

## 9. Natural Environment, Resources and Constraints

The Province of Ontario has long-standing requirements for municipalities to protect key natural heritage features, natural resources and constraints to development. The City works with the Sault Ste. Marie Region Conservation Authority in implementing and enforcing many of the regulations related to the natural environment and natural constraints.

### What We Know

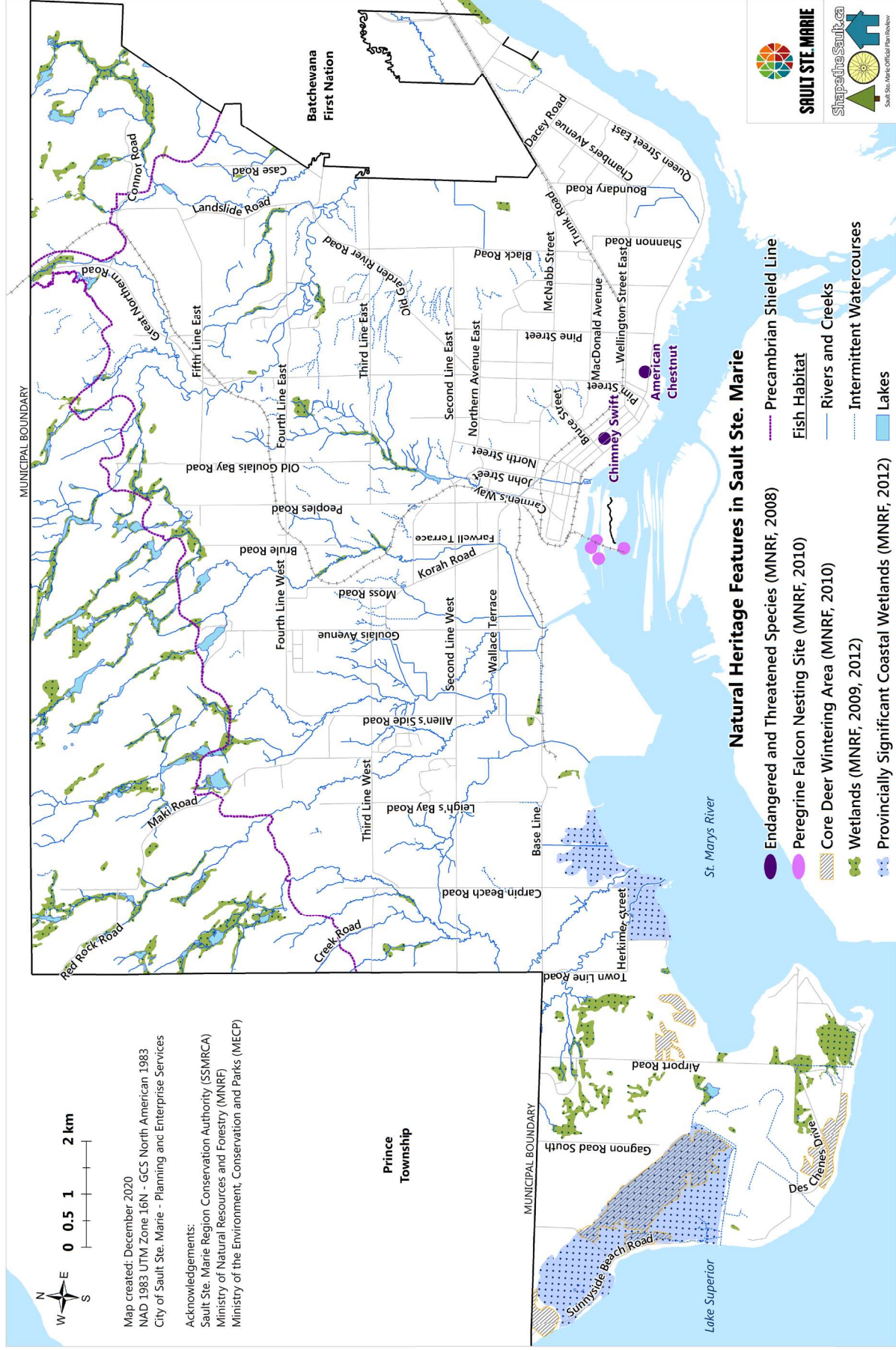
#### Key Points

- Natural heritage features in Sault Ste. Marie that the City is required to have varying levels of protection for include 273 kilometres of creeks and streams that are fish habitat, 1,700 hectares of wetlands and 47 species at risk.
- Natural hazards include flooding in areas along the St. Marys River, Lake Superior and beside streams and watercourses, wildfires in forested areas and erosion of significant slopes. All of these hazards are expected to become increasingly prominent in the coming decades due to climate change.
- The Precambrian Uplands, extending from the Precambrian Shield Line northward to the City limits is an environmentally sensitive area due to its many water features, rugged topography, little topsoil and its role in recharging the aquifer that provides much of our drinking water.
- Aggregates (sand and gravel) are a Provincially Significant Resource that the City is required to protect for long-term use. All of the Sault's aggregate pits and quarries are located in the rural northern portion of the City, which is also the Sault's 'Significant Groundwater Recharge Area'.
- The City has adopted the *Sault Ste. Marie Region Source Protection Plan* aimed at ensuring activities that could pose a risk to the local drinking water supply are monitored and managed. Non-residential land uses within the protection areas established around each of the City's four groundwater wells and the Significant Groundwater Recharge Area are subject to regulations to mitigate the threat of contamination.

#### Natural Heritage Features in Sault Ste. Marie

Natural heritage features are sensitive components of the natural environment that need to be protected. These include wetlands, fish habitat and other significant wildlife habitat that may be critical to endangered and threatened species. Provincial policies require Official Plans to protect these significant natural heritage features from development. Generally, **environmental impact assessments** are required prior to development or site alterations within or adjacent to these features ("adjacent" typically means within 120 metres). In addition to Provincially Significant natural heritage features, the Precambrian Uplands above the Precambrian Shield Line has been identified locally as an environmentally sensitive area.

**Figure 9.1: Map of Natural Heritage Features in Sault Ste. Marie.**  
 Source: City of Sault Ste. Marie; Ministry of Natural Resources and Forestry; Sault Ste. Marie Region Conservation Authority.



### Fish Habitat

Fish habitat includes lakes, streams, intermittent creeks and even drainage courses that are part of a valuable, connected habitat that serves a variety of fish and their prey throughout various stages of their life cycle.

The Province requires municipalities to protect fish habitat, in accordance with Provincial and Federal regulations. Development or site alteration within or adjacent to fish habitat is not permitted unless it can be demonstrated, through an environmental impact assessment, that there will be no negative impacts to nearby fish habitat. Potential impacts include vegetation removal adjacent to watercourses and increased sediment from stormwater. Protecting fish habitat is synonymous with protecting surface water quality.

Within Sault Ste. Marie, there are **approximately 273 km of creeks and streams that are fish habitat**. Some of these watercourses include:

- **Big Carp** and **Little Carp Rivers** in the rural western part of Sault Ste. Marie.
- **Bennett Creek, West Davignon Creek, Central Creek** and **East Davignon Creek** in the west end, which all have flood control channels built along portions of them.
- **Fort Creek**, flowing from the Fort Creek Conservation Area to the outflow by the Gateway site in the Downtown.
- **Clark Creek**, which has a flood control channel on the eastern edge of the Sault Ste. Marie Golf Club.
- **Root River**, which traverses a large portion of the rural northern part of Sault Ste. Marie and empties into Little Lake George at Bells Point just east of the City limits in Garden River First Nation.

### Endangered and Threatened Species and Their Habitats

According to the Ontario Ministry of Natural Resources and Forestry, there are **47 species at risk that live in the Sault Ste. Marie region**. These include 24 bird species, 4 reptile species, 6 mammal species, 4 invertebrate species, 2 plant species (though both are a result of cultivation rather than natural occurrence) and 7 fish and mussel species. In some cases, (Chimney Swifts) these animals may simply pass through the community or stop over for a very short period of time. The Province prohibits development and site alteration within habitat of endangered species and threatened species, except in accordance with Provincial and Federal requirements.

**Table 9.1: Species at Risk in the Sault Ste. Marie Region (2017 Inventory).**

Source: Ministry of Natural Resources and Forestry — Sault Ste. Marie District Office.

Species — Common Name	Species — Scientific Name	Status	Category
American White Pelican	<i>Pelecanus erythrorhynchos</i>	Threatened	Birds
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Special Concern	
Bank Swallow	<i>Riparia riparia</i>	Threatened	
Barn Swallow	<i>Hirundo rustica</i>	Threatened	
Black Tern	<i>Chlidonias niger</i>	Special Concern	
Bobolink	<i>Dolichonyx oryzivorus</i>	Threatened	
Canada Warbler	<i>Wilsonia canadensis</i>	Special Concern	
Chimney Swift	<i>Chaetura pelagica</i>	Threatened	

Species — Common Name	Species — Scientific Name	Status	Category
Common Nighthawk	<i>Chordeiles minor</i>	Special Concern	Birds
Eastern Meadowlark	<i>Sturnella magna</i>	Threatened	
Eastern Whip-poor-will	<i>Antrostomus vociferus</i>	Threatened	
Eastern Wood-Pewee	<i>Contopus virens</i>	Special Concern	
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	Special Concern	
Golden Eagle	<i>Aquila chrysaetos</i>	Endangered	
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	Special Concern	
King Rail	<i>Rallus elegans</i>	Endangered	
Kirtland's Warbler	<i>Dendroica kirtlandii</i>	Endangered	
Least Bittern	<i>Ixobrychus exilis</i>	Threatened	
Olive-sided Flycatcher	<i>Contopus cooperi</i>	Special Concern	
Peregrine Falcon	<i>Falco peregrinus</i>	Special Concern	
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	Special Concern	
Short-eared Owl	<i>Asio flammeus</i>	Special Concern	
Wood Thrush	<i>Hylocichla mustelina</i>	Special Concern	
Yellow Rail	<i>Coturnicops noveboracensis</i>	Special Concern	
Blanding's Turtle	<i>Emydoidea blandingii</i>	Threatened	Reptiles
Massasauga Rattlesnake	<i>Sistrurus catenatus</i>	Threatened	
Snapping Turtle	<i>Chelydra serpentina</i>	Special Concern	
Wood Turtle	<i>Glyptemys insculpta</i>	Endangered	
Mountain Lion (Cougar)	<i>Puma concolor</i>	Endangered	Mammals
Eastern Small-footed Myotis	<i>Myotis leibii</i>	Endangered	
Little Brown Myotis	<i>Myotis lucifugus</i>	Endangered	
Northern Myotis	<i>Myotis septentrionalis</i>	Endangered	
Tri-colored Bat	<i>Perimyotis sublavus</i>	Endangered	
Woodland Caribou	<i>Rangifer tarandus caribou</i>	Threatened	
Monarch	<i>Danaus plexippus</i>	Special Concern	Invertebrates
Rusty-patched Bumblebee	<i>Bombus affinis</i>	Endangered	
West Virginia White	<i>Pieris virginiensis</i>	Special Concern	
Yellow-banded Bumble Bee	<i>Bombus terricola</i>	Special Concern	
American Chestnut	<i>Castanea dentate</i>	Endangered	Plants
Butternut	<i>Juglans cinerea</i>	Endangered	
American Eel	<i>Anguilla rostrata</i>	Endangered	Fish & mussels
Hickorynut (mussel)	<i>Obovaria olivaria</i>	Endangered	
Lake Sturgeon	<i>Acipenser fulvescens</i>	Threatened	
Northern Brook Lamprey	<i>Ichthyomyzon fossor</i>	Special Concern	
Redside Dace	<i>Clinostomus elongatus</i>	Endangered	
Short-jaw Cisco	<i>Coregonus zenithicus</i>	Threatened	
Silver Lamprey	<i>Ichthyomyzon unicuspis</i>	Special Concern	

There are **two identified significant wildlife habitats** within the City limits:

- **Peregrine Falcon Nesting Sites** on the International Bridge.
- **Whitetail Deer Wintering Yards** near the Sault Ste. Marie Airport and Shore Ridges wetland.

Current Provincial policies require an impact assessment prior to development within or adjacent to these significant wildlife habitats.

### Wetlands

Wetlands provide valuable environmental functions such as wildlife habitat, water quality enhancement and flood control. Sault Ste. Marie has approximately **1,700 hectares (4,200 acres) of wetlands**, occupying around **7% of the city's land mass**.

Similar to other significant natural heritage features, there are a number of Provincial policies that must be followed when development is proposed within or adjacent to a wetland. From a regulatory standpoint, Provincial policies establish four types of wetlands.

### **Provincially Significant Wetlands and Provincially Significant Coastal Wetlands**

Provincially Significant Wetlands, whether coastal or not, are those wetlands that have been evaluated by a qualified evaluator in accordance with the **Ontario Wetland Evaluation System**<sup>22</sup>. The evaluation system is a points-based system that defines, identifies and measures wetland functions and values. Ecosystem values include groundwater storage and release, wildlife habitat and biodiversity. Human utility values include flood prevention, improved water quality and recreational opportunities. Points are attributed to these values and if a wetland reaches a specific threshold, it is deemed Provincially Significant. Provincial policies afford Provincially Significant Wetlands the highest level of protection. Most types of development within or adjacent to (120m) a Provincially Significant Wetland is prohibited, unless it can be demonstrated that there will be no negative impacts on the natural features or their ecological functions.

The Sault has two Provincially Significant Wetlands, and together they occupy approximately 728 hectares (1,800 acres):

- The Shore Ridges wetland northwest of the Airport along Lake Superior.
- The Carp River wetland at the end of Carpin Beach Road on the shore of the St. Marys River.

### **Coastal Wetlands**

Coastal wetlands are those located along the Great Lakes or a connecting channel, like St. Marys River. Coastal wetlands are seen as Provincially important and as such, Provincial policies afford a significant level of protection. Most types of development are not permitted within a coastal wetland or within 120m of its boundary, unless it can be demonstrated that there will be no negative impacts on the natural features or their ecological functions. The Shore Ridges and Carp River Wetlands are examples of Provincially Significant Coastal Wetlands. The 88-hectare Pointe Louise Wetland is an example of a coastal wetland that was evaluated and deemed not to be Provincially Significant.

### **Evaluated Wetlands**

Evaluated wetlands are those which have been evaluated in accordance with the Ontario Wetland Evaluation System and determined not to be Provincially Significant. Current Provincial policy permits development within wetlands that are deemed to be neither coastal wetlands nor Provincially Significant wetlands. There are currently about 92 hectares of evaluated wetlands within the community, including the 88ha Pointe Louise Coastal Wetland.

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<sup>22</sup> More information at: <https://www.ontario.ca/page/wetlands-evaluation>

## **Unevaluated Wetlands**

The majority of the wetlands in Sault Ste. Marie are unevaluated wetlands. There are approximately 1,568 hectares of unevaluated wetlands within City limits. Provincial policies require that a wetland evaluation be conducted prior to any development either within the wetland or adjacent lands (120m).

## Trees and Forests

In 2017, the Province introduced amendments to the Municipal Act requiring municipalities to develop policies for the protection and enhancement of the local tree canopy and natural vegetation. Municipalities can also pass tree by-laws to prohibit or regulate the destruction of existing trees and woodland areas. Trees and forests provide significant environmental, recreational, health, aesthetic and heritage value.

## Natural Vegetation and Invasive Species

Natural vegetation refers to plants that are native to a region. They provide better habitat for local wildlife than exotic plants, and are also easier to care for and maintain. For example, planting native wildflowers alongside roads and trails can create small habitats for monarch butterflies. Naturalizing the shoreline of a watercourse results in a healthier watercourse, providing shade for fish and habitat for other animals.

**Invasive species** are plants and animals that, when they are introduced and spread into a location, negatively impact the native biodiversity of that location. Invasive species can have a particularly negative impact on local species at risk. In Sault Ste. Marie, the most recent invasive species problem was that of the **Emerald Ash Borer**, which has decimated many of the street trees in our urban core. Another invasive species called **Oak Wilt**, which similarly attacks trees often planted as urban street trees, is currently in Michigan and there are fears it might spread north into regions like Sault Ste. Marie. According to a 2017–2019 survey conducted by the Invasive Species Centre, based out of the Great Lakes Forestry Centre here in the Sault, it is estimated that municipalities across Ontario spend approximately \$218,000 annually per municipality on control, management, detection and prevention of invasive species.<sup>23</sup>

## Precambrian Uplands

The **Precambrian Uplands** is an environmentally sensitive area with many lakes, rivers and streams, and its geology is characterized by rugged bedrock with very little topsoil. Within the City of Sault Ste. Marie's boundaries, the Uplands extend from the **Precambrian Shield Line**, defined by the first exposed outcroppings of the Uplands' bedrock, northward to the City limits. Surface water flows south and recharges the aquifer from which much of the Sault's drinking water originates from. Many of Sault Ste. Marie's significant natural heritage features such as wetlands and fish habitat are located in the Precambrian Uplands and the majority of the area is forested. Given these characteristics, this area is sensitive to development.

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<sup>23</sup> More information at: <https://www.invasivespeciescentre.ca/invasive-species/what-is-at-risk/invasive-species-economic-impacts/>

## **Natural Hazards in Sault Ste. Marie**

Natural hazards that affect Sault Ste. Marie include flooding, wildland fire and erosion. Any development that occurs within or near many hazard lands must be approved by the Sault Ste. Marie Region Conservation Authority.

### **Flooding**

Sault Ste. Marie most recently had severe flooding during the storms in the fall of 2013 and again in the fall of 2019. Because of the effects of climate change, it is generally anticipated that flooding may occur more frequently and with more severity. Currently, there are three types of flood risk areas that are regulated in Sault Ste. Marie, primarily using mapping and data based on the *Flood Plain Mapping Report* prepared by Dillon Consulting in 1977.

- The **Great Lakes Flood Line** corresponds to the Sault Ste. Marie Region Conservation Authority's **Regulated Shoreline** along Lake Superior and the St. Marys River. It is based on the 1 in 100 year flood level, the predicted long-term stable slope for the shoreline and includes accommodations for dynamic beach movement (movement of unstable accumulations of shoreline sediment). The regulated flood line also includes a 15-metre allowance for wave up-rush.
- The **Tributary Flood Line** indicates flood risk areas along streams, intermittent watercourses and inland lakes. These are identified by the Conservation Authority using the "Regional Storm" with allowances for erosion, meandering and the 1 in 100 year flood event. The Regional Storm for the Sault Ste. Marie area is the "Timmins Storm", based on an actual rainfall event in Timmins in 1961. Regulated areas are those areas affected by flood hazards or erosion hazards, wetlands, and areas of interference surrounding wetlands.
- **Specific Flood Areas** are urban areas prone to flooding. Presently mapped areas are located in **Bayview, Gateway (near the Downtown casino) and Steelton**. In recent years, the City has replaced sections of the Fort Creek aqueduct to improve capacity for reducing flooding risks in these areas.

### **Wildland Fire**

Behind flooding, wildfires are the second largest factor for natural disasters. On average, the Ontario Ministry of Natural Resources and Forestry responds to over 1,200 wildfires each year. The anticipated impacts of climate change (increased frequency and severity of drought periods) coupled with communities expanding into forested areas have increased the risk of wildfires.

The Province requires that development generally be directed to areas away from lands that pose "**high to extreme**" risk for wildfire. In general, vegetation types which present high to extreme risk for wildfire include natural conifer forests and unmanaged conifer plantations, with black or white spruce, jack pine, balsam fir and immature red and white pine. Mixed wood forests with greater than 50% conifer composition and forests that have experienced disease or wind damage also pose a potential risk. The Ministry of Natural Resources and Forestry provides general mapping of forests' risk for wildland fire. Where development is proposed in an area identified as having a high to extreme risk, an assessment may be required.

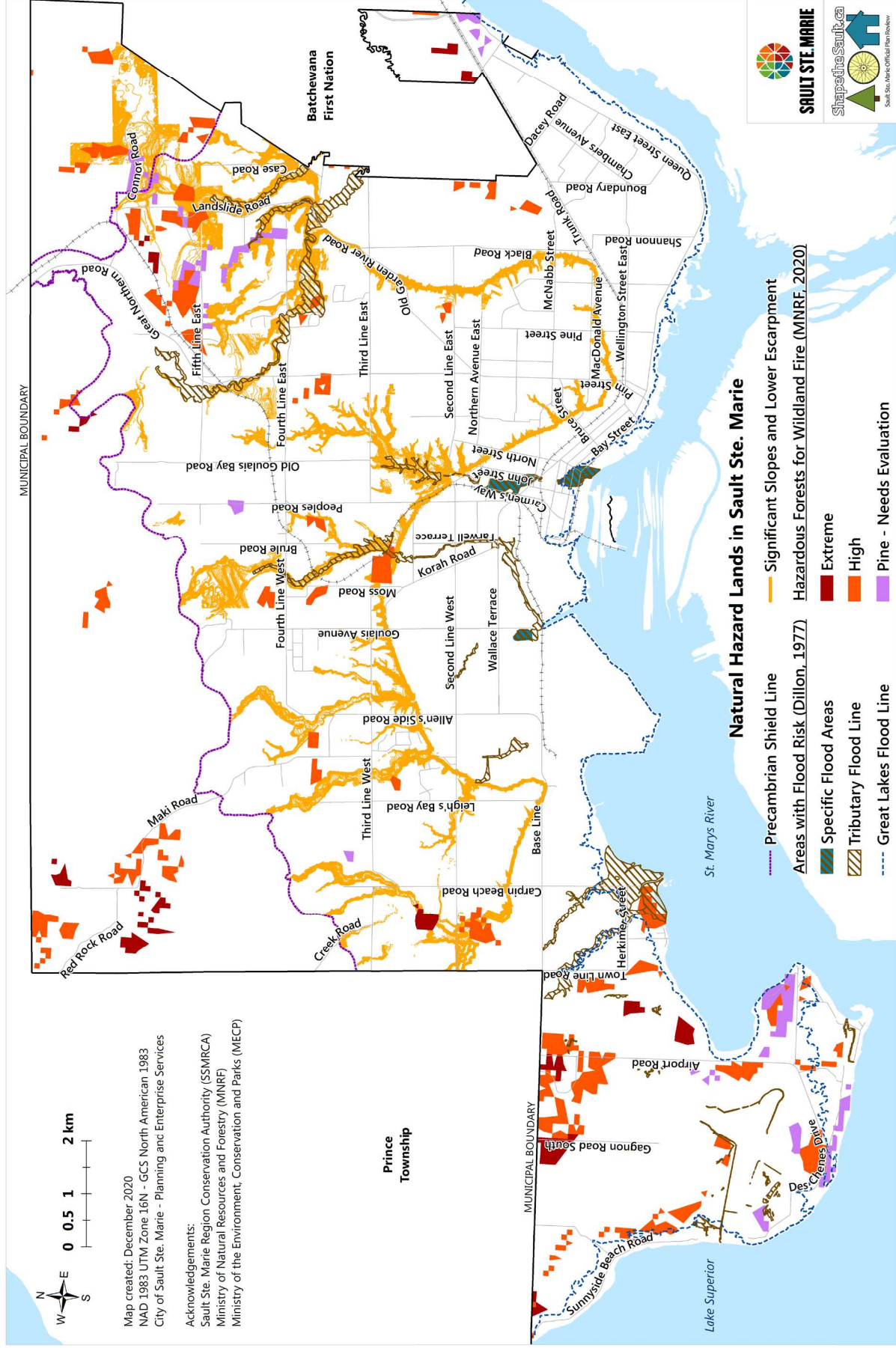
In addition to directing development away from forests that pose a high to extreme risk, there are also a number of methods for mitigating the risk, including forest management, site layout and constructing fire breaks.

### Significant Slopes

Significant slope lands in Sault Ste. Marie include **river and stream valleys (ravines)** as well as the Sault's **lower escarpment**, commonly referred to as "**the hill**". Development or site alteration on or near significant slopes is regulated to prevent erosion, potential human risks and property damage. Many of the significant slope lands also act as vegetated corridors providing natural habitat and connecting forested areas throughout the community. It is the role of the Conservation Authority to regulate development within slope hazard lands.



**Figure 9.2: Map of Natural Hazard Lands in Sault Ste. Marie.**  
 Source: City of Sault Ste. Marie; Ministry of Natural Resources and Forestry; Sault Ste. Marie Region Conservation Authority (Dillon, 1977).



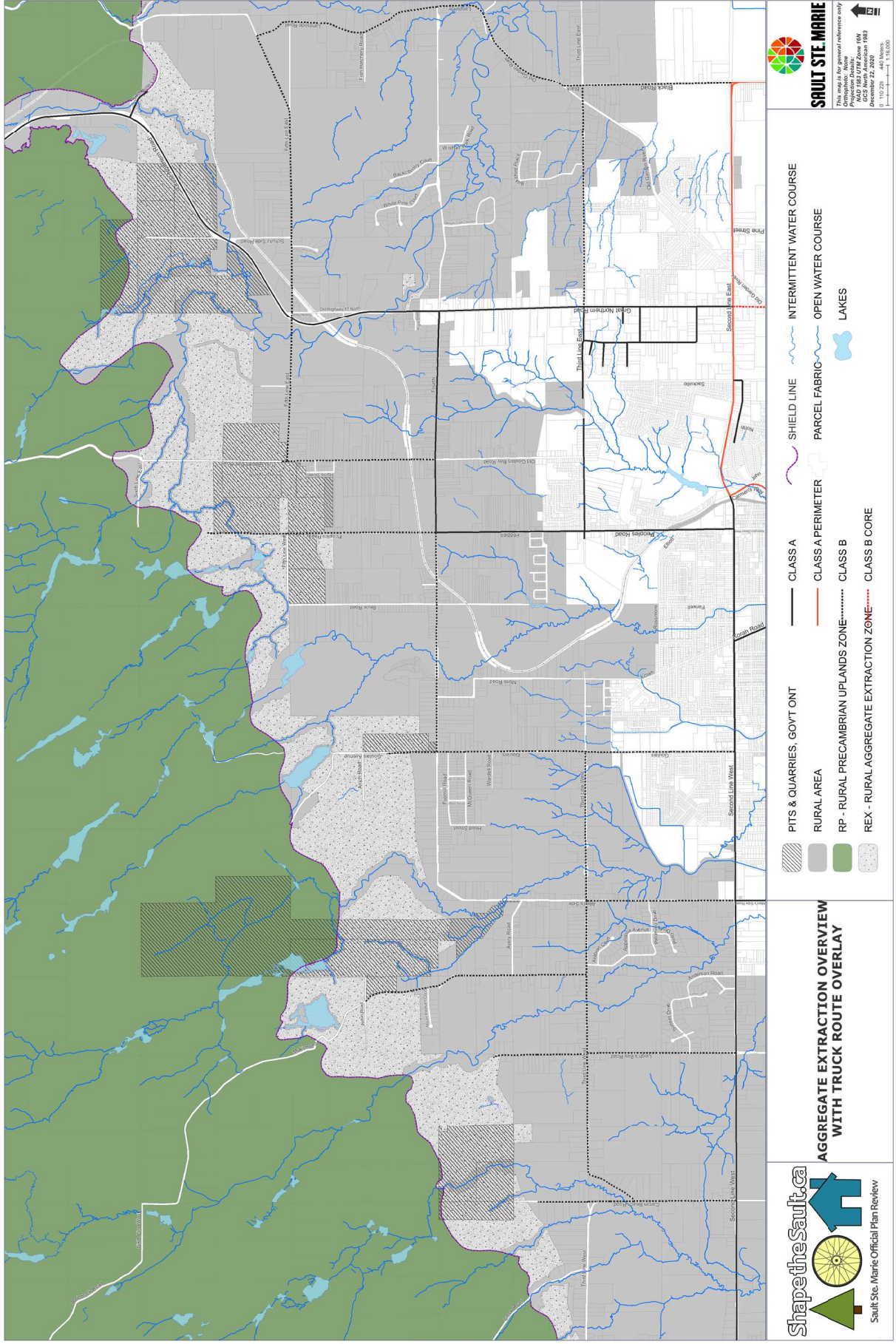
## **Natural Resources in Sault Ste. Marie**

### **Aggregate Extraction in the Rural Area**

Aggregate (sand and gravel) is identified as a “Provincially Significant Resource” and municipalities are required to identify and protect aggregate deposits for long-term use. From a land use planning standpoint, this means **limiting the encroachment of sensitive uses**, such as residential development, that could impact the ongoing operation of a gravel pit.

According to the Ministry of Natural Resources and Forestry, there are currently **9 aggregate extraction licence holders operating a total of 18 pits and quarries** within City limits. The aggregate pits and quarries are all located in the rural northern portion of the Sault, just south of the Precambrian Shield Line. Various major roadways in the Rural Area are designated as truck routes to facilitate movement of heavy vehicles to and from the aggregate operations. Since this part of the Rural Area is also Sault Ste. Marie's **Significant Groundwater Recharge Area**, all business activities, including gravel pits, are regulated to protect the city's source water.

**Figure 9.3: Aggregate Pits and Quarries and Truck Routes (Classes A and B) in the Sault's Rural Area.**  
 Source: City of Sault Ste. Marie; Ministry of Natural Resources and Forestry.



### Source Water (Groundwater) Protection

Sault Ste. Marie's water needs are supplied by a **Lake Superior water intake located at Gros Cap** in Prince Township and **groundwater wells installed at four locations within the City**. Around half of the City's water needs are supplied by wells and the other half supplied by the intake at Gros Cap. The four well locations are:

- **Lorna well** at Queen Street East and Lorna Drive.
- **Shannon well** near Trunk Road and Dacey Road.
- **Steelton well** at Second Line West and First Avenue.
- **Goulais well** near Second Line West and Goulais Avenue.

The Lorna well is not currently operational; however, land use protections around the wellhead are recommended to remain in place so that if required, the well can be brought back into service.

Rain that falls on the Precambrian Uplands flows south across the shallow bedrock, then percolates through the sand and gravel deposits below the Precambrian Shield area, and recharges the aquifer from which nearly half of the city's drinking water comes from. This area is known as the **Significant Groundwater Recharge Area**. A spill within this area could have devastating effects upon the aquifer; therefore, a variety of policies are proposed to mitigate the risk and protect this important water resource, while at the same time, allowing the extraction of the Provincially Significant sand and gravel deposits in this area.

The Walkerton Tragedy and the subsequent Walkerton Inquiry resulted in the passing of the Clean Water Act in 2006. The Clean Water Act required the creation of a **Sault Ste. Marie Region Source Protection Plan**<sup>24</sup> with policies aimed at ensuring that significant threat activities — those which could pose a risk to the drinking water aquifer — are monitored and managed to reduce the threat of contamination. The *Source Protection Plan* establishes **Wellhead Protection Areas** around each of the 4 groundwater well locations. Locally, the majority of existing development within close proximity to the wellheads is residential, which is not considered a significant threat activity. Having said this, land uses such as gas stations, automobile repair shops and snow dumps are located within vulnerable areas and are subject to additional regulations aimed at mitigating the threat of a spill.

### Contaminated Sites

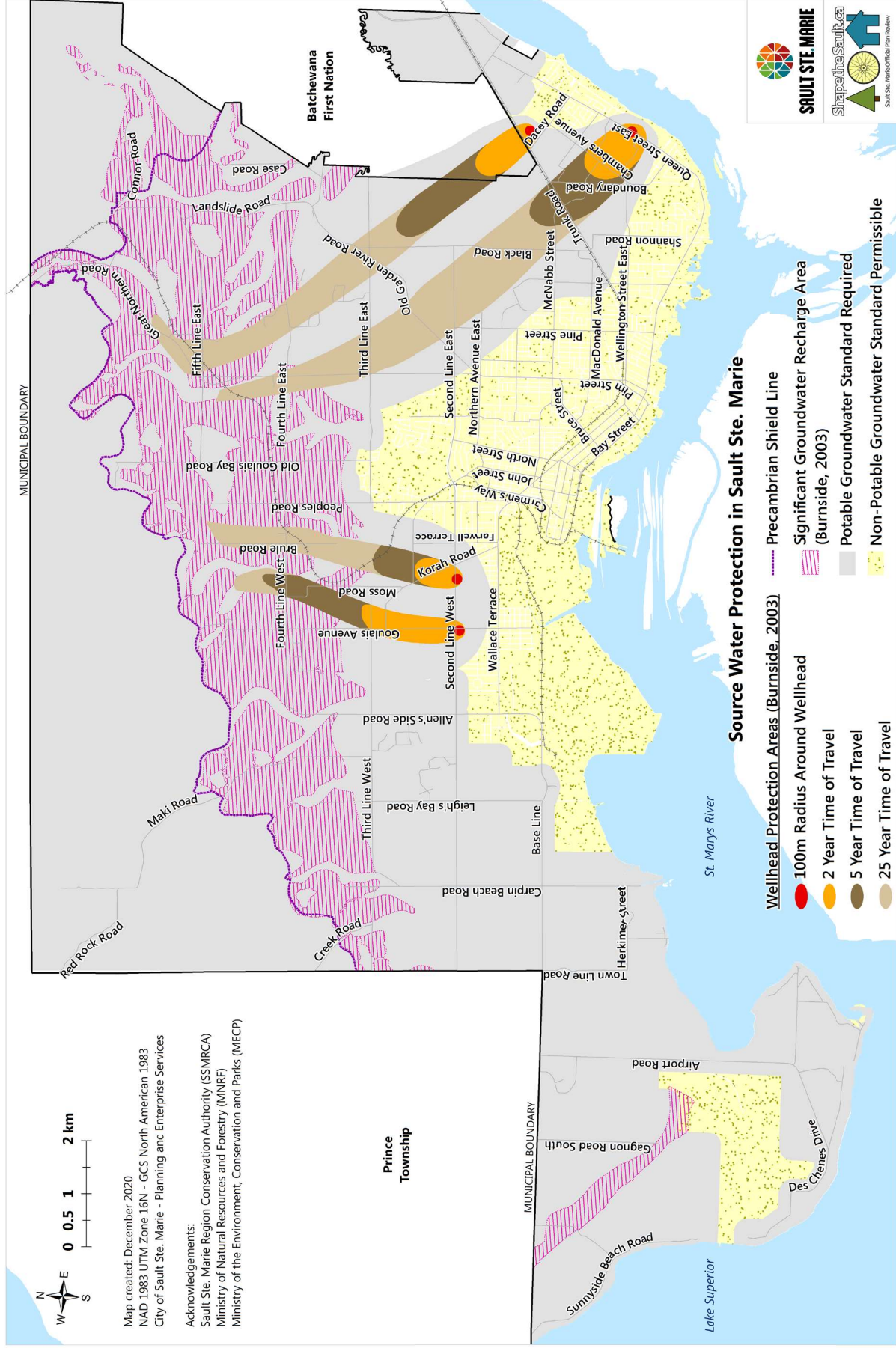
The City has defined **Potable and Non-Potable Groundwater Site Condition Standards** that apply to the remediation of contaminated sites. The stricter Potable Groundwater Standard is required for the vast majority of Sault Ste. Marie's Rural Area, where virtually all development is supported by on-site drinking water wells. The Potable Groundwater Standard is also required near the Municipal Wellheads that provide potable water. It is the City's preference that all contaminated sites be remediated to a potable standard, however where appropriate, the non-potable standard will be contemplated subject to further study

In the 2018 Watershed Report Card<sup>25</sup>, the Sault Ste. Marie Region Conservation Authority reported that the quality of our local groundwater during the period from 2011 to 2016 has been excellent.

<sup>24</sup> Available at: <https://ssmrca.ca/source-water-protection/reports-maps-and-resources/>

<sup>25</sup> Available at: <https://ssmrca.ca/watershed-management/watershed-report-card/>

**Figure 9.4: Source Water Protection in Sault Ste. Marie.**  
 Source: Ontario Ministry of the Environment, Conservation and Parks; R.J. Burnside and Associates Limited.



## What We Heard

### Key Themes Heard on: Natural Environment, Resources and Constraints

In general, Saultites support the current regulations that the City and Conservation Authority have for protecting our natural environment and source water and for protecting against natural hazards. That said, many residents and organizations expressed a desire to see the City do more for the natural environment — either in terms of implementing enhanced or stronger regulations, or expanding the scope of the City's policies to address and incorporate newer challenges and initiatives.

#### Protecting Sensitive Natural Features and Hazard Lands

- Saultites expressed strong support for protecting the Precambrian Uplands and the Hiawatha area.
- With regards to protecting the habitat of the Chimney Swift (a threatened species), Saultites suggested the City identify and protect all chimneys that the species uses or could use.
- Many residents felt that 120 metres as the adjacency distance for significant wildlife habitat protection is not good enough.
- Some residents questioned the City's continued permitting of rural development in areas that are both unserviced and forested (i.e. with possible wildfire hazard) such as around Fourth Line and the end of River Road.
- Some suggested restricting shoreline development that lacks public access and appropriate setbacks to mitigate flooding.

#### Source Water Protection

- Saultites expressed concern about the impact of snow dumps on local water quality, and suggested that the City be stricter in regulating use of land for snow dumps.
  - Improving and/or creating stronger regulations for snow dumps is one of the key recommended actions in the City's 2015 *Stormwater Management Master Plan and Guidelines*.

#### Trees and Urban Forest Protection

- Saultites have expressed mixed feelings about establishing regulations against tree cutting. More specifically:
  - There is strong support for prohibiting the cutting of trees that are part of a heritage neighbourhood's character, such as the trees on Simpson Street that are hundreds of years old.
  - There is also good support for prohibiting the cutting of trees in sensitive natural areas, such as wetlands, significant slopes and significant wildlife and fish habitat.
  - Some Saultites further suggested that the City require replanting of trees, especially natural vegetation, for some public works and private development projects.
  - There is less support for an umbrella approach that regulates cutting of trees in any location, public or private, residential or otherwise.

#### Natural Vegetation and Invasive Species

- There is increasing awareness among Sault residents and organizations of the importance of natural vegetation in enhancing local habitats and fighting invasive species.

- Saultites want to see naturalization of some green areas and open spaces, such as portions of land beside the flood control channels in the west end, and land within road rights-of-way and along the Hub Trail.
- It is suggested the City should take stronger action in prevention and mitigation of invasive species, including by promoting the planting of a diversity of trees instead of a single species, as well as the selection of either native tree species or non-native but non-invasive tree species. This would apply to both public works undertaken by the City as well as private landscaping works.

#### Aggregate Extraction

- Aggregate extraction operators felt that in general, increased and encroaching residential use in the Rural Area close to the aggregate extraction lands is a problem, as residential opposition often creates hurdles to getting Provincial Ministry approval for operations.
- Operators also suggested that the City should expand the designated aggregate extraction area northward into the Precambrian Uplands (Shield area), as there is good potential for quarrying in the Shield and there would be less nearby residents who may complain compared to other parts of the Rural Area.
- Consider the designation of truck routes in the Rural Area to allow for improved access to the future St. Marys River shipping port south of Base Line and Allen's Side Road. Also, a review of rural truck routes can help clarify, both to businesses and residents, which routes are considered acceptable for heavy, noise-producing traffic.

#### Other Challenges

- Saultites expressed interest in seeing the City bring in expanded plastics recycling, as well as management of food and compostable waste.
- Many residents commented upon the impending challenges and risks associated with climate change, and want to see the City do more to prepare for climate change, including encouraging developments to incorporate sustainable green infrastructure and low-impact design features.

## What We Propose

### **Proposed Official Plan Policies on: Significant Natural Heritage Features and Areas**

Significant natural heritage features and areas contain distinctive features and may perform key ecological functions for various animal and plant species. Linkages between significant natural heritage features and areas often act as corridors that enhance and maintain natural habitat within the municipality.

#### Fish Habitat

Quality fish habitats have significant economic and social benefits. Fish habitat includes spawning grounds, nurseries, food supply and migration areas; all are necessary components of fish habitat.

All lakes, streams, rivers and tributaries shown on Schedule A are identified as fish habitat.

- The restoration, enhancement and creation of fish habitat is encouraged.
- Maintaining shorelines (riparian areas) in a natural state with natural vegetation is strongly encouraged. Restoring previously altered shorelines back to a natural state may be imposed as a condition of development.
- Public access to recreational fishing areas should be provided and maintained to support recreational fishing opportunities.
- Development and site alteration shall not be permitted in fish habitat except in accordance with Provincial and Federal requirements.
- No development is permitted within or adjacent to (120m) fish habitat unless it can be demonstrated through appropriate evaluation that there will be no negative impacts upon natural features or their ecological functions. This may require an Environmental Impact Study prepared by a qualified professional, which outlines any impacts to fish habitat, and the measures required to mitigate all negative impacts, if possible. The extent of the study will take into account the scope of proposed development, existing development, zoning, topography, species and habitat sensitivity.
- The need for an Environmental Impact Study may be waived or the level of effort may be reduced where:
  - Only a minor encroachment into the adjacent lands is proposed.
  - Significant 'intervening buffers' exist between the proposed development and the watercourse, such as roads or existing development, or where the shoreline is no longer natural and has been engineered by way of a cement edge, riprap or gabions.
  - The topography is such that runoff will not enter into the watercourse or the development can be graded in such a way to eliminate any runoff to the watercourse.
  - Appropriate land use controls, such as Site Plan Control or Holding Provisions, can be utilized to ensure that development does not encroach into adjacent lands or appropriate vegetative buffers are protected or established adjacent to the watercourse and proposed development.

#### Wetlands

Wetlands are an important part of a strong, sustainable, natural environment. They provide valuable environmental functions such as wildlife habitat, water quality enhancement and flood control.

Wetlands, shown on Schedule A, include fens, swamps, bogs and marshes.



<b>Type of Wetland</b>	<b>Development Within the Wetland</b>	<b>Development Upon Adjacent Lands (Within 120m of wetland boundary)</b>
Provincially Significant Wetlands and Provincially Significant Coastal Wetlands (Determined through a wetland evaluation)	No development or site alteration.	No development or site alteration within 120m of wetland boundary, unless an appropriate study shows that such development will not impact the natural heritage features or ecological functions of the wetland.
Coastal Wetlands (Wetlands adjacent to Lake Superior or St. Marys River)	No development or site alteration unless an appropriate study shows that such development will not impact the natural heritage features or ecological functions of the wetland.	No development or site alteration within 120m of wetland boundary, unless an appropriate study shows that such development will not impact the natural heritage features or ecological functions of the wetland.
Evaluated Wetlands >0.5ha (Determined not Provincially Significant or Coastal)	No development or site alteration unless an appropriate study shows that such development will not impact the natural heritage features or ecological functions of the wetland.	Development and site alteration permitted, subject to appropriate buffering and stormwater management, in consultation with the SSMRCA and the City.
Evaluated Wetlands <0.5ha (Determined not Provincially Significant or Coastal)	Development and site alteration may be permitted, in consultation with SSMRCA and City.	Development and site alteration permitted, subject to appropriate buffering and stormwater management, in consultation with the SSMRCA and the City.
Unevaluated Wetlands >0.5ha in size or containing characteristics and components typical of a significant wetland, in consultation with the SSMRCA and City.	Wetland evaluation required prior to any development or site alteration.	Determined through wetland evaluation.
Unevaluated wetlands <0.5ha in size and not containing characteristics and components typical of a significant wetland, in consultation with the SSMRCA and City.	A wetland evaluation may be waived, and development and site alteration may be permitted, in consultation with SSMRCA and City.	Development and site alteration permitted, subject to appropriate buffering and stormwater management, in consultation with the SSMRCA and the City.

- Exception to development prohibitions within or upon adjacent lands of a Provincially Significant or Coastal Wetland:

- Infrastructure projects may be permitted to locate within or adjacent to a Provincially Significant or Coastal Wetland where it can be shown, through the Environmental Assessment process, that the proposal cannot be located outside of the wetland. Examples include pipelines, Provincial highways, roads, electric power facilities and water treatment plants.
- The need for an Environmental Impact Study or wetland evaluation may be waived or the level of effort may be reduced where:
  - Only a minor encroachment into the adjacent lands is proposed.
  - Significant 'intervening buffers' exist between the proposed development and the wetland or adjacent lands, such as roads and existing development.
  - Appropriate land use controls, such as Site Plan Control or Holding Provisions, can be utilized to ensure that development does not encroach into adjacent lands.

### Endangered and Threatened Species and their Significant Habitat

The Ministry of Natural Resources and Forestry is responsible for identifying and defining endangered and threatened species, as well as their significant habitats.

The overall intent is to protect endangered and threatened species, and the significant habitats that are necessary for the maintenance, survival and recovery of naturally occurring or reintroduced populations of a particular endangered or threatened species.

The Species at Risk in Ontario (SARO) List of endangered and threatened species, and their defined habitat is continually evolving as new species are added, removed or identified. Future amendments to the plan may be required to ensure accuracy and currency.

- Development or site alteration shall not be permitted in the habitat of endangered and threatened species except in accordance with Provincial and Federal requirements.
- Proponents should exercise due diligence to ensure that any activities being contemplated would not contravene the Endangered Species Act, 2007. Where a new endangered or threatened species occurrence is identified, any development or site alteration activities must immediately stop, and the Ministry of Natural Resources and Forestry must be contacted.

### Other Significant Wildlife Habitats

#### 1. Peregrine Falcon Nesting Sites

Peregrine Falcon nesting sites have been identified on the International Bridge.

- Prior to development or site alteration within 120m of the nesting sites, an Environmental Impact Study will be required. Development will only be permitted where it can be demonstrated that there will be no impact to the Peregrine Falcon nesting sites.

#### 2. Deer Wintering Area

The Ministry of Natural Resources and Forestry has identified a Deer Wintering Area encompassing the Airport and surrounding areas.

- Development or site alteration within the Core of the Deer Wintering Area or adjacent lands (120m) is generally discouraged.
- Prior to development or site alteration within or adjacent to the Core Deer Wintering Area, an Environmental Impact Study will be required. Development will only be permitted where

it can be demonstrated that the form and function of the Deer Wintering Area will not be impacted.

### 3. Identification of New Significant Wildlife Habitat

In the event that new significant wildlife habitat is identified within the municipality, development within or adjacent to (120m) significant wildlife habitat will not be permitted unless it has been demonstrated that there will be no negative impacts to the habitat or its ecological function.

### 4. Evaluating the Potential for Significant Wildlife Habitat

It is recognized that mapped significant wildlife habitat may not exist prior to the submission of a development application. Consequently, proponents may be required to determine whether significant wildlife habitat exists on the property proposed for development.

- The final determination of whether or not an evaluation is required will be made by the City, in consultation with other relevant agencies, including but not limited to the Sault Ste. Marie Region Conservation Authority and the Ontario Ministry of Natural Resources and Forestry.
- Proponents may be required to evaluate the potential for significant wildlife habitat in previously undeveloped lands located beyond the Urban Settlement Area, subject to one or more of the following triggers:
  - Creation of more than three lots through either Consent or Plan of Subdivision.
  - Change in land use that requires approval under the Planning Act.
  - Construction for recreational uses (e.g. golf courses, serviced playing fields, serviced campgrounds and ski hills) that require large-scale modification of terrain, vegetation or both.

## Forests and Trees

The City recognizes the environmental, recreational, health, aesthetic and heritage values of both urban and rural forests and trees.

### 1. Tree By-law

The Official Plan supports the creation of a tree by-law that protects:

- Heritage trees.
- Trees and forests in sensitive natural areas, including:
  - Wetlands.
  - Riparian areas along the shoreline of watercourses.
  - Significant slopes.
  - Known significant wildlife habitats, such as the Deer Wintering Area.

### 2. Urban Trees and the Urban Canopy

Urban trees provide natural habitat, shade, and they reduce greenhouse gases. Of equal importance, urban trees and the urban canopy play a major role in defining the character of an area and increasing the overall aesthetics throughout the community.

- The Official Plan supports the assessment of the urban tree canopy cover with the goal of establishing long-term urban tree canopy cover targets.

- Developments shall maintain and reinforce natural features such as wooded areas within or next to development sites. Developments shall also strive to maintain existing trees, which may include the need for a tree retention plan prior to development.
- Tree planting will be required for new developments and encouraged in existing developments.
- All public projects shall consider the planting of trees. The reconstruction of arterial roads and commercial corridors shall consider the planting of street trees.
- The City will support partnerships and efforts to plant trees on public lands in an effort to revegetate lands where appropriate.
- For any public or private development project under Site Plan Control, preference shall be given to the planting of native species. Where non-native species are proposed, they shall be non-invasive species.
  - Planting shall consist of a diversity of species rather than a single species, and should favour species that are resilient to climate change and any other site-specific considerations such as salt resistance.

### The Precambrian Uplands

The Precambrian Uplands area contains numerous natural heritage features and areas, including large, connected forested areas, many watercourses and wetlands. The geology of the area is characterized by bedrock, with very little topsoil and numerous significant slopes. Surface water flows south and is the main water source for almost half of the City's potable water.

Due to these characteristics, the area is very sensitive to development; therefore, development within the Precambrian Uplands is generally discouraged, as further discussed in the [Land Use Compatibility Chapter](#).

## **Proposed Official Plan Policies on: Constraints and Hazards**

The policies in this section are intended to reduce the potential risk to life and property. Natural hazards are largely regulated by the Sault Ste. Marie Region Conservation Authority and in most cases SSMRCA approvals are required prior to any development or site alteration. Where a natural or built hazard exists, development shall be guided by the following policies, which may include prohibition of development; development subject to a detailed Environmental Impact Study or development with conditions.

### **Great Lakes Flood Line**

The Provincial *Great Lakes/St. Lawrence River Shoreline Policy* and the *Shoreline Management Plan* of the Conservation Authority are implemented through the policies below. The purpose of these policies is to reduce the potential loss of life and property damage as a result of flooding, erosion and dynamic beach action. The areas included within the Regulated Shoreline are shown on Schedule B.

The shoreline is divided into two regulated areas: the Lake Superior Regulated Shoreline (above the compensating gates) and the St. Marys River Regulated Shoreline (below the compensating gates).

The Regulated Shorelines are defined as the total landward extent of the “regulatory flood line”, the “regulatory erosion line”, the “regulatory dynamic beach area”, and wave up-rush limits.

- Maintaining and rehabilitating shoreline areas to a natural state is strongly encouraged and may be imposed as a condition of development.
- All development or site alteration, including the removal of vegetation in or abutting a Regulated Shoreline, shall require approval from the Conservation Authority and the Department of Fisheries and Oceans.
- Erosion control works must comply with Provincial and Conservation Authority standards.
- Areas of existing development within the Lake Superior Regulated Shoreline may be further developed subject to Conservation Authority approval, provided that:
  - Buildings and structures, including additions to existing buildings and structures, are flood-proofed;
  - Erosion setbacks are used in combination with specific engineering works or studies to ensure proper protection;
  - The development is not within the Dynamic Beach Area, as defined by the Conservation Authority.
- Within the St. Marys River Regulated Shoreline, no development will be permitted within the defined portions of the 100-year flood level, excluding the regulated shoreline between Huron Street and Simpson Street (extended). Development and redevelopment within this area may be permitted given that flood and erosion protection are provided to current engineering standards, including approval from the Conservation Authority.

### **Tributary Flood Line**

The Tributary Flood Line includes streams, intermittent watercourses and inland lakes that are not on the Lake Superior-St. Marys River shoreline.

The Tributary Flood Line or flood plain areas are identified by the Sault Ste. Marie Region Conservation Authority (based on the *Flood Plain Mapping Report*, Dillon 1977) using the “Regional Storm” with

allowances for erosion, meandering and the 1 in 100 year flood event. Defined by the Province of Ontario, the Regional Storm for this area is the “Timmins Storm”, which is based on an actual rainfall event that occurred over Timmins in 1961.

Prior to development or site alteration within flood plain areas, a permit from the Sault Ste. Marie Region Conservation Authority is required.

The following policies apply to lands within the Tributary Flood Line as shown on Schedule B:

- The development of new buildings or structures within the designated Tributary Flood Line is prohibited, except flood and erosion control structures and facilities which by their nature must locate near water.
- A permit from the Sault Ste. Marie Region Conservation Authority is required prior to any development or site alteration proposals within 30m of the high-water mark or within 15m of the top of the stable slope, both of which may include increased setbacks or flood proofing measures related to a meander belt.
- Maintaining the lands and vegetation within the Tributary Flood Line in as natural state as possible is strongly encouraged.
- The rehabilitation and revegetation of shore areas back to their natural state is strongly recommended subject to appropriate approvals from the Conservation Authority.

#### Specific Flood Areas

Bayview, Gateway and Steelton are urban areas that are prone to flooding. The nature of the flooding in these areas is similar to that experienced in the Flood Fringe. Development and redevelopment within the Specific Flood Areas shown on Schedule B must conform to the following policies:

- Bayview — There are no openings to buildings below 184.4m Canadian Geodetic Datum.
- Gateway — The improvements which resolve the flooding problem have been identified by the municipality with the technical advice of the Conservation Authority and are required as a condition of redevelopment. Further, there are no openings to buildings below 178.6m Canadian Geodetic Datum.
- Steelton — The improvements which resolve the flooding problem are identified by the municipality, with the technical advice of the Conservation Authority and are proposed as a public project and provided when possible. Further, there are no openings to buildings below the elevations established in the Conservation Authority’s Fort Creek Watershed Appraisal, 1984.

#### Significant Slopes

The following policies shall apply where development or site alteration proposals (including cutting and filling) are on or near a significant slope or ravine. Significant slopes are those that are greater than 15%.

- Development or site alteration will not be permitted upon slopes that are unstable or subject to active erosion or historic slope failure.
- Significant slopes and ravines shall be maintained in as natural of a state as possible. The maintenance and enhancement of the natural vegetation upon a slope is strongly encouraged and may be imposed as a condition of development.

- Development shall be setback 15m from the top or bottom of the stable slope. Specific setback distances for slopes having grades steeper than 3 horizontal to 1 vertical, or 5 horizontal to 1 vertical in sandy soils, shall be determined in consultation with the Sault Ste. Marie Region Conservation Authority.
- Development proposals on or near significant slopes must be accompanied by a slope stability analysis prepared by a qualified professional, to the satisfaction of the Sault Ste. Marie Region Conservation Authority. A permit from the Conservation Authority must also be obtained for development on these slopes or within 15m of the top or bottom of a defined stable slope.
- Applications to develop lands having a slope steeper than 3 horizontal to 1 vertical, or 5 horizontal to 1 vertical in sand or sandy soils, shall be accompanied by a report indicating how slope stabilization will be achieved, to the satisfaction of the Sault Ste. Marie Region Conservation Authority.
- Lands having slopes greater than 15% may not be developed upon. Such lands may be dedicated to the City for stormwater management purposes or to facilitate the continuation of a recreational corridor. Such lands dedicated for stormwater management purposes may not be included in any required parkland dedication.
- Areas where topographic changes might result in significant erosion or other environmental damage shall be protected. These areas may include sensitive vegetation or vegetation in combination with topographic features.
- The prime agency in the designation and review of fill areas is the Conservation Authority. Changes to the boundaries or permits to place fill require Conservation Authority approval. Fill materials must meet applicable Provincial requirements.

### Wildland Fire Hazards

Behind flooding, wildfires are the second largest factor for natural disasters. On average, the Ministry of Natural Resources and Forestry responds to over 1,200 wildfires each year. The anticipated impacts of climate change (increased frequency and severity of drought periods) coupled with communities expanding into forested areas have increased the risk of wildfires.

Vegetation types which present high to extreme risk for wildland fire include natural conifer forests and unmanaged conifer plantations that can include black or white spruce, jack pine and balsam fir, along with immature red and white pine. Mixed wood forests with a composition that is greater than 50% conifer composition also pose a potential risk.

- Development shall generally be directed away from areas where hazardous forest types have been identified as high to extreme risk for wildland fire.
- Development may be permitted upon lands with high to extreme risk forest types, where the risk is mitigated in accordance with a wildland fire assessment, completed by a qualified professional, in accordance with wildland fire assessment and mitigation standards identified by the Ontario Ministry of Natural Resources and Forestry.
- The City may utilize planning tools such as Site Plan Control or special development conditions to implement mitigation requirements or clearly identify areas with high to extreme wildland fire risks.
- Any mitigation efforts, such as clearing vegetation, shall consider all other policies contained within this Plan, especially those related to natural heritage features and areas.

### Mine Hazards

There is one known mine hazard located just outside of the City. A small portion of the 1km buffer around the hazard is within the northeastern portion of the City. Development proposed within 1km of a mine hazard is not permitted without prior consultation with the Ministry of Energy, Northern Development and Mines (MNDM). MNDM will work with proponents to refine development setbacks and assess the need for additional studies.

### Contaminated Sites

Potentially contaminated sites or brownfields include lands where contaminants may be present due to previous industrial, transportation, utility or similar uses. Sources of site contamination can include disposal of waste materials, raw material storage, residues left in containers, maintenance activities and spills. Some commercial uses such as gasoline stations and vehicle repair garages have a similar potential.

Where a site is deemed to be contaminated or has the potential to be contaminated, where applicable, proper remediation is required prior to development. Site remediation may include:

- A site remediation plan prepared in accordance with the requirements of the Environmental Protection Act; and/or
- A Record of Site Condition from the Ministry of the Environment, Conservation and Parks (MECP).



## **Proposed Official Plan Policies on: Source Water Protection**

The proposed policies in this section are intended to implement the policies contained within the *Sault Ste. Marie Region Source Protection Plan*, which was developed in accordance with the Clean Water Act, 2006, and are intended to regulate certain land uses in vulnerable areas where such land uses could impact the municipal drinking water supply.

Existing uses that threaten the aquifers or municipal wellheads should be monitored to ensure that best practices for mitigation of the threat are followed.

### **Wellhead Protection Areas**

The purpose of the Wellhead Protection Areas is to safeguard Sault Ste. Marie's water supply system. There are 6 municipal wells in 4 locations within the community, supplying 50% of the City's water needs. Wellhead Protection Areas A, B and C are illustrated on Schedule F of this Plan. Wellhead Protection Area A includes a 100m radius around the wellhead, Wellhead Protection Area B includes the 2-year time of travel zone around the wellhead and Wellhead Protection Area C includes the 5-year time of travel zone around the wellhead.

- The Sault Ste. Marie Region Conservation Authority and the PUC should participate in an education program to inform the public of the need to protect the municipal water supply. This program will teach the proper handling of possible contaminants such as fuel oil, gasoline, fertilizers and pesticides.
- The City, the Sault Ste. Marie Region Conservation Authority, and PUC shall implement a program to identify existing abandoned wells and work towards correcting any deficiencies that may threaten the groundwater supply.

### **Significant Groundwater Recharge Area**

The Significant Groundwater Recharge Area is shown on Schedule F of this Plan. These areas contain sand and gravel deposits which allow surface water to percolate downward, recharging the groundwater supply.

The importance of protecting the Sault's groundwater resource is critical. Uses and activities which pose a potential threat to the groundwater regime should be limited or designed in a manner that mitigates the potential threats.

Development proposals located north of the Precambrian Shield Line (shown on Schedule F) or within the Significant Groundwater Recharge Area shall adhere to the following policies:

#### **Fuel Storage and Handling**

1. In-ground fuel storage tanks are prohibited.
2. The amount of fuel stored on-site shall not exceed 2,500 litres. The maximum amount of fuel stored for aggregate operations shall not exceed 5,000 litres.
3. Fuel storage is limited to fuel for on-site activities only.
4. Storage tanks must be installed on an impervious surface with sufficient containment to hold 110% of the total tank volume.
5. Fuelling areas must be designed to collect all runoff, separate fuel from water and allow for proper disposal of the contaminants before the runoff enters ground or surface water systems.

6. Storage tanks must be situated to minimize exposure to moving equipment and vehicles, including collision protection features.
7. On-site fuelling equipment should be in a fixed location. Where portable fuelling equipment is necessary to fuel fixed machinery, a means to catch and contain a spill is required. The method of containment will be reviewed and approved by the Conservation Authority and PUC
8. The area where a portable fuel tank is stored must have an impervious ground surface with sufficient containment to hold 110% of the total tank volume.

#### Chemical Storage and Handling

1. The bulk storage of chemicals, petroleum products, and other hazardous materials is prohibited.
2. The storage and handling of chemicals is restricted to an indoor or covered area, equipped with adequate spill and runoff containment structures and designed to prevent any loss of chemicals into the ground.
3. All persons handling chemicals must be trained to ensure the substances are properly stored and handled.

#### Vehicle Maintenance, Repair and Storage

1. Vehicular maintenance and repair will be limited to only those vehicles owned, leased and operated in conjunction with the main use permitted on-site. The repair and maintenance of vehicles and equipment not associated with the main use is prohibited.
2. Maintenance and repair of vehicles and equipment shall be conducted entirely within an enclosed building.
3. The building must be equipped with suitable floor drainage, collection and retention systems to ensure that any spills are prevented from entering the ground.
4. The floor of the building must be structurally sound and constructed of materials capable of preventing any loss of liquids to the underlying ground.
5. Any portion of the property used to store vehicles or motorized equipment shall be equipped with an impermeable surface to prevent the percolation of contaminated runoff into the ground.

#### Spill Response Action Plan

1. A "Spill Response Action Plan" will be required for certain uses or activities. On-site staff must be trained to carry out the plan. A copy of the plan shall be provided to the Conservation Authority and PUC for their review and approval.
2. The spill response plan must be reviewed annually to ensure it is kept up-to-date.

#### Potable and Non-Potable Groundwater Site Condition Standards

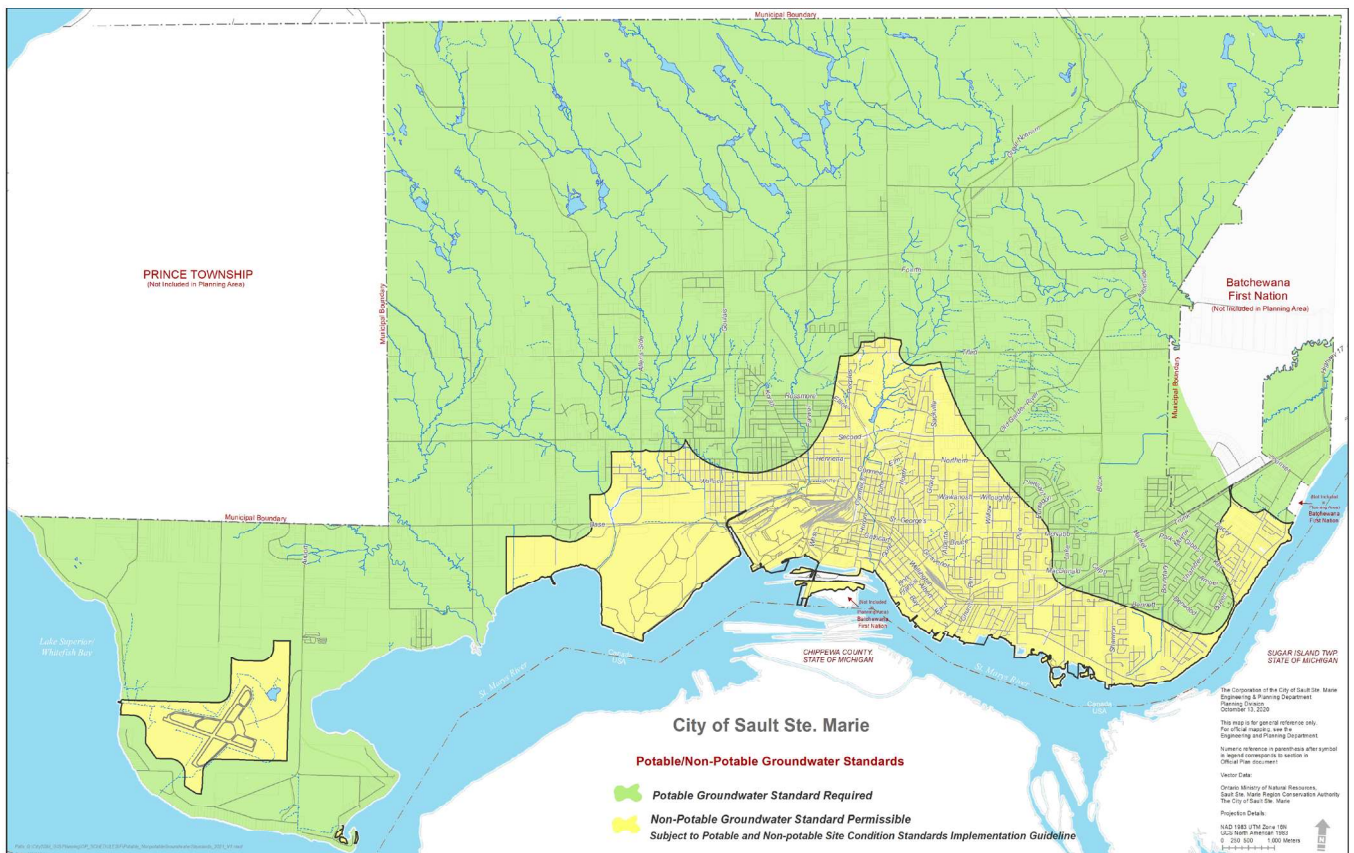
The City of Sault Ste. Marie is committed to protecting its potable groundwater resources. There are 6 municipal wells in 4 locations within the community, supplying approximately 50% of the City's potable water needs. Furthermore, virtually all development within the City's Rural Area is supported by on-site potable water wells.

In an effort to protect this valuable resource, it is the City's preference that where a spill has occurred or contaminated soils have been found, the site be remediated to a Potable Groundwater Standard; however, there may be some instances where the application of the Non-Potable Groundwater Standard is appropriate.

Where a proponent is requesting use of the Non-Potable Groundwater Standard, a request shall be submitted to the Planning Division, and must be completed in accordance with Ontario Regulation 153/04, and the *City's Potable and Non-Potable Groundwater Site Condition Standards Implementation Guideline*.


In addition to the criteria contained in Ontario Regulation 153/04 and the *City's Potable and Non-Potable Groundwater Site Condition Standards Implementation Guideline*, Site Remediation Standards Schedule F generally outlines areas where potable and non-potable standards may be contemplated. More specifically, potable standards will be required where the subject property is located:


- In a 'Potable Groundwater Standard Required' area, as shown on the map below
- Within 250m of the closest boundary of a property which contains a supply well, excluding any wells used solely for testing or monitoring purposes.



## **Proposed Official Plan Policies on: Minerals and Mineral Aggregate Extraction**

Minerals and mineral aggregate extraction is a vital and valuable resource for the community. Major sand and gravel deposits are identified on Natural Heritage Features and Areas Schedule A of this Plan.

Local pits and quarries are necessary for the development of the urban area. The protection of minerals and mineral aggregate resources from incompatible uses conserves and protects this non-renewable resource. The operation of pits and quarries within the area must include provisions for their progressive rehabilitation and subsequent reuse. Such measures also ensure existing residential uses within the area are minimally impacted by the development of new pits and quarries or the expansion of existing operations. 

The Minerals and Mineral Aggregate Area illustrated on Schedule A of this Plan closely corresponds with the the Significant Groundwater Recharge Area, illustrated on Schedule F of this Plan. Consequently, pits and quarries function in areas where their operations have the potential to impact the groundwater supply. 

1. Extraction activities shall be conducted in a manner that ensures the orderly extraction and optimal use of minerals and mineral aggregate resources in order to provide for local, regional and provincial needs, while minimizing negative environmental, financial and social impacts on the municipality and residents.
2. Extractive uses should be developed using the principles of sustainability. Furthermore, whenever feasible, the recovery (asphalt and concrete recycling) of mineral aggregate resources shall be encouraged.
3. Progressive and final rehabilitation shall be required on all mineral aggregate operations, and the rehabilitation of abandoned pits and quarries shall be encouraged.
4. Sensitive land uses which are not compatible with aggregate extraction shall be discouraged from areas surrounding existing pits and quarries.
  - a. Residential development within the Aggregate Area shown on Schedule A is limited to existing lots. New residential lot creation shall not be permitted.
5. Accessory industrial uses related to aggregate extraction activities may be permitted subject to an Environmental Impact Study which demonstrates that impacts to the environment will be minimal. Accessory industrial uses include, but are not limited to:
  - a. Asphalt and concrete plants.
  - b. Mineral aggregate processing facilities.
  - c. Facilities for the recycling of mineral and aggregate resources, such as asphalt, brick, glass and concrete.
6. Other non-aggregate uses may be permitted by rezoning if issues of public safety and environmental impacts can be addressed, and:
  - a. The resource use is not feasible; or
  - b. The use serves a greater long-term interest of the public; or
  - c. The use will not significantly preclude or hinder future extraction.
7. Existing licensed mineral aggregate operations, including those located outside of the Mineral Aggregate Area, as shown on Schedule A, are permitted to continue without the need for an amendment to this Plan or the implementing Zoning By-law. The preferred area for expansion of aggregate resources is adjacent to existing pits and quarries.

8. The review of new development proposals, including new pits or quarries, shall consider all other applicable requirements of this Plan, particularly:
  - a. Source water protection.
  - b. Natural heritage features and areas.
  - c. Land use compatibility.
9. Wayside pits and quarries, portable asphalt plants and portable concrete plants used on public authority contracts shall be permitted, without the need for an Official Plan Amendment, rezoning or development permit under the Planning Act in all areas, except those areas of existing development or particular environmental sensitivity which have been determined to be incompatible with extraction and associated activities. Such pits shall be progressively rehabilitated once the project is completed or the pit/quarry is no longer required.
10. The City will continually monitor and assess the rural transportation network with the purpose of ensuring that major routes which service pits and quarries are capable of supporting heavy truck traffic, with special regard for the potential to ship aggregates via the future Algoma Docks facility (please see the [Infrastructure and Servicing Chapter](#)).