



CAPE CHARLES RESILIENCE ACTION WORKSHOP JUNE 26, 2017 REPORT

SPONSORS & ACKNOWLEDGEMENTS

The first year of research for The Resilience Adaptation Feasibility Tool (The RAFT) was conducted in the 2015-16 academic year by the UVA Institute for Environmental Negotiation in collaboration with the William & Mary Virginia Coastal Policy Center. The RAFT was officially “launched” by a 2016 grant by the National Fish & Wildlife Foundation (NFWF), which enabled completion of the Scorecard and testing The RAFT process on three pilot communities in three different coastal planning district commissions.

CORE RAFT PLANNING TEAM

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WHAT IS THE RAFT?

Local governments in Virginia's coastal region are facing the most daunting challenges related to climate change, as the southern Virginia coastal region faces the greatest risk from sea level rise on the East Coast. Historical and projected sea level rise are presenting all Virginia coastal localities with a challenge that affects residents, businesses, and key national security facilities, as well as plans for future development and infrastructure.

One important gap in the toolbox of Virginia's localities is an easy and accessible scorecard to define a locality's resilience. The RAFT attempts to fill this gap. The RAFT features three key components, creating a "full service" tool for localities:

- 1) The Resilience Scorecard provides a comprehensive assessment of community resilience to flooding while remaining economically and socially relevant.
- 2) A workshop for community thought leaders to use the assessment to develop a Resilience Action Checklist for increasing community resilience.
- 3) Ongoing assistance during implementation of the Resilience Action Checklist, both in the form of technical assistance and assistance in finding funding.



Photo credit: Karen Jolly Davis



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Photo credit: Cape Charles Mirror

THE RAFT TEAM & RESILIENCE SCORECARD

The Resilience Adaptation Feasibility Tool (The RAFT) was conceived and developed by an academic interdisciplinary collaborative core team, led by the University of Virginia Institute for Environmental Negotiation (IEN), the William & Mary Law School Virginia Coastal Policy Center (VCPC), and Old Dominion University/Virginia Sea Grant (ODU), collectively "The RAFT Team." Funded by a Restoration and Community Stewardship grant from the National Fish & Wildlife Foundation (NFWF), the core team's goal was to develop a robust Resilience Scorecard and to test it with three coastal communities.

The Resilience Scorecard is designed to be completed independently by the academic collaborative, and provides a comprehensive assessment of the locality's resilience to flooding while remaining economically and socially relevant. The Scorecard is comprehensive in that it measures environmental, economic and social resilience factors. It covers local policy, infrastructure, budgeting and economics, land use, community engagement, community health and wellness, and ecosystems.

Development of the Scorecard was informed by an Advisory Committee consisting of academic advisors (from architecture, planning, environmental sciences, environmental psychology, engineering, and water quality), as well as representatives of local governments, nonprofits and state agencies. In addition, a special focus group (of coastal local governments, NGO's, and relevant state agencies) reviewed the draft Scorecard and provided valuable guidance on how to make it more relevant to Virginia's coastal localities.

3) FINANCE, BUDGETING, FUNDING, AND ECONOMICS	<div>3.2 ECONOMIC VULNERABILITY AND VITALITY</div> <div>DESCRIPTION</div> <div>An economically resilient community with diverse local businesses will be better able to recover from a coastal hazard. The identification of the economic value of local businesses, assets, and properties vulnerable to coastal hazards can help guide future economic development in a locality.</div> <div>LOCALITY ACTIONS</div> <div>3.2.a: Value of local assets, which may include but is not limited to built, natural, cultural, and historic, is documented. 3.2.b: Vulnerable economic assets are incorporated into a local planning document in any of the following forms, lists, maps, strategies, goals, plans. 3.2.c: Localities have analyzed major industries and examined whether the economy depends mostly on one or two industries. 3.2.d: Localities encourage local businesses to develop their own recovery plans.</div> <div>SCORING</div> <div>Scoring - 1 point per program Locality includes discussion in the comprehensive plan of the following: 1 point - Encouragement for new businesses and opportunities in order to diversify the economy. 1 point - Analysis of local major industries and their local economic impact. 1 point - Outreach and educational programs for economic development. 1 point - Identification of local built, natural, cultural, and historic assets. 0 points - Locality has not identified local economic vulnerability and has not planned for local economic vitality.</div> <div>DATA SOURCES</div> <div>Locality Score</div> <div>4 / 4 POINTS</div> <div>NOTES</div> <div>Cape Charles has established outreach and education programs and have identified built, natural, cultural, and historic assets.</div> <div>TOTAL SCORE FOR SECTION 3: 6 OUT OF 8 POSSIBLE POINTS NO BONUS POINTS FOR SECTION 3</div>	<div>4.1 COASTAL RESILIENCY IN COMPREHENSIVE PLAN</div> <div>DESCRIPTION</div> <div>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, NFIP and CHS, and stormwater management.</div> <div>LOCALITY ACTIONS</div> <div>4.1.a: Emergency staff, residents, stakeholders, and others are involved in creating the comprehensive plan. 4.1.b: The comprehensive plan encourages sustainable and energy efficient development. 4.1.c: The comprehensive plan identifies and protects natural assets that help mitigate flooding. 4.1.d: The comprehensive plan promotes improving air and water quality.</div> <div>SCORING</div> <div>Scoring - 1 point per program 1 point - The comprehensive plan includes plans for infill and future developments that avoid sensitive areas. 1 point - The comprehensive plan includes preservation of natural resources. 1 point - The comprehensive plan includes updates of critical infrastructure and essential services. 1 point - The comprehensive plan engages the public and has provisions for further participation. 0 points - The comprehensive plan does not include coastal resiliency.</div> <div>Bonus +1 for any additional sections on coastal resiliency.</div> <div>DATA SOURCES</div> <div>Locality Score</div> <div>3 / 4 POINTS 0 / 1 BONUS POINT</div> <div>NOTES</div> <div>Cape Charles' comprehensive plan includes preservation of natural resources, updates of critical infrastructure and essential services, engages the public and has provisions for further participation, but no plans for infill and future developments that avoid sensitive areas.</div>	4) LAND USE
	<div>6.1 VULNERABLE POPULATIONS</div> <div>DESCRIPTION</div> <div>Vulnerable populations include those in areas of high poverty, the elderly, transient or nomadic communities, children, physically or mentally disabled people, and non-native speakers. Engagement and outreach to vulnerable populations is important for coastal resilience because it is often more difficult for these groups to recover from a coastal hazard.</div> <div>LOCALITY ACTIONS</div> <div>6.1.a: Locality identifies vulnerable populations (listed in the rationale) in the form of text, maps, graphs, etc. 6.1.b: Locality publicizes information on a website or in a plan. 6.1.c: Locality engages with neighborhood organizations, NGOs, grassroots organizations, or other groups that involve vulnerable populations to inform them on coastal resilience, local resources, emergency preparedness drills, and other relevant information. 6.1.d: Locality makes resources on coastal hazard preparedness available on a website or in a plan and works to ensure that vulnerable populations have access. 6.1.e: Locality is active in local schools to provide education and basic emergency preparedness information kits to all students. 6.1.f: Locality conducts targeted outreach to vulnerable populations regarding coastal hazards and recovery methods and solutions before and after a hazard event.</div> <div>SCORING</div> <div>4 points - Score 3 and 1: Locality has community education and outreach goals for vulnerable populations included in the comprehensive plan. 3 points - Locality has identified and engaged vulnerable populations, and has made information publicly available. 2 points - Locality has identified and engaged vulnerable populations, but has not made information publicly available. 1 point - Locality has identified vulnerable populations, has not engaged them, and has not made information publicly available. 0 points - Locality has not identified or engaged vulnerable populations.</div> <div>Bonus +1 points if locality has identified, engaged, and/or has community education and outreach for more than one vulnerable population</div> <div>DATA SOURCES</div> <div>Locality Score</div> <div>1 / 4 POINTS 1 / 1 BONUS POINT</div> <div>NOTES</div> <div>Cape Charles has identified at least one vulnerable population, has not engaged them, and has not made information publicly available. Bonus point received for identifying more than one vulnerable population.</div>	<div>6.2 RESIDENT EMERGENCY PREPAREDNESS</div> <div>DESCRIPTION</div> <div>Well-organized emergency preparedness and plans save lives and property, and contribute to resilience and post-hazard recovery. Preparedness efforts will help ensure that localities can act in sufficient time.</div> <div>LOCALITY ACTIONS</div> <div>6.2.a: Locality has created and/or updated preparedness plans which can include medical supplies, food, water, shelter, and staple goods. 6.2.b: Locality risk drills and exercises for emergency personnel and residents. 6.2.c: Locality publicizes emergency preparedness risks and needs to that residents can easily access information.</div> <div>SCORING</div> <div>4 points - Locality engages resident groups in emergency drills and planning workshops. 3 points - Locality conducts community outreach about community hazard mitigation plan and resident emergency preparedness. 2 points - Locality has developed a resident emergency preparedness plan. 1 point - Locality has identified resident emergency preparedness risks and needs in a public source. 0 points - Locality has no program for building resident emergency preparedness.</div> <div>Bonus +1 if locality involves schools and/or educational programs in emergency preparedness drills. Bonus +1 if locality has implemented early warning signals/systems/emergency tool.</div> <div>DATA SOURCES</div> <div>Locality Score</div> <div>1 / 4 POINTS 1 / 2 BONUS POINT</div> <div>NOTES</div> <div>Bonus point received for implementing early warning signals/systems/emergency tool.</div>	5) COMMUNITY HEALTH AND WELLNESS

WORKSHOP PURPOSE & PROCESS

The Resilience Action Workshop was conceived as a way to help catalyze meaningful action at the local level to increase a locality's resilience to coastal hazards. While, on its own, The Resilience Scorecard might increase understanding, community leadership is needed to bring about meaningful change. The three pilot community workshops in June 2017 sought to bring together community thought leaders who represented a broad range of community interests - such as planning, stormwater, health, emergency services, schools, Navy, and neighborhood interests. In Cape Charles, 11 community leaders were invited, with a general call to residents publicized by the town staff; in total, 12 people were able to participate.

During the workshop, participants were introduced to the Scorecard and reviewed its findings to identify the locality's greatest resilience strengths as well as opportunities for improving resilience in the next year. With this information, participants followed a typical strategic planning approach by brainstorming and prioritizing possible actions that could be taken to improve community resilience. Finally, working together, participants refined specific priority actions to create a one-year Resilience Action Checklist of specific next steps, including (where possible) a timeline, partners and resources needed to implement the actions. Additionally, when applicable, participants mapped locations where the action would be most impactful.



Photo credit: IEN



Photo credit: IEN

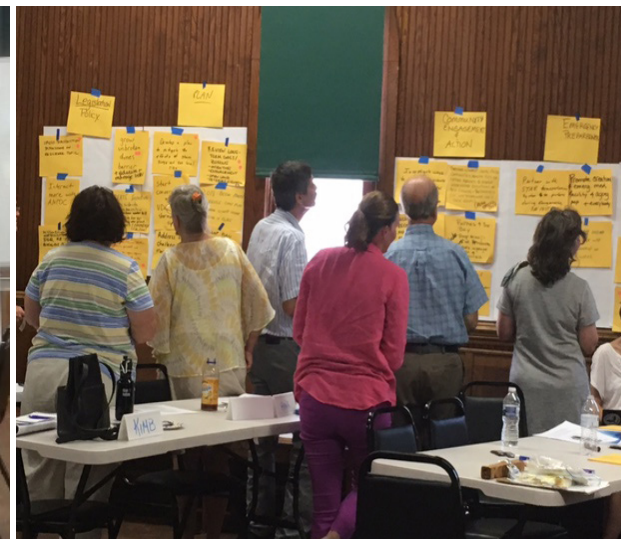


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RESILIENCE SCORECARD

STRENGTHS & OPPORTUNITIES

After completion of Cape Charles' pilot assessment within The RAFT Scorecard, The RAFT Team identified the locality's strengths and opportunities for presentation at the workshop. Generally, strengths were sections that received scores of 3 and above, whereas opportunities were those sections that received scores of 2 and below. Information in the Scorecard findings elaborated on why the locality received a particular score. The RAFT Team used this information to provide a presentation on why one area might be a strength, and, for opportunities, identify specific actions the community might take to improve its score. Opportunities were divided into primary and secondary. Primary opportunities were considered "low-hanging fruit" in terms of potential ease of implementation. Secondary opportunities were those actions that would likely take more time or resources to effectively implement.

2) FUTURE RISK AND CURRENT INFRASTRUCTURE ASSESSMENT

STRENGTHS

2.1 Flood Exposure and Vulnerability Assessment	4/4	Publicly available flood exposure and vulnerability assessment, identifies some areas and sectors at risk, and updated within the last 5 years
	+ 1	Bonus: +1 Hazard & flood maps available
2.2 Stormwater Management	3/4	Up-to-date stormwater management program includes development and land use, wetlands, best practices, floodplain management, monitoring, and maintenance
2.5 Water Supply and Services	4/4	Publicly available information about drinking water sources, municipal water utilities, and wastewater utilities, established communication, coordination, and consultation with water utilities

SECONDARY OPPORTUNITIES

4.2 Zoning and Regulations	2/4	Develop zoning codes and regulations that limit development and specify setbacks
4.3 Incentives for Coastal Resilience	0/4	Offer incentives for coastal resilience
6.1 Vulnerable Populations	1/4	Engage at least one vulnerable population, make information publicly available, and include community education and outreach goals for at least one vulnerable population in the comprehensive plan
	+ 1	Bonus: +1 More than one vulnerable population identified

RESILIENCE SCORECARD

STRENGTHS

CATEGORY	SECTION	SCORE	DESCRIPTION
1) Policy, Leadership, and Legislation	<i>1.2 Leadership and Responding to an Emergency</i>	4/4	Roles are established, stakeholders are identified, information is on a website, and local officials collaborate with more than one relevant stakeholder
2) Future Risk and Current Infrastructure Assessment	<i>2.1 Flood Exposure and Vulnerability Assessment</i>	4/4 +1	Flood exposure and vulnerability assessment is available on the locality's website, identifies some areas and sectors at risk, and updated within the last 5 years Bonus: +1 Hazard & flood maps available
	<i>2.2 Stormwater Management</i>	3/4	Up-to-date stormwater management program includes development and land use, wetlands, best management practices, floodplain management, monitoring, and maintenance
	<i>2.5 Water Supply and Services</i>	4/4	Information about drinking water sources, municipal water utilities, and wastewater utilities available on the locality's website; established communication, coordination, and consultation with water utilities
3) Finance, Budgeting, Funding, and Economics	<i>3.2 Economic Vulnerability and Vitality</i>	4/4	Comprehensive Plan contains Economic Vitality section, clearly identifying major economic assets, commercial/industrial infrastructure, and tax incentive opportunities

RESILIENCE SCORECARD

STRENGTHS

CATEGORY	SECTION	SCORE	DESCRIPTION
4) Land Use	<i>4.1 Coastal Resiliency in Comprehensive Plan</i>	3/4	Comprehensive Plan includes preservation of natural resources, uses language that avoids difficult to understand jargon and any quantitative data is displayed clearly, engages the public and has provisions for further participation
5) Community Engagement	<i>5.2 Public Resources</i>	2/4	Flood maps are readily available and there is a publicly identified individual responsible for ensuring citizens can obtain resources
6) Community Health and Wellness	<i>6.4 Volunteer Networks for Coastal Resilience</i>	3/4 +1	<p>To ensure community has a strong volunteer network capacity to respond to urgent or crises situations, offer volunteer opportunities for coastal resilience, highlights work of volunteers, and offers leadership training for volunteers to lead a coastal disaster resilience team</p> <p>Bonus: +1 Locality offers leadership opportunities in other community services not directly related to coastal resilience</p>
7) Ecosystems and Natural Resources	<i>7.1 Natural Resource Preservation</i>	3/4	Natural Resource Protection Plan and mapping, Chesapeake Bay Preservation Act program in place, Cape Charles tree ordinance

RESILIENCE SCORECARD

PRIMARY OPPORTUNITIES

CATEGORY	SECTION	SCORE	DESCRIPTION
1) Policy, Leadership, and Legislation	<i>1.1 Locality Leadership and Planning for Resiliency</i>	1/4	Make information available on the locality's website regarding local leaders and organizations planning for coastal resilience
	<i>1.3 Information Sharing</i>	2/4	Share information in a central online location
	<i>1.4 Local Collaboration with State Agencies and Planning District Commissions</i>	1/4	Local officials could communicate more with planning district commissions and state agencies to address coastal resilience
	<i>1.5 Adaptive Management</i>	2/4	Update short-term and long-term coastal resilience measures in local codes
2) Future Risk and Current Infrastructure Assessment	<i>2.3 Coastal Hazard Mitigation Plan</i>	2/4	Include community engagement in Hazard Mitigation Plan
	<i>2.4 Critical Infrastructure: Protective, Public Services, Shelter, Emergency Facilities, and Transportation</i>	2/4	Develop contingency plan for continuing services during an emergency and continued access to critical infrastructure, and develop a plan to regularly identify and update at-risk infrastructure. Identify and record loss due to flooding and of critical infrastructure services during the last five years

RESILIENCE SCORECARD

PRIMARY OPPORTUNITIES

CATEGORY	SECTION	SCORE	DESCRIPTION
2) Future Risk and Current Infrastructure Assessment	<i>2.6 Community Rating System</i>	2/4	Improve current CRS score of 9
3) Finance, Budgeting, Funding, and Economics	<i>3.1 Budget, Funding, State and Federal Assistance</i>	2/4	Identify priorities for budget spending for coastal resilience projects, and develop plans, budget analyses and processes for coastal resilience projects
5) Community Engagement	<i>5.1 Public Involvement in Resilience Planning</i>	2/4	Create and implement written policy statement regarding the role of citizens and commercial, institutional, nonprofit, and other stakeholders in resilience planning
	<i>5.2 Public Resources</i>	2/4	Develop a method, process, and/or statement regarding how resilience planning information and data is distributed to the public, and provide information in a manner that residents will understand
7) Ecosystems and Natural Resources	<i>7.2 Natural and Nature-based Features</i>	2/4	Develop a green infrastructure plan, and implement individual projects to address coastal hazard vulnerabilities

RESILIENCE SCORECARD

SECONDARY OPPORTUNITIES

CATEGORY	SECTION	SCORE	DESCRIPTION
4) Land Use	4.2 Zoning and Regulations	2/4	Develop zoning codes and regulations that limit development in floodplains and recurrent flood areas and specify setbacks from floodplains
	4.3 Incentives for Coastal Resilience	0/4	Offer incentives for development that is more resilient
6) Community Health and Wellness	6.1 Vulnerable Populations	1/4 +1	Engage at least one vulnerable population concerning community's resilience efforts, make information available on the locality's website, and include community education and outreach goals for at least one vulnerable population in the comprehensive plan Bonus: +1 More than one vulnerable population identified
	6.2 Resident Emergency Preparedness	2/4	Conduct community outreach about community hazard mitigation plan and resident emergency preparedness, and engage resident groups in emergency drills and planning workshops
	6.3 Citizen Leadership for Coastal Resilience	0/4	Develop citizen leadership training opportunities on coastal resilience and hazards

RESILIENCE SCORECARD

SECONDARY OPPORTUNITIES

CATEGORY	SECTION	SCORE	DESCRIPTION
6) Community Health and Wellness	<i>6.5 Civic Vulnerability During Coastal Hazards</i>	2/4	Create a program for the homeless during a coastal incident, and create a program to assist at least one vulnerable population
	<i>6.6 Resilient Systems to Provide Food and Medicine</i>	1/4	Create a plan to protect critical supply chains for food/health/medicine during emergencies/coastal events, educate businesses and supply chains about their vulnerabilities, and provide community education and outreach on how to access food/health/medicine in emergency/coastal events
	<i>6.7 Community Health Rankings</i>	1/6	Improve Community Health Rankings (based on poor physical health days, poor mental health days, uninsured, low birth weight, ratio of mental health providers): communicate with county Health Department and care providers about score and initiate discussions on how to improve
	<i>6.8 Distressed Community Score</i>	0/4	Improve Distressed Community Index Score (based on high school degrees, housing vacancy rate, adults not working, poverty rate, median income, change in employment, change in businesses): communicate with local agencies responsible for these issues about score and initiate discussions on how to improve

INITIAL QUESTIONS & DISCUSSION ON THE RAFT SCORECARD FINDINGS

Q: How does the federal government play into coastal resiliency for a town? Is there a state agency responsible coordinating resilience efforts?

A: There have been submitted bills in the General Assembly over the last few years to create a cabinet position in charge of resilience efforts to address state-level planning for these events (rather than being reactionary). We are currently waiting to see how this will pan out. The Secure and Resilient Commonwealth Panel working group only meets during emergencies which means it is not a planning body. The Virginia Department of Emergency Management (VDEM) has reorganized and begun efforts to address resilience planning in addition to emergency response.

Q: How does The RAFT take into account public safety involvement and National Incident Management System (NIMS) certification?

A: Hampton Roads has a large federal agency and military presence, and the Coast Guard uses NIMS. We are looking at sea-level rise as a threat which means more planning-oriented and less reactionary. The RAFT primarily looks to the locality as the point of implementation and views the federal government more as a possible resource. This tool is for the community, and was developed in response to community needs. We have been advised that localities may prefer an independent assessment, not a self-assessment, following which they can decide what needs to be done. The RAFT team serves as a resource for this. We will also investigate whether to integrate NIMS into the scorecard.

Q: How can improving the town's Community Rating System benefit the community?

A: Working towards a Community Rating System (CRS) score of 8 can help attract new residents. This would likely cause property values to increase, and therefore the value of the town. The town's flood insurance premium discount would also increase from the current 5% to 10%. If this opportunity is undertaken, a representative of The Nature Conservancy (TNC) stated that TNC would provide assistance to improve the CRS score.

Q: What are possible strategies to practically engage vulnerable populations for crisis management?

A: This is a strong concern for the vulnerable population of the disabled and as an individual remarked, crisis management currently does not properly address this. There is a great need to plan for vulnerable populations, such as the elderly with pets. This was an unexpected challenge with Hurricane Katrina as many refused to leave their pets behind.

The ensuing workshop discussion placed strong value on emphasizing personal relationships. Participants agreed that engagement with vulnerable populations needs to be built on trust. However, this can be difficult because building trusting relations is very time-consuming. Nevertheless, there was a consensus that the town needs to engage vulnerable populations and those who work with them to identify and address their needs. Many factors cannot be known unless these issues are faced personally—different populations are vulnerable in ways that may not be easily understood. This points to an opportunity to create one plan of hazard mitigation, disaster response, and disaster recovery.

Q: How does the Scorecard address and assess prevention?

A: The focus of prevention in the Scorecard is within Category 1 and 2: Policy, Leadership, and Legislation and Future Risk and Infrastructure. The Hazard Mitigation Plan also focuses on prevention in addition to response and recovery.

Q: How can Cape Charles determine available grants?

A: This is what The RAFT Team can assist with. Once we understand what the town wants to tackle, we can collaborate on issues and research appropriate grants.

Cape Charles' Recent FEMA Recategorization

One participant remarked that many people were taken out of the flood zone, but did not know the reason why. This was due to a change in science and is an indication that FEMA now has more accurate mapping. These changes have taken place all along the coast. A major concern stemming from this is determining what kind of help or assistance locals may access if they are no longer in the flood zone. A workshop attendee commented that he is no longer considered to be living in a flood zone so flood insurance is no longer required. Therefore, this is no longer part of the mortgage package and the liability falls completely on him. However, another participant commented that it is not a good idea to forego flood insurance if you live in Hampton Roads or Eastern Shore.

Category 1: Policy, Leadership, and Legislation

In reviewing this category of the Scorecard, participants discussed how the locality's leadership may be limited in its scope of power. For example, with regard to flood damage in particular, trying to repair roads in town can be out of the town's control. Individuals agreed that this needs to be raised as an issue with state government, especially the Virginia Department of Transportation (VDOT). Moving to another aspect of leadership, it was noted that leadership in coastal resilience can be a strong starting point and can lead to growth in leadership in other programs.

Section 2.2: Stormwater Management

In analyzing Cape Charles' stormwater management, the town's relationship with VDOT arose again. Because VDOT owns the streets, Cape Charles must work through their authorization. For example, VDOT monitors and maintains the town's storm drains. An individual noted that there has been some success in the past in working together with VDOT, but not as much as they would like. A large component of this is competing priorities due to budgeting.

Section 2.3: Coastal Hazard Mitigation Plan

A key opportunity in the Coastal Hazard Mitigation Plan (HMP) is to include community engagement. However, community engagement is a difficult task, as many participants agreed; this is a big challenge because of the large portion of the population that is seasonal as well as the level of detail (in the HMP). Participants discussed the possibility of making community engagement more fun. After a major flooding event, volunteers could create an event and rally more interest in organizing support. Notably, many areas of the Hazard Mitigation Plan are dealt with by the sheriff's office. The HMP is used for emergency management, not as a planning instrument.

Section 6.6: Resilient Systems to Provide Food and Medicine

Workshop attendees noted that locations of resilient systems to provide food and medicine were not identified in Cape Charles. The county is entirely responsible for this and has located food and medicine at Northampton High School in Eastville. The town could decide to provide food and medicine within the town itself, separate from the county.

COMMUNITY IDENTIFIED STRENGTHS & OPPORTUNITIES

Participants split into two groups to discuss strengths and opportunities. One group emphasized Cape Charles' growing educated population, especially as retirees move to the Bay Creek area. The group noted that the town's growing population might include potential volunteers to assist with projects.

Groups went on to discuss opportunities and ideas. One issue that came up was concern over volunteer burn-out. Many of the opportunities identified for increasing resilience related to potential for communication and education. One group pointed out that many homeowners in Cape Charles are part-time residents, which makes communication more difficult. Building on the need for better communication to improve resilience, participants identified the need for one trustworthy news source on multiple platforms, educating Town Council on coastal resilience, and educating the community on the CRS program.

Another opportunity for improving town resilience is to achieve better maintenance and management of town sand dunes, which requires education as well. Additionally, the town's Scoop the Poop campaign could be expanded along with expanded education on the use of fertilizer.

Participants also highlighted an important opportunity to increase the town's emergency preparedness, as the closest emergency hospital is 40 miles away. It could be possible to partner with the Shore Transit and Ride (STAR) transportation system to transport people in an emergency.

With regard to town regulations, an opportunity to increase the town's resilience would be to update its zoning and other codes (incentives, enforcement, open space, setbacks, elevation, etc.). More difficult, but equally important, would be the development of criteria for road abandonment, and development of a preservation plan for the historic district.

CREATING THE RESILIENCE ACTION CHECKLIST

CRITERIA

After workshop participants shared their perspectives on community strengths and opportunities, they used these strengths and opportunities as a beginning platform to create an action checklist for the next year. During the activity, The RAFT Team suggested that participants make their actions as SMART as possible: **S**pecific, **M**easurable, **A**chievable, **R**elevant, and **T**ime-based.

Specific criteria were then developed by participants for evaluating and prioritizing the actions they would develop for their one-year plan. Further refinements sought actions that address low-hanging fruit with early success, are long-term but attainable, and are able to be resourced with funds and people. These goals were intended to make a significant difference in Cape Charles' resilience and affect a large number of people, and with equitable effect and balanced benefits to all sectors of the community.

PRIORITIZED ACTIONS & IMPLEMENTATION STEPS

Using the agreed-upon criteria, participants next brainstormed actions for improving community resilience in the next year. These strategies were written down and shared. Participants then discussed and organized the proposed resilience actions into specific categories: Emergency Preparedness, Communication & Education, Community Engagement & Action, and Legislation & Policy. In a final step, participants used sticky dots to prioritize the actions according to the group criteria, with an emphasis on what could either be accomplished or at least initiated in the next year. All of the actions contained in this report's Prioritized Actions and Additional Considerations are opportunities that participants want to eventually implement. Once priority actions were identified, participants then divided into small groups to create more detailed work plans for each priority action in one-year Resilience Action Checklist. What follows is the complete list of priority actions for the next year, the steps towards implementation for each item on the one-year checklist, and a final list of additional actions for future consideration.

PRIORITIZED ACTIONS

ONE-YEAR CHECKLIST

CATEGORY	PRIORITY RESILIENCE ACTION CHECKLIST	VOTES
COMMUNICATION & EDUCATION	Educate council on flooding (and what can be done about it), and coastal resilience	7
	Develop council/commission from representatives from planning commission, historic, wetlands, harbor, etc.	6
	Develop FAQ on main website on dunes, Commuting Rating System (CRS), and what residents can do	5
COMMUNITY ENGAGEMENT & ACTION	Investigate ways to incentivize residents to enhance coastal resilience	2
	Education for seasonals (tourism), more signage, "Puppies for the Bay" (include why/importance & poop/scoop for residents)	2
LEGISLATION AND POLICY	Zoning/Codes: Review long-term codes/zoning (incentives, enforcement, open land, setbacks, elevation, etc.)	8
	Cross-Jurisdiction Discussion on Resilience: Discussion with Northhampton County & DEQ for biosolids/E.Coli (drains, setbacks, beach closures, timing of application); and interact more with Accomack-Northampton Planning District Commission (ANPDC)	6
	Determine amount of green infrastructure present and develop an open space plan to assist with CRS	5



Photo credit: Karen Jolly Davis



Photo credit: Wayne Creed (Cape Charles Mirror)



Photo credit: Delmarva Now

ONE-YEAR IMPLEMENTATION STEPS

COMMUNICATION & EDUCATION

Educate Council <i>Taking lessons learned from the Resiliency Action Workshop and providing information to the Town Council</i> Ed Eichman Karen Jolly Davis Larry DiRe	LEAD	WITH WHOM	WHERE	SPECIAL CONSIDERATIONS
	Staff	<ul style="list-style-type: none"> · Mayor · All boards & commissions · Public works · Accomack-Northampton Planning District Commission (ANPDC) · VA Department of Environmental Quality (DEQ) · VA Department of Conservation & Recreation (DCR) 	<ul style="list-style-type: none"> · Town Council meetings · Site visits as necessary 	Self-education and information transfer At least one work session and when necessary
	TIMELINE/MILESTONES		RESOURCES AVAILABLE/NEEDED	
	September 21, 2017 Town Council meeting, ongoing and as requested by council		Develop packets if department relevant	

<div>Develop Resiliency Council/ Committee</div> <div>How the town can adapt to sea level rise and flooding; implement a plan</div>	LEAD	WITH WHOM	WHERE	SPECIAL CONSIDERATIONS
	Town Council	Mayor	Historic District	Defer to Hampton Roads Planning District Coastal Resilience Committee (CRC) or ANPDC's (CAWG)
	Town Manager			
	TIMELINE/MILESTONES			RESOURCES AVAILABLE /NEEDED
	FY19 July September 2017 Educate Town Council October 2017 Educate other Boards & Commissions November 2017 Agree on the structure (rep from the Board) December 2017 Pass a resolution January-May 2018 Recruit first meeting			TBD May require: · budget line time · staff commitments

ONE-YEAR IMPLEMENTATION STEPS

COMMUNICATION & EDUCATION

Develop FAQ & Website <i>To provide publicly available information about methods of resilience through non-electronic platforms</i>	LEAD	WITH WHOM	WHERE	SPECIAL CONSIDERATIONS
	Libby Hume	· Resident Business Representative	N/A	· Multimedia execution-media-website
	Larry DiRe	· Student research · Wetlands Board · Faith partners · Ted Shockley		· Brochure · In-person · Presentations · Booklet
	TIMELINE/MILESTONES		RESOURCES AVAILABLE/NEEDED	
	October 2017 Committee January 2018 Assign April-May Draft June-July Final		· Presenters · Social Media/IT · Students · Marketing · Printing (funding) · Distribution	

ONE-YEAR IMPLEMENTATION STEPS

COMMUNITY ENGAGEMENT & ACTION

Incentivize Residents to Enhance Coastal Resilience <i>To reduce flooding, award certification for green properties, develop native plantings for less fertilizer usage, less water usage, etc.</i>	LEAD	WITH WHOM	WHERE	SPECIAL CONSIDERATIONS
	Town	<ul style="list-style-type: none"> · Master Naturalist · Master Gardener · Natural Conservancy · Soil and H2O · Cape Charles Citizens for a Better Eastern Shore · Virginia Institute for Marine Science (VIMS) · Academia 	<ul style="list-style-type: none"> · Historic District · Residential 	<ul style="list-style-type: none"> · Reach out to multi-family management companies with programs and incentives · Second home and property management companies · Businesses
	TIMELINE/MILESTONES		RESOURCES AVAILABLE/NEEDED	
	Spring 2018-2020 <ul style="list-style-type: none"> · Programs and workshops · Develop award · Cert approval of criteria and credits 		<ul style="list-style-type: none"> · Credits/discounts · At-cost plants · Materials · Non-monetary recognition 	

Consider Tourist Population <i>Population in Cape Charles is about 1000 people year-round, however, it is necessary to address the surge in seasonal population from tourism and secondary home-ownership</i>	LEAD	WITH WHOM	WHERE	SPECIAL CONSIDERATIONS
	Town Council	<ul style="list-style-type: none"> · VA Local Delegate Rob Bloxom · Virginia Department of Transportation (VDOT) 	Cape Charles	Possibility for town to take care of own roads and VDOT pays the locality
	TIMELINE/MILESTONES		RESOURCES AVAILABLE/NEEDED	
	<ul style="list-style-type: none"> · Develop proposals · Bring in VDOT · Submit legislation 		Collaboration with VDOT	

ONE-YEAR IMPLEMENTATION STEPS

LEGISLATION & POLICY

Long Term Codes & Zoning <i>Staff & Planning Commission to use public engagement and collectively create zoning ordinances - repurposing vacant lots, creating incentives for private landowners, private land management for conservation management</i> Ed Eichman Karen Jolly Davis Larry DiRe	LEAD	WITH WHOM	WHERE	SPECIAL CONSIDERATIONS
	Staff	<ul style="list-style-type: none"> · Town Council · Private Sector 	<ul style="list-style-type: none"> · Historic District/R-1 · Commercial District 	<ul style="list-style-type: none"> · A lot of public engagement (in government)
	Planning Commission	<ul style="list-style-type: none"> · Developers · Citizens · ANPDC · VDOT · Bay Creek/Homeowners Association (HOA) · Clergy · Railroad 	<ul style="list-style-type: none"> · Harbor District/Railroad · Planned Unit Development (PUD) 	<ul style="list-style-type: none"> · Working with the county/town edge · Statutory timelines for actions
TIMELINE/MILESTONES			RESOURCES AVAILABLE/NEEDED	
Yesterday-Ongoing			<ul style="list-style-type: none"> · Research resilience · Human capital in town · ANPDC data and staff · Council education · Form committee · Communication · Feedback for planning committee · Zoning charges · etc. 	

<div>Cross- Jurisdictional Discussion on Resilience</div> <div>Regional efforts to advance coastal resilience together</div>	LEAD	WITH WHOM	WHERE	SPECIAL CONSIDERATIONS
	Town Mayor	<ul style="list-style-type: none">· Eastern Shore of VA	Hold discussion in town, discuss where cross-jurisdictional cooperation would difference, difference informed by the AG, DEQ, and County	Something in place by March 2018 Who to talk to first? Impacts to CC economy = impacts to county economy
	Town Council	<ul style="list-style-type: none">· Chamber of Commerce· Cape Charles Business Association (CCBA)		
	County	<ul style="list-style-type: none">· Extension Agency· DEQ-Coastal Zone Management		
		<ul style="list-style-type: none">· CBES· The Nature Conservancy		
TIMELINE/MILESTONES			RESOURCES AVAILABLE/NEEDED	
	Summer 2017 <ul style="list-style-type: none">· Talking points· Fact-based· ID partners Fall 2017 <ul style="list-style-type: none">· Have conversations· Formulate strategy· Pull in political partners Winter 2017-19 <ul style="list-style-type: none">· Develop plan to propose		<ul style="list-style-type: none">· Facilitator for meetings· Guidelines for applications (ex: of what other coastal communities are doing)· Make sure it is relevant	

ONE-YEAR IMPLEMENTATION STEPS

LEGISLATION & POLICY

<p>Green Infrastructure</p> <p><i>To lower CRS points, lowering insurance rates: ultimate action complete in two years</i></p> <p>Joe Fehrer Tracy Outten George Proto</p>	LEAD	WITH WHOM	WHERE	SPECIAL CONSIDERATIONS
	Town Planner	<ul style="list-style-type: none"> · The Nature Conservancy · Sea Grant · VIMS · DCR 	Entire jurisdiction of Cape Charles	Seek help from university experts/classes on Green
	TIMELINE/MILESTONES		RESOURCES AVAILABLE/NEEDED	
	<p>January 2018 Assign/discuss mapping priorities</p> <p>June 2018 complete</p> <p>September Convene meeting with town planner and code official to discuss open space plan</p> <p>Assist with review of long-term zoning</p>		<ul style="list-style-type: none"> · Allocation of staff time · May require budget line item · Funding for GIS work 	

ADDITIONAL CONSIDERATIONS

CATEGORY	SECONDARY RESILIENCE ACTION CHECKLIST	VOTES
EMERGENCY PREPAREDNESS	Promote creation of emergency medical facility for aging population & everybody (note: regional in nature and longer-term (not for one-year action plan))	3
	Partner with STAR transportation system to perform during emergencies, no cost (note: regional in nature and longer-term (not for one-year action plan))	2
	Highest-rank hazard is wind. Work with power companies on trees and wires	0
COMMUNICATION & EDUCATION	Develop multi-media, trusted education source of information for the community	1
	Create a direct way to communicate to all (phone tree, door-to-door)	0
	Educate use of fertilization and run-off to the Bay	0
	Combine HazMit, disaster response, disaster recovery, crisis management plans. Assign to a group (Planning Commission, dunes, wetlands, Board of Directors)	0
COMMUNITY ENGAGEMENT & ACTION	Partner w/ NAACP, local faith communities, healthy kids, seniors, and other agencies to engage underserved populations in both planning & preparedness (not just disseminate information). Note: this also belongs in Emergency Preparedness	2
	Include new residents with high skills/background	0
	Awareness of volunteer burnout (outreach to new volunteers, manage expectations of volunteers, educate community on actionable items for volunteers)	0
LEGISLATION AND POLICY	Zoning/Codes: 2018 - begin process to revise comprehensive plan addressing climate change & aging in place); review Design Guidelines for Harbor District for stormwater management; and develop plan for historic district (Main Street program)	3
	Grow unbroken dunes barrier & educate and manage better	3
	Create incentives for residents (rain barrels --> reduce water bill, incentive for people who plant smart). Note: also part of Community Engagement	2
	Stormwater Management: Start conversation with VDOT about stormwater system; and develop a plan to mitigate the effects of storm surge and sea level rise; and address flooding challenges on Main Street/Strawberry Street (merchants)	3

NEXT STEPS

With the workshop coming to a close, participants agreed that it could be helpful if The RAFT Team would share “Lessons Learned” and best practices (or innovative ideas with low cost and easy implementation) for improving resilience, drawn from the team's work with all three pilot communities. Additionally, participants would like The RAFT Scorecard assessments to be shared, as well as the Resilience Action Checklist and implementation steps.

Participants discussed tentative plans for a “September Kick-Off.” As noted earlier in the report, part of the Action Checklist is to educate Town Council; this will include the Scorecard results. There is a possibility for one of the The RAFT Team members to present information on coastal resiliency to the Town Council in September, incorporating The RAFT Scorecard findings. Following the September Kick-Off, there will be a 100-Day Check In to discuss progress and challenges.

The Cape Charles Town Manager, Brent Manuel, agreed to serve as the lead, with Larry DiRe serving as the primary point of contact for The RAFT Team. An implementation team was formed to manage Cape Charles’ Resiliency Action Checklist, and includes members Karen Holly Davis, Brent Manuel, Hank Mayer, Joe Fehrre, and Kimb Leake Denny.

SEQUENCE

A tentative sequence was established by participants in the Cape Charles workshop for how they envision implementing their Resilience Action Checklist.

1. Educate Town Council on Scorecard results and the Action Checklist.
2. Form Resilience Committee to implement Action Checklist.
 - a. Begin gathering information on green infrastructure present for development of an open space plan.
3. Communicate with public about the Scorecard results and the Resilience Action Checklist.
 - a. Obtain feedback from public on implemented communication methods.
4. Collaborate on amending and updating Town plans with Resilience Committee to implement Resilience Action Checklist.
 - a. Includes zoning changes and incentives to residents.

APPENDIX

WORKSHOP ATTENDEES

Michael Allen, *Old Dominion University, Climate Scientist*

Karen Jolly Davis, *Citizen*

Kimb Leake Denny, *Executive Director Cape Charles Historical Society, Market Manager Cape Charles Farmers Market, Eastern Shore Museum Network, Representative for Disabled*

Larry DiRe, *Town Planner*

Ed Eichman, *Citizen, Harbor Area Review Board, Architect, Harbor Area Review Board member, Building Code Appeals Board member*

Joe Fehrer, *Citizen, Chair of Historic District Review Board, Board Member of Wetlands/Coastal Dune Board, Lower Shore Project Manager: TNC*

Jim Holloway, *Co-owner of Bay Haven Inn of Cape Charles, CFO USCG Command and Control Center*

Tammy Holloway, *Co-owner of Bay Haven Inn of Cape Charles, President of Cape Charles Business Association, President of New Roots Youth Garden, Eastern Shore Master Gardener*

Brent Manuel, *Town Manager*

Hank Mayer, *PhD, Chairman of Arts Enter Cape Charles, Treasurer of Cape Charles Citizens for Central Park, former Executive Director of Center for Environmental Analysis & Communications (Rutgers University), adjunct faculty at Old Dominion University, SSRP at ODU Research Foundation*

Tracy Outten, *Deputy Clerk, Historic District Review Board, Harbor Area Review Board, Wetlands/Coastal Dune Board*

George Proto, *Mayor*

APPENDIX

BIG PICTURE IDEAS FROM THE RAFT WORKSHOP

TOPIC	DESCRIPTION
Aging Population	<ul style="list-style-type: none">• More retired people coming in full-time
Crisis Management Plan	<ul style="list-style-type: none">• Is there an existing one?• Small group of people to look at this
Emergency Response	<ul style="list-style-type: none">• Lack of emergency medical services close by• First responders lack resources
Information Sharing (Section 1.3)	<ul style="list-style-type: none">• Lack of newspaper/trusted platform for communication• Need multiple communication avenues and among different groups• <i>Could also be an opportunity for Section 5.2</i>
Local Collaboration with State Agencies and PDCs (Section 1.4)	<ul style="list-style-type: none">• Need to attend ANPDC meetings
Secondary Homeowners	<ul style="list-style-type: none">• Homeowners that do not primarily live in Cape Charles• Difficult to manage/communicate with• Need a local contact – neighbor• Build a network

GROUP 1

TOPIC	DESCRIPTION
Bio-Solids	<ul style="list-style-type: none"> • Discussion with Department of Environmental Quality & Northampton • Bio-solids drainage • E-Coli closures at beach, negatively affects tourism • Setbacks & timing
Combine Hazard Mitigation Plan + Disaster Response + Disaster Recovery	<ul style="list-style-type: none"> • Address their various components together
Concern: Volunteer Burnout	<ul style="list-style-type: none"> • Upwards of 25 hours/week (unpaid)
Create Publicly Available RAFT Scorecard Results	<ul style="list-style-type: none"> • Provide to state agencies • Especially VDOT
Cross-Jurisdiction Discussions	<ul style="list-style-type: none"> • Further resilience efforts
CRS Education	<ul style="list-style-type: none"> • Not everyone is aware that CRS even exists -- education • Aim to improve score
Fertilizer Run-off	<ul style="list-style-type: none"> • Education
Flood Zone Maps	<ul style="list-style-type: none"> • Need for insurance for those who have been taken out of the flood zone areas
Form Coastal Resilience Group	<ul style="list-style-type: none"> • Include chairs of related boards -- "agenda items"
Historic District	<ul style="list-style-type: none"> • Develop plan for historic district (Main St. program)
Include Community Engagement in Hazard Mitigation Plan (Section 2.3)	<ul style="list-style-type: none"> • Would raise CRS score up one point – new score of 8 • This would decrease flood insurance rates • <i>Nature Conservancy offered to help</i>

TOPIC	DESCRIPTION
Natural Dunes Defense	<ul style="list-style-type: none"> • Maintenance, manage, educate • Publicly available FAQ
New Residents with High Skills/Backgrounds	<ul style="list-style-type: none"> • Include new residents • Information sessions to be held
Organize Event After Flood	<ul style="list-style-type: none"> • After latest flood • Encourage community to get involved
Poop & Scoop	<ul style="list-style-type: none"> • Expand education/information
Road Abandonment	<ul style="list-style-type: none"> • Start discussion on criteria for road abandonment
Vulnerable Populations (Section 6.1)	<ul style="list-style-type: none"> • Very important to discuss how to learn/engage/address their needs • Reliable transportation system – STAR system <ul style="list-style-type: none"> ○ Could this be adopted for emergencies? ○ Churches also have buses that could be used in emergencies ○ School buses?
Zoning/Ordinance Codes	<ul style="list-style-type: none"> • Maintaining open land/natural resources • Incentive for private land owners in land management/conservation • Enforcement (setbacks, elevation, rain gardens/trees)