TOWN OF SHALLOTTE
NORTH CAROLINA

LAND USE PLAN

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TOWN OF SHALLOTTE LAND DEVELOPMENT PLAN

Prepared by the Town Board of
Aldermen with the
Technical Assistance of
Coastal Consultants, Ltd.

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LAND USE PLANS

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1.1 Method of Data Assemblage

This land development plan represents the Town of Shallotte's first formal attempt to prepare a land use plan. The Town has participated in planning related activities, including the preparation of a zoning ordinance and a housing study. The goals of this plan include assembling and interpreting the bulk of information concerning land use and the Town. This information includes population, economy, housing, the environment, land use, services, facilities, growth and the like. This information was, wherever possible, collected from existing local, State and Federal documents, studies and records. These include reports of the Bureau of the Census, the North Carolina Office of Management and Budget, the Soil Conservation Service, and the State Department of Natural Resources and Community Development, etc. The sources also include local information from the 1976 and 1980 Brunswick County Plans, as well as data obtained from the Town, the County Planning Department and other County agencies. It is also a culmination of numerous interviews with Town residents and some original research from the consultants to the project. The Town Board of Commissioners have used this information in developing policy alternatives and selecting a course of action for shaping future land development.

1.2 Major Conclusion of the Plan (Executive Summary)

The central concept for planning the future of Shallotte is the need for jobs and moderate growth. In order to make the community desirable both as an area for future industrial location and as a trade center hub for the surrounding area, the Town has been focusing on the provision of services and good planning practices. The Town, fortunately, has had an administration over recent years which has worked toward alleviating growth limiting problems. Many surface drainage improvements have been made eliminating many of the more serious water ponding areas. The addition of traffic lights and more off-street parking has helped traffic congestion on US 17 somewhat, although problems still remain, especially during the summer season. The community has worked to alleviate a long-time problem, the inability of the area's soils to handle on-lot sewage disposal, by providing for a public sewer system, which is currently in the construction phase.

Although the Town desires moderate growth, it is aware of the need to provide necessary services, coordinate growth with good land use location and design, and protect the environment of the Shallotte River estuarine system. In the development of the specific policies of the plan, the community was aware of the need for positive action in accomplishing its goals. Many of the policies will be implemented by budgetary action (e.g. money for continued capital improvements, recreation funds for boat ramp development), other policies will be implemented through task committee work (e.g. recreation coordination with the County), still others will

be implemented through police power with the zoning and subdivision regulations representing the major tools. Weaknesses in the content and enforcement of the regulations found during the land use planning project will be eliminated through regulation revisions anticipated to be accomplished in the next fiscal year.

Part I: EXISTING CONDITIONS

2.1 General Description: Climate and Location

The Town of Shallotte is located on U.S. Route 17 in southwest Brunswick County. It is located in the Coastal Plain region and enjoys the benefits of a coastal community tempered with the rural life style of inland communities.

The Town is buffered from the Atlantic Ocean by Ocean Isle Beach, Holden Beach, and the Intracoastal Waterway. The area of the Town is 2.18 square miles. The Shallotte River flows in an east-west direction through Town and is an interesting estuarine and coastal marsh environment.

The environmental setting is characteristic for the tidewater section of southeastern North Carolina. The surrounding terrain is typical of Coastal North Carolina with an average elevation of less than 40 feet and level to gently rolling land. The maritime location makes the climate unusually mild for its latitude. The area receives between 50 and 55 inches of rain each year with maximum in summer and minimums in winter. Humidity is relatively constant throughout the year. Winds are primarily out of the north at 9 miles per hour during fall and winter months and out of the south or southwest at 11 miles per hour during spring and summer months. Storm conditions occur frequently in the area. About five storms occur yearly with winds exceeding 45 miles per hour. These occur most frequently during winter

months (northeasters). The greatest threat of a hurricane occurs during August, September and October in any year. Hurricanes often bring tides several feet in excess of spring tide as well as high winds and destructive waves. The Shallotte River near the Town is well protected from storm conditions, and many vessels seek shelter in the river during periods of storms.

The Town is primarily a business (trading center) community and serves as a hub for many residents in the southeast Brunswick County area.[1]

2.2 Population

A. Total Population and Change

Planning traditionally begins with the study of the number of people living in the geographic area. Population data is basic for making decisions concerning the capacity of the land to support growth, the level and timing of services and the formulation of policies to deal with problems.

In 1979 the population of the Town of Shallotte was estimated to be 802 people. This represented a sizeable increase over the 597 people determined to live in the Town at the time of the 1970 Census. Preliminary numbers from the 1980 Census, however, indicate that the Town has a population of only 683 people. During the last forty years, the population of Shallotte has shown fairly steady increases. A history of this growth follows:

---

[1]Henry Von Oesen and Associates, Inc., Preliminary Engineering Report to the Southwest Brunswick County 201 Facilities Plan, 1979.

TABLE 1

POPULATION OF SHALLOTTE, 1940-1980[2]

Year	Population	Percentage Increase
1940	381	---
1950	493	29.4%
1960	480	-2.6%
1970	597	24.4%
1980	683	14.4%

In terms of an annual growth rate, the Town has averaged better than 1.5% per year since 1940; better than 1.8% since 1960. Furthermore, the differences are even more dramatic if the 1979 estimate made by the North Carolina Department of Administration proves to be more accurate. (The increase would be greater than 2.8% per year from 1960 to 1979.)

If we compare population changes in the Town of Shallotte with those of the other inland communities and the county, we can place this growth in better perspective.

TABLE 2

POPULATION OF INLAND TOWNS IN BRUNSWICK COUNTY, 1950-1980[3]

	1950		1960		1970		1980	
Town	Pop.	%Chg.	Pop.	%Chg.	Pop.	%Chg.	Pop.	%Chg.
Shallotte	493	--	450	-2.6	597	24.4	683	14.4
Southport	1748	--	2034	16.4	2220	9.1	2817	26.9
Bolivia	215	--	201	-6.5	185	-8.0	250	35.1
Boiling Spr Lake					245	--	1000	400.8
Brunswick Co.	19238	--	20278	5.4	24223	19.5	35,344	45.9

---

[2]Source: 1976 Brunswick County Land Use Plan Bureau of the Census.

[3]Source: U.S. Census.

Shallotte appears to reflect the same growth trends apparent in the County, yet it appears to have a stronger growth rate than other inland communities. The County land use plan attributes growth within the County to new industry, the growth of beach and retirement communities and a slowing of out-migration.

B. Age, Race and Sex Profile

The Town of Shallotte comprised three enumeration districts in the 1970 Census. By combining information on these districts, we have been able to obtain a profile of the age/race/sex of the Town and how it compares with the County and State. The Town of Shallotte is almost totally white; is heavily employed as professional and technical workers, and as managers and proprietors; has a high family income and a lower than usual percentage of persons on public assistance. The details are presented in the following tables.

TABLE 3

RACIAL COMPOSITION (by percent), 1970[4]

Race	Shallotte	County	State
White	100%	69%	75%
Black	0%	31%	23%

The County's non-white population has been declining since 1960 when it comprised 35% of the total population of the County.

[4]U.S. Census.

TABLE 4

AGE AND SEX (actual numbers), 1970[5]

Age	No. Males	No. Females	Total
0-4	31	27	58
5-14	66	53	118
15-24	64	48	112
25-34	61	42	103
35-44	45	56	101
45-54	21	26	47
55-64	14	21	35
65+	28	27	55
TOTAL	330	300	630

Age and sex profiles are important indicators of future natural growth rate and of certain special demands on services, such as schools and medical care for the elderly. In 1970, 240 of the Town's 630 people were under the age of 18 (of school age); whereas 55 out of 630 were over 65 years of age. If we make some rough calculations without accounting for deaths and in-/out-migration, we note that the prospect for the 1980s should be a steadily solid natural increase, with only a mild increase in the 65 years of age and over group. (We should note that the Town has a heavier than usual male population in the 35 and under classification.)

The County Land Use Plan in 1976 observed a heavy out-migration of young people and a heavy in-migration of the elderly countywide. By comparing the percentage of people for the Town and the County, we note that the same phenomena does not appear to be

[5]U.S. Census.

happening in Shallotte.

TABLE 5

PERCENTAGE OF PERSONS IN AGE GROUPS, 1970[6]

Age	Shallotte	Brunswick County
0-4	9.2%	9.6%
5-14	18.7%	21.5%
15-24	17.8%	17.2%
25-34	16.3%	11.8%
35-44	16.0%	10.9%
45-54	7.5%	11.1%
55-64	5.6%	9.6%
65+	8.7%	8.4%

A high percentage of persons in the Town were in the 25-44 age groups (the groups where the County experienced heavy out-migration.)

TABLE 6

PERCENTAGE OF PERSONS UNDER 18 AND OVER 65 (1970)[7]

Age Grouping	Shallotte	Brunswick	State
0-18	38.0	37.4	34.6
65+	8.7	8.4	8.1

As a generality, the average house size is a reflection of race and income. The Census projected the average house size in Shallotte at 3.11 persons per dwelling. This is considerably lower than the County rate of 3.47 persons per dwelling, or the State rate of 3.24.[8]

---

[6]U.S. Census.

[7]U.S. Census.

[8]U.S. Census.

C. Income and Employment Characteristics

Shallotte is unlike the County in several other respects. The average annual income of families in the Town is approximately $14,790; this is nearly double that of the County and the State whose incomes averaged $7,468 and $8,872 respectively.

The employment characteristics of the population are also quite different from the County or State. See Table below:

TABLE 7

EMPLOYMENT CHARACTERISTICS, 1970[9]

Type Employment	Shallotte	Brunswick	State
Professional	30.2%	12.8%	11.0%
Managers	24.2%	8.1%	7.5%
Sales	9.1%	5.0%	6.0%
Clerical	11.7%	6.8%	14.0%
Craftsman	15.8%	17.8%	14.5%
Operatives	4.2%	16.9%	22.4%
Transport Equip.	---	4.4%	3.9%
Laborers	---	9.5%	5.0%
Farmers/Farm Lbrs.	---	9.9%	4.6%
Services/Private Hshd.	4.9%	9.0%	11.0%

Shallotte's residents are heavily employed in professional, managerial and sales type employment. Professional employment includes teachers, technicians and health personnel. Managers include administrators. The high salaries in these two types of employment, together with a probability of second family income from heavy employment in professional and clerical, explains the high average family income. Average

[9]U.S. Census.

professional salaries in the State in 1970 were $8831.

One of the most significant indicators of employment and health problems in the community is the number of families and persons below the poverty level.

TABLE 8

INCOME AND POVERTY STATUS, 1970[10]

Status	Shallotte	County	State
% families below poverty level	3.4%	22.9%	16.3%
% persons below poverty level	5.1%	27.7%	16.9%

Although it is difficult to establish working patterns at the town level from Census data, it appears that a significant number of persons may be employed in Columbus County and in South Carolina.

In conclusion, the Town of Shallotte is a solid growing community. The population has grown continuously in the past; it has not experienced (within the last 30 years) any strong out-migration; it has a lower than normal percentage of persons who will turn 65 in the 1980s. Shallotte is an almost all white community. It has a heavy concentration of the professions and managerial occupations. It has a high family and per capita income; a low percentage of persons below poverty level. Due to its location and anticipated new sewer system, it should have excellent growth prospects.

---

[10] U.S. Census.

2.3 Economy: Industry and Commerce

The economy of Shallotte is typified by its greater than usual employment in two fields, namely wholesale and retail trade and educational services. A breakdown of employed persons by industry shows the following:

TABLE 9

EMPLOYMENT BY INDUSTRY, 1970[11]

Type Employment	Percentage Employed in Shallotte
Construction	10.9%
Manufacturing	2.9%
Transportation	--
Communications, Utilities	4.7%
Wholesale and Retail Trade	28.8%
Finance, Insurance	10.6%
Professional Services	5.1%
Educational Services	18.3%
Public Administration	5.1%
Other	13.5%

TABLE 10[12]

SHALLOTTE AREA INDUSTRY

Brooks Seafood--Process and package all seafood
Brunswick Beacon Inc.--Newspaper
Carters Fish and Oyster House--Oysters and fish
Epting Ballenger Corp.--Paving mixtures
Grainger Ready Mix--Ready mix concrete, gravel, sand
Greens Oyster Co.--Processing and packaging oysters
Hewett and Sons Fish House--Seafood processing
Highlander Ltd.--Ladies sportswear, piece goods
Millikens, Lloyd Oyster House--Process and package oysters
Shallotte Ice and Fuel Co.--Ice and fuel
Williams Oyster House--Process and package all seafood

[11] U.S. Census.
[12] U.S. Census of Manufacturers.

Commercial Fisheries

Shallotte has at least six seafood processors. Over 36 people with Shallotte addresses are licensed by the State Marine Fisheries for seafood dealing, mostly in oysters. Based on catch information for the past five years, we observe that shellfishing contributes significantly to the local economy.

TABLE 11

COMMERCIAL FISHING CATCH, 1979[13]

Species	Weight	Value
Clams	72,500 lbs.	$259,337.00
Oysters	32,800	37,310.00
Shrimp	500	140.00
Mullet, Black	300	77.00
Spot	200	57.00

Commercial fishing contributes nearly $300,000 per year to the local economy. This value represents the price fishermen received for the catch, i.e. the ex vessel value.

In terms of changes in the catch, Shallotte's commercial fisheries have reported the following catches in the last few years:

TABLE 12

COMMERCIAL FISHING CATCH, 1975-1979[14]

Year	Weight	Value
1979	106,900 lbs.	$297,828.00
1978	131,900	267,441.00
1977	36,600	47,483.00
1976	13,700	9,378.00
1975	41,400	33,564.00

[13,14] N.C. Department of Marine Fisheries, DNRCD.

This data suggests the growing importance of the industry. It also reflects the increasing value of clams.

2.4 Agriculture

A portion of the land in the area is in agricultural use, but agriculture is not considered of primary importance to the economy of the Town. In the region, however, agriculture represents a significant source of income.

Forestry

A portion of the land in and near the Town is heavily wooded and has been commercially timbered in the past. Future commercial timbering operations are not anticipated to pose a major impact on the residential community, nor will they contribute significantly to the local economy.

2.5 Seasonal Population

Although a significant number of persons frequenting the Carolina beaches pass through Shallotte, and although Shallotte is within a close distance of the ocean, it does not have any significant number of seasonal visitors. The Town does serve as a trade center for the many tourists and seasonal visitors of the region.

Tourism

Shallotte is somewhat dependent on the tourist trade attracted to the Carolina Beach communities.

As noted in section 2.3, the Town has a relatively diverse economic base which serves as a commercial hub for the surrounding area. Although the economic base of the Town is not dependent on tourism, the Town's proximity to the increasingly popular coastal developments at Holden Beach and Ocean Isle Beach enhances its commercial activity. The Town's location along U.S. 17 also allows for some tourist related trade

from persons who pass through town. Popular visitor areas in addition to the beaches are the Orton Plantation Gardens, Brunswick Town, and Eagle Island Gameland. In Brunswick County, tourism and travel income is estimated at $30,000,000 by the Brunswick County Economic Development Commission.

3.1 Existing Land Use: General Description

The urbanized land uses in the Town are generally adjacent to U.S. 17. Commercial development occurs as a strip along both sides of the highway through town. Institutional uses are also oriented along U.S. 17. Most of the Town's residential development occurs along local streets which are perpendicular to U.S. 17.

The following are approximate acreages occupied by categories of land use.

Land Use	Acres
Residential	63.2
Commercial	44.4
Institutional	31.9
Transportation, Utilities	18.0
Industrial	.2
Recreation	1.8
Total	159.5

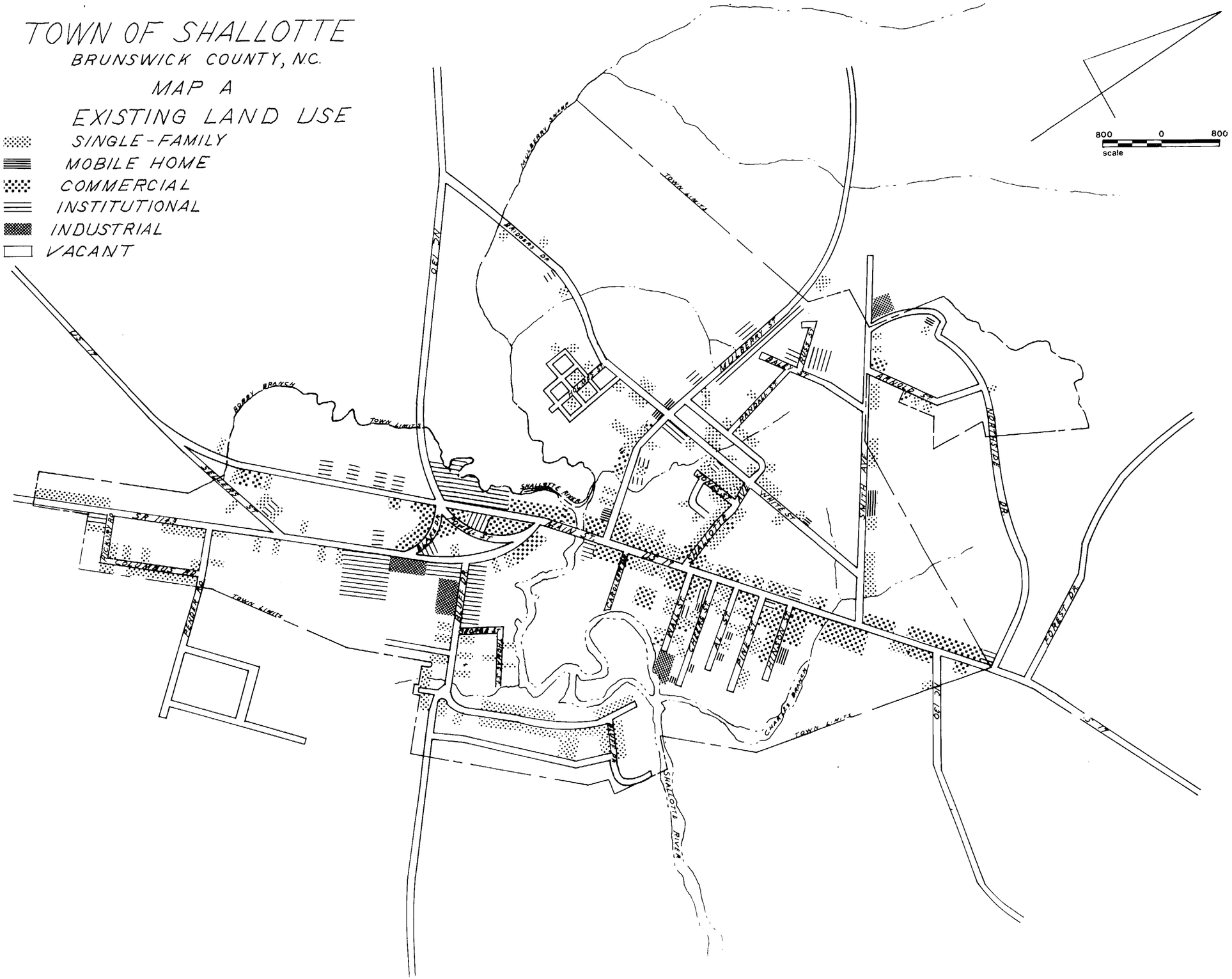
TOWN OF SHALLOTTE

BRUNSWICK COUNTY, N.C.

MAP A

EXISTING LAND USE

- SINGLE-FAMILY
- MOBILE HOME
- COMMERCIAL
- INSTITUTIONAL
- INDUSTRIAL
- VACANT



3.2 Significant Land Use Compatibility Problems

Few land use compatibility problems exist in the Town. Most of the commercial development has occurred adjacent to U.S. 17. Residential development is found on local streets which intersect U.S. 17. Some residential development occurs in mixed conditions and traffic congestion is the problem of greatest concern.

Gas storage tanks exist in the Town, but only the owner lives near the site which has vacant land use around it. It could be considered to be however, a significant hazard, since any explosion would have the potential of affecting many city blocks as well as heavy traffic on US 17.

A cement manufacturing operation is located adjacent to the new Brunswick County High School. The use is considered to be more of an aesthetic problem than a physical hazard.

3.3 Problems Resulting from Unplanned Development

Strip commercial development has occurred with improper design along US 17 in the central business area. In this area, commercial development has occurred without adequate set-backs, without properly designed entrance and exist, and without adequate offstreet parking. Although it is customary for commercial development to occur adjacent to major thoroughfares, inadequate planning has caused traffic congestion and hazardous situations. The Town has made a great deal of progress in the past few years in helping to relieve this situation by the addition of traffic lights and requiring more off-street parking.

Dense development on soils unfavorable for on-lot sewage disposal has resulted in concern about sewage pollution as well as the Town's future growth prospects. The Town is now anticipating, however, the construction of a public sewer system.

3.4 Areas Experiencing or Likely to Experience Changes in Predominant Land Uses

Many vacant wooded areas on U.S. 17 could become commercial or industrial if the Town grows as anticipated upon completion of the public sewer system. Already an area on the eastern end of U.S. 17 has recently been developed as a shopping center.

Areas on the north side of Town which were previously in agricultural use are beginning to have some subdivision development. Many of these areas could experience residential growth in the future. It is possible that many areas which are presently undeveloped due to unsuitable soils for septic tanks could become developed when the public sewer system is available. New residential areas to the south-side of U.S. 17 are areas of significant growth potential.

3.5 Areas of Environmental Concern (AECs)

The Town of Shallotte has the following areas of environmental concern:

Coastal Wetlands - coastal wetlands are found along the Shallotte River, Charles Branch, and Bobby Branch.

Estuarine Waters - estuarine waters are those of the Shallotte River to the U.S. 17 bridge and Charles Branch to the U.S. 17 bridge.

Public Trust Areas - the public trust areas are the Shallotte River west of the U.S. 17 bridge, Charles Branch north of the U.S. 17 bridge, Bobby Branch, and Mulberry Swamp Branch.

Estuarine Shoreline - the estuarine shoreline is the shoreline of the Shallotte River west to the U.S. 17 bridge, and the Charles Branch north to the U.S. 17 bridge (see Part II, section 2 for a more complete description of these fragile areas. Also see map E).

4.1 Summary of Existing Local Plans and Policies

Although the Town has a continued interest in planning, no formal land use plan had been undertaken up to this time. The Town has been involved in the planning process with Brunswick County and with the assistance of the County Planning Department has prepared the following plans and policies:

Housing Element, 1978. The housing element was prepared as a prerequisite for participation in the 701 Comprehensive Planning Assistance Program of grants-in-aid of the Department of Housing and Urban Development. The analysis showed that 89% of the housing was in excellent to good condition. Six percent were rated us poor and 4% dilapidated. Total houses were 223. The count included 18 mobile homes. The following are growth policies which arose from the study.

1. The Town of Shallotte will encourage a normal growth pattern.
2. The Town will program growth and development to occur where services are available and will encourage compact development to provide efficiency in delivery of services. Development will be encouraged where existing services are available before expansion into new areas.

3. The Town will encourage a start of duplexes and apartments in addition to single family dwellings.

4. Growth and development will be discouraged in areas where septic tanks will not function and sewer service is not available and in areas where soils will not support buildings.

5. The Town will encourage some moderate expansion of commercial activities and will encourage private development of additional office space and laundry mat facilities.

6. The Town will encourage moderate industrial expansion emphasizing industry, with low service demand, high value, and employing local people.

7. The Town will encourage a separation of commercial, industrial and residential land uses.

In 1975, the Town Planning Board prepared a list of policies on problems and issues. The Town has continued to work toward achieving the following:

I. Existing Problems and Issues Facing the Town

A. The Planning Board recognized the following as problems and undesirable conditions that exist in the Town or that face Town residents and recommends that the Town's future planning and activities be directed towards solving or alleviating these conditions.

1. Property Taxes
2. Sewage Disposal
3. Inadequate Adult Educational Facilities
4. Parks and Recreation for young people

5. Traffic congestion

6. Health Care and Medical Facilities

B. The Planning Board recommends that the Town encourage the County and other levels of government to become involved in and take positive action in relation to the above problems since these problems have implications and responsibilities beyond Town boundaries.

II. New Services and Facilities

A. The Planning Board recognizes the need for the following new services and facilities and recommends that the Town work toward making these services available for public use in the Town.

1. Neighborhood Recreation - Areas and Parks

2. Sewage Disposal

3. Boat access areas to coastal waters

III. Suggested Recreational Activities

The Planning Board feels that neighborhood park facilities are desirable and should be provided in the Town. The Board also feels that when such facilities are provided, the following types of activities would be utilized and the Town should consider the following types of activities as those that may be made available.

1. Tennis Courts

2. Ball Fields

3. Volley Ball Courts

4. Horse Shoes

IV. Recommended Future Growth Policies

The Planning Board recommends that the Town adopt the following

policy statements to guide future Town development. The Planning Board feels that future plans, policies and decisions the Town may make should be based upon and designed to implement these policy statements.

1. The Town of Shallotte should not undergo a large amount of growth nor large increase in population.
2. The Town should undergo limited and moderate growth.
3. The Town should program growth and development to occur where services are available and should encourage compact development to provide efficiency in delivery of services. Development should be encouraged where existing services are available before expansion into new areas.
4. Growth and development should be discouraged in areas where septic tanks will not function and sewer service is not available and in areas where soils will not support buildings.
5. Growth and development should not be discouraged in agricultural lands and forest within the Town.
6. The Town should encourage some moderate expansion of commercial activities and should encourage private development of additional office space and laundry mat facilities.
7. The Town should encourage and entice doctors to locate in the area.
8. The Town should encourage some moderate industrial expansion emphasizing industry with low service demand, high value and emphasizing local people.

9. The Town should provide for a separation of commercial, industrial and residential land uses.

The Town has been working to implement the above policies over the past five years. Significant progress has been made in the efficiency of services, accomplishing the goal of a public sewer system, a cooperative effort with the County in the establishment of a County recreational facility near the Town, and alleviating some traffic problems by the addition of traffic lights and off-street parking.

In terms of growth and development, more work needs to be done in attracting moderate growth in terms of new jobs, the prevention of sprawl development, and better land development patterns and aesthetics.

The Town continues to endorse the general concepts mentioned above. Through this year's planning efforts, more discussion and analysis has taken place, enabling a sharpening of ideas and more direct focus. In order to work toward implementation of policies, implementation strategies have been outlined. Policy discussion is located in Part IV of this document.

4.2 Summary of Existing Local Ordinances

1. Zoning Ordinance. The Town's zoning ordinance is made up of six zoning districts as follows: (see Map D)

R-20 Residential - this district is for low density single-family dwellings on a minimum lot area of 20,000 square feet.

R-15 Residential - this district is a medium density residential use which allows single-family and multi-family dwellings. Minimum required lot area is 15,000 square feet plus 4,000 square feet for each family over one in the same building.

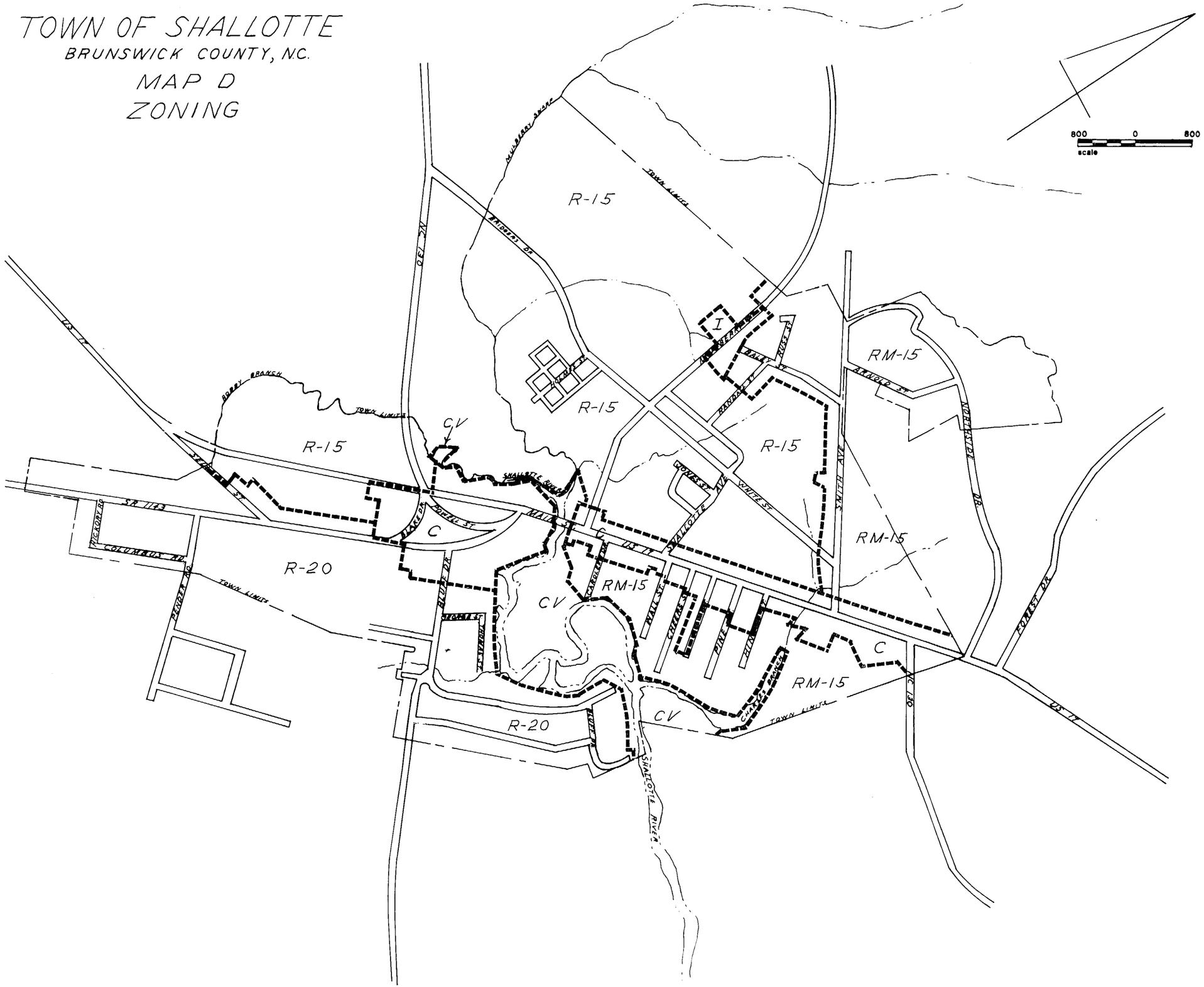
RM-15 Residential - this district is a medium density residential use district which allows single-family and multi-family dwellings as well as mobile homes on single lots. Mobile home parks are allowed, but maximum density permitted is eight units per acre. No more than three mobile homes may be connected to a single septic system. Minimum required lot area is 15,000 square feet plus 4,000 square feet for each family over one in the same building.

B-Business District - the business district is intended to provide the entire Town and surrounding area with retail goods, professional services, and lodging. Maximum building height allowed is 35 feet.

C-Conservation District - any uses are permitted which are permitted in the adjacent district; provided the proposed development meets all applicable federal, state and local laws and regulations.

I-Industrial District - the industrial district is intended to

TOWN OF SHALLOTTE
BRUNSWICK COUNTY, N.C.
MAP D
ZONING



provide space solely for light industrial uses. Dwellings are not a permitted use in this district.

The building inspector administers the zoning regulations. Any decision of the zoning administrator may be appealed to the Board of Adjustment.

2. Subdivision Regulations

Any proposed subdivision must comply with thoroughfare plans, school plans and the zoning ordinance. A minor subdivision is the division of one existing tract of land into no more than four parcels.

A minor subdivision must be approved by the Town Clerk and the Mayor. A major subdivision must be approved by the Town Clerk, Board of Aldermen, and the Mayor. The major subdivision must undergo review by the Planning Board. In minor subdivisions all proposed utilities must be shown on the submitted plat. No utilities are required, however, except those which meet state and county requirements. Drainage must be provided, and all utilities must be designed to minimize flood damage.

Major subdivisions must have graded streets, drainage, recreation area (if subdivision is 10 acres or more), monuments, connection to water and sewers if available, and permanent bench marks if within a flood hazard area. Specific design standards are included regarding the above requirements.

No planned unit development is provided for in the zoning or subdivision regulations.

3. Building Permit

No building can be erected, added to or structurally altered

STATE LICENSES AND PERMITS[15]

Agency	Licenses and Permits
Department of Natural Resources and Community Development Division of Environmental Management	- Permits to discharge to surface waters or operate waste water treatment plants or oil discharge permits; NPDES Permits, (G.S. 143-215). - Permits for septic tanks with a capacity over 3000 gallonsday (G.S. 143-215.3). - Permits for withdrawal of surface or ground waters in capacity use areas (G.S. 143-215-15). - Permits for air pollution abatement facilities and sources (G.S. 143-215.108). - Permits for construction of complex sources; e.g. parking lots, subdivisions, stadiums, etc. (G.S. 143-215.109). - Permits for construction of a well over 100,000 gallons/day (G.S. 87-88).
Department of Natural Resources and Community Development Office of Coastal Management	- Permits to dredge and/or fill in estuarine waters, tidelands, etc. (G.S. 113-229). - Permits to undertake development in Areas of Environmental Concern (G.S. 113A-229). NOTE: Minor development permits are issued by the local government.
Department of Natural Resources and Community Development Division of Earth Resources	- Permits to alter or construct a dam (G.S. 143-215.66). - Permits to mine (G.S. 74-51).

	- Permits to drill an exploratory oil or gas well (G.S. 113-381).
	- Permits to conduct geophysical exploration (G.S. 113-391).
	- Sedimentation erosion control plans for any land disturbing activity of over one contiguous acre (G.S. 113A-54).
Department of Natural Resources and Community Development Secretary of NRCD	- Permits to construct an oil refinery.
Department of Administration	- Easements to fill where lands are proposed to be raised above the normal high water mark of navigable waters by filling (G.S. 146.6(c)).
Department of Human Resources	- Approval to operate a solid waste disposal site or facility (G.S. 130-166.16).
	- Approval for construction of any public water supply facility that furnishes water to 15 or more year round residences or 25 or more year round residents (G.S. 130-160.1).

FEDERAL LICENSES AND PERMITS

Agency	Licenses and Permits
Army Corps of Engineers (Department of Defense)	- Permits required under Sections 9 and 10 of the Rivers and Harbors of 1899; permits to construct in navigable waters. - Permits required under Section 103 of the Marine Protection, Research and Santuaries Act of 1972. - Permits required under Section 404 of the Federal Water Pollution Control Act of 1972; permits to undertake dredging and/or filling activities.
Coast Guard (Department of Transportation)	- Permits for bridges, causeways, pipelines over navigable waters; required under the General Bridge Act of 1946 and the Rivers and Harbors Act of 1899. - Deep water port permits.
Geological Survey Bureau of Land Management (Department of Interior)	- Permits required for off-shore drilling. - Approvals of OCS pipeline corridor rights-of-way.
Nuclear Regulatory Commission	- Licenses for siting, construction and operation of nuclear power plants; required under the Atomic Energy Act of 1954 and Title II of the Energy Reorganization Act of 1974.
Federal Energy Regulatory Commission	- Permits for construction, operation and maintenance of interstate pipelines facilities required under the Natural Gas Act of 1938.

- Orders of interconnection of electric transmission facilities under Section 202(b) of the Federal Power Act.

- Permission required for abandonment of natural gas pipeline and associated facilities under Section 7C(b) of the Natural Gas Act of 1938.

- Licenses for non-federal hydro-electric projects and associated transmission lines under Sections 4 and 15 of the Federal Power Act.

[15]Lists provided by the NC DNRCD.

Part II: CONSTRAINTS TO DEVELOPMENT

5.1 Land Suitability: Physical Limitations for Development

An analysis was made to determine the suitability for development of all undeveloped lands in the Town.

The first part of the analysis deals with the general soil conditions in the Town and how the natural soil properties present certain restrictions to development. Soil scientists observe how soils behave when used as a growing place for native and cultivated plants, and as a material for structures, foundations for structures, or covering for structures, as well as the properties which relate to the functioning of filter beds for septic tanks. For example, they observe that filter beds for on-site disposal of sewage fail on a given kind of soil, and they relate this to the slow permeability of the soil or to its high water table. They see that streets, road pavements, and foundations for houses are cracked on a named kind of soil and they relate this failure to the high shrink-swell potential of the soil material. Thus, they use observation and knowledge of soil properties, together with available research data, to predict limitations or suitability of soils for present and future uses.

The second part of the analysis deals with hazard areas, including man-made hazards (for example, airports, storage of hazardous chemicals) and natural hazards (for example, erodible areas, flood hazard areas).

The third part of the analysis deals with sources of water supply including groundwater recharge areas (bedrocks and surficial and wellfields).

The fourth part of the analysis deals with fragile areas. These are areas which could easily be damaged or destroyed by inappropriate or poorly planned development (e.g. estuarine shoreline and waters, habitats, archaeologic and historic sites, wetlands).

The fifth part of the analysis includes areas with resource potential (e.g. publicly-owned forests, parks, fish and game lands, wildlife sanctuaries, valuable mineral sites).

A. Physical Limitations: Soils

This is an analysis of the general suitability of the Town's soils for use as future sites for development. All of the Town's soils are classified as having some degree of physical limitations for development. The analysis indicates the various soils found in the Town and indicates the degree of suitability for various purposes. The results of the analysis are beneficial for planning purposes, however, on-site inspections would be necessary to determine specific soil properties for development. Although soils may be rated as having various degrees of limitations, engineering practices and construction techniques can alter the degree to which a particular limitation affects a development use.

Each rating for soil types as determined by the U.S. Soil Conservation Service is indicated below.

Slight: Soil properties are generally favorable for the stated use, or limitations are minor and can be easily overcome.

Moderate: Some soil properties are unfavorable, but limitations resulting from the properties can be overcome or modified by special planning, good design, and careful management.

Severe: Soil properties are unfavorable and resulting limitation are too difficult to correct or overcome. Soil will require major soil reclamation or special design for stated uses. This rating does not imply that the soil cannot be used.

Very Severe: This rating is a subdivision of the severe rating and has one or more features so unfavorable for the stated use that the limitation is very difficult and expensive to overcome. Reclamation would be very difficult, requiring the soil material to be removed, replaced, or completely modified. This rating is confined to soils that require extreme modification and alteration, and are generally not used for dwellings and septic tank filter fields.[16]

Analysis of the soil map and existing land use shows that past development in the Town has taken advantage of the higher and dryer soils for urbanized uses. Most development has taken place on the Norfolk (NOB) and Baymede (BdB) soils. The Norfolk soils are found east of the Shallotte River, whereas the Baymede soils are generally found west of the River along U.S. 17. Some areas of Baymede soils are

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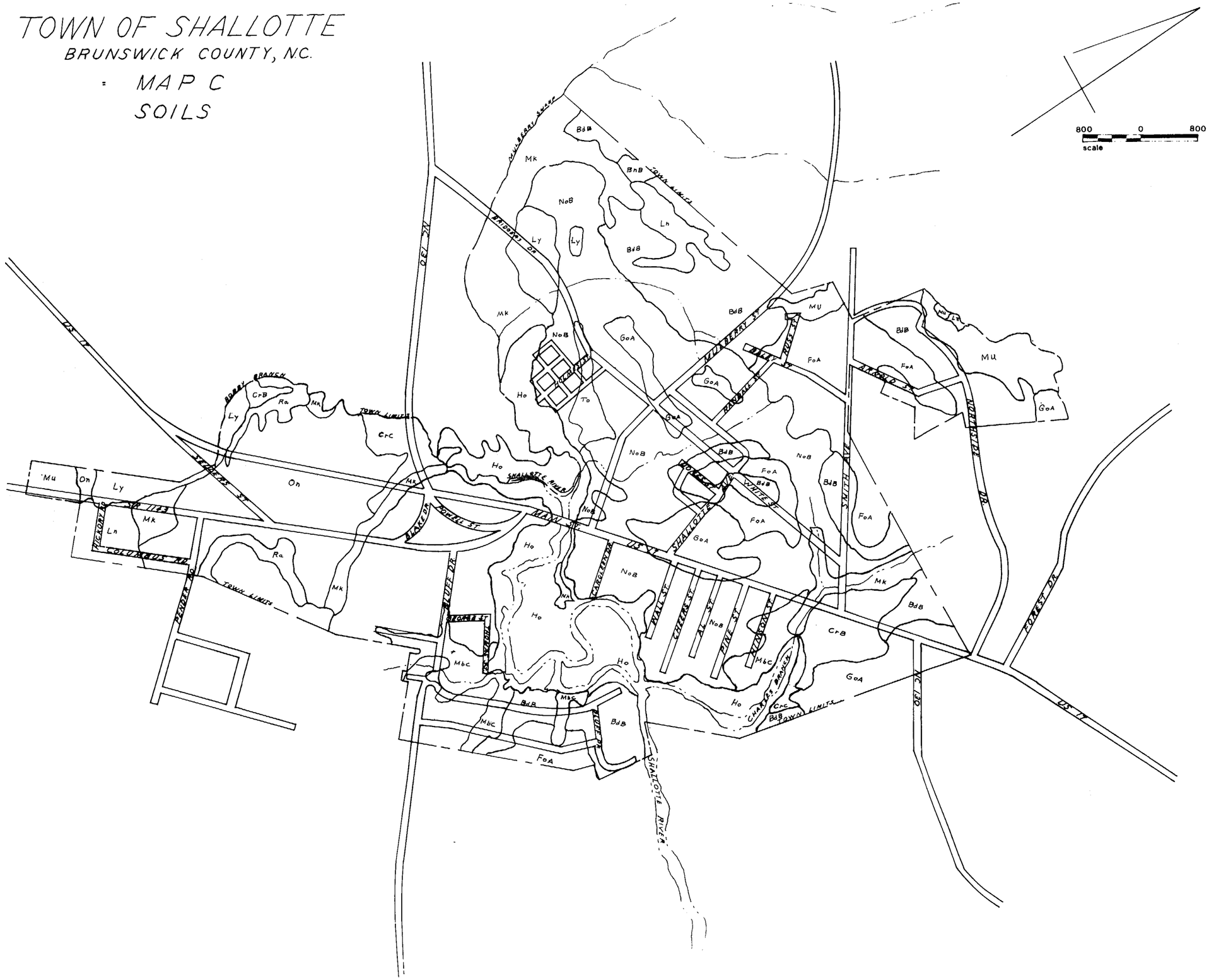
[16]Soil Conservation Service, U.S.A.

Use Rating[17]

Soil Unit	Map Symbol	Septic Tank Filter Fields	Dwellings Without Basements	Dwellings with Basements	Local Streets and Roads	Playgrounds
Baymede	BdB	Severe-Poor Filtering	Slight	Moderate	Slight	Severe Sandy
Blanton	BnB	Severe-Poor Filtering	Slight	Moderate	Slight	Slight
Craven	CrB	Severe-Wet	Moderate	Severe-Wetness	Severe-Load Strength	Slight
Foreston	FoA	Severe-Poor Filtering, Wetness	Slight	Moderate	Slight	Slight
Goldsboro	GoA	Severe-Wetness	Moderate	Severe-Wetness	Moderate	Moderate
Hobonny	Ho	Severe-Flooding	Severe-Flooding	Severe-Flooding	Severe-Flooding	Severe-Flooding
Leon	Ln	Severe-Wetness	Severe-Wetness	Severe-Wetness	Severe-Wetness	Severe-Wetness
Lynchburg	Ly	Severe-Wetness	Severe-Wetness	Severe-Wetness	Severe-Wetness	Severe-Wetness
Mandarin	Ma	Severe-Wetness	Moderate	Severe-Wetness	Moderate	Severe-Wetness
Marvyn	MbC	Moderate	Moderate	Moderate	Moderate	Severe-Slope
Muckalee	MK	Severe-Flooding	Severe-Flooding	Severe-Flooding	Severe-Flooding	Severe-Flooding
Murville	Mu	Severe-Wetness	Severe-Wetness	Severe-Wetness	Severe-Wetness	Severe-Wetness
Norfolk	NoB	Moderate	Slight	Moderate	Slight	Slight
Onslow	On	Severe-Wetness	Moderate	Severe-Wetness	Moderate	Moderate
Rains	Ra	Severe-Poor Filtering, Wetness	Severe-Wetness	Severe-Wetness	Severe-Wetness	Severe-Wetness

[17]Soil Conservation Service, U.S.D.A.

TOWN OF SHALLOTTE
BRUNSWICK COUNTY, N.C.
MAP C
SOILS



located in the northern section of Town (see Map C).

One area of poor soils has been used for urbanized purposes in the center of the Town. This area of about 50 acres found directly east of the Shallotte River Bridge on U.S. 17 is made up of Goldsboro soils (GoA). These soils are somewhat wet, with the seasonal high water table within 1-1 1/2 feet of the surface. However, these soils do not present a substantial problem with good management techniques when building structures or roads. They do present a problem, however, for use as filter fields for septic tanks. The Town is beginning the construction phase of building a public sewer system, which should alleviate many of the problems related to on-lot sewage disposal.

The most severe soils for development in the Town are the Hobonny soils (Ho). These are the soils which occur along the Shallotte River floodplain. Furthermore, these areas are vegetated by Cordgrass and Junkus, and are Areas of Environmental Concern (AECs), regulated by the North Carolina Department of Natural Resources and Community Development (see section 5.2, Fragile Areas).

B. Physical Limitations: Slope

Generally the typography of the area is relatively flat with slopes ranging from 1 to 5 percent. The greatest slopes are the soil transition along the Shallotte River between the Hobonny soils (Ho) and the Baymede soils (BdB). At these areas, the land drops off at times to twelve feet. Other high soils exist in the form of Marvyn soils (MbC). These areas are of 6 to 15 percent slopes (see Map C). Such slopes generally do not present a problem for development in the Town, except for use as playgrounds or athletic fields. The severe slope between the Hobonny (Ho) soils and the neighboring types do, however,

present a problem for use.

C. Physical Limitations: Hazard Area

Gas storage tanks exist in the Town, but only the owner lives near the site which has vacant land around it. It could be considered, however, a significant hazard, since any explosion would have the potential of affecting many city blocks as well as heavy traffic on U.S. 17.

The natural hazard which could occur is the flood hazard area (see Map D). This area is primarily within the floodplain of the Shallotte River and tributaries. Presently there are only a few residences located in the floodplain.

D. Physical Limitations: Sources of Water Supply

Beneath the Town, the "basement" rocks are crystalline rocks. These rocks consist of beds of sand, silt, clay, and limestone, and have a total thickness of many thousands of feet. The basement rocks have been gently warped, forming an arch, called the Cape Fear Arch. The basement is believed to be between 15,000 and 25,000 feet below the surface in the area.

The Black Creek Formation of the Cretaceaus Age, rests on the basement rock. This formation is composed largely of marine silty clays, clayey silts, and fine to medium silty sands.

The Peedee Formation, rests conformably upon the Black Creek Formation. The formation consists of clayey sands and discontinuous limestone.

The oldest Cenozoic sediment in the area is the Castle Hayne Limestone of middle to late Eocene Age which rests disconformably upon the Peedee Formation. Composition of this unit consists primarily of limestone commonly containing lenses of sands and silts. The Castle Hayne is used by the municipal wells in the Town for water supply. Wells generally can be pumped at 300 gmp. No chlorides have

been found to encroach upon the Town's wells.

The water table aquifer extends throughout practically all of the Coastal Plains region and consists principally of surficial sands.

The Town's wells are located along S.R. 130 in the northwest corner of Town.

5.2 Land Suitability: Fragile Areas

Since the Town of Shallotte is located in coastal North Carolina, it recognizes areas which are environmentally fragile and for which development is discouraged or subject to regulation. On the map of fragile areas (see Map E) is shown areas which are considered to be fragile resources. The coastal marshes, estuarine waters, estuarine shoreline, and public trust areas are considered to be areas of Environmental Concern (AECs) and are subject to permitting.

A. Coastal Wetlands

Coastal wetlands are defined as any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides (whether or not the tide waters reach the marshland areas through natural or artificial watercourses), provided this shall not include hurricane or tropical storm tides. Coastal marshes contain some, but not necessarily all of the following marsh plant species:[18]

(1) Cord Grass

(2) Black Needlerush

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[18]U.S. Army Corps of Engineers, Draft Environmental Statement: Maintenance of Shallotte and Lickwoods Folly River, NC 1975.

(3) Glasswort

(4) Salt Grass

(5) Sea Lavender

(6) Bulrush

(7) Saw Grass

(8) Cat Tail

(9) Salt Meadow Grass

(10) Salt Reed Grass

In the Town, the coastal marsh is a mosaic of Spartina marsh, clorn flats, oyster bottoms and submergent macrophytes under tidal influence grading to freshwater tolerant communities dominated by Juncus and other aquatic macrophytes. This is an area of high primary and/or secondary production.[19] In the Town, coastal wetlands occur along the Shallotte River, Charles Branch and Bobby Branch. They are mainly found on Hobonny (Ho) soils (see Map E).

B. Estuarine Waters

Estuarine waters are "all the waters of the Atlantic Ocean within the boundary of North Carolina and all of the waters of the bays, sounds, rivers, and tributaries thereto seaward of the dividing line between coastal fishing waters and inland fishing waters as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural Resources and Community Development filed with the Secretary of State, entitled "Boundary Lines, North Carolina Commercial Fishing--Inland Fishing Waters," revised to March 1, 1965.

In the Town, the estuarine waters are those of the Shallotte

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[19]U.S. Army Corps of Engineers, 1975.

River west to the U.S. 17 bridge and the waters of the Charles Branch north to the U.S. 17 bridge (see Map E).

C. Public Trust Areas

Public Trust Areas are all waters of the Atlantic Ocean and the lands thereunder from the mean high water mark to the seaward limit of state jurisdiction; all natural bodies of water subject to measurable lunar tides and lands thereunder to the mean high water mark; all navigable natural bodies of water and lands thereunder to the water and lands thereunder to the mean high water level or mean water level as the case may be, except privately-owned lakes to which the public has no right of access; all water in artificially created bodies of water containing significant public fishing resources which are accessible to the public by navigation from bodies of water in which the public has rights of navigation; and all waters in artificially created bodies of water in which the public has acquired rights by prescription, custom, usage, dedication, or any other means.

In the Town of Shallotte, the Public Trust Areas are the Shallotte River, Charles Branch, Bobby Branch, and Mulberry Swamp Branch.

D. Estuarine Shoreline

Estuarine shorelines, although characterized as dry land, are considered a component of the estuarine system because of close association with the adjacent estuarine waters. They are those non-ocean shorelines which are especially vulnerable to erosion, flooding or other adverse effects of wind and water and are intimately connected to the estuary. This area extends from the mean high water level or

normal water level along the estuaries, sounds, bays, and brackish waters as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural Resources and Community Development for a distance of 75 feet landward.

In the Town, the estuarine shoreline is the shoreline of the Shallotte River west to the U.S. Route 17 bridge, and the Charles Branch north to the U.S. 17 bridge.

Other fragile areas in the Town occur along the Shallotte River west of the U.S. 17 bridge, along Bobby Branch, and along Charles Branch on Muckalee soils (Mk) (see Map C).

Although no specific archaeological information exists regarding sites in the Town, it is not likely that some Indians encampments are a potential along the Shallotte River.

Two historic sites exist. This is the site of the Camp Methodist Church, site of early church revival "corps" meetings. Bishop Francis Ashbury, 18th century Methodist missionary and leader, held meetings here (see Map E).[20] The Sunnyside School has been moved to the Town Park Site where it has been incorporated in the Park Master Plan as a use facility.

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[20] U.S. Army Corps of Engineers, 1975

TOWN OF SHALLOTTE

BRUNSWICK COUNTY, N.C.

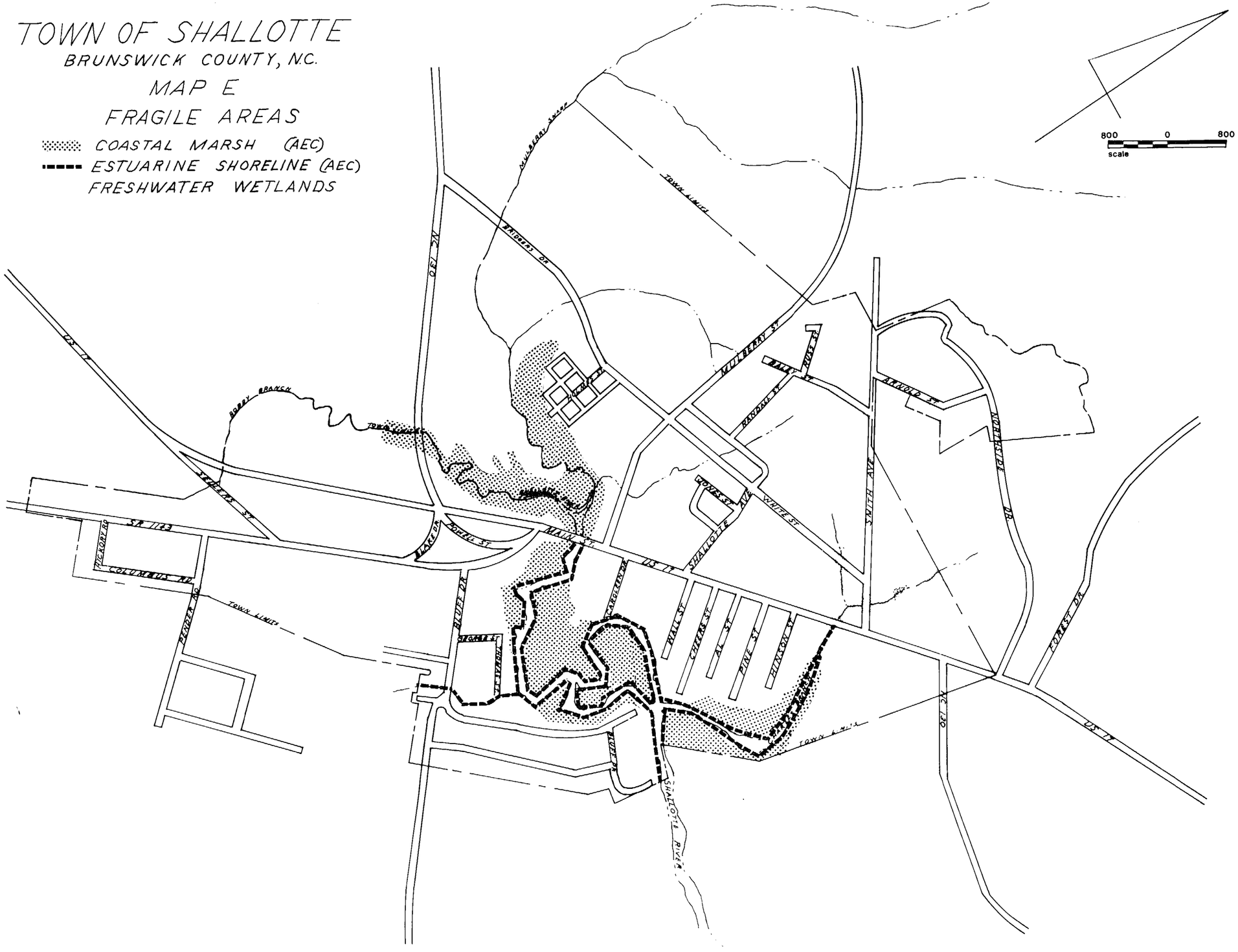
MAP E

FRAGILE AREAS

COASTAL MARSH (AEC)

ESTUARINE SHORELINE (AEC)

FRESHWATER WETLANDS



5.3 Land Suitability: Areas With Resource Potential

A. Agriculture

Many areas near the Town are Farmed. Crops in the area consist of soybeans, tobacco, potatoes, and corn. In the Town, three large farms exist.

B. Biotic Community

The Town has extensive forested areas within its boundaries. The following are characteristic vegetative species:[21]

Overstory	Understory
Longleaf Pine	Turkey Oak
Loblolly Pine	Sand Post Oak
Eastern Red Cedar	Blackjack Oak
	Southern Red Oak
	Bluejack Oak
	Sassafras
	Persimmon
	Winged Sumas

Characteristic animals which may occur in the habitats in the Town uplands and surrounding area are:

Reptiles and Amphibians	Birds
Black Racer	Eastern Wood Pewee
Eastern Hognose Snake	Brown-Headed Woodhatch
Eastern Coachwhip	Eastern Bluebird
Northern Pine Snake	Chuck-Wills Widow
Southern Toad	Pine Warbler
Oak Toad	Yellow-shafted Flicker
Eastern Diamondback Rattlesnake	Great Crested Flycatcher

Mammals

Eastern Gray Squirrel
Gray Fox
Cottontail Rabbit
House Mouse
Raccoon
White-Tail Deer

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[21] Henry von Oesen and Associates, Inc. Preliminary Engineering Report to the Southwest Brunswick County 201 Facility Plan, 1979.

Characteristic plant and animals which occur in the lowland areas of the Town and surrounding area are important organisms in the Spartina marsh community. These include the oyster, nematodes, clams, crabs, barnacles, the ribbed mussel, marsh periwinkel, and mud snails. The marsh also provides cover for many wading birds, waterfowl, raccoons, rice rats, nutria and small birds. Clapper rails and king rails nest in these areas. Other marsh found in various zones are Sistichlis spicata, Pluchea penoscens, Glasswort, and Juncus marsh.

The fauna in the Shallotte River channel conprise a variety of estuarine fishes and invertebrates and freshwater fishes tolerant of salinity. These include: squid, shrimp, menhaden, mullet, sea-trout, anchovy, cookers, and others. Benthic organisms are poly-cheates and aquatic insects.

Much of the floodplain area is covered with a forest type with primary members of this community being sweet gum, red maple, water oak, ash, loblolly pine, water alder, and tulip poplar.

In the drier soils are found the forest areas of pine and mixed hardwoods. Loblolly is the principal pine, sharing dominance of the community with numerous diciduous species including various oaks, black gum, tulip poplar, sweet gum and hickories.

The mixed pine-oak forest supports typical mammals such as the eastern grey squirrel, the flying squirrel, eastern cottontail, and white-tailed deer. Numerous raptorial birds include the sharp-shimed hawk, Cooper's hawk, redshouldered hawk, great horned owl, and screech owl utilize these forests.

The Shallotte lower estuary is an important nursery for shrimp, blue crabs, and a variety of fish. The estuary is a spawning area for

certain species of anadromus fishes including the American shad, the alwife, hickory shad, the striped bass and white bass.[22]

C. Parks and Recreation

Four recreational facilities exist in the Town. Shallotte Municipal Park is used as a community park and is located at the intersection of US 17 and NC 130. This park is operated by the Town and is about two acres in size. A picnic shelter and picnic tables and swing sets are located at the park, as well as the Sunnyside School, which was moved to the site as part of the recreational and historic facility presently being implemented from the Park Master Plan. White's Landing is a privately owned boat launch ramp on the Shallotte River at SR 1291. Martin's Landing is another boat access area on the Shallotte River south of the US 17 bridge. Playfield areas are found at the three school sites in Town.

The Town has worked closely with Brunswick County in the development of a large county park near the western border of the Town. This facility will have many active and passive recreational opportunities for the Town of Shallotte and the surrounding area.

6.1 Capacity of Community Facilities

A. Water System

The Town currently has an existing water system which serves all areas of the Town. Two wells, fifty feet deep into the Castle Hayne aquifer, are located along NC 130 in the northwestern part of Town. These wells are connected to pumps which pump directly into the Town watermains. Chlorine and water softeners are added to the water at the pumps. The capacity of the system is .18 mgd.

The Town has a 100,000 gallon elevated storage tank on Baley Street which provides water storage for the system. The principal limiting factor is the need for treatment of the water to eliminate iron and other minerals. The Town's water treatment plant on the

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[22] U.S. Army Corp of Engineers, 1975.

location of the old wells near the water tower, is presently not being utilized. It is anticipated that it would be desirable to hook on the treatment plant sometime in the future. The water system is currently utilized at about 50% capacity (about 108 mgd).

The system serves the area within the Town limits and a few additional houses on the Town boundary.

B. Sewer System

The residents of the Town currently use on-site sewage disposal. Due to poor filtering capacity of soils and wetness, filter fields for on-site sewage disposal has caused frequent problems in the Town.

The Town has received a grant for a public sewer system and is currently working on implementation of public sewer construction. The proposed wastewater system has a design flow of .148 mgd, and is anticipated to serve a design population of 1582 (1998 service population). The system will be a pressure sewer system with a lagoon pretreatment system which will discharge to a land application system. The area of land application is anticipated to be located just northeast of Town.

C. Road System

Primary roads in the Town consist of U.S. 17 and NC 130. These are two-lane roads with a design capacity of about 7500 vehicles per day. Although capacity on NC 130 is rarely exceeded, U.S. 17 is a consistent problem. Vehicles per day using the road often exceed twice the capacity of the road. It is often almost impossible for local traffic to enter the highway because of the steady stream of vehicles.

NCDOT 1980 traffic counts of annual average daily traffic on U.S. 17 through Shallotte are as follows: North of the business district, 7800 vehicles per day; business area, 13,500 vehicles per day; south of the business district, 6,500 vehicles per day. These figures would indicate that considerable local traffic is adding to congestion on U.S. 17. Traffic figures for NC 130 are 2800 vehicles per day.

Although the U.S. 17 By-Pass has been in the planning stage for some time, current projected work on the By-Pass is scheduled tentatively for FY 1984.

D. School System

Three schools are located in the Town of Shallotte. These schools accomodate grades K-12 and service students from the Town and surrounding area. The schools and 1980 enrollments are as follows:

West Brunswick High School	1008
Shallotte Middle School (located in Shallotte)	938
Union Primary School	734
Total Enrollment	2680

The total enrollment represents about a 10% increase over the past twenty years. The West Brunswick High School is only 5 years old and the Shallotte Middle School is a new building. The Union Primary School is an older building, but has recently had additions and renovations.

E. Fire and Police

The fire protection in the Town is by voluntary service made up of twenty-six members. The department has two large pumpers, one a 1974 and one a 1954 model. The department also has a smaller water tank truck for backup. Ambulance service is by a voluntary ambulance corps with these units.

The police department has four full-time policemen, with two available on a part-time basis. The police department has two vehicles.

F. Hospitals and Medical Services

The Town has three doctors in private practice. Brunswick County Hospital is located in Supply, about seven miles away.

G. Solid Waste

The Town operates its own trash collection with residential pick-up twice a week. The Town takes its solid waste to the county landfill near Cedar Grove Beach.[23]

The Cedar Grove Beach facility is 10 acres. Currently, about 3 acres are used, representing about 33% of capacity. A transfer station has also been located in the area, and increased compaction resulting from use of the transfer station should increase the landfill lifetime somewhat. County officials were unable to estimate when the remaining capacity of the landfill would be used. Rough estimates indicate, however, that capacity could be used within the next eight years.

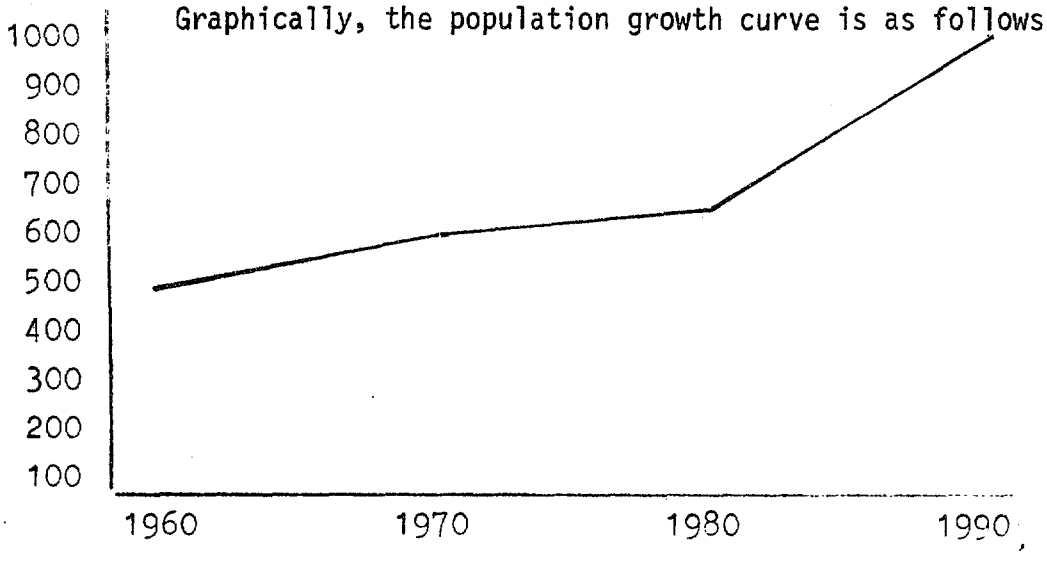
[23]Data for Facilities provided by Town of Shallotte.

Part III: Capacity Analysis

7.1 Population Projections

Population projections approved by the State and Federal governments for public sewer facility design show an annual growth rate for the Town of 4.3%.[24] Using this growth rate, the estimated projection for Shallotte for 1990 is 1040.

Graphically, the population growth curve is as follows:



7.2 Future Land Use Needs

In projecting the future land use need, our projections consider the distribution of existing population, the current structure of the economy, the areas existing and future investments in sewer and water facilities, its transportation system, its community facilities (ie. schools, medical facilities, public services), and the growth

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[24] N.C. Office of Environmental Management.

policies of the Town. Since these factors have shaped and attracted land development in the past, they will probably do so in the future. Our approach to develop land use projections has included these considerations and, at the same time, they give an estimation of what our future needs for land will be.

Finally, one word of caution. Projection land use needs is a very inexact science. Such projections are presented to provide decisionmakers with more insight then certainty into what is most likely to occur in the future. They should be used as guidelines, not constraints, and should be used as benchmarks in making land development decisions.

A. Land Suitable for Development

In order to determine land suitable for urbanized uses, we must examine the land already used for such purposes, as well as vacant land which is not constrained. For this analysis, we have removed the following land uses and constraints from the available vacant land for development: Existing residential use, existing commercial use, existing institutional use, existing transportation, utilities and communication use, existing industrial use, existing recreational use, coastal marsh, estuarine and public trust waters, estuarine shoreline seventy-five feet from mean high water, wetlands, steep slopes, and areas of flood hazards. Removal of these areas from the total land area of the Town leaves about 900 acres of unconstrained land for development.

B. Methodology for Land Use Projections

Land use standards were prepared for five urbanized land uses

which include residential, commercial, industrial, institutional, and recreational uses. Except for residential uses, these standards were derived from land requirements based on standard land use analysis planning models and adjusted for towns the size of Shallotte.

The residential category was treated differently from the other four urban categories due to the difficulty in allocating land requirements by housing type or density. An average land area per unit population is used as a standard to calculate residential land requirements. This area was calculated using the 1980 population and existing residential use. The average is then applied as a constant to the 1990 projection.

The land use requirements were determined using the following equation.

$$L_{90} = (P_{90} - P_{80}) \quad (K_h + K_c + K_i + K_p + K_r)$$

where L_{90} = land required to accomodate the 1990 population

P_{90} = 1990 population

P_{80} = 1980 population

K_h = standard land requirement for residential use

K_c = standard land requirement for commercial use

K_i = standard land requirement for industrial use

K_p = standard land requirement for institutional use

K_r = standard land requirement for recreational use

The following are standards applied to the land use needs projection:

Standard for Residential Land	=	.079 acres
Standard for Commercial Land	=	.005 acres
Standard for Industrial Land	=	.010 acres
Standard for Institutional Land	=	.001 acres
Standard for Recreational Land	=	.007 acres

C. Land Use Projections

$L_{90} = 357 \quad (.079 + .005 + .010 + .001 + .007)$

L_{90} residential	=	28.20 acres
L_{90} commercial	=	1.79 acres
L_{90} industrial	=	3.58 acres
L_{90} institutional	=	.38 acres
L_{90} recreational	=	2.50 acres
Total		36.45 acres

We may see that through the above analysis, a considerable amount of land remains available for urbanized uses within the Town. The point of this exercise is that the Town can, through good planning practices, grow and accomodate development while protecting resources and avoiding hazardous areas.

7.3 Community Facilities Demand

Analysis of existing facilities based on 1990 population projections and land use needs indicate that existing facilities will be adequate to serve the 1990 population.

Until the public sewer system is completed (mid 1980s) there will continue to exist problems related to inability of soils to handle on-lot sewage. However, due to the relatively slow growth rate, this should not cause insurmountable problems until the public sewer system is operational.

The water system will need to be upgraded in the near future by connection and operation of the existing filtration plant which is currently not being utilized. However, the system will continue to provide adequate quantities of water with a limited degree of water

quality problems (mostly due to iron and minerals). Both systems should function adequately through the planning period.

The limitations of the traffic on U.S. 17 should be alleviated by the completion of the U.S. 17 By-Pass, projected for tentative completion in FY 1984. Until then, additional off-street parking will be needed, as well as more intersection traffic lights to allow for easier and safer exit-entry on to U.S. 17 from local roads and streets.

The schools, fire service, police, and medical facilities are considered to be adequate throughout the planning period.

PART IV: POLICY FORMULATION

This section provides the rationale for and statement of Town policies. Where feasible, implementation plans are included. Policies are grouped according to land use categories of

- Resource Protection
- Resource Production and Management
- Economic and Community Development
- Continuing Public Participation

A summary of selected policies is contained on page .

8.1 RESOURCE PROTECTION

A. AREAS OF ENVIRONMENTAL CONCERN

The term Area of Environmental Concern, or AEC, is used in North Carolina's Coastal Area Management Act (CAMA) to identify important natural resources, both on land and water, which could be damaged if subjected to incompatible development activity.

The Coastal Resources Commission (CRC) has identified thirteen different types of AECs -- in four general categories -- spelling out the significance and the basic management objectives for each, and has encouraged local governments to recommend those types of development, or use, which they consider appropriate in the AECs within their jurisdiction.

Shallotte's AECs fall into one general category, the Estuarine System.

<u>The Estuarine System</u>

1. Estuarine Waters

All three of the individual AECs falling under the general classification of

the estuarine system are to be found or connected with the Shallotte River. By agreement, the Wildlife Resources Commission and the Department of Natural Resources and Community Development have determined that the estuarine waters are those of the Shallotte River west to the U.S. 17 bridge and the waters of the Charles Branch north to the U.S. 17 bridge (See Part II, 5.2 for a more complete discussion).

The Town recognizes the importance of estuarine waters as the dominant component and bonding element of the entire estuarine system. The waters support the valuable commercial and sports fisheries of the coastal area which are comprised of estuarine dependent species. The Town recognizes its responsibility as a land intensive development along the Shallotte River and Charles Branch to prevent unnecessary further degradation of these waters which flow to the Ocean. Although much policy consideration has been given to protect these resources, alternative points have been made which suggest that these waters are no longer particularly productive due to regional contaminants and siltation from other activities such as farming, forestry, erosion, septic tank leachate, etc. Some concern has been expressed over whether the Town should express any policy supporting protection of such waters since some feel that the "damage has been done," that there is no real regional policy to deal with the problem, that degradation of these waters is partly a natural occurrence, that CAMA is sufficiently protecting the waters or at least as far as is practicable, and that the Town is willing to trade off some further degradation for more development, especially job intensive and tax base improving operations.

Through discussion of the above alternatives, the following policy has been selected:

POLICY I: THE TOWN WISHES TO PREVENT SIGNIFICANT DETERIORATION OF THE ESTUARINE WATERS.

Implementation: The Town supports the CAMA permitting procedure which

specifies compliance with use standards under 15 NCAC 7H, Section .0208. The Town will amend its zoning ordinance and subdivision regulations to include more specific requirements for land uses which could affect water quality in either a primary or secondary manner. The construction of the anticipated public sewer system is another measure which should remove the existing problem of on-lot sewage disposal and leachate entering the estuarine system.

2. Estuarine Shoreline

Estuarine shorelines, although characterized as dry land, are considered a component of the estuarine system because of close association with the estuarine waters. In the Town, these areas are the shorelines of the Shallote River west to the U.S. Route 17 bridge and the Charles Branch north to the U.S. 17 bridge. The same alternative discussions that resulted for estuarine waters also pertain to the shoreline. Development within the estuarine shorelines influences the quality of estuarine life and is subject to the damaging processes of shorefront erosion and flooding. The Town generally considers the CAMA permitting procedure to sufficiently protect the estuarine shoreline. An alternative consideration is the requiring of additional setback distances on the estuarine shoreline and more stringent development standards for development near the estuarine shoreline.

POLICY 2: THE TOWN DESIRES TO ENSURE THAT SHORELINE DEVELOPMENT DOES NOT SIGNIFICANTLY HARM THE ESTUARINE SYSTEM.

Implementation: The Town supports the CAMA permitting procedure which specifies compliance with use standards under 15 NCAC 7H, Section .0209. The Town will amend its zoning and subdivision regulations to include more specific requirements for land uses which could cause stream-bank erosion or affect water quality.

3. Coastal Wetlands

The unique productivity of the estuarine system is supported by decayed plant material and nutrients that are exported from the coastal marshlands. The value of marshlands in the animal food chain, as nesting areas, as nutrient and sediment traps, and as barriers against flood hazards has been well documented. In Shallotte, areas of coastal marsh can be found in the Shallotte River and Charles Branch (See PP. 33, 34 and Map E).

Although some of the marsh species specified in 15 NCAC 7H, Section .0205 as those which are found in coastal marshes can be found in the Shallotte River and Charles Branch, the productivity of these particular marsh areas is questionable. Through the years, these marshes have absorbed nutrients and pollutants and upstream siltation. They are no longer as viable and productive as they once were. Although some consider them of little use, they still provide protection of the estuarine shoreline and perhaps serve as continued nutrient traps, thereby saving the marshes in the lower river areas. An alternative to supporting the state permitting system and/or Town policy protecting the marshland is ignoring the marshlands as valuable resources. However, the Town is generally in agreement with federal and state policy in attempting to protect them from significant damage.

POLICY 3: THE TOWN RECOGNIZES THE ENVIRONMENTAL VALUE OF COASTAL MARSHES AND DESIRES TO PROTECT THEM FROM SIGNIFICANT DAMAGE.

Implementation: The Town supports the CAMA permitting procedure which specifies compliance with use standards under 15 NCAC 7H, Section .0208. The Town will amend its zoning and subdivision regulations to include more specific requirements for land uses which could cause significant harm to coastal wetlands.

4. Public Trust Areas

The public trust areas are all of the estuarine waters mentioned previously, as well as the waters of the Shallotte River west of the U.S. Route 17 bridge, waters of the Charles Branch north of the U.S. 17 bridge, and waters of the Bobby Branch and Mulberry Swamp Branch. (See P. 35 for a more complete description of Public Trust Areas). In these waters, the public has rights of navigation and recreation. Generally, it is federal and state policy to protect these areas from uses which would interfere with the public right of navigation in these waters, as well as uses which would significantly harm the biological and physical functions of these waters. Wetlands are often found in these areas which do not qualify as coastal marsh, yet have significant value as freshwater wetlands serving similar biological and physical functions.

The Town is less inclined to be as protective of these areas as it is the estuarine system. Many landowners have expressed an unwillingness to have regulations interfere with their use of these areas or of uses which may affect them. The Town recognizes, however, that the public trust waters are connected to the estuarine system. Furthermore, federal and state policy has allowed for regulation of these areas.

POLICY 4: THE TOWN WILL CONTINUE TO SUPPORT THE PUBLIC'S RIGHT TO NAVIGATION IN PUBLIC TRUST WATERS AND THE WISHES TO PERPETUATE THEIR BIOLOGICAL VALUE.

Implementation: The Town suggests the CAMA permitting procedure which specifies compliance with use standards under 15 NCAC 7H, Section .0208. The Town will amend its zoning and subdivision regulations to include more specific standards regarding land uses adjacent to the public trust areas.

B. Suitable Land Uses in the AECs

Generally, suitable land uses will be those uses which are consistent with the CAMA permitting procedure with highest priority being uses which foster conservation of the resources and second priority to uses which are water dependent. In the coastal wetlands and estuarine waters, the state would not permit nor the Town support development such as restuarants and businesses; residences; apartments; motels; hotels; trailer parks; parking lots and private roads and highways; and factories. The state may permit and the Town may support such uses as utility easements, fishing piers, docks, and agricultural uses such as farming and forestry drainage, as permitted under North Carolina's Dredge and Fill Act and/or other applicable laws. Any use permitted would have to comply with the state regulations and conditions imposed in the Town's zoning and subdivision regulations.

On the estuarine shoreline, the uses permitted are those which are permitted under the zoning ordinance for the zoning district. However, the use standards under CAMA permitting procedure must be followed. Furthermore, special requirements for these areas specified in the zoning ordinance and subdivision regulations must be followed. The Town has no specific policy regarding bulkheading other than that all regulations must be followed, and the following:

POLICY 5: THE TOWN DOES NOT SUPPORT THE USE OF PUBLIC FUNDS FOR BULKHEADING OF SHORELINE.

Implementation: In the Public Trust Areas, the state may permit and the Town may support uses such as navigational channels or drainage ditches, the use of bulkheading to prevent erosion, and the building of piers, wharfs, or marinas. CAMA use standards for these areas must be followed along with specific regulations under the Town's zoning and subdivision regulations.

C. OTHER RESOURCES

The Town has not identified any unique or especially valuable natural areas within its borders. The people of the Town are concerned about the destruction of vegetated areas and habitats of various species indigenous to the area. Although some consideration was given to more stringent protection of environmental resources in the estuarine areas, it was determined that present CAMA regulations sufficiently protected these areas.

POLICY 6: IT IS THE POLICY OF THE TOWN TO ENCOURAGE THE RETENTION OF FOREST GROWTH AND NATURAL PLANT COMMUNITIES, AND TO DISTURB THE NATURAL TERRAIN AS LITTLE AS POSSIBLE.

Implementation: The Town will modify its zoning and subdivision regulations to include more stringent standards regarding open space and surface drainage during development. A program of informing and educating citizens with regard to such resources will be developed with the help of various civic groups.

No specific archaeologic sites have been located in the Town, and little potential exists for finding any. The Camp Methodist Church and the Sunnyside School are historic structures which the Town wishes to protect.

POLICY 7: THE TOWN WISHES TO PROTECT HISTORIC SITES.

Implementation: The Camp Methodist Church will be analyzed for the possibility of being placed on the National Register of Historic Places. The Sunnyside School, in danger of being destroyed, was rescued by the Town and moved to a park facility. The Town will continue to review the fate of buildings in the Town through the assistance of civic groups and attempt to preserve and use buildings which it considers valuable.

D. WATER QUALITY AND QUANTITY

Three issues are involved in the assessment of water quality in the Town. The first issue is the availability and quality of water for the Town's water

system. The second issue is the effect of individual septic systems on ground water and surface water. The third issue is the potential for flooding.

1. Surface and Groundwater

Presently, the Town serves water from the public water system to all residents. The Town's wells are located near S.R. 130 in the northwest corner of Town. Two wells, fifty feet deep into the Castle Hayne Aquifer serve the Town. Water quantity and quality are sufficient to serve the present and future needs of the Town (See PP. 39 and 40). The Town continues to be concerned about the quality of the groundwater. Although growth is desired, the protection of the groundwater and surface waters from contamination is of great concern.

POLICY 8: THE TOWN WILL NOT PERMIT DEVELOPMENT OR LAND USES WHICH WILL DEGRADE THE QUALITY OF SURFACE WATERS, THE GROUNDWATER OR SIGNIFICANTLY LOWER THE WATER QUANTITY IN THE AQUIFER.

Implementation: The Town will review all development proposals carefully to determine its effect on groundwater. The Town will not permit the development of any landfills or disposal of hazardous wastes. The Town is in the process of constructing a public sewer system to remove the negative effects of leachate from individual on-lot sewage disposal systems or surface waters and groundwater.

2. Flooding

The Town is currently participating in the National Flood Insurance Program. Presently, there are no structures in the flood hazard area. During heavy rains and storms, some ponding and surface drainage problems do occur. Although the Town continues to attempt to alleviate problems on a priority basis, no comprehensive surface drainage plan has yet been developed. Many

of the problems are state responsibility as they occur along state owned roads.

POLICY 9: THE TOWN WILL CONTINUE TO ATTEMPT TO ALLEVIATE SURFACE DRAINAGE PROBLEMS AND FLOODING.

Implementation: The Town's administration has continued to place a high priority on surface drainage and flooding and has over the years eliminated the more serious problems. The Town continues to work closely with state DOT officials to eliminate specific problem areas. The Town will amend its zoning and subdivision regulations to include more stringent and specific standards regarding surface drainage. The Town will continue to enforce the regulations under the Flood Insurance Program to insure that structures are protected against flood damage.

8.2 RESOURCE PRODUCTION AND MANAGEMENT

A. LAND UTILIZATION

Generally the Town's resources are linked with the residential and commercial trade center aspects of its development. Other than the Town's commitment to manage its environment and man-made improvements, the community development, limited area, and lack of extensive developable natural resources precludes any consideration of extensive resource production and management issues.

However, the Town has some limited agricultural activity, forest resources, and access to commercial and recreational fishing areas. These issues will be discussed below.

B. AGRICULTURE

In the Town's past, a considerable amount of farming occurred within the Town boundaries. Today, farming is a less significant land use in terms of the Town's economy. Much of the land that was farmed has either been turned over to development, or now lies unused. There is still, however, about 100 acres of land within the Town which could be considered of agricultural use.

Farming is generally carried out on the following soils within the Town; Baymeade, Craven, Foreston, Goldsboro, Norfolk and Onslow (See Section 5.1 A). Although most of the soils are of agricultural capability II and have some wetness, good yields can be obtained on most of them. Corn yields are 60 to 100 bushels per acre, with the Craven and Norfolk soils giving higher potentials of over 100 bushels per acre. Soybeans can range from 20-40 bushels per acre. Tobacco on the Foreston and Norfolk soils can yield 3000 lbs. per acre.

Thus we may say that though farming is not a major land activity for a Town such as Shallotte, it could remain a valuable resource over time, and carefully controlled does not necessarily present a detrimental conflict to residential and commercial land use. In terms of managing such a resource, the Town has considered alternatives such as increasing minimum lot sizes in agricultural areas, allowing significant tax reductions for lands kept in agricultural use, adding specific management controls to the zoning regulations, not attempting to manage agricultural use, restricing water line size to agricultural use areas to limit possible densities.

POLICY 10: THE TOWN CONSIDERS AGRICULTURAL USES IN AND NEAR THE TOWN TO BE A VALID AND VALUABLE LAND USE, WHICH, WHEN CARRIED OUT PROPERLY, DOES NOT INTERFERE WITH OTHER LAND USES NOR WILL REDUCE SIGNIFICANTLY THE LAND SUPPLY OF THE TOWN NEEDED FOR FUTURE GROWTH.

Implementation: The Town will add specific management measures to the zoning ordinance which will reduce any detrimental effects of increased agricultural activity on other land uses. The Town will amend the zoning classification of agricultural areas to allow for larger minimum lot sizes.

C. FORESTRY

Over ¼ of the Town still is covered by treed areas. However, commercial timbering operations are not anticipated to be carried out to any significant degree within the Town and therefore forestry will not be a source of resource production for the Town. Treed areas are part of the open space resources of the Town. (See Policy 6.)

D. MINERAL PRODUCTION

No existing or potentially valuable mineral resources are believed to

exist within the Town.

E. COMMERICAL AND RECREATIONAL FISHERIES

Although no significant commercial fishing is done within the Town limits, the Town continues to be a focal point for commercial fishing (especially shellfish) which takes place further downstream and in coastal waters. Commercial catches reported are in excess of 100,000 lbs. with an ex-vessel value of $300,000. Shallotte has at least six seafood processors. Over 36 people with Shallotte addresses are licensed by the State Marine Fisheries for seafood dealing, mostly in oysters. (See Section 2.3). The Shallotte River is navigable from the Town of Shallotte to the Ocean, not only providing a waterway for commercial vessels, but also for recreational use. Often the River provides a means of safe refuge during times of storm. The River is a valuable recreational fishing resource. Generally, the Town's concerns center around water quality and access. In terms of water quality, alternatives open to Town government center on preventing land uses, especially on-lot sewage disposal from residential use, from causing significant deterioration of water quality (See Policy 1). Although private boat ramps and marinas have provided some public access, the Town feels that not enough public access is available for recreational use. Alternatives considered have included requiring any subdivision of land on shorelines to provide public access, the Town using revenues to purchase land or seek easements along the shoreline and develop a Town boat ramp or marina, access shoreline owners by the foot so that a fund can be established for public access, increase general taxes to set up a special fund to use for the development of shoreline access.

POLICY 11: THE TOWN CONSIDERS COMMERCIAL AND RECREATIONAL FISHING TO BE OF SIGNIFICANT IMPORTANCE TO THE ECONOMY AND THE GENERAL CHARACTER WELFARE OF THE COMMUNITY. THE TOWN WILL WORK TOWARD PROTECTING AND DEVELOPING COMMERCIAL AND RECREATIONAL FISHERIES. THE TOWN WILL WORK TOWARD DEVELOPMENT OF A PUBLIC BOAT RAMP ON THE SHALLOTTE RIVER.

Implementation: In terms of protecting water quality so that commercial and recreational fisheries can continue to thrive, see Policy 1. The Town does not consider the present location of seafood processors to be in conflict with other land uses. The Zoning ordinance regulations presently in effect allow for expansion of such operations, and provide for necessary strategies to prevent use conflicts.

For recreational access to the shoreline, the Town will revise its zoning and subdivision regulations to provide for public access when shoreline areas are developed. Other shoreline protective measures can be found in Policies 2, 3 and 4. The Town will study the ends of streets which face the Shallotte River to determine potential boat access sites.

The Town will use recreation budget moneys as they come available to develop boat access sites.

8.3 ECONOMIC AND COMMUNITY DEVELOPMENT

A. GROWTH

The Town desires a moderate growth rate so that employment opportunities can be developed and the tax base expanded to pay for additional services such as the new sewer system and needed improvements to the water system. Residents are concerned, however, that the community could grow too fast and be burdened with environmentally degrading commercial or industrial enterprises. Although growth is generally desired, the community wishes to carefully control the size and type of growth. Policies considered: 1) Increase growth rate to 8% or more per year; 2) Keep growth rate to the rate of the 1970's, namely 3%; 3) Limit the growth rate by control measures (e.g. limiting building permits, high hook-up fees for new structures); 4) Adopt a no growth policy; 5) The Town wishes a moderate growth rate, matching services and budget to the growth.

POLICY 12: THE TOWN WISHES TO INCREASE ITS GROWTH RATE. THE ANTICIPATED SEWER SYSTEM WILL ACCOMODATE A MODERATE GROWTH RATE OVER THE PLANNING PERIOD. THE WATER SYSTEM, WITH MINOR IMPROVEMENTS WILL ALSO BE SATISFACTORY. OTHER SERVICES WILL BE BUDGETED FOR IMPROVEMENTS AND ADDITIONS TO MATCH THE GROWTH.

THE TOWN IS INTERESTED IN ACHIEVING GROWTH IN ALL TYPES OF URBANIZED LAND USE. ESPECIALLY IMPORTANT IS GROWTH IN JOB INTENSIVE INDUSTRY. COMMERCIAL AND RESIDENTIAL GROWTH IS PREFERRED IN THE EXISTING TOWN LIMITS. INDUSTRIAL GROWTH SHOULD OCCUR ON THE OUTSKIRTS OF TOWN, SUCH AS ALONG NC 130. THE TOWN WILL CONTINUE TO PURSUE ITS ANNEXATION POLICIES WHEN NECESSARY. MANAGEMENT TOOL MODIFICATIONS ARE ANTICIPATED DURING FY 1982 TO ASSIST IN MANAGING AND DIRECTING GROWTH.

Implementation: The Town is in the process of constructing a public sewer system and is planning necessary improvements to the water system. During the next fiscal year, the Town will revise its zoning ordinance and subdivision regulations to insure additional control over anticipated growth. The Town is in the process of forming a development committee to seek out lands and financial arrangements for commercial and industrial development. The Town will seek methods to protect water wells from use by an easement or purchase of land.

B. LAND USE

The Town has developed as primarily a residential area with a large commercial area which serves as a commercial hub for the surrounding rural areas and the Ocean beach communities. Most of the commerical area is along US 17, and residential use has in recent years begun to spread out to the limits of Town in scattered subdivisions (see Map A). Discussions of growth and land use have centered around the degree of intensive residential development, commercial growth, multi-family units, and industrial development and location. All of the urbanized uses, of course, must be considered in relation to the environmental aspects of the Shallotte River system. Policies considered: 1) Restrict future development to residential single-family development emphasis; 2) Continue the past patterns of residential and commercial development; 3) Foster more multi-family unit development and commercial uses, with strict limits on industrial growth; 4) Develop an open door policy of growth with active seeking of all kinds of development including an aggressive industrial posture.

POLICY 13: THE TOWN WISHES TO INCREASE ITS GROWTH RATE AND PROVIDE AN ATMOSPHERE OF OPEN GROWTH OF ALL TYPES OF LAND USES INCLUDING INDUSTRIAL DEVELOPMENT. IT IS EMPHASIZED, HOWEVER, THAT ALL DEVELOPMENT WILL BE CAREFULLY MONITORED AND REGULATED USING TOWN AND STATE REGULATIONS SO THAT SERVICES ARE PROVIDED, THE HEALTH, SAFETY AND WELFARE OF THE PEOPLE ARE PROTECTED, AND THAT NO SIGNIFICANT ENVIRONMENTAL DEGRADATION OCCURS.

THE TOWN WISHES TO EMPHASIZE ITS DESIRE TO ATTRACT INDUSTRIAL DEVELOPMENT, WHETHER IT BE HEAVY, MEDIUM OR LIGHT. ESPECIALLY IMPORTANT ARE INDUSTRIES WHICH ARE JOB INTENSIVE. DESIRED LOCATIONS ARE ALONG NC 130.

Implementation: The Town will set up a development task committee to pursue commerce and industry. The Town's zoning ordinance and subdivision regulations, along with other Town regulations will be updated in the next fiscal year and necessary revisions made.

C. TRANSPORTATION

Traffic on US 17 through Town continues to be a major problem. Although the provision of traffic lights and more off-street parking have served to reduce some of the hazards and problems of commercial traffic entering and exiting US 17, further steps are necessary. The Town has for some time been anticipating the construction of the proposed US 17 By-Pass. Policies considered: 1) Continued support for the By-Pass; 2) Seeking of additional traffic lights for US 17; 3) using public funds for the construction of a parking lot or parking garage; 4) Asking for a slower speed limit through Town; 5) Allowing no new commercial development without substantial off-street parking lots; 6) Construction of a parallel road; 7) Making US 17 three lanes.

POLICY 14: THE TOWN WILL CONTINUE TO PRESS FOR THE CONSTRUCTION OF THE PROPOSED US 17 BY-PASS. IN ADDITION THE TOWN WILL CONTINUE TO SEEK MORE TRAFFIC LIGHTS, AS WELL AS REQUIRE SUFFICIENT OFF-STREET PARKING AREAS FOR NEW COMMERCIAL DEVELOPMENT. THE TOWN WILL STUDY THE POTENTIAL FOR A PARALLEL STREET TO US 17 TO ALLOW LOCAL TRAFFIC TO MOVE MORE FREELY.

Implementation: The Town continues to keep in contact with state representatives regarding the By-Pass. The Town continues to seek additional traffic lights, and when the zoning ordinance is updated, stricter off-street parking regulations will be instituted.

D. ENERGY FACILITIES

Although the Town is primarily a residential and commercial community, industrial development is a use which the Town will be pursuing in the future. Furthermore, the Town considers major facilities such as energy facilities and utilities to be suitable growth inducing land uses, providing, of course, that environmental standards are met. Although little liklihood exists for such facilities to locate within the Town, the Town would consider doing its share to assist such development. Policies considered: 1) Designating areas suitable for pipelines, substations or possibly a powerplant; 2) Requesting the State to require power lines and other transmission lines to be placed underground; 3) The Town adding its voice to other communities opposing major facilities in the area.

POLICY 15: THE TOWN DOES NOT OPPOSE THE LOCATION OF MAJOR FACILITIES SUCH AS REFINERIES OR POWER PLANTS IN THE AREA PROVIDED THAT ALL REASONABLE SAFEGUARDS ARE USED TO PROTECT THE PEOPLE AND THE ENVIRONMENT.

E. TOURISM

Although many travelers and tourists pass through the Town on their way to other places, especially the nearby beach communities, the Town itself is not tourist oriented. The Town, rather, serves as a commercial center for summer residents of the beach communities and the surrounding rural areas. The Town has noted that its need for services does not increase substantially during the summer season. Policies considered: 1) Seek attraction of tourist oriented commercial/recreational activities; 2) Enforce strict standards to reduce opportunities for tourists to trade in town; 3) Continue to allow opportunities for tourists and

summer residents to make use of the trade center concept of the Town.

POLICY 16: THE TOWN WILL CONTINUE TO FOSTER THE TRADE CENTER CONCEPT OF THE TOWN.

Implementation: The Town will continue to allow visitors weekend opportunities to trade in town by continuing to disallow restrictive trade ordinances.

F. HISTORIC PRESERVATION

The Town has two historic sites, the Camp Methodist Church and the Sunnyside School. The Town does not have a substantial historic inventory, but what it does have is generally recognized as valuable to the community. The Sunnyside School was moved from its original site to the Town Park, so that the structure could be preserved and used as part of the recreation complex. No other archaeological or historic sites are known to exist in the Town.

POLICY 17: THE TOWN RECOGNIZES THE VALUE OF HISTORIC SITES AND WISHES TO PROTECT AND PRESERVE THEM.

Implementation: The Town Board and volunteer groups continue to monitor development in the Town and will continue to protect and preserve historic and archaeologic sites discovered.

G. RECREATION

The Shallotte Municipal Park has continued to see an implementation of its Master Plan. The Park has picnic facilities, swing sets, and the recent moving of the Sunnyside School to the Park site has added a historic facility.

The Town has been working closely with Brunswick County in the development of the County Park adjacent to the Town. The County Park

construction is currently underway and will offer many active and passive recreational opportunities. The Town anticipates the Municipal Park and the County Park will work in conjunction to provide excellent recreational opportunities. Policies considered: 1) Construct another Town Park; 2) Continue to work closely with Brunswick County in terms of future development of the County Park as well as coordination of the Shallotte Municipal Park development; 3) Concentrate on development of boat access on the Shallotte River.

POLICY 18: THE TOWN WILL CONTINUE TO WORK WITH THE COUNTY IN DEVELOPMENT CONCEPTS OF THE COUNTY PARK. THE TOWN WILL CONTINUE TO IMPLEMENT THE SHALLOTTE MUNICIPAL PARK MASTER PLAN. THE TOWN WILL CONCENTRATE ON THE DEVELOPMENT OF BOAT ACCESS SITES ON THE SHALLOTTE RIVER.

Implementation: The Town will set up a recreation committee to continue the County coordination, Shallotte Municipal Park Master Plan implementation, and selection and development of boat access on the Shallotte River.

H. REDEVELOPMENT

Few dilapidated residential or commercial structures exist in the Town. Although many structures are in need of aesthetic improvement, the Town has generally considered this to be a private property problem. No substantial redevelopment is seen as needed. Many residents, have, however, indicated a desire to see a beautification program instituted. Some volunteer groups instituted tree planting and other beautification projects. The Town, in cooperation with the State road cleaning project, provides extra trash removal service from time to time.

Since redevelopment is not considered to be a significant issue in the Town, no specific policy has been developed.

I. COMMITTMENT TO STATE AND FEDERAL PROGRAMS

The ongoing state and federal projects in Shallotte are: maintenance of highways, dredging of the Shallotte River, proposed US 17 By-Pass, federal assistance for the new sewer system, state and federal grants to the community for various program, North Carolina CAMA permitting program.

POLICY 19: THE TOWN CONTINUES TO EXPRESS ITS SUPPORT FOR THE ABOVE PROGRAMS WHICH AFFECT THE TOWN. THE TOWN EXPECTS TO WORK CLOSELY WITH THE COUNTY, STATE AND FEDERAL GOVERNMENTS TO INSURE THE HEALTH SAFETY AND WELFARE OF THE PEOPLE OF THE TOWN AND THE PROTECTION OF THE ENVIRONMENT.

8.4 PUBLIC PARTICIPATION

A. PARTICIPATION ELEMENT

During the planning process, the Town attempted to include the public in the process by letting it be known through newspaper advertisement that land use plan work sessions would occur as part of the regular monthly Town Board meetings. Although few citizens actually attended the sessions, the Town relied on continual newspaper articles to inform the citizens on the Plan's progress and content. Copies of the sections of the Plan as completed and maps related to the Plan were on file at the Town Hall for citizens to read and comment upon.

An attitudinal survey was conducted of all of the property owners of the Town to understand how residents felt about items closely related to planning. This information, analyzed in the following section, assisted the Town Board in the formulation of the Plan's policies. Policies considered: 1) Encourage public participation; 2) No policy.

POLICY 20: THE TOWN WILL ENCOURAGE THE PUBLIC TO PARTICIPATE TO THE MAXIMUM EXTENT POSSIBLE IN THE GOVERNING OF THE TOWN.

Implementation: The Town directs the Planning Board to set aside regularly scheduled meetings to discuss land use issues. The Planning Board will continue to advise the public on the nature of items being considered by the Town Board. They will cooperate with the press and prepare releases for bringing the public up-to-date on government activity.

B. ATTITUDINAL SURVEY ANALYSIS

During the planning process for the land use plan the consultants

conducted an attitudinal survey of the residents of the Town. The purpose for the survey was to understand how local residents felt about items that were closely related to planning. However, because the Census information was still not available, the survey also attempted to preliminarily gather some of this information.

The attitudinal survey was conducted through a random sample mail-out under controlled conditions. Based on the number and quality of the responses, we judge the confidence rate at approximately 85% on most answers.

Some of the conclusions from the survey are as follows: (1) the major problems facing the Town of Shallotte are the need for a public sewer system and for a by-pass to Route 17 business traffic; (2) there is a strong support for zoning ordinance amendments and probably for building codes and local health and environmental ordinances; (3) there is a strong pro growth attitude (tempered by limiting certain types of growth, especially commercial, industrial, and non-single family housing).

Of the 46 persons who completed the survey, all but three were males. The respondents showed a broad span of the age spectrum. They indicated that a large percentage of the homes in the Town were inhabited by a family consisting of grandparents, parents and children. In many instances there were four or more full-time employed persons in the household. About 35% of the households had incomes exceeding $35,000 a year, yet the employment would not be considered to be principally from professions, or high paying occupations. The average size for the family was 3.18 persons. 36% of the respondents had moved into the area within the last 5 years.

In rating the adequacy of services and facilities, 54% of the respondents judged the inadequacy of septic systems and the need for public sewers as the most critical problem; 42% felt that they were fully dissatisfied with recreational opportunities (69% were more dissatisfied than satisfied with this service); a significant number of persons were very dissatisfied with roads and thoroughfares and surface drainage. Many of the respondents appear to be willing to pay an additional amount in local taxes to attain relief from the services or facilities they judge as inadequate. Typically, the residents appear willing to pay about $100 per year for sewer; $25 or more for recreation; and $10 for some other services. Only 15% of the people responding indicated an unwillingness to back new facilities or services because they were already being taxed too much. Ironically, the dissatisfaction index was higher among those unwilling to pay than those willing to pay.

92% of the respondents back a public sewer system. They typically view their costs at about $100/year in 1980 dollars. This is a healthy attitude since the residents appear to strongly favor a pro growth attitude. Only 8% of the residents were for decreasing the existing growth rate, which is best described as above average for the State. 35% of the respondents desired to significantly increase the rate of growth. Probably in recognition of this pro growth attitude, the respondents seemed concerned about the amount of certain kinds of development and its timing and location. 77% of the respondents desire to restrict or prohibit future mobile home growth; 58% want to restrict low income housing; 54% desire to restrict industrial development; and 35% want to restrict multi-family. Most of these restrictions could

be addressed through a zoning ordinance. Several of the respondents even commented that a zoning ordinance was needed to address this and other problems.

The respondents were extremely heavily in favor of taking local action to protect environmental features, including aquifer recharge areas, wooded areas, steep slopes and scenic areas (Most answers were in the 70% and above percentile). This problem can typically be approached through regulating densities and dealing with clearing and cutting in a zoning ordinance). Over 50% of the respondents would have the locality adopt regulations to protect the environment even where the State or Federal government has already taken regulatory action.

30% of the respondents did not find the Town's visual appearance attractive. Frequently, these respondents drew attention to the number of dilapidated houses in the Town. The enforcement of a building code would probably alleviate this problem.

62% of the respondents complained about the adequacy of parking in the Town. This rated comparably to problems with traffic flow.

The consultants note that there may be at least one indicator of future problems that bears watching. From the survey, it is noted that 26% of the work force appears to be commuting over 25 miles to work (some as many as 50 to 60 miles). Inevitably this group has made a value judgment that they would rather live in a small town and commute than live in the bigger city. With gas prices approaching $1.50 per gallon, we may reach a point at which the costs of traveling to work are operating as a dissincentive to working. Presumably these people will move

rather than function with continually smaller real incomes. If this happens, there could be a sizable out-migration. Thus, although the people were convinced that the Town's position concerning future employers could be selective, the consultants are concerned that this attitude may change drastically in the near future.

In conclusion, in terms of planning needs the survey seems to indicate the need to progress with sewer plans, make some arrangement with the State Department of Transportation to create a north-south by-pass, and to enact zoning ordinance amendments (building codes, subdivision regulations) to protect the environment and limit or restrict unacceptable uses.

PART V: LAND CLASSIFICATION

The land classification system has been developed as a means of assistance in the implementation of the Plan. By delineation of land classes (see Map B), the Town has indicated where growth is expected to occur and where they want to insure conservation of natural and conservation resources.

Although specific areas are outlined on the land classification map, land classification is merely a tool to help implement policies and is not a regulatory mechanism in itself.

Transition:

The purpose of the transition class is to provide for future intensive urban development within the ensuing ten years on lands that are most suitable and that will be scheduled for provision of necessary public utilities and services.

A central theme through the policies is the desire of the community for growth and development with appropriate services and controls. The Town has used its zoning and subdivision regulations to regulate growth and insure development opportunity. The Town has, however, recognized the limitations of its natural environment. The Shallotte River estuarine system represents an area not suitable for transitional urbanized uses. The soils of most of the community are not suitable for on-lot-sewage disposal, a factor which has not limited the Town's growth potential.

The Town has, however, embarked on a course to make it a growing trade center in the region. The community presently provides public water,

fire, police, street maintenance and solid waste removal to the residents. The Town is presently in the process of constructing a public sewer system to serve all areas of the community. The Town continues to work at improving the traffic flow on US 17 by pressing for more off-street parking, traffic lights, and perhaps a parallel street to help with local traffic flow. The US 17 By-Pass is a major project which the Town continues to support.

It is the Town's intention, through the implementation of the policies in the Plan, to assist in protecting the AECs by considering those lands to be conservation by classification, and the remaining lands in the Town to be transition. The transition lands, once public sewer is available, will be suitable for community growth with careful enforcement of zoning and subdivision regulations. Suitable uses will be residential, commercial, institutional, transportation, and industrial. All uses as to location and density will be regulated by the zoning map and land regulations. The development rate and densities will also be matched by the provision of services.

Conservation:

The purpose of the conservation class is to provide for effective long-term management of significant limited or irreplaceable areas. Such management is needed because of its natural, cultural, recreational, productive or scenic values. In the Town, these areas include the AECs (e.g. estuarine water, estuarine shoreline, coastal wetlands, and all surface waters). The Shallotte Municipal Park is included in this category, since it serves as a recreational and historic center. it is anticipated, however, that public sewer could be extended to the park in order to provide users with a facility.

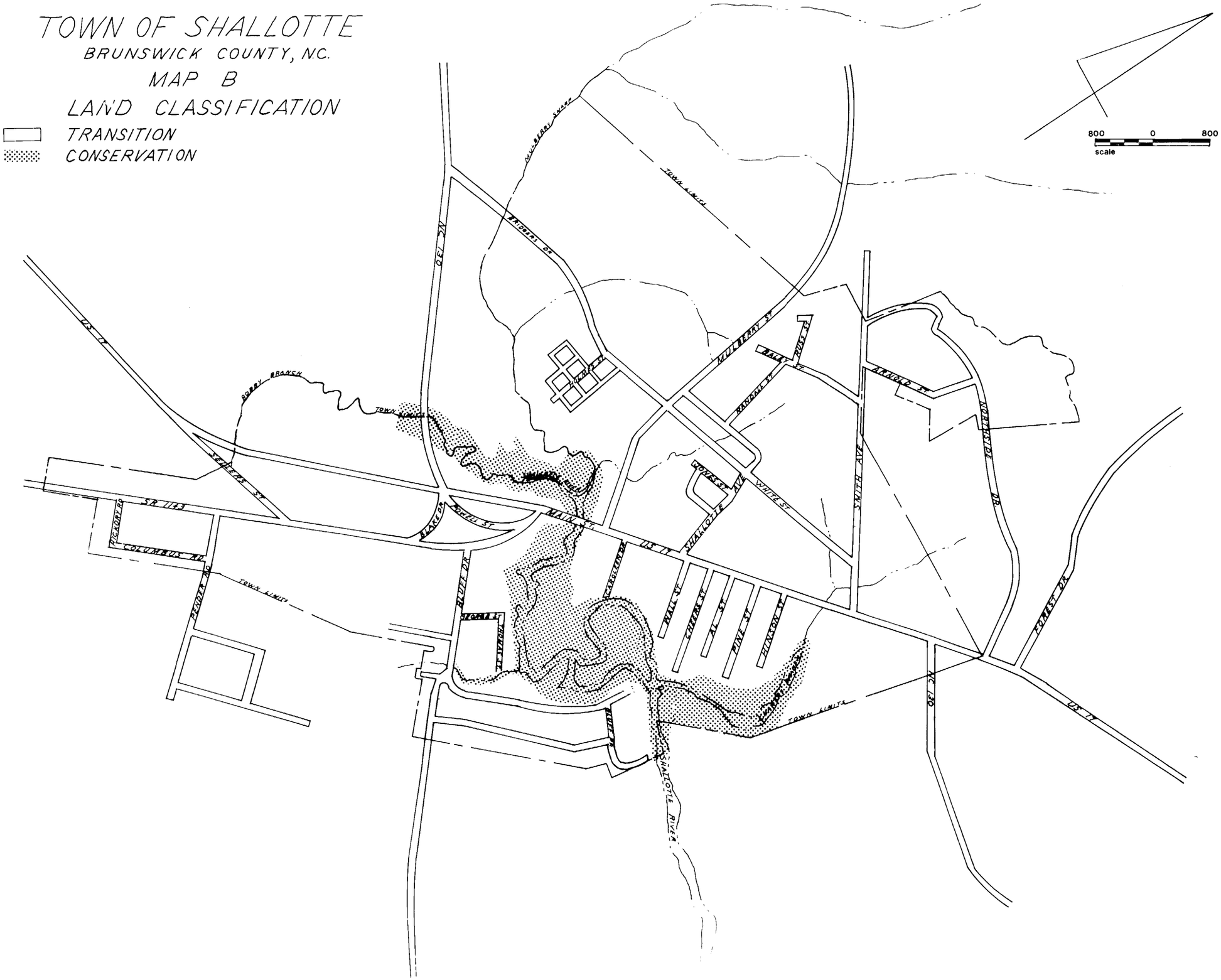
The Town supports CAMA regulations in applying standards for AEC areas. The Town may permit uses which do not significantly harm the environment and which are permitted by the CAMA program (see section 8.1 for further discussion). As discussed in section 8.1, the Town will do its part in terms of permitted uses and regulation of activities in or near the AECs to protect the environment. The Town's zoning standards affecting the conservation zone will be revised during the next fiscal year to better define the protective concept afforded to the conservation zone.

TOWN OF SHALLOTTE

BRUNSWICK COUNTY, N.C.

MAP B

LAND CLASSIFICATION

TRANSITION

CONSERVATION