# REQUEST FOR PROPOSAL ACCOMACK-NORTHAMPTON PLANNING DISTRICT COMMISSION FOR A

## COASTAL ADAPTATION AND RESILIENCE PLAN FOR THE EASTERN SHORE OF VIRGINIA

# PROPOSALS DUE NO LATER THAN: 12:00 PM EST October 31, 2025

# **Opportunity Description Summary**

The Accomack-Northampton Planning District Commission (A-NPDC), in cooperation with and funding from the Virginia Coastal Flood Preparedness Fund (CFPF), will be contracting an engineering and environmental consulting firm (or comparable professional) to prepare a Coastal Adaptation and Resilience Plan for the Eastern Shore of Virginia.

#### **Regional Localities**

Localities within the A-NPDC: Towns of Accomac, Belle Haven, Bloxom, Cape Charles, Cheriton, Chincoteague, Eastville, Exmore, Hallwood, Keller, Melfa, Nassawadox, Onancock, Onley, Painter, Parksley, Saxis, Tangier, and Wachapreague; and Counties of Accomack and Northampton.

### **Physical Description**

The Eastern Shore of Virginia is a long, narrow, low-lying peninsula that separates the Chesapeake Bay from the Atlantic Ocean. It is known for its diverse and dynamic coastal landscape, consisting of a mainland portion, extensive wetlands, and a chain of undeveloped barrier islands.

#### The mainland

- Topography: The mainland is characterized by flat, low-lying terrain, with elevations ranging from sea level to about 60 feet. It is heavily penetrated by tidal creeks and estuaries from the Chesapeake Bay, giving it an intricate and watery border.
- Composition: The surface is dominated by a thick layer of eroded clay, sand, and gravel deposited over millions of years. The soil is fertile and primarily used for agriculture.
- Subsurface geology: Beneath the surface lies a complex aquifer system of marine-shelf sediments, with water availability and saltwater intrusion influenced by buried paleochannels. The southern portion of the peninsula sits atop the buried Chesapeake Bay impact crater, formed by a meteorite 35 million years ago.

### Coastal wetlands and lagoons

- Coastal lagoons: The area between the mainland and the barrier islands contains a chain of shallow coastal lagoons, such as Hog Island Bay and Magothy Bay. These lagoons have restricted connections to the ocean and are home to restored eelgrass meadows and oyster reefs.
- Salt marshes: Extensive salt marshes and tidal flats line both the Atlantic and Chesapeake Bay sides of the peninsula. These wetlands provide critical habitat for migrating birds and absorb storm energy.

#### Barrier islands

- Atlantic coast chain: The Atlantic side is buffered by a chain of about 23 shifting, sandy, and uninhabited barrier islands that stretch for 70 miles. This is the longest stretch of undeveloped coastal wilderness on the U.S. Atlantic seaboard.
- Dynamic landscape: The islands are highly dynamic, with their shapes and positions constantly altered by waves, tides, and storms. Some islands have seen towns and forests vanish, while others have merged or are close to merging with the mainland.
- Important ecology: These islands and their associated habitats, including maritime forests, dunes, and marshes, are internationally recognized as an important biosphere reserve and critical habitat for migratory birds.
- Notable islands in the chain include:
  - Assateague Island: This island, shared with Maryland, is home to the famous Chincoteague ponies.
  - Wallops Island: Home to the NASA Wallops Flight Facility.
  - Hog Island: A former town site, it has seen its landscape dramatically changed by hurricanes.
  - Fisherman Island: The southernmost barrier island, located at the mouth of the Chesapeake Bay.

**Tangier Island**: Tangier Island is a remote, low-lying island group in the Chesapeake Bay and part of Accomack County. It is known for its rapid land loss due to erosion and rising sea levels. Its unique physical characteristics include a series of narrow ridges, extensive marshland, and a shrinking habitable area.

Topography and land use

Ridges and causeways: The town of Tangier is built on three main parallel ridges, or "fingers," of higher ground. They are connected by small bridges over the marshland.

Marshland: Most of the island's area consists of tidal salt marsh and wetland.

Extreme low elevation: The island's highest point is only about 4 feet above sea level, making it extremely vulnerable to flooding during high tides and storms.

Shrinking landmass: Tangier is steadily losing land to the encroaching bay. The island has shrunk by two-thirds since 1850, and its remaining high ground is converting to wetlands. Hydrology and geology

Limited freshwater: The island has no natural source of fresh water, a historic factor that delayed its permanent settlement. The island's groundwater is salty, and residents relied on rainwater collection for centuries.

Geological instability: The island's sinking is caused by a combination of global sea-level rise and regional geological factors. This includes post-glacial rebound (the land sinking after the last ice age) and the long-term effects of the Chesapeake Bay impact crater.

Subsidence from wells: The pumping of groundwater from the underlying Potomac Aquifer has also contributed to the island's subsidence.

Infrastructure and community layout

Transportation: Due to its small size and narrow streets, Tangier's primary modes of transportation are bicycles and golf carts. It is not accessible by car. The only way to reach the island is by ferry or small plane.

Layout: The island's institutions, including the school, restaurants, and post office, are located on the main ridge.

Erosion protection: The community has constructed protective structures, such as a seawall on the West Ridge, to combat erosion. The Army Corps of Engineers has also implemented projects to help protect the island.

# Scope of Work for a Coastal Adaptation and Resilience Plan for the Eastern Shore of Virginia

This Scope of Work ("SOW") outlines the process for developing a Coastal Adaptation and Resilience Plan for the Eastern Shore of Virginia, building on established state frameworks such as the *Virginia Coastal Resilience Master Planning Framework* and the *Virginia Flood Protection Master Plan*. The SOW integrates statewide guiding principles with regional-specific needs and conditions, involving the Accomack-Northampton Planning District Commission, localities, and other key stakeholders. Funding for this project is being provided by the Virginia Coastal Flood Preparedness Fund (CFPF) and the successful bidder will be subject to all relevant State terms and conditions pertaining to such funds.

#### **Qualifications**

- The Plan must meet the VA Department of Conservation and Recreation's requirements for a Coastal Adaptation and Resilience Plan under the CFPF.
- Engage with a diverse group of stakeholders, including residents, local governments, businesses, and non-profits so the process is fully-informed.
- Develop a portfolio of recommended resilience strategies, including nature-based solutions, policy changes, and capital projects.

#### 1.0 Project summary

The project will produce a comprehensive, equitable, and forward-looking Coastal Adaptation and Resilience Plan for the Accomack-Northampton Planning District Commission (A-NPDC). The plan will address environmental, social, and economic vulnerabilities to natural and human-made hazards and long-term stressors, including those exacerbated by climate change. The plan will result in a prioritized list of resilience-building projects, strategies, and policies to inform future investment and action.

#### 2.0 Project objectives

- Assess regional risks and vulnerabilities related to environmental hazards, focusing on flooding, sea-level rise, and extreme weather.
- Evaluate critical infrastructure and socioeconomic assets at risk, including transportation, energy, water, telecommunications, and vulnerable communities.
- Establish a framework for ongoing plan implementation, monitoring, and adaptation.

#### 3.0 Tasks

#### Task 1: Project initiation and stakeholder engagement

- Action 1.1: Project kickoff and core team formation. Conduct a kickoff meeting with key regional staff and stakeholders to define roles, responsibilities, and the project timeline.
- Action 1.2: Establish a Technical Advisory Committee (TAC). Form a committee of regional experts, including staff from the A-NPDC, emergency management, academia, localities and other relevant sectors.
- Action 1.3: Develop a community engagement plan. Outline strategies for engaging diverse communities, prioritizing those most vulnerable to hazards, through workshops, surveys, and public forums.

#### Task 2: Vulnerability and risk assessment

- Action 2.1: Inventory regional assets. Identify and map critical infrastructure, key economic sectors, natural resources (e.g., green infrastructure), and socio-demographic data (e.g., population density, age, income), being advised that the Town of Oyster has a Coastal Adaptation and Resilience Plan and the Town of Saxis is in the process of selecting its contractors for their Plan. These Plans can be incorporated into the Coastal Adaptation and Resilience Plan for the Eastern Shore of Virginia and be made a part thereof.
- Action 2.2: Compile and analyze hazard data. Collect and process data on hazards, to include but not be limited to:

Coastal and riverine flooding;
Sea-level rise projections;
Historical and projected weather events and temperature projections; and
Saltwater intrusion into groundwater.

 Action 2.3: Conduct a vulnerability assessment. Overlay hazard data with asset inventories to identify areas of highest risk, paying special attention to socially vulnerable communities.

#### Task 3: Strategy and project identification

- Action 3.1: Develop a resiliency strategy framework. Based on the vulnerability assessment, and consistent with the latest version of the state master plan, outline regional resiliency goals and guiding principles.
- Action 3.2: Facilitate idea-generation workshops. Host workshops with stakeholders and the public to identify potential resilience projects and strategies including a community relocation plan for the most vulnerable communities.
- Action 3.3: Develop and evaluate potential projects. Compile a list of proposed projects, including planning initiatives, capital improvements, and policy actions. Use a project suitability matrix that considers cost-effectiveness, equity impacts, community relocation plan (if appropriate) and nature-based solutions.

#### Task 4: Prioritization and plan development

- Action 4.1: Prioritize projects. Develop a prioritization methodology based on regional goals, cost-effectiveness, equity considerations, and effectiveness at reducing risk.
- Action 4.2: Draft the Coastal Adaptation and Resilience Plan. Prepare a draft plan that includes the following sections:

Executive Summary
Resilience Goals and Strategies
Introduction and Planning Process
Regional Risk and Vulnerability Assessment
Prioritized Projects and Actions
Implementation and Funding Strategies

• Action 4.3: Incorporate feedback. Solicit and incorporate feedback on the draft plan from the TAC and the public.

#### Task 5: Plan finalization and adoption

- Action 5.1: Finalize the plan. Incorporate final revisions based on public and TAC feedback.
- Action 5.2: Seek formal adoption. Present the final plan to the A-NPDC and localities for formal adoption and endorsement.

#### 4.0 Deliverables

• Coastal Adaptation and Resilience Plan: A comprehensive, publicly accessible document that includes the elements defined in Task 4.

- Vulnerability and Risk Assessment Report: A technical report detailing the findings from Task 2.
- Project Inventory and Prioritization Matrix: A spreadsheet or database of priority resilience projects, based upon TAC recommendation..
- Estimate Costs/Map Funding Possibilities: For the determined priority projects, the
  Consultant will provide cost estimates, produce preliminary engineering specifications
  and maps and identify potential funding sources for each project. The Resilience
  Advisory Committee will then re-rank based on this new input.
- Workshop and Engagement Summary Reports: Documentation of all stakeholder and public engagement activities.
- Presentation materials: Final presentations for project briefings.

#### 5.0 Timeline

- Months 1–3: Project initiation and stakeholder engagement.
- Months 4-7: Vulnerability and risk assessment.
- Months 8–10: Strategy and project identification.
- Months 11–12: Prioritization and plan development.
- Month 13: Plan finalization and adoption.

#### **Selection Committee and Proposal Evaluation Criteria**

A selection committee will be formed to review the proposals. The selection committee evaluation and selection process will be used to determine the most qualified firm. The following criteria will be considered in evaluating the proposals:

- Statement on understanding and technical approach to the Scope of Services (25%)
- Experience with Coastal Adaptation and Resilience Plans (20%)
- Firm and staff qualifications (20%)
- Relevant experience with Commonwealth of Virginia funding programs including discretionary grant projects, and specifically those administered by Virginia Resources Authority, as Administrator of the Virginia Community Flood Preparedness Fund, as well as the Department of Conservation and Recreation (15%)
- Familiarity with the Eastern Shore region (10%)
- Listing of proposed subconsultants and subcontractors (10%)