Albemarle-Pamlico National Estuary Partnership and the 2012-2022 Comprehensive Conservation and Management Plan Management Plan

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APNEP's Mission

To identify, restore, and protect the significant resources of the Albemarle-Pamlico estuarine system.



APNEP and the National Estuary Program

- The Albemarle-Pamlico estuary was designated as an "estuary of national significance" by Congress in 1987.
- APNEP is part of the National Estuary Program, which was established by §320 of the Clean Water Act.
- APNEP is funded through an EPA grant to the host entity: the N.C. Department of Environment and Natural Resources.
- Each program establishes a Comprehensive Conservation and Management Plan (CCMP) to meet the goals of §320.









APNEP's Management Approach

- Historically, APNEP's approach to its mission has included:
 - a watershed approach to environmental management
 - support of applied science initiatives to support environmental decisionmaking
 - Inclusive, collaborative, and consensus-driven initiatives
 - Engagement and partnerships with citizens, scientists, interest groups, NGOs, and all levels of government
- Through this update to its management plan, APNEP also incorporates the framework for ecosystem-based management:
 - systems-based approach, including both human and environmental considerations
 - adaptive management
 - Accountability



Comprehensive Conservation and Management Plan & 2012 Ecosystem Assessment









Comprehensive Conservation and Management Plan

Structured around addressing four questions:

Question 1: What is a healthy Albemarle-Pamlico Estuarine System?
Question 2: What is the status of the Albemarle-Pamlico Estuarine System?
Question 3: What are the greatest challenges facing the Albemarle-Pamlico Estuarine System?
Question 4: What actions should be taken to move toward healthier Albemarle-Pamlico Sounds by 2022?



Question 1:

What is a healthy Albemarle-Pamlico Estuarine System?

Goal 1: A region where human communities are sustained by a functioning ecosystem

- Goal 2: A region where aquatic, wetland, and upland habitats support viable populations of native species .
- Goal 3: A region where water quantity and quality maintain ecological integrity.

Each goal is supported by several environmental outcomes, which are more specific.

These goals are qualitative descriptions of what we want the environment to look like, with associated numerical indicators to be developed.



Question 2:

What is the status of the Albemarle-Pamlico Estuarine System?

- The answer to this question helps us understand where we are in relation to our environmental goals.
- This question is currently being addressed by APNEP's 2012 Ecosystem Assessment,
- The assessment analyzes 24 environmental indicators to give a status and trends overview for the ecosystem.
- The assessment is primarily a volunteer effort, with contributions from regional scientists regarding their areas of expertise.
- The assessment also identifies information gaps and deficiencies.



Question 3: What are the greatest challenges facing the Albemarle-Pamlico Estuarine System?

- This question was addressed by APNEP's EBM team, who identified significant challenges to be addressed.
- Significant challenges include:
 - Alteration and loss of habitat
 - Ongoing pollution inputs
 - Land use changes
 - Increasing population in some areas
 - Relative sea level rise and other climate pressures



Question 4:

What actions should be taken to move toward healthier Albemarle-Pamlico Sounds by 2022

- Management actions are divided into five components: Identify, Protect, Restore, Engage, and Monitor.
- Partner organizations and agencies are identified to highlight complimentary strengths and promote accountability.
- Each management action is linked directly to one or more environmental outcome identified in Question 1.
- Indicators will be developed to track the implementation of management actions.



Example management action in plan:

Action B1.2: Minimize the introduction of pathogens from targeted sources. By reducing pathogens, we also improve ecosystem integrity. Aging infrastructure and rising sea levels are two challenges which must be addressed to prevent bacteria, viruses, and other microorganisms from entering public waters through identified sources. APNEP will provide support for upgrades to wastewater treatment facilities and associated infrastructure that account for future risks.

- **Key Partner Organizations:** DWQ, DEQ, DCR, DWQ, DMF, DCM, EPA, CWMTF, WQIF, SRF
- CCMP Outcomes Supported: 1a, 1b, 1d, 2b, 3b
- Outputs: Pollution control measures, BMPs
- **Results:** Reduction in pathogens within targeted water bodies



Partnering with APNEP

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Trawlers docked in Harkers Island

APNEP's work to protect and restore North Carolina's sounds improves the environment, human health, and the quality of life for our citizens and visitors. But AP Map Explore the Albemarle-Pamlico watershed



Questions or Comments?



