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PLYMOUTH, NORTH CAROLINA

LAND USE PLAN

COASTAL AREA MANAGEMENT
ACT OF 1974

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LAND DEVELOPMENT PLAN

Plymouth, North Carolina

1976

PLYMOUTH TOWN COUNCIL

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Town Of Plymouth

PLYMOUTH, NORTH CAROLINA 27962

P. O. BOX 606 TELEPHONE (919) 793-4181

WILLIAM R. FLOWERS,
MAYOR

May 20, 1976

TO: Coastal Resources Commission

FROM: CAMA Plan Submission

In compliance with the Coastal Area Management Act of 1974, we are forwarding for your review officially certified copies of our Land Use Plan.

Under provisions set forth in Part One of the State Guidelines, we wish that you would approve additional historic sites in our Town Plan as proposed Areas of Environmental Concern.. A list and brief description of these places may be found under cover in our Plan's Synopsis. These sites do not meet the criteria now in use for designating historic places. However, we feel these sites have local significance which merits their inclusion in our Plan.

You will also note that the Roanoke River, Welch's Creek, and Conaby Creek have been deleted from our Plan as proposed Areas of Environmental Concern. Our Town Council has not recognized these waters as public trust waters, and consequently approved the Plymouth Plan with their deletion.

William Flowers, Mayor
Town of Plymouth

P.S. For your information:

We plan to distribute our synopsis by mail to each household.

Town Of Plymouth PLYMOUTH, NORTH CAROLINA 27962

P. O. BOX 606 TELEPHONE (919) 793-4181

WILLIAM R. FLOWERS,
MAYOR

May 20, 1976

Coastal Resources Commission
P. O. Box 27687
Raleigh, N. C. 27611

Sirs:

The Town of Plymouth hereby transmits one certified copy of the Plymouth Land Development Plan to the Coastal Resources Commission.

The plan was formally reviewed at a public hearing held at the Washington County Courthouse on May 7, 1976. The plan was adopted by the Town Council at their regular meeting held on May 10, 1976.

William Flowers, Mayor
Town of Plymouth

Anita Sawyer
Town Clerk

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I. INTRODUCTION

from: Coastal Area Management: "A New Look on the Horizon"
NCSU Agricultural Extension Office

The coastal area of North Carolina is one of the most important regions in the United States for food production, future expansion of commerce, industry and recreation. To enable orderly growth and protection of important natural resources of that area, the 1974 General Assembly passed the Coastal Area Management Act.

The Coastal Area Management Act is a state law that asks local government in 20 counties in Coastal North Carolina to prepare a blueprint for their future growth and development. The county officials are asked to work closely with local citizens in deciding what their goals are in planning for their best use.

Organization

State level administration and coordination will be handled by the Department of Administration and Department of Natural and Economic Resources. The Act creates two citizen agencies:

Coastal Resources Commission - The commission is a 15-member body appointed by the Governor. All members are residents of the coast. Twelve were chosen from among nominees made by counties and towns in the coastal area. Three are appointed at the discretion of the Governor. The Commission is responsible for establishing planning guidelines, approving land use plans and issuing permits for construction when required.

Coastal Resources Advisory Council - The Council is a 45-member body made up of locally appointed representatives from each coastal county, plus representatives from six state government departments. It includes a broad cross

section of coastal interests. The Council advises the Commission on those matters before the Commission and assists local governments.

Management Tools Created

There are three major land use management tools created by the bills: Land use plans, areas of environmental concern and a permit system.

Land Use Plans - Each county will prepare a land use plan. The plans will be based on the goals of the people in the county, the resources available in the county, and the most reasonable path for reaching toward those goals with the resources available. After the plans are adopted, use of the land must agree with the plans.

Areas of Environmental Concern - These areas and their boundaries will be designated by the Coastal Resources Commission. We know from experience to be cautious when using these areas. They include marshlands, beaches, sand dunes, navigable waters, national and state parks, and areas of historical importance. Designation of an area as one of environmental concern does not prohibit use of that area. It is a warning sign to be careful.

Permit System - Any development within an area of environmental concern must have a permit. The Act does not require permit for development outside areas of environmental concern. The Act requires the following projects in areas of environmental concern to obtain a permit from the Coastal Resources Commission. Those projects currently needing state permits: those of greater than 20 acres in size; those that involve drilling or excavating natural resources on land or underwater; those which involve construction of one or more structures having an area in excess of 60,000 square feet will require a permit from the Coastal Resources Commission. All other types of developments in areas of environmental concern will require permits from local government.

II. DESCRIPTION OF PRESENT CONDITIONS

General Requirements

"A brief analysis of the local population and economy shall be made utilizing existing information. Particular attention should be given to the impact of seasonal populations and to economic activities which utilize, are dependent upon, or which may impair coastal land and water resources.

Existing Land Use

Existing land use shall be mapped and analyzed, with particular attention given to:

1) Significant land use compatibility problems;

2) Major problems which have resulted from unplanned development, and which have implications for future land use;

3) An identification of areas experiencing or likely to experience major changes in predominant land uses;

4) Areas of Environmental Concern.*

Current Plans, Policies and Regulations

This element shall contain:

1) A listing and summary of existing plans and policies having significant implications for land use, including at least transportation plans, community facilities plans, utilities extension policies, open space and recreation policies, and prior land use plans and policies;

2) A listing and brief description of the means for enforcement of all existing local land use regulations. The following regulations shall be discussed, where applicable: zoning ordinance (including amendments), subdivision regulations, floodway ordinance, building codes, septic tank regulations, historic districts, nuisance regulations, dune protection, sedimentation codes, and environmental impact statement ordinances.

3) A listing and summary of relevant State and Federal regulations affecting coastal land and water resources (to be provided by the Department of Natural and Economic Resources)."

- from CAMA Guidelines pp. 26-31

*Not to be mapped on Existing Land Use Map.

Present Population and Economy

Population Findings

The Town of Plymouth has grown two percent from 1960 to 1970, declining from a rate of four percent for the previous decade. This is attributable to out-migration to the fringe areas and the nearly complete development of existing land available within the town limits. (See Figure 1)

Large population jumps of 20 percent and more in Williamston, Windsor and Plymouth are attributable to annexations carried out by the towns. Plymouth's 82 percent population growth shown in Figure 1 is due to one annexation carried out in 1946. More representative growth rates are the figures of less than ten percent.

Age distribution in both the Town of Plymouth and the county shows a trend towards a stable, young adult population in the age group from 15 to 24 that significantly changes to a pattern of out-migrating families. This out-migration pattern reverses itself after age 45, indicating a trend towards an older resident population. All these patterns are more pronounced among blacks. (See Figure 2.)

Seasonal Population

The Town of Plymouth has no seasonal population to speak of. Three local motels cater to "pass-through" business traffic during the work week. Weekend tourists to the area are primarily fishermen in recreational vehicles who leave their campers in the parking lot of a local shopping center while they put in their boats at a nearby ramp at the mouth of Welch's Creek.

FIGURE I

COMPARISON OF POPULATION TRENDS

	1940	%	1950	%	1960	%	1970
Washington County	12,323	+10%	13,180	+ 2%	13,488	+ 4%	14,038
Plymouth Township	5,237	+20%	6,294	+10%	6,948	+ 8%	7,512
Plymouth	2,461	+82%	4,486	+ 4%	4,666	+ 2%	4,774
Williamston	3,966	+25%	4,975	+39%	6,924	- 5%	6,570
Washington	8,569	+13%	9,698	+ 3%	9,939	-10%	8,961
Edenton	3,835	+17%	4,468	- 1%	4,498	+ 7%	4,766
Windsor	1,747	+ 2%	1,781	+ 2%	1,813	+20%	2,199
Columbia	1,090	+ 7%	1,161	- 5%	1,099	-18%	902

FIGURE 2

AGE-RACE CHARACTERISTICS OF PLYMOUTH

Age Group	Black Pop. 1960	Black Pop. 1970	% Change	White Pop. 1960	White Pop. 1970	% Change
Under 9	325	255	-22%	277	228	-18%
5-14	525	523	+ 2%	550	528	- 4%
15-24	275	367	+33%	342	393	+15%
25-44	417	327	-22%	763	750	- 2%
45-64	293	339	+16%	612	677	+11%
Over 65	108	131	+40%	187	236	+26%

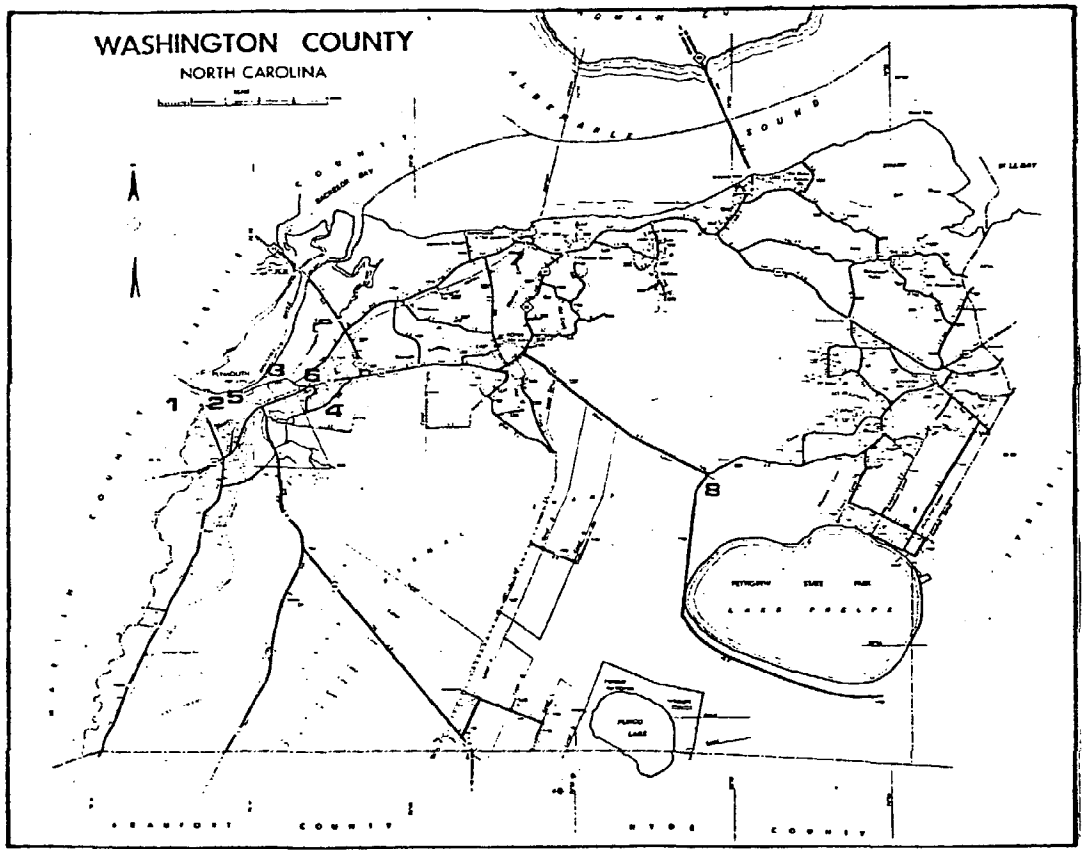


Figure 3

MAJOR AREA EMPLOYERS

	Name	No. Employees
1	Weyerhaeuser Corp.	2747
2	True Temper Corp.	37
3	Georgia-Pacific Corp.	108
4	Plymouth Garment Co.	144
5	Plymouth Pallet Co.	12
6	Plymouth Fertilizer	31
7	Willaims Lumber Co.	85
8	First Colony Farms	350

SOURCE: Community Audits, NER

May, 1976

Economic Findings

Manufacturing production in apparel and wood products comprises the major components of the economy in Plymouth. Figures on the value of manufacturing are unavailable because disclosure rules were applied to census data to withhold data on individual firms. (See Figure 5.)

A list and map of local manufacturers and the approximate number of persons they employ are shown in Figure 3. A percentage breakdown of the local labor force by type of occupation is shown in Figure 6.

Retail trade in the county is primarily concentrated in the Town of Plymouth. Retail sales in the county suffer due to the county's small population and the proximity of Washington, Williamston and Edenton. An estimate of gross retail sales per person indicates that Washington County's sales per person are below the average of the surrounding six counties. In addition, significant losses in sales personnel occurred between 1960 and 1970 in Plymouth and the county, by a decline of 50 percent of total sales personnel employed.

FIGURE 4

RETAIL SALES PER 1000 POP. (ESTIMATE ONLY)

	1975 Gross Retail Sales*	1970 Pop.*	
Washington Co.	$25,017,000	14,038	$1782.09/per person
Martin Co.	$50,499,000	24,730	$2042.01/per person
Beaufort Co.	$92,615,000	35,980	$2574.06/per person
Bertie Co.	$29,620,000	20,528	$1442.90/per person
Chowan Co.	$25,244,000	10,764	$2345.22/per person
Hyde Co.	$ 5,931,000	5,571	$1064.62/per person
Tyrrell Co.	$ 5,890,000	3,806	$1547.55/per person
		average	$2049.43/per person

*from Sales Management

*from U. S. Census

FIGURE 5

BUSINESS PATTERNS

Industry	Number of Employees Mid-March Pay Period	Taxable Payroll Jan.-Mar. ($1,000)	Total Reporting Units
Washington County			
Total	2,386	4,147	183
Agricultural Services, Forestry, Fisheries	(D)	(D)	1
Contract Construction	54	66	14
Manufacturing	1,463	3,049	22
Apparel and other textile products	(D)	(D)	1
Children's outerwear	(D)	(D)	1
Children's outerwear, N.E.C.	(D)	(D)	1
Lumber and Wood Products	323	482	15
Logging Camps and Logging Contractors	85	76	11
Sawmills and Planing Mills	(D)	(D)	2
Sawmills and Planing Mills, General	(D)	(D)	2
Paper and Allied Products	987	2,400	3
Paper Mills, except Building Paper	(D)	(D)	2
Paperboard Containers and Boxes	(D)	(D)	1
Sanitary Food Containers	(D)	(D)	1
Transportation and Other Public Utilities	28	52	4
Wholesale Trade	146	242	13
Retail Trade	426	477	75
Food Stores	92	100	16
Grocery Stores	(D)	(D)	15
Automotive Dealers & Service Stations	90	124	13
Miscellaneous Retail Stores	56	88	11
Finance, Insurance, and Real Estate	60	98	11
Services	169	136	37
Personal Services	37	23	12
Unclassified Establishments	(D)	(D)	6

SOURCE: USDC - County Business Patterns, 1973

The county and the Town of Plymouth have similar job patterns. The largest number of employed persons in the town and the county are blue collar workers employed as operators. The second largest group are skilled blue collar craftsmen and foremen. From 1960 to 1970 the number of persons with skilled white collar jobs has increased significantly (by 150 percent in the Town of Plymouth and 230 percent in the county for professionals and technicians). Significant losses in occupations occurred in sales personnel in both the town and county, by a decline of 50 percent. In Plymouth, increases have occurred particularly among women operators; decreases have occurred particularly among male craftsmen.

Labor force estimates for Washington County indicate a total of 460 persons in manufacturing, primarily in Plymouth. This amounts to sixteen percent of the entire labor force in the county. A much larger segment of the manufacturing labor force lives in the Plymouth area but works at the Weyerhaeuser Corporation's papermill directly across the county line in Martin County. (See Figure 6.)

Unemployment characteristics are only available for the county. Unemployment in the county is slightly higher than the average rate for the surrounding six counties, both for the most recent year of record--4.9 percent in 1973--and for the period of nine years from 1965 to 1973, an average of 6.2 percent. County unemployment has consistently averaged higher than the rate for the state at any time, but has been about average for this region. (See Figure 7.)

FIGURE 6

OCCUPATIONAL BREAKDOWN OF EMPLOYED PERSONS
IN PLYMOUTH AND WASHINGTON COUNTY, 1960-1970

	PERCENT OF TOTAL EMPLOYED, 1960 PLYMOUTH/COUNTY	PERCENT OF TOTAL EMPLOYED, 1970 PLYMOUTH/COUNTY	PERCENT CHANGE 1960-1970 PLYMOUTH/COUNTY
Professionals	8% / 3%	12% / 7%	+150% / +230%
Farmers	1% / 13%	1% / 6%	no change/ - 50%
Managers	8% / 5%	10% / 8%	+125% / +160%
Clerical	10% / 4%	12% / 8%	+120% / +200%
Sales	8% / 6%	4% / 3%	- 50% / - 50%
Craftsmen	16% / 12%	13% / 18%	- 20% / +150%
Operators	21% / 20%	24% / 25%	+115% / +125%
Housekeepers	7% / 6%	4% / 3%	- 40% / - 50%
Service Workers	7% / 4%	9% / 8%	+130% / +200%
Farm Labor	1% / 11%	1% / 47%	nochange / - 60%
Common Labor	8% / 5%	7% / 8%	- 10% / +160%

Total Employed, Town of Plymouth, 1960: 1673; 1970: 1727.

Total Employed, Washington Co. Outside Plymouth, 1960: 2415; 1970: 4679.

SOURCE: U. S. Census, 1960 and 1970.

Note: Percentages shown have been rounded off. To get a close approximation of the actual count of persons in a particular category, multiply the "total employed" figure by the percentage for the given year.

FIGURE 7

RATES OF UNEMPLOYMENT FOR WASHINGTON COUNTY AND OTHER AREAS

	Average Rate for 9 Year Period 1965-1973	Average Rate for Most Recent Year of Record 1973
Washington Co.	6.2%	4.9%
Wake Co.	2.3%	1.6%
Mecklenburg Co.	2.1%	1.8%
Pitt Co.	5.9%	4.1%
Beaufort Co.	3.8%	3.2%
Bertie Co.	6.3%	4.6%
Chowan Co.	4.3%	3.2%
Hyde Co.	6.7%	7.1%
Martin Co.	5.4%	2.1%
Tyrrell Co.	7.8%	6.6%
North Carolina	3.7%	3.5%

SOURCE: North Carolina Work Force Estimates, Employment Security Commission of North Carolina.

Median family income from 1960-70 has continued to be higher in Plymouth compared to the county, but the difference now is very small--about two percent. Family median income in the county in 1970 was $7,182, slightly behind Plymouth's median family income of $7,313. Both averages are still below the average median family income for the state. (See Figure 8.)

FIGURE 8

MEDIAN FAMILY INCOME: PLYMOUTH AND SURROUNDING TOWNS

	1960 Median Income - All Families	1970 Median Income - All Families	% Change Over 1960
Plymouth	$4665	$7313	+157%
Edenton	3918	7250	+185%
Washington	4410	6563	+149%
Williamston	3448	6510	+189%

SOURCES: 1960, 1970 U. S. CENSUS.

Existing Land Use Findings

Plymouth is the largest urban area (3 square miles) and its land use breaks down as follows: 53 percent developed for buildings and roads (up 4 percent from 1964); 10 percent vacant in single ownership (Weyerhaeuser); 13 percent is in the floodplain; 11 percent, forest; 8 percent, agriculture; and 5 percent, land cleared and vacant but not in agriculture. The seven-square mile extraterritorial area surrounding Plymouth has the following pattern: 52 percent, forest (including the floodplain); 41 percent, agriculture; 5 percent buildings and roads (up 12 percent from 1964).

The layout of commercial, industrial, and residential areas closely follows the town's history of development and changing modes of transportation. The town's compact central business district and oldest homes and churches can be found in the twelve-block area beginning at Water Street on the Roanoke River and extending to Fourth Street. The short blocks and narrow streets found here adhere to the town's original survey, circa 1780, when the residents were pedestrians, and the traffic moved in boats and wagons. The next major development

began around 1900 with the construction of a railroad that eventually had spur lines looped around the town to sawmills on the outskirts. Businesses were still mainly clustered downtown, but residential growth and new schools began to fill the void within the rail loop. The most recent major development is automobile-oriented since 1940. Businesses, homes and industries in Plymouth have scattered along its major thoroughfares except for concentrated residential subdivisions in the fringe areas. Today this pattern is very much in evidence in the one-mile extraterritorial area surrounding Plymouth where tracts of woods and fields are giving way to strips of roadside homes. Drive-in businesses and light industry continue to crowd each other along U.S. 64 since it has the principal drawing power for through-traffic trade in the county.

Significant Land Use Compatibility Problems

Principal compatibility problems in Plymouth are the spot zoning of retail businesses in residential areas and the use in some locations of streets as zoning boundaries between residential areas and commercial or industrial areas (see Plymouth Zoning Map). The problems from businesses facing homes or being adjacent to them are common in most towns. These problems are typically the nuisance variety: glare from outdoor lighting or outdoor advertising and increased noise and traffic through the neighborhood. The difficulties from these uses not relating to each other is especially apparent where a historic place is involved. Thus, the continuity of Grace Episcopal Church (built 1850) and homes along Madison Street are broken-up by businesses, off-street parking, and a bulk cement plant at the intersection with Water Street. Problems such as these are likely to continue each time a place is sought for new business. The solution lies in having new business made attractive to its neighbors or in finding another location where it would be entirely acceptable. (See Figure 9.)

Problems From Unplanned Development

Growth problems in Plymouth include shortages of off-street parking spaces downtown, increased commuting traffic along Main Street, strip development along primary arterials going to town, and increased sedimentation of Conaby Creek.

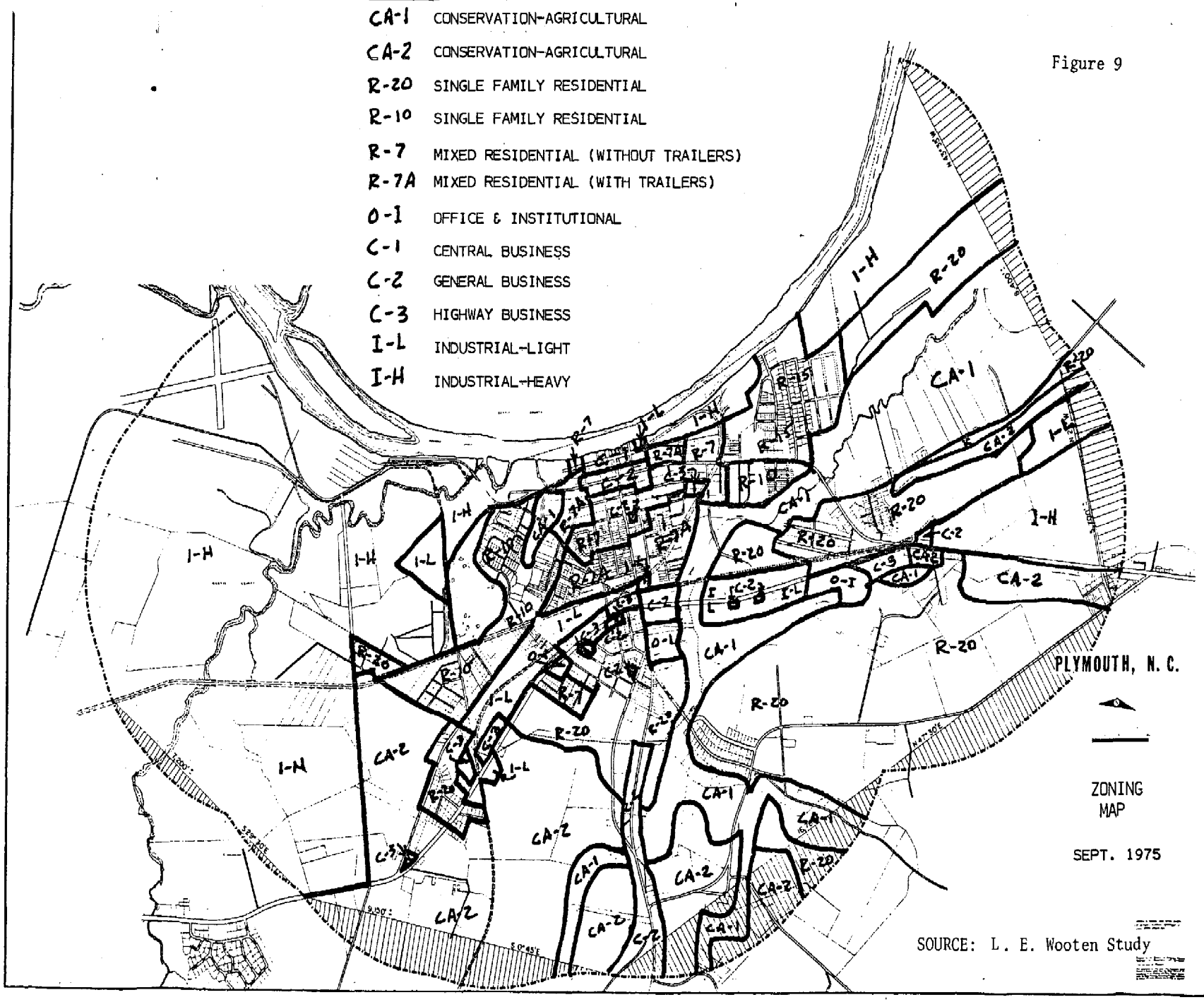
Parking problems downtown stem from increased business for the merchants along Water Street. This is particularly evident around the lunch hour and late in the afternoon when local residents try to shop before returning home from work. The problem is at its worst on paydays.

Traffic along Main Street doubled between 1964 and 1974 (see ADT map in Part 5). Hourly peaks occur in the mornings and late in the afternoon as employees at the Weyerhaeuser Corporation's papermill in Martin County commute to and from work. Although traffic is bad at these times, vehicle counts have not reached the proportions where one-way designations would be necessary for Main Street and Third Street.

Strip land use development is most evident along U.S. 64 and N.C. 32, beginning at points three miles west, south, and east of the town's limits. A distinctive characteristic of the sprawl in the fringe area is the large number of mobile homes set up individually on single lots and together in mobile home parks. The greatest problems arise from local traffic congesting through traffic in the commercial areas nearest Plymouth along the U.S. 64 Bypass. Turning movements to and from the multiple driveways of adjoining businesses frequently bring traffic to a halt on this two-lane arterial. This problem exists at its worst during the summer months when U.S. 64 is heavily traveled by tourists enroute to the Outer Banks.

Conaby Creek, flowing towards the center of town from the south to the northeast, was once a stream that could be navigated from its mouth to a point south of Plymouth near the Old Roper Road (S.R. 1106). Now the stream is almost

Figure 9


Legend:
CA-1 CONSERVATION-AGRICULTURAL
CA-2 CONSERVATION-AGRICULTURAL
R-20 SINGLE FAMILY RESIDENTIAL
R-10 SINGLE FAMILY RESIDENTIAL
R-7 MIXED RESIDENTIAL (WITHOUT TRAILERS)
R-7A MIXED RESIDENTIAL (WITH TRAILERS)
O-I OFFICE & INSTITUTIONAL
C-1 CENTRAL BUSINESS
C-2 GENERAL BUSINESS
C-3 HIGHWAY BUSINESS
I-L INDUSTRIAL-LIGHT
I-H INDUSTRIAL-HEAVY
PLYMOUTH, N. C.
ZONING MAP
SEPT. 1975
SOURCE: L. E. Wooten Study

undefined below the U.S. 64 bridge crossing. Sedimentation from construction and clearing activities over the years has silted the bottom of the stream, making the floodplain to either side of it wider and wider. Past efforts to get the stream cleared through the formation of a drainage district failed because the required approval was not met of 60 percent of the property owners in the area. A local objective of the town and the county has been adopted to get the stream cleared. If accomplished, this would enable farmers south of town to secure drainage while assisting the town in its storm drainage.

Major Growth Areas

Major growth areas in Plymouth lie in the one-mile surrounding extraterritorial area. Growth has occurred faster here due to an ample supply of vacant land, close access to town, and lower property taxes. The fact that major growth is likely to occur outside of town rather than within it establishes a critical need for annexation in order for growth to occur in the future.

Current Plans, Policies, and Regulations

Plans and Studies Adopted. The following plans or studies have been adopted by the Plymouth Town Council:

1. Development Plan; Plymouth, N. C., NER - 1966
2. Capital Improvements Budget; Plymouth, N. C., NER - 1971
3. Community Facilities Plan; Plymouth, N. C., NER - 1971
4. Major Thoroughfare Plan; Plymouth, N. C. (sketch plan), DOT - 1972
5. Plymouth Water and Sewer Systems Improvements; 1966, L. E. Wooten & Co.

Plans Under Consideration. The Plymouth-Roper 201 Facilities Plan (Facilities Plan: Wastewater Collection and Treatment Improvements - Plymouth-Roper Facility Planning Area - L. E. Wooten - 1976) is the current published plan under consideration.

Other Studies Under Consideration. The Town of Plymouth is considering the preparation of an annexation study.

Regulations Adopted. The Town of Plymouth has adopted the following regulations: Zoning Nuisance Laws (governing septic tanks, dog control, building safety and general appearance), Junk Car Ordinance, Street Ordinance (includes minimum right-of-way 50 feet), Fire Prevention Code, Building and Plumbing Code (an Electrical Code is enforced jointly with the county), Housing Code, Water, Sewer and Sewage Ordinances (requires utility installations to town specifications), and a Miscellaneous Offense Statute which includes requirements for a permit to locate a mobile home within the town limits. The town has applied for and received approval for Federal Flood Insurance. When the actuarial maps are completed, a floodway ordinance will be administered through the Plymouth building inspector.

Regulations Under Consideration. The Town of Plymouth is considering the adoption of Subdivision Regulations and an Airport Zoning Ordinance.

Policies Affecting Land Use. The town's policies concerning planning are incorporated into the statement of purpose contained in its zoning ordinance which is drawn from the General Statutes. The town has no stated policy concerning recreation and open space; however, it has representatives on the county's Recreation Commission. Policies concerning utility extensions concern the approval of plans and specifications and installation of improvements by the town under the supervision of the town manager. These policies are contained in the town's statutes concerning water, sewers, and sewage. The town's policies concerning safe and adequate housing are contained in its Housing, Building, Plumbing and Fire Prevention Codes whose language is based upon the North Carolina General Statutes.

Regulations Not Under Consideration. The town is not considering sediment control or environmental impact statement ordinances at this time.

Federal and State Regulations. List is to be supplied by the N. C. Department of Natural and Economic Resources.

III. PUBLIC PARTICIPATION ACTIVITIES

General Requirements

"The local planning unit shall, in cooperation with its citizens and all relevant public agencies, identify the major land use issues facing the planning area and formulate a series of objectives to help guide future development. The major land use issues which will be faced during the following ten year period should be identified and analyzed. Such issues should include:

1) The impact of population and economic trends;
2) The provision of adequate housing and other services;
3) The conservation of productive natural resources;
4) The protection of important natural environments;
5) The protection of cultural and historic resources.

Alternative approaches for dealing with these issues and their respective implications should then be considered in the development of land use objectives, policies and standards. These clearly stated objectives, policies and standards should serve as a guide to classifying land areas as well as clearly establishing priorities for action during the planning period. While the emphasis is to be on setting priorities for the ten year period, eventual population projections for 5, 10, 25 and 50 years in the future shall be defined consistent with the desires of the people and the capability of the land and adjacent waters to sustain them. Consideration shall be given to the type and cost of services needed to accommodate those population projections and to the ability of the local economy to finance such services.

A brief description shall also be given of the process used to determine objectives, policies and standards, with particular attention given to the participation of the public and relevant public agencies."

- From: CAMA "Guidelines"

Identification and Analysis of Major Land Use Issues

Impact of Population and Economic Trends

The major land use issues affecting Plymouth and Washington County in the coming ten years cover a broad range of problems. Both the town and the county face population losses in the 18 to 25 year old age group despite modest increases in total population during the period from 1960 to 1970. Consequently, the best trained and highest earning persons leave to go elsewhere, reducing the labor pool and the opportunities for new industry.

Plymouth faces severe shortages of vacant, developable land at a time when its extraterritorial area is the fastest growing part of the whole county. This situation greatly increases the need for annexations in the years ahead or else demands that the county provide urban services in the areas surrounding Plymouth.

The cost of providing services ties in directly with the need for developable land in growing areas. At present, both the town and the county lose many tax dollars to other counties as local residents take employment and carry on their shopping and recreation elsewhere. At a time when inflation increases government costs, this situation creates an unhealthy reliance on the existing property tax base.

A number of problems related directly to difficulties with existing facilities. In Plymouth the need for subdivision regulations is apparent from the lack of adequate street and sidewalks in various parts of town. A common problem between the town and the county is the lack of an adequate major highway. Especially during the summer, driving Highway 64 between the Martin-Washington County line and Roper is an aggravating experience as is all the route between Jamesville and the coast. This problem further detracts from the area's drawing power for industry. These land use issues are addressed by the land use objectives contained in the following section, and by the Land Classification Map outlining which fringe areas of Plymouth can be economically served by extensions of services and utilities from the town.

Adequate Housing and Other Services

The housing supply in Plymouth has greatly improved since 1970 when the census reported a decline in occupied housing to 1,208 units from 1,263 units reported in 1960. The principal changes were a 19 percent increase in the number of owner-occupied dwellings (from 56 to 75 percent of all occupied housing)

and a two percent decline in the number of rental units (from 44 percent to 42 percent of all occupied housing). Since 1970, the rental housing stock has increased 19 percent with 40 new units of public housing (108 units in the Housing Authority's "White City" development and the other 32 units in the Authority's "Chigger Hill" development) and 56 FHA units (in duplexes in the Brinkley Forest Section of town south of U.S. 64). These additions, besides other Housing Authority plans to redevelop deteriorated housing between East Water Street and the Fourth Street School, should adequately supply the community's needs for low and moderate income rental housing in the near future. Lots for sale in town in upper income neighborhoods can be found in the eastern part of town on the Riverside Plantation and Creekside Subdivisions. Outside of Plymouth a limited number of lots in upper income neighborhoods can be found in the Liverman Heights subdivision south of town, the Rolling Pines subdivision approximately two miles west of town, and in Carl Brown's Subdivision east of town adjacent to N.C. 45.

Plymouth suffers the same as the county from a lack of variety in types of purchase housing, especially for low and moderate income families. This is apparent from the burgeoning of mobile homes in trailer parks and on single lots of record in the fringe areas surrounding Plymouth (mobile homes on individual lots are now prohibited within the town limits).

Services in Plymouth appear to be satisfactory to a majority of residents. In an attitude survey conducted in May, 1975, (see Appendix) the only significant complaints concerned streets, sidewalks and garbage collection. Subsequent discussions and review of written comments revealed that the complaints about streets concerned train blocades and frequent patching of potholes at the same locations. Complaints about sidewalks came from elderly residents who felt that raised sections of pavement were a hazard to their walking and from black residents in

areas without sidewalks who said they did not want to walk in the street. Complaints about garbage collection seem to come from the newly-assessed collection fee and not the service itself. This was determined through conversation with the town manager on this topic. Otherwise, Plymouth residents expressed satisfaction with the services and facilities in their town, especially the fire department, hospital and library.

Conservation of Productive Natural Resources

The Town of Plymouth has only about 150 acres of cropland within its town limits. Most of this acreage is either in transition areas of non-farm land use or else exists on parcels of land with no significant agricultural production. Consequently, the conservation of farmland within the town limits is not a local objective.

The snagging of Conaby Creek, which runs northeastward through the center of town, would reduce street flooding in town and narrow the wide area now a swamp where only the stream itself used to run. The same action would also enable farmers south of the town to improve drainage off their croplands by way of a new channel cleared of the debris which now impedes flow and widens the floodplain. The clearing of Conaby Creek has been included as a local objective in both the land use plan for Plymouth and the Washington County land use plan.

Important Natural Environments

The most important and certainly the most impressive natural environment in Plymouth is its waterfront along the Roanoke River, facing unblemished stands of timber in neighboring Bertie County. Since the mid-1960's, the town has undertaken renovations of the property to the rear of businesses along Water Street having bulkheaded and filled a small park and picnic area behind

the municipal building and another small park in the center of the business district. Future plans are to extend these improvements along the rearside of all business property facing the river in order to unify and enhance the park developments already started.

Protecting Cultural and Historic Resources

Plymouth has a number of historic buildings of local significance: the Nichols House (c. 1804), Plymouth Methodist Church (c. 1832), the Washington County Courthouse (1913), the Ausbon House (c. 1830), the Stubbs House (c. 1830), the Armistead House (c. 1830), the Latham House (c. 1850), Hamilton Academy (c. 1900), and Grace Episcopal Church (1837). The greatest significance of the majority of these structures is that they are the only remaining examples of pre-Civil War architecture which survived the two Battles of Plymouth in December, 1862, and April, 1864. The County Courthouse is noteworthy for its neo-Georgian design and Hamilton Academy, now occupied by the Plymouth Women's Club, is the earliest school still standing which many local residents attended.

The greatest problem in protecting these cultural resources is finding the money to maintain them. This is likely to be a continuing problem since most of these structures are in private hands. A second problem lies in spot zoning adjacent property for non-residential use. Fortunately, all of the sites described adjoin other residential land uses. However, the possible occurrence of incompatible development can only be prevented by considerable attention to the Town's Zoning Ordinance. A local objective has been adopted to amend the Town's Zoning Ordinance to include a historic preservation district to help preserve these sites.

Alternatives Considered in the Development of Objectives, Policies, and Standards

Alternatives considered in the preparation of this plan's objectives, policies and standards were sharply restrained by geographic constraints, the slow growth of a small population, and a limited amount of community money to invest in more ambitious proposals. Future population growth is low, not exceeding five percent for the period 1975-1985. But long-term plant expansions at the Weyerhaeuser mill near Plymouth are certain to assure additional population growth that will require some new services or facilities. Consequently, the objectives in this plan are scaled-down to the limited scope of programs needed to support slow growth.

It was determined that a small amount of new industry was needed in the town to diversify the local economic base from wood products and textile industries. Limited industrial growth was seen as a way to increase the tax base and vary employment opportunities without turning Plymouth into a "mill town." In addition, a limited amount of increased manufacturing employment would help attract and support new retail business which the area badly needs. Thus, local objectives supporting economic growth call for "attracting a fair share of new industry in the county to the town that will not overtax the town's water and sewer systems nor degrade its appearance."

None of these limited growth objectives have known environmental side effects that would adversely affect the town's land use. In addition to these stated objectives, there are the Land Classifications (see Chapter VI) which reflect the limited growth alternative in limited development both in town and in the one-mile extraterritorial area.

Land Use Objectives For Plymouth

Goal: To Protect Natural and Cultural Resources

1. Recommend the development of a community appearance program and the amendment of the town's zoning ordinance to include a historic preservation district.

2. Complete plans proposed to develop the rearside of business lots between Water Street and the Roanoke River for use as a park.

3. Improve storm drainage in the town and surrounding area by suction-dredging and snagging Conaby Creek from N. C. Highway 45 to the Old Roper Road.

Goal: To Provide for the Economic Needs of Town and County Residents by Attracting New Business and Industry to Plymouth

1. Objective: Attract a fair share of new industry in the county to the town that will not overtax the town's water and sewer systems nor degrade its appearance.

2. Objective: Create space for a farmer's market in Plymouth.

3. Objective: Work with the Washington County government for the hiring of a joint city-county industrial developer.

4. Objective: Plan the development of an airport industrial park adjoining the new Plymouth Municipal Airport.

Goal: To Improve Traffic Circulation and Safety in and around Plymouth

1. Objective: Recommend a new bypass around Plymouth in place of four-laning the existing U. S. Highway 64 bypass.

2. Objective: Recommend the separation of the railroad grade crossing where it crosses U. S. Highway 64 west of town.

3. Make plans to install sidewalks in areas without sidewalks and repair or repave existing sidewalks that would be a hazard to elderly pedestrians.

Goal: To Provide for the Growth of Plymouth in an Orderly Manner

1. Objective: Complete an annexation study of the fringe areas surrounding Plymouth.

2. Objective: Adopt subdivision regulations for orderly residential development in the town and surrounding extraterritorial area.

Goal: To Improve City-County Cooperation

Objective: Make city plans an integral part of county plans for all future extensions of public services and facilities from the town to the outlying areas of the county.

Public Participation Summary

Town of Plymouth

1. Evaluation of your Public Participation Program

   A. Does your land use planning depend on the local planner for direction or does citizen involvement offer direction?

   The land use planning effort in Washington County has been a 50 - 50 effort, with the planner doing the legwork for the Steering Committee and the Steering Committee making contacts with the public and guiding the planner towards what they want to see put in the county's plan.

   B. Unique features of your public participation program that might be useful to other communities.

   Ever since the Steering Committee began their public meetings, they have always rotated the place of the meeting to each of the towns in the county--Creswell, Roper, and Plymouth--in order to make public attendance as convenient as possible. The planner has also spoken to nearly every civic group and organization about the purpose of CAMA. Posters have been a big help in advertising meetings.

   C. How did you develop your Public Participation Program?

   The Steering Committee was created by a resolution from the County Commissioners in December, 1974. At their first organizational meeting in January, this group decided that regular open meetings and speaking engagements were the best way to get public participation. Regular press and radio features have been added to this besides the use of an attitude survey that the committee distributed in May to approximately 3200 households.

D. Do you consider your public involvement a success? Please explain.

Judging by the attendance at Steering Committee meetings, you cannot say that public participation is a success in Washington County. Committee members have suggested to people that they come--but time and again they forget. It seems that there is only so much you can do to get people to attend, but attendance is picking up since posters have been used to advertise the meetings. Also word-of-mouth knowledge about CAMA is getting around as residents from different neighborhoods are showing up for the first time to learn more about it. Consequently, we feel that public participation is going to show more and more improvement as time goes on. Residents have also commented after a meeting that they felt as if their contribution had been listened to, and that they simply had not gone to a meeting where a decision had already been made and was just being announced.

E. List some key citizens in your public participation program: names, phone numbers.

Douglas Davenport, (797-4395); Cleveland Paylor, (793-3622); Lewis Combs, (797-4486); Barry Harris, (793-5823); Phil Gurkin, (793-2123); Gerald Allen, (793-3826); Ted Masters, (793-2771); Ken Sallenger, (797-4314); Billy Sexton, (794-2218); Dewitt Darden, (633-3141); T. R. Spruill, (793-2053); Bill Flowers, (793-4181); Guy Whitford, (793-2223); Ernestine Hannon, (793-5015).

2. Steps taken to inform local citizens about the CAMA program

A. Newspaper

The following is a list of feature articles to date which have appeared in the local newspaper, The Roanoke Beacon. This list does not include simple announcements of regularly scheduled Steering Committee meetings. The readership of the Beacon is approximately 8500.

1. November 20, 1974,"Planner Appointed: Board Approves Land Use Planning"
2. January 22, 1975,"First Meeting Held by Land Use Group"
3. March 5, 1975,"Citizen Input Urged: Sexton Elected Chairman of Land Use Committee"
4. March 12, 1975,"Land Use Group Sets Roper Meet"
5. April 16, 1975,"Land Use Body Will Meet With Planning Boards"
6. May 7, 1975,"Preliminary Maps, Land Use Plan Eyed by Group"
7. May 14, 1975,"CAMA Meeting Slated for Creswell"
8. June 11, 1975,"Development Favored: Citizen Survey Results Announced By Planner"
9. June 18, 1975,"Area Management: What It is and Why?"
10. June 18, 1975,"Roanotes, by Phil Gurkin" (editorial)
11. June 25, 1975,"Area Management: Land Use Planning"
12. July 2, 1975,"Area Management: Guarding Resources"
13. July 9, 1975,"Area Management: By We the People"
14. July 9, 1975,"Roanotes by Phil Gurkin" (editorial)
15. August 27, 1975,(in progress) "Plan of Goals and Objectives Endorsed by Committee"

B. Radio

Several public service announcements have been aired over WPNC in Plymouth, which broadcasts over a ten county area, to both announce meetings and encourage attendance. The Washington County Extension Agent has been very cooperative in drafting his own CAMA presentations for airing during the noon-time "Home and Farm Hour" and in conducting a talk show with the planner, July 7, 1975.

C. Television

Television has not been utilized as a medium because there is no local station within the county.

D. Bulletins, Leaflets, Newsletters

Since July, 60 posters have been distributed for every regular meeting of the Steering Committee throughout the areas where the meetings were to be held. This has resulted in a big boost in attendance at meetings by local residents.

E. Other Methods

The items above describe the techniques we have used to inform people about CAMA. What other method people use to get informed chiefly appears to be word-of-mouth.

3. Opportunities for citizens to provide input into land use planning.

A. Personal interviews

This technique has not been used to the extent of some other methods. One of the Steering Committee members, Cleveland Paylor, took the planner around to interview and explain the purpose of CAMA to six of the principal businessmen in the Town of Plymouth during March and April. Another set of interviews were carried out among local business figures by the WPNC station manager, Billy Benners, in March to "brainstorm" CAMA's impact on the business community.

B. Surveys

An attitudinal survey concerning land use goals and objectives was distributed in May through the schools to approximately 2900 households. There were also about 300 surveys distributed among the two senior classes at the high schools in Creswell and Plymouth. An additional 150 surveys were distributed to predominantly black, low-income heads of households by Mrs. Lilly James from the Washington County Economic Development Council. Finally, the planner used the survey at his club meetings to poll his audience on land use problems with which they were familiar.

C. Workshops and public meetings

The Steering Committee has had ten regular meetings since January, with an attendance total of 100. The Plymouth Planning Board has considered CAMA

issues at eight of their gatherings and the County Planning Board has done the same at six meetings of theirs. By far the greatest number of meetings have been with clubs and organizations--a total of 569 people from 30 different groups. Of the 569, 184, or approximately 32%, were women. About 150, or about 26%, were over age 65. Other meetings planned in the future will be primarily among blacks, who only comprised about 60, or 11%, of the 569 addressed so far. Briefings to elected officials have also been done regularly: the county commissioners have received a total of ten reports to date, and the Plymouth Town Council has received a total of five. This difference is due to the Commissioners meeting twice a month while the Council meets only once.

D. Other Opportunities

Public service announcements concerning CAMA have been aired over Radio Station WPNC in Plymouth on at least eight occasions. Four of these PSA's were prepared and sponsored on the county agricultural extension's "Home and Farm Hour" by their local staff. The planner aired the remainder.

4. Quality and quantity of feedback from the public

A. Approximate percentage of community providing input

Of the 2900 surveys distributed through the schools to heads of households, 830, or approximately 29%, were returned. Among the 300 surveys distributed to high school seniors, 177, or about 59%, were returned. Not included in these returns are the extra polls taken of 150 low-income blacks and the club surveys that the planner conducted. Thus in terms of the total population, only a small percentage, or about 12%, is estimated to have personally responded to a questionnaire on land use. The figure would be higher if you considered it on a "per household" basis.

B. Are all ethnic groups and social strata involved?

Yes, we would say that there has been a cross-section of both races and sexes responding to meetings and the survey--not just one group. While there have not been great numbers of people involved on a percentage basis, the proportion of whites involved has been no greater than the proportion of blacks throughout the county.

C. Are non-residents and non-voters involved?

Non-voters were polled through the attitude survey of graduating high school seniors from the county's two high schools. Their attitudes concerning land use were much the same as their elders', with somewhat more emphasis on recreational needs. Non-resident property owners represent almost negligible percentage of the total population because most owners of second homes were identified as residents of Plymouth. Consequently, a separate survey was not made.

D. Future participation activities planned

Future activities are being planned in about the same number as they have in the past. There are now more suggestions from people attending our meetings on how to get better involvement. One of these has been to utilize polling places throughout the county for the location of neighborhood meetings on CAMA.

E. How are you reflecting the responses you are receiving into the land use plans?

The Steering Committee and residents have made their feelings known to the planner on proposals he had made that they did not agree with. Examples of this dealt with map changes on areas of environmental concern and policies concerning trailer regulations. These changes have all been incorporated into the county's plan to reflect what the people want.

This report was prepared by the Washington County Steering Committee and Planner John McGarrity, and approved by Mayor William Flowers of Plymouth and County Manager Barry Harris, for the Chairman of the Board of County Commissioners, August 29, 1975.

IV. CONSTRAINTS

General Requirements

a. Land Suitability

"An analysis shall be made of the general suitability of the undeveloped lands within the planning area for development, with consideration given to the following factors:

1) Physical Limitations for Development;

2) Fragile Areas;

3) Areas with Resource Potential.

"These factors shall be analyzed, and where possible mapped, based upon the best information available.

"The major purpose of this analysis is to assist in preparing the land classification map. It is recognized, however, that some of the areas identified as a result of the land suitability analysis may be designated Areas of Environmental Concern. Any areas so designated as AECs shall be subject to the detailed requirements of Section III of these Guidelines in addition to the analysis carried out under this subsection.

1) Physical Limitations for Development

An identification shall be made of areas likely to have conditions making development costly or causing undesirable consequences if developed. The following areas shall be identified:

(a) Hazard Areas, including the following:

(1) Man-made (for example, airports, tank farms for the storage of flammable liquids, nuclear power plants);

(2) Natural, including:

(a) Ocean erodible areas

(b) Estuarine erodible areas

(c) Flood hazard areas
-Riverine (floodplains and floodways)
-Coastal floodplains

(b) Areas with Soil Limitations, including the following:

(1) Areas presenting hazards for foundations;

(2) Shallow soils;

(3) Poorly drained soils;

(4) Areas with limitations for septic tanks including both:

(a) areas that are generally characterized by soil limitations, but within which small pockets of favorable soils do exist; and

(b) areas where soil limitations are common to most of the soils present.

(c) Sources of Water Supply, including:

(1) Groundwater recharge areas (bedrock and surficial);

(2) Public water supply watersheds;

(3) Wellfields.

(d) Areas where the predominant slope exceeds twelve percent.

2) Fragile Areas

"An identification shall be made of those areas which could easily be damaged or destroyed by inappropriate or poorly planned development.

"The following shall be considered:

(a) Coastal Wetlands

(b) Sand Dunes along the Outer Banks

(c) Ocean Beaches and Shorelines

(d) Estuarine Waters

(e) Public Trust Waters

(f) Complex Natural Areas

(g) Areas that Sustain Remnant Species

(h) Areas Containing Unique Geologic Formations

(i) Registered Natural Landmarks

(j) Others not defined in Part III such as wooded swamps, prime wildlife habitats, scenic and prominent high points, etc.

(k) Archeologic and Historic Sites.

(3) Areas with Resource Potential, including:

(a) Productive and unique agricultural lands, including:

-Prime agricultural soils
-Potentially valuable agricultural lands with moderate conservation efforts
-Other productive or unique agricultural lands.

(b) Potentially valuable mineral sites;

(c) Publicly owned forests, parks, fish and gamelands, and other non-intensive outdoor recreation lands;

(d) Privately owned wildlife sanctuaries.

b. Capacity of Community Facilities

An identification shall be made of:

1) Existing water and sewer service areas;

2) The design capacity of the existing water treatment plant, sewage treatment plan, schools, and primary roads;

3) The percent at which the existing water treatment plant, sewage treatment plant, schools, and primary roads are currently utilized."

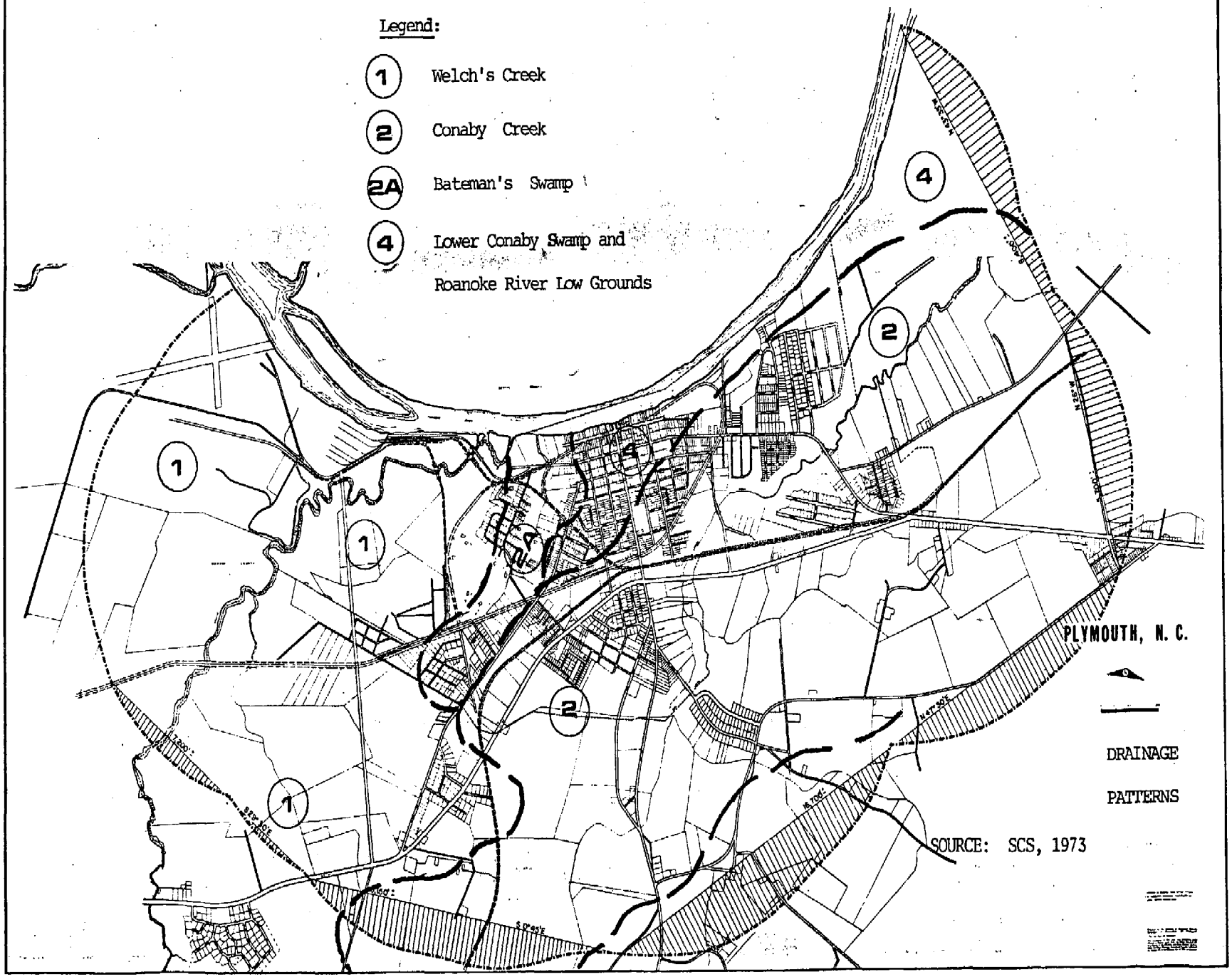
- From: CAMA "Guidelines"

Land Classification

Physical Limitations

Hazard Areas. There are three principal hazard areas in Plymouth. The first is the wide floodplain of Conaby Creek which runs from the south to the northeast of town through its center (see existing land use map and drainage

Figure 10


Legend:
1 Welch's Creek
2 Conaby Creek
2A Bateman's Swamp
4 Lower Conaby Swamp and Roanoke River Low Grounds
PLYMOUTH, N. C.
DRAINAGE PATTERNS
SOURCE: SCS, 1973

patterns map). This floodplain has continued to spread slowly over the years due to the gradual siltation of the main stream course. It constitutes a physical barrier to the outward expansion of the town and impedes storm drainage due to its sluggish flow. (See Figure 10.)

The second hazard area is the two railroad lines which converge and branch off to industrial areas east and west of the downtown business district (see existing land use map). Slow train movements have impeded vehicular traffic,and the rights-of-way form a costly barrier for water and sewer extensions (see soils map).

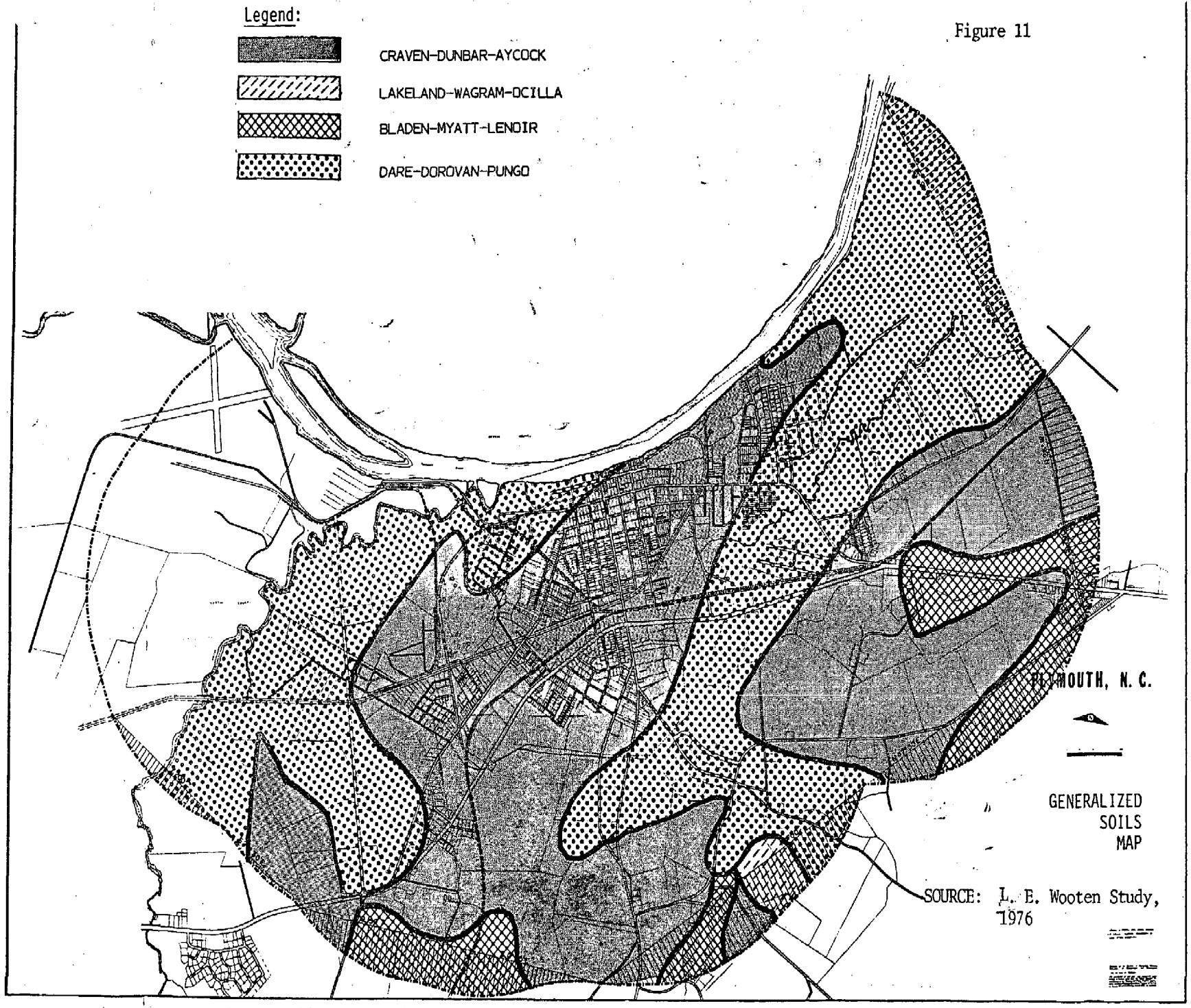
The third hazard area is the U.S. 64 Bypass which skirts the southern fringe of town. This two-lane thoroughfare is at times very heavily congested with local traffic attempting to enter the thru movement of vehicles from numerous driveways to small businesses. The lack of limited access along the town's principal arterial hinders ingress and egress to the adjoining residential and commercial areas and greatly increases the incidence of traffic accidents.

Soil Limitations. Soil associations in town pose moderate to severe limitations for operating individual septic tanks; however, many problems are averted by the requirement for residents to use the town's sewer system. Consequently, soils limitations are not a significant limitation to development in this area. (See Figure 11.)

Water Supply Areas. The following description is taken from Plymouth's "201" Facilities Plan prepared by L. E. Wooten and Company.

"Abundant groundwater supplies are available in the planning area. All public and private water supplies are obtained from wells. The chloride content of the water varies from 10 mg/L to 750 mg/L. The chloride content of water from wells less than 250 feet in depth, in general, is within the acceptable limits of domestic uses. Those beyond this depth become increasingly

Figure 11


Legend:
CRAVEN-DUNBAR-AYCOCK
LAKELAND-WAGRAM-OCILLA
BLADEN-MYATT-LENOIR
DARE-DOROVAN-PUNGO
PLYMOUTH, N. C.
GENERALIZED
SOILS
MAP
SOURCE: L. E. Wooten Study,
1976

brackish. There are no known records of groundwater contamination." No water quality problems with Plymouth's water system were noted in a water systems feasibility study for the county prepared by Moore Gardner Associates.

Steep Slopes. There are no land areas in Plymouth having slopes exceeding 12 percent. The town is virtually flat with little topographic relief except near Bateman's Swamp where it adjoins the Country Club Estates subdivision.

Fragile Areas

In general, few fragile areas exist in Plymouth that would be subject to damage or destruction. The only areas having such sensitivity are certain surface waters and a few historic sites of local significance.

In Plymouth, surface waters are the Roanoke River, Welch's Creek, and Conaby Creek. All of these waters are classified as "C Swamp" by the water quality classification system of the North Carolina Department of Natural and Economic Resources, Environmental Management Division. One exception is a short stretch of Welch's Creek from the main line of the Seaboard Coastline Railroad Bridge north to the Roanoke River. The classification at this location is "D Swamp." "C" waters are suitable for fishing and fish propagation but not outdoor bathing or drinking. "D" waters are suitable for irrigation or industrial cooling but none of the higher uses. The "swamp" designation describes the areas drained by these waters. The principal detriments to the water quality of these waters are point sources of waste discharge from municipal and industrial users. Prevailing government standards for wastewater discharge are the principal controls to improve future emissions.

Historic Sites of Local Significance. The Town of Plymouth has no historic sites that are listed by the North Carolina Historical Commission. However, there are several sites of local significance that were elaborated upon in the previous chapter under "Protecting Cultural and Historic Resources."

These buildings are the Nichols House, Plymouth Methodist Church, the Washington County Courthouse, the Ausbon House, the Stubbs House, the Armstead House, the Latham House, Hamilton Academy, and Grace Episcopal Church. The principal detriments to their continued existence are lack of money for maintenance and spot zoning of adjacent properties for non-residential land use. A partial solution to these problems is an active historic/preservation/community appearance program and the amendment of the Plymouth Zoning Ordinance to designate a historic district.

Areas with Resource Potential

Plymouth has only a limited amount of farming activity at several scattered locations and does not allow the extraction of mineral rights within the town limits. Consequently, neither agriculture nor mining have any bearing on resource potential within the town itself. There are no wildlife sanctuaries as such within the town except the natural vegetation in between the built-up areas. The public and private recreation lands in town are intensive recreation areas except for a small corner park at Main and Washington Streets, a nature trail behind Plymouth High School, and the town's waterfront picnic area behind the municipal building. This waterfront park is the principal area with resource potential in Plymouth and local objectives are to extend its improvement through the downtown shopping area as funds become available.

Capacity of Community Facilities

Existing Water and Sewer Service Area

The Town of Plymouth has water and sewer service throughout all of its incorporated limits (see existing land use maps for location of limits) with short extensions across U.S. Highway 64 to the Plymouth Garment Company and the Washington County Hospital.

Design Capacity and Utilization of Existing Facilities

The following water and sewer system data is based upon engineering reports prepared by L. E. Wooten and Company and Moore-Gardner Associates. School facility information is based upon the 1972-73 School Survey for Washington County, prepared by the North Carolina Department of Public Instruction, Division of School Planning. Traffic count data is supplied by the N. C. Department of Transportation, Thoroughfare Planning Section.

Water Facilities. "The present population of Plymouth with per capita demands of 80 GPD requires approximately 400,000 gallons of water daily. This usage is half of the town's 800,000 gallon storage capacity. (Source: Moore-Gardner Water Feasibility Study, 1975.)

Sewer Facilities. "The Town of Plymouth lies in a sub-basin of the Roanoke River Basin. The Division of Environmental Management has established the waste loads allocation for the discharge of treated effluents into the Roanoke River from Plymouth's wastewater treatment facilities, and these are summarized in Figure 12.

FIGURE 12

WASTE LOADS ALLOCATIONS

Receiving Stream	Design Capacity MGD	pH	BOD_5 mg/L	TSS mg/L	TKN mg/L	Fecal Coliform 1#/100ml
Roanoke River	0.8	6-9	30	30	25	200
	1.0	6-9	30	30	25	200

(1)"Water Quality Management Plans - Roanoke and Chowan River Basins," Division of Environmental Management, State of North Carolina.

"The operating date of the existing sewer plant indicates that at present the plant is receiving 0.4 MGD flow (half the waste load allocation for the Roanoke River) and the influent wastewater characteristics are of typical domestic type. There are no known sources of significant industrial waste discharges that may upset the treatment processes. The plant is well maintained and is producing an effluent BODs of 10 mg/L and suspended solids of 14 mg/L." (SOURCE: L. E. Wooten Study, 1976.)

School Facilities. The facility problems of Washington County Schools in Plymouth are easily identified. The major problems are listed below.

(SOURCE: 1973-74 School Survey)

Plymouth High School

- capacity for 790, but membership of 877
- eleven mobile units
- located in a highly congested area
- site inadequate in size and lacks development
- surrounding terrain and developments make expansion of the site difficult
- stadium further crowds the site
- located within three miles of the county line (but located centrally for 52% of the county population)
- facilities generally adequate, but the site not suitable for expansion

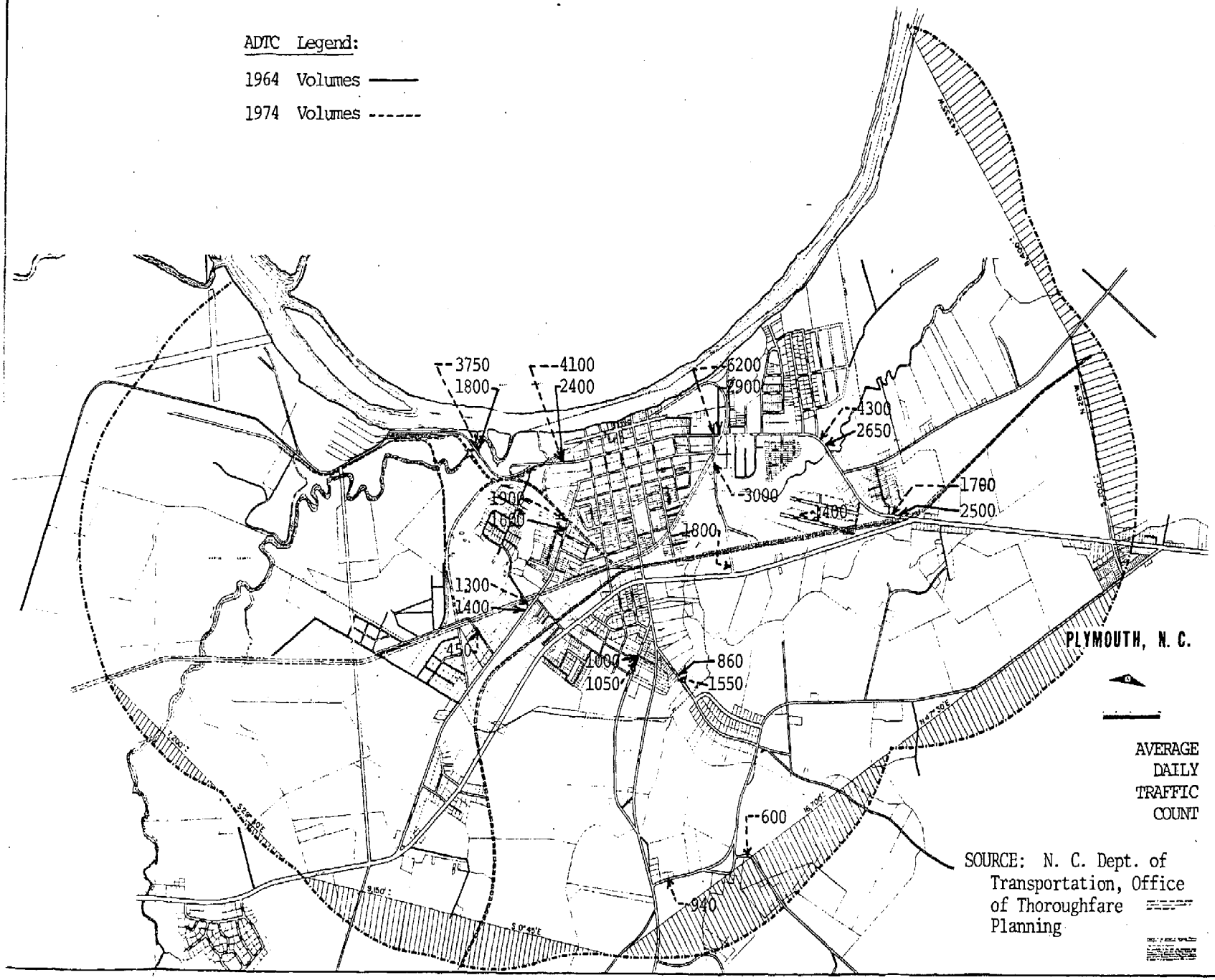
Fourth Street Elementary

- a nonfire-resistive building constructed in 1930 with a six-classroom, fire-resistive addition in 1955
- site of 3.6 acres inadequate in size
- maximum capacity for 400 students with 318 assigned
- should be phased out of service as soon as possible: inadequate administrative and library space

Washington Street

- nonfire-resistive building constructed in 1930 with minimum quality additions in 1948 and 1952
- maximum capacity for 725 students with 690 assigned
- site of 9.1 acres; however, part of site located across a street; site inadequate
- three-story building constructed to serve as a high school
- should be phased out of service as soon as feasible: inadequate administrative, library and cafeteria

Figure 13


ADTC Legend:
1964 Volumes
1974 Volumes
3750
1800
4100
2400
6200
2900
1300
2650
1700
2500
3000
2400
1800
1900
1600
1300
1400
450
1000
1050
860
1550
600
940
PLYMOUTH, N. C.
AVERAGE DAILY TRAFFIC COUNT
SOURCE: N. C. Dept. of Transportation, Office of Thoroughfare Planning

Traffic Facilities. Figure 13 compares the average Daily Traffic ADT for 1964 and 1974 along major thoroughfares in Plymouth. The most dramatic (nearly 200%) traffic increases in town have occurred along Main Street to Mackey's Road (S.R. 1300) due to commuting traffic to and from the Weyerhaeuser mill in Martin County. Near Plymouth on U.S. Highway 64, other increases have been recorded. Traffic along the section of U.S. 64 between Trowbridge Road (S.R. 1341) and the Wilson Street Extension (S.R. 1335) quadrupled between 1964 and 1974. The ADP counts at this location jumped from 1800 vehicles per day to 8000 vehicles per day. The higher figure of 8000 is only 800 vehicles short of the theoretical design capacity of 8800 vehicles per day for a two lane roadway having a 24 foot-wide pavement.

(SOURCE: N. C. D.O.T., Thoroughfare Planning Office)

V. ESTIMATED DEMAND

General Requirements

a. Population and Economic Estimates

"Population: A population estimate for the following ten years shall be made and utilized as the basis for determining land and facilities demand and for classifying land areas. Ten year population projections will be provided by the Department of Administration for use in making population estimates. Projections will be provided for counties and cities and towns having a population greater than 2500. Accurate projections for those areas with a population of less than 2500 are not available and must be developed by the local planning unit.

"The projections provided by the Department of Administration are based on prior trends with annual updates. The local government may wish to use these trend projections as their population estimates or to modify them to include additional factors such as:

1) Seasonal population;

2) Local objectives concerning growth;

3) Foreseeable social and economic change.

"The Department of Administration population model is capable of taking into account some of these considerations and should be used where possible when such further refinement is desired. If such refinement causes a significant difference between the Department of Administration population projections and the local population estimate, the Coastal Resources Commission or its designee should review the estimate prior to the local government using it in their land use plan.

"Economy --Major identifiable trends or factors in the economy which might have impact on future land use shall be set forth.

b. Future Land Needs

The steps to be followed in determining future land needs are:

1) To make an allocation of the estimated population growth to the Transition, Community, and Rural land classes of the Land Classification System, based on local objectives. The Transition class is to be used to accommodate all the estimated moderate to high density growth. That is not to say, however, that growth cannot occur in the Developed class. The great majority of the low density growth which is estimated should be clustered in the Community class, though a small amount can be accommodated at very low densities in the Rural class.

2) To determine, for the Transition and Community classes, the land area required to accommodate the estimated growth based upon the following gross population densities.

Transition: a minimum of 2000 people per square mile
Community: as a rule of thumb, 640 people per square mile (one person per acre)

c. Community Facilities Demand

Consideration should be given to new facilities which will be required by the estimated population growth." - From: CAMA "Guidelines"

Future Population and Economy

Ten Year Population Projections. Ten year (1985) population estimates for the Town of Plymouth were interpolated from information provided by the North Carolina Department of Administration's Office of State Planning for Plymouth Township and Washington County. Preliminary estimates were reviewed and modified by the Plymouth Planning Board and are described below.

FIGURE 14

FUTURE POPULATION ESTIMATE

	1970[2]	%	1975	%	1980	%	1985
Washington County	14,038	0%	14,060	0%	14,100	+3%	14,500
Plymouth Township[1]	7,512	+4%	7,800	+4%	8,100	+6%	8,550
Plymouth	4,774	+3%	4,900	+4%	5,120	+3%	5,250

Notes (1) Township population includes town's population.

(2) Source: U.S. Census

Considerations Made in 1985 Population Estimate. Future population projections reflect nationwide trends towards smaller families, lower fertility rates, and out-migration from rural areas. County population for 1980 has been estimated at 14,100 - only slightly more than the population in 1970. The

Town of Plymouth's population has consistently been about 35 percent of the county's total population for over twenty years. This pattern is likely to continue in the future, and consequently the town will share in the county's leveling of population growth.

Future growth in Plymouth is sharply limited by its past history of annexation. Only four percent of the present incorporated area, or about 77 acres, has been annexed since 1947. Of the estimated developable land within the town limits (about 413 acres) only 30 percent (124 acres) is within a few hundred feet of existing streets and utilities. Consequently, the inventory of available, vacant land that can be developed economically is in considerably short supply to meet future economic needs. Annexation and the start of a redevelopment program are both local objectives designed to ameliorate this situation.

25 and 50 Year Population Estimates. The following figures are based upon N. C. Department of Administration's OBERs Series-E population estimates and were extrapolated by DNER. They are shown here only to indicate how present conditions might appear in the distant future, not taking into account future events. Cautionary foresight is essential when evaluating these statistics. Residents living in the county 50 years ago could hardly have foreseen the amount and kind of change which took place from 1926 to 1976. The only valid conclusion from this information is that the county is certainly to remain an agricultural community having only a small population - no greater than the present population of three counties surrounding it. Population growth can be expected to occur fastest along the paved roads in the fringe areas of Plymouth especially along the U.S. 64-N.C. 32 corridor and in the beach areas.

Figure 15 50-Year Population Estimate

	1985	%	2000	%	2025
Washington County	14,500	+ 7%	15,500	+ 8%	16,800
Plymouth Township	8,550	+15%	9,810	+10%	10,800
Plymouth	5,250	+ 5%	5,310	+ 8%	5,960

SOURCE: NER

Long Term Population Estimates and Local Desires. Figures used to estimate population growth for the years 2000 and 2025 were based upon information furnished by the Department of Administration. However, these population estimates advocate local attitudes about growth expressed by residents and officials at numerous meetings held during the Plan's preparation. Simply stated, these attitudes advocate slow growth for the town so as to not demean its appearance nor overtax its water and sewer plant facilities and schools. These desires were thus carried out with restraint in the preparation of objectives, future population estimates, and land classification.

Land and Water Carrying Capacity. Land and water constraints are considerably limited in Plymouth due to the town's water and sewer systems which are currently operating at half of their design capacity. However, wastewater discharges into the Roanoke River from the town's sewer system do not meet existing water quality standards of the N.C. Department of Natural & Economic Resources, Division of Environmental Management. Improvements to the sewer plant facility have been proposed by the town's consulting engineering firm to correct this condition and are a part of the Plymouth-Roper 201 Facilities Plan (see following "Community Facilities" section).

Seasonal Population Impacts. Seasonal population is the "pass-through" variety and does not represent a significant factor in the local economy. Historic structures which might draw people to the area are of local significance and do not constitute tourist attractions as such. The town's small

population and income level further limit the feasibility for tourist-oriented activities. For all these reasons, seasonal population was not considered in the town's overall growth.

Future Economy

Employment characteristics for the Plymouth labor force are similar to those for the county. County labor force patterns show a higher level of employment for men compared to women in 1970, compared to five of the surrounding six counties. Opportunities for male employment, both among blacks and whites, continue to be ahead of opportunities for women. Further study of industries that are best suited for women and the attraction of such industries to the county can change this pattern.

Figure 16/ Labor Force Characteristics, 1970

Male and Female Percentages of Total Employed

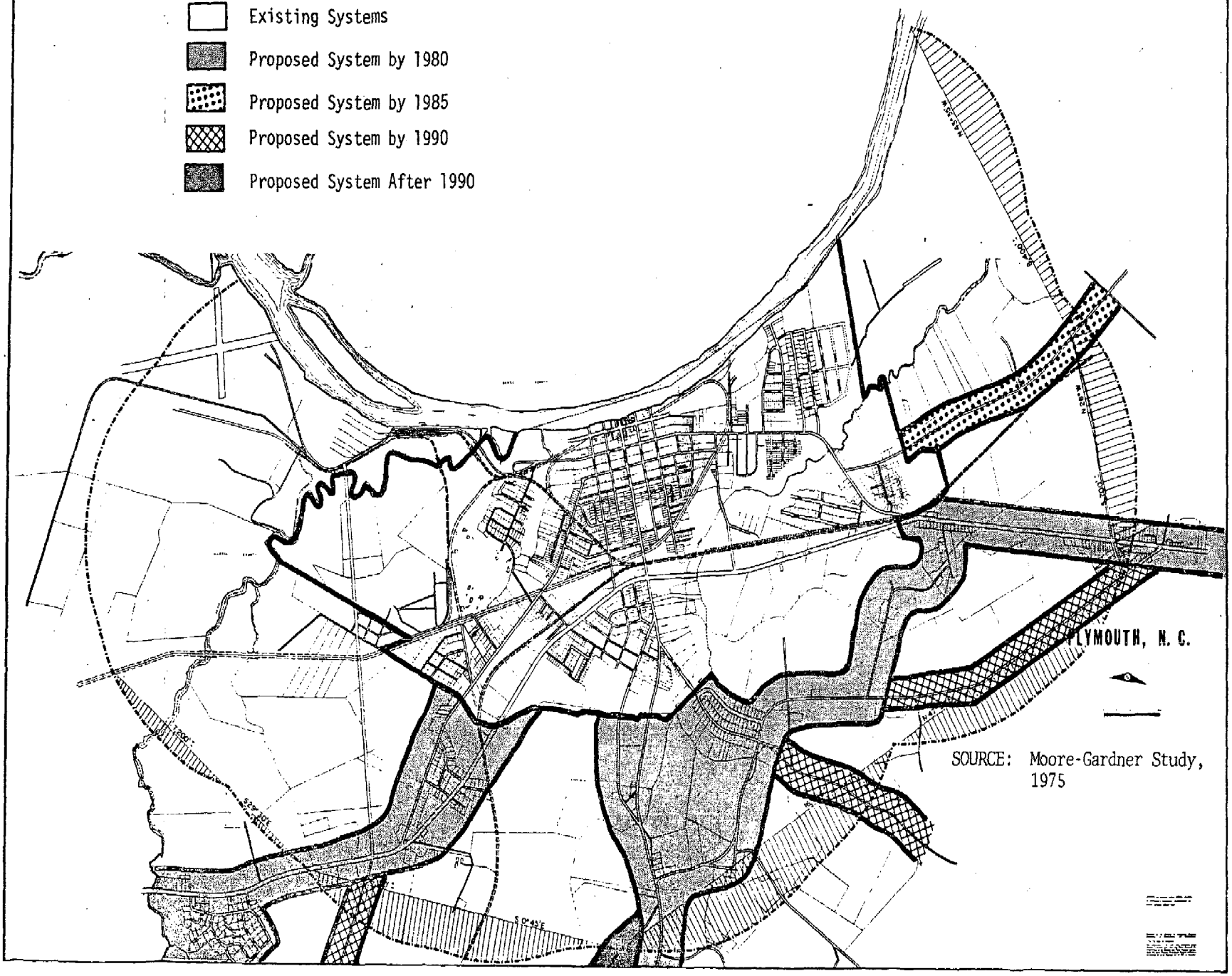
	Black and White Total		Black Only	
Washington County	73.3%, Male	35.4%, Female	63.2%, Male	36.3%, Female
Martin County	70.7%, Male	40.0%, Female	64.8%, Male	42.6%, Female
Beaufort County	72.9%, Male	40.3%, Female	60.9%, Male	42.0%, Female
Bertie County	64.9%, Male	33.0%, Female	94.9%, Male	30.3%, Female
Chowan County	75.1%, Male	39.4%, Female	69.6%, Male	37.6%, Female
Tyrrell County	65.3%, Male	35.1%, Female	63.7%, Male	39.3%, Female
Hyde County	68.3%, Male	34.8%, Female	61.0%, Male	44.5%, Female

Source: 70 Census, Tables 121 and 126.

Plymouth has been, and is likely to continue, a local center for agricultural trade in Washington County. The possible expansion of operations at the Weyerhaeuser papermill would create the most impact on local housing demand and

PRESENT & PROPOSED WATER SERVICE

Figure 17



SOURCE: Moore-Gardner Study, 1975

retail trade in the foreseeable future. Secondary impacts from the expansion of First Colony Farms in Creswell are possible, but too little is known at this time about subsidiary agri-industry that might be attracted to the area. Agricultural production at the farm will first have to expand in order to justify costly plant investments for food processing. Water system extensions to the east, south, and west of Plymouth are the first increments of a county water system. These facilities are only in the preliminary planning stage at this time; however, their construction will greatly extend and improve the number of industrial sites available for development in the Plymouth area. Also, the new municipal airport south of the town limits (on S.R. 1106 next to the Southern Railway) has potential for air and rail-oriented industry within ten minutes driving time of the town's principal through-access road, U.S. Highway 64. (See Figure 17)

Future Land Needs

Land demands for the town's estimated population in 1985 are based upon its ten-year population projections. These acreage demands are only for residential housing.

Figure 18a Future Land Demand

	1975	1985	Number of People	Number of Households[1]
Washington Co.	14,060	14,500	+440	+138
Plymouth Twp.	7,800	3,550	+750	+234
Plymouth	4,900	5,250	+350	+109

[1] Note: one household is estimated to equal 3.2 people.

Figure 18b

	New Households	Density Per Acre[1]	Maximum Land Demand
Plymouth Twp.	+234	1 household/3 acres	702 acres
Plymouth	+109	1 household/1 acre	109 acres

[1]Note: Standards for density are based upon the North Carolina Land Classification System's standards of 2000 people per square mile for "developed" and "transition" land classifications and 640 people per square mile for the "community" land classification.

Actual development could occur on much less land than the amounts shown, but the maximum acreage indicates the land that ought to be available throughout the jurisdiction for development. Thus, for example, 109 new households in Plymouth could be housed together by 1985 on a 25 acre subdivision having 10,000 square foot lots with public water and sewer. However, these 109 families represent mixed income levels and housing needs, creating needs for different priced housing located in different areas. Also, vacant land available in town is not uniformly suited for development: some of it has poor soils or would require economically unfeasible utility extensions. Thus, the amount of land demanded in any area is computed for vacant land demands over the entire area and not altogether in one location.

Maximum land demands shown for the three towns and Plymouth Township can be adequately satisfied from the supply of vacant land in each jurisdiction; however, in the case of Plymouth and Creswell, very little land would be left for other purposes beyond 1985 unless these two towns take steps between now and then to extend their town limits.

Future growth in Plymouth is sharply limited by its past history of annexation. Only four percent of the present incorporated area, or about 77 acres, has been annexed since 1947. Of the estimated developable land within

the town limits (about 413 acres) only 30 percent (124 acres) is within a few hundred feet of existing streets and utilities. Consequently, the inventory of available, vacant land that can be developed economically is in considerably short supply to meet future economic needs. However, the 124 acres would be an adequate inventory for the maximum land demand of 109 acres by 1985.

In Plymouth Township, the seven square mile extraterritorial area surrounding Plymouth has the following pattern: 52 percent, forest (including the floodplain); 41 percent, agriculture; 7 percent, buildings and roads (up 12 percent from 1964). It is presumed that agricultural lands have the highest potential for conversion to urban land use because they are already cleared and drained. Even if no other housing were to locate outside the extraterritorial limits of Plymouth, the 41 percent of land devoted to agriculture in this zone (about 1837 acres) would more than adequately satisfy the maximum land demand for 702 acres.

Community Facilities Demand

Projected Utilization: Water System

The present population of Plymouth with per capita water demands of 80 GPD requires approximately 400,000 gallons of water daily. It is expected that per capita usage will increase to 100 GPD by year 2000. The projected population of Plymouth by the year 2000 will be 6,000, which should result in an average day demand of 600,000 gallons. The maximum day demand at 1.75 times average day demand should be 1,050,000 gallons.

Plymouth's existing system of wells and elevated storage is sufficient to meet the projected water demands of the municipality beyond the year 2000, at which time Plymouth should be able to furnish an average of 150,000 gallons per day to county users without exceeding 12 hours pumping time. When this rate is reached, Plymouth should expand its water production capacity so that normal daily

operations do not exceed 12 hours. It is anticipated that Plymouth will have the capacity to fulfill area water needs. Those areas served by Plymouth outside the corporate limits would be eligible for county participation in financing where feasibility is demonstrated as outlined in this report. (Source: Moore-Gardner Assocs., Water Feasibility Study, 1975.)

Projected Utilization: Sewer System

"The Town of Plymouth operates an 0.8 MGD extended aeration type wastewater treatment facility that discharges the final effluent to the Roanoke River, a class "C Swamp" stream. The facility is well maintained and is producing an effluent BOD_5 and suspended solids of secondary quality. However, because the treatment facility does not have disinfection facilities, the assigned water quality standards of the Roanoke River are not protected. Also, the treatment facility does not have adequate sludge treatment and disposal facilities and other fail-safe measures such as provision of multiple units for major components of the treatment processes as required by the State, standby power facilities at the treatment plant and at the main pump stations, etc. Accordingly, the Town of Plymouth will be required to upgrade its wastewater treatment facilities to achieve the current and future water quality goals of the Planning Area.

"In order to comply with the effluent limitations established for the discharge to the Roanoke River, only upgrading of the existing facility is considered for Plymouth. This would provide an optimum solution to achieve water quality goals by making maximum use of the existing facilities. The upgrading of the treatment facility would incorporate preliminary treatment facilities, an additional clarifier, chlorination facilities, a sludge digestion tank, sludge drying beds and standby power. An additional clarifier is

considered for two reasons: (1) to ensure solids separation in the event that the existing clarifier is temporarily taken out of service for repairs, and (2) to ensure at least primary treatment of wastewater if the aeration basin is temporarily taken out of service for repairs. The chlorination facilities would be designed to provide adequate disinfection of wastewater prior to discharge into the Roanoke River. Provision of an additional sludge digestion tank and sludge drying beds would ensure adequate sludge handling facilities. The dried sludge from the drying beds will be transported to the existing sanitary landfill for ultimate disposal. The residual wastes from the water supply facilities are not a problem at Plymouth since water is supplied from wells and no treatment other than "softening" and disinfection is required.

"The domestic wastewater loadings for the Town of Plymouth is based on 20-year population projections, the operating date of the existing wastewater treatment facility and the data assembled from the existing reports. The selected design period of 20 years (1978 to 1998) was chosen as a reflection of reasonable life expectancy of the equipment associated with the treatment facilities and of a reasonable time period for payment of bonds required to build the facilities. The design waste loads and flows are summarized in Figure 19.

"A volume of 80,000 gpd is being incorporated into treatment plant design to provide for industrial growth. Such a volume is considered minimal in view of industrial development activities in the Planning Area in recent years." (Source: 201 Facilities Plan, L. E. Wooten & Co., 1976)

Figure 19/ Design Waste Loads and Flows

	Present (1975) Plymouth	Future (1998) Plymouth
Population	4,950	6,500
Flow[1]		
Average Daily Flow, MGD	0.410	0.710
Maximum Daily Flow, MGD	1.157	0.800
Peak Daily Flow, MGD	1.400	1.775
BOD_5, lbs/day	1000	1510
TSS, lbs/day	850	1250

[1]Basis of Average Design Flow:

Existing Average Daily High Groundwater Flow	0.566 MGD
Future Domestic (1500 P.E. @ 100 gpcd)	0.150 MGD
Sub-Total	0.716 MGD
10% Industrial Allowance	0.072 MGD
Inflow Volume	0.100 MGD
Total	0.888 MGD

Source: 201 Facilities Plan, L. E. Wooten & Co., 1976.

Projected Utilization: Schools

School Facilities

- Washington County needs new facilities for approximately 2,000 of the 3,765 students.
- The Washington Street, Fourth Street, Roper Elementary, and Creswell Elementary buildings and sites are not judged suitable for long-range use.
- The Plymouth High School site is inadequate in size and the school should not be expanded beyond its present capacity for 790 students.

The following summarizes the facility data.

Facility Data for Washington County

School and Grades

Fourth Street Elem. (1-2)
Acres, 3.6
Year Built, 1930
Additions, 1955
Membership, 318
Professional Personnel, 14
Classrooms or Teaching Stations, 16
Mobile Units, 1
Capacity, 400

Adequacy of Special Facilities

Fourth Street Elem. (1-2)
Administrative space, inadequate
Media or Library, inadequate
Gymnasium, Adequate
Cafeteria, Adequate

School and Grades

Plymouth High (9-12)
Acres, 21.5
Year Built, 1958
Additions, 1960, 68, 70
Membership, 877
Professional Personnel, 48
Classrooms or Teaching Stations, 35
Mobile Units, 11
Capacity, 790

Adequacy of Special Facilities

Plymouth High (9-12)
Admininistrative space, Adequate
Media or Library, Adequate
Music, Adequate
Gymtorium, Adequate
Cafeteria, Inadequate

School and Grades

Washington Street Elem. (3-6)
Acres, 9.1
Year Built, 1930
Additions, 1943, 48, 52
Membership, 690
Professional Personnel, 32
Classrooms or Teaching Stations, 29
Mobile Units, 1
Capacity, 725

Adequacy of Special Facilities

Washington Street Elem. (3-6)
Administrative space, Inadequate
Media or Library, Inadequate
Auditorium, Adequate
Cafeteria, Inadequate

The capacity for elementary pupils was computed on the basis of 25 pupils per classroom and the capacity for secondary pupils was computed on the basis of 25 pupils and 90 percent utilization.

Source: 1973-74 Washington County School Survey

In terms of long-range planning, it appears that only Plymouth High School, Washington Union, and Creswell High School sites should be considered. Phasing out the Fourth Street, Washington Street, Roper, and Creswell Elementary buildings and sites will be conducive to a major change in the grade organization.

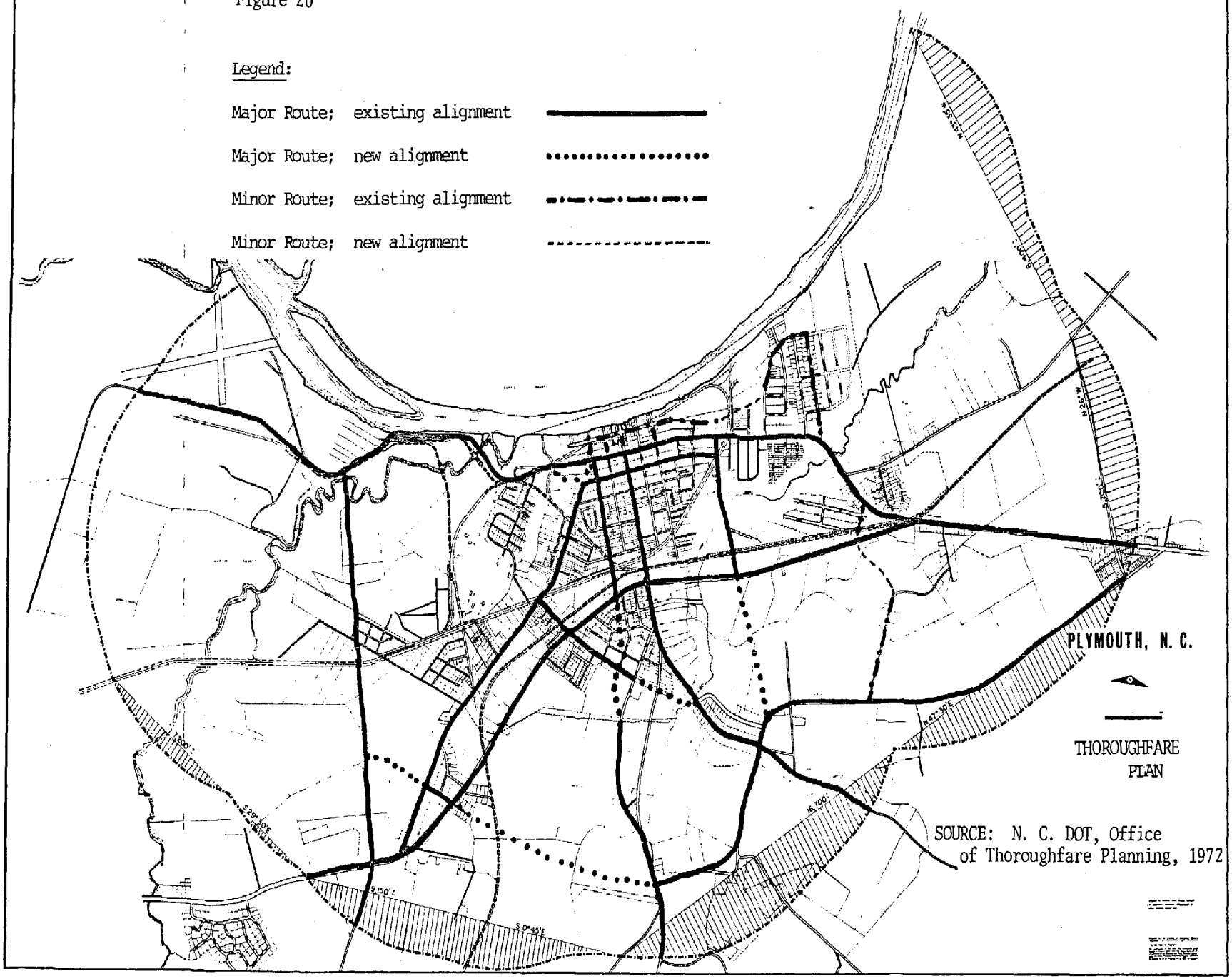
Projected Utilization: Streets

Plymouth has only a Sketch Thoroughfare Plan prepared in 1972 by the Thoroughfare Planning Section of the N. C. Department of Transportation, Division of Highways (see Fig. 20). The development of any of the proposed improvements would have to be preceded by detailed origin-destination (OD) studies which are not under consideration at the present time. Primary features of the sketch plan include a new bypass south of the town limits and designating Main Street and Third Street for one-way traffic.

Cost of New Facilities

Water system extensions described earlier are a part of a five-phase county-wide water plan which was prepared for the Washington County Board of Commissioners by Moore-Gardner Associates in 1975. The following construction costs represent the costs to the county for Phase I of the system from Plymouth

Figure 20


Legend:
Major Route; existing alignment
Major Route; new alignment
Minor Route; existing alignment
Minor Route; new alignment
PLYMOUTH, N. C.
THOROUGHFARE PLAN
SOURCE: N. C. DOT, Office of Thoroughfare Planning, 1972

to Roper. Construction costs to the Town of Plymouth for water service to Transition areas shown on the Land Classification Map have not been determined. Such costs would be estimated in a separate annexation study. The following costs are presented for information only for the existing proposed improvements closest to town. (Source: Moore-Gardner Study)

FIGURE 21

SUMMARY OF PHASE 1 PROJECT COSTS, PROPOSED WATER SYSTEM

Construction Costs	$1,406,010.00
Engineering @ 5.1%	71,706.50
Inspection @ 2.0%	28,120.20
Legal & Administration	25,000.00
Interest During Construction	40,000.00
Contingencies	94,163.30
TOTAL PROJECT COST	$1,665,000.00

Funds for construction of the proposed water improvements may be derived from the sale of revenue bonds, federal and state grants, and tap-on fees. Revenue for operation and debt service may be derived from monthly water sales, front foot assessments and tap-on fees.

The Moore-Gardner feasibility study should be referred to for a detailed explanation of the estimated construction costs, operating costs, and sources of funding.

Costs of sewer system improvements for the Town's existing plant are derived from the L. E. Wooten and Company study prepared in 1976. Proposed improvements are eligible for funding from PL 92-500 and State Matching Grants. This facility plan should be consulted for detailed cost estimates:

FIGURE 22

ESTIMATED COSTS, PROPOSED SEWER IMPROVEMENTS

Sewer System Evaluation and Rehabilitation		
Evaluation Survey	$40,000	
	94,000	
		$134,000
Treatment Plant Improvements		
Construction Costs	$527,000	
Engineering	55,000	
Legal & Administrative	2,000	
O & M Manual	10,000	
Contingencies	52,000	
		646,000
Total Estimated Const. Costs		$780,000

SOURCE: L. E. Wooten Study

VI. PLAN DESCRIPTION

Description of the Land Classification System

A land classification map shall be prepared according to the specifications set forth in this section. The following codes shall be used:

Class	Color Code	Letter Code
Developed	Solid rust	D
Transition	Hatched rust	T
Community	Cross-hatched rust	C
Rural	White	R
Conservation	Dot Green	P

Land Classification shall be represented at least with boundary lines around each category mapped, and with a single letter code to indicate which category is intended. However, the map(s) may optionally be submitted using color patterns to differentiate between categories.

The North Carolina Land Classification System contains five classes of land:

a. Developed--Lands where existing population density is moderate to high and where there are a variety of land uses which have the necessary public services.

b. Transition--Lands where local government plans to accommodate moderate to high density development during the following ten year period and where necessary public services will be provided to accommodate that growth.

c. Community--Lands where low density development is grouped in existing settlements or will occur in such settlements during the following ten year period and which will not require extensive public services now or in the future.

d. Rural--Lands whose highest use is for agriculture, forestry, mining, water supply, etc., based on their natural resources potential. Also, lands for future needs not currently recognized.

e. Conservation--Fragile, hazard and other lands necessary to maintain a healthy natural environment and necessary to provide for the public health, safety, or welfare.

These five classes provide a framework to be used by local governments to identify the general use of all lands in each county. Such a system presents an opportunity for the local government to provide for its needs as well as to consider those of the whole state. Also, they can make a statement of policy on where and to what density they want growth to occur, and where they want to conserve the county's natural resources by guiding growth.

As a statement of local policy consistent with statewide needs and goals, the county land classification map will serve as a basic tool for coordinating numerous policies, standards, regulations, and other governmental activities at the local, state and federal level. Such coordination may be described by five applications:

a. The Land Classification System encourages coordination and consistency between local land use policies and those of state government. Lands are classified by the local governments. The Coastal Resources Commission then reviews those classifications to ensure conformance with minimum guidelines for the system. The coastal county maps taken together will be the principal policy guide for governmental decisions and activities which affect land uses in the coastal area.

b. The System provides a guide for public investment in land. For example, state and local agencies can anticipate the need for early acquisition of lands and easements in the Transition class for schools, recreation, transportation, and other public facilities.

c. The System can also provide a useful framework for budgeting and planning for the construction of community facilities such as water and sewer systems, schools, and roads. The resources of many state and federal agencies, as well as those of the local government which are used for such facilities, can then be more efficiently allocated.

d. In addition, such a System will aid in better coordination of regulatory policies and decisions. Conservation and Rural Production lands will help to focus the attention of state and local agencies and interests concerned with the valuable natural resources of the state. On the other hand, lands in the Transition and Community classes will be of special concern to those agencies and interests who work for high quality development through local land use controls such as zoning and subdivision regulations.

c. Finally, the System can help to provide guidance for a more equitable distribution of the land tax burden.

Private lands which are in the Rural and Conservation classes should have low taxes to reflect the policy that few, if any, public services will be provided to these lands. In contrast, lands in the Transition class should be taxed to pay for the large cost of new public services which will be required to support the density of growth anticipated.

The local land classifications maps must be updated every five years. Each class is designed to be broad enough so that frequent changes in maps are not necessary. In extreme cases, such as when a large key facility, causing major repercussions, is unexpectedly placed in a county, the Coastal Resources

Commission can allow a county to revise its classification map before the five year period is over.

"In addition, the Land Classification System allows a variety of detailed land uses such as residential, commercial, industrial, recreational, etc. to occur within these classes. There is flexibility under existing zoning enabling statutes to change these detailed land uses whenever necessary.

"Policies, rules, and actions concerning Areas of Environmental Concern shall take precedence over policies, rules, and actions concerning the Land Classifications, in the event of any conflicts."

- From: CAMA "Guidelines"

Population Allocations to Transition, Community and Rural Land Classifications

Population allocations to the transition, community and rural land classification in North Carolina are based upon the 1975-85 population estimates and gross land demands established in Part III. The following table summarizes these allocations.

Figure 23 LAND DEMAND ESTIMATES

	Estimate of Known Acreage	Vacant Acreage	1975-85 Pop. Growth	Assigned Pop. Density Per Sq. Mi.	Pop. Growth Assigned Vacant Land
Plymouth Twp.			+750		
Transition Areas	250	120		2000	375
Community Areas	650	340		640	340
Rural Areas	-	-		-	35
Plymouth			+350		
Developed Areas	1920	20		2000	62.5
Transition Areas	60	60		2000	187.5
Community Areas	50	50		640	50.

Discussion of Allocated Population Densities

In Plymouth Township, the Transition areas consist of the Liverman Heights subdivision (approximately 90 acres) and a 160 acre tract fronting U.S. 64 where it is intersected by Rankin Lane in Plymouth, extending the length of a branch of Conaby Creek. Both areas are built upon at present. Approximately 50 acres of Liverman Heights are now occupied by single-family dwellings, housing approximately 160 people. The Rankin Lane - U.S. 64 area is a commercial and light industrial strip adjoining the existing town limits of Plymouth and is now approximately 50 percent developed with the Washington County Hospital, the Plymouth Garment Company, the East Carolina Supply Company, and other smaller businesses. The Liverman Heights area is seen as an expanding residential area. The area adjoining U.S. 64 is seen as an expanding commercial and industrial area. Both of these areas are within the capability of the Town of Plymouth to extend water and sewer service by 1985 according to the town manager. Consequently, these

areas were assigned population densities of 2000 people per square mile as Transition areas.

The Community Land Classification Areas in Plymouth Township consist of the extension of Riverside Plantation subdivision (approximately 120 acres); the residential strip development beginning at Trowbridge Road and extending west along U.S. 64 to the Rolling Pines Subdivision two miles from Plymouth (approximately 320 acres); the residential area fronting the Wilson Street Extension north of U.S. 64 (approximately 30 acres); the residential area fronting N.C. 32 South one mile from Plymouth (approximately 50 acres along a 500 foot wide strip divided by N.C. 32); and a portion of the U.S. 64 East - N.C. 32 North Corridor also in a 500 foot wide strip divided by the roadway centerline beginning at the East Main Street - U.S. 64 intersection and extending east approximately 3.3 miles to the township boundary just west of Basnight Crossroad (approximately 130 acres). The existing land use of all these areas, except the Riverside Plantation area, consists of mixed residential and commercial development, interspersed with small tracts of fields and woods. The extension of Riverside Plantation now covers open fields, but this area is anticipated for platting for residential lot sales in the foreseeable future. The existing population of these "Community" designated areas is approximately 640 people per square mile. Vacant land conversion to urban land uses are expected to occur in each of these areas since all the areas except Riverside Plantation front primary arterials (U.S. 64 - N.C. 32) in the fastest growing part of the county - the urban fringe surrounding Plymouth. Furthermore, each of these areas can be feasibly served by the Plymouth water system. Thus, because these areas are expected to continue their low-density growth, they have been designated as "Community" areas.

The Town of Plymouth has approximately 1,020 acres (1.6 square miles) "developed" by definition of the Developed Land Classification. All of this land is built-upon except for approximately 20 acres of vacant lots scattered throughout the town. In Plymouth there are approximately 60 acres of Transition land which are adjacent to the Riverside Plantation subdivision, north of East Main Street. This area has been platted for a number of years and has slowly been developed for single family homes on half acre lots. This development is expected to be completely filled by 1985 with all utilities from the town. The only Community areas in Plymouth are in the western part of town, known locally as the "Sandhills" community. About 45 acres of this neighborhood is barren at present occupied only by a few scattered homes totaling approximately five additional acres (total: 50 acres). This area is expected to develop as a lower middle income community having water service from the town by 1985. It should be noted that Plymouth's projected population is 50 persons more than the amount of "Developed," "Transition" and "Community" lands available, using the population densities incorporated in these definitions. However, because all these figures are estimates only, the general pattern is more significant than the theoretical values. In Plymouth's case, this population could be allotted to "Rural" Land Classification areas in Plymouth. Farm lands presently comprise about eight percent, or approximately 154 acres, of the total area inside the town limits. These lands have not been projected for conversion to non-farm use in the next ten years, however, they could be developed if market conditions warranted a greater return from lot sales instead of harvested cropland. The more significant fact from these patterns is that the Town of Plymouth has a very limited supply of land available for development beyond 1985. Consequently, a local objective has been adopted to conduct an annexation study of the fringe areas surrounding the town.

VII. PROPOSED INTERIM AREAS OF ENVIRONMENTAL CONCERN

General Requirements

"The 1974 Legislature found that 'the coastal area, and in particular the estuaries, are among the most biologically productive regions of this State and of the nation' but in recent years the area 'has been subjected to increasing pressures which are the result of the often conflicting needs of a society expanding in industrial development, in population, and in the recreational aspirations of its citizens.'"

"Unless these pressures are controlled by coordinated management," the Act states, "the very features of the coast which make it economically, aesthetically, and ecologically rich will be destroyed."

"To prevent this destruction the Act charges the Coastal Resources Commission with the responsibility for identifying types of areas, and designating specific areas -- water as well as land -- in which uncontrolled or incompatible development might result in irreparable damage. It further instructs the Commission to determine what types of use or development are appropriate within such areas, and it calls on local governments to give special attention to these environmentally fragile and important areas in developing their land use plans.

"The identification and delineation by local governments will not serve as a designation of AECs for the purposes of permit letting. The designation of AECs for purposes of the permit program shall be by a written description adopted by the Commission, and such designations will be equally applicable to all local governments in the coastal area. At the present time the Commission will not attempt to map AECs with sufficient detail to enable a permit letting agency in all cases to determine solely on the basis of such a map whether a particular area falls within an Area of Environmental Concern. The determination as to whether a particular area is within an AEC will be based on the written description of the Area of Environmental Concern which will be adopted by the Commission. The Commission will continue to study the possibility of mapping AECs with sufficient detail to serve in this permit program and may base the permit program on maps if the capability exists to do so.

"These amended Guidelines specifically require that the preliminary local plans should include identification of each proposed AEC. The plan must also include written statements of specific land uses which may be allowed in each of the proposed classes of AECs. These allowable land uses must be consistent with the policy objectives and appropriate land uses found in this chapter. In addition, local governments may submit maps delineating proposed AECs with the preliminary Land Use Plan. Such maps are not a part of the land use plan but should be submitted concurrently with it.

"Local planners should note that there are a few instances where one category of Areas of Environmental Concern may overlap with another. Where this is found to occur, the policy of the Commission is to require the local plan to adopt allowable land uses within the area of overlap consistent with the more restrictive land use standard.

"No development should be allowed in any AEC which would result in a contravention or violation of any rules, regulations, or laws of the State of North Carolina or of local government in which the development takes place.

"No development should be allowed in any AEC which would have a substantial likelihood of causing pollution of the waters of the State to the extent that such waters would be closed to the taking of shellfish under standards set by the Commission for Health Services pursuant to G.S. 130-169.01."

- From: CAMA "Guidelines"

Proposed AECs in the Town of Plymouth

The following category of environmentally sensitive areas has been proposed by the Plymouth Town Council as interim areas of environmental concern: historic places.

Fragile, Historic or Natural Resource Areas - Historic Places

a. Description. Defined as historic places that are listed, or have been approved for listing by the North Carolina Historical Commission, in the National Register of Historic Places pursuant to the National Historic Preservation Act of 1966; historical, archaeological, and other places and properties owned, managed, or assisted by the State of North Carolina pursuant to G.S. 121; and properties or areas that are designated by the Secretary of the Interior as National Historic Landmarks.

In the Town of Plymouth the following historic places have been proposed for this designation: Nichols House, Plymouth Methodist Church, the Washington County Courthouse, Ausbon House, Stubbs House, Armstead House, Latham House, Hamilton Academy and Grace Episcopal Church.

b. Significance. Historic resources are both non-renewable and fragile. They owe their significance to their association with American history, architecture, archaeology, and culture. Properties in or approved for the National Register of Historic Places may be of national, state, or local significance.

c. Policy Objective. To protect and/or preserve the integrity of districts, sites, buildings, and objects in the above categories.

d. Appropriate Land Uses. Appropriate land uses shall be those consistent with the above stated policy objective. Land use which will result in substantial irreversible damage to the historic value of the area is inappropriate.

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IX. PLYMOUTH-WASHINGTON COUNTY PLAN RELATIONSHIP

Both land use plans for the Town of Plymouth and Washington County (which includes the towns of Roper and Creswell) were prepared by the same staff and citizens' Steering Committee to insure the greatest amount of agreement between local objectives for the town and the county. This Committee consisted of seven local residents from the incorporated and unincorporated areas of the county and met throughout 1975. Both the Planning Board for the Town of Plymouth and the Planning Board for the county met jointly to review the draft plan and land classification maps prior to the first submission of the draft plans in November, 1975. The final plans for Plymouth and the county were reviewed in a joint public hearing on May 7, 1976, by members of the Board of County Commissioners and Plymouth Town Council.

X. APPENDIX

RESULTS OF ATTITUDE SURVEY IN PLYMOUTH

TAKEN MAY, 1975

1. Where do you live? (check one)

   237 Town of Plymouth — ____ Skinnersville Township

   ____ Plymouth Township — ____ Town of Creswell

   ____ Town of Roper — ____ Scuppernong Township

   ____ Lee Mills Township

2. What is your occupation? (check one that best describes yourself)

   ____ Farmer (24%)58 White collar job (19%)45 Housewife

   (22%)51 Student (27%)63 Blue collar job (1%) 3 Retired

   (5%)12 Unemployed ____ Other (write in)

3. Is your home located on a lot larger than 20,000 square feet? (approximately ½ acre)

   (28%) 67 Yes (66%) 156 No

4. Do you have your own well?

   30 Yes 167 No 50 I am on city water

5. Do you have your own individual septic tank?

   ____ Yes 170 No 45 I am on city sewer

6. Are you satisfied with the quality of water?

   (80%) 189 Yes (19%) 44 No

7. Have you had any problems with your septic tank?

   16 Yes 61 No 164 Not applicable - I am on city sewer

8. Do you feel that different types of land uses such as residential, commerical, and industrial should be . . .(check one)

   (63%) 150 A. Separated as much as possible, or

   (24%) 56 B. Allowed to develop unrestricted.

9. Do you feel that your neighborhood has adequate recreational facilities?

(24%) 56 Yes (76%) 179 No

If not, what type would you like to see developed? (fill in)

144 comments (61%)

10. Do you want additional residential growth in your community?

(56%)133 Yes (15%) 36 No (28%) 66 Not sure

11. Do you want additional industrial growth in your community?

(70%) 167 Yes (10%) 24 No (18%) 43 Not sure

12. Do you want additional commercial growth in your community?

(70%) 167 Yes (7%) 16 No (21%) 50 Not sure

13. Are the roads and streets adequate in your neighborhood?

(46%) 109 Yes (48%) 114 No

If not, what are the major problems? (fill in)

98 comments (41%)

14. Do you feel that the county should strive to increase the health programs and services?

(64%) 151 Yes (25%) 59 No

If yes, what types of programs and services? (fill in)

63 comments (27%)

15. Do you feel that the county should strive to increase educational programs and services?

(85%) 202 Yes (10%) 23 No

16. Do you like your county and neighborhood as it is now?

(55%) 130 Yes (39%) 92 No

What do you want chaged? (fill in)

What should be protected or maintained? 100 comments (42%)

17. Do you feel that air pollution is a problem in the area?

(50%) 119 Yes (39%) 92 No

18. Do you feel that water pollution or poor fishing is a problem in the area?

(41%) 96 Yes (50%) 118 No

19. Would you rather (19%)46 A. limit growth, or 58% 138 B. promote the development of additional services such as public water and sewer systems in areas where development could not take place without such services?

20. Would you be willing to pay for such water and sewer improvements?

(21%) 50 Yes (27%) 63 No (42%) 99 Not sure

21. Below is a list of some services and functions provided by local government. Please check or fill in those services or functions which need improvement:

(44%) 104 police (21%) 49 hospital (50%) 118 garbage pick-up

(23%) 54 fire (6%) 14 library (23%) 54 historic preservation

(58%) 138 dog control (25%)60 public housing (27%) 65 building inspection

_____ other (specify)

22. Additional comments. (attach separate sheet if necessary)

44 comments (19%)

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