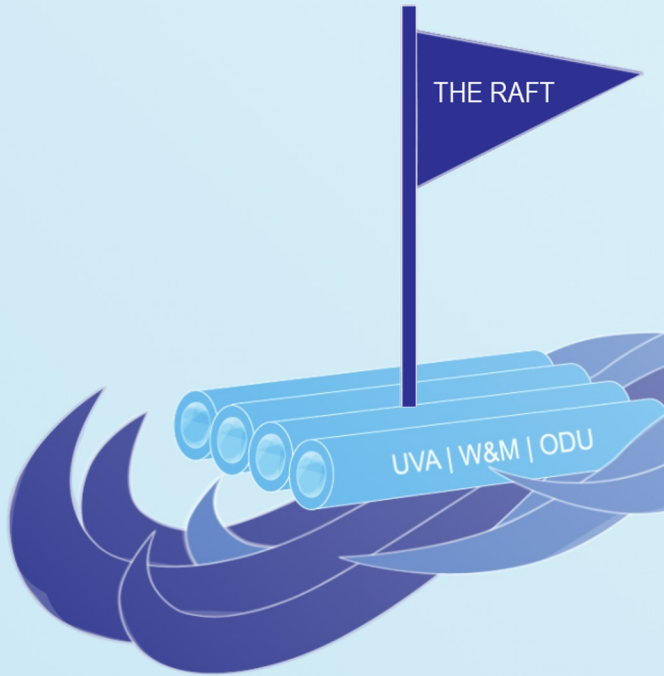


# **The RAFT Northern Neck Progress Workshop**

**August 18, 2021**



An aerial photograph of a golf course. In the upper left, a blue clubhouse sits on a grassy hill. Several winding water features, or ponds, are scattered throughout the landscape, some bordered by trees. The foreground shows a mix of green grass and brown, dormant vegetation. The sky is clear and light blue.

# **Welcome and Introductions**

Photo Credits to Virginia Dept. of Conservation and Recreation



# Overview of The RAFT

Wie Yusuf, ODU

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

Today –

- Concluded Implementation Team monthly calls led by RAFT team
- Direct assistance and support on Resilience Action Checklist projects
- Connection to expertise such as green infrastructure and mapping
- Lessons learned from other localities

## 1. Scorecard

- Resilience Assessment (Fall 2019)

## 2. Community Workshop

- Resilience Action Checklist (Summer 2020)

## 3. Implementation

- 12 months of focused action (Fall 2020-Summer 2021)



# **Tools & Resources for Localities**

**Developed by  
The RAFT**



# Incorporating Resilience into Comprehensive Plans

Elizabeth Andrews, VCPC

- Hosted webinar in April 2021. Brian Swets, Planning Manager, City of Portsmouth; Shannon Alexander, Director of Planning, ANPDC; & Gray Montrose, VCPC Asst. Director, discussed building resilience into comp plans and mitigation planning.
- Mary Carson Stiff, Policy Director, Wetlands Watch, discussed ties between comp planning and NFIP's CRS Program.
- Available on RAFT website, along with sample comprehensive plans: <https://raft.ienvirginia.edu/raft-resilience-research-policy-products>

# Emergency Risk Communication Planning Tool for Counties and Towns

Wie Yusuf, ODU



- Supports preparedness, response, and recovery of an emergency event to encourage informed decision making, behavioral change, and maintaining trust with authorities.
- Outlines a 7-step process for counties and towns to develop Emergency Risk Communication Plans
  - Steps include assessment, inventory, gap analysis, and identifying scenarios
  - Fillable forms and templates



# Small Business Resilience Self- Assessment and Guide

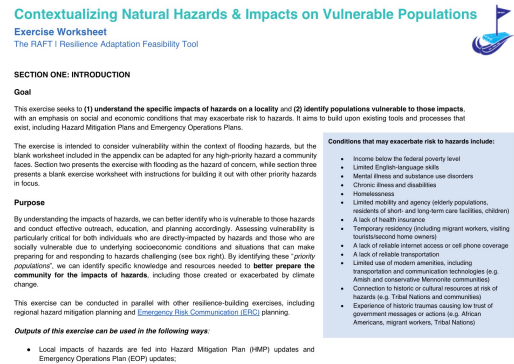
Wie Yusuf, ODU

- Resource for individual businesses and organizations supporting business success
- Resilience self-assessment is organized into 4 categories:
  1. Business planning
  2. Emergency and disaster planning
  3. Human resources and staffing
  4. Insurance and protection
- For each self-assessment category, the guide offers recommended actions for improving small business resilience
- Supplemental worksheets and guides
  - Small Business Resilience Self-Assessment Workbook
  - Guide to Exit Planning
  - Succession Planning Worksheet
  - Guide to Business Planning for Digital Marketing and Online Selling

# Assessing Community Vulnerability, Mapping, and Data Needs: Planning Worksheet

Sierra Gladfelter, IEN

- Exercise designed to help localities contextualize flooding and its impacts on vulnerable populations
- Worksheet can be used for assessing other hazards as well with a blank template
- Online map and Data List developed as a resource for vulnerability assessments and resilience planning
- Pilot with Westmoreland & Richmond Counties highlighted data gaps and needs in the region to be considered during HMP process and beyond



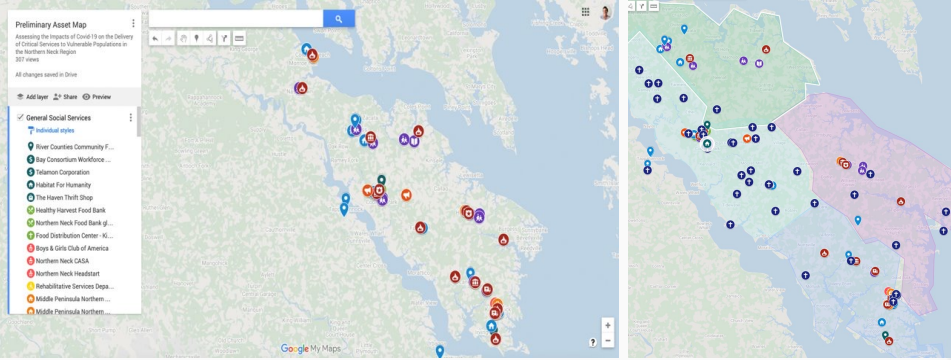
# Local Resilience Committees: Formation Worksheet

Tanya Denckla Cobb, IEN

Beginning with the end in mind:

1. Key goals/ scope of work: *Keep resilience on community radar for project priorities and funding, identify community needs, liaison for community members and organizations*
2. Methods of formation, appointment, and operation
3. Who to invite/ include for breadth of representation, diversity of needs, depth of issues





# COVID Rapid Response Report & Asset Map

Sierra Gladfelter and  
Anne Nelson Stoner, IEN

- **GOAL:** How has COVID impacted the delivery of critical services to vulnerable populations; identify where gaps and opportunities exist for increased resilience
- **PARTICIPANTS:** 63 critical service providers from 40+ different community organizations and institutions
- **Northern Neck Asset Map:** critical service provider locations, service areas, hours of operation, and contact information; to be maintained moving forward by the Northern Neck Resource Council
- **Final Report:** lessons learned, gaps, and opportunities for greater resilience to inform future resilience planning

# Lessons Learned During COVID and Opportunities for Resilience



The Impacts of COVID-19 on Service Delivery in the Northern Neck: Barriers, Lessons, & Opportunities for Increased Resilience

August 2021



INSTITUTE for  
ENGAGEMENT & NEGOTIATION  
Shaping Our World Together

- Improve Broadband Internet Access
- Expand Transportation Services
- Provide More Medical Services
- Make Longer-Term Investments in Programs
- Support More Affordable Housing
- Create More Affordable Childcare Services
- Support Economic Growth and Sustainable Employment Options
- Enhance Data Collection and Tracking
- Improve Communication and Dissemination of Information During Disasters

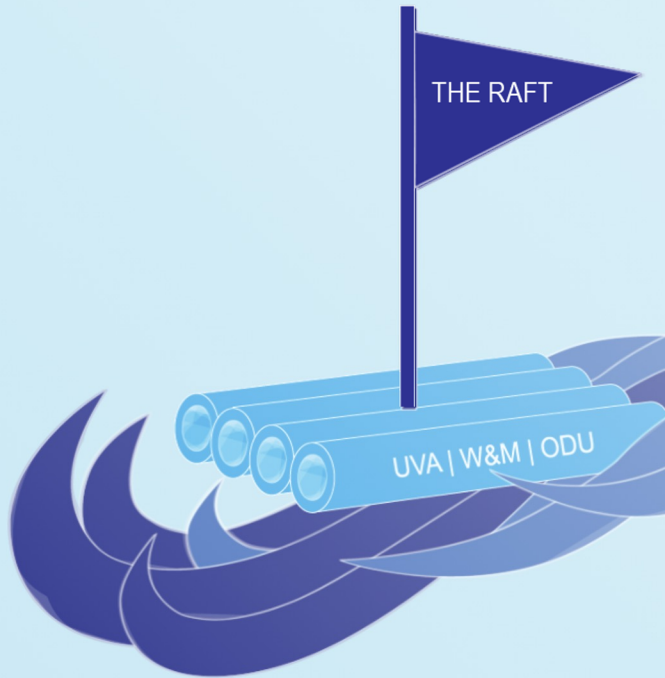
**Q&A**

# **Locality**

## **Presentations:**

### **Community Achievements & Application of RAFT Tools**

*Moderator – Wie Yusuf, ODU*



# **The RAFT**

## ***Town Of Warsaw***

**Sara Carroll, President,  
Warsaw-Richmond Co. Chamber of Commerce  
One Year Progress Meeting  
Northern Neck  
August 18, 2021**





# Identification of critical resilience issues for small businesses in Warsaw

- Several businesses volunteered to provide input
- Input was used to identify and prioritize resilience issues faced by small businesses in Warsaw
  - **Exit strategy/succession planning (example: identifying successor, planning for transition)**
  - **Continuity of operations planning (example: critical business functions, business continuity plan)**
  - **Human resources (example: hiring, retention, benefits)**
  - **Business planning and training for e-commerce and online sales**
- Input was incorporated into and used for developing the Small Business Resilience Assessment and Guide



# RAFT Tool Application: The Small Business Resilience Guide

- Warsaw businesses gave initial input as this guide was being drafted by Wie Yusuf and others at ODU
- As we were discussing what our local businesses needed, the one thing we wanted to be able to provide for them was a collection of resources to help them be successful for the long term.
- As we have moved into our next phase of revitalization in Warsaw, we don't want to just attract new businesses, but to make sure our existing businesses can "weather the storm". We hope this guide will be a resource they can use to make sure they have all the tools necessary to be resilient.

## Coastal Virginia Small Business Resilience Self-Assessment and Guide



This guide was developed by Dr. Wie Yusuf and Hannah King of the ODU Institute for Coastal Adaptation and Resilience for [The RAFT \(Resilience Adaptation Feasibility Tool\)](#), and the Commonwealth Center for Recurrent Flooding Resiliency. Questions? Need more information? Contact Dr. Wie Yusuf via e-mail: [yusuf@odu.edu](mailto:yusuf@odu.edu).

Acknowledgements: This self-assessment was developed through support of the [Commonwealth Center for Recurrent Flooding Resiliency](#), [ODU Institute for Coastal Adaptation and Resilience](#), [Virginia Sea Grant](#), and the [ODU School of Public Service](#).





# Resilience Action Checklist

1. **Formalize a Resilience and Emergency Management Communication Strategy**
  - *In the process of working with Richmond County to combine efforts*
2. **Review town ordinances, programs and plans to encourage resilience in planning and identify opportunities for increasing green infrastructure (GI) and stormwater best management practices (BMPs)**
  - *Soon to issue an RFP to update the Town's Comprehensive Plan to include green infrastructure, stormwater best management practices, and to host community input sessions.*
3. **Enhance the Bounds stormwater pond with recreational, aesthetic, and green infrastructure amenities.**
  - *Phase I is complete with the pond, walking trails, sidewalks, and greenspace amenities. Phase II will soon begin with an amphitheater, increased walking trails and access points to greenspace, parking facilities, restrooms, etc.*
4. **Improve the town's water supply infrastructure replacement planning**
  - *Utilize American Rescue Plan Act (ARPA) money to upgrade water infrastructure.*
5. **Provide preparedness and succession planning resources for local businesses**
  - *The Small Business Resilience Guide was created.*



# Next Steps and Future Opportunities

- Continue to work on the Resilience Action items
- Give out Small Business Guide for businesses to use

*The Bounds, Warsaw's Newest Park & Stormwater Facility*



# **The RAFT**

## ***Richmond County***

**Hope Mothershead, Director of Planning and  
Zoning  
One Year Progress Meeting  
Northern Neck  
August 18, 2021**





# Resilience Action Checklist

- 1. Develop a Resilience Communication Strategy**
- 2. Establish a Coordination Committee to carry out the Communication Strategy**
- 3. Create a County green infrastructure plan and expand programs**
- 4. Assess vulnerable communities' risk levels for disasters and emergencies**
- 5. Integrate resilience into the Comprehensive Plan, Hazard Mitigation Plan, and Capital Improvement Plan**



## Develop a Resilience Communication Strategy and Establish a Coordination Committee to carry out the Communication Strategy

**Role:** The Resilience Network will enable people to 1) share perspectives across silos, so that a more complete understanding of the issues and current resilient activities is achieved, and 2) serve as an internal county network for mutual support. The Network will provide recommendations to County administrative staff, who will take recommendations to the Planning Commission or Board of Supervisors.

**Scope of Work:** The Network will continue the work of the County's Implementation Team for The RAFT, working with the opportunity list that was developed by The RAFT process. Specifically, it will advise on Comprehensive Plan revisions, and assist with community engagement for comprehensive planning. The Network will hold town halls and public meetings concerning specific ideas or projects, and invite people representing lived experiences relevant to the areas being discussed.

**Formation:** The Network will be informal, and will be as diverse as possible to encompass the knowledge needed to accomplish its tasks and priorities.

**Membership:** The Committee will aim to have 10-20 members, including representatives of various County departments.

Members meet on a bimonthly basis, with occasional special meetings as projects require. Additional members may rotate in and out depending on specific projects or activities.

**Leadership:** Director of Planning and Emergency Manager serve as co-facilitators, Director of Planning provides reports to BOS.



## Create a County green infrastructure plan and expand programs

*During the RAFT process, the Planning District Commission, Soil and Water Conservation District, Department of Forestry and Friends of the Rappahannock identified grant funds and possible projects that could benefit the County moving forward. This information will be helpful with projects planned such as parking lot renovations, trail installation, etc. The RAFT platform allowed for these groups to educate one another on programs that may have not previously been utilized.*



## Assess vulnerable communities' risk levels for disasters and emergencies.

# RAFT Tool Application: Exercise to Understand Impacts on Vulnerable Populations

- *The RAFT team developed a worksheet to help us identify vulnerable populations within the County. This worksheet allowed us to discuss ways that we could assist and communicate with the vulnerable populations. The Resilience Network will continue to address the concerns arising from this activity.*

### Contextualizing Natural Hazards & Impacts on Vulnerable Populations

#### Exercise Worksheet

The RAFT | Resilience Adaptation Feasibility Tool



#### SECTION ONE: INTRODUCTION

##### Goal

This exercise seeks to (1) understand the specific impacts of hazards on a locality and (2) identify populations vulnerable to those impacts, with an emphasis on social and economic conditions that may exacerbate risk to hazards. It aims to build upon existing tools and processes that exist, including Hazard Mitigation Plans and Emergency Operations Plans.

The exercise is intended to consider vulnerability within the context of flooding hazards, but the blank worksheet included in the appendix can be adapted for any high-priority hazard a community faces. Section two presents the exercise with flooding as the hazard of concern, while section three presents a blank exercise worksheet with instructions for building it out with other priority hazards in focus.

##### Purpose

By understanding the impacts of hazards, we can better identify who is vulnerable to those hazards and conduct effective outreach, education, and planning accordingly. Assessing vulnerability is particularly critical for both individuals who are directly-impacted by hazards and those who are socially vulnerable due to underlying socioeconomic conditions and situations that can make preparing for and responding to hazards challenging (see box right). By identifying these "priority populations", we can identify specific knowledge and resources needed to better prepare the community for the impacts of hazards, including those created or exacerbated by climate change.

This exercise can be conducted in parallel with other resilience-building exercises, including regional hazard mitigation planning and Emergency Risk Communication (ERC) planning.

Outputs of this exercise can be used in the following ways:

- Local impacts of hazards are fed into Hazard Mitigation Plan (HMP) updates and Emergency Operations Plan (EOP) updates.

##### Conditions that may exacerbate risk to hazards include:

- Income below the federal poverty level
- Limited English-language skills
- Mental illness and substance use disorders
- Chronic illness and disabilities
- Homelessness
- Limited mobility and agency (elderly populations, residents of short- and long-term care facilities, children)
- A lack of health insurance
- Temporary residency (including migrant workers, visiting tourists/second home owners)
- A lack of reliable internet access or cell phone coverage
- A lack of reliable transportation
- Limited use of modern amenities, including transportation and communication technologies (e.g. Amish and conservative Mennonite communities)
- Connection to historic or cultural resources at risk of hazards (e.g. Tribal Nations and communities)
- Experience of historic traumas causing low trust of government messages or actions (e.g. African Americans, migrant workers, Tribal Nations)



## Integrate resilience into the Comprehensive Plan, Hazard Mitigation Plan, and Capital Improvement Plan

*Information has been shared from the RAFT team for use in the update of the Comprehensive Plan. Virginia Coastal Policy Center held a workshop to assist RAFT participants with the task of integrating resiliency into the Comp Plan. With our current re-write process in place for Richmond County's Comprehensive Plan, resiliency matters will be updated.*





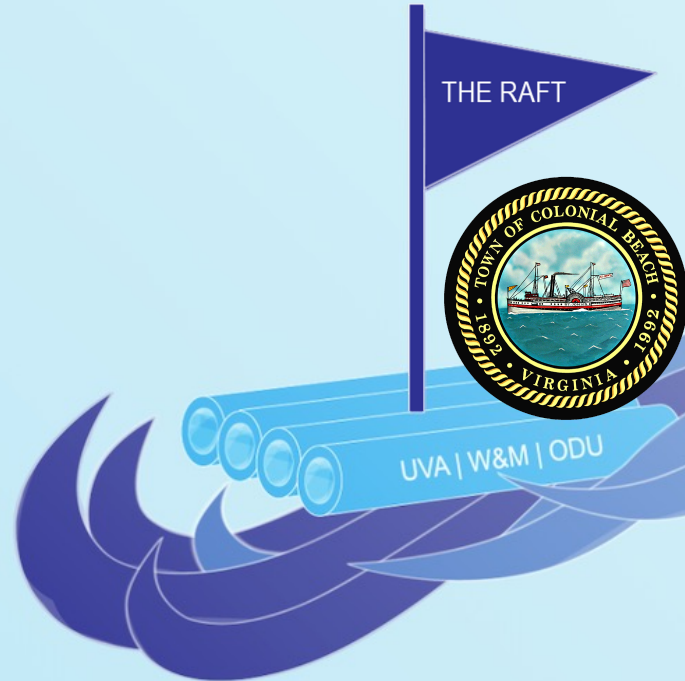
# Thank you to participants

County departments/organizations involved in the RAFT process include Northern Neck Planning District Commission, Virginia Department of Forestry, Northern Neck Soil and Water Conservation District, Friends of the Rappahannock, Warsaw-Richmond County Chamber of Commerce, Three Rivers Health District, Social Services Department, Emergency Services and County Admin.

With the Boards approval, I look forward to continuing to make Richmond County a more resilient community by utilizing the Resilience Network mentioned earlier in this presentation to share thoughts, ideas and concerns throughout the year.

# The RAFT

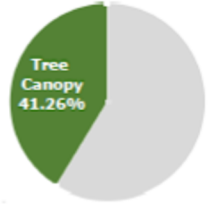
## *Town of Colonial Beach*



**Robin Schick, Mayor**  
**One Year Progress Meeting**  
**Northern Neck**  
**August 18, 2021**

# ACCOMPLISHMENTS

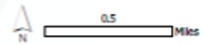
## Town of Colonial Beach, VA Tree Canopy



**POLLUTION REMOVAL BY TOWN TREES**

Category	Annual Removal	Annual Removal	Annual Removal
Carbon Dioxide	1,100,000 lbs	1,100,000 lbs	1,100,000 lbs
Particulate Matter	1,100,000 lbs	1,100,000 lbs	1,100,000 lbs
Carbon Monoxide	1,100,000 lbs	1,100,000 lbs	1,100,000 lbs
Other Pollutants	1,100,000 lbs	1,100,000 lbs	1,100,000 lbs

Source: National Arbor Day Foundation, 2018



**UVA – Tree Canopy Survey**

**Zoning Code Evaluation to support Green Infrastructure**

**Greenspace Site Plans - 3 locations**

**Tree Planting (Dept. of Forestry) Colonial Avenue & Boardwalk – Fall 2021**

**Robin Grove Living Shoreline Underway**

**Application for VIMS NFWF Small Watershed Grant Monroe Bay Avenue**

**Wetlands Watch CRS Rating Workshop with PC & Dept. - Upcoming**

**Relocation of Volunteer Rescue Squad out of Floodplain - Underway**

**Formation of Resiliency Sub-Committee within Planning Commission**

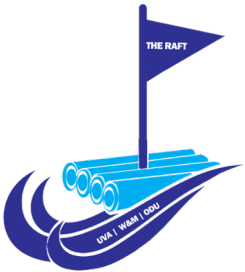
**Communication with County Emergency Response Coordinator**

**Historic Commercial Designation (State, Federal in Fall 2021)**

**North Beach Evaluation, Bathymetry and Modeling ODU – Tom Allen**

**Evaluation of Comprehensive Plan for Resiliency Inclusion**

**Improving GIS data collection & analysis on-going**





# Case Study: ODU Shoreline Project



Prof. Tom Allen's Team  
& CB Public Works

Drone flight/shoreline 3D modeling data analysis for North Beach to create a new DEM and orthomosaic/"State of the Beach Report," Hydrodrone Bathymetry, and CCRFR funding to support continued work for FFE's and CRS rating



# RAFT Tool for Forming Town's Resilience Committee

Process: Identify Committee 's Role and Scope, Formation, & Structure

Final: Committee of the Planning Commission

Purpose: Flexibility, Influence into CIP & Town Planning, and Inclusive (Residents & Agencies)

- Reviews town's annual priorities
- As needed, establishes specific task forces Review annually both the Comprehensive Plan and the CIP, to ensure that resiliency is reflected in both key planning documents
- Periodically evaluates the task forces to identify which ones are getting traction and to prioritize those that need more support/new partners.
- Identify grant opportunities for increasing the Town's resilience



# Colonial Beach's Resilience Action Checklist

- |   |
|---|
| 1. GIS System – Program and Strategy Creation |
| 2. Emergency Services Resilience              |
| 3. Resiliency in Comp Plan                    |
| 4. Colonial Beach Resilience Committee        |
| 5. Resilience Communications Strategy         |

*Colonial Beach*



VIRGINIA

## Next Steps and Future Opportunities

Engagement  
Education  
Partnerships

- Support ODU for continued CCRFR Funding
- Pursue DCR-SEAS' NFWF INSR for North Beach
- Develop a comprehensive storm water management plan
- Develop a Resilience Communications Strategy
- Emergency Risk Communication (ERC) worksheet & Coordination with Westmoreland County





# **Locality Panel Discussion:** ***Levers and Lessons in Advancing Community Resilience***

*Moderator – Elizabeth Andrews, VCPC*

*Panelists:*

- Town of Kilmarnock – Susan Cockrell
- Town of White Stone – Pat Frere
- Northumberland County – Mason Brent
- Lancaster County – Anne Self
- Westmoreland County– Darrin Lee

# The RAFT

## *Town of White Stone*



**Pat Frere**  
**One Year Progress Meeting**  
**Northern Neck**  
**August 18, 2021**



# Standout Case Study

## Town Wide Enhance Emergency Communication Strategy

1. One of the Town's Checklist Items was to develop a ***Strategy for Enhanced Emergency Communications***.
2. This Checklist Item arose during the Team's initial Needs Assessment. A tornado had struck near the Town resulting in damage to a large number of residences. It was realized the Town has a significant elderly population that still relies on land-lines for telephones; while also having less access to both smart phones and the internet.
3. The RAFT Team believed the Town needed a practical, feasible and realistic way to implement a Strategy for bettering Emergency Communication.
4. The Team's Idea was to hold a Town-Wide event, at which NOAA Weather/Emergency Alert Radios could be distributed to Town Residents/Households; while also signing the same Resident/Households up for the County's Code Red Emergency Alert System.
5. To further implementation of this Action Item, the Town and the RAFT Team applied for a grant from the ***River Counties Community Foundation*** to purchase 175 Weather Radios, Batteries, and to Market/Advertise the planned event. This Grant Application was funded. The event is planned for Fall, 2021.



# Resilience Action Checklist

1. **Develop a Strategy for Emergency Communication.**– *Substantial Progress Made. Next Step is an Event Planned for Fall, 2021.*
2. **Develop a Website for the Town.**– *Much Progress Made. Approx. 10 Domain Names have been acquired. Outline/Design for the Website has begun. Next Steps are to develop the Website Content & Links. The Town also plans to utilize funds from it's Business District Revitalization Project to assist with Website Development*
3. **Business Sector – Planning & Resilience.** *Much Progress Made. UVA Student Team came up with plans for an expanded Downtown Park. W&M Student Team presented ideas for Urban Stormwater Improvement ideas for the Downtown. The Town plans to advance this work while carrying out its Business District Revitalization Project.*
4. **Prioritize and Identify Funding for Stormwater Improvement Projects.** *Some Progress Made. This will be an ongoing Action Item for the Town in the Fall of 2021 and for 2022.*
5. **Drafting a Model Zoning Ordinance.** *Less Progress Made. This will be a focus of the Town's in 2022.*



# **Locality Panel Discussion:** ***Levers and Lessons in Advancing Community Resilience***

*Moderator – Elizabeth Andrews, VCPC*

*Panelists:*

- Town of Kilmarnock – Susan Cockerell
- Town of White Stone – Pat Frere
- Northumberland County – Mason Brent
- Lancaster County – Anne Self
- Westmoreland County– Darrin Lee

**Break**

# **Resilience Planning Going Forward**

# Planning & Technical Support Hazard Mitigation and Resilience Planning

John Bateman, NNPDC

- Coastal Zone Management Support
- Hazard Mitigation Planning
- Support for community & regional infrastructure projects
- Contributions to the Virginia Coastal Resilience Master Plan



# Funding Opportunities to Support Future Resilience

John Bateman, NNPDC  
Elizabeth Andrews, VCPC

- **FEMA Flood Mitigation Assistance Grants** - <https://www.fema.gov/grants/mitigation/floods>
- **FEMA Building Resilient Infrastructure & Communities (BRIC)** - <https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities>
- **VA Community Flood Preparedness Fund** <https://www.dcr.virginia.gov/dam-safety-and-floodplains/dsfpm-cfpf>
- **NFWF National Coastal Resilience Fund** (<https://www.nfwf.org/programs/national-coastal-resilience-fund> - *helps communities restore polluted waterways; use for GI resilience projects too?*)
- **National Fish & Wildlife Foundation's Chesapeake Bay Stewardship Fund** (<https://www.nfwf.org/programs/chesapeake-bay-stewardship-fund>)

**VA Onsite Sewage Indemnification Fund** - amended in 2021 to provide grants & loans to property owners with income at or below 200% of the federal poverty guidelines to repair failing onsite sewage systems or install onsite sewage systems on properties that lack adequate sewage disposal.

# Jesse Ball duPont Funding for VIMS and VCPC: Wastewater Management & Resilience Issues in the Northern Neck

Elizabeth Andrews, VCPC

- Two-year grant; starts this year
- VIMS & VCPC will:
  - i) assess the vulnerability of septic systems in the Northern Neck to flood impacts, and
  - ii) recommend management/legal/policy actions to reduce those vulnerabilities, with consideration for the unique circumstances of socially and economically disadvantaged communities.

# Continued Support from The RAFT

*Thanks to  
Jessie Ball duPont Fund*

Tanya Denckla Cobb, IEN and  
Elizabeth Andrews, VCPC

- Support for locality resilience committees
- Facilitation support for PDC's development of regional Hazard Mitigation Plan
- Next year, forming Regional Social Equity Workgroup (Northern Neck & Middle Peninsula)
- 2022-2023: mini-grants for “boots on the ground” projects that increase resilience for historically excluded and underserved populations

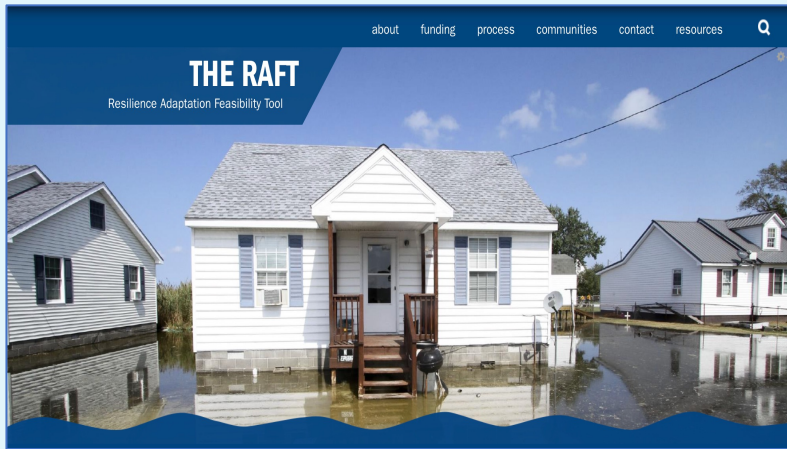
# Moving Forward Together

- Remaining Needs and Challenges in the Northern Neck?
- Learning from the Past Year

Tanya Denckla Cobb, IEN

# Visit The RAFT Website:

<https://raft.ien.virginia.edu/>



# *Many thanks to funders that support bringing The RAFT to the Northern Neck*

- *Jessie Ball duPont Fund*
- *Virginia Environmental Endowment (VEE)*
- *Virginia Sea Grant*
- *Virginia Coastal Zone Management Program (CZM) - National Oceanic and Atmospheric Administration (NOAA)*



# Evaluation

We need, want, and value  
your feedback!

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