EXECUTIVE SUMMARY

COASTAL AREA MANAGEMENT

LAND USE PLAN UPDATE

BERTIE COUNTY, NC

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The CAMA Land Development Plan Update represents Bertie County's efforts to comply with the requirements of the Coastal Area Management Act. It is written in accordance with the amended Land Use Planning Guidelines effective as of September 1, 1979. The 1976 Plan and this update will serve as a "blueprint" for future development in Bertie County.

According to the Land Use Planning Guidelines, the major purpose of periodic updating of local land use plans is to identify and analyze emerging community issues and problems.

The guidelines further give the following objectives the update should meet:

1) to further define and refine local policies and issues;
2) to further examine and refine the land classification system and the land classification map;
3) to assess the effectiveness of the existing land use plan and its implementation;
4) to further explore implementation procedures, and;
5) to promote a better understanding of the land use planning process.

What follows are the issues that were defined in the update, possible policy alternatives, the community's chosen policies, and a description of how the adopted policies will be implemented.

A. Issue - Resource Protection

Bertie County has an abundant supply of natural resources. Forestry and agriculture are major factors in the local economy and the dominant land use in the County. These resources, properly utilized and managed, can continue to put dollars into the local economy, provide recreation,

safeguard the environment and ensure the retention of the rural quality of life in Bertie County. Thus, resource protection will be a major issue facing the county in the next decade.

Along with Bertie County's valuable agiruclture and forest lands, other areas exist that are in need of some form of protection because of their unique or fragile environment. They include: (1) the bottom lands of the Roanoke River and areas adjacent to the Chowan River and Albemarle Sound are considered flood prone areas and should be protected from massive urban type development, (2) the Coastal wetlands (marshes and freshwater swamps) located along the Albemarle Sound and Chowan River offer quality wildlife and water fowl habitat and should be protected, (3) the Roanoke River Valley and the Roquist Pocosin are also complex natural areas that essentially should remain unchanged, (4) there are slopes of more than twelve (12) percent adjacent to the Cashie, Chowan and Roanoke Rivers. These areas along the previously mentioned rivers are subject to erosion and provide constraint for development. Other resources that are needed of protection are the county's cultural and historical resources. The county is rich in historically significant sites and structures. Increased efforts should be made to preserve and enhance these areas. The county also has a need to update its hurricane and flood evacuation plan. The following is Bertie County's intentions in terms of resource protection.

Policy Alternatives

(1) The County could choose not to protect its natural resources. This alternative should be unacceptable because of the important role natural resources play in the overall well being of the County's residents.

(2) The County could plan facilities so that they will not impact historically significant properties. As mentioned earlier, the county is rich in historically significant sites. Preserving and protecting these sites could bring additional tourist dollars into the county and protect the cultural heritage of the area.

(3) The County could develop and implement a flood plain ordinance. It would be advantageous for the county to develop such an ordinance. Such a device could be used to control adjacent waterfront development which could impair estuarine waters or public trust areas.

(4) The County could allow no development in AEC. It is not clear under this alternative whether the county has the statutory authority to allow no development at all in AEC.

(5) The County could allow limited development in its designated AEC such as: bulkheads, piers, and wharfs. This alternative is consistent with CAMA guidelines and is considered to be more feasible than the preceding alternative.

(6) The County could or could not choose to develop a hurricane and flood evacuation plan. The value of developing such plans is obvious. The county needs a plan of action in the event either of the natural disasters occurs.

(7) The County could support all federal and state programs aimed at protecting fragile environmental areas. This alternative would be supportive to the county efforts to protect such areas.

Policy Choices

(1) The County will discourage development that is found to be non-compatible to the local soil characteristics.

(2) The County will become involved in the flood plain program.

(3) The County will not support development that negatively affects hazardous or fragile land areas such as freshwater swamps, marshes and historic properties.

(4) The County will work with other counties joining the Chowan and Roanoke Rivers and make recommendations that no water will be drawn from these rivers to supply any additional Virginia city which would possible restrict the flow of water in the rivers.

(5) The County will allow limited development in its designated AECs consistent with 15 NCAC 7H, 7J, 7K, and 7M.

(6) The County will develop a flood evacuation and hurricane plan by 1986.

Description of the Proposed Implementation Procedures

(1) The County will utilize the completed soil survey to make land use related decisions by 1984.

(2) The County will become involved in the flood plain program and develop a flood plain ordinance by 1990.

(3) The County will not provide services to projects that could have a negative impact on fragile or hazardous environmental areas. These services include: (1) solid waste disposal, (2) recreational facilities, and (3) secondary road improvements.

(4) The county manager and county residents will attend meetings concerning water withdrawals from the Roanoke and Chowan Rivers.

(5) The County will continue to use its minor permit letting system to protect designated AECs and to assure that only those permitted uses stated earlier are allowed.

(6) The county manager or a designated person will develop a flood and hurricane evacuation plan by 1986. This will be accomplished by requesting the assistance of state and local disaster relief personnel.

B. Issue - Resource Production and Management

As mentioned earlier, Bertie County has an abundant supply of natural resources which are vitally important to the county's economic well being. The most important are its large tracts of forest land and agricultural lands. Of lesser importance at present are the county's commercial and recreation fisheries, and it mineral production areas. To a large extent Bertie County's economy is based on the natural resources present in the county. This being the case, the county's natural resources should be utilized and managed with sound environmental considerations to yield their full potential. The utilization and management of the county's natural resources is considered a major land use issue facing the county.

Policy Alternatives

(1) The County could not be involved in any resource production or management activities. This alternative should be unacceptable because of the importance the natural setting has on the well-being of all the county's residents.

(2) The County could continue to support the on-going soil survey for the purpose of helping landowners make better land use decisions. As the above statement implies, the county support of the survey will bring about better management of one of the county's valuable resources (its soils).

(3) The county could support all federal and state programs dealing with the management of commercial fisheries and recreational fishing. Although there is a limited amount of commercial fishing occurring in the county, it should be important to protect and manage that which is occurring. In terms of recreational fishing the county has long been known for its recreational fishing opportunities. The County should want to protect such a resource.

(4) The County could support all federal and state programs that deal with the management of commercial forests in the county. Twelve (12) of the county's twenty-seven (27) manufacturing firms produce forestry related projects. This denotes the importance of the county's forest to the local economy.

(5) The County could develop policies on deep water well development and surface water irrigation. It was brought out in discussions with the planning board that these could be issues affecting the county during the planning period. Water supply, according to State water quality personnel should not be a problem in the county by 1990. Howeyer, recently in the Lewiston area there has been a problem concerning the depletion of local ground water resources. When considering deep water well development and surface water irrigation policies the county

should look at what Federal and State regulations currently affect water usage in Bertie County. Also the county should consider what will the county need to do to implement such policies.

Policy Choices

(1) The County will continue to support the soil surveys because of its importance in maintaining productive agricultural lands and providing information for land use decisions.

(2) The County will support all federal and state programs that deal with the management of commercial forestland.

(3) The County will support when feasible, all federal and state programs dealing with the management of commercial fisheries and recreational fishing.

(4) The County does not have any known significant mineral production areas at the present time. However, if any are found, they must be developed in a manner such that their production will be demonstratably consistent with all other resource protection and production policies.

(5) The County does not have a policy on off-road vehicles because the issue does not concern Bertie County.

(6) The County has not developed a policy on deep water well development and surface water irrigation. However, the County will maintain regular contact with the Division of Environmental Management -- Ground Water Section office in Ahoskie.

Description of the Proposed Implementation Procedures

(1) The County will utilize the completed soil conservation survey as a base for the county's land reappraisals by 1983.

(2) The County's health department will utilize the soil survey information for septic tank permit letting by 1984.

(3) The county manager and other departmental heads, with the aid of state and federal agencies will provide information for proper forest management to Bertie County residents.

(4) The County's Tax Department will place public service announcements on local radio stations concerning the use value concept near tax listing time each year.

(5) The county manager will request that the Division of Environmental Management furnish the county with timely, pertinent data regarding ground water monitoring in the area.

C. Issue - Economic and Community Development

Economic and community development were major issues in the 1976 CAMA Plan and are still of much concern today. Using almost any indicator Bertie County is an economically underdeveloped area. Thus, there is an obvious need for more economic development. The types of industry the county wishes to seek are non-polluting type industries. The County will encourage the expansion of those type industries currently

present in the county. The County will also encourage the development of all types of new industry that will not cause environmental degradation. The Bertie County Economic Development Commission, along with the North Carolina Department of Commerce/Industrial Development Division, is currently manitaining records of available industrial sites throughout the County. Sites that are on record as being available also have commitments from the county government to provide services when practical and possible.

In terms of Community Development, the county has not been active in federal or state programs that addresses community development activities. The county has, however, expressed a desire to have most of the new development (residential, commercial, institutional, and industrial) occur in and around its municipalities. Two towns, Windsor and Aulander have applied for community development grants to redevelop older areas of the towns. Such redevelopment should and aid in the preservation and enhancement of culturally significant sites and structures in the towns. The county supports such redevelopment. The County has also expressed a desire to develop boat ramps near its rivers and sound. At present, there are no publicly owned boat ramps in the county. The county will increase its efforts to get involved in those programs that would solve some of the community development problems facing the county. The county will also consider the adoption of land use regulations that could aid in sound community development.

Policy Alternatives

(1) Do not seek additional economic or community development in the County. This alternative would be impractical since

lack of economic and community development has been and still is one of the major issues facing the county.

(2) To maintain and increase the present county efforts to recruit industry. This alternative should be selected because the county will need additional economic and community development if it is to accommodate its projected population increase by 1990.

(3) To commit the County to state and federal programs such as Community Development Block Grants, erosion control, public access and highway improvements. This commitment is important to the county because it will help the county effectuate its community development goals and objectives.

(4) To encourage development and redevelopment in and within close proximity to existing municipalities by providing county services to these areas. Such a policy would help implement the county's position on clustered developmental patterns. This policy would also be instrumental in (1) lessening the cost of infrastructure extensions (i. e., water, sewer), (2) energy consumption (use of gasoline for commuting) and (3) help in the redevelopment of older areas.

(5) To investigate the possibility of development of land use regulatory devices for the County. There are many advantages to instituting land use regulatory devices. The major one being giving the local government the ability to decide how and where it wishes to develop. The ability to answer such questions are necessary for any community to effectuate its land development plan.

(6) The County could or could not seek to develop public boat ramps in the county. Since the lack of such ramps was considered a issue facing the county, the county should investigate ways of providing such facilities.

Proposed Policy Choices

(1) The County will maintain and increase its present efforts to recruit industries that are compatible with county desires.

(2) The County will be committed to state and federal programs mentioned in the policy alternatives. This commitment will be shown by inviting the appropriate state and federal offices to educate the county about such programs.

(3) The County will encourage development and redevelopment in and within close proximity of existing municipalities.

(4) The County will investigate developing land use regulatory devices for the county.

(5) River Channel Maintenance is a matter that the county feels is out of its hand, thus, the county has no policy on the matter. The county also feels that beach nourishment is not a problem affecting the county and thus has no position of the matter.

(6) The County will allow energy generating facilities - power-plants both nuclear and conventional, electrical switching substations and other energy related facilities only in those areas classified as rural under the land classification system. The county realizes that under the rural land use

classification, no public expenditures could be used to extend infrastructure improvements. Such facilities may necessitate such improvement. However, the county feels that possible land use compatibility problems may arise if such facilities are located near population centers. Thus, the county will restrict such facilities, to the rural classification. The county will seek assistance from state and federal agencies in determining what type of restrictions are needed for the setting of such facilities.

(7) The County will encourage the use of the County's many tourist attractions.

(8) The County will seek to develop public boat ramp in the county.

Description of the Proposed Implementation Procedures

(1) The County will provide additional money to the Bertie County Economic Development Commission for its efforts by 1983.

(2) The County will participate in those State and Federal programs by applying for both State and Federal community development funds by 1986.

(3) By 1981 the County will utilize the following as a catalyst for targeting development and redevelopment in and within close proximity of existing municipalities:

a) provision of solid waste disposal

b) provision of recreational facilities

c) provision of recommending the improvement of secondary roads in the county.

(4) The County will adopt and implement a countywide housing code by 1983. A staff inspector's position will be in the FY - 1983 budget.

(5) The County will consider the adoption of a draft mobile home ordinance by 1985.

(6) The county manager and his staff will work with local historic and tourist related organizations, and state personnel in developing Bertie County's tourist attractions.

(7) The county manager with the aid of the Mid-East Commission and State Archives and History personnel will develop a listing of Historical and Archeological Sites in the county by 1982. This listing will detail the location and the significant of each known site. This information will also be updated as more data becomes available and will be used as a safeguard to protect known sites from destructions.

(8) The county manager upon approval from the county commissioners will apply for funds to develop a feasibility study on possible sites for boat ramps by 1982.

D. Issue - Continuing Public Participation

Public participation is an important element of the planning process. Because of its importance, mechanisms must be set up to ensure that it is continuous and effective. From public participation, local goals and objectives are obtained giving the governing body a gauge as to what implementation procedures are needed. Bertie County has set up a mechanism for continuous public participation through its Planning Board. This board, being an extension of the County Commissioners will keep the public informed of relevant issues. All planning board meetings are open to the general public and provide the opportunity for public involvement. The planning board will also develop means for gauging citizen responses to issues that may affect the County.

Policy Alternatives

(1) The only alternative to one of public participation is one of non-participation by the public. This alternative is totally against the foundation of our Democratic idealogy.

(2) The County could continue and expand public participation mechanisms. This alternative would be the ideal choice. It calls for the development of mechanisms to get more people involved in the planning process. By doing this a broader perspective can be obtained and translated into policy by the governing body.

Policy Choice

The Bertie County Planning Board has recommended to the County Commissioners to implement, improve and expand its public participation efforts in reference to land use issues.

Description of the Proposed Implementation Methods

(1) The Planning Board will develop a questionnaire that will be administered every five years to gauge citizen opinion about land use issues.

(2) The county manager, with assistance from other county residents will try to develop an organization of mayors of municipalities in the county by 1981. Its purpose would be to establish better lines of communication between the county and municipal governments. The members of this organization would then be encouraged to speak to various civic organizations on current events in the county.

(3) The clerk to the planning board and County Commissioners will write a news item concerning each planning board meeting and County Commissioners meeting to be carried in the local papers as a means of public participation.

E. Issues - Required by the Coastal Resources Commission

The Coastal Resources Commission has specified that certain elements be addressed in the Bertie County Land Use Plan Update. These elements include: (1) Flood control regulations - Roanoke River, (2) Four-laning of US 17, (3) Water Quality-Chowan Albemarle System, and (4) Rural Water Quality problems.

Some of these were addressed in preceding sections of the document but will be mentioned again.

(1) Flood Control - Roanoke River:

This element was addressed under the resource protection issue. The County will become involved in the Flood Insurance Program by 1990. The county manager and interested county residents will also continue to work with other counties affected by the flooding of the Roanoke to try to alleviate the problem.

(2) Four-Laning of US 17:

The North Carolina Department of Transportation's Highway Improvement Plan 1980 - 1986 makes no provisions for the four-laning of US 17 in Bertie County. Department of Transportation's personnel have indicated that US 17 will probably not be four-laned by 1990. However, the County wants a limited access highway paralleling the present highway. This would reduce through traffic congestion while encouraging and maintaining a safer commercial district and benefiting the tax base of the County.

(3) Water Quality - Chowan/Albemarle System:

The State of North Carolina has embarked on a project called CHORE (Chowan Restoration Project.) The purpose of this project is to halt algae blooms and restore the valuable and scenic lower Chowan River. This project is a cooperative effort between Virginia and North Carolina. Both states have committed to develop a "Joint Water Quality Management Plan." Implementation of such a plan is intended to ensure an acceptable water quality over the long-term.

Bertie County officials also realize the problems facing the Chowan River Basin. As a result, the county has developed the following policies on water quality problems affecting the Chowan River Basin:

(A) The county will work with the Extension Service, North Carolina Forest Service, ASCS, Soil Conservation Service and Bertie County farmers through voluntary programs of cooperation. These programs will be aimed at reducing the amount of nutrients and sediment entering the river system.

(B) The county will cooperate with the state in their efforts to work with each industrial or private discharger in the river basin to reduce nutrients discharges to a minimum consistent with good environmental and economic practices.

(C) The county will work with the state and the county's municipal or public point dischargers in the basin to reduce their nutrients input into the river. (See Appendix C for a listing of wastewater dischargers in Bertie County).

(4) Rural Water Quality Problems

Rural water quality problems for the most part were addressed in the production and management issue section of this document. The county realizes that agricultural runoff from farm operations and septic tank malfunctions may be the major reasons for water quality problems facing most rural areas. With this in mind, the county's health

department, agricultural extensions office, and other departments will work with farmers and other parties to ensure the minimum amounts of agricultural runoff are discharged into the county's rivers and streams. The county will also utilize its soil survey when completed as an informational source when issuing septic tank permits. The new soils information will supplement on site inspection.

F. Proposed Five-Year Work Program

It is important to monitor and update the progress being made toward achieving the goals and objectives outlined in this document. To do this an evaluation procedure is incorporated into this plan. This procedure should measure progress toward achieving a proposed five-year work program. It is recommended that a progress assessment be made at the end of each fisoal year. It should be made by the planning board with recommendations forwarded to the County Commissioners. The major evaluation goal is to accomplish those state objectives within a five (5) year time period. In some instances, it may be necessary to reprioritize objectives; and, in other instances, implementation of the stated objectives may be ahead or behind schedule. (See an Evaluation Form in Appendix E). The following is a proposed five (5) year work program for Bertie County's Land Development Plan.

FY 1981 - 82

1) Develop an organization of county mayors
2) Begin to place public service announcements on local radio stations concerning the use value concept
3) Begin utilizing service provision as a catalyst for targeting development.

FY 1982 - 83

1) Apply for Community Development Block Grant Funds
2) Apply for State Community Development Funds
3) Consider developing land use regulatory devices
4) Apply for CAMA Fund to develop boat ramp feasibility study.

FY 1983 - 84

1) Develop a countywide housing code enforcement system
2) Use the completed soils survey for the County's tax reappraisals
3) Provide additional monies for the Bertie County Economic Development Commission.
4) Develop a listing of Historical Archeological Sites in the County.

FY 1984 - 85

(1) Develop a system of issuing septic tank permits using the recently completed soils survey.

FY 1985 - 86

(1) Consider adoption of a draft mobile home ordinance.
(2) Develop a work program for FY 1986 - 90.

THIS REPORT HAS BEEN PREPARED FOR THE RESIDENTS

OF

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I. INTRODUCTION

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The guidelines further give the following objectives the update should meet:

1) to further define and refine local policies and issues;
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4) to further explore implementation procedures and;
5) to promote a better understanding of the land use planning process.

As the preceding objectives reflect a refinement of the original CAMA 1976 Plan, then the original plan should be utilized as a base for this update.

This seems logical since some of the data incorporated into the original plan is still applicable today. Thus, this update will periodically refer to the 1976 CAMA Plan.

II. DATA COLLECTION AND ANALYSIS

II. DATA COLLECTION AND ANALYSIS

A. Present Conditions

1. Population and Economy

Since the original CAMA Land Development Plan was completed there has been little change in population trends in the county. Table 1 denotes the estimated population changes that have occurred in the county as a whole and in its municipalities from 1976 - 1978.

Table 1 shows that the two largest municipalities (Windsor, Aulander) are estimated to have increased in population, while the smaller towns fluctuated between slight increases and decreases.

Table 2 shows the estimated 1980 population by race, sex, and age. As the table indicates, Bertie County's racial make up is estimated to be about 46% white and 54% non-white. This indicates a slight decrease in the non-white percentage since 1970. It is anticipated that this decrease will continue into the next decade.

In terms of the estimated age composition of the current population there seems to have been a decrease in the 5-19 age group over the last ten years. It is anticipated this will continue during the next decade. The table also indicates an increase in the 45 and over age group which can be attributed to the national trend of an increase in the number of persons in the 45 and over age group.

Currently, seasonal population does not play a major role in Bertie County. It is anticipated that the amount of seasonal population will increase slightly in the future, due to visitors being drawn to the amenities offered here. The major impacts

this will have locally are: 1) an increase in service related activities and 2) increased demands made on selected local governmental services such as solid waste disposal.

Bertie County's economy continues to be dominated by agricultural oriented activities. However, there have been some changes in the manufacturing sector of the County's economy.

Table 3 denotes manufacturing firms in Bertie County as of this writing. Two manufacturing firms, Bertie Industries, Incorporated, a contract sewing company and Obie White and Sons, a pine lumber company have been replaced by Workers Owned Sewing Company, Incorporated and Eastern Carolina, Incorporated, respectively. The county does not anticipate any significant land use changes nor practices resulting from the rather minor population and economic shifts.

TABLE 1

POPULATION ESTIMATES

BERTIE COUNTY, NC

	1976	1977	1978*
Bertie County	21,000	21,300	21,200
Askewville	270	270	270
Aulander	1,140	1,090	1,200
Colerain	400	410	410
Kelford	270	260	250
Lewiston	440	380	360
Powellsville	260	280	280
Roxobel	370	380	370
Windsor	2,320	2,330	2,410
Woodville	250	260	250

*NOTE: Estimate as of July 1, 1979

SOURCE: North Carolina Office of State Budget and Management, 1977, 1978, 1979.

TABL

BERTIE

PROJECTED POPULATION, APRIL 1, 1980, BY AGE, RACE, AND SEX

AGE	TOTAL	WHITE			NONWHITE		
		TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	21090	9764	4497	5267	11326	5209	6117
0-4	1514	522	271	251	992	471	521
5-9	1695	615	306	309	1080	553	527
10-14	1722	644	328	316	1078	493	585
15-19	2235	784	368	416	1451	782	669
20-24	1802	707	319	388	1095	464	631
25-29	1700	807	384	423	893	386	507
30-34	1089	646	319	327	443	191	252
35-39	995	536	257	279	459	207	252
40-44	893	487	254	233	406	157	249
45-49	995	488	218	270	507	205	302
50-54	1156	579	264	315	577	236	341
55-59	1175	628	285	343	547	249	298
60-64	1213	680	292	388	533	228	305
65-69	1057	601	272	329	456	215	241
70-74	816	462	170	292	354	171	183
75-79	486	294	112	182	192	89	103
80-84	301	174	50	124	127	61	66
85&UP	246	110	28	82	136	51	85
		PERCENT OF COLUMN TOTAL					
0-4	7.18	5.35	6.03	4.77	8.76	9.04	8.52
5-9	8.04	6.30	6.80	5.87	9.54	10.62	8.62
10-14	8.17	6.60	7.29	6.00	9.52	9.46	9.56
15-19	10.60	8.03	8.18	7.90	12.81	15.01	10.94
20-24	8.54	7.24	7.09	7.37	9.67	8.91	10.32
25-29	8.06	8.27	8.54	8.03	7.88	7.41	8.29
30-34	5.16	6.62	7.09	6.21	3.91	3.67	4.12
35-39	4.72	5.49	5.71	5.30	4.05	3.97	4.12
40-44	4.23	4.99	5.65	4.42	3.58	3.01	4.07
45-49	4.72	5.00	4.85	5.13	4.48	3.94	4.94
50-54	5.48	5.93	5.87	5.98	5.09	4.53	5.57
55-59	5.57	6.43	6.34	6.51	4.83	4.78	4.87
60-64	5.75	6.96	6.49	7.37	4.71	4.38	4.99
65-69	5.01	6.16	6.05	6.25	4.03	4.13	3.94
70-74	3.87	4.73	3.78	5.54	3.13	3.28	2.99
75-79	2.30	3.01	2.49	3.46	1.70	1.71	1.68
80-84	1.43	1.78	1.11	2.35	1.12	1.17	1.08
85&UP	1.17	1.13	0.62	1.56	1.20	0.98	1.39
		ESTIMATED RATE OF NET MIGRATION					
1960-1970	-26.53	-14.09	-16.10	-12.19	-33.87	-35.35	-32.43
1970-1980	-2.91	11.31	8.99	13.37	-12.55	-15.60	-9.77

SOURCE - N. C. DEPARTMENT OF ADMINISTRATION
DIVISION OF STATE BUDGET AND MANAGEMENT

PREPARED APRIL 1979

TABLE 3

MANUFACTURING FIRMS

BERTIE COUNTY, 1980

Firm	Location	Product	Employment Range*
Blue Ridge Shoe Corp.	Aulander	Shoes	100-140
National Peanut Corp.	Aulander	Peanuts	34-140
Georgia Pacific Corp.	Colerain	Timber	10-19
Perry, Wynns Fish Co.	Colerain	Canned herring, rock, other fish	15-250
Kelford Coca Cola Bottling Company	Kelford	Soft Drinks	10-19
H. E. Bunch Pattern Works	Lewiston	Wood & Metal Patterns, Non-ferrous castings, Models and mockups, Special millwork items	5-9
Harrington Manu. Co.	Lewiston	Farm & Industrial Machinery	150-499
Weyerhaeuser Company	Lewiston	Pine Lumber	130
*Perdue	Lewiston	Chicken Processing	1,050
Roxobel Garment Co.	Roxobel	Children & Women's Apparel	85
Williford Lumber Co.	Windsor	Whiskey Barrel Staves	20-49
Blue Bell, Inc.	Windsor	Female Dungarees	100-133

Table 3 Continued

Coulbourn Lumber Co.	Windsor	Dressed Pine Lumber	133
Gillam Bros. Peanut Shellers	Windsor	Peanuts	20-110
Windsor Veneer Co.	Windsor	Rotary Hardwood Veneer	46
Lea Lumber & Plywood Company	Windsor	Cut to Size Plywood	301
Metco	Windsor	American Buildings Metal	10-19
Windsor Wood Products, Incorporated	Windsor	Furniture Components	10-30
Thompson & Company	Windsor	Cypress, Pine Lumber & Chips	10-19
Coulbourn Laminated Products	Windsor	Laminated Board Hard Board	40-50
Red Bird Associates (Cardinal Chemical)	Windsor	Chemical Distribution	5
Carter Metals (Division of Metals, Incorporated)	Kelford	Metal Fabrications	5-8
S & D Mfg. Company	Aulander	Sewing Plant	28
Eastern Carolina Lumber, Incorporated	Windsor Route 3	Lumber	12
Northeast Agri. Supply	Aulander	Fertilizer & Chemicals	8
Ross Logging Company	Windsor	Logging	8
Workers Owned Sewing Company	Windsor	Sewing	25-30

NOTE: Single figures denote actual number employed at the time of this writing. *Perdue is the major new industry in the county. During the writing of the 1976 Plan the facility was in the construction stage and had not yet hired personnel.

II. DATA COLLECTION AND ANALYSIS

A. Present Conditions

2. Existing Land Use

From 1976 to the present, very few major land patterns have changed in Bertie County. The dominate land use within the county continues to be forestry. Following forestry in descending order are croplands, urban and built up land and pastures.

According to Bertie County's Soil and Water Conservation District Five-Year Plan, there has been an increase in cropland since 1975 due to clearing of lots for development and marginal agricultural lands because of the use of large machinery (large square tracts desirable for cultivation).

Pasture land, however, is decreasing. Much of the previous pasture land is now being diverted to chicken broiler and hog production. Forestry lands too are decreasing because of much clearing and mismanagement. There was little or no change in urban and built-up lands.

An examination of the existing land use map and municipal population estimates on Table 1 will reveal that the county's population is grouped in and around the communities. This seems to be the pattern, with the population leaving the more remote areas and migrating either out of the county or locating near population concentrations within the county.

Presently, Bertie County's development patterns are sufficiently dispersed so as to create few significant compatibility problems. However, there exist potential for increased compatibility problems on US 17 south of Windsor. These problems could come in the form of linear-stripped commercial, industrial/residential mix and could have implications for efficient provision of services.

Three areas of the county are experiencing or likely to experience major land use changes. The Merry Hill section of southeast Bertie County has been and is likely to continue experiencing an increase in residential development. Job opportunities provided across the Roanoke River in nearby Plymouth in Washington County make Merry Hill an attractive residential area.

The second area likely to experience major land use changes is the Woodville-Lewiston and Roxobel-Kelford area. A large chicken processing plant has opened on NC 308 between the two areas. It is anticipated that future land use changes will result from (1) support industries moving into the area and (2) residential development resulting from the new job opportunities in the area. There is a high potential for haphazard development and conflicting land uses in the area.

The third area likely to experience major land changes is the Windsor area. The industrial park recently established near Windsor should act as a catalyst for more industrial development. Windsor is also the largest town, county seat, and largest retail sales center for the county which also should be an inducement for growth.

In discussing existing land use patterns we must also discuss those areas that are of particular concern because of their environmental significance. In Bertie County three categories of areas of environmental

concern (AECs) exist. One of these are estuarine waters. Estuarine waters are defined in G. S. 113A-113 (b) (2) as "all the water of the Atlantic Ocean within the boundary of North Carolina and all the waters of the bays, sounds, rivers, and tributaries thereto seaward of the dividing line between coastal fishing waters and inland fishing waters, as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural Resources and Community Development. In Bertie County's case, these waters include: (1) Albemarle Sound, (2) All man-made tributaries, (3) Roanoke River, (4) Connie Creek, (5) Thoroughfare, (6) Middle River, (7) East Most River, (8) The Chowan River, from the confluence to 300 yards below US 17 bridge and (9) The Cashie River below Sans Souci Ferry to the mouth.

The second type of AEC found in the county are public trust waters. Public trust areas are all waters of the Atlantic Ocean and the lands thereunder from the mean high water mark to the seaward limit of state jurisdiction; all natural bodies of water subject to measurable lunar tides and lands thereunder to the mean high water mark; all navigable natural bodies of water and lands thereunder to the mean high water level or mean water level as the case may be, except privately-owned lakes to which the public has no right of access; all water in artificially created bodies of water containing significant public fishing resources or other public resources which are accessible to the public has rights of navigation; and all waters in artificially created bodies of water in which the public has acquired rights by prescription, custom, usage, dedication, or any other means. In Bertie County's case public trust waters include all navigable works within the County's boundaries. (Refer to the pamphlet, "N. C. Coastal-Joint-Inland Water" by the N. C. Wildlife

Resources Commission and the Division of Marine Fisheries of the Department of Natural and Economic Resources, January 1978, pages 6 - 7 for more information concerning water classifications in Bertie County.)

The third type of AEC present in Bertie County are estuarine shorelines. Estuarine shorelines are those non-ocean shorelines which are especially vulnerable to erosion, flooding, or other adverse effects of wind and water and are intimately connected to the estuary. This area extends from the mean high water level or normal water level along the estuaries, sounds, bays, and brackish waters as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural Resources and Community Development (described in regulation .0206 (a) of this subchapter) for a distance of 75 feet landward. Estuarine Shorelines are found along the waters bodies mentioned under estuarine waters.

Other areas that merit mention are those areas classified as conservation under the 1976 CAMA Plan. Conservation areas are those areas which have been designated by the County that need special protection because of their unique or fragile environment. These areas in Bertie County are the Roanoke River Valley and the Roquist Pocosin.

In terms of development, neither of the areas previously mentioned are undergoing any substantial land use changes. They are rural in nature and virtually unpopulated. It is anticipated within the next decade that they will remain that way. (See Existing Land Use map).

3. Current Plans, Policies and Regulations

Current plans, policies and regulations provide a means to analyze prior identification of needs and local government's response to those identified needs. What follows is a listing, discussion and summary of plans, policies and regulations that could affect land development patterns in Bertie County.

(a) Plans and Policies

Transportation Plans

Presently, Bertie County does not have a comprehensive transportation plan. However, the North Carolina Department of Transportation's Highway Improvement Plan 1980-1985 has programmed specific improvements for the county's internal road system by 1985. (See Appendix B for these improvements.) Also see Table 4 for the Highway Mileage by Systems in Bertie County.

* None of the proposed improvements are anticipated to have any significant implication for land use in the next decade. As previously mentioned, the county has not had a role in developing a public transportation plan. However, the Choanoke Area Development Association (CADA) operates a rural public transportation service in Bertie County. The system is intended primarily for low-income, elderly and handicapped persons. Service is available through regular routes or on demand. At the time of this writing CADA officials were in the process of drafting a proposal to expand their services. If this comes about, it could have some implications for future land use development.

TABLE 4

HIGHWAY MILEAGE BY SYSTEMS

BERTIE COUNTY, JANUARY 1978

	Primary	Secondary
Paved	140.7	286.0
Unpaved	0	193.0
Total	140.7	479.3

Source: North Carolina State Government Statistical Abstract, 1979.

Community Facilities Plan - Bertie County has no comprehensive community facilities plan. It has had two plans completed that deal with water and sewer needs. The first study of this type was conducted by Rivers and Associates in 1968, Bertie County Comprehensive Water and Sewer Study. The study contains recommendations for water and sewer facilities for the county. A Region Q Water Management Plan prepared for the Mid-East Commission in 1975 also examines the water and sewer needs of Bertie County. Three '201' wastewater treatment areas have been finalized in Bertie County. They are: (1) the area centered around the Lewiston-Woodville area which includes Roxobel and Kelford, (2) the Windsor area and (3) the Ahoskie-Aulander area. Three tentative '201' areas have also been designated. They include Powellsville, Colerain and Askewville.

Recreation Policy - With the advent of Revenue Sharing, the County began making recreation grants available to local communities. These grants are administered through a recreation advisory committee. This committee reviews requests from local communities and prepares a budget for submission to the County Commissioners. The current policy of the recreation committee and the County Commissioners is to continue financial assistance to communities in providing their own recreational activities.

Prior Land Use Plans - Bertie County had its prior land use plan prepared under the North Carolina Coastal Management Program in 1976. The county's planning board has been established for a number of years.

Prior Land Use Policies - Bertie County has established general land use policies under its 1976 CAMA Plan. Those policies can be found on pages 41-44 in the 1976 Plan.

Local Regulations

Counties in North Carolina have available to them a broad range of regulatory powers which enable local government to influence land use decisions. Below are listed those regulations Bertie County is currently or contemplating enforcing.

Floodway Ordinances - Bertie County is not enforcing any floodway ordinances. The County is not under the National Flood Insurance Program bur has been identified as a flood hazard area. At the time of this writing the County was reviewing the flood hazard area mapping and are considering participating in the National Flood Insurance Program.

Building Codes - Bertie County is presently enforcing the North Carolina Electrical Code and Insulation Code. Some consideration is being given to extending code enforcement to include the building and plumbing codes.

Septic Tank Regulations - The Bertie County Health Department is presently enforcing septic tank regulations. These regulations meet minimum standards established by the North Carolina Department of Human Resources.

Implementation and Enforcement Ordinance - The county presently enforces the CAMA minor permit issuing system regulations.

(c) Federal and State Regulations

As can be seen above, Bertie County enforces few regulations which have a significant impact on land use decisions. Of more consequence are the myriad of state and federal regulations which impact on the citizens of Bertie County. The following is a listing and summary of such regulations.

STATE DEVELOPMENT REGULATIONS

Agency	Licenses and Permits
Department of Natural Resources and Community Development	- Permits to discharge to surface waters or operate wastewater treatment plants or oil discharge permits; NPDES Permits, (G. S. 143-215)
Division of Environmental Management	
	- Permits for septic tanks with a capacity over 3,000 gallons/day (G. S. 143-215.3).
	- Permits for withdrawal of surface or ground waters in capacity use areas (G. S. 143-215.15).
	- Permits for air pollution abatement facilities and sources (G. S. 143-215.108).
	- Permits for construction of complex sources; e. g. parking lots, subdivisions, stadiums, etc. (G. S. 143-215.109).
	- Permits for construction of a well over 100,000 gallons/day (G. S. 87-88).
Department of Natural Resources and Community Development Office of Coastal Management	- Permits to dredge and/or fill in estuarine waters, tidelands, etc. (G. S. 113-229).
	- Permits to undertake development in Areas of Environmental Concern (G. S. 113A-118). NOTE: Minor development permits are issued by the local government.

APPENDIX CONTINUED -

Department of Natural Resources and Community Development Division of Earth Resources	- Permits to alter or construct a dam (G. S. 143-215.66). - Permits to mine (G. S. 74-51). - Permits to drill an explanatory oil or gas well (G. S. 113-381). - Permits to conduct geographical exploration (G. S. 113-391). - Sedimentation erosion control plans for any land disturbing activity of over one contiguous acre (G. S. 113A-54).
Department of Natural Resources and Community Development Secretary of NRCD	- Permits to construct an oil refinery
Department of Administration	- Easements to fill where lands are proposed to be raised above the normal high water mark of navigable waters by filling (G. S. 146.6 (c).
Department of Human Resources	- Approval to operate a solid waste disposal site or facility (G. S. 130-166.16). - Approval for construction of any public water supply facility that furnishes water to ten or more residences (G. S. 130-160.1).

FEDERAL DEVELOPMENT REGULATIONS

Agency	Licenses and Permits
Army Corps of Engineers (Department of Defense)	- Permits required under Section 9 and 10 of the Rivers and Harbors of 1899; permits to construct in navigable waters. - Permits required under Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972. - Permits required under Section 404 of the Federal Water Pollution Control Act of 1972; permits to undertake dredging and/or filling activities.
Coast Guard (Department of Transportation)	- Permits for bridges, causeways, pipelines over navigable waters; required under the General Bridge Act of 1946 and the Rivers and Harbors Act of 1899. - Deep water port permits.
Geological Survey Bureau of Land Management (Department of Interior)	- Permits required for off-shore drilling. - Approvals of OCS pipeline corridor rights-of-way.
Nuclear Regulatory Commission	- Licenses for siting, construction and operation of nuclear power plants; required under the Atomic Energy Act of 1954 and Title II of the Energy Reorganization Act of 1974.

Federal Energy Regulatory Commission	- Permits for construction, operation and maintenance of interstate pipelines facilities required under the Natural Gas Act of 1938. - Orders of interconnection of electric transmission facilities under Section 202 (b) of the Federal Power Act. - Permission required for abandonment of natural gas pipeline and associated facilities under Section 7C (b) of the Natural Gas Act of 1938.

II. DATA COLLECTION AND ANALYSIS

B. Constraints - Land Suitability

As stated in the introduction of this update the 1976 CAMA Plan would be utilized as a reference and data source when conditions have not changed and when no new information is available or necessary. The following is a summation of the Land Development Constraints found in Bertie County:

B. Constraints - Land Suitability

(1) Physical Limitations - Bertie County has few man-made hazard areas. The only man-made hazard found in the area are those sites where flammable liquids or gases are stored. Such sites are associated with relatively small home heating and gas suppliers in the County. Two types of natural hazard areas eixst in Bertie County, flood hazard areas and estuarine erodible areas. Flooding hazards range from seasonal flooding of the Roanoke River bottomland to tidal flooding in areas adjacent to the Chowan River and Albemarle Sound. Large concentration of poorly drained soils exists in or near the County's Pocosins in the Roanoke River Valley. Water supply for most part comes from ground water sources. There is generally not a supply problem in the county, however, some residential wells in the Lewiston area have experienced ground water depletion problems. There are areas along the Cashie, Chowan, and Roanoke Rivers that have slopes of more than twelve percent. (For more information see pages 46-53 in Bertie County's Land Development Plan, 1976.)

(2) Fragile Areas - Such area in Bertie County include (1) Coastal wetland located on the Albemarle Sound and Chowan River, (2) estuarine and public trust water, (3) complex natural areas - hardwood swamp of the Roanoke Valley and Roquist Pocosin, (4) areas of sustaining remnant species, and (5) Archeological and Historic Sites - (See pages 54-62 in the 1976 CAMA Plan for more detailed information about fragile areas. Also Bertie County recently completed an inventory of historic structures. One-hundred forty four sites were inventoried and are on file in the Mid-East Commission offices. This new listing supplements the list of historic areas found on pages 58-62 in the 1976 CAMA Plan.)

(3) Areas of Resource Potential - Areas of this type include the County's productive agricultural and forest lands. To date the County has no known potentially valuable mineral sites. (See pages 65-70 in the 1976 CAMA Plan for more detailed information concerning areas of resource potential.)

C. Capacity of Community Facilities

1. Identification, Design Capacity and Utilization of Existing Water and Sewer Services

Water and Sewer

Water and sewer lines have been called the umbilical cords of modern development. Today's development, whether it be residential, commercial or industrial, is often dependent upon water and sewer services. Communities can control when and where development with urban densities takes place by providing or denying water and sewer services. The CAMA Land Use Planning process embraces this concept by requiring a land classification system which shows the local governments intentions and commitment to development.

Below are listed the water systems in Bertie County and an analysis of them.

WATER FACILITIES

The Town of Askewville

Existing Facilities and Conditions

The Town of Askewville is a small, rural community just east of US Highway 13, located near the center of Bertie County.

A water distribution system has been recently constructed in Askewville serving approximately 80 connections. Water is supplied by two wells, each having a capacity of 100 gpm. Water storage is provided by a hydropneumatic tank. Chlorination and continuous disinfection has been initiated.

THE TOWN OF AULANDER, THE MILLENNIUM AND SOUTH AULANDER WATER ASSOCIATION

Existing Facilities and Conditions

Town of Aulander

The Town of Aulander presently utilizes groundwater as its source of supply. The water system consists of two wells with a combined average yield of 700 gpm, a 225,000 gallon ground tank, a 75,000 gallon elevated storage tank, and a distribution system which serves most of the town's 1,000 residents. Only chlorination is required before the water enters the distribution system. Maximum capacity is computed at 600,000 gpd and peak load is 300,000 gpd.

The South Aulander Water Association, Incorporated

This water system is located along NC Highway 305, immediately south of Aulander in Bertie County. The water system serves approximately 30 families and one school. The water supply comes from one deep well which has a yield of 100 gpm. Water from this well is not treated, but is pumped directly into a 1925 gallon hydropneumatic pressure tank. The distribution system consists of small mains and offers no fire protection. The association should connect to Aulander system to strengthen both and provide South Aulander a second source of supply.

The Millennium Water Association

Millennium is a small rural community approximately one-half mile north of Aulander along NC Highway 305, in the southwestern portion of Hertford County.

The community, at present, is served by the Millennium Water Association, which was organized in 1964. The system consists of one deep well which has a pumping capacity of 160 gpm, a 5,000 gallon hydropneumatic pressure tank, and distribution mains. Even though adequate fire protection is not available, hydrants are located at strategic positions in order to fill the volunteer fire department water truck. The present system serves approximately 300 people. The association should either connect with Aulander's system or install a new well to provide a second source of supply.

THE TOWN OF COLERAIN

Existing Facilities and Conditions

The Town of Colerain, located in the northeast corner of Bertie County on the Chowan River, has a municipal water system which serves the residents of the community. The water system consists of two wells, one 600 gpm and one 60 gpm; a distribution system consisting of water lines from 2" to 6" in diameter; and a 38,000 gallon elevated storage tank. At present, the water does require chlorination.

THE TOWN OF KELFORD

The Town of Kelford is located in the northwest corner of Bertie County, approximately two miles south of Roxobel. The town obtained its municipal water supply system in 1965. The system consists of one 75,000 gallon elevated storage tank, a distribution system with meters and hydrants, and one well which produces an average yield of 200 gpm. Another well exists which has no pump and cannot, therefore, be used at this time. Maximum daily demand is calculated at 144,000 gpd and the average demand is 50,000 gpd. A second source of supply is needed.

THE TOWN OF ROXOBEL

Existing Facilities and Conditions

The Town of Roxobel is located approximately seven miles from the Town of Aulander, in the northwest corner of Bertie County. The water system, installed in 1964, consists of two deep wells supplying a combined yield of 300 gpm, one 75,000 gallon elevated storage tank, and a distribution network with fire hydrants. Maximum daily capacity is calculated at 216,000 gpd and the average daily demand in 50,000 gpd.

THE TOWNS OF LEWISTON AND WOODVILLE

Existing Facilities and Conditions

The neighboring towns of Lewiston and Woodville are located in the northwest corner of Bertie County, about five miles south of Kelford. They jointly operate a water quality utility association called the Lewiston-Woodville Utilities Association. Although the towns operate the system both were financed from separate FHA loans. The water association serves both towns adequately with distribution lines extended to most areas within both towns. The system consists of two wells, yielding a combined total of 300 gpm; a 100,000 gallon elevated storage tank; and is calculated at 432,000 gpd and the average daily demand is 62,700 gpd.

THE TOWN OF POWELLSVILLE

Existing Facilities and Conditions

The water system that serves the Town of Powellsville was constructed

in 1954, and serves almost the entire town. The water supply comes from two wells, which have a combined yield of 115 gpm. The water is chlorinated and then stored in two pneumatic tanks having a 1,000 gallon capacity each. There is also one, 10,000 gallon elevated storage tank in the system.

The existing water system is insufficient in the following areas; there is not enough storage capacity; fire protection is not provided; distribution lines are too small; and not enough surplus capacity exists to attract any potential industry.

The East Powellsville Water Corporation, located immediately east of Powellsville, serves approximately 200 people. The system is in two sections, each having one well. Neither section is connected to the other nor to the Powellsville system. All three systems should be interconnected to provide backup sources of water.

The system to the northeast of Powellsville consists of one well, yielding 50 gpm and 2,000 gallon pressure tank.

The system to the southeast of Powellsville consists of one well yielding 100 gpm, and a 2,500 gallon pressure tank.

THE TOWN OF WINDSOR

Existing Facilities and Conditions

The Town of Windsor operates and maintains a municipal water system supplied by three deep wells which have a combined pumping capability of 1,000 gpm. The water is chlorinated. Storage is provided by a 0.100 mg ground tank and a p.300 mg elevated tank for a combined storage capacity of 0.400 mg. The town also serves the South Windsor Water Association which extends south of Windsor on US Highway 17/13 approximately 2 miles. The water association purchases all its water from the Town

of Windsor. Maximum daily demand is calculated at 1,440,000 gpd and average daily demand is 300,000 gpd. Replacement of old mains is needed.

BEACON LIGHT WATER ASSOCIATION, CLEAN WATER VALLEY ASSOCIATION AND PROPOSED BERTIE COUNTYWIDE WATER SYSTEM

Existing Facilities and Conditions

BEACON LIGHT WATER ASSOCIATION

This water system is located west of State Road 1104 and serves 40 users. The system has a single well which has a yield of 75 gpm, and a 1,077 gallon elevated storage tank. The water from this system is not treated. This system was installed in 1974.

CLEAN WATER VALLEY ASSOCIATION

This system is located on SR 1104. It has 35 users. The system is composed of a single well with a yield of 50 gpm and a 1,800 gallon elevated storage tank. The water is currently not being treated.

BERTIE COUNTY PROPOSED COUNTYWIDE WATER SYSTEM

Bertie County recently proposed to construct a countywide water system. The proposed system was divided into two phases. Phase I consisted of: constructing 16.5 miles of 6", 4" and 3" water mains, two (2) wells with pumping facilities, and two (2) 5,000 gallon water storage tanks. Phase II consisted of 128.3 miles of 6", 4", and 3" water mains, seven (7) wells with pumping facilities and three (3) water storage tanks. In November of 1979 a water bond election was held and was defeated.

As of this writing there were no immediate plans for the revival of the countywide water proposal. If and when the proposed system is constructed, it could have a major impact on developmental patterns in the County.

WASTEWATER FACILITIES

THE TOWN OF ASKEWVILLE

Existing Facilities and Conditions

Although the Town of Askewville recently constructed a water system, the town does not have municipal wastewater facilities. The residents of the town presently rely on individually owned on-site wastewater disposal systems. Soil in the Askewville area consists primarily of the Lenoir, Craven and Bladen Associations. The soils are generally not suitable for the efficient operation of septic tank filter fields. The streams in the Askewville area have seven (7) day/10 year low flows of 0 cfs.

WASTEWATER FACILITIES

THE TOWN OF AULANDER

Existing Facilities and Conditions

The Town of Aulander has a collection system and a treatment facility affecting primary treatment. The treatment facility, constructed in 1962, has a design capacity of 0.08 mgd. The collection system presently serves about 700 people. The average daily flow is approximately 0.06 mgd. Treated effluent is discharged into Fort Branch, a tributary of

Ahoskie Creek.

The NC/DEM has requested that the present treatment facility be replaced with a new one which affects a tertiary degree of treatment. Disinfection also needs to be added to the treatment process. The town is in Step I of a "201" Wastewater Treatment Plan.

THE COMMUNITY OF MILLENNIUM

The residents of Millennium presently utilize various on-site methods for wastewater disposal. Soils in the area of Millennium are of Lenoir, Craven, Bladen/Associations which are generally unsuitable for wastewater disposal by use of septic tanks and absorption fields.

THE COMMUNITY OF SOUTH AULANDER

This community is similar to Millennium in that it also depends on various on-site methods for the disposal of wastewater. Soil conditions are generally not conducive to the use of on-site disposal units.

THE TOWN OF COLERAIN

Existing Facilities and Conditions

The wastewater collection and treatment facilities for the Town of Colerain serve the area within the town limits. The treatment facility has a capacity of 75,000 gpd with 30,000 gpd surplus. Wastewater treatment is currently adequate. Effluent is discharged and additional connections could be made.

The residents in the outlying areas of Colerain are presently relying on various on-site methods for wastewater disposal. With the high water table that exists in this area, absorption fields are often subject to flooding. This presents a possible contamination problem to nearby groundwater sources.

THE TOWN OF KELFORD

Existing Facilities and Conditions

The Town of Kelford is similar to Roxobel in that the residents depend on septic tanks and absorption fields for the disposal of wastewater. The soils are also favorable, in that there are only moderate limitations to the use of on-site disposal units.

THE TOWN OF ROXOBEL

Existing Facilities and Conditions

Residents of the Town of Roxobel presently utilize individual on-site disposal systems for wastewater disposal. Soils in this area are comprised mainly of the Wagram, Occilla, and Kalma Soil Associations which are generally suitable for the use of septic tanks and absorption fields.

THE TOWN OF POWELLSVILLE

Existing Facilities and Conditions

The residents of Powellsville presently rely on individually owned on-site systems for wastewater disposal. The soils in the Region are comprised of the Lenoir, Craven, and Bladen soil/associations, which

severely limit the efficient operation of septic tank absorption fields.

THE TOWNS OF LEWISTON AND WOODVILLE

Existing Facilities and Conditions

The wastewater collection and treatment system for both towns is operated by the Lewiston-Woodville Utility Corporation. The 0.070 mgd secondary wastewater treatment plant was constructed in 1970 and utilizes an extended aeration process. The collection system serves most of the area within the corporate limits of both towns. The treatment facility is presently operating at approximately 70% capacity. The Cashie River, which is classified C-swamp, receives the effluent from the treatment facility. The system is operating at 100,000 gpd capacity with a surplus of 50,000 gpd. The State of North Carolina has required that the system be improved. The Corporation is in Step I of the "201" Wastewater Treatment Plan.

THE TOWN OF WINDSOR

Existing Facilities and Conditions

The Town of Windsor operates and maintains wastewater collection and treatment facilities. A new 1.150 mgd secondary treatment facility is at the site of the existing lagoons. Effluent from the existing and proposed treatment facilities is discharged into the Cashie River. The system is operating at a 1,150,000 gpd capacity with a surplus of 75,000 gpd, thus additional connections could be made.

Bertie County does not operate any water or wastewater systems.

2. Identification, Design Capacity and Utilization of Existing Schools

The Bertie County Board of Education currently operates eight (8) elementary, one (1) junior high and one (1) senior high school. The elementary schools are located throughout the county and serve children in kindergarten through grade seven in each attendance area. The junior and senior high schools serve the entire county.

The Board of Education has prepared a proposal for reorganizing the schools. It was felt that several of the elementary organizations are not conducive to good educational programs and revisions are necessary in order to improve instruction. Also several elementary facilities are obsolete and in very poor structural condition.

Table 5 lists each attendance area, schools presently serving that area, present membership, projected membership and organization in 1985. Table 6 lists the present facilities, capacity, enrollment, pupil-teacher ratio, grade taught and year erected plus additions.

The Board of Education, in their proposal for reorganizations, states the following:

"The declining enrollment throughout the county indicates an urgent need to reorganize all schools in order to maintain the philosophy and concept of community schools to serve local students."

Average daily membership has declined from 6,118 in 1968-69 to 5,559 in 1973-74, to 5,024 in 1978-79 to 4,885 in 1979-80. This trend of declining attendance is expected to continue through 1990 and then level off.

Another factor to be considered with declining school population is the extreme high cost of construction. In November of 1979 a school

TABLE 5

BERTIE COUNTY

PLAN FOR REORGANIZATION

Attendance Area	Schools Serving Area by Grades	79-80 Membership	Projected Plans for Use	Resulting Organization	1985 Membership
Askewville	Askewville K-7	160	Addition	K-8	185
Aulander	Aulander K-7	291	Addition	K-8	340
Powellsville	C. G. White K-7	257	No Change	K-8	247
Colerain	West Colerain K-4	294	Abandon (1 new building)	K-8	550
	Colerain 5-7	166	Abandon		
West Bertie	West Bertie K-7	574	Addition	K-8	712
Windsor	W. S. Etheridge	436	Abandon	Not in Use	0
	Windsor 5-7	446	Abandon	Not in Use	0
Merry Hill	J. P. Law K-7	156	Addition	K-8	175
Bertie Jr.	Bertie Jr. 8-9	934	Convert to K-8 Windsor District	K-8	944
Bertie Sr.	Bertie Sr. 10-12	1,171	Convert to 9-12 Senior High Additions	9-12	1,208
TOTAL		4,885			4,361

Source: Bertie County School Superintendent, 1979.

TABLE 6

BERTIE COUNTY, NORTH CAROLINA

Public School Facilities

1979-80 School Year

School	Capacity	Enrollment	Allotment	Pupil/ Teacher Ratio	Grade Taught	Years Erected Plus Additions
Askewville Elementary	200	160	10	16.0	K-7	1964
Aulander Elementary	350	291	14	20.1	K-7	1964, 1975
Bertie Junior High	800-1,000	940	56	16.4	8-9	1962, 1968
Bertie Senior High	900-1,100	1,173	75	15.4	10-12	1962, 68, 70, 72
C. G. White Elementary	575-625	258	14	18.6	K-7	1951, 70
Colerain Elementary	500	168	10	16.8	5-7	1922, 39, 49
John P. Law Elementary	225	157	10	15.7	K-7	1961
West Bertie Elementary	641	581	27	21.1	K-7	1961, 1975
West Colerain Elementary	200	296	13	22.1	K-4	1932, 61
W. S. Etheridge Elementary	780	440	23	19.0	K-3	1925, 46, 52
Windsor Elementary	660	446	26	17.0	4-7	1926, 41, 47

Source: Bertie County School Superintendent, 1979.

bond election for approximately $4 million dollars was defeated in the county. This money would have been used for constructing new school buildings and making many needed repairs. The school bond issue is scheduled to come before the citizens again in May of 1980. If and when it passes will determine the fate of the school reorganization plan and the availability of the present system to accommodate future populations.

In addition to the public educational institutions in the county, secondary education is provided by one private institution, Lawrence Academy in Merry Hill.

Post-secondary education is offered by Roanoke-Chowan Technical Institute in Ahoskie and Martin County Community College in Williamston.

3. Identification, Design Capacity and Utilization of Primary Roads

Bertie County's primary roads are identified as US 13, 17, 11 and NC 308, 305 and 45.

In order to determine utilization, the peak-hour traffic count design capacity is compared to the highest 24-hour traffic count for that segment of the road outside of municipalities. Table 7 denotes the percentage of utilization.

TABLE 7

UTILIZATION OF PRIMARY ROADS

BERTIE COUNTY, 1979

Road	Design Capacity	Maximum 24-Hour Count	Percent Utilization
US 17	10,920	7,400	67.7
US 13	10,920	7,400	67.7
US 11	10,920	3,300	30.2
NC 308	7,200	1,900	26.3
NC 305	7,200	2,650	36.8
NC 45	7,200	2,500	34.7

Source: Department of Transportation, Traffic Survey, 1979.

D. Estimated Demand

1. Population and Economy

As can be seen from Table 2 and in the present population and economy section of this document, Bertie County's population has experienced little change since 1976.

According to the latest Department of Administration population estimates, Bertie County had a population of 21,200 persons as of July 1, 1979.

Table 8 gives the projected 1980-1990 population for Bertie County.

TABLE 8
POPULATION PROJECTIONS

BERTIE COUNTY

1980	21,100
1981	21,300
1982	21,500
1983	21,700
1984	21,900
1985	22,100
1986	22,200*
1987	22,300*
1988	22,400*
1989	22,500*
1990	22,500

Source: North Carolina Office of State Budget and Management, 1979.
*Mid-East Commission, 1980.

TABLE 9

POPULATION PROJECTIONS
MUNICIPALITIES
IN
BERTIE COUNTY

Municipalities	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Askewville	253	255	258	260	262	265	266	267	268	270	270
Aulander	1,181	1,193	1,204	1,212	1,226	1,238	1,243	1,249	1,254	1,260	1,260
Colerain	401	405	408	412	416	419	422	423	426	428	428
Kelford	232	234	236	239	241	243	244	245	246	248	248
Lewiston	336	340	344	347	350	354	355	357	358	360	360
Powellsville	211	213	215	217	219	221	222	223	224	225	225
Roxobel	359	362	366	369	372	376	377	379	380	383	383
Windsor	2,384	2,407	2,452	2,470	2,475	2,497	2,509	2,520	2,543	2,543	2,543
Woodville	232	234	237	239	241	243	244	245	246	248	248
TOTAL COUNTY	21,100	21,300	21,500	21,700	21,900	22,100	22,200	22,300	22,400	22,500	22,500

Source: Mid-East Commission, 1980.
NOTE: County Population Projection were obtained from the Office of State Budget and Management, 1979.

As Table 8 indicates, Bertie County's population is expected to increase by 1,400 persons from 1980 - 1990. The Bertie County Planning Board and County Commissioners feel that this 1,400 person change is a reasonable projection and feel that the county will probably attain this amount of growth.

Table 9 examines the inter-county population changes that are expected to occur during the next decade. From the projections it can be seen that Bertie County will continue to be a rural area and will have only one municipality that will be considered an urban area (Windsor) by 1990.

Bertie County's 1990 projected population composition can be seen in Appendix A. Comparing 1990 figures with 1980 estimates, Bertie County is expected to have a decrease in the number of school age children (ages 5-19) by 1990. The comparison also notes an increase in the percentage of the population 65 and over. Thus, the population trends could imply less attendance in schools, less need for active type recreation and an increase in services to the aged. (Also see Appendix A for Projected Bertie County Population Composition).

Bertie County's economy will remain agricultural oriented through the next decade. Farming and lumber production will continue to be important in the economic out-look for the County. No major shifts in crop types are anticipated by 1990.

According to Bertie County's Industrial Development Office, the County can expect some of those industries presently in the County to expand and provide additional jobs within the next decade. Also the County can expect to attract smaller industrial firms.

2. Future Land Needs

The Coastal Area Management Act Update guidelines direct that an estimate be made of the need for residential structures and related services. To do this, Bertie County's projected person per household was calculated. By 1990 Bertie County is projected to have an average household size of 2.85[1] persons. The County is also projected to have a population increase of 1,400 persons. By dividing the projected household size by the estimated population it can be seen that approximately 246 new structures would be needed to accommodate the increase in population. Without central water and sewer services each

structure will need at least 20,000 square feet; approximately ½ acres; thus, 246 acres will be needed for new residential structures by 1990. This acreage could be less if a centralized wastewater system was used.

It is anticipated that Bertie County future land development needs will continue to be centered in and around its incorporated towns.

It also can be said that Bertie County will also continue to be one of the most sparsely populated counties in the state by 1990. Bertie County is projected to have a population density of 33 persons per square mile in 1990.

3. Community Facilities Demand

Bertie County will be able to absorb the projected population and more without need for extensive additions to existing facilities except schools. As noted previously, the school system currently is proposed for reorganization. If and when this is completed, the schools will be able to handle the additional population increase without an increase in facilities.

In terms of existing water supply, Bertie County has an abundant supply of groundwater, and water supply should not provide any constraints to future growth.

As mentioned earlier, three final 201 facilities areas have been designated in Bertie County. These areas include six (6) of the counties and nine (9) municipalities. The other three (3) municipalities will have their 201 area finalized in the near future. According to the Department of Natural Resources and Community Development water quality personnel, only three (3) municipalities present wastewater systems are capable of any additional expansion, they are: Lewiston-

Woodville, Windsor and Colerain. It is anticipated that when all of the 201 studies are complete, those municipalities with wastewater facilities will be allowed some expansion to take care of future population growth.

The present road system is capable of accommodating the anticipated population increases.

[1]This figure was extrapolated by using 1970 - 1979 - U. S. Average household size estimates.

E. Summary of Data Collection and Analysis

Data for the land development plan was assembled by a variety of means. The following narrative denotes where information was obtained.

The present population and economy data was obtained by examining present trends in Bertie County's population and economy since 1976. Discussions were held with Department of Administration personnel concerning the population estimates and conversation were held with DNRCD personnel and Bertie County Economic Development personnel for the present-day economic picture in the County.

Existing Land Use. Information was obtained by conversations with county personnel, field surveys and also some on-site investigation.

Current Plans, Policies and Regulations. Information was obtained from various sources such as North Carolina Department of Transportation, Department of Natural Resources and Community Development personnel, and the county manager.

Constraints, Land Suitability. This information was obtained from the 1976 Land Development Plan and on site investigation.

Constraints - Capacity of Community Facilities. This information was acquired from the Division of Human Resources personnel, Department of Natural Resources and Community Development Water Quality personnel, North Carolina Department of Public Instruction personnel, the Bertie County School Superintendent, and North Carolina Department of Transportation personnel.

Estimated Demand Population and Economy - Population projections were obtained from the Department of Administration and also from consultation with the Bertie County Planning Board and County Commissioners. Economic information was obtained from the Bertie County Economic Development Commission.

Future Land Needs - This information was developed by examining past land development trends, and population projections. It also was developed by conversation with county personnel, the Bertie County Economic Development director, and Department of Natural Resources and Community Development personnel.

Community Facilities Demand - This information was obtained by examining the present facilities i. e., water supply wastewater facilities, schools and roads as compared to the projected population increases by 1990.

F. Major Conclusion From Data Summary

Listed below are the major conclusions found in the data collection and analysis sections of the plan.

Existing Population and Economic

(1) Bertie County has experienced very little population change since 1976.

(2) Current population trends reflect a decrease in school age population indicating a continued decrease in the school age population until 1990.

(3) Current population trend also indicate an increase in the 45 and above age group which could imply a need for more

services for the aged.

(4) Bertie County's economy continues to be agricultural oriented.

(5) Since 1976, 1,341 industrial jobs have been created from expansion or new industry in the county. Of that total Perdue Manufacturing accounted for approximately 78% of the new jobs.

(6) Forestry and forestry related activity continue to play a major role in Bertie County's economy. Twelve (12) of the twenty-seven (27) manufacturing firms currently in the County produce forestry related forest products. (See Table 3, page 7).

Existing Land Use

(1) There has been very little change in land use patterns since 1976.

(2) An increase in cropland, a decrease in pasture and forest accounted for most of the changes that have occurred since 1976. This fact illustrates Bertie County's rural nature.

(3) The county population continues to be grouped in and around the communities and is expected to continue.

(4) Bertie County has no significant land use compatibility problems, except strip development on US 17.

(5) Areas likely to experience major land use change by 1990 are: (a) Merry Hill section of southeast Bertie County (b) Woodville-Lewiston area, and (c) the Windsor area.

(6) Bertie County has two areas of environmental concern and they are: estuarine and public trust waters and estuarine shorelines.

Current Plans, Policies and Regulations

(1) Bertie County has very few plans or policies that affect land development in the county, but state enabling legislation is such that the county can when it deems necessary adopt plans. (See pages 12-16 for a description of current plans and policies that affect land development in the county.)

Constraints - Land Suitability

(1) Bertie County has very few man-made constraints, but some physical constraints (refer to page 21.)

(2) Bertie County has five (5) type of fragile areas (refer to page 22.)

(3) Bertie County has two (2) types of areas with resource potential (refer to page 22.)

Constraints - Capacity of Community Facilities

(1) Groundwater supply in Bertie County does not present a constraint for development, however, some improvements in local municipal water systems are needed.

(2) Some of the municipality wastewater facilities in the County are in need of improvements. These improvements are in the form of more designed capacity and better effluent treatment methods.

(3) If improvements are made the schools system will not be a constraint for development.

(4) Bertie County's present road system is not being used to full design capacity, thus, it will not be a constraint for development.

Estimated Demand - Population and Economy

(1) Bertie County is expected to have a population increase of 1,440 persons by 1990.

(2) Bertie County will continue to be a predominantly rural area.

(3) Bertie County's economy will continue to be agricultural oriented.

(4) There will be a small amount of industrial development by 1990.

Future Land Needs

(1) Bertie County will not have a land availability problem by 1990 for development, however, there is potential for farm, and forest lands around towns to be converted to non-agricultural and forest related uses.

(2) Bertie County's future high density land development will be in around its towns.

Future Facilities Demand

(1) Bertie County has an ample supply of water for the expected 1990 population. However, localized groundwater depletions may become a future problem.

(2) Bertie County's municipalities are in different phases of '201' facility planning and plans should be available for all municipalities by 1990.

(3) Bertie County's school system and road network will still be adequate by 1990.

III. POLICY STATEMENTS

III. POLICY STATEMENTS

The setting of goals, objectives, policy statements and implementation procedures are the most essential elements in any developmental plan. The formulation of goals and objectives should reflect sound planning principles and most importantly, express the values of an area's residents. Thus, the declaration of a community's values sets the tone for the design of the development plan.

In the 1976 CAMA Land Use Planning Guidelines communities were given the opportunity to address any issues that were or should be a community concern. However, in the 1979 CAMA land use planning guidelines major broad issues were identified by the Coastal Resource Commission (CRC) that communities would have to address as a minimal requirement. Local governments also had the option to address local issues they felt were important.

In 1976 the residents of Bertie County identified five (5) broad goals for future land development in the county. In general these were:

(1) To seek more economic development in the county.

(2) To better protect, utilize and manage the county's natural resources.

(3) To improve the quality of life for residents of the county.

(4) To improve the county's ability to make better land use related issues.

(5) To improve the effectiveness of local government in solving problems.

Under each of the preceding goals, objectives were outlined to accomplish that goal. (See pages 41 through 44 in the 1976 CAMA Plan for a listing of goals and objectives.) A preliminary examination of 1976 goals and objectives revealed that most of the major concerns affecting the County then still were relevant today. Thus, the 1976 relevant goals and objectives were used as a base to update the policy section of this plan. Along with utilizing the 1976 plan, a variety of methods were used to determine if the issues in the previous plan were still valid. These methods will be discussed in the public participation section of the update.

What follows are the issues that were defined, possible policy alternatives, the community's chosen policies, and a description of how the adopted policies should be implemented.

A. Issue - Resource Protection

Bertie County has an abundant supply of natural resources. Forestry and agriculture are major factors in the local economy and the dominant land use in the County. These resources, properly utilized and managed, can continue to put dollars into the local economy, provide recreation, safeguard the environment and ensure the retention of the rural quality of life in Bertie County. Thus, resource protection will be a major issue facing the county in the next decade.

Along with Bertie County's valuable agriculture and forest lands, other areas exist that are in need of some form of protection because of their unique or fragile environment. They include: (1) the bottom lands of the Roanoke River and areas adjacent to the Chowan River and Albemarle Sound are considered flood prone areas and should be protected from massive urban type development, (2) the Coastal wetlands (marshes and freshwater swamps) located along the Albemarle Sound and Chowan River offer quality wildlife and water fowl habitat and should be protected, (3) the Roanoke River Valley and the Roquist Pocosin are also complex natural areas that essentially should remain unchanged, (4) there are slopes of more than twelve (12) percent adjacent to the Cashie, Chowan and Roanoke Rivers. These areas along the previously mentioned rivers are subject to erosion and provide constraint for development. Other resources that are in need of protection are the county's cultural and historical resources. The County is rich in historically significant sites and structures. Increased efforts should be made to preserve and enhance these areas. The county also has a need to update its hurricane and flood evacuation plan. The following is Bertie County's intentions in terms of resource protection.

Policy Alternatives

(1) The County could choose not to protect its natural resources. This alternative should be unacceptable because of the important role natural resoruces play in the overall well being of the County's residents.

(2) The County could plan facilities so that they will not impact historically significant properties. As mentioned earlier, the county is rich in historically significant sites. Preserving and protecting these sites could bring additional tourist dollars into the county and protect the cultural heritage of the area.

(3) The County could develop and implement a flood plain ordinance. It would be advantageous for the county to develop such an ordinance. Such a device could be used to control adjacent waterfront development which could impair estuarine waters or public trust areas.

(4) The County could allow no development in AEC. It is not clear under this alternative whether the county has the statutory authority to allow no development at all in AEC.

(5) The County could allow limited development in its designated AEC such as: bulkheads, piers, and wharfs. This alternative is consistent with CAMA guidelines and is considered to be more feasible than the preceding alternative.

(6) The County could or could not choose to develop a hurricane and flood evacuation plan. The value of developing such plans is obvious. The county needs a plan of action in the event either of the natural disasters occurs.

(7) The County could support all federal and state programs aimed at protecting fragile environmental areas. This alternative would be supportive to the county efforts to protect such areas.

Policy Choices

(1) The County will discourage development that is found to be non-compatible to the local soil characteristics.

(2) The County will become involved in the flood plain program.

(3) The County will not support development that negatively affects hazardous or fragile land areas such as freshwater swamps, marshes and historic properties.

(4) The County will work with other counties joining the Chowan and Roanoke Rivers and make recommendations that no water will be drawn from these rivers to supply any additional Virginia city which would possible restrict the flow of water in the rivers.

(5) The County will allow limited development in its designated AECs consistent with 15 NCAC 7H, 7J, 7K, and 7M.

(6) The County will develop a flood evacuation and hurricane plan by 1986.

Description of the Proposed Implementation Procedures

(1) The County will utilize the completed soil survey to make land use related decisions by 1984.

(2) The County will become involved in the flood plain program and develop a flood plain ordinance by 1990.

(3) The County will not provide services to projects that could have a negative impact on fragile or hazardous environmental areas. These services include: (1) solid waste disposal, (2) recreational facilities, and (3) secondary road improvements.

(4) The county manager and county residents will attend meetings concerning water withdrawals from the Roanoke and Chowan Rivers.

(5) The County will continue to use its minor permit letting system to protect designated AECs and to assure that only those permitted uses stated earlier are allowed.

(6) The county manager or a designated person will develop a flood and hurricane evacuation plan by 1986. This will be accomplished by requesting the assistance of state and local disaster relief personnel.

B. Issue - Resource Production and Management

As mentioned earlier, Bertie County has an abundant supply of natural resources which are vitally important to the county's economic well being. The most important are its large tracts of forest land and agricultural lands. Of lesser importance at present are the county's commercial and recreation fisheries, and it mineral production areas. To a large extent Bertie County's economy is based on the natural resources present in the county. This being the case, the county's natural resources should be utilized and managed with sound environmental considerations to yield their full potential. The utilization and management of the county's natural resources is considered a major land use issue facing the county.

Policy Alternatives

(1) The County could not be involved in any resource production or management activities. This alternative should be unacceptable because of the importance the natural setting has on the well-being of all the county's residents.

(2) The County could continue to support the on-going soil survey for the purpose of helping landowners make better land use decisions. As the above statement implies, the county support of the survey will bring about better management of one of the county's valuable resources (its soils).

(3) The county could support all federal and state programs dealing with the management of commercial fisheries and recreational fishing. Although there is a limited amount of commercial fishing occurring in the county, it should be important to protect and manage that which is occurring. In terms of recreational fishing the county has long been known for its recreational fishing opportunities. The County should want to protect such a resource.

(4) The County could support all federal and state programs that deal with the management of commercial forests in the county. Twelve (12) of the county's twenty-seven (27) manufacturing firms produce forestry related projects. This denotes the importance of the county's forest to the local economy.

(5) The County could develop policies on deep water well development and surface water irrigation. It was brought out in discussions with the planning board that these could be issues affecting the county during the planning period. Water supply, according to State water quality personnel should not be a problem in the county by 1990. However, recently in the Lewiston area there has been a problem concerning the depletion of local ground water resources. When considering deep water well development and surface water irrigation policies the county

should look at what Federal and State regulations currently affect water usage in Bertie County. Also the county should consider what will the county need to do to implement such policies.

Policy Choices

(1) The County will continue to support the soil surveys because of its importance in maintaining productive agricultural lands and providing information for land use decisions.

(2) The County will support all federal and state programs that deal with the management of commercial forestland.

(3) The County will support when feasible, all federal and state programs dealing with the management of commercial fisheries and recreational fishing.

(4) The County does not have any known significant mineral production areas at the present time. However, if any are found, they must be developed in a manner such that their production will be demonstratably consistent with all other resource protection and production policies.

(5) The County does not have a policy on off-road vehicles because the issue does not concern Bertie County.

(6) The County has not developed a policy on deep water well development and surface water irrigation. However, the County will maintain regular contact with the Division of Environmental Management -- Ground Water Section office in Ahoskie.

Description of the Proposed Implementation Procedures

(1) The County will utilize the completed soil conservation survey as a base for the county's land reappraisals by 1983.

(2) The County's health department will utilize the soil survey information for septic tank permit letting by 1984.

(3) The county manager and other departmental heads, with the aid of state and federal agencies will provide information for proper forest management to Bertie County residents.

(4) The County's Tax Department will place public service announcements on local radio stations concerning the use value concept near tax listing time each year.

(5) The county manager will request that the Division of Environmental Management furnish the county with timely, pertinent data regarding ground water monitoring in the area.

C. Issue - Economic and Community Development

Economic and community development were major issues in the 1976 CAMA Plan and are still of much concern today. Using almost any indicator Bertie County is an economically underdeveloped area. Thus, there is an obvious need for more economic development. The types of industry the county wishes to seek are non-polluting type industries. The County will encourage the expansion of those type industries currently

present in the county. The County will also encourage the development of all types of new industry that will not cause environmental degradation. The Bertie County Economic Development Commission, along with the North Carolina Department of Commerce/Industrial Development Division, is currently manitaining records of available industrial sites throughout the County. Sites that are on record as being available also have commitments from the county government to provide services when practical and possible.

In terms of Community Development, the county has not been active in federal or state programs that addresses community development activities. The county has, however, expressed a desire to have most of the new development (residential, commercial, institutional, and industrial) occur in and around its municipalities. Two towns, Windsor and Aulander have applied for community development grants to redevelop older areas of the towns. Such redevelopment should and aid in the preservation and enhancement of culturally significant sites and structures in the towns. The county supports such redevelopment. The County has also expressed a desire to develop boat ramps near its rivers and sound. At present, there are no publicly owned boat ramps in the county. The county will increase its efforts to get involved in those programs that would solve some of the community development problems facing the county. The county will also consider the adoption of land use regulations that could aid in sound community development.

Policy Alternatives

(1) Do not seek additional economic or community development in the County. This alternative would be impractical since

lack of economic and community development has been and still is one of the major issues facing the county.

(2) To maintain and increase the present county efforts to recruit industry. This alternative should be selected because the county will need additional economic and community development if it is to accommodate its projected population increase by 1990.

(3) To commit the County to state and federal programs such as Community Development Block Grants, erosion control, public access and highway improvements. This commitment is important to the county because it will help the county effectuate its community development goals and objectives.

(4) To encourage development and redevelopment in and within close proximity to existing municipalities by providing county services to these areas. Such a policy would help implement the county's position on clustered developmental patterns. This policy would also be instrumental in (1) lessening the cost of infrastructure extensions (i. e., water, sewer), (2) energy consumption (use of gasoline for commuting) and (3) help in the redevelopment of older areas.

(5) To investigate the possibility of development of land use regulatory devices for the County. There are many advantages to instituting land use regulatory devices. The major one being giving the local government the ability to decide how and where it wishes to develop. The ability to answer such questions are necessary for any community to effectuate its land development plan.

(6) The County could or could not seek to develop public boat ramps in the county. Since the lack of such ramps was considered a issue facing the county, the county should investigate ways of providing such facilities.

Proposed Policy Choices

(1) The County will maintain and increase its present efforts to recruit industries that are compatible with county desires.

(2) The County will be committed to state and federal programs mentioned in the policy alternatives. This commitment will be shown by inviting the appropriate state and federal offices to educate the county about such programs.

(3) The County will encourage development and redevelopment in and within close proximity of existing municipalities.

(4) The County will investigate developing land use regulatory devices for the county.

(5) River Channel Maintenance is a matter that the county feels is out of its hand, thus, the county has no policy on the matter. The county also feels that beach nourishment is not a problem affecting the county and thus has no position of the matter.

(6) The County will allow energy generating facilities - power-plants both nuclear and conventional, electrical switching substations and other energy related facilities only in those areas classified as rural under the land classification system. The county realizes that under the rural land use

classification, no public expenditures could be used to extend infrastructure improvements. Such facilities may necessitate such improvement. However, the county feels that possible land use compatibility problems may arise if such facilities are located near population centers. Thus, the county will restrict such facilities, to the rural classification. The county will seek assistance from state and federal agencies in determining what type of restrictions are needed for the setting of such facilities.

(7) The County will encourage the use of the County's many tourist attractions.

(8) The County will seek to develop public boat ramp in the county.

Description of the Proposed Implementation Procedures

(1) The County will provide additional money to the Bertie County Economic Development Commission for its efforts by 1983.

(2) The County will participate in those State and Federal programs by applying for both State and Federal community development funds by 1986.

(3) By 1981 the County will utilize the following as a catalyst for targeting development and redevelopment in and within close proximity of existing municipalities:

a) provision of solid waste disposal

b) provision of recreational facilities

c) provision of recommending the improvement of secondary roads in the county.

(4) The County will adopt and implement a countywide housing code by 1983. A staff inspector's position will be in the FY - 1983 budget.

(5) The County will consider the adoption of a draft mobile home ordinance by 1985.

(6) The county manager and his staff will work with local historic and tourist related organizations, and state personnel in developing Bertie County's tourist attractions.

(7) The county manager with the aid of the Mid-East Commission and State Archives and History personnel will develop a listing of Historical and Archeological Sites in the county by 1982. This listing will detail the location and the significance of each known site. This information will also be updated as more data becomes available and will be used as a safeguard to protect known sites from destructions.

(8) The county manager upon approval from the county commissioners will apply for funds to develop a feasibility study on possible sites for boat ramps by 1982.

D. Issue - Continuing Public Participation

Public participation is an important element of the planning process. Because of its importance, mechanisms must be set up to ensure that it is continuous and effective. From public participation, local goals and objectives are obtained giving the governing body a gauge as to what implementation procedures are needed. Bertie County has set up a mechanism for continuous public participation through its Planning Board. This board, being an extension of the County Commissioners will keep the public informed of relevant issues. All planning board meetings are open to the general public and provide the opportunity for public involvement. The planning board will also develop means for gauging citizen responses to issues that may affect the County.

Policy Alternatives

(1) The only alternative to one of public participation is one of non-participation by the public. This alternative is totally against the foundation of our Democratic idealogy.

(2) The County could continue and expand public participation mechanisms. This alternative would be the ideal choice. It calls for the development of mechanisms to get more people involved in the planning process. By doing this a broader perspective can be obtained and translated into policy by the governing body.

Policy Choice

The Bertie County Planning Board has recommended to the County Commissioners to implement, improve and expand its public participation efforts in reference to land use issues.

Description of the Proposed Implementation Methods

(1) The Planning Board will develop a questionnaire that will be administered every five years to gauge citizen opinion about land use issues.

(2) The county manager, with assistance from other county residents will try to develop an organization of mayors of municipalities in the county by 1981. Its purpose would be to establish better lines of communication between the county and municipal governments. The members of this organization would then be encouraged to speak to various civic organizations on current events in the county.

(3) The clerk to the planning board and County Commissioners will write a news item concerning each planning board meeting and County Commissioners meeting to be carried in the local papers as a means of public participation.

E. Issues - Required by the Coastal Resources Commission

The Coastal Resources Commission has specified that certain elements be addressed in the Bertie County Land Use Plan Update. These elements include: (1) Flood control regulations - Roanoke River, (2) Four-laning of US 17, (3) Water Quality-Chowan Albemarle System, and (4) Rural Water Quality problems.

Some of these were addressed in preceding sections of the document but will be mentioned again.

(1) Flood Control - Roanoke River:

This element was addressed under the resource protection issue. The County will become involved in the Flood Insurance Program by 1990. The county manager and interested county residents will also continue to work with other counties affected by the flooding of the Roanoke to try to alleviate the problem.

(2) Four-Laning of US 17:

The North Carolina Department of Transportation's Highway Improvement Plan 1980 - 1986 makes no provisions for the four-laning of US 17 in Bertie County. Department of Transportation's personnel have indicated that US 17 will probably not be four-laned by 1990. However, the County wants a limited access highway paralleling the present highway. This would reduce through traffic congestion while encouraging and maintaining a safer commercial district and benefiting the tax base of the County.

(3) Water Quality - Chowan/Albemarle System:

The State of North Carolina has embarked on a project called CHORE (Chowan Restoration Project.) The purpose of this project is to halt algae blooms and restore the valuable and scenic lower Chowan River. This project is a cooperative effort between Virginia and North Carolina. Both states have committed to develop a "Joint Water Quality Management Plan." Implementation of such a plan is intended to ensure an acceptable water quality over the long-term.

Bertie County officials also realize the problems facing the Chowan River Basin. As a result, the county has developed the following policies on water quality problems affecting the Chowan River Basin:

(A) The county will work with the Extension Service, North Carolina Forest Service, ASCS, Soil Conservation Service and Bertie County farmers through voluntary programs of cooperation. These programs will be aimed at reducing the amount of nutrients and sediment entering the river system.

(B) The county will cooperate with the state in their efforts to work with each industrial or private discharger in the river basin to reduce nutrients discharges to a minimum consistent with good environmental and economic practices.

(C) The county will work with the state and the county's municipal or public point dischargers in the basin to reduce their nutrients input into the river. (See Appendix C for a listing of wastewater dischargers in Bertie County).

(4) Rural Water Quality Problems

Rural water quality problems for the most part were addressed in the production and management issue section of this document. The county realizes that agricultural runoff from farm operations and septic tank malfunctions may be the major reasons for water quality problems facing most rural areas. With this in mind, the county's health

department, agricultural extensions office, and other departments will work with farmers and other parties to ensure the minimum amounts of agricultural runoff are discharged into the county's rivers and streams. The county will also utilize its soil survey when completed as an informational source when issuing septic tank permits. The new soils information will supplement on site inspection.

F. Proposed Five-Year Work Program

It is important to monitor and update the progress being made toward achieving the goals and objectives outlined in this document. To do this an evaluation procedure is incorporated into this plan. This procedure should measure progress toward achieving a proposed five-year work program. It is recommended that a progress assessment be made at the end of each fiscal year. It should be made by the planning board with recommendations forwarded to the County Commissioners. The major evaluation goal is to accomplish those state objectives within a five (5) year time period. In some instances, it may be necessary to reprioritize objectives; and, in other instances, implementation of the stated objectives may be ahead or behind schedule. (See an Evaluation Form in Appendix E). The following is a proposed five (5) year work program for Bertie County's Land Development Plan.

FY 1981 - 82

1) Develop an organization of county mayors
2) Begin to place public service announcements on local radio stations concerning the use value concept
3) Begin utilizing service provision as a catalyst for targeting development.

FY 1982 - 83

1) Apply for Community Development Block Grant Funds
2) Apply for State Community Development Funds
3) Consider developing land use regulatory devices
4) Apply for CAMA Fund to develop boat ramp feasibility study.

FY 1983 - 84

1) Develop a countywide housing code enforcement system
2) Use the completed soils survey for the County's tax reappraisals
3) Provide additional monies for the Bertie County Economic Development Commission.
4) Develop a listing of Historical Archeological Sites in the County.

FY 1984 - 85

(1) Develop a system of issuing septic tank permits using the recently completed soils survey.

FY 1985 - 86

(1) Consider adoption of a draft mobile home ordinance.
(2) Develop a work program for FY 1986 - 90.

IV. LAND CLASSIFICATION

IV. LAND CLASSIFICATION SYSTEM

The Coastal Resources Commission has developed a land classification system as a means of assisting in the implementation of the policies adopted in the preceding section. By delineating land classes on a map, Bertie County and its citizen can specify those areas where certain policies (local, state, and federal) will apply. Although specific areas are outlined on a land classification map, it should be understood that land classification is merely a tool to help implement policies and not a strict regulatory mechanism. The land classification system provides a framework to be used by local government to identify the future use of all lands in the county. The designation of land classes allows the local government to illustrate their policy statements as to where and to what density they want development to occur, and where they want to conserve natural and cultural resources by guiding growth.

What follows is a description of Bertie County's land classification system using the five general land classes of: developed, transition, community, rural, and conservation: (See Land Classification Map).

(A) Developed

(1) Purpose. The purpose of the developed class is to provide for continued intensive development and redevelopment of existing cities.

(2) Description. Areas to be classified developed include lands currently developed for urban purposes at or approaching a density of 500 dwellings per square mile that are provided with usual municipal

or public services including at least public water, sewer, recreational facilities, police and fire protection.

(3) Discussion. Bertie County is estimated to have a population increase of 1,400 by 1990. Most of this growth is expected to occur in and around its incorporated towns in the county. Thus, developed areas in Bertie County are identified as Windsor, Aulander, Colerain, Lewiston and Woodville.

(B) Transition

(1) Purpose. The purpose of the transition class is to provide for future intensive urban development within the ensuing ten years on lands that are most suitable and that will be scheduled for provision of necessary public utilities and services. The transition lands also provide for additional growth when additional lands in the developed class are not available or when they are severely limited for development.

(2) Description.

(a) Lands to be classified transition may include: (1) lands currently having urban services, and (2) other lands necessary to accommodate the urban population and economic growth anticipated within the planning jurisdiction over the ensuing ten year period.

(b) Lands classified transition to help meet the demand for anticipated population and economic growth must: (1) be served or be readily served by public water, sewer, and other urban services including public streets, and (2) be generally free of severe physical limitations for urban development. In addition, the transition class should not include (1) lands of high potential for agriculture, forestry, or mineral extraction, or land falling within extensive rural areas being managed commercially

for these uses, when other lands are available; (2) lands where urban development might result in major or irreversible damage to important environmental, scientific, or scenic values; or (3) land where urban development might result in damage to natural systems or processes of more than local concern. Lands where development will result in undue risk to life or property from natural hazards (including inlet hazard areas and ocean erodible areas as defined in 15 NCAC 7H.) or existing land uses shall not be classified transition.

(c) If any designated area of environmental concern is classified transition, an explanation shall be included stating why the area is felt to be appropriate for high density development.

(d) In determining the amount of additional transition lands necessary to meet projected urban population and economic growth, the county may utilize estimates of average future urban population density that are based upon local land policy, existing patterns and trends of urban development within the county, and densities specified in local zoning, if any; and estimate of additional transition class lands should be based upon a guideline density of 2,000 persons or 500 dwellings per square mile.

(3) Discussion. As noted earlier, Bertie County is expected to have a population increase of 1,400 persons by 1990. The planning board and Bertie County Commissioners have expressed a desire to have the new growth occur in and within close proximity of the municipalities of the county. Thus, the following areas are designated as transitional: (1) Powellsville, (2) Askewville, (3) Roxobel, (4) Kelford, and (5) the industrial park site near Windsor.

(C) Community

(1) Purpose. The purpose of the community class is to provide for clustered land development to help meet housing, shopping, employment, and public service needs within the rural areas of the county.

(2) Description. Lands to be classified community are those areas within the rural areas of planning jurisdictions characterized by a small grouping of mixed land uses, (residences, general store, church, school, etc.), and which are suitable and appropriate for small clusters of rural development not requiring municipal sewer service.

(3) Discussion. Areas of this type in Bertie County are located in two types of location. They include: (1) areas adjacent to existing municipal (i. e. South Aulander) and (2) at crossroad (i. e. Trap, a small community in northeast Bertie County). The largest area classed under this designation is the Merry Hill section of the county.

(D) Rural

(1) Purpose. The purpose of the rural class is to provide for agriculture, forest management, mineral extraction and other low intensity uses. Residences may be located within "rural" areas where urban services are not required and where natural resources will not be permanently impaired.

(2) Description. Lands that can be identified as appropriate for resources management and allied uses include lands with high potential for agriculture, forestry, or mineral extraction; lands with one or more limitations that would make development costly and hazardous' and lands containing irreplaceable, limited, or significant natural, recreational, or scenic resources not otherwise classified.

(3) Discussion. Most of Bertie County's land areas falls under this classification. As mentioned earlier, Bertie County is a predominantly rural county. It is anticipated that it will continue to remain one of the most rural counties in North Carolina until 1990. This being the case, it was felt no additional changes should be made to the rural classification as shown in the 1976 plan. Very little of the anticipated growth will occur in the rural classified areas. This area will be exempted from services necessary to support high density development, (i. e., public water and sewer.)

(E) Conservation

(1) Purpose. The purpose of the conservation class is to provide for effective long-term management of significant limited or irreplaceable areas. This management may be

needed because of its natural, cultural, recreational, productive, or scenic values. These areas should not be identified as transition lands in the future.

(2) Description. The conservation class should be applied to lands that contain: major wetlands; essentially undeveloped shorelands that are unique, fragile, or hazardous for development; historical and cultural resources, which include historical and archeological sites; necessary wildlife habitat or areas that have a high probability for providing necessary habitat conditions; publicly owned water supply watersheds and acquifers; and forest lands that are undeveloped and will remain undeveloped for commercial purposes.

(3) Discussion. Conservation areas in Bertie County include (1) all surface waters, (2) areas adjacent to the Roanoke River and (3) the Roquist Pocosin area.

V. RELATIONSHIP OF POLICIES AND LAND CLASSIFICATION

V. RELATIONSHIP OF POLICIES AND LAND CLASSIFICATION

As required by the Coastal Area Management Update guidelines, each local government must discuss the manner in which the policies developed apply to each land class. In addition, the local government is required to describe the type of land uses which are appropriate in each class. What follows is Bertie County's effort to adhere to this requirement.

A. Developed and Transition Classes

In its policy statement section, Bertie County has chosen to encourage high density future development in and within close proximity of its municipalities where urban services can be provided. This is noted on the land classification map. Developed and Transition Land Classes are designated to accommodate the entire range or urban land uses. This includes dense residential single-family and multi-family development, commercial and industrial development, and utilities, community facilities, and transportation facilities. Some large developments such as power plants, wastewater land application systems, hazardous materials storage facilities and airports, should be directed into areas classified as rural, away from urban population concentrations.

B. Community Class

As noted in the policy section, the county will not encourage intensive type urban development in this class. The Community Classification is designated to accommodate clustered moderate density development

characterized by a few different types of land uses such as homes, general and convenience stores, churches and schools. These areas are usually found at crossroads within the Rural Land Classification. Some of these areas have community water systems but do not require public wastewater facilities.

C. Rural Class

The Rural Class is the broadest of the land classes and is designated to provide for agriculture, forest management, mineral extraction and other low intensity uses. Residences may be located within the Rural Class where urban services are not required and where natural resources will not be permanently impaired. Some large development may be encouraged in the Rural Class when there is an absence of otherwise suitable land within the Developed and Transition Classes and/or when there is a possible threat to urban populace. Such large developments include airports, power plants, and hazardous materials storage. The county also reserves the privilege of allowing specific types of industrial development in the rural areas if in the opinion of the government there will be no harmful effects from such a location. The county will also allow prospective industrial firms in this area that would not require extensive outlay of capital from the county.

D. Conservation Class

The Conservation Class is designated to provide for effective long-term management of significant limited or irreplaceable areas which include wetlands, undeveloped shorelines that are unique, fragile, or hazardous for development, wildlife habitat areas, publicly owned watersheds and aquifers, undeveloped forest lands, and cultural and historical sites.

Development should be restricted to such as piers, bulkheads, marinas, etc. Bertie Resource Protection, and Resource Production and Management issues addresses the county's intentions under this class.

VI. INTERGOVERNMENTAL COORDINATION AND IMPLEMENTATION

VI. INTERGOVERNMENTAL COORDINATION AND IMPLEMENTATION

Each classification on the Land Classification Map flows from the town's jurisdiction to the county in compliance with the classification definitions. The discussion of policies and the land classification map serves as the basic tools for coordinating numerous policies, standards, regulations and other governmental activities at the local, state and federal levels. Such coordination may be described by three applications:

1. The policy discussion and the land classification map encourage coordination and consistency between local land use policies and the state and federal governments. The local land use plan is the principal policy guide for governmental decisions and activities which affect land uses in Bertie County.

2. The local land use plan provide a framework for budgeting, planning and for the provision and expansion of community facilities such as water and sewer systems, schools and roads.

3. The local land use plans will aid in better coordination of regulatory policies and decisions by describing the local land use policies and designating specific areas for certain types of activities.

More specifically the county intends to effectuate coordination and implementation by the following means:

(1) Under the continuing Public Participation Issue in the policy statement section, the county will help develop an organization made up of mayors of county municipalities to open up a line of communication between municipal and county government.

(2) The county has also expressed a desire to work with the Extension Service, North Carolina Forest Service, ASCS, Soil Conservation Service and other federal and state agencies in cooperative agreements to implement specific policies outlined earlier. (Refer to Issue No. 3 required by the Coastal Resources Commission.)

(3) The provision of a staff position in the county government to administer the countywide housing code for FY 1983 is an example of the county commitment to implementing its stated policies. It is possible that this county staff position will work with local municipalities.

(4) The county's commitment to continue the financial support of the countywide soil survey is another example of the county's commitment to the coordination and implementation of the plan.

(5) Bertie County is a member of a local municipal and county administrators organization. (A group set up by the Mid-East Commission to better coordinate activities of local government administrators in Region Q). Two other counties

bordering Bertie, (Hertford and Martin) are also members. Thus, Bertie County has a formal mechanism for communicating with two of its adjacent counties. Coordination with other adjoining counties will be handled in a less formal matter.

(6) As mentioned earlier, the County has developed a five-year work program that will be revised in 1985. The development of such a plan illustrates the County's commitment to implement and coordinate the land development plan.

(7) The County will work with the State's Department of Cultural Resources in protecting and enhancing its cultural, historical and archeological resources.

VII. PUBLIC PARTICIPATION

VII. PUBLIC PARTICIPATION

Bertie County realizes that public participation is an important component in the planning process. As a result, many means of soliciting public participation were used.

The Bertie County Commissioners delegated the responsibility for developing this update and the required citizen input to the County Planning Board. This is the same group that was delegated the responsibility during the 1976 plan. Thus, the planning board has some understanding as to what was needed to get citizen input.

The following is a listing as to how citizen input was obtained during the update process:

I. A questionnaire was developed and administered to a random sample of Bertie County residents to get their opinion about possible land use issues.

II. A questionnaire was developed and sent to all mayors of Bertie County municipalities to get their input on land issues facing the county.

III. The same questionnaire sent to the mayors was sent to the minority leaders in the county to get their input.

IV. Civic group leaders were sent the previously mentioned questionnaire for their input.

V. Each planning board meeting was open to the general public.

VI. Public service spots were placed on the local radio station advising of the upcoming public hearings concerning the update.

VII. Public education literature was developed and placed in the local paper concerning the planning process.

VIII. Public notices were placed in the local paper of public hearings.

(See the Appendix D for examples of the types of mechanisms used to solicit citizen participation).

VIII. APPENDICES

APPENDICES

A. PROJECTED POPULATION FOR BERTIE COUNTY BY AGE, RACE AND SEX, 1985-1990

B. PROGRAMMED HIGHWAY IMPROVEMENTS - BERTIE COUNTY 1980 - 1986

C. WASTEWATER DISCHARGER - BERTIE COUNTY

D. MECHANISMS - CITIZEN PARTICIPATION

(a) random sample questionnaire
(b) questionnaire for mayors, minority leaders, and civic leaders
(c) radio public service narrative
(d) advertisements of public hearings
(e) public education literature.

E. LAND DEVELOPMENT PLAN ANNUAL EVALUATION FORM

APPENDIX A

BERTIE

PROJECTED POPULATION, JULY 1, 1985, BY AGE, RACE, AND SEX

AGE	TOTAL	WHITE			NONWHITE		
		TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	22074	10394	4754	5640	11680	5269	6411
0-4	2235	795	413	382	1440	684	756
5-9	1534	570	293	277	964	460	504
10-14	1707	661	322	339	1046	540	506
15-19	1512	626	298	328	886	384	502
20-24	1901	768	356	412	1133	572	561
25-29	1748	769	356	413	979	408	571
30-34	1749	852	400	452	897	393	504
35-39	1136	683	334	349	453	190	263
40-44	999	559	263	296	440	192	248
45-49	917	517	260	257	400	152	248
50-54	991	503	221	282	488	193	295
55-59	1174	608	261	347	566	219	347
60-64	1141	615	272	343	526	227	299
65-69	1112	623	253	370	489	212	277
70-74	894	519	221	298	375	180	195
75-79	632	358	120	238	274	129	145
80-84	388	227	73	154	161	75	86
85&UP	304	141	38	103	163	59	104
		PERCENT OF COLUMN TOTAL					
0-4	10.13	7.65	8.69	6.77	12.33	12.98	11.79
5-9	6.95	5.48	6.16	4.91	8.25	8.73	7.86
10-14	7.73	6.36	6.77	6.01	8.96	10.25	7.89
15-19	6.85	6.02	6.27	5.82	7.59	7.29	7.83
20-24	8.61	7.39	7.49	7.30	9.70	10.86	8.75
25-29	7.92	7.40	7.49	7.32	8.38	7.74	8.91
30-34	7.92	8.20	8.41	8.01	7.68	7.46	7.86
35-39	5.15	6.57	7.03	6.19	3.88	3.61	4.10
40-44	4.53	5.38	5.53	5.25	3.77	3.64	3.87
45-49	4.15	4.97	5.47	4.56	3.42	2.88	3.87
50-54	4.49	4.84	4.65	5.00	4.18	3.66	4.60
55-59	5.32	5.85	5.49	6.15	4.85	4.16	5.41
60-64	5.17	5.92	5.72	6.08	4.50	4.31	4.66
65-69	5.04	5.99	5.32	6.56	4.19	4.02	4.32
70-74	4.05	4.99	4.65	5.28	3.21	3.42	3.04
75-79	2.86	3.44	2.52	4.22	2.35	2.45	2.26
80-84	1.76	2.18	1.54	2.73	1.38	1.42	1.34
85&UP	1.38	1.36	0.80	1.83	1.40	1.12	1.62

SOURCE - N. C. DEPARTMENT OF ADMINISTRATION
DIVISION OF STATE BUDGET AND MANAGEMENT

PREPARED APRIL 1975

APPENDIX A
-continued-
BERTIE

PROJECTED POPULATION, APRIL 1, 1990, BY AGE, RACE, AND SEX

AGE	TOTAL	WHITE			NONWHITE		
		TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
TOTAL	22524	10907	4943	5964	11617	5182	6435
0-4	2158	836	434	402	1322	628	694
5-9	1866	701	349	352	1165	597	568
10-14	1519	604	309	295	915	435	480
15-19	1734	711	339	372	1023	536	487
20-24	1277	598	263	335	679	258	421
25-29	1631	770	354	416	861	395	466
30-34	1708	831	393	438	877	354	523
35-39	1799	897	415	482	902	404	498
40-44	1114	697	341	356	417	167	250
45-49	989	568	261	307	421	178	243
50-54	932	540	266	274	392	145	247
55-59	992	514	220	294	478	187	291
60-64	1210	647	262	385	563	205	358
65-69	1097	597	259	338	500	207	293
70-74	1010	568	213	355	442	195	247
75-79	715	430	169	261	285	143	142
80-84	435	245	64	181	190	84	106
85&UP	338	153	32	121	185	64	121
		PERCENT OF COLUMN TOTAL					
0-4	9.58	7.66	8.78	6.74	11.38	12.12	10.78
5-9	8.28	6.43	7.06	5.90	10.03	11.52	8.83
10-14	6.74	5.54	6.25	4.95	7.88	8.39	7.46
15-19	7.70	6.52	6.86	6.24	8.81	10.34	7.57
20-24	5.67	5.48	5.32	5.62	5.84	4.98	6.54
25-29	7.24	7.06	7.16	6.98	7.41	7.62	7.24
30-34	7.58	7.62	7.95	7.34	7.55	6.83	8.13
35-39	7.99	8.22	8.40	8.08	7.76	7.80	7.74
40-44	4.95	6.39	6.90	5.97	3.59	3.22	3.89
45-49	4.39	5.21	5.28	5.15	3.62	3.43	3.78
50-54	4.14	4.95	5.38	4.59	3.37	2.80	3.84
55-59	4.40	4.71	4.45	4.93	4.11	3.61	4.52
60-64	5.37	5.93	5.30	6.46	4.85	3.96	5.56
65-69	4.87	5.47	5.24	5.67	4.30	3.99	4.55
70-74	4.48	5.21	4.31	5.95	3.80	3.76	3.84
75-79	3.17	3.94	3.42	4.38	2.45	2.76	2.21
80-84	1.93	2.25	1.29	3.03	1.64	1.62	1.65
85&UP	1.50	1.40	0.65	2.03	1.59	1.24	1.88
		ESTIMATED RATE OF NET MIGRATION					
1970-1980	-2.91	11.31	8.99	13.37	-12.55	-15.60	-9.77
1980-1990	2.81	14.56	12.98	15.90	-6.22	-8.85	-3.98

SOURCE - N. C. DEPARTMENT OF ADMINISTRATION
DIVISION OF STATE BUDGET AND MANAGEMENT

PREPARED APRIL 1979

APPENDIX B

BERTIE COUNTY PROGRAMMED

HIGHWAY IMPROVEMENTS

1980-1986

NO.	ROUTE/CITY	LOCATION AND DESCRIPTION	LENGTH (MILES)	STATUS	EST. COST
		INTERSTATE			
		No projects			
		APPALACHIAN			
		No projects			
		RURAL			
		No projects			
		URBAN			
-651B	Colerain	NC 45, NC 42 North - Grade, drain, & pave 40 ft. curb & gutter section	0.1	Under Construction	$ 73,000
-751-S	Windsor	US 13 Bus. - Remove & replace C&G from Granville St. to St. Elmo Street	0.15	Approved by Board of Transportation $11-9-79	$ 73,000

Appendix B Continued -

NO.	ROUTE/CITY	LOCATION AND DESCRIPTION	LENGTH (MILES)	STATUS	EST. COST
		BRIDGE REPLACEMENT PROGRAM			
		No projects			
		FEDERAL-AID SAFER OFF-SYSTEM PROGRAM			
0-21	NC 308	Upgrade existing 20 ft. pavement from US 17 to 0.6 miles west of SR 1500	-	ROW in progress Letting 3-81	$ 3,230,000
		HIGHWAY SAFETY PROGRAM			
Y-452	NC 308 Woodville	Install flashers at SCL (630 278 S)	-	Construction FY 81	$ 25,000
		LANDSCAPE			
		No projects			

NOTE: Two additional minor widening projects, one in Windsor and one in Colerain and the upgrading of a section of NC 308 are included in the NC DOT Transportation Improvement Program.

APPENDIX C

BERTIE COUNTY

WASTEWATER DISCHARGERS

	FACILITY	RECEIVING WATER	TYPE WASTE
(1)	S. Aulander Elementary School	Fort Branch	Domestic
(2)	C. G. White Elementary School	unt-Barbecue Swamp	Domestic
(3)	W. Colerain Elementary School	Chinkapin Swamp	Domestic
(4)	Perry-Wynns Fish Company	Chowan River	Industry
(5)	John P. Law Elementary School	unt-Black Walnut Swamp	Domestic
(6)	Colerain	unt-Chowan River	Domestic

(unt - unnamed tributary)

Source: Chowan River Restoration-
Project CHORE, N. C. Department of Natural Resources and Community Development, 1979.

APPENDIX C

CITIZEN PARTICIPATION - MECHANISM

Directions for Section I

The HEAD OF THE HOUSEHOLD should answer these questions as accurately as possible. Fill in the answer or check appropriate blank. Please answer all questions.

Section I

1. Are you a male or female?_____(1) Male_____(2) Female
2. Are you white or non-white?_____(1) White_____(2) Non-White
3. What township do you live in? (Check the correct one)

1	( ) Colerain Twp.	5	( ) Snakebite Twp.
2	( ) Mitchell Twp.	6	( ) Indian Woods Twp.
3	( ) Roxobel Twp.	7	( ) Windsor Twp.
4	( ) Woodville Twp.	8	( ) Whites Twp.
		9	( ) Merry Hill Twp.

4. How long have you lived here? _____ years.
5. Do you live in a (check the correct one)

1	( ) single family house	4	( ) hotel, motel, boarding or rooming house
2	( ) duplex		
3	( ) apartment	5	( ) mobile home

6. Do you own or rent your house? (check the correct one)
   _____(1) own (2) rent
   _____(2) rent
7. What was the last grade or class you completed in school? (check the correct one)

1	( ) grade 8 or less	5	( ) college, incomplete
2	( ) high school, incomplete	6	( ) college, complete
3	( ) high school, complete		
4	( ) technical, trade or vocation school beyond high school		

8. Please check the blank which comes closest your total household income before taxes last year.

1	( )	under $2,000
2	( )	$2,000 to $3,999
3	( )	4,000 to 5,999
4	( )	6,000 to 7,999
5	( )	8,000 to 9,999
6	( )	10,000 to 15,000
7	( )	over $15,000

Directions for Section II

Please indicate the seriousness of each of the following problems of the County by checking one of these responses. Please answer all questions. Please check the column which is appropriate.

NO PROBLEM	means not a problem in this county.
SLIGHT PROBLEM	means a slight problem in this county.
MODERATE PROBLEM	means a moderate problem in this county.
SERIOUS PROBLEM	means a serious problem in this county.

Section II

	(1) No Problem	(2) Slight Problem	(3) Mod. Problem	(4) Severe Problem
1. Is police protection adequate?				
2. Are drugs a problem?				
3. Is fire protection adequate?				
4. Is water pollution a problem?				
5. Are there adequate water and sewage services where you live?				
6. Is garbage collection and disposal adequate where you live?				
7. Is there any long range community planning?				
8. In general is city or county government responsive to your needs?				
9. Are the elementary and high schools adequate where you live?				
10. Are the vocational education programs adequate?				
11. Are race relations a problem?				
12. Are the libraries adequate?				
13. Are the cultural opportunities (drama, music, art, etc). adequate?				
14. Are the kindergarten programs adequate where you live?				
15. Are the adult education programs adequate where you live?				
16. Are the tourist facilities adequate?				
17. Is the availability of adequate housing a problem where you live?				
18. Are the transportation systems adequate?				
19. Are there adequate employment opportunities?				
20. Is unemployment a problem?				
21. Is industrial development adequate?				
22. Are recreation facilities adequate?				
23. Do citizens participate in community decisions?				
24. Is there community pride and spirit?				
25. Are medical facilities and staff adequate?				
26. Is assistance to elderly people adequate?				
27. Are child care or kindergarten adequate?				
28. Are youth counseling services adequate?				
[illegible]. Is assistance to the poor adequate?				
[illegible]. Are family planning services adequate?				

Directions for Section III

In the following questions, please check the column where you feel local government should spend public money. Please answer all questions.

NO means no public funds should be spent in this area.

LESS means less public than are now being spent should be spent in this area.

SAME means same public funds that are now being spent in this area.

MORE means more public funds that are now being spent should be spent in this area.

Section III

		(1) No Public Funds	(2) Less Funds	(3) Same Funds	(4) More Funds
1.	Crime prevention and control				
2.	Control of illegal drugs				
3.	Control of organized drime				
4.	Health and medical care				
5.	Assistance to old and poor				
6.	Retirement benefits				
7.	Water pollution				
8.	Solid waste disposal				
9.	Public kindergarten				
10.	Public education				
11.	Community colleges and technical institutes				
12.	Special education for retarded or handicapped				
13.	Development of new employment opportunities				
14.	Job training for adults				
15.	Help in finding jobs				
16.	Restricted zoning to control land use				
17.	Development of tourist attractions				
18.	Planning for preservation of wildlife areas				
19.	Develop agricultural production and marketing				
20.	Industrial development				
21.	Airport facilities				
22.	Public transportation facilities				
23.	Purchase new land for public parks				
24.	Further development of forests and parks for public parks				
25.	Development of public recreational facilities and programs				
26.	Support for libraries and museums				
27.	Preservation of historic sites				

Section IV

Below are a number of statements about economic development and environmental development and environmental protection in this county. Please check whether you AGREE or DISAGREE with each statement. Try to respond to all of them.

		(1) AGREE	(2) DISAGREE
1.	This county has enough economic development.	_____	_____
2.	More industry brought into the county will improve the quality of life in the county.	_____	_____
3.	New industry locating in the county should be required to file an environmental impact statement.	_____	_____
4.	Some type of control should be placed on mobile homes.	_____	_____
5.	A person should be able to do anything he wants to on his land regardless of how it affects his neighbors.	_____	_____
6.	A danger exists when development occurs very rapidly.	_____	_____
7.	Economic development is more important than environmental protection.	_____	_____
8.	We would be better off if we controlled growth so that it occurred at a slow pace.	_____	_____
9.	We have enough people living in the county now.	_____	_____
10.	Some industries are not worth the problems they bring with them.	_____	_____
11.	We must plan our development so as to leave something for future generations.	_____	_____
12.	If I had a choice between more jobs and clean air and water, I would choose more jobs.	_____	_____
13.	If industry produced goods at higher cost and did not pollute, I would be willing to pay for those goods.	_____	_____
14.	Pollution from agriculture should be regulated.	_____	_____

ADDITIONAL COMMENTS: (USE BACK IF NECESSARY)

COUNTY
LAND USE PLANNING
QUESTIONNAIRE

The Bertie County Coastal Management Land Use Plan is the most important plan that will guide the development of the County in the future. It is especially used by state and federal agencies in their review of proposed projects. For example, if the county states that rural areas should remain rural and undeveloped a proposed water or sewer system may be turned down by the reviewing agencies and the project defeated for lack of funds.

1) What do you feel are the land use issues that the county will face in the next ten years?

   A.

   B.

   C.

2) What policy should be created to solve those issues or problems?

   A.

   B.

   C.

3) What ways can the county carry out or implement the policies?

   A.

   B.

   C.

Your comments do not have to be confined to this page. Use more paper if necessary. You are invited to each and every county planning board meeting to help on the Land Use Plan. Your input is vital.

PUBLIC SERVICE ANNOUNCEMENT

THE COUNTY OF BERTIE IS HOLDING A PUBLIC HEARING CONCERNING ITS CAMA (COASTAL AREA MANAGEMENT) PLAN UPDATE. AT THIS MEETING AN UPDATE WILL BE GIVEN OF ANY MAJOR DEVELOPMENTS THAT HAVE OCCURRED SINCE THE 1976 PLAN. ALSO AT THIS MEETING PROPOSED ISSUES, POLICY STATEMENTS AND IMPLEMENTATION PROCEDURES WILL BE DISCUSSED. ALL INTERESTED PERSONS ARE INVITED TO ATTEND.

TIME:	7:30 P. M.
PLACE:	BERTIE COUNTY COURTHOUSE
DATE:	MARCH 31, 1980

(a)

NOTICE

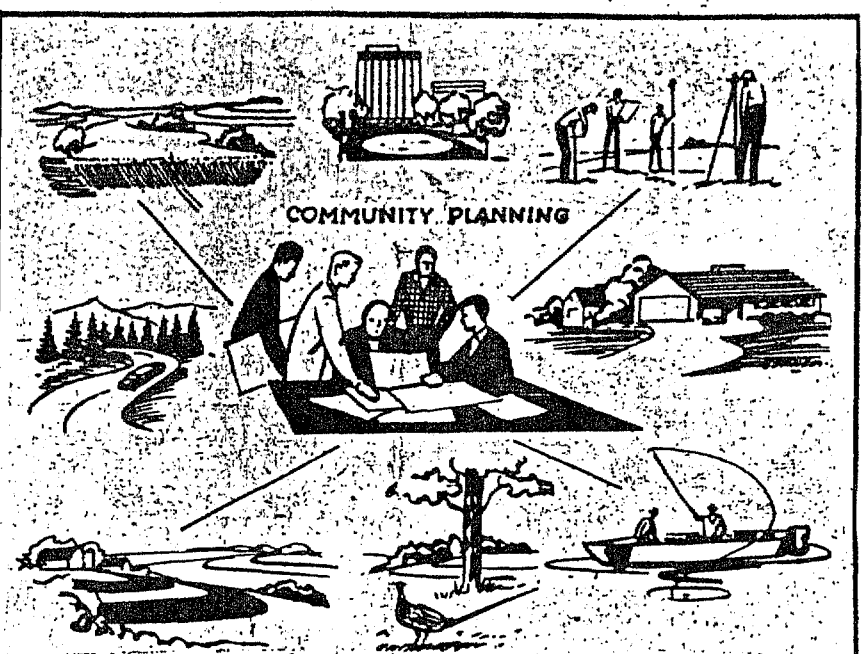
OF

PUBLIC HEARING

THE COUNTY OF BERTIE IS HOLDING A PUBLIC HEARING CONCERNING ITS CAMA (COASTAL AREA MANAGEMENT) PLAN UPDATE.

ALL INTERESTED CITIZENS ARE INVITED TO COME OUT AND VOICE THEIR OPINIONS ABOUT THE UPDATE.

DATE: MARCH 31, 1980
TIME: 7:30 P. M.
PLACE: BERTIE COUNTY COURTHOUSE



COUNTY PLANNING IN PROGRESS

1. **WHAT:** Bertie County is in the progress of updating its Land Development Plan which was completed in 1976. Issues will be defined and policy formulated for the entire county including all towns.

2. **WHY:** The Land Development Plan is the most important plan that guides the development of the county. The plan serves as a guide to state and federal government decision-making on all matters related to the use of land, such as coastal wetlands, agriculture, forestry, mining, waste disposal, transportation and air and water quality.

3. **HOW:** Through you, the citizens of Bertie County, issues are defined and policies or solutions are made to address the development problems. The planning board and the county commissioners encourage all citizens in the county to attend these meetings and place their input in the new revised land use plan so that when is is completed and presented to the board of county commissioners for adoption we the citizens of Bertie County can say it's 'our plan.'

4. **WHEN:** The county planning board meets at least monthly in its work on the land Development Plan. The plan will be presented to the state coastal resources commission for their approval in June. Pay attention to the meeting times in the news.

5. **WHERE:** The county planning board meets at least monthly in Windsor and sometimes in other communities of the county. Pay attention to the meeting places in the news.

APPENDIX E

LAND DEVELOPMENT PLAN

ANNUAL EVALUATION FORM

A. OBJECTIVE ATTAINMENT YEAR FY____ to ____

B. OBJECTIVE STATEMENTS

1.
2.
3.
4.
5.

C. PROGRESS MADE TOWARD IMPLEMENTING OBJECTIVES

1.
2.
3.
4.
5.

D. PROBLEMS ENCOUNTERED IN MEETING OBJECTIVES, IF ANY

1.
2.
3.
4.
5.

E. RECOMMENDATIONS

1.
2.
3.
4.
5.

_____
Planning Board Chairman

_____
Date