### The RAFT

**Resilience Adaptation Feasibility Tool** 

THE RAFT

# RESILIENCE ACTION WORKSHOP FOR THE MIDDLE PENINSULA





WILLIAM & MARY LAW SCHOOL VIRGINIA COASTAL

POLICY CENTER



INSTITUTE for ENGAGEMENT & NEGOTIATION Shaping Our World Together

### **WELCOME & WORKSHOP GOALS**

#### Welcome!

#### 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

### AGENDA

- 9:00 am Welcome, Introductions, and Workshop Goals
- 9:10 am RAFT Overview and Flash Presentations on Resilience Opportunities
- 9:40 am Developing the Resilience Action Checklists
- 9:50 am Developing Your Community One-Year Resilience Action Checklist
- 11:20 am Share Locality Priority Actions
- 11:45 am Preview Implementation Phase and Teams
- 11:55 am Next Steps and Evaluation
- 12:00 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** 

Virginia Sea Grant Climate Adaptation and Resilience Program

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

### **CROSS LOCALITY COMPARISONS**



**Total RAFT Score Comparison** 

In-depth comparisons are available in your Locality's Google Drive Folder

#### CROSS LOCALITY COMPARISONS BY RAFT SCORECARD SECTION



#### 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.

#### **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

#### **Infrastructure Resilience**

- Increase water supply and/or stormwater infrastructure resilience
- Enhance communication and coordination for water and wastewater stormwater resilience
- Provide **incentives for private property activities** that manage stormwater such as tax deductions or flag program
- Work with VDOT to identify and evaluate vulnerable transportation infrastructure

#### **Planning for Resilience**

- Ensure comprehensive plan includes potential impacts on critical infrastructure and services, especially regarding vulnerable populations
- Modify flood zones designations to include areas outside FEMA designations that are still known to flood regularly
- Establish setbacks in flood-prone areas.
- Hold community meetings to educate the public about the natural resource preservation plan

#### **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.

### SPECIFIC OPPORTUNITIES TO SUPPORT HISTORICALLY EXCLUDED & UNDERSERVED COMMUNITIES

- Focus groups, interviews, and surveys with community representatives to learn current strengths and strategies of resilience
- Engaged 65 individuals from 60 organizations serving Middle Peninsula

#### **Key Opportunities Identified:**

- Broadband access and computer literacy
- Transportation
- Affordable housing and shelters
- Youth services and child care
- Access to medical care and mental health services
- Workforce development
- Relationships with local Tribes



### SPECIFIC OPPORTUNITIES TO SUPPORT HISTORICALLY EXCLUDED & UNDERSERVED COMMUNITIES

#### Specific Examples:

- Create shared database to identify vulnerable populations and understand needs.
- Identify additional funding to expand Bay Transit services.
- Improve youth services and childcare in counties where there are no YMCAs.
- More translation services for ESL students and families who do not speak English.
- Improve access to the internet and GED/Community College resources in temporary housing and addiction treatment facilities.
- Improve dissemination of information on services and grants available to residents through DSS and/or Resource Councils.
- Education about the local history and resilience of Black residents, women working class fishermen, and others left out of traditional narratives.

### SPECIFIC OPPORTUNITIES TO SUPPORT HISTORICALLY EXCLUDED & UNDERSERVED COMMUNITIES

#### **Specific Examples:**

- Collaborate across localities to provide more affordable housing and long-term shelters, beyond emergency sheltering.
- Improve access to the waterfront and affordable housing for watermen.
- Provide more support for those who cannot afford living shorelines.
- Improve handicap access to community gardens and Master Naturalist programs.
- Start a farmers' market with the Upper Mattaponi to provide food to King William County.
- Create frameworks for transparent, cross-locality and Tribal collaboration that that acknowledge limited capacities and focus on shared priorities.
- Increase diverse representation in government, Boards, Councils, NGOs.



#### SPECIFIC OPPORTUNITIES THROUGH THE MIDDLE PENINSULA PDC'S FIGHT THE FLOOD PROGRAM

**Curt Smith, Middle Peninsula Planning District Commission** 



# **"Fight the Flood"** fightthefloodva.com



What is it? Who can participate? How does it work?

### Less Talk More Action

"Don't let your people drown on your watch"

> MIDDLE PENINSULA PLANNING DISTRICT COMMISSION



OWNERS CONTRACTORS GRANTS/LOANS



#### ABOUT FYI REGISTER MEMBERS

#### I have a flooding problem.

Property Owners

**Grants and Loans** 

#### I can help property owners.

Contractors or Consultants

# Fight THE Flood

Companies

# MARKETPLACE

# Education

Loans

Grants

Consumers

Insurance

Connection

Consultation

**Discounted Professional Services** 

\*Participating companies are pre-vetted and/or evaluated.

## MPPDC "Fight the Flood" program is a Business to Consumer online-market place

#### What

How

#### Goal : Middle Peninsula Fight the Flood Program

 To generate and facilitate resiliency business growth targeting and attracting companies to provide flood mitigation products and services for shorelines and buildings as well as enhance water quality.

#### Objectives: Fight the Flood Program

- Provide financial products to influence consumer behavior
  - Offer a suite of financial products (loans, grants, insurance) with a correlation to lower interest rates and grants for shorelines under greater risk; higher rates and less grant funding for lower risk shorelines
- Provide consumer to professional services connections through Fight the Flood Program
  - Registered consumers with a flood mitigation issue will have direct access to a pool of established resiliency professionals.
  - Asking Resiliency professional to provide discounted professional services to registered Fight the Flood consumers in need
- Utilize reach-based Shoreline Implementation "Battle Plans"
  - Solicit multiple property owner collaboration for multi parcel- larger scale shoreline protection projects to seek federal and state grant funds
  - Leverage § 58.1-3228.1. Partial exemption from real property taxes for flood mitigation efforts

OWNERS CONTRACTORS GRANTS/LOANS



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# **Property Owners**

Sure, many homes and families on the Middle Peninsula have never experienced the devastation that comes with flooding. But the times are changing.

While all the water in our rural coastal Virginia region is a tremendous source of pride, economic value and enhances our quality of life (you don't have to walk or drive far in any direction to hit the shoreline), the sea level is rising. The storms keep coming. And it's vital for homeowners to protect their property.

Put simply, for most residents on the Middle Peninsula, whether you can see water outside your back door or not, you could be at risk of flooding.

Fight the Flood on the Middle Peninsula connects property owners facing rising flood waters with tools and funding to contract with specialized businesses who can help evaluate, design, and build solutions to FIGHT THE FLOOD.

Read on for more, and then register to gain access to the tools available in this program.

#### **Understanding Flood Insurance**

Why do you need flood insurance?

ABOUT FYI REGISTER MEMBERS

#### **Understanding Risk**

#### Anywhere it can rain, it can flood. Period.

High-risk areas, including many parts of the Middle Peninsula, have an increased chance of experiencing a flood over the life of a 30-year mortgage. Over the past 70 years, heavy rainfall events have become more intense and frequent in our area and will only continue to increase. Based on previous records, it is also likely that water levels will be higher than the average daily high tide when a rainfall event occurs.

FIGH

But it's not just rain we have to worry about. Another concern is storm surge.

And then there's the nuisance or "sunny day" flooding that can be caused by high tide and the direction the wind is blowing.

#### **Understanding Options**

In the average one-story house with 2,500-square-feet, one inch of water inside the home could mean \$23,000 house costs and more than \$3,000 personal-property costs.

So how do you protect yourself?

There's lots of options, and they all start with an evaluation of your flood insurance.

Did you know flood insurance pays whether or not federal disaster assistance is available? And federal di assistance is only available after a Presidential Disaster Declaration. What's more, even if a Presidential D Declaration has been made, the money offered through disaster assistance is typically a low-interest loar need to be paid back, and if you do qualify for a grant, it will most likely provide much less than you woul



#### Understanding Financial Tools

All of that sounds good, but it sounds expensive? That may be what you are thinking if you've read this far.

It doesn't have to be. Thanks to regional, state and federal programs, grants, loans and special discounts and funding are available through the Middle Peninsula Planning District Commission thanks to this Fight the Flood program. Want to learn more? Get access. It's free.

#### Get Access and Register Now! **REGISTRATION**





ABOUT FYI REGISTER MEMBERS

# **Contractors or Consultants**

If you've arrived here, on this page, chances are you are a contractor or consultant who works with property owners in areas prone to flooding.

Perhaps you build things. Perhaps you protect things. Perhaps you insure things.

If you help people build more resilient properties and plans to help them Fight the Flood, then we want you.

### How Fight the Flood Works

In many ways, Fight the Flood is something like an online dating site. We connect property owners to the right contractors and consultants to help them with their flooding challenges and then help provide financial tools to pay for it (thanks to grants and loans our team is able to secure).

But just like any dating app, there can be a cost to get connected. For the businesses Fight the Flood connects to property owners, the cost is a discount or special that only registered members of the Fight the Flood program can redeem.

### **Property Owners**

Register here if you are interested in becoming a member of the Fight the Flood program and gaining access to financial tools and discounts to properly protect your property from flood waters.

By filling out this registration form to get access to the Fight the Flood membership portal, you give the Fight the Flood program administrators permission to use your information for data collection, trending analysis, demographic studies on waterfront properties and other research that will be used to help the entire region fight the flood.

#### **Owner Registration**



### **Businesses**

Please fill out this form if you are a business interested in providing your services to property owners to help them Fight the Flood.

Business Name (required)

**Business Website Address** 

**Business Point of Contact** 

Email Address (required)

#### Phone Number (required)

I'm not a robot

SEND

reCAPTCHA Privacy - Terma



#### Shore Consulting Group LLC

Click our company name to learn more.

633 Ravenwoods Drive
Chesapeake, Virginia 23322, US
mark.mansfield@shoreconsultinggroup.com
http://www.shoreconsultinggroup.com/

An open, honest and transparent assessment of your water resources challenges. Silver Jackets Pro...



Riverworks, Inc Click our company name to learn more.

\$ 5140 Old Rosewell Plantation Road
Gloucester, Virginia 23061, US
\$ 757-968-3467
> jordan.d.clifford@gmail.com
\$ http://riverworksincorporated.com/

Class B Marine Contractor, Responsible Land Disturber Riverworks, Inc. offers erosion control Redo search when map moved



OWNERS CONTRACTORS GRANTS/LOANS



#### ABOUT FYI REGISTER MEMBERS

# **Grants and Loans**

Middle Peninsula Planning District Commission Revolving Loan Program Funding

- Septic Repair Program to assist flooded septic systems: capitalized with ~\$700,000 loan funds.
- Living Shorelines: capitalized with \$250,000-\$500,000. Can include nature-based shoreline BMP construction and coastal stormwater BMP construction.
- Energy Efficiency Revolving Loan Program: ~\$45,000

### Middle Peninsula Planning District Commission Grants

Grants will be leveraged and utilized to provide protection for hazard and flood prone areas with an enhanced focus on socioeconomically vulnerable property owners in the region. Grants can be awarded for nature-based shoreline BMP construction, coastal stormwater BMP construction, and residential infrastructure resiliency improvements including structures, septic systems, utilities, etc.

\$75,000 (grant) loan forgiveness available.

VCAP Grants offered by SWCD.



Fight the Flood Survey with Grant-Eligible Areas 🥒

#### Work Smarter not harder

Green: DCR Low Income Areas

Blue: Federal Disaster Funding Areas'

Red: FTF Clients

Red dashed: Fed Opportunity Zone

Layers		)
Financial Assistance Request		
FEMA SRL SL	Ø	
▷ Shoreline Data	Ø	
Middle Peninsula Eligible IPsheds		
▷ Flood Hazard Areas	Ø	
Block Groups	Ø	
▷ NFHL	Ø	
▷ King William County		
▷ King and Queen County		
▷ Essex County		
▷ Middlesex County		
▷ Mathews County		
▷ Gloucester County		
+ Add layer		





#### Work Smarter not harder



Recreational boating only.

NVICABILITY - Would you be willing and able to contribute funding to a dredging project should grant or ban funds be made available? (Your response is non-binding nor does it impact your ability to attain public financing for a dredging project should it become available in the future). Unsure, but open to further exploratory discussions.







in direct loans and grants and counting (2017 to current)
# It's a financing machine



# Loan Funds Available \$3,000,000

VRA Loan Funds for living shoreline construction and septic systems repair. Program Funds Anticipated January 2022  MPPDC-DEQ Grant Funds
 Available for Shoreline Protection

\$120,000

Open for \$20,000 Grants January 2021 Hurricane Florence Living Shoreline Grants for sections of Mathews County

# It's a resiliency invocation machine

Business Competition

# \$1,500,000

Million Rural Coastal Community Resilience Challenge: https://riseresilience.org/rural-resiliencechallenge/

# US Department of Transportation RAISE

# \$2,018,476

Designing Multimodal Working Waterfronts to combat flooding and other stressors on waterfront infrastructure

# It's holistically addressing all elements of coastal threats

# Virginia Waterways Maintenance Fund

# \$1,500,000

Grant for dredging work and beach restoration work for resiliency Mathews County

Virginia Coastal Zone Management Next Generation Shoreline Battle Plans

# \$100,000

for development of shoreline plans to direct future spending



# Its building the next generation homes

Vertically Elevated Next Generation Residential Septic System Pilot

# \$130,000

Grant Virginia General Assembly to design and build next genral septic to combat flooding

Virginia Housing - Next Generation Waterfront Residential House Design and Build

\$1,000,000

Grant for housing production for the next generation of waterfront homes fighting flooding

# It's doing stuff.... A lot of stuff



### Active FTF Awarded Grants

- Severn River Captain Sinclairs Shoreline
   Protection Award: **\$200,000**
- Ware River Award Multi parcel Private Shoreline Reach Protection Project: Award: \$160,000
- North River Award Targeted High Erosion Private Shoreline Protection: Award \$220,000
- Middlesex County DCR Community Flood Preparedness Grant Fund Award to address littoral shift of sand due to changing geomorphological conditions driven by climate change and storm surge: \$44,000

VRA - Loan Funding For Living Shorelines

\$250K - VRA Loan Closed

**\$250K** - VRA Loan Closed

Gloucester County 4 Ioans made: 935 Linear Feet Total Loans: **\$265,731** 

Middlesex County 2 Ioans made: 182 Linear Feet Total Loans: **\$180,018** 

Mathews County 3 Ioans made: 998 Linear Feet Total Loans: **\$111,272** 

Total - \$557,021 (\*loan forgiveness)

# Questions

# www.fightthefloodva.com

Curtis Smith Deputy Director Middle Peninsula Planning District Commission P.O.Box 286 Saluda, Va 23149 804-758-2311 WWW.mppdc.com



### **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  $\ensuremath{\mathsf{Printed}}\xspace{\mathsf{December 2020}}$ 

#### MUNIVERSITY / VIRGINIA



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 RATE IRealizing Adaptation Feasibility Tool

#### SECTION ONE: INTRODUCTION

#### Goal

in focus

Purpos

change

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 Prins and Emergency Operations Plans.

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

- Income below the federal poverty level
   I imited 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, child
- A lack of health insurance
   Temporary residency (including migrant workers, visitin
- 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
- connection to ristoric 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)
- Local impacts of hazards are fed into Hazard Mitigation Plan (HMP) updates and Emergency Operations Plan (EOP) updates;

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 bazards

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

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





### DEVELOPING YOUR ONE-YEAR RESILIENCE ACTION CHECKLIST

THE RAFT

### Orientation

- Small group discussions by locality to develop 1-YR Action Checklists
- Identify up to 5 priority action items
- At least 1 to support historically-excluded + under-represented communities
- At least 1 to support MPPDC Fight the Flood program
- Up to 3 "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 11:15 am
- Large group discussion, identify shared regional actions and next steps

# SMALL GROUP BREAKOUTS



### REVIEW AND DISCUSSION OF LOCALITY PRIORITY ACTIONS

THE RAFT

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?
- $\circ~$  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!







# **NEXT STEPS**

### **Tentative timeline**

- 2<sup>nd</sup> to 3<sup>rd</sup> week of February: Draft Action Checklists distributed
- 4<sup>th</sup> week of February– early March: First organizational Implementation Team Kick-off meeting with RAFT liaisons

Please complete the workshop evaluation



# THANK YOU

### Middle Peninsula Planning District Commission

### **Funders**

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



### The RAFT TEAM

University of Virginia Institute for Environmental Negotiation Tanya Denckla Cobb <u>td6n@virginia.edu</u> Sierra Gladfelter <u>sgus@virginia.edu</u>

William & Mary Law School Virginia Coastal Policy Center Elizabeth Andrews <u>eaandrews@wm.edu</u> Gray Montrose <u>gmontrose@wm.edu</u> Libby Cook, <u>elcook@wm.edu</u>

#### 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 Wie Yusuf jyusuf@odu.edu



### VISIT THE RAFT WEBSITE: https://raft.ien.virginia.edu/



### **ANY QUESTIONS?**

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.!"





WILLIAM & MARY LAW SCHOOL VIRGINIA COASTAL POLICY CENTER



INSTITUTE for ENGAGEMENT & NEGOTIATION Shaping Our World Together



### **THANK YOU!**