



## **Lower Thames Valley Conservation Authority Lake Erie Shoreline Development Policy within the Municipality of Chatham-Kent**

The following sections describe the general policies to be applied in areas regulated by the Lower Thames Valley Conservation Authority (LTVCA) along the Lake Erie Shoreline within the Municipality of Chatham-Kent (including along Rondeau Bay). LTVCA staff will incorporate the most recent board approved technical information (e.g. 100 year erosion values) and studies in delineation of the hazard. These policies will apply to both municipal plan review commenting and O.Reg. 152/06 permissions.

It should be noted that Erie Beach and Erie Shore Drive as well as areas along the shoreline of Rondeau Bay are subject to both the flood hazard and the erosion hazard policies and that Rose Beach Line and the Lake Erie side of Erieau are subject to dynamic beach hazard policies.

### **1.0 General Policies**

Within defined natural hazards: including river or stream valleys and an allowance; wetlands or other areas where development could interfere with the hydrologic function of a wetland (areas of interference); lands adjacent or close to the shoreline of Lake Erie and inland lakes and an allowance; watercourses, or hazardous lands, the following general policies will also apply to all sections of the policy (2.0 through 7.0):

- 1.0.1 Development, interference or alteration will not be permitted within a hazard and its adjacent allowance, except in accordance with the policies outlined within this document.
- 1.0.2 Development, interference or alteration within a hazard 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 LTVCA that:
  - a) There is no feasible alternative location for the development outside of the hazard;
  - b) The risk to public safety is not increased;
  - c) Susceptibility to natural hazards is not increased or new hazards created;
  - d) There are no adverse hydraulic or fluvial impacts on rivers, lakes, creeks, streams, or watercourses;
  - e) That adverse impacts on the natural shoreline processes of Lake Erie and Rondeau Bay are avoided and mitigated to the extent possible;
  - f) Site grading (e.g., placing and removing fill) and alteration is minimized;
  - g) Negative or adverse hydrologic and ecological impacts on natural features and functions are avoided and mitigated to the fullest extent possible;
  - h) Pollution, sedimentation and erosion during construction and post construction is minimized using best management practices including site, landscape,

infrastructure and/or facility design (whichever is applicable based on the scale and scope of the project), construction controls, and appropriate remedial measures;

- i) Intrusions within and encroachment on significant natural features are, to the extent possible, avoided;
- j) Groundwater discharge areas which support significant natural features or hydrologic or ecological functions on-site and adjacent to the site are, to the extent possible, avoided;
- k) Groundwater recharge areas which support significant natural features or hydrologic or ecological functions on-site and adjacent to the site will be maintained or enhanced;
- l) Access for emergency works and maintenance of flood or erosion control works is available;
- m) Works are constructed, repaired and/or maintained according to accepted engineering principles and approved engineering standards or to the satisfactions of the LTVCA, whichever is applicable based on the scale and scope of the project;
- n) All new buildings must have safe ingress/egress to emergency services and be located outside of the hazard;
- o) The control of flooding, erosion, dynamic beaches, pollution or the conservation of land is not adversely affected during and post development, interference or alteration; and,
- p) Development may be permitted within a natural hazard if that development is associated with a use that by its nature must be located in or on the natural hazard.

1.0.3 Non-habitable accessory structures with a footprint less than 10 square meters (~108 square feet) in size do not require a permit from the LTVCA provided they are not located on a dock over water and/or are not located on an unstable slope.

1.0.4 Hardship rebuilds, as a result of fire or similar calamity not related to the natural hazard, must not be abandoned or derelict for a period of more than one year or the relevant new construction policies will apply.

1.0.5 Structures destroyed by the hazard will not be permitted to be reconstructed within the hazard nor the additional allowance adjacent to the hazard.

1.0.6 The LTVCA generally discourages fencing in the hazard (e.g. flood prone areas, unstable slopes, dynamic beaches and coastal wetlands). Where necessary, fencing should be constructed in such a manner that it does not impede the flow of water and does not require the use of fill.

1.0.7 In regards to site grading and the placing or removal of fill in a hazard, the following policies apply:

- a) Fill placed shall only be comprised of clean soil, topsoil, filter fabric, rock, or, in the case of the replacement of a concrete or steel breakwall or groyne, concrete (free of exposed rebar) and steel.

- b) Fill placement / removal and/or site grading must not result in a more unstable slope.
- c) Fill placement / removal and/or site grading will not result in its movement off-site by natural processes (erosion / slumping).
- d) Fill placement / removal and/or site grading will not negatively impact adjacent properties / lands.
- e) Fill placement / removal and/or site grading must not impact erosion updrift or downdrift of its location.
- f) Any fill placement must be nominal in the sense that the LTVCA will not approve projects where a significant amount of fill is proposed due to the likelihood that the fill will subside and future land use could be affected by potential subsidence and/or the placement of materials.
- g) Sign-off / approval from Fisheries and Oceans Canada, the Ontario Ministry of Environment, Conservation and Parks and the Ontario Ministry of Natural Resources and Forestry may be required as part of the application package.

## 1.2 Technical Studies Requirements

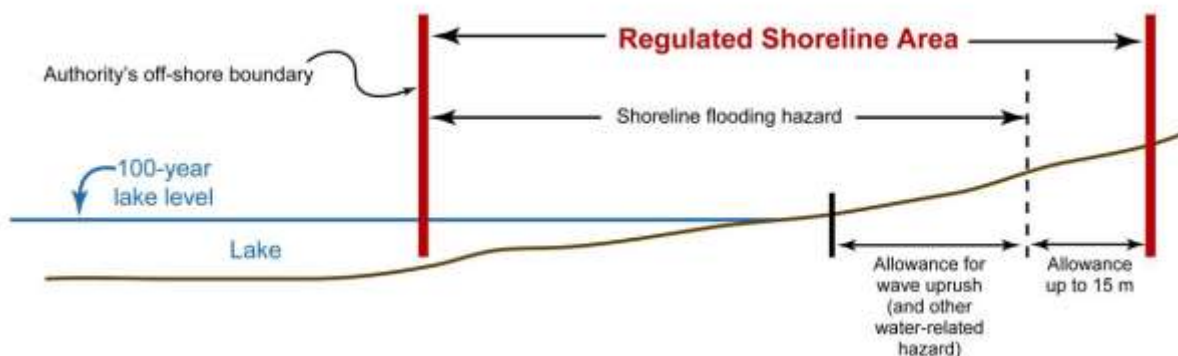
Applications for permission to undertake development, interference or alteration in the hazard must be accompanied by appropriate technical studies and/or assessments, site plans and/or other plans as required by the LTVCA. These studies/plans must demonstrate to the satisfaction of the LTVCA, how the applicable policies in this document have been met.

## 1.3 Qualified Professional Requirements

Technical studies and/or assessments, site plans and/or other plans submitted as part of an application for permit to undertake development, interference or alteration in a hazard must be completed by a qualified professional to the satisfaction of the LTVCA in conformance with the most current technical guidelines acceptable to the LTVCA.

## 2.0 Development Within the Shoreline Flood Hazard

For the purposes of the following policies, the shoreline flood hazard is the limit of the landward extent of flooding accounting for the 100 year flood elevation, plus an allowance for wave uprush and other water related hazards.



For clarification of the general policy 1.0.1, the following shall not be permitted within the shoreline flood hazard except in accordance with the policies of 2.2 to 2.12 and where it can be demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected:

- Development (on both vacant and existing developed lots of record);
- The creation of secondary dwelling units in an existing building;
- Flood hazard protection and bank stabilization works to allow for future/proposed development or an increase in development envelope or area;
- Development associated with new and/or the expansion of existing trailer parks / campgrounds;
- Stormwater management facilities;
- Basements; and,
- Underground parking.

2.1 Development shall be prohibited in the shoreline flood hazard where the use is:

- a) an institutional use associated with hospitals, nursing homes, preschool, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick the elderly, persons with disabilities or the young during an emergency as a result of flooding and/or failure of floodproofing measures or protection works; or,
- b) an essential emergency service such as that provided by fire, police and ambulance stations and electrical substations which would be impaired during an emergency as result of erosion, the failure of floodproofing measures and/or protection works; or
- c) uses associated with the disposal, manufacture, treatment or storage of hazardous substances.

2.2 Public and private infrastructure (e.g. roads, sewers, flood and erosion control works) and public utilities (e.g. pipelines) may be permitted within the shoreline flood hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or has been determined to be acceptable by the Conservation Authority;

2.3 Development associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail systems) may be permitted within the shoreline flood hazard;

2.4 Shoreline, bank, and slope stabilization to protect existing development and conservation or restoration projects may be permitted within the shoreline flood hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or has been determined to be acceptable by the Conservation Authority;

2.5 A new dwelling/structure on an existing lot of record or a major addition (over 25% of the existing footprint of the habitable ground floor space of the structure) to an existing dwelling/structure or reconstruction associated with existing uses may be permitted

within the shoreline flood hazard if it has been demonstrated to the satisfaction of Conservation Authority that:

- a) there is no feasible alternative site outside of the shoreline flood hazard for the proposed development;
- b) the proposed development does not result in an increase of flooding risk (i.e., floodproofing measures applied) and is located in an area of least risk (i.e., located furthest possible distance from the water);
- c) the proposed works do not create new or aggravate flooding on the subject, adjacent or other properties;
- d) the development is protected from the shoreline flood hazard in accordance with established floodproofing and protection techniques. Habitable buildings must be dry floodproofed such that the elevation of the building including the ground elevation around the building for a minimum of two meters is at or above the regulatory floodproofing datum. Non-habitable structures must at a minimum be wet floodproofed whereby all structural building materials below the regulatory flood datum must not be susceptible to flood damage and all mechanical, electrical, and heating equipment must be set above the regulatory flood datum and be engineered to withstand hydrostatic pressures and wave action (if applicable);
- e) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
- f) potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
- g) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable);

2.6 Development associated with existing uses located within the shoreline flood hazard such as minor additions (up to 25% of the existing ground floor footprint of the habitable space of the structure), non-habitable accessory buildings (e.g. sheds, detached garages, etc.), pools, landscaping retaining walls, grading, unenclosed decks, etc. as well as accessory structures under 10 square meters, may be permitted within the shoreline flood hazard if it has been demonstrated to the satisfaction of Conservation Authority that:

- a) there is no feasible alternative site outside of the shoreline flood hazard for the proposed development;
- b) the proposed development does not result in an increase of flooding risk (i.e., floodproofing measures applied) and is located in an area of least risk (i.e., located furthest possible distance from the water);
- c) the proposed works do not create new or aggravate flooding on the subject, adjacent or other properties;
- d) the development is protected from the shoreline flood hazard in accordance with established floodproofing and protection techniques. Structures must at a minimum be wet floodproofed whereby all structural building materials below the

regulatory flood datum must not be susceptible to flood damage and all mechanical, electrical, and heating equipment must be set above the regulatory flood datum and be engineered to withstand hydrostatic pressures and wave action (if applicable);

- e) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
- f) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
- g) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable);

2.7 Development may be permitted for the relocation or reconstruction of a building within the shoreline flood hazard, provided that it has not been damaged or destroyed by flooding or other water related hazards if it has been demonstrated to the satisfaction of Conservation Authority that:

- a) there is no feasible alternative site outside of the shoreline flood hazard for the proposed reconstruction or relocation;
- b) the proposed reconstruction or relocation does not result in an increase of flooding risk (i.e., floodproofing measures applied) and is located in an area of least risk (i.e., located furthest possible distance from the water feature);
- c) the proposed works do not create new or aggravate flooding on the subject, adjacent or other properties;
- d) the development is protected from the shoreline flood hazard in accordance with established floodproofing and protection techniques. Habitable buildings must be dry floodproofed such that the elevation of the building including the ground elevation around the building for a minimum of two meters is at or above the regulatory floodproofing datum. Non-habitable structures must at a minimum be wet floodproofed whereby all structural building materials below the regulatory flood datum must not be susceptible to flood damage and all mechanical, electrical, and heating equipment must be set above the regulatory flood datum and be engineered to withstand hydrostatic pressures and wave action (if applicable);
- e) will not exceed original habitable floor area nor the original footprint area of the previous structure.
- f) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
- g) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
- h) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable);

2.8 Development associated with the construction of a driveway or access way through the shoreline flood hazard in order to provide access to lands outside of the flood hazard

may be permitted subject to demonstrating that safe pedestrian and vehicular access is achieved;

- 2.9 Minor (less than or equal to 40 cubic metres) placement and removal of fill and site grading within the shoreline flood hazard may be permitted if the proposed works do not create new or aggravate flooding on the subject, adjacent, or other properties;
- 2.10 The replacement of sewage disposal systems may be permitted within the shoreline flood hazard. The replacement system should be located outside of the shoreline flood hazard where possible and only permitted within the shoreline flood hazard in the area of lowest risk;
- 2.11 Above ground parking lots may be permitted within the shoreline flood hazard if it has been demonstrated that safe pedestrian and vehicular access is achieved.
- 2.12 Raising of existing structures will be permitted for the purpose of meeting floodproofing requirements provided that the structure is located outside of the wave uprush zone and the structure is floodproofed to the regulatory flood datum. If the structure is located within the wave uprush zone, the footings/foundations must be engineered to the satisfaction of the Conservation Authority.
- 2.13 Structural modifications to an existing residential structure may be allowed where:
  - a) the nature of the construction or alteration is for flood protection of existing buildings or structures; or,
  - b) such construction or alteration is necessary to address safety or structural faults in any existing building or structure.

### **3.0 Development within the Allowance Adjacent to the Shoreline Flood Hazard**

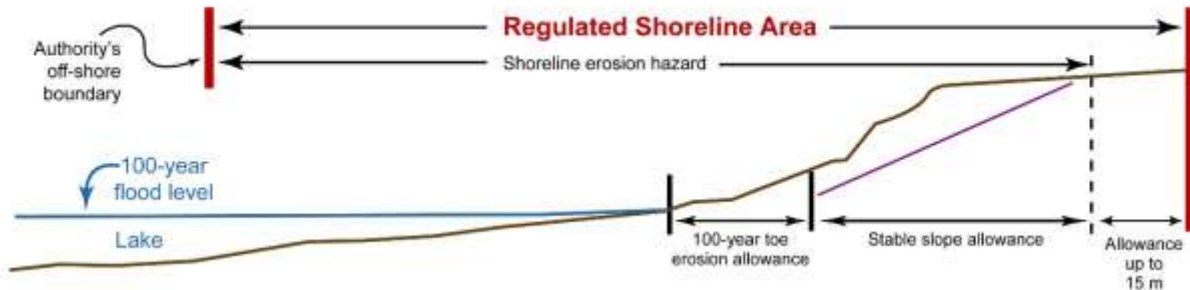
3.1 Development may be permitted within the 15 m allowance adjacent to the shoreline flood hazard if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected. The submitted plans should demonstrate to the satisfaction of Conservation Authority that:

- a) there is no feasible alternative site outside of the allowance adjacent to the shoreline flood hazard for the proposed development;
- b) the proposed development does not result in an increase of flooding risk (i.e., floodproofing measures applied) and is located in an area of least risk (i.e., located furthest possible distance from the water);
- c) the proposed works do not create new or aggravate flooding on the subject, adjacent or other properties;
- d) the development is protected from the shoreline flood hazard in accordance with established floodproofing and protection techniques. Habitable buildings must be dry floodproofed such that the elevation of the building including the ground elevation around the building for a minimum of two meters is at or above the regulatory floodproofing datum. Non-habitable structures must at a minimum be wet floodproofed whereby all structural building materials below the regulatory flood datum must not be susceptible to flood damage and all mechanical, electrical, and heating equipment must be set above the regulatory flood datum and be engineered to withstand hydrostatic pressures and wave action (if applicable);
- e) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
- f) potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
- g) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable);



#### 4.0 Development within the Shoreline Erosion Hazard

For the purpose of the following policy, the shoreline erosion hazard is the limit of the landward extent of the stable slope (stable slope allowance) measured from the existing protected or unprotected toe of slope, plus the limit of the 100 year erosion allowance.



For clarification of the general policy 1.0.1, the following shall not be permitted within the shoreline erosion hazard except in accordance with the policies of 4.2 to 4.7 and where it can be demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected:

- Development (on both vacant and existing developed lots of record);
- The creation of secondary dwelling units in an existing building;
- Erosion hazard protection and bank stabilization works to allow for future/proposed development or an increase in development envelope or area;
- Development associated with new and/or the expansion of existing trailer parks / campgrounds;
- Stormwater management facilities;
- Pools, covered decks, sunrooms, additions, boat houses, accessory structures, etc.;
- Basements; and,
- Underground parking.

4.1 Development shall be prohibited in the shoreline erosion hazard where the use is:

- a) an institutional use associated with hospitals nursing homes, preschool, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young during an emergency as a result of erosion and/or failure of protection works/measures; or,
- b) an essential emergency service such as that provided by fire, police and ambulance stations and electrical substations which would be impaired during an emergency as a result of erosion, or protection works/measures; or,
- c) uses associated with the disposal, manufacture, treatment or storage of hazardous substances.

4.2 Public infrastructure (e.g. roads, sewers, flood and erosion control works) and public utilities (e.g. pipelines) may be permitted within the shoreline erosion hazard subject to

the activity being approved through a satisfactory Environmental Assessment process and/or has been determined to be acceptable by the Conservation Authority;

- 4.3 Development associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail systems) may be permitted within the shoreline erosion hazard;
- 4.4 Shoreline, bank, and slope stabilization to protect existing development and conservation or restoration projects may be permitted within the shoreline erosion hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or has been determined to be acceptable by the Conservation Authority;
- 4.5 Development associated with existing uses located within the shoreline erosion hazard such as landscaping retaining walls, grading, uncovered detached decks, stairs, etc. may be permitted. The submitted plans should demonstrate to the satisfaction of Conservation Authority that:
  - a) there is no feasible alternative site outside of the shoreline erosion hazard or in the event that there is no feasible alternative site, that the proposed development is located in an area of least (and acceptable) risk;
  - b) development will not prevent access into and through the shoreline erosion hazard in order to undertake preventative actions/maintenance or during an emergency;
  - c) there is no impact on existing and future slope stability and bank stabilization;
  - d) development will have no negative impacts on natural shoreline processes;
  - e) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
  - f) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable);
- 4.6 Development may be permitted for the reconstruction or relocation as a result of a hardship within the shoreline erosion hazard, provided that the building has not been damaged or destroyed by erosion. The submitted plans should demonstrate to the satisfaction of the Conservation Authority that the reconstructed or relocated building:
  - a) there is no feasible alternative site outside of the shoreline erosion hazard for the proposed reconstruction or relocation;
  - b) as a minimum, the reconstruction or relocation shall be located outside of the stable slope allowance;
  - c) the proposed reconstruction or relocation does not result in an increase of erosion risk and is located in an area of least risk (i.e., located furthest possible distance from the hazard);
  - d) the proposed works do not create new or aggravate erosion on the subject, adjacent or other properties;

- e) will not exceed the original habitable floor area nor the original footprint area of the previous structure;
- f) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
- g) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
- h) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable).

4.7 Structural modifications to an existing residential structure may be allowed where:

- a) the nature of the construction or alteration is for flood or erosion protection of existing buildings or structures; or,
- b) such construction or alteration is necessary to address safety or structural faults in any existing building or structure.

## 5.0 Development within the Allowance Adjacent to the Shoreline Erosion Hazard

For clarification of the general policy 1.0.1, the following shall not be permitted within the 15 m allowance adjacent to the shoreline erosion hazard except in accordance with the policies of 5.1 to 5.4 and where it can be demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected:

- Development (on both vacant and existing developed lots of record);
- The creation of secondary dwelling units in an existing building;
- Erosion hazard protection and bank stabilization works to allow for future/proposed development or an increase in development envelope or area;
- Development associated with new and/or the expansion of existing trailer parks / campgrounds;
- Stormwater management facilities;
- Pools, covered decks, sunrooms, additions, boat houses, accessory structures, etc.;
- Basements; and,
- Underground parking.

5.1 Public infrastructure (e.g. roads, sewers, flood and erosion control works) and public utilities (e.g. pipelines) may be permitted within the allowance adjacent to the shoreline erosion hazard 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, dynamic beaches or the conservation of land will not be affected;

5.2 Development associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail systems) may be permitted within the allowance adjacent to the shoreline erosion hazard;

5.3 Development associated with existing uses located within the shoreline erosion hazard such as landscaping retaining walls, grading, uncovered detached decks, stairs, etc. may be permitted. The submitted plans should demonstrate to the satisfaction of Conservation Authority that:

- a) there is no feasible alternative site outside of the allowance adjacent to the shoreline erosion hazard or in the event that there is no feasible alternative site, that the proposed development is located in an area of least risk;
- b) development will not prevent access into and through the shoreline erosion hazard in order to undertake preventative actions/maintenance or during an emergency;
- c) there is no impact on existing and future slope stability and bank stabilization;
- d) development will have no negative impacts on natural shoreline processes;
- e) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,

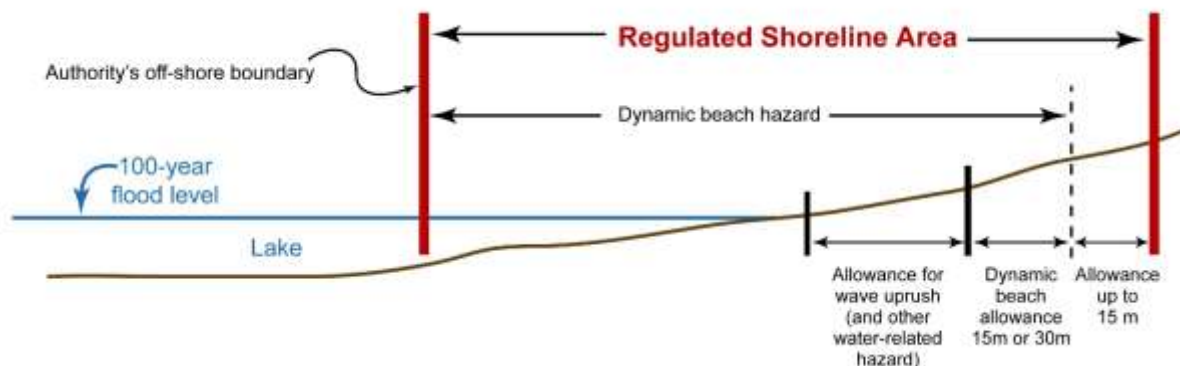
- f) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable);

5.4 Development may be permitted for the reconstruction or relocation as a result of a hardship within the allowance adjacent to the shoreline erosion hazard, provided that the building has not been damaged or destroyed by erosion. The submitted plans should demonstrate to the satisfaction of the Conservation Authority that the reconstructed or relocated building:

- a) there is no feasible alternative site outside of the additional allowance of the shoreline erosion hazard for the proposed reconstruction or relocation;
- b) the proposed reconstruction or relocation does not result in an increase of erosion risk and is located in an area of least risk (i.e., located furthest possible distance from the hazard);
- c) the proposed works do not create new or aggravate erosion on the subject, adjacent or other properties;
- d) will not exceed original habitable floor area nor the original footprint area of the previous structure;
- e) the proposed development will not prevent access for emergency works, maintenance, and evacuation;
- f) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
- g) natural features and/or ecological functions associated with conservation of land are protected and pollution is prevented (if applicable).

## 6.0 Development within the Dynamic Beach Hazard

For the purpose of the following policies, the Dynamic Beach Hazard is the limit of the landward extent of the 100 year flood elevation limit, plus the allowance for wave uprush and other water-related hazards, plus the dynamic beach allowance. The dynamic beach allowance is 30 metres and the wave uprush allowance is 15 metres. Therefore, the dynamic beach hazard is 45 metres measured from the 100 year flood elevation limit.



For clarification of the general policy 1.0.1, the following shall not be permitted in the dynamic beach hazard except in accordance with the policies of 6.2 to 6.7 and where it can be demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or the conservation of land will not be affected:

- Development (on both vacant and existing developed lots of record);
- The creation of secondary dwelling units in an existing building;
- Erosion hazard protection and bank stabilization works to allow for future/proposed development or an increase in development envelope or area;
- Development associated with new and/or the expansion of existing trailer parks / campgrounds;
- Stormwater management facilities;
- Pools, covered decks, sunrooms, additions, boat houses, accessory structures, etc.;
- Basements; and,
- Underground parking.

6.1 Development shall be prohibited in the dynamic beach hazard where the use is:

- a) An institutional use associated with hospitals, nursing homes, pre-school, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young during an emergency as a result of erosion or any other hazard associated with dynamic beaches or as a result of failure of protection works/measures; or,
- b) An essential emergency service such that provided by fire, police and ambulance stations and electrical substations, which would be impaired during an emergency as

- a result of erosion or any other hazard associated with dynamic beaches and/or as a result of failure of protection works/measures; or,
- c) Associated with the disposal, manufacture, treatment or storage of hazardous substances.
- 6.2 Underground public infrastructure (i.e. sewers) and public utilities (e.g. pipelines) may be permitted within the dynamic beach hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or has been determined to be acceptable by the Conservation Authority;
- 6.3 Development associated with public parks (e.g. passive or low intensity outdoor recreation and education, trail systems) may be permitted within the dynamic beach hazard;
- 6.4 Shoreline, bank, and slope stabilization to protect existing development and conservation or restoration projects may be permitted within the dynamic beach hazard subject to the activity being approved through a satisfactory Environmental Assessment process and/or has been determined to be acceptable by the Conservation Authority;
- 6.5 Site grading within the dynamic beach hazard may be permitted if the proposed works do not create new or aggravate flooding on the subject, adjacent, or other properties. Grading of sand dunes may be permitted if it is demonstrated to the satisfaction of the Conservation Authority that erosion (e.g. wind and water erosion) and flooding impacts will not be increased on adjacent properties. Notification of adjacent neighbours of site grading will be required as part of the permit application process. Grading of sand dunes adjacent to the waterbody shall not be permitted for a distance equal to 1/3 of the subject dynamic beach depth.
- 6.6 Development associated with existing uses located within the dynamic beach hazard such as minor additions (up to 25% of the existing footprint of the habitable space of the structure), non-habitable accessory buildings (e.g. sheds, detached garages, etc.), pools, landscaping retaining walls, grading, unenclosed decks, etc., may be permitted provided that they are no closer to the hazard than the existing residential structure. The submitted plans should demonstrate to the satisfaction of Conservation Authority that:
- a) there is no feasible alternative site outside of the dynamic beach hazard for the proposed development or in the event that there is no feasible alternative site, that the proposed development is located in an area of least (and acceptable) risk and is no closer to the hazard than the main residential structure;
  - b) the proposed works do not impede dynamic beach processes on the subject, adjacent, or nearby properties;
  - c) the footings/foundations must be engineered sufficiently to address dynamic beach processes;
  - d) the proposed development will not prevent access for emergency works, maintenance, and evacuation;

- e) the potential for surficial erosion has been addressed through the submission of acceptable drainage, erosion and sediment control and site stabilization/restoration plans (if applicable); and,
- f) the natural features and/or ecological functions associated with conservation of land are protected, pollution is prevented and erosion and dynamic beach hazards have been adequately addressed (if applicable).

6.7 Development may be permitted for the reconstruction or relocation of a building within the dynamic beach hazard, provided that it has not been damaged or destroyed by dynamic beach processes, flooding, or erosion. The submitted plans should demonstrate to the satisfaction of Conservation Authority that the structure:

- a) cannot be relocated to an area outside the dynamic beach hazard and if there is no feasible alternative site, that it is located in an area of least (and acceptable) risk;
- b) will be protected from the dynamic beach hazard through incorporation of appropriate building design parameters; and,
- c) will not exceed original habitable floor area nor the original footprint of the previous structure.



## **7.0 Development within the Allowance Adjacent to the Dynamic Beach Hazard**

7.1 Development may be permitted within the 15 m allowance adjacent to the dynamic beach hazard if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beach or the conservation of land will not be affected. The submitted plans should demonstrate to the satisfaction of Conservation Authority that:

- a) the development does not create or aggravate the dynamic beach hazard;
- b) the development does not prevent access to and along the dynamic beach;
- c) the potential for surficial erosion has been addressed through acceptable drainage, erosion and sediment control and site stabilization/ restoration plans (if applicable);  
and,
- d) the natural features and/or ecological functions contributing to the conservation of land are protected, pollution is prevented and flooding and erosion hazards have been adequately addressed (if applicable).