

Op-Ed: For much of the Shore, retreat may be the only option

BARRY CHALOFSKY | SEPTEMBER 29, 2021 | [ENERGY & ENVIRONMENT](#), [OPINION](#)

We need to be prepared to address the long-term consequences of sea-level rise



Barry Chalofsky

According to Rutgers University, New Jersey has seen a greater sea-level rise resulting from climate change than most other areas in the world. “South Jersey is especially vulnerable because the land there is still sinking and adjusting from the ice age of 10,000 years ago,” according to Jennifer Walker of Rutgers. While it

is normal to focus on the immediate effect of sea-level rise to coastal communities, there are more long-term consequences that will ultimately affect the state — and the country.

The Jersey Shore has been a valuable resource for the state and its citizens, especially with regard to tourism. However, this is a relatively recent phenomenon. For the most part, the coast was limited to fishing villages until the mid- to late-1800s when towns like Cape May, Atlantic City and Long Branch started to attract seasonal visitors. Subsequent development was largely limited to these areas until the state’s development boom following World War II. Today, the Shore is home to approximately 1.37 million people, according to the 2017 American Community Survey, which represents about 15% of New Jersey’s population. This population resides in over 40 different towns, with many residents living on or near barrier islands, or in the urban centers that border the ocean.

Coastal communities are subject to three types of water impacts: precipitation flooding, storm surges and sea-level rise. *Flooding* is usually due to too much

rain and poor drainage. This is particularly problematic at the coast because of flat topography and a high water table, which leaves runoff with nowhere to go. Flooding is always worse at high tide because the ocean (or bay) is the only outlet for the water. *Storm surges* bring the ocean waters inland where they compete with the runoff, further exacerbating flooding. *Sea-level rise* means that there is an increase in the mean sea level as a result in the increase in the volume of water — this increase results in greater flooding, higher storm surges and ultimately, permanently flooded land.

Unless drastic efforts are undertaken, it now appears that climate change and sea-level rise will result in a significant loss of land along the Shore. Climate change is already bringing stronger storms with more frequent flooding and higher storm surges. This was made very apparent by recent storms this summer, notably Hurricane Ida.

Mitigation options presently include: protection, accommodation and/or retreat. Protection opportunities are limited along the Shore due to the nature of development — long barrier islands or towns located directly on the beaches severely limit protection like sea walls. Accommodation primarily means that we build higher, but this doesn't address the destruction of infrastructure. Storm surges and flooding will constantly damage buildings, roads and utilities; and the costs to repair will become overwhelming. Economics and the stress of living with flooding will ultimately drive people and businesses away from the Shore. This means that for much of the Shore, retreat may be the only option.

Taking a toll

This problem is not unique to New Jersey. It will be happening to many other coastal areas in the U.S. as well as the rest of the world. Approximately 10% of the world's population lives along a coast, and millions will be affected by sea-level rise. Many of the people affected by sea-level rise will need to relocate somewhere else. This will have significant social, emotional and economic

costs. Where will people go? Will neighboring communities be willing to take on significant populations? Who will pay for the poor who can't afford to move? How will people whose primary investment is their home or business find the resources to move if they can't sell? What about the elderly who have no support and need to be relocated? How do we replace the \$44 billion in tourism that will be lost if we abandon the Shore? The questions go on and on.

At the state and municipal level, most of the interest is still focused on the protection or accommodation of the Shore, which is a short-sighted view, but makes sense from a political perspective. Climate scientists are doing a great job of providing the data we need to predict our future, but we are missing long-term policy direction to deal with these larger issues. If our scientists are correct, then sea-level rise will likely last for centuries, and we need to be prepared to address the consequences.

New Jersey needs to seriously begin to prepare for the migration that will be caused by this retreat. Planning must begin at the state, regional and county levels, since municipalities may be too limited in perspective and authority. However, it would be foolish to ignore the reality that the world as we know it is changing, and we owe it to future generations to plan for the consequences of our actions.