

Module 5

Resources to Help Your Community be Flood Ready

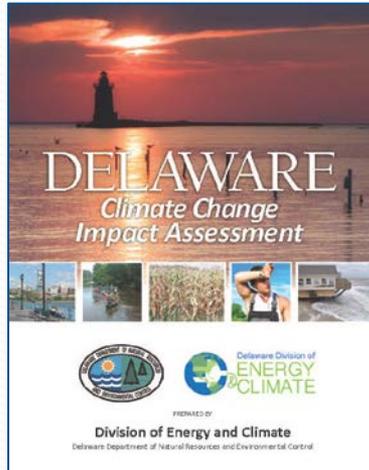


Your Flood-Ready Tool Kit

- Facts and Figures
- Helpful Guides
- Real Time Flood Data
- Maps
- Funding Sources
- People



Facts and Figures for the Future



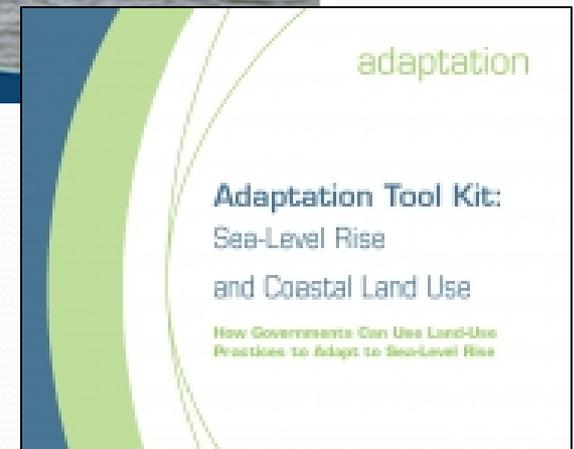
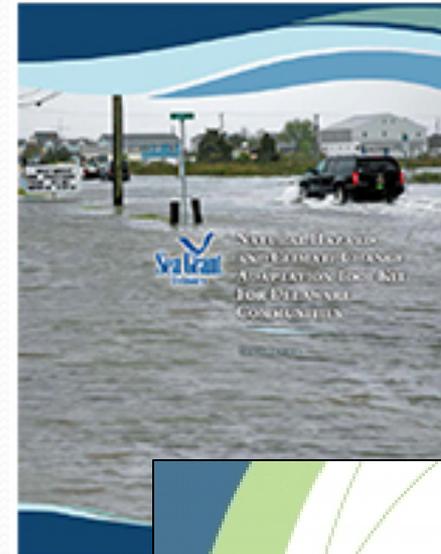
<http://www.dnrec.delaware.gov/energy/Pages/The-Delaware-Climate-Impact-Assessment.aspx>



<http://de.gov/slrva>

How To Info:

- DE Sea Grant Natural Hazard and Climate Change Adaptation Tool Kit
 - <http://www.deseagrant.org/>
- Georgetown Law Adaptation tool kit
 - <http://www.georgetownclimate.org/resources/adaptation-tool-kit-sea-level-rise-and-coastal-land-use>
- Green Infrastructure Primer
 - <http://de.gov/greeninfrastructure>
- Live Trainings and Workshops
 - Coastal Training Program
 - Delaware Sea Grant
 - Floodplain Management Program



Real time and historic weather data @ DEOS

- Real time weather station data
- Historic weather station data
- Use for emergencies, assessments, planning, gardening and lots more!

Delaware Environmental Observing System

DEOS

Home Data Analysis Tools Information RSS XML

Historical Daily Station Summary Retrieval

Retrieve daily data summaries for networks archived for historical use by DEOS.

Network:

- DEOS
- DNERR-Water-Quality
- DelDOT

Station:

- Asglen, PA-Wolfs Hollow
- Bethany Beach, DE-Brandywine
- Bethany Beach, DE-NGTS
- Blackbird, DE-NERR
- Bridgeville, DE-SPB
- Chester Springs, PA-Park
- Claymont, DE-Park
- Dagsboro, DE-Pepper Creek
- Delmar, DE-Gumboro
- Devault, PA-Tredyffrin

Date:

January	1	2009
February	2	2010
March	3	2011
April	4	2012
May	5	2013
June	6	2014

Send Request

Copyright © 2000-2014 DEOS | Data Disclaimer | Contact DEOS | Storm Ready
DEOS Data Tracker: 1319 observations processed and stored as of June 6, 2014

www.deos.udel.edu

Real time and historic stream data - USGS

- Real time gauge data from streams and tidal rivers
 - Flood stage indicated
- Historic stream gauge data
- 32 sites statewide
- Use for emergencies, assessments, and planning

Daily Streamflow Conditions
Select a site to retrieve data and station information.
Friday, June 09, 2011 10:08:11

Statewide Streamflow Real-Time Table

Statewide Ground-Water Real-Time Table

Statewide Water-Quality Real-Time Table

Real-time data typically are recorded at 15-60 minute intervals, stored onsite, and then transmitted to USGS offices every 1 to 4 hours, depending on the data relay technique used. Recording and transmission times may be more frequent during critical events. Data from real-time sites are relayed to USGS offices via satellite, telephone, and/or radio and are available for viewing within minutes of arrival. All real-time data are **provisional and subject to revision**.

Build Real-Time Table	Show a custom real-time summary table for one or more stations.
Build Time Series	Show custom graphs or tables for a series of recent data for one or more stations.

Explanation

- High
- > 90th percentile
- 75th - 90th percentile
- 50th - 75th percentile
- 25th - 50th percentile
- 10th - 24th percentile
- < 10th percentile
- Low
- Not ranked

The colored dots on this map depict streamflow conditions as a **percentile**, which is computed from the period of record for the current day of the year. Only stations with at least 30 years of record are used. The **gray circles** indicate other stations that were not ranked in percentiles either because they have fewer than 30 years of record or because they report parameters other than streamflow. Some stations, for example, measure stage only.

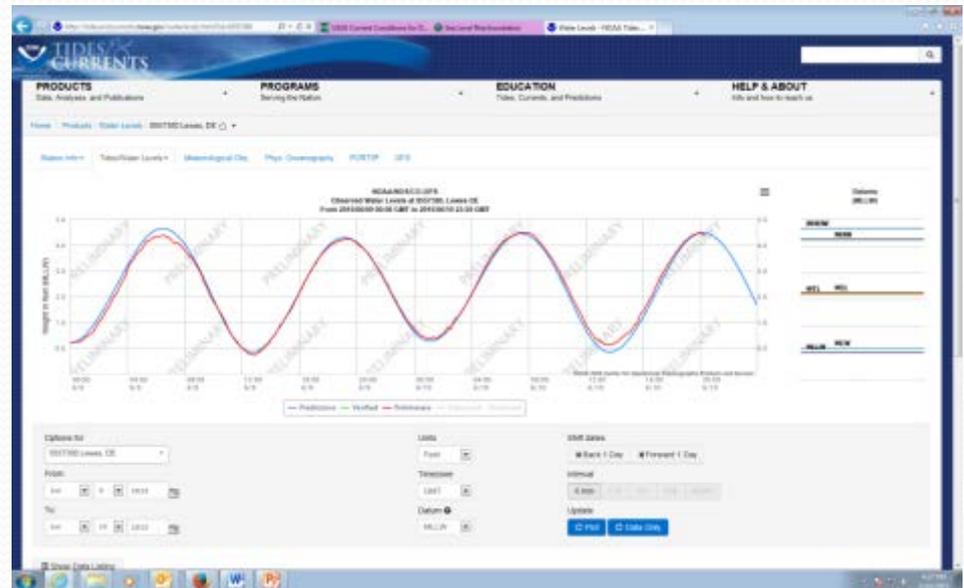
Questions about sites/data?
Feedback on this web site
Automated retrievals

Data Tips
Explanation of terms
Subscribe for system changes

<http://waterdata.usgs.gov/de/nwis/rt>

Real time and historic tide data - NOAA

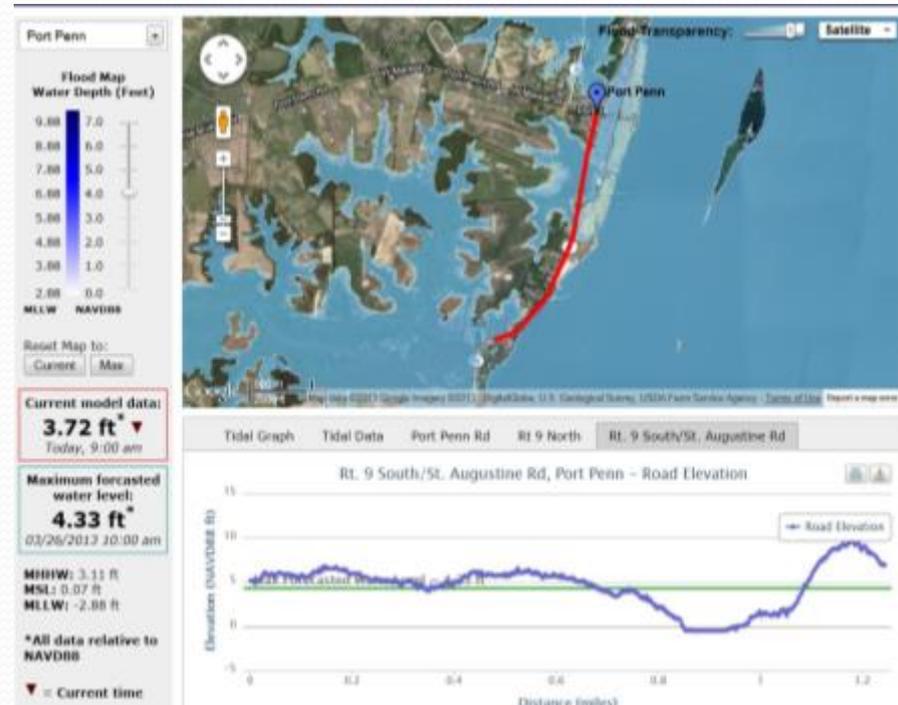
- Tide predictions and observations for 2 sites
 - Lewes & Reedy Point
- Historic data available to download and view
- Use for planning, response, assessments



<http://tidesandcurrents.noaa.gov/>

Mapping Tools – Delaware Coastal Flood Monitoring System

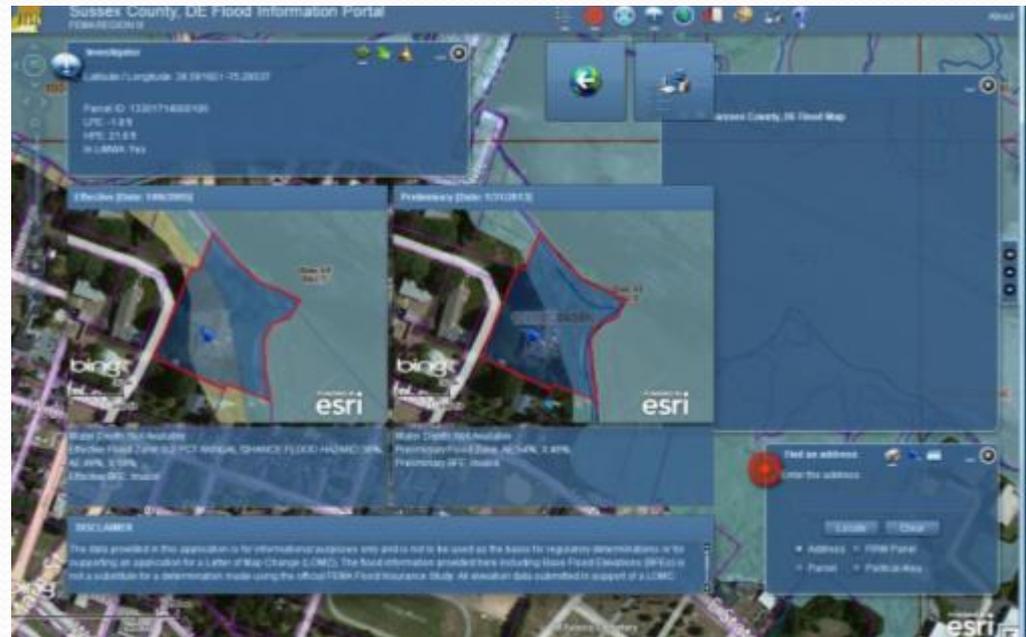
- Maps potential area of inundation based on tide predictions for next 48 hours
- Includes roadway profiles
- Available for DE Bay communities only
 - Work is underway to expand
- Use primarily for emergency preparedness and response



<http://www.coastal-flood.udel.edu/>

Mapping Tools – National Flood Insurance Rate Maps (FIRM)

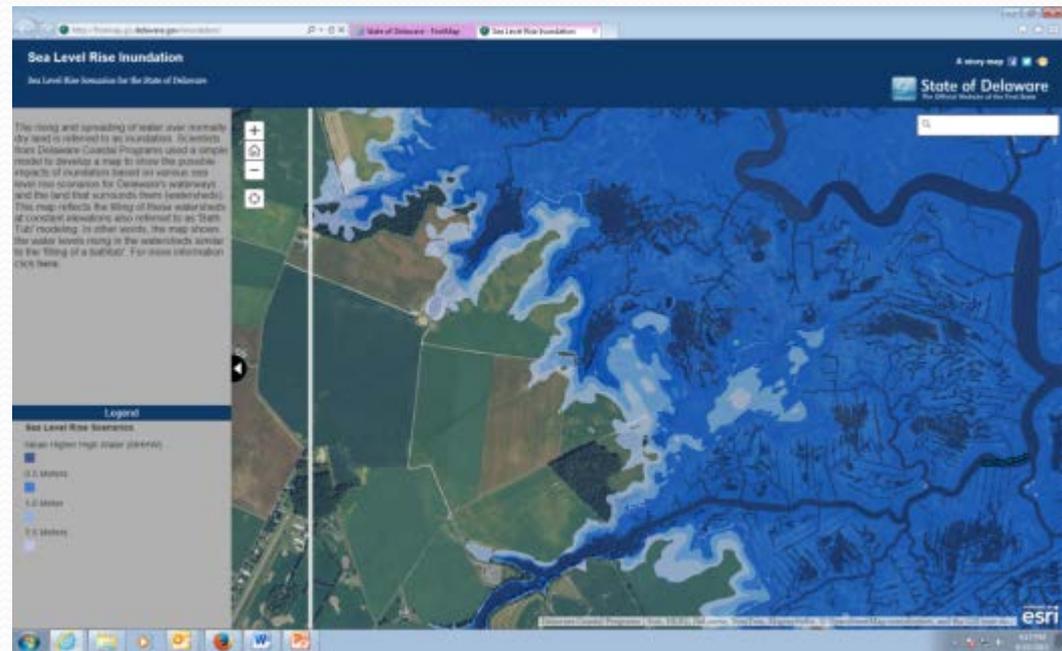
- Depicts 1% chance flood zone today
- Regulatory map published by FEMA
- Use to define where floodplain regulations and insurance requirements apply
- Also used to inform flood insurance rates



<http://maps.riskmap3.com/DE/>

Mapping Tools – DE Sea Level Rise Maps

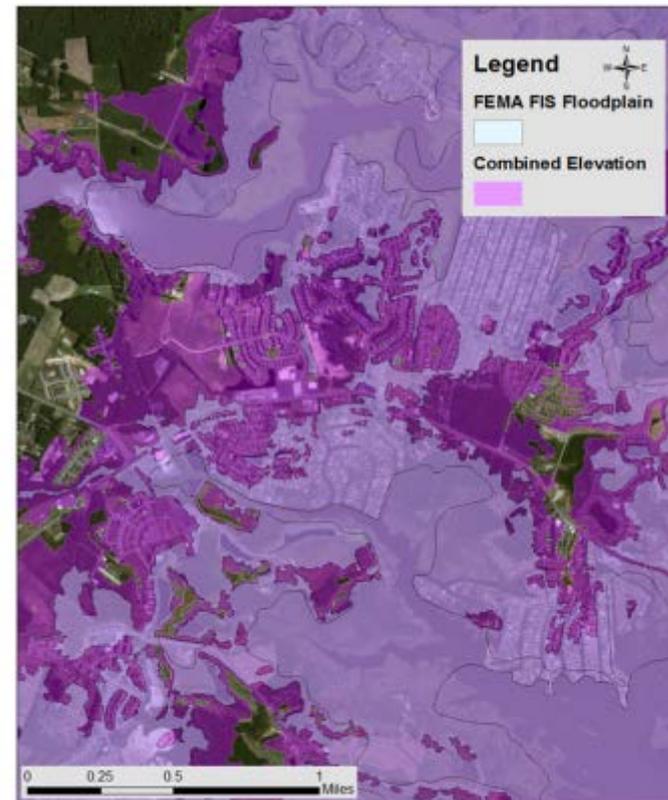
- Future-looking
- Depicts area that could be inundated at high tide under varying degrees of sea level rise
- Published by DE Coastal Programs
- For guidance only
 - NOT regulatory
- Use for planning and assessment



www.de.gov/slrmap

Mapping Tools – DE Flood Risk Adaptation Map

- Future looking
- Depicts where the 1% chance flood might be assuming 3-feet of SLR
 - Many caveats and limitations
- Developed specifically for state agencies to help avoid future risk – but available for your use too
- Use for planning and assessment



Show me the Money\$\$\$

- Coastal Management Partnership Program
 - <http://de.gov/resilientcommunity>
- Clean Water Infrastructure Grants
 - <http://www.dnrec.delaware.gov/fab/Pages/default.aspx>
- Unified Hazard Mitigation Assistance Grant Programs (FEMA)
 - <http://www.vaemergency.gov/em-community/grants/HMAgrant2010>



But Don't Forget these Tools!



Greg, Wendy and Susan are always available to help you be Flood Ready!

Questions and Lunch!

