Policies, Procedures and Guidelines for the Administration of Ontario Regulation 176/06

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CHAPTER 1 INTRODUCTION

1.1 Preamble

These Policies for the Administration of Ontario Regulation 176/06 have been developed to help increase consistency and administration of the decision-making process for the implementation of the Sault Ste. Marie Region Conservation Authority's (SSMRCA) Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation (Ontario Regulation 176/06) made under the *Conservation Authorities Act, Section 28*.

These policies, as adopted by the SSMRCA Board of Directors will provide general approaches to the processing of applications under Ontario Regulation 176/06. They are the operating principles or the general standard for the implementation of the Regulation. For these reasons, these policies shall not be construed as "law" enacted through provincial legislation or regulation. They are "Integrated Watershed Management" approaches which take into consideration the intent of Ontario Regulation 176/06 as well as taking into consideration local and site specific conditions.

Once approved by the SSMRCA's Board of Directors, this document will be implemented by SSMRCA staff. It is envisioned that this document will be a valuable tool for the SSMRCA Board of Directors, staff, member municipalities, land development community as well as private property owners.

1.2 The Role of Conservation Authorities in Water Resource Management

In Ontario, Conservation Authorities have been delegated the responsibility for natural hazard management by the Ministry of Natural Resources and Forestry. Natural Hazards are natural, physical environmental processes that occur near or at the surface of the earth which can produce unexpected events of unusual magnitude or severity such as flooding, erosion and slope failure. The outcome can be catastrophic, frequently resulting in damage to property, injury to humans and other organisms and tragically even loss of life. All regions of Ontario have experienced natural hazards (MNR-Understanding Natural Hazards, 2001).

Development located within hazardous lands (land that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches or unstable soil or bedrock) that places the health and safety of area residents and their properties at risk. The Development, Interference with

Wetlands and Alteration to Shorelines and Watercourses Regulation (Ontario Regulation 176/06) is a key tool used to fulfil this natural hazard management mandate. It allows a Conservation Authority to regulate development in areas where the control of flooding, erosion, dynamic beaches, pollution or the conservation of land may be affected.

1.3 The Need for Policies

The need to prepare a comprehensive set of policies for the SSMRCA has been driven by the Ministry of Natural Resources and Forestry for consistent application of the Section 28 Regulations and Ontario Regulation 176/06 with recognition for the unique characteristics of the local watershed.

These policies also guide SSMRCA's review of official plans, zoning bylaws and planning applications under the Planning Act, including other legislation SSMRCA may be requested or responsible to provide comment on.

Of critical importance was the need to formally communicate a policy framework that provides clear and consistent direction on planning and development related matters, and to better express the role of the SSMRCA in protecting, restoring and enhancing the watersheds within SSMRCA's jurisdiction with regard to Ontario Regulation 176/06.

It is our hope that this document will provide clearer understand of our role to stakeholders while recognizing the interdisciplinary nature of watershed planning, natural hazard management and the multitude of factors to be considered.

1.4 Using this Document

The policies contained within this document are complex and inter-connected. It is not uncommon for more than one natural hazard to apply to a property.

To provide clearer and more consistent direction to SSMRCA staff, partners and stakeholders recognizing the interdisciplinary nature of watershed planning, natural hazard management and the multitude of factors to be considered.

For this reason, the most stringent policy shall always prevail. There is no implied priority in the order to which the policies in this document appear.

1.5 The SSMRCA Watershed

The SSMRCA watershed, which is illustrated in Figure 1, is located in northern Ontario. The jurisdiction is approximately 522 square kilometres in area which includes the watersheds of the Big Carp River, Little Carp River, Leigh Bay Creek, Bennett Creek, West Davignon Creek, Central Creek, East Davignon Creek, Fort Creek, Clark Creek and the Root River. The conservation authority was originally comprised of the Municipality of Sault Ste. Marie, Township of Korah, Township of Tarentorus and Township of Prince. Korah and Tarentorus were subsequently amalgamated with the Municipality of Sault Ste. Marie.

The St. Marys River is the only water connection between Lake Superior and the lower Great Lakes. The St. Marys Rapids pose a natural barrier between Lake Superior and Lake Huron with a vertical drop of approximately 6.1 m.

Watercourses in the Precambrian uplands generally reflect the major structural features in the exposed granite terrain and predominantly drain to south toward the St. Marys River. Where individual watercourses cross from the uplands to lowland areas underlain by beach deposits consisting of sand and gravel, the streams' flows can be reduced due to significant groundwater recharge. At lower elevations, this zone of sand and gravel can also act as headwaters of small streams, as some recharged water is discharged to the surface through the coarse grained material, depending on the local topography. The sub-watersheds drain southward, drawing flow from the upland and the lowland areas.

Ontario Regulation 176/06 Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses became effective May 8, 2006. Previous regulations focused on the protection of provincially significant wetlands, shore areas and permanent waterways. Under the revised regulations, the Conservation Authority's area of jurisdiction was expanded to include all wetlands and intermittent streams as well as valley lands.

The wise use and management of our natural resources is essential to ensure a sustainable and healthy watershed which will continue to meet the needs of our community.

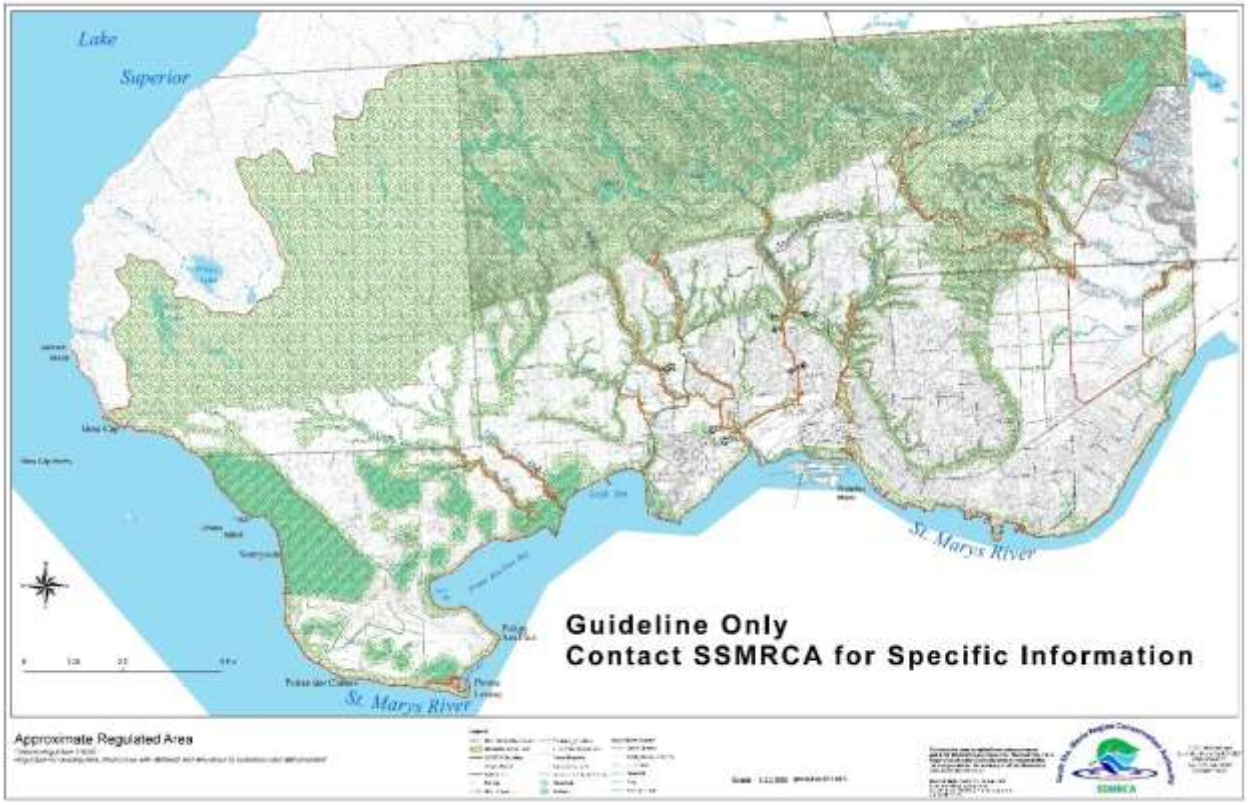


Figure 1: Sault Ste. Marie Region Conservation Authority area of jurisdiction.

CHAPTER 2 LEGISLATIVE FRAMEWORK

2.1 The Conservation Authorities Act and Section 28 Regulations

The Conservation Authorities Act is the enabling legislation that provides the legal basis for the creation of CAs in Ontario. Generally, the Conservation Authorities Act directs CAs to perform several critical functions regarding watershed planning and management including the prevention, elimination, or reduction of loss of life and property from flood hazards and erosion hazards, as well as the conservation and restoration of natural resources.

The *Conservation Authorities Act* which was enacted in 1946 is the enabling legislation that provides the legal basis for the creation of conservation authorities in Ontario. It was created in response to erosion and drought concerns, recognizing that these and other natural resource initiatives are best managed on a watershed basis.

Section 28 of the *Conservation Authorities Act* empowers conservation authorities to make regulations to prohibit the placing or dumping of fill in areas which are susceptible to flooding, in response to the loss of human lives and the economic losses associated with Hurricane Hazel (1954). These regulations also regulate the development in defined areas, where the in the opinion of a Conservation Authority, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land may be affected. The *Conservation Authorities Act* also allows for the regulation of Interference with Wetlands and alterations to waterways.

To better reflect provincial direction and to strengthen the protection of public safety and the environment, the *Conservation Authorities Act* has been modified several times to enable conservation authorities to enact the Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation (Ontario Regulation 97/04).

2.1.1 Objects of a Conservation Authority

Section 20 of the *Conservation Authorities Act*, R.S.O. 1990, c. C.27 outlines the objects of a Conservation Authority:

The objects of an authority are to establish and undertake in the area over which it has jurisdiction, a program designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals.

2.1.2 Powers of a Conservation Authority

For the purposes of accomplishing this object, Section 21 of the *Conservation Authorities Act* grants the CA the following powers:

21. (1) For the purposes of accomplishing its objects, an authority has power,

(a) to study and investigate the watershed and to determine a program whereby the natural resources of the watershed may be conserved, restored, developed and managed;

(e) to purchase or acquire any personal property that it may require and sell or otherwise deal therewith;

(l) to use lands that are owned or controlled by the authority for purposes, not inconsistent with its objects, as it considers proper;

(m) to use lands owned or controlled by the authority for park or other recreational purposes, and to erect, or permit to be erected, buildings, booths and facilities for such purposes and to make charges for admission thereto and the use thereof;

(m.1) to charge fees for services approved by the Minister;

(n) to collaborate and enter into agreements with ministries and agencies of government, municipal councils and local boards and other organizations;

(p) to cause research to be done;

(q) generally to do all such acts as are necessary for the due carrying out of any project. R.S.O. 1990, c. C.27, s. 21; 1996, c. 1, Sched. M, s. 44 (1, 2); 1998, c. 18, Sched. I, s. 11.

2.1.3 Regulations by a Conservation Authority

Conservation Authorities also have the power to make regulations pursuant to Section 28(1) of the *Conservation Authorities Act*:

(a) restricting and regulating the use of water in or from rivers, streams, inland lakes, ponds, wetlands and natural or artificially constructed depressions in rivers or streams;

(b) prohibiting, regulating or requiring the permission of the authority for straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream or watercourse, or for changing or interfering in any way with a wetland;

(c) prohibiting, regulating or requiring the permission of the authority for development if, in the opinion of the authority, the control of flooding, erosion, dynamic

beaches or pollution or the conservation of land may be affected by the development;

(d) providing for the appointment of officers to enforce any regulation made under this section or section 29;

(e) providing for the appointment of persons to act as officers with all of the powers and duties of officers to enforce any regulation made under this section. 1998, c. 18, Sched. I, s. 12.

2.2 Ontario Regulation 176/06 – Development, Interference with Wetlands and Alteration to Shorelines and Watercourses

The Minister of Natural Resources approved Ontario Regulation 176/06 for the SSMRCA on May 4, 2006. This regulation is consistent with Ontario Regulation 97/04 and is entitled the Sault Ste. Marie Region Conservation Authority: Regulation of "Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation".

2.2.1 Regulation Limit

Ontario Regulation 176/06 applies to hazardous lands. Hazardous lands are defined by the *Conservation Authorities Act* (Section 28(25)) as land that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches or unstable soil or bedrock.

The regulation limit for Ontario Regulation 176/06 listed in Section 2 of the regulation states:

(1) All areas within the jurisdiction of the Authority that are described in subsection 1 are delineated as the "Regulation Limit" shown on a series of maps filed at the head office of the Authority under the map title "Ontario Regulation 97/04: Regulation for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses". O. Reg. 80/13, s. 1 (4).
(2) If there is a conflict between the description of areas in subsection (1) and the areas as shown on the series of maps referred to in subsection (2), the description of areas in subsection (1) prevails. O. Reg. 80/13, s. 1 (4).

2.2.2 Activities which Require a Permit under Ontario Regulation 176/06

The following work requires written permission within an area which is regulated under Ontario Regulation 176/06:

- the construction, reconstruction, erection or placing of a building or structure of any kind,
- any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure,
- site grading, or
- the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere;
- to straighten, change, divert or interfere with the existing channel of a river, creek, stream or watercourse
- change or interfere with a wetland

2.3 Goals

The following goals will guide implementation of the policies contained in this document:

- Recognition of the complex links between human health and the natural environment;
- To maintain an integrated watershed management perspective and consider the implications of cumulative actions on the watershed as a whole;
- Recognize that resilient communities require a sustainable balance between economic, social and environmental priorities, interests and uses;
- Take a preventative and proactive approach to uncertain, risky or irreversible effects to the function of the watershed for the protection of the environment;
- To make decisions based on current science and accumulated knowledge, skills and Experience while continuing to improve our understanding of the watershed and how it functions;
- We implement watershed management by working with partners and engaging stakeholders with shared interests and objectives;

- Pursue practical and science based approaches to the management of water, soil or other natural resources;

- Promote sustainable development wherever possible in our watershed

2.4 Objectives

When implementing the policies in this document, the SSMRCA will provide a consistent review of all applications submitted under this Regulation. The objectives of the Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation program are to:

(a) prevent loss of life as a result of flood and erosion hazards;

(b) minimize property damage and social disruption resulting from flooding or erosion;

(c) prevent development within hazardous lands which in the future may require extensive remediation and/or protection measures;

(d) ensure that development does not exacerbate existing hazards or create new hazards;

(e) prevent the filling and/or draining of wetlands;

(f) reduce soil erosion and sedimentation from development and other land use activities;

(g) require mitigating measures be undertaken for works within regulated areas, which may cause an increase in flooding, erosion or adversely affect wetlands;

(h) encourage the conservation of land through the control of development activities;

(i) protect key natural heritage and key hydrologic features in the watershed in accordance with Provincial Policy;

(k) reduce damage to property due to water related hazards.

CHAPTER 3 IMPLEMENTATION

3.1 General

1. Decisions regarding development proposals will be made based upon:

   • the best information available at the time of the decision;
   • guidelines, policies and engineering practices which are accepted at the time of the decision.

2. This document will be posted on the SSMRCA's website (www.ssmrca.ca) to serve as a source of information for landowners, developers, municipalities, government agencies and other stakeholders.

3. This document should be read in its entirety and all relevant policies should be applied to each situation.

4. The policies in this document guide decisions made by the SSMRCA. It is the responsibility of the applicant to determine the requirements of other agencies and obtain all necessary approvals from those agencies.

5. Applicants are encouraged to pre-consult with SSMRCA staff prior to submitting their applications so that issues and requirements can be addressed.

3.2 Consultation

The SSMRCA will undertake a public consultation process associated with the development of this document which will be comprised of posting the draft policies on the SSMRCA website, public open houses, notices in local print and/or digital media outlets and municipal offices.

These policies may be revised following the receipt of comments where appropriate.

3.3 Monitoring

The policies contained in this document will be reviewed on an on-going basis to evaluate their effectiveness. This is a living document which may be amended from time to time in order to reflect changes in legislation, regulations and policies at the federal and provincial levels.

Amendments of these guidelines may also occur as a result of changing programs and practices at the SSMRCA.

Significant changes to these policies will occur through the policy formulation process, with final approval by the SSMRCA Board of Directors.

Minor technical amendments that do not alter the intent of the procedures or policy objectives contained within this document (e.g., correcting ambiguous language) may be made at the staff level without approval by the Board of Directors. The Board of Directors may consider amendments to these “Policies” at any time.

These guidelines will be subject to a comprehensive review on a five year basis to evaluate its effectiveness and objectivity.

CHAPTER 4 GENERAL POLICIES

4.1 Stormwater Management Policy

Stormwater Management Facilities may be permitted within the Riverine Flooding Hazard but outside of the riparian zone or effective flow area, whichever is greater, provided that there is no feasible alternative site outside the Riverine Flooding Hazard and where it can be demonstrated that:

a) there is no loss of flood storage,
b) natural erosion and sedimentation processes within the receiving watercourse are not impacted,
c) where unavoidable, intrusions on significant natural features or hydrologic or ecological functions are minimized and it can be demonstrated that best management practices including site and infrastructure design and appropriate remedial measures will adequately restore and enhance features and functions,
d) facilities are excavated with minimal berming, stage-storage discharge relationships and floodplain flow regimes for a range of rainfall events including the Regional Storm are maintained, and all excavated material is removed from the Riverine Flooding Hazard, and
e) design and maintenance performance requirements as determined by the SSMRCA for the receiving watercourse are met and the effect of the floodplain flow regime on the intended function of the facility is incorporated into the siting and design. See Appendix C for detailed guidance.

4.2 Large Scale Fill Policy

Note: These guidelines do not apply to mass earth-moving works associated with a major project such as multiple subdivisions directly adjacent to each other, where fill is being moved from one property to a nearby property as part of an overall grading scheme approved by the SSMRCA. See Appendix D for detailed guidance on large scale fill application.

4.2.1 In general, large scale fill placement (volume exceeds 250 m^3) within areas which are regulated by Ontario Regulation 176/06 shall not be permitted except in accordance with the policies 4.2.2 through 4.2.14:

4.2.2 It is the practice of the SSMRCA to protect environmentally significant areas including landforms, and to maintain the function of natural hazard lands. As such, large scale filling will be prohibited in the following areas:
• lands susceptible to flooding, erosion, or steep slopes;
• key natural heritage features such as significant valley lands as defined by the provincial plans;
• key hydrologic features such as wetlands as defined by the provincial plans;

4.2.3 The placement of large scale volumes of fill in an area subject to Ontario Regulation 176/06 is prohibited if the proposed fill material is:
• slurry or other material from vacuum excavation (i.e. “vac trucks”);
• slurrys from directional boring, drilling or other activities;
• concrete slurrys or related products and by-products;

4.2.4 An Environmental Impact Study (EIS) may be required in support of any application to place large scale volumes of fill in the following areas:
• within 15 metres of the erosion hazard limit of slope land, river and stream flood plain;
• within 120 metres of a key natural heritage and hydrologic feature of a wetland;

The EIS must be prepared by a qualified professional to the satisfaction of the SSMRCA and municipality. The Terms of Reference for the EIS should be established by the SSMRCA prior to its preparation.

4.2.5 Formal pre-consultation with SSMRCA staff is recommended prior to an applicant seeking to obtain a permit for large scale fill placement in order to outline any and all requirements, material, drawings, reports, etc. for the application. Applications for large scale fill placement will not be considered without formal pre-consultation.

4.2.6 Any application for large scale fill placement must include four (4) copies of a plan of survey prepared by a Professional Engineer or an Ontario Land Surveyor showing the subject property and the specific location(s) on the subject property where the filling activities are being proposed.

The plan shall show a minimum of the following:

(a) location of subject property including property lines, north arrow and nearest roadways/intersections. The plan must show the subject property and each fill envelope being proposed.;
(b) existing topographic detail and proposed elevations within and adjacent to the area where the placement of fill is being proposed;
(c) the total fill quantity in cubic metres;
(d) slopes are to exceed a gradient of 3 (horizontal): 1 (vertical);
(e) sediment and erosion control measures;
(f) pre- and post- filling drainage patterns;
(g) the location of all environmentally sensitive features that may include, but not be limited to the following: watercourses (i.e. ditches, streams, rivers, lakes), wetlands, valleys/valley walls, steep slopes, hydrogeologically sensitive features (e.g. springs, seeps, etc). A setback/radius of no less than 30 m or 120 m (whichever is greater respecting all provincial plans) around the perimeter of each of the aforementioned features must be shown on the plan;
(h) the SSMRCA’s regulatory limit as prescribed by Ontario Regulation 176/06;
(i) the limit of the regulatory flood plain of a watercourse with a 15 m setback;

(j) other known site features and structures such as access roads, culverts, utilities, poles, pavement, curbs, etc;
(k) restoration details (i.e. detail site stabilization measures such as topsoil, seed, sod, hydro-seed and associated timing, etc.);

4.2.7 For sites with proposed large scale fill placement in excess of 250 m^3 a soils report prepared by a qualified environmental/geotechnical engineer and/or Professional Geoscientist shall be submitted for each location where fill is being imported. The soils report shall consist, as a minimum, of the following:

• the municipal address of the site where soil is originating from;
• conformity with all relevant Ontario Ministry of the Environment and Climate Change's guidelines and requirements such as Ontario Regulation 347 and Ontario Regulation 461/05.

4.2.8 The Authority at its discretion may ask and require a formal "chain of custody" process in which the applicant will implement a "bill of lading" process from the fill material source to the fill placement site. If required by the SSMRCA, this process will be the responsibility of the applicant to implement after approval by the SSMRCA and will be listed as a condition of the permit.

4.2.9 Prior to the issuance of a permit by the SSMRCA, it shall be the responsibility of the authorized agent/owner to provide written authorization/consent from the respective municipality in which the proposed fill site is located. Municipal interests may include:

• the condition of municipal roadways and site entrance;
• haul routes from the fill removal location to the proposed fill site location;
• mud mat, dust control schematics for the fill site and fill removal location;

4.2.10 Where proposed large scale fill site locations are subject to Ontario Regulation 176/06 and municipal fill by-laws under the *Municipal Act*, the proponent shall be responsible for the submission of comprehensive and integrated plans/reports for both the SSMRCA and municipality.

4.2.11 The specific policies and/or restrictions contained within this policy do not apply to the movement and placement of material associated with site grading required for approved projects such as subdivisions or other related development if the material originates within the development boundaries. Additional fill material that may be required to be added to the development site from another would be subject to the policies and/or restrictions contained within this policy;

4.2.12 To avoid spring freshet, runoff, erosion, and sedimentation, written permission from the SSMRCA approving a large fill operation will only be granted from **May 1 to November 30** of any given year. Only one active SSMRCA permit for fill placement per municipal address can exist at any one time. This timing restriction does not apply to the

large scale placement of fill for agricultural purposes or fill placement associated with approved Plans of Subdivision with approved grading, erosion and sediment control plans;

4.2.13 Following the issuance of a permit, SSMRCA Enforcement staff will conduct routine site inspections of large scale fill sites in order to ensure compliance with permit conditions. It will be the responsibility of the owner and/or authorized agent to ensure that a final inspection with enforcement staff is coordinated. A final site inspection and review of permit conditions shall be completed no later than 30 days to the expiration date on the permit;

4.2.14 Permits issued by the SSMRCA may be subject to the following conditions:

• following the completion of the fill placement and grading operations, the landowner/applicant may be required to submit a survey to show that the finished grades are in conformity with the approved plans. This survey shall be prepared and certified by a Professional Engineer or an Ontario Land Surveyor and must be referenced to geodetic datum. This certification must be received within 30 days following the completion of the fill placement;
• a specified limit of the depth of fill material that is permitted;
• a requirement for testing of fill and/or ground water to ensure that the material is inert and satisfies all Ministry of Environment guidelines and requirements for fill material.

4.3 Sediment Control Policy

The purpose of this policy is to prevent overland flow of sediment from intercepting local waterways and tributaries and entering into rivers, creeks, wetlands, and lakes as a result of construction/development of a site.

Limitation

Silt fences should not be installed along areas where rocks or other hard surfaces will prevent uniform anchoring of fence posts and entrenching of the filter fabric. Silt fences are not suitable for areas where large amounts of concentrated run-off are likely to occur.

Installation

The geotextile or filter fabric should be attached to wooden stakes that are to be driven securely into the ground with the fabric side facing upstream. The filter fabric must be fastened securely to stakes using heavy-duty wire staples, or tie wire. Stakes should not be spaced more than 2 metres (6 feet) apart and can be closer depending on the length of the silt fence.

A trench should be excavated in which the bottom edge of the filter fabric must be buried at least 15 cm (6 inches) into the ground. It should then be backfilled and compacted to be effective, and to ensure that no gap exist between the ground and the fabric. The ends of the silt fence should be extended upslope (to resemble an arc or horseshoe), to prevent water from flowing around the ends of the fence.

The height of the silt fence should not exceed 1 metre (3 feet) above the surface of the ground and it should not be stapled to existing trees.

Sufficient area should exist behind the fence for ponding to occur without flooding or overtopping the fence.

A silt fence should remain in place and maintained until disturbed areas have been revegetated and/or permanently stabilized.

Inspections

Regular inspections should occur during all construction stages and in anticipation of rain, extended wet-weather periods, snow melt events or any conditions that could potentially lead to significant erosion and sediment conditions.

Silt fences that are damaged and become unsuitable for the intended purpose should be removed from the site, disposed of and replaced with a new filter fabric barrier.

Soil that has accumulated to one-half the original height of the silt fence should be removed and properly disposed of. Soil removed during maintenance may be incorporated into earthwork on the site or disposed of at an appropriate location.

The minimum frequency of inspection expected is:

- on a weekly basis
- before and after every rainfall event
- after significant snow melt events or periods
- monthly during inactive periods of more than 30 days
- daily during extended rain or snow melt

Project-specific conditions and requirements listed in approved permits take precedent over the above guidelines.

Documentation and Reporting

Inspections of Erosion & Sediment Control (ESC) mitigation measures is essential in demonstrating due diligence. Documentation of all inspections should be kept on site with the landowner for a minimum of one year after the development is completed.

Removal

The removal must be undertaken in such a manner as to prevent the release of soil into any watercourse.

4.4 Environmental Impact Study - (EIS) for Natural Hazard Lands

Development or site alteration proposed within a natural hazard feature or within the Allowance or Area of Interference may be required to be supported by an Environmental Impact Study (EIS). The EIS will need to:

- Confirm the extent of the natural hazard feature;
- Identify any potential impact of the development or site alteration on the hazard feature or hazard processes;
- Identify hazard avoidance or hazard mitigation strategies; and
- Integrate natural heritage, natural resource and/or servicing considerations.

The detailed requirements of an EIS will depend on the nature of the proposed development or site alteration or the specific characteristics of the natural hazard feature and the extent of encroachment on the hazard feature. Minor projects may only require a scoped EIS. The factors to be considered for a scoped EIS include the extent of the encroachment, the potential impact of the use and the sensitivity of the feature. Major projects involving more complex issues, will likely require a comprehensive EIS. The Authority strongly encourages pre-consultation on the requirements of the EIS. See Appendix E for detailed guidance.

4.5 Hydrogeological Assessment Study Requirements

Hydrogeological studies will vary in scope, level of detail, and methodologies depending upon project scale and the study objectives. Sufficient detail should be provided to facilitate a review of the hydrogeological analysis and conclusions.

The studies are expected to provide new or updated sources of data, particularly on a local, site-specific scale and identify potential changes in environmental conditions. Data provided should be of a qualitative and a quantitative nature and be suitable to identify a linkage between impact on recharge/discharge capability, long- and short-term watershed planning and environmental quality. The information provided should be sufficient to identify areas of concern. Additionally, it will give the opportunity for developers to indicate where potential concerns can be mitigated or avoided. In this respect, developments can be accurately assessed from a site specific and broader watershed development impact perspective.

It is strongly recommended that, prior to the commencement of any study, the proponent and their consultant(s) undertake pre-consultation with the SSMRCA staff to confirm the scope of the required study (ies).

These study report(s) shall be prepared by Qualified Persons (QPs). A QP is a licensed Professional Geoscientist or an exempted Professional Engineer as set out in the Professional Geoscientists Act of Ontario. See Appendix F for detailed hydrogeological assessment study guidance.

4.6 Geotechnical Study Requirements

A geotechnical investigation may be required to identify the existing soil conditions and determine the Long-Term-Stable Top-of-Slope (LTSTOS). Because of the complexities of site development and soil conditions, the development proposal should be discussed in advance with the Sault Ste. Marie Region Conservation Authority (SSMRCA)'s technical staff to confirm the level of study required. Typically, comprehensive assessments are required for development projects close to major features such as the bluffs, slope lands and steep ravines, while less detail may be required for minor works near shallower slopes and fill areas. The minimum Factor of Safety (F.S) required by SSMRCA for slope stability analysis is 1.5. The study, design and drawings must be prepared by a qualified geotechnical engineer. See Appendix G for detailed geotechnical study requirements.

CHAPTER 5 FLOODING HAZARDS

5.1 Regulatory Flood Standards for the SSMRCA Watershed

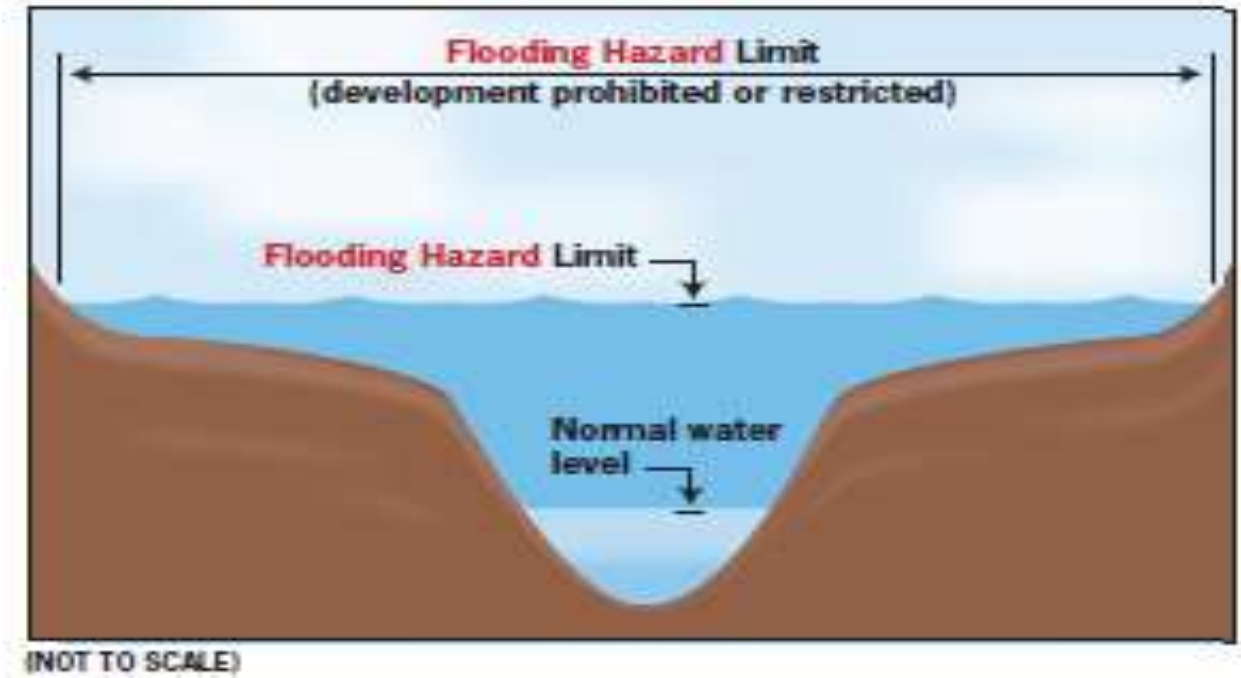
Each watershed in Ontario has a regulatory flood standard used to define flood plain limits for regulatory purposes. The flood standards used to determine the flood plain limits for regulatory purposes are from the following storm centered events:

- the Hurricane Hazel storm (1954);
- the Timmins storm (1961);
- the 100-year storm;
- an observed flood event, subject to approval by the Minister of Natural Resources.

5.2 Flood Hazard Management Approaches

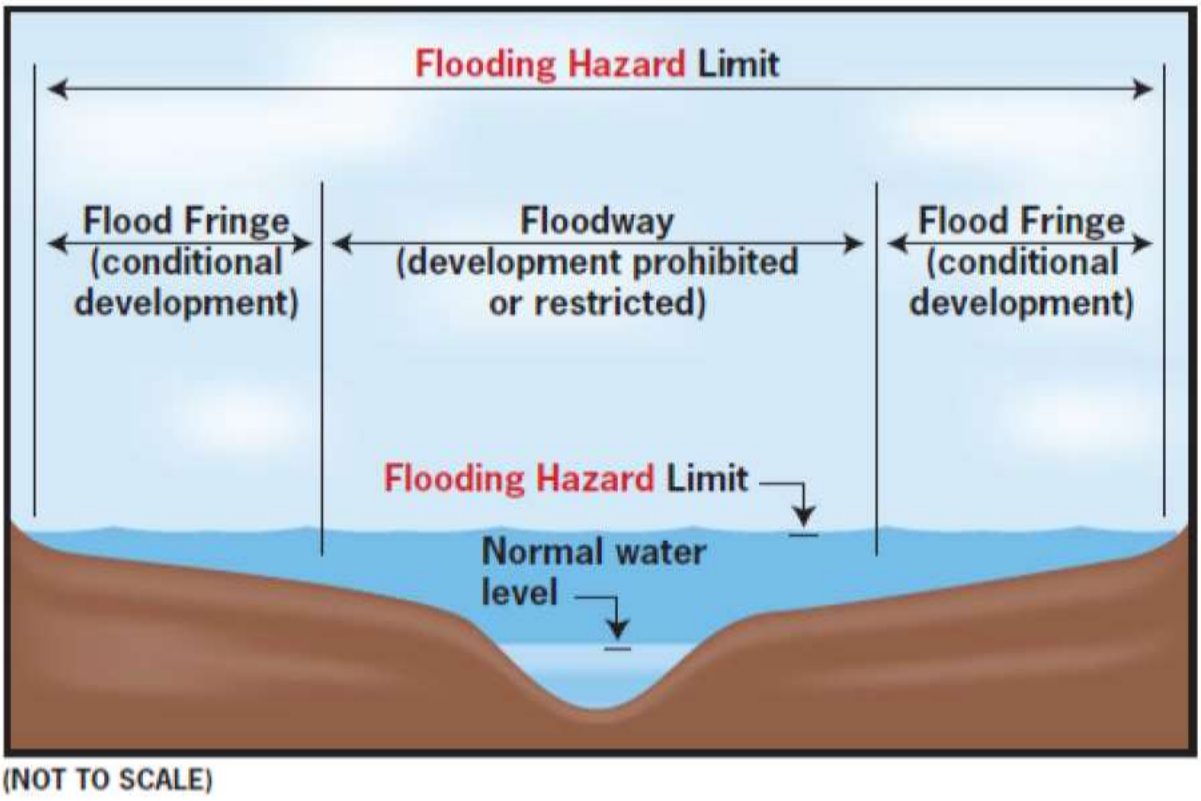
The SSMRCA currently acknowledges the following approaches to flood hazard management:

(a) One Zone Concept whereby the entire flood plain or the entire flooding hazard limit defines the flood way as shown by Figure 5.1. The one zone concept is the preferred approach for the management of flooding hazards within river and stream systems as it provides the most cost effective means of minimizing potential threats to life and risks of property damage and social disruption. In general, development or site alterations within the boundaries of the regulatory flood level are restricted within areas of the one zone concept. All development within this area should be prohibited or restricted to those structures which by their nature are to be located within this area, flood/erosion control works, or where appropriate, minor additions or passive, non-structural uses which do not affect flood flows.



Source: OMNR, 2001)
Figure 5.1 – Flooding Hazard Limit for One Zone Concept

(b) Two Zone Concept recognizes that the flood plain can be divided into two zones: the flood way and the flood fringe, as shown by Figure 5.2. Where the two zone concept is applied, the flood fringe is the outer portion of the flood plain. Flood depths and velocities are usually less severe within the flood fringe than they would be within the flood way. As a result, development may be permitted within the flood fringe subject to certain established standards and procedures. The flood way is defined as the inner portion of the flood plain that is characterized by deeper, faster moving water during a flood event. The flood way is the more hazardous part of the flood plain and development and site alteration is generally not permitted within this area. The two-zone concept is not intended to be applied throughout the entire watershed, but limited to selective areas.



Source: (OMNR, 2001a)
Figure 5.2 – Flooding Hazard Limit for Two Zone Concept

(c) Special Policy Area Concept: Special Policy area means an area within a community that has historically existed in the flood plain where site specific policies apply, approved by the Ministries of Natural Resources and Municipal Affairs and Housing, which are intended to address the significant social and economic hardships to the community that would result from strict adherence to provincial policies concerning development. Where strict adherence to one and two zone policies is not feasible, the concept of special policy area status is recognized as a possible option for flood prone communities or portions thereof. Municipalities may apply for special policy area status, in accordance with established procedures, and controlled development may be permitted once such status is obtained. Municipalities should delineate special policy areas in their official plans and include policies indicating the circumstances under which new development may be permitted and identifying the minimum acceptable level of protection required for new development.

5.3 Flood Hazard Guidelines

The following section addresses development within areas which are susceptible to flooding. They have been organized in alphabetical order based upon the nature of the proposed development. In general, *development* within the *flood hazard limit* of both

Lake Superior, St. Marys River and riverine systems will not be permitted except in accordance with 5.3.1 through 5.3.21.

5.3.1 Accessory Structures

Non-habitable *accessory structures* (e.g. garages, sheds and gazebos) associated with existing residential development may be permitted within the *flood hazard limit* where it can be demonstrated that:

(a) there is no alternative site for the location of the structure located outside of the *hazardous lands*; and
(b) the control of flooding, *erosion*, *pollution* and the *conservation of land* will not be affected; and
(c) the depth of flooding at the site does not exceed 0.8 metres; and
(d) the structure is firmly attached to a concrete pad or footings; and
(e) the structure will not impede flood flows; and
(f) the structure is designed to allow for the through flow of water through the structure so as to not cause a loss in flood storage capacity; and
(g) the structure shall incorporate *wet flood-proofing measures* to the maximum extent and level possible, based upon site-specific conditions.

5.3.2 Additions (Residential)

Additions to a maximum of 50% of the original foundation area may be permitted within an area susceptible to flooding provided that:

(a) there is no alternate location for the addition located outside the flood hazard;
(b) the proposed addition would not have an impact on the control of flooding, *erosion*, *pollution* or the *conservation of land*; and
(c) the depth of flooding at the site does not exceed 0.8 metres; and
(d) the addition is flood-proofed using ***dry passive flood-proofing*** to the applicable ***flood-proofing*** standard plus a 0.3 metres ***freeboard allowance***;
(e) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
(f) for riverine flood plains, the loss in flood storage capacity that would result from the construction of the proposed addition as well as *fill* placement required to *flood-proof* the structure is compensated for to the satisfaction of the SSMRCA; and
(g) certification is provided from a registered professional engineer that the proposed addition will be able to withstand the hydrostatic and lateral forces associated with flood waters; and
(h) safe access as defined by the SSMRCA is available to the site.

5.3.3 Agricultural

Agricultural practices are exempt from Ontario Regulation 179/06. The construction of farm buildings (e.g. barns, drive sheds, silos) may be permitted within the flood plain provided that:

(a) there is no other location for the structure located outside the flood plain;
(b) the proposed structure would not have an impact on the control of flooding, *erosion*, *pollution* or the *conservation of land*;
(c) the depth of flooding at the site does not exceed 0.8 metres; and
(d) the structures are flood-proofed using at a minimum *wet flood-proofing* techniques to the applicable *flood-proofing* standard plus a 0.3 metres freeboard allowance.

5.3.4 Basements

The construction of basements will not be permitted in association with new structures within the flood plain.

5.3.5 Commercial/Industrial/Institutional Development

The construction of new commercial/industrial/institutional structures as well as additions to existing commercial/industrial/institutional structures will generally not be permitted within the ***flood plain***. The SSMRCA may grant permission for the construction of a new commercial/industrial structure, provided that:

(a) there is no alternate location for the addition located outside the *flood hazard*;
(b) the depth of flooding at the site does not exceed 0.8 metres;
(c) the proposed structure would not have an impact on the control of flooding, *erosion*, *pollution* or the *conservation of land*;
(d) the structure/addition is flood-proofed to the applicable flood-proofing standard plus a 0.3 metres freeboard allowance;
(e) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans; and
(f) for riverine flood plains, the loss in flood storage capacity that would result from the construction of the proposed structure or addition as well as *fill* placement required to *flood-proof* the structure is compensated for to the satisfaction of the SSMRCA;
(g) certification is provided from a registered professional engineer that the proposed structure/addition will be able to withstand the hydrostatic and lateral forces associated with flood waters;

5.3.6 Decks and Porches

The construction of decks and porches may be permitted within the ***flood hazard limit*** provided that:

(a) the deck or porch is not enclosed; and
(b) the deck/porch is firmly anchored to a concrete pad or footings; and
(c) the area beneath the deck and porch is not to be enclosed to allow the free flow of floodwaters.
(d) the deck/porch is not habitable

5.3.7 Fencing

The SSMRCA may grant permission for the construction of a fence, provided that:

(a) the fence is constructed in such a manner that it does not impede conveyance of flow of a watercourse during a regulatory flood; and
(b) the fence does not interfere with the watercourse; and
(c) the construction of the fence would not have an impact on the control of flooding, ***erosion***, ***pollution, dynamic beaches*** or the ***conservation of land.***

Note: Fences which meet this standard include page wire farm fences and wrought iron picket fences which have minimum 75 mm vertical gaps. Chain link fencing does not meet this standard.

For new developments located adjacent to SSMRCA flood control channel, fences should be required at the property line of lots abutting the channel. It has been observed that the requirement of fencing along flood control channels greatly reduces the amount of debris, yard waste tec. Being placed onto the banks, or into the channels, there by reducing the potential of obstructing the flow of water. The installation of fencing also aids in defining property lines thereby deterring encroachment onto SSMRCA properties.

Minimum Standards:

a. Minimum height of 42 inches
b. Galvanized chain link fence
c. 9 gauge minimum
d. Maximum mesh of 2 inches

5.3.8 Geo-thermal Heating and Cooling

The SSMRCA may grant permission for the installation of new/replacement geo-thermal heating and cooling systems, provided that:

(a) there is no alternate location located outside the ***hazard***; and
(b) the geo-thermal systems are closed systems; and
(d) the placement of fill associated with the geo-thermal system would not have an impact on the control of flooding, ***erosion***, ***pollution, dynamic beaches*** or the ***conservation of land;*** and
(e) geo-thermal pumps and electrical connections shall be flood-proofed and located at least 0.3 metres above the regulatory flood elevation; and
(f) compensation will be required for losses in flood storage capacity resulting from the placement of fill associated with the installation of these systems within riverine flood plains; and

(g) all geo-thermal systems are to be installed and decommissioned by a licensed professional technician and properly tests for leaks prior to their operation.

The installation of vertical loop geo-thermal heating and cooling systems deeper than 5 metres shall require proof of approval from the Ontario Ministry of the Environment and Climate Change prior to the issuance of a permit from the SSMRCA.

5.3.9 Replacement/Reconstruction of Existing Residential Structures

Proposals for the replacement or reconstruction of existing structures that have been destroyed by fire or other natural causes - other than flooding, ***erosion*** or ice piling may be permitted subject to the following:

(a) the structure to be replaced must not be abandoned or derelict for a period of one year or more; and
(b) the use will not increase the risk to public health and safety;
(c) the replacement structure will be located in the same footprint as the original structure or relocated to a less hazardous portion of the property; and
(d) the replacement structure will not have an increased number of dwelling units; and
(e) the replacement structure is ***flood-proofed*** to the maximum extent possible using ***dry passive flood-proofing*** to the applicable flood-proofing standard plus a 0.3 metres ***freeboard allowance***; and
(f) certification is provided from a registered professional engineer that the replacement structure will be able to withstand the hydrostatic and lateral pressures associated with floodwaters; and
(g) a change in use from habitable to non-habitable structures will be encouraged by the SSMRCA.

5.3.10 Residential Development

The construction of new residential structures will be permitted where:

(a) there is no alternate location for the structure outside the ***flood hazard***; and
(b) the depth of flooding does not exceed 0.8 metres; and
(c) the structure would not have an impact on the control of flooding, ***erosion***, ***pollution*** or the ***conservation of land***; and
(d) the structure is ***flood-proofed*** using ***dry passive flood-proofing*** to the applicable flood-proofing standard plus a 0.3 metres ***freeboard allowance***; and
(e) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
(f) for riverine flood plains, the loss in flood storage capacity that would result from the construction of the proposed structure or addition as well as ***fill*** placement required to ***flood-proof*** the structure is compensated for to the satisfaction of the SSMRCA; and

(g) certification is provided from a registered professional engineer that the structure will be able to withstand the hydrostatic and lateral forces associated with flood waters; and
(h) ***safe access*** as defined by the SSMRCA is available to the site.

5.3.11 Septic Systems

The installation of new and replacement septic systems may be permitted subject to the following:

(a) there is no alternate location for the septic system outside the flood hazard; and (b) the placement of fill associated with the septic system would not have an impact on the control of flooding, erosion, pollution or the conservation of land; and
(c) the septic system shall be flood-proofed using a watertight cap to prevent ingress of flood waters to the main tank and appropriate valves to prevent back-up into a structure;
(d) septic systems shall be designed to withstand lateral and buoyant pressures associated with floodwaters.
(e) for riverine flood plains, there shall be compensation for losses in flood storage capacity if possible;
(f) tertiary treatment systems will be encouraged throughout the watershed, especially where required setbacks from rivers and lakes is not available.

5.3.12 Swimming Pools

The construction of above ground swimming pools will be permitted provided that:

(a) there is no alternate location for the above ground pool located outside the flood hazard; and
(b) the proposed above ground pool would not have an impact on the control of flooding, ***erosion***, ***pollution*** or the ***conservation of land***; and
(c) the above ground pool would not obstruct flood flows; and
(d) all electrical circuits associated with the above ground pool is flood-proofed.

The construction of in-ground swimming pools may be permitted provided that:

(a) there is no fill placement associated with the installation of the pool within riverine flood plains; and
(b) all electrical services associated with the pool are flood-proofed.

5.3.13 Trailers

In general, new trailers will not be permitted within the ***flood plain***.

5.3.14 Fill Placement, Excavation or Grade Modifications

The following guidelines apply to the placement of ***fill*** (not exceeding 250 m^3), the excavation of ***fill*** and the grading of the ground surface using fill that originates on a property:

(a) In general, the placement of ***fill*** and lot grading shall not be permitted within flood plain areas;

(b) The placement of ***fill*** in an area subject to Ontario Regulation 179/06 is prohibited if the proposed ***fill*** material is:

- slurry or other material from vacuum excavation (i.e. “vac trucks”);
- slurrys from directional boring, drilling or other activities;
- concrete slurrys or related products and by-products;
- excavated material from the cleanout of storm water management ponds;

The SSMRCA may grant permission for the placement of ***fill*** (not exceeding 250 m^3) and lot grading within a ***regulated area*** provided that:

i) the placement of fill does not affect the control of flooding, ***erosion***, ***dynamic beaches***, ***pollution*** or the ***conservation of land***;

ii) under some circumstances (e.g. ***flood plains*** associated with rivers and streams) an ***incrementally balanced cut and fill operation*** may be considered to ***compensate*** for losses in flood storage capacity which would result from the placement of fill within an area which is susceptible to flooding;

iii) only clean fill may be placed which is in conformity with all relevant Ontario Ministry of the Environment and Climate Change’s guidelines and requirements such as Ontario Regulation 347 and Ontario Regulation 461/05.

The SSMRCA may require the submission of soils report prepared by a qualified environmental/geotechnical engineer and/or Professional Geoscientist for each location where fill is being imported.

The soils report shall consist, as a minimum, of the following:

- the municipal address of the site where soil is originating from;
- conformity with all relevant Ontario Ministry of the Environment guidelines and requirements such as Ontario Regulation 347 and Ontario Regulation 461/05.

iv) fill placement and lot grading activities for the installation of the septic systems and tile beds are required to be in accordance with Part 8 of the *Ontario Building Code Act*;

v) the placement of ***fill***, excavations and lot grading activities may be seasonally restricted and subject to a specific time frame;

vi) following the completion of the ***fill*** placement or grading operations, the landowner/applicant may be required to submit a survey to show that the finished grades are in conformity with the approved plans. This survey shall be prepared and certified by a Professional Engineer or an Ontario Land Surveyor and must be

referenced to geodetic datum. This certification must be received within 30 days following the completion of the fill placement.

CHAPTER 6 SHORELINE - GREAT LAKES-ST. MARYS RIVER SYSTEM

6.1 General Guidelines

The Sault Ste. Marie Region Conservation Authority's (SSMRCA) Shoreline Management Plan is a design for shoreline management within the jurisdiction of the SSMRCA. Management direction, policies, and strategies are subject to change as a result of changes in technology, land use, environment and government policy.

The shoreline zone is a dynamic and fragile are. The natural physical and biological processes which shape the shoreline must be understood in order that development may safely occur and also sustain these processes. Fluctuating water levels, erosion, accretion, wetlands, marine life, etc. all occur naturally and are essential for the health of the lake. Development that is not cognizant of the natural coastal processes and ecosystems has resulted in:

- loss of life;
- development within hazard lands;
- property damage and social disruption;
- draining, dredging and filling of wetlands;
- impairment and destruction of aquatic life;
- degradation of water quality;
- user conflicts;
- loss of fisheries, habitat; and
- accelerated erosion

A comprehensive Shoreline Management Plan was necessary in order that development may safely occur within the shoreline zone and that future generations will benefit, as we have, from the rich plant and animal life of the area.

The Shoreline Management Plan (SMP) area includes approximately 50 kilometers of Lake Superior and the St. Marys River shoreline. The shoreline within the jurisdiction of the SSMRCA extends from the easterly limit of the City of Sault Ste. Marie to Gros Cap (Prince Township) in the west. The planning area includes regulatory shorelands and environmentally sensitive areas.

Two major zones of the planning area are the *Upper River* and the *Lower River*. They are separated by the compensating works at the Sault Locks. The *upper river* is on the Lake Superior side of the compensating works and the *lower river* is on the Lake Huron side. The SMP area has been further subdivided into shoreline reaches. Shoreline reaches are portions of a *littoral cell* and contain similar physiographic characteristics and shore dynamics such as rate of erosion, flood elevations, and also includes:

i. shore alignment;
ii. offshore bathymetry;
iii. fetch characteristics
iv. littoral transport rates; and,
v. bluff and beach properties.

Strategies and policies in the SMP address six major components:

prevention
- land use planning and regulation of development

protection
- non structural / structural measures and acquisition

environment
- policies that compliment natural coastal process and the environment based on sustainable development principles
- protection of wetlands and sensitive ecosystems

emergency response
- flood forecasting/warning, emergency measures strategy

public involvement/information
- public input and dissemination of information

monitoring
- monitoring changes in local condition through site inspections, plan input and review etc.

Prevention is the preferred approach to shoreline management. By regulating development within regulatory shore lands, you can prevent or minimize property damage, social disruption, and risk of loss of life.

The SMP identifies types of protection works that are recommended for a given reach. Engineering detail is the responsibility of the individual property owner on a site-specific basis.

The shoreline zone is a dynamic and fragile area. The goal of the SMP is to assure that activities within the shoreline zone will compliment the natural coastal processes, and ensure the proliferation of plant and animal life. Selected strategies and policies in the SMP were developed with strong emphasis on environmental conservation.

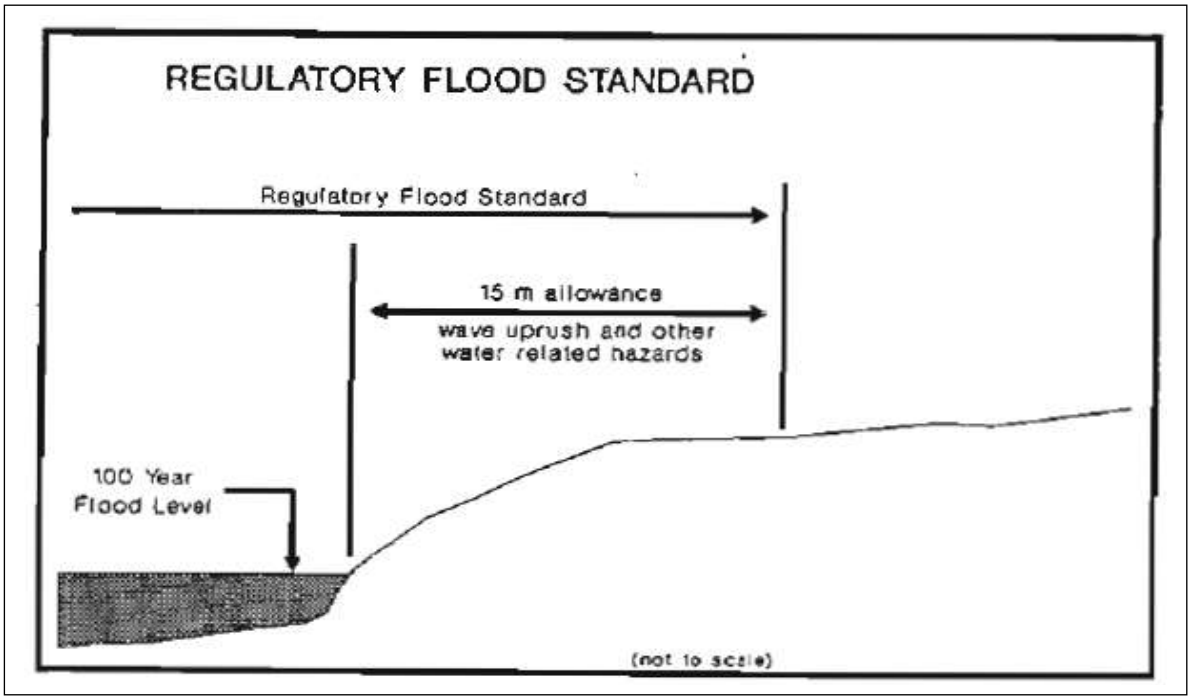
6.2 Regulatory Shore Land Policy

Regulatory shore lands are those lands adjacent to Lake Superior and the St. Marys River which because of inherent physical constraints are unsuitable for development. Hazards encountered within regulatory shore lands include: flooding, erosion, ice pile up, soil instability, steep slopes, high water tables and drainage constraints. Within regulatory shore lands, development will be restricted or prohibited in order to protect life and minimize property damage. In some instances where all shoreline hazards can be overcome development may be permitted provided that development does not adversely affect other properties, and is consistent with the regulatory shore land policy and environmental priority area policy.

Regulatory shore land refers to the land, including that covered by water, between the international boundary and the furthest landward limit of:

1. the regulatory flood standard;
2. the regulatory erosion standard; and includes
3. lands susceptible to ice pile to the furthest recorded or potential landward extent;
4. lands susceptible to other hazards including soil instability, high water table, and drainage constraints; and,
5. lands with slopes greater than 25%

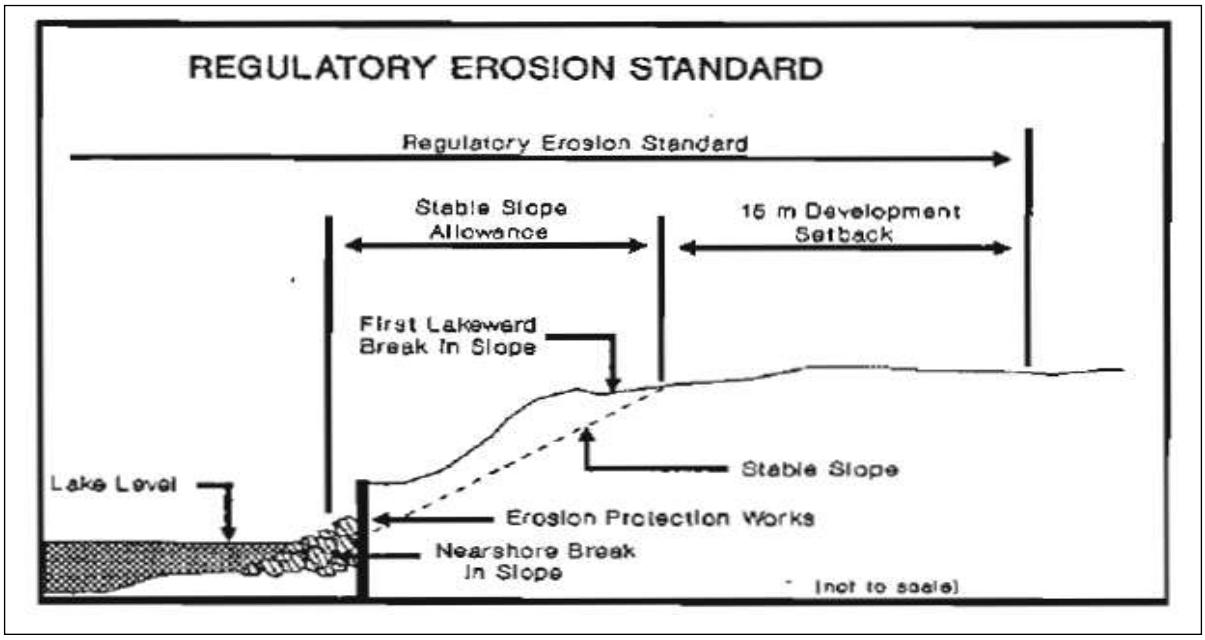
Regulator Flood Standard
It is the 100 year flood level plus 15 metres allowance for wave uprush and other water related hazards.
Where studies using accepted engineering principles are conducted to determine wave uprush and other water related hazards then the regulatory flood standard shall be the 100 year flood level plus the engineered allowance for wave uprush and other water related hazards.



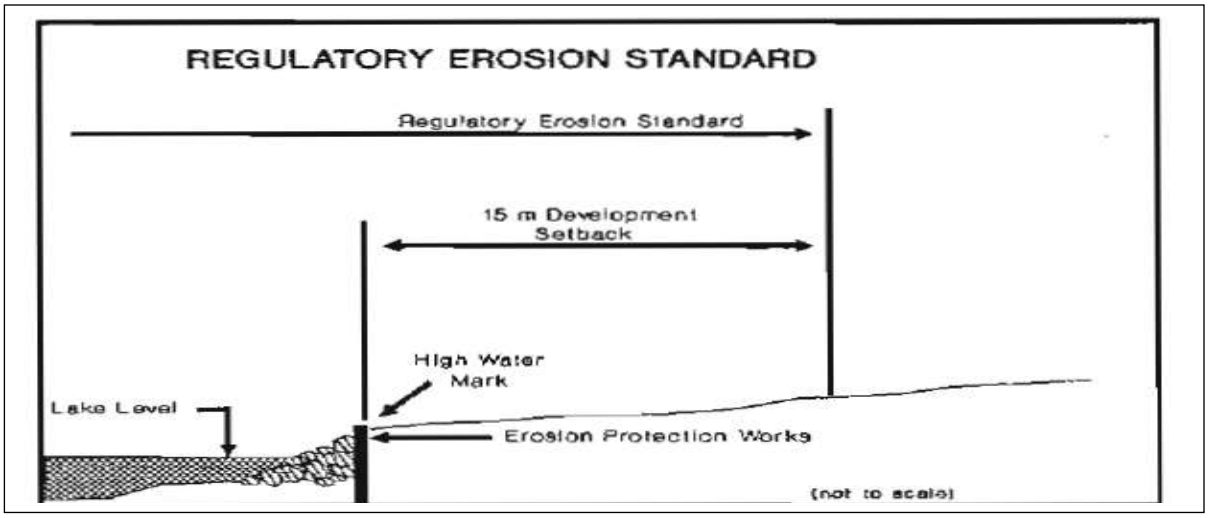
Regulatory Erosion Standard

a) a study will be undertaken for the upper river to determine the erosion hazard.
b) where erosion protection works have appropriately eliminated the erosion hazard, the regulatory erosion standard will be 15 metres measured landward from the greater of:

i) the stable slope allowance;



ii) the high water mark.



c) where studies have not been undertaken to determine the erosion hazard, or the erosion hazard has not been appropriately eliminated, the appropriate policies from the Provincial regulatory erosion standard will be apply.
d) In the absence of studies using accepted geotechnical principles, the allowance to achieve stable slope shall be defined as a horizontal; setback measured landward from the nearshore break in slope equivalent to 3.0 times the distance in elevation between the first lakeward break in slope and the nearshore break in slope, where above or below the water level.

Policies

6.2.1 No development may occur within regulatory shore lands that will create new or aggravate existing shoreline hazards. Development means the construction, reconstruction, erection or placing of a building, structure, protection works and/or flood proofing measures of any kind or the making of an addition or alteration to a building or structure that has the effect of increasing the size or usability thereof, and includes such related activities as site grading, excavation and the placing or dumping of fill.

6.2.2 No habitable dwelling may be located within regulatory shore lands except under the following conditions:

a. The individual or developer provide studies using accepted engineering principles demonstrating how they will overcome all shoreline hazards. This will include protection by acceptable flood proofing, wave impact and/or erosion protection actions or measures.
b. All other objectives of the policy area are satisfied.

6.2.3 Development that must locate within regulatory shore lands by the nature of their use may be permitted to do so where studies using accepted engineering principles demonstrate that all shoreline hazards can be overcome (e.g. Marina and associated structure).

6.2.4 Ingress/egress for habitable dwellings be such that vehicular and pedestrian movement is not prevented during times of flooding. Flood depths over access routes may not exceed 0.3 metres. Assessment by local Police and Emergency Services must be undertaken.

6.2.5 An existing residential structure within regulatory shore lands may not expand unless shoreline hazards have been overcome.

6.2.6 Due to the important role vegetation plays in the reduction of shoreline erosion, proponents wishing to develop shoreline property must submit a management plan for a vegetation buffer measured 7.5 metres landward from the High Water Mark.

6.2.7 No habitable dwellings will be permitted within 15 metres of the High Water Mark.

6.2.8 New development shall not be permitted to locate within regulatory shore lands where the use is:

a. associated with the manufacture, collection, storage, disposal and/or consumption of hazardous substances, which could pose an unacceptable threat to public safety if they were to escape their normal containment/use as a result of flooding, failure of flood proofing and/or erosion protection works, and/or erosion;
b. associated with institutional uses, such as hospitals, nursing homes and schools, which would pose a significant threat to the safety of the inhabitants (e.g. the sick, the elderly, the physically challenged or the young) if involved in an

emergency evacuation situation as a result of flooding, failure of flood proofing and or erosion protection works, and/or erosion; and

c. associated with services such as those provide by fire, police and ambulance stations and electrical substations, which would be impaired during a flood emergency as a result of flooding, failure of flood proofing, and/or erosion protection works.

6.2.9 Design and installation of protection works and placement of structures on shoreline property, must not prevent access to the protection works by heavy machinery for regular maintenance purposes and/or to repair the protection works should failure occur.

6.2.10 Industrial/Urban Core - This stretch of shoreline runs from A.B. McLean to the Plummer Memorial Public Hospital. This shoreline has been subject to extensive filling operations and is now composed entirely of fill. Due to the existing nature and future potential use within this area the 15 metre setback from the 100 year flood level will not apply. All other regulatory shore land policies will still apply.

6.2.11 Shore land and shoreline work that may result in an introduction of sediment loads to Lake Superior or the St. Marys River must employ methods to prevent this loading. Methods could include the use of settling ponds, sediment screens, timing of works, etc.

6.3 Environmental Priority Area Policies

Environmental priority areas are those areas which have been identified as environmentally sensitive and contain unique, threatened, or essential flora, fauna, or natural processes that must be protected to ensure their preservation and proliferation and minimize degradation to the natural environment. Environmental priority areas include areas containing wetland, significant flora or fauna, and all land and waters from the high water mark to the international border.

Environmental priority areas may overlay regulatory shore lands. When this is the case, the environment priority area policy will take precedence.

Regional, Provincial and National Archaeological Sites will also be subject to the environmental priority area policy. These include Marks Bay and Black Thistle Archaeological Site.

Policies

6.3.1 Development will be restricted within environmental priority areas unless it can be demonstrated that such development will not result in a net loss to fisheries habitat or degradation to the natural environmental conditions. (Development is defined as building construction, filling, excavating, dredging, and construction of shoreline protection structures.)

6.3.2 Uses which will assist in conserving or managing water supplies, wildlife, or other natural characteristics including conservation education, will be permitted provided other objectives of the policy are met.

6.3.3 Recreational structures such as docks, boat houses, and boat slips will be permitted provided other objectives of the policy are met.

6.3.4 No development may occur that will create new or aggravate existing shoreline hazards.

6.3.5 Shoreline protection will only be permitted if values including property are threatened. Shoreline protection methods which emulate the natural conditions will be promoted (i.e. revetments, beach nourishment, and indigenous vegetation.

6.3.6 Development that must locate within environmental priority areas by the nature of their use may be permitted to do so provided other objectives of the policy are met.

6.3.7 Anyone proposing development who, in the opinion of the SSMRCA has not demonstrated that all objectives of this policy will be met, will be required to prepare a detailed Environmental Impact Report which will indicate how the objectives of this policy will be met.

6.3.8 Structural works must be designed using accepted engineering principles.

6.3.9 Dredging, filling, and shore protection proposals will be subject to review and approval by the SSMRCA, Ministry of Natural Resources and Forestry, Transport Canada and the Ministry of the Environment and Climate Change.

6.3.10 Development which may affect archaeological sites will be subject to the approval of the Regional Archaeologist.

6.3.11 Shore land and shoreline work that may result in an introduction of sediment loads to Lakes Superior or the St. Marys River must employ methods to prevent this loading. Methods could include the use of settling ponds, sediment screens, timing of works, etc.

6.4 Shoreline Management Reach Prescriptions

Appendix I – Shoreline Management Plan sets forth the management of the shoreline under the jurisdiction of the SSMRCA by classifying the shoreline into 10 reaches for management purposes. Each reach contains a description which briefly identifies the physical and biological amenities within the reach and forms the basis for setting the prescriptions.

The prescription in each reach contains requirements and/or restrictions for the most common type of shoreline alterations and states the SSMRCA's position on that type of work in a specific shoreline location. The SSMRCA's position is based on four tiered scale which includes: recommended, not recommended, restricted and prohibited.

6.5 Provincial Ministries, Federal Departments and Crown Agencies

The Conservation Authorities Act does not contain a subsection that specifically "binds the Crown". Therefore, activities of Provincial Ministries, Federal Departments and Crown Agencies or "Crown Corporations" are not bound by the Act and these entities are not legally required to obtain permission under the Conservation Authorities Act. Voluntary compliance with the technical review process is encouraged with the Crown and their Agencies.

6.7 Summary

Staff will use the above operational guidelines in reviewing applications and either recommend approval or denial to Authority's Board of Directors. If staff recommend denial of the application the owner shall be contacted and informed that the project cannot be recommended for approval. The owner is then told that they are eligible to have a hearing before the Authority's Board of Directors. If a hearing is held the "Hearing Guidelines" shall be used.

CHAPTER 12 GLOSSARY

The following glossary provides definitions for terms used in this document:

A

Accepted Engineering Principles: means those current coastal, hydraulic, hydrology and geotechnical engineering principles, methods and procedures that would be judged by a peer group of qualified engineers (by virtue of their qualifications, training and experience), as being reasonable for the scale and type of project being considered, the sensitivity of the locations and the potential threats to life and property.

Access: means a primary route of ingress and egress to a property (e.g. a driveway, laneway and/or a municipal or provincial roadway).

Accessory Structure: means a secondary, freestanding, non-habitable building or structure on the same lot as the main building to which it is subordinate, devoted exclusively to a use normally incidental to the main use of the premises (e.g. garden sheds, tool sheds and gazebos).

Adjacent Lands: means those lands, contiguous to a specific natural heritage feature or area, where it is likely that development or site alteration would have a negative impact on the feature or area. The extent of the adjacent lands may be recommended by the Province or based on municipal approaches which achieve the same objectives.

Adverse Effects: means one or more of:
(a) impairment of the quality of the natural environment for any use that can be made of it;
(b) injury or damage to property or plant or animal life;
(c) harm or material discomfort to any person;
(d) an adverse effect on the health of any person;
(e) impairment of the safety of any person;
(f) rendering any property or plant or animal life unfit for human use;
(g) loss of enjoyment of normal use of the property; and
(h) interference with normal conduct of business. (Environmental Protection Act, 1990).
Provincial Policy Statement, 2014

Alteration to a Watercourse: means the straightening, changing, diverting or interfering in anyway with the existing channel of a river, creek, stream or watercourse.

Apparent Valley (Confined): means a watercourse located within a valley corridor, either within or without a flood plain, and is confined by valley walls.

Average Annual High Water Mark: means the highest lake level on average for any given year.

B

Basement: means one or more storeys of a building located below the first storey.

Boathouse: means an accessory building that is not serviced and does not contain habitable living space, has an opening to the water of an appropriate size to accommodate a boat.

Buffer: means an area or band of permanent vegetation, preferably comprised of native species, located adjacent to a natural heritage feature and usually bordering lands that are subject to development and site alteration. The purpose of the buffer is to protect the feature and its function(s) by mitigating the impacts of the proposed land use and allowing for edge phenomena to continue.

C

Confined Systems: are those where the watercourse is located within a valley corridor, either with or without a flood plain, and is confined by valley walls.

Conservation Authority: means a body corporate formed under the *Conservation Authorities Act* R.S.O. 1990, Chapter 27 (or its predecessors) at the request of the member municipalities.

Conservation of Land: means the protection, management or restoration of lands within the watershed ecosystem for the purpose of maintaining or enhancing the natural features and hydrologic and ecological functions within the watershed (Conservation Ontario, 2008). The Mining and Lands Commissioner has ruled that the **conservation of land** includes all aspects of the physical environment, be it terrestrial, aquatic, biological, botanic or air and the relationship between them.

D

Derelict building: means a building or structure which is empty and in a bad state of repair because it has not been used or lived in for a long time.

Development: means,
a) the construction, reconstruction, erection or placing of a building or structure of any kind,
b) any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure,
c) site grading, or
d) the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere (Conservation Authorities Act, R.S.O. 1990).

Drainage Area: means for a point, the area that contributes runoff to that point.

Dry Flood-proofing: See Flood-proofing.

Dyke: means an embankment constructed to prevent flooding of adjacent lands.

Dynamic Beach Hazard: means areas of inherently unstable accumulations of shoreline sediments along Lake Superior - St. Marys River System and large inland lakes, as

identified by provincial standards, as amended from time to time. The dynamic beach hazard limit consists of the flooding hazard limit plus a dynamic beach allowance (Provincial Policy Statement, 2014).

E

Ecological Function: means the natural processes, products or services that living and non-living environments provide or perform within or between species, ecosystems and landscapes. These may include biological, physical and socio-economic interactions. (Provincial Policy Statement, 2014).

Emergency Works: are defined as those works that are being completed to avoid the immediate threat of loss of life or catastrophic property damage (e.g. the repair of a washed out road).

Environmental Impact Study (EIS): means a report prepared by a qualified professional (biologist, ecologist) to address the potential impacts of development on natural heritage features and areas. The types of EIS studies include

a) Comprehensive EIS: a landscape scale study which identifies natural heritage features for protection, potential development areas and development setbacks that are ecologically sustainable.

b) Scoped EIS: an area specific study that addresses issues of particular concern not previously addressed in sufficient detail in a comprehensive study. The factors which may be considered for a scoped EIS include:

- the extent of the encroachment;
- the potential impact of the use; and
- the sensitivity of the feature.

Erosion: is a natural process which results in the continual loss of earthen material (i.e. soil) over time as a result of water and wind.

Erosion Access Allowance: means the setback needed to allow people and equipment the ability to access erosion prone areas for regular maintenance and access to the site in the event of erosion or failure of as structure. The erosion access allowance should be at least 6 metres in width and should be applied within all confined and unconfined river and stream systems.

Erosion Hazard: means the loss of land, due to human or natural processes, that poses a threat to life and property. The erosion hazard limit is determined using considerations that include the 100 year erosion rate (the average annual rate of recession extended over a one hundred year time span), an allowance for slope stability, and an erosion/erosion access allowance. (Provincial Policy Statement, 2014).

Essential Emergency Services: means services which would be impaired during an emergency as a result of flooding, the failure of flood-proofing measures and/or protection works, and/or erosion.

F

Fill: means earth, sand, gravel, rubble, rubbish, garbage, or any other material whether similar to or different from any of the aforementioned materials, whether originating on the site or elsewhere, used or capable of being used to raise, lower, or in any way affect the contours of the ground.

Flooding Hazard: means the inundation, under the conditions specified below, of areas adjacent to a shoreline or a river or stream system and not ordinarily covered by water:

a) along the shorelines of the Lake Superior - St. Marys River System and large inland lakes, the flooding hazard limit is based on the one hundred year flood level plus an allowance for wave uprush and other water related hazards;

b) along river, stream and small inland lakes, the flooding hazard limit is the greater of:

1. the flood resulting from the rainfall actually experienced during a major storm such as the Timmins storm (1961), transposed over a specific watershed and combined with the local conditions, where evidence suggests that the storm event could have potentially occurred over watersheds in the general area;
2. the one hundred year flood;
3. a flood which is greater than 1) or 2) which was actually experienced in a particular watershed or portion thereof as a result of ice jams and which has been approved as the standard for that specific area by the Minister of Natural Resources;

except where the use of the one hundred year flood or the actually experienced event has been approved by the Minister of Natural Resources as the specific watershed (where the past history of flooding supports the lowering of the standard). (Provincial Policy Statement, 2014).

Flood plain: means the area, usually lowlands adjoining a watercourse, which has been, or may be covered by flood waters.

Flood-proofing: means a combination of structural changes and/or adjustments incorporated into the basic design and/or construction or alteration of individual buildings, structures or properties

subject to flooding used to reduce or eliminate flood damages. (Flood Plain Planning Policy Statement, 1988). Total protection of buildings or structures cannot always be assured.

There are three different types of flood-proofing: dry-passive flood-proofing, dry active flood-proofing and wet flood-proofing.

a) **Dry Passive Flood-proofing –** includes the use of fill, columns or design modifications to elevate openings to the building or structure at or above the level of the flood hazard. These measures do not require flood warning or any other action to put the flood protection measures into effect.

b) **Dry Active Flood-proofing –** includes techniques such as installing water tight doors, seals or floodwalls to prevent water from entering openings to the structure of building below the level of the flood hazard. Advance warning is almost always required to make the flood protection operational (i.e. closing of water tight doors, installation of flood shields).

c) **Wet Flood-proofing –** involves designing a building or structure using materials, methods and design measures that maintain structural integrity by avoiding external unbalanced forces from acting. Buildings and structures are designed so as to intentionally allow flood waters to enter and exit, ensuring the interior space below the level of the flood hazard remains unfinished, non-habitable and free of services.

Flood way: means the channel of a watercourse and that inner portion of the flood plain where flood depths and velocities are generally higher than those experienced in the flood fringe. The flood way represents that area required for the safe passage of flood flow and/or that area where flood depths and/or velocities are considered to be such that they pose a potential threat to life and/or property damages.). Where the one zone concept is applied, the flood way is the entire flood plain.

Freeboard Allowance: means a vertical distance (0.3 metres) added to the flood elevation to accommodate uncertainties in the calculation of the flood elevation, waves, surges and other natural phenomena.

G

Gross Floor Area: means, the total area of all floors measured between the outside surfaces of exterior walls and includes a basement.

H

Habitable: that portion of a building containing rooms or spaces required and intended for overnight occupancy and associated living space, and includes those portions which contain facilities for storage, heating, air-conditioning, plumbing, electrical, hot water supplies, which are necessary to maintain the habitable condition.

Habitable means a single, or series of rooms of complementary use for human habitation which is located in a building in which food preparation, eating, living,

sleeping and sanitary facilities are provided primarily for the exclusive use of the occupants thereof.

Hazardous Land: means property or lands that could be unsafe for development due to naturally occurring processes. Along the shorelines of large inland lakes, this means the land, including that
covered by water, between a defined offshore distance or depth and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach hazard limits. Along river, stream and small inland lakes systems, this means the land, including that covered by water, to the furthest landward limit of the flooding hazard or erosion hazard limits (PPS, 2014).

Hazardous Sites: means property or lands that could be unsafe for development and site alteration due to naturally occurring hazards. They may include unstable soils (sensitive marine clays [leda], organic soils) or unstable bedrock (karst topography) (PPS, 2014).

Hazardous Substances: means substances which, individually, or in combination with other substances, are normally considered to pose a danger to public health, safety and the environment. These substances generally include a wide array of materials that are toxic, ignitable, corrosive, reactive, radioactive or pathological (PPS, 2014).

Hearing: means a hearing held under Section 28(12) of the *Conservation Authorities Act.*

High Water Mark: means the mark made by the action of water under natural conditions on the shore or bank of a water body, which action has been common and usual and so long continued that it has created a difference between the character of the vegetation or soil on one side of the mark and the character of the vegetation or soil on the other side of the mark.

Hydrologic Function: means the functions of the hydrologic cycle that include the occurrence, circulation, distribution and chemical and physical properties of water on the surface of the land, in the soil and underlying rocks, and in the atmosphere, and water's interaction with the environment including its relation to living things.

I

Incrementally Balanced Cut and Fill: means all fill placed at or below the flood elevation must be compensated for by the removal of an equal volume of fill from the same incremental elevation above the flood elevation within the same reach of a watercourse. Cut and fill calculations are to be based on 0.3 metre elevation increments.

Infrastructure: means physical structures (facilities and corridors) that form the foundation for development (e.g. sewage and water systems, septage treatment systems, storm water management systems, waste management systems, electricity generation facilities, electricity transmission and distribution systems, communications/telecommunications, transit and transportation corridors and facilities, oil and gas pipelines and associated facilities) (Provincial Policy Statement, 2014).

Institutional Uses: means land uses where there is a threat to the safe evacuation of vulnerable populations such as older persons, persons with disabilities, and those who are sick or young, during an emergency as a result of flooding, failure of flood-proofing measures or protection works, or erosion (PPS, 2014).

Intensification: means the development of a property, site or area at a higher density than currently exists through,

(a) Redevelopment, including the reuse of brownfield sites;

(b) The development of vacant and/or underutilized lots within previously developed areas;

(c) Infill development;

(d) The expansion or conversion of existing buildings. (Provincial Policy Statement, 2014); and

(e) The addition of a second dwelling unit.

Interference in Any Way: means any anthropogenic act or substance which hinders, disrupts, degrades or impedes in any way the natural features or hydrologic and ecological functions of a wetland or watercourse (Conservation Ontario, 2008).

Intermittent Watercourse: means watercourses that contain water or are dry at times of the year that are more or less predictable, generally flowing during wet seasons of the year but not the entire year, and where the water table is above the stream bottom during parts of the year (Greenbelt Plan, 2005).

J

K

L

Large Scale Fill Placement: as defined by the SSMRCA is considered to be the placement of 250 cubic metres of fill or more.

M

Major Development: means development consisting of the construction of a building or buildings with a ground floor area of 500 metres^2 or more.

Meander Belt Allowance: means the maximum extent that a water channel migrates. The meander belt allowance is defined as 20 times the bankfull channel width of the reach and centred on the meander belt axis or as defined by a study completed by a qualified geomorphologist using accepted technical principles (Understanding Natural Hazards, 2001).

N

O

Observed Flood Event: means a flood event that was actually experienced in a particular watershed or portion thereof.

One Hundred Year Flood (1:100 Year): for river, stream and small inland lake systems, means that flood, based on an analysis of precipitation, snowmelt or a combination thereof, having a return period of 100 years on average, or having a 1% chance of occurring or being exceeded in any given year. For large inland lakes, lake levels and wind setups that have a 1% chance of being equalled or exceeded in any given year, except that, where sufficient water level records do not exist, the one hundred year flood level is based on the highest known water level and wind setup.

One Zone Concept: means the approach whereby the entire flood plain, as defined by the regulatory flood, is treated as one unit, and all development is prohibited or restricted. (Flood Plain Planning Policy Statement, 1988). This is the most effective way of minimizing threats to public health and safety or property damages. The one zone concept is the preferred approach for the management of flooding hazards within river and stream systems as it provides the most cost effective means of minimizing potential threats to life and risks to property damage and social disruption.

Other Lands: means those lands adjacent to wetlands which exhibit a significant role in supporting the hydrologic functions of the wetland, where development could interfere with the hydrologic function of the wetland. Typically, these “other areas” are associated with the wetland through high ground water elevations, springs, seeps, vegetation, organic soils or some other significant inter-relationship. Other lands are located within 120 metres of a provincially significant wetland and 30 metres of all other wetlands.

Other Water-related Hazards: means water-associated phenomena other than flooding hazards and wave uprush which act on shorelines. This includes, but is not limited to ship-generated waves, ice piling and ice jamming (Provincial Policy Statement, 2014).

Other Wetlands: means any wetland that meets the definition of a wetland as defined by the *Conservation Authorities Act* that has not designated as a provincially significant wetland.

P

Permanent Stream: means a stream that continually flows during an average year (Green Belt Plan, 2005).

Permit: means written approval to undertake work in a regulated area issued by a Conservation Authority under the *Conservation Authorities Act*.

Pollution: means any deleterious physical substance or other contaminant which has the potential to be generated by development in an area where the Authority's regulation applies (Conservation Authorities Act R.S.O. 1990).

Protection Works: means the combination of non-structural or structural works and allowances for slope stability and flooding/erosion to reduce the damage caused by flooding hazards, erosion hazards and other water related hazards, and allow access for their maintenance and repair.

Provincially Significant Wetland (PSW): means a wetland area identified as being provincially significant by the Ministry of Natural Resources using evaluation procedures established by the province, as amended from time to time (Provincial Policy Statement, 2014).

Q

R

Reconstruction: means the restoration, repair or replacement of a building or structure within its original footprint, not to exceed its original ground floor area, gross floor area or height, and without any change to its original use.

Redevelopment: means the creation of new units, uses or lots on previously developed land in existing communities, including brownfield sites (Provincial Policy Statement, 2014).

Regulation Limit: means the greatest extent of all regulated areas that define the hazards which are applicable to a property. The regulation limit does not represent the development limit.

Regulatory Flood: means the approved standard(s) used in a particular watershed to define the flood plain for regulatory purposes.

Regulatory Flood Plain: means the approved standard(s) which Is used in a particular watershed to define the limits of the flood plain for regulatory purposes.

S

Safe Access (Safe Access/Egress): means vehicular and pedestrian access to and from a site to lands above the regulatory flood plain is safe from the risks due to flooding and/or erosion hazards consistent with emergency standards. Assessment by local Police and Emergency Services must be undertaken.

This is further defined as follows:
For vehicular access routes (e.g. municipal roadways and private right-of-ways) safe access will be considered to be available if the depth of flooding at the regulatory flood level along

the full length of the travelled surface of the access route or right-of-way is no greater than 0.3 metres.

For pedestrian access routes (e.g. private laneways, driveways and walkways between residences and vehicular access routes) safe access will be considered to be available if the depth of flooding at the regulatory flood level along the entire length of the access route is no greater than 0.3 metres and the depth multiplied by the flow velocity does not exceed 0.4 m^2/second. Furthermore, the access route must be clearly demarcated and visible during a flood event.

Site Alteration: means activities, such as grading, excavation and the placement of fill that would change the landform and natural vegetative characteristics of a site (Provincial Policy Statement, 2014).

Special Policy Area: means an area within a community that has historically existed in the flood plain and where site-specific policies, approved by both the Ministers of Natural Resources and Municipal Affairs and Housing, are intended to provide for the continued viability of existing uses (which are generally on a small scale) and address the significant social and economic hardships for the community that would result from strict adherence to provincial policies concerning development. The criteria and procedures for approval are established by the Province. A Special Policy Area is not intended to allow for new or intensified development and site alteration, if a community has feasible opportunities for development outside the flood plain (Provincial Policy Statement, 2014).

Specialty Crop Area: means areas designated using guidelines developed by the Province, as amended from time to time. In these areas, specialty crops are predominantly grown such as tender fruits (peaches, cherries, plums), grapes, other field crops, vegetable crops, greenhouse crops, and crops from agriculturally developed organic soil, usually resulting from:

a) soils that have suitability to produce specialty crops, or lands that are subject to special climate conditions, or a combination of both;

b) Farmers skilled in the production of specialty crops; and

c) A long-term investment of capital in areas such as crops, drainage, infrastructure and related facilities and services to produce, store or process specialty crops (Provincial Policy Statement, 2014).

T

Toe Erosion Allowance:

15 metre toe erosion allowance Where the toe of the valley wall is subject to active erosion OR is within 15 metres of the watercourse, a toe erosion allowance has to be applied. The toe erosion allowance should be measured inland horizontally and perpendicular to the toe of the watercourse slope. The proximity of the watercourse to the base of the valley wall can be determined from aerial photography or site investigations.

stable slope allowance A horizontal allowance measured farther landward (horizontal and perpendicular) from the toe of the watercourse or from the toe erosion allowance (if applicable) equivalent to at least 3.0 times the height of the slope.

OR

A stable slope allowance determined by a study using accepted geotechnical principles

erosion access allowance To be applied within all confined, unconfined and terrain-dependent river and stream systems. The erosion access allowance is required to provide emergency access to erosion prone areas. The minimum erosion access allowance for river and stream systems is **6 metres.**

Toe of Slope: means the lowest point on a slope, where the surface gradient changes from relatively shallow to relatively steep.

Top of Slope: means the point of the slope where the downward inclination of the land begins, or the upward inclination of the land levels off. This point is situated at a high topographic elevation than the remainder of the slope.

Top of Stable Slope: means the physical top of slope where the existing slope is stable and not impacted by toe erosion; or the landward limit of the toe erosion allowance plus the stable slope allowance where the existing slope is unstable and/or impacted by erosion.

Two Zone Concept: means the approach whereby certain areas of the flood plain are considered to be less hazardous than others such that development potentially could safely occur. The flood fringe defines that portion of the flood plain where development may be permitted, subject to appropriate flood-proofing. The flood way defines that portion of the flood plain wherein development is prohibited or restricted. (Flood Plain Planning Policy Statement, 1988)

U

Unconfined Systems: are those systems where the watercourse is not located within a valley corridor with discernable slopes, but relatively flat to gently rolling plains and is not confined by valley walls. (Understanding Natural Hazards, 2001).

Unstable Soils*:* include organic and peat soils as well as sensitive marine clays (e.g. leda clays) or organic soils (MNR & Conservation Ontario, 2005). Leda clay deposits are not known to be present within the SSMRCA watershed. Organic and peat soils are found within the SSMRCA watershed.

V

Vegetation Protection Zone: means a vegetated buffer area surrounding a key natural heritage feature or key hydrologic feature within which only those land uses permitted within

the feature itself are permitted. The width of the vegetation protection zone is to be determined when new development or site alteration occurs within 120 metres of a key natural heritage feature or key hydrologic feature, and is to be of sufficient size to protect the feature and its functions from the impacts of the proposed change and associated activities that will occur before, during, and after, construction, and where possible, restore or enhance the feature and/or its function.

W

Watercourse: an identifiable depression in the ground in which a flow of water regularly or continuously occurs (*Conservation Authorities Act*, R.S.O. 1990).

Watershed: an area drained by a river and its tributaries *(Conservation Authorities Act*, R.S.O. 1990).

Wave Uprush: means the rush of water up onto a shoreline or structure following the breaking of a wave; the limit of wave uprush is the point of furthest landward rush of water onto the shoreline (Provincial Policy Statement, 2014).

Wetlands: are defined as lands that are:

(a) seasonally or permanently covered by shallow water or has a water table close to or at its surface,
(b) directly contributes to the hydrologic function of a watershed through connection with a surface watercourse,
(c) has hydric soils, the formation of which has been caused by the presence of abundant water, and
(d) has vegetation dominated by hydrophytic plants or water tolerant plants, the dominance of which has been favoured by the presence of abundant water,

but does not include periodically soaked or wet land that is used for agricultural purposes and no longer exhibits a wetland characteristic referred to in clause (c) or (d) (*Conservation Authorities Act*, R.S.O. 1990).

Wind Setup: means the vertical rise above the normal static water level on the leeward side of a body of water caused by wind stresses on the surface of the water.

CHAPTER 14 APPENDICES

Appendix A : Section 28, The Conservation Authorities Act

Section 28 (only) Conservation Authorities Act R.S.O. 1990, CHAPTER C.27

http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/90c27_e.htm

Amended by: 1993, c. 27, Sched.; 1994, c. 27, s. 127; 1996, c. 1, Sched. M, ss. 40-47; 1996, c. 32, s. 66; 1997, c. 5, s. 64; 1997, c. 26, Sched.; 1997, c. 29, s. 54; 1997, c. 43, Sched. G, s. 19; 1998, c. 3, s. 33; 1998, c. 15, Sched. E, s. 3; 1998, c. 18, Sched. I, ss. 1-14; 2000, c. 5, s. 8; 2001, c. 8, s. 203; 2001, c. 9, Sched. K, s. 1; 2002, c. 17, Sched. F, Table.

Regulations by authority re. area under its jurisdiction

28. (1) Subject to the approval of the Minister, an authority may make regulations applicable in the area under its jurisdiction,

(a) restricting and regulating the use of water in or from rivers, streams, inland lakes, ponds, wetlands and natural or artificially constructed depressions in rivers or streams;

(b) prohibiting, regulating or requiring the permission of the authority for straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream or watercourse, or for changing or interfering in any way with a wetland;

(c) prohibiting, regulating or requiring the permission of the authority for development if, in the opinion of the authority, the control of flooding, erosion, dynamic beaches or pollution or the conservation of land may be affected by the development;

(d) providing for the appointment of officers to enforce any regulation made under this section or section 29;

(e) providing for the appointment of persons to act as officers with all of the powers and duties of officers to enforce any regulation made under this section. 1998, c. 18, Sched. I, s. 12.

Delegation of powers

(2) A regulation made under subsection (1) may delegate any of the authority's powers or duties under the regulation to the authority's executive committee or to any other person or body, subject to any limitations and requirements that may be set out in the regulation. 1998, c. 18, Sched. I, s. 12.

Conditional permission

(3) A regulation made under clause (1) (b) or (c) may provide for permission to be granted subject to conditions and for the cancellation of the permission if conditions are not met. 1998, c. 18, Sched. I, s. 12.

References to maps

(4) A regulation made under subsection (1) may refer to any area affected by the regulation by reference to one or more maps that are filed at the head office of the authority and are available for public review during normal office business hours. 1998, c. 18, Sched. I, s. 12.

Minister's approval of development regulations

(5) The Minister shall not approve a regulation made under clause (1) (c) unless the regulation applies only to areas that are,

(a) adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to inland lakes that may be affected by flooding, erosion or dynamic beach hazards;

(b) river or stream valleys;

(c) hazardous lands;

(d) wetlands; or

(e) other areas where, in the opinion of the Minister, development should be prohibited or regulated or should require the permission of the authority. 1998, c. 18, Sched. I, s. 12.

Regulations by L.G. in C. governing content of authority's regulations

(6) The Lieutenant Governor in Council may make regulations governing the content of regulations made by authorities under subsection (1), including flood event standards and other standards that may be used, and setting out what must be included or excluded from regulations made by authorities under subsection (1). 1998, c. 18, Sched. I, s. 12.

Invalid regulation

(7) A regulation made by an authority under subsection (1) that does not conform with the requirements of a regulation made by the Lieutenant Governor in Council under subsection (6) is not valid. 1998, c. 18, Sched. I, s. 12.

Transition

(8) Subject to subsection (9), if a regulation is made by the Lieutenant Governor in Council under subsection (6), subsection (7) does not apply to a regulation that was previously made by an authority under subsection (1) until two years after the regulation made by the Lieutenant Governor in Council comes into force. 1998, c. 18, Sched. I, s. 12.

Same

(9) If a regulation made by the Lieutenant Governor in Council under subsection (6) is amended by an amending regulation, subsection (7) does not apply, in respect of the amendment, to a regulation that was made by an authority under subsection (1) before the amending regulation, until such time as may be specified in the amending regulation. 1998, c. 18, Sched. I, s. 12.

Exceptions

(10) No regulation made under subsection (1),

(a) shall limit the use of water for domestic or livestock purposes;

(b) shall interfere with any rights or powers conferred upon a municipality in respect of the use of water for municipal purposes;

(c) shall interfere with any rights or powers of any board or commission that is performing its functions for or on behalf of the Government of Ontario; or

(d) shall interfere with any rights or powers under the Electricity Act, 1998 or the Public Utilities Act. 1998, c. 15, Sched. E, s. 3 (8); 1998, c. 18, Sched. I, s. 12.

Activities under the Aggregate Resources Act

(11) A requirement for permission of an authority in a regulation made under clause (1) (b) or (c) does not apply to an activity approved under the Aggregate Resources Act after the Red Tape Reduction Act, 1998 received Royal Assent. 1998, c. 18, Sched. I, s. 12.

Right to hearing

(12) Permission required under a regulation made under clause (1) (b) or (c) shall not be refused or granted subject to conditions unless the person requesting the permission has been given the opportunity to require a hearing before the authority or, if the authority so directs, before the authority's executive committee. 1998, c. 18, Sched. I, s. 12.

Powers of authority

(13) After holding a hearing under subsection (12), the authority or executive committee, as the case may be, shall,

(a) refuse the permission; or

(b) grant the permission, with or without conditions. 1998, c. 18, Sched. I, s. 12.

Reasons for decision

(14) If the authority or its executive committee, after holding a hearing, refuses permission or grants permission subject to conditions, the authority or executive committee, as the case may be, shall give the person who requested permission written reasons for the decision. 1998, c. 18, Sched. I, s. 12.

Appeal

(15) A person who has been refused permission or who objects to conditions imposed on a permission may, within 30 days of receiving the reasons under subsection (14), appeal to the Minister who may,

(a) refuse the permission; or

(b) grant the permission, with or without conditions. 1998, c. 18, Sched. I, s. 12.

Offence: contravening regulation

(16) Every person who contravenes a regulation made under subsection (1) is guilty of an offence and on conviction is liable to a fine of not more than $10,000 or to a term of imprisonment of not more than three months. 1998, c. 18, Sched. I, s. 12.

Orders

(17) In addition to any other remedy or penalty provided by law, the court, upon making a conviction under subsection (16), may order the person convicted to,

(a) remove, at that person's expense, any development within such reasonable time as the court orders; and

(b) rehabilitate any watercourse or wetland in the manner and within the time the court orders. 1998, c. 18, Sched. I, s. 12.

Non-compliance with order

(18) If a person does not comply with an order made under subsection (17), the authority having jurisdiction may, in the case of a development, have it removed and, in the case of a watercourse or wetland, have it rehabilitated. 1998, c. 18, Sched. I, s. 12.

Liability for certain costs

(19) The person convicted is liable for the cost of a removal or rehabilitation under subsection (18) and the amount is recoverable by the authority by action in a court of competent jurisdiction. 1998, c. 18, Sched. I, s. 12.

Powers of entry

(20) An authority or an officer appointed under a regulation made under clause (1) (d) or (e) may enter private property, other than a dwelling or building, without the consent of the owner or occupier and without a warrant, if,

(a) the entry is for the purpose of considering a request related to the property for permission that is required by a regulation made under clause (1) (b) or (c); or

(b) the entry is for the purpose of enforcing a regulation made under clause (1) (a), (b) or (c) and the authority or officer has reasonable grounds to believe that a contravention of the regulation is causing or is likely to cause significant environmental damage and that the entry is required to prevent or reduce the damage. 1998, c. 18, Sched. I, s. 12.

Time of entry

(21) Subject to subsection (22), the power to enter property under subsection (20) may be exercised at any reasonable time. 1998, c. 18, Sched. I, s. 12.

Notice of entry

(22) The power to enter property under subsection (20) shall not be exercised unless,

(a) the authority or officer has given reasonable notice of the entry to the owner of the property and, if the occupier of the property is not the owner, to the occupier of the property; or

(b) the authority or officer has reasonable grounds to believe that significant environmental damage is likely to be caused during the time that would be required to give notice under clause (a). 1998, c. 18, Sched. I, s. 12.

No use of force

(23) Subsection (20) does not authorize the use of force. 1998, c. 18, Sched. I, s. 12.

Offence: obstruction

(24) Any person who prevents or obstructs an authority or officer from entering property under subsection (20) is guilty of an offence and on conviction is liable to a fine of not more than $10,000. 1998, c. 18, Sched. I, s. 12.

Definitions

(25) In this section,

"development" means,

(a) the construction, reconstruction, erection or placing of a building or structure of any kind,

(b) any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure,

(c) site grading, or

(d) the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere; ("aménagement")

"hazardous land" means land that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches or unstable soil or bedrock; ("terrain dangereux")

"pollution" means any deleterious physical substance or other contaminant that has the potential to be generated by development in an area to which a regulation made under clause (1) (c) applies; ("pollution")

"watercourse" means an identifiable depression in the ground in which a flow of water regularly or continuously occurs; ("cours d'eau")

"wetland" means land that,

(a) is seasonally or permanently covered by shallow water or has a water table close to or at its surface,

(b) directly contributes to the hydrological function of a watershed through connection with a surface watercourse,

(c) has hydric soils, the formation of which has been caused by the presence of abundant water, and

(d) has vegetation dominated by hydrophytic plants or water tolerant plants, the dominance of which has been favoured by the presence of abundant water,

but does not include periodically soaked or wet land that is used for agricultural purposes and no longer exhibits a wetland characteristic referred to in clause (c) or (d). ("terre marécageuse") 1998, c. 18, Sched. I, s. 12.

Transition

(26) A regulation that was in force immediately before the day the Red Tape Reduction Act, 1998 received Royal Assent and that was lawfully made under clause (1) (e) or (f) of this section as it read immediately before that day shall be deemed to have been lawfully made under clause (1) (c). 1998, c. 18, Sched. I, s. 12.

Appendix B : Ontario Regulation 176/06

ONTARIO REGULATION 176/06

made under the

CONSERVATION AUTHORITIES ACT

Made: April 28, 2006
Approved: May 4, 2006
Filed: May 4, 2006
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SAULT STE. MARIE REGION CONSERVATION AUTHORITY: REGULATION OF DEVELOPMENT, INTERFERENCE WITH WETLANDS AND ALTERATIONS TO SHORELINES AND WATERCOURSES

Definition

1. In this Regulation,

"Authority" means the Sault Ste. Marie Region Conservation Authority.

Development prohibited

2. (1) Subject to section 3, no person shall undertake development, or permit another person to undertake development in or on the areas within the jurisdiction of the Authority that are,

(a) adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to inland lakes that may be affected by flooding, erosion or dynamic beaches, including the area from the furthest offshore extent of the Authority's boundary to the furthest landward extent of the aggregate of the following distances:

(i) the 100 year flood level, plus the appropriate allowance for wave uprush shown in the "Prescriptions-Regulatory Flood Standards" for each reach as detailed in the document "Shoreline Management Plan-Sault Ste. Marie Region Conservation Authority" which is available at or through the Authority at its head office located at 1100 Fifth Line East, Sault Ste. Marie, Ontario, P6A 5K7,

(ii) the predicted long term stable slope projected from the existing stable toe of the slope or from the predicted location of the toe of the slope as that location may have shifted as a result of shoreline erosion over a 100-year period,

(iii) where a dynamic beach is associated with the waterfront lands, an appropriate allowance in metres inland, determined by the authority, to accommodate dynamic beach movement, and

(iv) 15 metres inland;

(b) river or stream valleys that have depressional features associated with a river or stream, whether or not they contain a watercourse, the limits of which are determined in accordance with the following rules:

(i) where the river or stream valley is apparent and has stable slopes, the valley extends from the stable top of bank, plus 15 metres, to a similar point on the opposite side,

(ii) where the river or stream valley is apparent and has unstable slopes, the valley extends from the predicted long term stable slope projected from the existing stable slope or, if the toe of the slope is unstable, from the predicted location of the toe of the slope as a result of stream erosion over a projected 100-year period, plus 15 metres, to a similar point on the opposite side,

(iii) where the river or stream valley is not apparent, the valley extends the greater of,

(A) the distance from a point outside the edge of the maximum extent of the flood plain under the applicable flood event standard, plus 15 metres, to a similar point on the opposite side, and

(B) the distance from the predicted meander belt of a watercourse, expanded as required to convey the flood flows under the applicable flood event standard, plus 15 metres, to a similar point on the opposite side;

(c) hazardous lands;

(d) wetlands; or

(e) other areas where development could interfere with the hydrologic function of a wetland, including areas within 120 metres of all provincially significant wetlands and wetlands greater than 2 hectares in size, and areas within 30 metres of wetlands less than 2 hectares in size, but not including those where development has been approved pursuant to an application made under the *Planning Act* or other public planning or regulatory process.

(2) The areas described in subsection (1) are the areas referred to in section 12 except that, in case of a conflict, the description of the areas provided in subsection (1) prevails over the descriptions referred to in that section.

Permission to develop

3. (1) The Authority may grant permission for development in or on the areas described in subsection 2 (1) if, in its opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development.

(2) The permission of the Authority shall be given in writing, with or without conditions.

Application for permission

4. A signed application for permission to undertake development shall be filed with the Authority and shall contain the following information:

1. Four copies of a plan of the area showing the type and location of the development.
2. The proposed use of the buildings and structures following completion of the development.
3. The start and completion dates of the development.
4. The elevations of existing buildings, if any, and grades and the proposed elevations of buildings and grades after development.
5. Drainage details before and after development.
6. A complete description of the type of fill proposed to be placed or dumped.

Alterations prohibited

5. Subject to section 6, no person shall straighten, change, divert or interfere in any way with the existing channel of a river, creek, stream or watercourse or change or interfere in any way with a wetland.

Permission to alter

6. (1) The Authority may grant a person permission to straighten, change, divert or interfere with the existing channel of a river, creek, stream or watercourse or to change or interfere with a wetland.

(2) The permission of the Authority shall be given in writing, with or without conditions.

Application for permission

7. A signed application for permission to straighten, change, divert or interfere with the existing channel of a river, creek, stream or watercourse or change or interfere with a wetland shall be filed with the Authority and shall contain the following information:

1. Four copies of a plan of the area showing plan view and cross-section details of the proposed alteration.
2. A description of the methods to be used in carrying out the alteration.
3. The start and completion dates of the alteration.
4. A statement of the purpose of the alteration.

Cancellation of permission

8. (1) The Authority may cancel a permission if it is of the opinion that the conditions of the permission have not been met.

(2) Before cancelling a permission, the Authority shall give a notice of intent to cancel to the holder of the permission indicating that the permission will be cancelled unless the holder shows cause at a hearing why the permission should not be cancelled.

(3) Following the giving of the notice, the Authority shall give the holder at least five days notice of the date of the hearing.

Validity of permissions and extensions

9. (1) A permission of the Authority is valid for a maximum period of 24 months after it is issued, unless it is specified to expire at an earlier date.

(2) A permission shall not be extended.

Appointment of officers

10. The Authority may appoint officers to enforce this Regulation.

Flood event standards

11. The applicable flood event standards used to determine the maximum susceptibility to flooding of lands or areas within the watersheds in the area of jurisdiction of the Authority are the Timmins Flood Event Standard, the 100 Year Flood Event Standard and the 100 year flood level plus wave uprush, described in Schedule 1.

Areas included in the Regulation Limit

12. Hazardous lands, wetlands, shorelines and areas susceptible to flooding, and associated allowances, within the watersheds in the area of jurisdiction of the Authority are delineated by the Regulation Limit shown on maps 1 to 3 dated February 2006 and filed at the head office of the Authority at 1100 Fifth Line East, Sault Ste. Marie, Ontario, P6A 5K7 under the map title "Ontario Regulation 97/04: Regulation for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses".

Revocation

13. Regulation 141 of the Revised Regulations of Ontario, 1990 is revoked.

SCHEDULE 1

1. The Timmins Flood Event Standard means a storm that produces over a 12-hour period,

(a) in a drainage area of 10 square miles or less, rainfall that has the distribution set out in Table 1; or

(b) in a drainage area of more than 10 square miles, rainfall such that the number of inches of rain referred to in each case in Table 1 shall be modified by the percentage amount shown in Column 2 of Table 2 opposite the size of the drainage area set out opposite thereto in Column 1 of Table 2.

TABLE 1

0.6 inches of rain in the first hour
0.8 inches of rain in the second hour
0.4 inches of rain in the third hour
0.1 inches of rain in the fourth hour
0.2 inches of rain in the fifth hour
0.8 inches of rain in the sixth hour
1.7 inches of rain in the seventh hour
0.8 inches of rain in the eighth hour
0.9 inches of rain in the ninth hour
0.5 inches of rain in the tenth hour
0.5 inches of rain in the eleventh hour
0.3 inches of rain in the twelfth hour

TABLE 2

Column 1	Column 2
Drainage Area (square kilometres)	Percentage
11 to 20 both inclusive	97
21 to 30 both inclusive	94
31 to 40 both inclusive	90

41 to 60 both inclusive	87
61 to 80 both inclusive	84
81 to 100 both inclusive	82
101 to 150 both inclusive	79
151 to 200 both inclusive	76
201 to 300 both inclusive	74
301 to 400 both inclusive	70
401 to 500 both inclusive	68
501 to 600 both inclusive	66
601 to 700 both inclusive	65
701 to 800 both inclusive	64
801 to 900 both inclusive	63
901 to 1000 both inclusive	62
1001 to 1500 both inclusive	58
1501 to 2000 both inclusive	56
2001 to 2500 both inclusive	53
2501 to 3000 both inclusive	50

2. The 100 Year Flood Event Standard means rainfall or snowmelt, or a combination of rainfall and snowmelt producing at any location in a river, creek, stream or watercourse, a peak flow that has a probability of occurrence of one per cent during any given year.

3. The 100 year flood level means the peak instantaneous still water level plus an allowance for wave uprush and other water-related hazards for Lake Superior and the Upper and Lower St. Mary's River in the Great Lakes-St. Lawrence River System that has a probability of occurrence of one per cent during any given year.

Made by:

SAULT STE. MARIE REGION CONSERVATION AUTHORITY:

LINDA WHALEN
General Manager

E.A. GULYAS
Chair

Date made: April 28, 2006.

I certify that I have approved this Regulation.

DAVID JAMES RAMSAY
Minister of Natural Resources

Date approved: May 4, 2006.

Appendix C : Guidelines for Stormwater Management

1.0 Introduction

This guideline should be read in conjunction with Section 4.1 of the SSMRCA Planning Policy, as well as municipal stormwater guidelines.

Stormwater management is a very important aspect of any site development. Where it is implemented correctly, it minimizes downstream hazards such as flooding and erosion, and maintains and improves water quality by capturing site pollutants before they reach receiving waterbodies such as lakes and streams.

The need for stormwater management is established by the legislation and policies of all three levels of government, including the Canada Fisheries Act (protection of fish habitat), the Ontario Lakes and Rivers Improvement Act (in-stream works), the Ontario Water Resources Act (water quality and hydrologic performance), and the Ontario Planning Act and the associated Provincial Policy Statement (water quantity and quality). Conservation Authorities provide input on stormwater management requirements, and also apply regulations under the Ontario Conservation Authorities Act regarding work within, and near, waterbodies. Additionally, the riparian rights doctrine of common law requires consideration of impacts to downstream users.

The Ministry of Environment and Climate Change has prepared the Stormwater Management Planning and Design Manual (SWMPDM) (2003), which contains useful information to assist with design and construction of stormwater management. Some municipalities in the Cataraqui region have stormwater management design standards against which development plans are also reviewed.

The following outlines the guidelines of the Sault Ste. Marie Region Conservation Authority (SSMRCA) for stormwater management in the region. SSMRCA staff encourage pre-consultation early in the design process, coordinated through our Office.

2.0 General Guidelines

The goals of stormwater management are:
(1) to protect waterways from increasing/excess erosion, flow and flooding, water takings and diversions. This is implemented by ensuring that the pre-development condition hydrograph is matched by the post-development condition hydrograph.
(2) to maintain the water balance and groundwater recharge.
(3) to maintain or improve water quality.

2.1 Quantity

While the rational method and the matching of pre and post development peak flows at various event return periods have been used together as an estimation tool for hydrograph matching, they should not be used as the sole method of analysis. The rational method was developed in the 19th century as a method for sizing storm sewers, and is not preferred for pond design use.

The use of the rational method is discouraged for all sites, but may be considered adequate for some.

A hydrologic/hydraulic model is the best way to compare undeveloped and developed site runoff characteristics, and pre-development and post-development hydrographs should also be examined in an attempt to provide a match. While hydrograph matching is generally not possible due to an increase in the volume of water in the post-development condition, the goal is to match as closely as possible to protect streams from increased flow, erosion and flooding.

If the development proponent proposes post-development peak flows which exceed pre-development peak flows, then the proponent will be responsible for conducting all necessary hydrologic and hydraulic studies to prove that the post peak flows can be released from the site without any adverse upstream or downstream impacts on flood risk or watercourse erosion. These studies must show this to the satisfaction of regulatory authorities including the local municipality and the SSMRCA. Prior to making any such submission, the proponent should consult with the SSMRCA to determine the specific technical analyses that will be required to support higher site release flows.

2.2 Quality

Quality controls should be provided as per the SWMPDM Table 3.2 (MOE, 2003), usually to normal protection standards. Some receiving waterbodies that are coldwater streams or lakes, wetlands, St. Marys River, or other environmentally-sensitive waterbodies will require more stringent protection. Consult with the SSMRCA for the level of protection necessary for the receiving waterbody. Further, storage should be designed to provide 24 hours of detention, and provide a sediment forebay to collect sediment.

2.3 Other

The SSMRCA encourages to consult City of Sault Ste. Marie's Master Stormwater Management Plan, 2015 for all development areas. However, it should be noted that these plans need to be reviewed and updated to reflect current standards on a regular basis.

All stormwater management plans from proponent should be consistent with existing Watershed Plans, Sub watershed Plans or Master Stormwater Management Plan. The development proponent is responsible for checking with the local municipality and with the SSMRCA to determine if any such plans exist. If so, then the development proponent is required to demonstrate that the proposed development's drainage system is consistent with those plans.

Treatment options should be considered, in order of preference, by lot-level and conveyance control, site control, and end-of-pipe treatment.

Best management practices (BMPs) are a stand alone stormwater management option for small sites, and are encouraged for all sites. Some BMP options include:

- grassed swales;
- vegetative buffer strips;
- infiltration pits/trenches/basins;
- sand filters; and
- pervious pipe systems.

Supporting sizing calculations are to be included in the design reports where these or other types of controls are proposed.

New developments should be designed to incorporate all reasonable and practical means of minimizing direct surface runoff, including:

- Minimizing the amount of impervious area
- Maximizing the amount of existing vegetated area (treed areas, grassed areas) that is retained within the development design, to help maximize opportunity for infiltration of surface water
- Roof drainage should be diverted on vegetated areas to give the water opportunity to soak into the ground.

The SSMRCA encourages, and is open to, new and innovative ideas where they are shown to be reasonable, effective and environmentally sound.

3.0 Report Content

The SSMRCA reviews stormwater management reports with respect to the regulations identified above. The following requirements have been identified for SWM reports. Reports which do not meet the basic SSMRCA requirements for breadth of content may not be reviewed until modifications have been made to fulfill these requirements. All reports should be typed, clearly legible, use SI (metric) measurements, and include applicable, legible maps and plans with sufficient, identified scales appropriate for review.

Stormwater management reports shall include the following:

Title Page

- Development name and name of proponent
- Date of issue and revision number
- Consultant contact information

Introduction

- Development location (with key map), municipality (existing and geographic), Lot, Concession, civic address
- Size of property (ha)
- Size of development (ha)
- Type of development
- Existence, date of creation, and phase of development in a Master Drainage Plan, where applicable
- Proposed development phasing, and its impact on the system as a whole

Background

- Site history
- Information on existing development/land use
- Plan layout of existing, and proposed site

- Areal extent and description of all types of pervious and impervious surfaces present including:
- Buildings,
- Asphalt,
- Gravel,
- Landscapes including lawn, long grass, trees, etc
- Ponds,
- Waterways
- Runoff coefficients (Average or weighted are acceptable for large residential sites)
- Site constraints
- Receiving waterbodies: identification, location relative to the site, existing condition/issues
- Any geotechnical properties of the local soil including permeability, depth to bedrock, water table levels
- Analyses

Quantity Control Analyses

- Quantity control provided for the minor through regulatory (2 year through 100 year) return periods.
- Hydrologic/hydraulic matches assessed so that post-development runoff equals pre-development runoff.
- Appropriate calculations and tables. These should be sufficient for CRCA review and should conform to the guidelines outlined by the municipality.
- Equations, assumptions and units used.
- For stormwater management reports that are prepared in support of the redevelopment of a site, an assessment of runoff for the state of the land prior to any development, and also for the state of the land with existing development.
- The method of control (e.g., BMPs, dry pond, wet pond, wetland, infiltration, enhanced catch basin).
- Calculations to support open channel, flow control, and major flow path designs.
- Examination of the impact of the control method on groundwater recharge.
- Quality control for the 25 mm storm held for 24 hours, with Normal Protection (MOE 2003) generally required. Some locations on coldwater streams or lakes, wetlands, waterbodies draining toward the St. Marys River, or other environmentally-sensitive waterbodies will require more stringent protection. Consult with the SSMRCA for the level of protection necessary for the receiving waterbody.
- Appropriate storm, runoff coefficients, assumptions and equations that conform to the guidelines outlined by the SSMRCA and the municipality.
- An examination of more than one storm distribution including a worst-case scenario
- Sample calculations for each equation used
- All variables, constants, units and equations.
- The method of control.

Controls

- Stage-storage-discharge table
- Detailed drawings, plan view, elevation view, cross-section through outlet structure
- Minimum freeboard of 0.3 m at regulatory event must be used.
- Outlet(s) location are to be shown
- Emergency overflow outlet to convey major event flow if normal outlet becomes blocked Sediment forebay(s)
- Planting plan--native, non-cultivar species appropriate for frequency of inundation are to be used whenever possible
- Safety concerns
- Extent of parking lot and roadway storage at 5 year and regulatory (100 year) return period events
- Snow storage location
- Maintenance access
- Maintenance and operations plan - inspection and cleanout frequency
- Method of conveyance/outlet between site controls and receiving waterbodies to demonstrate that sufficient capacity exists
- Conveyance details: longitudinal slope, cross-section, subsurface drainage, rock check dams, etc.

Erosion and Sediment Control Measures

- Temporary and permanent measures:
  - prior to site construction (grubbing, pre-grading),
  - during construction,
  - and post-construction
- Location plan drawing
- Appropriate Ontario Provincial Specification Drawings (OPSD) included in drawing set
- Monitoring plan addressing monitoring provisions and frequency of monitoring of erosion and sediment control measures

Recommendations and Conclusions

- Recommendations with descriptions, based on the analyses performed
- Long term maintenance and monitoring plan addressing monitoring provisions and frequency of stormwater controls
- Recommended notices to purchasers, or on title, regarding special setback or building freeboard provisions
- Signature
- Professional Engineer’s Seal

Appendices

- Computer model input and output files
- Additional drawings
- Full calculation sheets
- Agencies consulted

4.0 Design Parameters

4.1 Applicable Storms

An applicable storm for the Sault Ste. Marie Region should be used for modeling purposes (Timmins Regional Storm Event). As noted above, the examination of multiple storm distributions and durations should be conducted by consultants, and the most appropriate should be selected. Environment Canada has kept records and completed statistical analyses on historical rainfall events. The text Hydrology of Floods in Canada (Watt, 1989) recommends the Atmospheric Environment Service (AES) or Hydrotek storm distributions for use in Canada. The Chicago distribution is much less suitable. However, care should be taken to ensure that the best design storm is chosen and used properly within the range of its applicability (Marsalek and Watt, 1984).

The storm duration should be greater than the time of concentration of the site, and a variety of durations should be examined to determine the worst case scenario. Time of concentration should be calculated for each site, using the appropriate method.

For urban design, typically the rain event will result in the largest flows, but larger watersheds, and rural watersheds, may experience higher flows due to a combination rain/snowmelt event. Plans shall be based on climate data from Atmospheric Environment Service (AES) stations that are representative of the subject area or site.

4.2 Ponds

Stormwater management ponds are recommended for quality and quantity control on all new development, with the acknowledgment that some smaller sites and infill sites will be too small to accommodate a pond and will require alternative stormwater control, such as those discussed in Sections 3.3 to 3.6.

All stormwater management ponds are required to provide both quality and quantity control. However, in some cases the removal of the requirement for a quantity control pond may be considered, for instance if a site has direct drainage to Lake Superior or the St. Marys River. Consideration for removal of the quantity control aspect is due to the size of the receiving water body, and the minimal effect an increase in volume will have on the flood hazard in that water body. It should be noted that even though a site may ultimately drain to a large body of water such as Lake Superior or the St. Marys River, the conveyance path from the site to the water body must be considered from a flood hazard perspective, and the removal of the quantity control pond requirement may not be an option. In all cases, quality control will be required. Calculation of this quantity of initial storm runoff should be discussed with the SSMRCA Environmental Engineer.

The following list contains a number of other considerations for pond design.

- Quality ponds should be designed to include a sediment forebay and a permanent pool or wetland component. These will serve to increase pollutant removal efficiency.
- All quality control ponds should have sediment forebays (settling basins) located at each inlet into the pond. These should be designed as per MOECC's stormwater guidelines.

Quantity ponds can take the form of dry extended detention basins, wet ponds, wetlands, etc.

- All pond inlet and outlet orifices should be a minimum diameter of 75 mm (3 in.) To minimize the potential for plugging with sediment and/or debris.
- The bottom of the pond is to be lined with a 0.5 metre clay liner in areas with a high groundwater table, permeable soils or bedrock and/or where infiltration of groundwater is undesirable.
- Upstream drainage not affected by the development should bypass any ponds in order to provide maximum pond efficiency, unless the pond is intended to provide control for that upstream area.
- On-line ponds are discouraged, and generally will not be approved due to impacts on fish/wildlife habitat and water temperature.
- Ponds and larger conveyances should have a minimum freeboard of 0.3 m during major events.
- Pond embankments should have a minimum slope of 5:1.
- Ponds should preferably be designed to include plantings of native species of Northern Ontario stock, especially where adjacent to a receiving waterbody or other natural area.
- Species and proposed planting locations should be considered with respect to moisture tolerance, frequency and duration of inundation.
- Ponds should be an amenity that are integrated into public open space; however, designers should also consider the safety aspects of these locations.
- Ponds should be constructed during the first phase of a development, and should be ready to accept runoff prior to the issuance of any building permits.
- For areas where more than one phase of development has been proposed, the pond outlet should be designed such that it can be modified as the catchment area continues to be developed.
- Infiltration should be explored and used where appropriate, at all levels of control:
- lot-level, site, and end-of-pipe. Consideration of the potential for groundwater contamination will be required when infiltration is proposed.
- Stormwater Management reports should include maintenance plans, expected cleanout frequency, recommended inspection frequency, etc.

4.3 Other Types of Controls

Stormwater management methods such as enhanced catch basins (oil/grit separators), underground tanks, etc., will only be considered where there is not enough space to use other, more natural methods of management, for example in small redevelopment sites or infill projects, or where specific spill-control concerns are raised. New development should be designed around consideration of natural controls.

4.4 Swales

The Stormwater Pollution Prevention Handbook (2001) provides recommends for swales as follows:

- minimum 0.75 m flat bottom;

- maximum 0.15 m_3/s flow;
- maximum 0.5 m/s velocity;
- maximum 2 ha contributory drainage area;
- minimum 3(h):1(v) side slopes; and
- minimum 15 cm grass length.

The Ministry of Natural Resources Natural Hazards Guidelines (MNR, 2003) recommend a velocity-depth product of less than 0.4 m^2/s (velocity multiplied by water depth), with a maximum depth of 0.8 m, or a maximum velocity of 1.7 m/s; this has been deemed safe for people to traverse. In addition, a freeboard of 0.3 m between the top of bank and the regulatory water level is recommended.

4.5 Buffer Strips

Buffer strips are encouraged for water quality protection, as this has been found to remove a significant portion of suspended sediments and pollutants. A riparian buffer minimum of 30 metres is recommended, with exceptions made for special circumstances. Steeper slopes, less porous soils, or other factors warrant an increase in buffer width. Wetlands are not considered buffers. The SSMRCA recommended a buffer for protection not only of water quality, but of the general health of the stream, aquatic species and riparian zone.

4.6 Catch Basins

It is recommended that any catch basins being installed on a site be protected with sediment controls until the site has been stabilized. Examples include surrounding the catch basin with straw bales or placing geotextile underneath the catch basin grate, to keep sediment out of the storm sewer system and the receiving waterbody. Sediment should be removed, and properly disposed of, from around the catch basin once the site is stabilized, and then on a regular basis.

Where pipe/catch basin/parking lot storage is proposed, the maximum depth of ponding is to be less than 0.25 m to facilitate safe vehicular access. Increases in catch basin sump depth is recommended to increase sediment capture in the storm sewer network.

4.7 Cleaning and Municipal/Client Assumption

Temporary construction sediment and erosion control measures should be installed prior to any site disturbance, checked on a daily basis, remain in good working order until the site is stabilized, and should be cleaned on a regular basis. Once the site has been stabilized and excess sediment removed, these temporary sediment and erosion controls should be removed.

All sediment deposition, catch basins, sediment forebays, sediment fences, etc., should be cleaned prior to the municipality assuming ownership (for public facilities), or prior to the owner paying the final installment to the contractor (for private facilities). All permanent sediment and erosion controls should be in good working order prior to assumption, or final payment.

The stormwater report should also include a section on maintenance, cleaning, and monitoring of the SWM facilities for the duration of their operation. This information will be included in the Site Plan or Subdivision Agreement, as applicable.

5.0 Approval Process

Application for approval of proposed stormwater management systems for land developments must be made to the local municipality as part of the overall development approval process administered by the
municipality.

The SSMRCA will review proposed development plans with respect to drainage and stormwater management requirements set out in these guidelines. Additional approvals may be required depending on the specific design and type of drainage system being proposed.

The development proponent is responsible for obtaining any and all necessary approvals related to stormwater management. These approvals will include but are not necessarily limited to: Ontario Ministry of Environment approval (Section 53 approval under Ontario Water Resources Act); Ontario Ministry of Natural Resources approval (Sections 14 and 16 under the Lakes and Rivers Improvement Act); and Fisheries and Oceans Canada approval (Section 35(1) under the Fisheries Act). The development proponent is responsible for determining approval requirements through discussion with the SSMRCA, the local municipality and the Ontario Ministry of the Environment and Climate Change.

The development proponent is responsible for completing any necessary environmental assessment (EA) that may be required under the Ontario Environmental Assessment Act or the Canadian Environmental Assessment Act. The development proponent is responsible for determining what EA requirements apply to the project.

Contact Information:
SSMRCA
Environmental Engineer
(705) 946-8530
fax (705) 946-8533

6.0 References

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Ontario Ministry of Natural Resources. 2003. Natural Hazards Training Manual. Queen's Printer for Ontario.

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Appendix D : Guidelines for Large Scale Fill Application

1.0 Introduction

There are growing issues with the placement of fill material on sites throughout the watershed. The placement of fill on these sites may be subject to a site alteration through the permits pursuant to *O. Reg. 176/06* approved under the *Conservation Authorities Act*.

There have been an increasing number of permit applications dealing with large volumes of fill material solely or partially within an area regulated by the SSMRCA. Some of the residences concerns raised include haul routes, noise, dust, local drainage patterns and loss of natural lands. These issues are not considered by the SSMRCA under *O. Reg. 176/06*. The proposed guideline will require staff to engage the owner of the subject property in the SSMRCA permit process at the pre-consultation stage to ensure that development meet the requirements throughout the process.

The Procedural Guideline outlined below was developed based on meetings and discussions with Municipal staff, SSMRCA staff, and a review of background material and policies from various sources including other Conservation Authorities and municipal by-laws. The Guideline is to provide staff with direction for permit applications that deal with placement of a large volume of fill material (1000 m^3 or greater) in a regulated area. With the requirement for multiple studies to support a permit application, these sites will be subject to the “major” permit category with the applicable fee.

This guideline does not change the normal SSMRCA permit process. The intent is to clarify our expectations of specific submissions as they relate to large fill permit applications. It’s important to note that this guideline is not limited to large fill volumes and that SSMRCA staff can use them where deemed appropriate (i.e. applications that are for fill volumes less than 1000 cubic metres or cumulative fill placement over numerous years).

Procedures for Receiving & Processing of Applications to Place Fill in Excess of 1000 cubic metres within the Regulated Area under *Ontario Regulation 176/06* (Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation)

When SSMRCA is first notified that a proposal for large fill placement is being pursued, they will notify the proponent to contact the municipality to arrange a pre-consultation meeting with the applicant, municipality and SSMRCA. Upon receipt of an application submitted under *O. Reg. 176/06* for development activities associated with the placement of fill in excess of 1000m^3, Authority staff will ensure that the application is complete which includes the submission of all necessary supporting documentation. The supporting documentation may be scoped or the need for additional studies or plans considered, in consultation with the municipality at the pre-consultation meeting to ensure that all necessary information to review the application is identified. Supporting documentation will include:

1) Completion of SSMRCA's Schedule D-A - Application for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Permit

2) Four copies of a plan(s) of survey prepared by a qualified professional showing the subject property and the specific location(s) on the subject property where development activities are being proposed. The certified plan shall show a minimum of the following:

a) Key map;
b) Drawn to scale;
c) Location of the subject property including property lines, north arrow and nearest roadways/intersections;
d) Location, dimensions, and use of existing buildings or structures;
e) Location, dimensions, and use of proposed buildings or structures;
f) Existing topography;
g) Elevations and proposed elevations (pre and post fill elevations) within and adjacent to the area where development (fill) is being proposed at 0.5 metre contour intervals using geodetic datum;
h) Multiple cross sections through each fill area;
i) Drainage patterns pre and post development;
j) Total fill quantity indicated in cubic meters;
k) Location and dimensions of all temporary stockpiles;
l) Location and dimensions of all staging areas and access routes;
m) Start and finish dates of project including sequencing and re-vegetation;
n) Location of natural features including floodplain, watercourses, wetlands, top of bank or stable slope line and the required setbacks to these features; and
o) The Regulatory limit as prescribed by Ontario Regulation 150/06

3) Sediment and Erosion Control Plan prepared by a qualified engineer

4) Restoration Plan

5) Report, signed and sealed by a qualified engineer, certifying that the fill is appropriate for the prescribed and proposed land use, clean and inert as per Ministry of Environment Guidelines, and contains no contaminants within the meaning of the *Environmental Protection Act*, R.S.O. 1990, c.E.19, as amended.

Additional supporting documentation may include:

1) Environmental Impact Study

2) Hydrogeological Study

3) Geotechnical Study

4) Hydraulic Analysis (including frequently flooded areas)

5) Storm Water Management Report

6) Written confirmation that a Final Grade Survey will be completed by a qualified professional and provided to the SSMRCA

In addition to the above, the SSMRCA may identify other studies to be completed during the pre-consultation process. Where proposed fill site locations are regulated jointly by both SSMRCA and a municipal site alteration or grading by-law or equivalent, the proponent shall prepare comprehensive plans/reports for both agencies.

A pre-construction meeting will be organized by the applicant with the SSMRCA, municipality, agents (if applicable) and contractors prior to the issuance of the permit. Following the issuance of a permit from the Authority, SSMRCA staff will conduct routine inspections of the site in order to ensure compliance with the permit plans and conditions. The sediment and erosion controls will be monitored and repaired as necessary and/or improved as per direction of the design engineer or Authority Staff. Inspection reports, signed and sealed by the design engineer, are to be submitted to the SSMRCA weekly during any fill placement or grading and monthly thereafter until the final site inspection has been completed. The fill operation will be completed/adhere to the approved reports and plans submitted in support of the application. It will be the responsibility of the owner and/or authorized agent to coordinate a final inspection (including the submission of a final grade survey completed by a qualified professional) with Authority staff. A final site inspection and clearance shall be completed prior to the expiration date on the permit.

If a municipality does not participate in this process, the SSMRCA may proceed with the permit process and issuance. A copy of an approved permit is provided to the municipality in which the application is situated, through the current SSMRCA process.

2.0 Site Design Guidelines

1) All sediment and erosion controls will be in place prior to topsoil removal or placement of fill.
2) No fill shall be placed on native topsoil. Fill areas shall be stripped of topsoil and stockpiled with locations noted on the site plan.
3) Within the designated fill area, all stockpiles shall be located as specified in the plans and reports to ensure no negative impacts on natural features and no sediment delivery offsite to sensitive features.
4) Stockpiles that will remain in place for more than 30 days shall be stabilized by vegetative cover, erosion mats, or other means. Stockpiles that will be in existence for less than 30 days shall be controlled by heavy duty sediment fence installed around the perimeter of the pile.
5) All disturbed ground left inactive for more than 30 days shall be stabilized by seeding, covering, or equivalent control measures.
6) All natural areas shall be protected from sediment deposits using appropriate erosion and sediment control measures.
7) Run-off from adjacent areas passing through the site shall be diverted around disturbed areas.
8) Preferred haul routes should be indicated on the plan.

Contact Information:

SSMRCA
Environmental Engineer
(705) 946-8530
fax (705) 946-8533

Schedule D-A - Placement of Fill

Location where fill is being placed:
Owner: _____
Phone: _____
Address: _____
Lot: _____ Concession: _____ Municipality: _____
Watershed: _____
Attach a legal survey and a map showing location, lengths, widths and depths of proposed fill area in meters: Length: _____ Width:_____ Depth: _____
Total volume of fill to be placed in area shown ***T=***_____ meters/cubed
Approximate number of tandem truckloads ***=T*** divided by 15 _____
Proposed start date: _____ Proposed Completion Date: _____
Proposed use of lands where fill placed: _____
If not for agriculture: type and date of re-vegetation:_____
Name of trucking company: _____
Contact Person: _____
Phone: _____
Approx. Number of trucks hauling: _____
Excavating company completing the final grading of fill: _____
Contact Person: _____
Phone: _____
Location where fill is coming from:
Owner: _____
Phone: _____
Address: _____
Lot: _____ Conc: _____ Municipality: _____
Watershed: _____
Attach a map showing location of fill being removed.
Comments:
_____
_____

Please Note: Any and all information provided in support of this application may be shared with local Municipalities, and/or Provincial/Federal Authorities for the purposes of review, in conjunction with any approvals required under their legislated/legal responsibilities for this project

Schedule D-B : LARGE FILL SITE CONTAMINATION SCREENING QUESTIONNAIRE

Sault Ste. Marie Region Conservation Authority
1100 Fifth Line E.
Sault Ste. Marie, ON P6A 6J8
Telephone: 705.946.8530 Fax: 705.946.8533

This form must be completed for all large fill applications unless a geotechnical/ environmental site assessment is provided verifying that the fill material is suitable for placement on the subject lands, in accordance with the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. This form must be completed and signed by the application and property owner.

Location of Subject Lands:

Lot:	**Conc:**	**Municipality:**	**Former Township:**

Is the fill material coming from lands, or adjacent to lands, that was previously used for the following:

	Yes	**No**
Industrial use?		
Commercial uses where there is potential for site contamination (i.e. a garage, a bulk liquid dispensing facility, including a gasoline outlet or a dry-cleaning equipment operation		
Where filling has occurred?		
Underground storage tanks or buried waste on the property?		
Where chemical spills, or hazardous chemical uses, or where cyanide products may have been used as pesticides (i.e. an orchard)?		
A weapons firing range?		
Is the nearest boundary of the application within 500 meters (1,640 feet) of the fill area of an operation or former landfill or dump, or a waste transfer station or PCB storage site?		
If there are existing or previously existing buildings, are there any building materials remaining on the site which are potentially hazardous to public health (i.e. asbestos, PCBs, etc)?		
Is there any reason to believe that the lands may have been contaminated based on previous land use?		

If the answer to any of the questions was yes, a geotechnical/environmental site assessment must be provided verifying that the fill material is suitable for placement on the subject lands, in accordance with the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.

Declaration

To the best of my knowledge, the information provided in this questionnaire is true, and I have no reason to believe that the fill material to be placed on the subject site contains contaminants that is NOT suitable for placement on the subject lands, in accordance with the "Soil, Ground Water and Sediment Standards for Use Part XV.1 of the Environmental Protection Act.

I am a qualified person with the required liability Insurance Stated in O. Reg. 153/04 Environmental Protection Act.
(Please Print)

Qualified Person:			***Property Owner or Authorized Officer:***		
Name:			***Name:***		
Name of Firm(if applicable)			***Name of Company(if applicable)***		
Address:			***Address:***		
Tel:	***Fax:***	***Cell:***	***Tel:***	***Fax:***	***Cell:***
Signature:			***Signature:***		
Date:			***Date:***		

Appendix E : Guidelines for Environmental Impact Assessment Studies

1.0 Introduction

These guidelines have been prepared to assist environmental professionals with the preparation of site-specific Environmental Impact Assessments (EIA), and to ensure consistency between reports. The guidelines reflect the current knowledge of the Sault Ste. Marie Region Conservation Authority (SSMRCA), and may or may not satisfy the specific requirements of other agencies. These guidelines will be updated from time to time.

2.0 Background

Much of the landscape of the Sault Ste. Marie Region is covered by a connected system of natural areas. This natural heritage system is one of the Region's greatest assets, as it provides the basis for our quality of life, including the economic and tourism. Areas such as wetlands, woodlands, and lakes provide habitat for a diversity of flora and fauna, protect the quality and quantity of water, and provide opportunities for outdoor recreation.

Ongoing research by the SSMRCA, the Ontario Ministry of Natural Resources (MNR), and others is helping to improve local knowledge of the extent of the natural heritage system, as well as its ecological function.

3.0 Purposes of Assessment

Development for human needs is an ongoing process in the Region, as new residents and visitors come to the area and as infrastructure is improved. Where development and site alteration is proposed within or adjacent to the natural heritage system, there is an expectation that the proponent must demonstrate no negative impacts on the natural features or ecological functions of the area. This intent is found in the Provincial Policy Statement (PPS)(issued under the Ontario Planning Act),which states that all decisions regarding land use planning in Ontario ‘shall be consistent with’ the PPS.

The demonstration of no negative impacts is normally the subject of an Environmental Impact Assessment (EIA), which is prepared by a qualified environmental professional at the expense of the proponent. The PPS and supporting documents indicate the types of natural heritage features/areas, and the width of adjacent lands around them, where an EIA is normally required. The Sault Ste. Marie Region Conservation Authority, its member municipality and Township rely upon the technical expertise and independent professional judgment of environmental professionals. It is therefore crucial that EIA documents be prepared using the best available information and scientific methods, and that authors provide an open and unbiased assessment of development proposals.

Environmental Impact Assessments are best prepared early in the approvals process, when the subject site can be assessed in an undisturbed state. Authors are encouraged to contact the SSMRCA and municipality prior to the commencement of their assessment. The completed EIA

is reviewed by municipal and SSMRCA staff, and sometimes by MNR or others, and is then either endorsed or refuted by a planning approval authority (e.g. a municipal council).

4.0 Environmental Impact Assessment Content

The scale and content of the EIA required will vary with the scale and type of the development or site alteration that has been proposed. In some situations, EIAs may be 'scoped' to a more defined assessment of selected features and impacts. The scale and content of the EIA shall be determined in pre-consultation with the Conservation Authority and the municipality, prior to the commencement of work on the document.

The EIA document shall:

a) be prepared by a qualified professional who has been educated in, and has current knowledge of, biology, ecology, landscape ecology and any other relevant fields of study, as required (the professional shall also have an understanding of the natural heritage system of the Sault Ste. Marie Region);
b) be consistent with the intent of the Provincial Policy Statement;
c) for areas on and immediately adjacent to the site, include descriptions and clearly legible, scaled maps of the existing land uses, and the proposed development and site alteration, including all proposed buildings, structures, driveways and parking areas, and sources of human intrusion, light, noise, dust, etc.;
d) illustrate the precise location of all of the natural features/areas on, or adjacent (as defined by the PPS and supporting documents) to the site on clearly legible, scaled maps;
e) provide a thorough field inventory of flora and fauna and related habitat (which is to be completed during the growing season, and preferably in more than one of spring, summer, and fall - additional field work may be required during the winter for specific attributes, for example, deer wintering yards), as well as relevant information on soils and geology, slope, hydrology, and hydrogeology;
f) include the best information available from others (as recorded in reports and databases, or as identified via personal communication) regarding the items listed in (d) and (e) above;
g) review the ecological functions of the natural features identified above, including the habitat needs of species that utilize adjacent lands (as defined by the PPS and supporting documents), and an assessment of how the site contributes to the natural heritage system of the area (e.g. subwatershed);
h) discuss the significance, as defined in the PPS, of the natural features/areas and functions identified in (d), (e), (f), and (g) above, and assess any apparent trends in the ecological health of same;
i) predict the positive and negative impacts of the proposed development and/or site alteration on the various attributes of the environment on and adjacent to the site, such as habitat, vegetation, soil, surface and ground water, air, and any other relevant attributes, taking into consideration the sensitivity of the attributes, impacts both during and after construction, and where appropriate, the role of flooding and erosion hazards;
j) predict the cumulative impacts of the proposal and any other existing or known future proposals in the vicinity;
k) evaluate the significance of all predicted positive and negative impacts on the environment;

l) recommend extents of land where: (1) disturbance must be avoided, and (2) disturbance must be limited, in order to maintain the natural features and ecological functions of the area, supported by a detailed rationale;
m) explore opportunities for enhancement of the natural heritage system;
n) discuss the merits of alternative development options, and recommend feasible and cost-effective measures that could be implemented to avoid or mitigate the predicted negative impacts of the selected option (e.g. timing of work, fencing, erosion and sediment control, pathway routing, etc.);
o) where appropriate, outline a program through which the mitigation measures and the long-term impacts associated with the proposal can be monitored and assessed; and
p) conclude with an independent professional opinion as to whether or not the proposed development and/or site alteration is appropriate, and is consistent with the intent of the Provincial Policy Statement.

5.0 Other Considerations

Sensitive information regarding the habitat of endangered or threatened species, or the habitat of other species at risk, shall be utilized and considered by the author, but shall not be shared in a manner that could further endanger the species or its habitat.

Changes to the boundary of an evaluated Area of Natural and Scientific Interest (ANSI) or wetland shall be subject to the approval of the Ontario Ministry of Natural Resources. Changes to the boundary of an Environmentally Significant Area (ESA) shall be subject to the approval of the SSMRCA.

6.0 EIA Review Process

The SSMRCA will assess a cost-recovery fee for its review of an EIA document, based on an approved fee schedule. Straightforward proposals (such as minor development on adjacent lands) will normally be reviewed at the staff level. More complex proposals may be subject to a peer review, at the expense of the proponent, by a third-party professional who will be retained by the municipality.

The completion and acceptance of an EIA by the SSMRCA shall not guarantee that a development or site alteration proposal will automatically be approved by the municipality. Also, approvals from other agencies may be required.

Any approved development or site alteration shall be constructed in accordance with the recommendations of the approved EIA. An implementing Agreement between the proponent and the municipality will normally be required (e.g. a subdivision, site plan, or development agreement). The municipality may require that funds be held in reserve for the purpose of long-term monitoring, which may occur following the completion of the development or site alteration.

Contact Information:
SSMRCA
Environmental Engineer
(705) 946-8530
fax at (705) 946-8533.

Appendix F : Hydrogeological Assessment Study Guidelines

1.0 Purpose and Introduction

Sault Ste. Marie Region Conservation Authority (SSMRCA) is a public commenting body under the Planning Act and as such, is circulated municipal policy documents and planning applications for review and comment. In addition, SSMRCA provides technical review for projects approved under other plans such as Planning Review and related Development Permit Applications, and Aggregate Resources Act.
SSMRCA also provides technical review on large-scale planning projects such as watershed studies, subwatershed studies, subwatershed impact studies, provincial plans and related technical studies.

SSMRCA also administers the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation (Ontario Regulation 162/06) under the Conservation Authorities Act. This regulation specifies that permission from SSMRCA is required to:

- develop in or adjacent to river or stream valleys, wetlands and adjacent lands (i.e., other areas where development could interfere with the hydrologic function of a wetland), shorelines or hazardous lands;
- alter a river, creek, stream or watercourse; or
- interfere with a wetland.

The administration of the regulation is guided by SSMRCA Board-approved policies (Policies and Guidelines for the Administration of Ontario Regulation 176/06, XXmonthXX, 201x). These policies complement the Ontario Provincial Policy Statement, Section 3.0 – Protecting Public Health and Safety and were developed with input from watershed municipalities and other stakeholders before they were approved.

This document is a guideline for undertaking hydrogeological studies in support of development/permit applications that will be reviewed by SSMRCA. It identifies minimum requirements for most projects. Professional judgment and pre-consultation are encouraged to scope the work to specific site and project conditions. The scope of hydrogeologic work required by SSMRCA will be based on the risk of impact from the proposed work/development on the natural environment dependent on groundwater. Sufficient detail should be provided to SSMRCA in reports to facilitate a review of the characterization, analysis and conclusions drawn. If hydrogeological reports and studies follow the requirements laid out in this document, the timelines for SSMRCA review of the hydrogeological components of an application should be significantly reduced.

In general, SSMRCA may require a hydrogeology study for the following types of activities:

- Development of parcels of land greater than two hectares

- Activities in the vicinity of sensitive surface water features and sensitive ground water features, i.e. areas that are particularly susceptible to impacts from activities or events including, but not limited to, water withdrawals, reduction in recharge, additions of pollutants. These areas include wetlands, watercourses, waterbodies, vernal pools, significant wildlife habitat, significant recharge areas, buried bedrock valleys, karst areas, etc.
- Activities that may affect baseflow
- Activities in the vicinity of habitat for species at risk
- Activities in the vicinity of headwater streams
- Activities that may reduce recharge and/or lower groundwater levels
- Activities that will extend deep underground and/or may affect groundwater flow patterns

Studies may be required in other circumstances as well to address issues such as cumulative impacts.

1.1 Qualifications

Hydrogeological studies must be completed by or under the guidance of qualified persons as set out in Ontario's Professional Geoscientist Act, 2000. The qualified professional must sign and stamp a completed report, and shall take professional responsibility for its content and the accuracy of the information contained therein.

2.0 Guiding Principals

A hydrogeological study in support of a proposal for development or permit application must establish that the activity will not cause unacceptable groundwater quantity and/or quality impacts which may affect the natural environment, and if impacts are expected, that they can be mitigated in a sustainable way.

In support of the proposal, the hydrogeological study must be comprehensive and multi-disciplinary.

The scope of work must include an assessment of

1. Study area – the lands included in the proposal plus the extent of potential impact, as well as an assessment of upgradient and downgradient existing and proposed activities that could influence decisions made on the current proposal
2. Existing conditions – site characterization including physical and human aspects
3. Proposal – a detailed accounting of what is proposed for the study site
4. Future conditions – characterization of the site if the proposal was approved

5. Potential impacts – a detailed assessment of all impacts that are expected from the changes made to the activities on the study site, both during construction and into the future
6. Mitigation – a discussion of options for mitigation of the potential impacts and their expected effectiveness based on site conditions

For clarity, a hydrogeological study must answer the following questions:

1. What is occurring in the study area presently?
2. What currently influences groundwater flow and levels in the area and how do flows and levels change with changing seasons and weather patterns?
3. What groundwater/surface water interactions occur in the area and how do they change with changing seasons and weather patterns?
4. What is being proposed to occur on the subject lands and over what time period?
5. Is this proposed activity expected to impact groundwater levels and flows and the natural features and their functions?
   5.1 If so, in what way and to what extent? Are these unacceptable impacts?
6. What can be done to mitigate the impacts and to what degree are the measures expected to be successful?

To assess whether the proposal will have unacceptable impacts the proponent must characterize the study area in detail and provide clear support for conclusions drawn.

3.0 Report Structure

Hydrogeological studies will vary in scope, level of detail, and methodologies depending upon project scale and the study objectives. No matter the size of the project, sufficient detail as determined by SSMRCA must be provided in the report to facilitate a thorough review of the hydrogeological conditions, analysis and conclusions.

The following is provided as guidance on the structure of the report of findings to be submitted to support a proposal. A consistent report format will assist with the review, however, we understand that the data/information and findings of a hydrogeological study may be a component of a larger document, for example a subwatershed impact study. In that case, it would be helpful if similar section titles are used in the report to guide Conservation Halton's review, or Form A, included in Appendix F-A, is submitted with the document to help us locate the relevant information/data.

The suggested report format and main section headings are as follows:

1. Introduction
2. Background
3. Methodology
4. Characterization
5. Analysis and Impact Assessment
6. Mitigation
7. Summary and Conclusions

8. Recommendations
9. References

4.0 Report Content

Provided below are detailed explanations of what should be included within each section of the hydrogeological report. Professional judgement should be used to identify other relevant information/data that should be included in the report to assist SSMRCA's review. SSMRCA requires the report in both printed and digital forms.

Introduction

This section should identify and briefly describe who completed the hydrogeological assessment and when, the owner of the lands, the study area, the purpose of the proposal, and the scope of work performed.

Background

a. Study area description – Background information on the regional area should be collected from all available sources, including but not restricted to the following:

- Planning documents such as subwatershed studies, natural heritage system reports, etc.
- Published topographic mapping, aerial photography, geology maps
- Regional groundwater studies and site specific technical reports, pumping tests, geophysical surveys, etc.
- Soils reports and geotechnical investigations
- Surficial soils, Quaternary geology and bedrock geology reports
- Existing well records, groundwater level and quality datasets (e.g. MOE Water Well Record Information Database, Provincial Groundwater Monitoring Network, geotechnical borehole data, etc.)
- Groundwater taking and use datasets (e.g. MOE Permit to Take Water Database, Water Taking Reporting System Database, etc.)
- Surface water flow and use datasets (e.g. MOE Permit to Take Water database, Water Survey of Canada HYDAT database, etc.)
- Reports of contamination and complaint files (MOE)
- Drinking Water Source Protection Assessment Report and Source Protection Plan for the Sault Ste. Marie Source Protection Area
- Environment Canada and local weather station datasets

A list of the documents/maps reviewed should be included in the report along with a description of the regional context.

b. Proposal – an overview of the proposal should be provided with an appropriate level of detail to facilitate an assessment of activities that could affect the natural environment.

Methodology

Once the background review is complete and there is a general understanding of the study area, data and knowledge deficiencies for existing and proposed site conditions should be determined and a field investigation program designed to remedy these deficiencies. The program developed should emphasize the requirement to support the proposed site changes with no unacceptable impacts on groundwater dependent features.

The field investigation should include a subsurface investigation including drilling, installation of groundwater level and quality monitoring equipment, and data collection/analysis, etc. as necessary. Spatial and vertical distribution and locations of the groundwater monitors should be sufficient to understand groundwater quantity, flow and quality across the proposed lands and groundwater/surface water interaction (vertical gradients) in the vicinity of wetlands, streams and other features that may be dependent on groundwater discharge.

At a minimum the methodology section should describe methods used for the following:

- Assessment to identify groundwater dependent features
- Installation of groundwater and surface water monitors
- Aquifer and/or soil hydraulic properties testing
- Groundwater levels and flow determination
- Surface water levels and flow determination in relation to discharge areas
- Assessment of groundwater and surface water quality, including temperature
- Assessment of the suitability of soil conditions for stormwater low impact development and best management practices
- Development of pre and post-development water balances

Characterization

The characterization section should combine the information/data gained through the background review with the findings from the on-site field program and present a comprehensive characterization of the study area. The study area characterization should be sufficient to help the reviewer understand geological and hydrogeological conditions in the area, to determine the key characteristics of the bedrock and overburden systems and their functions in terms of controlling water movement, availability, and quality within the local setting. An integral component of the study is to assess the interaction between the groundwater and surface water systems and to determine the overall role or function of this interaction in an ecosystem context. An assessment of the site location in relation to the vulnerable areas delineated through Source Water Protection studies for the Sault Ste. Marie Source Protection Area should also be completed.

The characterization section should include, but not be limited to, the following:

- Identification and rationale for the study area chosen
- Discussion of the physical and human aspects of the study area

- Maps of local physiography, topography, overburden and bedrock geology including buried bedrock valleys
- Map of hydrology with topography or direction of flow and known groundwater dependent features within and adjacent to the area and with associated discussion
- Discussion of hydrostratigraphy
- Map of private water well, monitoring well, production well, and borehole locations
- Cross-sections showing stratigraphy, well construction, water table
- Map showing groundwater elevation, flow direction and quality
- Discussion of spatial and temporal assessments of groundwater conditions including vertical gradients
- Available borehole and test pit logs
- Data and analysis of hydraulic testing
- Identification of all known groundwater receptors within and adjacent to the area
- Identification of existing recharge areas
- Quantification of groundwater contribution to baseflow and to the natural systems (wetlands, streams, etc.)
- Assessment of groundwater quality in the area prior to development
- Assessment of soil conditions and potential for implementation of low impact development measures
- Monthly water balance for pre-development conditions including data used, citation of there
- source, and rationale for their use

Analysis and Impact Assessment

A thorough and integrated analysis based on the information and data obtained and generated for the study and the predicted site conditions following development must be undertaken and documented in the hydrogeological report. The proponent should demonstrate their understanding of site conditions pre and post-development and assess and document the expected impacts to recharge, groundwater/surface water interactions, groundwater quality, and the form and function of groundwater dependent features from the proposed development.

The purpose of the analysis is to:

a. map areas where shallow water table may be impacted by foundation drains, sump pumps, utility trenches, site servicing, etc. based on the proposed grading plan and temporal variability of groundwater conditions
b. determine the quantity and quality of groundwater resources in pre, during and post development scenarios - consider using numerical groundwater flow modelling tools for the assessment
c. calculate a monthly water balance post-development and provide a comparison table showing the differences between the pre-development and post-development conditions for all components of the water budget
d. based on the expected reduction in recharge due to development, set targets for infiltration aiming to maintain pre-development groundwater levels

e. identify recharge sites which are suitable for urban stormwater infiltration (i.e. maintain groundwater levels but avoid contamination that could impact groundwater receptors)
f. determine how to protect groundwater quality from degradation by surface activities, artificial recharge, or mixing of aquifer waters
g. predict impacts on form and function of natural features dependent on groundwater

The following are required as part of this section:

- text and supporting data and calculations
- profiles of creeks when proposed for relocation or realignment showing existing and final grade, geology, boreholes, monitors, water table
- maps showing locations of interest
- comparison table for pre and post-development water balance noting changes predicted
- targets for infiltration to off-set reduction in recharge
- map of potential recharge areas for mitigation measures
- assessment of development impacts on groundwater resources and groundwater/surface water interaction including the form and function of natural features dependent on groundwater All data used in the analyses must be included within the report to assist the reviewer.

Mitigation

The impact assessment results should be used to generate development scenarios that incorporate infiltration opportunities and water conservation techniques to enhance or maintain groundwater levels and quality. Primarily, underground servicing and building foundations should be kept away from aquifers where possible, and construction techniques should minimize or eliminate interference with local aquifers. If impacts from the proposed development are anticipated and expected to be unacceptable to preservation of baseflow and the form and function of the groundwater dependent features, mitigation strategies must be proposed.

The aim of mitigation measures is to maintain clean recharge on the subject lands to support groundwater resources with minimal effects on the natural environment. The SSMRCA encourages the use of low impact development measures and best management practices. All mitigation opportunities should be evaluated and effective measures proposed based on site conditions. The discussion should be fulsome and provide rationale for suggested measures and not others.

The monthly water balance must be re-calculated including mitigation measures and a table of values included in the report. If the recommended mitigation does not off-set predicted impacts an evaluation of the effect on baseflow and groundwater dependent features is required.

The areas on the subject lands that are susceptible to ground water contamination, if any, should be identified and recommendations made on what land use or management practices should be applied to these areas.

Summary and Conclusions

The proponent should provide a brief overview of the work plan and study results as discussed in the previous sections. The emphasis of this section should be on answering the questions posed in Section 2 above. The data and analyses presented in the report must support conclusions drawn here.

Recommendations

The proponent should consider the uncertainty of their studies and the level of risk from the proposed development on the natural environment and make recommendations for programs to reduce the uncertainty and lower the risk. For example, a monitoring program should be proposed that will increase the understanding of pre-development site conditions and mitigation effectiveness during and post-development. The program should provide long-term data, including pre and post-development, for analysis of impacts realized, if any, to groundwater levels and flow, baseflow, and the form and function of surface water features. It should allow for adaptive management measures.

The proponent should also propose a contingency plan, which would identify steps to be taken if unacceptable impacts occur due to development activities. This plan will be required to address unforeseen unacceptable impacts if extensive dewatering is expected during construction.

References

Include a listing of all reference manuals, reports, documents, etc. used to reach the conclusions.

Contact Information:

For more information, please contact :
SSMRCA, Environmental Engineer
(705) 946-8530
fax (705) 946-8533.

Appendix F-A Hydrogeological Report Content Checklist

Form A – Hydrogeological Report Content Checklist

To facilitate a more efficient and effective review of the attached hydrogeological report for the following study, the required information/data can be found as noted in the table below.
Report Title

_____

Prepared by

_____

Date of Report _____

Information / Data / Map	**Section**	**Page Number**
Signatory Page		
Introduction - who completed the hydrogeological assessment and when - the owner of the lands - the study area - the purpose of the proposal - the scope of work performed		
Background - study area description - proposal description		
Methodology - groundwater dependent features - groundwater and surface water monitors - hydraulic testing - groundwater levels and flow determination - surface water levels and flow determination in relation to discharge areas - groundwater and surface water quality - soil conditions - pre and post-development water balances		
Characterization		

- study area - physical characteristics		
Information / Data / Map	**Section**	**Page Number**
- human characteristics - hydrostratigraphy - maps - cross-sections - data - water balance		
Analysis and Impact Assessment - text and supporting data and calculations - profiles of creeks when proposed for relocation or realignment - maps showing locations of interest - comparison table for pre and post-development water balance - map of potential recharge areas for mitigation measures - assessment of development impacts on groundwater resources and groundwater/surface water interaction		
Mitigation - mitigation strategies and rationale - table of water balance with mitigation		
Summary and Conclusions		
Recommendations - monitoring program - contingency plan		
References		

Appendix G : Guidelines for Geotechnical Studies

1.0 Introduction

A geotechnical investigation may be required to identify the existing soil conditions and determine the Long-Term-Stable Top-of-Slope (LTSTOS). Because of the complexities of site development and soil conditions, the development proposal should be discussed in advance with the Sault Ste. Marie Region Conservation Authority (SSMRCA)'s technical staff to confirm the level of study required. Typically, comprehensive assessments are required for development projects close to major features such as the bluffs, slope lands and steep ravines, while less detail may be required for minor works near shallower slopes and fill areas. The minimum Factor of Safety (F.S) required by SSMRCA for slope stability analysis is 1.5.

2.0 Objective

The objective of the investigation, if required, is to determine if the proposed development and/or associated construction activities related to the development will cause or have the potential to cause erosion or slope instability problems on the lands being developed and/or adjacent lands and infrastructure.

3.0 Submission Requirements

Where required, a solution based on sound technical data should be recommended to minimize or eliminate the impact of the development and associated activity, and at the same time ensure that the development will be safe for a design period of 100 years. Alternatives should be considered, and a final solution recommended and justified by comparing it to the alternatives. The basic requirements are as follows:

- ***Determine the existing subsoil conditions and pertinent geotechnical parameters for the entire height of the slope;***
- ***Model the slope conditions and assess its stability. Determine the stable slope inclination corresponding to a minimum Factor of Safety of 1.5; and***
- ***Provide and assess mitigation strategies, where required.***

The following report outline provides a general guide for the documentation and calculations required by the SSMRCA. The level of detail required for a specific submission will depend on factors such as:

- Slope characteristics (e.g., height, angle, and distance from watercourse);
- Distance of development from the slope;

- Local soil conditions; and
- The type of development proposed.

4.0 Comprehensive Geotechnical Report Outline

The investigation should provide definitive, factual information that verifies the final recommendations and should include the components listed below. Technical terms used in the report should be defined.
All drawings must include a table defining the symbols used, and final report must be stamped by a professional geotechnical engineer.

Introduction
- Site Location
  - street map
  - adjacent property ownership
  - site photos
- Site Characteristics
  - property boundaries
  - scaled contour map
  - existing infrastructure (on-site and on adjacent properties)
- Description of Proposed Development/Activity
  - located on scaled contour map
  - existing and proposed structures
  - plan and cross-section views

Subsurface Investigation Results
- Investigation
  - borehole location plan
  - borehole logs
  - monitoring well construction details
  - water level measurements
  - laboratory testing
- Physiography
  - significant topographic features
  - adjacent and nearby watercourses
- Geotechnical Conditions
  - stratigraphy
  - seepage zones
  - position and nature of existing bank
  - failure planes (where possible)
  - groundwater levels

Engineering Evaluation
- Soil Parameter Evaluation
  - cohesion
  - liquid/plastic limits
  - water content
  - angle of friction
  - unit weights

Slope Stability Assessment

documentation of previous and existing slope failures (mechanism of failure, type, and extent)
factor of safety results
stable slope allowance
recommended setbacks

Toe Erosion Assessment
documentation of existing toe erosion
evaluation of toe erosion allowance

Erosion Access Allowance
Top-of-Slope Runoff Erosion
Top-of-Slope Recession Allowance

Long-Term-Stable Top-of-Slope
total geotechnical allowance
setback recommendations based on comparison of ETOS with LTSTOS

Summary and Conclusions

Assessment
summary of existing geotechnical conditions
summary of post-development geotechnical conditions
sufficient geotechnical data to ensure that the proposed development is technically sound and will not contribute to soil instability in the immediate and surrounding area

Mitigation (if required)

design and geotechnical data to support proposed remedial measures
revised factor of safety and setback calculations

References

Document all references used in the calculations and assessment

Appendix H : Guidelines for Permit Process

1.0 Permit Process

1.1 Pre-Consultation

It is important for applicants to discuss their development proposal with SSMRCA staff prior to submitting a formal permit application. A preliminary consultation can help identify how the proposal may be affected by SSMRCA's policies and guidelines. SSMRCA staff will inform applicants of the general review and approval process, discuss potential study requirements, indicate whether the proposal is supported in principle and outline anticipated processing timelines. Preliminary consultation also allows staff to confirm what constitutes a complete application.

Furthermore, the SSMRCA has a dedicated staff member that is available for pre-consultation on projects directly related to land development. These services are provided free of charge for the applicant.

As a starting point, prior to pre-consultation applicants may wish to visit SSMRCA's office or website (www.ssmrca.ca) to understand the permit process.

1.2 Completing an Application Form

Application forms are available at the SSMRCA's administrative office and on the authority's website (ssmrca.ca/permits/).

Before submitting an application, property owners are encouraged to consult with SSMRCA staff to determine if an application is required, and if so, what information should be submitted with the application. A final decision on whether or not a proposal would be supported by the SSMRCA can only be provided once a complete application and detailed plans have been submitted.

At the time an application is submitted, details of the proposed works must be provided. A checklist of the information which should also be submitted is attached to the application form. SSMRCA staff will advise applicants if other specific information is required in order to complete a review of their application.

The SSMRCA will require an applicant to submit any additional information (e.g., surveys, technical reports) considered necessary for the SSMRCA to make a decision. The cost of these studies is the responsibility of the applicant.

1.3 Payment of Processing Fees

The SSMRCA has established a "Policy to Charge Fees for Services Related to Planning and Development Related Activities" under Section 21(m.1) of the Conservation Authorities Act. This policy is based on the user-pay principle. Fees and revenues generated through this policy are designed to recover the costs associated with administering and delivering the services on a program basis. This policy is reviewed on an annual basis to monitor the effectiveness of the schedule of fees (ssmrca.ca/permits/).

1.4 Timelines for Processing of Applications

Permit applications under the Conservation Authorities Act will be generally processed within timelines outlined in MNRF's May 2010 "Policies and Procedures for Conservation Authority Plan Review and Permitting Activities".

This document identifies that conservation authorities are to make a decision (i.e., recommendation to approve or recommendation for refusal with right to an appeal) with respect to a permission (permit) application and pursuant to the Conservation Authorities Act within 30 days for a complete minor application and 90 days for a complete major application. The SSMRCA will notify applicants, in writing, within 21 days of the receipt of a permission (permit) application, as to whether the application has been deemed complete or not. The applicant should pre-consult with SSMRCA staff prior to submission of an application to determine complete permit application requirements for specific projects.

1.5 Validity of Permits

In accordance with Ontario Regulation 176/06 (Section 9), there are two categories of permission:

• The first category (up to and including 24 months) is expected to address the majority of applications, where a proposed project can reasonably be expected to be completed within two years of receiving a permit from the SSMRCA. The SSMRCA currently issues all permits for a length of 24 months. This time period has been sufficient for the implementation of the vast majority of permits granted by the authority.

• The second category is expected to address larger-scale projects, such as municipal infrastructure and subdivisions, which cannot reasonably be expected to be completed within 24 months of receiving a permit from the SSMRCA. This could be due to the fact that the applicant may have to obtain approvals from other regulatory agencies and/or the project is of such a scale that the construction period will extend beyond 24 months. Permits for 60 months may be issued in these cases.

1.6 Ratification of Permits

All approved 60 month (5 year) permits will normally be ratified by the Board of Directors on a biannual basis. All other permit/clearance approvals will be brought to the Board of Directors for information on a biannual basis.

Processing fees for applications submitted under Ontario Regulation 176/06 must be paid at the time an application is submitted. An application will be considered to be incomplete, and the applicant will be notified, if the associated processing fee has not been paid and will be placed on hold pending the submission of the processing fee.

The fee schedule identifies permit categories including: minor, intermediate, and major. The schedule also has separate categories addressing review fees for subdivisions and technical studies.

1.7 Transfer of Permits

Permits issued under Ontario Regulation 176/06 are non-transferable. Permits will be issued to the registered property owner or an authorized agent unless otherwise authorized by the property owner.

1.8 Responsibility of the Applicant

Issuance of a permit under Ontario Regulation 176/06 does not relieve the applicant from the responsibility of obtaining approvals from all other appropriate agencies (e.g., municipalities, provincial and federal governments etc.), or complying with all conditions that have been imposed by other agencies.

1.9 Withdrawal of Permission

The SSMRCA may revoke a permit if it is of the opinion representations contained within the application for permission are not accurate or the conditions of the permit have not been met.

Before cancelling a permit, the SSMRCA shall give the holder of the permit notice of the intent to cancel the permit, indicating that permission will be cancelled unless the holder can show cause why the permit should not be cancelled. If cause can be shown, SSMRCA shall hold a hearing with the opportunity to have the permit reinstated by the SSMRCA Hearing Board.

2.0 Hearing and Appeal Process

2.1 Refusal of Applications

Whenever possible, SSMRCA staff work with applicants in an attempt to find a solution to their proposal when an application is not in conformity with policies and legislation:

• SSMRCA Development, Interference with Wetlands and Alterations To Shorelines and Watercourses Regulation (Ontario Regulation 176/06);
• SSMRCA Planning and Regulations Guidelines (Nov 2016);
• The Provincial Policy Statement and associated technical guidelines prepared by the Ontario Ministry of Natural Resources and Forestry; and
All policy documents and guidelines approved by the SSMRCA Board of Directors.

However, there are occasions when a mutually agreeable solution cannot be reached, and SSMRCA staff will either:

• Issue a permit with specific conditions, or
• Recommend refusal of the application to the Board of Directors, and based on the Board's decision, refuse to issue a permit for the application.

SSMRCA staff will recommend that an application be refused if:

• The application does not satisfy provincial, regional and local guidelines adopted by the SSMRCA; or
• In the opinion of the SSMRCA's engineer, the application may affect the control of flooding, pollution or the conservation of land, erosion and dynamic beaches.

2.2 Requests for a Hearing

If an applicant does not agree with conditions set by the SSMRCA in a permit, or SSMRCA staff recommends refusal of an application, the applicant has an opportunity to appeal this decision and request a hearing before the SSMRCA Board of Directors (who serve as the authority's Hearing Board).

If a hearing is requested, the SSMRCA will schedule a hearing in accordance with the Conservation Authorities Act Section 28(12). The applicant shall be advised of options that he/she may wish to pursue in order to bring the application into conformity. They will also be advised of the SSMRCA's hearing process.

2.3 The Hearing Process

The Conservation Authorities Act, Section 28(12) requires that the applicant be party to a hearing by the local conservation authority board, or executive committee (sitting as a Hearing Board) as the case may be, for an application to be refused or approved with contentious conditions.

The Hearing Board is empowered by law to make a decision, governed by the Statutory Powers Procedures Act. It is the purpose of the Hearing Board to evaluate the information presented at the hearing by both the conservation authority staff and the applicant and to decide whether the application will be approved with or without conditions or refused.

2.4 The Appeal Process

In accordance with Section 28(15) of the Conservation Authorities Act, an applicant who has been refused permission by the Hearing Board or who objects to conditions specified on a permit, may within 30 days of receiving the reasons for the decision under Section 28 (14), appeal the decision to the Minister of Natural Resources and Forestry. The Minister may refuse the permission or grant permission with or without conditions.
Appeals should be forwarded to:

Minister of Natural Resources and Forestry
Queen's Park, Whitney Block,
99 Wellesley Street West 6th Floor, Room 6630
Toronto, ON, M7A 1W3
T: 416- 314-2301 F: 416-314-2216

3.0 Enforcement

The SSMRCA, by virtue of the Conservation Authorities Act, R.S.O. 1990 as amended, Section 28, 1(d) and regulations made pursuant to the Act, appoints the officers to enforce Ontario Regulation 176/06 as well as any subsequent regulations.
Any work undertaken in an area which is regulated under Ontario Regulation 176/06 without the written permission of the SSMRCA is in contravention of the regulation.
SSMRCA officers shall inspect observed and reported violations of the regulation and may issue a violation notice or an information letter to the owner of the property and to the person undertaking the work, if different from the property owner.
In general, where a violation has been identified, property owners have two options:
1) Immediately stop activity and contact SSMRCA to obtain the necessary permits, provided the activity adheres to SSMRCA requirements; or
2) Remove the offending development or stop the activity and restore the area to its original condition by methods acceptable to the SSMRCA.
Where neither of these options are exercised to SSMRCA's satisfaction, the authority may proceed to take the matter to court. Every person who contravenes the regulation may be liable to a fine or a term of imprisonment. The courts may also order removal of development and/or rehabilitation of watercourses and wetlands.
It is the preference of the SSMRCA to avoid having to proceed to court. Rather, SSMRCA staff prefer to work with applicants to find a mutually agreeable solution that is in alignment with SSMRCA policies and guidelines.

Appendix H-A : SSMRCA Hearing Guidelines

Hearing Guidelines

For Applications made under Section 28 of the Conservation Authorities Act

In Conformity with Conservation Authorities Act Hearing Guidelines (October 2005) Prepared by Conservation Ontario and the Ontario Ministry of Natural Resources and Forestry

1.0 Purpose of Hearing Guidelines

The Conservation Authorities Act (Section 28(12)) requires that the applicant be party to a hearing by the local conservation authority board, or executive committee (sitting as a Hearing Board) as the case may be, for applications to be refused or approved with conditions. Typically, staff of a local conservation authority would recommend the refusal of an application if in their opinion, the proposal will adversely affects the control of flooding, erosion, dynamic beach, pollution or conservation of land.

The Sault Ste. Marie Region Conservation Authority (SSMRCA) Hearing Guidelines outline the practices and procedures of the SSMRCA when conducting hearings under Section 28(12), (13), (14) of the Conservation Authorities Act. These guidelines and procedures are consistent with Conservation Authorities Act Hearing Guidelines (October 2005) prepared by Conservation Ontario and the Ontario Ministry of Natural Resources and Forestry, and meet the legal requirements of the Statutory Powers Procedures Act.

2.0 The SSMRCA Hearing Board

The Hearing Board is empowered by law to make decisions and governed by the Statutory Powers Procedures Act. It is the purpose of the Hearing Board to evaluate the information presented at the hearing by both the conservation authority staff and the applicant and to decide whether the application will be approved with or without conditions or refused.

The Conservation Authorities Act (Section 28(12)) specifies that a hearing may be conducted by the authority or, if the authority so directs, before the authority's executive committee.

For the SSMRCA, the Hearing Board shall be comprised of members of the Board of Directors. This will ensure that all municipal representatives are aware of permitting issues throughout the entire watershed area and that municipal representation is available for all applicants.

3.0 Pre-Hearing Procedures

3.1 Apprehension of Bias

In considering the application, the Hearing Board is a decision-making tribunal. The tribunal is to act fairly. Under general principles of administrative law relating to the duty of fairness, the tribunal is obliged not only to avoid any bias but also to avoid the appearance or apprehension

of bias. The following are three examples of steps to be taken to avoid apprehension of bias where it is likely to arise.

(a) No member of the SSMRCA Hearing Board taking part in the hearing should be involved, in intervention on behalf of the applicant or other interested parties with the matter, prior to the hearing. Otherwise, there is a danger of an apprehension of bias which could jeopardize the hearing.

(b) If material relating to the merits of an application that is the subject of a hearing is distributed by SSMRCA staff to Hearing Board members before the hearing, the material shall be distributed to the applicant at the same time. The applicant shall be afforded an opportunity to distribute similar prehearing material.

(c) In instances where the SSMRCA requires a hearing to help it reach a determination as to whether to give permission with or without conditions or refuse a permit application, a final decision shall not be made until such time as a hearing is held. The applicant will be given an opportunity to attend the hearing before a decision is made; however, the applicant does not have to be present for a decision to be made.

3.2 Right to a Hearing

In accordance with Section 28(12) of the Conservation Authorities Act, an applicant has the right to a hearing when:

• staff of the SSMRCA are recommending refusal of an application to the full authority; or

• An applicant objects to the conditions of approval listed on the permit.

Note: If the applicant is not the registered owner of the property, he/she must have written authorization from the registered owner in order to request a hearing.

3.3 Notice of Hearing

Prior to setting the date for a hearing, the applicant shall be consulted to determine an agreeable date and time based on the SSMRCA's regular meeting schedule. In establishing the date for the hearing, both the applicant and the SSMRCA must be given sufficient time to prepare for the hearing.

The applicant is entitled to reasonable notice of the hearing pursuant to the Statutory Powers Procedures Act. A Notice of Hearing shall be sent to the applicant and his/her agent at least 30 days prior to the date of the hearing, by registered mail.

The Notice of Hearing must contain the following information:

(a) Reference to the applicable legislation under which the hearing is to be held (i.e., the Conservation Authorities Act).

(b) The date, time, and location of the hearing.

(c) Identification of the applicant, the location of the property and the nature of the application which is the subject of the hearing.

(d) The reasons for the proposed refusal or conditions of approval shall be specifically stated. Sufficient detail is to be provided to enable the applicant to understand the issues so he or she can be adequately prepared for the hearing.

It is sufficient to reference in the Notice of Hearing that the recommendation for refusal or conditions of approval are based on the reasons outlined in previous correspondence or a hearing report that will follow.

(e) A statement notifying the applicant that the hearing may proceed in the applicant's absence and that the applicant will not be entitled to any further notice of the proceedings.

Except under extreme circumstances, a hearing before the SSMRCA Hearing Board shall not proceed in the absence of the applicant.

(f) Reminder that the applicant is entitled to be represented at the hearing by counsel, if desired.

(g) Copies of the Notice of Hearing to: o The Chair of the SSMRCA;

- Members of the SSMRCA full authority;
- The clerk and chief building official of the municipality in which the site of the proposed work is located;
- The district offices of the provincial government (e.g., MNRF, MOECC) if appropriate.

An example of a Notice of Hearing can be found in Appendix H-A1.

4.0 Pre-submission of Reports

4.1 Disclosure to the Applicant

The SSMRCA shall provide a copy of the following material to the applicant 14 days prior to the date of the hearing:

• the staff report;

• all documents to be entered as exhibits;

• a curriculum vitae for each person speaking at the hearing on behalf of the SSMRCA;

• witness statements; and

• A copy of the SSMRCA Hearing Procedures.

4.2 Disclosure to the SSMRCA

The applicant shall provide a copy of all material to be presented at the hearing to the SSMRCA 14 days prior to the hearing. This will allow the applicant an opportunity to prepare a response once the reasons for the staff recommendation has been provided to him/her. If the applicant does not wish to submit any material to the SSMRCA, he/she must indicate this in writing to the SSMRCA 14 days prior to the hearing.

4.3 Submission to Members of the Hearing Board

The SSMRCA shall circulate copies of all material to be presented by staff and the applicant to members of the Hearing Board in advance of the hearing, with the agenda for the upcoming meeting.

5.0 The Hearing

5.1 Public Hearing

Pursuant to the Statutory Powers Procedure Act, hearings are required to be held in public. The exception is in very rare cases where public interest in public hearings is outweighed by the fact that intimate financial, personal or other matters would be disclosed at hearings.

5.2 Hearing Participants

The Conservation Authorities Act does not provide for third party status at a hearing. While others may be advised of a hearing, any information that they provide should be incorporated within the presentation of information by, or on behalf of, the applicant or authority staff.

5.3 Attendance of Hearing Board Members

In accordance with case law relating to the conduct of hearings, those members of the Hearing Board who will decide whether to grant or refuse the application must be present during the full course of the hearing.

5.4 Adjournments

The Hearing Board may adjourn a hearing on its own motion or that of the applicant or authority staff where it is satisfied that an adjournment is necessary for an adequate hearing to be held.

Any adjournments shall form part of the hearing record.

5.5 Orders and Directions

The Hearing Board is entitled to make orders or directions to maintain order and prevent the abuse of its hearing processes. The SSMRCA's Hearing Procedures are included as Appendix H-A2.

5.6 Information Presented At Hearings

(a) The Statutory Powers Procedure Act requires that a witness be informed of his/her rights pursuant to the Canada Evidence Act. The Canada Evidence Act indicates that a witness shall be excused from answering questions on the basis that the answer may be incriminating. Further, answers provided during the hearing are not admissible against the witness in any criminal trial or proceeding. This information shall be provided to the applicant as part of the Notice of Hearing.

(b) Information presented at a hearing is to be presented under oath or affirmation. Witnesses taking part in the hearing must be informed of this requirement prior to the commencement of the hearing.

(c) The Hearing Board may authorize receiving a copy rather than the original document. However, the Hearing Board may request certified copies of a document if required.

(d) Privileged information, such as solicitor/client correspondence, cannot be heard. Information that is not directly within the knowledge of the speaker (hearsay), if relevant to the issues of the hearing, can be heard.

(e) The Hearing Board may take into account matters of common knowledge such as geographic or historic facts, times measures, weights, etc. or generally recognized scientific or technical facts, information or opinions within its specialized knowledge without hearing specific information to establish their truth.

6.0 Conduct Hearing

6.1 Record of Attending Hearing Board Members

A record of attendance shall be made of the members of the Hearing Board attending a hearing.

6.2 Opening Remarks

The Chair shall convene the hearing with opening remarks which:

• Identify the applicant;

• The nature of the application;

• The property location;

• Identify staff participating in the hearing;

• Outline the hearing procedures; and

• Advise participants of requirements under the Canada Evidence Act.

Refer to Appendix H-A3 for the Chair's Opening Remarks.

6.3 Presentation of Information by SSMRCA Staff

Staff of the SSMRCA shall present the reasons supporting their recommendation for the refusal or conditions of approval of the application. The time allowed for this presentation shall generally not exceed 15 minutes.

Any reports, documents or plans that form part of the presentation shall be provided to the applicant and members of the Hearing Board as outlined in Section 4 of this document.

Staff of the authority shall not submit new information at the hearing as the applicant will not have had time to review and provide a professional opinion to the Hearing Board.

The Director or designate shall coordinate the presentation of information on behalf of authority staff and will ask questions on behalf of authority staff.

6.4 Presentation of Information by the Applicant

The applicant has the opportunity to present information at the conclusion of the authority staff presentation. The time allowed for this presentation shall generally not exceed 15 minutes.

Any reports, documents or plans which form part of the submission by the applicant are to be submitted to the SSMRCA's General Manager a minimum of 14 days prior to the hearing. This is to allow for the circulation of this material to the members of the Hearing Board and for the review of this material by SSMRCA staff.

It is recommended that the applicant provide information regarding the application as it applies to the control of flooding, erosion, dynamic beach or conservation of land, pollution or wetlands.

The SSMRCA Hearing Board will not consider the merits of the activity or appropriateness of such a use in terms of an application made under the Planning Act.

• The applicant may be represented by legal counsel or agent, if desired.

• The applicant may present information to the Hearing Board and/or have invited advisors to present information to the Hearing Board.

• The applicant's presentation may include technical witnesses (e.g., engineer, ecologist, hydrogeologist).

The applicant should not submit new information at the hearing as staff of the SSMRCA will not have had time to review this material and to provide a professional opinion to the Hearing Board.

The Hearing Board shall allow both staff and the applicant an opportunity for rebuttal following these presentations. The time allowed for rebuttal shall not exceed 10 minutes.

6.5 Questions

Members of the Hearing Board may direct questions to each speaker as the information is being heard or pose their questions following the conclusion of the presentation.

The applicant and SSMRCA staff shall also have the opportunity to pose questions at the end of the presentation of the other party.

Pursuant to the Statutory Powers Procedure Act, the Hearing Board may limit questioning where it is satisfied that there has been full and fair disclosure of the facts presented. Please note that the courts have been particularly sensitive to the issue of limiting questions and there is a tendency to allow limiting of questions only where it has clearly gone beyond reasonable or proper bounds.

6.6 Deliberation

After all the information has been presented, the Hearing Board may adjourn the hearing and retire to closed session to consider information presented by staff and the applicant and to formulate a decision motion.

The Hearing Board may reconvene on the same date or at some later date to advise of their decision. Only those members of the Hearing Board who are present for the entire hearing may participate in the formulation of the decision. Members of the Hearing Board shall not discuss the hearing with others prior to the decision of the Board being finalized.

7.0 Hearing Decision

The Hearing Board shall hold a recorded vote in open session, to decide on the decision motion before the Hearing Board using simple majority rule. The applicant shall be provided a written Notice of the Decision within 5 days of the date of the hearing by registered mail. The applicant shall be informed of the details on their right to appeal the decision within 30 days upon receipt of the written decision to the Minister of Natural Resources and Forestry.

7.1 Notice of Decision

It is important that the hearing participants be provided with a clear understanding of the reasons for the applications refusal or approval. The Hearing Board shall itemize and record information of particular significance which led to their decision.

The Notice of Decision notice shall include the following information:

• The identification of the applicant, property and the nature of the application that was the subject of the hearing.

• The decision to refuse or approve the application and reasons for the decision. A copy of the resolution by the Hearing Board shall be attached to the Notice of Decision.

The written Notice of Decision shall be forwarded to the applicant by registered mail. A sample Notice of Decision has been included as Appendix H-A4.

7.2 Adoption

A resolution advising of the Hearing Board's decision and the reasons for this decision should be adopted by the Board.

7.3 Record of the Hearing

The SSMRCA shall compile a record of the hearing. This record shall be comprised of the following documents:

• A copy of the application for the proposed work.

• A copy of the Notice of Hearing.

• A copy of any orders made by the Hearing Board (i.e., for adjournments).

• Copies of all information/exhibits submitted to the Hearing Board.

• A copy of the minutes of the hearing.

• A copy of the decision of the Hearing Board and the reasons for their decision.

• A copy of the Notice of Decision sent to the applicant.

In the event of an appeal, a copy of this record should be forwarded to the Minister of Natural Resources and Forestry/Mining and Lands Commissioner.

Appendix H-A1 : Notice of Hearing

NOTICE OF HEARING

IN THE MATTER OF
The Conservation Authorities Act,
R.S.O. 1990, Chapter 27

AND IN THE MATTER OF
an application by <**Name**>

FOR PERMISSION OF THE SAULT STE. MARIE REGION CONSERVATION AUTHORITY
Pursuant to Regulations made under Section 28, Subsection 12 of the said Act

TAKE NOTICE THAT a hearing before the Hearing Board of the SSMRCA will be held under Section 28, Subsection 12 of the Conservation Authorities Act at the offices of the said authority, 1100 Fifth Line East, Sault Ste. Marie, Ontario, at the hour of<time> on the <date, month> of<year> , with respect to the application by <name> to permit <description of work and waterway/sub-watershed>, which is an area regulated by the authority on <Lot , Concession , Municipality, County/District> .

TAKE NOTICE THAT you have the opportunity to make a delegation and submit supporting written material to the Hearing Board for the meeting of <date>. If you intend to appear, please contact <appropriate SSMRCA staff name and title>. Written material will be required by <date>, to allow staff and members of the Hearing Board an opportunity to review the material prior to the meeting.

TAKE NOTICE THAT this hearing is governed by the provisions of the Statutory Powers Procedures Act. Under the Act, a witness is automatically afforded a protection that is similar to the protection of the Ontario Evidence Act. This means that the evidence that a witness gives may not be used in subsequent civil proceedings or in prosecutions against the witness under the Provincial Statute. It does not relieve the witness of the obligation of this oath since matters of perjury are not affected by the automatic affording of the protection. The significance is that the legislation is Provincial and cannot affect Federal matters. If a witness requires the protection of the Canada Evidence Act that protection must be obtained in the usual manner. The Ontario Statute requires the tribunal to draw this matter to the attention of the witness, as the tribunal has no knowledge of the effect of any evidence that a witness may give.

AND FURTHER TAKE NOTICE that if you do not attend this Hearing, the Hearing Board of this conservation authority will proceed in your absence, and you will not be entitled to any further notice in the proceedings.

DATED this <**date. month**> of <**year**>

<**Signature, Name**>, General Manager

c.c. SSMRCA Chair, Members of the Hearing Board, Clerk of the municipality in which the site of the proposed work is located, District Office MNRF, MOECC (if appropriate)

Appendix H-A2 : Hearing Procedures

1. Motion for the full authority to sit as Hearing Board.
2. Roll call of the Hearing Board members.
3. Chair's Opening Remarks (see Appendix 3).
4. The Chief Administrative Officer shall introduce to the Hearing Board the property owner/applicant and his agent (if applicable) and SSMRCA staff who will be participating in the hearing.
5. SSMRCA staff shall introduce the application and the location for the proposed works.
6. SSMRCA staff shall present the staff report (the time allowed for this presentation shall generally not exceed 15 minutes).
7. Staff will provide a recommendation to the Hearing Board for the proposed application.
8. The applicant and/or his agent will speak and also make any comments on the staff report, if he so desires (the time allowed for this presentation shall generally not exceed 15 minutes).
9. The Hearing Board shall allow SSMRCA staff an opportunity for rebuttal (the time allowed for rebuttal shall generally not exceed 10 minutes and shall be confirmed prior to the commencement of the hearing).
10. The Hearing Board shall allow the applicant an opportunity for rebuttal (the time allowed for rebuttal shall generally not exceed 10 minutes and shall be confirmed prior to the commencement of the hearing).
11. The Hearing Board shall question, if necessary, both the staff and the applicant/agent.
12. The Hearing Board shall move into closed session.
13. Members of the Hearing Board shall consider the information presented by staff and the applicant and formulate a decision motion.
14. The Hearing Board shall move out of closed session.
15. The Hearing Board shall hold a recorded, simple majority vote in open session to formalize the Hearing Board's decision.

The Chair shall advise the owner/applicant and SSMRCA staff of the Hearing Board's decision.

17. If there is a decision to refuse permission of the application, the Chair shall notify the owner/applicant of his/her right to appeal the decision to the Minister of Natural Resources and Forestry within 30 days of receipt of the reasons for the decision.
18. Motion to move out of Hearing Board and to sit as the full authority.
19. The Chief Administrative Officer shall advise the owner/applicant in writing (Notice of Decision – see Appendix 4) of the Hearing Board's decision, the reasons for the decision as well as the owner/applicant of his/her right to appeal the decision to the Minister of Natural Resources and Forestry within 30 days of receipt of the reasons for the decision.

Appendix H-A3 : Hearing Procedures—Chair's Remarks

Chair's Remarks when Conducting Hearings for Applications made under Section 28 of the Conservation Authorities Act

We are now going to conduct a hearing under Section 28 of the Conservation Authorities Act in respect to an application by specify for permission to:

- **<describe proposed work(s)>**

The Sault Ste. Marie Region Conservation Authority has adopted regulations under Section 28 of the Conservation Authorities Act which requires the permission of the authority for development within an area regulated by the authority in order to ensure no adverse effect on (the control of flooding, erosion, dynamic beaches or pollution or conservation of land) or to permit alteration to a watercourse or interference with a wetland.

Staff has reviewed this proposed work and a copy of the staff report has been given to the applicant.

The Conservation Authorities Act, Section 28(12) provides that:

Permission required under a regulation made under Subsection 1(a), (b) or (c) shall not be refused or granted subject to conditions unless the person requesting permission has been given the opportunity to require a hearing before the authority.

In holding this hearing, the Hearing Board is to determine whether or not a permit is to be issued. In doing so, we can only consider the application in the form that is before us, the presentation by staff, and such evidence as may be given and the submissions to be made on behalf of the applicant.

The proceedings will be conducted according to the Statutory Powers Procedure Act.

Witnesses have the protection of the Canada Evidence Act which does not excuse them from answering proper questions on the ground that the answers may tend to incriminate them or expose them to liability in civil proceedings, but such answers may not be used against the witness in subsequent criminal proceedings, except in a prosecution for perjury.

The procedure in general shall be informal. Evidence will be given under oath or affirmation.

If the applicant has any questions to ask of the Hearing Board or of the authority representatives, they must be directed to the Chair of the Board.

Appendix H-A4 : Notice of Decision

<Date> BY REGISTERED MAIL
<Name>
<Mailing address>
Dear <Name>,

RE: NOTICE OF DECISION
Hearing Pursuant to Section 28(12) of the Conservation Authorities Act
Proposed Residential Development
<Lot, Plan; Drive; City>
<Application #>

In accordance with the requirements of the Conservation Authorities Act, the Sault Ste. Marie Region Conservation Authority provides the following Notice of Decision: On <meeting date>, the Hearing Board of the Sault Ste. Marie Region Conservation Authority has <refused/approved your application/approved your application with conditions>. Please note that this decision is based on the following reasons: <the proposed development/alteration to a watercourse or shoreline adversely affects the control of flooding, erosion, dynamic beaches or pollution or interference with a wetland or conservation of land>. In accordance with Section 28(15) of the Conservation Authorities Act, an applicant who has been refused permission or who objects to conditions imposed on a permission may, within 30 days of receiving the reasons under subsection (14), appeal to the Minister who may refuse the permission; or grant permission, with or without conditions. For your information, should you wish to exercise your right to appeal the decision, a letter by you or your agent/counsel setting out your appeal must be sent within 30 days of receiving this decision addressed to:

<Minister's Name>, Minister of Natural Resources and Forestry
Queen's Park, Whitney Block
99 Wellesley Street West, 6th Floor, Room 6630
Toronto, Ontario M7A 1W3
TEL :(416) 314-2301 FAX :(416) 314-2216

Should you require any further information, please do not hesitate to contact <Name>, General Manager, or the undersigned.

Yours truly,
<Signature, Name>, General Manager
c.c. Members SSMRCA Hearing Board
Clerk of the Municipality in which the site of the proposed work is located
District Office MNRF MOECC (if appropriate)

Appendix I – Shoreline Management Plan