

HYDROGRAPHIC SERVICES REVIEW PANEL

A federal advisory committee, advising the NOAA Administrator

The Hampton Roads Regional Pilot Project

Whole of Government / Whole of Community Approach and Response to the Challenge of Increased Coastal Flooding

Coastal communities are increasingly experiencing flooding that causes significant economic loss and impedes the movement of people and commerce. For example, at projected rates of sea level rise, by 2040 one of the main highways to the world's largest naval base will be flooded every high tide. In light of the increasing incidents and severity of coastal flooding, NOAA should facilitate federal coordination to develop and implement a coordinated whole community adaptation plan to effectively improve regional coastal resilience and intelligence. Such a plan would assist in reducing the increased vulnerability of coastal communities to flooding and safeguard the public and critical infrastructure and key resources nationwide. The Hampton Roads Pilot Project provides a model for these activities.

ISSUE AND STATUS

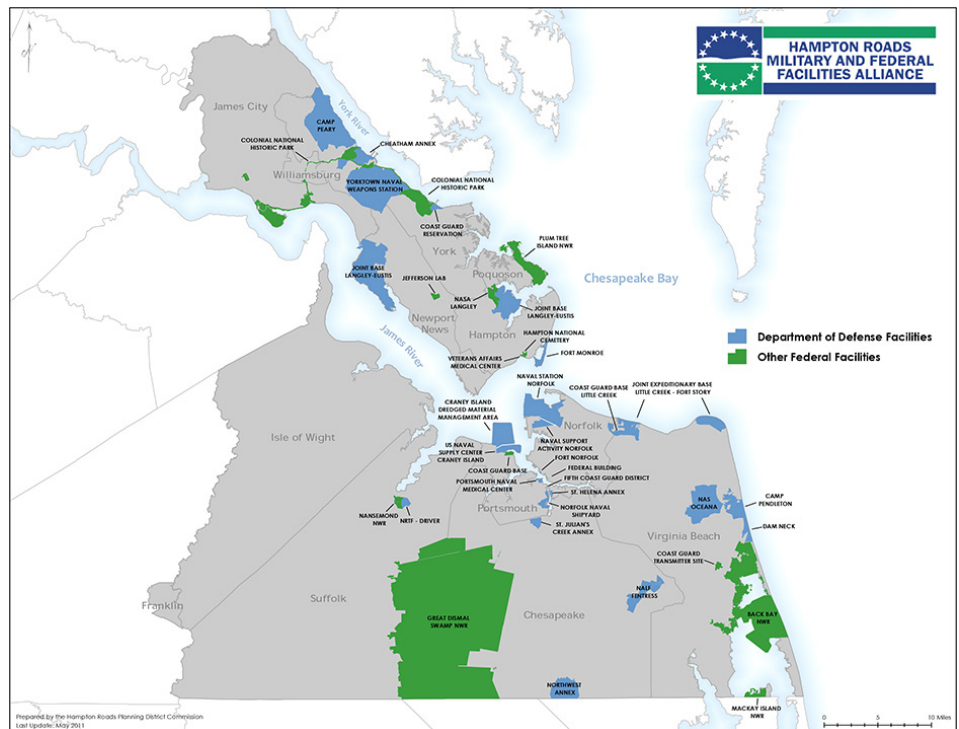
The Hampton Roads region at the mouth of Chesapeake Bay, like many coastal communities, is experiencing increased flooding because of climate change and the persistent slow rise of sea level. Storms that once caused minor flooding are now causing more serious and more frequent flooding. As a result, the Hampton Roads region, home to 17 local and state jurisdictions and many federal agencies, including Department of Defense installations and the world's largest naval base, is at risk.

THE HAMPTON ROADS PILOT PROJECT MODEL

Hampton Roads region sea level, as measured at the NOAA water level station, has risen about 1.5 feet over the past century. Research into the region's rate of sea level rise suggests it is accelerating, and is projected to rise at least 1.5 feet by 2050, and 3 feet by 2100.

The Hampton Roads region is ranked 10th in the world in value of assets exposed to increased flooding from relative sea level rise, according to RMS, a catastrophe modeling company. Up to 877 miles of roads could be permanently or regularly flooded if sea levels rise three feet. Representatives of stakeholders across the region signed the charter for the Hampton Roads Sea Level Rise Preparedness and Resilience Intergovernmental Planning Pilot Project in October 2014.

This two-year project sought out to develop adaptive planning for sea level rise by combining the effort of federal (civilian and military), state and local agencies with private industries and researchers. The model included using a collaborative approach so that the project could serve as a template for affected regions across the United States with the development of an intergovernmental planning body starting in 2016.



Federal facilities in Hampton Roads (blue: Department of Defense; green: wildlife refuges). Source: Hampton Roads Military Federal Facilities Alliance.

CONTINUING NEEDS

Sea level rise rates: To ensure the success of such plans, detailed scientific information on sea level rise rates is required, including the causes of sea level rise, projections of sea level rise, and information on cost effective adaptation strategies.

Federal coordination: Federal, state, and local government agencies, and the private sector, must coordinate on sea level rise preparedness and resilience planning. The effort should take the perspectives and concerns of the region's citizens into account.

NOAA's role in coordination: Given its coastal intelligence and risk awareness expertise, NOAA has and should coordinate a response to many of the flood risks faced by the nation and coastal communities. In Hampton Roads, NOAA has been particularly helpful by facilitating the Pilot Science Advisory Committee and Adaptation forums and other Sea Grant activities.

The Hampton Roads Regional Pilot Project addresses the following areas through working groups: Legal, Infrastructure, Land Use Planning, Citizen Engagement, Public Health, Economic Impacts, Private Infrastructure, Municipal Planning, and Science.

The pilot project concludes in July 2016 and the final report will be submitted to the White House and Department of Defense in the summer of 2016.

Non-federal partners include: Hampton Roads Planning District Commission; local governments, Commonwealth of Virginia, Old Dominion University, Virginia Institute for Marine Science, Virginia Sea Grant, Blue Moon Foundation, William and Mary Law School.

Federal partners include: NOAA, in particular the National Ocean Service and the National Weather Service; U.S. Coast Guard; NASA; U.S. Geological Survey; Department of Defense (Navy, Army, U.S. Army Corps of Engineers, Air Force), Department of Transportation, Department of Homeland Security (FEMA, U.S. Coast Guard), Environmental Protection Agency, Department of Energy, Department of Housing and Urban Development.

Reference: <http://www.centerforsealevelrise.org/aboutsea-level-rise/economic-impact/>

RECOMMENDATIONS FOR NOAA ACTION

- Support Hampton Roads regional resilience to flooding by providing better coastal intelligence in general and sea level rise and subsidence in particular.
- Create and lead an inter-agency team (not necessarily an official working group) that can routinely respond to Hampton Roads flood risk adaptation planning requirements, as is now being done by the Pilot Science Advisory Committee.
- Support efforts by relevant federal, state, and local agencies to develop resilience strategies by coordinating data collection and distribution.
- Recognize that each urban region is different and requires different levels of engagement and facilitation with affected stakeholders.
- Continue to emphasize a whole-of-community and whole-of-government approach to incorporate coastal intelligence into sea level rise mitigation and adaptation decision making.
- Apply the lessons learned from coordinated adaptation planning in Hampton Roads region to other urban coastal regions.

In October 2003, Secretary of Commerce Don Evans established the Hydrographic Services Review Panel as directed by the Hydrographic Services Improvement Act of 2002, Public Law 107-372. Panel members, appointed by the NOAA Administrator, include a diverse field of experts.

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