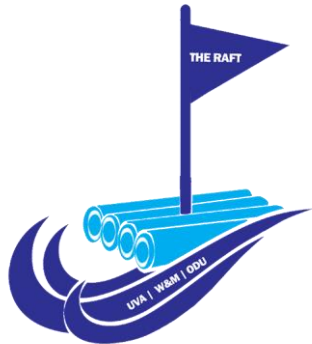


The RAFT

Resilience Adaptation Feasibility Tool

LOCAL PLANNING TEAM MIDDLE PENINSULA ALL HAZARDS MITIGATION PLAN UPDATE (JANUARY 25, 2021)



THE RAFT TEAM

■ Our Core Team:

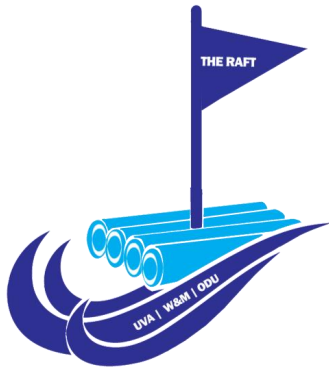
- **University of Virginia**
- *Institute for Environmental Negotiation*
- **Tanya Denckla Cobb** td6n@virginia.edu
- **Sierra Gladfelter** sg6us@virginia.edu

- **William & Mary Law School**
- *Virginia Coastal Policy Center*
- **Elizabeth Andrews** eaandrews@wm.edu

- **Old Dominion University and Virginia Sea Grant**
- *Virginia Climate Adaptation and Resilience Program*
- **Wie Yusuf** jyusuf@odu.edu



THE RAFT GOAL



*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 PROGRESS



- ✓ 2015-16 Research, development of The RAFT
- ✓ 2017-18 3 Pilot Localities (Town, City, County)
- ✓ 2018-19 Eastern Shore of Virginia – 7 localities
- 2019-21 Northern Neck – 8 localities
- 2021-22 Middle Peninsula
- 2022-23+ HRPDC, GW, NoVa, Crater, PlanRVA?

THE RAFT PROCESS

1. Scorecard

Resilience Assessment

2. Community Workshop

Resilience Action Checklist

3. Implementation

Ongoing Assistance



THE SCORECARD – 5 CATEGORIES

1. LEADERSHIP, POLICY AND COLLABORATION

2. RISK ASSESSMENT AND EMERGENCY MANAGEMENT

3. INFRASTRUCTURE RESILIENCE

4. PLANNING FOR RESILIENCE

5. COMMUNITY ENGAGEMENT, HEALTH, AND WELL BEING

PLANNING FOR RESILIENCE

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

COMPREHENSIVE OPPORTUNITIES LIST

We Integrate Scorecard Results + HMP Priorities

SECTION	SCORE	WAYS TO IMPROVE
2.1 Flood Exposure and Vulnerability Assessment	1/4	Complete a flood exposure and vulnerability assessment that includes maps .
2.3 Business and Economic Risk Assessment	2/4	Provide programs for small businesses for emergency preparation and business continuity .
3.1 Stormwater Infrastructure	1/4	Provide incentives for private property activities that manage stormwater and demonstrational BMPs on public property for stormwater education.
3.5 Natural and Nature-Based Features	1/4	Create a green infrastructure plan that outlines use of natural and nature-based features to enhance coastal resilience.

COMPREHENSIVE OPPORTUNITIES LIST

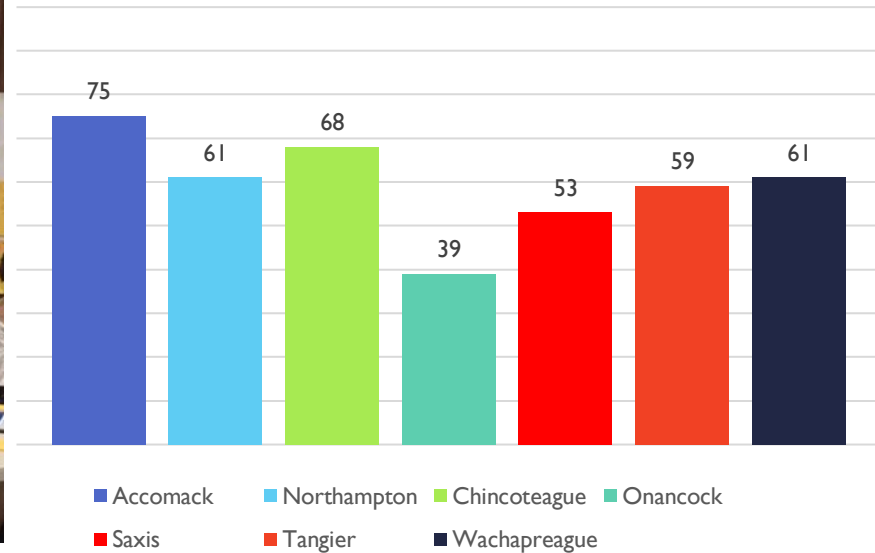
We Integrate Scorecard Results + HMP Priorities

SECTION	SCORE	WAYS TO IMPROVE
3.3 Water Supply and Wastewater Management Services	0/4	Update water supply plan to include coastal hazards and dangers they pose to potable water .
4.2 Coastal Resilience in Comprehensive Plan	2/4	Provide clear discussion in comprehensive plan of coastal resilience and discuss strategies to mitigate flooding and coastal hazards .
5.1 Public Involvement in Resilience Planning	2/4	Identify and map vulnerable populations and establish a methods of engagement or communicating with these populations to improve emergency preparedness and response.

COMMUNITY LEADERSHIP WORKSHOP



Total RAFT Score Comparison



IMPLEMENTATION ASSISTANCE FOR ONE YEAR

- **Monthly calls led by a designated core team member**
- **Provide assistance, as needed, on checklist items:**
 - **Communication Products**
 - **Policy and Legal Analysis**
 - **Model Ordinances and Comp Plan Language**
 - **GIS Mapping**
 - **Green Infrastructure or Other Planning**
 - **Facilitation, Community Engagement, Surveys**

RESILIENCE ACTION CHECKLIST

Developed at Workshop, Refined by Community Implementation Team

COMMON THEMES:

- **Create long-term Resilience Committees at the local level**
- **Establish comprehensive, coordinated communication strategy**
- **Incorporate resilience into Comprehensive Plans and Zoning Ordinances**
- **Identify and prioritize green and gray infrastructure projects**
- **Build business resilience**
- **Identify and assist vulnerable populations**

HOW THE RAFT CAN HELP WITH GROUND WATER



The RAFT Identifies Actions Locality Can Take to Improve Drinking Water Resilience

Examples

- Identify vulnerabilities in public and private drinking water supply
- Expand water supply plan to address coastal flooding impacts on safe drinking water supply.
- Conduct resident education program to increase pre- and post-event public health and safety.
- Establish communication with private well and water system owners to increase water system resiliency.

HOW THE RAFT CAN HELP WITH NATURAL RESOURCES



The RAFT Identifies Actions Locality Can Take To Improve Natural Resources Resilience

Examples

- Identify natural and nature-based features (NNBF) that are protective and can assist with coastal resilience.
- Develop plans and policies that use NNBF to enhance coastal resilience.
- Conduct flood vulnerability assessment every 5 years and use it in developing policy and programs.
- Identify sources of flooding (tidal, and precipitation driven) and update every 5 years.

HOW THE RAFT CAN HELP WITH ECONOMIC VITALITY

The RAFT Identifies Actions Locality Can Take to Improve Economic Resilience

Examples

- Create emergency preparedness program for small businesses and nonprofit services, esp. those serving the socially vulnerable.
- Develop emergency communications plan with business sector and nonprofit services.
- Provide incentives for private properties to manage storm-water.
- Integrate resilience and coastal storm hazards in Comp Plan.



NEW OPPORTUNITIES TO BUILD RESILIENCE

Virginia Community Flood Preparedness Fund

- Administered by DCR
- Guidelines finalized March 2021

Virginia Coastal Adaptation and Resilience Master Plan

- Firms to get underway by February or March 2021
- Localities with clear priorities and projects will benefit most

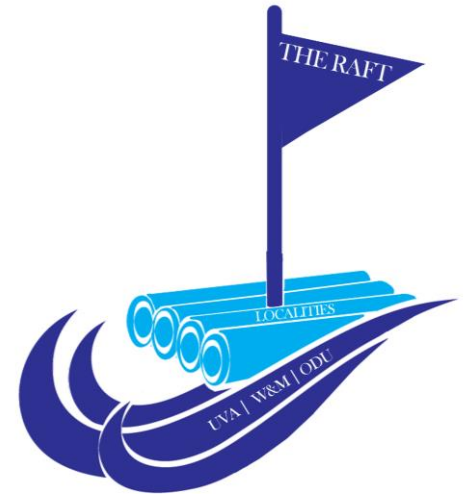
The RAFT process supports localities in this effort

- Developing Resilience Action priorities
- Scoping and conceptualizing projects to be grant-ready



NEXT STEPS FOR THE MIDDLE PENINSULA

- Identify which MPPDC localities want to participate? (8 max)
- Identify key locality staff contacts to work with The RAFT team
 - To incorporate The RAFT in DCR CFP grant
 - To conduct the Scorecard assessment
 - To convene the workshop
 - To schedule presentations to BOS + Town Councils
- Identify and engage key regional organizations who work with vulnerable populations
- Convene Community Workshop(s) – develop draft Resilience Action Checklist
- Convene Implementation Team and year of multi-university support



THE RAFT FUNDING SINCE 2015

Virginia Department of Environmental
Quality (DEQ) Coastal Zone Management
Program (CZM)

Virginia Environmental Endowment

Anonymous

Jessie Ball DuPont Fund

National Fish and Wildlife Foundation

General staff funding by The RAFT Partners
at UVA, W&M, and ODU



Virginia
Environmental
Endowment



Virginia Coastal Zone
MANAGEMENT PROGRAM

THE RAFT CONTACTS

Elizabeth Andrews
eaandrews@wm.edu

Tanya Denckla Cobb
td6n@virginia.edu

Wie Yusuf
jyusuf@odu.edu

Sierra Gladfelter
sg6us@virginia.edu



THE RAFT

Resilience Adaptation Feasibility Tool

QUESTIONS ?



The RAFT is a collaborative tool developed to help Virginia's coastal localities improve resilience to flooding and other coastal storm hazards while remaining economically and socially viable.