

# Vermilion River Stewardship



379 Ronka Rd.  
Worthington, ON  
P0M 3H0  
(705) 866-1677  
[Info@VermilionRiverStewards.ca](mailto:Info@VermilionRiverStewards.ca)  
[VermilionRiverStewards.ca](http://VermilionRiverStewards.ca)

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17 June 2019

To: Mayor Brian Bigger and City Council

By Email to: Ed.Landry@GreaterSudbury.ca  
Melissa.Riou@GreaterSudbury.ca  
Clerks@GreaterSudbury.ca

Re: Official Plan Review – Phase 2

Dear Sirs and Madams:

The Vermilion River Stewardship (VRS) is very pleased to offer our feedback on Phase 2 of the Official Plan Review (OP).

The VRS commends our Mayor and Council for declaring a Climate Emergency in the City of Greater Sudbury. In keeping with this declaration, our comments are focused through a climate change lens to emphasize the importance of setting strong policy in the OP on key issues and concerns, i.e., protection of water quality in our lakes and rivers, drinking water, wastewater, wetlands and natural heritage.

## **Climate Change**

As mentioned in our 3 January 2019 submission to Mayor and Council regarding the Greater Sudbury Water/Wastewater Master Plan<sup>1</sup>, the City of Toronto commissioned a Future Weather and Climate Driver Study in 2012 to help inform present and future infrastructure and service decisions to improve the level of certainty regarding the magnitude and frequency of expected climate change effects, and particularly extreme weather events. This was done to help reduce the risk of unsustainable investment and loss associated with infrastructure construction, maintenance and operations.<sup>2</sup>

The extremes of climate change will affect the operation of critical infrastructure such as water and wastewater treatment plants, sewers, the electrical grid, public transport and roads that are sensitive to temperature and weather thresholds. Beyond these thresholds, infrastructure may have reduced capacity or may not function at all.

This spring in the Atlantic provinces, for the second year in a row there were once in a century

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floods, and residents and communities are grappling with a new reality and tough choices - to rebuild or pack up and leave.<sup>3</sup> Ottawa and Quebec were also in uncharted territory dealing with flooding exceeding historic highs on the upper Ottawa River and its tributaries.<sup>4</sup>

As a basic, the City must have a comprehensive approach to watershed management through flood mapping, mitigation and hazard planning and protection, including services such as wetland protection, climate change adaptation and resilience, biodiversity health and land use planning.

The City should review all aspects of the OP to ensure adaptation, mitigation and resilience to Climate Change is addressed. To be climate ready, the OP should plan for a flood risk of 1,000+ years and look 50 years into the future for policy setting, taking into account the increased vulnerability of Sudbury's freshwater lakes and rivers, as well as the numerous other uncertainties and vulnerabilities that climate change will bring.

**Recommendations:**

1. Integrate climate action throughout the OP.
2. The City of Sudbury undertake a climate resiliency study to better inform future planning and development decisions. This study should prescribe specific measures to reduce vulnerabilities and increase resiliency and adaptability to the effects of a volatile and rapidly warming climate.
3. The standard flood plain mapping and planning should take into account flood risk of over 1,000-years, rather than the current 100-years.
4. The OP should reflect all climate impacted policies and plans through a broader lens and longer time period.

**Natural Infrastructure**

The OP should require the protection, creation and maintenance of natural infrastructure for all new developments, i.e. wetlands, swales and vegetated buffers, as well as upscaled greening programs and permeable surfaces for sidewalks and parking lots. These measures cannot be overstated when it comes to protection of lake water quality, flood attenuation and stormwater management.

**Recommendation:**

Natural infrastructure protection, creation and maintenance be required in all new development projects to protect lake water quality and help mitigate the effects of stormwater runoff into our lakes and rivers.

**Water and Wastewater Master Plan**

VRS is very much in agreement with the four main study objectives of the Water and Wastewater Master Plan, and especially that which entails safe and reliable water quality, reducing sanitary sewer backflow/overflow, inflow and infiltration (I&I), by-passes, reducing vulnerability and increasing resiliency. City staff have made significant progress in these areas; however, there are currently no targets or timelines established for total elimination of I&I and sewage plant bypasses.

**Recommendations:**

1. The Water/Wastewater Master Plan objectives be fully incorporated into the Official Plan.
2. Tertiary treatment be incorporated into all new or upgraded wastewater facilities.
3. A target date be set to end all inflow and Infiltration (I&I) into the wastewater system.

4. A target date be set to end all releases of partially treated and untreated sewage into the environment.
5. No lift stations located within a flood plain or near a waterbody.
6. Monitor impacts of wastewater plants on water quality by sampling upstream and downstream of wastewater facilities.

### **Public Bypass Reporting**

VRS is very proud of our Great City for being the second City in Ontario to initiate a Bypass Alert system to notify the public when wastewater plant bypasses occur. City Council passed this motion with a unanimous vote in 2014, and now Sudbury is used as an important model to follow. However, there is room for improvement:

#### **Recommendations:**

1. Improve public reporting and monitoring of bypass events using the [Kingston website model](#).
2. Monitor and report on contaminant concentrations, volumes, duration and trends in real time.
3. Simplify and clarify terminology used on the City's website to describe the different types and ways sewage can enter the environment (i.e., plant bypass, plant bypass exceeding plant capacity, overflows, primary and secondary treatment and treatment levels).

### **Private Septic Systems**

According to a 2015 City Map<sup>5</sup>, 49,865 addresses are within 50m of a wastewater line (81%) and 11,491 are not within 50m of a wastewater line (19%). This means that 19% of Sudbury residences are on private septic systems, and we can't begin to understand the impacts they may be having on local waterbodies.

#### **Recommendation:**

The City should include a policy in the OP with a focus on educating residents about best practices for construction, maintenance, and use of private septic systems.

### **Source Water Protection**

The City of Sudbury should ensure funding and practical support is in place to facilitate the full implementation of the Source Water Protection Plan.

#### **Recommendations:**

The Source Water Protection Plan must be:

1. Fully supported through financial and practical means.
2. Fully incorporated into the OP.

### **Private Drinking Water Intakes**

According to a 2015 City Map<sup>5</sup>, 51,424 addresses are within 50 m of a water line (84%), and 9,932 are not (16%). Consequently 16% of Sudbury's homes rely on private drinking water sources, and these systems are not included in the Source Water Protection Plan. Many private drinking water intakes are located along local rivers, creeks and lakes, where contaminants from mining, private septic systems and wastewater facilities are releasing treated, undertreated and untreated wastewater. The health and safety of Sudbury citizens must be reflected in the OP when it comes to public and private drinking water intakes.

**Recommendations:**

The OP should have a focus on the:

1. Protection of private drinking water intakes.
2. Education and best practices for protection and treatment of drinking water from private intakes.

**Watershed Management Policies**

As climate change progresses and nutrient loading increases, the presence of blue-green algae will become more prevalent.

**Recommendation:**

Accept the Ministry of Municipal Affairs and Housing (MMAH) recommendation to amend water management policies of the OP to include the presence of blue green algal blooms as a trigger for the application of the plan's Enhanced Management 2 policies.

**Road Salt Alternatives**

Sodium levels in Ramsey Lake are almost three times the level at which the medical officer of health must be notified to begin a process designed to alert patients on sodium restricted diets. Additionally, Ramsey Lake hosts some private drinking water intakes. Sodium cannot be removed at the David Street Water Plant or in-home filter systems; therefore, it is crucial to address the long-term health effects of increasing levels of sodium in our drinking water. Stringent sodium mitigation policy measures should be addressed in the OP.

**Recommendations:**

1. An emphasis on mitigation measures designed to prevent/reduce sodium and other contaminants from entering Ramsey Lake.
2. Improving the monitoring and public reporting of road salt in drinking water lakes.

**Wetland Protection**

Wetlands are hotspots of biodiversity and provide habitat for a host of species at risk. Given the significant ecological, social and economic benefits of wetlands, including their importance in storing and purifying water, attenuation of flooding and other negative impacts of climate change, OP policy should ensure they are protected and maintained.

**Recommendations:**

1. Prioritize wetlands as key to reducing the impacts of the extremes of climate change.
2. Assess and inventory local wetlands and their ability to reduce climate-related impacts.
3. Focus on measures to enhance resilience and protection of wetlands

**Natural Heritage**

The purpose of a Natural Heritage System (NHS) is to promote and protect important natural heritage features, not just for our own enjoyment today, but also for our future generations; and to maintain, restore, and where possible, improve biodiversity, connectivity and ecological function of the NHS network, including surface water and groundwater features. An NHS would provide a Significant Natural Area (SNA) designation to all waterways and their floodplains.

The Junction Creek subwatershed study draft recommends Natural Heritage System mapping and protection of locally significant natural features/areas. Additionally, the MMAH recommends a focus on Natural Heritage through standalone subwatershed studies, independent from stormwater management.

**Recommendations:**

1. The OP include policy on developing a Natural Heritage Strategy to identify significant natural features of cultural, social and historical value.
2. Accept the recommendation in the Junction Creek Subwatershed Study to do Natural Heritage System mapping and protection of locally significant natural features/areas.
3. Accept the MMAH recommendation to focus on Natural Heritage with standalone subwatershed studies, independent from stormwater management.

Thank you for this opportunity to provide input into the Official Plan.

Sincerely,



Linda Heron  
Chair, Vermilion River Stewardship

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<sup>1</sup> VRS submission dated 3 January 2019, Re: Greater Sudbury Water/Wastewater Master Plan

<sup>2</sup> Toronto's Future Weather & Climate Driver Study: Outcomes Report, Summary of the SENES Consultants Ltd. Study by Toronto Environment Office, October 30, 2012.

<sup>3</sup> <https://thenarwhal.ca/back-to-back-historic-floods-in-atlantic-canada-force-a-climate-reckoning/>

<sup>4</sup> <https://ottawacitizen.com/news/local-news/uncharted-territory-flooding-on-upper-ottawa-river-exceeds-historic-high>

<sup>5</sup> Addresses not serviced by Municipal Sewer or Water – 2015 City Map