Town of Duck
Resilient Coastal Communities Program

FEBRUARY 16, 2022
Presented by: Candice Andre, AICP
RCCP Program

- Provide funding & technical assistance for:
  - Developing Resilience Strategies (risk & vulnerability assessments, portfolios of prioritized resilience projects)
  - Project engineering, design, & implementation

- Promote locally-driven, inclusive, & forward-thinking approaches to traditional hazard mitigation planning

- Incentivize innovative solutions (Natural & Nature-Based Solutions)
RCCP Program - Handbook

- Facilitate a community-driven process for:
  - Setting coastal resilience goals
  - Assessing existing & needed capacity
  - Identifying & prioritizing projects to enhance community resilience to coastal hazards
Process / Timeline

**PHASE 1**
Community Engagement
Risk & Vulnerability Assessment

**PHASE 2**
Planning, Project Identification, & Prioritization

**PHASE 3**
Engineering & Design

**PHASE 4**
Implementation

Spring 2022
Vision & Goals

- Local Values & Priorities
- Vision – Where do you (as a Town) want to be in the future?
- Resilience Goals – measurable steps that can be taken to achieve the vision
  - Preparedness
  - Recovery
  - Community engagement
  - Construction & restoration
- Pull from existing sources of information
Planning Documents

- Significant planning efforts:
  - Comprehensive & CAMA Land Use Plan – Adopted 2021
  - Vulnerability Assessment (of public infrastructure & commercial buildings) – Winter 2020
  - Comprehensive floodwater management discharge plan – Winter 2020
  - Outer Banks Regional Hazard Mitigation Plan – Summer 2020
  - Capital Improvement Plan
  - Flood Damage Prevention Ordinance – Spring 2020

To Be Continued
## Progress

### Phase 1

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
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<tbody>
<tr>
<td>1</td>
<td>Develop a CAT</td>
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<tr>
<td>2</td>
<td>Set Vision &amp; Goals</td>
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<tr>
<td>3</td>
<td>Review Existing Local Plans &amp; Efforts</td>
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<tr>
<td>4</td>
<td>Develop a Community Engagement Strategy</td>
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<tr>
<td>5</td>
<td>Map Critical Assets &amp; Natural Infrastructure</td>
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<tr>
<td>6</td>
<td>Conduct a Risk &amp; Vulnerability Assessment</td>
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### Phase 2

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
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<tbody>
<tr>
<td>1</td>
<td>Identify a Suite of Potential Solutions</td>
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<tr>
<td>2</td>
<td>Consolidate &amp; Prioritize Projects</td>
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Next Steps

- Finalize mapping & vulnerability assessment - interactive
  - Based on publicly-available resources and existing data & Town input
  - Hazards (e.g., flooding, storm surge, erosion, fire)
  - Sea level rise
  - Critical assets (e.g., Town facilities, utilities, natural infrastructure, public health and medical facilities, emergency management, communications, energy, transportation)
  - Social vulnerability

https://www.fema.gov/sites/default/files/2020-05/LifelinesFactSheetandPosterv2.pdf
Next Steps

- Identify projects
  - Infrastructure & nature-based measures
  - Local policy & regulations
  - Local & regional plans
  - Education, awareness, & incentive programs

- Prioritize projects
  - Informal cost-benefit (high, medium, low)
  - Advances prior efforts
  - Site specific
  - Interdisciplinary
  - Technical soundness
  - Co-benefits
  - Long-term impact
  - Capacity to implement
Next Steps

- Community outreach
  - March/April
  - Virtual
- Review of interactive map
- Review of project matrix
- Social media
- Town website
- Other community events?
## Next Steps

<table>
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<tr>
<th>Priority Project</th>
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<tbody>
<tr>
<td><strong>Project Name</strong></td>
<td>Brief title</td>
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<tr>
<td><strong>Project Description</strong></td>
<td>Describe project, including information gathered during effort</td>
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<tr>
<td><strong>Hazard(s) addressed by project</strong></td>
<td>List hazards specific to this program which impact the project location</td>
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<tr>
<td><strong>Type of Solution</strong></td>
<td>Infrastructure, Plans &amp; Policies, Ordinances, Non-regulatory programs, Other</td>
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<tr>
<td><strong>Project Estimated Cost</strong></td>
<td>Estimate total cost of project</td>
</tr>
<tr>
<td><strong>Potential Implementation Funding Sources</strong></td>
<td>Identify potential sources for project/action implementation</td>
</tr>
<tr>
<td><strong>Projected Estimated Timeline</strong></td>
<td>Estimate length of time project will take to complete and any expected delays in the timeline</td>
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Questions / Ideas

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Photo Source: Town of Duck Comprehensive & CAMA Land Use Plan
Interactive Map - Critical Assets & Natural Infrastructure

- Buildings
- Roads/Bridges
- Airports
- Historic properties (National Register)
- Public Libraries
- Schools
- Fire Stations
- Police Stations
- Hospitals
- Nursing Homes
- Surface Water Supply, Intake, Tanks, Pumps, Sources

- Water Treatment Facilities
- Sewer Treatment Plants
- Water quality
- State-owned land
- Federally-owned land
- Conservation Tax Credit Property
- Wetlands (including estuarine shorelines)
- Frontal dunes
- Topography
Interactive Map - Hazards

- Flood hazard areas
- Sea level rise
- Storm events (hurricanes, nor’easters, tropical storms)
- Erosion rates
- Crash History (Vehicle, Pedestrian)
- Hazardous Waste sites
- Wildfire