Chesapeake Bay Preservation Act Guidance Guidance Data Layers

Pamela Mason,
Julie Herman,
Christine
Tombleson & Jess
Hendricks

Center for Coastal Resources
Management
Virginia Institute of
Marine Science



Completed Model Analyses

Data Layers Created:

Future 2050 RPA features using NOAA 2017 Intermediate High sea level curves:

- Wetlands (tidal and connected nontidal combined)
- Wetlands migration prevented by management actions.
 Assumption that turf (lawn), impervious (structures, roads, etc) are managed to prevent marsh migration

Using the Data for a Resilience Assessment

Proposals that are deemed to impact the RPA buffer at the time the project is proposed.

AdaptVa data is listed as a resource for use in the Resilient Assessment.

ADAPT VA

Evidence-based planning for changing climate



FORECASTS

Forecasting water levels, temperature, and precipitation helps mitigate impacts and plan resilient communities. Access a tide forecast & sea level projections for Virginia



ADAPTATIONS

Case studies and story maps illustrate how adaptation works, and can be financed, through zoning, planning, engineering, and policy practices.



TOOLS

Tools assess risk and and inform preparation and response to a changing environment. Access flood risk maps, shoreline recommendations, and an interactive comprehensive map of adaptation

strategies.



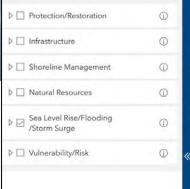
RESILIENCE RESOURCES

Data, websites, and other resources important for community adaptation. Including: social and equity issues, climate outlooks and resilience projects.



PLANNING & POLICY

Management
strategies from local
and State code to the
Community Rating
System. Learn about
FEMA National Flood
Insurance Program,
relevant local
ordinances, state
legislation, and
access legal analyses.







Evidence-based planning for changing climate

TOOLS are available to help assess risk and vulnerability to climate impacts, build community resiliency against extreme events, and provide guidance to prepare and respond to a changing environment.

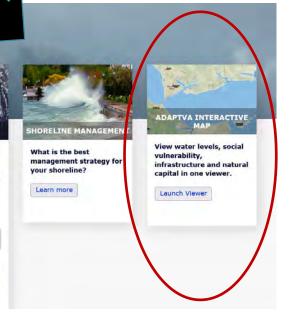


Floods are among the most frequent and costly natural disasters in terms of human hardship and economic loss. Learn more about flooding and floodplains in maps, models, documents and websites.

Virginia's Flood Risk Information System

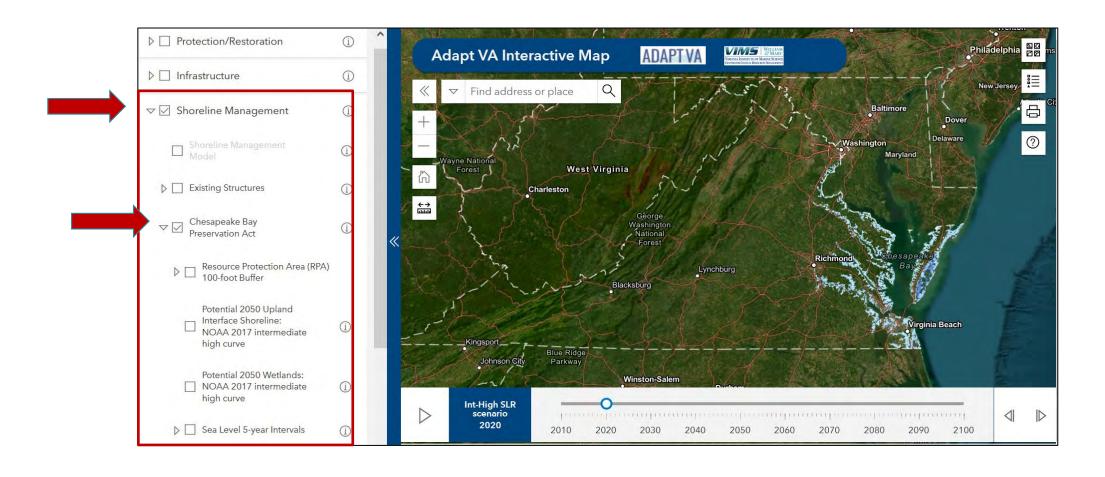
Locality Road Flood Tool

Wastewater Viewer





FINDING THE DATA



The Mapper was upgraded to a new service with a Table of Contents on the left column CBPA heading was added under Shoreline Management for the project data layers Click to activate the data under the Heading and use the down arrow to expand the TOC

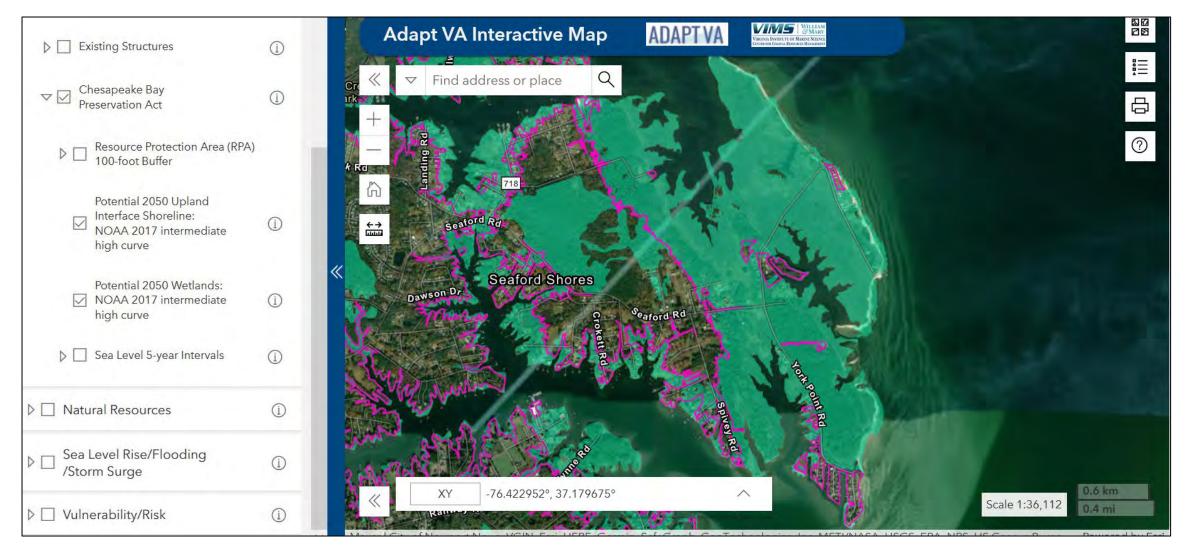
CURRENT AND FUTURE WETLANDS



Current Wetlands:
Natural Resources Heading
Tidal Wetlands layer.
Data from the CCRM/ VIMS Tidal
Marsh Inventory. Data currency
indicated in the corresponding
metadata. Varies by Locality.

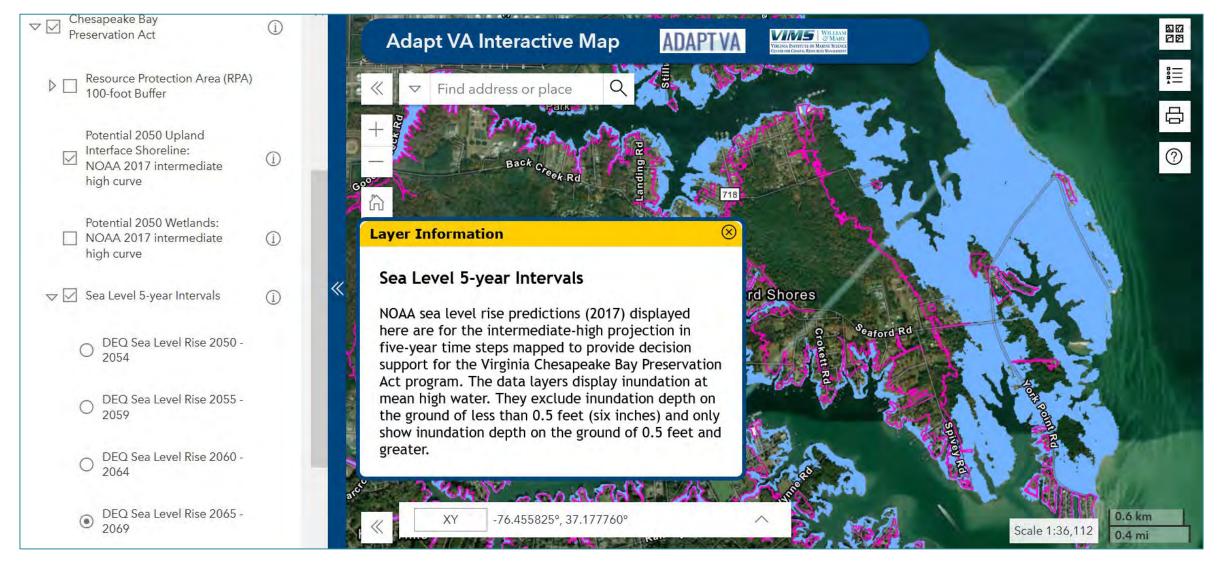
Projected 2050 wetlands extent. Includes Tidal and Non-tidal adjacent wetlands





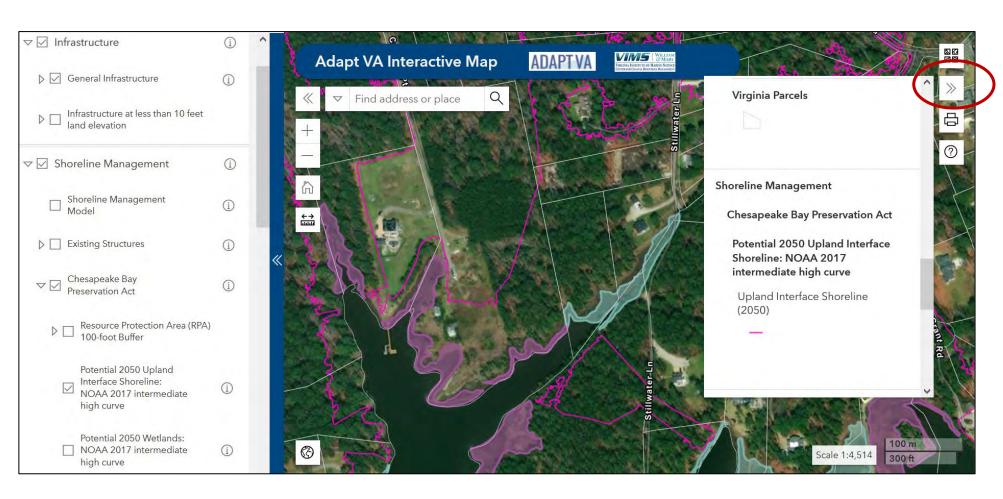
Potential 2050 Upland Interface Shoreline: NOAA 2017 intermediate high curve. Where Potential 2050 Wetlands are present, the 2050 shoreline is the interface between wetlands and the upland (1.5m elevation).

Wetlands Landward of the "shoreline" are most probably Nontidal adjacent.



Specific data from the VIMS mapped sea level rise layers were extracted into 5 year intervals. These layers were also truncated to show water levels above the land surface elevations with a minimum of 6 inches (0.5 feet)

This modification eliminates some error of inclusion and increases the likelihood that the areas shown with water will experience the projected conditions.

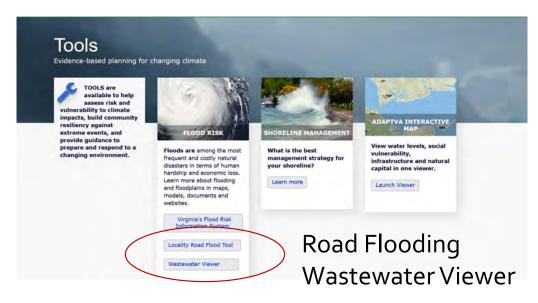


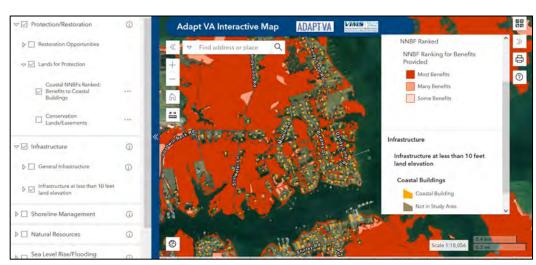
Legend Toggle

Data Layers

Parcel data under the Infrastructure Heading 2050 upper limits of Tidal Marsh Current Tidal Marsh

OTHER DATA to CONSIDER





Relative benefits ranking for existing natural based features

Other/ Adjacent Coastal Buildings



Compare 5 and ten year Sea Level projections

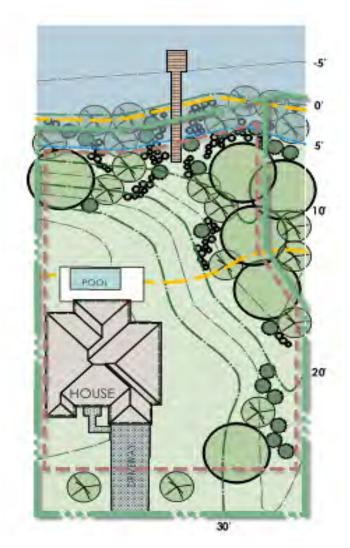


DEQ CBPA Climate Resiliency

 Updated Guidance and Examples Forthcoming



- Enhanced Example Illustrations courtesy of WPL of Virginia Beach
- Streamlined Discussion of Application
- DEQ & VIMS will host webinar to kick off next informal comment
 - Adapt VA Overview Training
 - Updates on Guidance Changes



LEGEND

PPOPERTY LIN

BUILDING SETBACK LIN

SHORELINE

- 50' & 100' RPA LINES

DOCK

WATER

Sea-Level Rise Conditions

DEQ CBPA Climate Resiliency

- VIMS finalizing a User Guide to Adapt VA to aid localities
- DEQ will provide additional documents to assist localities:
 - Model Ordinance
 - Resiliency Assessment Template
 - Locality Implementation Checklist
 - Adaptation Measures Checklist
 - Nature Based Adaptation Measures List
- DEQ & VIMS will announce webinar when updates and examples complete (soon!)