

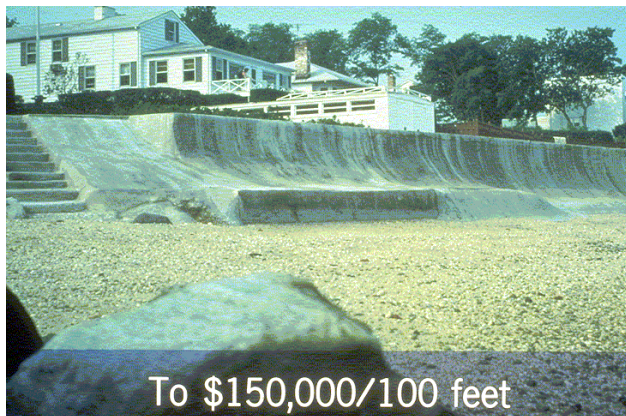


POINTS TO CONSIDER WHEN BUYING SHORELINE PROPERTY

You're considering buying a piece of property. You've found two properties which meet your needs and interest you. Both properties are about two acres in size, both have similar 2,500 square foot houses built in the same year, both have swimming pools. One is on a low hilltop 25 miles south of Lake Ontario, the other is on a bluff rising 35 feet above that lake's waters. Being a good, educated consumer, you have done your homework on what to look for when purchasing a house, but, guess what? The guidelines never mentioned a Great Lake on your northern property line. Is buying a shoreline property different from an inland site and do you need to take additional information into consideration? The answer is a definitive "yes."



When prospective property owners consider buying shoreline property, they are struck with the idea of "being on the water" and are enamored with the panoramic views and sunsets. Given such unique positive incentives for buying on the shore, they sometimes tend to overlook the negative aspects associated with life on the coast: major storm events, high (and low) water levels, ice damage, erosion of beaches and bluffs, flooding, and the occasional odor of rotting "seaweed." People seem to have a blindness to the negative force of Mother Nature on shorelines, while falling in love with the positives. And who can blame them? While the sunsets and virtually unlimited views are obvious, few people (other than those already living on the shore) are aware of the \$230 million plus in damage caused by storms on top of high lake levels in the early 1970s. Few people are aware of how expensive structural solutions to coastal erosion and flooding can



be (the U.S. Army Corps of Engineers estimates that from 1972 to 1976, Great Lakes property owners spent \$170 million to protect their shoreline properties). It is estimated that two-thirds of the entire Great Lakes shoreline is subject to erosion. Both current and prospective shoreline property owners need to plan, both financially and physically, to mitigate the effects of coastal flooding and erosion if they are to have continued enjoyment of their investment.

Some existing shoreline property owners say that they would tell people not to buy homes in flood and erosion prone areas; others would advise that only those wealthy enough to face long-term mitigation investments make the purchase; and, yet others say that the hardships are worth it

when you look out of your dining room window at a beautiful Lake Ontario sunset. Almost all, however, agree that prospective shoreline property owners are usually unaware of the extra work and expense of maintaining coastal homes compared with inland homes. Shoreline newcomers just don't realize that having a Great Lake on your property line can sometimes be like holding off an ocean.

Given the realities of shoreline property being different from inland property, how can consumers who are in the market to buy on the coast be prepared and avoid a potentially unpleasant surprise? If ever there was a case of *caveat emptor*, (buyer beware), this is it. The following are a number of examples of special situations of which a prospective buyer should be aware when considering coastal property.

In most jurisdictions, sellers and realtors are not specifically required to disclose longterm erosion risks. However, under some of the new "lemon law" statutes, an existing homeowner would probably be required to disclose a current erosion problem or a failing erosion control structure, the same way that they would have to disclose a furnace or roof that was known to be in imminent need of repair. In communities participating in the National Flood Insurance Program, a prospective buyer would need to be informed that a property is in a flood-prone location and banks and other lending institutions must require that a buyer pay for flood insurance before a mortgage can be granted. Some coastal specialists have suggested that laws should be changed to require full disclosure of erosion and flood risks in a property's deed; this, however, has not been enacted into law in New York State. Until such safeguards are law, prospective property owners should investigate the following questions when considering shoreline property.

- I. Has the property been mapped for its susceptibility to erosion? (New York State has a coastal erosion hazard law which requires the mapping of all Great Lakes and Long Island shores to determine their erosion rates and whether they are within natural protective feature areas such as dunes.) Such erosion hazard maps will indicate whether the property is in an erosion hazard area (generally, locations where erosion takes place at one foot or more per year on a long-term average). The rates shown on these maps will help the prospective buyer to determine the life expectancy of a property (for example, in an area shown as having a recession rate of two feet per year, a 100 foot deep lot will be a 50 foot deep lot in about 25 years given average erosion).
- II. How far is any building or other structure (such as a swimming pool) from the top edge of the bluff or bank or from the back (landward) edge of the beach? In an erosion hazard area, a buyer will need to consider how long until that structure is threatened given average erosion rates. A corollary to this question is whether or not the structure is movable and whether there is sufficient property depth landward of the structure to allow it to be moved back from the erosion front when the time comes that it would be necessary to do so. If the structure can be relocated, how much will it cost, is this affordable, and is it practical to consider such a relocation?

III. Do any shore protection structures (such as a bulkhead or revetment) exist at the toe of the threatened bluff that might mitigate the mapped long-term erosion rate? What condition are any such structures in, and what is their life expectancy?

IV. Are there any shoreline erosion control structures (such as a seawall or groin) nearby that could possibly interrupt nearshore currents and disrupt the natural movement of sediments? If “yes,” is there any indication that they are causing a “starvation” of downstream bluffs or beaches, increasing the speed of erosion?

V. Do any offshore sand bars or shoals exist? Such natural structures can dissipate wave energy before it reaches the shore, thereby reducing the threat to bluffs and beaches. If “yes,” how permanent are such natural structures? What happened to them the last time the lake levels were higher than normal?

VI. What is the drainage situation at the property? Are there hardpan or clay layers in the soil that might cause drainage problems? (See the New York Sea Grant brochure titled “Controlling Coastal Bluff Groundwater.”) A prospective buyer should take a look at the face of the bluff from the water side. Are there any signs of water seepage? Can mudflows be identified? Are there surface gullies in the soil at the top of the bluff or on the face of the bluff? Do roof drains and septic system drains flow out through the face of the bluff? Does water from the driveway and lawn flow over the face of the bluff? In many cases, erosion caused by surface and subsurface drainage problems can be as much of a problem as erosion caused by storm waves.

VII. If there is an erosion problem, whether caused by drainage or wave action, does it appear that it could be controlled by the installation of an erosion control structure (such as a bulkhead, revetment) or by improving drainage and possibly by reshaping the face of the bluff to a more stable angle? Would such a project be both physically feasible and economically affordable? Would an erosion control project, once completed, detract from the buyer’s enjoyment of the property?

VIII. Are the neighbors concerned about shoreline erosion? Would they be willing to collaborate on a neighborhood-wide shoreline protection project? Quite often, a single, integrated approach to erosion control along a longer stretch of shore will be more efficient than a number of unrelated structures and will be less costly per property when undertaken as one large project than when built by different contractors at different times. Also, sections of shore that are not protected may cause increased rates of erosion at sites that are protected, reducing the effectiveness and life expectancy of new structures.



Deteriorated erosion control structures provide little or no long-term protection to shoreline property.

- IX. Is the site within a mapped flood hazard area? Is flood insurance available and affordable? It should be noted that insurance against longterm erosion normally is *not* available, while federally subsidized flood insurance may, on the other hand, be required if the property is in a flood plain. Flood insurance may, under some circumstance (such as suddenly high lake levels or major, atypical storms) cover severe short-term erosion events.
- X. Check the insulation values for the walls and attic of the house. They should meet a minimum of R-49 in attics and R-28 in walls (the same for an inland home). Ideally, given the increased exposure to wind along the open coast of the Great Lakes, a year-round shoreline home should have more than that amount of insulation. Weather stripping and air-tight sealing around windows facing the lake should also be checked, as should the glazing of the windows and any sliding patio doors facing the shore. Winter (and other) storms along NY's "north coast" can be a major challenge to keeping the inside of your shoreline home warm and draft-free.
- XI. As with any house, the roof shingles should be checked before purchase of the home. This is even more important along the shore where severe winds coming off the lakes during winter storms and summer gales can remove shingles more easily than gentler winds at inland locations.
- XII. Thought should also be given to protecting small children and pets along the shore. Wandering off can bring a whole new dimension of danger when a lawn ends in a 50 foot drop into a Great Lake.

Life on the shore, whether along the Great Lakes or the ocean can provide a range of unique and stimulating experiences not found at inland location. It can also pose challenges not found at those inland sites. Coping with these challenges and still having the time and resources to enjoy the positives requires a bit more thought and preparation on the behalf of the prospective shoreline property owner. Following the information-gathering suggestions presented above will help ensure that your new shoreline getaway doesn't become a nightmare from which you want to get away.



For more information on shoreline erosion processes and mitigation techniques, check out the following information sources:



New York Sea Grant
Morgan II
SUNY College at Brockport
Brockport, NY 14420-2928
Phone: (585) 395-2638
Fax: (585) 395-2466
E-mail: sgbrockp@cornell.edu

New York Sea Grant
146 Suffolk Hall
SUNY at Stony Brook
Stony Brook, NY 11794-5002
Phone: (631) 632-8730
Fax: (631) 632-8216
E-mail: sgstonyb@cornell.edu

Lake Champlain Sea Grant Extension Project
101 Hudson Hall
SUNY College at Plattsburgh
101 Broad Street
Plattsburgh, NY 12901-2681
Phone: (518) 564-3038
Fax: (518) 564-3036
E-mail: sgplatts@cornell.edu



U.S. Army Corps of Engineers
Buffalo District
1776 Niagara Street
Buffalo, NY 14207
Phone: (716) 879-4104

U.S. Army Corps of Engineers
New York District
26 Federal Plaza
New York, NY 10278-0090
Phone: (212) 264-1722

Begun by an act of Congress in 1966 and funded by the National Oceanic and Atmospheric Administration, Sea Grant is a national network of 30 university-based programs of research, outreach and education dedicated to the protection and sustainable use of the nation's coastal, ocean and Great Lakes resources.

This publication is issued to further Cooperative Extension work mandated by acts of Congress. It was produced with the cooperation of the U.S. Department of Agriculture; Cornell Cooperative Extension; and College of Agriculture and Life Sciences, College of Human Ecology and College of Veterinary Medicine at Cornell University. Cornell Cooperative Extension provides equal program and employment opportunities.