

CLIMATE TALK

Could Climate Change Bring a Real Estate Boom to the Great Lakes?

Larry Bean

It seems that often articles on climate change focus on the physical changes in the environment such as temperature increase, ice melt, sea level rise, increased storm intensity and others. A fewer number speak to the changes that may occur with plant and animal life distributions and survival, and especially the changes that are happening to human settlement patterns.

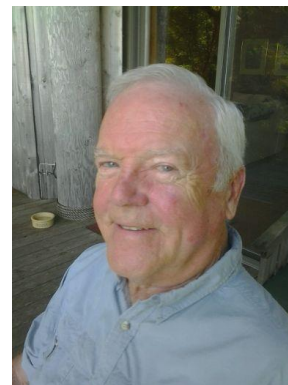
In the 1980's my wife and I were fortunate to acquire a parcel of Madeline Island lake front property on which we built a seasonal home. From our dining room table, we look out over Lake Superior and nine of the Apostle Islands. On a clear day or evening we can see all the way to the Minnesota north shore. At night there are no lights in that 60-mile expanse. I am not sure there are many places where you can see 60 miles without man-made light intrusion.

Several years after we acquired our property, neighboring property was acquired by a couple from Germany. While my wife and I spent all of our lives and careers in Iowa, we have now become true "snow birds", travelling from Wisconsin to a home in northern Arizona for the winter. It amazed me that someone would have a seasonal home a continent away and travel across the Atlantic Ocean from Germany each year to a vacation home. I had the occasion to ask why they selected Madeline Island from their European residence. They replied that "all of the waterfront property on both U. S. coasts was acquired and was held by the very wealthy. That there was nowhere in the world you could acquire property like that that they had purchased here".

In 2014 scientists determined that changes in the Antarctic ice sheet put in place irreversible sea level increases of 1.5 to 5 feet by 2100. Planners have been given a 3-foot rise as the most likely. Earlier this year, scientists have stated that 13 million Americans will be displaced by rising sea levels on our coasts by 2100. While our oceans rise, the same is not expected to happen with the Great Lakes. Most models show the Lake levels dropping, more in the smaller lakes and around 18 inches in Lake Superior. This water level drop will be primarily due to changes in rainfall patterns.

Northern Wisconsin began to experience a change from an economy based on resource extraction, lumbering, fishing, quarrying, to tourism about a century ago. A comparatively modest infrastructure began to develop to support tourism. During that same period, the U. S. saw an acceleration of human migration to the coasts. We have witnessed a coastal building boom while the sea level is rising. Some still have memories of relatively cheap "beach shacks" where there are now expensive homes, hotels and condominiums. Much of this development would not exist but for government support and subsidy and the human sense of technological and engineering invulnerability against nature.

There are hundreds of miles of high rises jammed up against the sea (think Florida). And there are primitive communities in highly vulnerable areas. The July/August issue of the Smithsonian Magazine describes "the first place in America losing its battle against climate change". The Biloxi-Chitimacha-Choctaw Indian tribe is moving to higher ground at a cost of \$48 million dollars. The same article cites the U. S. Geological Survey as saying that Louisiana is losing a football field's worth of land every hour—



NOW. There are Alaskan Arctic Natives that might argue that they were the first “climate refugees” as they have had to move or abandon their shoreline communities that are no longer “protected” from winter storms by ice.

There are thousands of houses at the ocean’s edge that are now being regarded as “severe repetitive loss properties”. The affluent want their investment protected. Community planners in beach front communities are now beginning to acknowledge that the post storm barrier building, repairing and beach replenishment will only be cost effective for about another decade. In the chapter titled *The Taxpayer and the Beach House*, the authors, Orrin Pilkey, Linda Pilkey-Davis and Keith Pilkey describe some of the impending dilemma in the new book, [Retreat from a Rising Sea](#). The increase in coastal development has created a crisis for the insurance industry and the National Flood Insurance Program (NFIP). Between 1991 and 2010, hurricanes and tropical storms made up 44% of the total number of catastrophic losses. After the hurricane season of 2005, the NFIP had \$23 billion in liabilities while they received just \$2.2 billion in premiums. This clearly will not be sustainable. Taxpayers will not continue to subsidize coastal living.

In the book, [Retreat from a Rising Sea](#), the authors make a compelling case for the inevitability of coastal retreat. But retreat to where? They only suggest “higher ground”. There is no doubt in my mind that while some will be overwhelmed and abandon the beach after futile attempts to stay in place, others will continue to value and covet the life style that comes with water front living. The nation’s inland freshwater lakes and especially the Great Lakes continue to offer an opportunity to experience that lifestyle.

Larry Bean is retired from Iowa State Government where he directed energy efficiency, renewable energy and geology programs for 22 years. He served as chair of an advisory board to the U.S. Congress and the U.S. Dept. of Energy and chaired the board of directors for Energy Research Centers at the University of Iowa and Iowa State University. He taught Environmental Science for 10 years at an Iowa College.