ALBEMARLE-PAMLICO ADVOCATE

. . . the newsletter of the Albemarle-Pamlico Estuarine Study

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Virginia understands "upstream" commitment

By KEITH BUTTLEMAN

(ED. NOTE - William W. Cobey Jr. of DEHNR and Ray Cunningham of the U.S. EPA, co-chairs of the A/P Study Policy Committee, have announced the appointment of Keith Buttleman of the Virginia Council on the Environment to the Policy Committee. "We are pleased to have this enhanced participation by the Commonwealth of Virginia within the Study. We look forward to Mr. Buttleman's involvement," said Cobey.)

The ties between Virginia and North Carolina have been strengthened with the recent invitation by Secretary Cobey asking Virginia to join the A/P Study Policy Committee. Virginia's Secretary of Natural Resources, Elizabeth Haskell, has asked me to represent her in this important endeavor.

Virginia has participated with North Carolina since the early days of the study through membership on the Technical Committee. Involvement has increased in recent years to include individuals not only from the Council on the Environment but also from our Water Control Board; the departments of Game and Inland Fisheries, Forestry, and Conservation and Recreation; the Marine Resources Commission; Hampton Roads Planning District Commission; and local governments. Of particular value has been the exchange of information and experiences among individuals having similar concerns.

We in the Commonwealth recognize the importance of cooperative management of shared resources. Since 1984, with the signing of the the first Chesapeake Bay Agreement, we have been working cooperatively with the District of Columbia, Maryland, Pennsylvania, and the federal government on the cleanup and management of the Chesapeake. This has not always been easy; we have not always viewed the world in the same way. We have not always been able to progress at the same speed or in the same manner. Yet, through the tenure of seven governors, two mayors, and three EPA administrators, we have maintained a valued and cooperative working relationship.

Participants in the Chesapeake Bay Program have developed an understanding of each other's problems and viewpoints, strengths and weaknesses, and in so doing we have made slow but steady progress towards our goal of improving the Bay's water quality, habitat, and living resources. Currently we are in the process of a re-evaluation of our 1987 pledge to reduce nutrient levels in the main stem of the Bay by 40% by the year 2000. Undoubtedly, the cooperative arrangements of the Bay Program will once again be challenged by the consequences of this evaluation as we struggle to deal with the management of nonpoint pollution. I have no doubt, however, that this challenge will be met through the hard work of the hundreds of people who have learned in the last nine years to work closely together.

I look forward to bringing this spirit of cooperation to my activities with the A/P Study as it develops its Comprehensive Conservation and Management Plan. We in Virginia recognize the value of your efforts. We understand the importance of "upstream" participation, and we will continue to work with you.

THE ALBEMARLE-PAMLICO ESTUARINE STUDY

Initiated in 1987, the Albemarle-Pamlico Estuarine Study is a five-year program of research and education on the Albemarle and Pamlico sounds and the rivers that feed them. The Study is charged with developing a Comprehensive Conservation and Management Plan (CCMP) to help guide long-term environmental protection of the estuary. The schedule for the drafting, review and publication of the CCMP is as follows:

PROGRAM GOAL	PROJECTED COMPLETION	STATUS AS OF JAN. 1992
First draft of CCMP	March 1992	On schedule
Public review of draft	May 1992	On schedule
Revisions to CCMP draft	June-August 1992	On schedule
Second draft of CCMP	August 1992	On schedule
Public review of CCMP draft	September 1992	On schedule
Final revisions to CCMP	October 1992	On Schedule
Final CCMP approved and published	November 1992	On Schedule
Implementation Summit	December 1992	On Schedule

CCMP format set; strategies being studied

The A/P Study's Comprehensive Conservation and Management Plan (CCMP) is now in "working draft" form. Although changes and refinements will be made before the official first draft of the CCMP is released for committee review in March, the working draft does define the 10 "focus areas" of the CCMP.

Below is a brief look at the focus areas, each of which be addressed in its own "Action Plan" within the CCMP. Public comment on early drafts will be important in shaping the final CCMP.

1 - Sedimentation, turbidity, salinity, bacteria

Goal: reduce and control impacts on water quality and flora and fauna from runoff, freshwater drainage into estuarine waters (and instances of saltwater intrusion into freshwater habitats), and bacterial contamination in waterways and shellfish beds

Strategies: farm/forestry Best Management Practices (BMPs); urban stormwater controls; improved septic and sewage management

2 - Nutrients and dissolved oxygen

Goal: promote nutrient reductions in each sub-basin of A-P watershed, and thereby reduce problems of nutrient enrichment (primarily algal overgrowth, resultant lowered DO, and toxic dinoflagellate growth)

Strategies: farm/forestry BMPs; stormwater controls; improved sewage and septic treatment; alternative disposal for new discharges; attention to atmospheric nutrients; improved analysis of nutrient sources

3 - Biological integrity and toxicants

Goal: ensure that traditional aquatic food webs (including benthic organisms) remain intact and levels of toxicants are not harmful to humans nor aquatic life

Strategies: remediate toxic hotspots; reduce toxic levels in discharges; improve regulation and oversight of discharges; urban stormwater controls

4 - Fish/benthos kills and diseases

Goal: reduce incidence of kills and diseases related to human activities (also acknowledge that many kills result from natural causes)

Strategies: reduce nutrients, toxicants, and other causative agents (ref. #1, 2, 3 above)

5 - Fisheries productivity

Goal: ensure that sustainable populations of commercially and recreationally important species are maintained (30 species listed)

Strategies: restore depleted stocks; regulate seasons to enhance spawning success and juvenile survival; reduce exploitation rates of anadromous species; restructure fishing license package; restrict sediment-disturbing methods of harvest; continue research on selective gears; address water quality and habitat issues

6 - Fish habitat and nursery areas

Goal: ensure the long-term productivity of waters demonstrated to be essential habitat for various fish or shellfish species

Strategies: maintain or enhance habitat protection; state purchase of valuable areas

7 - Critical and unique terrestrial habitats

Goal: ensure long-term protection of all rare habitats and habitats that hold indigenous endangered species

Strategies: state purchase of most critical areas; conservation agreements with owners of other areas

8 - Wetlands

Goal: limit losses of wetlands to specified acreages (definition of wetlands to be used in the CCMP is as yet undetermined)

Strategies: restrict drainage or conversion of wetlands; state purchase of most critical areas

9 - Population growth

Goal: minimize adverse impacts from population growth in the region

Strategies: wider use of planning measures which will help protect the environment

10 - Public education and involvement

Goal: promote widespread understanding of the importance of the estuary and ways that human impacts can be reduced

Strategies: school programs; public meetings; printed and audio-visual materials

A/P STUDY RESEARCH FOCUS

Project: Urban Stormwater Control Project
Project Leader: Donald Belk, City of Greenville Planning Dept. Report #89-90

Environmental Concern - Runoff from urban areas can contribute a variety of pollutants to waterways. Two pollutants of particular concern are nutrients (from lawns and other green spaces), and toxic chemicals (mostly from vehicles). Urban runoff can also contain harmful levels of sediment and litter.

Project Operation - With funding from the A/P Study, the City of Greenville constructed a "detention basin" along the Tar River to contain the runoff from a 200-acre watershed that includes downtown Greenville. Underground drains in the area were rerouted to feed into the basin rather than directly into the Tar as in the past. The basin can hold an amount of rain equal to a half-inch storm over the entire 200-acre area. In heavier storms, flow into the basin can be regulated to contain the early runoff because the potential for pollution from urban areas is greatest during the first few minutes of precipitation. Once in the basin, the runoff is held long enough for pollutants to settle out, then the relatively clean rainwater is decanted into the river. Accumulated sediment in the basin will be dredged out as needed and taken to a landfill.

Goal of Project - The goals for the project are: (1) to serve as an active runoff control for Greenville; and (2) to serve as a pilot project for other towns which may implement runoff controls in the future.

Findings - The detention pond has been functioning only since November 1991, so there are no conclusive data on how well it is working thus far. Monitoring of the basin's discharge to help track its performance has been funded by the A/P Study.

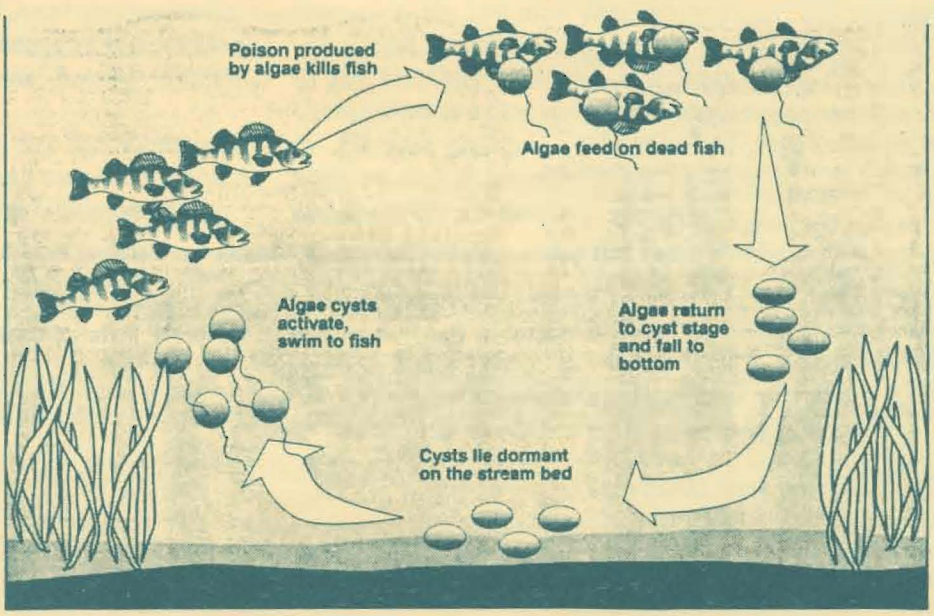
Management Implications - As more and more sections of waterfront are developed for residential communities and urban expansion in the A-P region, problems with urban runoff may grow. Although stormwater control is required for new construction, the problems of older urban waterfronts will need to be remediated in some way to diminish the potential for long-term damage. Since concentrations of heavy metals attributable to urban runoff have been found even along waterfronts of small towns, it is clear that stormwater control will need to become a priority for many communities in the future.

Toxic algae may be first piece in fish kill puzzle

This graphic from the Raleigh News and Observer demonstrates the life cycle of toxic dinoflagellate algae that are believed to be responsible for many fish kills in the A-P region since 1984. It may also contribute to fish diseases by weakening fish and making them susceptible to infections. The algae seems to activate only in the presence of fish, then return to a dormant state after killing and briefly feeding on sloughed-off fish tissue.

Scientists have observed a worldwide increase in a variety of toxic algae in recent years, which they suspect is tied to nutrient enrichment in coastal waters. The growing prevalence of these toxic algae may wreak havoc on traditional aquatic food webs.

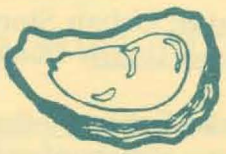
Note: Algae in this diagram are illustrated schematically. Actual algae are microscopic in size.



Working together is success.

Sound Bites

news, notes and information about the A/P Study



CCMP TARGET GROUP MEETINGS SET

A series of workshops with groups that will be affected by the A/P Study's Comprehensive Conservation and Management Plan will take place during February. The purpose of the workshops is to familiarize leaders within the groups about the content of the CCMP and receive input on feasible management options. Meeting schedule will be:

Feb. 11 - Pamlico area elected officials
Feb. 12 - Albemarle area elected officials
Feb. 13 - Agriculture/Forestry
Feb. 19 - Fisheries, marine-related industries
Feb. 20 - Industry, point-source dischargers
Feb. 21 - Development interests

Comments from these groups will be incorporated into the first draft of the CCMP that will go out for review by Study committees in March and public review in May.

TO GET ON ADVOCATE MAILING LIST

To get on or off the mailing list, or to make a change to your address, write to Advocate, POB 1507, Washington, NC, 27889.

BLOCKS TO FISH MIGRATION TO BE REMOVED

Three state agencies and four federal agencies have agreed to cooperate in removing several roadway dams that currently block historic migration routes of striped bass and other anadromous species in the A-P region. The state Dept. of Transportation, Dept. of Environment, Health and Natural Resources, and the Wildlife Resources Commission will work the U.S. Fish and Wildlife Service, Environmental Protection Agency, Army Corps of Engineers, and National Marine Fisheries Service, to create culverts in the dams that will allow migrating fish to pass through.

Blocked migration of ocean fish that spawn in freshwater is believed to have contributed to declines of these species in North Carolina waters.

The A/P Study will coordinate this effort.

COMMITTEE MEETINGS, FEBRUARY-MARCH

Citizen Advisory . . . . . February 4, Washington
Technical . . . . . February 18, Raleigh
Roundtable (all committees) . . . March 3, Beaufort
Policy . . . . . March 4, Beaufort

The public is welcome at all Study meetings. Call (919) 946-6481 for location, time, and agenda specifics.

THE ADVOCATE...

is the newsletter of the Albemarle-Pamlico Estuarine Study, a five-year project funded jointly by the US EPA and the State of North Carolina, intended to develop an environmental management plan for the Albemarle-Pamlico estuarine system. The Study, which will conclude in 1992, is part of the EPA's National Estuary Program. It is being conducted within the N.C. Dept. of Environment, Health, and Natural Resources, POB 27687, Raleigh, NC, 27611-7687.

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