

Albemarle - Pamlico

National Estuary Partnership



FY 2024-2025 Annual Report

**US EPA Section 320 Cooperative Agreements
CE-00D95519, CE - 03D20024, and CE - 03D20025**

&

***2021 Infrastructure Investment and Jobs Act*
US EPA Cooperative Agreement #4T-02D41823-02**

October 2025

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Executive Summary

Purpose

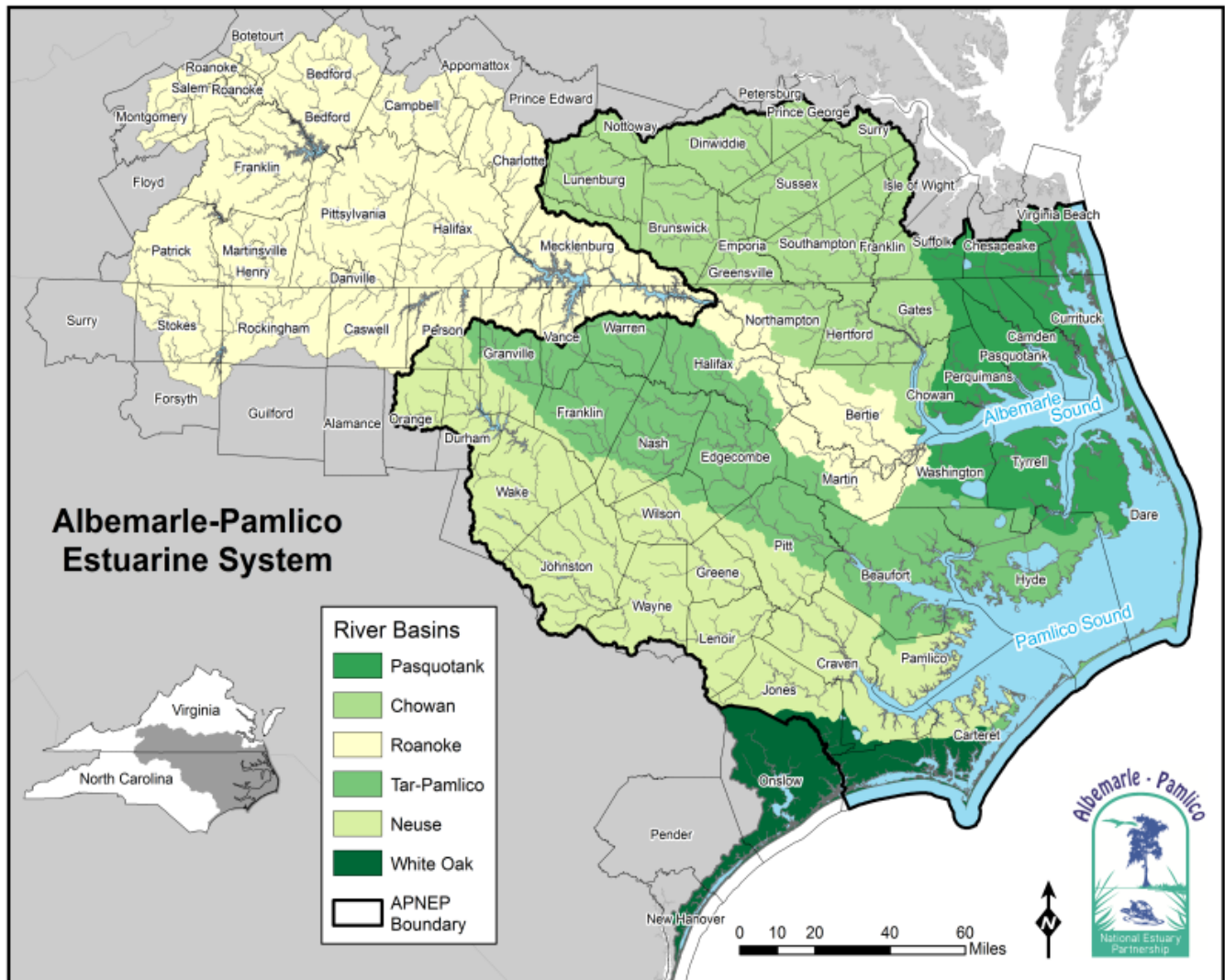
This year-end report summarizes the status of Albemarle-Pamlico National Estuary Partnership (APNEP) projects and activities during the federal fiscal year from October 1, 2024, to September 30, 2025. It highlights progress toward implementing the Comprehensive Conservation and Management Plan (CCMP) under the Leadership Council's (LC) direction, and advancing APNEP's mission to understand, protect, and restore the region's significant resources.

The report covers activities outlined in APNEP's FY24-25 and FY25-26 320 Annual Workplans (approved by the LC May 2024 and April 2025, respectively) and the cumulative FY 22-27 Infrastructure Investment and Jobs Act (IIJA) Workplan & Budget (IIJA Workplan July 2025 Update), approved by the LC July 25, 2025. It covers completed and ongoing activities funded through the following cooperative agreements between with the U.S. Environmental Protection Agency (EPA) and APNEP's host agency, the North Carolina Department of Environmental Quality (NCDEQ), including state funded match through positions and projects, and two years of more recent special state match 1:1 appropriations starting in FY23-24.

Details regarding the agreements and relevant workplans are summarized below. Projects completed before October 2024 can be found in previous reports, available at [APNEP.org](https://www.apnep.org).

Fund Source	Cooperative Agreement	Timeframe	Workplan (s)	Total Award Amount
320	CE00D95519	Oct. 2019 – Sept. 2025	320 Annual (s): 2019-2025	\$3,950,000 <i>\$3,587,500</i>
320	CE03D20024	Oct. 2024 – Sept. 2029	320 Annual May 2024	\$850,000
320	CE03D20025	Oct. 2025 – Sept. 2030	320 Annual April 2025	\$850,000
NCDEQ 1:1 Match State Funds	In-kind state match annual appropriation (positions)	Oct. 2024-Sept 2025	320	\$100,000
NCDEQ 1:1 Match State Funds	Annual match DWI Expenditures	Oct. 2024-Sept. 2025	320	\$750,000
State Funds	N/A Special State appropriation	July 2024 – June 2025	320 IIJA	\$850,000
State Funds	N/A Special State appropriation	Carried over: Oct. 2023-June 2024	320 IIJA	\$850,000
IIJA	4T02D41823 -02	Oct. 2022 – Sept.2027	IIJA Cumulative July 2025	\$3,639,200

Map of APNEP Region



Program Contacts

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Key Accomplishments

2025 Comprehensive Conservation and Management Plan

APNEP completed the multi-year process of updating its CCMP in December 2024 and after an additional 60-day public comment period the Leadership Council approved the strategic plan on January 17, 2025. The plan was subsequently approved by EPA Region IV with concurrence from Region III and EPA Headquarters.

Workplan & Budget for CCMP Implementation under the 2021 Infrastructure Investment and Jobs Act (US EPA Cooperative Agreement #4T-02D41823)

APNEP's Leadership Council approved the Cumulative FY 2022-27 Progress Report, Workplan, and Budget for activities awarded under Cooperative Agreement 4T-02D41823 (all modifications) in July 2025. The plan was submitted to EPA in August to seek approval for Year Five of IJA funds. Receipt of funds and a new cooperative agreement is pending EPA approval.

EPA approved the fourth iteration of the Cumulative FY 2022-27 Progress Report, Workplan and Budget (approved by the Leadership Council on December 16, 2024) and awarded Year Four IJA funds through a revised cooperative agreement May 2025.

Fourteen IJA projects have been contracted with partners to date with two more pending scope of work completion or procurement approval. Continued project development and implementation is underway.

Spatial Decision Support for CCMP Implementation

APNEP contracted with the North Carolina State University (NCSU) Center for Geospatial Analytics in 2024 to support completion of the Spatial Decision Support Project. The process is guided by a Project Steering Committee and the Science and Technical Advisory Committee (STAC). The project team is nearing completion of Objective 1; the Spatial Targeting project focused on wetlands. The team presented to the APNEP Leadership Council (LC) August 2025 and Citizen Advisory Committee (CAC) September 2025.

High-Resolution Land Use/Land Cover Mapping Project [NOAA Coastal Change Analysis Program (C-CAP)]

On behalf of NCDEQ Divisions including Marine Fisheries (NCDMF), Coastal Management (NCDCM), Water Resources (NCDWR), and the State Energy Office (NCSEO), APNEP continued coordination with NOAA C-CAP to produce a Level 2 (20+-class) interpretation of the State of North Carolina at one-meter resolution. APNEP led development of the Memorandum of Agreement (MOA) with NOAA and facilitated the process of coordinating matching funds within five NCDEQ divisions and payment.

Additionally, APNEP is pursuing additional funds so the same protocol can be applied to the Upper Roanoke and secured mapping of the watersheds that drain to South Carolina with funding from the South Carolina Office of Resilience.

Monitoring and Assessment Teams

APNEP continues to coordinate with members of the STAC and subject matter experts to reconvene seven Monitoring and Assessment Teams (MATs). The MATs are developing indicators and supporting metrics over long term ecosystem and resource health for targeted ecosystem components (Air and Water Resources, Aquatic & Terrestrial Fauna, Human Dimensions, SAV, and Wetlands). The teams are developing Integrated Monitoring Strategies and Ecosystem Assessments in coordination with partners.

Submerged Aquatic Vegetation (SAV) Protection and Restoration

APNEP continued to lead the monitoring of priority estuarine habitat indicator, SAV, via aerial imagery acquisition and boat-based surveys in collaboration with the SAV Team that APNEP has facilitated since 2004.

- **SAV Monitoring and Mapping:** In 2025, bi-seasonal surveys focused on a return to the first (Bogue and Back Sounds) of the four subregions that are monitored on annual cycles. It is anticipated that an updated assessment report on high-salinity SAV areal extent by cover class will be released in 2025, along with updated maps for all four subregions based on the 2021-2024 survey efforts. Contracts with DOT and partners for aerial images and interpretation, and UNCW to lead survey and assessment efforts are ongoing.
- **SAV Protection and Restoration:** APNEP developed a new partnership with NC Sea Grant to host a post-graduate STEM Policy Fellow to conduct a comprehensive assessment of SAV protection and restoration policies at federal, state, and local levels. The fellow, Riley Raigan, started August 2025.

- **Currituck Sound:** APNEP is currently working on developing cross-sector partnerships between the SAV team and Currituck Sound Coalition to advance low-salinity SAV and integrated monitoring efforts in the Currituck Sound watershed.

North Carolina Aquatic Nuisance Species Management Plan (NC-ANSMP)

APNEP continued to co-facilitate the NC-ANSMP Steering Committee with NCDWR to revise the plan and potentially qualify the state for available federal resources that are critical to building North Carolina's capacity to manage aquatic nuisance species.

APNEP and NCDWR secured funding from both NCDEQ and the Mid-Atlantic Panel on Aquatic Invasive Species (MAPIS) to support this work and hired a project coordinator in summer 2025 to update and revise the state's NC-ANSMP for federal approval.

The Steering Committee plans to seek consideration from the NC Governor's Office by the end of 2025 with the goal of submitting the plan to the Aquatic Nuisance Species Task Force (ANSTF) in 2026. This state plan for coordinated management, research, and outreach of aquatic nuisance species, once finalized and federally approved, will make North Carolina eligible for federal funding to support the plan's implementation.

Watershed Engagement & Stewardship Projects

APNEP worked with partners to issue four contracts and support implementation of projects selected during a 2024 Request for Proposals with support from the APNEP Engagement and Stewardship Action Team and CAC. Two projects were completed and featured in [Soundings blogs](#) written by APNEP intern Katie Whittington, and two projects granted no-cost extensions to wrap up ongoing work through 2026.

- Experiencing the Albemarle-Pamlico Estuary: Fostering Watershed Stewardship
- Shad in the Classroom
- Growing Wild Celery to SAVe Our Wetlands: A Grassroots Collaborative
- Down East Resilience Network Communications Strategy

Tribal Coastal Resilience Connections (TCRC)

APNEP's TCRC team continues working to help develop cross-sector, inter-Tribal and interagency and university partnerships as recommended in the [2023 Phase I Report](#). The TCRC team hosted virtual webinars with the United Tribes of North Carolina, Duke University, Sierra Club, and Great Coharie River Initiative. They participated in community events, presented at the NOAA Coastal GeoTools Conference, and hosted an interactive workshop at the 2025 United Tribes of North Carolina Conference. APNEP hosts a full time Cartographer and Planning Assistant focused on conducting an Indigenous Mapping Project of the AP region. He conducted historical research and is currently publishing an Interactive Dashboard on ArcGIS online visualizing past and present Indigenous occupation of the AP region. The team continues advising the Virginia Natural Heritage Program (VANHP) on a NOAA IJA funded project to conserve 1,900 acres of forest in the

Chowan watershed to support resilience, biodiversity conservation, and public access. Team members were also featured in an article in *The Assembly* written by a Duke University graduate student; “[Rooted in the Land, Ready for the Future.](#)”

Southern Rivers Watershed Roundtable

APNEP worked closely with Virginia’s Crater Planning District Commission (PDC) as they developed the Southern Rivers Roundtable. Staff funded workshops and branding development, provided input on the Strategy released July 2025, gave presentations and participated in the October 2024 inaugural meeting and subsequent quarterly convenings. The TCRC team is aiding with Tribal community engagement. The Roundtable is also supported by Clean Water Act (CWA) 319 funding administered through the Virginia Department of Environmental Quality (VADEQ).

Scuppernong Regional Water Management Study

APNEP continued to serve as a neutral, science-based convenor of a diverse group of stakeholders and local communities to lead development of the Scuppernong Regional Water Management Study, funded through a NC-DWR Water Resources Development Grant awarded to the Albemarle Commission Regional Council of Government (ACOG). The Study was conducted to address flooding and water management issues on the northern Albemarle-Pamlico peninsula surrounding Pettigrew State Park (Lake Phelps), Pocosin Lakes National Wildlife Refuge, and Buckridge Coastal Reserve.

The Study Report was completed in March 2025 and a workshop with the project Steering Committee held July 2025 to discuss targeted outreach and next steps for implementation. APNEP executed three contracts to support advanced project concept design, project implementation, and continued community engagement.

Partnership Activities & Projects

This year-end report provides an overview of the status of APNEP’s projects and activities under both 320 and IIJA during the federal fiscal year timeframe of October 1, 2024 – September 30, 2025, to implement the Partnership’s CCMP and mission. Most are ongoing projects, or those that began during or before the last fiscal year, and which APNEP expects to continue through the current fiscal year. Descriptions of projects completed prior to September 2024 may be found in previous years’ reports and are available at [APNEP.org](https://www.apnep.org). This report is organized into the following sections:

- 1. Capacity Building:** broad-based, overarching projects that support CCMP implementation and integration across all or multiple focus areas. These are organized into CCMP Support Activities and CCMP Projects.

2. **Projects by Focus Area.** Projects that may integrate across multiple focus areas are grouped into the primary focus area that funds are budgeted out of where feasible.
3. **Administration and Program Implementation:** Items related to Partnership administration of 320, IJJA, state funds and project management including personnel and travel.

Project names, descriptions, partners, deliverables, and completed activities are organized in the **(1) Capacity Building, (2) Projects by Focus Area, and (3) Administration and Program Implementation** narrative portions below. Project information is summarized in a table **(Appendix A)** with the addition of CWA 320/IJJA funding designations, budgetary updates, and CCMP alignment.

Where specific timeframes are not indicated, it reflects ongoing participation by staff in these activities to the extent possible. However, over the past fiscal year, our capacity has been significantly impacted by prolonged vacancies, staffing shortages, staff turnover with our host, as well as ongoing uncertainties around funding and potential position losses. Additionally, many of our partners are experiencing similar challenges. These constraints have limited our ability to meet certain milestones, despite continued engagement and prioritization of active projects.

These challenges are reported regularly to the LC, NCDEQ, and the NC Office of State Budget and Management, particularly during shutdown periods and in state fiscal year reporting. It is equally important to reflect these realities in our federal reporting. Documenting these capacity limitations not only provides transparency but also supports the case for additional staffing and funding resources. This context is critical, especially when responding to inquiries from oversight bodies regarding delays or unmet deliverables.

Capacity Building

CCMP Support Activities

320 & IJJA Workplan Development

In addition to its annual requirements under the 320 agreements, APNEP spent significant staff time continuing to develop refined iterations of the Cumulative IJJA Workplan and Budget and related documents required by EPA.

APNEP is currently awaiting EPA approval of the **Cumulative FY 2022-27 Workplan & Budget for CCMP Implementation under the 2021 Infrastructure Investment and Jobs Act (IJJA Workplan, July 2025 Update)** which was approved by the Leadership Council July 2025 and utilized to request the allocation of Year 5 funds from EPA August 4, 2025. To date, four of the anticipated five years of funds have been awarded through Cooperative

Agreement 02D41823-02 including two modifications, the most recent award in May 2025. We understand that additional funds aligned with the YR5 funding request may be assigned a new Cooperative Agreement. These are discussed in the detail in the July 2025 Update.

APNEP intends to utilize the July 2025 IJA Workplan to cover both agreements, as it provides a comprehensive overview of APNEP's IJA activities to date, including cumulative progress for activities awarded under Cooperative Agreement 4T-02D41823-02) for Years 1-4) and the overall FY 2022-27 Workplan and Budget. It incorporates the Long-Term Strategy and supersedes all versions proposed in previously approved plans outlined below and available on the IJA page of the APNEP website: <https://apnep.nc.gov/IJA>

2025 CCMP Update

On January 17th, the Management Conference approved the 2025 Comprehensive Conservation and Management Plan (CCMP) to reflect current priorities of the Management Conference (MC) and resource issues in the region, and Section 320 of the Clean Water Act, including amendments under the *Protect and Restore America's Estuaries (PRAE) Act of 2021*. EPA Region IV approved with concurrence from Region III and EPA Headquarters. The 2025 CCMP has five focus areas: Water Quality, Submerged Aquatic Vegetation, Wetlands, Oyster Habitats, and Resilience. APNEP emphases are on projects that integrate multiple focus areas and link both ecosystem and community resilience.

Progress To Date: Complete. Over the next year, APNEP expects to fully complete and publish a print and web version of the updated CCMP. Implementation will also be integrated in annual workplans and partner coordination, websites, social media. No funds have been expended other than staff and leveraged MC support time, though various CCMP Implementation Support Activities are in progress as described below.

CCMP Implementation Support Plans

Per 2024 EPA NEP Funding Guidance (Amended March 17, 2025), an updated APNEP CCMP must be accompanied by several supporting components including a Monitoring Plan, a Protection / Restoration Strategy, a Communication Plan, and a Finance Plan. The 2025 CCMP was adopted by the LC and approved by the EPA on January 17, 2025. Each document will be developed under Management Conference guidance, with updates to existing plans (Monitoring, Communications) to support the revised CCMP. These plans will assist APNEP and its partners in effectively implementing the 2025 CCMP during the next five years and beyond.

Progress to Date: APNEP has existing plans, including an **Integrated Monitoring Strategy** and a **Communications Plan**, that are currently being updated to reflect the new CCMP, discussed in more detail in subsequent sections and the 320 Workplan. Two plans are new and will require devoted staff time to update internally or develop contracts with partners: a Finance Plan, and Protection & Restoration Strategy. APNEP will continue to seek

clarification from EPA regarding the new guidance and needed materials. No funds have been expended other than staff and leveraged MC support time through related CCMP Support Activities described below.

Spatial Decision Support for CCMP Implementation

APNEP is developing a spatial decision support tool to guide both near-term and long-term decisions on CCMP implementation and IJA project planning. Objectives: 1) Develop a spatial targeting strategy whose findings will guide Leadership Council (LC) near-term decisions on allocating IJA funds toward restoration and protection of priority resources; 2) Assess the uses of estuarine waterscapes and associated interactions with natural resources, addressing a broader need to incorporate impacts from human activities on the regional ecosystem in resource conservation and management practices. The process is guided by a Project Steering Committee (PSC) whose members represent the Management Conference (STAC, CAC, and LC).

Progress to Date: APNEP contracted with the North Carolina State University (NCSU) Center for Geospatial Analytics in 2024 to support completion of project objectives, beginning with the spatial targeting portion (Objective 1). The PSC met in December 2024 and May 2025, and the STAC members on the PSC met in July 2025. The project team is nearing completion of Objective 1 and presented a Strategic Wetland Prioritization Tool to the LC August 2025 and CAC September 2025.

Focus Team Support

APNEP provided enhanced facilitation and support to newly formed Focus Teams by recruiting dedicated graduate or post-doctoral contractors. The primary objective of this dedicated facilitation and support is to accelerate implementation for select CCMP actions where technical guidance is crucial while advancing through preliminary stages. A secondary objective is to create an attractive shorter-term (six-to-nine months) option to offer STAC members advisory participation, as a complement to their longer-term contributions while serving as members of one or more APNEP MATs.

During the STAC winter 2024 meeting, STAC leadership offered members an initial opportunity to serve on focus teams aligned with ten CCMP actions, whose selection was based on consultation with the LC. Initial focus teams will be those who receive sufficient commitment from STAC members. Coordination efforts centered around seeking access to graduate or post-doctoral contractors through APNEP academic partners.

Progress to Date: APNEP contracted with the University of North Carolina Institute for the Environment (UNC-IE) in 2025 to complete the project. Staff continue recruitment and assisting UNC-IE with team coordination. The kickoff meeting for the first focus team, Targeted Restoration and Protection, was scheduled initially for the first week of October 2025, but to accommodate federal partners impacted by the US government shutdown, was moved to the first week of December 2025.

Monitoring and Assessment Teams Facilitation

APNEP facilitated communication among partners on priority issues in the Albemarle-Pamlico region, fostered cooperation, and developed collaborative initiatives to achieve shared goals and support APNEP's monitoring plans and assessment deliverables. APNEP reconvened seven monitoring and assessment Teams (MATs) to develop (1) integrated monitoring strategies for tracking CCMP ecosystem outcomes and (2) assessment deliverables, including metric reports, indicator reports, and ecosystem assessments. MATs that align with the 2020 focus areas (SAV, Water Quality, Wetlands, Oysters, and Resilience) will continue to receive staff facilitation priority, as directed by the LC. Efforts will also be made to reactivate inactive MATs for the further development of integrated monitoring strategies.

Progress to Date: Staff continued to facilitate the MATs in coordination with STAC members and subject matter experts. The MATs are developing indicators and supporting metrics over long term ecosystem and resource health for their respective ecosystem components (Air and Water Resources, Aquatic & Terrestrial Fauna, Human Dimensions, SAV, and Wetlands) and integrated monitoring and implementation strategies in coordination with partners. No funds have been expended other than staff and leveraged MC support time through related CCMP Support Activities.

Integrated Monitoring Strategy & Ecosystem Indicator Development

APNEP is facilitating the development of an integrated monitoring strategy and network to detect, measure, and track ecosystem changes with guidance from the APNEP MATs. The MATs have already completed much of the preparatory work, and their ongoing contributions will be crucial. The strategy will offer resource managers and partners cost-effective, high-quality monitoring options to help select protocols for implementation. Each MAT has identified a prioritized list of indicators and metrics. With input from the STAC, staff and SAV Team leaders, APNEP developed an initial Integrated Monitoring Strategy, focused on estuarine SAV and water quality. The LC approved the strategy in March 2021, and it continues to be implemented by the APNEP SAV Team. Using this model, other MATs are developing additional ecosystem components. To facilitate the transition to network implementation, in 2025 staff sought feedback from APNEP partners on integrated monitoring implementation in two pilot coastal watersheds beginning in 2026.

Progress to Date: Other MATs are using the SAV monitoring strategy as a model to develop monitoring strategies for their ecosystem component, with the highest priority of staff being a monitoring strategy for estuarine waters and bed sediments. Initial strategies for both estuarine waters and coastal wetland resources are expected by Winter 2026. Staff will continue to engage with members on the respective MATs to generate initial monitoring strategies for the four remaining ecosystem components: Aquatic Fauna, Human Dimensions, Terrestrial Resources, and Air Resources. Based on partner feedback to the staff proposal on integrated monitoring implementation, the two pilot coastal watersheds for 2026 are Core Sound (high-salinity) and Currituck Sound/Back Bay (low-salinity). No

funds have been expended other than staff and leveraged MC support time through related CCMP Support Activities. This work is ongoing and there is no specific target date for completion.

Outreach, Communications and Engagement

APNEP produces a wide variety of communications materials to improve the Partnership's ability to reach different audiences, including partner organizations, local government, community leaders, the public, and scientists and researchers. APNEP accomplishes this through print and digital materials, including its website, social media platforms, blog, e-newsletter, and printed fact sheets and brochures. These materials are utilized to actively engage a broad array of regional experts, communities, and stakeholders within APNEP region to guide decision-making and CCMP implementation. They also are used to enhance awareness and accessibility of APNEP and partner resources including funding opportunities, knowledge of Albemarle-Pamlico region issues, and environmental stewardship.

Progress to Date: APNEP has maintained basic communication and outreach functions, but capacity has been limited due to the position responsible for these tasks being vacant for a majority of the year. A Partnership Coordinator, Natalie Rodriguez, was hired September 2025 and will resume full capacity of these functions.

APNEP sponsored a NC Department of Administration 2025 Summer Intern through 320 and state funds. Interns are frequently hired in a part-time capacity when they return to school, which has helped supplement APNEP's capacity. Recent interns have been instrumental in assisting with furthering communications and outreach needs associated with CCMP implementation through IJA, 320, and State funding opportunities.

Event Participation and Sponsorships

APNEP continued to support regional outreach, networking, and knowledge/skill transfer events via sponsorship. Sponsorship funding is generally \$500-\$2500 and helps leverage resources to reach shared goals and promote partnership opportunities APNEP participates in both sponsored and non-sponsored events via tabling, environmental education activities, or by providing logistical support. Some of the highlighted activities below are discussed in more detail under specific project descriptions.

Progress to Date:

- Sponsored the November 2024 Sea Grant Coastal Conference, hosted a booth, assisted with judging the student poster competition, and co-hosted a workshop on the Scuppernong Study with the Engagement Team.
- Participated in February 2025 I Heart Estuaries campaign via social media
- TCRC Team hosted a workshop at the 2025 United Tribes of North Carolina Unity Conference

- Sponsored the March 2025 NCSU Water Resources Research Institute (WRRI) conference, hosted a booth, and assisted with judging the student poster competition.
- Invited and scheduled to present at the April 2025 North Landing River & Albemarle Sound Estuarine Symposium held by the City of Virginia Beach. Crater PDC partners led the presentation on the Southern Rivers Watershed Roundtable.
- Scuppernong Engagement Team hosted a Steering Committee workshop in July, sponsored the August 2025 Blackland Farm Managers Annual Tour and hosted a table.
- Attended the September 2025 Down East Resilience Network fall gathering
- Participated in September 2025 National Estuaries Week via social media
- Sponsored and participated in the October 2025 NC Outdoor Classroom Symposium
- Attended the October 2025 Innovative Solutions to Issues in Coastal NC: Forum by The Coastal Society

Joint Graduate Fellowship in Estuarine Research

APNEP and the NC Sea Grant (NCSG) College Program have supported a Joint Graduate Fellowship since the first awarded project began in 2016. The fellowship previously provided one year of funding support for a graduate student based in North Carolina to conduct applied research within the North Carolina portion of the APNEP management boundary. Beginning with the 2025 application cycle, this opportunity was expanded in two significant ways: 1) graduate students in Virginia conducting research within the Virginia portion of the APNEP management boundary are also eligible, and 2) the award period now provides up to two years of funding support. Fellows must conduct research that addresses focus areas identified in the CCMP and the NCSG Strategic Plan.

Progress to Date: In January 2025, fellow Madeline Payne (UNC-CH) began studying the impacts of inlet widening, hurricanes, and water clarity on the deepwater edge of submerged aquatic vegetation habitats. This project is scheduled to be completed by summer 2026. A call for applications for the 2026 fellowship opportunity was released in Fall 2025 and will close Nov 17. Applications will be reviewed in December, and new fellow will be announced January 2026.

CCMP Projects:

High-Resolution Land Cover/Land Use Mapping (NOAA C-CAP)

Since 2023 APNEP has partnered with state agencies and NOAA C-CAP, the latter whose contractors will produce a Level 2 (20+-class) interpretation within the APNEP programmatic area at one-meter resolution. The project will improve the spatial accuracy and timeliness of areal extent estimates for major land cover and land use types within the Albemarle-Pamlico Basin, thus supporting CCMP habitat conservation actions such as

developing a wetland protection and restoration strategy, and community resilience actions by providing data that can be utilized to update land use plans.

Progress to Date: In partnership with NCDEQ partners including NCDMF, NCDCM, NCDWR, and NCSEO, APNEP continued coordination with NOAA C-CAP to produce the Level 2 interpretation of the State of North Carolina. APNEP led development of the Memorandum of Agreement with NOAA and facilitated the process of coordinating matching funds within five NCDEQ divisions.

- APNEP's contribution originally was paid from IIJA funds but switched to state funding due to issues with NOAA's ability to accept federal funds.
- APNEP secured additional mapping of the watersheds that drain to South Carolina with funding from the South Carolina Office of Resilience. The NCDWR obtained a grant from EPA to support mapping in the western watersheds.
- APNEP is pursuing additional funds to apply the protocol to the Upper Roanoke to cover the entire A-P Basin.
- The deliverable date has been pushed back to September 2026 because of NOAA contracting and administration issues.
- Coordination with Virginia is pending available funding and contracting capacity.

Restoration Projects (APNEP Grant Opportunity)

APNEP will establish a Restoration Projects Request for Proposals (RFP) that furthers ecosystem restoration components of the CCMP and is tailored to regional needs with input from partners and guidance from the MC as appropriate. Additional funding may be pulled from other sources to increase the grant opportunity upon LC direction.

Progress to Date: No new activity during the reporting period. An estimated timeline for completion is currently unknown as staff capacity is focused on supporting other projects. This effort may be combined with Restoration Strategy development described in the CCMP Implementation Support Plans section.

CAC Community Projects

APNEP will establish funding opportunities for community-based local projects that provide environmental benefits and promote stewardship of the Albemarle-Pamlico region with guidance from the Citizen Advisory Committee (CAC). Project type and selections will be made through a process recommended by staff based on input from the CAC.

Progress to Date: Staff met with the CAC several times during 2024 to discuss the funding approach and developed draft guidelines and recommendations currently under consideration by CAC members. DEQ approved the RFP to be released in the amount of \$300,000, it is anticipated that staff will post by December 2025. Projects will be supported by a combination of IIJA, 320, and State funds.

Watershed Engagement & Stewardship Projects

APNEP released a RFP in January of 2024 for environmental projects that increase community stewardship, volunteerism, and environmental literacy within the AP region. An independent review committee of environmental education and outreach professionals including members of the APNEP Engagement and Stewardship Team and Citizen Advisory Committee (CAC) selected four projects through a competitive evaluation and ranking process.

Progress to Date: APNEP contracted all four projects and continued to work with partners to support project implementation. Two projects were completed and two granted no-cost extensions to wrap up ongoing work through 2026. APNEP intern Katie Whittington wrote [Soundings blogs](#) about the projects featured below:

- ***Experiencing the Albemarle-Pamlico Estuary: Fostering Watershed Stewardship***

The North Carolina Wildlife Federation project was designed to 1) connect and engage community members in voluntary stewardship efforts to restore key watershed habitats, and 2) teach adults and youth about the estuary's natural treasures and its value to wildlife and people. Volunteers of all ages and backgrounds experienced and learned about the AP watershed by creating three native pollinator gardens, restoring a wetland meadow, and installing educational signage in English and Spanish at two of the restored sites. *Completed June 2025. Report to be posted to APNEP website.*



Volunteers planting native species at a pollinator garden.

- ***Shad in the Classroom***

The North Carolina Museum of Natural Sciences (NCMNS) project highlights careers in science and engaged students in hands-on learning about American Shad and North Carolina's River Basins. In the spring of 2025, the program had 23 classes at 19 schools raising shad from egg to fry, engaging students in education about water quality, American Shad ecology, riverine and coastal ecosystems, and careers in science. *Completed September 2025. Report posted to APNEP's website.*



Seawell Elementary School students releasing shad, Gold Park, Eno River.

- ***Down East Resilience Network Communications Strategy***

The Core Sound Waterfowl Museum hosts the Down East Resilience Network (DERN), a

community of stakeholders (residents, researchers, educators, and state and federal government officials) with a common interest in advancing the long-term resilience of Down East area. Communication in the region presents unique challenges due to the absence of an incorporated town or centralized government. APNEP contracted with the Core Sound Waterfowl Museum and Heritage Center and partners to conduct the DERN Communications Strategy project. The project will increase staff capacity, develop a comprehensive outreach strategy, and create an online presence for DERN through a dedicated website making it easier for users to access information about current issues, ongoing projects, resources for educators, and contacts. DERN launched the [website](#) and continues to develop and pilot outreach materials that connect local stories and research to actionable information for community support and education. *Extension granted through January 2026.*

- ***Growing Wild Celery to SAVE Our Wetlands: A Grassroot Collaborative***
Back Bay Wildfowl Guild's project aims to restore wild celery (*Vallisneria americana*), a critically important part of the native SAV community, in the Back Bay area. They are utilizing novel propagation and transplanting techniques in tandem with hands-on educational programs that engage local students in replanting efforts. Wild celery is a vital food source for wildfowl, offering students a hands-on understanding of the significance of local ecosystems. APNEP intern Katie Whittington presented at the overnight teacher workshop held in summer 2024. The workshop educated teachers about the southern watershed ecosystem and the significance of waterfowl in our region. The ultimate goal is to integrate these insights into lesson plans to better educate our youth. Project Partners: Back Bay National Wildlife Refuge, False Cape State Park, Virginia Department of Wildlife Resources, Mud Puddle Science, SAVY Aquatic Restoration LLC. *Extension granted through January 2026.*

Projects by Focus Area:

Oyster Habitats Focus Area (320 Only):

Oyster Steering Committee (co-lead with NC Coastal Federation)

The Oyster Steering Committee is externally facilitated by the NC Coastal Federation (NCCF), which has been actively involved in oyster restoration efforts since the late 1990's. The committee consists of scientists, fishermen, agency personnel and NGOs working together to restore, protect and enhance oyster populations within northeastern North Carolina. Members pursue initiatives aligned with both the [NC Oyster Blueprint](#) and APNEP's CCMP. Oyster Habitats were not identified as an IJA priority so there is no funding budgeted or expended for this 320-focus area.

Progress to Date: Staff continue to participate regularly in Oyster Steering Committee and Blueprint meetings and will continue seeking regional project opportunities within this initiative. An estimated timeline for completion is unknown as staff capacity is currently

focused on supporting other projects. No funds have been expended other than staff and leveraged MC support time through related CCMP Support Activities.

Wetlands Focus Area:

Regional Wetland Monitoring & Assessment Strategy Implementation

Through the **Integrated Monitoring Strategy & Ecosystem Indicator Development** initiative described above, APNEP is developing an integrated monitoring strategy and pilot monitoring plans to detect, measure, and track ecosystem changes. The APNEP MATs have already completed much of the preparatory work, and their ongoing contributions are crucial. The strategy will offer wetland resource managers and partners cost-effective, high-quality monitoring options to help select protocols for implementation. In addition, as a near-term APNEP Tier-1 wetland monitoring strategy, there is a need to acquire regional wetland areal extent data with improved spatial resolution. As such, APNEP is working to acquire [C-CAP](#) regional land cover data for the AP region as described under the Capacity Building section above. The acquisition of higher quality wetlands data will ensure improved wetland monitoring and assessment. These activities also support NWL and EO305 described below.

Progress to Date: The Wetland Resources MAT is refining a previously prioritized list of wetlands indicators and metrics for inclusion in an upcoming wetland monitoring strategy, as well as evaluating which metrics should be monitored in APNEP's coastal integrated survey pilot areas (Core and Currituck Sounds) during FY25-26. No funds have been expended other than staff and leveraged MC support time through related activities. This work is ongoing and there is currently not a specific target date for completion.

Natural and Working Lands Support

Support implementation of wetland and ecosystem resilience actions in the NC Natural and Working Lands Action (NWL) Plan, NC Executive Order 305 and similar efforts in Virginia including the newly approved Atlantic Conservation Coalition (ACC) EPA Climate Pollutant Reduction Grant (CPRG) administered by NC Department of Natural and Cultural Resources (NCDNCR) which includes South Carolina, North Carolina, Virginia, and Maryland.

Progress to Date: APNEP continued to serve on the NWL Steering Committee and participated in development of the [2024 NWL Progress Report](#) released November 2024, and the Draft 2025-2030 NWL Action Plan to be published November 2025. Contributions included updates on SAV projects, the Scuppernong Study, NOAA-CCAP, Spatial Decision Support tool, and Tribal Coastal Resilience Connections. APNEP encumbered both IJIA and state funds under contracts for the two projects below:

- **NWL Ditch Mapping Project:** This project led by NWL partners at Duke University will produce high-resolution mapping of drainage ditches in eastern North Carolina and southeastern Virginia for wetland restoration planning and saltwater intrusion

vulnerability assessment. Existing USGS lidar data will be leveraged to create an updated, high-resolution map of drainage ditches, identify peatlands in need of hydrologic restoration, and map vulnerability to saltwater intrusion. Newly collected, high-resolution drone-based lidar will be used to validate the drainage ditch map and assess the utility of drones for site-level restoration planning. Duke will work with organizations conducting restoration and outreach to agricultural and forestry landowners in the region to build user-centered derived data products. These spatial data products will be valuable tools for restoration and climate adaptation planning in the North Carolina coastal plain.

Progress to Date: APNEP contracted with the Olander lab at Duke University Nicholas School to conduct the project. Over the summer, the drone team collected new lidar data at six sites in the AP region (five in NC and one in VA). A workflow for mapping drainage ditches has been developed, and mapping for the six field sites, using the newly collected lidar as well as existing lidar from USGS, is complete. Preliminary results were shared with the managers of those sites for their feedback, which has been positive. Currently, work is ongoing to extend the ditch mapping workflow to other parts of the AP region beyond the field sites, and to develop a workflow for assessing how ditches influence saltwater intrusion vulnerability.

- **NWL Natural Heritage Inventory of Peatlands within the Albemarle-Pamlico Region**
NCNHP leads NWL coordination and maintains the statewide inventory of animals, plants, and natural communities, and uses the information to prioritize natural areas for conservation, to help North Carolina establish a network of nature preserves that will protect our natural heritage for future generations. Natural heritage information is used by regulatory agencies to avoid and minimize impacts to protected species in permitting projects. Natural heritage data is used extensively by planners and data modelers as they identify and predict adverse impacts and prioritize areas for restoration that will promote ecological function and resilience.

Progress to Date: APNEP contracted with the NCNHP to conduct an inventory of peatlands and pocosins within the AP region. Two biologists were hired to lead the effort Fall 2024 and spent several months conducting an inventory of available data, selection of priority sites, interviewing key partners, developing survey methodology. Since the project's inception, more than 1,300 hours in landowner contact, fieldwork, reporting, and mapping have been spent in 14 counties. Thirty landowners granted permission to visit 20,387 acres at 64 sites. More than 50 sites were visited. The sum of all parcel sizes visited is approximately 20,000 acres. An interim report was submitted September and no-cost extension to complete ongoing work granted through June 2026.

Currituck Sound Coalition Marsh Conservation Plan Implementation

APNEP is supporting implementation of the [Currituck Sound Coalition's \(CSC\) Marsh Conservation Plan](#). This builds upon collaborative efforts to protect and restore Currituck

Sound and its tributaries including the Back Bay, North Landing and Northwest Rivers which originate in the Great Dismal Swamp. Staff is working with CSC partners to utilize the Currituck Sound watershed as a pilot geography for development of the **Integrated Monitoring Strategy & Ecosystem Indicator Development** initiative described above.

Progress to Date: Staff continue to participate regularly in CSC quarterly meetings. During summer and fall 2025, staff held several follow-up meetings with Audubon, CSC members, and the APNEP SAV Team to explore where synergies may align. Staff will continue to work with these partners to determine needs, detailed projects, or creation of a regional funding source that furthers plan implementation. Specific timeframes are currently unknown, as team members are currently at capacity managing other active projects. No funds have been expended other than staff time through related activities.

Wetlands Support Activities

Facilitate the Expansion of Living Shorelines

APNEP co-leads the NC Living Shorelines Steering Committee with the NCCF. Work by these members includes research and monitoring of natural marshes and living shorelines, wave attenuation and transformation, and the use of alternative living shoreline construction materials. Education and outreach efforts by members have increased awareness and shown the benefits of living shoreline techniques to the public as well as to real estate agents, contractors, and engineers.

Progress to Date: APNEP will work with the committee to determine whether developing an RFP and application review process to support the design and installation of living shorelines on public property would be beneficial. Staff continue to participate regularly in Living Shorelines team meetings. No funds have been expended other than staff time.

South Atlantic Salt Marsh Initiative's (SASMI)

The South Atlantic coast is home to an expansive network of salt marsh and tidal creeks stretching over one million acres. Salt marshes are the ecological guardians of our coast, and this habitat is facing increasing pressures from rising seas and encroachment. SASMI is a voluntary, collaborative, and non-regulatory effort that brings together diverse partners from North Carolina, South Carolina, Georgia, Florida and beyond to achieve landscape-scale conservation of one of the last vast areas of salt marsh in the United States. SASMI seeks to add value to ongoing efforts and create a framework and catalyst for cross-agency and organization collaboration supported by implementation at the state and local level by developing a regional conservation plan.

Progress to Date: Staff continue to participate regularly in SASMI team meetings. No funds have been expended other than staff time.

Submerged Aquatic Vegetation (SAV) Focus Area:

Assessment of SAV Protection Policies

The project objectives are to 1) compile all existing federal and state laws and regulations regarding the conservation and management of SAV, 2) assess the policies and management practices used to guide and implement rule making pertaining to SAV, and 3) identify and report any regulatory inconsistencies, inadequacies, and inefficiencies, and recommend necessary improvements.

Progress to Date: APNEP utilized IJIA funds to develop a new partnership with NC Sea Grant to serve as an agency host through the NC STEM Policy Post-Graduate Fellowship to implement this project. Staff collaborated with Sea Grant during recruitment and interviewed candidates in Spring 2025. A contract with NC Sea Grant through NCSU was executed in August 2025. The selected candidate, Riley Ragain, is serving in a full-time year-long fellowship housed within APNEP, which began August 2025.

High-Salinity SAV Monitoring and Assessment

The objectives are to implement the high-salinity component of the APNEP SAV Monitoring Strategy by conducting 1) aerial imagery acquisition and interpretation for mapping (Tier 1) and 2) associated field surveys of relative abundance and species composition (Tier 2), and 3) developing a sentinel-site network for higher-level (mechanistic) understanding of change and condition (Tier 3). APNEP plans to continue refinement of the SAV monitoring strategy based on knowledge gained during the 2021-2024 field seasons, including an evaluation of semi-automated interpretation (Tier 1) and establishment of process-focused stations (Tier 3).

Progress to Date: APNEP completed the first four-year cycle of the SAV high-salinity monitoring strategy by completing bi-seasonal (spring and fall) surveys of North Pamlico Sound during 2024. Bogue and Back Sounds were first surveyed by APNEP during 2021 and were surveyed again in spring 2025 to commence the second four-year cycle. Each seasonal survey has an aerial component (Tier 1) with support from the NC Department of Transportation (NCDOT), and boat-based (Tier 2) component involving multiple partners from the APNEP SAV Team, with a University of North Carolina-Wilmington (UNCW) team contracted July 2024 with state funds to lead the core survey effort. A map from these efforts can be found below.

APNEP contracted with UNCW with IJIA funds to conduct the SAV Assessment part of this project. A dedicated Post-Doctoral Researcher, based in the Department of Biology and Marine Biology at UNCW has begun work on an interdisciplinary and integrated project focusing on the analysis and synthesis of seagrass mapping (Tier 1) and monitoring (Tier 2) data. The project will incorporate aerial imagery interpretations of areal extent by cover class and field data on percent cover and species composition to assess the spatial and temporal dynamics of SAV in the AP Estuary.

An update to the APNEP high-salinity SAV metric report that incorporates the 2019-2020 SAV high-salinity extent by cover class map will be published in 2025, along with the associated updated maps for surveys conducted in 2021-2024. APNEP and its partners will use this information to develop protection and restoration strategies for SAV in the region and support the North Carolina Coastal Habitat Protection Plan (CHPP) update.

Low-Salinity SAV Monitoring Protocols Development

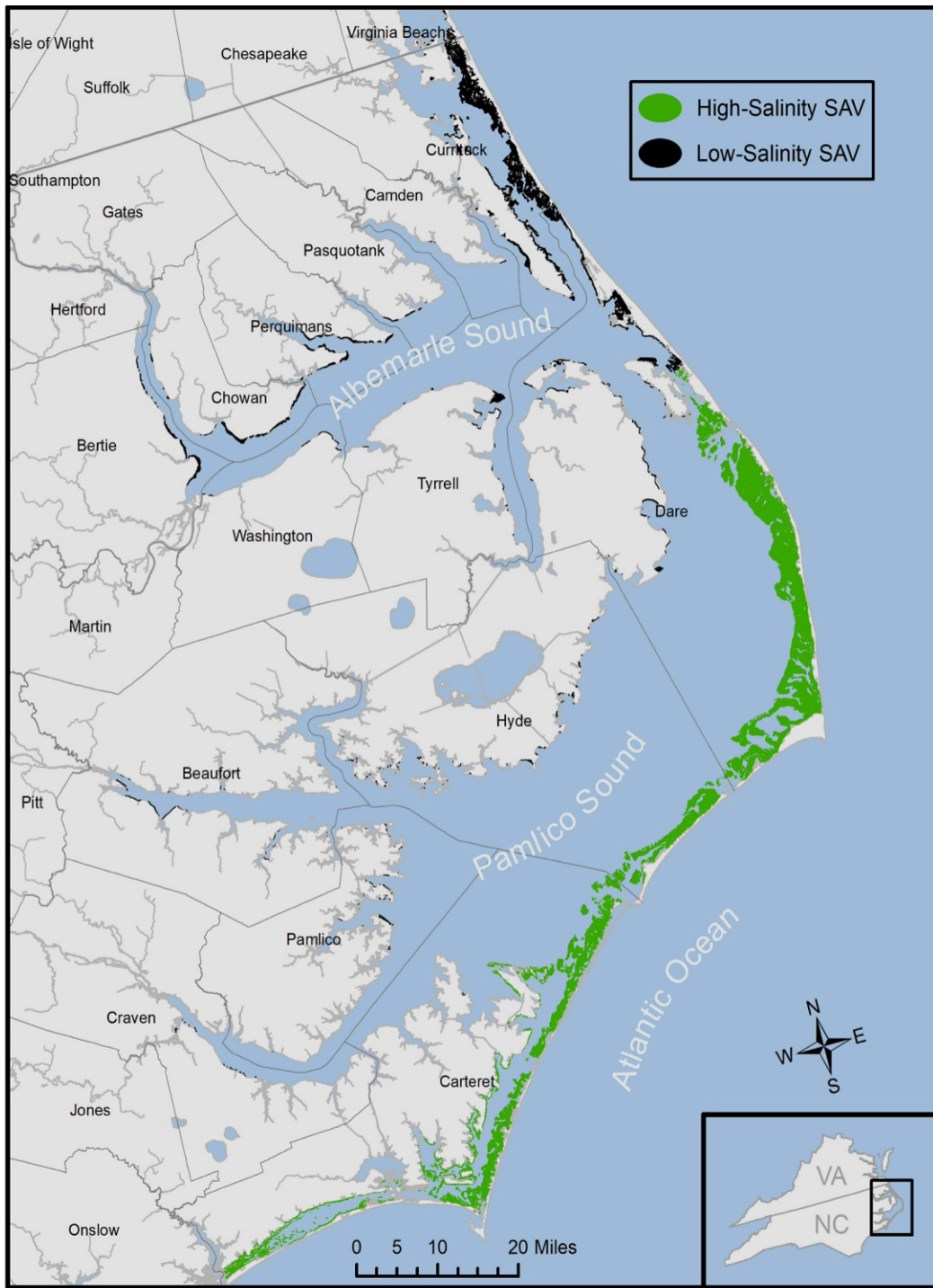
APNEP will implement the low-salinity component of the APNEP SAV Monitoring Strategy by developing refined or new sampling protocols that meet data needs while also allowing for greater interest and engagement from existing SAV partners.

Progress to Date: Staff is facilitating cross-sector collaboration between the SAV team and CSC to advance low-salinity SAV monitoring efforts in Currituck Sound. This initiative will integrate multiple projects referenced in this report. APNEP will continue to work with those members of the SAV Team and CSC interested in crafting and implementing low-salinity monitoring protocols in the APNEP integrated monitoring low-salinity subregion: Currituck Sound and Back Bay. IJJA funding is budgeted to support this work, however no funds have been expended other than staff and leveraged MC support time. Specific timeframes currently unknown as team members are currently at capacity managing other active projects.

Analysis of Low-Salinity SAV Sentinel-Site Data

APNEP will contract with a partner to compile, assess, and report on all low-salinity SAV sentinel-site data collected to date for metrics supported by the 2021 APNEP SAV Monitoring Strategy. Most of the low-salinity SAV sentinel site data resides with researchers at East Carolina University funded in the past by APNEP 320, Coastal Recreational Fishing License (CRFL), and the National Fish and Wildlife Foundation (NFWF). Various project final reports to funders as well as a graduate thesis and dissertation have been generated using these data. However, no comprehensive analysis of these survey data to date, including additional data collected by NCDWR, has been done, which is necessary to for producing a low-salinity SAV metric report as part of APNEP's updated Regional Ecosystem Assessment. This was designated a priority project by SAV Team leadership for the low-salinity effort.

Progress to Date: No funds have been expended other than staff time exploring potential partners. Specific timeframes currently unknown as team members are currently at capacity managing other active projects.



Map of SAV coverage in the Albemarle-Pamlico Estuary (Credit: Tim Ellis, APNEP)

Water Quality Focus Area:

NC Nutrient Criteria Development Plan Support

APNEP staff and STAC members who are experts in SAV and water quality issues participated in the NC Nutrient Criteria Development Plan (NCDP) process. NCDWR selected SAV as a biological indicator for the health of the Albemarle Sound and Chowan River. The NCDP Scientific Advisory Council (SAC) utilized the projects below to support development of proposed water quality standards. The SAC drafted a proposed clarity standard for SAV protection and a support document to detail the scientific basis for the proposed standard. This standard includes criteria for low- and high-salinity SAV waterbodies, defines the growing season, and outlines the historic SAV extent. The proposed standard is currently under consideration by NCDWR and the NC Environmental Management Commission and will likely be submitted to EPA, but the timeframe is unknown. If adopted and implemented, the clarity standard for SAV will satisfy the Recommended Action 4.7 of the NC CHPP 2021 Amendment (NCDEQ 2021).

Progress to Date: The SAC process was concluded in 2024 and there is currently no timeframe for rulemaking provided by NCDWR. Staff continue to coordinate with partners to finalize technical reports to further APNEP indicator and metric development and integrated monitoring and assessment activities. A complete list of projects developed in partnership with the STAC and SAV Team from the past five years is provided for a comprehensive overview:

- ["Clean Waters and SAV: Making the Connection" 2020 Technical Workshop](#) *(completed)*
- Water Quality Data Reporting Tool *(completed)*
- Development of Chlorophyll-a Standards for SAV Protection *(completed)*
- Development of water clarity standards for the Albemarle Sound and Chowan River supported by the following APNEP funded research:
 - Calibration of a bio-optical model for low-salinity SAV *(completed)*
 - Fill Data Gaps on Optical Water Quality Constituents in Currituck Sound *(completed)*
 - Research study to support water clarity metrics for SAV protection *(completed)*, report *(complete)*: [2022 Evaluation of Water Clarity and SAV in the Albemarle-Pamlico Estuary](#)

Water Resources Monitoring Strategy Implementation

Through the **Integrated Monitoring Strategy & Ecosystem Indicator Development** initiative described above, APNEP is developing the water component of the integrated monitoring strategy and pilot monitoring plans to detect, measure, and track ecosystem changes with guidance from the Water Resources MAT.

Progress to Date: The Water Resources MAT is refining a previously prioritized list of water indicators and metrics for inclusion in an upcoming water monitoring strategy, as well as evaluating which metrics should be monitored in APNEP's coastal integrated survey pilot areas (Core and Currituck Sounds) during FY25-26. No funds have been expended other than staff and leveraged MC support time through related activities. This work is ongoing and there is no specific target date for completion.

Recreational Water Quality Monitoring (Estuarine Swimming Beaches)

APNEP continues to provide funding to the NCDMF Recreational Water Quality Monitoring Program for the continuation of water quality monitoring near recreational areas to support gaps in funding from cuts to EPA grant programs. The program monitors and tests bacterial concentrations in coastal recreational waters to protect and inform the public about any danger to public health. The program is responsible for notifying the public when bacteriological standards for safe bodily contact have been exceeded. The program also has an educational component that accompanies the testing, which informs the public about how bacteria enter coastal waters and what actions can help prevent it.

Progress to Date: In 24-25, 29 APNEP swimming sites were sampled 23 times throughout the year totaling 667 samples with bacteriological results posted immediately to the NC Recreational Water Quality website. A contract to continue this work through December 2026 was signed October 2025.

- NCDMF continued routine water quality monitoring within the Albemarle-Pamlico Estuarine System through the summer season. Samples are pulled weekly during the swimming season, April-October. DMF issued a total of 10 advisories in the APNEP region during the 2025 sampling period. No advisories are posted during the non-swimming season November through March.
- Two APNEP sites were sampled 42 times throughout the year totaling 84 samples.
- More than 3,500 samples have been analyzed to inform the citizens of North Carolina about Enterococci levels throughout the Albemarle-Pamlico Watershed.

Stormwater Management (Regions Innovating for Strong Economies & Environment (RISE) Project Portfolio Implementation)

Assist the North Carolina Office of Recovery and Resiliency (NCORR), NC Rural Center, and Regional Councils of Government (COGs) with implementation of projects identified during the RISE program. Multiple stormwater projects were among the top ideas from the matrix and ranking system for RISE projects that staff developed in 2023 to identify projects that complement CCMP implementation, IJIA focus areas, and other APNEP priorities. This workplan entry will focus on stormwater management needs; more detailed background for RISE is described in the Community Resilience section.

Progress to Date: APNEP contracted with NCORR (now the State Resilience Office (SRO)) in January 2025 with IJIA funds. Coordination has been on hold during the summer SRO move from the NC Department of Public Safety (NCDPS) to NCDEQ. The SRO has been working with the Financial Services Division (FSD) to transfer funds and contract

paperwork. The project team has initiated preparation work for the project scheduled to run through 2027. APNEP will participate in project implementation and have a seat on the Stormwater Working Group.

Algal Bloom Coordination and Nutrient Management in the Chowan and Pasquotank River Basins and Albemarle Sound (RISE)

APNEP, building upon collaborative effort from the past five years, is assisting partners with understanding the return of algal blooms in the Chowan River and tributaries to Albemarle Sound after an absence of three decades and developing strategies for management of nutrient pollution in the sounds. APNEP supports implementation of community resilience needs identified by regional and local partners during the RISE process and 2023 Algal Bloom Summit. Staff participated in the working group and have since been working actively to develop proposals with partners. IJA funds were utilized previously to assist in updating communication products and hosting the Summit. These projects build upon APNEP's previous investments supporting research to inform policy development described above. To further LC direction, time and funds are invested to directly support needs identified by local and regional governments including the Albemarle Commission Regional Council of Governments (ACOG).

Progress to Date: APNEP encumbered both IJA and state funds under contracts for the projects below. Staff are contributing in-kind staff time and resources, leveraged contract expenditures, serving on committees, providing technical assistance on grant applications for the following three projects:

- **NC Local Government Action Toolkit for Harmful Algal Blooms (HABs)**

A contract with the NCSU Coastal Resilience and Sustainability Initiative, in partnership with the SRO, was executed July 2025. The project will develop a HAB toolkit with guidance for local health departments, local government staff, and other groups with a responsibility for managing local water resources to develop a plan for preparing for, managing, and communicating about HABs in their area. The purpose of the toolkit is to empower local health departments, local government staff, and community-centered organizations (e.g., citizen science groups, riverkeepers) with resources and step-by-step guidance to plan for and respond to HABs. This resource will equip local entities to swiftly and effectively respond to suspected and confirmed HAB events, encourage longer-term planning to reduce their community's risk from HABs, and promote coordinated and transparent communication and management of HABs across North Carolina. The toolkit will be piloted in northeastern North Carolina and build upon recommendations from the RISE Algal Bloom Summit held October 2023. Staff are participating in the planning process and will participate in regional coordination meetings as the toolkit is developed.

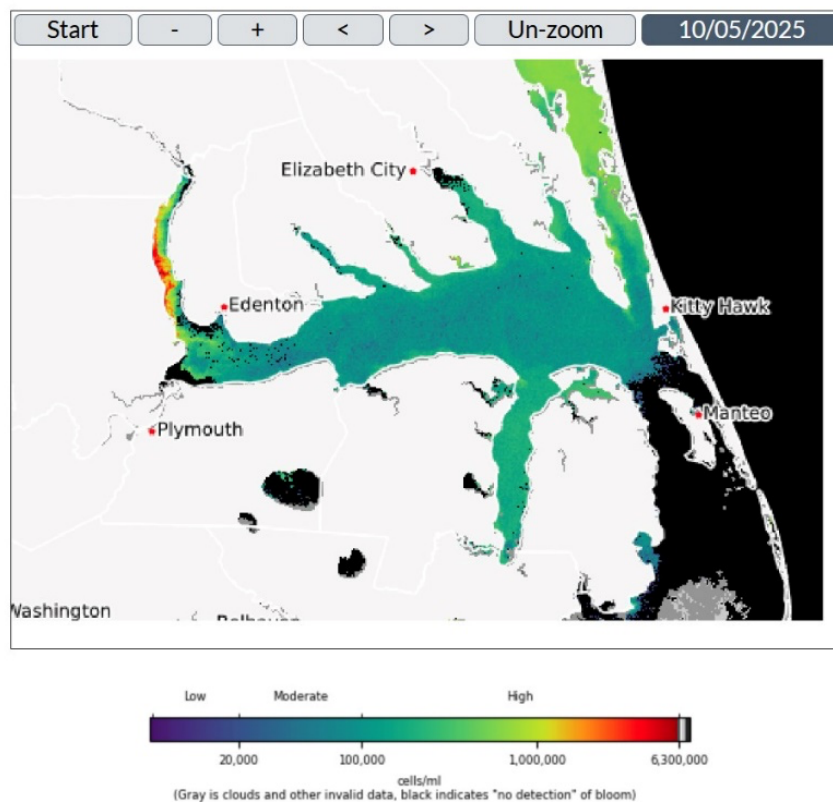
- **HAB Cohort Program**

In partnership with the ACOG, NCSU, and SRO, APNEP led coordination on a CWA 205j grant application to build upon the HAB Toolkit described above. The project will

develop a HAB Cohort Program to extend the impact of the HAB Toolkit, modeled after the Planning for Extreme Heat Cohort Program. This program will bring together representatives from local governments (e.g., preparedness coordinators, public health officials, planners) in a multi-week virtual learning community to accelerate adoption and implementation of the HAB Toolkit. The application also builds capacity for the ACOG, which does not have dedicated environmental staff to directly participate in water quality initiatives throughout the region. The team received notification in October 2025 that the project was selected for funding.

- **Determining the Causes of and Solutions to Algal Blooms in the Chowan River and Albemarle Sound (RISE Algal Bloom Citizen Science)**

APNEP is leading coordination to finalize a scope of work and will fund a project that lost its original funding this year. Led by the Albemarle Resource Conservation & Development Council (ARC&D) and community partners, the project builds on nearly a decade of research into nutrient cycling and algal blooms in the Albemarle Sound. It supports a collaborative effort involving citizen science groups and university partners to implement a regional water quality sampling strategy. The focus is on identifying nutrient sources - such as rivers, atmospheric deposition, forest clearing, and small coastal plain streams - that may be driving algal blooms, particularly in the Chowan River. The project will be routed through procurement in November 2025.



An October bloom recorded by APNEP partner, Chowan Edenton Environmental Group.

Virginia Healthy Waters and Southern Rivers Watershed Roundtable Coordination

APNEP supports implementation of watershed protection efforts in the Virginia portion of the region to complement the regional algal bloom coordination described above, and resilience planning efforts below. APNEP increases coordination and collaboration across state lines to further MOU implementation.

Progress to Date: APNEP worked closely with the Crater PDC as they developed the Southern Rivers Roundtable, which is intended to reconvene, rebrand, and build upon past work conducted through the Albemarle-Chowan Watershed Roundtable. Staff gave a presentation and participated in the inaugural meeting October 2024 and subsequent quarterly convenings, provided input on the original Scope of Work and Strategic Plan released July 2025, and are aiding with Tribal engagement. APNEP funded roundtable implementation through workshop support branding and logo development. Additional funding and contracting are anticipated as priority projects are identified. The Roundtable is also supported by CWA 319 funding administered through VADEQ.

Community Resilience Focus Area:

Scuppernong Regional Water Management Study and Community Engagement

Since 2018, APNEP has led a collaborative effort to conduct a hydrologic study of the northern Albemarle-Pamlico peninsula including the Scuppernong River, Lake Phelps, Pocosin Lakes National Wildlife Refuge, and Buckridge Coastal Reserve. APNEP facilitated a partnership between the NC Division of Parks and Recreation (NCDPR), NC Soil and Water Conservation Districts, US Fish and Wildlife Service (USFWS), the ACOG, and Washington and Tyrell Counties, securing funding from the NC Water Resources Development Grant (WRDG) in 2023 which runs through March 2026. The Study is supported by an Engagement Team (NC Coastal Reserve, NC Sea Grant, The Nature Conservancy, SWCA, and APNEP) and advised by a local Steering Committee of core partners and other stakeholders. The project relies heavily on in-kind support and leveraged partner time.

Progress to Date: The Study Report was completed in March 2025 and workshop with the Steering Committee held July 2025 to discuss targeted outreach and next steps for implementation. The Engagement Team is developing the strategy to work with different stakeholder groups, starting with the agriculture and forestry sectors. The team continues cross-coordination with regional efforts including RCPP, CDRZ, and Audubon Tyrell County project. The Engagement project was an inaugural NOAA Digital Coasts Connects project and has been featured on websites and blog posts by the funding partners including the National Estuarine Research Reserve Association (NERRA):

- [“Along North Carolina’s Scuppernong River, Everyone Has a Story About Water”](#)
- [“A Thoughtful Community Engagement Strategy for Watershed Management”](#)

APNEP budgeted IJIA funding to support advanced project concept design, project implementation and continued community engagement. Three contracts were signed with partners (NCDPS/Flood Inundation Mapping and Alert Network (FIMAN), SWCA, Kris Bass Engineering) in 2025. The team was invited to submit a full NFWF proposal July 2025 to support targeted engagement with agricultural landowners and develop a prioritized list of implementation projects. If awarded (expected notification November 2025), the project will run through December 2026.

APNEP continues coordination with NCDPR to resolve issues associated with the required match for the WRDG grant. Agreement on a solution was reached in summer 2025 and a contract to transfer funds from DPR to APNEP is pending (completion date unknown, routing through DPR).

Tribal Coastal Resilience Connections

APNEP's TCRC Team continues implementing recommendations from the [2023 Phase I Report](#) and building inter-Tribal coalitions to develop opportunities for communities to meaningfully engage in agency and university led resilience planning. The core team includes mentors and liaisons from the Sierra Club, Duke University, Great Coharie River Initiative, and Nottoway Indian Tribe of Virginia.

Progress to date: The TCRC team hosted two virtual webinars, participated in community events, presented at the NOAA Coastal Geotools Conference in January 2025, and hosted an interactive workshop at the 2025 United Tribes of North Carolina Conference in March.

- Team members were also featured in an article in The Assembly written by a Duke University graduate student: "[Rooted in the Land, Ready for the Future.](#)"
- The team is building on Sierra Club fellow's appendix in the 2024 NWL Progress Report, with an emphasis on wetland protection and developing policy to advance Indigenous participation in agency planning.
- The team is working to build capacity and open applications for a Program Coordinator position in 2026. The team is also in discussions with the Geos Institute, SRO, and NC Commission of Indian Affairs, to host a Tribal Navigator with funding dedicated for CDRZ communities.
- **TCRC Phase II Indigenous Mapping Project:** IJIA funds were utilized to hire a dedicated full time staff member for the first time since project inception in 2019. Giancarlo Richardson serves as Cartographer and Planning Assistant leading mapping, team, and partner coordination. He conducted historical research and is currently publishing an Interactive Dashboard on ArcGIS online visualizing past and present Indigenous occupation of the AP region. The layers will include estimations of pre-contact tribal territories, colonial area reservations, current tribal geographies, and environmental data derived from NC OneMap. The tool will be used to educate the

broader public on Indigenous geographies of the AP region and assist with informing Indigenous-centered conservation efforts in future phases.

- **TCRC Phase II Assessment:** Team members at the Emanuel Lab at Duke University were contracted to complete a scientific assessment of climate resilience planning and implementation projects led by tribal governments, communities, and Indigenous-led organizations throughout the US. The assessment will include recommendations to inform development of an adaptation framework for APNEP region and Southeastern coastal plain Tribes, modeled after the WAMPUN framework discussed in the Phase I report.
- **VA-NHP 1900 Acre Project:** The team partnered with the Virginia Natural Heritage Program (VA-NHP) on a conservation project to acquire 1,900 acres of contiguous forest in the Chowan watershed. The team is assisting with Tribal community coordination in VA and NC and will conduct historical research and mapping to inform engagement as the project develops. The award was announced May 2024 but there have been delays in project implementation due to challenges with land acquisition and uncertainty with funding during federal administration changes. A \$25,000 subcontract will be awarded to APNEP through NCDEQ, which is expected to be finalized by December 2025.

RISE Implementation – Green Infrastructure, Local Government Assistance

APNEP assists the SRO, the NC Rural Center, and Regional Councils of Government (COGs) with RISE implementation. Funding is budgeted to support projects from the matrix and ranking system for RISE projects that staff developed in 2023 to identify projects from all six COGs in the AP region that complement CCMP implementation, IJA focus areas, and other APNEP priorities.

Progress to Date: No new activity. Specific timeframes unknown, team members are currently at capacity managing other active projects. No funds have been expended other than staff time through related activities and continued regional resilience convenings.

Water Level Monitoring Stations

APNEP is building upon past collaboration with the NC Department of Public Safety (NCDPS) Division of Emergency Management (NCEM) to install water-level monitoring stations through the FIMAN that benefit local communities by increasing real-time knowledge of flood conditions in the Albemarle-Pamlico region and contributing to data collection that can be used to address water management actions in the watershed. Current projects are focused on partnering with the Southeast Water Level Network, a collaboration between NCEM/FIMAN, the Southeast Coastal Ocean Observing Regional Association (SECORRA), and NC Sea Grant in coastal North Carolina. This supports Scuppernong Study implementation by demonstrating response to needs identified by the local communities.

Progress to Date: APNEP held multiple meetings with SECORRA, NCDPS, and NC Sea Grant to develop a region wide partnership and plan pilot efforts in the Scuppernong watershed. The Scuppernong Engagement Team and local Steering Committee identified priority locations for gauge placement to support the hydrologic study. A site visit on April 6, 2025, finalized three locations. A \$46,000 contract with NCDPS was executed in April 2025, equipment was purchased, and a FIMAN library was developed for two gauges to be installed by spring 2026. SECORRA also funded a gauge in the Alligator Community (installed September 2025) to support Audubon's NBS project. Coordination with NC State Parks is ongoing to place additional gauges on Lake Phelps, to be funded through a DPR-to-APNEP transfer.

Down East Resilience Network

APNEP has engaged with community organizers in Down East NC for years dating back to initiatives such as Saltwater Connections (2010-2012) and the RISING Sea Grant Community Collaborative project (2016-2018). Since the re-convening of the DERN in late 2023, there continues to be increased need by the unincorporated communities for mitigating the chronic impacts of inundation, storm and sunny-day flooding, saltwater intrusion, and surface and ground water quality. Funding is allocated to strengthen the DERN which includes thirteen unincorporated Carteret County, NC townships. The initiative supports community engagement, and pilot CCMP projects that increase community and wetland resilience through research and education of water quality, water quantity, wetland function, health, and migration.

Progress to Date: A contract with WCU's Program for the Study of Developed Shorelines (PSDS) was signed in July 2025 (through 2027) to conduct drone-based LIDAR mapping of 2-3 coastal communities and assess flood vulnerability of public infrastructure east of the North River. The project includes a subcontract with Bryn Mawr College to test surface water for fecal coliforms in several communities, addressing concerns about septic system failures. Sampling, guided by LIDAR data, that began in summer 2025.

APNEP continues to engage in DERN convenings, including the September 2025 meeting, where project partners provided an update on the WCU project at a community gathering in Davis, NC. APNEP also supported the DERN Communications Strategy through a Watershed Engagement & Stewardship grant.

Virginia Resilience Planning and Coordination

APNEP assists Virginia partners with implementation of projects identified through the VA Coastal Resilience Master Plan and other VA resilience initiatives. Integrate with NC Resilience initiatives across state lines (notably coordination wetland protection and voluntary watershed protection and water quality improvements to decrease nutrient loading to Albemarle Sound and its tributaries), and further MOU implementation.

Progress to Date: Staff had several meetings with the University of Virginia Institute for Environmental Negotiation (UVA-IEN) and are coordinating regarding the possibility of

conducting workshops and implementing the Regional Adaptation Feasibility Tool (RAFT) program in the region. No funds have been expended other than staff time through related activities. Additional VA coordination is discussed under specific projects elsewhere in this report.

Partnership-Building and Regional Coordination

NC Aquatic Nuisance Species Management Plan Development

APNEP staff co-facilitate the NCANSMP Steering Committee which is focused on updating the state's strategic plan for coordinated management, research, and outreach on aquatic nuisance species in North Carolina. The NC-ANSMP is working to revise and submit the plan to the NC Governor's Office for consideration and seek approval from the federal Aquatic Nuisance Species Task Force (ANSTF). Once finalized and federally approved, this collaborative interagency management, research, and outreach plan will make North Carolina eligible for federal funding to support its implementation.

Progress to Date: Staff continued to co-facilitate the NC-ANSMP Steering Committee, focusing on revising the state's plan for federal approval and identifying implementation steps. In addition to state funding, APNEP and NCDWR secured funding from the Mid-Atlantic Panel on Aquatic Invasive Species to support this work. In 2025, a dedicated temporary staff member, Dr. Aaron Ramus, was hired to assist with updating the plan for federal approval. The Committee plans to seek the Governor's Office's support to submit the plan to the ANSTF in 2026. Once finalized and federally approved, the plan will make the State eligible for federal funding for implementation. The plan aims to improve coordination and collaboration across state agencies, optimizing limited resources for invasive species management

NC Coastal Habitat Protection Plan Implementation Support

The NC CHPP, adopted by the Coastal Resources, Environmental Management, and Marine Fisheries Commissions, has seen routine development since its implementation began in 2004. While differences in scope, geography and mission exist, implementation of the CCMP and the CHPP are complimentary. APNEP works to ensure that both plans are implemented in a coordinated and integrated fashion. By statute, the CHPP must be reviewed and updated if needed every five years. The CHPP was last revised in 2021, and the next version is due 2026.

Progress to Date: Through February 2024, APNEP staff served as the CHPP Coordinator, working closely with DMF and other NCDEQ divisions to implement recommendations from the 2021 CHPP Amendment to address water quality impacts on SAV due to changes in salinity, water temperature, and water clarity. Other areas addressed are wetland loss (e.g., wetland migration, fisheries, water quality, stormwater buffering capacity), water quality impacts from inflow and infiltration associated with wastewater infrastructure, and water quality degradation due to nonpoint source pollution from environmental rule compliance. Staff participated in CHPP Team meetings and a CHPP Steering Committee

meeting to review implementation progress for the actions in the 2021 Amendment and the 2016 Source Document and have begun the planning for the 2026 CHPP. No funds have been expended other than staff time through related activities. After discussions with new NCDEQ Leadership, APNEP will no longer serve in the direct coordination role of CHPP implementation but will continue to participate on the steering committee and internal NCDEQ CHPP team.

Virginia-North Carolina Memorandum of Understanding Implementation

Facilitated by APNEP, six NC and VA environmental agencies signed a renewed MOU in 2020 to strengthen interstate collaboration in the Albemarle-Pamlico region. Building on the 2017 agreement, the MOU supports coordination on regional priorities such as resilience, nonpoint source pollution, fish passage restoration, and invasive species control. Signatories include NCDEQ, NCDNCR, NCDA&CS, NCWRC, and Virginia's Secretaries of Natural Resources and Agriculture & Forestry. The group identified resilience as a unifying theme, with initial efforts focused on the Chowan River Basin, as outlined in the 2021 MOU report.

Progress to Date: In recognition that there has been no funding dedicated to supporting MOU implementation from any of the agencies involved, APNEP prioritized the inclusion of IJJA funding for projects discussed in more detail elsewhere in this report and are actively participating in the following projects and activities:

- Virginia Healthy Waters, Southern Rivers Watershed Roundtable Coordination
- Emporia Dam Removal NOAA Grant proposal
- Virginia Resilience Planning
- NOAA CCAP mapping for the entire Program Area including Virginia. Seeking funding / partnerships to expand coverage of the Upper Roanoke
- Providing funding to support regional initiatives including Algal Bloom Coordination in Albemarle Sound, Currituck Sound Coalition, and the Tribal Coastal Resilience Connections Project
- The CAC Community Projects and the Restoration Project RFP will provide additional opportunities to benefit MOU Implementation
- Representatives from multiple Virginia organizations sit on the LC, STAC, CAC, MATS, and other focus area teams

Albemarle-Pamlico Federal Partnership (Resilient AP)

APNEP has participated in the Albemarle-Pamlico Federal Partnership (Resilient AP) initiated by the USFWS in 2022. This effort is geared towards increasing regional coordination amongst federally funded partners to promote national attention towards the Albemarle-Pamlico region while also seeking to leverage and maximize the benefits of the significant federal investments being directed towards the region through IJJA, Inflation Reduction Act, American Rescue Plan Act, and others. Staff were involved in workgroups to guide project planning, prioritization, and implementation through 2024.

Progress to Date: Recent activity has been limited due to changes in the federal administration and limited capacity of USFWS partners leading the original effort. No funds have been expended other than staff time. The future of this effort is unknown.

Sentinel Landscapes

Since 2016, APNEP has participated in the Eastern North Carolina Sentinel Landscapes Partnership, which fosters collaboration between farmers, foresters, conservationists, and military installations to support agriculture and defense—the state's two largest economic sectors. This initiative aims to preserve agricultural lands, protect military bases from encroachment, enhance national defense readiness, and restore wildlife habitat across 33 eastern counties, 24 of which are in the Albemarle-Pamlico watershed. The Sentinel Landscape designation creates new opportunities for collaboration on conservation efforts.

Progress to Date: Staff continue to participate regularly in ENCSL meetings and will continue seeking regional project opportunities within this initiative. No funds have been expended other than staff time.

Southeast Regional Partnership for Planning and Sustainability (SERPPAS)

APNEP participates for NCDEQ in a voluntary collaboration among State leaders from natural resources, working lands, and environmental protection agencies in North Carolina, South Carolina, Georgia, Florida, Alabama, and Mississippi; regional leaders from their federal agency counterparts; and leaders from the Department of Defense and the military services in the Southeast. Formed in 2005, SERPPAS is an unconventional partnership that harnesses strategic planning and promotes collaborative decision-making between public and private partners to support the military mission, conserve key habitats and species, sustain rural economies and industries, and foster better coordination among local, state, and federal stakeholders in the region. SERPPAS serves as a forum to build effective working relationships between diverse partners, identify overlapping interests, and implement mutually beneficial actions that support the missions of all the partners. SERPPAS foci currently include Sentinel Landscapes; At-Risk, Threatened & Endangered Species; Southeast Prescribed Fire; Coastal Resilience and Regional Adaptation, and Energy Development and Siting.

Progress to Date: Staff continue to participate regularly in SERPPAS steering committee meetings and will continue seeking regional project opportunities within this initiative. No funds have been expended other than staff time.

APNEP Administration and Program Implementation

Programmatic Administration

APNEP staff are responsible for the coordination, planning, and successful completion of partnership functions, including MC meetings, workshops, and other APNEP-

sponsored/partner events. In addition, staff monitor and often become involved in activities of federal and state resource management agencies, regional and local governments, and other organizations related to CCMP implementation and APNEP's mission. Staff also attend meetings, conferences, and workshops to stay apprised of technological advancements that may prove beneficial in the APNEP region and the partnership. Although the LC and Advisory Committees are instrumental in identifying local environmental issues and prioritizing management actions within each basin, most management actions are implemented by various federal, state, and local agencies on a local, basin-wide, regional, or statewide basis and require staff involvement and interactions.

Host Entity

NCDEQ serves as the host entity for the APNEP Office and the Partnership. APNEP staff are located within the Offices of the Secretary. The Department is responsible for assisting with administrative and fiscal management of the APNEP-EPA cooperative agreements described in the executive summary, which provide federal funds for APNEP. The Department's efficiency of operation and support of the Management Conference plays a key role in the success of APNEP, including assisting in the administration of the cooperative agreement and other funding sources.

Progress to Date: Staff spent significant time during the reporting period working with the Secretary's Office of Continuous Improvement, Financial Services Division (FSD) and others to set up new protocols to ensure efficient administration of 320, IJJA, and state funds. The budget office assisted with classifying IJJA funds in a non-reverting special fund budget code that does not require documentation to be carried forward in the NCDEQ budget each fiscal year. APNEP is currently working with FSD to develop mechanisms to track federal grants, given that funds on the new 320 five-year grant were awarded by the new federal administration under a separate Cooperative Agreement, and it is anticipated that the same will occur with the 5th year of IJJA funds.

Administrative Costs

320: The total budgeted administrative costs for the 320 federal grant in FY2024-25 was estimated at \$607,273 covering six staff FTE salaries, interns, benefits, longevity pay, equipment, supplies, office rent, storage space, IT services, phone, and training. An anticipated NC Government employee salary increase was included in the budgeted cost, but the state legislature has not yet passed the full budget. APNEP operates one boat and trailer used primarily for SAV work, with operational and maintenance costs covered by projects that use the vessel. Temporary employees and interns hired for specific projects were paid under the project's budgeted amount.

IJJA: Overall administrative costs for the term of the overall five-year cooperative agreement are estimated at approximately \$120,500 total to cover expenses associated with travel, supplies to support activities and projects. APNEP spent \$0 on administrative costs during FY24-25 for IJJA.

APNEP is utilizing current staff to implement and track projects under this workplan as all activities are associated with CCMP implementation. Temporary employees were hired for specific projects and are reported under those project entries and paid under the budgeted amount for the project. Temporary employees are contracted and not considered full-time employees.

Indirect Cost

320: Pursuant to NCDEQ Indirect Cost Administration Policy and the currently authorized *Negotiated Indirect Cost Agreement* between NCDEQ and EPA, the Chief Financial Officer has determined that the indirect cost for APNEP is set at the Federal *de minimis* rate of 10% of all salaries supported by this federal grant. The estimated indirect costs are based on the indirect rate for the grant-supported salaries.

IIJA: Currently, no indirect costs are anticipated or associated with the activities funded under IIJA to the host entity. However, if staff is added in the future under approval of the Leadership Council and upon EPA through a grant revision, an indirect rate will be charged under the NCDEQ agreement.

Personnel

APNEP staff funded by the grant are housed at the APNEP office in Raleigh within the NCDEQ Headquarters. This site houses the Director, Program Manager, Program Scientist, Partnership Coordinator, and Quantitative Ecologist. One position, the Policy and Engagement Manager, is funded through state appropriations. More details regarding each position can be found in the 320 workplan.

Staff Updates: Our long-term Coastal Habitats Coordinator, Jimmy Johnson, retired in February 2025. For FY25-26, we have been notified that the state funded position has been temporarily lost due to budget constraints. NCDEQ is working to reestablish the position with state funding. The loss of the position expenditures as non-federal match was replaced with increased expenditures from the NC Division of Water Infrastructure (NCDWI) on water quality improvement projects in the APNEP region.

The Partnership Coordinator position was filled September 2025 by Natalie Rodriguez.

Travel

APNEP staff attended several meetings and conferences using allocated travel funds, project-specific funds, and administration costs from 320 and state funds. APNEP did not utilize IIJA funds for general travel during FY24-25. Staff attended meetings and conferences using the allotted travel funds from state and 320 funds for specific projects. Total expenditures were less than the budgeted amount of \$10,000.

Non-Federal Cost-Share (Match)

Summary of Match Requirements

320: As Partnership host (grant applicant), NCDEQ provided \$850,000 for the required 1:1 non-federal matching funds. This match was provided through:

Summary of Non-federal State Match

In-kind Positions (salaries and benefits)	\$ 100,000
Water Quality Improvement Project(s) Expenditures:	<u>\$ 750,000</u>
TOTAL:	\$ 850,000

- 1) **In-kind Positions:** NCDEQ provided \$ 100,000 as part of the required 1:1 non-federal match for federal fiscal year October 1, 2024, to September 30, 2025. This match was provided for staff support (salaries and benefits) by the former Coastal Habitat Coordinator (*through March 1, 2025*) and Policy and Engagement Manager positions (see “Personnel” descriptions in the workplan). The match positions are responsible for program administration, support, community involvement and guiding implementation of the CCMP.
- 2) **Water Quality Improvement Project Expenditures:** The NCDEQ provided \$ 750,000 as part of the 1:1 non-federal match for federal fiscal year October 1, 2024, to September 30, 2025. The match is administered by the NC Division of Water Infrastructure (NC-DWI), which provides financial support for projects that improve water quality, including sewer systems, water treatment plants, and stormwater management. The expenditure of these non-federal funds was provided through water quality improvements for the Town of Manteo (Pasquotank River Basin) to provide UV disinfection and a resiliency upgrade at the wastewater treatment plant by the NC-DWI.

NC State Appropriation 2023-2025

In the fall of 2023, APNEP through NCDEQ, received a special appropriation of state funds of \$850,000 for two years in FY23-24 and FY24-25 to support CCMP implementation. Funds from the first year were spent to support projects consistent with the annual workplan and CCMP implementation under the direction of the LC. Funds for the second year have been encumbered for contracts and projects listed throughout the report.

IIJA: Implementation of the IIJA agreement is supported by a waiver of non-federal match requirements. The continuation of the non-federal match waiver was confirmed by the EPA on March 12, 2025, via email.

Leveraged Funds

320: APNEP continued to actively seek alternative funding sources to support activities and projects that align with CCMP implementation. Additionally, APNEP collaborates with partners to target program funds toward CCMP and basin-wide projects. Whenever possible, APNEP works to cost-share projects, enhancing their impact, even when it is not the primary driver of a project or activity. APNEP submitted its leverage results to the EPA NEPORT database in September 2025.

IIJA: EPA released the guidance regarding reporting leveraged funds to the EPA NEPORT database for IIJA funds in August 2025. Staff are in the process of submitting this report.

Appendix A: Summary Table

Project names, descriptions, partners, deliverables, and completed activities are organized in the (1) Capacity Building, (2) Projects by Focus Area, and (3) Administration and Program Implementation narrative portions above. Project information is summarized in a table (**Appendix A**) below with the addition of CWA 320/IIJA funding designations, budgetary updates, and CCMP alignment.

Project	CCMP Objectives	Partners	Outputs/Deliverables	Status / Updates	Project Timeframe	Fund	Budgeted/ Contracted Amount	Expended FY 24-25
CAPACITY BUILDING								
CCMP Update	All	Staff, Management Conference	2025-2030 CCMP Update	Completed – approved by the LC and EPA HQ Jan 2025	<i>Preparation 2020-2025 Implementation 2025-2030</i>	320	N/A	Staff time
CCMP Implementation Support Plans	All	Multiple	Monitoring Plan Protection / Restoration Strategy Communication Strategy Finance Plan	2 plans to be updated internally 2 to be contracted; not active yet	<i>Internal: ongoing Contracts: TBD</i>	IIJA	\$90,000	\$0 Staff time
Spatial Decision Support	All	NCSU Geospatial Analytics Center	Summary report, maps, implementation strategy	Objective 1 Spatial Targeting near completion	Aug 2024 – Dec 2026	IIJA State	\$317,382	\$31,028
Focus Team Support	All	UNC-IE	Report with implementation recommendations, ecosystem assessments & metric report development	Project team at UNC assembled, working with staff to develop a detailed workplan. Kickoff meeting scheduled December 2025.	Jun 2025-Sept 2027	IIJA State	\$186,527	\$ 0
NOAA CCAP	Understand, Engage	NOAA <i>NCDEQ</i>	Updated high resolution land cover maps and data, NWL and EO305 implementation. Deliverables help local governments with land use and resilience planning.	Consolidated payment from multiple DEQ Divisions Nov 2024; Coordination with VA for Upper Roanoke and SC for shared basins ongoing	Jun 2024 – Sep 2027	IIJA, State <i>DEQ Funds</i>	\$425,000 \$200,000	\$225,000 \$200,000
Restoration Projects RFP	Multiple	TBD	TBD	TBD	TBD	IIJA	\$ 300,000	\$0

Project	CCMP Objectives	Partners	Outputs/Deliverables	Status / Updates	Project Timeframe	Fund	Budgeted/ Contracted Amount	Expended FY 24-25
CAC Community projects	Engage Multiple	TBD	Multiple community projects / various outcomes, local government coordination.	RFP developed and reviewed by CAC executive board; DEQ approved Summer 2025	TBD; Staff will post by Dec 2025	IJA State 320	\$200,000 \$100,000	\$0
Outreach, Communications and Engagement	Multiple	DOA / DEQ	Communication products and tools including Soundings blogs, updated website and videos, social media	2025 Summer Internship complete; part time student assistance ongoing	Annual	320 IJA State	320: \$7,000 IJA: \$50,000	320: \$7,000 IJA: \$0 State: \$6,414
Event Participation and Sponsorships	Multiple	Staff	Multiple, see report	Ongoing	Annual	320 State	\$8,000	\$5,000
Joint Graduate Fellowship in Estuarine Research	Multiple	Sea Grant	Final report, presentations, maps, data	Ongoing	Annual	320	\$5,000	\$5,000
WATERSHED ENGAGEMENT & STEWARDSHIP PROJECTS								
Experiencing the Albemarle-Pamlico Estuary: Fostering Watershed Stewardship	Engage Restore	North Carolina Wildlife Federation	Volunteer events, 3 native pollinator gardens, restored wetland meadow, educational signage in English and Spanish at two sites including Pocosin Lakes NWR.	Completed July 2025, report posted to website; APNEP intern published Soundings blog	Jul 2024 – Sep 2025	320 State	\$14,250	\$14,250
Shad in the Classroom	Engage Restore	NC Museum of Natural Sciences	Teacher training, hatchery tour, 23 classrooms at 19 schools raised shad and released into Neuse & Pasquotank River basin tributaries	Completed Sep 2025, Report posted to website; APNEP intern published Soundings blog	Jul 2024 – Sep 2025	320 State	\$20,000	\$20,000

Project	CCMP Objectives	Partners	Outputs/Deliverables	Status / Updates	Project Timeframe	Fund	Budgeted/ Contracted Amount	Expended FY 24-25
Growing Wild Celery to SAVe Our Wetlands: A Grassroots Collaborative	Engage Restore	Atlantic Wildfowl Heritage Museum	Teacher workshop, classroom participation, restore wild celery in Back Bay	Partially completed; APNEP intern drafted Soundings blog	Jul 2024 – Jan 2026	320 State	\$30,000	\$17,295
Down East Resilience Network Communication Strategy	Engage	Core Sound Waterfowl Museum	DERN Communications Strategy, Website, Printed Materials	Partially completed; website, printed materials developed	Jul 2024 – Jan 2026	320 State	\$30,000	\$21,075
PROJECTS BY FOCUS AREA								
Oyster Habitats Focus Area								
TBD	Protect Restore	NCCF, DMF	<i>TBD</i>	TBD	TBD	320	\$30,000	\$0
Wetlands Focus Area								
Regional Wetland Monitoring & Assessment Strategy Implementation	Understand Monitor	Multiple	Monitoring Strategy	Coordination with MATs and STAC ongoing	TBD	IJA	\$100,000	\$0
Currituck Sound Coalition (CSC)	Understand Protect Engage Monitor	Audubon SAV team CSC (multiple)	Building on SAV monitoring strategy, establish expanded survey effort in low-salinity waters, beginning with Currituck Sound; projects to implement the Marsh Conservation Plan	Members of SAV team attended CSC July 2025 meeting to facilitate coordination, follow up meetings held through fall to identify synergies	TBD	IJA	\$ 180,000	\$0

Project	CCMP Objectives	Partners	Outputs/Deliverables	Status / Updates	Project Timeframe	Fund	Budgeted/ Contracted Amount	Expended FY 24-25
Natural and Working Lands Support								
NWL Peatland Inventory	Understand Protect Monitor	NC – NHP	Updated NHP inventories, summary report, conservation recommendations, NWL Action Plan & EO305 implementation	Field work ongoing, Interim report submitted Sept 2025, final expected by March 2026.	Sept 2024 – Jun 2026	State IIA	\$80,000	\$30,037
NWL Ditch Mapping	Understand Protect Monitor	Duke Nicholas School / Olander lab	Updated high resolution drainage maps, saltwater intrusion vulnerability assessment, restoration strategy	Drone data collection and fieldwork underway. Modeling and mapping began September 2025.	Jan 25 – Dec 26	IIJA	\$ 215,755	\$45,829
SAV Focus Area								
SAV Protection Policy Assessment	Protect Restore	NC Sea Grant	<i>Summary report with annotated bibliography</i>	STEM Post-Graduate fellow Riley Ragain began year- long fellowship housed with APNEP staff	Aug 25 – Aug 26	IIJA	\$31,338	\$0
SAV High Salinity Mapping Aerial Flights	Understand Monitor	NC-DOT	<i>Aerial imagery, SAV Monitoring Plan implementation</i>	Bi-seasonal surveys conducted in spring and fall – Pamlico, Bogue, and Back Sound	Ongoing	State 320	\$ 80,000	\$21,118
SAV High Salinity Mapping Interpretation	Understand Monitor	SAV team member Don Field	Mapping of aerial imagery, SAV Monitoring Plan implementation	Interprets aerial images; updates maps	Ongoing	320	\$20,000	\$9,647

Project	CCMP Objectives	Partners	Outputs/Deliverables	Status / Updates	Project Timeframe	Fund	Budgeted/ Contracted Amount	Expended FY 24-25
SAV High Salinity Monitoring Field Surveys	Understand Monitor	UNCW	Updated SAV maps, metric reports, SAV Monitoring Plan implementation	Bi-seasonal boat-based survey work conducted in spring and fall – Pamlico, Bogue, and Back Sound	Jul 2024 – Dec 2025	State 320	\$74,878	\$14,276
SAV High Salinity Assessment	Understand Monitor	UNCW	SAV Assessment, updated metric reports, SAV Monitoring Plan implementation	Post-doc hired fall 2025, project underway	Mar 2025 – Aug 2026	IIJA	\$167,830	\$0
SAV Low Salinity Protocols	Understand	TBD	Sampling protocol	Coordination with SAV team ongoing to develop a SOW for contracts	TBD	IIJA	\$188,560	\$0
SAV Low Salinity Analysis	Understand Protect Monitor	TBD	Updated maps, metric reports, SAV Monitoring Plan implementation	Coordination with SAV team ongoing to develop a SOW for contracts	TBD	IIJA	\$120,000	\$0
Water Quality Focus Area								
Water Resources Monitoring Strategy	Understand Monitor	Multiple	Monitoring Strategy	Coordination with MATs and STAC ongoing	Ongoing	IIJA	\$100,000	\$0 Staff Time
Recreational Water Quality Monitoring	Protect Monitor	DMF	Data, public notices, educational materials	Summer monitoring completed	Recent contract renewed through Dec 2026	320	\$14,280	\$11,680
RISE Stormwater Management	Protect Restore Engage	State Resilience Office	Workgroup development, summary report, implementation strategy	Planning for kick off meetings underway	Jan 2025 – Dec 2027	IIJA	\$150,000	\$0
RISE Algal Bloom Education	Protect Restore Engage	NCSU	Algal bloom education toolkit for local governments	Planning for kick off meetings underway	Jul 2025 – Jul 2026	IIJA State	\$68,908	\$0

Project	CCMP Objectives	Partners	Outputs/Deliverables	Status / Updates	Project Timeframe	Fund	Budgeted/ Contracted Amount	Expended FY 24-25
205j HAB Cohort Program	Protect Restore Engage	Albemarle COG, NCSU, SRO	Training for Algal Bloom Toolkit; capacity building for ACOG	Awarded Oct 2025, planning underway	TBD	205j	\$ funds to ACOG APNEP: In-kind staff time + project match	\$0
RISE Algal Bloom Citizen Science	Understand Protect Engage Monitor	Albemarle RC&D CEEG GSG PWW UNC-IMS NCSU	Support continued volunteer monitoring of waterways by local community groups, regional resilience portfolio implementation. Local government coordination.	APNEP assisted partners with leading revisions to the SOW from an unfunded EEG grant to tailor for IIJA and is finalizing contract paperwork	Anticipate contracting by Dec 2025 for two-year project	IIJA State	TBD	\$0
VA Southern Rivers Roundtable	Protect Restore Engage	Crater Planning District Commission	Workshops, Branding - logo development Capacity building, Strategy development	Sponsored two in person workshops and assisted with branding / logo development	Ongoing, invoice based	IIJA	\$85,000	\$1,113
Resilience Focus Area								
Scuppernong Study Engagement	Understand Protect Engage	SWCA Environment al Consultants	Engagement strategy, stakeholder facilitation, project coordination during Study implementation	Planning for targeted outreach underway, submitted NFWF application	Jun 2025 -	State	\$27,000	\$ 14,087
Scuppernong Study Implementation	Understand Restore	KBE	Advanced concept design, pilot projects	Study completed Mar 2025, Steering Committee workshop held July 15	Sep 2025-	State	\$40,000	\$0

Project	CCMP Objectives	Partners	Outputs/Deliverables	Status / Updates	Project Timeframe	Fund	Budgeted/ Contracted Amount	Expended FY 24-25
Water Level Monitoring /FIMAN Scuppernong Pilot	Understand Monitor Engage	DPS / NCEM Sea Grant SECORRA	Install two gauges to add to FIMAN network. Water level monitoring data; contribute to flood inundation library, support SE Water level monitoring network partnership b/w DPS, SG, SECORRA	Field visits to select locations held April. Gauges purchased, installation expected Fall 2025; Coordination b/w State Parks and DPS to add lake stations underway.	Apr 2025 – Mar 2026	State IIJA	\$46,000 \$103,050 (budgeted)	\$0
Tribal Coastal Resilience Connections (TCRC) Phase II	Understand Protect Engage	Sierra Club, Duke, Great Coharie River Initiative, NCDHHS, United Tribes, NCCIA	Position-capacity building, community engagement, historical research, maps, resilience toolkit	Mapping project and team coordination ongoing: presented at NOAA Coastal Geotools January (invited), hosted United Tribes workshop March 2025	Ongoing	IIJA	\$350,000 (includes Duke contract below and multiple projects TBD)	\$ 8,580
TCRC Phase II Assessment	Understand Protect Engage	Duke Nicholas School Emanuel lab	Summary report, recommendations for adaptation framework, community engagement.	Phase II Analysis ongoing	Aug 2024 – Dec 2025	IIJA State	\$56,172	\$45,879
TCRC VA 1900-acre project	Understand Protect Restore Engage	VA-DCR NHP VA-CZM ICC	Maps, summary report, Tribal community engagement, interagency education	TCRC team partner on NOAA IIJA BIL grant. Land acquisition and project coordination underway.	May 2024 – 2029. subaward contract routing	NOAA IIJA to APNEP	\$25,000 In-kind staff time	\$ 0

Project	CCMP Objectives	Partners	Outputs/Deliverables	Status / Updates	Project Timeframe	Fund	Budgeted/ Contracted Amount	Expended FY 24-25
Downeast Resilience Network (DERN) Community Mapping & Vulnerability Assessments	Understand Protect Engage Monitor	Western Carolina University Bryn Mawr College	Drone – based large format LIDAR maps of up to 3 unincorporated communities, Vulnerability Assessments (VA) of public infrastructure, Water quality sampling	Project underway, preliminary results presented at a Davis community meeting at Fall 25 DERN gathering	Jul 2025 – Jun 2027	IIJA State	\$106,351	\$0
Green Infrastructure, Local Government Assistance (RISE)	Protect Restore Engage	SRO	Tools and resources for local governments	Not active yet	TBD	IIJA	\$112,950	\$0
Virginia Resilience Planning	All	TBD – VADEQ, UVA-IEN	Community planning and workshops, tool development	Discussions have been held with multiple partners but no specific projects identified	TBD	IIJA	\$100,000	\$0
PARTNERSHIP-BUILDING AND REGIONAL COORDINATION								
NC Aquatic Nuisance Species Management Plan	Protect Restore Engage	NCDEQ NCWRC NCDACS NCDNCR FWS NOAA TNC	State supported, federally approved NC integrated aquatic invasive species management plan	Hired dedicated staff member to facilitate plan completion, Aaron Ramus started July 2025 Coordination with ANS team ongoing	Draft to Gov Office by Dec 2026; final to ANSTF 2026	State MAPIS	\$ 15,000 \$ 15,000	\$4,656 \$0