

# Fact Sheet on Finalized 2010 Coastal Erosion Area Maps

Coastal erosion continually reshapes every beach and coast in the world, including the Lake Erie shore. Although we may think of land as permanent, the land making up the lakeshore is not stable—the forces of waves and gravity are always acting upon it.

Since 1988, the Ohio Department of Natural Resources (ODNR) has mapped Ohio's Lake Erie coast to identify coastal erosion areas—land along the coast that is projected to be lost to erosion over the next 30 years if no measures are taken to address it. The objective of the Coastal Erosion Area (CEA) Program is to identify the hazards and mitigate the economic losses of erosion-related damage.

This fact sheet addresses common questions and describes some of the professional services and information available to you at no cost from ODNR.

## What is a coastal erosion area?

A coastal erosion area is a designated area of land adjacent to Lake Erie that is anticipated to be lost to erosion unless preventive measures are taken. Specifically, it is a zone that begins at the water's edge and extends landward a specific distance based upon the rate of recession along that stretch of bluff, bank, or beach ridge.

## Why does the State of Ohio designate coastal erosion areas?

Coastal erosion identification is a component of the 1988 Ohio Coastal Management Law, passed by the Ohio legislature in response to the serious hazards and substantial economic losses caused by coastal erosion. With input from non-ODNR geologists and engineers, local officials, and property owners, ODNR developed the standards for designating coastal erosion areas. Maps showing the first coastal erosion area designations were finalized in 1998. In 2010, ODNR updated the coastal erosion area designations and introduced a new set of maps, which supersede the 1988 maps.

The laws and rules that define the CEA Program are found in Ohio Revised Code (ORC) §1506 and Ohio Administrative Code (OAC) §1501-6.

## How are coastal erosion areas designated?

The ODNR Division of Geological Survey measures rates of coastal retreat, or recession, using analytical methods that include mathematical calculations, aerial photographs, visits to lakeshore sites to verify the data, and



**Coastal erosion is the receding of land along a beach, shore, or coast and affects every beach and coast in the world, including those of the Great Lakes. Important factors in coastal erosion are the types of rock or soil being eroded; the presence or absence of beaches or human-made structures; how the shore is oriented with respect to prevailing winds and waves; water levels; climate; and groundwater and surface drainage.**

extensive review of the quality and consistency of the work.

A complete set of extremely high-resolution, aerial photographs of Ohio's coast were obtained specifically for the purpose of mapping erosion. Unlike the commercial aerial photos publicly available through Internet services, the photographs used by ODNR for coastal erosion area identification were prepared specifically for mapping erosion along the shore. The photos were taken during ideal lighting and seasonal conditions and then georeferenced—processed to make them suitable for taking accurate, detailed measurements. ODNR Division of Geological Survey staff members visited lakeshore sites to confirm these measurements.

In accordance with Ohio law, for the 2010 update the photos were used to determine the distance the coast has receded between 1990 and 2004 (because those are the years the aerial photographs were taken). Based on the amount of recession that occurred between those years, calculations were made to project recession rates for the next 30 years. Areas projected to erode beyond a certain threshold amount are designated as coastal erosion areas and are shown as such on coastal erosion maps.

You can view the finalized maps at [www.ohiodnr.com/CEAm](http://www.ohiodnr.com/CEAm). If you prefer to see paper copies, each county, municipality, or township having territory within a designated coastal erosion area has received a set of maps for that specific county, municipality, or township. Included with the maps are data tables that show the amount of recession calculated for the entire coast.

Because the coast is constantly changing, a coastal erosion area is not a fixed zone. The projected recession is always measured from the current position of the bluff, bank, or beach ridge.

Property owners should be aware that even if a coastal erosion area is not designated for their property, erosion is a natural process that depends on many factors and there is always potential for erosion to occur.

## Is property owned by local, state, or federal governments included in coastal erosion area designations?

Regardless of ownership, the requirements of this program apply to all properties along Ohio's Lake Erie coast that fall within a designated coastal erosion area. Whether property is included in a designated coastal erosion area is based entirely on past recession rates.

## How a Coastal Erosion Area Designation Affects Your Property

If all or part of your property is included in a designated coastal erosion area, there may be certain requirements to build within a coastal erosion area; because construction along a coast—even if intended to prevent erosion—can actually accelerate it by disturbing the soil, changing the flow of groundwater or surface drainage, altering the action of lake waves, or adding weight to the bluff. It is common to try to stop erosion by using erosion control measures, but if not designed and installed properly, these measures can worsen erosion problems on your land or a neighboring property.

### Does the coastal erosion area designation affect my deed or property lines?

The coastal erosion area designation has no effect on deed language or property boundaries. It is a prediction based on past recession, not on property lines or any other legal instrument. A coastal erosion area designation may include all, a portion of, or none of your property and may include neighboring properties as well.

### What if I want to sell my property?

If you want to sell or transfer a property for which a coastal erosion area has been designated, you must disclose that status to the buyer (or grantee) on the seller disclosure form that is required for all residential real estate transactions in Ohio.

### What if I want to build on my property?

**You can still build on your property.** If all or part of your property is located within a designated coastal erosion area, you may still build a permanent structure; however, the type and location of the structure may require a CEA Permit from ODNR through the Office of Coastal Management. CEA Permit applications are reviewed for various factors, including the effectiveness of existing or proposed erosion control measures, slope stability, and impacts to littoral resources.

### What requires a Coastal Erosion Area Permit?

A permit to build within a coastal erosion area will be required if (1) your property is immediately adjacent to Lake Erie and (2) you wish to build a new structure or add 500 or more square feet (as measured at ground level) to an existing structure that is within a coastal erosion area. This applies to residential, commercial, industrial, institutional, and agricultural buildings and septic systems.

A CEA Permit is not required if any of the following conditions is met:

- Your property is not immediately adjacent to Lake Erie.
- The proposed structure is less than 500 square feet at ground level and is an addition to an existing structure.

- You wish to build a stand-alone, uninhabitable structure, such as a garage, shed, gazebo, or deck.
- The structure will lie entirely outside of a designated coastal erosion area.

Since a coastal erosion area designation may cover only a portion of your property, complying with these permit requirements may be as simple as building your proposed structure outside a coastal erosion area.

### How can I get a Coastal Erosion Area Permit?

ODNR has developed a single application for development along the Ohio coast, which can be downloaded at [www.ohiodnr.com/coastal](http://www.ohiodnr.com/coastal). You also may request a printed application by contacting the ODNR Office of Coastal Management at (419) 626-7980 or [coastal@dnr.state.oh.us](mailto:coastal@dnr.state.oh.us).

### Why not leave the permitting process up to local authorities?

Ohio law allows for administration of programs addressing coastal erosion at the local level. No state permit is required where a county or municipality enforces a coastal erosion area resolution or ordinance that meets the standards required by law. Although ODNR encourages localities to assume this responsibility, as of December 1, 2010, no coastal counties or communities have enacted their own erosion control programs.

### Further information:

After reading this fact sheet, if you have additional questions or want to schedule a visit by an ODNR representative, please contact one of the agencies below. The scientists, engineers, and support staff at ODNR care about our coast and helping you preserve your lakefront investment.



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