ALTERNATIVES FOR WATER MANAGEMENT

REPORT OF THE LEGISLATIVE STUDY COMMISSION

TO THE

NORTH CAROLINA GENERAL ASSEMBLY

MARCH, 1980

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North Carolina
House of
Representatives

Carl J. Stewart, Jr., Speaker

Raleigh 27611
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February 28, 1980

To: The Members of the 1979 General Assembly
(Second Session 1980)

Transmitted herewith is the report prepared by the Legislative Study Commission on Alternatives for Water Management. The study was conducted pursuant to House Bill 1310 (Chapter 1019 of the 1979 Session Laws.) This report is submitted to the Members of the General Assembly for their consideration.

Respectfully submitted,

Carl J. Stewart, Jr.
Chairman

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INTRODUCTION

The Legislative Study Commission on the Alternatives for Water Management, created by House Bill 1310 (Appendix B), was authorized by the General Assembly to "study the State's present organization for planning and management of water resources and the present and future trend of North Carolina in regard to water use and management.. study the feasibility of creating a State water authority to furnish water throughout the State...study other alternatives for water management...study the need for legislation and regulations concerning local and regional water supplies including sources of water organization and administration of water systems."

The Commission consists of twelve members, six of whom are appointed by the Speaker of the House and six by the President of the Senate. A minimum of three appointees by the Speaker and a minimum of three appointees by the President must be knowledgeable in the area of water resource management. A list of the membership of the Commission is given in Appendix A. House Speaker Carl J. Stewart, Jr., was elected Chairman of the Commission.

The Commission was authorized by the Act "to hire such professional assistance and secretarial support as it deems necessary". It secured the services of the Institute of Government (Milton Heath and W. J. Wicker) as its staff and Mr. Hugh D. Hudgins, P.E., as a part-time engineering consultant.

The sum of fifty thousand dollars was appropriated from the General Fund for the fiscal year 1979-1980 to be used by the Commission in performance of the duties set forth in H. B. 1310.

Section 6 of the enabling legislation (H. B. 1310) instructed the Commission to file a report with the General Assembly not later than March 1, 1980. The section further noted that the Commission would terminate upon filing of the report.

The complete texts of the minutes prepared for each meeting are filed with the Legislative Library.

COMMISSION PROCEEDINGS

The Commission held its first meeting on November 14, 1979, and has held seven additional meetings.

At its first three meetings the Commission received an orientation on the history of water management law in North Carolina and on the local, state and federal agencies that collectively are responsible for water management programs. In these early meetings, the Commission was presented with and discussed several important issues that have threaded their way through its proceedings: namely, the difficulty of separating water supply from wastewater management, the desirability of developing an effective stimulus for regionalization of water resources management, and the value that is attached to preserving the essence of traditional water rights institutions while modifying and supplementing them to meet changing needs.

The outlines of a proposal by State Treasurer Harlan Boyles for a State Water Authority to assist local governments in meeting their water and wastewater management needs were presented and discussed at the beginning of the Commission's fourth meeting.

Maryland's experience with a comparable agency was described at the fourth meeting by the Director of the Maryland Environmental Service.

The concern of residents of the Yadkin River Basin with possible overtones of interbasin transfers in the options before the Commission was presented at the fifth meeting. The Commission responded to these concerns by adopting a resolution at that meeting expressing its intent not to recommend interbasin transfer as a means of solving the general water management problems of the State.

In his testimony at the Commission's fifth meeting, Dr. Neil Grigg, Assistant Secretary of Natural Resources and Community Development, summarized the current water management needs as follows: "There exists an adequate State response to the regulatory aspects of water management. If it is managed right, we will get good regulation. There does not exist a single State agency with the responsibility for developing water and helping local governments solve their water management problems. By developing water is meant locating, capturing and making available to the users the water of the State to be applied to beneficial uses. Developing water in this manner must be carried out by cooperative activities between State government and local governments with due regard for the need to assure the integrity of individual river basins and to make the best use of the available water for the benefit of all the people of North Carolina."

At its sixth meeting the Commission considered a revised and augmented version of the State Water Authority proposal, and directed the staff to prepare modifications of this proposal that would: (a) provide for creation of river basin commissions for each major river basin of the State; (b) empower the basin commissions to levy basin-wide property taxes and issue general obligation bonds, with the approval of the voters of the basin; and (c) authorize the allocation of the revenues from these sources to local governments of the basin for water supply, wastewater management and solid waste disposal programs. (See Appendices L and M). The Commission examined and debated both the River Basin Commission and State Water Authority proposals in detail at its sixth and seventh meetings.

At its seventh meeting the Commission tentatively approved the recommendations that are set forth at the end of this report, and the Commission adopted this report at its eighth meeting.

The Commission at its various meetings heard the following witnesses, listed in order of their appearances, who spoke on the indicated subjects: (See Appendix D for further identification of witnesses)

Mr. Milton Heath - general statement on legislation in water management in North Carolina.

Dr. Neil Grigg - presentation of water management activities of the Department of Natural Resources and Community Development.

Mr. James F. Stamey - presentation of water management activities of the Department of Human Resources.

Mr. John Morris - presentation of overview of water supply situation in the State.

Mr. John Wray - presentation on water conflicts presently occurring in North Carolina.

Dr. David Howells (Member of the Commission) - presentation of results and recommendations of the Blacksburg Conference.

Mr. Harlan Boyles - proposal for State Water Authority and modes for funding such an authority.

Mr. Jake Wicker - presentation of the local organization of water resources in the State.

Col. George Pickett - introduction of witnesses from U. S. Army Corps of Engineers, USAED.., State Soils Conservation Service and Water Resources Research Institute at NCSU.

Col. A. A. Hight - Federal requirements for a water supply study.

Mr. E. W. Meredith - Federal planning for reservoir construction.

Mr. J. M. Stewart - presentation on the work of the Water Resources Institute.

Mr. Thomas D. McKewen - presentation on the establishment and operations of the Maryland Environmental Service.

Mr. Lawrence Davis - appeared on behalf of the Northwest North Carolina Environmental Preservation Committee.

Representative Robie Nash - appeared on behalf of the Northwest North Carolina Environmental Preservation Committee.

The Commission considered alternative proposals for:

(a) A State Water Authority.

(b) River Basin Commissions with property taxing powers.

(c) River Basin Commissions on an optional or permissive basis, to be initiated locally without taxing powers but with authority to issue revenue bonds.

FINDINGS

The Legislative Study Commission on the Alternatives for Water Management, after consideration of the presentations made before it and evaluating current practices and organization for the management of water in North Carolina, makes the following findings:

(1) There appears to be adequate enabling legislation authorizing local governments to provide water supply and wastewater disposal services on a local, regional, or collective basis. (See Appendix K). This conclusion is apparently shared by the League of Municipalities and the Association of County Commissioners.

(2) There is no legislation which directly authorizes provision of water and wastewater services on a river basin basis, although some existing legislation such as the North Carolina Water and Sewer Authorities Act (G.S. Ch. 162A, Art. 1), or the interlocal cooperation legislation (G.S. Ch. 160A, Art. 20), might be used as a vehicle for services throughout a river basin.

(3) Strong objections were expressed to this Commission concerning: (a) interbasin transfers as a solution to water management problems, and (b) provision of water supply or wastewater services by a State government authority.

(4) The people of North Carolina and their local governments should be alerted to the probable decline in state and federal aid for water and wastewater services. Local governments should examine their rate structures and general financing plans with the view to becoming self-supporting. Because state and federal subsidies are currently available, local units' water and sewer use fees frequently do not reflect the total cost of service.

(5) Many communities may be in need of increased assistance with respect to the financing of water supply projects.

(6) Financial and technical assistance for local governments in connection with water problems is scattered among several State agencies.

(7) The Clean Water Bond Act does not adequately encourage comprehensive water use planning by local or regional authorities.

(8) Wastewater disposal is an integral part of water resource system management, making it necessary to include wastewater considerations in any recommendations made with regard to water management.

(9) The complexity of water problems, time constraints, and the lack of input from local governments and the private sector prevented adequate consideration of the issues of water management before the Commission. This was especially true with regard to the development of data and special studies which would reflect trends, practices, and accomplishments in the State following the enactment of the Clean Water Bond Act of 1971, the Capacity Use Areas Law of 1967, and the Regional Water Supply Act of 1971.

(10) Experience in the administration of existing water management legislation suggested the need for amendments on the following subjects:

(a) The Water Use Information Law is an important potential link in effective water resource planning. In its present form this statute lacks a legal sanction to back up information requests that are not voluntarily honored, and needs clarification of some of its terminology.

(b) The Capacity Use Areas Act is North Carolina's principal water management law. Experience with this law has shown the

need for procedural changes that incorporate standard notice, hearing and review procedures; eliminate outmoded and redundant procedural provisions; and clarify staff and commission roles.

(11) The following benefits may possibly be expected to occur from the adoption in North Carolina of a regional or basin-wide approach to water and wastewater management:

(a) Operation and management:

*Improved and unified management of water and wastewater systems resulting in comprehensive supervision and day-to-day direction of operation.

*More effective and extensive monitoring of water quality (on basis of economies of scale.)

*Improved capability to deliver safe, palatable water in sufficient quantities.

*Better response to emergencies by unified service organization.

*Economies through standardization of construction materials and equipment.

(b) Planning and Design:

*Optional planning of the water supply system especially where original independent systems can be inter-connected, increasing opportunities for optimizing source reservoirs, intake, treatment, and pumping facilities.

*Improved water resource planning and development.

*Improved conservation efforts of water resources through effective planning.

(c) Financing:

*Better coordination and combination of fiscal and physical

resources.

*A larger base for revenue resulting in stability and better bond ratings and thus providing better financing.

(d) Government:

*A smaller number of management organizations responsible for water supply or wastewater discharge quality.

*Development of well managed basin-wide or regional systems, reducing the likelihood that Federal or State government will become involved in operation and control of utilities.

RECOMMENDATIONS

The Commission makes the following recommendations:

(1) The Commission recommends that a comprehensive study of the long-range water needs of the State be conducted. This study should focus on:

(a) The supply, spatial distribution of water, and finite limitations upon available water resources in North Carolina.

(b) Physical data concerning how water resources meet or restrict growth.

(c) A demand evaluation that will indicate where more water is really wanted for growth and where, for one reason or another, it is not wanted.

(2) The Commission recommends that the General Assembly consider the need for coordinating, consolidating and augmenting the services of State Government to local governments and their consulting engineers when local governments request assistance in the form of information concerning water management problems.

(3) This Commission does not recommend interbasin transfers of water as a means of solving the general water management problems of the State of North Carolina.

(4) The Commission received and considered draft bills to amend procedural aspects of the Capacity Use Areas Law and the Water Use Information Law, but it did not have time to reach definite conclusions on their detailed provisions. The Commission recommends that legislation of this nature be considered by the 1981 General

Assembly. This will allow ample time for interested parties to react. (See Appendix N).

(5) The Commission recommends that the life of this Commission be extended or that a similarly constituted group be appointed for the purpose of receiving and evaluating the results of the further studies recommended by this report, and considering appropriate legislation to be recommended to the General Assembly.

APPENDIX A

MEMBERSHIP

STUDY COMMISSION ON ALTERNATIVES FOR WATER MANAGEMENT

1979 - 1980

Chairman:

House Speaker Carl J. Stewart, Jr.
Gastonia

Members:

Mr. Claude DeBruhl
Asheville

Mr. Harper J. Elam III
Greensboro

Dr. L. H. Hance
Eden

Representative Charles Holt
Fayetteville

Professor David Howells
Raleigh

Mr. John E. Lawrence
Raleigh

Mr. Ronald Earl Mason
Beaufort

Professor Dan Okun
Chapel Hill

Representative H. Horton Rountree
Greenville

Mr. Steve J. Smith
Stoneville

Mr. David Springer
Mocksville

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 1979
RATIFIED BILL

CHAPTER 1019

HOUSE BILL 1310

AN ACT TO CREATE THE LEGISLATIVE STUDY COMMISSION ON THE ALTERNATIVES OF WATER MANAGEMENT.

Whereas, clean and plentiful amounts of water are vital for the health and welfare of the citizens of North Carolina; and

Whereas, an adequate supply of water is essential for the economic and industrial growth of North Carolina; and

Whereas, future requirements of North Carolina for potable water are estimated to double by the year 2000; and

Whereas, local governments are facing increasing difficulties in meeting the escalating cost of water facilities, necessary to ensure an adequate supply of clean water to their residents; and

Whereas, a proliferation of small water supply systems cannot effectively join forces to produce an ample and clean water supply; and

Whereas, local and State governments and their taxpayers can realize great monetary savings through a coordinated plan of water management; and

Whereas, the costs inherent in planning for and implementing systems to assure future industrial and economic development water needs will require consideration of alternative funding techniques including responsible use of long-term bonded indebtedness; Now, therefore,

The General Assembly of North Carolina enacts:

Section 1. There is created a Legislative Study Commission on Alternatives for Water Management.

Sec. 2. Duties of the Commission. The Commission shall study the State's present organization for planning and management of water resources and the present and future trend of North Carolina in regard to water use and management. The Commission shall study the feasibility of creating a State water authority to furnish water throughout the State. The Commission shall study other alternatives for water management. The Commission shall also study the need for legislation and regulations concerning local and regional water supplies including sources of water organization and administration of water systems.

Sec. 3. Organization of the Commission. (a) The Commission shall consist of 12 members to be appointed as follows: six by the President of the Senate, of which a minimum of three must be knowledgeable in the area of Water Resource Management; and six by the Speaker of the House, of which a minimum of three must be knowledgeable in the area of Water Resource Management. The members of the Commission shall be appointed within 30 days of ratification of this act and shall serve until termination of the Commission.

(b) If a vacancy occurs in the membership of the Commission, it shall be filled by action of the officer who appointed the member who is to be replaced, and the person then shall serve for the remainder of the term of the member whom he

succeeds.

(c) The Commission shall elect from its membership a chairman.

Sec. 4. Staff support for the Commission. In executing its duties, the Commission is authorized to hire such professional assistance and secretarial support as it deems necessary. Commission members are authorized to receive subsistence and mileage at the statutory rates in lieu of compensation.

Sec. 5. Appropriations to the Commission. There is appropriated to the General Assembly for the Commission from the General Fund the sum of fifty thousand dollars ($50,000) for fiscal year 1979-1980. These funds shall be used in the performance of the duties set forth in this act.

Sec. 6. The Commission shall file a report with the General Assembly not later than March 1, 1980 and shall terminate upon the filing of the report.

Sec. 7. This act is effective upon ratification.

In the General Assembly read three times and ratified, this the 8th day of June, 1979.

JAMES C. GREEN

James C. Green

President of the Senate

CARL J. STEWART, JR.

Carl J. Stewart, Jr.

Speaker of the House of Representatives

APPENDIX C

LIST OF MEETINGS OF THE COMMISSION AND MEMBERSHIP PRESENT

Date of Meeting	Membership Present
November 14, 1979	Carl J. Stewart, Jr., Chairman L. H. Hance Charles Holt David Howells John E. Lawrence Dan Okun H. Horton Rountree Steve J. Smith David Springer
November 28, 1979	Charles Holt, Acting Chairman L. H. Hance David Howells John E. Lawrence Dan Okun Steve J. Smith David Springer
December 3, 1979	Carl J. Stewart, Jr., Chairman L. H. Hance David Howells Dan Okun H. Horton Rountree Steve J. Smith David Springer
December 19, 1979	Carl J. Stewart, Jr., Chairman Harper J. Elam III Charles Holt David Howells John E. Lawrence H. Horton Rountree Steve J. Smith David Springer

Date of Meeting	Membership Present
January 11, 1980	Carl J. Stewart, Jr., Chairman Claude DeBruhl Harper J. Elam III L. H. Hance Charles Holt David Howells John E. Lawrence Ronald Earl Mason H. Horton Rountree Steve J. Smith David Springer
January 28, 1980	Carl J. Stewart, Jr., Chairman Claude DeBruhl L. H. Hance Charles Holt Dan Okun H. Horton Rountree Steve J. Smith David Springer
February 11, 1980	Carl J. Stewart, Jr., Chairman Harper J. Elam III L. H. Hance Charles Holt David Howells John E. Lawrence Ronald Earl Mason Dan Okun H. Horton Rountree Steve J. Smith David Springer
February 18, 1980	Carl J. Stewart, Jr., Chairman Harper J. Elam III L. H. Hance Charles Holt John E. Lawrence Ronald Earl Mason Dan Okun H. Horton Rountree Steve J. Smith David Springer

APPENDIX D

SPEAKERS AND PARTICIPANTS

Representative Richard W. Barnes, Forsyth County
Northwest N. C. Environmental Preservation Committee

Mr. Harlan E. Boyles, State Treasurer

Mr. Lawrence Davis, Forsyth County
Northwest N. C. Environmental Preservation Committee

Dr. Neil S. Grigg, Assistant Secretary
N. C. Department of Natural Resources and
Community Development

Mr. Milton Heath
Institute of Government

Mr. Jesse L. Hicks
N. C. Soil Conservation Service

Colonel Adolph A. Hight, Wilmington, N. C.
U. S. Army Corps of Engineers

Mr. Edwin W. Meredith, Charleston, S. C.
Chief, Planning and Reports Branch
Charleston District, USAED

Mr. Thomas D. McKewen, Director
Maryland Environmental Service

Mr. John N. Morris, Jr.
N. C. Department of Natural Resources and
Community Development

Representative Robie L. Nash, Salisbury
Chairman of the House Committee on
Water and Air Resources

Colonel George Pickett
N. C. Water Resources Congress

Mr. James F. Stamey
Division of Health Services
N. C. Department of Human Resources

Mr. James M. Stewart, Acting Director
Water Resources Research Institute, UNC

Mr. Jake Wicker
Institute of Government

Mr. John D. Wray
N. C. Department of Natural Resources and
Community Development

APPENDIX E

DEPARTMENT OF HUMAN RESOURCES
DIVISION OF HEALTH SERVICES

State Grants Program
(Clean Water Fund)

The North Carolina Clean Water Bond Acts of 1971 and 1977 authorized the issuance of $150,000,000 and $230,000,000 respectively in bonds, the proceeds of which provide funds for grants to local governments for construction of and improvements to wastewater treatment facilities, wastewater collection systems and water supply systems.

In compliance with the provision of these acts, three separate accounts were established within these funds at the amounts and for the specific purposes designated in the statute. These accounts are as follows:

1. The Contingency Account, authorized at $5,000,000 in 1971 and $7,500,000 in 1977, is managed by the Department of Administration and is utilized for administrative expenses (not to exceed $1.5 million in 1971 and $2.3 million in 1977) for costs and expenses incurred in the sale and issuance of bonds and bond anticipation notes, and for additional grants when funds allocated for any fiscal year are insufficient. Allocations from this account require the approval of the Advisory Budget Commission.

2. The Pollution Control Account, authorized at $75,000,000 in 1971 and $112,500,000 in 1977, is administered by the Division of Environmental Management in the Department of Natural Resources and Community Development. The sum of $50 million in 1971 and $75 million in 1977 was designated for allocation on a statewide basis as the state's share of the matching funds required to obtain federal grants for construction of wastewater treatment facilities. The remaining $25 million and $37.5 million respectively was allocated among the hundred counties according to population (proportionate to the 1970 census) for grants for wastewater collection system projects.

3. The Water Supply Systems Account, authorized at $70,000,000 for 1971 and $110,000,000 for 1977, is administered by the Division of Health Services in the Department of Human Resources. Of the total authorization, $20,000,000 in 1971 and $31,000,000 in 1977 was allocated for statewide use and $50,000,000 and $79,000,000 respectively was allocated among the hundred counties according to population (proportionate to the 1970 census) for water supply systems projects.

Any unit of government within the state is eligible for funds provided it meets all pertinent laws, rules, regulations and ordinances. Each application is evaluated by the respective agency and assigned priority according to public necessity, health, safety and welfare; eligibility for federal grants; compatibility with state and regional planning for water supply and pollution control; population to be served; fiscal responsibility and financial need of the applicant; and conservation practices.

Detailed information concerning the N.C. Clean Water Bond Program may be found in the Rules and Regulations Governing State Grants for Wastewater Treatment Works, Wastewater Collection Systems and Water Supply Systems. These and associated amendments were adopted by the Departments of Human Resources, Natural Resources and Community Development, and Administration; and approved by the Advisory Budget Commission.

WATER SUPPLY SYSTEMS ACCOUNT

N.C. Clean Water Bond Act of 1971---$70 million
County Allocations $50 million
Statewide Allocations $20 million
These funds have been all committed to projects along with an additional $1,730,000 from the Contingency Account for water supply projects.

N.C. Clean Water Bond Act of 1977---$110 million
County Allocations $79 million
Statewide Allocations $31 million
Funds in the amount of $51,654,849 from the water supply systems account have been committed along with an additional $2,352,500 from the Contingency Account for water supply projects.

The following pages show the State grant commitments, alphabetically by county, made to 674 water supply system projects from 867 applications processed to date. In addition there are 46 applications now undergoing processing, with approximately 25 more expected in the final quarter of this, the third year under CWBA-77.

Water Supply System Projects Funded Under the
N. C. Clean Water Bond Acts of 1971 and 1977

Alamance	
Burlington	320 605
"	189 552
"	310 573
"	1 249 000
"	47 000
Elon College	53 495
Gibsonville	23 472
Graham	400 000
"	31 809
Alamance Co.	26 084
"	13 540
"	24 000
"	15 325
Anson	
Anson Co.	67 298
"	148 787
"	427 800
Peachland	37 000
Ashe	
West Jefferson	143 750
Jefferson	25 000
Ashe Co.	67 000
Avery	
Crossnore	40 750
Elk Park	47 125
Newland	56 632
"	118 175
Beaufort	
Aurora	40 452
Bath	41 572
Chocowinity	11 139
Washington	58 200
"	22 650
"	11 550
Bertie	
Aulander	100 150
Powellsville	10 500
Bladen	
Bladenboro	112 000
Clarkton	3 549
Elizabethtown	142 145
Brunswick	
Bolivia	29 632
Caswell	34 416
Holden Beach	183 625
"	119 314
Long Beach	116 350
"	153 659
Ocean Isle Beach	68 800
Shallotte	18 650
Southport	19 071
Sunset Beach	90 000
Brunswick Co.	706 750
"	248 071
"	156 380
Buncombe	
Asheville	1 500 000
"	9 000
"	69 950
"	22 628
Avery Creek S.D.	60 531
"	5 364
Black Mountain	36 858
Black Mountain	113 500
Weaverville	23 400
Buncombe Co.	312 500
"	306 000
"	29 000
Burke	
Morganton	212 938
"	100 143
"	43 100
"	56 400
Rhodhiss	14 836
Valdese	696 519
"	56 050
Burke Co.	67 400
Cabarrus	
Concord	261 640
"	24 150
"	51 362
Harrisburg	112 890
"	3 056
Mt. Pleasant	230 332
Jackson Park S.D.	214 500
Kannapolis S.D.	26 155

Caldwell	
Granite Falls	22 101
"	40 625
"	163 000
Hudson	130 000
"	25 000
Lenoir	76 500
"	1 202 000
"	34 012
Caldwell Co.	71 609
"	458 185
"	143 980
"	398 719
"	76 043
Carteret	
Atlantic Beach	463 673
Beaufort	150 238
Morehead City	64 125
"	96 564
Newport	12 500
Caswell	
Caswell Co.	797 720
Catawba	
Brookford	3 013
Claremont	213 554
Conover	125 000
"	58 857
"	4 281
"	81 706
"	55 948
"	6 250
Hickory	890 000
Maiden	11 919
"	627 700
Newton	450 000
"	60 600
Catawba Co.	58 857
"	95 300
Chatham	
Pittsboro	24 171
"	185 697
Siler City	54 000
"	667 250
Goldston-Gulf S.D.	18 500
Chatham Co.	8 400
"	931 575
Cherokee	
Andrews	279 050
Murphy	22 500
Cherokee Co.	2 800
Chowan	
Chowan Co.	675 050
"	157 500
Clay	
Clay Co.	440 750
Cleveland	
Boiling Springs	16 607
"	1 641
Grover	7 277
Kings Mountain	312 250
"	17 579
"	212 500
"	12 254
Lawndale	55 549
"	3 586
"	13 122
"	27 029
Shelby	32 134
"	27 600
"	33 425
Cleveland Co.	10 000
"	48 550
"	37 750
Columbus	
Bolton	147 262
Brunswick	17 617
"	17 500
Chadbourn	77 500
Tabor City	30 562
Whiteville	64 374
Craven	
Havelock	48 887
"	8 125
"	83 500
First Craven S.D.	457 895
New Bern	79 095
Trentwoods	505 626
Vanceboro	104 125

Cumberland	
Falcon	111 650
Fayetteville	205 501
"	1 445 011
Hope Mills	96 473
Spring Lake	23 451
Stedman	85 700
"	28 752
Cumberland Co.	12 467
"	40 000
Dare	
Kill Devil Hills	261 200
"	30 400
Manteo	32 056
Nags Head	4 675
"	34 952
Dare Co.	985 000
Davidson	
Lexington	90 750
"	114 725
Thomasville	248 000
"	66 300
Handy S. D.	275 000
Davie	
Mocksville	68 262
Davie Co.	1 188 378
Duplin	
Faison	90 500
Greenevers	131 327
Kennasville	8 700
"	43 380
"	128 275
Magnolia	46 645
Rose Hill	16 250
Warsaw	157 459
"	343 565
Duplin Co.	19 600
Durham	
Durham	537 425
"	280 000
"	404 414
"	83 547
"	1 333 425
"	175 975
"	160 338
Edgecombe	
Pinetops	16 500
Princeville	77 922
Rocky Mount	102 514
"	203 268
Tarboro	778 250
"	32 492
Sharpsburg	31 606
Edgecombe Co.	30 757
"	43 590
Forsyth	
Kernersville	13 075
Winston Salem	46 800
"	76 500
"	585 246
"	18 569
"	72 137
"	4 699
"	7 750
"	174 711
"	26 875
"	134 647
"	42 564
"	30 225
"	27 500
"	15 991
"	44 720
"	332 765
"	113 220
"	23 068
"	285 692
Forsyth Co.	235 864
"	385 115
Franklin	
Louisburg	163 405
Franklin Co.	390 102
"	140 667
"	147 239
Gaston	
Belmont	95 928
Bessemer City	660 000
Cherryville	142 906
"	151 000
"	143 957
Cramerton	18 343
Gastonia	179 250
"	1 500 000
"	387 500
"	56 910
Catawba Heights S.D.	8 975
High Shoals	146 348
Mount Holly	1 374 575

Gates	
Gates Co.	1 101 368
"	481 250
Graham	
Robbinsville	64 560
Granville	
Creedmoor	48 318
Henderson	150 000
Lyon Station S.D.	18 751
"	4 444
Oxford	25 616
"	756
Stovall	53 200
"	13 000
Granville Co.	6 063
Greene	
Snow Hill	35 000
"	110 070
Greene Co.	112 253
"	252 500
"	436 381
"	92 228
Guilford	
Gibsonville	26 250
Greensboro	302 739
"	85 000
"	65 610
"	277 000
"	120 188
"	145 400
"	65 610
High Point	2 656 850
"	227 750
Jamestown	8 414
Guilford Co.	259 489
"	189 000
Halifax	
Enfield	116 800
Littleton	43 250
Roanoke Rapids S.D.	53 806
Scotland Neck	128 671
Weldon	233 315
Halifax Co.	308 944
"	1 288 610
Harnett	
Coats	35 340
Dunn	167 750
"	63 500
Lillington	145 575
Harnett Co.	1 521 943
Haywood	
Maggie Valley S.D.	150 000
Junaluska S.D.	22 365
Waynesville	469 727
"	1 000 000
Henderson	
Hendersonville	33 205
"	134 488
"	250 000
"	179 253
"	56 000
Hertford	
Ahoskie	47 100
Harrellsville	2 841
Murfreesboro	1 477
Winton	121 250
Hoke	
Raeford	187 500
Hyde	
Ocracoke S.D.	166 640
Hyde Co.	19 138
"	208 581
"	86 600
Iredell	
Mooresville	16 767
Statesville	428 687
"	47 970
"	146 324
Troutman	53 223
"	14 290
"	28 850
"	5 500
"	65 622
"	24 266
Jackson	
Sylva	83 500
"	37 982
"	32 286
Jackson Co.	39 500
"	30 750

Johnston	
Clayton	14 962
"	11 770
Benson	84 424
"	29 500
"	46 500
Kenly	3 841
Princeton	3 380
Selma	7 469
"	1 400
"	5 995
"	10 000
Smithfield	47 200
"	7 549
"	9 000
Johnston Co.	18 388
"	69 560
"	146 294
"	179 531
"	479 000
Jones	
Maysville	71 300
Pollocksville	73 000
Jones Co.	256 795
"	332 911
Lee	
Broadway	9 468
"	14 160
Sanford	57 917
"	44 107
"	50 441
"	17 650
"	5 000
Lee Co.	50 441
"	325 884
Lenoir	
Grifton	6 300
Kinston	131 000
"	34 479
La Grange	22 925
"	16 500
"	29 066
"	12 500
Lincoln	
Bolger City S.D.	32 556
Lincolnton	71 200
"	135 625
Lincoln Co.	25 000
"	17 870
"	203 500
McDowell	
Old Fort	6 301
"	164 050
Macon	
Franklin	455 400
Highlands	52 000
"	29 400
Madison	
Hot Springs	88 400
Marshall	116 821
Mars Hill	40 625
Madison Co.	53 750
Martin	
Jamesville	9 125
Oak City	13 268
Parmele	82 000
Martin Co.	117 900
Mecklenburg	
Charlotte	52 627
"	92 047
"	146 886
"	164 944
"	121 527
"	58 291
"	70 986
"	54 276
"	11 225
"	572 906
"	62 815
"	79 254
"	284 892
"	55 735
"	105 120
"	86 366
"	20 020
"	15 873
"	31 841
"	137 624
"	26 503
"	95 764
"	44 455
"	1 869 625
"	24 687
"	58 025
"	22 278
"	937 928
"	13 692
"	113 943
"	649 557
Davidson	99 939
Huntersville	8 222
Matthews	135 975

Mitchell	
Bakersville	108 937
Montgomery	
Star	28 339
Moore	
Aberdeen	93 750
Carthage	10 750
Foxfire Village	166 196
Pinebluff	25 625
"	7 235
Robbins	218 125
Southern Pines	21 068
"	14 166
"	77 999
"	36 499
"	37 570
Moore Co.	23 832
Nash	
Bailey	7 625
Nashville	34 907
Rocky Mount	507 986
"	11 728
"	286 650
Sharpsubrg	19 008
Spring Hope	8 045
"	5 652
New Hanover	
Carolina Beach	90 825
"	31 232
Kure Beach	9 022
Lower Cape Fear W/S Auth.	2 782 450
"	1 352 500
Wilmington	61 272
"	15 622
Wrightsville Beach	107 319
Northampton	
Conway	22 885
"	18 875
Woodland	12 430
"	2 375
Northampton Co.	24 700
"	176 198
"	187 319
Onslow	
Jacksonville	650 000
Swansboro	9 839
Onslow Co.	33 502
"	3 117 042

Orange	
Carrboro	166 625
"	9 327
Durham	16 525
Hillsboro	62 950
"	5 273
Graham	20 000
Orange W/S Auth.	317 405
UNC-Chapel Hill	381 127
Orange Co.	30 737
Pamlico	
Bayboro	100 000
Minnesott Beach	66 250
Oriental	135 000
Pamlico Co.	1 225 950
"	477 850
Pasquotank	
Elizabeth City	263 909
"	1 000 000
Pasquotank Co.	1 389 500
"	107 100
Pender	
Surf City	8 801
Topsail Beach	12 937
"	22 000
Perquimans	
Hertford	2 037
Perquimans Co.	330 014
"	230 425
Person	
Roxboro	781 358
Pitt	
Ayden	3 454
"	138 735
Bethel	53 750
"	20 000
Farmville	112 938
Farmville	21 9
"	11 6
"	16 3
Fountain	72 1
"	8 2
Grifton	68 2
"	36 2
Grimesland	13 8

(continued on next page)

Pitt	
Greenville	42 547
"	38 199
"	1 754 044
"	37 081
"	30 210
"	98 106
Winterville	89 733
"	7 131
"	11 369
Polk	
Saluda	1 750
Tryon	207 250
Randolph	
Archdale	539 347
"	25 878
Asheboro	2 027 733
Franklinville	145 000
Liberty	47 337
Ramseur	360 000
Randleman	324 000
Randolph Co.	117 760
Richmond	
Hamlet	67 550
Rockingham	11 068
Richmond Co.	1 004 293
"	77 750
Robeson	
Fairmont	115 541
Lumberton	29 763
"	11 576
Parkton	9 144
Pembroke	5 000
Rowland	13 845
Laurinburg-Maxton AC	125 000
Saint Pauls	15 396
Robeson Co.	3 578
"	501 501
"	28 797
"	821 198
"	1 425 000
"	1 000 000
Rockingham	
Eden	127 462
"	262 295
Madison	43 500
"	10 000
Mayodan	417 500
Reidsville	887 616
"	544 865
Rowan	
China Grove	53 750
"	12 625
East Spencer	56 754
"	62 500
Granite Quarry	2 847
"	15 556
"	3 987
Landis	136 750
Rockwell	41 747
Salisbury	225 288
"	65 150
"	409 250
"	41 015
Spencer	43 500
Rutherford	
Alexander Mills	204 250
Bostic	72 407
Ellenboro	237 556
Lake Lure	31 200
Cliffside S.D.	24 250
Sampson	
Clinton	27 500
"	102 608
"	11 625
"	92 500
Garland	7 500
"	3 182
Newton Grove	156 962
Roseboro	90 825
Salemburg	7 168
Turkey	106 525
Scotland	
Laurinburg	448 942
"	550 000
Wagram	39 000
Stanly	
Albemarle	66 700
Norwood	36 250
"	598 963
Stanly Co.	918 084
"	234 897

Stokes	
Danbury	75 000
Walnut Cove	117 932
Stokes Co.	6 250
Surry	
Elkin	11 750
Pilot Mountain	183 715
Surry Co.	603 775
Swain	
Bryson City	110 998
Cherokee Indians	31 775
Swain Co.	23 695
Transylvania	
Brevard	131 197
"	456 555
"	206 607
Rosman	62 750
Tyrrell	
Tyrrell Co.	556 227
"	156 250
Union	
Waxhaw	4 662
Wingate	46 550
Union Co.	62 373
"	546 158
"	112 373
"	1 279 500
"	136 354
Vance	
Henderson	2 525 000
"	51 825
Wake	
Apex	1 845
"	52 734
"	19 232
"	20 327
Cary	328 879
"	204 250
"	76 382
Fuquay Varina	368 740
"	88 475
"	28 875
Garner	36 000
"	3 242
Knightdale	78 666
Morrisville	180 000
Raleigh	187 090
"	52 838
"	172 525
"	82 595
"	638 238
"	229 360
"	48 424
"	189 733
"	49 198
"	87 395
"	9 923
Wake Forest	50 000
"	28 750
"	283 500
"	22 500
"	21 750
"	543 250
Wendell	2 385
"	5 475
"	115 500
"	3 248
"	42 500
Zebulon	72 078
Wake Co.	52 788
Warren	
Littleton	40 250
Norlina	11 750
Henderson	25 000
Washington	
Creswell	92 800
Plymouth	24 000
"	88 150
Roper	32 500
Washington Co.	558 750
Watauga	
Blowing Rock	232 000
"	229 000
"	238 000
Boone	11 137
"	1 827 260
Wayne	
Eureka	23 600
Fremont	13 587
Goldsboro	451 200
"	473 400
Mount Olive	86 164
"	5 625
"	59 720
Pikeville	31 640
"	86 164
Southern Wayne S.D.	15 870
"	162 750
	41 250

Wilkes	
North Wilkesboro	89 925
"	16 548
"	61 400
Ronda	168 100
Wilkesboro	90 925
"	27 197
"	33 268
"	30 561
Wilson	
Black Creek	23 956
Elm City	1 687
Stantonsburg	28 084
Wilson	331 375
"	88 353
"	104 877
"	225 350
Wilson Co.	10 551
Yadkin	
Arlington	159 247
Boonville	289 502
Jonesville	186 750
Yadkinville	343 750
"	46 000
Yancey	
Burnsville	13 247

WASTE WATER SYSTEM PROJECTS FUNDED UNDER THE N. C. CLEAN WATER BOND ACTS OF 1971 and 1977

ALAMANCE	
Alamance Co.	13,500
	327,100
	7,402
	37,334
	32,100
	22,747
	18,186
Burlington	115,386
	20,000
	86,982
	1,150,988
	25,725
Gibsonville	240,300
	11,722
Graham	29,242
Mebane	50,250
ALEXANDER	
Alexander Co.	3,750
ALLEGHANY	
Sparta	26,450
ANSON	
Anson Co.	74,009
	13,750
ASHE	
Ashe Co.	4,375
AVERY	
Banner Elk	93,380
	184,500
Newland	76,874
	62,253
Avery Co.	6,875
BEAUFORT	
Washington	45,389
	17,013
	10,262
	5,293
	57,500
	55,552
	10,625
Aurora	3,804
	83,110
Belhaven	2,500
BERTIE	
Lewiston	4,888
Windsor	55,000
	224,625
Colerain	33,638
BLADEN	
Elizabethtown	128,000
	1,375
	8,200
	202,577
Dublin	67,371
	1,906
	40,648
Bladenboro	111,647
	179,000
Clarkton	18,600
	3,750
Bladen Co.	73,271
BRUNSWICK	
Shallotte	178,739
Brunswick Co.	7,012
	7,000
Southport	119,159
BUNCOMBE	
Buncombe Co.	73,113
	34,510
	11,206
	500,000
Buncombe Co. MSD	9,726
	104,054
	61,250
Avery Creek	80,000
Asheville	17,833
BURKE	
Valdese	273,526
	69,362
	56,000
	166,650
Glen Alpine	171,895
Drexel	5,000
	137,482
	60,000
	83,439
Morganton	2,523,264
	202,000
Burke Co.	141,000
	172,750
	129,732
	2,063

CABARRUS	
Harrisburg	73,305
	265,915
Kannapolis S.D.	47,303
Jackson Park S.D.	477,375
	64,616
	82,150
Cabarrus Co.	32,567
Concord	3,950,233
	928,730
CALDWELL	
Hudson	278,917
	51,192
Lenoir	311,164
	3,750
Caldwell Co.	22,890
CARTERET	
Newport	44,289
	29,936
Carteret Co.	25,000
CASWELL	
Yanceyville S.D.	2,750
CATAWBA	
Longview	24,000
	294,303
Conover	139,272
	7,808
	256,834
	13,500
	4,375
	17,541
Catawba Co.	14,750
Hickory	4,500
	1,188,000
Maiden	295,000
	2,250
	17,500
Newton	902,625
Claremont	5,000
CHATHAM	
Siler City	9,500
	3,125
	329,084
Pittsboro	77,665
	2,500
	13,300
	117,158
Goldston	1,875
Chatham Co.	4,500
CHEROKEE	
Murphy	79,875
	2,500
Andrews	1,750
CHOWAN	
Edenton	7,500
CLAY	
Hayesville	2,250
CLEVELAND	
Cleveland Co.	39,867
	228,537
Grover	134,198
Shelby	14,500
Kings Mountain	35,400
	104,636
COLUMBUS	
Tabor City	152,490
Fair Bluff	78,406
	2,656
	7,686
Lake Waccamaw	132,210
Riegelwood S.D.	1,788
Whiteville	7,500
CRAVEN	
Craven Co.	68,422
New Bern	8,125
Vanceboro	51,400
	79,112
	84,292
Havelock	5,000
	201,218
CUMBERLAND	
Fayetteville	498,447
	2,413,531
	9,500
Fayetteville Pub. Works Comm.	354,076
Spring Lake	47,568
	328,666
Hope Mills	143,000
	25,268
Stedman	2,500
DARE	
Dare Co.	6,325
	6,250

DAVIDSON
Lexington 24,519
119,575
Davidson Co. 700
15,520
Thomasville 10,000
Denton 4,250

DUPLIN
Magnolia 52,250
3,582
1,250
Wallace 2,920
6,300
Faison 44,750
3,325
Rose Hill 75,000
Duplin Co. 8,935
Beulaville 5,000
5,000
Kenansville 51,515
50,725
Warsaw 12,494
8,634

DURHAM
Durham 92,869
9,473
9,481
68,600
Durham Co. 30,000
68,081

EDGECOMBE
Sharpsburg 24,194
9,733
Pinetops 23,282
6,670
Tarboro 67,922
212,285
3,125
Princeville 99,712
Edgecombe Co. 35,506

FORSYTH
Winston-Salem/Forsyth Co. Utility Comm. 117,948
87,500
1,211,513
Winston-Salem 331,090
172,870
Kernersville 25,172
24,275
Forsyth Co. 24,165

FRANKLIN
Franklin Co. 1,602
2,537
4,375
Bunn 5,420
2,500
Louisburg 13,125
5,000

GASTON
Catawba Heights SD 474,437
145,333
Ranlo 178,870
Lowell 97,600
Gaston Co. 11,338
36,714
32,825
9,855
Mount Holly 309,250
Gastonia 1,099,248
Cramerton 1,375
72,538
61,651
Bessemer City 183,330
181,035
Cherryville 31,000
4,500
79,625

GRAHAM
Robbinsville 1,563

GRANVILLE
Granville Co. 8,555
Creedmoor 12,500
10,000
3,750
Lyon Station 21,745
5,837
Oxford 37,900
5,000

GREENE
Snow Hill 6,803
7,833
48,019
17,775
5,000
Hookerton 4,500
1,828

GUILFORD	
High Point	486,588
	399,443
	75,250
	15,450
	20,875
Greensboro	46,250
	358,489
	137,500
	21,250
Guilford Co.	220,500
	27,050
Jamestown	13,500
HALIFAX	
Hobgood	2,125
Enfield	5,625
Roanoke Rapids S.D.	8,328
Scotland Neck	2,500
Littleton	1,500
HARNETT	
Erwin	145,608
Angier	7,340
Lillington	9,433
	60,628
Dunn	39,750
	719,500
	35,794
Harnett Co.	7,500
HAYWOOD	
Canton	9,700
Haywood Co.	18,735
	52,342
	13,750
Waynesville	35,125
	732,750
HENDERSON	
Hendersonville	2,400
	129,556
	21,921
HERTFORD	
Murfreesboro	24,500
	5,000
Ahoskie	28,723
	68,250
	2,000
Winton	1,000
	3,875
Harrellsville	1,827
	938
HOKE	
Raeford	80,853
	5,625
HYDE	
Hyde Co.	2,458
	2,019
	27,405
IREDELL	
Statesville	100,510
	17,674
	55,740
	716,067
	1,250
	421,198
Troutman	33,688
	9,911
	15,990
	76,173
	7,538
Mooresville	20,700
	115,291
	6,750
JOHNSTON	
W.Smithfield S.D.	11,366
	251,575
	4,134
Smithfield S.D.	127,916
Selma	3,688
	35,250
	2,500
	52,750
	2,272
	1,500
	7,000
	5,778
	28,392
	2,638
Smithfield	3,125
	3,138
	58,875
	16,067
Johnston Co.	26,000
	26,950
	12,206
	517,787
	287,025
	23,200
Princeton	5,530
	3,554
	1,063
Clayton	625
Kenly	1,250

(Johnston - cont)

JOHNSTON - cont.	
Benson	60,500
	12,000
	300
	824,184
	280,000
JONES	
Maysville	33,950
Trenton	44,132
	1,218
	2,242
LEE	
Sanford	20,662
	36,480
	7,000
	6,250
	9,250
	285,634
	6,500
Lee Co.	82,170
Sanford/Lee	29,233
LENOIR	
Lagrange	3,300
	25,000
	250,000
	1,250
	10,000
Grifton	25,000
Kinston	139,600
	1,006,895
	7,500
LINCOLN	
Lincolnton	6,675
	39,500
	127,250
	11,250
McDOWELL	
Marion	30,475
	103,900
	3,350
	891,500
Old Fort	1,250
MACON	
Highlands	3,500
	3,125
Macon Co.	87,000
	24,750
Franklin	23,250
	3,750
MADISON	
Marshall	18,900
	2,415
Mars Hill	59,823
	3,125
Hot Springs	938
MARTIN	
Robersonville	51,953
	233,629
Williamston	66,818
	1,875
	9,785
	137,588
Hamilton	96,400
	90,025
Jamesville	62,320
MECKLENBURG	
Pineville	26,025
Mecklenburg Co.	8,750
	999,535
Huntersville	23,050
Charlotte	472,258
	27,039
	75,453
	144,770
	50,708
	24,394
	165,320
	274,721
	149,353
	69,739
	69,832
	63,879
	125,329
	79,692
	256,007
	59,165
	25,015
	64,181
	1,616,160
	23,125
	1,414,329
	122,325
	3,288,268
	76,692
Charlotte/Mecklenburg Utility Dept.	473,164
	75,224
	271,648
	603,505

MITCHELL	
Spruce Pine	1,875
MONTGOMERY	
Troy	20,557
Montgomery Co.	9,375
MOORE	
Moore Co.	12,580
	104,933
	1,948,008
	2,938
	2,625
	5,188
	92,138
Aberdeen	55,073
Southern Pines	122,587
Robbins	3,125
NASH	
Sharpsburg	104,966
	75,963
	5,832
	19,422
Middlesex	39,744
Spring Hope	43,325
	3,750
	7,725
	125,000
	12,500
Rocky Mount	424,045
	9,000
	100,282
	2,647,349
Whitakers	5,000
Nash Co.	7,000
Nashville	101,620
	1,875
NEW HANOVER	
Wilmington	15,971
Carolina Beach	135,750
	304,825
New Hanover Co.	66,838
	19,033
	14,602
	3,750
Wrightsville Beach	8,287
NORTHAMPTON	
Conway	27,675
	4,375
Northampton Co.	118,107
	208,138
Woodland	1,375
	4,320
	105,187
Jackson	1,500
Seaboard	3,750
	74,850
ONSLOW	
Jacksonville	230,625
	507,304
	11,875
	52,408
	1,150,500
Onslow Co.	3,750
Swansboro	50,475
	5,688
	7,155
	135,381
Holly Ridge	5,463
ORANGE	
Orange Water & Sewer Authority	57,338
Chapel Hill	18,186
	7,982
Hillsborough	118,685
	1,023,669
Carrboro	42,228
PAMLICO	
Oriental	1,515
Bayboro	4,375
PASQUOTANK	
Pasquotank Co.	8,250
	26,956
	10,000
	42,450
	5,000
Elizabeth City	11,250
PENDER	
Burgaw	2,800
	89,280
	4,588
PERQUIMANS	
Hertford	5,554
	4,375

PERSON	
Roxboro	95,741
	5,000
	19,669
PITT	
Ayden	18,197
	8,458
	47,961
Greenville	31,924
	41,460
	24,663
	58,022
Winterville	12,656
	48,821
Farmville	108,633
	4,093
	34,076
	945,039
	13,875
Fountain	97,015
	1,250
Bethel	39,325
	1,875
Greenville Utilities Commission	18,418
	26,280
Grifton	106,500
Contentnea MSD	743,912
POLK	
Polk Co.	66,448
	3,438
Saluda	1,125
RANDOLPH	
Archdale	495,037
	23,939
Asheboro	25,129
Ramseur	5,625
Liberty	4,375
Randolph Co.	375,625
RICHMOND	
Rockingham	126,565
	291,860
Richmond Co.	11,250
Hamlet	10,275
	85,358
ROBESON	
Robeson Co.	12,725
	14,572
	9,424
	28,615
	35,000
Maxton	89,776
Parkton	12,275
	1,350
	8,000
	41,747
Pembroke	4,170
Fairmont	8,876
	3,750
	15,975
Laurinburg-Maxton Airport Comm.	125,000
Lumberton	30,000
	13,136
	18,300
	7,641
	9,853
	12,500
St. Pauls	114,890
	2,125
Rowland	2,250
	23,488
Red Springs	51,887
	2,875
	33,000
	450,000
ROCKINGHAM	
Eden	258,480
	226,062
	10,625
Madison	74,557
Stoneville	23,128
	233,146
Reidsville	7,500
	546,167
Mayodan	6,875
ROWAN	
Salisbury	47,850
	424,156
	12,500
Granite Quarry	67,453
Rockwell	39,465
	7,719
	53,357
East Spencer	6,618
Spencer	18,750

RUTHERFORD	
Rutherfordton	60,000
Forest City	6,500
Alexander Mills	47,067
	123,514
Spindale	15,000
	172,046
Rutherford Co.	3,125
	20,413
	25,000
SAMPSON	
Sampson Co.	19,708
Clinton	121,500
	1,500
	672,894
Salemburg	5,000
Garland	2,500
SCOTLAND	
Maxton	52,724
Gibson	2,625
Laurinburg	17,656
	132,471
	11,250
STANLEY	
Albemarle	255,329
	1,554,990
	12,500
Norwood	120,934
Oakboro	4,960
	13,125
STOKES	
Walnut Cove	4,382
King S.D.	116,990
SURRY	
Dobson	22,101
	17,377
	2,813
Mount Airy	157,560
Elkin	6,875
Pilot Mountain	3,750
SWAIN	
Cherokee Indians	29,089
	30,793
Eastern Cherokee Indians	2,000
Swain Co.	9,581
TRANSYLVANIA	
Brevard	8,985
Rosman	2,813
TYRRELL	
Columbia	18,500
	1,875
UNION	
Wingate	130,000
Union Co.	14,719
	298,600
	50,000
	14,127
	374,800
Waxhaw	100,000
	100,000
Monroe	12,097
	39,153
	814,375
Union Co.	16,365
VANCE	
Henderson	43,802
	2,250
WAKE	
Garner	137,553
Cary	60,900
Raleigh	7,199,865
	43,750
	67,295
	31,955
Fuquay Varina	6,875
	16,502
	233,699
	147,900
	36,875
	72,814
Wake Co.	391,902
Wendell	105,111
	50,000
	19,311
	35,043
Zebulon	6,250
	7,400
	123,441
	23,886
Wake Forest	166,125
	192,500
	9,375
	434,449
WARREN	
Warren Co.	19,150
	2,500

WASHINGTON	
Bethel	45,443
Plymouth	27,500
	4,125
	86,250
	2,310
Roper	3,250
	67,500
	69,057
Creswell	1,250
WATAUGA	
Boone	4,142
	48,906
	245,525
	6,875
	14,117
Blowing Rock	15,427
WAYNE	
Goldsboro	36,980
	233,240
	8,938
Mt. Olive	36,720
	5,000
	177,214
	61,003
	9,846
Fremont	4,375
	6,400
	11,875
Eureka	74,250
	1,000
Pikeville	24,050
WILKES	
North Wilkesboro	74,350
	64,988
	4,375
Wilkesboro	49,662
	37,550
WILSON	
Sharpsburg	31,228
	43,571
Black Creek	128,381
Saratoga	50,933
	67,317
Lucama	18,000
	6,538
	11,109
	144
Stantonsburg	11,375
	3,750
Wilson	27,916
	27,125
	1,266,450
	5,716
	8,281
Elm City	5,625
Wilson Co.	280,406
YADKIN	
Jonesville	114,343
	5,500
YANCEY	
Burnsville	1,875

REGIONAL WATER SUPPLY PLANNING ACT

REVOLVING FUND STATUS

The Regional Water Supply Planning Act of 1971 authorized establishment of a revolving fund from which planning advances could be made to eligible applicants for the purpose of retaining consulting engineers to study the feasibility of regional water systems and develop preliminary plans for such systems. The Act contemplated that the applicants would repay the planning advance amounts upon construction of the systems. The original appropriation to the revolving fund was $100,000. Another $100,000 was subsequently appropriated.

The applicants who received funds are listed below.

Applicant	Amount
Moore County	$10,000
Dare County	20,000
Carteret County	5,000
Chowan County	3,230
District #1, Avery County	3,750
Currituck County	24,000
Camden County	6,000
Spec. Water Dist., Harnett County	9,000
Town of Lillington, Harnett County	1,750
Montgomery County	7,500
Cleveland County	5,000
Deep Cr. - Swain County	16,000
Perquimans County	3,230
Knightdale - Wake County	6,000
Jones County	3,230
Newton Grove - Sampson County	3,000
New Hanover County	18,625
Greene County	7,500
Bonlee - Chatham County	7,000
Hertford County	18,000
Pasquotank	10,000
Washington County	12,000

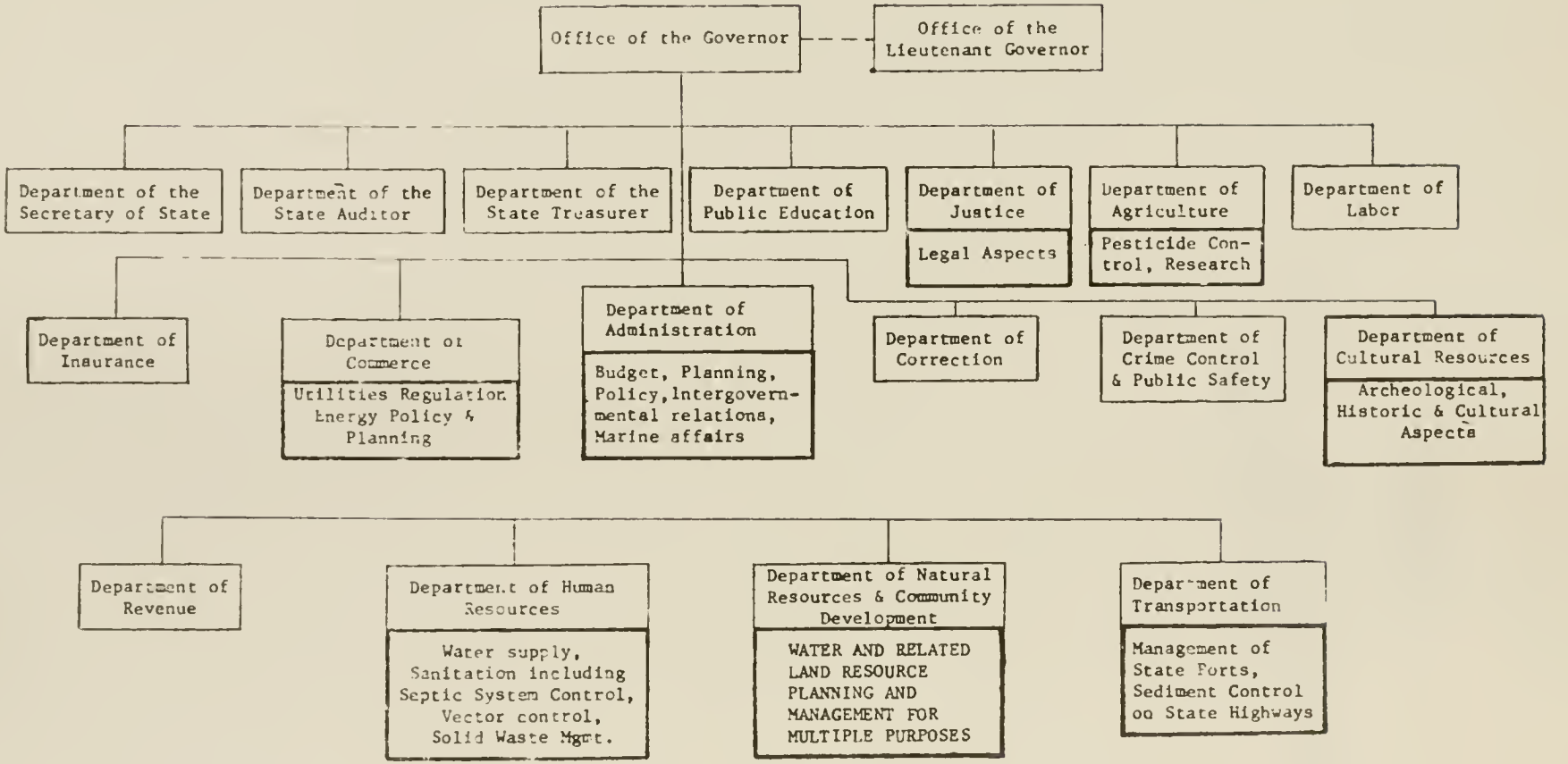
The Department of Administration advises that Chowan County and Newton Grove have submitted refund of their planning advances to the revolving fund.

Report submitted by Division of Health Services
Department of Human Resources

APPENDIX G

ORGANIZATION OF STATE GOVERNMENT FOR WATER MANAGEMENT

FIGURE III-1. ORGANIZATION OF EXECUTIVE BRANCH, STATE OF NORTH CAROLINA, 1978, SHOWING MAJOR AND MINOR WATER RESOURCE ACTIVITIES*

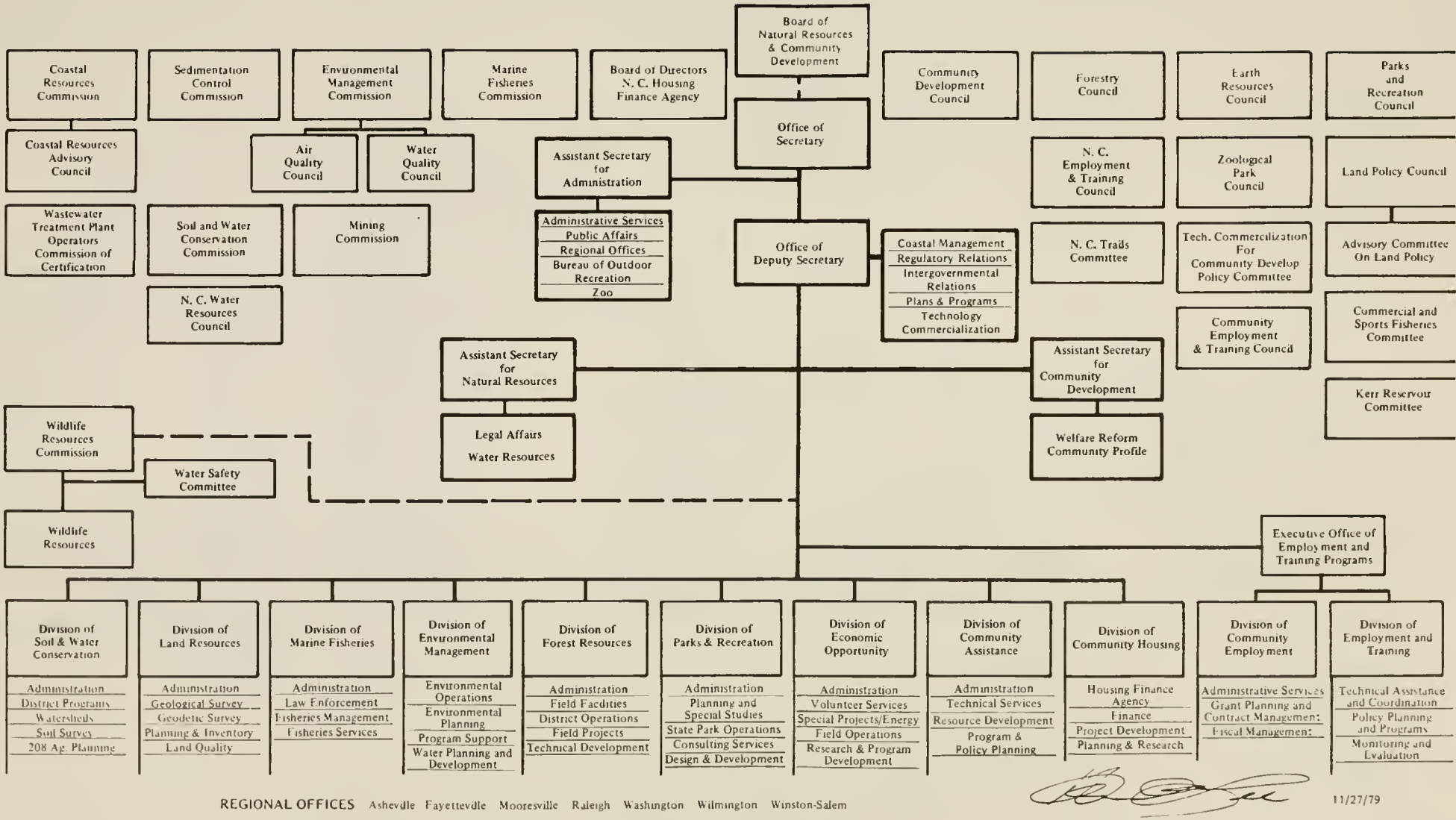


*Adapted from North Carolina Manual, 1977

Legend: Major Water Resource Programs; Minor or Related Activities

SOURCE: Hufschmidt, —.

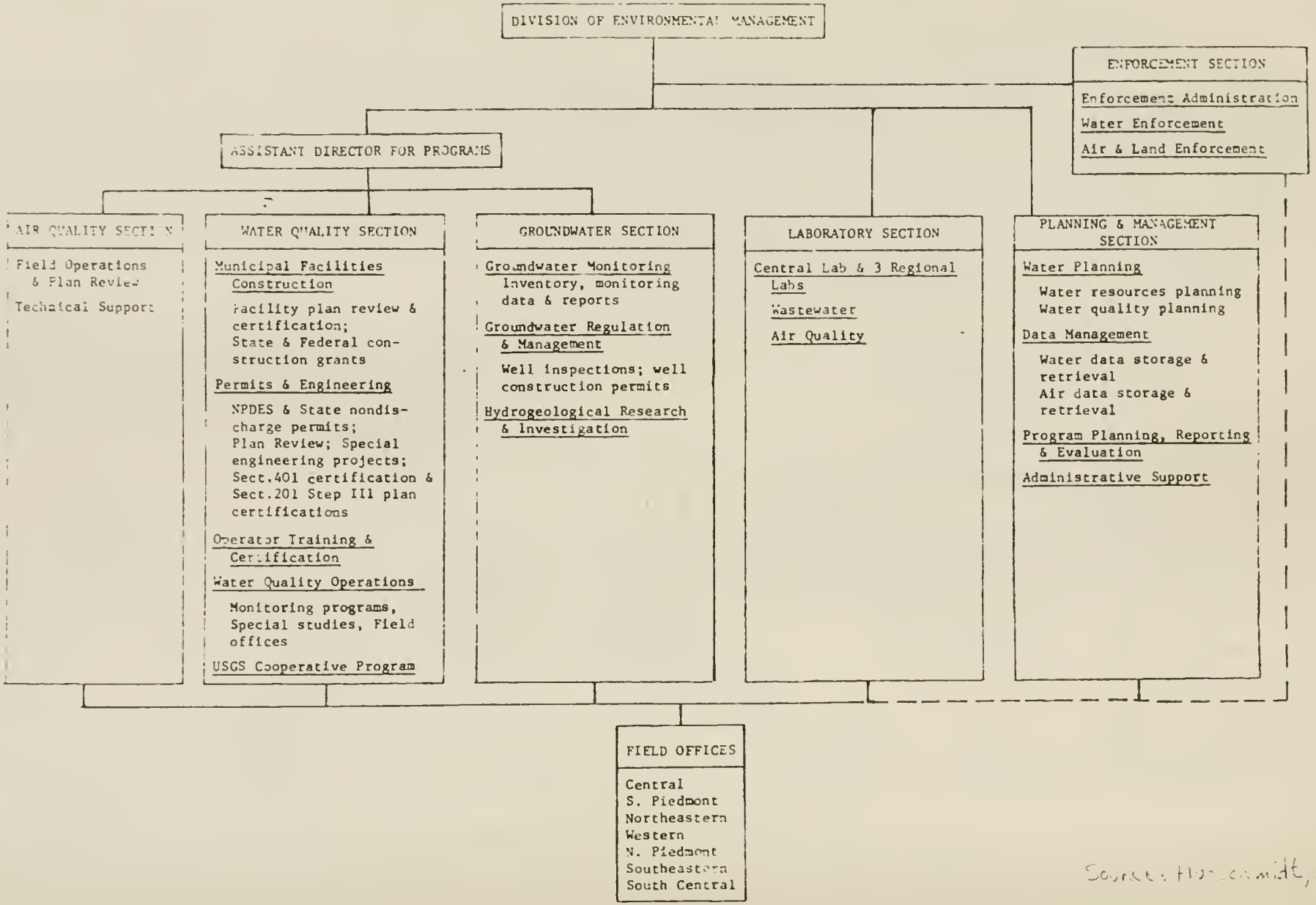
DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT



REGIONAL OFFICES Asheville Fayetteville Mooresville Raleigh Washington Wilmington Winston-Salem

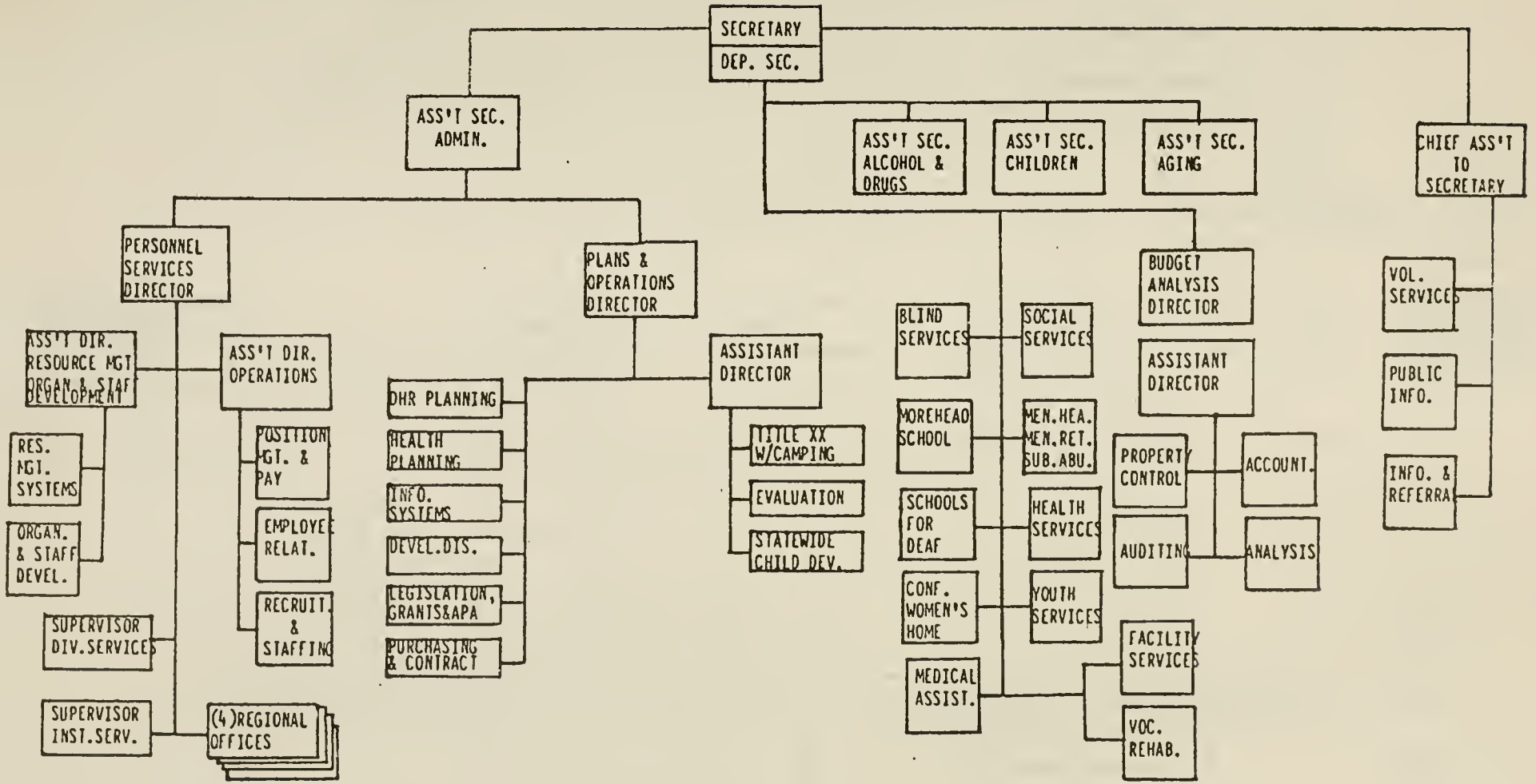
11/27/79

FIGURE III-4. ORGANIZATION OF THE DIVISION OF ENVIRONMENTAL MANAGEMENT, DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT, 1978, WITH SPECIAL REFERENCE TO WATER RESOURCE ACTIVITIES*



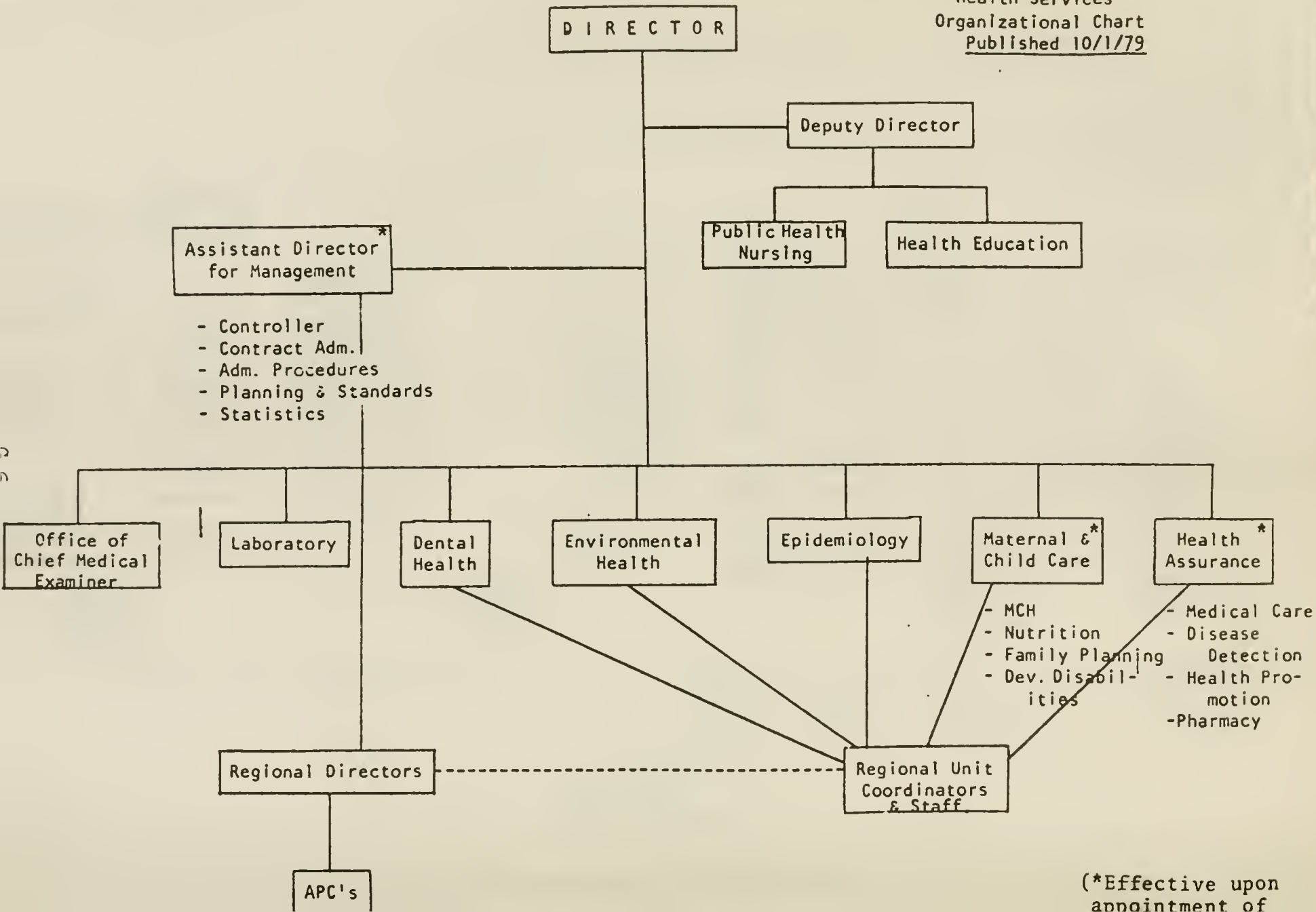
Source: Horsemidt,

NORTH CAROLINA DEPARTMENT OF HUMAN RESOURCES

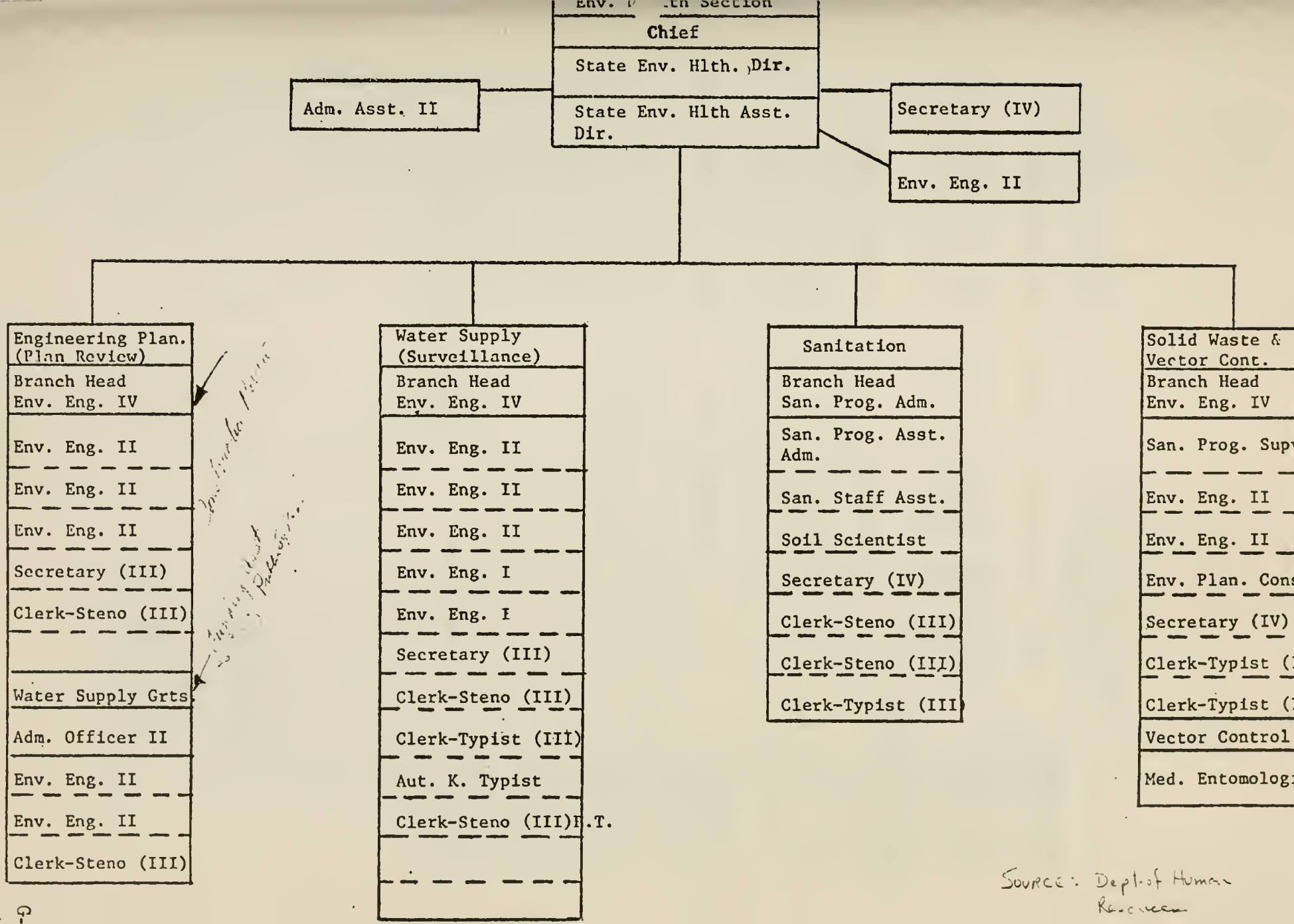


SOURCE: Dept. of Human Resources
August, 1979

North Carolina Divisic
Health Services
Organizational Chart
Published 10/1/79



(*Effective upon appointment of



Source: Dept. of Human Re...

TABLE ~~III-4~~. SUMMARY OF FUNDING FOR NORTH CAROLINA STATE WATER AND RELATED LAND RESOURCE MANAGEMENT, BY ORGANIZATIONAL UNIT AND ACTIVITY, FISCAL YEAR, 1970-1978

	1970 Actual	1971 Estimated	1972 Actual	1973 Actual	1974 Actual	1975 Authorized	1976 Actual	1977 Authorized	1978 Authorized	1979 Recommended
Department of Human Resources:										
Sanitary Engineering Section										
Water Supply Protection	251,000	277,000	365,000	474,000	619,000	742,000	752,000	1,261,000	1,262,000	806,000[2]
(Federal receipts*)	(22,000	22,000	23,000	33,000	18,000	17,000	9,000	470,000[1]	472,000[1]	NA)
Sanitation (includes shellfish sanitation, small septic tank regulation & other water related inspections)	256,000	249,000	313,000	521,000	396,000	465,000	715,000	760,000	760,000	763,000
(Federal receipts*)	(35,000	33,000	33,000	39,000	41,000	48,000	52,000	62,000	56,000	56,000)
Solid Waste Vector Control	21,000	95,000	113,000	156,000	198,000	228,000	229,000	251,000	251,000	251,000
(Federal receipts*)	(5,000	15,000	--	--	--	--	--	--		--)
Salt Marsh Mosquito Control	491,000	508,000	499,000	509,000	516,000	565,000	567,000	574,000	674,000	674,000
(Federal receipts)	(--	--	--	--	--	--	--	--	--	--)
Dept. of Natural Resources & Community Development:										
Division of Environmental Management										
Water Quality Program	708,000	750,000	1,028,000	1,270,000	2,045,000	2,666,000	2,219,000	2,482,000	4,018,000[3]	?
(Federal receipts*)	(270,000	265,000	310,000	596,000	1,281,000	1,307,000	1,071,000	1,441,000	3,017,000[3]	?
Statewide 208 Planning Federal receipts							--	$25,000[3]	1,507,000[3]	
Groundwater Resources Program	343,000	350,000	376,000	381,000	591,000	744,000	708,000	774,000	774,000	777,000
Comprehensive Water Resource Planning	115,000	147,000	169,000	223,000	324,000	371,000	384,000	374,000	279,000[4]	?
(Federal receipts*)	(80,000	108,000	106,000	80,000	75,000	91,000	105,000	130,000	116,000	?)
U.S.G.S. Cooperative Program: Total State & Federal funds	642,000	664,000	666,000	764,000	688,000	967,000	951,000	1,090,000	1,100,000	?
Office of Public Works:										
Water Resources Development:										
Operating expenses	27,000	67,000	54,000	78,000	239,000	50,000	50,000	50,000	149,000	149,000
Capital authorization	--	--	250,000	500,000	674,000	500,000	500,000	600,000	1,733,000[5]	2,513,000
Division of Land Resources										
Soil & Water Conservation										
Operating expenses--total	281,000	299,000	300,000	298,000	343,000	404,000	412,000	526,000	529,000	529,000
(Admin.-Small Watershed Program*)	(96,000	99,000	85,000	161,000	79,000	130,000	NA	NA	NA)	
Sedimentation Control	--	--	--	--	45,000	230,000	220,000[6]	220,000[6]	220,000[6]	220,000
Division of Marine Fisheries										
Research and Development	NA	NA	517,000	660,000	704,000	702,000	786,000	838,000	679,000	860,000
Estuarine Management			97,000	105,000	129,000	151,000	109,000	144,000	145,000	154,000
Wildlife Resources Commission										
Wildlife Resources--Operating Expenses	NA	NA	NA	NA	NA	NA	8,424,000	9,297,000	9,260,000	9,389,000
(Federal receipts*)							(1,617,000	1,391,000	1,406,000	1,406,000
(Interagency Wildlife Coordination*)						(78,000	97,000	105,000	106,000	106,000)
Office of Coastal Resources										
Coastal management program, total	--	--	--	--	--	530,000	941,000	1,000,000	1,365,000	NA
(Federal receipts*)	--	--	--	--	--	(300,000)	628,000	666,000	1,009,000	NA

*Included in totals above.

Data rounded to nearest thousand.

[1] Estimated receipts from Federal Safe Drinking Water Act authorization.

[2] State funds only.

[3] From Division of Environmental Management Program Plan for period July 1, 1977-October 1, 1978.

[4] From Monthly Budget report for the period ending March 31, 1978. Excludes $408,000 for Yadkin-Pee Dee level B Study.

[5] In addition, Coastal Plains Regional Commission & Economic Development Administration grants totalling $3,325,000 for Wanchese Harbor.

[6] Estimated by Division staff. Published data not available for sedimentation control item.

SOURCE: Hufschmidt, ___

TABLE III-2. SIGNIFICANT WATER AND RELATED LAND RESOURCE MANAGEMENT ACTIVITIES OF THE STATE OF NORTH CAROLINA, BY PRINCIPAL ELEMENTS, 1978

Principal Element	Policies & Guidelines (POL)	Basic Data & Research (DATA)	Planning (PLAN)	Review & Comment (REV)	Technical Assistance (TA)	Financial Aid (FINAID)	Regulation (REG)	Mgm't of State or Locally-owned Resources (MGMT)	Developm't, Construction, & Land Acquisition (DEV)
1. WATER SUPPLY (Surface & Ground Water)	M	(F) M	M	M	m	(F) M	(F) M	(L) O	(L) O
2. WATER QUALITY	(F) M	M	M	M	m	(F) M	(F) M	(L) O	(L) O
3. FLOOD DAMAGE REDUCTION (Riverine & Coastal)	m	O	m	M	m	(F) m	m	(L) O	(F)(L) m
4. EROSION AND SEDIMENTATION REDUCTION	M	m	M	M	m	(F) m	M	(L) O	(L) O
5. LAND DRAINAGE	M	m	m	M	m	(F) m	M	(L) O	(L) O
6. NAVIGATION	m	O	m	M	O	m	(F) O	O	(F) m
7. HYDROELECTRIC POWER	m	O	m	m	O	O	(F) O	O	(F)(L) O
8. RECREATION (Water-based)	M	m	m	M	O	(F) m	m	M	(L) m
9. FISH & WILDLIFE (Marine & fresh water)	M	m	M	M	m	(F) O	M	M	(F) m
10. PROTECTION OF AREAS OF ENVIRONMENTAL CONCERN	M	m	M	M	O	(F) O	M	M	(F) m
11. OVERALL WATER RESOURCE PLANNING & MANAGEMENT	M	m	(F) M	M	O	O	m	O	(F) O

Legend: M= Major State activity; m= Minor State activity; O= no significant State activity; F= Major Federal activity; L= Major Local activity.

Source: [illegible]

TABLE III-4. MAJOR FEDERAL WATER RESOURCE PROGRAMS, CLASSIFIED BY MAJOR ELEMENTS AND AGENCY, SHOWING THE PRIMARY STATE AGENCY INVOLVED

Federal Programs	Primary State Cooperating Agency
1. Water Supply	
Farmers Home Administration	
Rural Water Supply planning & construction grants and construction loans to local agenci	Human Resources, Sanitary Engineering Section
Soil Conservation Service	
Water Supply in Small Watershed Projects	DNRCD, Land Resources Division
Corps of Engineers	
Water Supply in Multiple-Purpose Reservoirs--planning, construction, operation & maintenance	DNRCD, Office of Public Works
Economic Development Administration	
Water Supply Grants to local agencies	Human Resources, Sanitary Engineering Section
Environmental Protection Agency	
Regulation of domestic water supplies, Grants to State for management of State Regulatory Program	Human Resources, Sanitary Engineering Section
Dept. of Housing & Urban Development	
Community Development Grants to localities	Human Resources, Sanitary Engineering Section
Geological Survey	
Cooperative-Federal-State Basic Data Program, surface and ground water	DNRCD, Division of Environmental Management
2. Water Quality	
Farmers Home Administration	
Rural Waste Water Facilities planning and construction grants and construction loans to local agencies	DNRCD, Division of Environmental Management, Water Quality Section
Economic Development Administration	
Waste Water Disposal Facilities, grants and loans to local agencies	DNRCD, Division of Environmental Management, Water Quality Section

TABLE ~~III~~ 4 (cont.)

Federal Programs	Primary State Cooperating Agency
Environmental Protection Agency	
Planning grants to States and Regional Agencies; Section 208 areawide planning; Section 201 Step 1 planning; W.Q. management program grants to States	DNRCD, Division of Environmental Management, Water Quality and Planning and Development Sections
Waste treatment construction grants to local communities	
Dept. of Housing & Urban Development	
Community Development Grants for waste-water facilities	DNRCD, Division of Environmental Management, Water Quality Section
3. Flood Damage Reduction	
Corps of Engineers	
Planning-- Construction of flood control works	DNRCD, Division of Environmental Management, Water Resource Planning Unit; Office of Public Works
Dept. of Housing & Urban Development	
National Flood Insurance: Develop local flood risk maps Underwrite flood insurance	DNRCD, Office of Public Works
Tennessee Valley Authority	
Flood control services from TVA System	DNRCD, Office of Public Works
Soil Conservation Service	
River basin surveys Watershed planning Watershed project construction	DNRCD, Division of Land Resources
4. Erosion and Sedimentation Reduction	
Soil Conservation Service	
River basin surveys Watershed planning Watershed project construction Grants to local soil conservation districts for erosion control	DNRCD, Division of Land Resources

TABLE ~~III-4~~ (cont.)

Federal Programs	Primary State Cooperating Agency
Agricultural Stablization & Conservation Service	
Agricultural Conservation Programs: Grants to local cooperators for soil conservation practices	DNRCD, Division of Land Resources
Corps of Engineers	
Planning and construction of projects	DNRCD, Office of Public Works
5. Land Drainage	
Soil Conservation Service	
River basin surveys Watershed planning Watershed project construction Soil conservation operations Resource conservation and development	DNRCD, Division of Land Resources
Agricultural Stabilization & Conservation Service	
Agricultural Conservation Programs: Grants to local cooperators for drainage operations	DNRCD, Division of Land Resources
6. Navigation	
Corps of Engineers	
Planning, construction, and operation and maintenance of harbors and waterways	DNRCD, Office of Public Works
7. Hydroelectric Power	
Corps of Engineers	
Planning, construction and operation and maintenance of multipurpose reservoirs	DNRCD, Office of Public Works
Tennessee Valley Authority	
Hydroelectric power in the TVA System	DNRCD, Office of Public Works

TABLE III-4(cont.)

Federal Programs	Primary State Cooperating Agency
Federal Energy Regulatory Administration	
Planning of hydro power and regulation of licensed hydroelectric power projects	Dept. of Commerce, Public Utility Commission
8. Recreation	
Soil Conservation Service	
River basin surveys Watershed planning Watershed project construction Resource conservation & development involving water-based recreation	DNRCD, Division of Land Resources
Corps of Engineers	
Planning, construction and operation of multiple-purpose projects involving recreation	DNRCD, Office of Public Works
Heritage Conservation and Recreation Service	
Surveys of recreation aspects of water resource projects Land & Water Conservation Fund grants to State and local agencies	DNRCD, Division of Parks and Recreation
Dept. of Housing & Urban Development	
Community Development grants to local communities for water-based recreation	DNRCD, Division of Parks and Recreation
9. Fish and Wildlife (Sport & Commercial; Marine & Freshwater)	
Soil Conservation Service	
River basin surveys Watershed planning Watershed project construction, involving fish and wildlife	DNRCD, Division of Land Resources
Corps of Engineers	
Planning, construction and operation of multiple-purpose projects involving fish and wildlife	DNRCD, Office of Public Works

TABLE III-4(cont.)

Federal Programs	Primary State Cooperating Agency
Fish and Wildlife Service	
River basin studies, grants to States for fish restoration and wildlife restoration, direct Federal construction for and management of fish and wildlife resources	DNRCD, Wildlife Resources Commission, Wildlife Resources Agency
10. Protection of Areas of Environmental Concern	
Soil Conservation Service	
River basin surveys Watershed planning Watershed project construction involving protection of natural areas, historic and cultural sites	DNRCD, Division of Land Resources
Corps of Engineers	
Planning, construction and operation of multiple-purpose projects involving protection of natural areas, historic and cultural sites	DNRCD, Office of Public Works
National Oceanic & Atmospheric Admin.	
Coastal Zone Management Program Development of Grants to States	DNRCD, Coastal Resources Commission & Office of Coastal Resources
Heritage Conservation and Recreation Service	
Wild and Scenic Rivers, planning Land & Water Conservation Fund grants to States & local agencies	DNRCD, Division of Parks and Recreation
Fish and Wildlife Service	
River basin studies of ecological systems	DNRCD, Wildlife Resources Commission, Wildlife Resources Agency
11. Overall Water Resource Management	
Water Resources Council	
Planning grants to States Grants for operating costs, River Basin Commissions	DNRCD, Division of Environmental Management, Water Resource Planning

TABLE ~~III~~ 4 -4(cont.)

Federal Programs	Primary State Cooperating Agency
Tennessee Valley Authority	
Water resource planning, general	DNRCD, Division of Environmental Management, Water Resource Planning
Economic Development Administration	
Grants to local agencies for development of water resources and water-related projects	DNRCD, various offices & divisions; Human Resources, Sanitary Engineering Section

APPENDIX H

A BRIEF SUMMARY OF EXISTING WATER RIGHTS LAW AND WATER MANAGEMENT LEGISLATION

1. STATE LAW

Water rights law has long been, and largely remains, the domain of state law. In the western states the doctrine of prior appropriation determines who is entitled to use water, usually under permits administered by state agencies. In the eastern states the common law doctrine of riparian rights determines who is entitled to use water, although regulatory controls now modify the common law in some states.

In its original form the riparian doctrine held that every owner of land "riparian" to -- that is, bordering -- a stream was entitled to have the stream flow to him substantially undiminished in quantity and unimpaired in quality, and was correspondingly obliged to leave the stream in the same condition. This was an acceptable principle in a simple agrarian economy, but it proved to be inadequate to the needs of the modern industrial, urban era. Thus, in time the courts evolved a new theory of riparian rights in which each riparian owner was to be entitled to make a reasonable use of the stream. This is the law in North Carolina. Dunlap v. Carolina Power and Light Co., 212 N.C. 814, 195 S.E. 43 (1938). The original form of the riparian doctrine is referred to as the "natural flow" theory, the modified form as the "reasonable use" theory. This judicial evolution has been supplemented by statutory change in many states.

In North Carolina the riparian rights doctrine has been modified by legislation that empowers the Environmental Management Commission to require that large water users in areas of strong water competition or water scarcity (so-called "capacity use areas") secure water use permits from the Commission. G.S. 143-215.13 et seq. Large users of well water are also required by statute to comply with EMC standards on well construction and maintenance. G.S. 87-83 et seq. (Local health boards also administer similar controls for health-related purposes. G.S. 130-161.) The EMC has statutory powers to allocate water in emergencies, as well as authority to regulate

the streamflow effects of small watershed projects. G.S. 139-35, 143-354. And legislation has been enacted that clarifies the rights of those who invest in reservoir storage to withdraw the water at downstream points, and that prevents persons who did not contribute to the cost of reservoir storage ("free loaders") from diverting away augmented streamflows before they reach the intended beneficiaries of the storage. G.S. 143-215.44 et seq. The most recent addition, the 1979 Safe Drinking Water Act, puts North Carolina in a position to cooperate fully with the federal government in a new nationwide program to upgrade the quality of public water supplies. G.S. Chapter 130, Article 13D. The combined effect of these various statutes is a significant legislative modification of the common law of water rights in North Carolina, though falling somewhat short of a comprehensive system of water use regulation.

Of these statutes, the Capacity Use Areas Law probably is the most far reaching. The original act has been applied primarily in response to a regional water quality problem (the hazard of salt water contamination of groundwater in the phosphate mining region of eastern North Carolina.) In addition, a 1973 amendment authorized the Commission to prohibit increased wastewater discharges in any area found to be facing a generalized condition of water pollution (or water depletion). G.S. 143-215.13(d). A related 1973 amendment authorized the Commission to place a moratorium on the issuance of additional wastewater discharge permits in areas where additional discharges are likely to result in a condition of generalized pollution. G.S. 143-215.3(a)(8).

Another statutory modification is legislation designed to protect against unsafe or undesirable construction and maintenance of dams. North Carolina, like many other states, has such a statute, the Dam Safety Law. G.S. 143-215.23 et seq. Under this statute the EMC is authorized to review plans for building, repairing, altering or removing dams in order to ensure safety and to maintain minimum stream flows necessary to maintain stream classifications and water quality standards. (Federally owned, subsidized and licensed dams are exempt from the statute. Certain small dams are also exempt.)

The work on projects subject to this law must be supervised by qualified engineers, who must certify to the completion of the work in accordance with design and other requirements. The statute also empowers the EMC to conduct an inspection program covering existing dams through consulting engineers.

2. FEDERAL LAW

Until recently, the federal government has enacted little legislation in the field of water rights law, but has left this largely to the states. Federal "construction agencies" (such as the Corps of Engineers, Tennessee Valley Authority, and Soil Conservation Service) have built or assisted many river control projects that have a significant impact on stream flow management. Some federal regulatory agencies (such as the Federal Power Commission through its water power licensing program) also have some impact on water use management. A set of federal common law rules has evolved concerning the use of water flowing by or through federally owned land that has significantly affected water use regimes in the western states. (This has prompted many western proposals for legislation to place such water uses entirely under state law, but as yet these have not been enacted.) Another set of federal common law rules, the doctrine of "equitable apportionment", governs water rights controversies between states, which must be resolved by the U.S. Supreme Court.

Two related federal developments can be expected to have a significant impact on local water supply projects and similar water resource developments that alter stream beds or adjacent wetlands: §404 of the 1977 Federal Clean Water Act, and federal environmental impact statements. §404, as amended in 1977, will extend to Piedmont and Mountain areas a federal permit requirement that previously applied only in coastal waters. And the very fact that this federal permit is required will mean that a federal environmental impact statement will also be required any time there is a controversy over a local water project. Until experience has been gained in applying these new procedures, it will be hard to tell what to expect of them. But this much is apparent: whenever people who are willing to pay lawyer and

expert witness fees want to resist one of these projects, they will now have the opportunity to do so in separate §404 and EIS proceedings, and to appeal each proceeding one or more times to the federal courts. Therein lie real prospects for lengthy delays, if nothing else, for controversial projects.

Another set of federal requirements about to be felt by public water supply managers comes with the Safe Drinking Water Act. Here again it will take some experience before the full effects can be evaluated, but new water supply projects (and possibly existing sources as well) will be forced to meet more stringent and more expensive requirements in order to comply with standards designed to ensure purer and safer drinking water.

From Maynard M. Hufschmidt. State Water Resource Planning and Policy in N.C. 1980.

APPENDIX I

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

General Conclusions

1. North Carolina water management is currently in a state of transition from a historic development-oriented mode that relied largely on Federal leadership through the Corps of Engineers and the Soil Conservation Service, that was superseded in the early 1970s by an environmental quality-oriented water pollution control mode dominated by strong pressure from EPA. The State has not yet developed an independent stance and strategy that reflects an appropriate balance between the problems and needs of water quantity and quality, flood management, control of sedimentation and interstate water management.

2. Federal government influence continues to have a distorting effect on State water management. This is because the strong Federal pressure on water pollution control is not accompanied by equivalent Federal intervention in allocation of surface and ground waters among competing uses (a recognized State responsibility), nor in strong Federal leadership in flood management and sedimentation and erosion control. Although the water resource policy of the present Federal administration proposes some remedial measures, such as increased Federal grants for comprehensive water resource planning and water conservation planning, the policy also looks to the States to provide the leadership in these fields.

3. The State has a special responsibility to plan and promote effective management of the State's surface and ground water resources in both their quantity and quality dimensions. For obvious hydrologic reasons, this task is beyond the scope of local jurisdictions and private interests because of the externalities involved. Under Federal pressure, the State has reasonably adequate legislative authority and planning and management control over water pollution from point sources, but lacks equivalent legislative authority and planning and management capability for non-point sources of water pollution and for water quantity management of both surface and ground waters.

4. The water resource problems identified in this report and the references cited in it dramatize the need for improved State leadership and capability for overall water management. Little time is left before the crises become too frequent and too great to allow the State to plan ahead to be prepared to deal with issues before they reach the crisis stage.

5. Existing State water resource planning and management resources, including personnel, although inadequate to the needs, are not effectively mobilized. Resources are divided between two departments--Natural Resources and Community Development and Human Resources--with each Department sharing both water supply and water pollution control planning, promotion and regulatory responsibilities. Within the Department of Natural Resources and Community Development, staff resources have also been diffused; in addition, primary program emphasis has been on water pollution control, reflecting the strong Federal pressure for this program.

6. Although a strong and effective State water management program must involve both water quantity and water quality aspects, in the short run it is necessary to provide an effective way for the water quantity and related flood management responsibilities to grow and develop free of the dominant emphasis on water quality. It seems appropriate that this water management capability be developed within the Department of Natural Resources and Community Development.

Specific Program Conclusions

1. Water quantity management, including effective means for allocating surface and ground water among competing needs, is the most important unresolved water management issue in North Carolina. Included are issues of withdrawals from streams, lakes and underground aquifers, and issues of releases from lakes and reservoirs to maintain water levels and provide minimum flows for in-stream uses.

2. North Carolina water allocation laws, including the State "Capacity Use Law," are deficient with regard to adequate State control of surface and ground water withdrawals and lake and reservoir releases. The laws and

associated permit systems provide insufficient guidance on (1) questions of due process or just compensation when users are directed to reduce or discontinue withdrawals, (2) how to determine priorities among competing users or allocation rules to follow in times of emergency or drought, and (3) how to prevent or resolve future water use conflicts. Furthermore, by restating the primacy of riparian rights, the legislation leaves unresolved many questions on allocation of surface waters, including transbasin diversions.

3. Administration of the "Capacity-Use Law" and related legislation is also deficient. Clear assignment of responsibility and adequate staffing for carrying out the provisions of these laws have been lacking; especially lacking have been resources for continuing studies of water allocation issues to anticipate problems before they arise.

4. Inadequate attention has been given to the increasingly important interstate water management problems, especially with the State of Virginia. There is need for the State to establish legal, policy and administrative guidelines to deal effectively with these issues.

5. The Floodway Regulation Act is not being administered by the State because of lack of funds and, until recently, no clear-cut assignment of administrative responsibility. The Act needs to be revised to bring it in line with current Federal flood management legislation. Unless the State adopts a strong flood damage reduction strategy, it will face increasing probabilities of losses of life and property.

6. Administration of the Sedimentation Control Act is hampered by limited staff resoures, by the exclusion of agriculture, forestry and mining activities from control under the Act, and by weak incentives for strong local administration of the Act.

7. There is no emphasis in State law and policy on conservation of surface and ground waters as a complementary water management measure. There is need for a vigorous State water conservation program as an integral part of State water management. The evolving new Federal water resource policy places strong emphasis on water conservation.

Conclusions on Planning

1. Progress in comprehensive water resource planning since 1973 has not kept pace with the needs. Furthermore, in reaction to Federal pressure for water quality planning, the imbalance between comprehensive planning and water quality planning has increased. The current level of activity of water quality planning (approximately $2 million in fiscal year 1978) is several times that for State comprehensive planning.

2. The recent recognition by the State of the increasing importance of comprehensive water resource planning has yet to be fully translated into action. The start that was made in 1979 of revamping the comprehensive planning activity within DNRCD needs to be pursued aggressively in order to take maximum advantage of the increased Federal support for comprehensive planning that appears to be forthcoming.

3. The current emphasis on updating the N.C. Water Resources Framework Study and preparing cooperative Federal-State Level B Plans for major river basins is appropriate. However, inadequate attention is being given to statewide planning for flood management, water supply, water conservation and interstate water issues.

These broad conclusions on water resource planning are supplementary to the General and Specific Findings on Planning found in Chapter IV.

Recommendations

General Recommendations

1. There should be a major restudy of existing water allocation law and consideration of alternatives to correct existing deficiencies. Alternatives could range from strengthening the "Capacity-Use Law" to a comprehensive statewide permit system for water use.

2. Legislation should be enacted (1) to protect instream uses by providing controls over lake levels and minimum releases from reservoirs, (2) to clarify State law and policy on trans-basin diversions, and (3) to provide authorization and guidance to administrative agencies on interstate cooperation in water resource management.

3. The Floodway Regulation Act should be revised to make it consistent with recent Federal legislation on the flood insurance program and to relate it more closely to related legislation on zoning and programs of flood hazard reduction and storm water management.

4. The Sedimentation Control Act should be reviewed for possible amendment to carry out the objectives for reduction of non-point source pollution contained in the report on the recently completed statewide Section 208 study.

5. Legislation should be enacted re-defining State policy on cost-sharing of water resource projects, taking appropriate account of the specific recommendations of the State administration and the Legislative Review Commission Study Committee. Objectives should be to assure that State supported projects are economically sound, that costs are shared equitably and that projects are operated and maintained locally.

Recommendations on Organization

1. A strong State water resource management unit should be established in the Department of Natural Resources and Community Development independent of the strong water quality regulatory emphasis that has been dominant in the Division of Environmental Management. Included in this unit should be State responsibilities for flood management, water supply, ground water, surface and ground water allocation, sedimentation control, navigation, hydro-electric power, collection and analysis of basic water resource data, and overall water resource planning and policy development.

2. This water management unit could be established as a separate Water Resources Division in DNRCD or as a major sub-unit of the Division of Environmental Management. The major requirements for effectiveness are strong leadership and separate identity for the water management program.

3. Further consideration should be given to the transfer of water management activities now in the Department of Human Resources, including water supply, water pollution control, to DNRCD; in such transfer, the important role of DHR in protecting the public health should be preserved.

Pending such transfer, strong coordination of the water management activities of DNRCD and DHR (along with the water-related activities of other departments) should be effected through an interagency group with DNRCD leadership, such as the recently-established N.C. Water Resources Council.

4. Specific recommendations on organization for water resource planning are given below under Recommendations on Planning.

Programmatic Recommendations

1. Pending new legislation on water allocation, DNRCD should institute a water quantity management program, combining policy, planning, basic data, and regulation aspects. This program should pull together the current diverse water quantity management activities under the Capacity-Use Act, Coastal Zone Management Act, ground water legislation and various water supply acts. This program should be a high-priority activity of the new water resource management unit in DNRCD. Adequate personnel and supporting funds should be allocated to, or requested from the Legislature for, this activity as soon as feasible.

2. The DNRCD should strengthen and expand its current activites on interstate water management especially as related to the State of Virginia, using the recently-established Water Resources Council as the means to develop a unified State policy and action program.

3. The DNRCD should expand on its beginnings of establishing a State flood management program that will take maximum advantage of Federal flood insurance and other flood management programs, and that will emphasize intergovernmental coordination and technical aid to local governments. This program should be an important responsibility of the new water resource management unit in DNRCD.

4. Pending revision of the Sedimentation Control Act, the State should strengthen its program of technical aid and regulation under the existing Act. This program should also be an important responsibility of the new water resource management unit, but will necessarily involve parti-

cipation from other units in DNRCD such as the Division of Land Resources and elsewhere in State government such as the Department of Agriculture.

5. The DNRCD should establish a new program of water conservation in the water resource management unit, to conduct research, provide technical help to local communities, and disseminate information on ways and means of conserving water and reducing water demands. The program should be established in anticipation of a Federal water conservation program of aid to States and localities which has been proposed by the national administration.

Recommendations on Planning

Organization

1. Regardless of the precise organization for water resource management, capability for water resource planning should be available at several different levels of State administration. The major planning capability should be in a central water resource planning staff which would be an important separate entity in the water resource management unit. This staff would have the lead responsibility on all major aspects of water resource planning.

2. In addition, a small policy and planning staff would be needed at the departmental level in DNRCD to serve as staff for the inter-departmental Water Resources Council and to help in coordinating DNRCD water management activities with other programs of the Department, including land resources, forestry, fish and wildlife, coastal zone management and recreation. This staff could also serve to relate water resource planning and policy to the overall growth policy and planning of the State administration.

3. Individual water resource program areas--small watersheds, water supply and, especially, water quality--should have adequate planning capabilities to carry out their programs. But these specific planning programs should be closely coordinated with the central water resource planning activity. This is especially necessary for the currently large

water quality planning program. The DNRCD management should give special attention to ensure that these two separate but closely related planning programs become mutually supporting rather than competitive.

Program Content

1. Water resource planning should be viewed as an aid to water resource management, including decision making on broad policy, on programs, on specific projects, and on implementation, including technical help, financial incentives, and regulation. This this end, a program of planning will have several elements.

2. There should be a statewide assessment of water resource supply, problems and demands, conducted every four or five years, to serve as a basis for State water policy and legislation. The current Framework Study contains much information useful for such an assessment.

3. There should be a statewide water resource policy-problem-program alternatives report, which is kept current, to serve primarily as a guide to policy makers. The current Framework Study represents a start toward such a report.

4. There should be intermediate, medium range water and related land use planning studies, undertaken on a sub-state regional basis, by major river basins, coastal zone, and selected metropolitan regions. These planning studies, analogous to the Level B Study now underway for the Yadkin-Pee Dee River Basin, would formulate alternative plans and strategies for water resource management, relying primarily on existing data. An orderly program and schedule for completing such studies for the entire State within ten years should be prepared.

5. In addition, current single-purpose studies either of a statewide nature or covering a limited region or locality would continue. An example of a statewide single-purpose study is the statewide 208 water quality plan; examples of local studies are the Soil Conservation Service-supported small watershed plans, and navigation and local flood control plans of the Army Corps of Engineers.

6. Finally, special planning studies dealing with emerging problems or issues or crisis situations are required. Examples include planning for a statewide flood management program, for a statewide water management program, and for a statewide water conservation program. These studies should be undertaken in advance of crises.

7. The above program of planning activities would not be the responsibility of a single planning unit, but would in many cases be a shared responsibility of several units. Depending on the particular circumstances, the central water resource planning staff should act as the lead agency, the coordinating agency or the convenor agency.

Methodology

1. The central water resource planning staff, the policy staff and the specialist water resource planning staffs in other units should share a common approach to planning based on the scientific method and principles of rationality. Such approach should be goal oriented, multi-objective in nature, and should emphasize application of sound economic principles, systems analysis methods and techniques and the best available methods of environmental analysis.

2. The approach should emphasize the adaptation of these methods and techniques to the specific situations in North Carolina; it should be innovative and should make use of current results of research by maintaining close contact with the research community, especially the N.C. Water Resources Research Institute.

3. The approach should be strongly committed to involving the public in the planning and policy process in realistic and effective ways. It should emphasize the implementation of plans and programs, by organizing planning activities so as to contribute effectively to management, and by including feasibility criteria in evaluating water resource plans and programs.

4. The approach should build strong linkages with other sectors of State government as well as with sub-state regional agencies and local

governments as appropriate, and with the water resource basic data and planning staffs of Federal agencies.

Procedures for Improving Planning

1. The Legislature should give consideration to the recommended improvements in water resource legislation in its next Legislative Session. The DNRCD and the Governor should make specific recommendations for such improvements.

2. The DNRCD should develop specific programs, including estimates of personnel and funds required, for water resource management, flood management, sedimentation control and water conservation, and seek approval of the Governor and the Legislature as soon as feasible.

3. A program of planning activities should be developed, including estimates of personnel and funds required, that would take advantage of the likely availability of increased Federal planning grants; approval of the Governor and the Legislature should be sought as soon as feasible.

4. Reconsideration should be given in 1981, or as soon thereafter as feasible, of the question of reorganization of water resource activities, especially the issue of transfer of functions from the Department of Human Resources to the Department of Natural Resources and Community Development. To this end, a study should be made in early 1981 of the experience with the water resource organizational and management structure established in 1978 and 1979.

LEGAL BASIS FOR RIVER BASIN ORGANIZATIONS

Existing laws allow several options for creating river basin organizations.

If the organizers of a river basin group merely wanted to establish a loose confederation for the purpose of exploring and facilitating their mutual interests, they could create a profit or non-profit corporation with these objectives by incorporating under the business corporation act or the nonprofit corporation act (General Statutes Chapters 55, 55A). Or, they could organize an association for these purposes. They could probably employ one of these organizations for a more ambitious program, such as providing water and sewer services -- if satisfactory financing arrangements could be developed.

Where participating local governments are involved, basinwide water and sewer services could be provided through a water and sewer authority or an interlocal agreement, with or without a joint financing agency (General Statutes Chapter 162A, Article 1; Chapter 160A, Article 20). If only sewerage services were involved, the metropolitan sewerage districts law might be a satisfactory vehicle for basinwide services (General Statutes Chapter 162A, Article 5).

In all of the statutes that been noted so far, there appears to be no language limiting the territorial scope of the organization to a single county. Literally, this is also true of the sanitary district law (General Statutes Chapter 130, Article 12). But the sanitary district law appears to contemplate districts that either lie entirely within or largely within one county, and for that reason might not serve adequately as the vehicle for a basinwide entity. (G.S. 130-124, 130-126).

See Appendix K for a more detailed description of the options noted in this appendix.

APPENDIX K

OPTIONS FOR ORGANIZATION OF LOCAL WATER AND SEWER SERVICES

From Regulation and Management of Septic Systems Region J, North Carolina, issued under the 208 Areawide Water Quality Management Program of the Triangle J.Council of Governments. This part was prepared by Jake Wicker of the Institute of Government, University of North Carolina at Chapel Hill, August, 1979.

North Carolina statutes provide numerous options and great flexibility in organizing to provide water and sewerage services. The chief ones are:

1. A city
2. A county
3. An interlocal contract
4. A joint management agency
5. A county service district
6. A county water and sewer district
7. A sanitary district
8. A water and sewer authority
9. A metropolitan water district
10. A metropolitan sewerage district
11. A private corporation (either for profit or not for profit)
12. A combination of the above

Early in the study the statutes under which each of the public units is created were examined to determine if each had authority to provide a full range of on-site maintenance and operating services, including owning on-site facilities and financing them by fees, charges, taxes, grants, and the like. The enabling legislation for counties was typical. It provided that counties could own, operate and finance "sewage collection and disposal systems."[1] While it could be argued that this language would cover all types of systems, including septic tank systems and other on-site systems, it was beyond dispute that such an interpretation is broader than originally intended when the legislation was enacted. Only county water and sewer districts were judged to have adequate statutory authorization to provide a full range of on-site services since the language in this case simply authorizes a water and sewer district to provide "sewer services."

The conclusion reached from the preliminary study was that additional

legislation was necessary to provide a fully adequate statutory base for on-site services. The Triangle J Council of Governments, through the individual wastewater study, developed the necessary draft legislation that was endorsed by the North Carolina Association of County Commissioners and the North Carolina League of Municipalities. The 1979 General Assembly of North Carolina enacted it into law.[2] The result is that now all the public units listed above have as much authority and flexibility in owning, operating and financing on-site systems as they have with respect to traditional community collection and disposal systems. North Carolina appears to be the first state in the nation to have provided all its local units involved with water and sewerage services with such broad and flexible powers.[3]

1. Cities

City governments were the first local units to provide water and sewerage services in North Carolina and are still the local units principally involved in providing them. With enactment of the 1979 legislation, their wastewater powers are now complete. Cities have a full range of financing powers: revenue and general obligation borrowing, taxation, the use of special assessments, and authority to impose all types of fees, rates, and charges. Service rates imposed by cities are set by the city governing body and are not reviewed or approved by state or federal agencies except in connection with facility grants or borrowing. Cities may provide services both inside and outside their boundaries.[4]

In providing water and sewerage services, cities may face three limitations. First, the jurisdiction of the city may not cover all the area needing service. Second, if service is needed over a large area outside the particular city, the city government may not have the financial capacity to provide all the needed services. And third, insofar as the citizens of the area outside the city are concerned, water and sewerage services provided by the city are unregulated by either the State's Utility Commission or a local governing body responsive to them through the ballot box.

2. Counties

A few counties in North Carolina have been authorized to make expenditures for water and sewerage purposes for a quarter of a century, but not until 1961 were counties generally authorized to provide these services. Today, a county government's authority to operate, finance,

and manage water and sewerage services is as broad as that of a city government, including authority to provide services inside cities and outside its own boundaries, and also including on-site wastewater services.[5]

Compared with a city, a county has some advantages in providing water and sewerage services. First, a single county covers a much larger area than a city. And second, the county government's borrowing capacity is likely to exceed that of a city government or other unit located within its boundaries.

The major disadvantage of a county government as an organizational approach is that it frequently has no existing facilities and no operating history. While counties have been active in financing services during the past fifteen years, only a few have any management experience, and some counties still do not view provision of water and sewerage services as a standard county activity.

3. Interlocal Contract

An interlocal contract is simply an agreement between two or more local units for one of them to undertake for both or all of them an activity that each is authorized by statute to carry out individually. Cities, counties, sanitary districts, other political subdivisions, and local governmental agencies are authorized by North Carolina's interlocal-agreement statute to enter into interlocal contracts.[6]

An interlocal contract or agreement specifies what service or activity is to be provided, the contribution of each unit to its financing, and arrangements for operation and management. Personnel are employees of one or more of the participating governments. All property involved in the activity belongs to one of the units.

The interlocal contract is much used in North Carolina in providing water and sewerage services. The typical agreement is one between a county and a city government in which the county shares in the cost of extending services to areas outside the city. Interlocal agreements are sometimes made to provide water and treat wastewater for two cities or for a city and county. Quite often, one unit simply purchases water or treatment services from another.

The interlocal contract is thus a highly flexible organizational approach. It permits the expansion of an existing capability--whether in plants and systems or in personnel--to serve the needs of two or

more jurisdictions. A regional approach--perhaps involving an entire watershed--can be brought under unified management by this means. Economies of scale may be realized, and improved management may be achieved through combining needs for services.

A major limitation of the interlocal contract is the need for all the participating units to agree. It is sometimes difficult for units to agree on how costs and revenues should be shared or on joint policies for extensions, rates for service, or other aspects of operation and management.

In short, an interlocal agreement works well where the units agree. Its chief shortcoming is that its structure does not assure the resolution of disagreement. It provides no single body capable of acting and in which a majority may be developed to take action.

4. Joint Management Agency

Cities and counties and other political subdivisions and agencies of local government are authorized by interlocal agreement to create a joint management agency to administer any undertaking each is authorized to carry out alone. The joint management agency is thus a special form of interlocal contract. Typically, in a simple interlocal contract, one unit administers the undertaking for all participating units. Where a joint management agency is used, a separate agency is created to administer the undertaking.

Units that create a joint agency may confer on it any power, duty, right, or function needed to carry out the undertaking, except that title to all real property needed for the activity must be held by the participating units individually or jointly as tenants in common. The participating units that create a joint agency specify by resolution the composition of the agency, its powers and functions, matters relating to personnel, the duration of its life, procedures for modifying the agency's nature, methods of financing and apportioning costs and revenues, and other necessary matters.[7]

The advantage of the joint management agency is that it provides a single administrative structure that is independent from the administrations of the participating units. It may be especially useful where several units are cooperating and agreement for administration by one of them by contract would be difficult to reach.

The major limitation of the joint management agency is that it is not a unit of government. It has no independent taxing capacity, although it is empowered to issue revenue bonds and it could be authorized to establish rates, fees, and charges for water and sewerage services, for example, and to enter into contracts for construction and for the purchase of apparatus, supplies, materials, and equipment as necessary to its functions.[8]

While joint agencies for operating water and sewerage services have been authorized since 1961, the City of Winston-Salem and Forsyth County have the distinction of having created the only one in the state.

5. County Service District

A county service district is an area within a county that is defined by the board of county commissioners and in which special taxes are levied to support certain activities. The activities supported through a service district must be either (a) activities not provided elsewhere in the county, or (b) a higher level of service for an activity than is supported throughout the county. Currently, water and sewerage services (including on-site wastewater systems) and six other functions may be provided in a service district.[9]

A county service district is not a separate unit of government. The general county government is responsible for administering the functions of a service district, and all employees involved are county employees.

The advantage of the service district arrangment is that it permits special or higher levels of particular services where they are needed with equity in financing, since a special tax is levied only in the area in which the services are provided. Since district functions are county functions, the full range of county financial and regulatory powers can be applied in the district and in connection with service district functions. A possible limitation on the use of a service district arises from the fact that a district may not include territory within a city or a sanitary district except with the approval of the city or sanitary district governing body.

It should be emphasized that creating a service district has no advantage over simple, direct county action except where additional property taxes must be levied to support the special district activity.

6. County Water and Sewer District

A county water and sewer district is, essentially, a county service district that is a separate unit of government.[10] They were first authorized in 1977 at the request of a few counties that would have preferred to use a service district, but were satisfied that the necessary countywide vote on bonds for service district purposes would fail. Bonds to finance facilities in a county water and sewer district, on the other hand, are subject to a referendum that is confined to voters of the district.

A county water and sewer district is created by the board of county commissioners after a public hearing, but without a petition or referendum of the voters within the proposed district. Territory within a city or town may not be included within a water and sewer district unless the city or town governing body agrees.

Once created, a county water and sewer district may provide only water and sewerage services. The latter authority is broad enough to include service by on-site systems. It has substantially the same financing powers as a county. A district may levy property taxes, issue general obligation and revenue bonds, impose special assessments, and establish rates and charges.

The governing body of a district is the board of county commissioners of the county in which it is located. A district may employ its own administrative force, or contract for all personnel services with the county, another unit of government or a private firm.

The major advantage of a county water and sewer district is that any vote on a bond issue for district purposes is confined to the district. Another advantage is the close coordination with general county government planning and programs that should result since the board of county commissioners also serves as the district governing body. Its chief limitation is that each district must be created within a single county.

7. Sanitary District

A sanitary district in North Carolina is an independent unit of government with limited powers.[11] The state has some thirty sanitary districts, the largest being those that serve the Kannapolis and Roanoke Rapids areas. Most of the districts were organized to provide water and sewerage services, although they may also provide solid waste services and fire protection, and many do so. Probably

most of the districts were organized in preference to incorporation as a city where citizens wanted water or sewerage services and not all the services and regulations (and accompanying taxation) that might be possible with status as a city government.

With respect to water and sewerage services, including on-site wastewater disposal systems, a sanitary district's powers are generally parallel to those of a city or county. A sanitary district may issue both general obligation and revenue bonds, condemn land, establish rates and charges for services, levy property taxes, and, essentially, act with as much discretion and flexibility as a city or county except that it may not levy special assessments to extend water and sewer lines. A sanitary district also lacks a number of associated powers that cities and counties have. For example, it may not require the installation of water and sewer lines in new subdivisions since it may not adopt subdivision regulations.

Since a sanitary district may overlap cities with city governing board approval, it could be viewed as superior to a metropolitan water district in form when an organization with taxing power and general obligation bond issuing authority is needed in that it has an elected board (the metropolitan water district has an appointed board) and is thus more democratically responsive to its citizens. The difficulty of organizing a sanitary district that covers several existing cities may explain why the sanitary district has not been used in this state to provide these services to several cities.

8. Water and Sewer Authority

A water and sewer authority is a separate unit of government authorized to provide only water and sewerage services, now including wastewater disposal by on-site facilities.[12] Its powers with respect to these two services are extensive and make it an adquate organizational approach. Its chief financing limitations are that it cannot levy property taxes or issue general obligation bonds. And as a special-purpose type of local government, its revenues are limited to those from water and sewerage operations and federal and state grants for these purposes. It may also impose special assessments.

The chief advantage of a water and sewer authority as an organizational approach is that it can bring together several units of government--typically cities and counties--when a multi-unit interlocal

contract is politically impossible. Its appointive board makes it fairly responsive to the units that create it but only indirectly responsive to the citizens it serves.

Water and sewer authorities have been authorized by North Carolina statutes since 1955, but only three have been created--all since 1972. Of these three, only the one that serves the Chapel Hill-Carrboro area is currently providing services.

9. Metropolitan Water District

A metropolitan water district is an independent unit of government with power to levy property taxes and issue revenue and general obligation bonds for both water and sewerage purposes. The latter purpose included authority to use septic tank and other on-site systems. These are the only services a MWD is authorized to provide, and its sewerage facilities may not duplicate those of a metropolitan sewerage district.[13]

A major advantage of the MWD is its comparative ease of creation, requiring only resolutions of participating governmental units and a petition to the board of county commissioners from 15 percent of the resident voters of any unincorporated area included in its boundaries. Like the water and sewer authority, the MWD is an organizational approach that has extensive financing powers and brings together the territory of more than a single governmental jurisdiction.

Its financing limitations are similar to those of a sanitary district: it cannot levy special assessments and is ineligible to receive federal revenue-sharing funds, community development grants, or shares of the state beer and wine and franchise taxes. It does share in the local-option sales tax if it is in a county that distributed the tax proceeds on the basis of the ad valorem taxes levied.

The metropolitan water district legislation was sought to meet needs in Buncombe County, and a number of its provisions are directed at circumstances peculiar to Buncombe. The MWD legislation, enacted in 1971, was modeled closely after the provisions of the metropolitan sewerage district legislation enacted in 1961.

One signification limitation of the MWD is that it may be formed only within the boundaries of a single county, and, under current legislation, none of its revenues may be used for debt service on water and sewerage facilities of any of the creating governments--so that the creating governments with outstanding debt on their facilities

would find it difficult to lease them to a newly established metropolitan water district. Both of these features, of course, could be changed by the General Assembly.

The major advantage of the metropolitan water district, as compared with the metropolitan sewerage district, is that it is authorized to provide both water and sewerage services while the MSD may provide only sewerage services. The practice in North Carolina cities has been to combine water and sewerage operations in a single administrative department in order to use effectively personnel, equipment, and other resources.

While the legislation was sought by Buncombe County officials, no MWD has been created in Buncombe, but one has been created in Harnett County.

10. Metropolitan Sewerage District

Of all the organizational approaches considered here, the metropolitan sewerage district is the most limited in that it is authorized to provide only sewerage services. This authorization now includes the power to own and operate all types of on-site systems.[14]

The first MSD was organized in Buncombe County, and the State still has only three. The MSD is probably the best suited to circumstances that require joint action by several units in constructing and operating wastewater treatment facilities. In Buncombe County, for example, the MSD builds, operates, and maintains sewer interceptors, treatment facilities, and outfalls. The sewer collection systems that empty into the MSD's interceptors are built and operated by the various political subdivisions included within the boundaries of the MSD. This limited role for the MSD also makes its financing powers quite adequate to its purposes. The absence of special assessment power, for example, is of no importance since that power is normally used only in connection with the construction of collecting sewers, and in Buncombe these are installed by the cities and towns, which do have authority to levy special assessments.

The governing board for a MSD is appointed by the participating governmental units, and coordination with other functions and activities of local government is achieved through this device. A metropolitan sewerage district (unlike a MWD) may extend into more than one county; thus its taxing powers may be coextensive with its area

of service--or, at least, its boundaries are not blocked by county lines.

A MSD is eligible for state and federal grants for sewerage purposes but not for grants and taxes that are restricted to general-purpose governments, except for a share of the local option sales tax if it is in a county that distributes the tax proceeds on the basis of ad valorem taxes levied.

11. Private Water and Sewerage Companies

In North Carolina and in the nation community water and sewerage systems that serve the largest proportion of the population are publicly-owned. In both the State and the nation there are more private (some nonprofit and some for profit) than publicly-owned systems. The private systems, however, serve fewer customers per system than the publicly-owned ones and thus provide service to a smaller proportion of the total population.[15]

All private water and sewer firms are subject to regulation by the North Carolina Utilities Commission except those serving fewer than ten customers and those nonprofit associations financed by the Farmers Home Administration.[16] The Commission reports that on December 31, 1978, there were 349 companies subject to its regulation in the State. These companies operated 663 water systems and 55 sewer systems, serving an estimated 71,000 water customers and 13,000 sewer customers. Regulated systems were located in 76 of the State's 100 counties.[17]

Private utilities are often established by developers of new subdivisions or communities and are frequently found in small communities where formal incorporation as a city, sanitary district, or other governmental unit is not wanted.

12. A Combination of Organizational Arrangements

The organizational arrangements for providing water and sewerage services in a region or area of substantial size may well involve using a combination of organizational approaches.

As noted before, the most common organizational approach found in North Carolina is service by a single city government of the area within its boundaries and the urbanizing area surrounding it. Almost all county governments in North Carolina have also participated in providing services by interlocal contracts for extending water and sewer lines to parts of a county area while the other partner to the

contract, the city, provides services elsewhere.

Each of the organizational alternatives has special strengths and weaknesses. In many larger areas the most effective arrangement may be a combination of approaches rather than any single approach. Fortunately, the existing legislation is flexible enough to permit arrangements to be developed for any area that are specially suited to its circumstances.

* * * * * * * * * * * * * * * *

FOOTNOTES

1. N.C.G.S. 153A-274(2).
2. C. 619, 1979 Session Laws.
3. A number of states have authorized some of their local units to provide on-site services, but a limited check of the literature reveals none that has provided comparable powers for all local entities involved in providing water and sewerage services.
4. N.C.G.S. 160A, Arts. 9, 10 and 16.
5. N.C.G.S. 153A, Arts. 7, 9 and 15.
6. N.C.G.S. 153A-278; 160A-461. Since 1963 county health departments have been empowered to provide services for a fee adequate to recover the full costs of services. None has done so for septic tank maintenance. G.S. 130-17(e).
7. N.C.G.S. 160A-462, -463, -464.
8. Authority for joint agencies to issue revenue bonds was not authorized until 1979. C. 791, 1979 Session Laws.
9. N.C.G.S. 153A, Art. 16.
10. N.C.G.S. 162A, Art. 6. C. 624, 1979 Session Laws, amended the county water and sewer district legislation to authorize their creation without a petition from a majority of voters in the proposed district's area.
11. N.C.G.S. 130, Art. 12.
12. N.C.G.S. 162A, Art. 1.
13. N.C.G.S. 162A, Art. 4.
14. N.C.G.S. 162A, Art. 5.
15. National Demonstration Water Project. Washington, D.C., 1978. Chapter 1.
16. N.C.G.S. 62-3(23).
17. N. C. Utilities Commission. Eleventh Statistical and Analytical Report of the North Carolina Utilities Commission. Raleigh, November 1, 1977. P. 136.

In some states rural electric membership associations are authorized to provide water and sewerage services and may be used as central management agencies for on-site systems. In N. C. these agencies are only authorized to provide electric service. N.C.G.S. 117, Arts. 1 and 2.

APPENDIX L - Part 1

OUTLINE OF STATE WATER AUTHORITY

I. Powers
   A. With respect to water.
      1. Supply and treatment works, upon petition of local government or with approval of local government.*
      2. Transmission facilities; wholesale, upon petition of local government or with approval of local government.
      3. Distribution works; retail, upon petition of local government or with approval of local government.
   B. With respect to wastewater.
      1. Wastewater treatment facilities, upon petition of local government or with approval of local government.
      2. Major lines and facilities; wholesale, upon petition of local government or with approval of local government.
      3. Collection systems; retail, upon petition of local government or with approval of local government.

II. Composition
   A. Number of members: 5-9 members.
   B. How appointed: by Governor
   C. Selection of chairman: by Governor (Option: by Authority)
   D. Length of terms: 6-year (Option: 4-year)
   E. Staggered terms.
   F. Special qualifications of members:
      1. One person on recommendation of League of Municipalities.
      2. One person on recommendation of Association of County Commissioners.
      3. Secretary of NRCD or his designee.
      4. Secretary of Human Resources or her designee.
      5. State Treasurer or his designee.

* "Local government" means the city, county, or other local government or governments to be served, or (in absence of them) the community or private organization to be served.

6. One to four appointees of Governor - persons with experience in utility management: persons with professional training in water supply: persons with professional training in waste water: or other persons in professions or occupations relevant to water or waste water management.

III. Organizational location: Department of _____.

IV. Financing.

A. Issue revenue bonds, with or without some form of State pledge.

B. Accept proceeds of State general obligation bonds.

C. Accept grants and gifts from other governments and private persons.

D. Use revolving funds supplied by State. A study of needs should be made for the Study Commission in order to arrive at a recommended "amount".

E. Eligible for Clean Water Bond funds.

F. Impose rates and charges for services.

G. Use procedures of G.S. Chapter 159, with appropriate modifications.

V. Relationships with other agencies.

A. Contract with public agencies to receive, provide, or jointly provide services.

B. Contract with private persons, firms, and organizations to receive, provide or jointly provide services.

VI. Management personnel.

A. Appointed by head of agency within which located (including Executive Director).

B. Employment of consultants

C. Subject to State personnel system.

VII. Legal status.

A. Body politic and corporate.

B. Adopt own rules and regulations.

VIII. Power of condemnation.

IX. Special limitations or restrictions.

A. On providing retail services within local jurisdictions (upon petition of local government).

B. Handling of funds.

C. Procedures for acquiring or disposing of property.

X. Other matters.

Alternative Version for Composition (Wicker)

II. Composition.

A. Number of members: 9 members including the Chairman.

B. How appointed: by Governor.

C. Selection of Chairman: by Governor.

D. Length of terms: 4 years.

E. Staggered terms.

F. Special qualifications of members:

1. One person appointed by the Governor from list of nominees from the North Carolina League of Municipalities.
2. One person appointed by the Governor from list of nominees from the North Carolina Association of County Commissioners.
3. One person with experience as a water or waste water utility manager.
4. One person with professional training in waste water management.
5. One person with professional training in water supply management.
6. No special qualifications for four other persons.

OUTLINE OF AN ACT TO ESTABLISH THE NORTH CAROLINA WATER AND WASTEWATER FINANCING AGENCY

Preamble: Statement of purpose and needs.

Sec. 1. Title. This Article shall be known and may be cited as "The North Carolina Water and Wastewater Financing Agency Act."

Sec. 2. Definitions. [Of terms as necessary.]

Sec. 3. Creation; membership; appointment; officers; terms and vacancies.

Creates the North Carolina Water and Wastewater Financing Agency within the _____ Department.

Agency governing board composed of chairman and six other members, appointed by Governor to six-year staggered terms.

Two members appointed on recommendation of North Carolina League of Municipalities and two on the recommendation of the North Carolina Association of County Commissioners.

The chairman and one member not recommended to the Governor must have had training or experience in water supply and distribution, in wastewater treatment and management, or in utility financing.

Member appointed to fill a vacancy is appointed in the manner and with the qualifications of the member replaced.

Agency board elects from among its members a vice chairman.

Per diem and allowances as provided in G.S. 138-5.

Sec. 4. Meetings; quorum, rules.

Agency board to have regular quarterly meetings.

Special meetings may be called by Chairman, any two members of the board, or the Executive Director.

Majority of board constitutes a quorum.

Agency board may adopt own rules not inconsistent with Act.

Sec. 5. Powers.

1) Have powers of a body corporate; sue and be sued, make contracts, adopt and use a common seal, etc.

2) Acquire, hold, and dispose of property, or interests in property by all the usual means, but without approval of Council of State.

3) Issue its revenue bonds or revenue refunding bonds as provided below.

4) To acquire, own, construct, and operate water supply and distribution facilities or lease them for operation.

5) Acquire, own, construct, and operate wastewater collection and treatment facilities or lease them for operation.

6) Acquire, construct, own and operate solid waste collection and disposal facilities or lease them for operation. [May be outside Study Commission's charge.]

7) Apply for and accept loans and grants from state and federal governments to carry out its purposes.

8) Act as an agent of the United States government for any purpose coming within its powers.

9) Exercise the power of eminent domain as provided below.

10) Contract with cities, counties, and other political subdivisions in providing solid waste services, supplying water or treating wastewater.

11) Contract with private firms and individuals in providing solid waste services, supplying water or treating wastewater.

12) Establish and impose rates and charges for services as provided below.

13) Cooperate and contract with state and federal agencies in water supply planning and development, water resources planning and management projects, and solid waste planning and management undertakings.

14) Undertake all necessary related activities.

Sec. 6. Issue bonds.

Agency authorized to issue revenue bonds and revenue refunding bonds as provided in the Local Government Revenue Bond Act (G.S. Chapter 159, Article 5.)

Sec. 7. Rates and charges.

Agency authorized to impose rates and charges for its services, and discontinue service for failure to pay charges. Not subject to Utilities Commission.

Sec. 8. Special assessments.

Agency authorized to levy special assessments for the extension of water and sewer services under the procedures available to counties in Article 9, G.S. Chapter 153A.

Sec. 9. Agreement with other governmental units.

Detailed authority to enter into agreements with all types of governmental units and agencies to accomplish any purpose authorized for the agency.

Sec. 10. Eminent domain.

Agency authorized to exercise power in same manner as Department of Transportation for roads.

Sec. 11. Fiscal control; audit.

Subject to same requirements as other state agencies and institutions.

Sec. 12. Purchase of supplies and contracts for construction.

Subject to same requirements as other state agencies and institutions.

Sec. 13. Executive Director.

Administrative head of the Agency to be an Executive Director appointed by the head of the department in which the Agency is located, subject to the approval of the Agency board.

The Executive Director may be removed at any time by the head of the department in which the Agency is located, with or without cause.

Sec. 14. Limitations on providing services or facilities.

Agency may not provide any retail services within the jurisdiction of a county, city, sanitary district, water and sewer authority, metropolitan water district, or metropolitan sewer district without prior approval of the governing body of the unit expressed in a formal resolution.

APPENDIX M

OUTLINE OF AN ACT TO CREATE WATER AND WASTEWATER FINANCING COMMISSIONS IN EACH OF THE STATE'S SIXTEEN MAJOR RIVER BASINS AND A STATEWIDE COORDINATING BOARD

Preamble: Statement of purpose and needs.

Sec. 1. Title. This Article shall be known and may be cited as "The North Carolina Water and Wastewater River Basin Commission Act."

Sec. 2. Definitions. [Of terms as necessary.]

Sec. 3. Creation: of river basin commissions, membership; appointment; officers; terms and vacancies.

Creates sixteen river basin commissions, one for each major river basin within North Carolina.

Secretary of DNRCD responsible for establishing the boundaries of each river basin and certifying them to the boards of county commissioners and boards of elections in each county by river basins.

Each commission composed of a chairman and six other members, appointed by the Governor to six-year staggered terms. Two members appointed on the recommendation of the North Carolina League of Municipalities and two on the recommendation of the North Carolina Association of County Commissioners. The chairman and one member not recommended to the Governor must have had training or experience in water supply and distribution, in wastewater treatment and management, or in utility financing.

Member appointed to fill vacancy is appointed in the manner and with the qualifications of the member replaced.

Each commission elects from among its members a vice chairman.

Per diem and allowances as provided in G.S. 138-5.

Sec. 4. Commissions' meetings; quorum, rules.

Each commission to have regular quarterly meetings.

Special meetings may be called by Chairman, any two members of the commission, or by the Chairman or Executive Director of the North Carolina River Basin Coordinating Board.

Majority of commission constitutes a quorum.

Each commission may adopt its own rules not inconsistent with this act.

Sec. 5. Responsibilities and powers of river basin commissions.

Certify comprehensive plans for providing adequate supply of water, collection and treatment of wastewater, and collection and disposal of solid wastes within their respective river basins.

Make grants and loans to cities, counties and other political subdivisions to assist them in providing water, wastewater and solid waste facilities and services.

Sec. 6. Powers of river basin commissions.

1) Have powers of a body corporate; sue and be sued, make contracts, etc.

2) Issue its revenue bonds, revenue refunding bonds and general obligation bonds as provided below.

3) Apply for and accept loans and grants from state and federal governments to carry out its purposes.

4) Act as an agent of the United States government for any purposes coming within its powers.

5) Make grants and loans to cities, counties, and other political subdivisions to assist them in providing solid waste services, supplying water or treating wastewater.

6) Cooperate and contract with state and federal agencies in water supply planning and development, water resources planning and management projects, and solid waste planning and management undertakings.

Sec. 7. Issue revenue bonds.

Each river basic commission authorized to issue revenue bonds and revenue refunding bonds as provided in the Local Government Revenue Bond Act (G.S. Chapter 159, Art. 5.) with prior approval of the Coordinating Board.

Sec. 8. Property taxation authorized.

Each river basin commission authorized to levy property taxes throughout the river basin to create a revolving fund or to secure indebtedness for funds granted or loaned to local governments to construct water, wastewater and solid waste facilities. No tax may be levied under this authority unless approved by the voters within the river basin at a special election to be held in conjunction with the general election in November, 1980.

Taxes levied by each river basin commission collected by county tax collectors of counties within the basin. Counties meet collection expenses.

Sec. 9. General obligation bonds authorized.

Each river basin commission authorized to issue its general obligation bonds as provided in the Local Government

Bond Act to raise funds that will be loaned or granted to cities, counties and other political subdivisions. [Borrowing authority and procedures for local governments remain unchanged. Local and river basin votes on bond issues as provided in Constitution.]

Sec. 10. Conduct of elections.

Special registrations, when required, and conduct of elections a responsibility of the counties within each river basin. Counties to meet all expenses.

Sec. 11. Grants and loans to cities, counties and other political subdivisions.

Each river basin commission, with the approval of the Coordinating Board, may grant or lend funds to cities, counties and other political subdivisions within its river basin.

Sec. 12. Creation of the North Carolina River Basin Coordinating Board; membership; officers; terms.

Establishes within the Department of Natural Resources and Community Development the North Carolina River Basin Coordinating Board composed of a chairman appointed by the Governor for a six-year term and sixteen ex-officio members. The ex-officio members are the chairmen of the sixteen river basin commissions. The chairman of the North Carolina River Basin Coordinating Board shall be a person who has had training or experience in water supply and distribution, in wastewater treatment and management or in utility financing.

Board elects from among its members a vice chairman.

Sec. 13. Coordinating board meetings; quorum; rules.

Coordinating Board has regular annual meetings and special meetings on the call of the Chairman or the Executive Director.

Majority of the board constitutes a quorum.

Board may adopt its own rules not inconsistent with this act.

Sec. 14. Board's executive director; staff services.

Administrative head of the Coordinating Board is an Executive Director appointed by the Secretary of the Department of Natural Resources and Community Development, subject to the approval of the Coordinating Board.

Executive Director may be removed at anytime by the Secretary, with or without cause.

Sec. 15. Responsibilities of the coordinating board.

Provide staff assistance to river basin commissions.

Review and comment on comprehensive water, wastewater, and solid waste plans for each river basin before they are certified by the river basin commissions. Review and comment power only.

Establish standards, rules and regulations under which river basin commissions may make grants and loans to cities, counties and other political subdivisions.

Approve all proposed bond issues by river basin commissions before application is made to Local Government Commission and before referendum on issuance.

APPENDIX N

PROPOSED LEGISLATION

SUMMARY OF BILL TO AMEND THE CAPACITY USE AREAS LAW

The overall purposes of this bill are (1) to bring the notice, hearing and appeal procedures of the Capacity Use Areas (CUA) Law into line with the Administrative Procedures Act (which was enacted subsequently); (2) to eliminate outmoded and redundant provisions; (3) to clarify staff-Commission roles; and (4) to bring other provisions of the CUA Law into line with more recently developed procedures.

A major advantage of more closely aligning the CUA and APA procedures is to make the CUA provisions consistent with procedures that are more familiar to everyone involved, and eliminate minor variations that work to the disadvantage of some parties to CUA proceedings because of their unfamiliarity with these variations. Alignment with the APA procedures also takes advantage of the fact that the APA maintains a clear distinction between rule-making and contested-case procedures, whereas the CUA Law often blurs this distinction and creates unnecessary ambiguities.

Section 1 clearly separates the staff role of the Department of NRCD from the decision-making role of the Environmental Management Commission (EMC) at the stage of declaring a capacity use area. It gives the staff the function of reporting the facts and presenting alternatives, and it gives the EMC the function of making the ultimate findings and taking final action to declare or not declare a CUA. (Under present law these functions are not clearly separated.)

Section 2 and Section 4(a) bring the CUA Law into line with the concepts of the Administrative Procedure Act (APA) by identifying two phases of the CUA Law as "rule-making" in nature: the declaration of a CUA, and the declaration of a moratorium on large water withdrawals to prevent a generalized depletion of water. (Under present law these actions are termed "orders" rather than "rules", which makes them subject to procedures concerning contested cases.) These changes are tied in with later changes in the bill concerning notice and hearing procedures.

Section 3 deletes those paragraphs of G.S. 143-215.13(c) that spell out detailed notice and hearing procedures for declaring a

CUA. This should be read together with lines 3-4 of Section 2, which provides for these procedures to follow the APA provisions concerning notices and hearings for rule-making situations (G.S. 150A-12).

Section 4 (b)-(f) brings the CUA Law moratorium procedures, which are in the nature of a rule-making, into line with the APA provisions on notice, hearings and appeals in a rule-making situation.

Section 5 substitutes a cross reference to the APA for an internal reference to a CUA provision that was deleted by Section 3 of this bill.

Sections 6-10 substitute APA provisions concerning notice, hearings, and appeals in a contested case setting for the detailed permit procedures of the CUA Law concerning these same subjects. Where CUA Law provisions cover subjects not dealt with by the APA (as in Section 9), the CUA provisions are retained. In some cases, as in Section 6, terminology better suited to a contested case setting is substituted for the present language.

Section 11 modifies the standards that govern determining the amount of a civil penalty for CUA Law violations. It has been recognized since the present standard was inserted in the CUA Law and a number of other EMC-administered laws that only a portion of the standard makes sense in the CUA setting. Section 11 resolves this problem.

Section 12 substitutes for the present CUA trade secrets confidentiality clause the more recent provisions of the water pollution control law. The effect is to preserve the right of a company to claim confidentiality for its trade secrets, but to enable the EMC staff to have access to the information in carrying out their duties.

In three respects the amendment is more deferential to the company's interests than is the water pollution control statutes. First, it respects the company's claims of confidentiality rather than allowing the Commission to evaluate the claims. Second, it replaces a provision allowing disclosure "when relevant in any proceeding" under the CUA Law with a provision leaving the resolution of such questions to the rules of evidence. Third, it requires that notice of the right to confidentiality accompany any requests for information.

Sections 12 and 13 also put G.S. 143-215.19 in compliance with United States and North Carolina Supreme Court decisions concerning administrative inspections. Camara v. San Francisco, 387 U.S. 523 (1967), See v. Seattle, 387 U.S. 541 (1967), and Marshall v.Barlow's, Inc., 436 U.S. 307 (1978), establish that when the owner refuses to permit the inspection the officer must obtain an administrative inspection warrant. (Certain traditionally closely regulated businesses, such as gun dealers and liquor establishments, may probably be inspected without a warrant, but that exception is not applicable here.) The Camara decision exempts administrative inspection warrants from the usual Fourth Amendment showing required for search warrants -- that there is probably cause to believe that evidence of a violation will be found -- so long as the program authorizing the inspection sets reasonable standards for making the inspection. The North Carolina administrative inspection statute, G.S. 15-27.2, anticipates, as did the Supreme Court cases, that the standard for making an inspection will either be that certain conditions exist (deteriorated housing, a recent fire, for example) or that the property is naturally included within a program of inspection and a specified period of time has lapsed since the last inspection. (Although the North Carolina Supreme Court later reversed the decisions on different grounds, two Court of Appeals decisions offer a good discussion of the need for standards: Gooden v. Brooks, 39 N.C. App. 519 (1979), and Brooks v. Taylor Tobacco Enterprises, 39 N.C. App. 529 (1979).)

A BILL TO BE ENTITLED AN ACT TO AMEND THE WATER USE ACT OF 1967, SO AS TO UPDATE ITS NOTICE, HEARING AND APPEAL PROCEDURES, TO ELIMINATE OUTMODED AND REDUNDANT PROVISIONS, AND FOR RELATED PURPOSES.

The General Assembly of North Carolina enacts:

Section 1. The third and fourth sentences of G.S. 143-215.13(c)(2) are hereby rewritten to read as follows: "This report shall indicate whether the water use problems of the area involve surface waters, ground waters or both and shall identify the Department's suggested boundaries for any capacity use area that may be proposed. It shall present such alternatives as the Department deems appropriate, including actions by any agency or person which might preclude the need for additional regulation at that time, and measures which might be employed limited to surface water or ground water". G.S. 143-215.13(c)(2) is further amended at line 5 by deleting the words "the Stream Sanitation Law" and by inserting in lieu thereof the words "Part 1 of this Article".

Sec. 2. G.S. 143-215.13(c)(3) is hereby amended by deleting the words "an order" in lines 4 and 5 and by inserting in lieu thereof the words "a rule", and by inserting at line 8 after the word "action" and before the period the words "in accordance with G.S. 150A-12". G.S. 143-215.13(c)(7) is hereby amended by deleting the word "order" in line 12 and by inserting in lieu thereof the word "rule".

Sec. 3. G.S. 143-215.13(c) is further amended by deleting therefrom in their entirety paragraphs (4), (5) and (6) and by renumbering paragraph (7) as paragraph (4).

Sec. 4. G.S. 143-215.13(d) is hereby amended in the following respects:

(a) By deleting the word "order" wherever it appears therein and by inserting in lieu thereof the word "rule", and by changing the modifying article from "an" to "a" where appropriate.

(b) By deleting the citation "G.S. 143-215.4" in line 2 thereof and by inserting in lieu thereof the words "this subsection".

(c) By deleting at lines 6 and 7 thereof the words and punctuation ", pursuant to hearing,".

(d) By rewriting the first sentence of the second paragraph thereof (which begins with the words "The determination") to read as follows: "The determination of the Environmental Management Commission shall be based upon the record of the public hearing and

other information considered by the Commission in the rule-making proceeding."

(e) By rewriting the third paragraph thereof (which begins with the word "Notice" and ends with the word "hearing") to read as follows: "Notice of the hearing, including a description by geographical or political boundaries of the area affected, shall be given as provided by G.S. 150A-12."

(f) By rewriting the last paragraph of said subsection to read as follows: "Any person who is adversely affected by a rule of the Environmental Management Commission issued pursuant to this subsection may seek judicial review of the rule within 30 days after its issuance, and the rule shall not be stayed by appeal. The scope of this judicial review shall be as provided in G.S. 150A-16."

Sec. 5. G.S. 143-215.14(b) is hereby amended by deleting the words "requirements of subdivisions (4)-(6) of G.S. 143.215.13(c)" and by inserting in lieu thereof the words "provisions of G.S. 150A-12."

Sec. 6. The last sentence of G.S. 143-215.15(c) is hereby rewritten to read as follows: "Any water user aggrieved by the proposed action shall be entitled to a hearing in accordance with G.S. Chapter 150A, Article 3."

Sec. 7. G.S. 143-215.15(d) is hereby rewritten to read as follows: "(d) In any hearing pursuant to this section or G.S. 143-215.16 the Environmental Management Commission shall give notice in accordance with G.S. 150A-23.

Sec. 8. G.S. 143-215.15(e) is hereby repealed, and subsequent subsections are hereby renumbered accordingly.

Sec. 9. G.S. 143-215(f) is hereby rewritten to read as follows: "(f)(1) The Department of Natural Resources and Community Development shall have the authority to adopt a seal which shall be judicially noticed by the courts of the State. Any document, proceeding, order, decree, special order, rule, regulation, rule of procedure or any other official act or records of the Environmental Management Commission or its minutes may be certified by the Secretary of the Department under his hand and the seal of the Department of Natural Resources and Community Development and when so certified shall be received in evidence in all actions or proceedings in the courts of the State without further proof of the identity of the same if such

records are competent, relevant and material in any such action or proceeding. The Environmental Management Commission shall have the right to take judicial notice of all studies, reports, statistical data or any other official reports of records of the federal government or of any sister state and all such records, reports and data may be placed in evidence by the Environmental Management Commission or by any other person or interested party where material, relevant and competent.

(2) The burden of proof at any hearing under this part shall be upon the person or the Environmental Management Commission, as the case may be, at whose instance the hearing is being held.

(3) The provisions of General Statutes Chapter 150A, Article 3 shall be applicable in connection with hearings pursuant to G.S. 143-215.15 and 143-215.16."

Sec. 10. G.S. 143-215.15(g) is hereby rewritten to read as follows: "(g) Any person against whom any final order or decisions has been made, after a hearing under this section or G.S. 143-215.16, may seek judicial review of the order or decision pursuant to the provisions of General Statutes Chapter 150A, Article 3."

Sec. 11. G.S. 143-215.17(b)(3) is hereby rewritten to read as follows: "In determining the amount of the penalty the Commission shall consider the degree and extent of harm caused by violation, the duration of the violation, the effect on ground or surface water quantity or quality, and whether the violation was intentional or inadvertent."

Sec. 12. G.S. 143-215.19 is rewritten to read as follows:

"§ 143-215.19. Administrative inspection; reports. -- (a) When necessary for enforcement of this Part, and when authorized by regulations of the Environmental Management Commission, employees of the Commission may inspect any property, public or private, to investigate:

(1) the condition, withdrawal or use of any waters;

(2) water sources; or

(3) the installation or operation of any well or surface water withdrawal or use facility.

(b) The Commission's regulations must state appropriate standards for determining when property may be inspected under subsection (a).

(c) Entry to inspect property may be made without the possessor's consent only if the employee seeking to inspect has a valid administrative inspection warrant issued pursuant to G.S. 15-27.2.

(d) The Commission may also require the owner or possessor of any property to file written statements or submit reports under oath concerning the installation or operation of any well or surface water withdrawal or use facility.

(d) The Commission shall accompany any request or demand for information under this section with a notice that any trade secrets or confidential information concerning business activities is entitled to confidentiality as provided in this subsection. Upon a contention by any person that records, reports or information or any particular part thereof to which the Commission has access under this section, if made public would divulge methods or processes entitled to protection as trade secrets or would divulge confidential information concerning business activities, the Commission shall consider the material referred to as confidential, except that it may be made available in a separate file marked "Confidential Business Information" to employees of the Department concerned with carrying out the provisions of this Part for that purpose only. The disclosure or use of such information in any administrative or judicial proceeding shall be governed by the rules of evidence, but the affected business shall be notified by the Commission at least seven days prior to any such proposed disclosure or use of information, and the Commission will not oppose a motion by any affected business to intervene as a party to the judicial or administrative proceeding."

Sec. 13. G.S. 143-215.6(a)(1)e. is amended by deleting the words "any investigations" and by inserting in lieu thereof the words "a lawful inspection".

Sec. 14. This act shall take effect upon its ratification.

SUMMARY OF BILL TO AMEND THE WATER USE INFORMATION LAW, G.S. 143-355(k)

The shortcoming of the Water Use Information Law is that it contains no sanctions for failure to report information requested concerning surface or ground water use or withdrawal. This is a result of the accident that it is codified in G.S. Chapter 143, Article _____(which contains no sanctions for violations) rather than in G.S. Chapter 143, Article 21.

The solution proposed by this bill is to make the Water Use Information Law subject to the general civil penalty provisions that apply to the Environmental Management Commission. In order to resolve technical problems in the present law, a definition of "person" and a clarification of the exclusions from the Information Law are added by Sections 2 and 3.

A BILL TO BE ENTITLED AN ACT TO AMEND G.S. 142-215.6 TO PROVIDE FOR CIVIL SANCTIONS FOR VIOLATIONS OF THE WATER USE INFORMATION ACT.

The General Assembly of North Carolina enacts:

Section 1. G.S. 143-215.6 is hereby amended by inserting the words "or G.S. 143-355(k) relating to water use information" after the word "Article" in paragraphs d and f of Subdivision (a)(1) thereof, and by adding at the end of subsection (c) thereof the sentence: "For purposes of this subsection references to 'this Article' includes G.S. 143-355(k) relating to water use information."

Sec. 2. G.S. 143-355(k) is hereby amended by rewriting the proviso at lines 12-13 to read as follows: "Provided, however, this subsection does not apply to withdrawals or uses by individuals or families for household, livestock, or gardens."

Sec. 3. G.S. 143-355(k) is further amended by adding at the end thereof the following: "Within the meaning of this subsection the term 'person' means any and all persons, including individuals, firms, partnerships, associations, public or private institutions, municipalities or political subdivisions, governmental agencies, and private or public corporations organized or existing under the laws of this State or any other state or country."

Sec. 4. This act is effective upon ratification.

APPENDIX O

SUGGESTIONS FOR AUGMENTING THE ROLE OF THE DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT

The Commission asked the Department of Natural Resources and Community Development to make recommendations on three subjects: (1) how it could provide State leadership and assistance to communities who need additional raw water supplies for future needs, (2) what specific legislative changes should be enacted, and (3) how a system of river basin commissions could be created. The Department's views on these subjects are as follows:

1. State Agency Responsibility

The Commission's discussions have identified a problem faced by small communities which need to develop additional raw water supplies. There is no State agency with a clear responsibility and adequate resources to provide assistance in the planning, financing, and development of water supplies. NRCD is now moving to meet this need with very limited resources. We are creating a water supply assistance unit within the Division of Environmental Management and will consider expansion budget requests to strengthen this effort. This program is placed in the context of our other existing programs related to water supply development:

- water resources planning to meet all water management needs in each basin
- joint planning with federal water development agencies and local governments to meet water development needs
- control of water pollution to protect ground and surface water quality.

Each NRCD regional office can serve as a water supply assistance contact point. Until adequate resources are available, assistance will be limited, however.

In addition to technical assistance, local governments need additional help in financing water supply development. We believe that some form of financing mechanism could be developed to link NRCD's water resources planning function with the financial expertise of the Treasurer's Office. We would welcome a mandate from this Commission to work with the Treasurer's Office to produce a detailed proposal.

2. Legislation

NRCD recommends the consideration of legislation in four areas as described below:

(a) Revise the Regional Water Supply Planning Act of 1971 to assign NRCD a clear responsibility for assisting local governments with planning and developing efficient regional water supply systems. DHR should be assigned responsibility for the review of water supply system plans and raw water sources for health and sanitation considerations.

(b) The Water Use Act of 1967, which is the State's chief means of dealing with harmful conflicts among water users, has been shown by experience to have a number of technical and procedural problems. The Department recommends amendments to revise the notice and hearing procedures that have been shown to be unworkable and are now inconsistent with the Administrative Procedures Act, to eliminate outmoded or inaccurate references and provisions, and to make the provisions on confidentiality, inspection powers, and civil penalities consistent with court decisions and more recent State legislative policies. The Department will rely on the Institute of Government and the Attorney General's Office for assistance in drafting these changes. In addition to these procedural changes, the Commission should consider such substantive problems with the law as the lack of standards to resolve conflicts between permit holders and future water users, to address the issue of reducing or discontinuing licensed withdrawals, to establish priorities among competing users, and to govern drought situations.

(c) The Water Use Reporting Act (GS 143-355 (k)) allows the Department to request reports of water use amounts. This information can be necessary to determine the level of demand on water resources in specific areas to determine if actions to develop new supplies or to protect the resource from damage are needed. The Department recommends the addition of enforcement provisions to this law to make it a reliable source of information when needed.

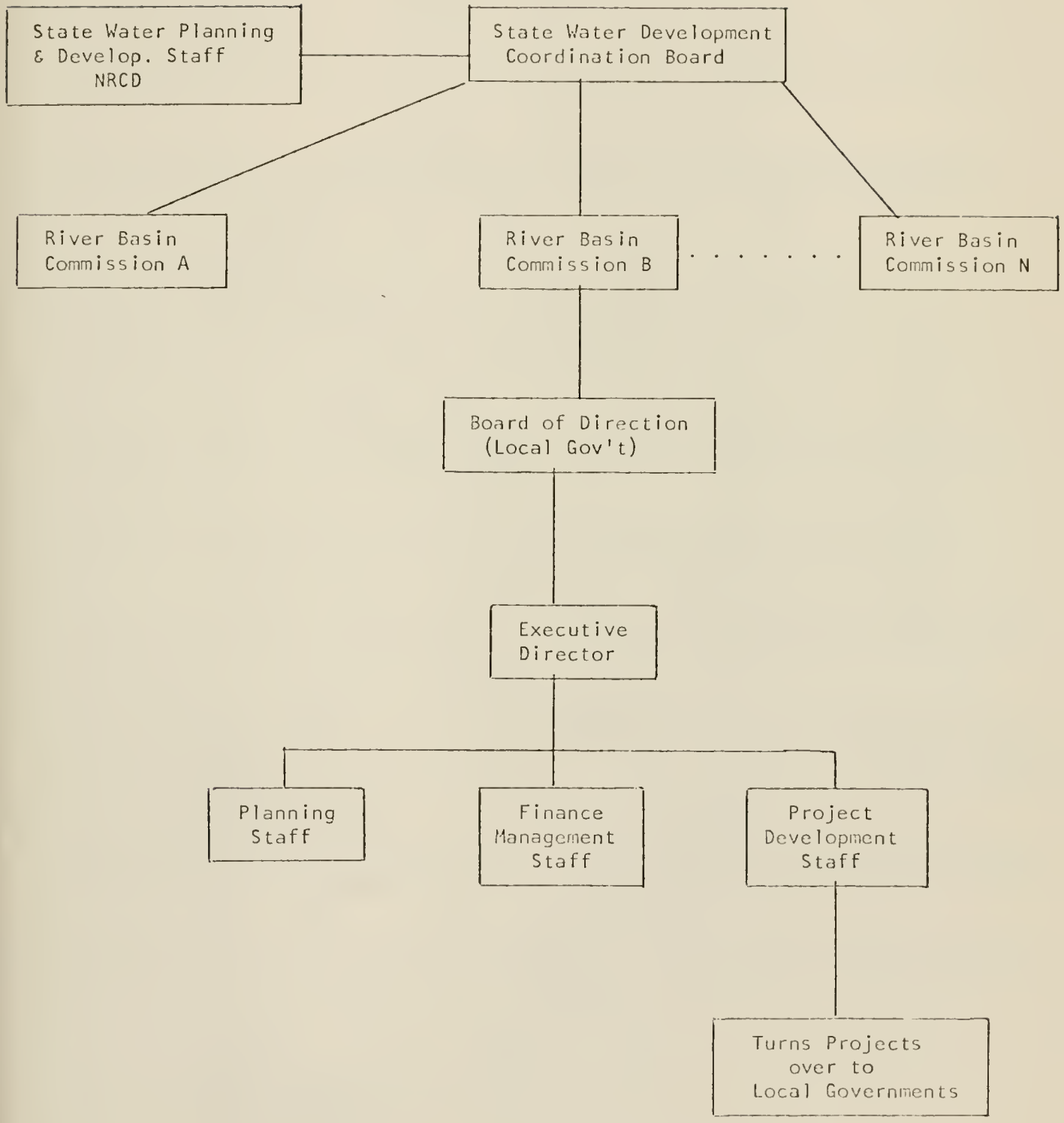
(d) Legislation to create a mechanism for aiding local governments with the financing of water supply development as discussed above.

The Department will work with the Institute of Government and the Attorney General's Office to develop draft bills on these subjects if the Commission requests.

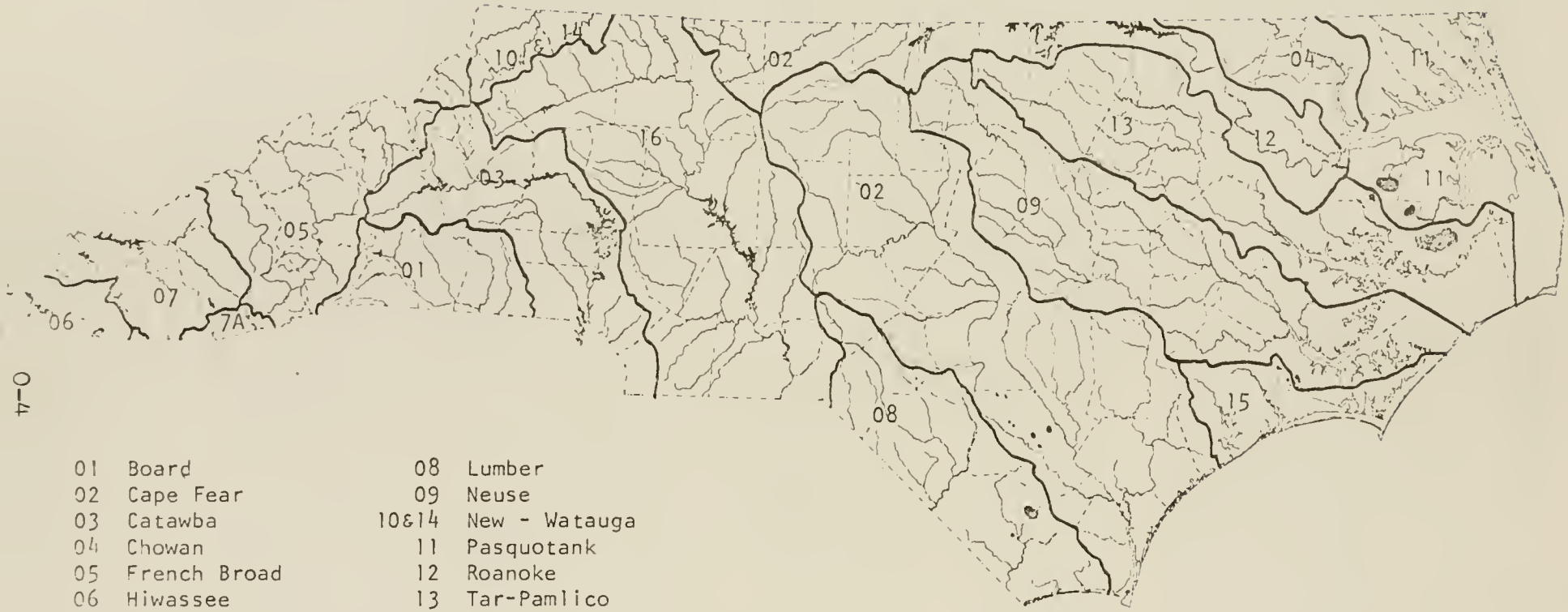
3. River Basin Commissions

The development of new regional institutions to manage water resources could provide for joint State-local water management in an effective manner. There are several ways that cooperative river basin commissions could be organized. Decision-making authority for water allocation and development could be vested in a board comprised of local governments within a river basin. The Commission could have the responsibility to study water needs and carry out projects in cooperation with local governments and the State within a particular river basin. It could be financed by tax revenues from within the basin. It might have an Executive Director and a staff with capabilities for water planning, financial analysis, and project implementation. Operation of projects would be turned over to local governments. Its organization should be studied by the Institute of Government. The important elements of this program are: local control, cooperation with State government, and the capability to solve water development problems. The attached chart demonstrates the concept. As shown on the chart, coordination between river basin commissions at the State level could result in agreements for trading or sharing water between basins. This would allow any interbasin transfer to be compensated for or managed satisfactorily.

ORGANIZATIONAL RELATIONSHIPS
FOR RIVER BASIN COMMISSIONS



NORTH CAROLINA RIVER BASINS



01	Board	08	Lumber
02	Cape Fear	09	Neuse
03	Catawba	10&14	New - Watauga
04	Chowan	11	Pasquotank
05	French Broad	12	Roanoke
06	Hiwassee	13	Tar-Pamlico
07	Little Tenn.	15	White Oak
07A	Savannah	16	Yadkin-Pee Dee

NRCD WATER SUPPLY ASSISTANCE PROGRAM

Proposed Activities

1. Serve as an accessible point of contact and information for local governments and their consulting engineers on all aspects of raw water supply planning and development.

2. Advise local governments on all State and federal regulatory programs related to water supply development and on the most appropriate sequence and timing of the steps in the regulatory process.

3. Advise local governments on all sources of State and federal financial aid for water supply development.

4. Provide local governments and their consulting engineers with accurate data on stream flows, ground water availability, and the quality of alternative sources of supply.

5. Encourage and assist local governments in developing long range plans for the sources of needed future raw water supplies. These plans should include the financial and institutional steps needed to obtain the additional water supplies on schedule.

6. Provide a quick-response consulting service to the Department of Commerce on the best location for industrial prospects with a substantial water use.

7. Take the lead in developing a drought response plan to be ready for implementation when a water system's supply fails. This plan will involve joint action with the Departments of Human Resources and Crime Control and Public Safety.

8. Maintain a clearinghouse for information on local government water supply needs and water supply development plans. Work actively with local governments to avoid conflicts over water sources and depletion of water resources. Assist and encourage local governments in developing economical, reliable regional water supply systems.

9. Maintain an up-to-date library of information on all aspects of water supply development including financing methods, legal issues, water conservation methods, reservoir site preservation, rate structures, etc. Make this information readily available to local governments and their consulting engineers.

10. Develop standards for in-stream water uses and sustained yield aquifer management as a guide for sound water supply development.

NRCD/OWR/ 1-28-80

APPENDIX P

REFERENCES

Note: The following list of references are those documents and reports which were made available to the Commission but for reasons of size and insufficient copies were not made a part of the minutes. All other reports, documents and data used by the members of the Commission are a part of the official minutes and are on file at the State Legislative Library in Raleigh, N. C.

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