#### **APNEP Indicators Progress**

- Draft indicator framework by STAC Ad-Hoc Committee
- Indicator framework and proposed indicators from two-day STAC indicator workshop
- Crosswalk with Heinz Center indicators
- Atlantic Slope Consortium, Atlantic Coast Environmental Indicators Consortium, and Chesapeake Bay Indicators
- EPA Indicator Development for Estuaries
- APNEP's Indicator Steering Committee



#### STAC Indicators Framework

- Indicator Definition
- Audience
- Criteria for Indicator Selection
- Indicator Framework
- Process
- Timeline



#### **APNEP Indicator Definition**

"A numerical value derived from actual measurements of a pressure, state or ambient condition, exposure, ecological condition, or measure of human health or wellbeing over a specified geographic domain, whose trends over time represent or draw attention to underlying trends in the condition of the environment in the A-P region."



#### **APNEP Indicator Audience & Utility**

- Audience
  - Public
  - Decision makers & policy makers
  - Managers
  - Scientists
- Utility
  - Measure the success of APNEP management programs at meeting program goals
  - Identify and fill knowledge gaps, including information needed to establish a science-based rationale for management actions
  - Improve management of the natural and human resources of the region
  - Build constituencies for enhanced management success
  - Communicate key information about the condition of the A-P ecosystem to each audience



# STAC Indicator Strategy: Ecosystem Components

- Terrestrial Habitats, including landscape form and function, landscape processes, land use and change, land / water interface, plant communities, sediment, and soils
- Air Quality and Atmospheric Processes, including carbon storage
- Wetland Habitats, including vegetative communities and habitat needs for migratory and wide-ranging birds and mammals, as well as hydrologic function
- Water Quality and Hydrology, including groundwater
- Living Aquatic Resources, including fisheries
- Human Needs such as coastal communities, culture, tourism, including health and well-being; food, fiber and energy production and economics



## STAC Indicator Strategy: Assessment Units I

- Currituck Sound and environs (including Back Bay, Northwest River and North Landing River)
- Eastern Albemarle Sound (including North, Pasquotank, Little and Perquimans Rivers, Alligator and Scuppernong Rivers)
- Western Albemarle Sound (including Edenton Bay and tributaries and McKay's Creek)
- Roanoke River
- Chowan River
- Roanoke and Croatan Sounds
- Pamlico Sound (could be segmented into northern and southern basins, with Bay River in southern)
- A-P peninsular interior



## STAC Indicator Strategy: Assessment Units II

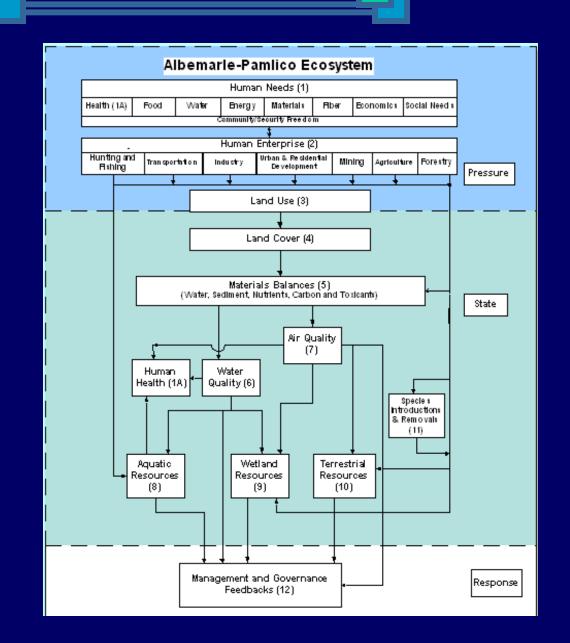
- Tar-Pamlico River (including Pungo River)
- Neuse River
- Pamlico-Neuse peninsular interior
- Core Sound
- Bogue Sound (including North River and Newport River)
- White Oak River (including the Croatan interior)
- Barrier islands
- Near coastal ocean (could be segmented into north-central-south)



### EPA Indicator Development for Estuaries

- Program Planning
- Conceptual Model Development
- Indicator Specification
- Monitoring Program Development
- Implementation
- Reassessment







#### STAC Indicator Teams

- Air Quality & Atmospheric Processes
- Living Aquatic Resources
- Social
- Terrestrial
- Water Quality & Hydrology
- Wetlands



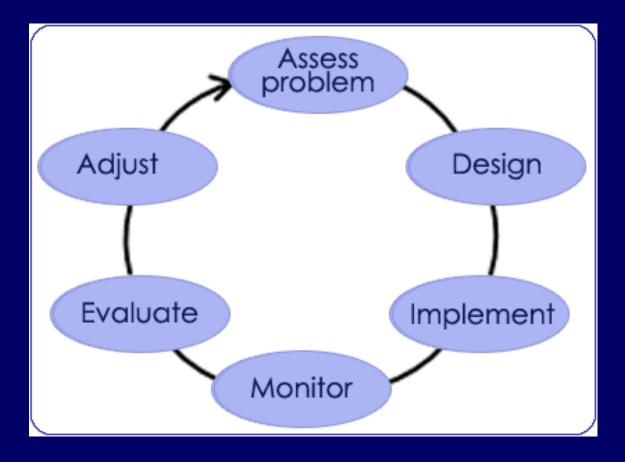
### **APNEP Indicator Steering Committee**

- Purpose
  - Effective ISC = easier to establish indicators and obtain desired outcome at end of process
  - Active & balanced involvement throughout, earlier the better

- Committee Beginnings 2006
  - August 22 (Washington)
  - September 12 (Teleconference)
  - October 10 (Raleigh)
  - November 8 (All-Hands)

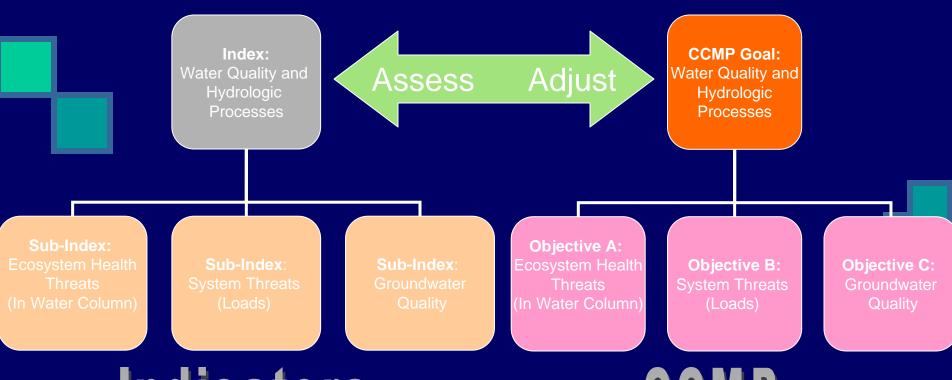


# APNEP CCMP 2007 - ?: A New Paradigm of *Adaptive* Ecosystem Management





### An Integrated Framework





Indicators

Framework

CCMP

Framework

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