

Maitland Valley Conservation Authority Ontario Regulation 164/06
Policies and Procedures for Compliance with the Development, Interference
with Wetlands and Alterations to Shorelines and Watercourses Regulation (*Revised June, 2020*)

4.3 MVCA Shoreline Policies

MVCA, in our role through the planning process, should review planning applications to recommend that, in general, all development occurs outside and set back an appropriate distance from the shoreline hazards.

The following policies will be applied to proposed development within MVCA's shoreline regulation limit to ensure proposed work will not affect flood control, erosion, pollution, dynamic beaches, or the conservation of land.

4.3.1 General Provisions

4.3.1.1 Where a Flood Hazard and Erosion Hazard Both Exist

Where a flood hazard and erosion hazard both exist, MVCA shall apply the more "restrictive policy".

4.3.1.2 Development on Public Lands

Development activities proposed on public lands or other lands not owned by the applicant within MVCA's jurisdiction will not be permitted by MVCA unless written permission has been obtained by owner or leading government agency.

4.3.1.3 Foundation Work: Existing Structures (adopted October, 2014)

- (1) Strengthen and Repair (no redevelopment):
 - (a) It must be demonstrated to the Conservation Authority that the proposed works will not impact slope stability and/or the control of erosion, flooding or pollution on the subject property or neighbouring properties.
 - (b) Any excavation that is required within the shoreline erosion hazards or within adjacent lands of the shoreline erosion hazard at the toe of slope to facilitate the foundation works will require a geotechnical engineer to comment on the impact of the proposed works:

- i. The engineer must comment as to whether or not the work will have an impact on slope stability and/or the control of erosion, flood control pollution; and/or,
 - ii. If the engineer determines that the work may impact slope stability and/or the control of erosion, flood control or pollution, the engineer must make recommendations to mitigate the impact.
 - iii. No works will be permitted if it is determined by the geotechnical engineer that slope stability and/or the control of erosion, flood control or pollution will in the opinion of the authority be impacted.
- (c) Any excavation that is required within the allowance adjacent to the shoreline erosion hazard at the top of bank to facilitate the foundation works will not require the comments of a geotechnical engineer, unless it is of the opinion of the Conservation Authority that further technical studies are required to illustrate that the work will not impact slope stability and/or the control of erosion, flood control or pollution on the subject property and/or neighbouring properties.
- (d) The permit shall advise of the short term and long term erosion hazard at the subject location.
- (2) Redevelopment of foundation in whole or in part:
- (a) A geotechnical assessment will be required to assess slope stability and provide recommendations for mitigation to ensure the work and new foundation will not have an impact on the control of flooding, erosion, pollution, dynamic beaches or the conservation of land.

4.3.1.4 On-site Sewage Disposal Systems

Septic systems have a typical design life of 25 to 50 years and represent a constant source of infiltrating water. Any addition of water to the bluff from an improperly located leaching bed may increase the bluff's instability. A failure of an OSSDS has the potential to impact near shore water quality. Based on this knowledge, the following are MVCA's policies on the location of on-site sewage systems near or on the bluff:

- (1) Where possible, the OSSDS is to be located outside of the 25 year erosion risk area.
- (2) Where an OSSDS must be wholly or partially located within the 25 year erosion risk area, one of the following options must be utilized:

- (a) The installation of an OSSDS that does not result in the infiltration of water into the soil (such as a holding tank and recycled water systems, composting toilets, etc.)
- (b) A connection to a sewage treatment system outside of the 25 year erosion risk area.
- (c) An OSSDS may be permitted at the toe of the bluff provided it meets all of the following requirements:
 - i. The OSSDS can be located 1 m above the 100 year lake level.
 - ii. The OSSDS can be located outside of the wave uprush zone.
 - iii. There is sufficient relic beach/table land and a low enough erosion rate to allow for 25 years of protection from erosion.
 - iv. The OSSDS can be constructed without impacting the stability of the bluff.
- (3) In order to have an OSSDS installed or replaced within the 25 year erosion risk area, a geotechnical study is required. The geotechnical study must assess whether there is a location on the site that is suitable for the installation of a standard class IV septic system (with leaching bed). If the site is deemed unsuitable for a Class IV system, the geotechnical assessment must then assess whether the site is suitable for the installation of Class V system (holding tank) and provide recommendations for a safe design and location of the holding tank.
- (4) MVCA permit is required for OSSDS located within the 25 year erosion risk area.

4.3.2 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.

- (1) In general, development within the shoreline flood hazard shall not be permitted unless it can be demonstrated that the development will not affect flood control, erosion, pollution, dynamic beaches or conservation of land;
- (2) Notwithstanding Section 4.3.2 (1), public infrastructure (e.g. roads, sewers, flood and erosion control works) and various 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 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;

- (3) Notwithstanding Section 4.3.2 (1), 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 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;
- (4) Notwithstanding Section 4.3.2 (1), repair and maintenance of existing shore protection, slope stabilization 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 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; and that;
 - (a) Replacement structures must be designed to allow for unrestricted transport of sediment along shore;
 - (b) Existing groynes should be removed during replacement; and,
 - (c) Mechanical transport of sediment by dredging and/or importing sediment will not be permitted as part of any replacement seawall maintenance plan.
- (5) Notwithstanding Section 4.3.2 (1), new or enhanced shore protection projects may be permitted within 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; and that;
 - (a) the new shore protection is being placed for the benefit of existing development, not to allow for new or expanded development;
 - (b) the existing development benefitting from the new or enhanced shore protection is located at or below the toe of the bluff (i.e. not subject to factors of slope instability);
 - (c) design of the shore protection has been reviewed to the satisfaction of a qualified coastal specialist/engineer; the assessment must demonstrate there is no significant negative impact from:
 - i. the proposed shore protection on the subject property

- ii. the proposed shore protection on neighboring properties
 - (d) new structures must be designed to allow for unrestricted transport of sediment along shore;
 - (e) materials from existing protection works (previous stones, blocks, gabions, etc.) should be removed from the site dynamic beach or flood hazard limit where not being reused;
 - (f) new protection structures will not be permitted within the lakeshore flooding hazard unless required by the location of the benefitting development (only existing OSSDS and Primary Structures will be considered; eg. cannot be placed to benefit stairs, lawn, gazebos, sheds etc.)
- (6) Notwithstanding Section 4.3.2 (1), development associated with existing uses located within the shoreline flood hazard such as minor additions, accessory buildings, pools, landscaping retaining walls (any retaining wall or series of retaining walls not exceeding 1 metre (3 ft 2 inches)), grading, unenclosed decks, etc., may be permitted 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 that:
- (a) there is no feasible alternative site outside of the shoreline flood hazard for the proposed development;
 - (b) the proposed works do not create new or aggravate flooding or erosion on the subject, adjacent or other properties;
 - (c) proposed development will not prevent access for emergency works, maintenance, and evacuation;
 - (d) potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
 - (e) 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; and,
 - (f) development will have no negative impacts on natural shoreline processes.

- (7) Notwithstanding 4.3.2 (1), development may be permitted for the reconstruction or relocation of a building within the shoreline flood hazard, provided that it has not been damaged or destroyed by flooding or erosion and if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or conservation of land will not be affected. The submitted plans should demonstrate that the building:
- (a) cannot be relocated to an area outside the flood hazard;
 - (b) the proposed works do not create new or aggravate flooding or erosion on the subject, adjacent or other properties;
 - (c) proposed development will not prevent access for emergency works and/or maintenance,
 - (d) potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans,
 - (e) 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; and
 - (f) development will have no negative impacts on natural shoreline processes.
- (8) Notwithstanding Section 4.3.2 (1), 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 the provision of safe access as identified in Section 1.6.3 and 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;
- (9) Notwithstanding Section 4.3.2 (1), minor placement and removal of fill and site grading within the shoreline flood hazard shall only be permitted if associated with an approved shore protection as approved by the Conservation Authority and any other agency with jurisdiction; or in association with an existing municipally maintained public beach; and 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.

- (10) Notwithstanding Section 4.3.2 (1), the replacement of sewage disposal systems may be permitted within 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 replacement system should be;
- (a) located outside of the shoreline flood hazard where possible; and,
 - (b) located outside of the 100 year flood level and a metre above the 100 year flood level without altering the natural grade.

4.3.3 Development within the Allowance Adjacent to the Shoreline Flood Hazard (Where there is no identified Dynamic Beach)

- (1) Development may be permitted within the 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 that:
- (a) development does not aggravate the existing flood hazard or create a new one or create an erosion hazard;
 - (b) development does not impede access for emergency works, maintenance and evacuation;
 - (c) the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/ restoration plans; and,
 - (d) 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.

4.3.4 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 measured from the existing protected or unprotected toe of slope, plus the limit of the 100 year erosion limit.

- (1) In general, development shall not be permitted within the shoreline erosion hazard unless it will not affect flood control, erosion, pollution or conservation of land;

- (2) Notwithstanding Section 4.3.4 (1), public and private infrastructure (e.g. roads, sewers, flood and erosion control works) and various 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 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;
- (3) Notwithstanding Section 4.3.4 (1), 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 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;
- (4) Notwithstanding Section 4.3.4 (1), 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 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; and that:
 - (a) A geotechnical assessment from a geotechnical engineer shows that the site is stable for 25 years. If the site is suitable, the foundation must be designed with input from a geotechnical engineer.
 - (b) The exception to the above is any retaining wall less than 1 metre in height. A MVCA permit is not required for retaining walls less than 1 meter in height.
- (5) Notwithstanding Section 4.3.4 (1), development associated with existing uses located within the shoreline erosion hazard such as minor additions, accessory buildings, pools, landscaping retaining walls (any retaining wall or series of retaining walls not exceeding more than 1 meter , grading unenclosed decks, etc., may be permitted 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 and that,
 - (a) there is no feasible alternative site outside of the shoreline erosion hazard;

- (b) a geotechnical assessment from a geotechnical engineer shows that the site is stable for 25 years for accessory structures or 100 years for additions to primary structures. If the site is suitable, the foundation may need to be designed with the input from a geotechnical engineer.
 - (c) The exception to the above are:
 - i. decks that consist only of a floor, with an area less than 216 square feet and a height not greater than 3 meters (measured from the ground to the floor surface at any point).
 - ii. Any retaining wall less than 1 meters in height.
 - iii. Accessory buildings / structures if they are less than 486 square feet and are located on table lands (as determined by MVCA staff during a site visit prior to construction) and the primary structure is located closer to the erosion hazard.
 - iv. No permit is required for the above noted exceptions.
 - (d) development will not prevent access into and along the shoreline erosion hazard in order to undertake preventative actions / maintenance or during an emergency;
 - (e) there is no impact on existing and future slope stability and bank stabilization;
 - (f) development will have no negative impacts on natural shoreline processes;
 - (g) the potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans; and
 - (h) natural features and/or ecological functions contributing to the conservation of land are protected, pollution is prevented, flooding hazards, and dynamic beach hazards have been adequately addressed.
- (6) Notwithstanding 4.3.4 (1), development may be permitted for the construction, reconstruction or relocation of a building, or second storey addition within the shoreline erosion hazard, provided that it has not been damaged or destroyed by flooding or erosion and if it has been demonstrated to the satisfaction of the CA that the control of flooding, erosion, pollution or dynamic beaches or conservation of land will not be affected. The submitted plans should demonstrate that the building:

- (a) cannot be relocated to an area outside the erosion hazard;
- (b) a geotechnical assessment from a geotechnical engineer shows that the site is stable for 100 years. If the site is stable, the foundation may need to be designed with the input from a geotechnical engineer;
- (c) Second storey additions may be permitted on existing foundations if shown in a geotechnical assessment that the addition will not increase slope instability;
- (d) the proposed works do not create new or aggravate flooding or erosion on the subject, adjacent or other properties;
- (e) proposed development will not prevent access for emergency works and/or maintenance;
- (f) potential for surficial erosion has been addressed through submission of proper drainage, erosion and sediment control and site stabilization / restoration plans; and,
- (g) development will have no negative impacts on natural shoreline processes.

4.3.5 Development within the Allowance Adjacent to the Shoreline Erosion Hazard

- (1) Development may be permitted within the allowance adjacent to the shoreline erosion 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 that:
 - (a) development does not aggravate the erosion hazard or create a new one;
 - (b) development does not impede access for emergency works, maintenance and evacuation;
 - (c) the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/restoration plans; and
 - (d) 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.

4.3.6 Development within the Dynamic Beach Hazard (30 metres Adjacent to Wave Uprush)

- (1) In general, development shall not be permitted in the dynamic beach hazard unless it can be demonstrated that it will not affect the control of flooding, erosion, pollution, dynamic beaches or conservation of land;
- (2) Notwithstanding Section 4.3.6 (1), underground public infrastructure (i.e. sewers) and various 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 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;
- (3) Notwithstanding Section 4.3.6 (1), 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 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;
- (4) Notwithstanding Section 4.3.6 (1), 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 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) Notwithstanding Section 4.3.6 (1), new or enhanced shore protection projects may be permitted within the dynamic beach 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; and that;
 - (a) the new shore protection is being placed for the benefit of existing development, not to allow for new or expanded development;
 - (b) the existing development benefitting from the new or enhanced shore protection is located at or below the toe of the bluff (i.e. not subject to factors of slope instability);

- (c) design of the shore protection has been reviewed to the satisfaction of a qualified coastal specialist/engineer; the assessment must demonstrate there is no significant negative impact from:
 - i. the proposed shore protection on the subject property
 - ii. the proposed shore protection on neighboring properties
 - iii. the proposed shore protection on the dynamic beach system
 - (d) new structures must be designed to allow for unrestricted transport of sediment along shore;
 - (e) materials from existing protection works (previous stones, blocks, gabions, etc.) should be removed from the site dynamic beach or flood hazard limit where not being reused;
 - (f) new protection structures will not be permitted within the lakeshore flooding or dynamic beach hazards unless required by the location of the benefitting development (only existing OSSDS and Primary Structures will be considered; eg. cannot be placed to benefit stairs, lawn, gazebos, sheds etc.)
- (6) Notwithstanding Section 4.3.6 (1), development associated with existing uses located within the dynamic beach hazard such as minor additions, accessory buildings, landscaping retaining walls (any retaining wall or series of retaining walls not exceeding 1 metre (3 ft 2 inches)), grading, unenclosed decks, etc., may be permitted 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 that:
- (a) there is no feasible alternative site outside of the dynamic beach hazard for the proposed development;
 - (b) the proposed works do not create new or aggravate the dynamic beach hazard on the subject, adjacent or other properties;
 - (c) proposed development will not prevent access for emergency repairs and/or maintenance;
 - (d) potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
 - (e) 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; and

- (f) development will have no negative impacts on natural shoreline processes.
- (7) Notwithstanding Section 4.3.6 (1), 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 flooding or erosion and if it has been demonstrated to the satisfaction of the Conservation Authority that the control of flooding, erosion, pollution, dynamic beaches or conservation of land will not be affected. The submitted plans should demonstrate that the building:
- (a) cannot be relocated to an area outside the dynamic beach hazard;
 - (b) the proposed works do not create new or aggravate the dynamic beach hazard on the subject, adjacent or other properties;
 - (c) proposed development will not prevent access for emergency repairs and/or maintenance;
 - (d) potential for surficial erosion has been addressed through the submission of proper drainage, erosion and sediment control and site stabilization/restoration plans;
 - (e) 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; and
 - (f) development will have no negative impacts on natural shoreline processes.
- (8) Notwithstanding Section 4.3.6 (1), minor placement and removal of fill and site grading within the dynamic beach hazard shall only be permitted 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, and:
- (a) in association with an approved shore protection as approved by the Conservation Authority and any other agency with jurisdiction; or,
 - (b) in association with an existing municipally maintained public beach;
 - (c) exceptions to private lands may be permitted if the site grading is related to access to an existing lawful development and beach restoration projects. No permit is required within a 3 metre area

directly in front of the structure for the removal of sand blocking access to the sheds/boat houses.

- (9) Notwithstanding Section 4.3.6 (1), the replacement of sewage disposal systems may be permitted within the dynamic beach allowance 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 replacement system should be;
- (a) located outside of the dynamic beach allowance where possible; and
 - (b) located a metre above the 100 year flood level without altering the natural grade.

4.3.7 Development within the 15 metre Allowance Inland from the Dynamic Beach Hazard

- (1) Development may be permitted within the allowance adjacent to the dynamic beach allowance 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 that:
- (a) development does not create or aggravate the dynamic beach hazard;
 - (b) development does not prevent access to and along the dynamic beach hazard for emergency repairs and/or maintenance;
 - (c) the potential for surficial erosion has been addressed through proper drainage, erosion and sediment control and site stabilization/ restoration plans; 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.