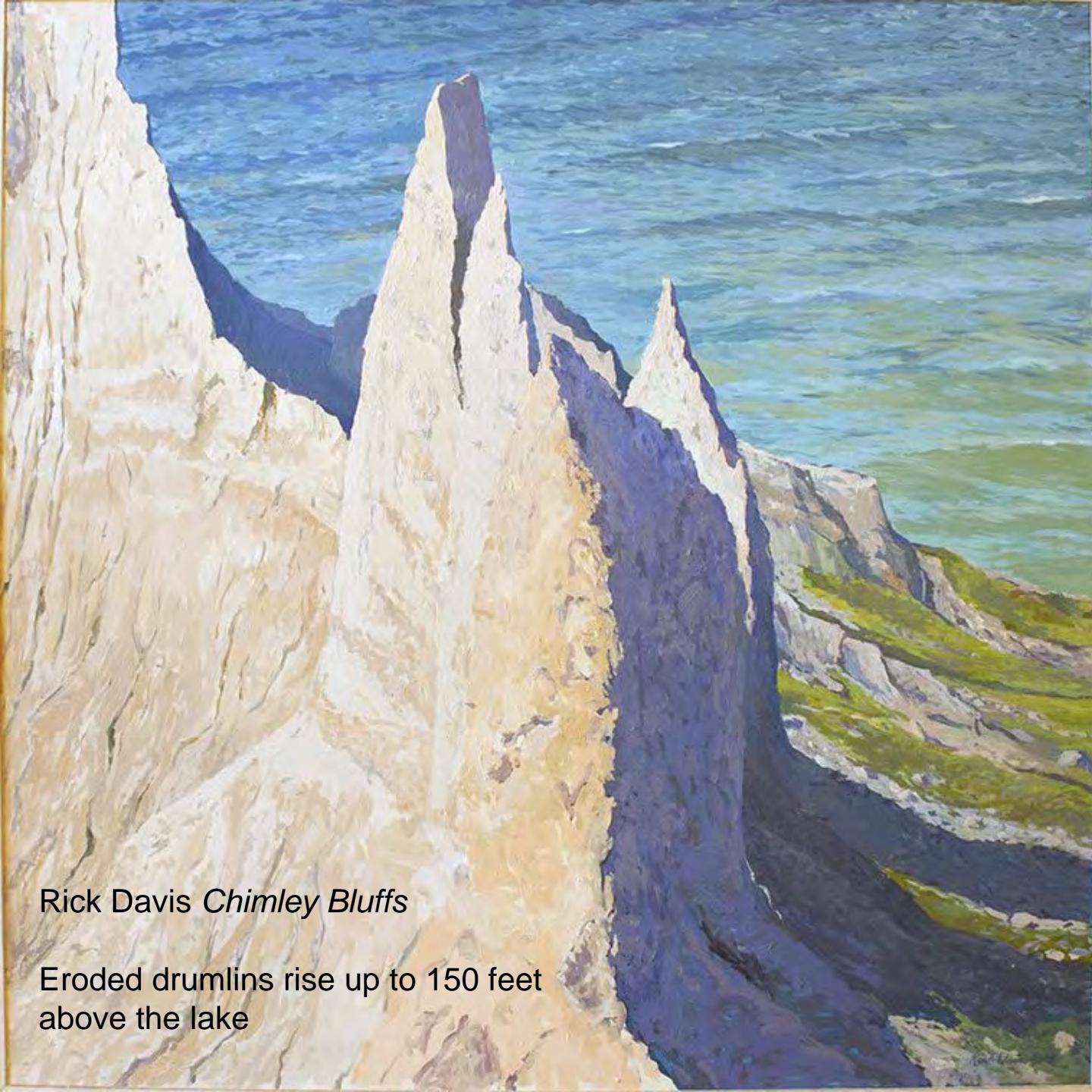


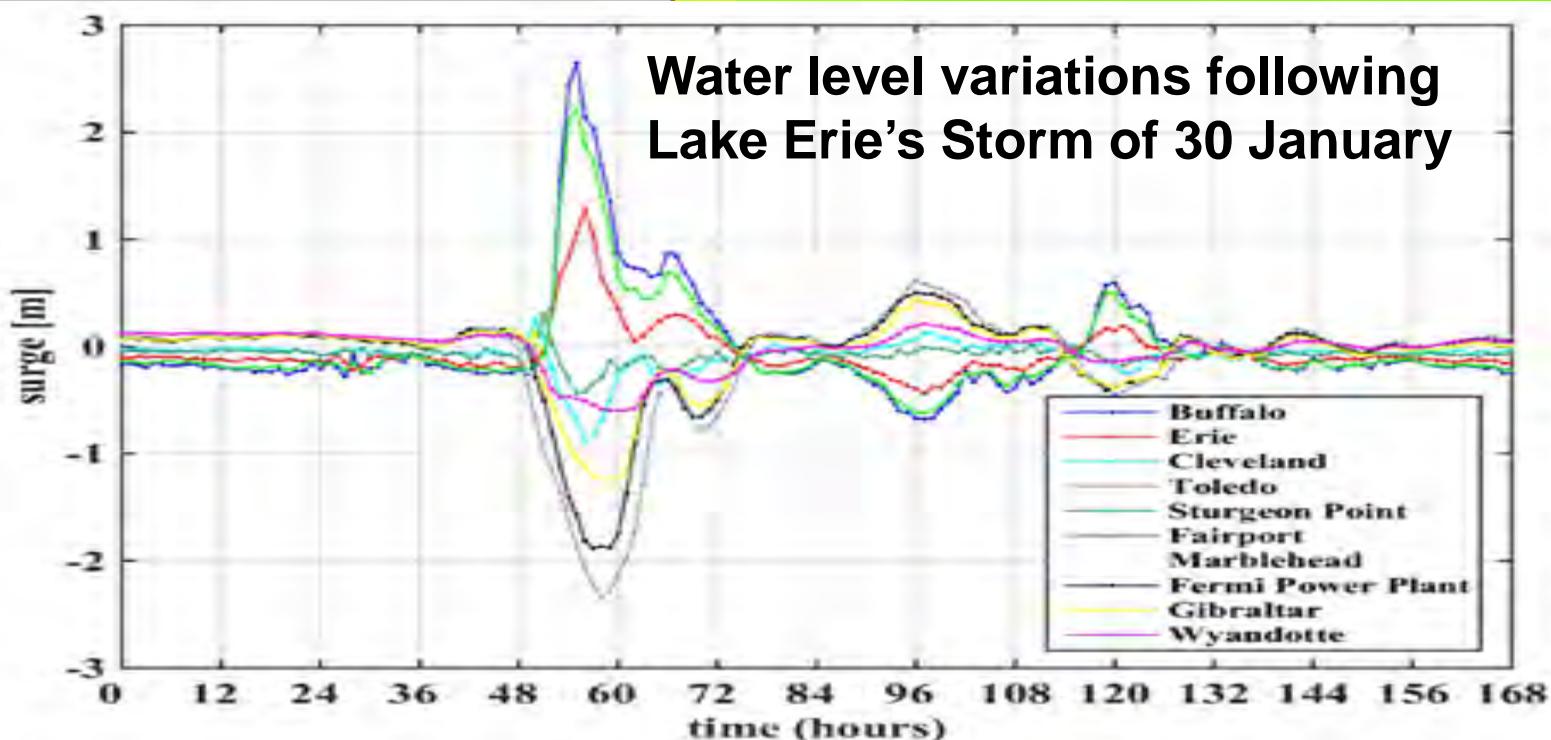
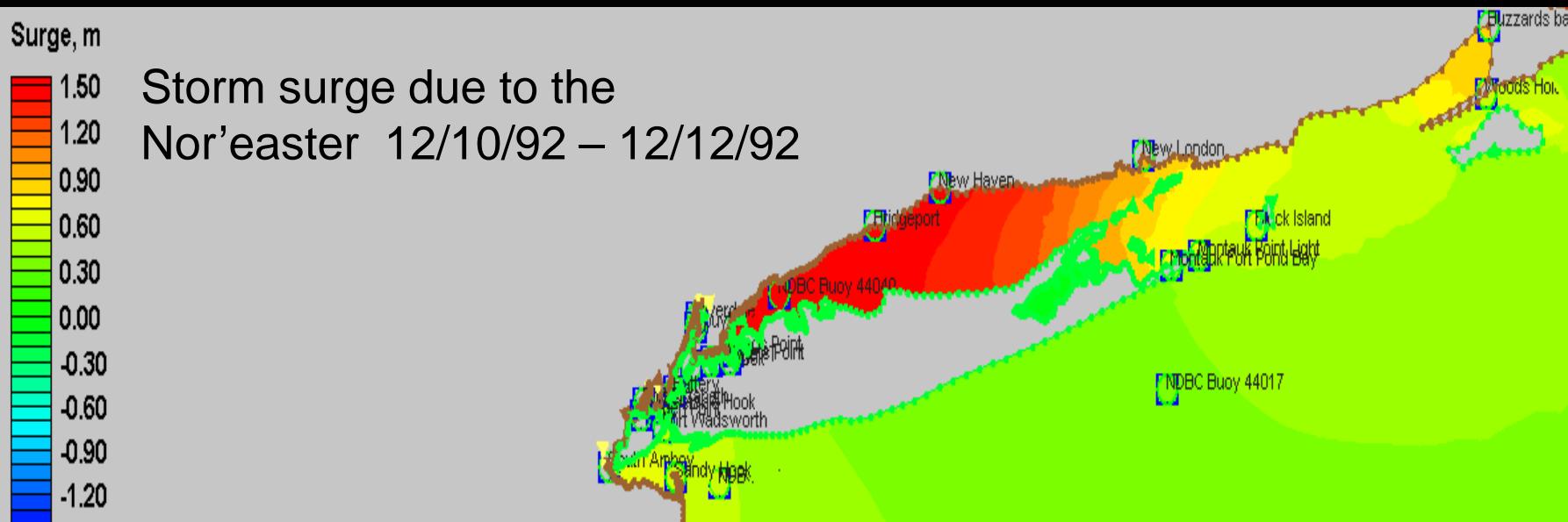
### *Whitney Hubbard Long Island Sound Bluff*

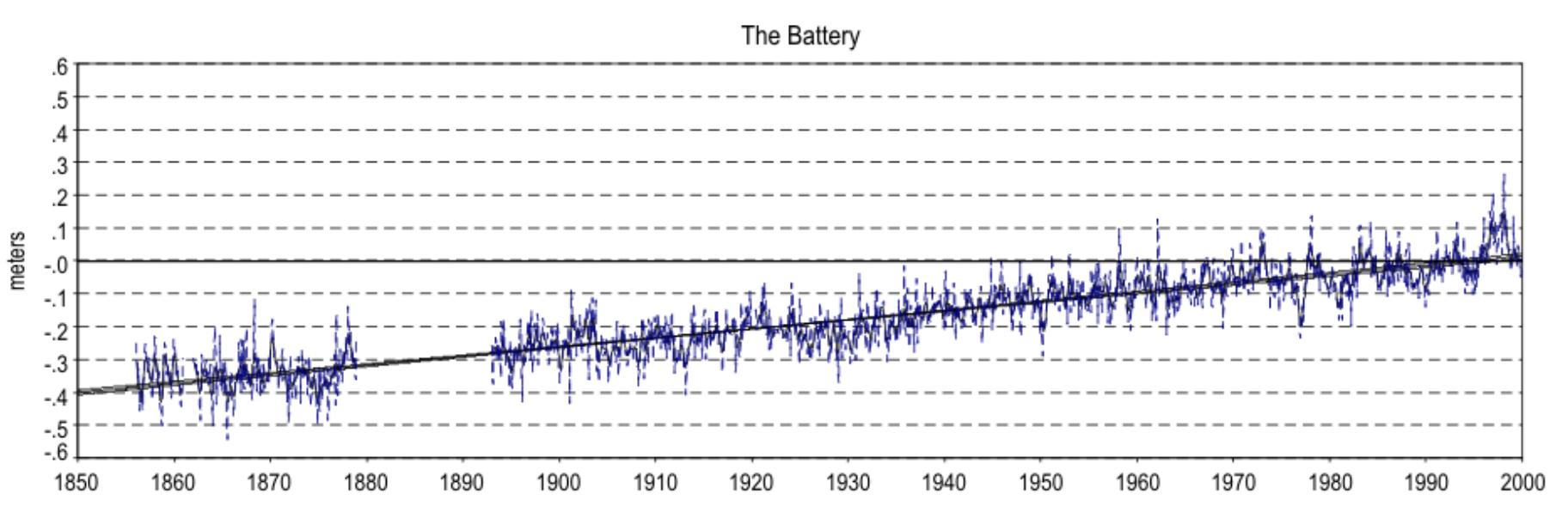
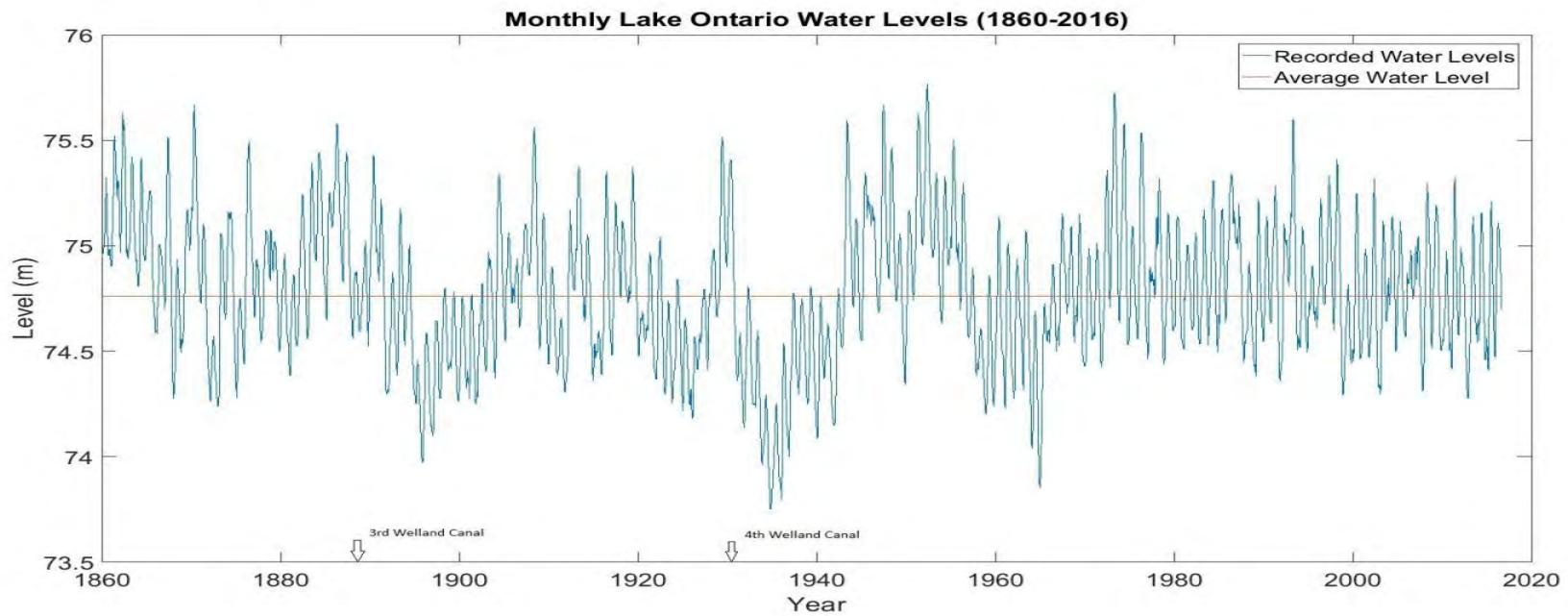
The high, steep, sandy bluffs of LI's north shore and around The Great Lakes are a fairly rare type of shoreline. Similar features are found on Cape Cod and the outer island, and the NW Pacific Coast. Although topped by glacial sediment much of the bluff on Long Island is Cretaceous in age.



Rick Davis *Chimley Bluffs*

Eroded drumlins rise up to 150 feet  
above the lake









Long Island Sound



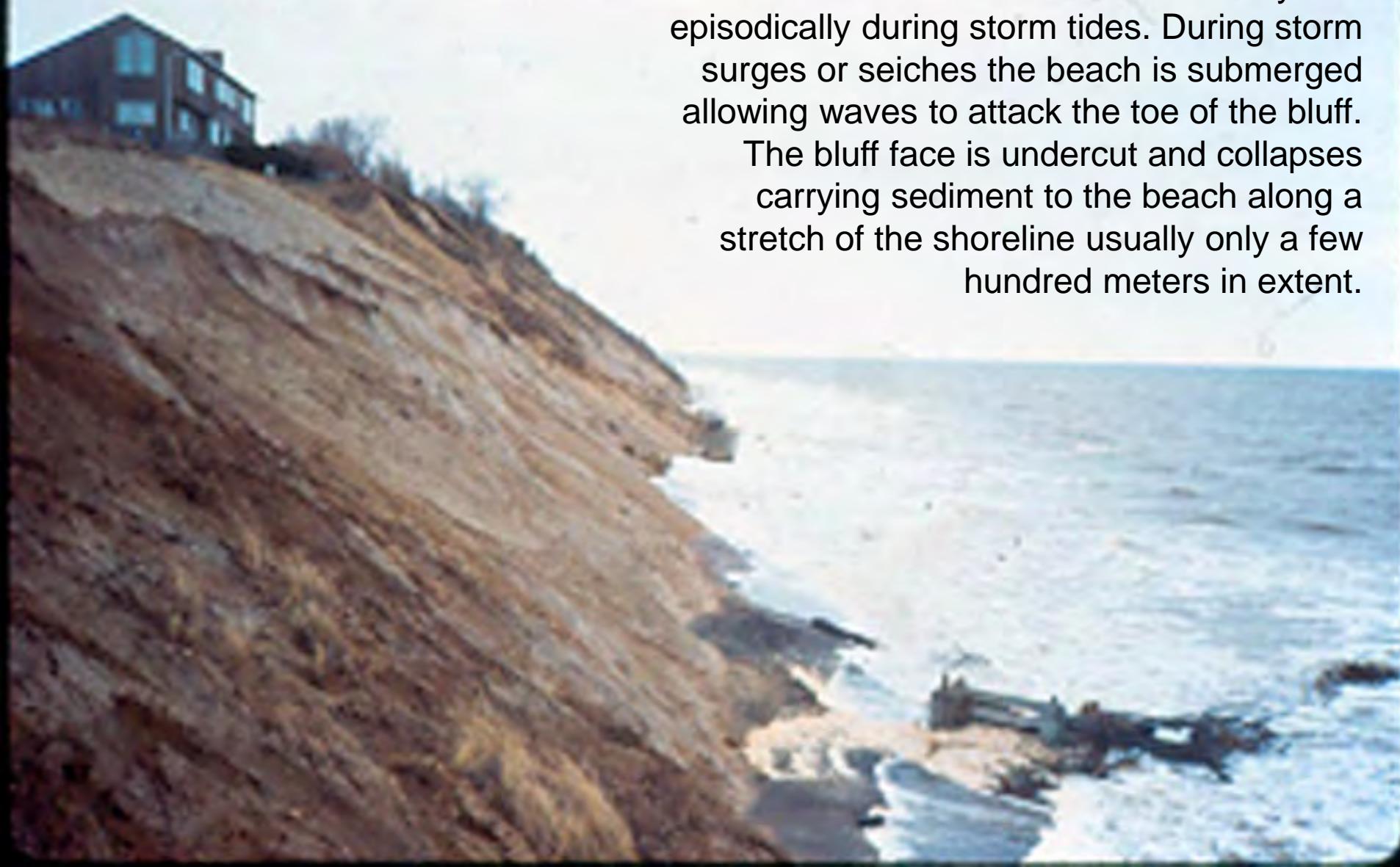
Lake Ontario



Wave attack, Lake Ontario.



Erosion of the bluffs occurs locally and episodically during storm tides. During storm surges or seiches the beach is submerged allowing waves to attack the toe of the bluff. The bluff face is undercut and collapses carrying sediment to the beach along a stretch of the shoreline usually only a few hundred meters in extent.



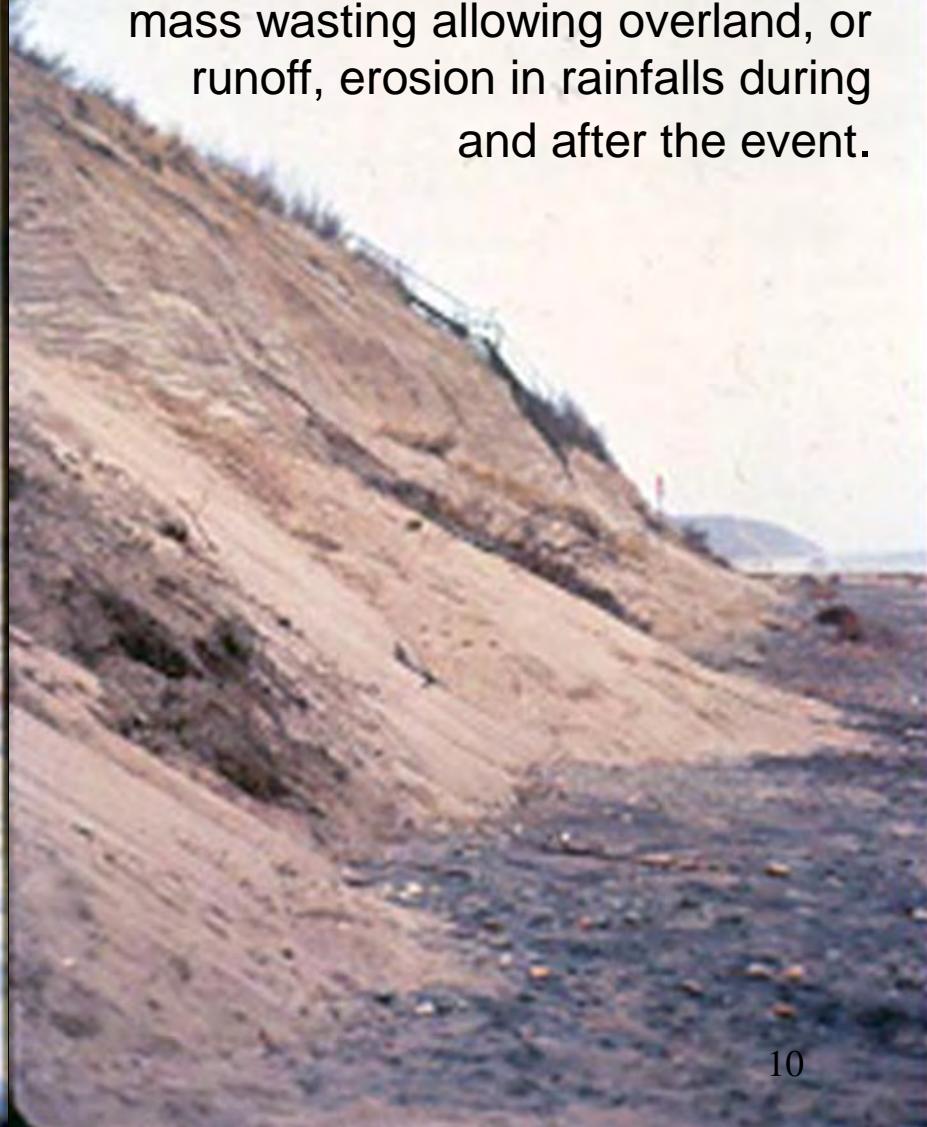
December, 1992 Nor'easter over Long Island Sound

# Hurricane Gloria, Long Island Sound 1985



## “Overland” or “Runoff” Erosion

Vegetation is also removed by the mass wasting allowing overland, or runoff, erosion in rainfalls during and after the event.





Groundwater Sapping



Vegetated bluff face