

**RESILIENCE OVERVIEW**

**ACCOMACK-NORTHAMPTON  
PLANNING DISTRICT COMMISSION**

ACCOMACK COUNTY

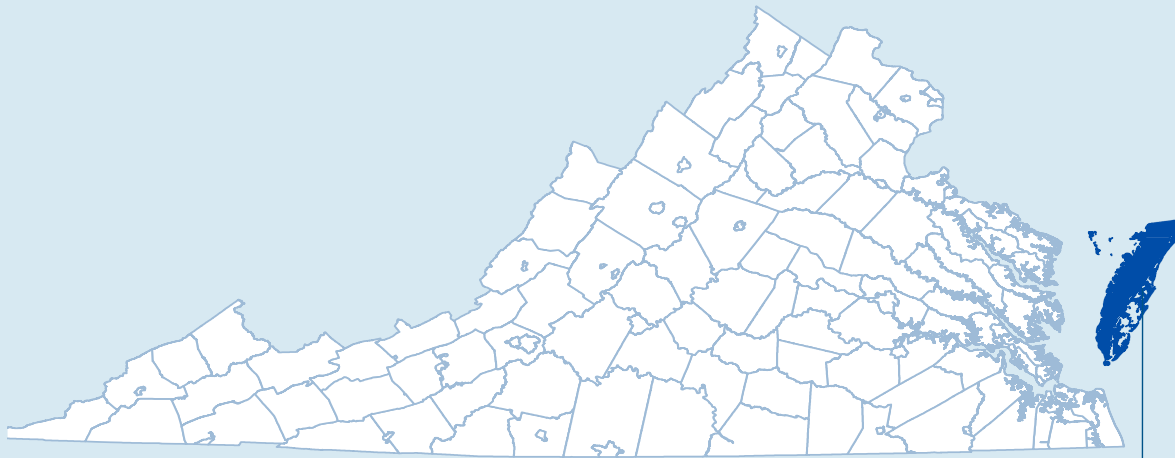
NORTHAMPTON COUNTY

TOWN OF CHINCOTEAGUE



**FEMA**

**RiskMAP**  
Increasing Resilience Together



# ACCOMACK-NORTHAMPTON PDC

## RESILIENCE OVERVIEW

Resilient communities have the ability to “bounce back” from hazardous events, successfully respond to stressors, and adapt well to change. Resilience is not just about preparing for or responding to adverse weather events or disasters; it is also about identifying what makes a place special, and pinpointing priorities for a community’s future.

This Resilience Overview is a resource for the counties of the Accomack-Northampton Planning District Commission (PDC) to use to address risk, mitigate hazards, and recognize and promote resilience efforts in the region. The goals of this overview are to:

- **Understand Risk:** Investigate the community’s assets and vulnerabilities.
- **Reduce Risk:** Explore options and opportunities for mitigation.
- **Insure Risk:** Provide community information about the National Flood Insurance Program (NFIP) and how insurance is a building block for resilience; and provide resources that can be used in an integrated approach to evaluate and reduce risk.

EVERYONE has a role in proactively protecting and enhancing their community’s unique character, which draws people to live, work, and play in the region. Through a whole-community approach, the Accomack-Northampton PDC can plan for, preserve, and promote what is most important to its communities into the future.

The Accomack-Northampton Planning District Commission is located on the Delmarva Peninsula, which encompasses jurisdictions from Virginia, Maryland, and Delaware. The Planning District comprises the County of Accomack, the County of Northampton, and the Town of Chincoteague. The Accomack-Northampton PDC currently serves 21 jurisdictions. The County of Northampton is 35 miles long and encompasses the southern portion of the PDC’s 70-mile stretch. The County of Accomack is north of Northampton. Located in the far northeastern portion of Virginia’s Eastern Shore lies the Town of Chincoteague. The area has miles of farmland and undisturbed beaches, but serves as a day trip destination for large metropolitan areas such as Philadelphia, New York City, and Washington, D.C.



## **What is resilience? What is hazard mitigation?**

Resilience is the capacity of individuals, communities, businesses, institutions, and governments to adapt to changing conditions and to prepare for, withstand, and rapidly recover from disruptions to everyday life. Hazard mitigation is ongoing action to reduce or eliminate the long-term risk to human life and property from hazards. Mitigation is the foundation of community resilience and touches all parts of a community: how floodplains and natural resources are managed, how a community builds, and where infrastructure and critical facilities are placed. Communities can engage in mitigation efforts both before and after a disaster to become more resilient. This requires addressing not only the physical and environmental impacts of hazards, but also the economic and social impacts.

## **Federal, State, and Local Partnerships**

The Federal Emergency Management Agency (FEMA) is a partner in planning for a resilient Accomack-Northampton region. FEMA offers programs, resources, grants, and partnership opportunities that can assist communities with their hazard mitigation planning and actions, which enable resiliency. Virginia's Commonwealth and local agencies and organizations, as well as other Federal agencies working in Virginia, provide support for communities to plan for and respond to risk. Working together, the region and its Federal, State, and local partners can leverage funding options, identify and prioritize near-term and future projects, and advance policies that work to reduce vulnerability and build resiliency. Linking national and State resources with local knowledge and insight will lead to plans, programs, and ACTION that ensures the Accomack-Northampton's continued vitality.

# UNDERSTAND YOUR RISK

## Historical Context

Also referred to as the Eastern Shore, the Accomack-Northampton Region has a long, interconnected history. Northampton County and Accomack County were originally part of the Accomac Shire, one of the original eight shires established in colonial Virginia in the 1600's. The name Accomack originates from the Native American word meaning "the other shore." The Town of Chincoteague has also existed in some form since the 1600's. Since it originated, there have been several land annexes and the area has expanded. The word "Chincoteague" is said to be an Indian name meaning "beautiful land across the water." Accomack-Northampton PDC was explored by Captain John Smith in the 1600's. Since its settlement, the Region's fertile soils have served Virginia and surrounding areas. The main source of jobs throughout history and today have been tied to the available farmland and the bountiful water boundaries.



## Primary Land Uses

The Accomack-Northampton PDC is surrounded by water; with the Chesapeake Bay to the west and the Atlantic Ocean to the east. In Accomack, the 432 square miles of the county is made up of rich farmland, undisturbed beaches, and expanses of marsh and forest. Over 65 percent of Accomack County is actually water. Northampton County has large areas dedicated to National Parks, as well as regular parks. Northampton, Accomack, and the Town of Chincoteague rely heavily on tourism of the wetlands and shoreline.

## Population, Environmental, and Economic Considerations

The total population in the Accomack-Northampton PDC is close to 50,000 according to the 2010 census. The Town of Chincoteague, Accomack County and Northampton County all saw a slight decrease in population between the 2000 census and the 2010 census. The capacity of the area fluctuates throughout the year, as people return to the region to enjoy the landscape during the summer. Businesses and parks experience a large influx of tourism during the summer months.

## Development Trends

The Accomack-Northampton PDC is a primarily rural area. There are town centers within the counties and scattered housing throughout the region. The PDC focuses on housing quality; seeking, financing, and building community development projects; and providing structure to regional coastal protection goals. As with most rural areas, the development goals for the area are to diversify and strengthen the local economy. By diversifying and improving housing, the Accomack-Northampton PDC can maintain the local culture and increase year-round employment.

## Community Risk

Due to the low-lying topography of the Accomack-Northampton PDC, flooding poses the number one risk to residents of the region. Flooding in the area can be caused by hurricanes, nor'easters, and tropical storms. Other risks to the community are cold snaps, wildfires, and coastal winds. All of these hazards have caused problems historically in the area and have evolved as infrastructure and development has changed throughout the years.

## What are the priorities for the Accomack-Northampton communities?

The combination of history and natural beauty is a huge strength for the Accomack-Northampton PDC. The water-based resources of the area provide the opportunity for economic development through tourism, recreation, aqua-business, and other businesses and industries. Agricultural-based assets, such as viable cropland and forest products, are essential components for achieving a productive and sustainable future, while maintaining time-honored traditions. Like most of the mid-Atlantic, the Eastern Shore of Virginia did not escape the wrath of Hurricane Sandy. The “super storm” was still a hurricane as it pushed past most of Virginia, causing millions of dollars in combined damage in Accomack and Northampton Counties. The Accomack-Northampton PDC communities’ priorities are therefore linked to these assets and strategies to:

- Reduce loss of life, injuries, and personal property loss.
- Develop and maintain public and private infrastructure to ensure continued service delivery.
- Educate and train citizens regarding their vulnerability to regional hazards and increase public engagement.
- Reach special needs populations in the communities
- Enhance the capabilities of local government to influence and lessen the impacts of hazards.

The communities have identified resilience and adaptation actions that protect their historic, natural, and infrastructure resources by incorporating mitigation principles into regional long-range transportation, coastal zone management, and recovery plans. Examples of local planned strategies include establishing special housing development alliances; implementing regulations along the shorelines; and establishing standards for transportation construction in the region.

### COMMUNITY FLOOD RISK INFORMATION

COMMUNITY NAME	POPULATION (2010 CENSUS)	PERCENT POPULATION IN COASTAL AREA OF COUNTY	TOTAL COMMUNITY LAND AREA (SQ MI)	PERCENT LAND AREA IN COUNTY COASTAL REGION	NFIP PARTICIPATION
Town of Accomac	519	100	0.4	100	N
Accomack County	33,164	100	432	100	Y
Town of Belle Haven	532	100	1.5	100	Y
Town of Bloxom	387	100	0.3	100	Y
Town of Chincoteague	2,941	100	9.1	100	Y
Town of Hallwood	206	100	0.2	100	Y
Town of Keller	178	100	0.4	100	N
Town of Melfa	408	100	0.3	100	N
Town of Onancock	1,263	100	1	100	Y
Town of Onley	516	100	0.8	100	Y
Town of Painter	229	100	0.6	100	N
Town of Parksley	842	100	0.6	100	Y
Town of Saxis	241	100	0.4	100	Y
Town of Tangier	727	100	0.4	100	Y
Town of Wachapreague	232	100	0.2	100	Y
Town of Cape Charles	1,009	100	3.6	100	Y
Town of Cheriton	487	100	1	100	N
Town of Eastville	305	100	0.2	100	Y
Town of Exmore	1,460	100	2.6	100	Y
Town of Nassawadox	499	100	0.7	100	Y
Northampton County	12,389	100	211.6	100	Y

Sources: 2015 Flood Risk Reports for Communities from FEMA's Community Information System  
Source: Flood Risk Report, FEMA, 2015



# REDUCE YOUR RISK

## Overview of the Hazard Mitigation Plan

Through hazard mitigation planning, communities can identify both their risk and ways to address their vulnerabilities. Mitigating its identified risks positions a community to withstand extreme events more easily, and has the potential to impact the overall quality of life for a community. Hazard Mitigation Plans (HMPs) are created by communities and updated every five years. This planning cycle should include opportunities to consistently engage with stakeholders, integrate mitigation planning with other planning processes in the community, and implement the identified actions. The *Planning Wheel* illustration shows the cycle of planning; mitigation is an activity and a process to engage in every day, and throughout the community. Mitigation planning is also enhanced by early, frequent, and ongoing community and stakeholder involvement. Hazard mitigation efforts should reflect the needs of all facets of the community.

## Hazard Mitigation Planning in Accomack-Northampton PDC

The Accomack-Northampton PDC HMP was last updated in 2011 and is currently due for a new update. The update process includes a public engagement process to complete a risk and vulnerability assessment, as well as to identify mitigation actions to address vulnerability. Updating and adopting the HMP also enables the Accomack-Northampton PDC and its jurisdictions to be eligible for funding through FEMA's Flood Mitigation Assistance (FMA) program, Pre-Disaster Mitigation (PDM) program, and Hazard Mitigation Grant Program (HMGP), which can help fund mitigation projects. Mitigation efforts lead to resilience, which informs the region's long-term sustainability and quality of life. The HMP from 2011, identifies flooding, hurricanes, nor'easters, tropical storms, coastal erosion, high coastal winds, fires, ice storms, and drought as the hazard types that could most likely affect Accomack-Northampton PDC communities. It was determined that hurricanes had the most significant impact on the communities and flooding, coastal erosion and high coastal winds all had moderate impacts. Several strategies were identified to develop specific mitigation projects for the region and specific to the jurisdictions to reduce vulnerabilities to the identified hazards. These included encouraging residents in flood-prone areas to purchase insurance, gaining a better understanding of areas with stormwater issues, and increasing shelter space and emergency management.

THE PLANNING WHEEL



## Hazard Mitigation Techniques to Improve Community Resilience

Hazard mitigation activities may occur in any of the categories presented below, and many mitigation actions may also have positive transportation, environmental, social, or even economic impacts for the community. The breadth of potential activities within these categories illustrates the potential for a holistic approach to whole-community planning.



Plans and regulations include government authorities, policies, or codes that encourage risk reduction, such as building codes and State planning regulations. This may also include planning studies.



Structure and infrastructure projects involve modifying existing structures and infrastructure or constructing new structures to reduce the impact of hazards.



Natural systems protection projects minimize losses while also preserving or restoring the function of natural systems.



Education and awareness programs include long-term, sustained programs to inform and educate citizens and stakeholders about hazards and mitigation options. This category could also include training.

## Integrating Plans, People, and Action

To be most effective, mitigation actions and comprehensive planning efforts should be integrated and connected to the priorities of the community and its residents. Hazard mitigation and resilience efforts cannot move forward unless decision makers, stakeholders, and the public all understand that policies and planning decisions are interconnected. Floodplain management, ordinance updating, land use and zoning, and other planning efforts should work together to better protect people, property, and resources. Communication, citizen involvement, and proactive leadership can set the priorities, tone, and attitude for development decisions in the Region. Through its hazard mitigation and comprehensive planning efforts, a community provides an avenue for residents to participate in identify what is important to them, and what assets and features of their community must be protected. Once a vision is established, policy, planning, and implementation efforts build a path to resiliency. For more information visit: [www.fema.gov/media-library/assets/documents/31372](http://www.fema.gov/media-library/assets/documents/31372).

## The Importance of Partnerships and Public Outreach

Communities must address flooding and other risks associated with living near the water. Individuals who live and work in places that experience frequent flooding may not realize the risk associated with the less frequent but more severe events that cause catastrophic damages. Similarly, they may not be aware of the increasing vulnerability they face from more severe hazardous coastal conditions. The first step to becoming more resilient is for individuals and institutions within the community to fully understand their risk.

Risk communication can illustrate a holistic, whole-community approach to responding to hazards and preparing for a resilient and sustainable future. This should not be a stand-alone effort. Messages about understanding risk and increasing resiliency can be included with ongoing efforts that are already important to a community. In this way, stakeholders are more likely to understand how hazards will impact the things that they care about and take action to reduce vulnerability to these hazards. FEMA's national website, [www.ready.gov](http://www.ready.gov), allows community members to sign up for emergency alerts and newsletters on a variety of topics, and provides resources for the public.

## Accomack-Northampton PDC Recovery Investments

After a federally declared disaster, FEMA and the community work together to rebuild and increase resilience to future risk. FEMA's Public Assistance (PA) program provides grants to State, tribal, and local governments, and certain types of private, nonprofit organizations, so that communities can quickly respond to and recover from major disasters or emergencies.

FEMA's Individuals and Households Program (IHP) provides financial help or direct services to those who have necessary expenses and serious needs if they are unable to meet these needs through other means. Up to \$33,000 (adjusted each year) is available in financial help, although some forms of IHP assistance have limits. Accomack-Northampton PDC has not had any contributions to IHP in the last five years. Flood insurance may also be required.

In addition to the money a community and its residents will spend to recover, the tables below show the Federal contributions of PA and IHP for disasters in the Accomack-Northampton PDC over the last 5 years. The Accomack-Northampton PDC has not received fund for IHP in the last five years. For information on PA visit: [www.fema.gov/public-assistance-local-state-tribal-and-non-profit](http://www.fema.gov/public-assistance-local-state-tribal-and-non-profit). For information on IHP visit: [www.fema.gov/individual-assistance-program-tools](http://www.fema.gov/individual-assistance-program-tools).

### FEDERAL CONTRIBUTION FOR PUBLIC ASSISTANCE

COUNTY NAME	A-DEBRIS REMOVAL	B-PROTECTIVE MEASURES	C-G PUBLIC ASSISTANCE
Accomack	\$441,082.52	\$246,940.13	\$1,046,795.62
Northampton	\$43,797.58	\$104,353.64	\$420,548.03

# INSURE YOUR RISK

## Understanding the NFIP and Flood Insurance

A community cannot eliminate all risk. The timing of disasters and weather-related events is uncertain. To that end, insurance is necessary to enable a community to address risk. The NFIP aims to reduce the impact of flooding on private and public structures. It does so by providing affordable insurance to property owners and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on existing and new or improved structures. Overall, the program reduces the socioeconomic impact of disasters by promoting the purchase and retention of both general risk insurance and flood insurance, specifically. Insurance is an important foundation for a community's resilience as it protects property and helps individuals and businesses rebuild their lives and livelihoods and is not dependent on a federally declared disaster.

Not all of the communities in the Accomack-Northampton PDC participate in the NFIP. The communities not participating are: Town of Accomac, Keller, Melfa, Painter, Cheriton. The counties' and communities' participation makes flood insurance available to residents and businesses. Insurance is critical for the resilience of any community, and the owners of all properties should review their insurance policies to ensure they are adequate. Also, while those who live in a flood zone may be mandated to purchase

insurance, those who do not live in the Special Flood Hazard Area (SFHA) are also at risk. Residents and business owners need to be educated about their community's risks so they can make the best decisions for themselves. The NFIP also ensures that communities reduce their risk by setting baseline standards for development within SFHAs. Baseline standards for construction within SFHAs allow communities to adopt FEMA recommended ordinances for:

- Building foundation type (concrete block, pilings, etc.); and
- First floor elevations.

Since FEMA sets the minimum requirements for development within areas of identified flood risk, local communities may adopt higher standards, such as higher freeboard above base flood elevations (BFEs), or require a specific foundation type within specific SFHA's.

The counties and communities of the Accomack-Northampton PDC have had more than \$13 million in paid flood losses since 1978 and currently have approximately \$881 million of flood coverage in force. There are 83 repetitive loss (RL) properties in the Accomack-Northampton communities. The table below summarizes NFIP-related information by county and community.

The NFIP's Community Rating System (CRS) program encourages floodplain management activities that exceed minimum NFIP requirements in exchange for a region-wide reduction in flood insurance premiums of five to 45 percent. Currently, four of the communities in the Accomack-Northampton PDC participate in CRS.

## ACCOMACK-NORTHAMPTON FLOOD INSURANCE INFORMATION

COMMUNITY NAME	EFFECTIVE FIRM AND FIS DATE	TOTAL NUMBER OF POLICIES IN FORCE	INSURANCE IN FORCE	TOTAL NUMBER OF PAID CLAIMS	DOLLAR AMOUNT OF PAID CLAIMS	NUMBER OF RL STRUCTURES <sup>1</sup>	LEVEL OF NFIP REGULATIONS <sup>2</sup>
Accomack County	5/18/2015	1,943	\$440,559,100.00	846	\$9,685,553.00	27	4
Town of Belle Haven	5/18/2015	3	\$950,000.00	0	\$0.00	1	0
Town of Chincoteague	5/18/2015	1,192	\$262,850,700.00	85	\$579,611.00	18	3
Town of Hallwood	5/18/2015	1	\$350,000.00	1	\$4,923.00	0	0
Town of Onancock	5/18/2015	24	\$12,945.00	2	\$13,954.00	0	0
Town of Saxis	5/18/2015	52	\$7,248,500.00	26	\$295,928.00	0	0
Town of Tangier	5/18/2015	70	\$9,417,100.00	98	\$1,090,118.00	14	1
Town of Wachapreague	5/18/2015	84	\$20,873,100.00	29	\$413,444.00	3	1
Town of Cape Charles	3/2/2015	177	\$52,734,800.00	14	\$85,914.00	0	0
Town of Eastville	3/2/2015	1	\$350,000.00	0	\$0.00	0	0
Town of Exmore	3/2/2015	2	\$635,000.00	3	\$35,494.00	1	0
Town of Nassawadox	3/2/2015	2	\$630,000.00	0	\$0.00	0	0
Northampton County	3/2/2015	294	\$84,728,400.00	87	\$1,008,428.00	10	1

1. An RL structure is an NFIP-insured building that has at least two paid claims of more than \$1,000 within any rolling 10 year period since 1978.

2. The level of NFIP regulations is defined in [44 CFR Section 60.3](#) and applies to communities as follows:

- A: FEMA has not defined the special flood hazard areas within a community, has not provided water surface elevation data, and has not provided sufficient data to identify the floodway or coastal high hazard area, but the community has indicated the presence of such hazards by submitting an application to participate in the NFIP.
- B: FEMA has designated areas of special flood hazards (A zones) by the publication of a community's FIRM, but has neither produced water surface elevation data nor identified a floodway or coastal high hazard area.
- C: FEMA has provided a notice of final flood elevations for one or more special flood hazard areas on the community's FIRM and, if appropriate, has designated other special flood hazard areas without base flood elevations on the community's FIRM, but has not identified a regulatory floodway or coastal high hazard area.
- D: FEMA has provided a notice of final base flood elevations within Zones A1-30 and/or AE on the community's FIRM and, if appropriate, has designated AO zones, AH zones, A99 zones, and A zones on the community's FIRM, and has provided data from which the community shall designate its regulatory floodway.
- E: FEMA has provided a notice of final base flood elevations within Zones A1-30 and/or AE on the community's FIRM and, if appropriate, has designated AH zones, AO zones, A99 zones, and A zones on the community's FIRM, and has identified on the community's FIRM coastal high hazard areas by designating Zones V1-30, VE, and/or V.



# WHAT RESOURCES ARE AVAILABLE TO HELP MY COMMUNITY PLAN FOR RESILIENCE?

FEMA and its Federal and State planning partners strive to provide resources, technical assistance, and data for communities to make informed decisions about their future risks and vulnerabilities. The various products provided by FEMA are one component of building a foundation of risk assessment. As the Accomack-Northampton PDC continues to plan for resiliency, the following resources and links are provided to support efforts to prevent, protect, mitigate, respond to, and recover from any flood hazard.

## FEMA Regulatory Products

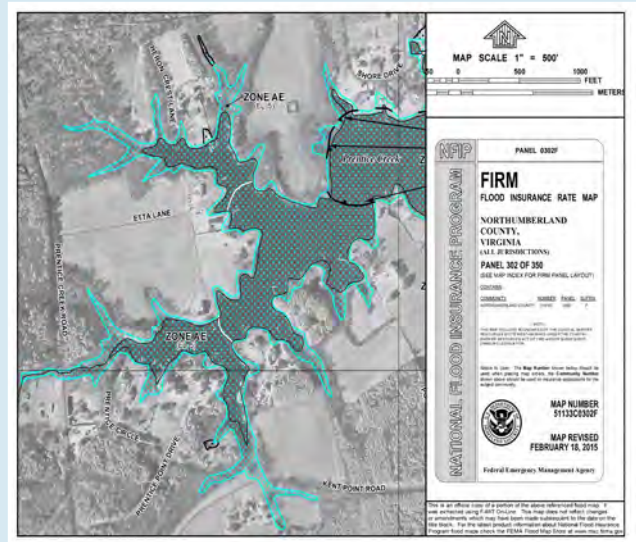
When FEMA maps flood hazards in a community, two products are typically produced: a Flood Insurance Rate Map (FIRM) and a Flood Insurance Study (FIS) report. Used together, these two regulatory documents determine who may have to purchase flood insurance and define the flood hazard zones that determine which floodplain development regulations are applicable.

**Flood Insurance Rate Map:** The official map of a community on which FEMA has delineated both the SFHAs and the corresponding flood zones applicable to the community. FIRMs also depict other information including BFEs and/or depths associated with the flood zones and floodways, and common physical features such as roads, waterways, lakes, etc. FIRMs are also available as a Digital FIRM (DFIRM) database compatible with Geographic Information Systems (GIS) software. The DFIRM database contains most of the quantitative data in the FIS report. Communities integrate this version into local GIS layers and platforms for communities to enhance analytic and planning abilities.

**Flood Insurance Study Report:** A compilation and presentation of flood hazard data for specific watercourses, lakes, and coastal flood hazard areas within a community. The FIS report contains detailed flood elevation data in flood profiles and data tables.

## FEMA Flood Risk Products (Non-Regulatory)

FEMA's Risk Mapping, Assessment, and Planning (Risk MAP) program provides communities with enhanced flood hazard and flood risk products to help promote their understanding of the local flood risk and its potential impacts. These enhancements, which go beyond existing regulatory products, are available to Accomack-Northampton PDC communities to help community members, emergency management officials, real estate and insurance specialists, and decision makers to view, visualize, and have a deeper understanding of their local flood risk. The products are designed to help communities make informed decisions about reducing flood loss and mitigating potential damage from flood hazards. These tools enable a community to focus on flood hazard mitigation and to communicate to stakeholders on risk and vulnerability. The flood risk products summarized below are available at the FEMA Map Service Center (MSC) at [www.msc.fema.gov](http://www.msc.fema.gov).



**Flood Risk Map (FRM):** The FRM depicts flood risk data for a flood risk project area and is typically used to illustrate an overall picture of flood risk for the area. The content and format of individual FRMs may vary among project areas to best represent the local conditions. Typical maps might show the potential flood losses associated with the 1-percent-annual-chance flood event for each census block, areas planned for new or revised maps, key watershed features that affect local flood risk, and information about potential or successful past projects to reduce flood risk.

**Flood Risk Report (FRR):** The FRR provides community and watershed-specific flood risk information extracted from the Flood Risk Database (FRD), explains the concept of flood risk and identifies useful tools and reference materials. The FRR, used in combination with FRM, is a good tool for communities to use for raising local flood risk awareness.

**Flood Risk Database (FRD):** The FRD stores all flood risk data for a flood risk project, including the information shown in the FRR and on the FRM. The FRD provides a wealth of data that may be used to analyze, communicate, and visualize flood risk on an ad-hoc basis for a variety of uses. Communities are encouraged to use this database to support mitigation efforts and raise awareness. Data is not updated regularly once the final FRD is posted to the MSC. Elements in the FRD can include:

- Changes Since Last FIRM show where SFHAs have changed since the last effective FIRM.
- Areas of Mitigation Interest communicate where conditions have contributed to the severity of flooding losses, allowing for better prioritization of flood mitigation efforts and use of funds.
- Flood Depth and Analysis Grids communicate the depth and velocity of floodwaters, as well as the probability of an area being flooded over time.
- Flood Risk Assessment Data provides an assessment of potential financial consequences and other impacts associated with structures located in an SFHA. This data enables communities to make informed decisions regarding future land development and community infrastructure.

To learn more about these FEMA Flood Risk Products, see [www.fema.gov/risk-map-flood-risk-products](http://www.fema.gov/risk-map-flood-risk-products)

## Additional FEMA Resources

FEMA has taken an active role to support community-based resilience efforts by establishing policies and guidance that promote mitigation projects to protect critical infrastructure and other public resources. As such, FEMA has issued several policies to help communities mitigate the adverse effects of

climate change on the built environment. FEMA policies encourage communities to:

- Use building codes and standards (the American Society of Civil Engineers / Structural Engineering Institute [ASCE/SEI] 24-14, Flood Resistant Design and Construction) wherever possible.
- Maintain the natural and beneficial functions of floodplains.
- Invest in more resilient infrastructure.
- Engage in mitigation planning to develop mitigation strategies that foster community resilience and smart growth.

Listed below are additional resources with information on a whole-community approach to resilience and sustainability.

**FEMA Community Recovery Management Toolkit:** This website provides information on how to build a community's capacity to recover after a disaster. The site includes tools for governmental and non-governmental leaders to build a more resilient community after a disaster, in alignment with the guidance and best practices established in the National Disaster Recovery Framework. Communities can also use the toolkit and the National Disaster Recovery Framework before a disaster to enhance their capabilities to recover from a disaster more quickly and effectively. See [www.fema.gov/national-disaster-recovery-framework](http://www.fema.gov/national-disaster-recovery-framework).

**Hazard Mitigation Assistance (HMA) Grants to Support Community Resilience:** Through its HMA programs, FEMA provides an average of \$700 million annually in HMGP, FMA, and PDM grants to help communities take hazard mitigation measures. Through these grants, FEMA supports the development of resilient communities that have become better prepared by developing HMPs and implementing hazard mitigation projects. The HMA grants also fund Climate Resilient Mitigation Activities designed to reduce future losses to homes, businesses, critical infrastructure, and community facilities. See [www.fema.gov/hazard-mitigation-assistance](http://www.fema.gov/hazard-mitigation-assistance).

**FEMA Coastal Flood Risks: Achieving Resilience Together:** This website is a comprehensive source of risk information for coastal communities to use in their resilience efforts. The information comes from Federal agencies as well as private sector and non-governmental organizations. The website includes toolkits, training, case studies, and guidance to help communities better understand their risk and begin planning for resiliency. Additionally, the website includes the most up-to-date maps of the flooding risks that coastal communities face. See [www.fema.gov/coastal-flood-risks-achieving-resilience-together](http://www.fema.gov/coastal-flood-risks-achieving-resilience-together).

**Hazus:** FEMA's nationally applicable standardized methodology contains models to estimate potential losses from earthquakes, floods, and hurricane wind events. Hazus is used for mitigation and

recovery, as well as preparedness and response, relying on GIS technology to estimate the physical, economic, and social impacts of disasters. Government planners, GIS specialists, and emergency managers use Hazus to determine losses, along with the most beneficial mitigation approaches to take to minimize them. Hazus analysis may be completed using data available with the software or can be refined by the user. The user may use the default 2010 Hazus Average Annualized Loss (AAL) Study or they may edit various features including user-defined facilities, structures, and depth grids. Users may also complete a composite analysis using a combination of AAL and refined data. See [www.fema.gov/hazus](http://www.fema.gov/hazus).

**Total Exposure in Floodplain (TEIF):** The use of GIS provides opportunities to bring together data to analyze, assess, and measure risks and potential impacts. The TEIF 1.0 web map on the FEMA GeoPlatform (ArcGIS Online) displays potential economic losses in SFHAs based on a risk assessment technique developed by that Region. A TEIF 1.0 analysis is available for all of FEMA Region III. TEIF 2.0 has been used for some counties and can be used to provide a more accurate analysis when a municipality or county has building footprint data available. See: [fema.maps.arcgis.com/home/item.html?id=51cf7dd87cd240fda68d75a07473e867](http://fema.maps.arcgis.com/home/item.html?id=51cf7dd87cd240fda68d75a07473e867).

## Other Resilience Resources

**The Mitigation Model:** A Path Toward Resilience: The FEMA Federal Insurance and Mitigation Administration's Incentives Initiative, which was formed to increase the likelihood of community action, created a Mitigation Model. The model, which establishes mechanisms and incentives for local risk reduction action, consists of three focus areas: partnerships, recognition and rewards, and regulatory and economic alignment. See [www.nhma.info](http://www.nhma.info).

**United States Army Corps of Engineers (USACE):** The USACE began its water resources program in 1824, when Congress for the first time appropriated money for improving river navigation. This act laid the foundation for the growth of perhaps the largest water resources development agency in the world. Since then, the Corps has been involved in navigation, flood reduction, hurricane response, environmental damage assessment, and reducing beach erosion. Accomack-Northampton PDC is in the Norfolk

District. See [www.nao.usace.army.mil/](http://www.nao.usace.army.mil/).

**Silver Jackets:** The Silver Jackets is an innovative program that provides an opportunity to consistently bring together multiple State, Federal, and sometimes tribal and local agencies to learn from one another and jointly apply resources to reduce flood risk. For more information visit the Virginia Silver Jackets at: [silverjackets.nfrmp.us/State-Teams/Virginia](http://silverjackets.nfrmp.us/State-Teams/Virginia).

### National Oceanic and Atmospheric Administration Programs (NOAA):

- U.S. Resilience Initiatives Storymap: The purpose of this web-based mapping application, managed by NOAA, is to highlight the participation of U.S. municipalities within selected national-level resilience initiatives and programs. See [noaa.maps.arcgis.com](http://noaa.maps.arcgis.com).
- National Coastal Zone Management (CZM) Program: Under the auspices of NOAA, the National CZM Program works with coastal States and territories to address some of today's most pressing coastal issues, including climate change, ocean planning, and planning for energy facilities and development. CZM projects in Virginia are funded through the Department of Environmental Quality (DEQ) and the Virginia Institute of Marine Science (VIMS). See [coast.noaa.gov/digitalcoast/](http://coast.noaa.gov/digitalcoast/).
- Digital Coast: The Digital Coast was developed by NOAA to meet the unique needs of the coastal management community. The website provides coastal data, tools, training, best practice summaries, and information at [coast.noaa.gov/digitalcoast/](http://coast.noaa.gov/digitalcoast/).

**U.S. Climate Resilience Toolkit:** Developed by a Federal partnership of agencies and led by NOAA, the toolkit provides a firm foundation and inclusive framework of resilience information from a variety of sources. See [toolkit.climate.gov](http://toolkit.climate.gov).

### GREEN INFRASTRUCTURE METHODS

Green infrastructure is a sustainable approach to natural landscape preservation and stormwater management. It can be used for hazard mitigation activities, as well as providing additional ecosystem benefits. Rain gardens, living shorelines, and floodplain restoration can be used to provide economic, natural, and quality-of-life benefits for communities. For more information, visit the FEMA media library at [www.fema.gov/Mitigating-Flood-and-Drought-Conditions-Under-Hazard-Mitigation-Assistance](http://www.fema.gov/Mitigating-Flood-and-Drought-Conditions-Under-Hazard-Mitigation-Assistance).

## Commonwealth Resources

### **Virginia Department of Conservation and Recreation (DCR):**

The DCR Floodplain Management Program staff works with localities to establish and enforce floodplain management zoning. Localities use the program's State model ordinances to write their own. DCR's website, [www.dcr.virginia.gov](http://www.dcr.virginia.gov), provides a wealth of information on floodplain management, CRS, technical assistance, and community education.

### **Virginia Department of Emergency Management (VDEM):**

VDEM works with local government, State and Federal agencies, and voluntary organizations to provide resources and expertise through the four phases of emergency management: Preparedness, Response, Recovery, and Mitigation. VDEM's website, [www.vaemergency.gov](http://www.vaemergency.gov), provides a plethora of information for communities and individuals.

**Virginia Sea Grant (VASG):** As a seven-university partner program, VASG advances the resilience and sustainability of Virginia's coastal and marine ecosystems and the communities that depend upon them. VASG works with resource managers, businesses, communities, and other stakeholders to provide and apply the best science available. VASG funds and conducts research, outreach, and communication activities that focus on:

- Safe and Sustainable Seafood;
- Healthy Coastal and Marine Ecosystems;
- Sustainable and Resilient Coastal Communities; and
- Coastal and Ocean Literacy.

See: [vaseagrant.vims.edu](http://vaseagrant.vims.edu).



**Virginia Institute of Marine Science (VIMS):** VIMS, housed at the College of William and Mary, conducts interdisciplinary research in coastal ocean and estuarine science, educates students and citizens, and provides advisory services to policy makers, industry, and the public. See [www.vims.edu](http://www.vims.edu).

**Virginia Department of Environmental Quality (DEQ):** DEQ protects and enhances Virginia's environment, and promotes the health and well-being of the citizens of the Commonwealth. DEQ's programming includes two Water Divisions (Water Permitting and Water Planning), and it also manages the Virginia CZM Program. See [www.deq.virginia.gov](http://www.deq.virginia.gov).

**Virginia Flood Risk Information System (VA FRIS):** This mapping information system may be used to determine property that is in an SFHA, floodway, or 500-year floodplain. It helps builders make wise decisions about building sites, and it helps real estate agents, property buyers, and property owners determine the flood risk of a dwelling or parcel. VA FRIS includes FIRMs and FISs provided by FEMA for Virginia communities. See <http://vafiris.nc.gov/fris/>.

### **BE FLOOD AWARE!**

The NFIP's official website, [www.floodsmart.gov](http://www.floodsmart.gov), offers a wide variety of information about steps people can take to be safe before, during, and after a storm. Insurance information is also available, as well as a "One-Step Flood Risk Profile," which helps people learn their flood risk, estimate insurance premiums, and find an insurance agent in the area.



**FloodSmart.gov**  
The Official site of the NFIP



## Local Resources for Accomack-Northampton PDC

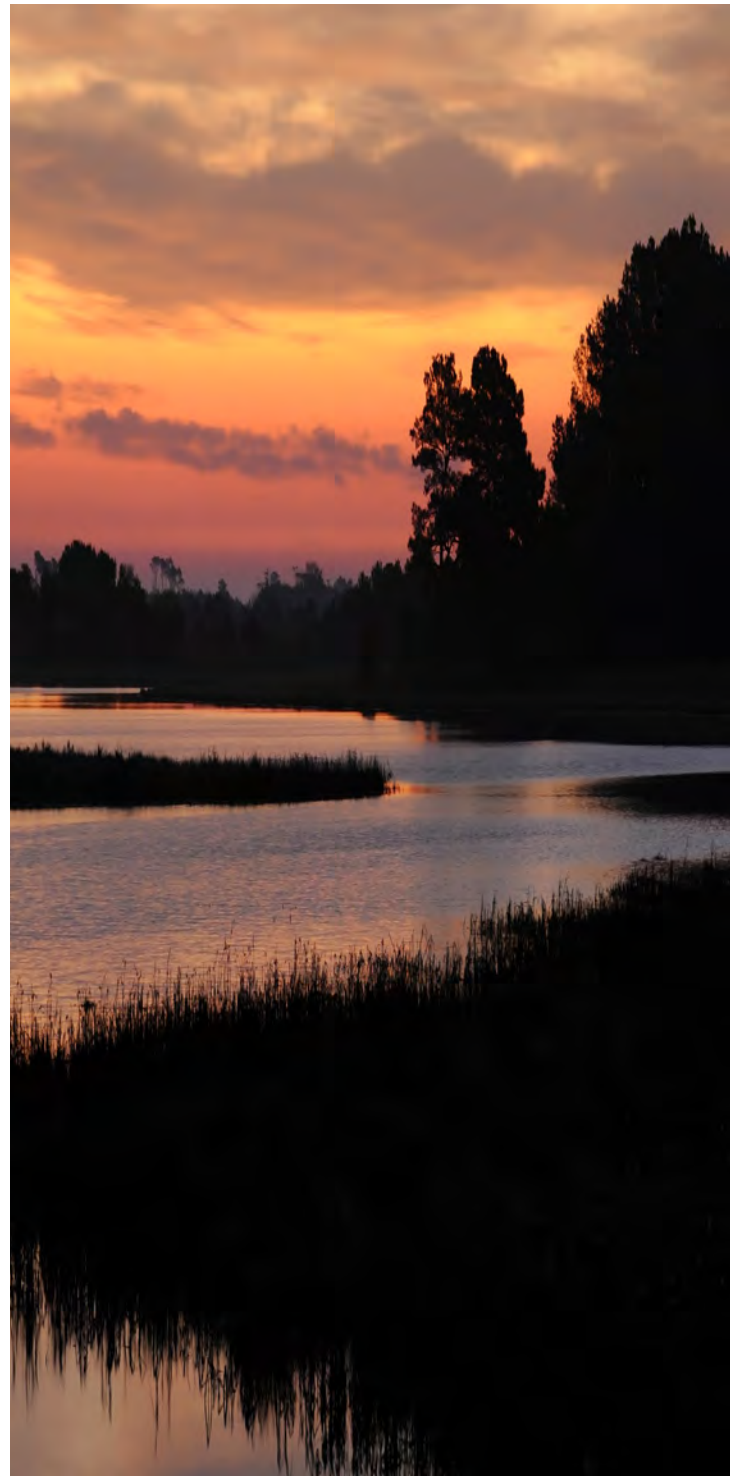
**Accomack County:** The Accomack County Planning and Community Development Department's mission is to develop, advocate for, and implement strategies that provide for a desirable balance of natural resource protection, quality of life retention, and development, which increases the county's tax base and creates jobs. For more information visit: <http://www.co.accomack.va.us/departments/planning-and-community-development>.

Before disasters occur, Emergency Management coordinates training, planning, and exercises for all county entities having a role in disaster response. They also promote and provide public education to residents and visitors on ways to be better prepared to survive all types of disaster. See: <http://www.co.accomack.va.us/departments/emergency-management>.

**Northampton County:** The Planning and Zoning department administers the county's land use regulations. The Department performs zoning and development review, serves as a contact for developers and homeowners and works with the communities to create a long range goal for the future of Northampton County. For more see: <http://www.co.northampton.va.us/departments/planning.html>.

The Department of Emergency Management (EM) coordinates efforts to ensure the county is able to mitigate, prepare for, respond to, and recover from any type of natural or man-caused disaster. The county uses an all-hazards approach to emergency preparedness, which means planning efforts consider all types of natural and man-caused disasters that could occur. See: <http://www.co.northampton.va.us/publicsafety/emergency-managment.html>.

**Town of Chincoteague:** The Town of Chincoteague has a robust all hazards emergency management program. This includes daily weather and intelligence briefings with Emergency Management staff, a Public Safety committee, and an Emergency Operations Center that serves the area during a disaster. For links to resources and more information, see: <http://www.chincoteague-va.gov/government/emergency-operations>.



### PLANNING AND HAZARD MITIGATION INTEGRATION

Hazard mitigation is most effective when it is integrated throughout local planning efforts. FEMA published *Integrating Hazard Mitigation into Local Planning: Case Studies and Tools for Community Officials*. This report provides practical guidance on how to incorporate risk reduction strategies into existing local plans, policies, codes, and programs that guide community development or redevelopment patterns. It includes recommended steps and tools to assist with local integration efforts, along with ideas for overcoming possible impediments, and presents a series of case studies to demonstrate successful integration in practice. See [www.fema.gov/media-library/assets/documents/31372](http://www.fema.gov/media-library/assets/documents/31372).



## ACCOMACK- NORTHAMPTON PDC RESILIENCE WORKSHOP TAKEAWAYS

To become a resilient community requires understanding the priorities for the future and applying a comprehensive approach to achieve environmental, social, and economic benefits that enhance and sustain the quality of life for residents. Therefore, the workshop's purpose was to establish the framework for gaining knowledge on issues that define what resilience means for the Accomack-Northampton PDC's communities; to educate the communities on new resources (specifically, the Flood Risk Products) that provide tools for addressing the communities' vulnerability to a natural hazard; and provide an update on the Regional Hazard Mitigation Plan.

The Accomack-Northampton PDC and the stakeholders discussed the next steps to becoming more resilient in the future. They established that local floodplain ordinances set the standards for resilient buildings, so it is important to become familiar with, as well as endorse, ordinances. Ideally, enforcing local floodplain ordinances will work to make all structures within a community resilient.



## TAKE ACTION!

Leveraging policy, planning, and action to build community resilience can have significant, positive effects on the communities of the Accomack-Northampton PDC. What steps are needed to build on the communities' existing foundation of risk assessment and mitigation efforts, and to prepare for whatever the future brings? In summary:

- **Train:** FEMA offers a variety of training sessions for local officials and planners to help them explore how to use Risk MAP tools and other resources within their communities. Training topics include risk assessment, vulnerability analysis, and hazard mitigation planning. For a comprehensive list of courses, visit FEMA's National Training and Education Division website at [www.training.fema.gov](http://www.training.fema.gov). For Virginia-specific training, visit VDEM's Learning Management System at <http://www.vaemergency.gov/emergency-management-community/training-events>. DCR also provides various training opportunities in floodplain management. Contact the agency by telephone at (804) 371-6095 for more information.
- **Plan:** The Accomack-Northampton PDC regularly updates its HMP, which includes a risk and vulnerability assessment to address current and future issues and to identify mitigation actions. A key component to building resilience is integrating hazard mitigation planning into all facets of community and comprehensive planning.
- **Engage:** Public outreach is an integral part of all planning. Engaging the public through hazard mitigation and integration planning efforts allows stakeholders to learn about their community's risks, and ensures that the public's needs and priorities are reflected in the planning process. Spreading the word that resiliency is everyone's responsibility empowers residents and stakeholders to work collaboratively to protect their lives, property, and quality of life.
- **Reach Out:** FEMA, as well as other Federal and State partners, offers technical assistance, funding opportunities, and many resources for communities to improve their planning and resilience efforts, and to move "beyond the map" to support a meaningful, whole-community approach to mitigating risk and increasing resiliency.

