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Sea Level Rise

By Karen Mayne

Sea level is rising big time in Hampton Roads! In Old Dominion University's annual *State of the Region* report, economist and former ODU president James Koch indicates that sea level rise is one of our region's biggest issues of the 21st century. Hampton Roads is second only to New Orleans in our vulnerability to rising seas.

The sea has come and gone from "Tidewater" Virginia over the millennia as the ice ages came and went. Sea level moved inland as far as Richmond and far out on the Atlantic's continental shelf. We are currently in an interglacial period, with sea level rising around the world as the glaciers and polar ice caps melt. But Hampton Roads is also sinking. This land subsidence is caused by a long ago asteroid that hit the area and which is still causing the ground to "settle" into the buried impact crater. The combination of sea level rise and land subsidence is like a one-two punch to our area. Sea level in Hampton Roads has "risen" over a foot in the past century and is predicted to "rise" another two to three feet by the end of the 21st century (the change is actually a combination of true sea level rise and land subsidence). Remember the high water levels during Hurricane Isabel? That is what the normal water level will be around here in the next century.

It is unfortunate that sea level rise got caught up in the issue of global warming. No matter what the cause of global warming, sea level rise is real, and we have lots of proof here in Norfolk. Residents of areas of Larchmont and Ghent routinely experience flooding during northeasters – something residents 50 years ago did not. The area of Llewellyn Avenue south of the Granby Street Bridge and the adjacent dog park are routinely flooded during northerly winds, as anyone who travels that road during high tides can attest. In our own neighborhood, the culverts under Thole Street and Suburban Parkway can no longer drain during heavy rains and storm tides, causing water to back up into upstream creeks and back yards.

The difference between the sea level rise of thousands of years ago and today is that now we have millions of people and billions of dollars worth of buildings, roads, ports, etc. in coastal areas. Although we can't stop the sea, we must adapt if we want to continue to live here. (Otherwise, we should start moving to Suffolk!) And while none of us can tackle the issue individually,

together as a community we can decide how we want to adapt and how much we are willing to spend.

Here's what you can do:

- Educate yourself about sea level rise. Here are a few websites to get you started:



www.ChesapeakeAdaptation.org

website of the National Geographic Society; you can learn about sea level rise and use an interactive map to see how water levels in the Little Creek and Lynnhaven River areas will change during storm events.

www.WetlandsWatch.org is the website of the local Wetlands Watch organization, with lots of information on sea level rise in Hampton Roads and links to other websites.

www.hrpdc.org Hampton Roads Planning District Commission, a regional planning agency for the local governments, the HRPDC website has presentations and studies on the effects of sea level rise, particularly on transportation and emergency preparedness.

- Engage in discussions with neighbors and politicians. By talking together, we can start a thoughtful process to figure out what to do. Include your kids and grandkids in these discussions. After all, they will be the ones who will actually experience the loss of land and the increased costs associated with sea

level rise.

- Ask politicians to make sea level rise a dominant issue in land use and budget planning. Roads, bridges, storm sewers, port facilities, and military bases are just some of the infrastructure that will have to change over time. And as water levels rise, we will have to decide how or if to help property owners of flooded properties. As taxpayers, will we pay to raise up private houses and buildings or will we leave it to individual property owners to do this on their own? Or, will we "buy out" flooded areas and turn them into public open spaces and parks?

The issue of sea level rise is monumental and will have profound effects on our community's social, cultural, and economic future. There are no easy and no cheap answers. But it is a topic we cannot escape.

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