

Shoreline Development Policies

Shoreline Development Policies

Homeowners along the lakeshore have new provincial regulations to consider when building or renovating. In May 2006, the Provincial Government passed regulation Ontario Regulation 164/06 that could impact on cottage and home owners who live near a lake or river and want to renovate or build. Conservation Authorities were given the responsibility for enforcing these new regulations.

The Maitland Valley Conservation Authority worked with representatives from the affected shoreline municipalities to develop policies relating to infilling, building additions and site redevelopment. Ontario Regulation 164/06 prevents or restricts development in areas where the control of flooding, erosion, dynamic beaches, pollution or the conservation of land may be affected by development. This regulation assists the Maitland Valley Conservation Authority (MVCA) to fulfill its mandate to prevent the loss of life and property due to flooding and erosion, and to conserve and enhance natural resources. If a landowner is planning to do any work near lakes, rivers, streams or wetlands, they may require a permit from the MVCA. Regulated activities along the shoreline include:

- Site grading on a bluff or beach
- Placement or removal of fill
- Alteration of the shoreline
- Development on a bluff or dynamic beach and
- Shore protection structures

For additional information on regulations and permits please contact Brandi Walter at bwalter@mvca.on.ca or 519-335-3557.



Stewardship - taking care of your coastline

Tree Care

Trees such as Eastern White Cedar, Birch, Maple and Ash trees are critically important for erosion control on Lake Huron bluffs. Trees help stabilize bluffs, offer habitat to wildlife, and keep soils from becoming over-saturated with water.

What can you do when a tree is blocking that gorgeous waterfront view? Before reaching for the chain saw, think about limbing or pruning to frame a view. Keep in mind that pruning trees is a hazardous activity best left to professional

Before Removing Trees Consider:

Trees are your erosion defense. Don't assume that cutting trees will remove weight from a slope and improve stability. Often it will not.

- Topping does not make a tree safer; topping makes a tree hazardous.
- Consult a professional forester and discuss options other than tree removal.
- Trees attract and shelter wildlife: Trees help stabilize the shoreline and offer important habitat for both plants and animals. Remember, the Lake Huron shoreline is an important migratory route for many bird species.

Beach Access

Before you build trails or stairways to the beach, think carefully about how you may be affecting the stability of your property and the health of the beach. Seek professional advice if you have questions.

Paths Can Increase Erosion

Clearing a path may create a new corridor for water to drain creating gullies and slope instability. Building a stairway may require construction of bank stabilization measures later. Consider sharing a path to the beach with neighbors. Seek advice before constructing a stairway down a bluff or gully slope.

In dune areas, good footpaths to the beach have an 'S' shape which helps prevent against wind erosion. Avoid trampling or removing dune vegetation. Without these protective plants, the dunes will be open to wind erosion. Dune grasses are rare, some even globally rare.

For additional information about shoreline stewardship contact the Lake Huron Centre for Coastal Conservation at 226-421-3029 or visit their website at www.lakehuron.ca .



Maitland Valley Conservation Authority

The Maitland Valley Conservation Authority has the responsibility to regulate activities in natural and hazardous areas in order to:

- prevent the loss of life and property due to flooding and erosion, and
- conserve and enhance natural resources.

This is done through regulations affecting areas in and near rivers, streams, floodplains, wetlands, slopes and the Lake Huron shoreline.

The MVCA provides watershed residents with information on shoreline development policies and permit applications. The MVCA can also provide landowners with shoreline mapping and information about coastal processes in their area. Shoreline policies information is available on the MVCA website at www.mvca.on.ca.

Maitland Valley Conservation Authority
Box 127, Wroxeter, Ont., N0G 2X0
519 335-3557
www.mvca.on.ca
maitland@mvca.on.ca

Municipalities

Municipal Building Departments are responsible for the administration of the Building Code, the Building Code Act, the Zoning By-law and other applicable laws and standards. These departments issues building permits and provide inspections for all new or renovated buildings within their respective Municipality. The main objective of Building Departments is to ensure that buildings are constructed to meet the health and safety provisions of the Ontario Building Code. Municipal residents are encouraged to contact their Municipal Building Department with any questions they may have regarding building permits

Township of Ashfield-Colborne-Wawanosh

82133 Council Line, R.R.#5, Goderich, Ont., N7A 3Y2
Phone: 519-524-4669
Chief Building Official 519-524-4669, ext. 208
Email: cbo@acwtownship.ca
www.acwtownship.ca

Municipality of Central Huron

23 Albert St., Clinton, Ont.,
519-482-3997
Chief Building Official 519-482-3997 ext. 238
Email: building@centralhuron.com
www.centralhuron.com

Town of Goderich

57 West St., Goderich, Ont., N7A 2K5
519-524-8344
Email: townhall@goderich.ca
Chief Building Official - Jim Spence 519-524-7308
www.goderich.ca

Lake Huron Centre for Coastal Conservation

The Coastal Centre is a registered not-for-profit, charitable organization dedicated to the conservation of Lake Huron's natural shoreline environment. The Coastal Centre functions as the local coastal management resource team for lakeshore communities, partnering conservation authorities, government agencies and the public.

The LHCCC is involved in research, advocacy, education and stewardship activities relating to Coastal Processes, Water Quality, Climate Change and Biodiversity.

The Lake Huron Centre for Coastal Conservation
74 Hamilton St.
Goderich, Ont. N7A 1P9
Phone: 226-421-3029
Email: coastalcentre@lakehuron.on.ca
Web: www.lakehuron.ca

Huron County Health Unit

The installation of on-site sewage systems is regulated by Part 8 of the Ontario Building Code. The Corporation of the County of Huron, represented by the Huron County Health Unit has "Sewage System Management" agreements with the Township of Ashfield-Colborne-Wawanosh and the Municipality of Central Huron.

On-site Sewage System Inspectors are qualified by the Ontario Ministry of Municipal Affairs and Housing. Inspectors receive enquiries and applications, issue permits, and perform inspections of on-site sewage system installations.

It is the responsibility of the property owner to ensure a permit is obtained prior to the commencement of any work and is required to ensure that the work is inspected at the appropriate stages. Permits are required for all sewage system installations and alterations with the exception of Class 1 systems (Privies – i.e. portable and chemical toilets).

Huron County Health Unit
77722B London Rd., RR 5, Clinton, Ont. N0M 1L0
Telephone: 519-482-3416 or 1-877-837-6143
Email: hchu@huroncounty.ca
www.huroncounty.ca/health

Sample Shoreline Aerial Photo




**Shoreline Generic Regulation 2012
100 year Erosion Potential
Map 21**

LEGEND - Point Farms Provincial Park

- 100 year Erosion Potential Line
- Stable Slope
- 100 year Floodline
- Property Boundaries

Map Projection: UTM NAD83 Zone 17



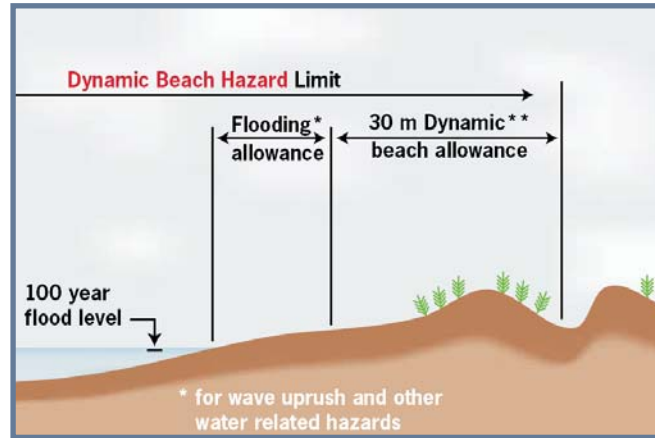
**Maitland Valley
Conservation Authority**
Working for a Healthy Environment!

**Shoreline Generic Regulation 2012
100 year Erosion Potential
Map 21**

MVCA GIS/Planning Services
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Aerial Photography taken in 2010 by Mapcon.
This map is for illustrative purposes only, it is not a legal survey.

File: S:\GIS\Shoreline\ShorelineMapping\ShorelineMapping100yr\ShorelineMap21_2012_100year.mxd
Date: August 1, 2012
Produced By: Jeffrey King, MVCA

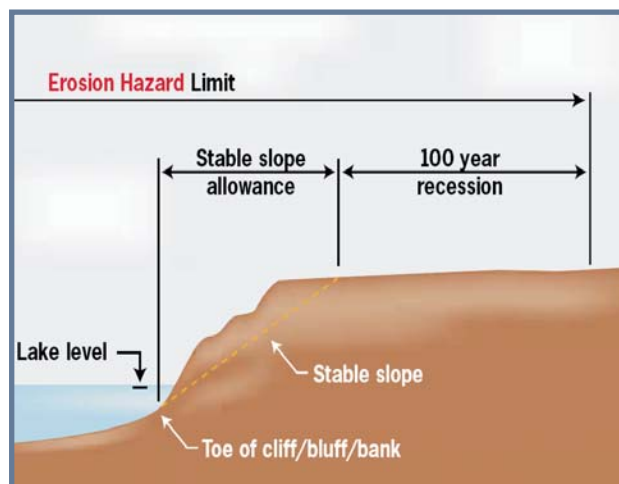
Dynamic Beach



The dynamic beach hazard is only applied where:

- beach or dune deposits exist landward of the water line (e.g., land/water interface)
- beach or dune deposits overlying bedrock or cohesive material are equal to or greater than 0.3 meters in thickness, 10 meters in width and 100 meters in length along the shoreline, and
- The fetch (distance the wind blows over the water onto the shore) is more than five kilometres. Measuring the fetch on a map: Draw a line perpendicular to the point where water meets beach (the tip). From the tip measure out five kilometres in an arc 60 degrees on either side of the perpendicular line, creating a wide pie-shape whose tip is pointing inland. The area within the pie-shape should be open water.
- perpendicular to the shoreline is great than 5 km.

100 Year Erosion Hazard Limit



The shoreline erosion hazard limit includes the following:

- stable toe of slope (as may be shifted as a result of erosion over a 100 year period),
- predicted long term stable slope projected from the stable toe of slope

Coastal Processes - know your shoreline

A number of areas of Huron County's Lake Huron coastline naturally experience shoreline erosion. Erosion and deposition are constantly taking place along the shoreline. The forces that cause coastal erosion and deposition are natural phenomena that have been taking place for centuries. These processes are sometimes viewed as a problem when we develop within the active part of the shoreline but they are important to the ecology of the coast.

When considering a building project it is important to determine if the site is in a natural hazard area. These areas are regulated to ensure the safety of residents and property.

Bluff Environment

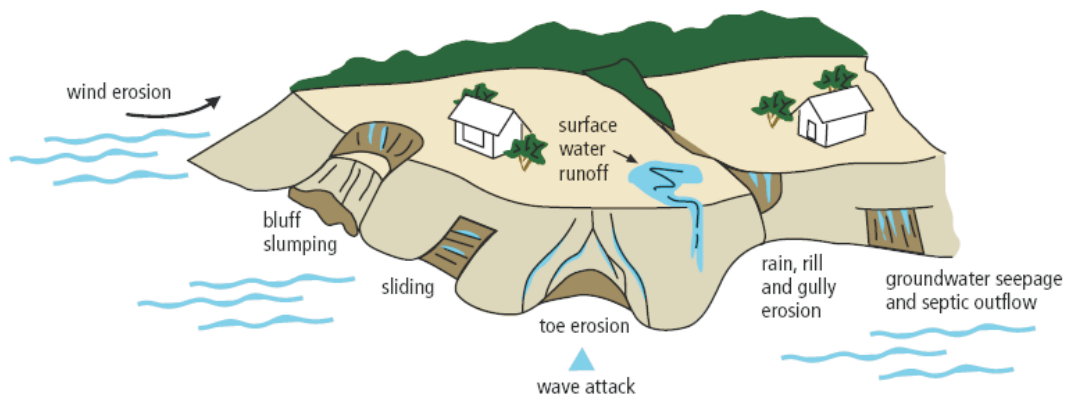
Eroding bluffs provide building materials for beaches. Sediment or eroded "bluff stuff" drops to the base of the bluffs, where it is sorted, with sand and gravel forming beaches, and silt and clay being carried and deposited offshore. The sands and gravel is carried along the shore by wind and waves. These bluff sands help build and maintain beaches for long distances along the coast.

Bluff erosion is affected by geology, waves, and weather. All three factors vary widely within the MVCA shoreline region, so bluff erosion rates can range from zero to more than half a metre per year. Stable areas are often related to parts of the shoreline where the nearshore lakebed is prevented from eroding because of rocky shoals (known by scientists as lag deposits). Where bluff erosion occurs, there are three factors that can influence the rate of erosion:

- (1) direct erosion of the base of the bluff by waves;
- (2) surface water erosion that flows over the bank eroding crevices into the soil, which can evolve into gullies;
- (3) groundwater seepage from the bluff, which can lead to catastrophic bluff failures.

The Maitland Valley Conservation Authority (MVCA) has historical erosion rate information, and mapping that helps identify high risk areas. It is important to note that erosion doesn't usually happen in a regular pattern. A bluff described as having an average rate of erosion of 30 cm per year may not erode 30 cm every year. The bluff may not erode for several years, and then a large piece of the bluff may break away. Hazard setbacks help to ensure that future development is not placed into a known risk area.

Once steepened to an unstable angle, bluffs can continue to erode even without wave action. Bluff slopes are always trying to reach a 'stable' angle. Along Lake Huron, that slope tends to be around 3:1 (length : height). Steep slopes along the lakeshore can appear stable, but if development were to alter the slope, or remove its trees and other vegetation, significant erosion may occur. Consult with the MVCA to ensure your development will be located outside of identified hazard lands or meet the provisions to ensure safe development.



Causes and Effects of Coastal Erosion

Gullies

Similar to bluffs, gully slopes can be potentially hazardous. Gullies aren't affected by wave erosion, but they do erode due to surface water runoff and groundwater seepage from the slopes. Development setbacks are necessary near gully slopes as well. Whether the gully is actively eroding or is relatively stable, conditions can change quickly, particularly if vegetation is removed, or surface drainage is altered.

Beaches and Dunes

Beach and dune grasslands are rare coastal landforms along the Great Lakes. On Lake Huron, dune grasslands comprise only about 3 percent of its 6,000 kilometre shoreline. Great Lakes dunes are among the most vulnerable ecosystems in Canada. They have undergone significant declines during the past century, largely as a result of shoreline development and recreational activities.

Dune areas within the jurisdiction of the MVCA, including Amberley Beach, are dynamic beach environments, where both wind and waves play a significant role in changing the shoreline.

Development in these areas needs to be done with both care and caution. Beach and dune systems provide habitat to rare plants and animals, and care needs to be taken to protect them. These areas are also very dynamic, meaning wind and waves can shift these sands to the extent that developing too close to the active dunes can present a hazard.

Protecting dunes can have the following benefits:

- ● Dunes maintain the quality of the beach;
- ● Dunes are a reservoir of sand that the lake 'borrows' during periods of high lake levels and storms. This sand exchange protects the shoreline area landward of the dune;
- ● Native dune plants have adapted over thousands of years to live in and stabilize dunes against wind erosion. Without it, sand drifts are carried inland where it becomes a continual maintenance problem.

For additional information about dune stewardship contact the Lake Huron Centre for Coastal Conservation at 519 523-4478.

Call Before You Build!

Before undertaking any shoreline building project contact your municipality and the MVCA to ensure your plans meet development policies and is not within a hazard area.



Dune grass planting project in Goderich.



Gully at Bluewater Beach, June 2010.