DEVELOPMENT, INTERFERENCE WITH WETLANDS AND ALTERATION TO SHORELINES AND WATERCOURSES

REGULATION 165/06

ADMINISTRATION AND COMPLIANCE POLICIES

Mattagami Region
Conservation Authority

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MATTAGAMI REGION CONSERVATION AUTHORITY

ONTARIO REGULATION 165/06

PART A
POLICIES FOR THE ADMINISTRATION OF THE DEVELOPMENT, INTERFERENCE WITH WETLANDS AND ALTERATION TO SHORELINES AND WATERCOURSES REGULATION

Effective March 1, 2014

Amendments

Revisions Approved May 25, 2015 / Effective May 25, 2015 Resolution No. 2015-1225
Revisions Approved Aug 25, 2015 / Effective Aug 25, 2015 Resolution No. 2015-1239
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Revisions Approved Nov 28, 2019/ Effective Nov 28, 2019 Resolution No. 2019-1403
Revisions Approved February 27, 2020 / Effective Feb 27, 2020 Resolution No. 2020-1415

This Regulation Policies document has been prepared under the direction of the Board of Directors of the Mattagami Region Conservation Authority (MRCA) to provide clarification and consistency in the implementation of *Ontario Regulation 165/06*, the MRCA's Development, Interference with Wetlands and Alteration to Shorelines and Watercourse Regulation, adopted pursuant to Section 28 of the *Conservation Authorities Act of Ontario*.

1.0 BACKGROUND TO THE REGULATION

Conservation Authorities across Ontario work in partnership with their member municipalities to deliver a comprehensive program of water and related land management over their watershed areas. The key mandates of this program are to prevent the loss of life and property due to flooding and erosion, and to conserve, protect and enhance natural resources. *Ontario Regulation 165/06*, *Regulation of Development, Interference with Wetlands and Alteration to Shorelines and Watercourses*, is one of the key tools used by the Mattagami Region Conservation Authority to prevent or restrict development in areas where the control of flooding, erosion, dynamic beaches, pollution or the conservation of land may be affected by development, in order to prevent the creation of new hazards or the aggravation of existing ones. This Regulation, which is enabled through Section 28 of the *Conservation Authorities Act*, is used in conjunction with other provincial acts and related regulations, including but not limited to the *Planning Act*, *Building Code Act* and *Lakes and Rivers Improvement Act*, to deal with development associated with our water resources. Although an approval may be granted by the Conservation Authority under this Regulation, it does not take precedence over other legislation. As such, applicants must still comply with all other applicable legislative regulations and requirements.

1.1 History of the Mattagami Region Conservation Authority

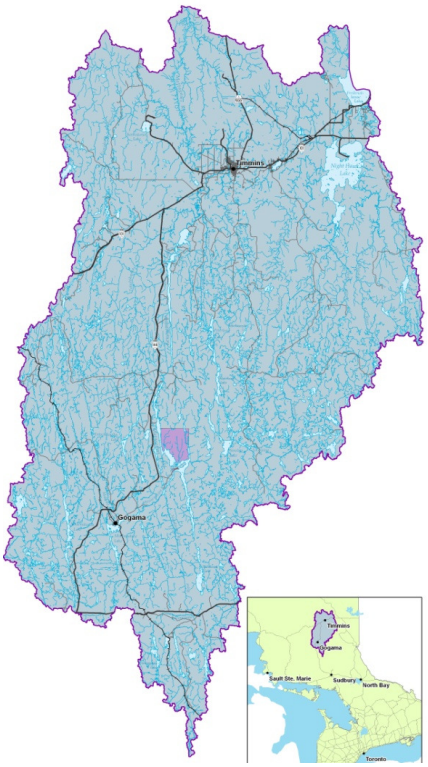

Figure 1: Mattagami Region Watershed Area

The Mattagami Region Conservation Authority (MRCA) was first established as the Mattagami Valley Conservation Authority by Order-In-Council on November 30, 1961 following serious flooding on the Mattagami River in 1960 and Town Creek in 1961. Upon amalgamation of the City of Timmins in 1974, the Conservation Authority was enlarged through Order-In-Council 322/74 to incorporate the entire Upper Mattagami River Watershed upstream of Jocko Creek to the Height of Land as well as a portion of the Abitibi River Watershed. This enlargement not only extended the jurisdiction of the Conservation Authority over the entire City of Timmins, but also made it the largest Conservation Authority in total area in Ontario, at 11,060 square kilometres. Since its establishment the MRCA has undertaken a comprehensive program of water and land management that has included land acquisition, infrastructure construction, maintenance, flood forecast and warning, and land use regulation.

1.2 The Conservation Authorities Act

The *Conservation Authorities Act*, under Section 28 regulation, enables Conservation Authorities to:

- prohibit, regulate or provide permission for straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream, watercourse or changing or interfering with a wetland;
- prohibit, regulate or provide permission for development if the control of flooding, erosion, dynamic beaches, pollution or the conservation of land may be affected by the development.

Since its inception, the Mattagami Region Conservation Authority has used Section 28 Regulations to meet its water and land management objectives. This particular Regulation, *Ontario Regulation 165/06*, was approved and implemented in response to the Province's Red Tape Reductions Act of the late 1990's. The Mattagami Region Conservation Authority approved this Regulation on January 25, 2006, which was subsequently approved by His Honour, the Lieutenant Governor in Council on May 4, 2006. It replaces *Ontario Regulation 611/86*, the former *Fill, Construction and Alteration to Waterways Regulation*. The new Regulation is designed to streamline the review and approval process and provide consistency to watershed management across the Province. It brings changes to what and where the Conservation Authority can regulate and includes a broader definition for identifying flood and erosion susceptible areas. It also empowers the Conservation Authority to regulate provincially significant wetlands.

This Regulation recognizes the intent of the *Provincial Policy Statement (PPS) 2014*, which provides policy direction on matters of provincial interest related to land use planning and development. Section 3 of the PPS provides guidance on planning matters related to Natural Hazards and Natural Heritage and states that development shall generally be directed to areas outside hazardous lands adjacent to river and lake systems which are impacted by flooding and erosion hazards. It also restricts development from occurring in certain wetland areas. The policies, guidelines and procedures contained within this document have been developed with the aim of being consistent with the Provincial Policy Statement.

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

1.3 Land Use Planning and Management Policies

In addition to its delegated resource management responsibilities under the *Conservation Authorities Act*, the MRCA is required to provide plan input and review under a variety of municipal and provincial planning legislation including the *Planning Act* (severances, minor variances, etc.), the *Environmental Assessment Act* and the *Fisheries Act*. As such, the Conservation Authority will be guided by the following principles when reviewing and commenting on various development proposals.

- Ensure conformity with the Provincial Policy Statement and other provincial plans.
- Recognize and consider the potential impacts on floodways, hazardous lands and hazardous sites.
- Recognize and consider the potential impacts to water resources including surface and ground water features and their hydrologic function.

Ensure the proposal incorporates the principles of integrated watershed management and best management practices.

Figure 2: Hierarchy of Legislation and Policies

1.4 Other Legislation for Works in or Near Water

Approvals under Section 28 do not exempt the applicant from complying with other laws and statutes that may affect the property. The MRCA will ensure that the review process includes notification of the proposed works to Fisheries and Oceans Canada (*Fisheries Act*), the Ministry of Natural Resources and Forestry (*Public Lands Act and Lakes and Rivers Improvement Act*), the Ministry of the Environment, Conservation and Parks (*Environmental Assessment Act*), and the City of Timmins (*Planning Act*).

2.0 SECTION 28 POLICY OBJECTIVES

The following policy objectives have been used by the MRCA in guiding the development of its *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation 165/06 Administration and Compliance Policies*.

- To prevent loss of life, minimize property damage and social disruption, and avoid public and private expenditure for emergency operations, evacuation, disaster relief and restoration due to natural hazards including flooding and erosion.
- To prohibit development, which, singularly or cumulatively, may restrict riverine channel capacities to pass flood flows, reduce storage capacity in floodplains and wetlands resulting in increased flood levels, and create potential danger to upstream and downstream landowners.
- To prohibit development of flood and erosion susceptible river or stream valleys and shorelines, which may increase hazard risk, create new hazards or aggravate existing hazards that would in future years require expensive protection measures.
- To prevent interference with the hydrologic functions of wetlands throughout the watershed.
- To avoid the degradation and loss of significant natural features and hydrologic and ecological functions in river and stream valleys, wetlands, shorelines and hazardous lands, and promote restoration and enhancement, wherever possible.
- To prevent pollution of surface and ground waters associated with development in river or stream valleys, wetlands, shorelines and hazardous lands.
- To reduce potential nuisances associated with development by limiting the potential for floating objects and debris during flood events.

2.1 Section 28 Policy Intent

The policies and guidelines contained in this document will guide the MRCA in making decisions regarding the outcome of all applications made under *Ontario Regulation 165/06*. This will ensure a consistent, timely and fair approach to the review of applications, staff recommendations and MRCA decisions.

3.0 ONTARIO REGULATION 165/06

3.1 Areas Regulated By *Ontario Regulation 165/06*

Ontario Regulation 165/06 applies to certain natural features on the landscape where if development were permitted to occur, such development could result in a hazard or interfere with the feature's hydrologic function. These landscape features include river or stream valleys, shorelines of inland lakes, hazardous lands and wetlands. The Regulated Area represents the greatest extent of the combined hazards plus a prescribed allowance as set out in the Regulation. Although some of these areas have been mapped according to the criteria and standards approved by the Ministry of Natural Resources and Forestry and Conservation Ontario, not all areas regulated by this Regulation have been mapped. It should be noted that it is not necessary to map a feature before it can be regulated since the legal basis for defining Regulated Areas remains with the written text.

This Regulation applies to hazardous lands, wetlands, shorelines and watercourses.

Hazardous Land means lands that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches or unstable soil or bedrock.

Wetlands are lands that:

- are seasonally or permanently covered by shallow water or has a water table close to or at its surface;
- directly contribute to the hydrological function of a watershed through connection with a surface watercourse;
- has hydric soils, the formation of which has been caused by the presence of abundant water; and
- has vegetation dominated by hydrophytic plants or water tolerant plants, the dominance of which has been favoured by the presence of abundant water.

Wetlands do not include periodically soaked or wet land that is used for agricultural purposes and no longer exhibits a wetland characteristic.

Shorelines and Watercourses applies to all watercourses or parts of watercourses, including lake shorelines, within the Mattagami Region Watershed.

3.2 Activities Regulated by *Ontario Regulation 165/06*

Ontario Regulation 165/06 gives the Conservation Authority the mandate to **prohibit or regulate development** for all Regulated Lands in the Mattagami Region Watershed.

Development is defined as:

- the construction, reconstruction, erection or placing of a building or structure of any kind, as defined under the *Ontario Building Code*, and including retaining walls, docks and pools;
- 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.

The Regulation also gives the authority to **prohibit or regulate alterations** which would result in the straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream, watercourse or changing or interfering in any way with a wetland.

3.3 Activities Deemed to Have Permission by Approval of These Policies

With the exception of activities in wetlands, the MRCA will generally **not require permission for activities** that are considered not to have measurable impacts. These activities include but are not limited to:

- non-habitable accessory buildings associated with existing residential uses less than 10 square metres (108 square feet); *(The Authority encourages that a minimum 7.5 metre setback from the top of slope or the toe of a valley slope and/or a 15 metre setback from the channel bank of any watercourse is maintained.)*
- maintenance and upkeep of existing buildings and structures which do not change the existing footprint (e.g., replacement of windows, siding, roofs, stairs);
- fencing which is considered not to aggravate potential flood or erosion hazards; *(This does not include stone or concrete walls.)*
- unenclosed decks and patios associated with existing uses;
- replacement of existing service connections (e.g., telephone, water, sewer);
- seasonal or floating docks that do not require permanent structures to support them and that can be moved in the event of flooding;
- non-structural agricultural uses such as cropping and pasturing;

- minor works such as landscaping or grading (excavation or filling) in an area of less than 1 hectare (2.5 acres) to a depth of less than 150 mm (6 inches) or a volume of less than 10 cubic metres (13 cubic yards or one standard dump truck load) provided that:
    - a minimum setback of 7.5 metres (25 feet) from the top of slope and a minimum setback of 15 metres (50 feet) from the channel bank of any watercourse is maintained,
    - the filled and re-graded area is immediately stabilized, and,
    - the fill does not have an effect on Regulatory Flood Elevations;
- on-going maintenance to storm water management facilities that would not affect the control of flooding, erosion, pollution or the conservation of land;
- other non-structural uses such as gardens, nurseries, forestry/wildlife management areas and recreational areas;
- alteration of a watercourse with an upstream drainage area of 125 hectares (310 acres) or less, and;
- other minor development activities that, based on the size and scale of the proposal and the specific site conditions, the MRCA determines will not result in a negative impact to flood, erosion or the conservation of land.

Any development that occurs in a Regulated Area requires the permission of the MRCA. Each application will be evaluated on its own merits, on a case-by-case basis and consistent with the policies outlined in the following sections. Development that occurs without the permission of the MRCA is in violation of the *Conservation Authorities Act*. *(See Part B—Policies and Procedures for Compliance with the Development, Interference with Wetlands and Alteration to Shorelines and Watercourses Regulation)*

4.0 POLICIES TO PROHIBIT OR REGULATE DEVELOPMENT

4.1 Background – What Are Hazardous Lands

Hazardous land is defined as land that could be unsafe for development because of naturally occurring processes associated with flooding, erosion, dynamic beaches or unstable soil or bedrock. Other hazardous lands could include organic soils and unstable bedrock. Any development within hazardous land requires permission from the MRCA.

4.1.1 Prohibited Uses

Development, interference or alteration within a Regulated Area will not be permitted except in accordance with the Policies in Sections 5 to 9. In addition, this will also include any development where the use is:

- associated with the disposal, manufacture, treatment, transfer or storage of hazardous substances where their release may pose an unacceptable threat to public safety;
- an institutional use associated with hospitals, nursing homes, pre-school nurseries, day care or schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young;
- associated with essential services such as those provided by fire, police and ambulance stations and electrical substations that may be impaired during an emergency, and;
- associated with the temporary or permanent outdoor storage of any materials.

4.1.2 Permitted Uses

Development, interference or alteration within a Regulated Area may be permitted where it can be demonstrated through appropriate technical studies and/or assessments, site plans and/or other plans as required by the MRCA that:

- the risk to public safety is not increased;
- susceptibility to natural hazards is not increased or new hazards created;
- there are no adverse hydraulic or fluvial impacts on rivers or watercourses;
- there are no adverse impacts on natural shoreline processes;
- the placing and removing of fill is minimized and maintains stage-storage discharge relationships and floodplain flow regimes for a range of rainfall events;
- there are no negative or adverse hydrologic impacts on wetlands;
- pollution, sedimentation and erosion during and after construction is minimized using best management practices including site, landscape, infrastructure and/or facility design, construction controls, and appropriate remedial measures;

- intrusions on significant natural features or hydrologic or ecological functions are avoided, and no adverse impacts to significant natural features or hydrologic or ecological functions will occur;
- groundwater discharge areas which support significant natural features or hydrologic or ecological functions on-site and adjacent to the site are avoided;
- groundwater recharge areas which support significant natural features or hydrologic or ecological functions on-site and adjacent to the site are maintained or enhanced;
- access for emergency works and maintenance of flood or erosion control works is available, and;
- the control of flooding, erosion, dynamic beaches, pollution or the conservation of land is not adversely affected during and post development.

Notwithstanding the above, development, interference or alteration in a Regulated Area may be permitted subject to the supplementary policies or the stand-alone policies as specified in Sections 5 to 9 and as outlined in *Appendix B: Flood proofing Guidelines.*

4.1.3 Safe Access - Consideration of Ingress/Egress

The ability for the public and emergency operations personnel to access safely a property during a flooding or erosion event is paramount and therefore a key consideration in the review of a development application under this Policy and Guideline. Ingress and egress should be "safe" pursuant to the *River & Stream Systems: Flooding Hazard Limit Technical Guide (MNR 2002).* Safety risks are a function of both the occupancy of the structure and the available access routes during an emergency. *(See Appendix B-2)*

According to the *River & Stream Systems: Flooding Hazard Limit Technical Guide (MNR 2002),* the maximum acceptable depth for access by a **vehicle** or by a **pedestrian** is 0.3 metres (1 foot) with an acceptable flow velocity of 1.7 metres per second. For an existing lot of record, the standard changes to a maximum depth of 0.8 metres (2 feet) with a maximum velocity of 0.5 metres per second.

5.0 RIVERINE FLOODING HAZARDS

Flooding typically occurs during the spring melt from late April to early June or throughout the summer months as a result of extreme rainfall events. Generally, the larger river systems such as the Mattagami River and the Porcupine River are susceptible to spring flooding while the smaller watercourses such as Town Creek and Crawford Creek pose a hazard during intense, short duration rainfall events. Flooding is also associated with channel icing and beaver dams.

For the Mattagami Region Watershed, the Riverine Flooding Hazard is based on the 1 in 100 Year Return Period Flood for the Mattagami River and the Timmins Storm event for all other watercourses.

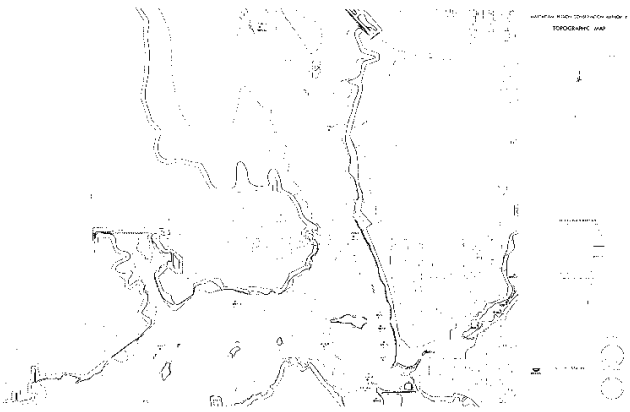

Figure 3: Regulation Mapping

Mapping of the riverine hazard within the City of Timmins was originally undertaken in 1974 by M. M. Dillon who mapped out the main flood centres throughout the watershed including the Mattagami River, the Mountjoy River, Kraft Creek, Town Creek, Kamiskotia Lake, Porcupine Lake and River and Pearl Lake. This mapping was updated in 2019 by Greenland Consulting. Mountjoy Township watercourses, excluding the Mattagami River, previously unmapped, were mapped in 2013 by Calder Engineering.

5.1 One-Zone Area

The MRCA has implemented a One-Zone Policy Area as per the Provincial Technical Guidelines. In a One-Zone Policy Area, the entire Regulatory Floodplain is considered the Floodway. For the Mattagami River, the 1 in 100 Year Return Period Flood defines the Flooding Hazard Limit/Floodway. For all other watercourses, the Timmins Storm Event defines the Regulatory Flood Line.

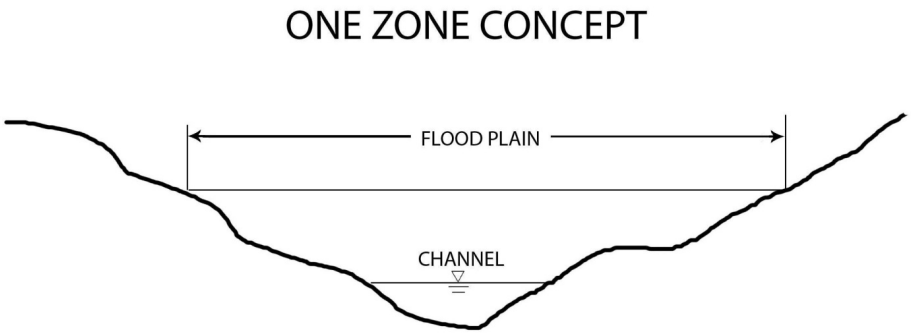

Figure 4: In a One-Zone Policy Area the entire Floodplain as defined by the Regulatory Flood is considered the Floodway and as such delimits the area where development is prohibited or restricted

5.2 Conditional Development Zones (CDZs)

The MRCA originally identified two Conditional Development Zones (CDZ) when Regulation 165/06 was approved in 2014. In these zones, limited or conditional development may occur and will be addressed on a case-by-case basis to ensure no adverse impacts occur adjacent to, or within the identified flood plain. These CDZs are located on the Mattagami River and on Porcupine Lake and fall under the policies listed in Section 5.3.10—Exceptions.

Conditional Development Zones have been established for both Riverside Drive and Bristol Road. The Riverside Drive CDZ includes the south side between Shirley Street and Girouard Road for a distance of 82 metres (270 feet) from the front lot line and the north side between Clifford Street and Joseph Street. The Bristol Road CDZ is that area between Bannerman Street (now Rekela St.) and Florence Street.

CONDITIONAL DEVELOPMENT ZONES

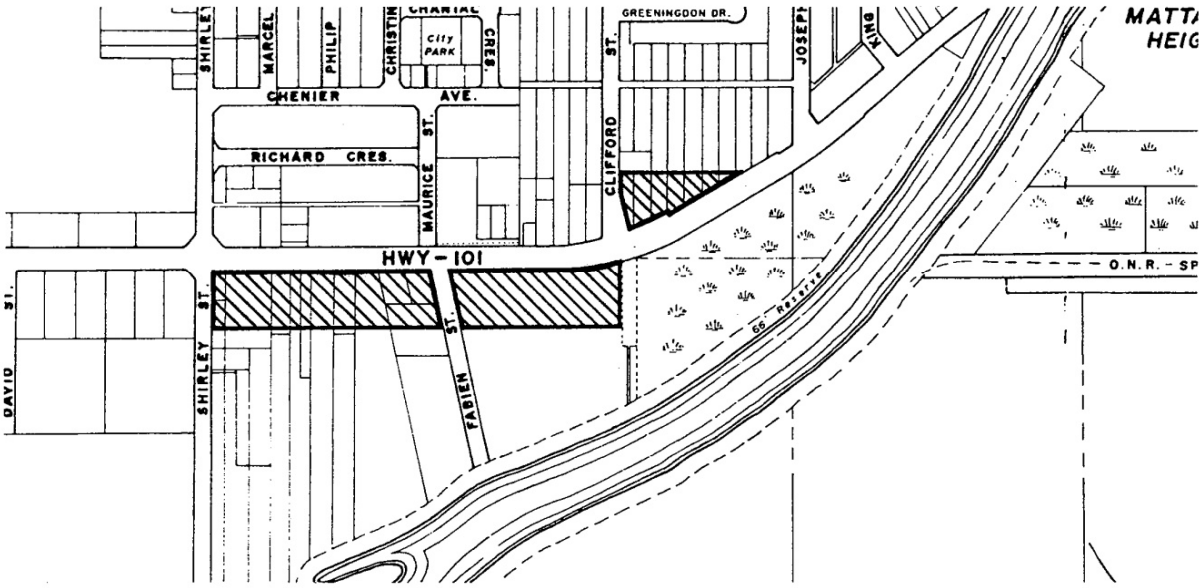

Figure 5: Riverside Drive Conditional Development Zone

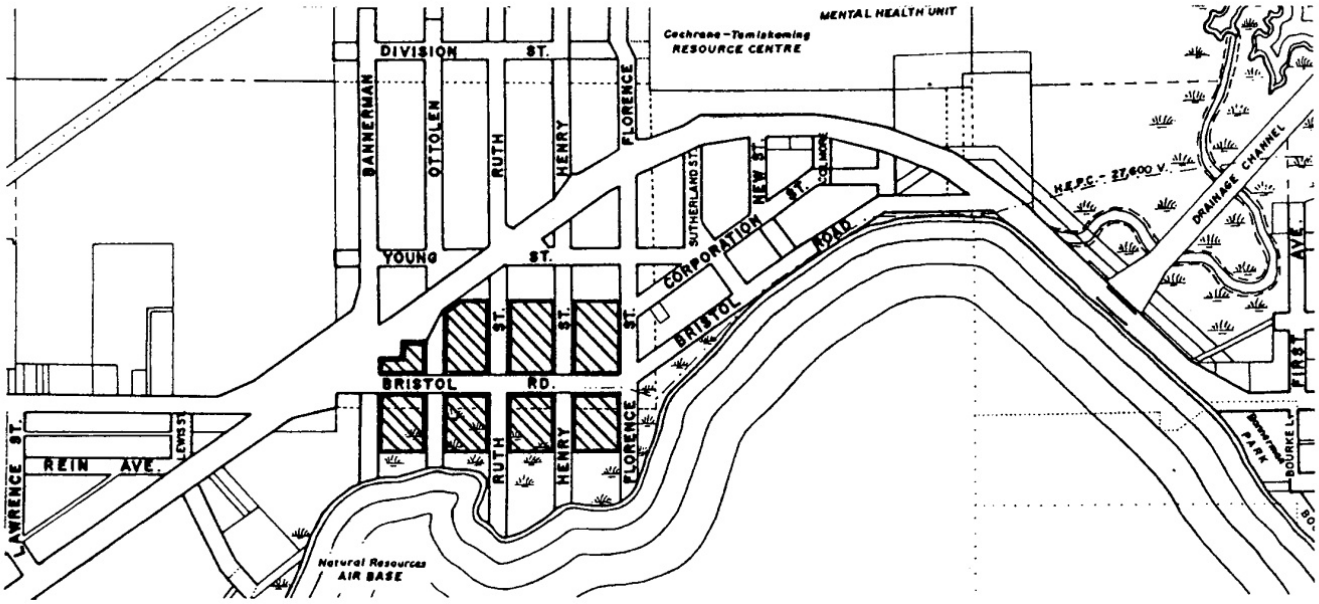

Figure 6: Bristol Road Conditional Development Zone

5.3 Policies for One-Zone Policy Areas

The following policies apply to development proposed in a One-Zone Policy Area subject to a Riverine Flooding Hazard.

Development will not be permitted within the Riverine Flooding Hazard except in accordance with the policies listed in Section 3.3 and those listed within Sections 5.3.1 to 5.3.10. These policies are supplemented with information in Appendix B—Flood proofing Guidelines.

5.3.1 Existing Uses

Development associated with existing uses located within a Riverine Flooding Hazard may be permitted where it can be demonstrated that:

- there is no feasible alternative site outside the Riverine Flooding Hazard;
- the site is not subject to frequent flooding;
- ingress and egress is "dry" where this standard can be practically achieved, or flood proofed to an elevation which is practical and feasible, but no less than "safe"; *(See Section 4.1.3—Safe Access)*
- flood proofing is undertaken to the extent practical, where flood proofing to the elevation of the Regulatory Flood is not technically feasible, and;
- there is no risk of structural failure due to potential hydrostatic/dynamic pressures.

5.3.2 Residential

Ground Floor Additions to an existing residential structure may be permitted where it can be demonstrated that:

- the addition is 50 per cent or less of the original habitable ground floor area to a maximum footprint of 46.5 m^2 (500 ft^2) or in the case of multiple additions, all additions combined are equal to or less than 50 per cent of the original habitable ground floor area to a maximum footprint of 46.5 m^2 (500 ft^2);
- the number of dwelling units is the same;
- all habitable floor space as well as any attached garage has a finished floor elevation that is a minimum .3 metres (1 foot) above the Regulatory Flood Elevation;
- there is no basement for any addition, and any crawl space is non-habitable, designed to facilitate services only, and is no greater than 120 cm (48 inches) in height;
- the addition will not be subject to flows that could cause structural damage, and ;
- a site plan is submitted by a qualified professional showing elevations of existing and proposed grades and lowest openings of existing and proposed structures.

The 50 per cent addition guideline is applicable only once to any given property and will be based on all previous approvals issued by the Conservation Authority.

Additional Stories may be permitted where it can be demonstrated that the number of dwelling units is the same.

Replacement of residential structures damaged or destroyed by causes other than flooding may be permitted provided that:

- the structure to be replaced is relocated outside the Riverine Flooding Hazard or where this is not feasible the structure is relocated to an area where the risk of flooding and property damage is reduced to the greatest extent possible;
- the number of dwelling units is the same;
- the new structure is the same size or larger to a maximum of 50 per cent of the original habitable ground floor area to a maximum footprint of 46.5 m^2 (500 ft^2);
- the foundation of the structure is of a “slab on grade” design with no basement or crawl space and with a minimum elevation of .3 metres (1 foot) above the Regulatory Flood Elevation;
- ingress and egress is “dry” where this standard can be practically achieved, *(See Section 4.1.3),* and;
- there is no risk of structural failure due to potential hydrostatic/dynamic pressures.

The 50 per cent addition guideline is applicable only once to any given property and will be based on all previous approvals issued by the Conservation Authority. The replacement or reconstruction of those structures substantially damaged or destroyed by natural flooding will be considered as new construction and the corresponding policies for new buildings shall apply.

Relocation of existing residential structures may be permitted provided that the risk of flooding and property damage is reduced to the greatest extent wherever possible, through the relocation.

Non-Habitable Accessory Structures that are associated with an existing residential/seasonal use including detached garages, tool sheds, on-shore boathouses, etc., may be permitted provided that:

- the structure is located as far away from the shoreline as possible where flood flows are reduced, or if available, on non-flooding lands on the same land parcel;
- the structure is used for purposes of storage, horticulture or other uses which complement the residential nature of the property;
- the accessory structure is larger than 9.3 m^2 (100 ft^2) but less than 58 m^2 (600 ft^2) in size;
- only one accessory structure shall be allowed per residential dwelling;
- the structure is securely anchored to either a concrete pad or footings, such that it does not become a floating hazard during times of high water;
- flood proofing measures are undertaken to the greatest extent that is practical;
- where dry flood proofing cannot be achieved, wet flood proofing will be undertaken in accordance with flood proofing standards;
- there is no habitable floor space associated with the structure, and;
- there no is opportunity for conversion into habitable floor space in the future.

Above or Below Ground Swimming Pools will not be permitted in the Floodway.

Portable (Mobile) Structures will not be permitted in the Floodway with the exception of those activities listed in Section 5.3.10—Exceptions.

Single Lots of Record will be permitted to be developed within a Floodway provided that:

- there is no feasible alternative site outside the flooding hazard;
- the site is not subject to frequent flooding;
- a balanced cut and fill can be implemented to provide a suitable building envelope outside the hazard;
- safe access is present;
- the dwelling is flood proofed to 0.3 metres above the Regulatory Flood Elevation; and
- no basement is proposed and any crawl space is for services only.

New multiple residential development will not be permitted within a flooding hazard regardless of previous approvals provided under the *Planning Act*.

5.3.3 Rural Residential

Non-Habitable Accessory Structures associated with an existing rural residential structure may be permitted in accordance with the policies set out in Section 5.3.2—Residential and, where applicable, Section 5.3.1—Existing Uses and where it can be demonstrated that the structure is greater than 9.3 m^2 (100 ft^2) but less than 58 m^2 (600 ft^2) .

5.3.4 Commercial/Industrial/Institutional

Additions and Non-Habitable Accessory Structures may be permitted in accordance with the policies set out in Section 5.3.2—Residential and, where applicable, Section 5.3.1—Existing Uses for these specific development activities and where it can be demonstrated that the structure is greater than 9.3 m^2 (100 ft^2) but less than 58 m^2 (600 ft^2). As well, it must be demonstrated that the cumulative impact of multiple accessory structures on the subject property is negligible.

Parking Lots associated with non-residential uses located wholly or partially within the Riverine Flooding Hazard may be permitted and where it can be demonstrated that the risk to property damage is minimized through site design and the implementation of flood emergency plans. This includes the ability to provide sufficient flood warning so that all vehicles can be quickly and safely removed to non-flooding lands when required to do so. As such, parking lots would not be permitted on the smaller watercourses like Town Creek and Crawford Creek.

5.3.5 Renovation/Conversion of Use

Renovation or conversion of an existing residential use to a commercial or industrial use will generally be permitted. In order to restrict the creation of new dwelling units, the conversion of a structure from a non-residential use to residential will not be permitted.

5.3.6 Storm Water Management

Storm water management facilities may be permitted within the Riverine Flooding Hazard but outside of the Riparian Zone or effective flow area, whichever is greatest, in accordance with the policies in Section 4.1.2—General Policies—Permitted Uses, provided that there is no feasible alternative site outside the Riverine Flooding Hazard and where it can be demonstrated that:

- there is no loss of flood storage;
- natural erosion and sedimentation processes within the receiving watercourse are not impacted, and;
- where unavoidable, intrusions on significant natural features and hydrologic and ecological functions are minimized and that best management practices for site and infrastructure design have been incorporated.

5.3.7 Public Infrastructure

Public infrastructure, including but not limited to roads, sanitary sewers, utilities, water and sewage treatment plants, water supply wells and pipelines, may be permitted in accordance with the policies in Section 4.1.2—General Policies—Permitted Uses, provided that there is no feasible alternative site outside the Riverine Flooding Hazard as determined by studies provided by the proponent, and where it can be demonstrated that:

- adverse hydraulic or fluvial impacts are limited and any risk of flood damage to upstream or downstream properties is not increased or minimized through site design;
- there is no loss of flood storage wherever possible, and;
- where unavoidable, intrusions on significant natural features and hydrologic and ecological functions are minimized and that best management practices for site and infrastructure design have been incorporated.

5.3.8 Recreational Uses

General Recreational Uses such as passive parks, trails, seasonal campgrounds, river access points and other uses deemed appropriate by the MRCA may be permitted in accordance with the policies in Section 4.1.2—General Policies—Permitted Uses, and Section 5.3.10—Exceptions, and where it can be demonstrated that:

- there is no feasible alternative site outside the Riverine Flooding Hazard;
- there is no loss of flood storage;
- where unavoidable, intrusions on significant natural features and hydrologic and ecological functions are minimized and that best management practices for site and infrastructure design have been incorporated;
- the risk to property damage is minimized through site and facility design and flood emergency plans, and;
- where dry flood proofing cannot be achieved, wet flood proofing will be undertaken in accordance with the flood proofing standards identified in *Appendix B—Flood proofing Guidelines*.

Marinas and Permanent Docks may be permitted in accordance with the policies in Section 4.1.2—General Policies—Permitted Uses, and where it can be demonstrated that:

- there is no measurable loss of flood storage;
- where unavoidable, intrusions on significant natural features and hydrologic and ecological functions are minimized and that best management practices for site and infrastructure design have been incorporated;
- facilities are designed to take advantage of existing impacted or open space areas on the channel bank, wherever possible;
- the risk to property damage is minimized through site and facility design and flood emergency plans;
- there is no habitable floor space associated with any of the structures, and;
- where dry flood proofing cannot be achieved, wet flood proofing will be undertaken in accordance with the flood proofing standards identified in *Appendix B—Flood proofing Guidelines.*

Golf Courses or Golf Course Expansions may be permitted in accordance with the policies in Section 4.1.2—General Policies—Permitted Uses, and where it can be demonstrated that:

- all associated permanent, closed structures including clubhouses, washrooms with septic systems and maintenance buildings are located outside of the Riverine Flooding Hazard;
- there is no loss of flood storage;
- the risk of property damage is minimized through site and facility design and flood emergency plans, and;
- the risk of pollution from the application of fertilizers and pesticides or other organic compounds is minimized and addressed in a turf management plan.

5.3.9 Agricultural Uses

Additions to existing agricultural buildings or structures may be permitted in accordance with the policies in Section 5.3.1—Policies for One-Zone Policy Areas—Existing Uses, and where it can be demonstrated that:

- the addition is 50 per cent or less of the original ground floor area of the structure or in the case of multiple additions, all additions combined are equal to or less than 50 per cent of the original ground floor area of the structure;
- no basement is proposed and any crawl space is designed to facilitate services only, and;
- a site plan has been submitted by a qualified professional showing elevations of existing and proposed grades and lowest openings of existing and proposed structures.

Accessory Structures associated with agricultural uses may be permitted in accordance with the policies in Section 5.3.1—Policies for One-Zone Policy Areas—Existing Uses, and where it can be demonstrated that:

- the structure is located as far as away from the river shoreline as possible where flood flows are reduced, or if available, on non-flooding lands on the same lot or parcel of land;
- electrical, mechanical and heating services are located above the level of the Regulatory Flood, wherever possible;
- the accessory structure is larger than 9.3 m^2 (100 ft^2) but less than 58 m^2 (600 ft^2) in size;
- the cumulative impact of multiple accessory structures on the subject property is negligible;
- the structure has no basement and is securely anchored such that it does not become a floating hazard during times of high water, and;
- flood proofing is undertaken to the greatest extent that is practical.

Replacement of agricultural structures greater than 100 m^2 (1076 ft^2) damaged or destroyed by causes other than flooding may be permitted in accordance with the policies in Section 4.1.2—General Policies—Permitted Uses, and where it can be demonstrated that:

- the structure to be replaced is relocated outside the Riverine Flooding Hazard or where this is not feasible, the structure is relocated to an area within the existing lot where the risk of flooding and property damage is reduced to the greatest extent possible, wherever possible;
- the new structure is the same size or larger to a maximum of 50 per cent of the original habitable ground floor area;
- the structure is flood proofed to an elevation of .3 metres (1 foot) above the Regulatory Flood Elevation;
- the structure is of a “slab on grade” design with no basement or crawl space;
- ingress and egress is “dry” where this standard can be practically achieved, *(See Section 4.1.3—Safe Access),* and;
- there is no risk of structural failure due to potential hydrostatic/dynamic pressures.

The 50 per cent addition guideline is applicable only once to any given property and will be based on all previous approvals issued by the Conservation Authority. The replacement or reconstruction of those structures substantially damaged or destroyed by natural flooding will be considered as new construction and the corresponding policies for new buildings shall apply.

Relocation of existing agricultural structures greater than 100 m^2 (1076 ft^2) may be permitted in accordance with the policies in Section 5.3.1—Policies for One-Zone Policy Areas—Existing

Uses, provided that the risk of flooding and property damage is reduced to the greatest extent wherever possible through relocation.

5.3.10 Exceptions

Development may be permitted in a Conditional Development Zone (CDZ) *(See Section 5.2—Conditional Development Zones)* that is located within the Riverine Flooding Hazard provided that:

- the building is of a "slab on grade" design with no basement/crawl space;
- the slab is constructed at a minimum finished elevation of .3 metres (1 foot) above the Regulatory Flood Elevation;
- ingress and egress to the building site is "dry" where this standard can be practically achieved. *(See Section 4.1.3—Safe Access);*
- for the Bristol Road CDZ, any fill apron around the foundation of the building can extend to a maximum of 4.5 metres (15 feet) into the Riverine Flooding Hazard. This apron must be graded up to at least the Regulatory Flood Elevation and be graded away from the foundation slab, and;
- for the Riverside Drive CDZ, any new structure and the fill required for the development must be located as closely as possible to non-flooding lands.

Development of certain temporary (seasonal) water-based commercial uses including campgrounds and water-based rental businesses may be permitted in the Riverine Flooding Zone provided that:

- there is no feasible alternative site outside the Riverine Flooding Hazard;
- there is no loss of flood storage;
- where unavoidable, intrusions on significant natural features and hydrologic/ecological functions are minimized and that best management practices for site and infrastructure design have been incorporated;
- the risk to property damage is minimized through site and facility design, the development of a flood emergency plan, and the removal of all temporary structures when there is a risk of flooding, and;
- a site development agreement addressing annual start and finish dates of occupation, site and facility design and permitted uses be entered into with the Conservation Authority and the City of Timmins and placed on title, the costs of which will be borne by the applicant.

5.4 Policies for Fill Placement, Excavation and Grading

The placement, excavation and grading of fill is generally not permitted within the One-Zone Policy Area or the Floodway of a watercourse. However, where it is permitted by other policies in this document including but not restricted to minor landscaping, road maintenance or flood proofing structures, the following conditions apply. Filling activities include excavations, stockpiling, site grading, installation of sewage disposal systems and other grade altering activities.

- Fill placement may be considered on Floodplain lands only if Floodplain storage volume impacts are addressed and upstream and downstream water levels and/or flow velocities related to increased flood risk or damage are unaffected. An acceptable hydraulic analysis may be required, at the discretion of the Authority, to ensure that these matters have been addressed.
- Fill placement, excavation and lot grading activities must not adversely affect the flood and/or erosion susceptibility of buildings or properties located at the fill site, or upstream or downstream of the fill site.
- Controls will be required to ensure that sediment transport from the fill site into adjacent watercourse, wetlands and other water bodies shall not occur. These controls must be in place before and during construction and until the site is permanently stabilized.
- For Regulated Areas in which permanent fill placement, fill excavation or lot grading activities could result in slope instability, geotechnical analysis may be required at the landowner/applicant's expense.
- Permitted fill placement, excavation and lot grading activities may be seasonally restricted and subject to a specified time frame. Only clean fill may be placed.
- Upon completion of a permitted fill placement, excavation and lot grading activities, the landowner/applicant may be required to submit a plan to the MRCA showing that finished grades are in accordance with the grading plan approved by the Authority. This plan shall be prepared and certified by a professional Engineer or Ontario Land Surveyor and must be referenced to geodetic datum. This submission must be received within 30 days following completion of the fill operation.
- Fill placement, excavation and lot grading activities will not be permitted where it may result in pollution and/or adversely affect conservation of land.
- The MRCA may waive any of the above requirements where there will clearly be no detrimental effects on the control of flooding, pollution or the conservation of land.
- Fill placement, excavation and lot grading activities for septic systems must be limited to the required area and depths as specified by the approving agency under Part 8 of the *Ontario Building Code*.

- Under certain circumstances an incrementally balanced cut and fill operation may be considered in situations where:
    - the loss of Floodplain storage volume within the Floodplain which will result from the placement of fill shall be fully compensated for by an incrementally balanced cut (or excavation) to be carried out in close proximity to and concurrently with the placement of the fill;
    - the area of the proposed cut or fill zones will be equal to one another;
    - safe access is available, and;
    - the resulting development meets all flood proofing requirements contained in the policies in this document.

6.0 RIVERINE EROSION HAZARDS

Erosion is the process of soil loss due to human or natural processes. The Riverine Erosion Hazard within river or stream valleys is that area of river bank and lands adjacent to watercourses where erosion is actively occurring and/or where development could create slope stability issues.

The Riverine Erosion Hazard applies to those portions of the valley land system that are both Apparent (confined) and Not Apparent (unconfined). The extent of the hazard varies and is dependent on the type of soil, general slope stability, and whether or not active erosion is occurring.

6.1 River Bank and Steep Slope General Policies—Apparent Valley

An Apparent Valley system may consist of a river or stream valley where:

- Condition One—the slopes are stable
- Condition Two—the slopes are unstable but the toe of slope is stable
- Condition Three—the slopes are unstable and there is active toe erosion

As shown in the Figures below, the regulation limit of banks associated with these types of watercourses is based on three components: an erosion allowance; a stable slope limit; and a 15-metre allowance setback. Where the criteria for determining the hazard limits are deemed insufficient or where the identified setbacks come into question, a geotechnical slope evaluation by a Professional Engineer may be required, at the landowner's/applicant's expense, for any new development in the vicinity of a steep bank or slope.

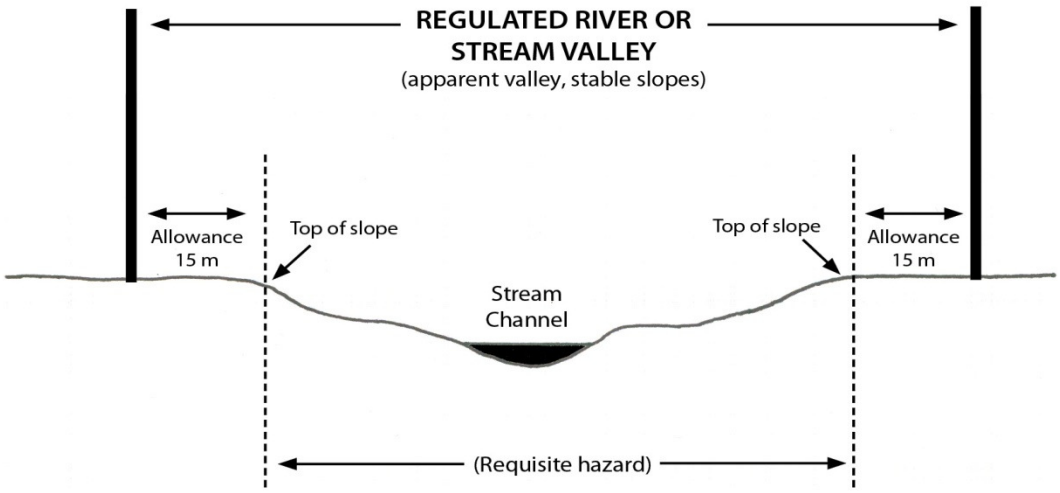

Figure 7: Condition One—Apparent (Confined) River or Stream Valley Where Valley Slopes are Stable

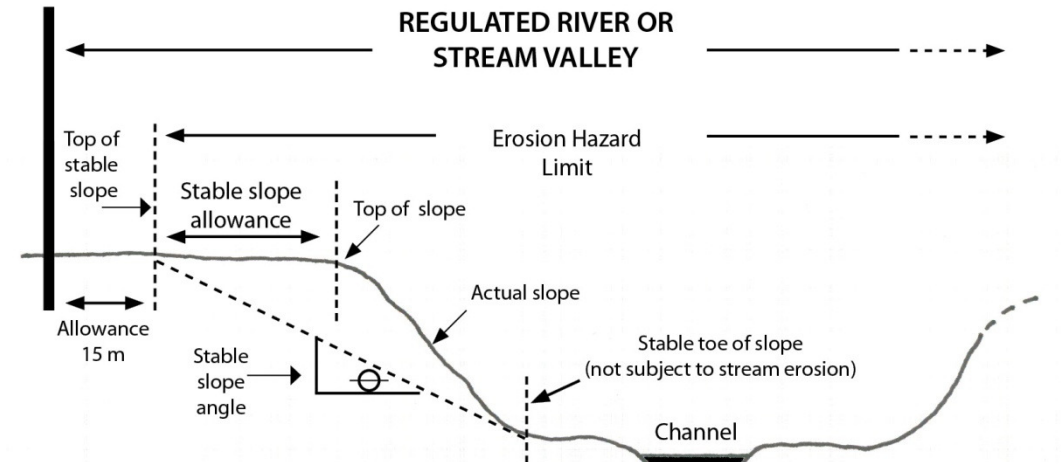

Figure 8: Condition Two-Apparent (Confined) River or Stream Valley Where Valley Slopes are Unstable but Toe of Slope is Stable

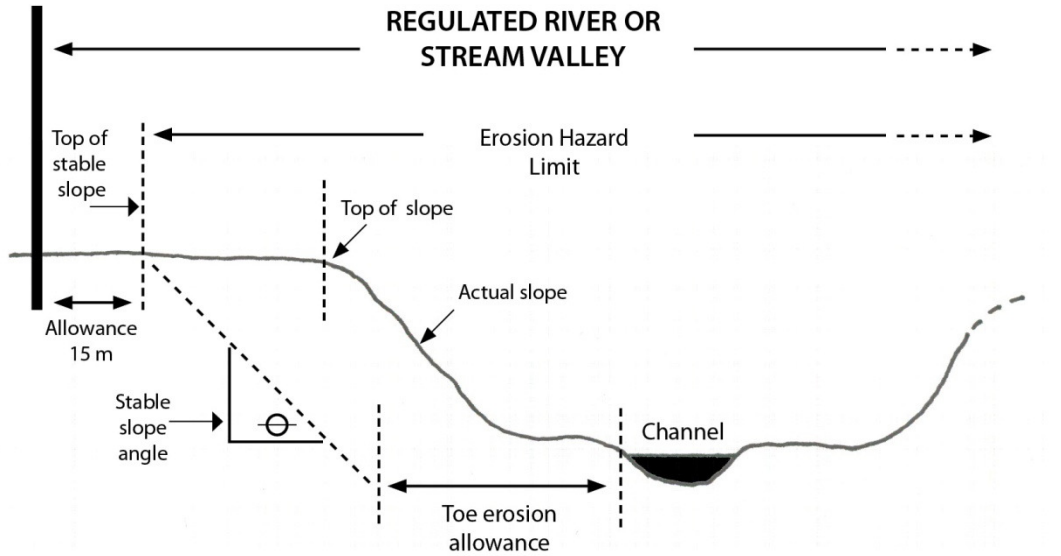

Figure 9: Condition Three-Apparent (Confined) River or Stream Valley Where Valley Slopes are Unstable with Active Toe Erosion

6.1.1 Development within the 15 Metre Allowance

Development may be permitted within the 15-metre allowance, without the need for a geotechnical assessment, subject to information and site plans being submitted that demonstrates:

- the development does not create or aggravate an erosion hazard;
- the development is set back a sufficient distance from the stable top of bank to avoid increases in loading forces on the top of slope;
- the development does not prevent access to and along the top of the valley slope;
- the development does not change drainage or vegetation patterns that would compromise slope stability or increase erosion of the slope face;
- the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/restoration plans;
- natural features and/or ecological functions contributing to the conservation of land are protected, pollution is prevented and flooding hazards have been adequately addressed, and;
- if the above requirements cannot be met to the satisfaction of the Conservation Authority, it may be a requirement that a geotechnical assessment by a qualified accredited professional be carried out at the landowner's cost.

To ensure that slope stability will not be compromised, standard mitigation measures may be required as part of the submitted plans and/or as conditions of approval. They may include:

- measures to address potential drainage impacts;
- requirements to ensure that access for emergency and maintenance purposes to and along the top of slope is maintained, and;
- stabilization and/or sediment control measures to prevent surficial erosion.

Plans should be designed to maintain an access allowance along the stable top of bank for emergency and maintenance access. This allowance should be 6 metres from the stable top of slope as per Provincial Technical Guidelines.

6.1.2 Development within the Erosion Hazard

Development Not Permitted

Development will not be permitted within the Erosion Hazard of an Apparent River Valley including:

- any uses associated with the disposal, manufacture, treatment, transfer or storage of hazardous substances where their release may pose an unacceptable threat to public safety;
- any institutional use associated with hospitals, nursing homes, pre-school nurseries, day care or schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young, and;
- any uses associated with essential services such as those provided by fire, police and ambulance stations and electrical substations that may be impaired during an emergency.

Permitted Development

Development may be permitted within the Erosion Hazard if it has been adequately demonstrated that the control of flooding, erosion, pollution or the conservation of land will not be affected. This may include:

- development associated with public parks that is of low impact;
- minor development associated with existing uses as per the applicable policies under the section including minor additions, replacement of structure, etc.;
- minor removal and placement of fill and site grading;
- stream bank, slope and valley stabilization to protect existing development or conservation or restoration projects, subject to the activity being approved under a satisfactory Environmental Assessment;
- public infrastructure and various utilities subject to the activity being approved under a satisfactory Environmental Assessment, and;
- the provisions of safe access are met.

New Buildings

No new buildings will be permitted within the Erosion Hazard of an Apparent River or Stream Valley. If there is insufficient space for a new building outside the stable slope limit, a minor encroachment may be permitted after the completion of a geotechnical assessment has been carried out at the landowner's expense by an accredited professional. This new development must incorporate all structural and drainage requirements contained in the assessment.

Additions to Existing Building

An addition to an existing building within the stable slope allowance but outside of the toe erosion allowance may be permitted provided that:

- the size of the minor addition does not exceed 50 % of the original gross floor area or 50 square metres whichever is less;
- the addition does not extend any further into the stable slope limit than the existing building;
- the addition does not extend into the toe erosion allowance, and;
- a geotechnical assessment completed by a qualified accredited professional has been carried out at the landowner's expense to confirm that the lot can be safely developed.

The 50 per cent addition guideline is applicable only once to any given property and will be based on all previous approvals issued by the Conservation Authority.

Reconstruction/Replacement of an Existing Building

The reconstruction or replacement of a building within the Erosion Hazard of an Apparent River or Stream Valley may be permitted provided that it has not been damaged or destroyed by erosion. It must also be demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution or conservation of land will not be affected. The submitted plans should demonstrate that the new building has been designed including the conditions that:

- it cannot be relocated to an area outside the Erosion Hazard and if there is no feasible alternative site that it is located in an area of lowest acceptable risk;
- it will be protected from the Erosion Hazard through the incorporation of appropriate building design;
- the replacement does not encroach any closer to the stable top of bank than the existing development at its closest point;
- the replacement structure must be situated at least 6 metres from the top of bank to provide for an erosion access allowance, and;
- a geotechnical study may be required at the expense of the landowner by a qualified engineer to determine the location of the stable top of bank and to determine if the proposed development will have a negative impact on slope stability.

Sewage Disposal Systems

The replacement of a sewage disposal system may only be permitted within the Erosion Hazard zone of an Apparent River or stream valley when it can be demonstrated that:

- there is no feasible alternative location outside of the Erosion Hazard;
- the septic system does not extend into the toe erosion allowance and it is located in the area of lowest risk;
- a geotechnical assessment is completed to demonstrate that the development activities will not aggravate the hazard and that the slope is stable enough to support the development that is proposed;
- the design of the system must incorporate all structural, landscaping and surface drainage requirements that were recommended through the geotechnical assessment, and;
- a new sewage disposal system shall not be permitted within the Erosion Hazard of an Apparent River or Stream Valley.

Access, Driveways and Private Roads

The development of access roads and driveways to access non-hazardous lands may be permitted within an Erosion Hazard Zone provided that there is no viable alternatives outside the Regulated Area and the provisions for safe access are addressed. Depending on the site characteristics, a geotechnical assessment may be required demonstrating that the development activities will not aggravate the hazard and that the slope remains stable.

Fill Placement, Excavation or Grading Activities

Minor lot grading, excavation or placing of fill may be permitted when undertaken in association with the activities listed above or in association with slope stabilization, erosion control or flood proofing works. A geotechnical assessment may be required depending on the site characteristics and the scale of the undertaking.

Swimming Pools

Swimming pools shall not be permitted within the Erosion Hazard of an Apparent River or Stream Valley.

6.2 Meander Belt (Erosion Hazard) General Policies—Not Apparent Valley

Where there is a Not Apparent Valley, the flow of water is free to shift across the shallower land. Although toe erosion and slope stability are not deemed potential hazards, consideration for the meandering tendencies of the system must be provided. In these valley sections, the

Regulated Area is the greater of the extent of the Riverine Flooding Hazard plus the prescribed allowance or the Meander Belt Allowance plus an allowance of 15 metres or 50 feet. The Meander Belt Allowance provides a limit to development within the areas where the river system is likely to shift. This allowance is based on twenty (20) times the bank full channel width, where the bank full channel width is measured at the widest riffle section of the reach. A riffle is a section of shallow rapids where the water surface is broken by small waves. The Meander Belt is centered over the channel.

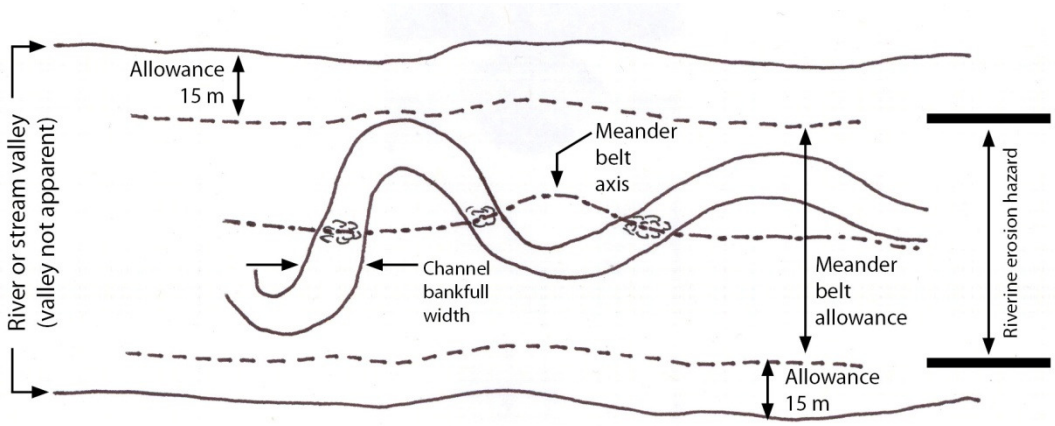

Figure 10: Riverine Erosion Hazard – Regulated Area (Not Apparent Valley)

6.2.1 Development within the Adjacent Allowance – Not Apparent Valley

Development Not Permitted

The following policies apply to the allowance adjacent to the Erosion Hazard associated with Not Apparent Valleys.

- No new development shall be permitted within the Meander Belt of a Not Apparent River or Stream Valley with the exception of those listed in this policy.
- Development associated with institutional uses, emergency services and uses associated with hazardous substances shall not be permitted.
- Storm water management facilities and stabilization works to allow for future/proposed development or to provide for an increase in the development area will not be permitted.

Development Permitted

Development may be permitted within the Erosion Hazard if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution or the conservation of land will not be affected. The submitted plans should demonstrate that:

- the development does not create or aggravate the Erosion Hazard;
- the development does not prevent access to and along the Meander Belt;
- the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/restoration plans, and;
- natural features and/or ecological functions contributing to the conservation of land are protected, pollution is prevented and flooding hazards have been adequately addressed.

Development associated with the following activities/uses may be permitted within the Erosion Hazard subject to the activity being approved through a satisfactory Environmental Assessment process (if required). They include:

- development associated with public parks including trail systems and outdoor recreation;
- public infrastructure such as road and sewers and various utilities;
- bank and slope stabilization to protect existing development or a conservation or restoration project, and;
- minor removal of fill or placement of fill or site grading.

Access through the Erosion Hazard

Development associated with the construction of a driveway or access way through the Erosion Hazard of an Apparent River or Stream Valley in order to provide access to lands outside the valley may be permitted where it has been demonstrated that there is no viable alternative outside of the Regulated Area.

Development Associated With Existing Uses

Development associated with existing uses located within the Meander Belt, such as minor additions, non-habitable accessory buildings, pools, landscaping retaining walls, grading, etc., may be permitted where it can be demonstrated to the satisfaction of the Conservation Authority that:

- there is no feasible alternative site outside of the Meander Belt and the proposed development is located in an area of least and acceptable risk;

- the development will not prevent access into and through the Meander Belt in order to undertake preventative actions/maintenance or during an emergency;
- the development will have no negative impacts on natural stream meandering/fluvial processes;
- the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization plans;
- natural features and ecological functions contributing to the conservation of land are protected, pollution is prevented and flooding hazards have been adequately addressed;
- non-habitable structural development would not be susceptible to stream erosion, and;
- minor additions to habitable structures would not be susceptible to stream erosion.

Reconstruction/Relocation of a Building

Development may be permitted for the reconstruction or relocation of a building within the Meander Belt provided that it has not been damaged or destroyed by erosion and that it has been demonstrated to the satisfaction of the Conservation Authority that:

- the structure cannot be relocated to an area outside the Erosion Hazard, and, if there is no feasible alternative site that is located in an area of least and acceptable risk;
- the structure will be protected from the Erosion Hazard through incorporation of appropriate building design parameters, and;
- the original habitable floor area or the original footprint area does not exceed that of the previous structure.

7.0 WETLANDS AND AREAS OF INTERFERENCE

7.1 Wetlands

Wetlands are important natural features on the landscape, whether permanently or seasonally wet. They moderate water flow by absorbing much of the surface water runoff from the land and then slowly releasing it. This helps to reduce flooding and to sustain stream flows during dry spells. Many wetlands recharge groundwater by moving surface water into the groundwater system. Other benefits include protecting and improving water quality, providing habitat for fish and wildlife, and providing recreational opportunities. The lands which surround wetlands are also important to sustaining their essential hydrologic and ecological functions.

Wetlands are defined in the *Conservation Authorities Act* as lands with the following characteristics.

- The land is seasonally or permanently covered by shallow water or has a water table close to or at the surface.
- It contributes directly to the hydrological function of a watershed through connection with a surface watercourse.
- The soils are hydric, the formation of which has been caused by the presence of abundant water.
- The land has vegetation dominated by hydrophytic plants or water tolerant plants, the dominance of which has been favoured by the presence of abundant water.

For the Mattagami Region Watershed Area, wetland evaluations have been completed for:

- Porcupine Lake and River Complex
- Frederick House River
- Driftwood River
- Gold Lake
- Carmen Bay
- Moose Lake
- Little Goose Creek
- Kraft Creek/Murphy Creek

7.2 Areas of Interference

The areas surrounding wetlands where development could interfere with the hydrological function of the wetland are called Areas of Interference. These areas include:

- lands that are 120 metres (394 feet) from the boundaries of Provincially Significant Wetlands (as identified and approved by the Ontario Ministry of Natural Resources and Forestry);
- lands that are 120 metres (394 feet) from the boundaries of non-Provincially Significant wetlands greater than 2 hectares in size; and

- lands that are 30 metres (100 feet) from non-Provincially Significant Wetlands less than 2 hectares in size.

These areas may be adjusted where detailed hydrological studies define a more accurate area of interference. Any development or interference within wetlands or development in Areas of Interference requires the permission of the Conservation Authority.

7.3 Policies for Wetlands and Areas of Interference

Development / Interference within a wetland or development within an area of interference will not be permitted except in accordance with the following policies.

- In general, development and interference shall not be permitted within wetlands.
- In general, ponds and drains shall not be permitted within wetlands.
- In general, storm water management facilities shall not be permitted within wetlands.
- Interference with a wetland north of Ecoregions 5E, 6E, and 7E may be permitted if the interference on the natural features and hydrologic and ecological functions of the wetland has been deemed to be acceptable by the Conservation Authority.
- Development within wetlands north of Ecoregions 5E, 6E, and 7E may be permitted if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution or the conservation of land will not be affected.
- For development within a Provincially Significant Wetland an Environmental Impact Assessment/Study shall be required. The study shall be carried out by a qualified professional, with recognized expertise in the appropriate environmental disciplines, and shall be prepared using established procedures and recognized methodologies. The proponent shall be responsible for all costs associated with the preparation of any Environmental Impact Assessment/Study required to support a development proposal. The development may be supported if it has been demonstrated that there will be no negative impacts on the natural features or the ecological functions for which the area is identified.
- For development within the buffer around a Provincially Significant Wetland, an Environmental Impact Assessment/Study may be required. The requirement of an Environmental Impact Assessment/Study will be dependent on the site. The development may be supported if it has been demonstrated that there will be no negative impacts on the natural features or the ecological functions for which the area is identified.
- Any permitted development within the Provincially Significant Wetland or the buffer shall require a permit from the Conservation Authority per O. Reg. 165/06.

- Public infrastructure (e.g., roads, sewers, flood and erosion control works) and various utilities (e.g., pipelines) may be permitted within a wetland subject to the activity being approved through a satisfactory environmental assessment process and/or if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution or the conservation of land will not be affected and the interference on the natural features and hydrologic and ecological functions of the wetland has been deemed to be acceptable by the Conservation Authority.
- Conservation or restoration projects may be permitted within a wetland if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution or the conservation of land will not be affected and the interference on the natural features and hydrologic and ecological functions of the wetland has been deemed to be acceptable by the Conservation Authority.
- Development associated with public parks (e.g., passive or low intensity outdoor recreation and education, trail system) may be permitted within a wetland if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution or the conservation of land will not be affected and the interference on the natural features and hydrologic and ecological functions of the wetland has been deemed to be acceptable by the Conservation Authority.
- **Development within an area of interference less than 30 metres (100 feet)** from a wetland may be permitted in accordance with the policies of Section 4.1.2 — Permitted Uses and where an Environmental Impact Study demonstrates that:
    - there is no negative or adverse hydrological or ecological impacts on the wetland,
    - all development is located outside of the wetland and maintains as much setback as feasible,
    - development is located above the water table, and
    - septic systems are located a minimum of 15 metres from the wetland and 0.9 metres above the annual maximum water table.
- **Development within an area of interference between 30 metres (100 feet) and 120 metres (394 feet)** from a wetland may be permitted where an Environmental Impact Study demonstrates that the policies of Section 4.1.2 — Permitted Uses are met.

8.0 LARGE INLAND LAKES

Within the Mattagami Region Watershed both Nighthawk Lake and Frederick House Lake are considered large inland lakes. The shorelines of these lakes are affected by flooding, erosion and dynamic beaches and as such policies and guidelines have been developed to disallow or restrict the use of these potential hazard areas.

For the purposes of defining the extent of the Regulated Area for large inland lakes, a 15-metre (50 foot) allowance is added to the furthest landward extent of the Shoreline Flooding Hazard, the Shoreline Erosion Hazard and the Dynamic Beach Hazard. In general, development will not be permitted in these hazard areas as defined below.

The **Shoreline Flooding Hazard** is the 100 year flood level plus the appropriate allowance for wave uprush and other water-related hazards. (See Figure 11)

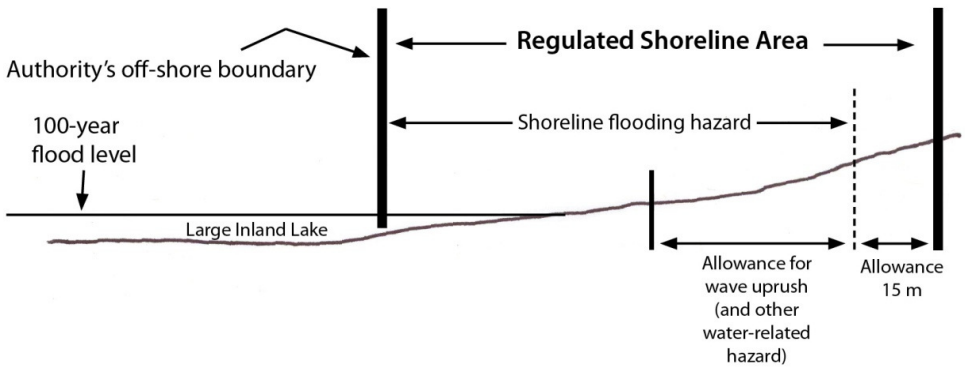

Figure 11: Inland Lake Dynamic Shoreline Flooding Hazard — Regulated Area (Stable Condition)

The **Shoreline Erosion Hazard** is defined as the average annual rate of recession extended over a 100 year period. The Erosion Hazard is determined using a stable slope allowance (equal to the horizontal distance measured landward from the toe of the slope to 3 times the height of the cliff, bluff or bank) and an erosion allowance equal to 100 times the average annual recession rate. (See Figure 12)

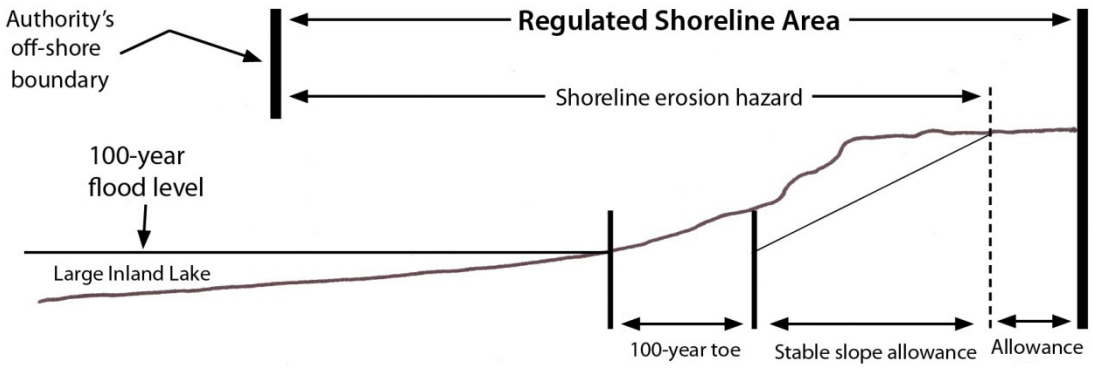

Figure 12: Inland Lake Dynamic Shoreline Erosion Hazard — Regulated Area (Unstable Condition)

The **Dynamic Beach Hazard** is defined as the extent of flooding hazard plus a dynamic beach allowance. (See Figure 13)

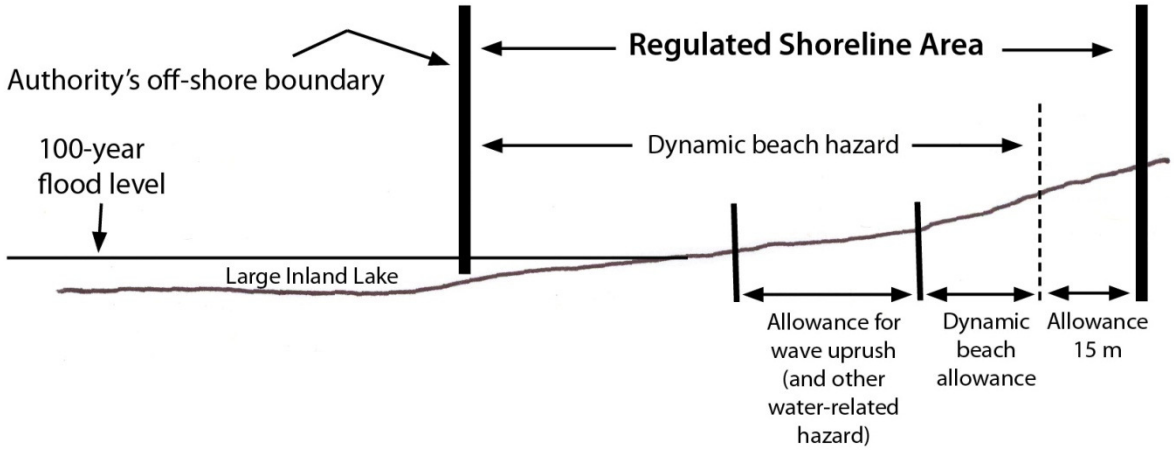

Figure 13: Inland Lake Dynamic Beach Hazard — Regulated Area (Dynamic Condition)

8.1 Large Inland Lake Shoreline Policies

Development within the Regulated Area associated with large inland lakes will not be permitted except in accordance with the following exceptions.

Permitted Development

Development associated with existing uses located within the Regulated Area of large inland lakes may be permitted in accordance with the policies of Sections 4.1.1 and 4.1.2 —Prohibited Uses and Permitted Uses and where there is no feasible alternative site outside the Flooding or Erosion Hazard, provided that:

- the proposed development is located in an area of least (and acceptable) risk;
- flood proofing, protection works and access standards are met;
- protection works are designed to create or restore aquatic habitats to the greatest extent possible;
- no basement is proposed in the flooding hazard and any crawl space is non-habitable and designed to facilitate services only, and;
- a maintenance access of at least 5 metres (15 feet) is retained to and along existing shoreline protection works.

Ground floor additions to an existing residential structure may be permitted where it can be demonstrated that:

- the addition is 50 per cent or less of the original habitable ground floor area;
- the number of dwelling units is the same;
- all habitable floor space has a finished floor elevation that is .3 metres (1 foot) above the Regulatory Flood Elevation, and;
- there is no basement for any addition and any crawl space is non-habitable and designed to facilitate services only.

The 50 per cent addition guideline is applicable only once to any given property and will be based on all previous approvals issued by the Conservation Authority.

Additional stories may be permitted where it can be demonstrated that the number of dwelling units is the same.

Replacement of residential structures damaged or destroyed by causes other than flooding or erosion may be permitted provided that:

- the structure to be replaced is relocated outside the Regulated Area or where this is not feasible the structure is relocated to an area where the risk of property damage from flooding or erosion is reduced to the greatest extent possible;
- the number of dwelling units is the same;
- the new structure is the same size or larger to a maximum of 50 per cent of the original habitable ground floor area;
- the foundation of the structure is of a "slab on grade" design with no basement or crawl space and with a minimum elevation of .3 metres (1 foot) above the Regulatory Flood Elevation;
- ingress and egress is "dry" where this standard can be practically achieved. *(See Section 4.1.3 —Safe Access),* and;
- there is no risk of structural failure due to potential hydrostatic/dynamic pressures.

Relocation of existing residential structures may be permitted provided that the risk of property damage from flooding or erosion is reduced to the greatest extent wherever possible, through relocation.

Non-habitable accessory structures that are associated with an existing residential use including detached garages, sheds, etc., may be permitted provided that:

- the structure is located as far away from the shoreline as possible where the effects of flooding and erosion are reduced, or if available, on non-flooding lands on the same lot or parcel of land;
- the structure is used for purposes of storage, horticulture or other uses which complement the residential nature of the property;
- the accessory structure is larger than 9.3 m^2 (100 ft^2) but less than 58 m^2 (600 ft^2) in size;
- only one accessory structure shall be allowed per residential dwelling;
- the structure is securely anchored such that it does not become a floating hazard during times of high water;
- flood proofing is undertaken to the greatest extent that is practical, and;
- there is no opportunity for conversion into habitable space in the future.

Public infrastructure including but not limited to roads, sanitary sewers, utilities, water and sewage treatment plants, water supply wells and pipelines may be permitted in accordance with the policies in Section 4.1.2 —Permitted Uses, provided that there is no feasible alternative site outside the Flooding and Erosion Hazard as determined by studies provided by the proponent, and where it can be demonstrated that:

- adverse impacts on shoreline processes are limited and any risk of flood or erosion damage to neighbouring properties is not increased, and;
- where unavoidable, intrusions on significant natural features and hydrological and ecological functions are minimized and that best management practices for site and infrastructure design have been incorporated.

Shoreline protection works to protect existing development and other uses deemed appropriate may be permitted provided that:

- all feasible alignments have been considered through an Environmental Assessment or other site specific study, and;
- flood proofing, protection works and access standards are met.

9.0 HAZARDOUS LANDS

Hazardous land is defined 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 Mattagami River Watershed contains other hazardous lands including organic soils and unstable bedrock.

9.1 Hazardous Lands Policies

Development within hazardous lands will not be permitted except in accordance with the following exceptions.

Permitted Development

Development may be permitted within hazardous lands in accordance with the policies in Sections 4.1.1 and 4.1.2 —Prohibited Uses and Permitted Uses and where a technical site-specific study and/or an Environmental Impact Study established a more precise hazard land boundary and where it can be demonstrated that:

- there is no feasible alternative site outside the Regulated Area, and
- the risk of instability which would result in structural failure or property damage is minimized.

10.0 ALTERATIONS TO SHORELINES AND WATERCOURSES

The area along both sides of any river, creek, stream or watercourse, called the Riparian Zone, not only provides habitat for a wide range of flora and fauna, it also filters surface runoff before it reaches open waterways. A healthy Riparian Zone is essential for good water quality but also assists in flood and erosion control. Alterations to the channel of a watercourse can negatively impact the benefits of a healthy Riparian Zone.

Any alteration to the channel of a watercourse requires the permission of the MRCA. This includes, but is not limited to, culvert placement, bridge construction, pipeline crossings, channel diversions and channel dredging. The MRCA supports the application of “Natural Channel Design” and “Best Management Practices” principles in all proposals. The Authority’s review of shoreline protection/improvement applications will be conducted in cooperation with the Ontario Ministry of Natural Resources and Forestry, Fisheries and Oceans Canada and other partners where the proposed work may interfere with fish habitat.

10.1 Alteration to Shorelines and Watercourses Policies

Straightening, changing, diverting or interfering with existing river, creek, stream or watercourse channel is not permitted except in accordance with the following exceptions.

Crossings

Crossings, including bridges and culverts, may be permitted provided all feasible alternative sites and alignments have been considered through an Environmental Assessment or through site-specific studies and where it can be demonstrated that:

- crossings are located to take advantage of existing impacted or open areas on the channel bank or valley slope;
- crossing structures avoid the Riverine Erosion Hazard in order to accommodate natural watercourse movement, wherever possible;
- the risk of flood damage to upstream or downstream properties is reduced through site and infrastructure design;
- there is no inhibition of fish passage;
- where unavoidable, intrusions on significant natural features or hydrologic or ecological functions are minimized, and;
- best management practices and appropriate remedial measures are employed.

Water and Erosion Control Structures

Water and Erosion Control Structures to protect existing development or other uses deemed appropriate by the MRCA, including dams, dykes, retaining walls and berms, may be permitted where it can be demonstrated that:

- all feasible sites and alignments have been considered through an Environmental Assessment or other site specific study;
- where unavoidable, intrusions on significant natural features or hydrologic or ecological functions are minimized;
- best management practices for the design and installation of the structure are utilized, and;
- appropriate remedial measures are employed.

Dredging of a River, Stream, Creek or Watercourse

Dredging of a watercourse may be permitted to improve hydraulic characteristics and fluvial processes or to improve aquatic habitat or water quality in accordance with the policies in

Sections 4.1.1 and 4.1.2 —Prohibited Uses and Permitted Uses and where a dredging plan and/or other site-specific study demonstrates that:

- where unavoidable, intrusions on significant natural features or hydrologic or ecological functions are minimized;
- best management practices and appropriate remedial measures are employed, and;
- all dredged material is removed from the Riverine Flooding and Erosion Hazard area and safely disposed of.

Realignment, Channelization or Straightening

Realignment, channelization or straightening of a watercourse may be permitted to improve hydraulic characteristics and fluvial processes or to improve aquatic habitat or water quality in accordance with the policies in Sections 4.1.1 and 4.1.2 —Prohibited and Permitted Uses and where a site plan and/or other site-specific study demonstrates that:

- all feasible sites and alignments have been considered through an Environmental Assessment or other site specific study;
- where unavoidable, intrusions on significant natural features or hydrological or ecological functions are minimized;
- best management practices and appropriate remedial measures are employed, and;
- stream bank stability is enhanced and natural channel design principles are followed to the greatest extent possible.

APPENDIX A —DEFINITIONS

Access (Ingress/Egress) means standards and procedures applied in engineering practice associated with providing safe passage for vehicles and people to and from a shoreline or riverside property during an emergency situation as a result of flooding, other water related hazards, the failure of flood proofing, and/or protection works, and/or erosion that have been reviewed and approved by the Mattagami Region Conservation Authority and/or the Ontario Ministry of Natural Resources and Forestry.

Accessory Building or Structure means a use or a building or structure that is subordinate and exclusively devoted to a main use, building or structure and located on the same lot.

Aquifer means an underground layer or water-bearing permeable rock or unconsolidated materials (gravel, sand, silt or clay).

Areas of Interference means those lands where development could interfere with the hydrological function of a wetland.

Backwater Area means a section of watercourse with an elevation that is increased above normal because of a downstream human-made obstruction such as a narrow bridge opening or culvert that restricts natural water flow.

Bank Full Width means the formative flow of water that characterizes the morphology of a fluvial channel in a single channel stream; “bank full” is the discharge, which just fills the channel without flowing onto the Floodplain.

Best Management Practices (BMPs) means “industry” or “commonly” accepted methods, facilities and structures which are designed to protect or improve the environment and natural features and functions from the effects of development or interference.

Comprehensive Plan means a study or plan undertaken at a landscape scale such as a watershed/sub watershed plan, an Environmental Assessment, a detailed Environmental Implementation Report (EIR) that has been prepared to address and document various alternatives and is part of a joint harmonized planning or Environmental Assessment process, or a community plan that includes a comprehensive Environmental Impact Statement.

Conservation of Land means the protection, preservation, management or restoration of lands within the watershed ecosystem.

Creek means a natural stream of water normally smaller than and often tributary to a river.

Cumulative Effects means the combined effects of all activities in an area over time and the incremental effects associated with an individual project in an area over time.

Cut and Fill Balance means all fill placed at or below the flood elevation is balanced with an equal amount of soil material removal within a defined reach of a watercourse.

Dam means a structure of work holding back or diverting water and includes a dam, tailings dam, dyke, diversion, channel, artificial channel, culvert or causeway (*Lakes and Rivers Improvement Act, R.S.O. 1990 c. L3, s.1*)

Development means:

- the construction, reconstruction, erection or placing of a building 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 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 material, originating on the site or elsewhere.

Dynamic Beach Hazard —See *Inland Lake Dynamic Beach Hazard.*

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

Dwelling Unit means a suite operated as a housekeeping unit, used or intended to be used as a domicile by one or more persons and usually containing cooking, eating, living, sleeping and sanitary facilities.

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.

Effective Flow Area means that part of a river, stream, creek or watercourse where there are significant flow velocities and most of the flow discharge is conveyed.

Environmental Assessment means a process that is used to predict the environmental, social and economic effects of proposed initiatives before they are carried out. It is used to identify measures to mitigate adverse effects on the environment and can predict whether there will be significant adverse environmental effects, even after the mitigation is implemented.

Environmental Impact Statement (EIS) means a report prepared by a qualified professional to address the potential impacts of development or interference on natural features and ecological functions. The following are three types of reports:

- A **Comprehensive EIS** is a landscape scale, watershed or sub watershed study which sets the width of setbacks and offers guidance for the investigation, establishment and maintenance of buffers.
- A **Scoped EIS** is an area or site-specific study that addresses the potential negative impacts to features described previously in a comprehensive study.
- A **Full EIS** is an area or site-specific study prepared, in the absence of a comprehensive study to address possible impacts from a development. Due to the lack of guidance from a comprehensive study, the full EIS is typically much more detailed than a scoped study, and will also include statements to address possible negative impacts at a regional scale.

Existing Use means the type of activity associated with an existing building or structure or site on the date of a permit application.

Fill means any material used or capable of being used to raise, lower or in any way affect the contours of the ground, whether on a permanent or temporary basis, and whether it originates on the site or elsewhere.

Flood proofing means structural changes and/or adjustments incorporated into the basic design and/or construction or alteration of individual buildings, structures or properties to protect them from flood damage.

Floodway for river, stream, creek, watercourse or inland lake systems means the portion of the Floodplain where development would cause a danger to public health and safety or property damage.

- Where the one-zone concept is applied, the Floodway is the entire contiguous Floodplain.

Groundwater Discharge means the flow of water from an aquifer. Discharge areas are locations at which ground water leaves the aquifer and flows to the surface. Ground water discharge occurs where the water table or potentiometric surface intersects the land surface. Where this happens, **springs** or **seeps** are found. Springs and seeps may flow into fresh water bodies such as lakes or streams, or they may flow into saltwater bodies.

Groundwater Recharge means downward movement of water through the soil to the groundwater or the process by which external water is added to the zone of saturation of an aquifer, either directly into a formation or indirectly by way of another formation. Most areas, unless composed of solid rock or covered by development, allow a certain percentage of total precipitation to reach the water table. The sustainable yield of an aquifer is mainly controlled by the amount of recharge it receives. If total discharges (natural discharge plus water use from human activities) exceed recharge, water levels in an aquifer will decline. This decline will

continue until a new balance is reached between total discharge and recharge, or the aquifer becomes depleted to the point where further withdrawals are no longer feasible.

Quantifying recharge is not easy, because it depends on a number of variables including:

- soil type;
- geology and hydrogeology;
- precipitation (including amount, type, and melt (rate for snow) prior soil moisture conditions;
- runoff;
- topography, and;
- evapotranspiration.

For a given climatic condition, recharge is much higher in areas of coarse sands and gravels than in areas of low permeability clays.

Habitable Floor Space means any area that has the potential to be used as or converted to residential living space, including basements. These uses can be further divided into Habitable and Non Habitable uses or rooms.

Habitable Rooms	**Non Habitable Rooms**
Bedrooms	Bathrooms
Kitchen	Closets
Living Room	Halls and Corridors
Dining Room	Storage Rooms
Office	Utility Rooms: (work shop, laundry room electrical room, furnace room)
Recreation/Family Room	

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.

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

Headwater means the source and extreme upper reaches of a river, creek, stream or watercourse.

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.

Inland Lake Dynamic Beach Hazard means that portion of an inland lake shoreline where accumulated unconsolidated sediment continuously moves as a result of naturally occurring processes associated with wind and water and changes in the rate of sediment supply. The extent of the dynamic beach hazard is defined as the extent of the flooding hazard plus an allowance.

Inland Lake Erosion Hazard means the loss of land, due to human or natural processes, that pose 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, plus a 15 metre allowance.

Inland Lake Flooding Hazard means the inundation under the 100 year flood including wave uprush and other water-related hazards.

Meander Belt Allowance means a limit for development within the areas where the river system is likely to shift. It is based on twenty (20) times the bank full channel width where the bank full channel width is measured at the widest riffle section of the reach. A riffle is a section of shallow rapids where the water surface is broken by small waves. The Meander Belt is centered over a Meander Belt Axis that connects the riffle section of the stream.

Meander Belt Axis means the line or "axis" that the Meander Belt is centred over which connects all the riffle sections of a stream.

Meander Belt means the area of land in which a watercourse channel moves or is likely to move over a period to time.

Non-Apparent Valley or Unconfined Valley means that part of the valley land system where a river, creek, stream or watercourse is not contained within a clearly visible valley section.

One Hundred Year Erosion Rate means the predicted lateral movement of a river, creek, stream or watercourse or inland lake over a period of one hundred years.

Other Water-Related Hazards means water-associated phenomena other than flooding hazards and wave uprush which acts on shorelines. This includes, but is not limited to ship-generated waves, ice piling and jamming.

Pollution means any deleterious physical substance or other contaminant that has the potential to be generated by development.

Protect in the context of wetlands, means the preservation of wetlands in perpetuity through implementation of appropriate physical and/or legal mechanisms (e.g., ecological buffers, development setbacks, zoning, fencing conservation easements).

Protection Works means structural or non-structural works which are intended to appropriately address damages caused by flooding, erosion and/or other water-related hazards.

Qualified Professional means a person with specific qualifications, training, and experience authorized to undertake work in accordance with the policies in accepted engineering or scientific principles, provincial standards, criteria and guidelines, and/or to the satisfaction of the Conservation Authority.

Regulated Area means the area encompassed by all hazards and wetlands, plus any allowances.

Regulatory Flood means the inundation under a flood resulting from the rainfall experienced during the Timmins storm (1961) or in limited situations in headwater streams, the 100 year flood, wherever it is greater, the limits of which define the Riverine Flooding Hazard.

Replacement means the removal of an existing building or structure and the construction of a new building structure. Replacement does not include reconstruction on remnant foundations or derelict or abandoned buildings or structures.

Riffle means a section of shallow rapids where the water surface is broken by small waves.

Restore in the context of wetlands means the re-establishment or rehabilitation of a former or degraded wetland with the goal of returning natural or historic functions and characteristics that have been partially or completely lost by such actions as filling or draining.

Riparian Vegetation means the plant communities in the Riparian Zone, typically characterized by hydrophilic plants.

Riparian Zone means the interface between land and a flowing surface water body. Riparian is derived from Latin *ripa,* meaning river bank.

Riverine Erosion Hazard means the loss of land, due to human or natural processes, that poses a threat to life and property. The Riverine 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, plus a 15 metre allowance or, in unconfined systems, the Meander Belt Allowance plus a 15 metre allowance.

Riverine Hazard Limit means the limit which encompasses the Flooding and Erosion Hazard and the river, creek, stream or watercourse.

Safe Access means locations where during the Regulatory Flood, the low flow velocity does not exceed 1.0 m/s, the product of depth and velocity does not exceed 0.4 m^2/s, the depth of flooding access routes to residential units does not exceed 0.8 metres or 2.0 metres along access routes to commercial or industrial buildings or structures, and the depth of flooding adjacent to residential units does not exceed 1.2 metres or 2.0 metres adjacent to commercial or industrial buildings or structures.

Stage-Storage Discharge Relationship means the relationship of flood storage and flood elevation values at various flood flow rates within a particular watercourse/floodplain reach. This relationship is used as a factor to determine whether the hydraulic function of the Floodplain is preserved.

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 a slope where the downward inclination of the land begins or the upward inclination of the land levels off. This point is situated at a higher topographic elevation of land than the remainder of the slope.

Valley Land means land that has depressional features associated with a river or stream, whether or not it contains a watercourse.

Watercourse means an identifiable depression in the ground in which a flow of water regularly or continuously occurs.

Watershed means an area that is drained by a river and its tributaries.

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.

Wetland means land that:

- is seasonally or permanently covered by shallow water or has a water table close to or at the surface;
- directly contributes to the hydrological function of a watershed through connection with a surface watercourse;
- has hydric soils, the formation of which have been caused by the presence of abundant water, and;
- 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 wetland characteristics.

APPENDIX B —FLOOD PROOFING GUIDELINES

Flood proofing encompasses all protective measures required to ensure that a building and its contents will not sustain flood damages and that continued occupancy of the building can occur at least throughout the early stages of a Regulatory Flood or 1 in 100 Year Flood event. Since there will always be a probability of a flood event exceeding the Regulatory Flood or 1 in 100 Year Flood event, total protection from flood damage cannot always be assured.

B.1 General Flood proofing Principles

- Development which is permitted through these policies must be protected by accepted flood proofing actions and measures.
- Access for new buildings must be such that vehicular and pedestrian movement can occur during times of flooding.
- Dry, passive flood proofing must be used whenever possible.
- Residential/habitable buildings must always incorporate dry flood proofing measures.
- Wet flood proofing may only be considered for non-residential/non-habitable uses and for buildings accessory to residential/habitable uses (e.g., garages).

B.2 Safe Access and Egress

The *Provincial Policy Statement* and associated technical guidelines identify safe access as a primary consideration before approval is granted for Floodplain development. The availability of safe access is directly related to flood depth and water velocity. Access is safest if it is flood proofed to the Regulatory Flood level or 1 in 100 Year Flood event level, depending on the area. The Authority may consider approval when access routes are affected by flooding if the landowner demonstrated difficulty in meeting the regulatory standard. Access concerns include but are not limited to:

- vehicular access routes such as municipal roadways and private rights-of-way;
- pedestrian access routes such as laneways and walkways.

Access in Flood Hazard Areas

- Access through a flood or Erosion Hazard area which requires filling or other alterations to existing grades may only be permitted in situations where it presents the only available means of securing a safe and appropriate building site.
- Wherever possible, vehicular access and parking lots must be flood proofed to the Regulatory Flood level or 1 in 100 Year Flood level.
- Where flood proofing to the Regulatory Flood level or 1 in 100 Year Flood level, is not possible, vehicular access and parking lots must be designed such that the maximum

depth of flooding will not exceed 0.3 metres and the maximum flood velocity will not exceed 1.0 metres per second.

- Driveways and access roads may be filled to a minimum of 0.3 metres below the Regulatory Flood level or 1 in 100 Year Flood level and to a maximum of 0.3 metres above the Regulatory Flood level or 1 in 100 Year Flood level, with the sides of the driveway tapering down to existing grade at a 3 to 1 slope.
- Driveways and access road side slopes should be stabilized with appropriate groundcover or another stabilization treatment.
- Access routes must be designed to allow for passage of normal flow and flood waters without obstructing or impeding flow.
- An assessment by a Professional Engineer may be required, at the landowner's expense, for access in areas prone to flooding.

Access in Slope and/or Erosion Hazards

- Access must be constructed such that it is not prone to erosion or instability and will not cause or aggravate erosion or instability on neighbouring properties.
- An assessment by a Professional Engineer may be required, at the landowner's expense, for access in areas prone to erosion or instability.

B.3 Design Requirements for Residential Buildings

New development, infilling, replacement and additions for a residential use must be dry, passive flood proofed to the Regulatory Flood level or 1 in 100 Year Flood level. Where such requirements impact on or are significantly out of context with neighbouring properties, other flood proofing approaches may be considered.

The design requirements for dry passive flood proofing are as follows:

- Where required by policy, a slab on grade construction will be used and set at an elevation of 0.3 metres (1 foot) above the Regulatory Flood level.
- The underside of the floor assembly closest to grade and all building openings must be at least 0.3 metres (1 foot) above the Regulatory Flood level or 1 in 100 Year Flood level.
- Living space, including a basement, is not permitted below the Regulatory Flood level or 1 in 100 Year Flood level, again depending on location and area.
- A crawlspace may be permitted subject to the following:
    - Height must not exceed 1.8 metres (6 feet).
    - For a concrete slab floor the drawings must be stamped by a Professional Engineer, otherwise the floor must remain unfinished (e.g., gravel floor).
    - The minimum floor elevation must be at the 5 year flood level.

- Foundation walls and floors located below the Regulatory Flood level or 1 in 100 Year Flood level must be designed to withstand hydrostatic pressures for that flood level.
- All mechanical and electrical service shutoffs must be located at least 0.3 metres (1 foot) above the Regulatory Flood level or 1 in 100 Year Flood level.

B.4 Fill Aprons for the Flood proofing of Buildings

Excessive filling in the Floodplain can have negative impacts on water flow and storage capacity of the Floodplain which in turn can cause or increase flooding and/or erosion on other nearby properties. It can also cause sedimentation resulting in impacts to water quality. To reduce these negative impacts, fill placement within the Floodplain is generally limited to what is required for flood proofing purposes. The placement of excessive fill for landscaping purposes is generally not permitted.

- Fill placement for the purposes of flood proofing a habitable dwelling shall be limited to a fill apron extending a maximum of 4.5 metres (15 feet) out from the foundation walls.
- The top of the fill apron must be graded up to at least the Regulatory Flood level or 1 in 100 Year Flood level where it meets the exterior of the foundation wall.
- The fill apron must be graded away from the foundation wall at a slope no steeper than 3 to 1.

B.5 Drainage Swales

Where a lot is being graded to an elevation that exceeds the grade of the adjacent property, the lot grading must not result in additional runoff being directed onto adjacent properties. Grassed drainage swales must be provided between the fill area and the lot line where a natural drainage swale does not already exist.

Where drainage swales are required, they should be designed to the following minimum standards:

- The swale must be located entirely within the limits of the lot and shall not extend beyond the side yard lot lines into neighbouring properties.
- The base of the swale should be 0.2 to 0.3 metres in width.
- The minimum depth of the swale should be 0.15 metres to a maximum depth of 0.6 metres.
- The side slopes of the swale should not exceed a 3 to 1 slope.
- A slope of between 2 and 8 per cent is recommended for proper drainage.
- The bottom of the swale should be graded smoothly concave.
- The inside surface of the swale should be permanently stabilized with grass and mulch and/or other vegetation.
- Rock check dams may be required in areas of potentially high flow.

APPENDIX C —ONTARIO REGULATION 165/06

See the following link for the most current version:

https://www.ontario.ca/laws/regulation/060165

APPENDIX D—CONSERVATION AUTHORITIES ACT R.S.O. 1990, Chapter C.27

See the following link for the most current version:

https://www.ontario.ca/laws/statute/90c27

MATTAGAMI REGION CONSERVATION AUTHORITY

ONTARIO REGULATION 165/06

PART B
POLICIES AND PROCEDURES FOR COMPLIANCE WITH THE DEVELOPMENT, INTERFERENCE WITH WETLANDS AND ALTERATION TO SHORELINES AND WATERCOURSES REGULATION

Effective March 1, 2014

Amendments

Revisions Approved Feb 28, 2019/ Effective Feb 28, 2019 Resolution No. 2019-1370
Revisions Approved Nov 28, 2019/ Effective Nov 28, 2019 Resolution No. 2019-1403

Part B of this document outlines the policies and procedures for compliance followed by the Mattagami Region Conservation Authority when:

- considering an application to construct or place fill under this Regulation,
- inspecting approved activities to ensure that the terms and conditions of the permit are complied with,
- investigating possible and confirmed violations under the Regulation, and
- initiating court proceedings, if necessary.

Application of these policies and procedures will ensure a consistent, timely and fair approach to implementing *Ontario Regulation 165/06*.

1.0 APPROVAL PROCESS

The Mattagami Region Conservation Authority issues permits for works/activities that conform with the Board-approved objectives and policies for the administration of *Ontario Regulation 165/06*.

All permit applications that are received by the Authority are reviewed by staff using the *Ontario Regulation 165/06 Compliance Policy* (Part B-Section 1.1). If the application complies with the Policy, the General Manager can approve the proposal, with or without conditions, and issue a permit. For projects that cannot reasonably be completed within 24 months, the Board may grant permission, with or without conditions, for up to 60 months. If staff recommends that the application should not be approved, the owner and applicant shall be contacted and informed that the undertaking cannot be recommended for approval. The applicant may then appeal the recommendation for refusal or an approval with conditions to the Authority's Board of Directors. If the Board denies the application the applicant may subsequently appeal to the Mining and Lands Tribunal. For further information on the hearing process, please refer to Section 28(3) *Conservation Authorities Act* (Hearing Guidelines) amended in 2018 by Conservation Ontario and the Ministry of Natural Resources and Forestry.

1.1 Consideration of Applications

The MRCA will follow a fair and timely process in the consideration of applications that includes the following steps.

- Authority staff will meet with the applicant to review the development proposal and determine if it falls within a Regulated Area and whether or not an application under *Ontario Regulation 165/06* will have to be submitted to the Authority.
- If the proposed development falls under the Regulation, the *Administration and Compliance Policies* will be reviewed with the applicant and development restrictions detailed.
- Applications under *Ontario Regulation 165/06* are to be submitted to the General Manager using the Conservation Authority's standard application form. Required drawings, studies and/or surveys as discussed with the General Manager must be added as attachments.
- Prior to receiving the application, the Authority will inform the applicant that other permitting may be required (City of Timmins, Ministry of Natural Resources and Forestry, Public Health Unit, Fisheries and Oceans Canada, etc.)
- After consultation with Conservation Authority staff, the applicant will be requested to submit a formal application to the Authority. Upon receipt of a completed application, the Conservation Authority will, within 30 days, review the application and:

- approve the application as submitted,
- request, at the discretion of the Authority, additional information,
- approve the application with conditions, or
- recommend refusal of the application.

The applicant may wish to undertake work which does not meet the development policies of this Authority but meets the tests of *Ontario Regulation 165/06*. In that case, staff may take a recommendation to the Board that the proposal be approved.

If the applicant proposes to undertake work which does not meet the tests of *Ontario Regulation 165/06*, Authority staff will recommend refusal of the application and the applicant will be given an opportunity to request a hearing consistent with Section 28(12) of the *Conservation Authorities Act*.

Under Section 28(15) of the *Conservation Authorities Act*, an applicant who has been refused permission may, within thirty (30) days of the receipt of the reasons for the decision, appeal to the Minister of Natural Resources and Forestry who may dismiss the appeal or grant the permission. This appeal has been assigned to the Mining and Lands Tribunal through Order in Council 332/2018.

1.2 Other Considerations

No application pursuant to this policy will be heard other than at a public meeting of the Conservation Authority.

The Conservation Authority will not accept an application pursuant to *Ontario Regulation 165/06* from any person or corporation other than the registered owner of the land or his designated agent. Proof of agency from the registered owner will be required.

When the Authority has approved a permit pursuant to the Regulation for any construction, placing of fill or alteration to a watercourse, all works shall be completed within a period of two years from the date of approval. Continuation of works already commenced but not completed during the two-year approval period will require re-application to the Authority.

1.3 Required Information and Administrative Fees

All applications under *Ontario Regulation 165/06* shall use the standard form as issued by the Conservation Authority.

Copies of *Ontario Regulation 165/06*, flood plain mapping and the *Administration and Compliance Policies* will be made available in whole or in part to the Applicant.

All applications made under this Regulation must be complete, including requested mapping, surveys and studies, before they can be considered.

An administration fee shall be levied for all applications and requests for information made under *Ontario Regulation 165/06* as per the Fee Schedule attached as Appendix A—Fee Schedule.

No administrative charge will be levied for attendance at the Conservation Authority offices to review the mapping, Regulation and policies.

No administration charge will be levied for any request for legal certification or property appraisal if the property is found to be located outside the Regulated Area.

1.4 Agreement on Title

The Conservation Authority may, at its discretion, require that an Agreement be placed on title for a particular property for any approvals given under the Regulation. The purpose of the Agreement is both to enforce the conditions of any approvals as well as give notice to any future property owners that land use restrictions are in place. An Agreement would include:

- a legal description of the lands affected,
- the legislation under which it is being applied,
- a description of the permitted use along with all the conditions that are to be met and any restrictions on any future use,
- allocation of any legal and administrative costs associated with processing,
- recognition by the owner of any and all conditions, and
- a statement that indemnifies and holds harmless the Conservation Authority for any future flood damages and impacts.

These Agreements would typically apply to the development of hazards lands that are supported by the *Regulations 165/06 Administration and Compliance Policies* including seasonal campgrounds, marinas and reconstruction of existing structures.

2.0 VIOLATIONS

A violation under *Ontario Regulation 165/06* may occur when a development, interference or alteration activity approved by the Conservation Authority has taken place contrary to the terms and conditions of the approval, or when an activity has taken place for which written permission has not been received. Under the *Conservation Authorities Act*, a person convicted of committing an offense may be subject to a fine of up to $10,000 or to a term of imprisonment of not more than three months. In addition, the development, interference or

alteration may be required to be removed at the expense of the landowner and the site rehabilitated.

2.1 Access to Private Property

The MRCA has the legal authority to investigate a possible violation and to determine whether or not a contravention of *Ontario Regulation 165/06* has occurred. The terms and conditions for staff to access private property are outlined under Sections 28 (20-24) and 30.1 of the *Conservation Authorities Act*. Generally, the Conservation Authority is permitted to enter onto private land without consent or warrant when:

- the entry is for the purpose of considering a request for permission under the Regulation, or
- the entry is for the purpose of enforcing a regulation and the Authority has reasonable grounds to believe that a contravention of the Regulation is causing or is likely to cause significant environmental damage and the entry is required to prevent or reduce the damage.

The power to enter private property will not be used unless the land owner has been given reasonable notice of the entry and there are reasonable grounds to believe that significant environmental damage is likely to be caused during the time that would be required to give notice.

3.0 GENERAL POLICIES

Conservation Authority staff will follow these general policies when ensuring compliance or investigating possible violations.

- Every effort will be made to resolve issues resulting from a contravention of the *Ontario Regulation 165/06* within six (6) months of initiating an investigation.
- The laying of charges against a landowner may be pursued where a resolution to the issues is not achieved.
- Where other legislation such the Fisheries Act or a Municipal By-law has been contravened, the MRCA may notify the appropriate agency(ies) and work with them to carry out a coordinated inspection, investigation and prosecution. The agency with the strongest mandate will be encouraged to take the lead.
- In addition to any penalty levied by the court, the Conservation Authority will seek an order for removal and site rehabilitation.
- MRCA staff will use field inspections as an opportunity to inform and educate landowners about the Conservation Authority's role under *Ontario Regulation 165/06*.

4.0 PROCEDURES

Compliance with approved permits is achieved through the implementation of follow-up inspections. These inspections will:

- Ensure compliance with the terms and conditions of the permit.
- Avoid costly corrective actions when terms and conditions are not met.
- Improve communications with the public.

Violations occur as a result of development, interference or alteration activities occurring within a Regulated Area without written permission from the Conservation Authority or when the landowner is in non-compliance with a permit. Infractions may be detected when a complaint has been received or if it has been observed in the field by staff. Generally, the steps to be taken for a suspected violation include:

- Staff will initiate both an office and a field investigation of the possible violation.
- If the office investigation reveals that a violation has occurred, an initial assessment of the site is undertaken by Authority staff from public lands. This would include the taking of photographs and notes.
- If the activity is not clearly visible from a public location, staff will attempt to arrange a site visit with the landowner to determine whether or not an offence has occurred.
- If a violation is confirmed, a complete investigation report will be completed and a *Notice of Violation* issued to the landowner.
- A *Notice of Violation* is not a legal document but is used to notify the landowner of the offence and requests the recipient to stop all work and to contact the Conservation Authority to discuss options to resolve the violation. It is delivered by registered mail.
- A *Notice of Violation* contains the following information:
    - A map showing the location of the property and the Regulated Area.
    - An information sheet explaining the Regulation and the permit process.
    - Date of the inspection
    - Offence wording
    - Section of *Ontario Regulation 165/06* contravened
    - Description of the work
    - Contact information for the Conservation Authority
    - Due date by which the Conservation Authority must be contacted
- Resolution of a violation can be achieved by:
    - Cease the activity and proceed through the proper permitting process provided that the activity meets the *Regulation 165/06 Administration and Compliance Policies*, or,

- Cease the activity, remove the offending development and restore the site to its original condition.

Permit application process for violations would require the offender to apply to the Conservation Authority for a permit to which a fee surcharge would apply. If a permit is granted, the works may proceed.

Restoration of a site to its original condition by the landowner is the easiest way to resolve a violation. This would apply to situations where works have been undertaken without the approval of the MRCA or where the works do not meet the terms and conditions of the approved permit. Site restoration would proceed in consultation with the Conservation Authority.

Court proceedings will only be used if violations cannot be resolved. Through the prosecution, the Conservation Authority will seek an order for rehabilitation of the site and/or removal of any building or structure ruled to be in contravention of the *Ontario Regulation 165/06*, in addition to any penalty levied.

APPENDIX A—FEE SCHEDULE

MATTAGAMI REGION CONSERVATION AUTHORITY

Application Fee Schedule for Ontario Regulation 165/06

Effective January 1, 2019

Category	Description	Fee
Property Inquiries and Clearances	For written responses to legal, real estate, financial institutions, inquiries on behalf of landowners or others	$75.00
Small Works	• Accessory buildings and structures with a floor area of less than 20 m^2 • Additions with less than or equal to 20 m^2 • Fill activity less than 100 cubic metres • Toe protection less than 50 metres with vegetative shore land buffer	$100.00
Standard Works	• New buildings, reconstruction, foundation reconstruction, accessory buildings and structures with a total gross floor area of 20 to 100 m^2 • Fill activity of 100 to 500 cubic metres, or grading on a property less than 0.5 hectares in area • Infrastructure maintenance • Channel maintenance less than or equal to 200 metres in length or 0.5 hectares in area	$200.00
Large Works	• Buildings with a total gross floor area of 100 to 450 m^2 • Fill activity of 501 to 2000 cubic metres, or grading on property 0.5 to 1.0 hectares in size • Shoreline alterations between 50 and 500 metres in length • Infrastructure such as, but not limited to, bridges, culverts, utility crossings less than or equal to 25 metres in width/span • Channel maintenance greater than 200 metres in length or 0.5 hectares in area	$400.00
Major Works	• Multiple unit projects or buildings greater than 450 m^2 in area or more than 1 hectare per property • Fill activity greater than 2,000 cubic metres, or grading on a property greater than 1.0 hectares in area • Shoreline alterations greater than 500 metres in length • Infrastructure such as, but not limited to, bridges, culverts, utility crossings greater than 25 metres in width/span, and storm water management ponds • Channelization and alteration to a waterway	$1,000.00
Violations	Permit fees for Violations under *Ontario Regulation 165/06* (Work commencing prior to an approved permit being issued)	Double the normal application fee
Revisions	Applications which are amended or resubmitted after approval and including modifications to approved erosion and sediment plans	50% surcharge
Renewals	Permits valid for two calendar years from the date of application may be renewed prior to lapsing for one more year only	$50.00

Notes:

1. The City of Timmins is exempt from the fee schedule for the review and comment on any planning matters including Zoning By-Law Amendments, Consents, Minor Variances, Plans of Subdivision and Site Plan Control Agreements. In addition, although the Municipality is required to obtain permits under *Ontario Regulation 165/06* for any construction or infilling, no fees are charged.
2. Fees are charged per application. No portion of any fee will be refunded to the applicant.
3. All fees for the review of an application and supporting reports must be received prior to release of written comments to an approval agency.
4. The Mattagami Region Conservation Authority reserves the right to revise this fee schedule at any time without notice, subject to the approval of the Authority Board.
5. Charges are per application.