Progress Report

APNEP Transition to Ecosystem-Based Management & CCMP Update

APNEP STAC Meeting
January 2011
Washington, NC

Overview of Process

APNEP CCMP Update 2011

Ecosystem Based Management Approach

Proposed CCMP Structure & Content

CCMP

Process Objectives

Develop a CCMP that identifies actions needed to protect and restore Albemarle-Pamlico estuarine system, based on science and with measurable outcomes;

Determine accountability for achieving results including performance, effectiveness, and the efficient use of funds spent on Albemarle-Pamlico estuarine system; and

Promote public engagement, awareness and communication to build support for a long-term strategy and positive environmental change.

EBM Transition Team

Monthly meetings since January 2010 to guide the development of a framework for EBM integration into the 2011 CCMP and monitoring plan.

Team Members: Dr. Jack Thigpen, Dr. Kirk Havens, Marjorie Rayburn, Dr. Carl Hershner, Diane Reid, Pete Campbell, Dr. Molly Ruggero, Tom Stroud, Dr. Wilson Laney, and APNEP Staff

Feedback from Policy Board, STAC , CAC, EPA, & NCDENR

CCMP Structure: Proposed Changes

APNEP CCMP Update 2010

The 1994 CCMP included five priority issues (presented as individual plans): Water Quality, Vital Habitats, Fisheries, Stewardship, and Implementation

New plan will be structured around addressing **five questions** regarding the estuarine system.

Proposing the **three goals** that will be achieved through implementation actions addressing **five strategies**.

Five Questions

1: What is a healthy Albemarle-Pamlico Estuarine System?

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

3: What are the biggest threats to Albemarle-Pamlico Estuarine System?

4: What actions should be taken that will move us from where we are today to a healthy Albemarle-Pamlico Sounds by 2020?

5: What and where are the priorities?

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 are protected, enhanced, or restored, and support viable populations of native species

Goal 3: A region where water quantity and quality maintain ecological integrity

Goals & Outcomes

Goals are qualitative statements of what a healthy ecosystem should look like.

Outcomes have been developed to help translate broad goals into measurable characteristics of ecosystem health.

Indicators are physical, biological, or chemical conditions that can be measured to provide data about the status of ecosystem.

T**argets** specify the desired ecosystem condition in a way that defines success.

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

Ecosystem Assessment

APNEP has been working to link these goals to specific measures of ecosystem health. The development of a clear set of measurable indicators and benchmarks for the health of Albemarle-Pamlico ecosystem is a new effort that will enable us to assess whether progress is being made, adjust our actions, and report back to the public.

5 Questions

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3: **What are the biggest threats to Albemarle-Pamlico Estuarine System?**

4: What actions should be taken that will move us from where we are today to a healthy Albemarle-Pamlico Sounds by 2020?

5: What and where are the priorities?

3: What are the biggest threats to Albemarle-Pamlico Estuarine System?

Basic Threat Assessment

Alteration and loss of habitat and the ongoing input of pollution are the top two immediate and pervasive threats facing the Albemarle-Pamlico ecosystem. Habitat alteration has occurred throughout the estuaries, rivers, forests, and shorelines of the rivers and sounds, and thousands of pounds of additional pollution enter the waterways on a daily basis. The entire region faces challenges from a growing human population and a changing climate that will exacerbate the many existing stress and pressures on Albemarle-Pamlico Sounds

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Strategic Priorities

A: Identify
B: Protect
C: Restore
D: Engage
E: Monitor

For each strategy there will be description of the current situation and rationale for taking action, key objectives for attaining desired ecosystem outcomes, and near-term actions to move the region forward. The strategic priorities and their associated actions provide a regional starting place.

Protect: Objectives & Actions

Objective B1: Protect water quality by eliminating targeted sources of water pollution

B1.1: Minimize the introduction of additional (targeted) sources of toxics from the watershed by x %.

B1.2: Minimize the introduction of additional (targeted) sources of pathogens from the watershed by x %.

B1.3: Establish no discharge zones for estuarine waters.

B1.4: Protect natural riparian zones to maintain water quality.

B1.1: Minimize dredge and fill activities in naturalized areas and sensitive habitats.

B1.5: Minimize surface water withdrawal during low flows.

Protect: Objectives & Actions

Objective B1: Protect water quality by eliminating targeted sources of water pollution

B1.6: Maximize channel modification that returns the geomorphology to its natural state.

B1.7: Reduce percent of impervious surface in new development through use of Low Impact Development (LID) practices.

B1.8: Reduce livestock impacts to surface waters and riparian zones.

B1.9: Increase the use of no-till farming practices.

B1.10: Reduce sedimentation and chemical contamination from tree farming through promotion of Low Impact silvaculture practices.