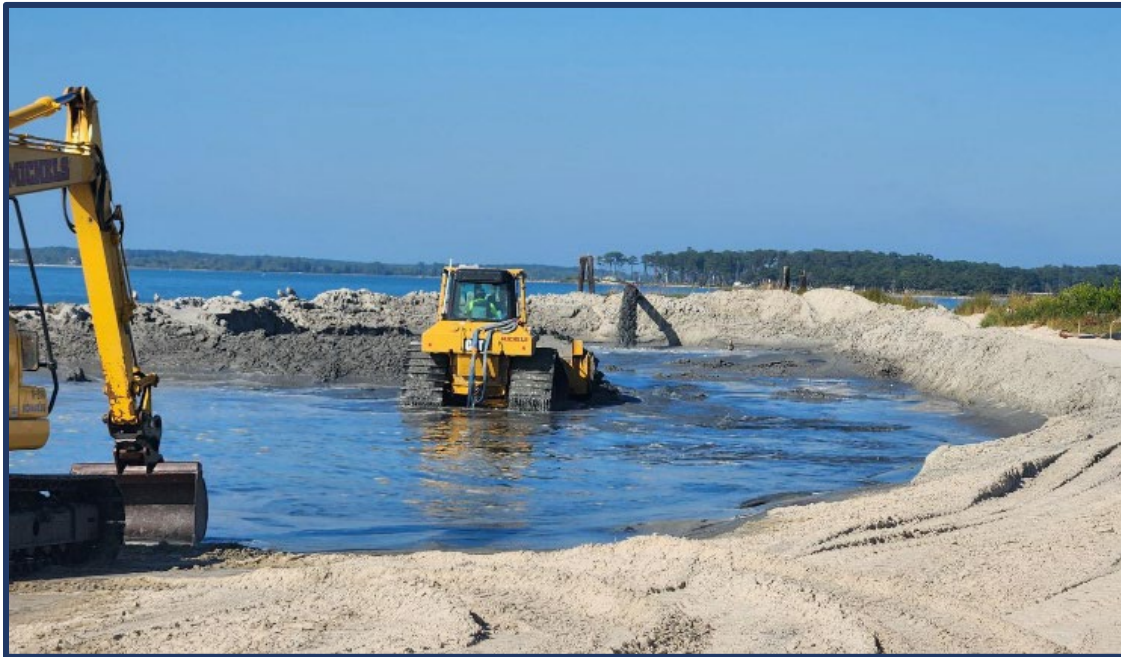


Accomack-Northampton PDC Technical Assistance Program & Coastal Resiliency Planning

Final Product Report

VCZMP FY23 Task 41, Grant # NA23NOS4190255



Kings Creek Dredging and Beneficial Use Implementation: Michel's Construction, Inc.

This project was partially funded by the Accomack-Northampton Planning District Commission and the Virginia Coastal Zone Management Program at the Department of Environmental Quality through Grant # NA23NOS4190255 of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, under the Coastal Zone Management Act of 1972, as amended.



Virginia Coastal Zone
MANAGEMENT PROGRAM



I. Introduction

This report serves to highlight the activities and progress of the Accomack-Northampton Planning District Commission within the Eastern Shore of Virginia. Critical areas addressed by the A-NPDC include coastal management, navigable waterways, preservation of groundwater, abandoned and derelict vessel issues, and resiliency planning. At its core, the A-NPDC continues to demonstrate support for the Virginia Coastal Zone Management Program and aligns efforts with the Coastal Resources Management Goals.

II. Coastal Management & Technical Assistance

This report provides a summary of the training opportunities and technical assistance available provided by the A-NPDC during the grant year in support of the work that will be undertaken to promote Virginia's CZM Coastal Resources Management Goals. The A-NPDC agreed to conduct a minimum of four (4) training opportunities within the grant year period. These training sessions have been designed to be congruent with CZM's Coastal Resources Management Goals and a useful resource for the local governments and residents along the coastal region. The subjects of these trainings were elaborated in such a way as to increase awareness about coastal resource management, sustainable practices, and community involvement.

Besides the training, staff at A-NPDC continued providing responses to requests for technical assistance, including data and analyses, letters of support, and assistance with state and federal agencies, from localities and individual residents. While A-NPDC stands firm to respond to requests for technical assistance, this form of support might depend on the capacity situation flowing from it.

Technical assistance from A-NPDC is an essential source of information in providing guidance on how to interpret various coastal regulations, devise appropriate sustainable development practices intended to protect valuable coastal resources, and assist in the conservation of those same resources. It is also a very critical part of the agency's mission to make sure responsible management of the coast is realized.

The A-NPDC continues to support CZM's Coastal Resources Management Goals through readily available training opportunities and prompt technical assistance tailored to meet the needs of local government, residents, and other stakeholders. These activities are essential in developing the awareness, capacity, and coordination in coastal communities through the sustainable management of the resources in their area.

The [Technical Assistance Tracking Sheet](#) provides a detailed record of activities completed under the FY23 Task 41 Virginia CZM grant, reflecting A-NPDC's work across multiple program areas. This includes coordination and support for the Eastern Shore of Virginia Ground Water Committee, resilience and climate planning through the Shore Strong and CAWG initiatives, technical assistance to local, state, and federal partners, and implementation of dredging and beneficial use projects. Each activity is documented with a description, the organization or partners assisted, and the associated product number. The tracking sheet offers a clear overview of how grant-funded efforts supported coastal resource management, community engagement, and regional collaboration on Virginia's Eastern Shore.

The following are A-NPDC staff trainings provided over the course of the grant year:

1. 2024 Master Gardener's Groundwater 101 Training
 - a. Date: Wednesday, March 13, 2024
 - b. Attendees: 15
 - c. Purpose: Partner with Virginia Tech and Virginia Cooperative Extension to deliver one of multiple trainings on a subject of regional significance to the Master Gardeners. The A-NPDC has, for each year, provided training entitled Groundwater 101. This included a partnership with a state agency and a local chapter and included coastal habitat components as well as coastal hazards, groundwater policy and regulations and coastal dependent uses from the perspective of a groundwater lens.
 - d. Take Away: Participants took home a detailed overview of the groundwater as a natural resource, and the invaluable resource that the Eastern Shore has in its sole source aquifer. Participants took home the history of the sole source aquifer, where the groundwater is derived from and how it makes its pathway through multiple confining units, the risk of saltwater intrusion and over-pumping and resources to learn more about it.
2. 2024 Certified Ecotour Guide Course
 - a. Dates: Eight interactive training sessions beginning May 16, 2024 and concluding with the final exam on June 29, 2024
 - b. Participants: 12 students graduated from the class
 - c. Objective: To increase numbers of Virginia Certified Ecotour Guides. Training covered aspects of coastal ecotourism, from ecosystem history and science to interpretation techniques and entrepreneurial skills related to tourism.
 - d. Take away: The 2024 certified ecotour guide course and practical exam were administered by staff with the largest class of students since before the pandemic. DEQ was pleased with the results and the Virginia Tourism Corporation has highlighted this year's initiative in its newsletter and press. Special thanks to Mary and Bill Burnham in Onancock for their invaluable partnership.
3. CAWG Training for Localities and Governing Officials
 - a. Date: Tuesday, September 10, 2024

- b. Attendees: 25 leaders, including Mayors, Vice Mayors, Town Managers, and Town Clerks from the Eastern Shore's 19 incorporated towns.
 - c. Purpose: Community Assistance in Resiliency Planning
 - d. Take Away: Attendees received presentations on two successful Eastern Shore-specific resilience projects currently underway in Oyster, VA and Saxis, VA. They received training from DEQ on how to incorporate Chesapeake Bay Preservation Act regulations into town planning and zoning documents. They received a demonstration of an Eastern Shore specific mapping and data tool, also for use with locality planning documents. Finally, the group was allowed time to raise questions and discuss with agency experts' issues related to flood mitigation and prevention. Participants walked away from the training with a greater awareness of the planning measures towns need to take as well as a consensus that towns can learn from each other and work together to build regional resilience. Presentations from this training session are posted on A-NPDC's website under *Coastal Adaptation Working Group*.
4. Makemie Park Septic Improvement Project Community Outreach and Septic Maintenance Training
- a. Date: Thursday, May 23 - 24, 2024
 - b. Attendees: 10 (x2)
 - c. Purpose: On 5/23 and 5/24 A-NPDC staff conducted a door-to-door outreach and septic maintenance effort. Staff discussed proper landscaping on and around septic mound systems and its effect. Ten initial and follow up residential contacts were made. Training material and septic maintenance tools were distributed including: EPA-832-F-14-009 SepticSmart Flyer, University of Maryland Extension/Clean Water Fund "Landscaping Septic Systems", EPA/VDH SepticSmart system graphic magnet, environmentally friendly bathroom cleaning supplies, the Native Plants of Accomack and Northampton Plant Guide, a Packet of Native Wildflowers, and a live shallow root native plant example.
 - d. Take Away: Participants took home a detailed overview of the groundwater as a natural resource, and the effects that their septic maintenance has on that water supply as well as the surface water health of Pocomoke Sound through the Holden's Creek tributary. Residents were also asked to submit their input on future plans for the sewage treatment and disposal system property. Suggestions included the utilizing of the space as a community garden or greenspace.

Technical assistance events indirectly supported by the CZM Technical Assistance Program and Coastal Resiliency Planning Grant;

5. Mary N. Smith Cultural Enrichment Center Visioning/Programming Session

- a. Date: Friday March 22, 2024
- b. Attendees: 12
- c. Purpose: To initiate Commonwealth Architects and their engineering consultants' contract to the County of Accomack providing a feasibility study of the Mary N. Smith Middle school, located at 24577 Mary N. Smith Road in Accomack, Virginia. The feasibility study is intended to be a tool to assist the Mary N. Smith Alumni Association (MNSAA) in achieving their vision of developing the historical Mary N. Smith building into a community cultural enrichment center.
- d. Take Away: The Commonwealth Architect Team was informed of the 80% drawdown criteria exceeded in the Middle Yorktown-Eastover Aquifer which will limit new or expanded withdrawals near the Purdue Farms - Accomack Harvest Facility including the MNS Cultural Enrichment Center. The information was sourced by ESVA Ground Water Committee reporting. Water conservation efforts for the building have now been recommended to the MNSCEC Project Management Team.

6. Tangier Island Sea Level Rise and Erosion Visit and Meeting

- a. Date: May 30, 2024
- b. Attendees: 24
- c. Purpose: Federal, state, and local officials, including representatives from the U.S. Army Corps of Engineers, Norfolk District, the Virginia state government, A-NPDC, Tangier community leaders, and the Chesapeake Bay Foundation met to focus on addressing the significant land loss on Tangier Island due to sea level rise and erosion. Participants discussed challenges and explored solutions to help protect the island, including the development of a state-certified resilience plan for Tangier and Port Isobel Island. This plan is expected to aid the community in securing funding and initiating projects to safeguard the island from further damage.
- d. Take Away: Key next steps for Tangier Island were advanced including the organization of the Tangier Island Shoreline Protection Working Group, initiation of the development of a collaborative community resilience plan including the identification of federal, state, and private funding sources, conducting an engineering study for mitigation strategies, and assessing the viability of using beneficial dredge spoils for land protection. Staff informed and

updated the group on the Nassawadox Creek dredging initiative and other collaborative opportunities with ESRNWC. Staff, the Town of Tangier, and project engineers were able to financially project and develop four perspective beneficial use (BU) and upland disposal sites on Tangier Island and initiate collaboration BU efforts with the U.S. Army Corps of Engineers.

7. National Science Foundation In-Person CoPe Site Review: Eastern Shore of Virginia Climate Equity Atlas
 - a. Date: Wednesday August 2, 2024
 - b. Attendees:20
 - c. Purpose: The Climate Equity Atlas aims to collaboratively identify and share information on environmental injustice and its disproportionate impacts through interactive climate justice maps. Created with direct community involvement, it ensures local knowledge shapes its development. Co-produced by organizations and Eastern Shore leaders, the Atlas highlights regional links between systemic racism, environmental injustice, and climate change. The NSF In-Person CoPe Site Review featured a tour by the review panel of ESVA, related work, and regional initiatives.
 - d. Take Away: Staff informed the NSF In-Person CoPe Site Review panel of the challenges facing the Bayside community and similar communities around the Eastern Shore with recurrent flooding due to aging infrastructure, including unmaintained ditches, road closures, and failing septic systems based on water table level modeling sourced by ESVA Ground Water Committee reporting. Staff later advised the Project Team on community engagement lessons and approaches being explored through the new Shore Strong initiative.

Date	Event	Issue Addressed	Participants	Key Takeaways
Mar 13, 2024	Groundwater 101 Training for Master Gardeners	Groundwater education and aquifer protection	15	Participants gained a comprehensive understanding of groundwater systems and their protection.
May 16 - June 29, 2024	Certified Ecotour Guide Course	Ecotourism and coastal ecosystem education (1 , 2 , 3.1 , 3.2 , 4)	12	Largest class since pandemic; focused on ecotourism skills and Leave No Trace principles.
Sept 10, 2024	Community Assistance in Resiliency Planning (CAWG)	Resiliency planning and Chesapeake Bay Preservation Act integration (1 , 2 , 3)	25	Local leaders gained insights into flood mitigation and regional collaboration.
May 23 - 24, 2024	Makemie Park Septic Improvement Project Outreach	Septic maintenance and groundwater health (1 , 2 , 3 , 4 , 5)	10 (x2)	Distributed maintenance tools; solicited community feedback for future use of septic system property.
Mar 22, 2024	Mary N. Smith Cultural Enrichment Center Visioning	Cultural and historical preservation feasibility study	12	Addressed water conservation due to aquifer depletion and proposed development strategies.
May 30, 2024	Tangier Island Sea Level Rise and Erosion Meeting	Sea-level rise and erosion mitigation planning (1 , 2)	24	Discussed funding and engineering solutions for Tangier Island's land loss.
Aug 21, 2024	NSF In-Person CoPe Site Review: Climate Equity Atlas	Environmental justice and climate change impacts	20	Reviewed local climate justice challenges and highlighted systemic connections.

III. Eastern Shore Regional Navigable Waterways Committee (ESRNWC)

The Eastern Shore of Virginia is one of many areas with unique coastal characteristics and numerous navigational challenges. It is comprised of two counties and 19 incorporated towns within its geographical boundaries. Physical characteristics include barrier islands, tidal marshes, creeks, and ever-changing coastlines that define the nature of its shoreline. Moreover, with respect to coastal flooding, erosion, and sea-level rise, the Eastern Shore presents concerns that can significantly create or compromise the navigability of its coastal waterways.

The Eastern Shore of Virginia represents a variety of coastal features that define the geomorphology of the region. This would involve:

- **Barrier Islands:** On the Atlantic coastline, a chain of barrier islands works in concert to protect against the impacts of this coast. These islands possess rare ecosystems and protect against oceanic forces.
- **Tidal Marshes:** Large areas of tidal marsh contribute to natural resiliency by absorbing and dissipating the forces generated by coastal storms and sea-level rise. They contribute to the maintenance of water quality support wildlife.
- **Chesapeake Bay Coast:** The Chesapeake Bay coast is made up of numerous islands with several tidal marshes. The creeks on the bay side of the peninsula are larger than the creeks on the ocean side of the peninsula.
- **Sedimentation:** Historic land-use activities coupled with changes to the coastal environment have resulted in the sedimentation of many creeks on the Eastern Shore. This affects the navigability of coastal waterways.

Navigability is a critical concern for the economic viability of the Eastern Shore of Virginia, impacting residents, tourists, and businesses. Several factors contribute to navigability problems:

- **Access to Coastal Resources:** Adequate access to the coastal waters is required to allow working watermen, residents and tourists alike to use the resources of the various ecosystems, wildlife, and commercial and recreational opportunities in both the Atlantic Ocean and Chesapeake Bay.
- **Natural Processes:** The natural coastal processes that include, but are not limited to, sedimentation, erosion, sea-level rise affects the water depths and access to facilities and infrastructure.
- **Storm Impacts:** Changes in storm intensity and frequency can further affect navigability through changed sedimentation patterns and the shoaling of coastal waterways.

In this case, there is a need to resolve such navigability-related challenges through dredging on coastal waterways. Dredging guarantees safe and reliable access free from hazards and an opportunity for beneficial use of dredged material. Dredge material can then be utilized to offset coastal erosion, flooding, and even help restore habitats, thereby promoting the overall health of the coastal environment. Toward these aims the ESRNWC accomplished several objectives this year:

The securing of \$3,048,500 VPA authorized Waterway Maintenance Grant Funding (FY25) for planning efforts to advance the dual [Accomack-Northampton Planning District Commission and Middle Peninsula Planning District Commission Dredge Material Management Initiative](#).

Dredging and Beneficial Use has been identified as a priority issue as part of Virginia Eastern Shore Conservation Alliance (VESCA) Habitat and Restoration committee in their work to identify, promote, and implement effective habitat management and restoration strategies.

The completion and submission of the Nassawadox Creek Dredging and Beneficial Use Joint Permit Application.

The participation in the initiation of the Virginia Dredged Material Beneficial Use Guidance Project Advisory Committee to produce a guidance manual to streamline Beneficial Use (BU) projects using dredged material in Virginia. Led by the Virginia Marine Resources Commission with support from VIMS, Virginia CZM, and MPPDC, it will provide best practices, permitting guidance, and policy support to reduce costs and time for ecosystem restoration, aligning with state goals.

The successful completion of the Kings Creek Dredging and Beneficial Use Project, a major initiative. On September 7, 2023 King's Creek Pre-Dredging Conference meeting of the stakeholders, staff, engineer, and contractor (28 Guests) of the King's Creek Shallow-Draft Maintenance Dredging Project was held at the Town of Cape Charles Civic Center. Dredging and beneficial use placement began September 28. The Kings Creek Phase 2 project construction was completed on schedule November 2. Following AD surveys by Michel's Construction, Inc. and Waterway Surveys & Engineering, Ltd. \$1,389,016.00 was invoiced for the construction. A review and acceptance meeting among staff, project engineers, ESRNWC members, Northampton County and Cape Charles officials, was held November 8 at which Michel's Construction, Inc. was commended for their work. The total material removed was 22,888 cubic yards (22,228 cubic yards payable) that was utilized to restore the Cape Charles Public Beach.

Staff also continue to explore potential avenues for development of a feasible and more affordable dredging program; remaining current on General Assembly legislation for navigable waterways; continuing

communication and project priorities with the US Army Corps of Engineers; ongoing engagement with Cedar Island project team and Committee support; and corresponding with federal and state municipalities to advocate local waterways for consideration in legislative priorities for the region

Links:

[ESRNWC Meeting Packets & Minutes](#)

IV. Eastern Shore of Virginia Ground Water Committee (GWC)

The Eastern Shore of Virginia is the only region in coastal Virginia whose public water supply has been designated through the Federal Safe Drinking Water Act by the EPA to be derived from a Sole Source Aquifer. Because this region has no other source of public water supply except groundwater, Accomack and Northampton Counties have prioritized GWC resources for developing and facilitating educational programs, groundwater studies, and a regional groundwater testing initiative—in concert with GWC goals.

The GWC has continued to review relevant public notices, permit requests, environmental reviews, and water quality/usage reports. A-NPDC staff worked with the Committee to design and fund a water quality monitoring program, collaborate with other local agencies (Virginia Department of Health and the Eastern Shore Area Agency on Aging), and provide ongoing education to localities and local groups on the importance of the sole source aquifer. This work includes membership and regular participation in the Eastern Virginia Groundwater Management Advisory Committee.

The GWC meets monthly on the third Tuesday at 10:00 AM, except for July and December. GWC agendas, minutes, publications, and announcements can be found on the A-NPDC webpages dedicated to the Eastern Shore of Virginia Ground Water Committee. Accomplishments of the GWC this year include the following:

The Committee secured a regionwide well-testing program over two funding cycles, totaling \$84,528 to implement the program.

Staff worked with the Committee to partner with the Eastern Shore Area Agency on Aging/Community Action Agency and SERCAP to develop a residential well testing program. The program will ensure the quantitative and qualitative analysis of groundwater supplies in LMI (Low and Moderate Income) communities with an important educational component targeting Eastern Shore homeowners and secondary education institutions. This includes the creation of an information guide for new membership, and the development and publishing of public-facing informational material that was distributed at the "Return to Our Roots" Exmore Earth Day event, and is now widely available to the public.

The Ground Water Committee (GWC), in partnership with the Accomack-Northampton Planning District Commission (A-NPDC), is actively seeking participants for its Residential Water Well Testing program in Accomack and Northampton Counties. This initiative is specifically targeted at residents with Columbia Wells, as part of the GWC's ongoing efforts to monitor and safeguard the region's water quality.

To engage the community, flyers and permission slips have been distributed to local post offices across both counties, providing clear instructions for interested parties on how to return the completed forms to the A-NPDC. Additionally, the program has been promoted through local newspaper advertisements and a paid Facebook campaign to reach a wider audience.

The GWC aims to enroll 90 participants in Accomack County and 50 in Northampton County. To ensure accurate results, the wells must not be pretreated. The A-NPDC has already fielded several inquiries regarding the testing process, demonstrating local interest and awareness.

As part of the next steps, the A-NPDC will contact those who have submitted permission slips to gather additional details prior to the scheduled collection dates. Water samples will be collected during the last week of October, with daily courier service ensuring timely delivery to the testing laboratory. Once results are available, residents will be promptly notified of their individual well's water quality.

This initiative reflects the GWC and A-NPDC's commitment to promoting public health and environmental stewardship through proactive groundwater monitoring across the Eastern Shore.

Links:

[Ground Water Committee Meeting Packets & Minutes](#)

V. Ecotourism as a Resiliency Building Block

Ecotourism continues to serve as a vital strategy for enhancing community resilience and fostering sustainable economic development on Virginia's Eastern Shore. Through support from the Virginia Coastal Zone Management Program, the A-NPDC has been instrumental in promoting ecotourism by leveraging regional assets, including the Virginia Certified Ecotour Guide (VCEG) Course and Virginia Water Trails website. This platform highlights the region's extensive water trail network and educates visitors on proper land use and conservation practices to minimize environmental impact.

During FY23, A-NPDC collaborated with Moffat & Nichol to develop a platform linking the importance of Waterway access and maintenance with Virginia Water Trails by developing and integrating an interactive map and public commenting platform. This map showcases key regional initiatives, including dredging and conservation projects, while also identifying public access points, recreational opportunities, and project benefits. The map is a critical tool for visitors and local stakeholders, providing real-time insights into ongoing efforts to maintain and improve the region's waterways. ANPDC staff are currently in process of updating and incorporating the tool on the ANPDC website, esvaplan.org, which will improve publicly availability.

Responsibility for the Virginia Water Trails website overall maintenance transitioned to the Middle Peninsula Planning District Commission (MPPDC) under the terms of a recently executed Memorandum of Understanding (MOU). As the primary administrator, MPPDC now oversees technical operations, including domain management, hosting, and monthly security updates. A-NPDC remains actively involved by managing regional content updates.

In addition to these digital outreach efforts, A-NPDC successfully facilitated the 2024 Virginia Certified Ecotour Guide (VCEG) Course, resulting in the certification of 12 new guides. This course equips participants with critical skills in environmental interpretation, low-impact tourism, and visitor engagement, further bolstering the local ecotourism industry. The certified guides play a key role in promoting the responsible use of natural resources and supporting long-term community resilience.

Looking forward, A-NPDC will continue to work with regional partners to promote ecotourism as a cornerstone of resilience. Efforts will focus on maintaining regional content on the Virginia Water Trails website, updating the interactive map and expanding outreach through informational and engagement initiatives. Combined with other ongoing initiatives, these efforts reinforce ecotourism's role in building a more resilient and sustainable future for Virginia's Eastern Shore.

Links:

www.esvawaterways.com

(Currently being updated and available upon request. Please email ksingleton@esvaplan.org for access)

VI. Benefits Accrued

There are several benefits that have accrued from past grant products, which provide a foundation for additional projects. Benefits like these build from existing CZM-funded initiatives, provide insight into the importance of the work being done, and reiterate how much outreach and collaboration was implemented. The accrued benefits also highlight the continued positive impacts CZM-funded projects have on the Eastern Shore.

With ongoing funding for coastal resilience, A-NPDC staff can continue to engage local audiences on local, state and federal-level efforts, educating individuals about what can be done, what is currently happening, and how to seek assistance. This effort also highlights the resilience initiatives and technical assistance services currently being provided by A-NPDC staff to groups such as the Master Naturalists and Master Gardeners, both volunteer organizations and key advocates and stewards of the Eastern Shore landscape.

Initial and sustained funding from the CZM Program supports the actions of the Climate Adaptation Working Group (CAWG) and the continuity of the region's resilience efforts. Members of CAWG have provided support for A-NPDC staff during the development of the regional resiliency plan under a steering committee structure. Several CAWG members serve on this steering committee, while others have remained engaged as a resource. CAWG reaffirmed its commitment to regional resiliency initiatives through meetings such as the Summer Cohort Organizational Meeting on July 9, 2024, and the CAWG Training for Localities Event on September 10, 2024. The latter event focused on providing resilience tools and resources to elected decisionmakers and town staff.

Through A-NPDC Coastal Resource Committees, A-NPDC staff continue to facilitate public meetings, coordinate with dredging project consultants, and act as a liaison between the ESRNWC and the Virginia Port Authority. This support has led to the implementation of major multi-year efforts such as the Kings Creek Dredging and Beneficial Use Initiative (FY19-FY23) and the Residential Well Testing Program (FY22-FY23), both are part of A-NPDC's strategy aimed at the sustainable management of the region's water and groundwater supply. Additionally, the FY15 Eastern Shore of Virginia Regional Dredging Needs Assessment continues to serve as an invaluable resource. This assessment prioritizes the region's current dredging needs and plays a central role in the implementation of the ESRNWC-guided Eastern Shore Dredge Material Management Initiative.

Another example is the Virginia Certified Ecotour Guide (VCEG) course, offered through FY17-FY23 CZM Task 72 funding in the areas of

ecotourism and resiliency. This course continues to enhance the local economy by growing the workforce, promoting nature-based tourism on the Eastern Shore, and helping preserve the region through education on Leave No Trace principles and land use issues for both locals and visitors.

Links:

[ESVA Climate Adaptation Working Group](#)

VII. Resilience Planning

Under this grant, the A-NPDC received funding for resilience planning. The A-NPDC plays a critical role in regional resiliency coordination, providing technical assistance and collaboration with local governments, while also serving as liaisons to the state and federal agencies in charge of developing new policies and regulations. The Climate Adaptation Working Group (CAWG) is a regional platform for resilience and climate impact awareness and initiatives. This year, several CAWG members have offered their time to serve on the regional resilience plan steering committee; this allows the CAWG to take part in distributing information and keeping their constituents up to date and involved in the resilience planning process.

In addition to these resilience efforts, the A-NPDC provided support in the development of state level resilience initiatives by participating on the Coastal Resilience Technical Advisory Committee (TAC) throughout the ongoing development and publication of the Virginia Coastal Resilience Master Plan (CRMP) Phase II. Lastly, to increase regional capacity and support locality project implementation, the A-NPDC is now implementing the awarded grant from the *Community Flood Preparedness Fund* to develop a community resilience and sustainability plan. This plan is in progress and continues to engage partners and local stakeholders to identify critical community needs.

In addition, CZM technical resources aided in the finalization of the Virginia Department of Conservation and Recreation *Community Flood Preparedness Fund* supported Agricultural Study effort that includes 32 years of Virginia Eastern Shore climate, planting, yield, and satellite data totaling 26 TB of data for the project and an additional dashboard for presenting and accessing the data. The dashboard enables multiple scenarios to be examined that will inform crop production on the Eastern Shore. The dashboard is available upon request. Please email ksingleton@esvaplan.org for access. The predictive model developed in this study has proven to be an effective decision-support tool, offering valuable insights for crop planning and climate adaptation. Utilizing historical and current climate data, this model applies machine learning algorithms to forecast crop yield and health under various climate scenarios, with prediction accuracies reaching up to 85% for select crops. The study's progress was presented to members of the Coastal Planning District Commission at its May 23, 2024 meeting.

The Shore Strong project, led by the Accomack-Northampton Planning District Commission in partnership with the Virginia Department of Environmental Quality, builds on past resilience efforts to address

rising sea levels and flooding on Virginia's Eastern Shore. Focused initially on Chincoteague, the project engages residents in capturing and captioning photographs that highlight the community's most valued aspects and envision adaptive strategies for preserving them. Through workshops and discussions, participants collaborate to identify shared priorities and practical solutions, culminating in a public showcase event where their stories and visions are shared with local leaders and neighbors. Deliverables include a digital story map integrating community narratives with geographic data and a replicable framework for engaging other areas. Shore Strong connects past initiatives with forward-looking actions to support a resilient, community-driven future.

In May 2023 the ANPDC drafted the [Eastern Shore Public Access Launch Assessment](#). This assessment is a result of Ecotourism CZM Task 72 and builds on previous efforts to progress a Waterway Access mechanism in the region to address Climate Adaptation, Hazard Mitigation/Resilience, Dredging, as well as Commercial and Recreational Access. The assessment provides a comprehensive overview of the public access sites along the Eastern Shore of Virginia, accompanied by shoreline and launch site infrastructure assessments with best management approaches for proactively addressing tidal shoreline erosion. This is part of a broader effort to identify the projects, needs, and concerns thus addressing regional policy-making uncertainties raised in the [A-NPDC's 2018 presentation](#) to both County Boards concerning public waterway access authority and the [Eastern Shore Water Access Authority Act](#). This fiscal year the ANPDC has utilized regional collaborative projects and plans in an effort to streamline common initiatives in measuring qualitative impacts and consequently affect optimal approaches. Included in these efforts is the National Science Foundation funded Eastern Shore of Virginia Climate Equity Project in which the ANPDC sits as a [Community Advisory Committee](#) member as well as the Middle Peninsula PDC initiated CZM Task 91 [Working Waterfront Assessment](#) which include assessments from the A-NPDC, Northern Neck, Hampton Roads Planning District Commissions.

As part of the A-NPDC's regional resilience efforts, [a data assessment](#) of the region's Hazard Mitigation Plan, County Comprehensive Plans, and Locality Comprehensive Plans over the past decade compiling more than 3600 initiatives, projects, needs, & concerns, and requirements at the local and regional levels where identified. In addition a [Corrective Action Agreement \(CAA\) Elements](#) was prepared for the Town of Exmore to address deficiencies and make amendments for compliance with relevant regulations, particularly concerning the Chesapeake Bay Preservation Act (CBPA) and associated elements like Resource Management Areas (RMA) and Resource Protection Areas (RPA). These elements include mapping updates, zoning ordinance revisions, and comprehensive plan amendments to enhance water quality protection and

sustainable land use practices. As the development of the regional resilience plan progresses, A-NPDC staff will finalize additional (to the original 84 submitted during CRMP Phase I) resilience projects for inclusion in the CRMP. Additionally, CAWG members are [working to develop](#) - for submission upon completion of the regional resilience plan - a list of critical assets for inclusion in the CRMP. The A-NPDC has experienced difficulty in obtaining reimbursement for work performed from January 2023 to March 2024 towards the resilience plan effort. The planning district and affected parties continue to reach out to DCR staff to resolve this issue. Lastly, as capacity allows, A-NPDC staff will incorporate Hazard Mitigation Plan (HMP) shapefile maintenance in alignment with HMP updates, as needed.

Links:

[Virginia Coastal Resilience Technical Advisory Committee](#)

VIII. Conclusion

In conclusion, the FY23 Task 41 Technical Assistance and Coastal Resiliency Planning efforts have been instrumental in advancing the Accomack-Northampton Planning District Commission's (A-NPDC) objectives on Virginia's Eastern Shore. Through comprehensive engagement across various sectors, the A-NPDC continues to align with the Coastal Zone Management Program's (CZM) goals, delivering measurable impacts on coastal management, resiliency, and sustainable community development.

Key achievements include:

Coastal Management & Technical Assistance: A-NPDC's sustained focus on providing educational programs and technical assistance has been critical in bolstering local governments' capacity to implement coastal resource management initiatives. Programs like the Master Gardener's Groundwater 101 training, the Certified Ecotour Guide Course, and Bay Act training have enhanced local knowledge and fostered community engagement in coastal conservation efforts.

Eastern Shore Regional Navigable Waterways Committee (ESRNWC): The importance of dredging for maintaining navigability and protecting ecosystems was highlighted through successful initiatives such as the Kings Creek Dredging and Beneficial Use Project. A-NPDC's collaboration with the Virginia Port Authority and federal entities has ensured that key projects move forward, securing vital funding for future dredging and beneficial use efforts.

Eastern Shore Ground Water Committee (GWC): A-NPDC's continued work with the GWC emphasizes the region's reliance on its Sole Source Aquifer. The implementation of the region-wide well-testing program and collaboration with local agencies have provided critical data and raised awareness regarding groundwater preservation.

Ecotourism as a Resiliency Building Block: With support from the Virginia Coastal Zone Management Program, A-NPDC has promoted ecotourism through initiatives like the Virginia Certified Ecotour Guide (VCEG) Course and the Virginia Water Trails website. In FY23, A-NPDC partnered with Moffat & Nichol to create an interactive map and public commenting platform, linking waterway access and maintenance with ecotourism. This tool provides real-time updates on dredging, conservation efforts, and recreational opportunities. Additionally, 12 new ecotour guides were certified in 2024, further strengthening the local ecotourism workforce.

Shore Strong-Community Resilience Initiative: The Shore Strong initiative has completed its planning phase, establishing a foundation for engaging Eastern Shore residents in resilience efforts. The initiative's design incorporates community-driven activities, including photography, storytelling, and collaborative workshops, to explore adaptive strategies for preserving valued aspects of the community. Deliverables, such as a digital story map and a framework for broader application, are poised to inform future resilience planning and foster meaningful dialogue.

Resilience Planning: Through partnerships with regional stakeholders, A-NPDC has actively contributed to state-level resilience initiatives, such as the Virginia Coastal Resilience Master Plan and the development of the Climate Equity Atlas. These efforts are bolstered by the Climate Adaptation Working Group, which provides ongoing support for the region's resilience planning and capacity-building efforts.

Overall, the accomplishments outlined in this report underscore A-NPDC's commitment to addressing the region's unique environmental challenges. By leveraging CZM-funded initiatives, fostering collaboration, and promoting sustainable practices, the A-NPDC continues to enhance the resilience and environmental stewardship of Virginia's Eastern Shore.