US CLIVAR
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EXECUTIVE ORDER 24

“Virginia’s roadmap to make our built environment more resilient to floods, hurricanes, fires, and other extreme weather events. “

~ Governor Ralph Northam, November 2, 2018

Section 1 - Set Statewide Standards
Section 2 - Virginia Coastal Resilience Master Plan
Section 3 - Statewide Communication, Coordination, Collaboration
Proposed Planning Standard for Future State-Owned Buildings

Norfolk, VA (Sewells Point)

- Observed MMSL
- VIMS 2050 Projection
- Likely Annual Variability: High
- Likely Annual Variability: Low
- NOAA 2017 Extreme
- NOAA 2017 High
- NOAA 2017 Int-High
- NOAA 2017 Intermediate
- NOAA 2017 Int-Low
- NOAA 2017 Low
- USACE High
- USACE Int
- USACE Low
- Irene
- Isabel

HTTP://ADAPTVA.ORG/INFO/VIRGINIA_SEA_LEVEL.HTML
HTTPS://WWW.VIMS.EDU/RESEARCH/PRODUCTS/SLRC/index.php

Calculated Freeboard = FBFE + Freeboard

Where:

FBFE = FEMA BFE + anticipated SLR at 50 year service life

Freeboard, use 3 feet for all projects.

PROPOSED FREEBOARD STANDARD FOR FUTURE STATE - OWNED BUILDINGS
Issue: Hydrographic Modeling with Statewide and Regional Focus and Integrated Forecast Capability

- Example shows Winter Weather Forecast for 29 Jan
- Integrated Water projections are also needed.
- Statewide/sub-regional rainfall data
Issue: Aligned Sea Level Rise Scenario data presentation, Facilitate planning process use by cities, regions.

- Planners challenged to understand NOAA's Six 2017 SLR scenario curves
- What do they mean by region, and what does NOAA recommend?
- Are they coordinated with SERDP recommendations regarding risk?
- Why are USACE and NOAA curves different?

Source: Transportation Research Record: http://journals.sagepub.com/doi/figure/10.1177/03611981774234
Issue: Continued improvement of the national water model - Integration with estuarine/local flood models

- Enhance forecasting of storm impacts in coastal communities
  - Flooding precipitation/runoff driven and storm surge driven.
- Combine with constant update NWS rainfall frequency analysis
- Enable improved risk analysis and risk communication
  - Local, Regional, State managers.

Asheville Park Neighborhood, October 2016
Summary:

Issue: Continued improvement of the national water model - Integration with estuarine and Coastal System Models

Issue: Hydrographic Modeling with Statewide and Regional Focus and Integrated real time Monitoring and Forecast Capability

Issue: Aligned Sea Level Rise Scenario data presentation to facilitate planning process use by cities, municipalities, regions.
“TIME AND TIDE WAIT FOR NO MAN . . .”