## **THE RAFT**

#### **Resilience Adaptation Feasibility Tool**

# Scorecard Opportunity List City of Hopewell

The RAFT Goal

To help Virginia's coastal localities improve resilience to flooding and other coastal storm hazards while striving to thrive both economically and socially.



#### raft.ien.virginia.edu



INSTITUTE for ENGAGEMENT & NEGOTIATION Shaping Our World Together



RY OLD DOMINION

INSTITUTE FOR COASTAL ADAPTATION & RESILIENCE.





## **Acknowledgment of Funders**

This RAFT product was created with funding from: Virginia Department of Environmental Quality, Coastal Zone Management Program\*





## We are grateful to these funders for supporting various phases of The RAFT from 2015-Present.

Virginia Coastal Zone Management Program, Virginia Department of Environmental Quality and National Oceanic and Atmospheric Administration, 2017- Present Virginia Environmental Endowment, Virginia Program, 2017- Present University of Virginia Environmental Institute, formerly Environmental Resilience Institute, 2018-Present Virginia Sea Grant Adaptation and Resilience Program, 2017-2024 Jessie Ball duPont Fund, 2019- 2024 Natural Hazards Center, Public Health Disaster Research Award Program, 2022-2024 Agua Fund, 2022-2023 University of Virginia School of Architecture, Faculty Summer Research Program, 2018, 2022 Commonwealth Center for Recurrent Flooding Resiliency, 2021-2022 Anonymous, 2018-2019 National Fish and Wildlife Foundation, Restoration and Community Stewardship Grant, 2016- 2018

#### For more information visit The RAFT website: raft.ien.virginia.edu

\*\* This product was funded in part by the Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant # NA22NOS4190187 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.









#### 1) LOCALITY LEADERSHIP, POLICY, AND COLLABORATION

1.1 LOCALITY LEADERSHIP AND PLANNING FOR RESILIENCE:			2	/ 4 Points
Action Items	Time Period	Support (Check)	<b>Ease</b> (Rank 0-10)	Impact (Rank 0-10)
Hold resiliency trainings events for elected officials. and community leaders with resiliency experts as guest speakers.	Mid-Term: 1-3 years			
Coordinate quarterly meetings for elected officials focusing on resiliency planning efforts.	Long-term: > 3 years			

1.2 LOCALITY LEADERSHIP AND RESPONDING TO EMERGENCY:			3	/ 4 Points
Action Items	Time Period	Support (Check)	<b>Ease</b> (Rank 0-10)	<b>Impact</b> (Rank 0-10)
Include stakeholders and vulnerable populations in resiliency community meetings.	Mid-Term: 1-3 years			

1.3 LOCAL COLLABORATION WITH STATE AGENCIES AND REGIONAL PDCs:					4 / 4 Points
1.4	ADAPTIVE MANAGEMENT:			(	0 / 4 Points
Action	Items	Time Period	Support (Check)	Ease (Rank 0-10)	Impact (Rank 0-10)
floodp	ta collected from Virginia university system in local lain, zoning, ordinance planning as well as in the ehensive plan.	Mid to Long-Term: 1-3 to >3 years			

1.5 The NFIP's COMMUNITY RATING SYSTEM:		0 / 4 Points		
Action Items	Time Period	Support (Check)	<b>Ease</b> (Rank 0-10)	<b>Impact</b> (Rank 0-10)
Research and participate in CRS Program.	Mid-Term: 1-3 years			

### 2) RISK ASSESSMENT AND EMERGENCY MANAGEMENT

2.1 FLOOD EXPOSURE AND VULNERABILITY ASSESSMENT:			4 / 4 Points		
2.2 RISK ASSESSMENT FOR VULNERABLE POPULATIONS:			3	/ 4 Points	
Action I	ltems	Time Period	Support (Check)	<b>Ease</b> (Rank 0-10)	Impact (Rank 0-10)
	mmunity meetings about coastal hazards that are ble to and aimed towards vulnerable populations.	Short or Mid-Term: <1 year to 3 years			

2.3 BUSINESS AND ECONOMIC RISK ASSESSMENT:			2	/ 4 Points
Action Items	Time Period	Support (Check)	<b>Ease</b> (Rank 0-10)	<b>Impact</b> (Rank 0-10)
Invite chamber of commerce to send representatives to mitigation and planning meetings.	Mid-Term: 1-3 years			
Provide programs for small businesses for emergency preparation and business continuity post-event.	Mid to Long-Term: 1-3 to >3 years			

2.4	HAZARD MITIGATION:			4	/ 4 Points
2.5	RESIDENT EMERGENCY PREPAREDNESS:			3	/ 4 Points
Action	tems	Time Period	Support (Check)	<b>Ease</b> (Rank 0-10)	<b>Impact</b> (Rank 0-10)
Engage training	residents through community outreach and s/drills.	Short-Term: <1 year			

#### 3) INFRASTRUCTURE RESILIENCE\*

#### 3.1 **STORMWATER INFRASTRUCTURE:**

Action Items	Time Period	<b>Support</b> (Check)	<b>Ease</b> (Rank 0-10)	<b>Impact</b> (Rank 0-10)
Identify minimum state requirements and compare to local	Mid to Long-Term:			
requirements.	1-3 to >3 years			

#### 3.2 **CRITICAL TRANSPORTATION INFRASTRUCTURE:**

Action Items	Time Period	Support (Check)	<b>Ease</b> (Rank 0-10)	<b>Impact</b> (Rank 0-10)
Identify weaknesses in transportation infrastructure and address how to fix them.	Short-Term: <1 year			
Identify backup infrastructure in case emergency infrastructure fails or is damaged in storm event.	Short-Term: <1 year			

#### 3.3 WATER SUPPLY AND WASTEWATER MANAGEMENT SERVICES:

**Action Items Time Period** Support Ease Impact (Check) (Rank 0-10) (Rank 0-10) Task staff with identifying drinking water and wastewater Short to Mid-Term: vulnerabilities. <1 year to 1-3 years Update water supply plan to address coastal hazards and Mid-Term: 1-3 years dangers they pose to portable water. Hold public educational events and disseminate educational Short-Term: <1 year materials about safe drinking water and what to do in case a storm impacts their water supply. Establish line of communication with municipal water and Short-Term: <1 year wastewater utility to manage challenges to safe water, including during and after storms.

3.4 CRITICAL INFRASTRUCTURE FOR EMERGENCY SERVICES:				/ 4 Points
Action Items	Time Period	Support (Check)	<b>Ease</b> (Rank 0-10)	<b>Impact</b> (Rank 0-10)
Conduct emergency services infrastructure vulnerability assessment.	Short-Term: <1 year			
Identify emergency services weaknesses and address how to fix them.	Mid-Term: 1-3 years			

<b>3.5 NATURAL AND NATURE-BASED FEATURES:</b>				/ 4 Points
Action Items	Time Period	Support (Check)	<b>Ease</b> (Rank 0-10)	<b>Impact</b> (Rank 0-10)
Offer fund-matching or tax incentive programs for homeowners to participate in nature-based landscaping projects.	Mid to Long-Term: 1-3 to >3 years			

#### 4) PLANNING FOR RESILIENCE

4.1 BUDGET, FUNDING AND STATE & FEDERAL ASSISTANCE:			3	/ 4 Points
Action Items	Time Period	Support (Check)	Ease (Rank 0-10)	
Identify funding to meet needs of vulnerable populations in case of emergencies.	Short to Mid-Term: <1 year to 1-3 years			

4.2 COASTAL RESILIENCY IN COMPREHENSIVE PLAN:			1 / 4 Points		
Action Items	Time Period	Support (Check)	Ease (Rank 0-10)	Impact (Rank 0-10)	
Ensure comprehensive plan includes community input on coastal resilience.	Short-Term: <1 year				
Ensure comprehensive plan includes strategies to mitigate coastal hazards and reduce vulnerability.	Short-Term: <1 year				
Ensure comprehensive plan includes potential impacts on critical infrastructure and services, especially regarding vulnerable populations.	Short-Term: <1 year				

.3 LAND USE ORDINANCES: 2 / 4 I			2 / 4 Points	
Action Items	Time Period	Support (Check)	Ease (Rank 0-10)	Impact (Rank 0-10)
Modify Chesapeake Bay Act buffer to go beyond minimum requirements.	Mid to Long-Term: 1-3 to >3 years			
Establish or enforce setback laws in flood-prone areas.	Mid to Long-Term: 1-3 to >3 years			

4.4 INCENTIVES FOR COASTAL RESILIENCE:		2 / 4 Points		
Action Items	Time Period	Support (Check)	Ease (Rank 0-10)	<b>Impact</b> (Rank 0-10)
Work with local environmental groups to identify natural	Mid to Long-Term:			
resources and ecoservices in need of protections.	1-3 to >3 years			
Identify high risk areas and implement green infrastructure	Mid to Long-Term:			
projects in those areas.	1-3 to >3 years			

4.5 NATURAL RESOURCE PRESERVATION:			2 / 4 Points		
Action Items	Time Period	Support (Check)	Ease (Rank 0-10)	Impact (Rank 0-10)	
Create local policy addressing the importance of protecting natural resources for coastal protection.	Mid to Long-Term: 1-3 to >3 years				
Offer fund-matching or grant funds for natural resource preservation projects.	Short to Mid-Term: <1 year to 1-3 years				

### 5) COMMUNITY ENGAGEMENT, HEALTH, AND WELL-BEING

5.1 PUBLIC INVOLVEMENT IN RESILIENCE PLANNING:			0 / 4 Points		
Action Items	Time Period	Support (Check)	<b>Ease</b> (Rank 0-10)	Impact (Rank 0-10)	
Adopt a written policy statement regarding the roles of residents, commercial enterprises, and other stakeholders in coastal resilience.	Mid to Long-Term: 1-3 to >3 years				
Create a coastal resilience committee and assign staff roles.	Short to Mid-Term: <1 year to 1-3 years				
Schedule a coastal resilience public meeting and make sure it is accessible to vulnerable populations.	Mid to Long-Term: 1-3 to >3 years				
Create informational coastal resilience materials to disseminate via social media, government websites, and traditional media and ask for public input.	Short-Term: <1 year				

5.2 PROVIDING COASTAL RESILIENCE INFORMATION TO THE PUBLIC:			1 / 4 Points		
Action Items	Time Period	Support (Check)	<b>Ease</b> (Rank 0-10)	<b>Impact</b> (Rank 0-10)	
Create audience-appropriate information guides, signs, brochures, social media posts informing the public about coastal resilience and economic risks associated with storm events.	Short-Term: <1 year				

5.3 CITIZEN LEADERSHIP & VOLUNTEER NETWORKS FOR COASTAL RESILIENCE:			1 / 4 Points		
Action Items	Time Period	Support (Check)	Ease (Rank 0-10)	Impact (Rank 0-10)	
Hold community training sessions to educate public on resiliency strategies.	Short to Mid-Term: <1 year to 1-3 years				
Provide local leaders and volunteers with educational materials and speakers for local events.	Mid-Term: 1-3 years				
Highlight community efforts on website or social media or with awards.	Short-Term: <1 year				

5.4	RESILIENT SYSTEMS TO PROVIDE FOOD, HEALTH, AND MEDICINE:	4 / 4 Points
5.5	PHYSICAL AND MENTAL HEALTH FOR SOCIAL EQUITY IN COMMUNITY RESILIENCE:	4 / 4 Points