

For Immediate Release

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County residents acknowledge sea-level rise, but unsure of impacts and current policies

ANNE ARUNDEL COUNTY, MD – A recent survey by the Future Coast research team reveals that Anne Arundel County residents are uncertain how sea-level rise and coastal flooding will manifest in their communities and how it will impact them, but they are aware of the issue and supportive of an array of local government responses.

To address these uncertainties, the Future Coast initiative will release a new website on local coastal flooding and sea-level rise. It features a sea-level rise viewer, which members of the public can use to visualize near- and long-term sea-level rise impacts and estimated damages by address, by neighborhood and across the county. Videos of science and policy experts address residents' questions, such as "is sea-level rise real?" Other tools include a quiz, the ability to take a portion of the survey and see results, links to local and state vulnerability assessment and policy reports, and the initiative's own reports.

Brief excerpts from the survey results are below. For the entire report, please see www.futurecoast.info/reports.

Perceived risks from sea-level rise and coastal flooding

- Majorities of county residents (60.4%) say that sea-level rise is occurring and that coastal flooding has become more of a problem in recent years (54.3%).
- Half of residents do not know, or have no opinion, whether their local government's policies are adequate for addressing coastal flooding long term (50.0%).
- It is not clear to most residents when the effects of sea-level rise will significantly impact the county. Almost a third – at the largest percentage of the response options (29.4%) – say they don't know.
- County residents are most concerned about the effects of shoreline erosion (64.6%), followed by private property damage or loss (59.3%), habitat loss (54.8%), and public infrastructure damage or loss (52.6%).

Knowledge about sea-level rise

- A slight majority of residents correctly believe that scientists do not expect the current rate of sea-level rise to stay the same over the next 100 years (51.2%).

- Factors contributing to high regional rates of relative sea-level rise are not well understood. Fewer than one in five (15.8%) correctly say that about half of observed sea-level rise in the region is due to sinking land (subsidence).
- Almost two-thirds say that climate change is one of the causes of observed changes in sea-level rise (63.4%), but only slightly more than one-third (36.9%) correctly say that current sea-level rise is not solely the result of natural cyclical processes. This suggests that the majority of residents do not associate sea-level rise with human-induced climatic changes from greenhouse gas emissions.

Policy preferences for coastal adaptation

- Of policy tools that local governments could use to address coastal flooding and sea-level rise, long-range planning is the most supported (81.9%), followed by regulatory changes (72.5%), and tax incentives to property owners to reduce their risk (67.2%). Use of government spending is the least supported (51.7%).
- County residents are most in favor of maintaining beaches and wetlands against rising waters in publicly owned natural areas (73.3%), followed by buying adjacent lands to enable the movement of natural areas inland (62.5%), and building walls and other structural barriers to protect them (47.9%).
- For built communities, including low-density residential areas and high-density commercial and residential areas, county residents say they most prefer maintaining and restoring natural areas (low-density residential 86%/high-density commercial and residential 87.3%), followed by retreating inland (72.9%/71.2%) and designing and retrofitting buildings to be more flood resilient (58.9%/63.2%).
- The least popular strategy to protect against coastal flooding is building walls and other structural barriers along the shore, though hardened defenses are supported by just under half for low-density residential areas (45.1%), and by just over half of respondents for high-density commercial and residential areas (52.6%).

The survey sample is of 378 Anne Arundel County adults age 18 years or older, and has a margin of error of +/-5 percentage points within a 95% probability. The study was fielded between March 28 and June 19, 2012.

The Future Coast initiative is led by George Mason University in collaboration with team members from both Maryland and Virginia. It includes Karen Akerlof, Todd La Porte, Katherine Rowan and Dana Dolan, George Mason University; Howard Ernst, U.S. Naval Academy; Dan Nataf, Center for the Study of Local Issues, Anne Arundel Community College; and Brian Batten and Mohan Rajasekar, Dewberry. The project is a research effort funded by Mid-Atlantic Sea Grant to test a model of community public engagement on sea-level rise and coastal flooding.

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