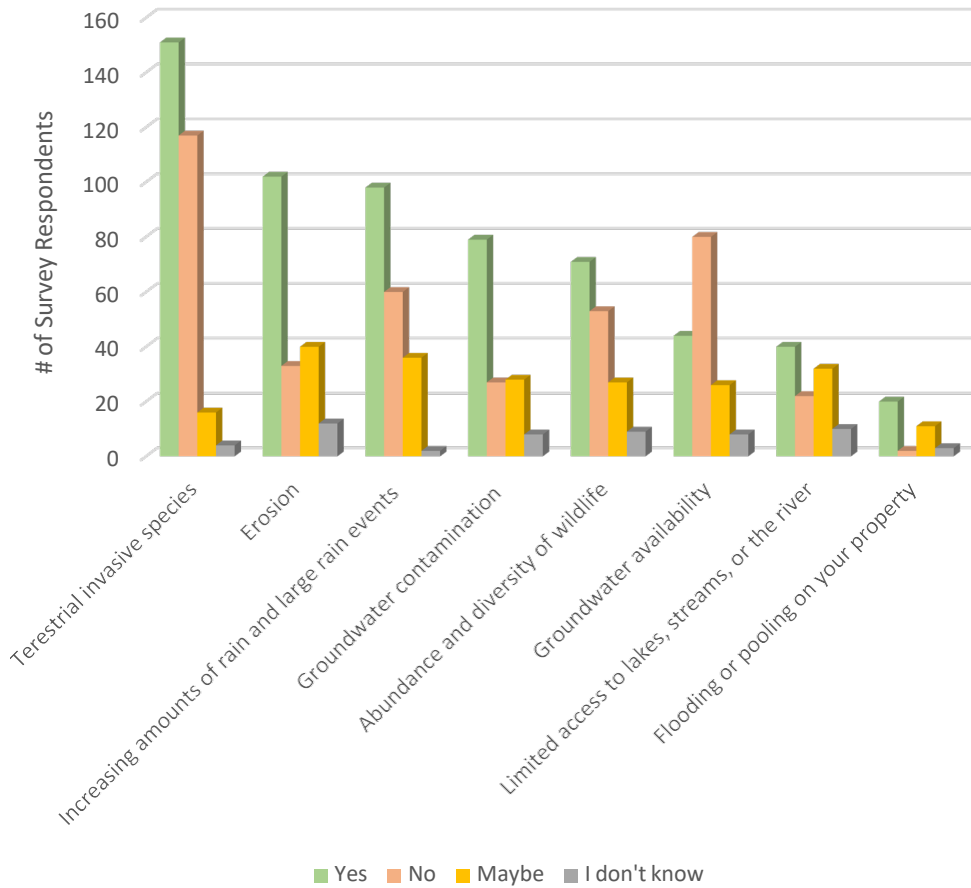


Getting Worse Staying the Same Getting Better I Don't Know

Most respondents believe that streams, lakes, and wetlands in the District are getting worse. 42.9% believed things were getting worse. 19.3% of survey respondents believe the streams, lakes, and wetlands are staying the same. 13.9% believe that streams, lakes, and wetlands are getting better. 24.1% were unsure about the status of streams, lakes, and wetlands.

# Residents Main Concerns and Factors Causing Problems on Their Property

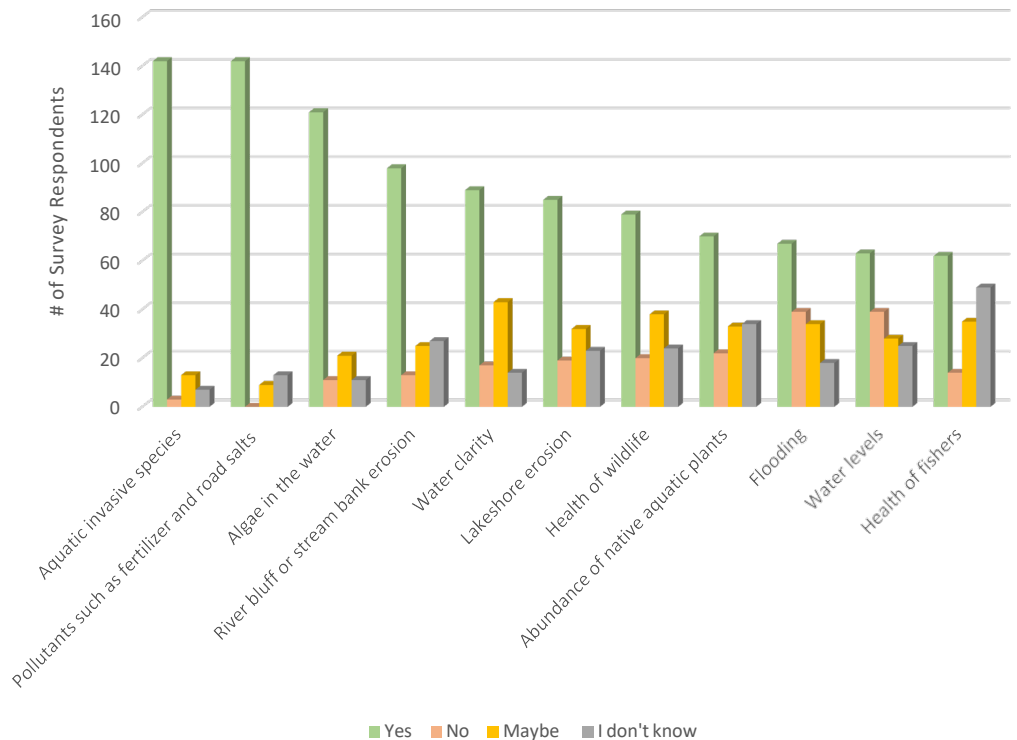
## CONCERNS



Residents were asked “Thinking beyond lakes, rivers and streams, which of the following do you believe to be concerns in our area?” Some of the biggest concerns property owners in the District have are terrestrial invasive species, increasing amount of rain and large events, and erosion. Things that were less concerning included flooding and pooling of water, amount of access to the lakes, streams, and the river, and Groundwater availability.

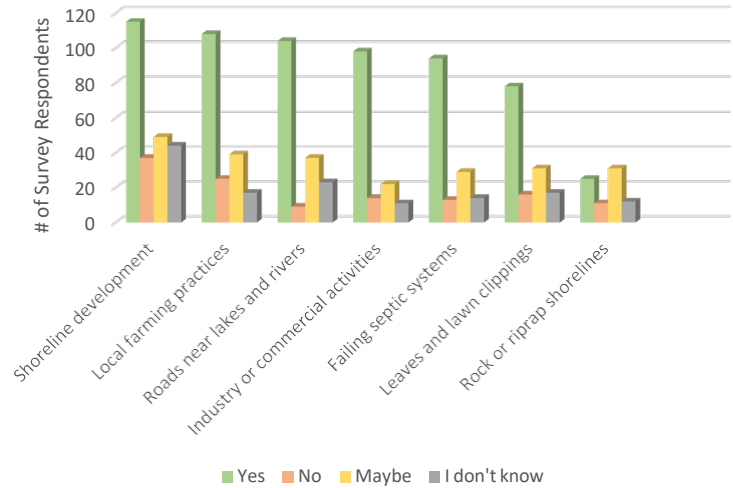
## PROBLEMATIC FACTORS

Residents were asked “In your opinion, which of the following factors are problems for lakes, streams, wetlands, and the St. Croix River in our District? It was their combined opinion that aquatic invasive species was a major factor causing problems in their area. On the other end of the spectrum, the least problematic was water levels and flooding.



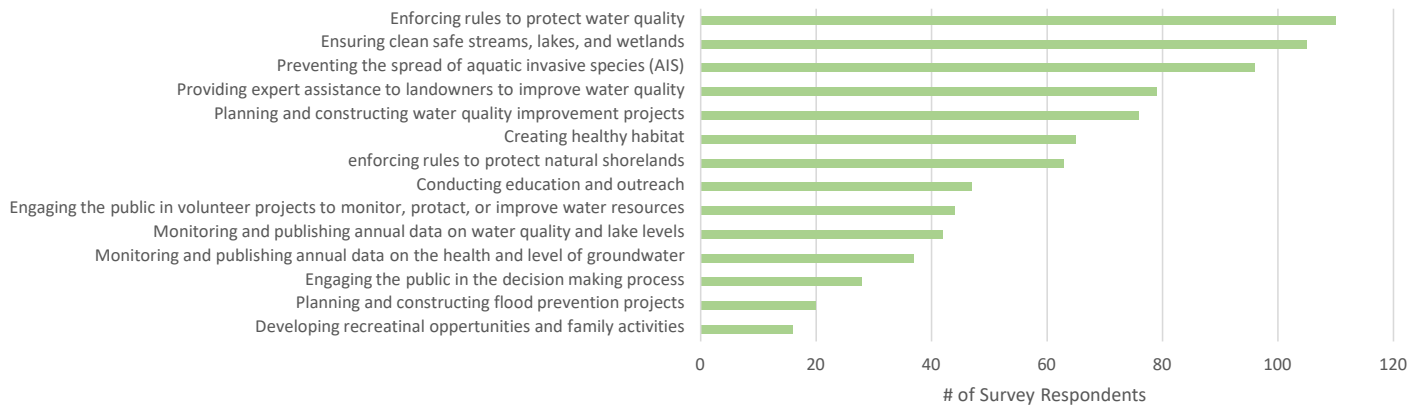
## Which of the following do you believe to be harming lake and river health in our District?

Issues that survey respondents believe are harming lake and river health include shoreline development, local farming practices, failing septic systems, leaves and grass clippings, and rock or riprap shorelines. The action survey respondents believe to be harming lake and river health the most was shoreline development. The shoreline stabilization practice of using rock and riprap was believed to be the least harming action for lake and river health.

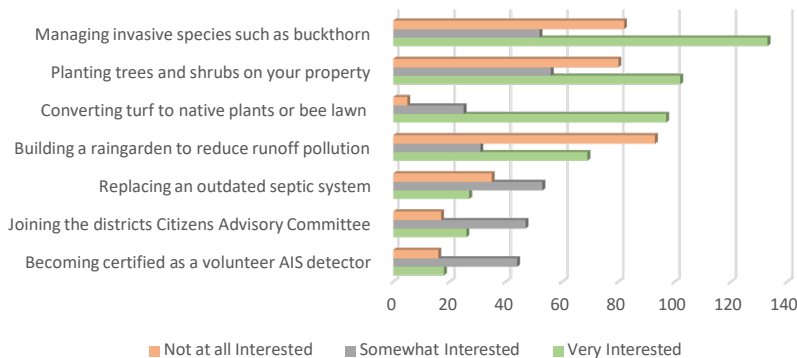


## How interested are you in taking the following actions?

Residents were asked to choose which five (5) subjects they thought ought to be the highest priorities for the watershed district in the next ten years. The top priority was enforcing rules to protect water quality. The second highest priority was ensuring clean and safe streams, lakes, and wetlands. The third highest was providing expert assistance to landowners to improve water quality. The last two in the top 5 priorities were preventing the spread of aquatic invasive species and planning and constructing water quality improvement projects.

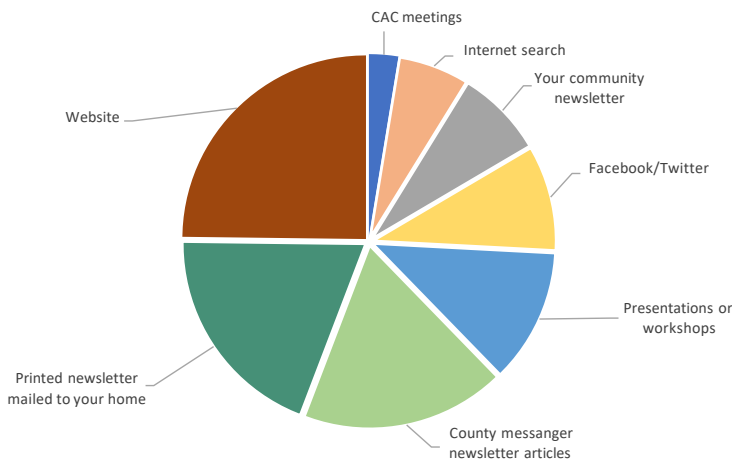


## How interested are you in taking the following actions?



The Districts survey gave a list of 7 activities that they believed may be of interest to survey respondents. They had the most interest in managing invasive species such as buckthorn. The second most popular interest was in planting trees and shrubs on their property. Least interest was shown for actions like joining the Districts CAC and becoming certified as a volunteer AIS detector.

**What is the best way for the Carnelian-Marine-St. Croix Watershed District to provide information to you about water quality projects, events, and other news involving the work of the District?**



Residents were asked what form of communication would work best for the District to inform them on watershed business. The consensus was that a printed newsletter mailed to their home or communication using the District Website would be the best way to get information out. The second best way for the District to communicate with survey respondents would be a CAC meeting or an internet search.

**Short Answer Questions**

**Key Themes Include:** Runoff, wake, erosion, pollution, farming, enforcement, invasive species, education, flooding, and wildlife

**Please share up to 3 water issues in the District that you think are the most important to address.**

- Water clarity, groundwater levels, buffer zones between shore and homes
- Invasive species, Erosion, and water quality.
- Lack of enforcement of no wake zone on river—high speed boaters from out of region.
- No concern for transmitting invasive on boats.
- Industrial usage of River watershed because of business pressure.
- Pollution
- Runoff from roads, farms, yards; chloride from salt; invasive species
- Aquatic Invasive Species and Phosphorous
- wake-generated erosion on the SCR, non-point sources of pollution e.g. salt, turf/landscape maintenance, ag practices. Stream buffers.
- Fisheries, Invasive Species, Pollutants
- nonpoint-source pollution; groundwater and lake levels
- Pollution and salt
- Property Owners awareness—in general and specific
- Agricultural runoff and controls, aquifer protection, health of wildlife and sustainability
- invasive species, pollutants, algae.
- Certainly, comprehensive and intense education needs to be part of any plan!”
- I believe there should be some sort of permitting system, along with much more comprehensive educational systems.
- Pollutant runoff and invasive species
- Runoff from overdevelopment, Excessive boat traffic, Declining water quality
- preventing Zebra mussels, Starry Stone Wart, and Eurasian water milfoil
- Invasive species, Water pollution, Shoreline damage
- “Overfishing, too many boaters, invasive species”
- Water pollution, invasive species, and flooding
- Zebra mussel’s invasion; ag runoff; large livestock operations near the river

## Please share any other input you would like to include in the Watershed plan.

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- Education, education, education. Informing people when considering purchasing property our here, of their implied responsibility of stewardship.
  - I would like to advocate for cleanup efforts at Loon Lake.
  - Past directors of the watershed did not have a point of view—which tended to allow big business interests such as mining and run off free reign. I think the watershed district should stand up to interests that do not attempt to protect the resources we have, from degradation.
  - I think that the basis of issue is a lack of understanding and value for WATERSHED.
  - I was appalled this year to learn that the St Croix water quality between Marine and Stillwater had received a lower score because of increased pollutants. This is a major concern for me.
  - WATER QUALITY
  - so glad that action can be taken and has been taken to protect this incredible natural resource
  - address groundwater quality and protection
  - Resources for public on process for applying clean water funds to specific projects.
  - Concentration of existing quality of groundwater and aquifers within the watershed.
  - Every time I see garbage, I picked it up. I would love for others to do so, too.
  - I am new to the area and new to the water district.
  - More meetings and posted.
  - Keep tax dollars down
  - Thank you for allowing us a voice
  - tough to choose only 5 priorities for the watershed - all the options sound great!
  - A campaign urging responsible management of private property and lobbying for laws to enforce or reward responsible practices
  - Thank you.
  - Please keep public informed of anything affecting our river and lakes, such as proposed CAFO upstream.
  - As a former volunteer at Warner Nature Center, I am keenly aware of the value of this natural environment as an asset to the whole watershed. I am hopeful it becomes part of the Watershed plan.
  - Invasive species like buckthorn have gone out of control in the past 10 years.
  - Thank you for requesting input
  - How to avoid loving our shared water resources to death. Limit number of boats. Set aside no fishing areas or sanctuaries. Designate no wake zones.
  - Limited Budget increases should be a priority
  - We want more emphasis on what is happening on the St Croix River.
  - More projects that directly support wildlife, like the turtle tunnel
  - These are critical issues. Please find an engaging way to get more people involved.
  - Partnerships with local community public works workers Advocacy for funding for improving septic systems/ water treatment systems
  - Prevent polluted runoff into the lake with heavy rains
  - Can you please focus efforts to increase the water quality of Loon Lake - I am willing to help however I can.
- Many thanks!
- Have lived on Loon Lake for over 40 years..Loon lake needs help

\*NOTE not all responses are listed here

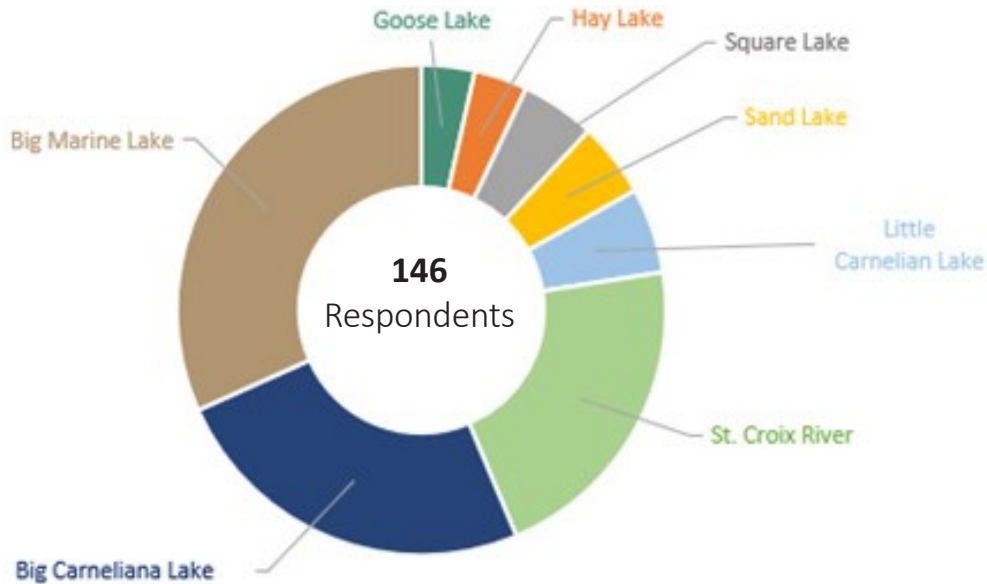


## Shoreline Survey Results

146 Responses

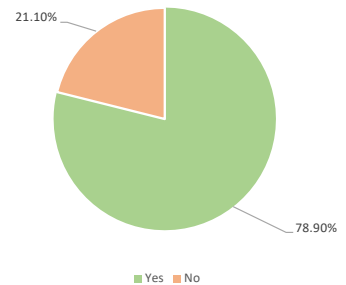
April – July 2020

### Who Responded?

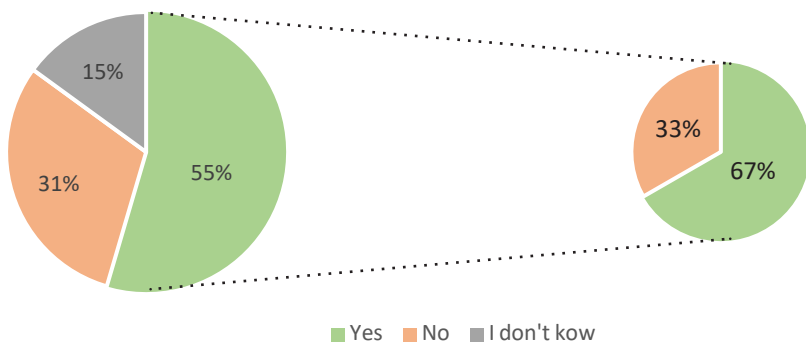


### Are you a year-round resident?

The bulk of shoreline landowners answering our survey noted that they were year-round residents of the District. The percentage of year-round residents was 79.9%. Some responses received were from seasonal shoreline landowner residents was 21.1%.

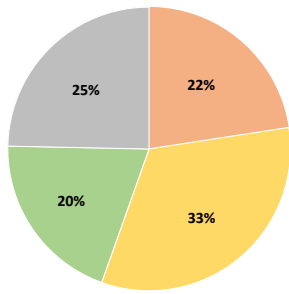


### Does your lake have an association, if yes, are you a member?



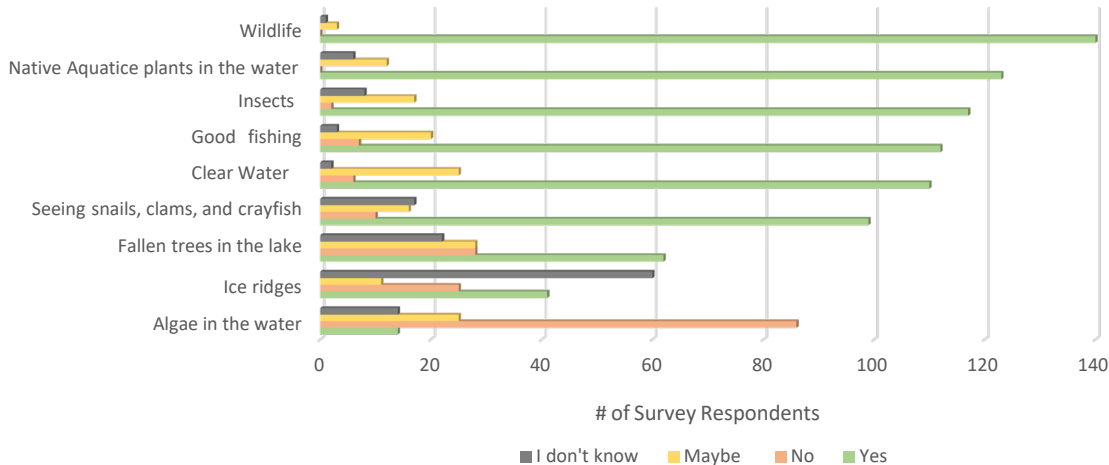
When shoreline landowners were asked if their lake had an association 55% of respondents said, yes, they did. 31% said no their lake did not have an association and 15% weren't sure if they did or not. 67 percent of the survey respondents that said their lake did have an association and they were a member of the association. 1/3 of those that noted they did have an association on their lake said they were not a member of the association.

## In general, do you think that streams, lakes, and wetlands in the Watershed District are:



This question resulted in what looks to be an even split in opinion. The highest percentage of respondents thought that water quality in the District was staying the same. The lowest percentage of respondents believed streams, lakes, and wetlands were improving.

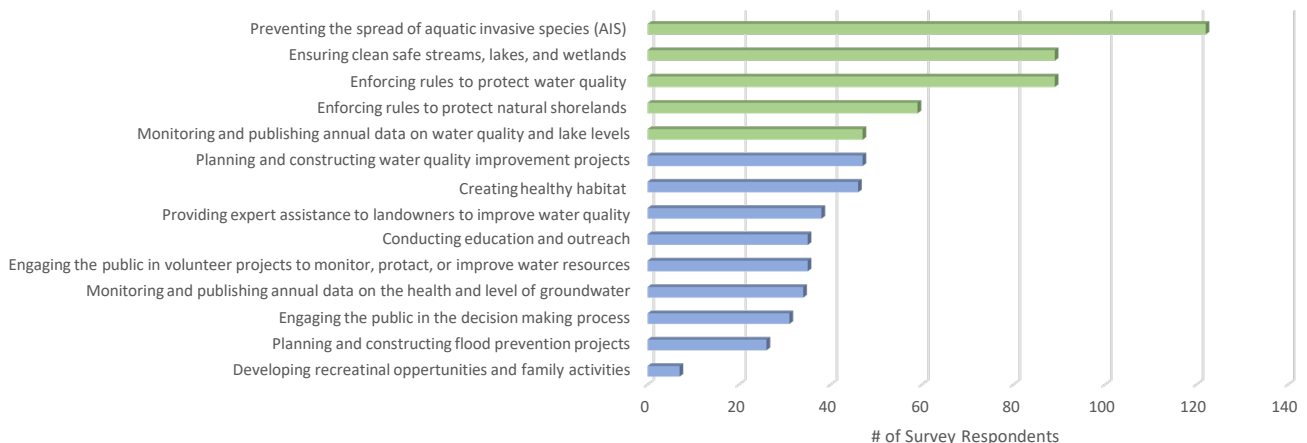
## Which characteristics do you consider to be signs of a healthy lake?



When asked about the characteristics shoreline landowners considered to be signs of a healthy lake shoreline survey respondents were given a list of 9 topics to choose from. The top five characteristics were wildlife, native aquatic plants in the water, insects, good fishing, and clear water. The top three characteristic shoreline residents believe are not signs of a healthy lake include algae in the water, ice ridges, and fallen trees in the lake.

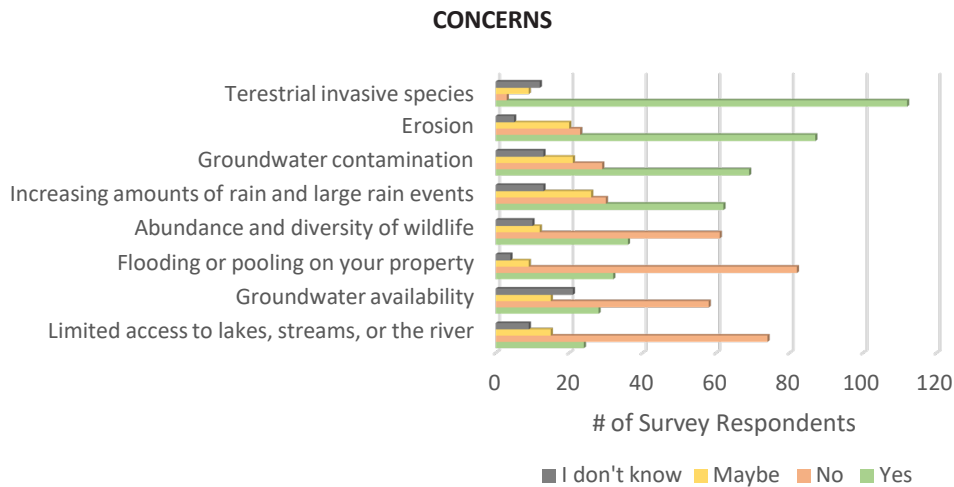
## What Were Shoreline Landowners Highest Priorities for the District in the Next 10 Years?

Shoreline landowners were asked to choose which 5 subjects they thought ought to be the highest priorities for the watershed district in the next ten years. The top priority was preventing the spread of aquatic invasive species. Second was ensuring clean and safe streams, lakes, and wetlands. The third highest priority was enforcing rules to protect water quality. The last two priorities were monitoring and publishing annual data on water quality and lake levels and constructing water quality improvement project and creating healthy habitat.



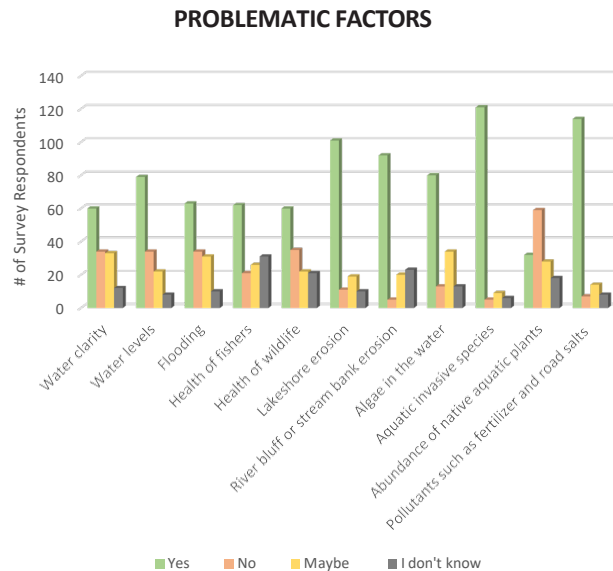


## Shoreline Residents Main Concerns and Factors Causing Problems on Their Property



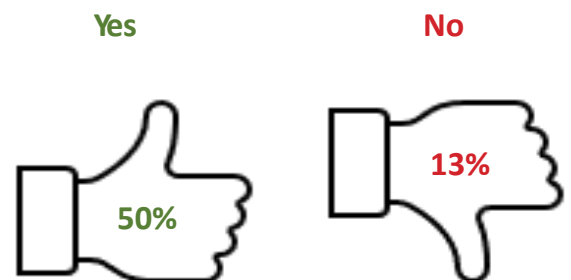
Shoreline landowners were asked “Thinking beyond lakes, rivers and streams, which of the following do you believe to be concerns in our area?” Some of the biggest concerns shoreline property owners have are erosion, terrestrial invasive species, and ground water contamination. Things that were less concerning included flooding and pooling of water, amount of access to the lakes, streams, and the river, and abundance and diversity of wildlife.

Shoreline landowners were asked “In your opinion, which of the following factors are problems for lakes, streams, wetlands, and the St. Croix River in our District?” It was their combined opinion that aquatic invasive species was a major factor causing problems in their area. On the other end of the spectrum, the least problematic was the abundance of native aquatic plants and health of wildlife.



## Does Your Shore Have a Shoreland Buffer Requirement that prohibits landowners from clearing vegetation during building projects or to better see the water?

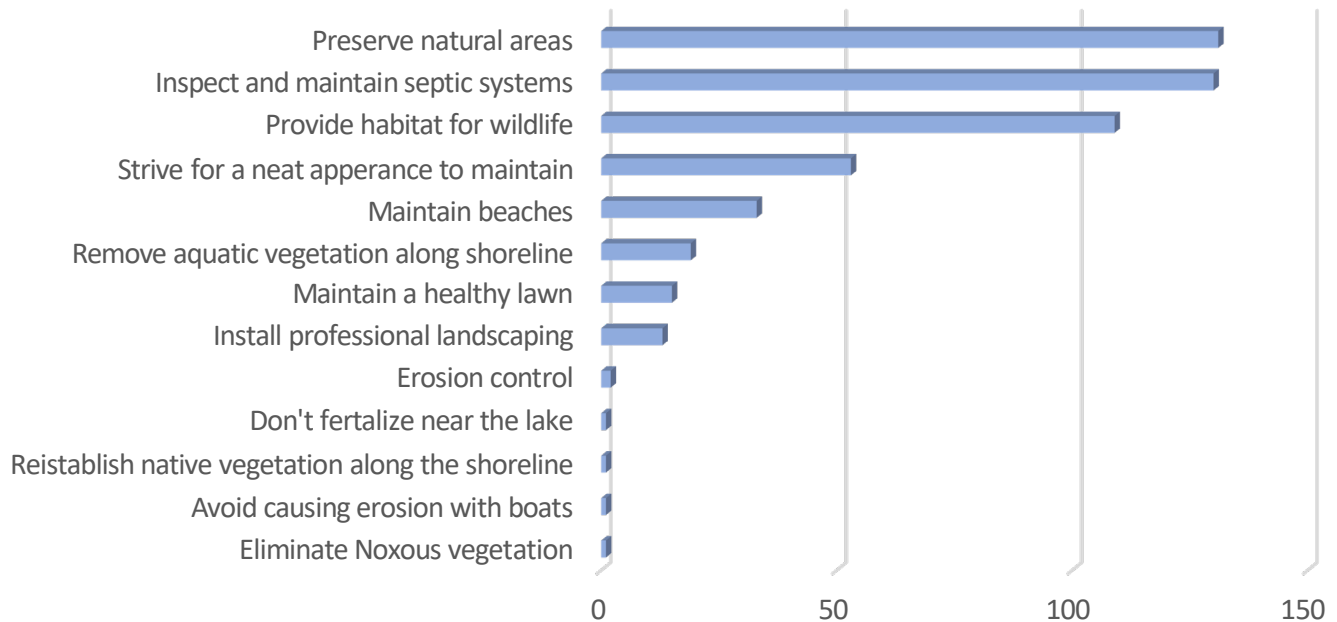
Shoreline landowners were asked if their lake or river has a shoreland buffer requirement that would prohibit landowners from clearing vegetation near the water during building or to better see the water. 50% of landowners believed yes, there was a shoreland buffer requirement. 13% said no, they did not believe their lake or river had a shoreland buffer requirement. 37% were unsure about the question.



\*37% were unsure  
40

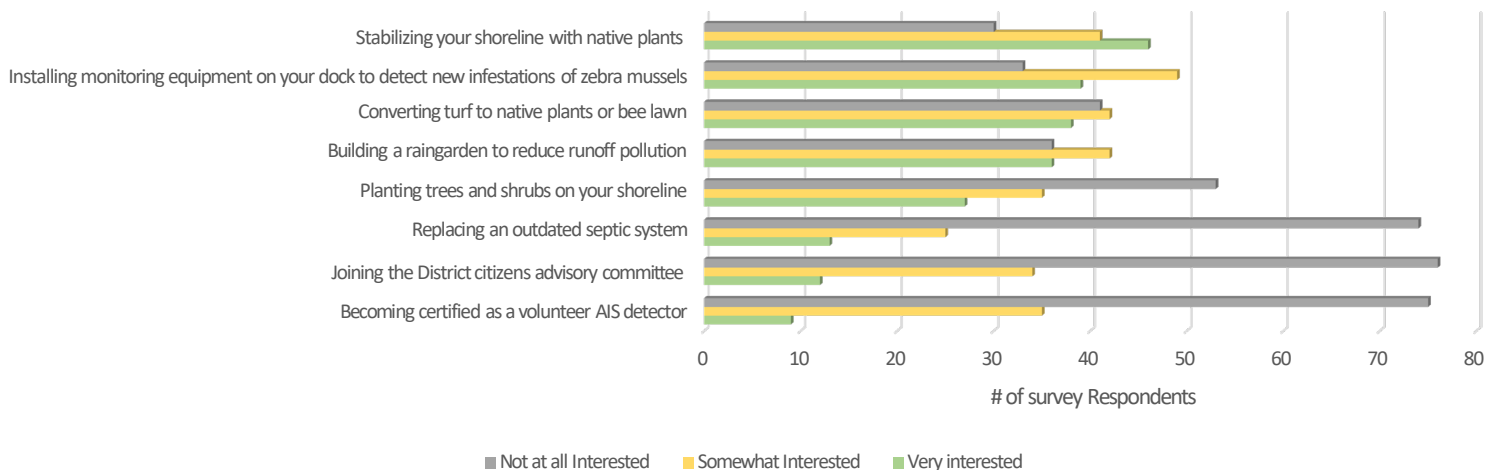
## Which actions do you think people should take to be good stewards of their shoreland properties?

Shoreline landowners were given a list of the top nine actions the last four responses were added into the “other” box. The top three actions shoreline residents believed people should take to be good stewards include preserving natural areas, inspecting and maintaining septic systems, and providing habitat for wildlife. The four responses that were added to our list include not fertilizing near the lake, reestablishing vegetation near the lake, avoid causing erosion with boats, and eliminating noxious vegetation.



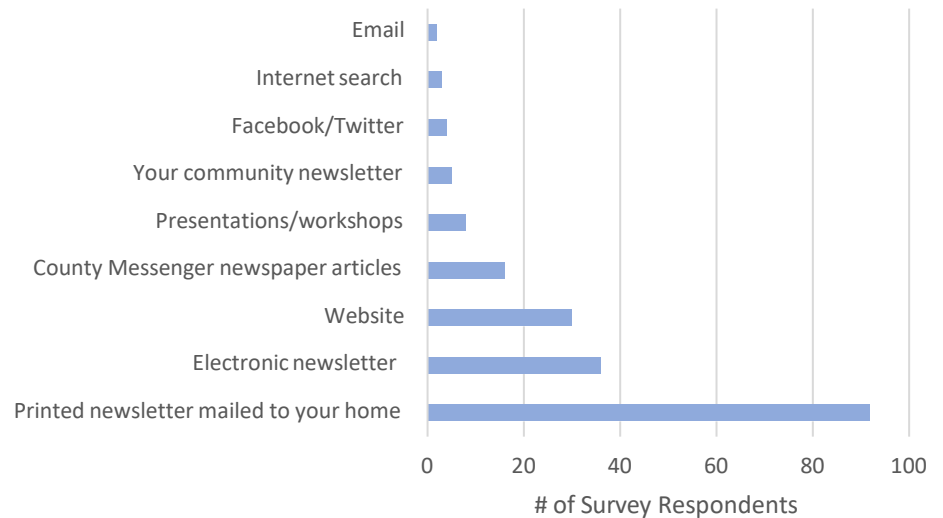
## How interested are you in taking the following actions?

Shoreline landowners were given a list of eight possible actions of interest. The interest was focused on stabilization of their shorelines, installing monitoring equipment on their docks to detect new infestations of zebra mussels, converting turf to native plants or bee lawn, and building a raingarden to reduce runoff pollution. Residents are less interested in becoming certified as volunteer AIS detectors, joining the citizens advisory committee, and replacing outdated septic systems.



## What is the best way for the CMSCWD to provide information to you about water quality projects, events, and other news involving the work of the District?

Shoreline landowners were asked what form of communication would work best for the District to inform them on watershed business. The overwhelming consensus was that a printed newsletter mailed to their home would be the best way to get information out. The second best way for the District to communicate with shoreline landowners would be an electronic newsletter.



### Short Answer Questions

**Key Themes Include:** Invasive species, runoff, fertilizer, education, stabilization of shorelines, erosion, wake zones and buffer zones

**Please share up to 3 water issues in the District that you think are the most important to address.**

- aquatic plants in swimming area
- clarity, loss of fish, Large homes and fertilizing sod lawns
- Convincing landowners to manage resources wisely, prevent invasive and take measures for infected to minimize or eliminate, take action to improve resources despite development
- Habitat for wildlife, habitat for aquatic species
- water levels, erosion, and invasive
- avoid getting invasive species, pollutants running into the water (fertilizer), erosion from high water & wake
- Overuse of Square lake park, the spread of invasive species, limit the use of fertilizer and pesticide on shoreline properties
- Runoff from unpaved road (Panorama), shoreline erosion
- High water, runoff, cleanliness
- watershed is trying to be intrusive; we are over boxed by the WD
- road salt is becoming an issue each year as it builds in our lakes, lake shore owners that don't understand the natural fluctuation of lake levels and maintain their shorelines, accordingly, controlling runoff from farms and quarries
- Invasive species, water level, fertilizer/salt
- Pollutants, fertilizer, salt runoff into lakes and rivers, Lake shore erosion, fish populations - bluegill limit become part of DNR Bluegill program to increase size
- Salt x3, Agriculture chemicals and fertilizer
- No Patrols at the public lake access to monitor boats for invasive species, lawns leaking fertilizer into the water, not enough best management practices by home owners beaches
- hold river homeowners accountable for maintaining river bluff standards - not clear cutting trees for view
- Lead sinkers, lead bullets, frack mining, feed lots, poor ag. practices run-off of chemicals from fertilizer, road salt and ag., erosion on the shoreline, exotic species, lack of buffer zones near the water
- Invasive species like milfoil and zebra mussels, declining water quality, DNR fish stocking that degrades lakes
- adding too many buildings/houses to the District, invasive species, pollutants/water runoff

## Please share any other input you would like to include in the Watershed plan.

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- Problems with aquatic invasive species
- I would love a reference to someone who can help remove aquatic vegetation along the shoreline near dock
- would be nice to have boat washing stations and boats must go there before they can enter a lake
- New homeowners should receive outreach and education
- enforce a no wake in certain areas to keep erosion down
- would like help stabilizing the retaining wall with natural sources
- Positive public education effort for lakeshore owners nearby to learn about best practices
- much more science-based info to lake property owners
- I would like to see efforts to establish legal rights for the carnelian marine St. Croix watershed. i.e. rights of nature example- rights of manoomin
- Goose lake has a serious issue with flooding of property and wetlands as well as shoreline erosion
- Big wildlife like eagles and turkeys have made a tremendous come back. I still do not see frogs and do not understand why.
- would like to see shoreline violations enforced. cattail removal without permit, tree cutting in violation of building permits
- enforce the no wake rule on the upper St. Croix its almost always abused
- shorelines are being destroyed on little carnelian and I have reported the issue, and nothing is done
- there is control on Big Marine, Big Carnelian, and Little Carnelian. Some type on control must be done.
- Speed limits in bass boats participating in fishing tournaments.
- Large houseboats on or coming on our lake and the wake they throw. My shoreline is disappearing.
- I would like the watershed to view scientifically driven stewardship of our waters and shore-lands as the highest priority. Maintaining property values suggests a different priority. Keeping our natural habitat natural is foremost.
- Restoration goals. The levy should give credit for good practices extra tax for those who do not.

\*NOTE not all responses are listed here