

The RAFT

Resilience Adaptation Feasibility Tool

RESILIENCE ACTION WORKSHOP FOR HOPEWELL & PETERSBURG



WELCOME & WORKSHOP GOALS

Welcome!

- Remarks from Jay Ruffa, Crater PDC

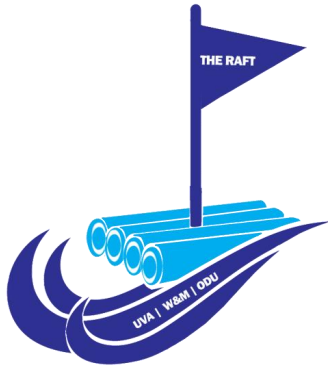
Goals for today's workshop:

- To refresh participants on The RAFT process
- To briefly share Scorecard results and opportunities to increase local resilience
- You will develop One-Year Resilience Action Checklists
- You will begin to identify people who can be helpful for implementation
- Introduce PlanRVA localities to the RAFT PREP Tool

AGENDA

- 1:00 pm Welcome, Introductions, and Workshop Goals
- 1:10 pm RAFT Overview and Flash Presentations on Resilience Opportunities
- 1:40 pm Developing the Resilience Action Checklists
- 1:50 pm Developing Your Community One-Year Resilience Action Checklist
PlanRVA Localities Orientation to the PREP Tool
- 3:20 pm Share Locality Priority Actions
- 3:45 pm Preview Implementation Phase and Teams
- 3:55 pm Next Steps and Evaluation
- 4:00 pm Adjourn

THE RAFT: OVERVIEW



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



Cape Charles, June 2017

THE RAFT TEAM



Multi-disciplinary academic partnership

Core Team:

Old Dominion University

Institute for Coastal Adaptation and Resilience

William & Mary Law School

Virginia Coastal Policy Center

University of Virginia

Institute for Engagement & Negotiation

THE RAFT PROCESS

3 Step Process

1. Scorecard

Resilience Assessment

Focus Groups & Interviews

2. Resilience Action Workshop

Resilience Action Checklists

Locality Implementation Teams

3. Implementation

Ongoing Assistance



THE RAFT SCORECARD

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, economic and business 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

KEY OPPORTUNITIES FOR IMPROVING COMMUNITY RESILIENCE

Locality Leadership, Policy, and Collaboration:

- Use adaptive management to **update ordinances and plans** based on data, scientific analyses, emerging strategies, lessons learned
- Hold **resiliency training** for elected officials and community leaders with resiliency experts as guest speakers
- **Engage stakeholders** who will need emergency response and vulnerable populations in resiliency meetings
- Research and consider **participation in CRS Program**.

KEY OPPORTUNITIES FOR IMPROVING COMMUNITY RESILIENCE

Risk Assessment and Emergency Management

- Work with community groups to **identify vulnerable groups** who live or work in flood zones
- Update **resident emergency plan** to identify risks and needs
- Task staff with **engaging community leaders** and community organizations about emergency preparedness
- Provide programs for **small business emergency preparation** and business continuity post event

KEY OPPORTUNITIES FOR IMPROVING COMMUNITY RESILIENCE

Infrastructure Resilience

- Increase water supply and/or stormwater **infrastructure resilience**
- Enhance communication and coordination for **water and wastewater stormwater resilience**
- Work with VDOT to identify and **evaluate vulnerable transportation infrastructure**
- Offer fund-matching or tax incentive programs for homeowners to participate in **nature-based landscaping projects**.

KEY OPPORTUNITIES FOR IMPROVING COMMUNITY RESILIENCE

Planning for Resilience

- Ensure **comprehensive plan** includes potential impacts on critical infrastructure and services, especially regarding vulnerable populations
- Identify **funding to meet needs of vulnerable populations** in case of emergencies
- Modify **flood zones designations** to include areas outside FEMA designations that are still known to flood regularly
- Hold **community meetings to educate** the public about the natural resource preservation plan

KEY OPPORTUNITIES FOR IMPROVING COMMUNITY RESILIENCE

Community Engagement, Health, and Well-Being

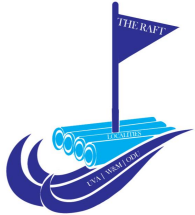
- **Engage the public** in resilience planning
- Develop **resident leaders and volunteers** and acknowledge their work in supporting and advancing resilience
- Create a **coastal resilience committee** and assign staff roles
- **Partner with NGOs and community groups** to identify needs of and communicate with vulnerable populations.

OPPORTUNITIES FROM FOCUS GROUPS & INTERVIEWS TO SUPPORT THE VULNERABLE OR UNDERSERVED

- 44 individuals from 38 organizations serving Hopewell, Petersburg and the Crater region participated in 5 focus groups and 14 interviews to identify current challenges, strengths, and opportunities for resilience

Key Opportunities Identified:

- Leverage city parks and green spaces to reduce urban heat and improve access to outdoor recreation opportunities
- Provide access to healthy food options, including local fresh produce
- Invest in affordable housing options
- Improve transportation for low-income residents to access jobs, parks, etc.
- Support small, local businesses to improve job opportunities for residents
- Address infrastructure challenges including water and sewer



SPECIFIC OPPORTUNITIES TO ADDRESS EQUITY IDENTIFIED BY COMMUNITY LEADERS

- Increase and manage existing city open space for recreation to improve community health outcomes and mitigate urban heat effects
- Redevelop and revitalize urban brownfields into productive green spaces
- Use local ordinances and Comprehensive Plans to make urban communities more walkable and bikeable and attract people because of their cities' livability
- Develop additional shelters as well as cooling and heating stations for homeless residents
- Partner with local farmers and farmers of color to provide healthy, fresh food options to residents, by working with existing nonprofits, partnerships, and food banks
- Address affordable housing issues through community partnership and planning
- Partner with libraries to increase wi-fi and internet accessibility
- Develop more bi-lingual education resources and programming in Spanish



SPECIFIC EXAMPLES FROM THE MIDDLE PENINSULA RAFT EFFORTS

Curt Smith, Middle Peninsula Planning District Commission



DEVELOPING THE RESILIENCE ACTION CHECKLIST

- **Goal: 3 to 5 top priority actions to increase your locality's resilience to be implemented over the next year**
- **Consider leveraging tools and resources that have been or are being developed for other coastal communities**
- **Consider projects that meet county's specific needs**
 - **Should have long-term impact**
 - **Not already being done**
 - **Does not need to be completed in the next year, but substantial progress is doable**



EXAMPLES OF EFFECTIVE RESILIENCE ACTIONS AND TOOLS

Strategies for Conserving the Green Infrastructure of COLONIAL BEACH, VA

Prepared by the Green Lands Class at the University of Virginia
Printed December 2020



Respecting the Past, Creating the Future:

Accomack County Comprehensive Plan



Adopted: May 14, 2008
Amended: February 19, 2014
Amended: January 20, 2016
Amended: October 17, 2018



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.

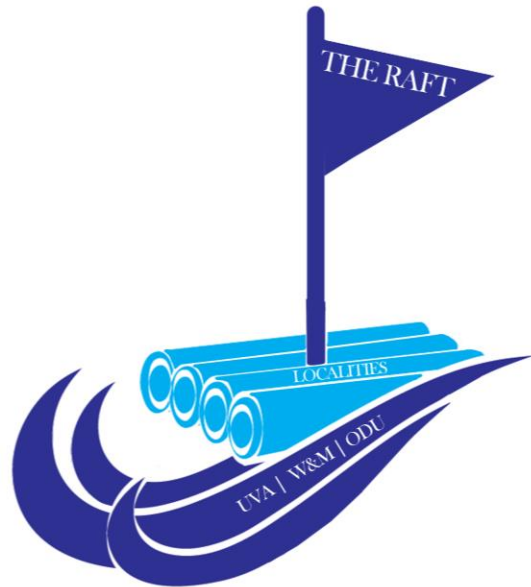
This exercise can be conducted in parallel with other resilience-building exercises, including regional hazard mitigation planning and Emergency Risk Communication (ERC) planning.

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. Anish and conservative Monrovia 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)



Q & A

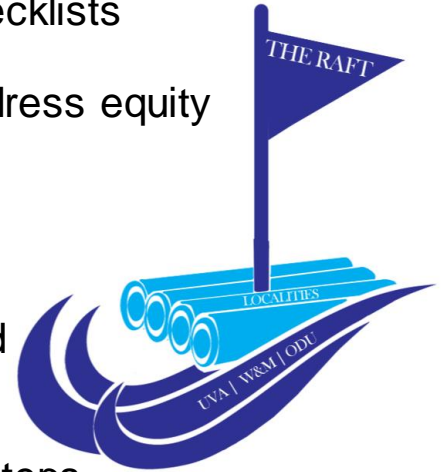
DEVELOPING YOUR ONE-YEAR RESILIENCE ACTION CHECKLIST

Orientation

- Small group discussions – by locality – to develop 1-YR Action Checklists
- Identify up to 5 priority action items
- At least 1 to support underserved or vulnerable communities to address equity
- Up to 4 “open choice”

How it works

- Each locality has its own Google Doc
- You will have around 1 hour 15 minutes to brainstorm, discuss, and prioritize options
- Take a short break at 3:15 pm
- Large group discussion, identify shared regional actions and next steps



SMALL GROUP BREAKOUTS

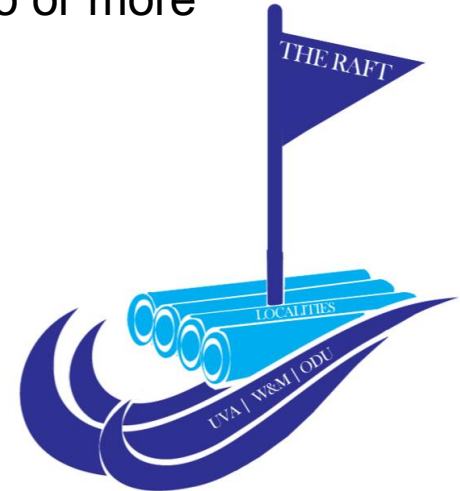


REVIEW AND DISCUSSION OF LOCALITY PRIORITY ACTIONS

From locality discussion: Copy/paste your top priorities into the chat

Regional Commonalities?

- Are some actions appropriate for being done together by two or more localities?
- Can some actions, if assisted by RAFT Team, benefit other communities?
- Are there joint grant opportunities that can be pursued?
- Are there longer-term actions that groups considered that might be appropriate for the RAFT team to bring in other resources to assist with?
- Are there other resources that could be helpful?



PREVIEW IMPLEMENTATION PHASE AND TEAMS

- The RAFT team will support Implementation Teams over the next 12 months
- Establish Teams and identify Team Leads for each checklist item
- RAFT liaison will hold monthly or bimonthly calls to keep Implementation Teams on track
- Bi-weekly check-ins with Team Leads and members
- RAFT Core Team will support each priority action in different ways, depending on the skills and support needed

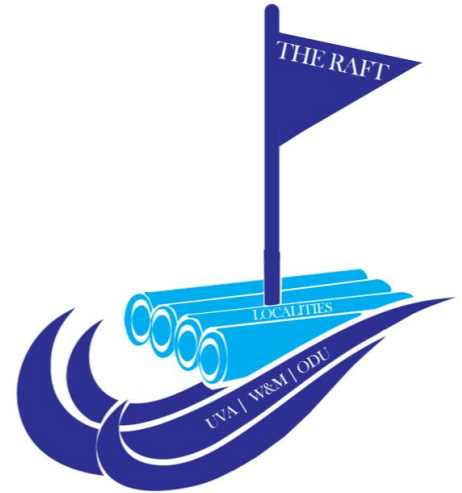


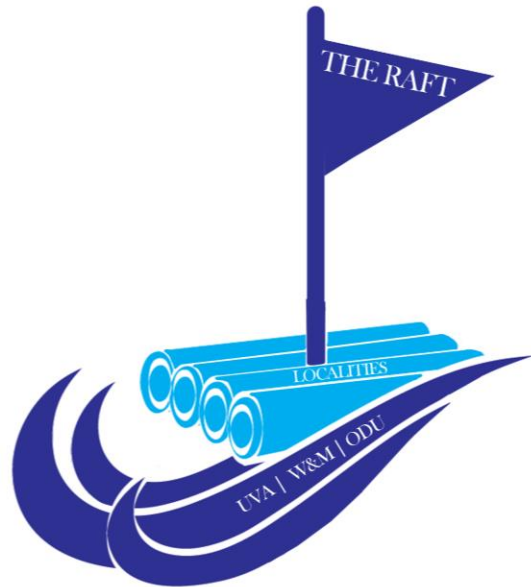
IMPLEMENTATION TEAM

Who should be included on the Implementation

- Locality staff
- State agencies
- Community organizations
- Nonprofits
- Businesses

Be inclusive!





Q & A

NEXT STEPS

Tentative timeline

- End February/early March 2023: Draft Resilience Action Checklists Distributed
- March/April 2023: Begin Implementation Team Meetings
- Seeking funding to support these efforts

Please complete the workshop evaluation



THANK YOU

Crater Planning District Commission

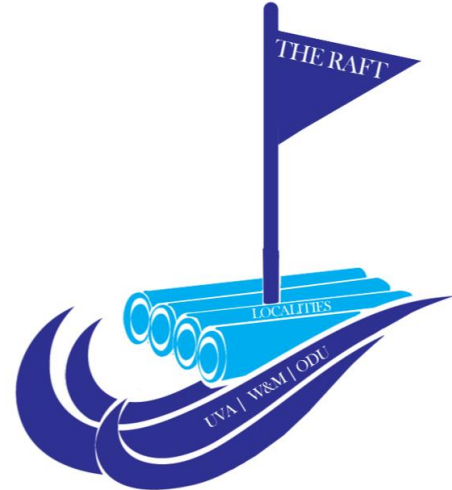
Funders

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



This project, Task #91.02 was funded by the Virginia Coastal Zone Management Program led by the Virginia Department of Environmental Quality through Grant FY21 #NA21NOS4190152 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Act of 1972, as amended.

The views expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Department of Commerce, NOAA, or any of its subagencies.



The RAFT TEAM

University of Virginia

Institute for Environmental Negotiation

Tanya Denckla Cobb td6n@virginia.edu

Sierra Gladfelter sgus@virginia.edu

William & Mary Law School

Virginia Coastal Policy Center

Elizabeth Andrews eaandrews@wm.edu

Jess Kraus jekraus@wm.edu

Libby Cook elcook@wm.edu

Old Dominion University and Virginia Sea Grant

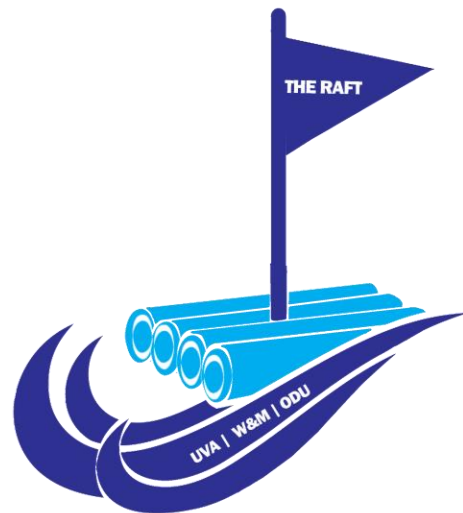
ODU Institute for Coastal Adaptation & Resilience

Virginia Sea Grant Climate Adaptation and Resilience Program

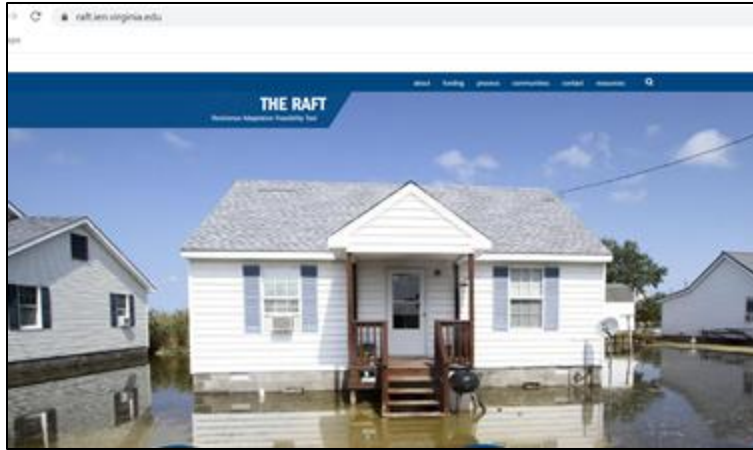
Jessica Whitehead jcwhiteh@odu.edu

Nicole Hutton nhuttons@odu.edu

Wie Yusuf jyusuf@odu.edu



VISIT THE RAFT WEBSITE: <https://raft.ienvirginia.edu/>



The RAFT is a collaborative, community-driven process and full-service tool developed to help Virginia's coastal localities improve resilience to flooding and other coastal storm hazards while remaining economically and socially viable.

The RAFT Communities

2017-2018 Pilot Project 2018-2019 Eastern Shore 2019-2020 Northern Neck

"After reading the RAFT Scorecard for our community, the Saxis team immediately knew where it could improve to prepare for Florence – getting a count of who was staying, who was evacuating, providing transport to shelters, creating a master communication list, etc." —The Saxis Resilience Implementation Team

The RAFT Resilience Resources

The RAFT Resilience Research & Policy Products	The RAFT Resilience Communication Products
The RAFT Scorecard Assessments & Checklists	The RAFT Resilience Maps
State & National Resilience Resources	

THANK YOU!

