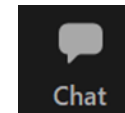
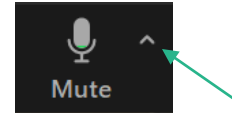


# Eastern Shore of Virginia Hazard Mitigation Plan Steering Committee Meeting

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- Welcome, the meeting will begin shortly!
  - Please remain muted to prevent background noise during introductory and guest presentations.
    - Difficulty with your audio? *Click the up arrow by the “Mute” mic symbol*
    - *You can also click the mic symbol to mute and unmute yourself*
    - *If you’ve called in via phone you can mute & unmute by pressing \**
  - If possible, please turn your video ON so we can see the face that goes with the voice – especially during the breakout sessions. *You can do this by clicking the video camera symbol.*
    - *If you are having difficulty with your video, click the up arrow by the video camera symbol.*
  - Use the Chat feature to communicate with participants & hosts!
  - Change your name to be correct and add affiliation by clicking the ellipsis (3 dots) at the top right of your video feed or the ‘more’ option when you hover over your name in the participant list.
  - *If you cannot use the chat, please contact Ashley Mills at 757-787-2936 x127*



An aerial photograph of an industrial facility, likely a power plant or refinery, situated on a coastal peninsula. The facility features several large buildings, a prominent tall tower, and various pipes and structures. The coastline is visible on the right side, with waves breaking against the shore. The image is overlaid with a semi-transparent dark grey filter.

# EASTERN SHORE HAZARD MITIGATION PLAN

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VIRTUAL EVENT

APRIL 20, 2021

# Welcome & Introductions

New to the Team:

Sarah Dickey  
Emergency Management  
Accomack County



# HMP Team

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Shannon Alexander, Director of Planning

Ashley Mills, Regional Planner

Drew Williams, The Berkley Group

Jon McCoy, The Berkley Group

Tommy Hicks, The Berkley Group



# Roll Call

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Please record your attendance here:

Please use the following link or QR code

<https://arcg.is/08KXDa>





# What has been your experience with debris removal?

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ROUND TABLE

# Key Takeaways and Updates

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# **QUICK UPDATES:**

**RESILIENCE, CBPA, NEW FEDERAL FUNDS,  
BROADBAND, LARGE SCALE INFRASTRUCTURE**



**SHANNON ALEXANDER  
DIRECTOR OF PLANNING  
A-NPDC 4/20/2021**



# RESILIENCE

The State issued the draft Grant Manual for the Community Flood Preparedness Fund on April 5th, 2021. The 30-day comment period begins on April 12th, 2021 and ends on May 12th, 2021. This guidance is extremely important for Virginia's resilience community to comment on, as the first of four 2021 RGGI auctions brought in nearly \$20 million for the Community Flood Preparedness Fund, of which \$18 million will be offered in grants in the first round of grant offerings expected mid-year. Public Comment link, with proposed document attached: <https://www.townhall.virginia.gov//GDocForum.cfm?GDocForumID=543>

This CAN be amended for future iterations of the grant. Notes:

- Redundant need for "Resilience Plan"
- Any portion previously funded by DCR?
- Match requirement for "low-income localities" requires 10% match for planning projects
  - "Low-income geographic area" means any locality or geographic area within a locality that may
  - cross municipal or county boundaries, that has a median household income that is not greater
  - than 80 percent of the local median household income, or any area in the Commonwealth
  - designated as a qualified opportunity zone by the U.S. Secretary of the Treasury via his
  - delegation of authority to the Internal Revenue Service.

# RAFT COMMUNITY WORKSHOP

the RAFT community workshop

with special guests

**SHANNON ALEXANDER**

Director of Planning  
AN-PDC

**BRIAN SWETS**

Planning Manager  
City of Portsmouth

## **BUILDING RESILIENCY INTO COMPREHENSIVE PLANNING**

presented by  
The RAFT Project Team

APRIL 23, 2021 9-11:30 AM

## **THE NFIP COMMUNITY RATING SYSTEM**

presented by  
Wetlands Watch

**REGISTER HERE**

# CBPA - CHESAPEAKE BAY PRESERVATION ACT AMENDMENTS

- Proposed text to address 9VAC25-830-155 Climate change resilience and adaptation criteria
- **Increased scrutiny for any proposed activity within a CBPA RPA.**
- **Developers and landowners may face increased costs associated with the preparation of a climate change analysis, and will face increased pressure to incorporate design features that are more sustainable and improve the development's long-term resiliency.**
- **Local governments would have three years to implement changes to their local ordinances after the regulation becomes final. At this stage of the regulation's development, the Board is seeking public comment, which closes 5/3/2021. email [Justin.Williams@deq.virginia.gov](mailto:Justin.Williams@deq.virginia.gov) or 804-698-4185 x 0**
- **Legal news article on [JDSUPRA here](#); HRPDC Presentation [here](#); HRSD Comment Letter [here](#).**

# NEW FEDERAL RELIEF FUNDS

- **Significant funds for each Town may be forthcoming.**
- **Originally thought to be distributed directly from the federal government, but now anticipated to be managed by the state.**
- **Upfront vs. reimbursement still unclear, as are the use restrictions.**

# BROADBAND

- **ALL incorporated towns in the region now have final mile of ESVBA infrastructure in place (exceptions: Tangier and Chincoteague Islands).**



# LARGE SCALE INFRASTRUCTURE

- **THINK BIG!**

# RAISE – U.S. DEPT OF TRANSPORTATION

**Raise** previously known as BUILD or TIGER, is now Rebuilding American Infrastructure With Sustainability And Equity. **Applications are due July 12, 2021**

## 2021 RAISE Webinar Series

On April 19, 2021, registration opens for RAISE webinars. USDOT is offering a series of special topic webinars that go over a variety of aspects regarding the RAISE application process. These webinars will be a great resource for prospective applicants and share the guidance of USDOT.

Click [here](#) to see examples of RAISE grants used for greenway projects, provided by the East Coast Greenway Alliance.

# REVENUE SHARING PROGRAM - VDOT

In addition to local governments, schools, regional park authorities, federally recognized tribes, and federal natural resource agencies are eligible to apply.

**Pre-applications are due July 1, 2021 and full applications are due October 1, 2021.** Please contact the A-NPDC for questions or technical assistance.

[Revenue sharing program](#) revenue sharing is a 50/50 cash match program. The program is used to fund eligible work on highway systems within a locality and is intended to fund immediate-need improvements or to supplement funding for existing projects. Eligible applicants include counties, cities, and urbanized towns,

**Pre-applications are due July 1, 2021 and full applications are due October 1, 2021.** Please contact the A-NPDC for questions or technical assistance.



# VA DEPARTMENT OF CONSERVATION & RECREATION

**RTP** the recreational trails program (RTP) grant round is open from **April 1 - June 30, 2021**, with approximately \$1.4 million in RTP funding available. The program is for building and rehabilitating trails and trail-related facilities.

**VLCF** the DCR Virginia Land Conservation Foundation provides funding for open spaces and parks. While the funding cycle is closed for the FY21 projects, be prepared next winter for the FY22 application cycle.

RAFT Status  
Update  
-Wie Yusuf

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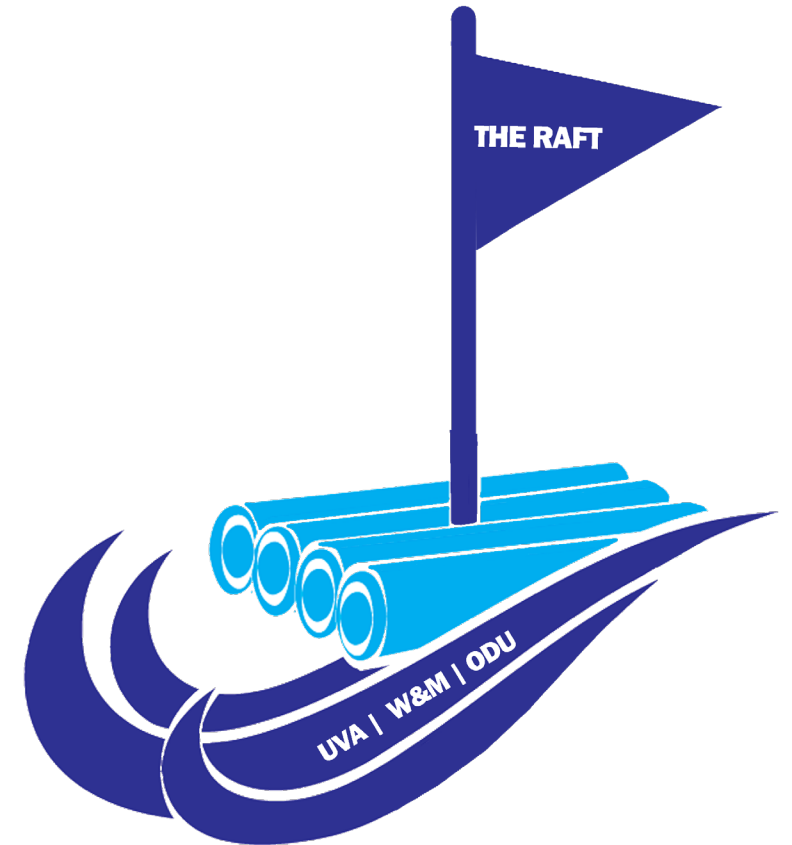


INSTITUTE *for*  
ENGAGEMENT & NEGOTIATION  
Shaping Our World Together

# THE RAFT

## Resilience Adaptation Feasibility Tool

Presentation to the Eastern Shore Regional Hazard  
Mitigation Plan Update Meeting  
(April 20, 2021)



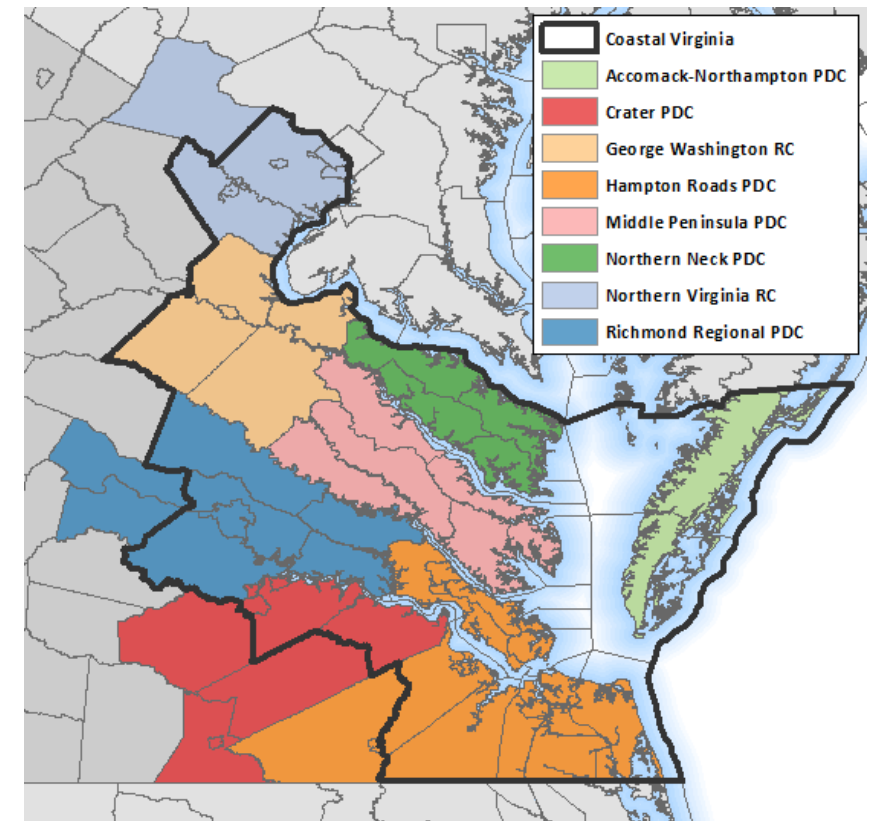
# THE RAFT GOAL

*To help Virginia's coastal localities improve resilience to flooding and other coastal storm hazards while remaining economically and socially viable.*



# THE RAFT WORK WITH VIRGINIA LOCALITIES

- ✓ 2017-18 3 Pilot Localities
- ✓ 2018-19 Eastern Shore of Virginia
- ✓ 2019-20 Northern Neck
- 2021+ Middle Peninsula
- 2022+ Crater and Richmond Regions

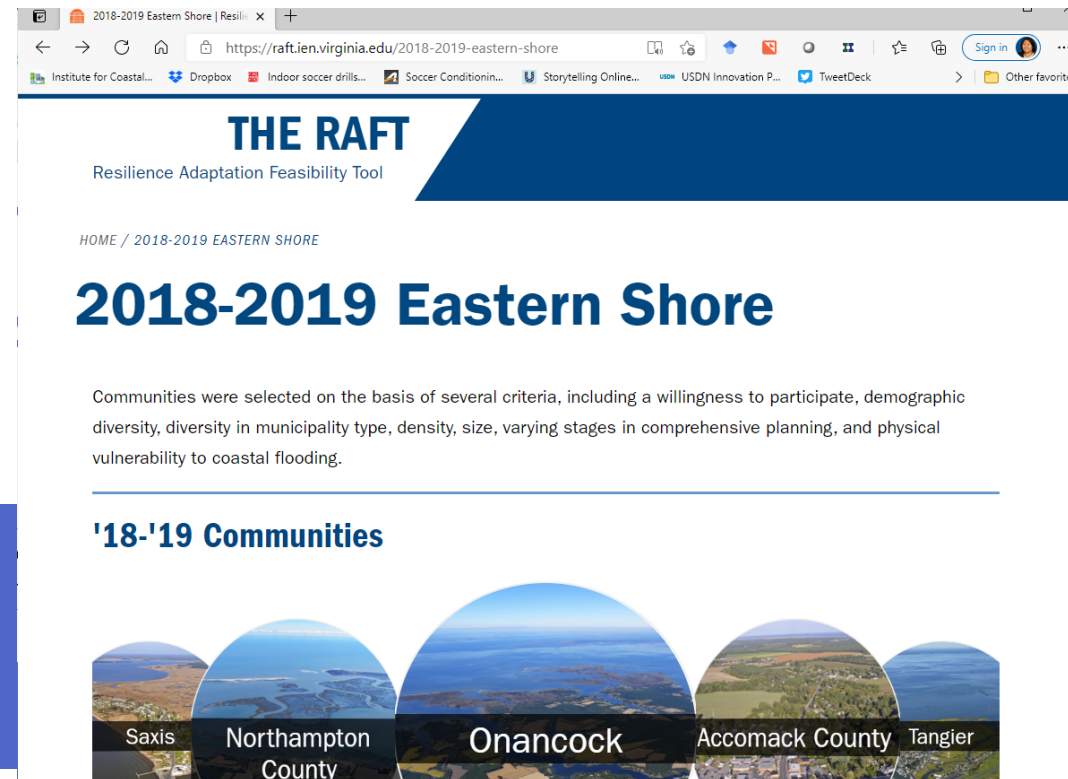


<https://raft.ien.virginia.edu/2018-2019-eastern-shore>

# HAZARD MITIGATION PLANNING AND REVISITING THE RAFT

RAFT resources:

<https://raft.ien.virginia.edu/2018-2019-eastern-shore>



The screenshot shows a web browser displaying the RAFT website. The browser's address bar shows the URL <https://raft.ien.virginia.edu/2018-2019-eastern-shore>. The website header features the text "THE RAFT" in large blue letters, with "Resilience Adaptation Feasibility Tool" underneath. Below the header, a breadcrumb trail reads "HOME / 2018-2019 EASTERN SHORE". The main heading is "2018-2019 Eastern Shore" in large blue font. A paragraph of text explains that communities were selected based on several criteria, including willingness to participate, demographic diversity, and physical vulnerability to coastal flooding. Below this text, a section titled "'18-'19 Communities" displays five circular images of coastal areas, each with a label: Saxis, Northampton County, Onancock, Accomack County, and Tangier.

# THE RAFT SCORECARD – 5 CATEGORIES

1. **POLICY, LEADERSHIP, AND COLLABORATION:** policies, coordination, and access to data
2. **RISK ASSESSMENT AND EMERGENCY MANAGEMENT:** risk assessments, vulnerable populations, and plans for disaster preparedness
3. **INFRASTRUCTURE RESILIENCE:** stormwater, critical infrastructure, and natural and nature-based features
4. **PLANNING FOR RESILIENCE:** comprehensive plan, zoning ordinance, building and development incentives, and green infrastructure
5. **COMMUNITY ENGAGEMENT, HEALTH, AND WELL BEING:** residents, social equity, health and wellness

## 4.2 COASTAL RESILIENCY IN COMPREHENSIVE PLAN

### DESCRIPTION

A comprehensive plan is a locality's vision for future land use, development, adaptation, and resilience. Coastal resilience can be addressed in comprehensive plans by incorporating elements such as green infrastructure, open space preservation, infill development, the National Flood Insurance Program (NFIP), the Community Rating System (CRS), and stormwater management. The ideal comprehensive plan identifies equity and the need to identify and support socially vulnerable populations as a priority for resilience, as well as a priority preference for restoration, green infrastructure and connectivity.

### LOCALITY ACTIONS

- 4.2.a: Locality staff, residents, stakeholders, and others are involved in creating the comprehensive plan.
- 4.2.b: Locality recognizes coastal resilience as an issue for consideration in the comprehensive plan, and gathers information (either by conducting its own studies and analysis, or locating other sources) to develop strategies to enhance its coastal resilience.
- 4.2.c: The comprehensive plan identifies natural resources that help mitigate flooding, and provides strategies to preserve and protect such resources from risks associated with coastal storm hazards.
- 4.2.d: The comprehensive plan identifies critical infrastructure necessary for essential services, and provides strategies to protect such infrastructure from risks associated with coastal storm hazards.

### SCORING

- 1 point – The comprehensive plan discusses how community engagement around coastal resilience informed the plan.
- 1 point – The comprehensive plan includes clear discussion of coastal resilience and coastal storm hazards, and incorporates assessments to inform the development of policies to reduce vulnerability to coastal storm hazards.
- 1 point – The comprehensive plan includes goals and objectives for preserving and protecting natural resources that mitigate coastal storm hazards.
- 1 point – The comprehensive plan addresses impacts on critical infrastructure and essential services from coastal storm hazards, particularly for impacts affecting socially vulnerable populations.

### DATA SOURCES

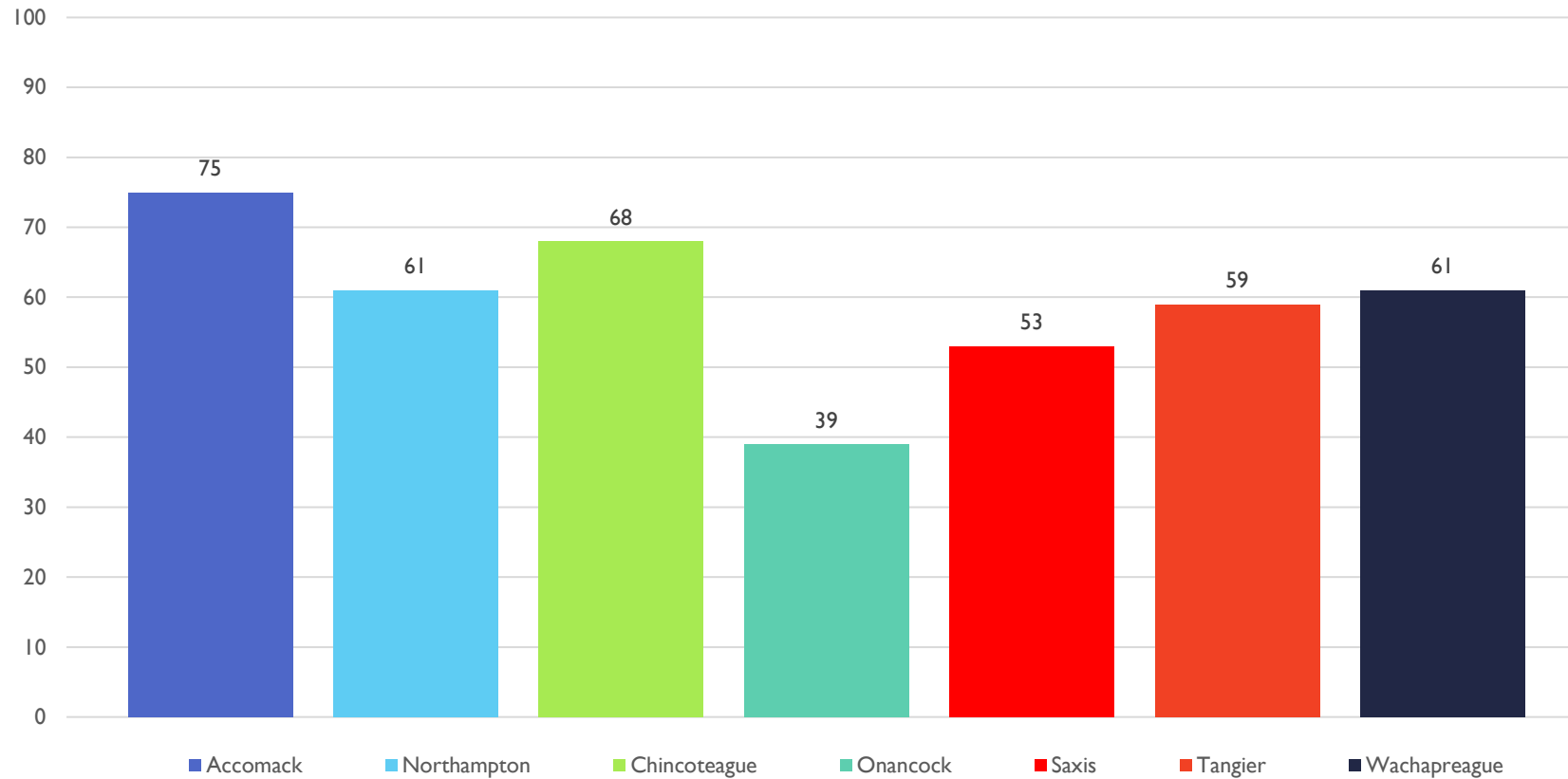
- Comprehensive Plan.

### LOCALITY SCORE

1/4 POINTS

# THE RAFT SCORECARD

Total RAFT Score Comparison





# RESILIENCE ACTION CHECKLISTS

In the community workshop, localities developed their Resilience Action Checklists with 4 to 6 projects to enhance resilience

## Examples:

- Vulnerable populations: Formalize plans for identifying socially vulnerable residents, and how to communicate with them for regular check-ins and during emergencies.
- Develop community awareness: Provide residents with information on historic erosion of land and information on flood insurance and how to reduce their costs.
- Develop basic needs list for emergencies: Create coordinated list of basic emergency needs for both in-season and off-season populations.



# ADDITIONAL RESILIENCE ACTIONS

**Resilience Action Checklist examples from Northern Neck communities:**

- **Establish comprehensive, coordinated communication strategy**
- **Incorporate resilience into Comprehensive Plans and Zoning Ordinances**
- **Identify and prioritize green infrastructure projects, e.g. tree canopy**
- **Build business resilience**
- **Identify and assist vulnerable populations**

# IMPROVING RESILIENCE FOR VULNERABLE POPULATIONS

## COVID-19: Identifying Types of Vulnerable Populations with Localities

### *Examples*

- Individuals without access to personal vehicle
- Low-income populations
- Populations with poor credit
- The elderly
- Those experiencing homelessness
- Those living in substandard housing
- Those without public water utilities (on septic/well water)
- Individuals experiencing mental illness
- Individuals with limited mobility
- Individuals without broadband access
- Amish/Mennonite communities
- Incarcerated populations
- Communities of color
- Medically-vulnerable groups
- Indigenous peoples and tribal nations
- Immigrant communities
- Infants and Pregnant women
- Low education or literacy individuals
- Uninsured and underinsured
- People with social or linguistic barriers

# RESILIENCE FOCUS ON EQUITY AND VULNERABLE POPULATIONS

- Identify / **map vulnerable populations** subject to coastal storm hazards.
- Create **written policy on roles** of residents and businesses, schools and educators, nonprofit, faith-based communities, hospitals, veterans, and other stakeholders in coastal resilience.
- Meet with community partners to **identify “trusted messengers”** (i.e. media outlets, churches) for communicating with vulnerable populations.
- Develop a plan for efficiently providing **food, water, medicine, and healthcare** to vulnerable populations during emergencies and coastal storm hazards.

# THE RAFT TEAM

- **Our Core Team:**

- **University of Virginia**

- *Institute for Environmental Negotiation*

- **Tanya Denckla Cobb** [td6n@virginia.edu](mailto:td6n@virginia.edu)

- **Sierra Gladfelter** [sg6us@virginia.edu](mailto:sg6us@virginia.edu)

- **William & Mary Law School**

- *Virginia Coastal Policy Center*

- **Elizabeth Andrews** [eaandrews@wm.edu](mailto:eaandrews@wm.edu)

- **Old Dominion University and Virginia Sea Grant**

- *ODU Institute for Climate Adaptation & Resilience*

- *Virginia Sea Grant Climate Adaptation and Resilience Program*

- **Wie Yusuf** [jyusuf@odu.edu](mailto:jyusuf@odu.edu)



# Locality Meetings & HMP Chapter Updates

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## Meetings Conducted:

- Bloxom
- Chincoteague
- Onancock
- Parksley
- Saxis
- Wachapreague
- Northampton County
- Cape Charles
- Cheriton
- Exmore
- Keller
- Accomack County (Virtual Updates)
- Onley (Partial Info)

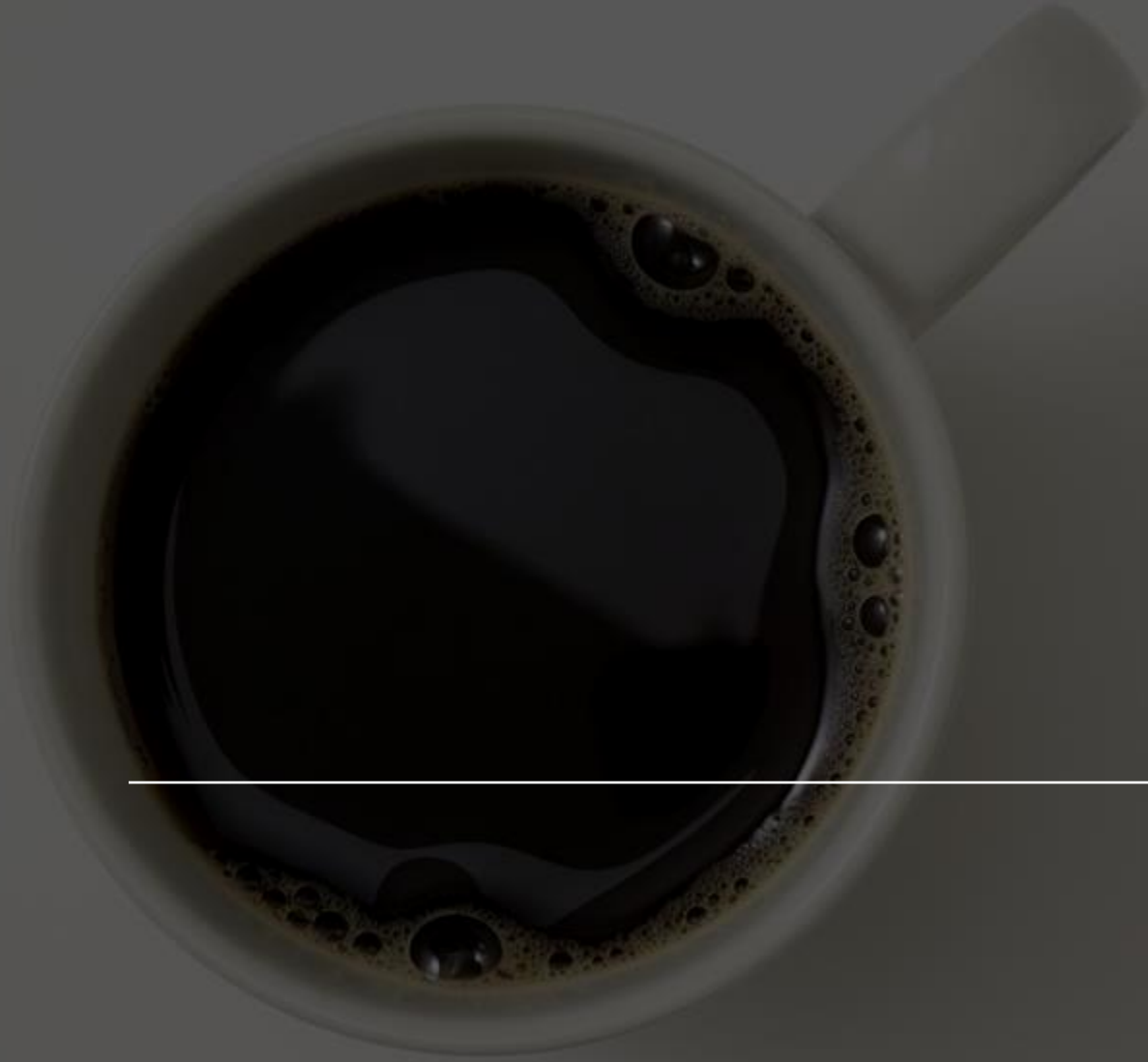
## Meetings Yet to Be Conducted:

- Belle Haven
- Hallwood
- Melfa
- Tangier
- Nassawadox
- Eastville
- Painter

# How to keep your HMP current

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Review Attached Document

# Break

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4:46



# Mitigation Strategies

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CHAPTER 27 OF THE HAZARD MITIGATION PLAN

# Mitigation Goals

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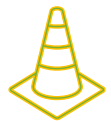
**Goal 1:** Local governments guide a comprehensive mitigation program including public education and ongoing hazard assessments.



**Goal 2:** Residents, businesses, local governments, and other community partners will work together to minimize community disruption through planning and residential and commercial mitigation activities.



**Goal 3:** Local governments encourage self-sufficiency and personal responsibility for managing risk.



**Goal 4:** Local governments will work to ensure that infrastructure will continuously function during and after a hazard event.



**Goal 5:** Local governments will make efforts to reach special needs populations.

# Strategy Development

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**Goal 1:** Local governments guide a comprehensive mitigation program including public education and ongoing hazard assessments.

- **Accomack:** Train County staff for mitigation duties.
- **Accomack:** Promote mitigation programs throughout the County.
- **Northampton:** Increase the capacity of Northampton mitigation program through training and coordination with federal, state, and local governments.

# Strategy Development – Town of Chincoteague

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Goal 1: Local governments guide a comprehensive mitigation program including public education and ongoing hazard assessments.

- Ensure emergency management and government operations can continue during and after a hazard event.
- Complete hazard assessment mapping and Storm Water Master Plan to better inform Town Council decisions and public outreach efforts.

# Strategic Goal # 1

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**Goal 1:** The Hazard Mitigation Plan will serve as a guide to local governments for comprehensive mitigation to include public education and ongoing hazard assessments.

- Local Governments will leverage resources available through partnerships with the private sector and regional, state and federal agencies to promote training and awareness within the community.
- Local Governments will improve local planning using geospatial technology to inform decision making.
- Local emergency management will improve preparedness, response and recover to assure continuity of government during an event.

# Strategy Development

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**Goal 2:** Residents, businesses, local governments, and other community partners will work together to minimize community disruption through planning and residential and commercial mitigation activities.

- **Accomack:** Reduce damages from flooding.
- **Accomack:** Reduce damages from non-flooding natural disasters, if that type of event occurs.
- **Northampton:** Retrofit housing to reduce the risk of coastal flooding.
- **Northampton:** Protect new housing by reducing the risk of damage from natural hazards.
- **Northampton:** Retrofit commercial and residential structures to reduce the risk of the most critical natural hazard damage.

# Strategy Development – Town of Chincoteague

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**Goal 2:** Residents, businesses, local governments, and other community partners will work together to minimize community disruption through planning and residential and commercial mitigation activities.

- Retrofit housing to withstand a 1%-annual-chance flood event.
- Utilize mitigation funds made available following a natural hazard event to retrofit commercial and residential structures to withstand flooding or other hazard events.

# Strategic Goal # 2

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**Goal 2:** Improve resiliency through harnessing community partnerships (residents, businesses, local governments, and other community partners) working to minimize disruption during hazard events.

- Local Governments will work to reduce risk by evaluating the hazards and risks outlined in the Hazard Mitigation Plan
- The Eastern Shore as a region will work to seek funding to implement programs that will help minimize the loss of life and or property during an event.
- As the threat of flooding continues to be high in the region, communities will continue to seek out opportunities to implement mitigation best practices.



# Strategy Development

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**Goal 3:** Local governments encourage self-sufficiency and personal responsibility for managing risk.

- **Accomack:** Educate the public about their responsibility to respond safely and effectively during a disaster.
- **Accomack:** Educate the public about their responsibility in reducing and insuring their own risks.
- **Northampton:** Increase resident preparedness in the County.
- **Northampton:** Educate residents about flood insurance available and encourage participation in the National Flood Insurance Program.

# Strategy Development – Town of Chincoteague

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**Goal 3:** Local governments encourage self-sufficiency and personal responsibility for managing risk.

- **Strategy 3.1:** Promote the benefits of flood insurance from the National Flood Insurance Program.
- **Strategy 3.2:** Educate residents and businesses on potential hazards.

# Strategic Goal # 3

---

**Goal 3:** Local governments and partner organizations will encourage self-sufficiency and personal responsibility for managing risk.

- Communities will seek opportunities to educate the public about their responsibility to respond safely and effectively during a disaster.
- Residents should be informed of programs that reduce damage and encourage participation in programs like the National Flood Insurance Program.

# Strategy Development

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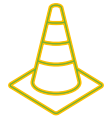


**Goal 4:** Local governments will work to ensure that infrastructure will continuously function during and after a hazard event.

- **Accomack:** Maintain safe traffic flow in case of wide scale power loss.
- **Accomack:** Maintain emergency service functions in case of wide-scale power loss
- **Northampton:** Maintain traffic flow after a natural hazard event.
- **Northampton:** Ensure continuity of public water and wastewater systems.
- **Northampton:** Provide for adequate sheltering during an emergency.

# Strategy Development – Town of Chincoteague

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**Goal 4:** Local governments will work to ensure that infrastructure will continuously function during and after a hazard event.

- **Strategy 4.1:** Retrofit the causeway and bridge to maintain connection to the mainland.
- **Strategy 4.2:** Ensure adequate water resources will be available during and after hazard events.
- **Strategy 4.3:** Maintain beach access to the Assateague Island National Seashore following hazard events..

# Strategic Goal # 4

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**Goal 4:** Local governments will work to improve infrastructure for resiliency and provide the appropriate redundancies for the operations of critical infrastructure during an event.

➤ Communities will work to protect the the community lifelines that impact the Eastern Shore.

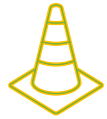
Lifelines are the most fundamental services in the community that, when stabilized, enable all other aspects of society to function.

- ❖ Safety and Security
- ❖ Food, Water, Shelter
- ❖ Health and Medical
- ❖ Energy

- ❖ Communications
- ❖ Transportation
- ❖ Hazardous  
Materials

# Strategy Development

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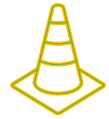


**Goal 5:** : Local governments will make efforts to reach special needs populations.

- **Accomack:** Define and identify special needs populations in the County.
- **Accomack:** Assure migrant population has access to County emergency response efforts.
- **Accomack:** Assure Tangier Island residents have access to County emergency response efforts.
- **Northampton:** Improve communications with special needs residents before and after hazard events

# Strategy Development – Town of Chincoteague

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**Goal 5:** : Local governments will make efforts to reach special needs populations.

- **Strategy 5.1:** Identify locations of seasonal housing including mobile homes, campgrounds, etc.



# Strategic Goal # 5

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**Goal 5:** : Local governments will make efforts to reach all populations during preparation to, response of and mitigation of all risks.

- Define and identify at-risk populations in the County.
- Assure migrant population has access to County emergency response efforts and improved communication.
- Assure Tangier Island residents have access to County emergency response efforts.

Identify  
Regional  
Mitigation  
Objectives



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## NEW RESOURCES

# FEMA's Geospatial Resource Center

## Description

- FEMA created the [Geospatial Resource Center](#) so users could share and access disaster response data, maps and applications in a secure environment.
- Our goal is to make content provided by us and our governmental, private sector and volunteer agency partners, including HHS, Census, NASA, and many others, easy to retrieve, and visible to everyone.
- Live data feeds in our lifeline dashboards provides decision makers and analysts direct access to the most reliable, timely data.

## Highlights

- The [center](#) brings 1000s of pieces of curated content from FEMA and our state, local, tribal and territorial, and non-governmental partners in one place on ArcGIS Online.
- Each hazard page has a curated set of applications and data, a categorized data catalog and a hazard overview that includes weather advisories, watches and warnings--in a spatial format.
- The catalogs provide a great foundation for incorporating newly available, authoritative data, maps and apps.
- You can also find aerial or other remotely sensed imagery from both current and historic events.

The screenshot displays the FEMA Geospatial Resource Center website. At the top, the FEMA logo and navigation links (Pages, Data Catalog, Disaster Journals, Lifeline Dashboards) are visible. The main heading is 'Hurricanes', with a sub-header stating: 'FEMA GIS supports the emergency management community with world-class geospatial information, services, and technologies to prepare for, protect against, respond to, recover from and mitigate against all hazards.' Below this, there's a breadcrumb trail: 'Home / Hurricanes'. A secondary navigation bar includes 'Imagery', 'State & Local Resources', 'Historic Resources', 'Data Catalog', and 'Coordination Calls'. The main content area is divided into two sections: 'State & Local Resources' (with a 'View More' link) and 'Hazard Overview'. The 'State & Local Resources' section contains four widgets: 'WEB APP' (Access Weather & Emergency Preparedness Information), '43 3 18' (Incidents, Alerts, Conditions, Tropical Weather, and Disaster Preparedness and Relief Information), 'Weather Forecasting to Support Decision Making' (The FEMA GIS Center provides authoritative information on weather forecasts for the US emergency management community), and 'Coordinate When Designing' (The FEMA GIS Center provides authoritative information on weather forecasts for the US emergency management community). The 'Hazard Overview' section features a map of the United States with a legend for 'NOAA NOS Tides - Waterlevels Active Stations' and 'Coastal Counties'. A 'DOTD' logo is also visible at the bottom of the page.

## More Information

- During disaster events, we provide emailed updates and hold coordination calls with the impacted state and community geospatial personnel.
- To join the email distribution list, self-register here: [Geospatial Coordination Calls During Disasters](#).
- Email [FEMA-GIO@fema.dhs.gov](mailto:FEMA-GIO@fema.dhs.gov) should you need other assistance.

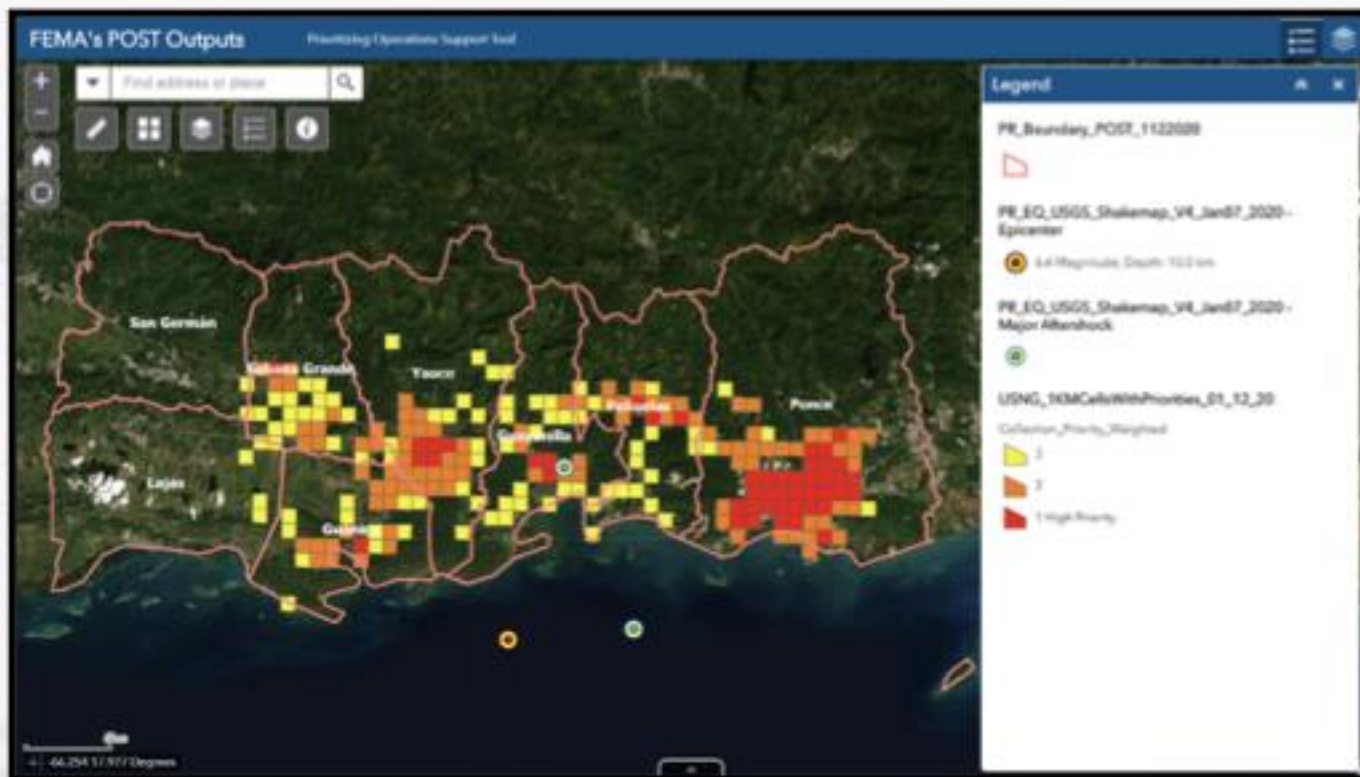
# FEMA's Prioritization Operations Support Tool (POST)

## Description

- Prioritization Operations Support Tool (POST) leverages the US National Grid as a standardized reference system and calculates priorities and at-risk scores through a series of complex algorithms that account for three main data sources: **hazard data, structural data, and population vulnerability**.
- POST helps provide timely and accurate intelligence about the scope of an incident so leaders can make effective and successful response and recovery decisions.

## Highlights

- POST predictions are combined with other data layers to provide a composite of impacts immediately following an incident.
- POST results are used, for example:
  - To help make decisions on where to collect imagery
  - For Situational Awareness in Urban Search and Rescue maps and dashboards
- The tool's simplistic design relays complex information in an easy-to-understand format, essential during complex situations.
- **New this year:** a date and priority filter to help search past events in the dashboard.



Red squares indicate high priority, based on the probability of impacts to humans and the built environment.

## More Information

- Find the POST modeled output in the [Geospatial Resource Center](#). FEMA will post the model to the Hurricane page once the results are available.

# FEMA's Lifeline Dashboards

## Description

- FEMA's [Lifeline Dashboards](#) provide at-a-glance situational awareness of an incident
- The seven dashboards are based on the [community lifelines construct](#) and are designed to display authoritative data, and information regarding the lifeline's status from our response partners on all disaster types. All but the Energy dashboard are public.

## Highlights--New this year!

- Power outage trend analysis for impacted areas, and daily crude oil production at the state level, data from DOE
- Gas Buddy live data for large-scale activations, showing fuel availability and power status of gas stations
- Live wildfire extents and impacts
- Trend analysis of FEMA congregate and non-congregate shelter populations; locations of non-Congregate Shelters, including hotel rooms available, and the population in them.
- Public drinking water live outages for the country. Also included in that layer is any county reporting a **Boil Water Advisory**, and the population affected. Currently set to Texas and Louisiana, but we will add states as needed.
- Data from RxOpen now provides a live feed of open pharmacies and dialysis centers.



Safety and Security Response Community Lifelines

## More Information

- Find the [Lifeline Dashboards](#) in the [Geospatial Resource Center](#).

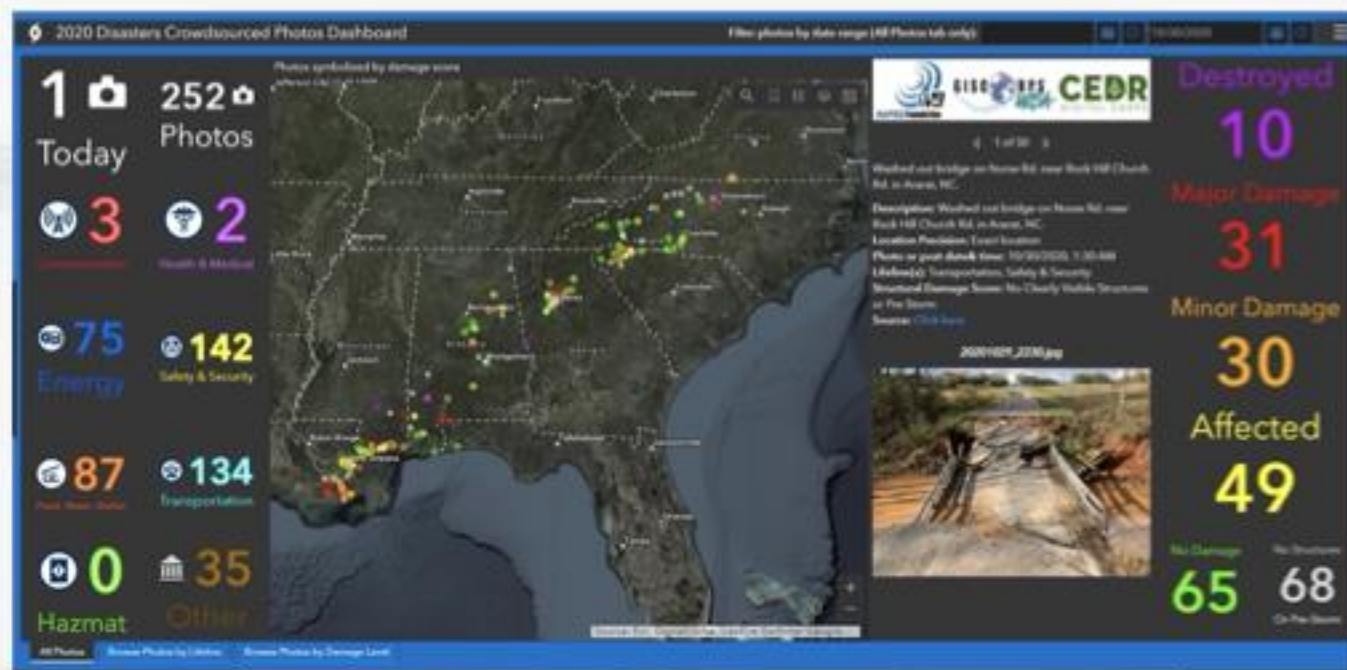
# FEMA's Crowdsourcing-Partner Products

## Description

- After a disaster, many survivors, local officials and reporters post photos of damage to social networks.
- Volunteers from the URISA GISCorps use both labor intensive and automated processes to identify relevant photos that could assist response organization with situational awareness and to assess damages, virtually.
- FEMA Incident Management Assessment Teams, have used these maps to identify areas where disaster survivors may need services.

## Highlights

- Photos are vetted for authenticity, appropriateness, and accuracy; then approved and categorized by the most relevant [Community Lifeline](#) category and damage level.
- The location of each image is determined by volunteers who use clues in the photo or the post. They strive for street-level accuracy or better. Once located, the image is included as a point on the map--allowing users to see trends and swaths of damage.
- Photos are made available via Open Data to managers or analysts who may use this as part of their response and recovery efforts.



URISA's GISCorps Crowdsourced Photo Application

## More Information

- Find the Crowdsourced Photo Application the [Geospatial Resource Center](#) and on the GISCorps page: [PhotoMappers Hub Site \(arcgis.com\)](#).
- Should you have questions, contact: [FEMA-GIO@fema.dhs.gov](mailto:FEMA-GIO@fema.dhs.gov) or [FEMA-crowdsourcing@fema.dhs.gov](mailto:FEMA-crowdsourcing@fema.dhs.gov).

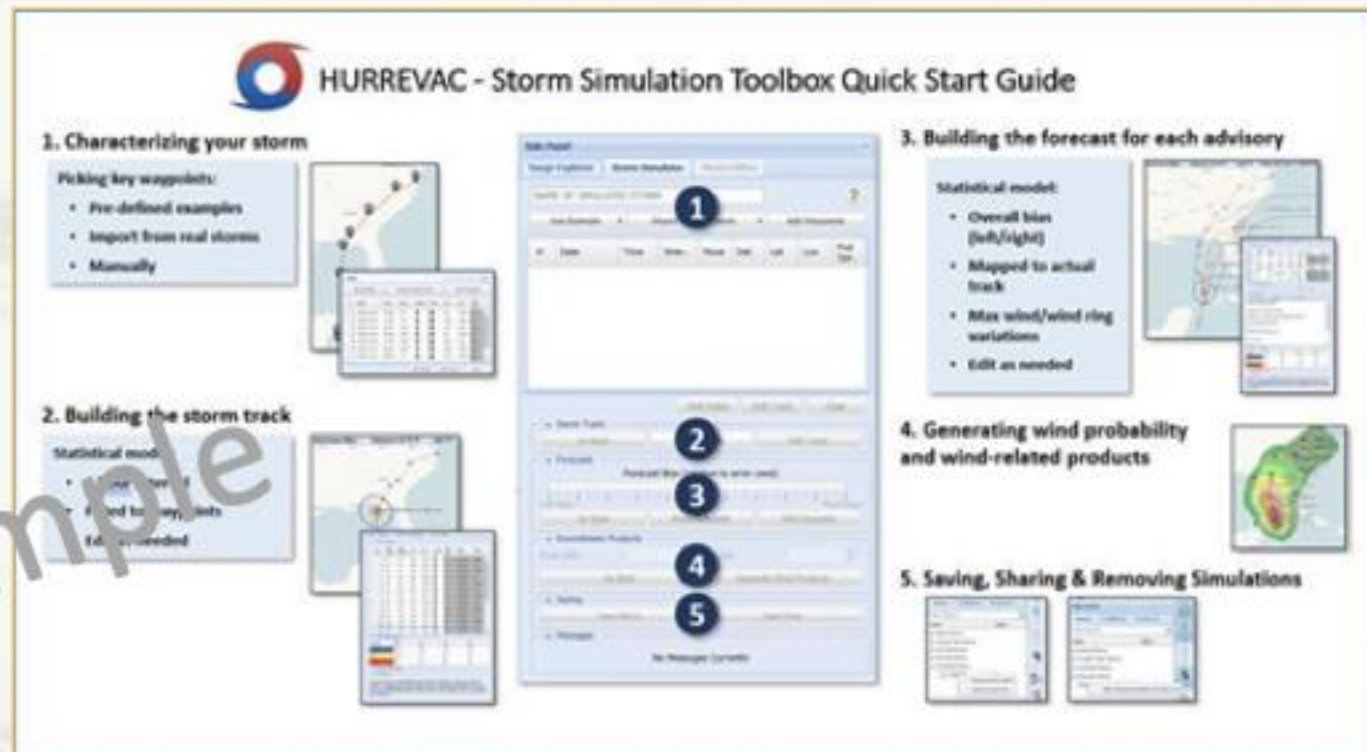
# Storm Simulation Tool in HURREVAC

## Description

- [National Hurricane Program](#) stakeholders can now use the Storm Simulation Tool to support upcoming training, exercises, and hurricane preparedness and planning efforts.
- All HURREVAC users can create tailored storm simulations in a matter of minutes.
- Users enter a simplified set of criteria and the statistical model generates the storm track, associated forecasts, and downstream products (wind probabilities, wind watch/warnings, etc.).
- Users have three options for setting their scenario parameters: (1) import waypoints (latitude and longitude, storm category, and date/time ) from a historic storm; (2) import waypoints from a regional example; or (3) manually enter the waypoints.
- Once a storm simulation is developed, users can view forecast products, advance through time and forecast advisories, and interact with the storm simulation using the same functionality as real storms in HURREVAC. In addition, users can share their storms with others to support training or exercise needs.

## Highlights

- The Storm Simulation Tool was released in March 2021 in Beta version.
- The NHP would like to hear how users are leveraging the new Storm Simulation Tool to prepare for hurricane season.
- Users are encouraged to send feedback to the [HURREVAC support team](#) by emailing [support@hurrevac.com](mailto:support@hurrevac.com).
- The NHP will continue to make updates to the Storm Simulation Tool as we identify enhancements and receive feedback.



The diagram illustrates the five-step process for using the HURREVAC Storm Simulation Toolbox. It features a central screenshot of the software interface with five numbered callouts (1-5) pointing to specific areas. Surrounding this are five numbered boxes, each describing a step and accompanied by small representative images of the tool's output.

### HURREVAC - Storm Simulation Toolbox Quick Start Guide

- 1. Characterizing your storm**
  - Picking key waypoints:
    - Pre-defined examples
    - Import from real storms
    - Manually
- 2. Building the storm track**
  - Statistical model:
    - Pre-defined
    - Picked by waypoints
    - Edit as needed
- 3. Building the forecast for each advisory**
  - Statistical model:
    - Overall bias (left/right)
    - Mapped to actual track
    - Max wind/wind ring variations
    - Edit as needed
- 4. Generating wind probability and wind-related products**
- 5. Saving, Sharing & Removing Simulations**

## More Information

- For more detailed guidance and frequently asked questions, users should review the User Guide.
- The User Guide is accessible from the question mark icon in the Storm Simulation Tool within [HURREVAC](#).
- Users are encouraged to send feedback to the [HURREVAC support team](#) by emailing [support@hurrevac.com](mailto:support@hurrevac.com).



A wide-angle photograph of a coastal dune landscape. A wooden boardwalk, constructed from light-colored planks, winds from the foreground into the distance, curving to the right. The dunes are covered in green grass and some purple heather. In the background, there are more dunes and a line of trees under a grey, overcast sky. The text "Next Steps" is overlaid in white serif font on the left side of the image, with a thin white horizontal line underneath it.

# Next Steps

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