

MINUTES

TECHNICAL COMMITTEE FEBRUARY 22, 1991 RALEIGH, NC

CALL TO ORDER

The meeting was called to order at 10:20 a.m. by Mr. Bowman Crum, co-chair of the Technical Committee. Attendees are listed in Attachment A.

CONSIDERATION OF MINUTES

Dr. George Everett moved that the November 13, 1990, Technical Committee minutes be approved as distributed. Mr. Cecil Settle seconded the motion which passed unanimously.

PROGRAM DIRECTOR'S REPORT

Mr. Randall Waite listed several draft research reports under review: 1) Educational Handbook for Nonpoint Source Pollution (Hoban/NCSU); 2) Federal Consistency Review for the A/P Study Area (Duffin/RTI); 3) Coupling Study (Pietrafesa/NCSU); 4) Blue Crab Shell Disease (Noga/NCSU-Engel/NMFS); 5) Virginia Animal Waste Management (Lewis/VAS&W); 6) Potential for Eutrophication and Nuisance Algal Blooms (Paerl/UNC); 7) Public Attitudes Survey Interim Report (Hoban & Clifford/NCSU); 8) Reduction of Nutrient Loadings (Kuenzler/UNC); and 9) Heavy Metals for Neuse River (Riggs/ECU). The review of reports will occur more rapidly with Ms. Jennifer Steel, the Technical Coordinator, taking on the review process for final reports. Waite introduced Steel. Waite and Mr. Ted Bisterfeld will be finalizing the draft environmental goals based on the Status and Trends Report. A steering committee and a specific timeframe for the CCMP development are being formulated. The Roundtable meeting for the A/P Study is scheduled for March 5 in New Bern with the Policy Committee meeting on March 6.

PROJECT DIRECTOR'S REPORT

Bisterfeld reported he had been involved in the Status and Trends public meetings held during January and would be available to assist in finalizing that report. Regarding financial planning for the Study, Apogee Research Inc. has prepared a draft outline for a seminar to describe how to investigate paying for action items in the CCMP. The seminar is proposed for late spring. Waite and Bisterfeld are to identify and propose membership to a financial planning committee. Bisterfeld asked the Committee to

provide names for membership on that committee in areas such as the State Legislature , financial banking community, U.S. Congressional committee, local government, state budget official (DOA and/or DEHNR), legal advisor, and public or special interest groups with interest in environmental protection strategies.

Regarding additional funding sources for the NEP, Bisterfeld reported that the EPA base funding for the A/P Study in FY 91-92 is \$1 million. Additional money of up to \$100,000 is available on a competitive basis for action plan demonstration projects. Bisterfeld noted the criteria associated with FY 91-92 action plan demonstration projects. Abstracts of possible action plans will be submitted to OMEP March 15 for their initial reactions on acceptability. Proposals are due at OMEP on April 30.

Bisterfeld reported on a Coastal America program which is designed to improve the Federal government's response to coastal problems in the topic areas of species and habitat declines, nonpoint sources of pollution and sediment contamination. The Albemarle/Pamlico system has been designated a pilot for this program with the possibility of receiving up to \$600,000 for FY 92-93. The Committee discussed this topic and caution was expressed regarding the likelihood of its successful development.

The A/P Study will participate in a "Science Symposium" sponsored by NEP in Sarasota, Florida beginning on February 25. Waite, Bisterfeld, and Steel will attend along with Dr. Hans Paerl or Mr. Joe Rudek and Dr. Tom Hoban, who will make presentations regarding their work for the A/P Study.

PUBLIC INVOLVEMENT COORDINATOR'S REPORT

Mrs. Joan Giordano reported that the two CAC groups met jointly in January to discuss the FY 91-92 funding selections. Joint meetings will probably be the format for future meetings. Giordano stated a good deal of her time has been spent working with the fourth cycle project participants. She is continuously being approached to make presentations to various local organizations.

GIS UPDATE

Ms. Karen Siderelis reported on the status of the data base for the A/P Study. There are approximately 50 different data layers being developed with about 30 completed. Two areas of concern regarding the data base are 1) getting the Virginia portion of the A/P study included in the data base and 2) four data layers that probably will not be available for the Study (detailed soils; national wetlands inventory; elevation; and bathymetry). Siderelis and Waite have reached an agreement on solving the staffing problem for the GIS data management by hiring a temporary person through June 30 and some outside contract assistance. Training materials on the data base have been developed for users of the system. Data custodian agreements

with agencies that provide data are being formalized. A workshop on GIS modeling techniques should take place in April (has been rescheduled for May 9/10). The Data Management budget for FY 91-92 remains at \$186,000. Siderelis said that recommended schedules for updating data have been developed; however, maintaining the data base will depend largely upon funds available.

TECHNICAL COORDINATOR'S REPORT

Ms. Jennifer Steel reported on the seven public meetings held across the State on the Preliminary Status and Trends Report. Steel reported that much of the discussion during the meetings was not directly pertinent to the Preliminary Status and Trends Report. Concern and interest was expressed as follows:

Water Quality

- freshwater drainage was not addressed adequately in the document and not at all in the summary statement as a potential source of degradation
- are we actually looking into the causes of algal blooms and not just their nature in the estuarine system
- the monitoring program should be maintained after the 1992 projected end of the Study

Fisheries

- the report should emphasize the fact that landings are not to be construed as the indicator of stock size or health
- a study should be conducted and results recorded on the effects of shrimp trawling
- the by-catch issue should be addressed more specifically with more detail

Critical Areas

- questions were raised regarding the accuracy of conclusions that were reached regarding areas of closed shellfishing beds
- a lack of specific data in the STR to confirm the conclusions about loss of saltmarsh areas and freshwater marsh areas
- a lack of data supporting the conclusions about the causes and trends of shellfish closures

Those were the only directly pertinent comments on the content of the Preliminary Status and Trends Report and the summary

statement. There were general comments about the program and concerns about areas of omission in the document.

Concerns of omissions included:

- acid rain, proliferation of lawns and golf courses in the study area, BMP waste lagoons, effects of increasing crab fishing industry (pots), global warming, omission of Stan Riggs's research on metals, inclusion of cost benefits and economic analyses

Areas that needed more emphasis in the report included:

- the livestock industry--the hog industry in particular
- barrier islands were not addressed as extensively as needed
- sea level rise not maintained as a consistent theme of concern

Recreational fishermen questioned the information contained in the report about the comparisons regarding commercial and recreational fishing hauls.

Steel has been editing, updating, and refining the Preliminary Status and Trends Report. Every chapter has been sent to the original authors with a request for commentary on the editing and a request to supply any information that would allow the document to be printed as a 1991 Status and Trends Report. The final draft version is scheduled to be sent the week of April 22 to the Technical Committee for final review by the May Technical Committee meeting. Two documents are planned: 1) a 1991 Status and Trends Report with an executive summary and findings section and 2) a more detailed summary document for public distribution. Dr. Ernie Larkin suggested that the need for a public version of the Status and Trends Report be discussed at the Roundtable meeting in March. Waite was instructed to make a recommendation at the May Technical Committee meeting on how to deal with the public version of the Status and Trends Report.

SUBCOMMITTEE REPORTS

No report from the Publications Review or Standard Operating Procedures Subcommittees.

Information Management Subcommittee

Dr. Robert Holman noted that Siderelis, Waite and he had met several times to discuss in detail the status of the data management element. They discussed where to focus efforts and the consensus was to utilize information now available and which will be available from the GIS to help in the formulation of the

CCMP. Regarding the personnel problem, Waite indicated that he is awaiting final clearance on getting a temporary staff person hired to do the GIS work through June 30 and that some work will be contracted out. Two short-term positions will be filled on a time-limited basis beginning in FY 91-92. Siderelis briefed the Committee on the GIS budget items outlined in the FY 91-92 budget.

Monitoring Subcommittee

Dr. George Everett has agreed to chair the subcommittee. There have been no meetings.

The Hydrodynamics Workgroup, chaired by Mr. Larry Saunders, has not held any meetings and this was of concern to the Technical Committee.

Technical Review Subcommittee

Mr. Jim Turner summarized the technical acquisition projects recommended by the Subcommittee for FY 91-92 funding (Attachment B). Following discussion on the recommended projects, Copeland made a motion regarding Proposal #527 "Shell Disease in Blue Crabs", to reduce the funding by one-half; to negotiate with the researchers (include DMF and USF&W in the negotiations) a revised scope of work; and to drop the project if this cannot be accomplished. Dr. Michael Orbach seconded the motion which was approved. It was also recommended that Proposals #536 "Identify Groundwater Recharge Areas" and #551 "Nutrient Reduction Targets" be redefined and funded at \$20,000 each or dropped if negotiations fail. The Committee directed the staff to develop a new work plan for sediment toxicity assessment since concerns were expressed by the reviewers on the two proposals submitted. Bisterfeld suggested getting the Narragansett Lab to run A/P sediments from selected hot spots.

There was further discussion on the recommended projects. Copeland moved to accept the amended recommendations of the Technical Review Subcommittee with the following exceptions: 1) Projects #501 "Natural Areas Protection" and #526 "VA Inventory and Protection Plan" be moved to last so the other projects such as #534 "Fishing Practices Mapping", limited to \$30,000, and sediment toxicity testing are funded first. Project #501 is to be funded only as an action plan demonstration. This is in addition to the program director's budget negotiations on all recommended projects. The motion was seconded by Dr. Hogarth. Discussion followed on Copeland's motion. The motion carried by a vote of seven in favor and one opposed.

Public Involvement Subcommittee

Orbach summarized the public participation recommendations for FY 91-92 funding (Attachment C). In addition to those recommended

for funding, Orbach noted that the subcommittee supports Proposal #530 "Wastewater Treatment Manual"; however it is recommended at \$0 funding. Bisterfeld suggested that separate EPA funds may be available for printing cost. Orbach also brought to the Committee a recommendation that the A/P Study newsletter be contracted out to the Pamlico-Tar River Foundation (Proposal #524) (Attachment D). Discussions on the recommendations followed. There was some concern expressed that the program should organize the annual meeting rather than contracting this task to an outside source as done in the past. Mr. Bill Cole made a motion to accept the recommendations for public participation projects for FY 91-92 with the condition that participants be made aware that all elements are the ultimate functions of the A/P Study and not separate entities of the contractors. Copeland seconded the motion. The motion carried unanimously.

It was suggested that development of the CCMP should be discussed at the Roundtable meeting in March.

ANNUAL BUDGET

Waite summarized the Draft FY 91-92 budget breakdown (Attachment E) noting the changes voted on during the meeting. Orbach made a motion to adopt the revised draft FY 91-92 budget and to recommend it to the Policy Committee. Turner seconded the motion. Hogarth recommended that additional support for the A/P staff be obtained for the development of the CCMP. Waite suggested a temporary or short-term position could probably be obtained since it would be a federally funded position. Orbach amended his motion to include that the staff have the flexibility to apply any carryover money in accordance with the general priorities discussed and a higher priority be given to staff assistance to produce the CCMP. The motion on the budget was unanimously approved.

ADJOURNMENT

The meeting adjourned at 4:05 p.m.

TECHNICAL COMMITTEE ATTENDEES - FEBRUARY 22, 1991

| <u>NAME</u> | <u>AGENCY</u> |
|-------------------|---------------------------|
| JOAN GIORDANO | A/P STAFF |
| JENNIFER STEEL | A/P STAFF |
| GEORGE EVERETT | DEM |
| JIM TURNER | USGS |
| BILL COLE | USEFWS |
| FRED HARRIS | WRC |
| SANDI HORTON | SWC |
| LARRY EASTMAN | DCM |
| B. J. COPELAND | UNC-SEA GRANT |
| CECIL W. SETTLE | USDA-SCS |
| ERNIE LARKIN | PAMLICO CAC |
| RANDALL G. WAITE | A/P STAFF |
| BOWMAN CRUM | EPA |
| TED BISTERFELD | EPA |
| TOM QUAY | PAMLICO CAC |
| WILSON LANEY | USEFWS |
| BOB HOLMAN | WRRI |
| ANN DEWITT BROOKS | VA/COE |
| BILL HOGARTH | DMF |
| MIKE ORBACH | MARINE SCIEN. COUNCIL/ECU |
| FRED WHITE | DFR |
| KATHY NORRIS | A/P STAFF |



Attachment B

State of North Carolina
Department of Environment, Health, and Natural Resources
ALBEMARLE-PAMLICO ESTUARINE STUDY
225 N. McDowell Street • Raleigh, North Carolina 27603

James G. Martin, Governor
William W. Cobey, Jr., Secretary

February 22, 1991

Randall G. Waite, Director

MEMORANDUM

TO: Technical Committee, APES
FROM: Jim Turner, Technical Review Subcommittee Chair
SUBJECT: Recommendations For 1991-92 Funding Cycle

We are recommending the 15 projects listed below for funding in the 1991-92 funding cycle. Our subcommittee or staff representatives discussed each of the 36 proposals after considering the peer reviews and Citizen Advisory Committees' recommendations. We then rated each proposal according to its technical merit, potential for success, and program relevance.

We leaned more toward projects that were directly applicable to the Comprehensive Conservation and Management Plan. However, two important issues did not have proposals rated high enough to receive our funding recommendation-effects of trawling on the benthos and sediment toxicity assessments. Considering the importance of these issues, we recommend that new proposals be developed to more efficiently study the issues or to collect known information on the subjects so that some conclusions can be drawn.

The recommendations listed below include the Action Plan projects that would be submitted to EPA for separate funding. The remainder of the projects request a total funding of \$275,228. This total includes 25% for Critical Areas, 15% for Fisheries, 20% for Human Environment, and 40% for Water Quality which included monitoring. Our rating sheet is attached (4.0 is the highest rating).

Add: #534 Fishing Practices Mapping
- Sediment Toxicity Assessment

Table with 3 columns: Project ID, Description, Proposed, Revised. Includes handwritten notes like '(action plan or move to last)', '(1/2 or drop)', and '(negotiate work)'. Rows include AP 501, AP 528, CA 526, CA 510, FI 537, FI 527, FI 552, HE 507, HE 543, HE 550, WQ 551, WQ 536, WQ 539, WQ 540, WQ 509.



Attachment C

State of North Carolina
 Department of Environment, Health, and Natural Resources
 ALBEMARLE-PAMLICO ESTUARINE STUDY
 Public Involvement Office
 1424 Carolina Avenue, Washington, North Carolina 27889

James G. Martin, Governor
 William W. Cobey, Jr., Secretary

Randall G. Waite, Director
 Joan Giordano, Public Involvement Coordinator

Memorandum To: Technical Committee, APES
 From: Mike Orbach *M.O.*
 Chair, Public Involvement Subcommittee
 Re: Recommendations for 1991-92 Funding Cycle
 Date: 20 February 1991

On the basis of review by members of our subcommittee, the comments of outside reviewers, and the advice of the Citizen Advisory Committees (CAC) we would like to recommend the projects listed below for inclusion in our 1991-92 funding cycle. The recommended projects which fall directly within the purview of our committee total \$229,990, or 15% of the projected APES funding for the next cycle. When the Citizen Water Quality Monitoring project (#514), which in the past has been funded out of monitoring funds, is included the total is \$276,698, which is 18% of the projected program funding level. Both of these are within the 20% guideline approved by the Policy Committee. Since this is the last funding year of the program, and since public education and participation is critical to the production of the CCMP during this year, we feel that this level of funding is appropriate.

The projects recommended here are the same group that the CACs recommended for funding, with the exception of one project that was ranked by the CACs but not recommended by our subcommittee. We have included the CAC rank-ordering of the projects for your information.

| PROJECT #/TITLE/Proposer/(CAC Ranking) | REQUESTED | RECOMMENDED |
|--|-----------|-------------|
| 1) 502/Estuarine-Environmental Health Education Curriculum/Elizabeth City-Pasquotank Schools (6) | \$51,625 | \$51,625 |
| 2) 503/Public Education Program in the Albemarle Area/Albemarle Environmental Association (3) | \$34,680 | \$34,680 |
| 3) 508/Involving the Public in the APES CCMP/NC Coastal Federation (4) | \$46,165 | \$46,165 |
| 4) 514/Citizen Water Quality Monitoring/ ECU-ICMR (1) | \$46,708 | \$46,708 |

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| PROJECT #/TITLE/Proposer/(CAC Ranking) | REQUESTED | RECOMMENDED |
|--|-----------|-------------|
| 5) 524/Community Education Outreach/PTRF (2) | \$77,520 | \$77,520 |
| 6) 542/Institutional Enhancement-Public Involvement/Hampton Roads PDC (5) | \$27,000 | \$10,000 |

7) In response to the #2 item in our Call for Proposals (CFP), Institutional Alternatives for Long-Term Citizen Involvement, we received two proposals both of which were deemed unacceptable by the CACs and our committee. However, given the importance of this task we and the CACs recommend that the program designate a \$10,000 reserve fund for this task, and direct the committees and staff to develop a product, with outside assistance as necessary, to accomplish the purposes of this item from the CPF.

\$10,000

TOTAL RECOMMENDED FUNDING \$276,698

Recommended supporting #530 "Wastewater Treatment Manual" but committing no A/P funds. Bisterfeld thinks separate EPA funds can "print" manual.



Attachment D

State of North Carolina
Department of Environment, Health, and Natural Resources
ALBEMARLE-PAMLICO ESTUARINE STUDY
Public Involvement Office
1424 Carolina Avenue, Washington, North Carolina 27889

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Randall G. Waite, Director
Joan Giordano, Public Involvement Coordinator

Memorandum To: Technical Committee, APES
From: Mike Orbach M.D.
Chair, Public Involvement Subcommittee
Re: APES Newsletter
Date: 20 February 1991

Since the beginning of our program APES has produced a quarterly newsletter. This has been a substantial document, with high quality printing and wide distribution, put together by Joan Giordano, our Public Involvement Coordinator.

In these last years of the program two issues have arisen: 1) the need to communicate more regularly through the newsletter function; and 2) increasing demands on Joan's time for the other duties of her position. We have thus developed, in conjunction with the CACs, the following proposal, portions of which are built into the Pamlico-Tar River Foundation's (PTRF) extramural proposal #524.

Basically, we propose that PTRF assume the newsletter function, with funding and review and oversight by the APES program. PTRF would produce the newsletter, in a more modest cost but more frequent format, with oversight by program staff and review by the Publications Review Committee of the program. The details for the 1991-92 funding year (after 1 October 1991) are contained in proposal #524.

For the remainder of the current funding year (from now until 30 September 1991), we propose that the remainder of the program funds allocated to the production of the newsletter be contracted to PTRF, to begin immediately to produce the newsletter under the conditions set out in proposal #524. This would involve no new funding this year, but only a reallocation of currently-budgeted funds.

Both our subcommittee and the CACs support this approach which will free Joan's time for other program needs and increase the opportunity to communicate with the public through the newsletter function.

DRAFT

ALBEMARLE-PAMLICO ESTUARINE STUDY -- RECOMMENDED BUDGET: FY 1991-92

I. BASE BUDGET BREAKDOWN

| ITEM | GUIDELINE | PERCENTAGE | COSTS |
|----------------------------|-----------|------------|-------------|
| ADMINISTRATION | 15% | 17.47% | \$275,228 |
| INFORMATION MANAGEMENT | 15% | 11.81% | \$186,000 |
| PUBLIC PARTICIPATION | 10%-20% | 17.57% | \$276,698 |
| TECHNICAL INFO ACQUISITION | 60% | 57.49% | \$905,393 |
| TOTAL | | 104.34% | \$1,643,319 |

II. EXISTING FUNDING SOURCES

| | |
|---|-------------|
| EPA FY 1991 Clean Water Act Section 320 Funds | \$1,000,000 |
| State of North Carolina Appropriated Funds | \$500,000 |
| Carryover Funds | \$75,000 |
| Total (Base Budget) | \$1,575,000 |

III. ADDITIONAL FUNDING SOURCE

| | |
|-------------------------------------|-----------|
| EPA Action Plan Demonstration Funds | \$100,000 |
|-------------------------------------|-----------|

APPROVED PROJECTS WILL BE NEGOTIATED WITH RESEARCHERS TO BALANCE FY 1991-92 BUDGET

BUDGET BREAKDOWN

13

A. ADMINISTRATION

PERSONNEL (5% COST OF LIVING INCREASE ABOVE 1990 WAGES)

| | |
|---------------------------------------|----------|
| Project Director | \$49,495 |
| Administrative Asst. (Clerk/Steno IV) | \$26,464 |
| Clerk/Typist III | \$16,729 |
| Public Involvement Coordinator | \$28,210 |
| Clerk/Typist III (Part-time) | \$8,275 |
| Env. Specialist II | \$28,161 |

\$157,334

FRINGE BENEFITS

| | |
|-------------------------------------|----------|
| Social Security Contr (7.65%) | \$12,036 |
| Retirement Contr (11.74%) | \$18,471 |
| Longevity Pay | \$2,000 |
| Indirect Costs (7.5% for Personnel) | \$11,800 |

\$44,307

TRAVEL

| | |
|--|----------|
| Project Director/Staff | \$10,000 |
| Citizens' Advisory Committees | \$2,000 |
| National Estuary Program Participation | \$3,000 |

\$15,000

EQUIPMENT

| | |
|---------------------------|---------|
| Computer/office furniture | \$2,000 |
|---------------------------|---------|

\$2,000

OFFICE SUPPLIES/FILM

\$5,000

\$5,000

OTHER

| | |
|---|----------|
| Advertising | \$6,000 |
| Telephone | \$3,500 |
| Postage | \$7,500 |
| Printing | \$20,000 |
| Photocopying | \$4,000 |
| Photo/Graphic Services | \$2,000 |
| Books/publications | \$1,000 |
| Express Freight | \$550 |
| Room Rental | \$537 |
| Data Processing Service | \$500 |
| Other Services (repairs, emp. training, equip. rental, srv./maintenance contracts, insurance & bonding, refreshments at meetings, etc.) | \$2,500 |
| Regional Office Space Rental (2 staff positions) | \$3,500 |

\$51,587

TOTAL ADMINISTRATION

\$275,228

INFORMATION MANAGEMENT

14

| | |
|---|-----------|
| HARDWARE | \$30,000 |
| The cost to continue payments for financing the computer system upgrade that is required to support A/P Study data management activities. | |
| MAINTENANCE | \$24,000 |
| The costs for maintenance contracts on hardware and software purchased for A/P Study. | |
| COMMUNICATIONS | \$25,000 |
| Variable Costs The costs of using a data communications network. Costs will vary according to usage levels. | |
| DESIGN/PROGRAMMING | \$5,000 |
| Costs associated with refining the design of the A/P Study database and for refining the design of the front-end software. | |
| DATA ENTRY AND ANALYSIS | \$50,000 |
| CGIA charges for entering and analyzing data. | |
| SUPPLIES | \$2,000 |
| Miscellaneous supplies. e.g., maps, mylar, data tapes (VA. 100k's), etc. | |
| STAFF | \$50,000 |
| Software specialist (\$15,000) Applications specialist (\$25,000) | |
| TOTAL INFORMATION MANAGEMENT | \$186,000 |

TECHNICAL INFORMATION ACQUISITION

| | | |
|--|------------------|-----------|
| Resource Critical Area | | |
| 510 Delineation of SAV (C) | Ferguson (NOAA) | \$82,125 |
| * 526 VA Inventory and Protection Plan | Lipford (VA DNH) | \$76,500 |
| | | \$158,625 |
| Water Quality | | |
| 539 Flows/Hydrodynamics in Albemarle Sd. (C) | Bales (USGS) | \$93,400 |
| 509 Baseline WQ Monitoring (C) | Tedder (DEM) | \$57,881 |
| 540 Open Sound Monitoring (C) | Bales (USGS) | \$146,000 |
| ** 551 Nutrient Reduction Targets | McCarthy (RTI) | \$20,000 |
| ** 536 Ground Water Recharge Areas | Liddle (RTI) | \$20,000 |
| -- Sediment Toxicity Assessment | | \$25,000 |
| | | \$362,281 |
| Fisheries | | |
| 552 Striped Bass Eggs (C) | Rulifson (ECU) | \$9,007 |
| ** 527 Blue Crab Shell Disease (C) | Noga (NCSU) | \$36,000 |
| 537 Alternative Fishing Gear | McKenna (EHNR) | \$44,686 |
| 534 Fishing Practices Mapping | Cunningham (RTI) | \$30,000 |
| | | \$119,693 |
| Human Environment | | |
| 550 CCMP Management Strategies/GIS | Dodd (ETI) | \$143,206 |
| 507 Ecosystem Valuation | Costanza (UMD) | \$37,388 |
| 543 VA Management Plan | Carlock (HRPDC) | \$34,200 |
| | | \$214,794 |
| OTHER | | |
| -- CCMP Development | | \$50,000 |
| | | \$50,000 |
| TOTAL TECHNICAL INFO. ACQUISITION | | |
| | | \$905,393 |
| Action Plan Demonstration (Supplemental Funding) | | |
| 528 Water Use Plan Implementation | Clark (NCSU) | \$47,714 |
| * 501 Natural Areas Protection | Roe (EHNR) | \$47,850 |
| | | \$95,564 |

(C) Continuation Projects from FY 1990

COSTS OF SELECTED PROJECTS WILL BE NEGOTIATED TO BALANCE FY 1991-92 BUDGET

* Given Lowest Funding Priority By Technical Committee

** Fund Pending Successful Rescoping Of Workplan

PUBLIC PARTICIPATION

| | | | |
|--|------------------|----------|-----------|
| 502 Env. Health Education (C) | Meiggs (EC) | \$51,625 | |
| 503 Public Education Program in the Albemarle Sound Area (C) | Couture (AEA) | \$34,680 | |
| 508 Public Involvement in the CCMP | Armingeon (NCCF) | \$46,165 | |
| 514 Citizen Water Quality Monitoring (C) | Blinkoff (ECU) | \$46,708 | |
| 524 Community Education Outreach (C) | Stroud (PTRF) | \$77,520 | |
| 542 VA Institutional Enhancement/ Public Involvement (C) | Carlock (HRPDC) | \$10,000 | |
| -- CCMP/Long-Term Citizen Involvement | | \$10,000 | |
| * 530 Wastewater Treatment Manual | | 0 | |
| TOTAL PUBLICATION PARTICIPATION | | | \$276,698 |

* Recommended For Official Support, But No Funding

(C) Continuation Projects from FY 1990

| TECHMAY.WK1 | | | | |
|-------------|-----------|-----------------|------------|-----------|
| DATE | CODE | DESCRIPTION | EPA CREDIT | DEBIT |
| 86-87 | CX-813675 | EPA-EHNR | \$300,000 | |
| | | ADMIN 3/4 | | \$51,422 |
| | | ADMIN 1/4 | | \$21,394 |
| | | CGIA | | \$40,000 |
| | C-1595 | NCCF | | \$4,587 |
| | M-1085 | BROWER | | \$5,000 |
| 86-87 | TOTAL | | \$300,000 | \$122,403 |
| 87-88 | CX813675 | EPA-EHNR | \$225,302 | |
| | | ADMIN 3/4 | | \$102,066 |
| | | ADMIN 1/4 | | \$51,070 |
| | | CGIA | | \$232,000 |
| | | HYDE CO. | | \$10,000 |
| | | DMF | | \$11,456 |
| | | DMF | | \$34,934 |
| | C-1643 | PEARCE | | \$66,361 |
| | C-1698 | SCI/DUFFY | | \$19,300 |
| | | DECREASE C-1698 | | (\$5,240) |
| | C-1678 | ECU/RIGGS | | \$6,000 |
| | C-1671 | ECU/SMITH | | \$11,500 |
| | | DECREASE C-1671 | | (\$683) |
| | C-1649 | ECSU/CARSON | | \$7,000 |
| | | INCREASE C-1649 | | \$1,500 |
| | | DECREASE C-1649 | | (\$587) |
| | C-1639 | WRRI/STEWART | | \$15,750 |
| | C-1669 | VERSAR | | \$24,897 |
| | | REVERSTON | | \$5,761 |
| | CX814567 | EPA-ECU | \$99,534 | |
| | C-1672 | EHNR-ECU | | \$27,475 |
| | | BRINSON | | \$39,417 |
| | | TSCHETTER | | \$37,881 |
| | | DAVIS | | |
| | CX814568 | EPA-DUKE | \$48,957 | |
| | C-1674 | EHNR-DUKE | | \$51,534 |
| | | SUTHERLAND | | |
| | CX814569 | EPA-NCSU | \$48,414 | |
| | C-1673 | EHNR-NCSU | | \$50,963 |
| | | SMITH, F | | |
| | CX814570 | EPA-UNC | \$132,447 | |
| | C-1677 | EHNR-UNC | | \$47,395 |
| | | PAERL | | \$43,739 |
| | | KUENZLER | | \$30,644 |
| | | WELLS | | \$17,640 |
| | | OKUN | | |

| CODE | DESCRIPTION | EPA CREDIT | DEBIT |
|--------------------|-------------------------------------|---------------------------------|----------------------|
| CX814571 C-1675 | EPA-NCCF EHNR-NCCF KENNEDY | \$30,091 | \$31,675 |
| CX814572 C-1676 | EPA-PTRF EHNR-PTRF MONITORING | \$13,523 | \$14,235 |
| DW13932658 | EPA-NMFS THAYER | \$73,841 | \$73,841 |
| DW14932608 | EPA-USFWS COLLIER | \$12,933 | \$12,933 |
| | USGS - EHNR USGS | | \$190,470 |
| 87-88 | TOTAL | \$685,042 | \$1,262,928 |
| 88-89 | CX813675 | EPA-EHNR HYDE CO | \$10,290 \$10,000 |
| | | | \$3,720 |
| | C-1710 | ECU/RULIFSON DECREASE C-1710 | \$21,130 (\$43) |
| 88-89 | CX815402 | EPA-EHNR | \$600,176 |
| | | ADMIN 3/4 | \$124,661 |
| | | ADMIN 1/4 | \$56,763 |
| | | CGLA | \$164,000 |
| | | PARKS/ROE | \$59,500 |
| | C-1739 | DOA | \$18,000 |
| | C-1738 | PTRF | \$17,140 |
| | | INCREASE C-1738 | \$605 |
| | C-1740 | PTRF | \$21,540 |
| | C-1737 | PTRF | \$14,550 |
| | | INCREASE C-1737 | \$750 |
| | C-1736 | ECSU | \$13,293 |
| | C-1741 | WILLARD | \$30,275 |
| | C-1719 | PTRF | \$53,900 |
| | | DECREASE C-1719 | (\$1,184) |
| | C-1708 | RTI | \$32,657 |
| | C-1759 | ECU | \$40,885 |
| | C-1793 | NCSU/SMITH** | \$3,414 |
| | C-1703 | ECU/RIGGS** | \$34,968 |
| | | DECREASE C-1703 | (\$115) |
| | C-1712 | TURSI** | \$3,000 |
| | C-1743 | OKUN** | \$1,000 |
| | C-1789 | DUFFY** | \$5,245 |
| | | DECREASE C-1789 | (\$2,209) |
| | | REVERSION | \$5,322 |

| CODE | DESCRIPTION | EPA CREDIT | DEBIT |
|------------|-------------|-------------|-------------|
| CX815399 | EPA-EHNR | \$262,500 | |
| | DWS/BERTIE | | \$37,500 |
| | DWS/MMPOND | | \$175,000 |
| C-1794 | VA SW | | \$93,750 |
| CX815401 | EPA-EHNR | \$197,000 | |
| | TEDDER | | \$210,169 |
| CX815403 | EPA-ECU | \$28,725 | |
| C-1757 | EHNR-ECU | | \$38,300 |
| | RULIFSON | | |
| CX815404 | EPA-UNC | \$63,397 | |
| | PETERSON | | \$63,397 |
| CX815407 | EPA-ECU | \$13,275 | |
| C-1758 | EHNR-ECU | | \$17,700 |
| | RULIFSON | | |
| CX815408 | EPA-NCSU | \$230,079 | |
| C-1760 | EHNR-NCSU | | \$60,054 |
| | CLARK | | \$83,055 |
| | SKAGGS | | \$31,099 |
| | NOGA | | \$73,096 |
| | PIETRAFESA | | |
| CX815409 | EPA-DUKE | \$65,009 | |
| | SUTHERLAND | | \$65,009 |
| CX815470 | EPA-UNC | \$121,228 | |
| | KUENZLER | | \$71,433 |
| | PAERL | | \$49,795 |
| DW13933409 | EPA-NMFS | \$33,321 | |
| | ENGEL | | \$33,321 |
| | EHNR-USGS | | \$365,240 |
| | USGS | | |
| 88-89 | TOTAL | \$1,625,000 | \$2,200,684 |
| 89-90 | CX813675 | \$8,839 | \$10,000 |
| | EPA-EHNR | | |
| | HYDE CO | | |

| CODE | DESCRIPTION | EPA CREDIT | DEBIT |
|----------|-----------------|------------|-----------|
| CE004703 | EPA-EHNR | \$704,409 | |
| | ADMIN 3/4 | | \$157,234 |
| | ADMIN 1/4 | | \$44,824 |
| | CGIA | | \$165,000 |
| | CGIA/NCSU | | \$93,407 |
| | DCM/SHAW | | \$12,060 |
| | PARKS/ROE | | \$60,000 |
| C-1826 | HAMPTON RDS | | \$23,400 |
| C-1839 | AEA | | \$16,350 |
| C-22004 | RTI | | \$12,501 |
| C-1836 | NCCF | | \$36,500 |
| C-22001 | NCSU-LEVINE** | | \$2,445 |
| C-22002 | DUKE-BROUWER** | | \$5,020 |
| | INDIRECT 86-90 | | \$33,830 |
| CE004700 | EPA-EHNR | \$150,000 | |
| C-1827 | GREENVILLE | | \$150,000 |
| CE004701 | EPA-NCSU | \$136,645 | |
| C-1828 | EHNR-NCSU | | |
| | NOGA | | \$28,179 |
| | NOGA | | \$33,474 |
| | HOBAN | | \$59,035 |
| | ADAMS | | \$30,929 |
| | HOBAN | | \$6,200 |
| | FODER | | \$24,377 |
| CE004704 | EPA-ECU | \$63,004 | |
| C-22003 | EHNR-ECU | | |
| | RIGGS | | \$44,985 |
| | RULIFSON | | \$39,021 |
| CE004705 | EPA-ECU | \$14,719 | |
| C-1824 | EHNR-ECU | | |
| | RULIFSON | | \$19,626 |
| CE004706 | EPA-UNC | \$109,639 | |
| C-1825 | EHNR-UNC | | |
| | PAERL | | \$47,486 |
| | KUENZLER | | \$56,085 |
| | OKUN | | \$42,615 |
| CE004708 | EPA-NCSU | \$63,106 | |
| | CLARK/STR | | \$63,106 |
| CE004733 | EPA-PTRF | \$70,026 | |
| C-1823 | PTRF | | |
| | DECREASE EPA | (\$4,291) | |
| | DECREASE C-1813 | | |
| | STROUD | | \$30,802 |
| | NURNBURG | | \$10,689 |



| CODE | DESCRIPTION | EPA CREDIT | DEBIT |
|------------|---------------------------------------|-------------|----------------------------------|
| | PERLIC | | \$46,155 |
| DW13933409 | EPA-NMFS ENGEL | \$29,612 | \$29,612 |
| | EHNR-USGS USGS | | \$275,000 |
| 89-90 | TOTAL | \$1,345,708 | \$1,709,947 |
| 90-91 | CE004703 | \$884,184 | |
| | EPA-EHNR | | |
| | ADMIN | | \$292,698 |
| | CGIA | | \$186,000 |
| | CGIA | | \$10,000 |
| | DEM/TEDDER | | \$43,946 |
| | DMF/MCKENNA | | \$34,475 |
| | DPR/ROE | | \$60,000 |
| | DSW/CUMMINGS | | \$90,000 |
| C-14006 | CARLOCK | | \$22,500 |
| C-14007 | BARTHOLOWMEW | | \$38,196 |
| C-14009 | NCCF/TURSI | | \$35,000 |
| C-14004 | CLEARY | | \$11,679 |
| C-14008 | DOA/CONOLEY | | \$25,000 |
| C-14005 | WILLARD | | \$30,930 |
| C-14001 | TURNAGE/SCHOOLS | | \$52,430 |
| | INDIRECT 91 | | \$5,000 |
| | REVERSION | | \$3,147 |
| CE004704 | EPA-ECU | \$37,696 | |
| C-14012 | EHNR-ECU STANLEY | | \$50,262 |
| CE004701 | EPA-NCSU | \$0 | |
| C-14011 | EHNR-NCSU NOGA HOBAN OVERTON | | \$41,362 \$53,848 \$28,691 |
| CE004733 | EPA-PTRF | \$33,525 | |
| | PRIOR GRANT | \$4,291 | |
| C-14013 | EHNR-PTRF STROUD MCNAUGHT | | \$32,700 \$14,000 |
| CE004853 | EPA-AEA | \$16,519 | |
| C-14003 | EHNR-AEA POWERS POWERS | | \$17,150 \$4,875 |

| CODE | DESCRIPTION | EPA CREDIT | DEBIT |
|---------------------|---|-------------|----------------------------------|
| CE004854 C-14010 | EPA-RTI EHNR-RTI DUFFIN DODD CUNNINGHAM | \$105,398 | \$32,834 \$67,732 \$39,965 |
| CE004857 | EPA-ECU BLINKOFF | \$39,685 | \$39,685 |
| CE004855 | EPA-NCSU ROGERS | \$61,784 | \$61,784 |
| DW13945517 | EPA-NMFS FERGUSON | \$62,578 | \$62,578 |
| DW13933409 | EPA-NMFS ENGEL | \$20,100 | \$20,100 |
| | EHNR-USGS USGS | | \$263,000 |
| 90-91 TOTAL | | \$1,265,760 | \$1,771,567 |

| TOTAL 1986-1991 | EPA | ACTUAL EHNR | CREDITS | DEBITS |
|-----------------|-------------|-------------|-------------|-------------|
| FY86 | \$300,000 | \$0 | \$300,000 | \$122,403 |
| FY87 | \$685,042 | \$360,823 | \$1,045,865 | \$1,262,928 |
| FY88 | \$1,625,000 | \$514,177 | \$2,139,177 | \$2,200,684 |
| FY89 | \$1,345,708 | \$500,197 | \$1,845,905 | \$1,709,947 |
| FY90 | \$1,265,760 | \$497,699 | \$1,763,459 | \$1,771,567 |
| GRAND TOTAL | \$5,221,510 | \$1,872,896 | \$7,094,406 | \$7,067,529 |
| EXCESS | | | | \$26,877 |

2/22/91

Albemarle/Pamlico Estuarine Study Data Layers

| DATA LAYER NAME | STATUS | DIGITAL DATA CURRENCY* (NC) |
|---|--------------------|-----------------------------|
| 1. State Boundary | Complete | 1989 |
| 2. A/P Study Boundary | | |
| 1:2,000,000 scale | Complete | 1987 |
| 1:24,000 scale | Planned | |
| 3. County Boundaries | Complete | 1989 |
| 4. Subbasins | | |
| 1:1,000,000 scale | Complete | 1979 |
| 1:24,000 scale | Planned | |
| 5. Quad-County-Subbasin Boundaries | Planned | |
| 6. Hydrography | In-Progress | |
| 7. Land Use and Land Cover | In-Progress | 1987 |
| 8. Point Source Dischargers | In-Progress | 1990 |
| 9. Wetlands and Deep Water Habitats | In-Progress | |
| 10. Ambient Water Quality Monitoring Sites | In-Progress | 1990 |
| 11. Natural Heritage Inventory | In-Progress | 1990 |
| 12. 1980 Census Boundaries | Complete | 1980 |
| 13. Surface Water Intakes | Complete | 1990 |
| 14. Submerged Aquatic Vegetation | Complete as mapped | 1989 |
| 15. Superfund Sites | In-Progress | |
| 16. 1990 Census Boundaries | In-Progress | |
| 17. Coastal Reserves | Complete | 1990 |
| 18. Fisheries Biological Monitoring Sites | Complete | 1989 |
| 19. Oyster Cultch Plant Sites | Complete | 1989 |
| 20. Game Lands | Complete | 1990 |
| 21. Heavy Metals & Organic-Rich Mud Pollutants Sample Sites | | |
| Pamlico | In-Progress | 1989 |
| Neuse | Planned | |
| Albemarle | Planned | |
| 22. Citizen Water Quality Monitoring Sites | Complete | 1989 |
| 23. Mussel Distribution | Complete as mapped | 1989 |
| 24. Bottom Sediment Sample Locations | Complete | 1989 |
| 25. Federal Land Ownership | Complete | 1984 |
| 26. Fisheries Nursery Areas | Complete | 1989 |
| 27. Shellfish Proclamation Areas | Complete | 1989 |
| 28. Oyster Producing Areas | Complete | 1982 |
| 29. Outstanding Resource Waters | Complete | 1990 |
| 30. 1970 Census Boundaries | Complete | 1970 |
| 31. Artificial Reefs | Complete | 1989 |
| 32. CAMA Major Development Permits | In-Progress | |
| 33. General Soils | Complete | 1988 |
| 34. Transportation | In-Progress | |
| 35. State Park Boundaries | Complete | 1989 |
| 36. Stream-Gaging Stations | In-Progress | |

| DATA LAYER NAME | STATUS | DIGITAL DATA CURRENCY* (NC) |
|------------------------------------|--------------------|--------------------------------|
| 37. Marinas | In-Progress | |
| 38. Peat Lands | Complete as mapped | 1984 |
| 39. Anadromous Fish Areas | Complete | 1982 |
| 40. Detailed Soils | In-Progress | |
| 41. Municipal Boundaries | Complete | 1989 |
| 42. Lease Blocks | Complete | 1982 |
| 43. Geology | Complete | 1988 |
| 44. Military Air Space | Complete | 1990 |
| 45. Fishing Water Jurisdictions | Planned | |
| 46. Elevation | Planned | |
| 47. Bathymetry | Planned | |
| 48. Public Water Supply Watersheds | Complete | 1990 |
| 49. Natural Areas | In-Progress | 1990 |

* Data layers will be updated as required.



2/22/91

COASTAL AMERICA

An interagency Federal program to be initiated in FY92 designed to improve the Federal government's response to coastal problems in the topic areas of:

- Species and habitat declines
- Nonpoint sources of pollution
- Sediment contamination

Approach

Scoping work to date has been done solely by DI, EPA, COE, and NOAA headquarters personnel

Build on existing authorities and programs, not new ones

Actions on which scientific merit has been proven

Institutional framework exists within the area of the problem

Fund pilot implementation projects in selected areas

Must be Federal interagency cooperation of at least two participants

Have successful pilots applied elsewhere within coastal zone

Albemarle-Pamlico has been designated a pilot

Potential Project Topics for A/P

Protecting endangered species and their critical habitat

Restoring valuable wetland habitat and submerged habitat

Restoration or protection of anadromous fish spawning and nursery areas

Funding

A/P slated to get up to \$600,000 for FY92

