



Local Planning for Sea-Level Rise and Cultural Resources

July 19, 2014

Understanding Sea-Level Rise

Hotspot of accelerated sea-level rise on the Atlantic coast of North America

Asbury H. Sallenger Jr, Kara S. Doran & Peter A. Howd

[Affiliations](#) | [Contributions](#) | [Corresponding author](#)

Nature Climate Change **2**, 884–888 (2012) | doi:10.1038/nclimate
Received 23 January 2012 | Accepted 22 May 2012 | Published online **26 April 2013**



The Kochs are cooking up a new dirty-energy political scheme



Obama calls out climate deniers, asks young people to force climate change issue



HBO shocks us again: Did Gina McCarthy just declare war on coal?

NEWS / [gristmill](#) COOL / [gristlist](#) TOPICS ▾ VOICES ▾

SCIENTIFIC AMERICAN™

Sign In | Register

Search ScientificAmerican.com

Subscribe News & Features Topics Blogs Videos & Podcasts Education Citi

More Science » Features

33 Email Print

Will Sea Level Rise Drown Your Town? [Slide Show]

A creative Google Earth application shows cities flooded under one, 25 even 80 meters of water

Nov 9, 2013 | By Mark Fischetti

Climate change is causing seas to rise and we hear frequent warnings about how future flooding will inundate cities.

Visualizing the flooding may be more powerful than words when it comes to understanding what this really means. So, Andrew David Thaler, a deep-sea ecologist and population geneticist in San Francisco,



19

Comments

24 Jun 2013
3:51 PM

255

Share

78

Tweet

39

+1

American Atlantis: Sea-level rise means Miami is doomed

By [Joseph Romm](#)

Cross-posted from [Climate Progress](#)

Jeff Goodell has a [must-read piece](#) in *Rolling Stone*, “Goodbye, Miami: By century’s end, rising sea levels will turn the nation’s urban fantasyland into an American Atlantis. But long before the city is completely underwater, chaos will begin.”



BryanSereny

The sun is setting on good times in Miami.

Climate Change 2014: *Impacts, Adaptation, and Vulnerability*

IPCC Working Group II Contribution to AR5

The 10th Session of Working Group II (WGII-10) was held from 25 to 29 March 2014 in Yokohama, Japan. At the Session, the Summary for Policymakers (SPM) of the Working Group II contribution to the IPCC Fifth Assessment Report (WGII AR5) was approved and the underlying scientific and technical assessment accepted.

[Press Kit](#)

SUMMARY FOR POLICYMAKERS



PDF - 32 Pages - 6.4MB

FINAL DRAFT WGII REPORT



(Accepted 30 March 2014)



Planting of mangrove seedlings in Funafala, Funafuti Atoll, Tuvalu. © David J. Wilson



Highlights

Explore highlights of the National Climate Assessment including an Overview, the report's 12 overarching findings, and a summary of impacts by region.

[→ EXPLORE HIGHLIGHTS](#)

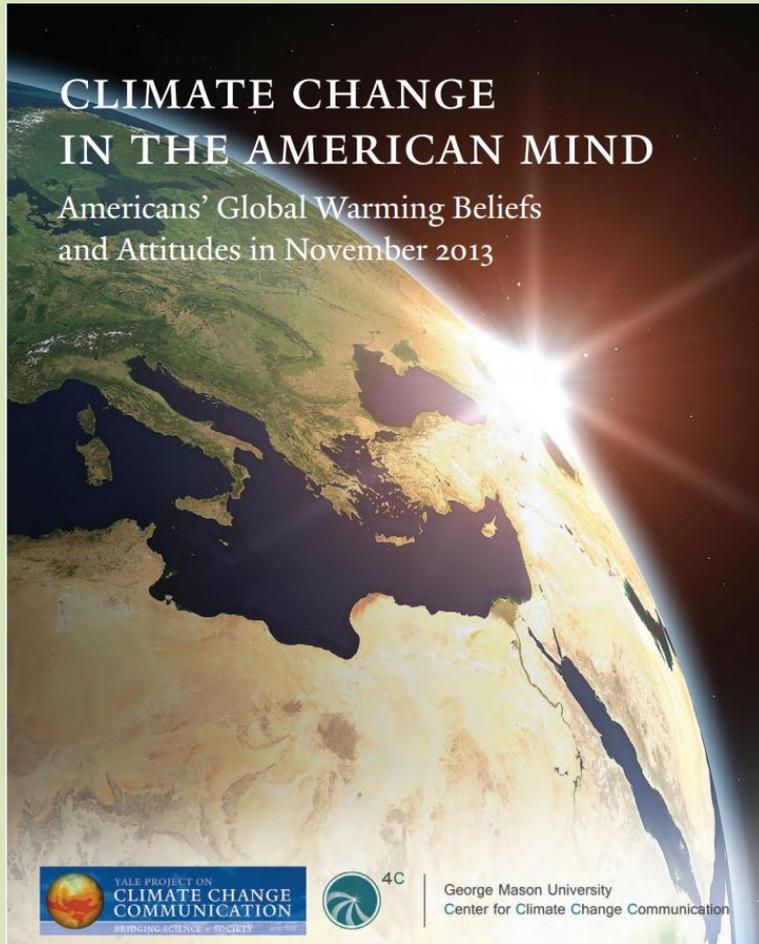


Full Report

Explore the entire report covering our changing climate, regions, cross sector topics, and response strategies in full detail.

[→ EXPLORE THE REPORT](#)

Policy & the Public Sphere



Surging Seas

Sea level rise analysis by CLIMATE CENTRAL

Home Risk Finder Maps Basics Research Responses News



About the Map

Map pages show threats from sea level rise and storm surge to all 3000+ coastal towns, cities, counties and states in the Lower 48. Click on a label to get started, or type a zip or name in the search box below. More about the map.

Orange features link to expanded next-generation maps and analysis, in the Surging Seas Risk Finder.

Click any location from the map above, or search by zip

<http://sealevel.climatecentral.org/>



Credit: Nikolay Lamm, Climate Central

Planning for Climate Change

organize resources

From the start, communities should focus on the resources needed for a successful mitigation planning process. Essential steps include identifying and organizing interested members of the community as well as the technical expertise required during the planning process.



assess risks

Next, communities need to identify the characteristics and potential consequences of hazards. It is important to understand how much of the community can be affected by specific hazards and what the impacts would be on important community assets.



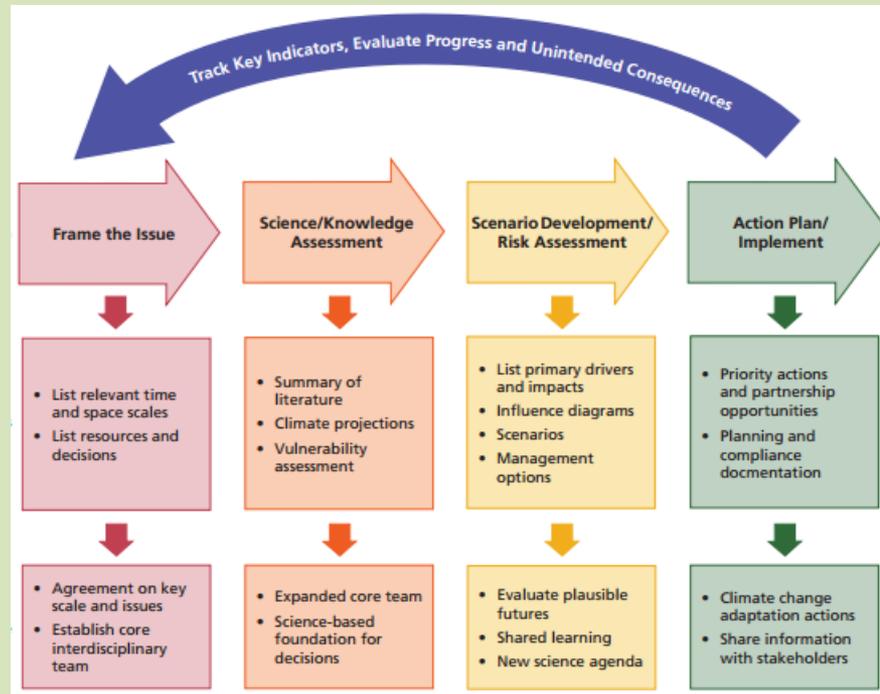
develop a mitigation plan

Armed with an understanding of the risks posed by hazards, communities need to determine what their priorities should be and then look at possible ways to avoid or minimize the undesired effects. The result is a hazard mitigation plan and strategy for implementation.



implement the plan and monitor progress

Communities can bring the plan to life in a variety of ways ranging from implementing specific mitigation projects to changes in the day-to-day operation of the local government. To ensure the success of an ongoing program, it is critical that the plan remains relevant. Thus, it is important to conduct periodic evaluations and make revisions as needed.



PROJECT TIMELINE

SCOPING & ORGANIZING

October 2010
Regional Kickoff Workshop

January 2011
Subregional Kickoff Workshop

ASSESSING VULNERABILITY & RISK

March 2011
Asset Inventory

June 2011
Climate Impacts Statement

October 2011
Existing Conditions & Stressors

August 2012
Vulnerability & Risk Assessment

DEFINING ISSUES

June 2012
Characterizing Vulnerabilities & Risks

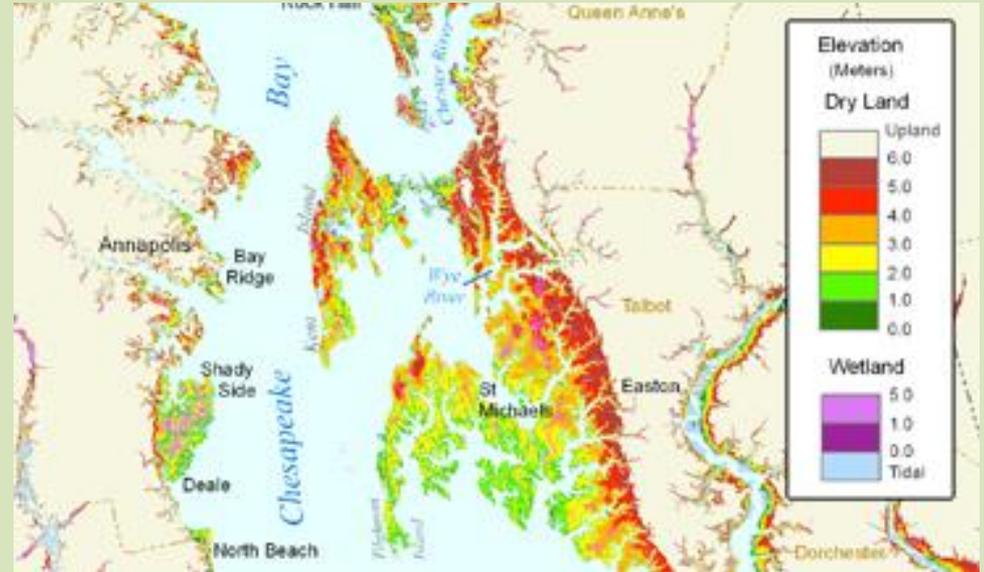
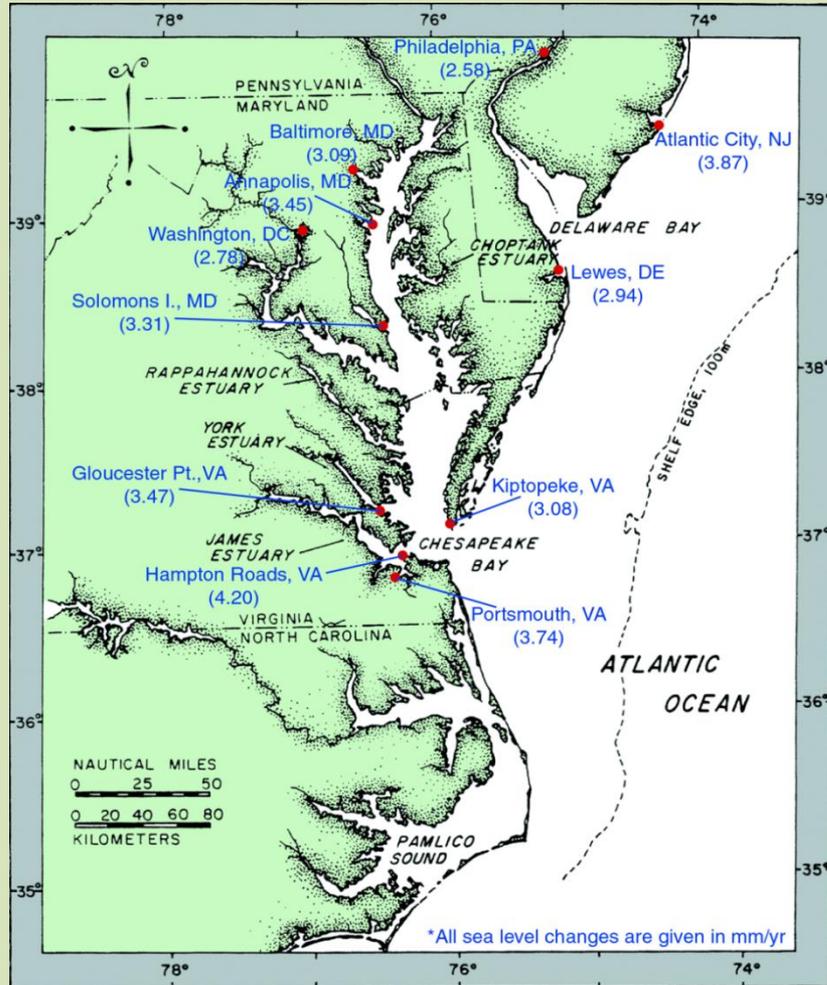
October 2012
Identifying Key Issues

BUILDING ADAPTATION RESPONSES

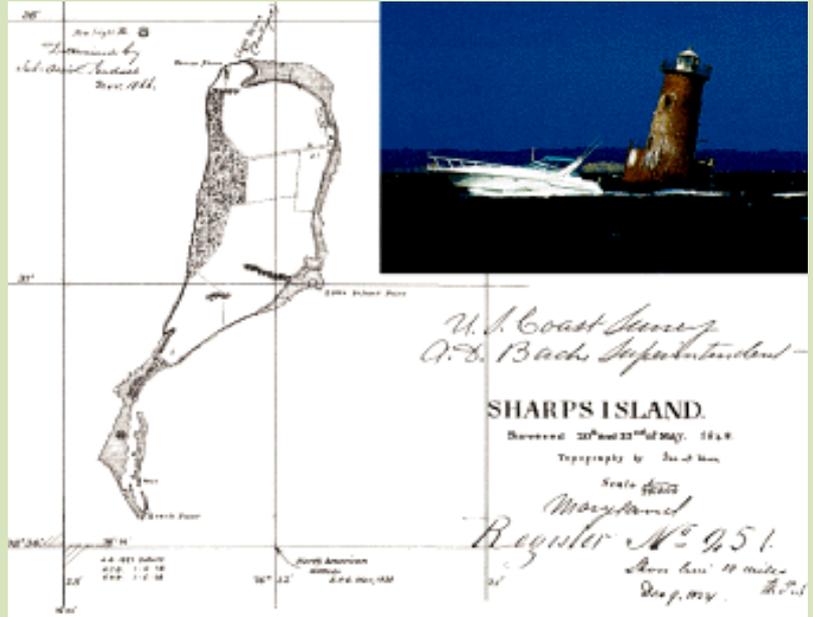
January 2013
Developing the Adaptation Approach

April 2013
Subregional Adaptation Responses

Maryland Projections

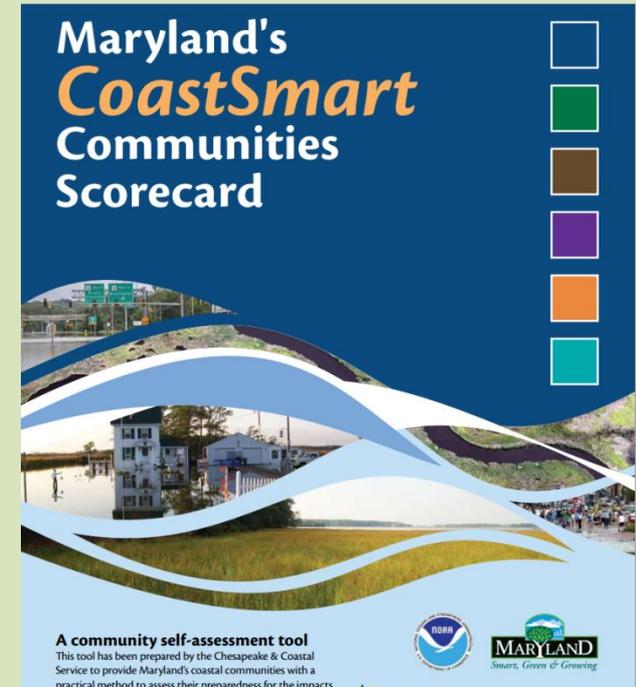
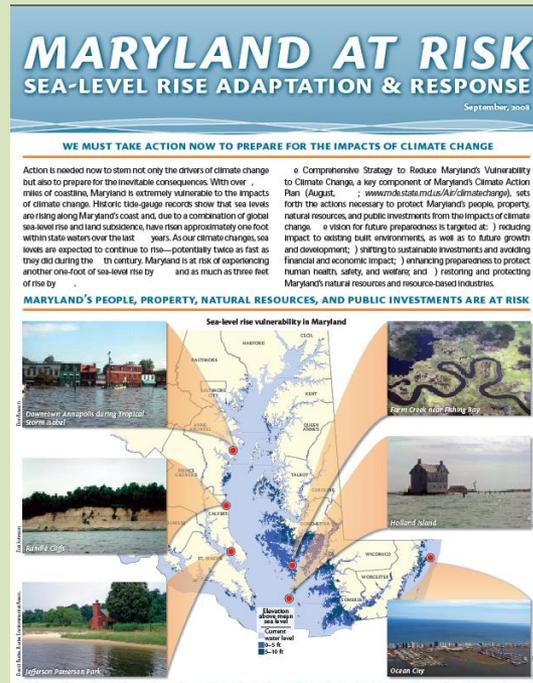
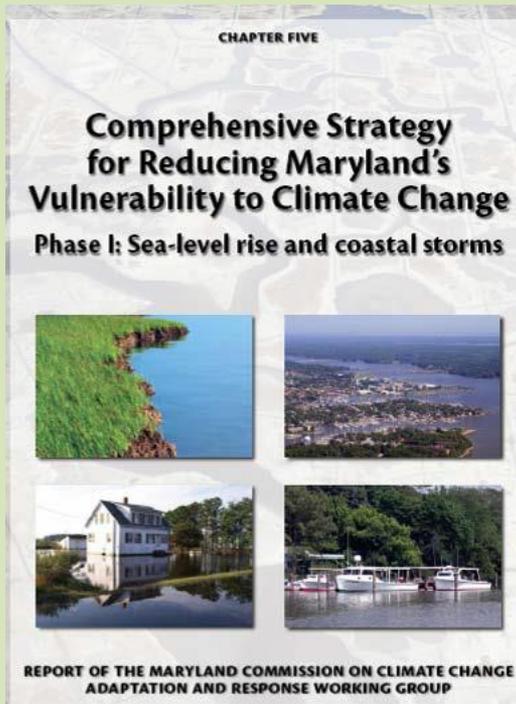


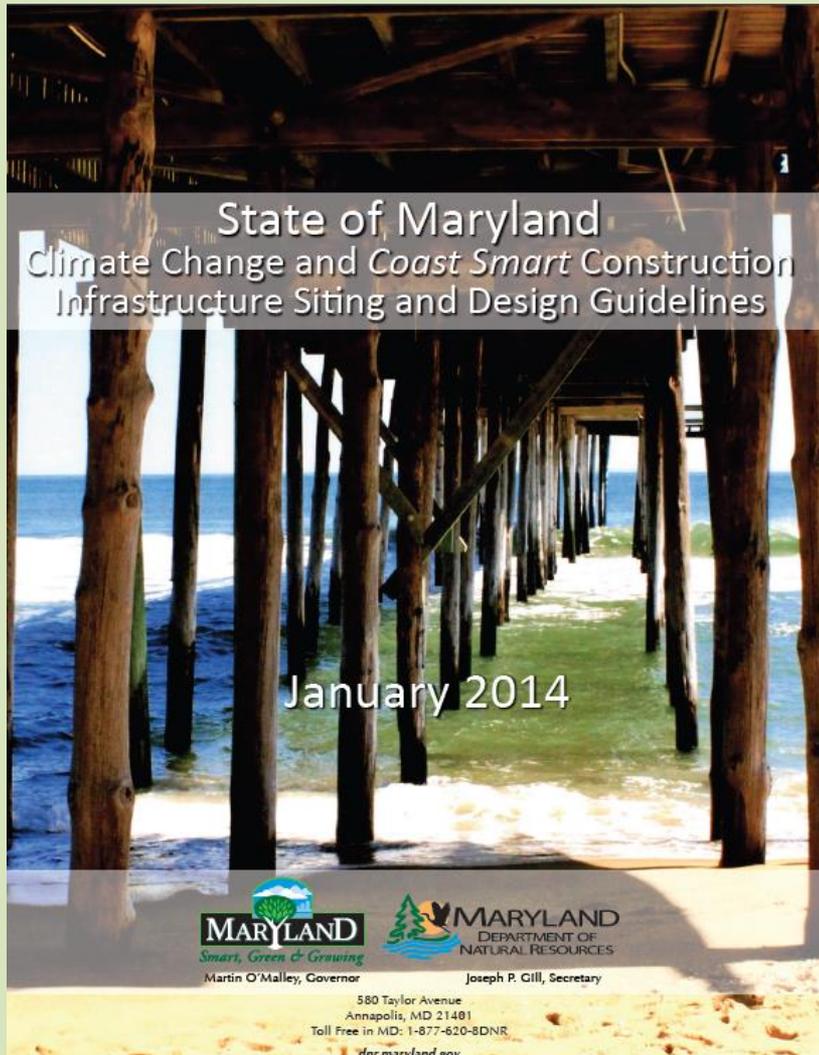
- **By 2050** - Best estimate mean sea level rise is 1.4'; unlikely to be less than .9' or greater than 2.1'
- **By 2100** - Best estimate mean sea level rise is 3.7'; unlikely to be less than 2.1' or greater than 5.7'



Maryland's Approach

- Analysis
- Technical Support
- Funding





- “Measures should be applied to non-State structure or infrastructure projects if partially or fully funded by State agencies...”
- “Exceptions should be based on an analysis of the scope, function and importance of the project, including historic and cultural preservation considerations.”



Resources

- › [Hurricane Sandy Grants](#)
- › [CoastSmart](#)
- › [Coastal Planning](#)
- › [Climate Change in Maryland](#)
- › [Maryland Climate Science](#)
- › [FEMA Hazard Mitigation Planning](#)

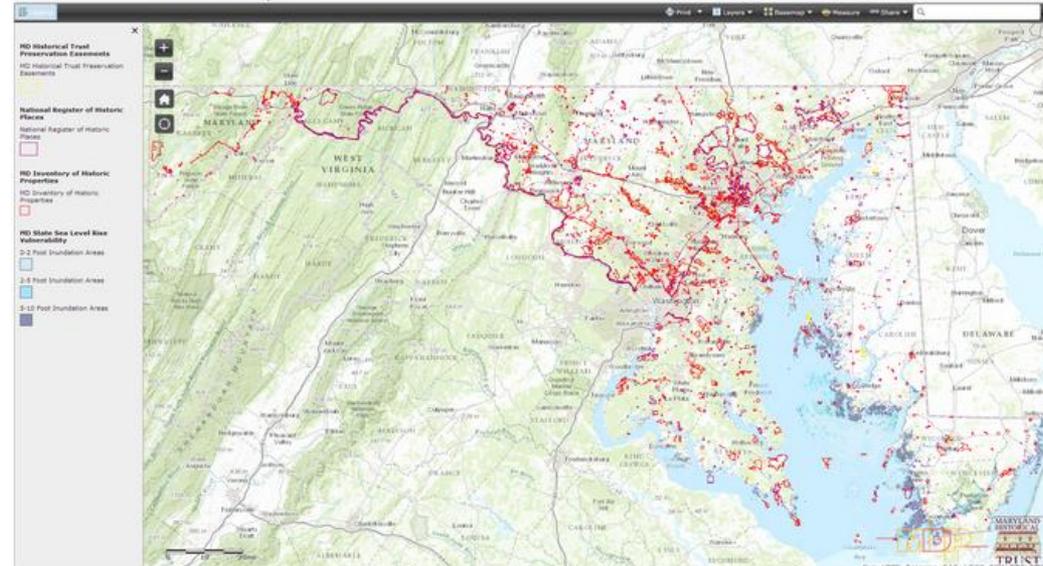
Sea-Level Rise and Historic Properties

The most recent [estimates](#) for sea-level rise in Maryland encourage planning for a rise of approximately two feet over 50 years, and as much as 3.7 feet by the year 2100. Of more immediate concern is that the intensity of coastal storms and the height of coastal flood waters, such as those generated by Hurricane Sandy, may increase as a result of the changing climate, creating additional risk. With vulnerability to rising tides and storm surges varying along the coast, planning for sea-level rise must take place on a local level.

As the Chesapeake Bay and rivers and streams within the watershed were the primary historic and prehistoric trade and transit routes in Maryland, the coastal areas of the Chesapeake contain a high concentration of vulnerable historic architecture and archeological sites. The Lower Eastern Shore, including the internationally significant historic places associated with Harriet Tubman, is particularly threatened.

Sea Level Rise and Historic Properties

Thumbnail using the interactive map? | Contact: DMRP-GIS_HQ@maryland.gov



Sea Level Rise and Historic Properties

Trouble using the interactive map? | Contact DLMDP-GIS_MDP@maryland.gov

