
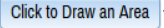




Virginia Eastern Shore Coastal Resilience Tool
Introductory Workshop & Training Manual, Version 2.0

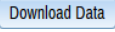
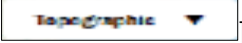
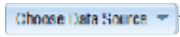
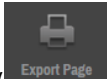





Glossary of Terms (alphabetical)





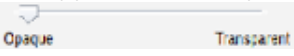
Locations where these terms occur are noted in [brackets]:

Flood & Sea Level Rise = [F&SLR] Future Habitat = [FH] Regional Planning = [RP] Coastline Change = [CC]
Map Viewer = [Map Viewer]

Absolute Difference:	A measure in feet of the difference between current water levels and those during modeled storm events. [F&SLR]
Base Data:	A map layer which shows boundaries, parcels, and roads. [RP]
Basic Dark Gray:	A gray background map layer. [Map Viewer]
Basic Inundation:	A data source within the Flood & Sea Level Rise App which displays predicted sea-level rise for several sea-level rise scenarios and scenario years. [F&SLR]
Choose Parameters:	A tab in the Future Habitat App window which allows the user to select the Scenario Year and SLR Scenario, affecting the data displayed in the map viewer. [F&SLR]
Clear Filters:	Clicking this button () resets the visible data to its original state, removing drawn areas and other filters that narrow results. [FH]
Click to Draw an Area:	Clicking this button () allows the user to draw an area of interest which will exclude all other data. [FH]
Compare & Chart:	A tab in the Future Habitat App window which allows the user to view changes between the current inventory of habitat area and the predicted condition. Note that data is only displayed if a future Scenario Year (e.g., 2025) is selected. [FH]
Change Rate Type:	Includes both long- and short-term change rates for historical shorelines. Long-term change rates are calculated using all historic shoreline data from the earliest to the most recent dates for the selected area. Short-term change rates are calculated using historical shoreline data from the most recent change in the long-term rate to the most recent dates for the selected area. [CC]
Coastal Management:	A grouping of map layers that include public access sites, boat ramps, streams, flood hazard areas, protected lands, and Virginia Ecological Value Assessment. [RP]
	
	Coastline Change App: An app () which shows historic and future changes in coastlines in response to predicted sea-level rise. [Map Viewer]
Choose Data Source:	A dropdown menu in the Flood & Sea Level Rise App that allows the user to choose which data they would like to view: Basic Inundation or Storm Surge. [F&SLR]

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- Download data:** Clicking this button () allows the user to download the data used to populate the app in an ESRI geodatabase format. [FH]
- Dropdown menu:** A vertical menu of options which is opened by clicking on it. [Map Viewer - ] [F&SLR - ]
- Economic Loss:** Estimated potential monetary impacts resulting from the selected storm surge scenario. [F&SLR]
- Ecosystem:** A system of biological components (species) and physical components (geography and resources). [FH]
- Erosion:** Degradation of features such as shorelines or structures, usually by the action of water or wind. [FH]
- Explain Each Choice** Clicking this text ([Explain Each Choice](#)) shows additional information regarding Coastline Change App options. Additional information may be hidden by clicking on the “Hide Explanations” text ([Hide Explanations](#)). [CC]
- Export Page:** Clicking this button () allows the user to export the current view as an Adobe Acrobat document. The map may also be exported by clicking the printer icon () in the upper right of the Regional Planning App window. [Map Viewer] [RP]
- Filter by Habitat(s) of Interest:** A section of the Future Habitat App which allows the user to reduce the data being displayed to only salt marsh, only “other wetlands”, or to an extent drawn by the user. [FH]
- Flood & Sea Level Rise App:** An app () which shows the predicted effects of sea-level rise and storm surge on the Eastern Shore of Virginia. Includes two datasets: Basic Inundation (focuses on the effects of sea-level rise) and Storm Surge (displays predictions for storm surge from hurricanes and tropical storms). [Map Viewer]
- Full Extent:** Clicking this button () returns the view to the entire Virginia Eastern Shore. [Map Viewer]
- Future Habitat App:** An app () which shows changes in habitat type in response to predicted sea-level rise. [Map Viewer]
- Get Started:** Clicking this text () opens the Launchpad with bookmarked map locations and information. [Map Viewer]
- Habitat:** The biological and physical settings in which species exist. Also, a map layer which shows commercial shellfish aquaculture, public oyster grounds and tidal marshes. [RP]
- Hide Explanations** Clicking this text ([Hide Explanations](#)) hides additional information regarding Coastline Change App options. [CC]

Imagery:	Aerial imagery of the Virginia Eastern Shore. [Map Viewer]
Infographic:	A simple graphic meant to quickly illustrate the purpose or main concepts of an app. The infographic for the Future Habitat App is accessible by clicking the question mark icon () in the upper right corner of the app window. [FH]
Infrastructure:	A grouping of map layers that include schools, fire stations, roads vulnerable to sea level rise, and evacuations routes. [RP]
Inundation:	Flooding of upland areas. [FH]
Land Accretion:	Increase in elevation or area of land due to sediment deposition. [FH]
Launch Pad:	A collection of geographies (locations) and one-click interactive maps (pre-set data views). [Map Viewer]
Legend:	A window which shows the list of active layers and their symbology. This can be toggled on and off with the legend button (). [Map Viewer]
Regional Planning App:	An app () which includes information data layers including schools, roads, tidal range, protected lands, and wetlands. [Map Viewer]
Measure:	A tool used to measure distance and area. It is activated by clicking the measure button (). [Map Viewer]
Methodology:	A description of the methods used to develop data layers. [F&SLR] [FH]
National Geographic:	A background map layer developed by National Geographic. [Map Viewer]
Nor'Ida:	A nor'easter that impacted the mid-Atlantic in November 2009. [F&SLR]
Nourishment:	The action of replenishing or restoring a beach with sand. [CC]
Ocean:	A background map layer developed by the National Oceanic and Atmospheric Administration. [Map Viewer]
Opacity:	The extent to which an image is not transparent. [RP]
Opaque:	The opposite of transparent. Appears in transparency slider bars ( (Opaque Transparent). [F&SLR] [FH]
Pan:	Moving the map by clicking, holding, and dragging the mouse. [Map Viewer]
Percent Difference:	A measure in percentage of the difference between current water levels and those during modeled storm events. [F&SLR]
Permalink:	A permanent hyperlink to a map showing selected features. [Map Viewer]
Physical Features:	A map layer which shows physical geography. [RP]
Reset Layers	Clicking this text (Reset Layers) clears all selected layers in the Regional Planning App. [RP]
Rate of Change Difference:	The 50-year average difference in the rate of shoreline change (in meters per year) between the base case (current conditions) and a modeled scenario. Also known as the shoreline rate of change difference. [CC]
Results & Chart	A tab in the Future Habitat App window which allows the user to view a pie chart and chart explaining acreage of habitat types in the total

dataset or a user-defined area for the selected Scenario Year and SLR Scenario. [FH]

Save & Share:



Clicking this button () allows the user to save the map view and active datasets in order to return to the map or share it with others. [Map Viewer]

Scenario Year:

The year for which predictions (sea level rise, storm surge, or habitat change) were calculated. [F&SLR] [FH]

Sea Level Rise (SLR):

The predicted increase in the elevation of sea water over time. [F&SLR] [FH] [RP] [CC]

Shaded Relief:

A background layer which shows elevation of uplands. [Map Viewer]

Social and Economic:

A map layer which shows persons by age, area, and certain types of employment, as well as percent of mobile home housing units and 1% annual chance flood economic losses. [RP]

Spatial Model Outputs:

Data generated by models which, in this case, estimate changes in marsh extent due to sea level rise. [FH]

Storm Surge:

Increased water height due to storm dynamics. Also a data source in the Flood & Sea Level Rise App. [F&SLR]

Storm Tracks:

Paths taken by hurricanes and tropical storms which were used as the basis for modeling storm surge. [F&SLR]

Storm Type:

A classification format for modeled hurricane impacts in the Flood & Sea Level Rise App Storm Surge dataset. Impacts from low Intensity storms were based on three theoretical Category 1 hurricanes with maximum winds of 80 miles per hour (mph). Impacts from Moderate Intensity storms were based on six theoretical Category 1 and 2 hurricanes with maximum winds between 85 and 110 mph. Impacts from High Intensity storms were based on seven Category 2 and 3 hurricanes with maximum winds between 95 and 115 mph. Impacts from Nor'Ida are based on the storm surge generated by that particular storm. Impacts from each of these Storm Types are shown for current conditions and two future Scenario Years in which the sea level has risen. [F&SLR]

Streets:

A background map layer which shows roadways. [Map Viewer]

Terrain:

A background map layer which shows differences in terrain. [Map Viewer]


Tidal Range (ft):

Data regarding the typical variability in water level due to tides. [F&SLR] [RP]

Topographic:

A background map layer which shows roads, waterways, elevation, forested land, and wetlands. [Map Viewer]

Tour:

Clicking this text () opens a quick reference for the parts of the *Coastal Resilience* tool map viewer. [Map Viewer]

Transect:

A line along which data is collected. [CC]

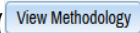


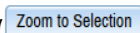
Transparent:

Allowing light or background images to be seen, as through glass. [F&SLR] [FH]

Water Depth (ft):

A measure of the predicted depth of water in feet due to storm surge. [F&SLR]

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- Wave Climate:** A term which includes the predominant direction of wave influence on a system. [CC]
- View Methodology:** Clicking this button () will load a document which explains the methods used to develop data for the subject app. [F&SLR] [FH]
- Zoom:** To change the scale of the map viewer. Click on the zoom in button () for a narrower view or the zoom out button () for a wider view. [Map Viewer]
- Zoom to Selection:** Clicking this button () will zoom to the area drawn by the user using the Click to Draw an Area option. [FH]