AURORA

OCT 1987

TOWN OF AURORA

LAND USE PLAN UPDATE

1986

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North Carolina Coastal Zone Management Plan

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AURORA LAND USE PLAN

UPDATE

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SEPTEMBER, 1986

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The preparation of the plan was financed in part by a grant provided by the North Carolina Coastal Management Program, through finds provided by the Coastal Zone Management Act of 1972, as amended, which is administered by the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration.

Adopted by the Aurora Town Council on April 21, 1986.

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1986 AURORA LAND USE PLAN UPDATE

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DATA COLLECTION AND ANALYSIS

Introduction

Land development generally takes place as the result of a series of decisions by private individuals and government. If left entirely to chance, the resulting pattern of development may not be in the best overall community interest. To promote this community interest for both present and future generations, a land use plan is developed, adopted and kept current by the local governments in the coastal area.

The land use plan is a framework to guide local leaders as they make decisions affecting development. Private individuals and other levels of government will also use the plan to guide their land use decisions. Effective use of the plan by these groups will lead to the more efficient and economical provision of public services, the protection of natural resources, sound economic development, the protection of public health and safety, and enhancement of the community's quality of life.

The Town of Aurora has responded to these needs by electing to complete and update its land use plan. The preparation of this plan represents an effort by the Town to guide development in a way which will maximize public benefits. It was financed in part through a grant provided by the Coastal Zone Management Act of 1972. These funds are administered by the Office of Coastal Zone Management of the National Oceanic and Atmospheric Administration through the North Carolina Department of Natural Resources and Community Development (NRCD) Division of Coastal Management.

ESTABLISHMENT OF THE DATA BASE

One purpose of the 1986 Land Use Plan is to update the information given in the 1981 plan and to outline any new developments that have taken place since the completion of the last plan. The 1981 plan and its counterpart, the original 1976 Land Development Plan, serve as the primary sources of information for this effort. Various other sources were used to update and expand the data base.

Socioeconomic data were gathered from a variety of sources. The 1980 U.S. Census of Population provided updated population figures, and these figures were updated with data provided by the N.C. Department of Administration. The North Carolina Department of Natural Resources and Community Development (NCDNRCD) Division of Marine Fisheries provided data on the fishing industry in and around the Aurora area. Additional statistics were gathered from The Directory of Manufacturing Firms, 1984 and the Beaufort County School Superintendent. The NCDNRCD Divisions of Environmental Management and Soil and Water Conservation were very helpful in providing information. Additional sources were consulted, including the Mayor and Town Clerk.

Information on land use within the Town's jurisdiction was acquired from a variety of sources. United States Geologic Survey 7 1/2 minute quadrangles, the Beaufort County Soil Survey, zoning maps, building permit records and on-site inspections were used to assess the development that has occurred since the 1981 plan. Personal interviews with technical experts, such as the

District Soil Conservationist, supplemented information on land development trends in the Aurora area.

To ensure the accuracy of the data presented in this plan, several groups and persons were asked to review the plan during the writing stages. The Planning Board, Mayor and Town Board of Commissioners proofread the text to ensure its accuracy and direction. The combination of these sources aimed to provide the most concise picture of the development trends in Aurora.

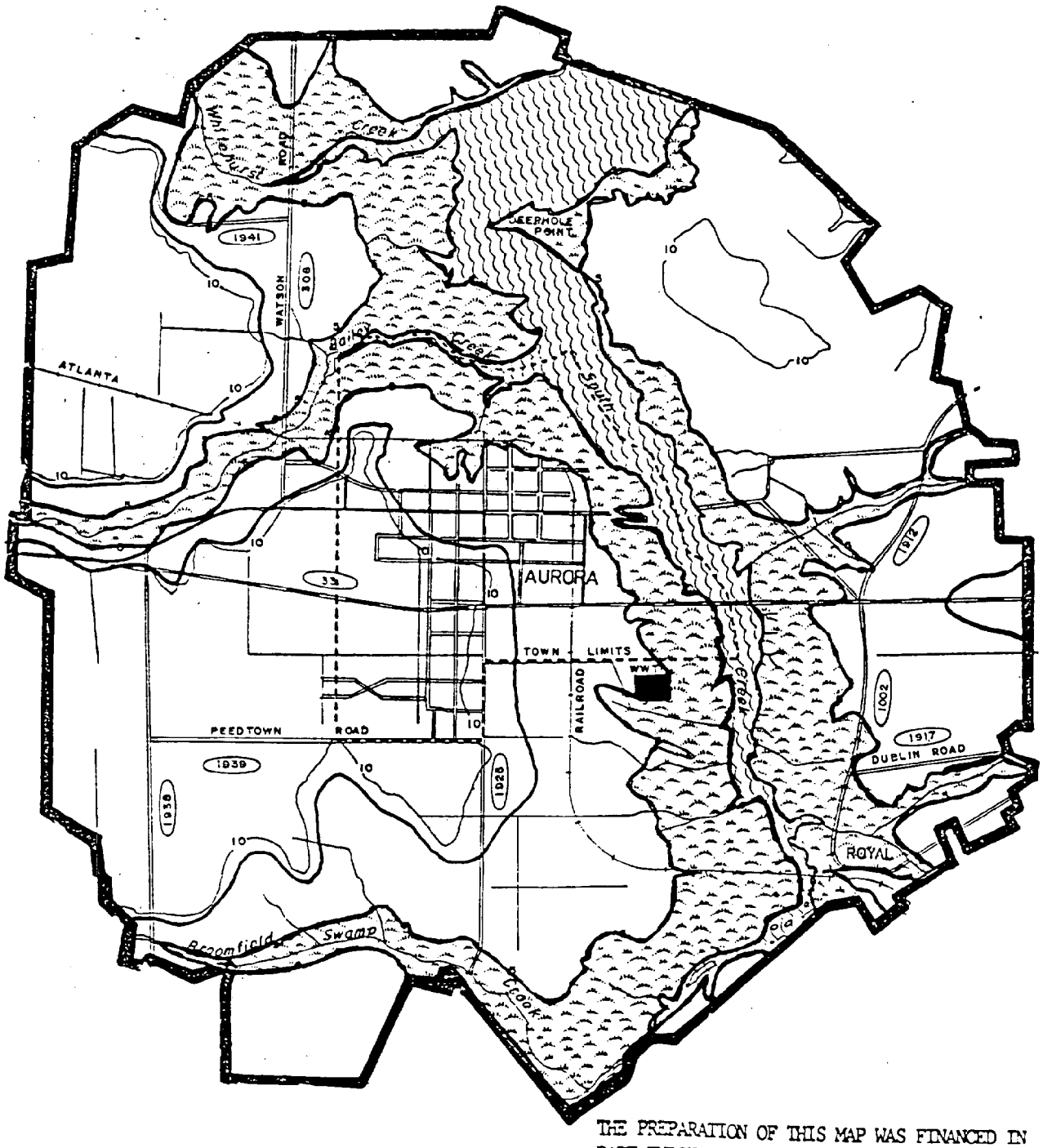
PRESENT CONDITIONS

Present Population and Economy

The Town of Aurora is situated on South Creek, a tributary of the Pamlico River, in southern Beaufort County (Figure 1). It is a Town which, until the early 1960s, existed primarily as a fishing community. Since 1970, however, the population has risen significantly and the economy of the Town has changed. In the past 26 years, Aurora has grown by more than 60 percent (Figure 2). In contrast, Beaufort County has increased its population, but not at the same magnitude as Aurora. Looking at the past 25 years reveals that most of the growth occurred from 1960 to 1970. This coincides with the decision by Texasgulf to locate a phosphate mining plant near Aurora. The Town developed residential areas as well as service industries to accomodate the growth brought on by the industry. Since 1970, the population increase has been slow, but steady. This growth can probably be attributed to the decision by Texasgulf workers to locate their residences closer to work.

Figure 1

AURORA PLANNING AREA



GRAPHIC SCALE

1000' 0' 1000' 2000' 3000'

THE PREPARATION OF THIS MAP WAS FINANCED IN PART THROUGH A GRANT PROVIDED BY THE NORTH CAROLINA COASTAL MANAGEMENT PROGRAM, THROUGH FUNDS PROVIDED BY THE COASTAL ZONE MANAGEMENT ACT OF 1972, AS AMENDED, WHICH IS ADMINISTERED BY THE OFFICE OF COASTAL RESOURCE MANAGEMENT, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.

Figure 2

POPULATION CHANGE FROM 1960 TO 1984:

AURORA AND BEAUFORT COUNTY

	1960 POPULATION	1970 POPULATION	1980 POPULATION	1984 POPULATION	1960-80 PERCENT POPULATION CHANGE	1980-84 PERCENT POPULATION CHANGE
Aurora	449	620	684	724 *	61.2%	5.84%
Beaufort County	36,014	35,980	40,355	43,818	21.6%	8.58%

Source: N.C. Census of Population, 1980.

* 1984 Municipal estimates provided by N.C. Department of Administration.

A seasonal population flux does not play an important role in the public service demands placed on Town facilities. Recreational activities such as hunting and fishing attract a very small number of tourists and summer residents to the area. This limited number of visitors, however, does not tax the adequate provision of water and wastewater services.

Other statistics may shed light on the composition and lifestyle of the residents of Aurora. The population is composed of approximately 58.7 percent whites, while non-whites account for approximately 41.3 percent of the total population. The median age of Aurora is 28.8 years compared to 28.3 years for the state. This implies that one half of the population in Aurora is older than 28.8 years and the other half is younger. Aurora's per capita income of 6,439 is sufficiently less than the state amount of 8,189 (1983 statistic).

The economy of Aurora is mixed. Figure 3 shows employment of persons 16 years and older by industry in Aurora. Nearly 35 percent of those employed are in the fishing, farming, forestry, or mining business. The phosphate industry is a major employer for eastern North Carolina as well as Aurora. Plans call for the expansion of the Texasgulf labor force by 1990. This will impact the Aurora economy as many employees will look to Aurora as a convenience center. Given the trend of Texasgulf employees locating their residences within close range of the plant, supplemental residential construction is likely to occur in and around Aurora.

Figure 3

EMPLOYMENT BY PERSONS 16 YEARS AND OVER BY INDUSTRY

AURORA

Industry	Total Persons	Percent
Agriculture, Forestry, Fishing and Mining	85	34.7
Construction	10	4.0
Manufacturing	37	15.1
Transportation	7	2.8
Communications and other Public Utilities	4	1.6
Wholesale Trade	24	9.8
Retail Trade	23	9.4
Finance, Insurance and Real Estate	9	3.6
Business and Repair Services	4	1.6
Personal, Entertainment and Recreation Services	5	2.0
Health Services	6	2.45
Education Services	18	7.3
Other Professional and Related Services	0	0.0
Public Administration	13	5.3
TOTAL	245	
UNEMPLOYMENT	21	8.57

SOURCE: N. C. Statistical Abstract, 1984.

Aurora's economy is highly dependent on the phosphate mining industry for jobs and revenue. But, it is important to note that the local phosphate mining industry is sensitive to the world phosphate market. Any significant decline in demand would have serious implications for Aurora. The recent buy-out of North Carolina Phosphate Company by Texasgulf resulted in a net loss of 60 Aurora-area jobs. Additional declines in the demand for phosphate could create economic distress in Beaufort County.

As stated above, primary industries like farming, fishing, forestry and mining constitute more than one-third the total employment. Agriculture, although not a major employer in the area, is still an important component of the Aurora economy. The overall decrease in agricultural employment has been triggered by the widespread use of heavy machinery and the introduction of farming methodologies which require less labor. Farming is very important in terms of land use, however. Agricultural land use constitutes approximately 40 percent of the total land area within the one mile extraterritorial jurisdiction area. The crops most widely grown are potatoes, corn, soybeans and wheat. Peaks in agricultural employment typically occur during the harvest season in late summer/early fall.

Although much of the land adjoining the one mile limit is in forests, there appears to be little activity associated with harvesting the timber from the land. Most of the forested areas lie around South Creek and in the extreme southern and northern areas of the territorial limits. Other areas dense with forests are east of South Creek. Logging these areas would not consti-

tute a major economic impact on Aurora since most of these logs would be exported to pulp mills out of Aurora's influence.

The fishing and seafood industry is an important component of the economy. This is largely because of the number of people it employs and the financial gain it offers to the Town. Since 1981, Beaufort County has consistently been in the top eight counties in commercial seafood catches, poundage and monetary value. Several commercial fishermen claim residence in the Aurora area. In addition, there are currently two seafood processing plants in Aurora which employ a total of 100 persons during the peak season. These seafood businesses deal with crabs, shrimp and various types of finfish. There is also a small industry nearby which makes wire crab pots for local use. Recreational fishing and boating provide an unknown but suspectedly large boost to the Aurora economy. Fuel, food, beverages, bait and marine supplies are items commonly purchased by these seasonal recreators.

Only one industry, Texasgulf, employs a significant number of workers (Figure 4). Texasgulf has about 1200 workers who come from all parts of the surrounding area. As stated above, TG is involved in phosphate mining as well as production of phosphate products. All other local industries are reliant on the seafood industry for their existence. Aurora has become a good site for industrial location because of the extensive amounts and types of raw material it can provide for manufacturing.

The phosphate mining business has had a strong impact on the economy of Beaufort County and Aurora. Beaufort County officials

Figure 4

AURORA AREA MANUFACTURING FIRMS

Name	Address	Product	Employee Number
Texasgulf, Inc.	P. O. Box 48	Phosphoric acid and other phosphate products	1000-2499
Carolina Seafood, Inc.	P. O. Box 354	Crab meat, raw crabs	20-49
Henries Fishing Supplies	Highway 33	Wire crab pots	10-19
Bay City Crab Co.	N. C. 306	Crab meat, raw crabs	20-49
Daniels Seafood Co.	South Creek	Crab meat, raw crabs	20-49
Aurora Packing Co.	Highway 33	Crab meat, raw crabs	20-49

Source: N. C. Directory of Manufacturing Firms, 1984.

claim that one out of every five tax dollars in Beaufort County is paid by Texasgulf. TG's economic contribution to the area has been substantial, but the environmental impact of their intensive phosphate mining facilities has been under question. Conservationists and entrepeneurs have worked hard to improve the company's environmental record. There is an estimated amount of mineable phosphate in the Aurora area to keep an operation like Texasgulf in business for 300 years. THe expansion of mining operations into the Aurora planning area could have detrimental effects on the land quality and quality of life for Aurora residents. Again, the financial and natural value of the land and water resources would be under dispute. The Aurora zoning ordinance requires that all mining within the planning area will be subject to a special use permit that will be examined on a case-by-case basis. Such an expansion of mining operations would favorably impact the economy, but the value of the natural system could be at stake. This dilemma, a common problem for any large-scale, resource intensive manufacturing operation, would be evaluated by the Planning Board at the time of the request.

A seasonal variation in employment is typically a problem in the Aurora area. Off-season seafood processing and agricultural unemployment is a serious concern for the economic development of the area. Women are typically the victims of the seasonal unemployment problem. No industries within the planning area employ women on a full-time basis.

Summary

The analysis of the demographic and economic conditions reveals that Aurora supports a stable economy and population. Steady population growth in the population has been the trend over the past 25 years. This trend is expected to continue. The major industries of the Town are currently experiencing prosperous times, but it is shown that this may not always be the case. Most local industries are dependent upon market demand fluctuations or the bounty of the land or water for their economic growth. Additional growth in the economy, excluding the phosphate mining industry, is not likely to have a significant impact on the natural resources of the area. As discussed in the following sections, Aurora has adequate services to accomodate any projected growth in population.

EXISTING LAND USE

Introduction

Before intelligent decisions can be made directing future land use in a community, there must be an inventory of the present land uses. This inventory should take note of the types of land uses, their amount, and their distribution. The following section details the existing land uses within the Aurora planning area.

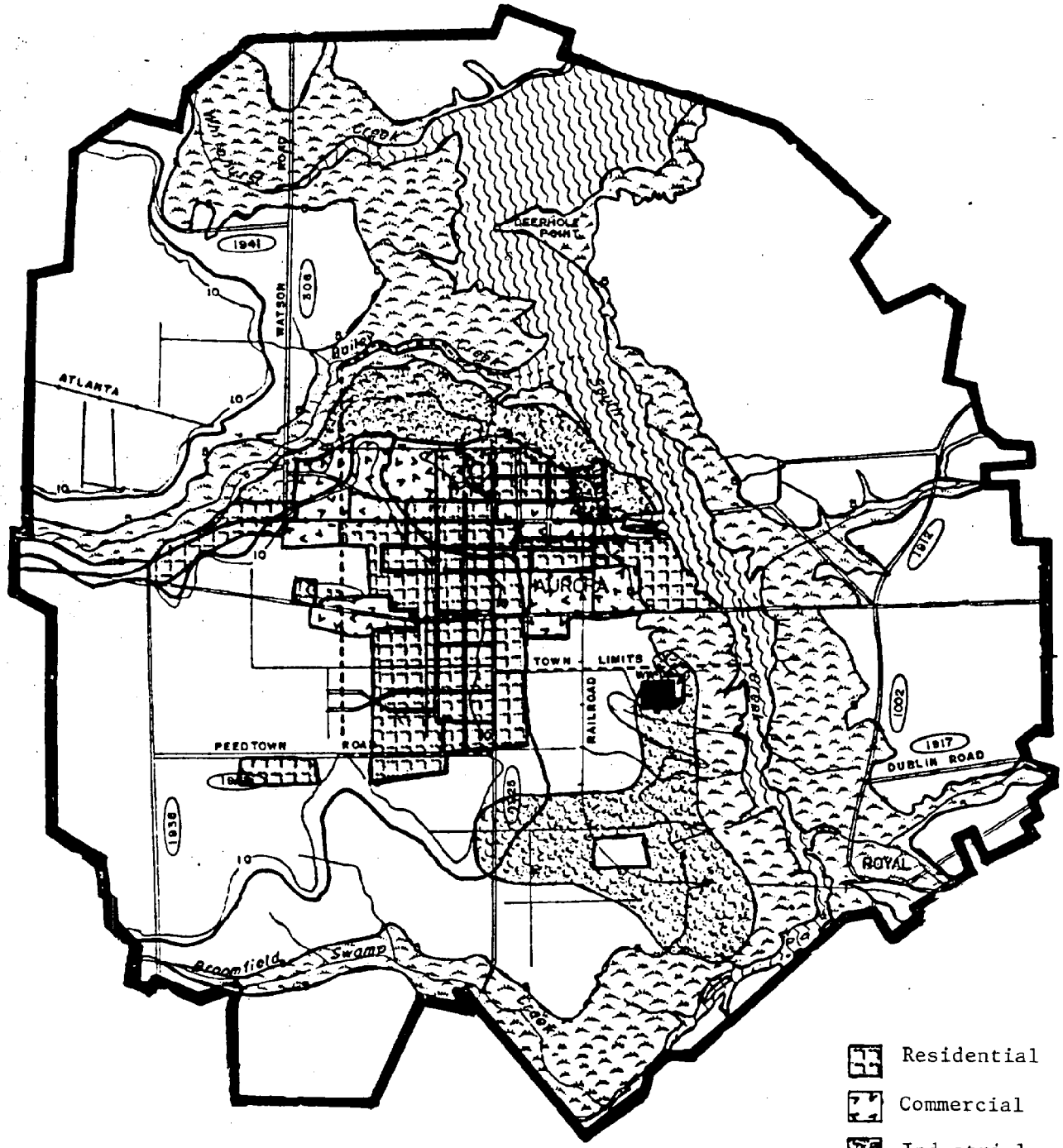
Land Use Summary

The Aurora planning area includes the land within the Town limits and the land outside the Town to a distance of one mile (Figure 1). The total area encompasses slightly more than eight square miles, but only about 30 percent of the planning area is within the corporate limits. Within the planning area, approximately 12 percent of the land is developed for urban purposes. Most of this developed land is within the Town limits. The majority of the undeveloped land is in forests, agriculture, or wetlands.

There has been little change in the layout of the land since the 1981 plan (Figure 5). The existing land use map shows that most land uses within the Town limits are residential, commercial or related to agriculture. Residential development is concentrated in the areas south of Highway 33, the blocks surrounding Main Street, and in the blocks between Main Street and NC 33. Since 1981, only 11 building permits have been granted. Of these, nine have been residential construction permits. Most new

Figure 5

EXISTING LAND USE 1986



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- Residential
- Commercial
- Industrial
- Agricultural/ Open Space
- Forested
- Wetlands
- Surface Waters

residential starts within the past five years have been in the area around Grace Drive south of Highway 33. Several other permits have been granted for development of houses in the northeastern quadrant of Town between Main and Railroad Streets. This area has also been popular for the placement of mobile homes. Outside the Town limits, various traffic arteries appear to be catalysts for housing development. Residential land uses occur in the southeastern quadrant of the planning area along NC 1002. Other clusters of homes can be found in the vicinity of Weeping Chapel Church, along NC 1925 south of Town, and in the Royal/St. Peter's church area. Other houses are scattered sporadically throughout the planning area. Wide tracts of undeveloped land are located within the Town limits as well as in the planning area.

Commercial land uses are those which support retail or personal services. Within the planning area, several concentrations of commercial uses exist. These are the downTown business district, the Fifth Street blocks, and the strip development stretch extending westward along Highway 33. The NC 33 corridor has attracted numerous commercial establishments within the past five years. In fact, since 1981, the two commercial business permits granted have been for sites along this road. The block made up by Highway 33 to the south, Third Street to the east, and Fifth Street to the west has grown into an institution/office center. The community health center and a dental office have located here within recent years. It is expected that future commercial, institutional and office space needs will be met in

these existing commercial areas. Westward expansion of the strip development is also expected.

The industrial areas of Aurora are located in the north-eastern quadrant of Town and along Second Street. They consist mostly of fish and crab processors. The phosphate mining industry is located outside of the Town's extraterritorial limits, and therefore is not included in this plan. Recently, a zoning request from commercial to industrial use was granted for a stretch of land along Highway 33 west of Town near Potter Oil. All future industrial uses should be confined to the existing industrial zones because of industry's undesirable effects on any other land use.

Only about 20 percent of the extraterritorial area is forested. Of this, only about 5 percent is situated within the Town limits. Two concentrations of forested land exist in the planning jurisdiction. These are located in the northern section of Town along Bailey Creek and the southern section of the planning area along South Creek. Presently, there are no serious land use compatibility problems with these forested lands. However, should these areas be logged, short-term aesthetic problems might result unless wise harvesting/reforestation practices are used.

Most of the land within the extraterritorial limits is cleared for agricultural uses. All of these lands are either currently devoted to crop production as their primary function or serve as pasture area. Most of these agricultural lands lie in an unbroken stretch south of Highway 33 to the boundary of the

extraterritorial limits. There are tracts of land north of Bailey Creek and in a block south of Highway 33 and east of Fifth Street which are cleared for agriculture. Within the Town's planning jurisdiction, there are no apparent conflicts between agricultural and other uses. As the demand for residential and commercial uses increases, the agricultural land along Highway 33 may be exposed to development pressure. No other compatibility problems are expected to arise.

The zoning ordinance will prevent any compatibility problems between commercial and residential land uses. The areas most likely to experience change in the planning region can be found in several locations. Additional residential development is expected in the area near Grace Drive within the Town limits. Outside the Town limits, additional construction along transportation routes is possible. The Royal/St. Peter's church area is already a small residential community and will likely grow as additional dwellings are built. As stated, commercial uses are likely to expand along the Highway 33 route in a westerly direction from Town. This will not cause any infringement problems on agricultural land, as the area is already considerably developed. There are no major problems that have resulted yet from unplanned development, nor any which will have a bearing on future land use.

In summary, there are no significant land use compatibility problems in the Aurora planning district, except for the large phosphate mining operation located on the fringes of the planning area. The conflict exists between agricultural land uses and the

mining operations. As stated above, a zoning ordinance has been created which will prohibit mining within the Town's extraterritorial limits without a special use permit. No conflicts in land use are anticipated within the next ten years. It is unlikely that the phosphate industry or any other expanding development will promote serious land use incompatibilities within the Town's one-mile extraterritorial limit.

CURRENT PLANS, POLICIES AND REGULATIONS

Plans

Aurora presently has three planning documents that have a direct impact on land development in the area. In addition, numerous county and regional documents, to a limited degree, address Aurora development issues. The following is a list and description of the plans since 1981 which are related to Aurora's growth.

Community Facilities and Public Improvements Plans - The 1981 Land Use Plan update outlines a community facilities and public improvements plan completed in 1978. Since the completion of the plan, nearly all of its goals have been attained.

Land Use Plans - Since the passing of the Coastal Area Management Act, two land use plans have been completed. The land classification map which accompanies the plan is useful in determining land use changes in the planning area.

Capital Improvements Plan - Since 1981, no documents have been prepared which outline the capital improvement plans for the Town. The Town is currently carrying out a 201 Facilities program in accordance with the NRCD Division of Environmental Management.

Policies

Policies are defined as statements of intent and courses of action which are followed to reach a desired goal. The following is a list of the policies the Town of Aurora currently has regarding development.

Utilities Extension Policies - The capacity of the community facilities is discussed in "Constraints: Capacity of Community Facilities" (page 38). Aurora's sewer hook-up policy is applicable to all potential customers who discharge at an equivalent amount and quality as domestic customers. This is done on a case-by-case basis depending on the waste characteristics. All sewage lines are provided by the Town and maintained to the customer's property lines. Owners of private wells are eligible for sewer extension up to one year after the date of construction completion. The same is applicable for water service. Water fees are set higher for customers outside the Town limits.

Open Space and Recreation Policy - There is no comprehensive recreation plan for the Town of Aurora. During the summer months, the Town appoints a recreation director who arranges and manages sports teams. The schools serving Aurora also have a summer recreation program. There is little immediate need for the Town to formulate a recreation policy with these two programs in place. The Town owns and operates a boat launching facility which was a part of the Capital Improvements Program outlined in the 1981 plan.

Regulations

The Town of Aurora enforces several regulations which have an impact on development. The building inspector is responsible for enforcement. Regulations currently in place are:

Zoning Ordinance

Building and Housing Regulations

Mobile Home and Trailer Park Ordinance

Subdivision Ordinance

Building and Plumbing Regulations

Flood Zone Insurance Requirements

Nuisance Ordinance

The Beaufort County Health Department regulates the permits for septic tank and well placements. In addition, the subdivision ordinance regulates a minimum lot size of 20,000 square feet for septic tank users. Within the Town limits, all but approximately ten percent of the inhabitants are hooked up to the municipal water and wastewater systems.

Special use permits are required for various activities within the Aurora extraterritorial limit. They are mandatory for mining operations, any food processing plants, textile and clothing manufacturers, business and professional offices, multi-family dwellings, and boat storage docking facilities. In addition to the special use permit, the Town also requires a submittal of an outline of the environmental impacts of the above types of development prior to rendering decisions.

The Town has no designated historic district, thereby eliminating the need for historic district regulations. There are several structures, however, located in the downTown area that are historically and architecturally significant, but are not recognized as such. Dune protection ordinances are not required as there are no dunes within the planning area. Sedimentation regulations are in accordance with the NC Sediment

Pollution Control Act. Other federal and state regulations enforced in the Aurora planning area are outlined in Appendix A.

CONSTRAINTS: LAND SUITABILITY

Introduction

The fundamental premise of land use planning is that distinctions exist between land masses which make them suitable for various uses. Conversely, not all lands are suitable for the same types of development. For example, there may be areas with soils too wet to support foundations. The following section delineates areas with such constraints to guide future development decisions.

Physical Limitations for Development

Hazards

Two types of hazards may impede growth: man-made and natural hazards. There are four man-made hazard areas in the planning area which should be excluded from development. First, the phosphate mining pits located near the Town present a hazard to development. Also, the large industrial complex which houses Texasgulf could present a hazardous development situation because of the dangerous gases, like hydrogen sulfide, used at the plant. Very low density land uses, like agriculture and forestry, would be best suited to areas around the plant.

A runway is located in the extreme eastern portion of the planning area. It is used primarily as a landing strip for crop dusting planes. Any development permitted near this site should be limited to low density residential development. The land underlying the approach pattern is exposed to obvious crash hazards and inconveniences due to noise from aircraft.

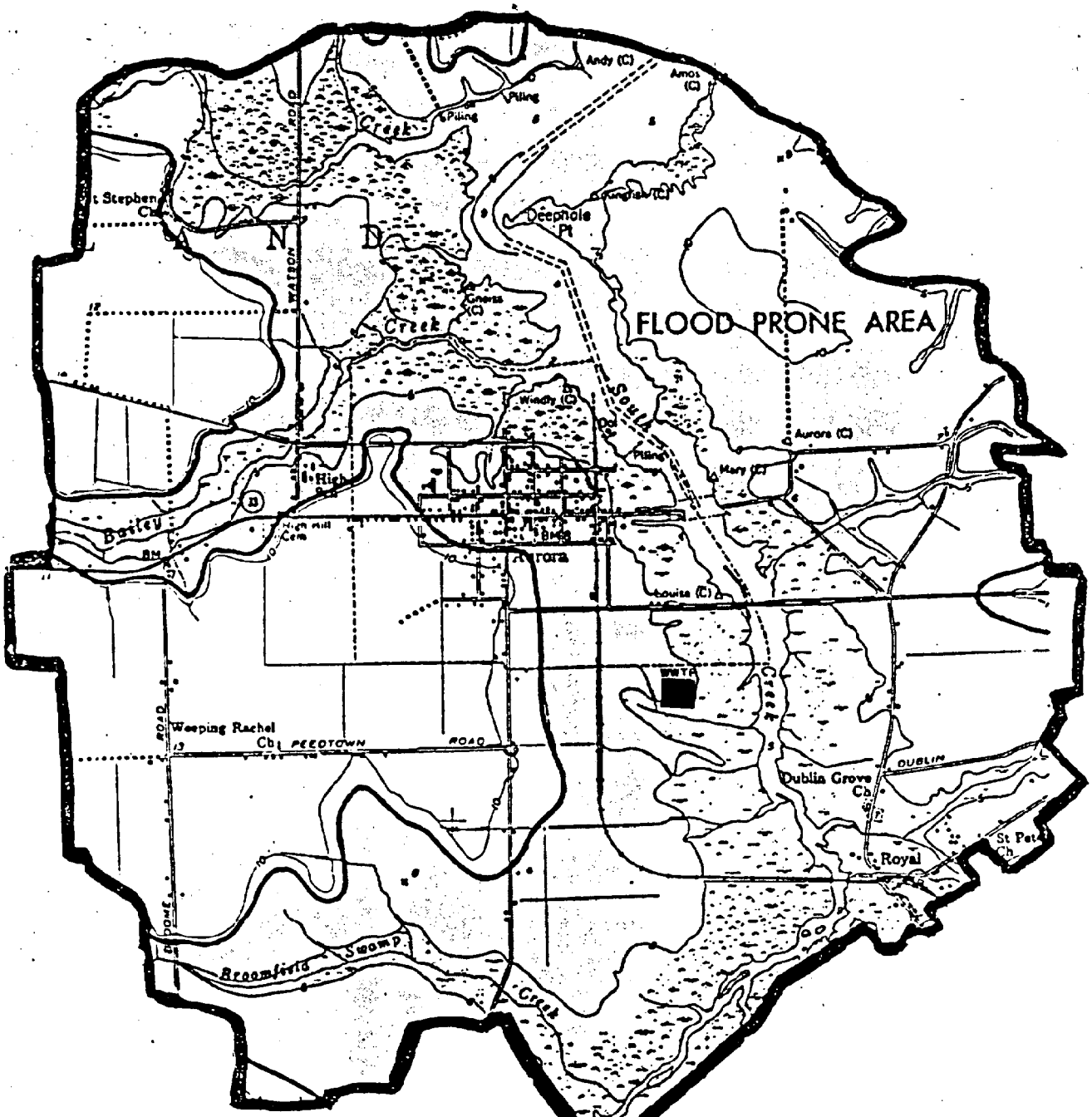
Flammable liquids, such as fuel oil, are stored in three locations in Town. Aurora Gas, Potter Oil Company and Hooker & Hollowell Oil Company are situated on the major thoroughfares through Town. Commercial structures are most likely to be developed adjacent to these structures, given the zoning ordinance. It is recommended that residential development should be targeted to less hazardous areas. Nuclear power plants would not impact planning decisions as none are located in the immediate area.

Marine Corps Air Station Cherry Point and Seymour Johnson Air Base, training bases for military aviators, are located near Aurora. The airspace located over Beaufort County has traditionally been situated in military flight patterns for training pilots. Recently, there has been discussion between military officials and the public regarding the expansion of the Military Operating Airspace (MOA) over Beaufort County. The increased possiblity of air accidents poses a higher risk of danger and would have an effect on Beaufort County land use patterns.

The flood prone areas in Town are naturally hazardous zones where development should be carefully monitored. The United States Geological Survey flood prone area maps show that approximately 66 percent of the Town is located in the 100 year flood plain (Figure 6). This means that these areas have a one in 100 chance of being inundated in any one year. Nearly all parts of Town with paved roads are located in the 100 year floodplain. Certain building restrictions, in accordance with the Flood

Figure 6

FLOOD PRONE AREA



Source: U.S.G.S. Flood Prone Area Map, 1982.

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Insurance Rate program, exist in these areas (1986 Planning Board).

Soils

Soils in the planning area were mapped by the Soil Conservation Service. The soil survey was used to determine which soils present development limitations due to wetness or high shrink--swell potential. The local soils are composed mostly of the Tomotley and Arapahoe fine sandy loams, the Portsmouth loam and the Dragston loamy sand. Probably 60 percent of the planning area is covered by the Tomotley soil association. All these soils are poorly drained and have severe limitations for the placement of septic tanks because of their slow permeability, poor filtering ability and wetness. The Beaufort County Health Department is responsible for permitting septic tanks in the Aurora planning region. All local soil types would also present a problem for building foundations, as subsidence is likely.

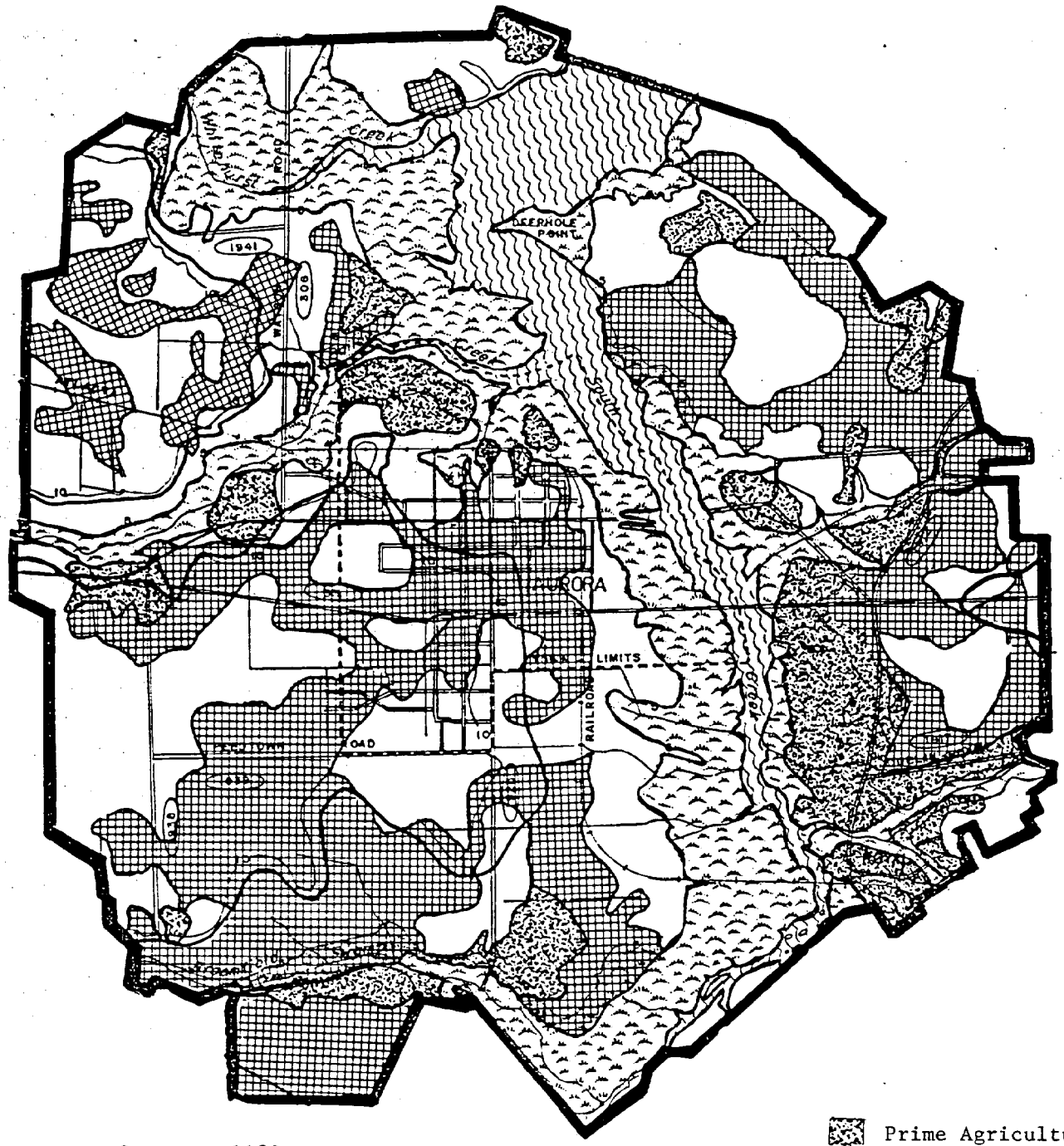
Soil shallowness is not ordinarily a constraint for development with the Tomotley association, but the seven inch surface layer may be too shallow for certain types of construction. As stated above, this soil type is widely distributed in the planning area (Figure 7).

In summary, all soils found in the area have limitations for the efficient placement of septic tanks and the Tomotley association may cause problems for the stability of building foundations. The overall development implications will translate into higher overall costs per unit to overcome these constraints.

Figure 7

DISTRIBUTION OF SHALLOW AND PRIME

AGRICULTURAL SOILS IN THE AURORA PLANNING AREA



Source: 1982 Beaufort County Soil Survey, Soil Conservation Service.

Prime Agricultural Soils

Shallow Tomotley Soils

THE PREPARATION OF THIS MAP WAS FINANCED IN PART THROUGH A GRANT PROVIDED BY THE N. C. COASTAL MANAGEMENT PROGRAM, THROUGH FUNDS PROVIDED BY THE COASTAL ZONE MANAGEMENT ACT OF 1972, AS AMENDED, WHICH IS ADMINISTERED BY THE OFFICE OF COASTAL RESOURCE MANAGEMENT, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.

Water Supplies

The 1976 Aurora land use plan gives a lengthy discussion on the location and sources of groundwater. To paraphrase, Aurora gets nearly all of its groundwater from the Castle Hayne aquifer. The Castle Hayne is recharged approximately 20 miles from Aurora northwest of Wilmar near the Pitt County/Beaufort County boundary. Since the onset of phosphate mining operations in the Aurora area, the intake level of regional water supply has been dramatically lowered. Texasgulf operations alone tap 60 million gallons per day from the Castle Hayne aquifer. Initially, the groundwater intake levels were lowered to accommodate this depletion. Recently, the NCNRCD Division of Environmental Management Groundwater Division stated that the groundwater level has reached equilibrium. This implies that as much water is being extracted from subsurface sources as is being added through recharge. Obviously, this balance must be maintained in order to assure an adequate water supply for the future. Expanded phosphate mining operations or any other additional heavy water uses may upset this balance. It is recommended that water use be an issue in considering what types of industry locate in the region.

Excessive Ground Slope Areas

Excessive slopes are defined as areas where the predominant slope exceeds 12 percent, i.e. where the change in elevation is 12 feet or more per one hundred feet of horizontal run. Most of

the land in Aurora is very low and there are no areas which have a slope of 12 percent or more.

Fragile Areas

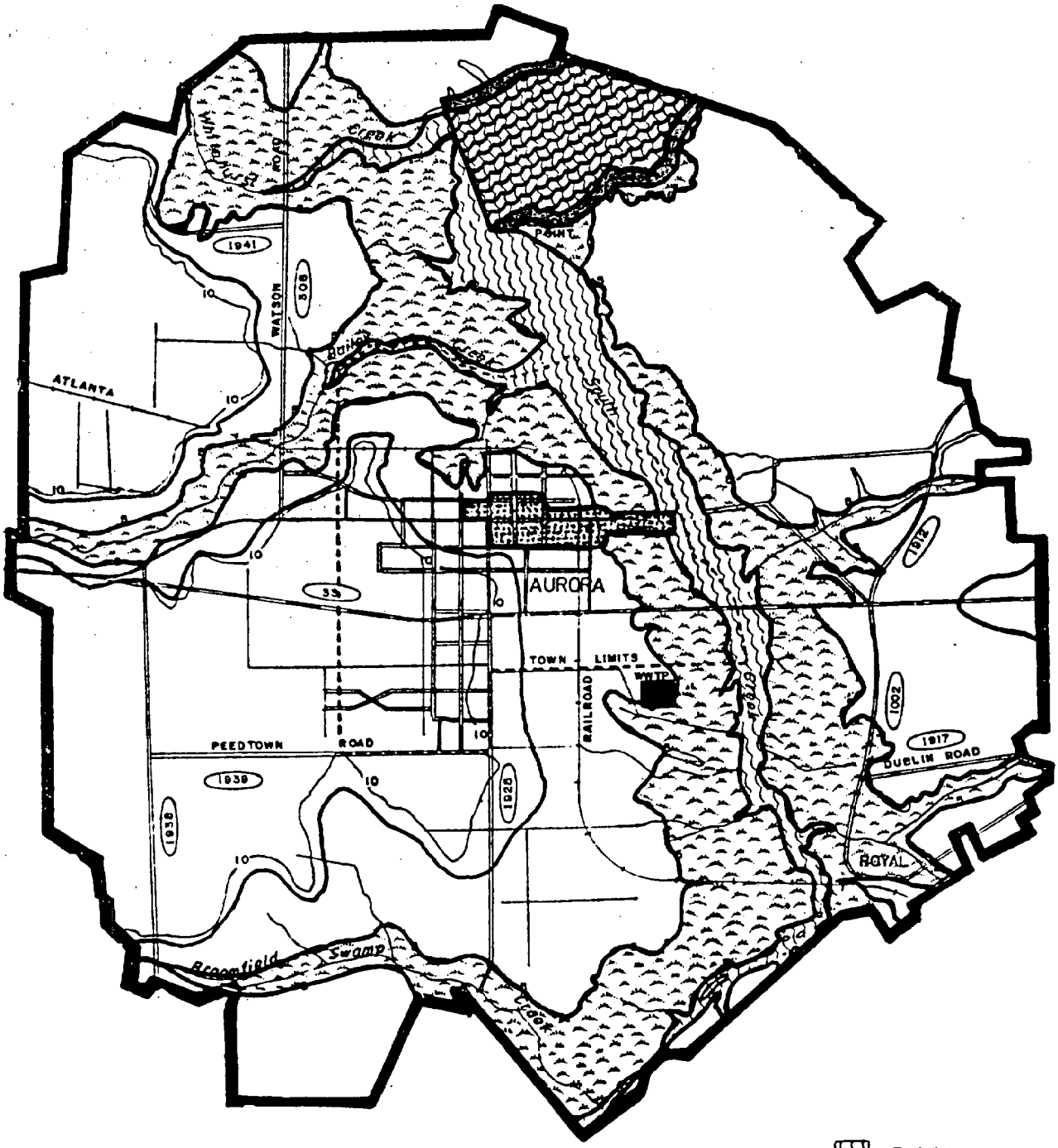
Fragile areas are the water and land environments whose physical and biological nature make them especially vulnerable to damage or construction by inappropriate or poorly planned development. There are several types of fragile areas which are under the jurisdiction of several agencies including the Division of Coastal Management, the U.S. Army Corps of Engineers, and the local government. Those regulated by the State of North Carolina are defined in the North Carolina Administrative Code (NCAC) and are called Areas of Environmental Concern (AECs) (Figure 8). The Corps of Engineers has jurisdiction over "404 Wetlands", or wetland areas that are not necessarily connected with a major body of water. There are no 404 wetlands in the planning area. Permits are required by the Corps and DCM for all types of filling in these wetlands. The exact locations of AECs and other wetlands must be identified through a field investigation, but their approximate locations are shown on Figure 8. Due to their dynamic nature, AECs are constantly changing, thereby making their mapping difficult. For regulatory purposes, the exact location of AECs must be verified with the appropriate authorities.

Additional fragile areas, not protected under the NCAC or the Corps, can be found in the Aurora area. These are other fragile areas, not under the jurisdiction of state or federal

Figure 8

AREAS OF ENVIRONMENTAL CONCERN AND LOCATION OF

HISTORIC STRUCTURES



GRAPHIC SCALE

1000' 0' 1000' 2000' 3000'

THE PREPARATION OF THIS MAP WAS FINANCED IN PART THROUGH A GRANT PROVIDED BY THE NORTH CAROLINA COASTAL MANAGEMENT PROGRAM, THROUGH FUNDS PROVIDED BY THE COASTAL ZONE MANAGEMENT ACT OF 1972, AS AMENDED, WHICH IS ADMINISTERED BY THE OFFICE OF COASTAL RESOURCE MANAGEMENT, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.

- Public Trust Waters
- Estuarine Waters
- Coastal Wetlands
- Estuarine Shoreline
- Historic Structures

agencies, that the local government may deem suitable for local protection, such as historical, archaeological, or cultural sites. Local governments can also opt to additionally protect other significant natural areas. The following is a discussion of the distribution of AECs and other fragile areas and suggestions for their management.

The estuarine water AEC is the most expansive in the Aurora area. It includes all surface waters downstream of Whitehurst Creek. Estuarine waters are defined as "all the water of the Atlantic Ocean within the boundary of North Carolina and all the waters of the bays, sounds, rivers and tributaries thereto seaward of the dividing line between coastal fishing waters and inland fishing waters, as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural Resources and Community Development filed with the Secretary of State.

Estuaries are among the most productive natural environments of North Carolina. They support the valuable commercial and sports fisheries of the coastal area which are comprised of several species that must spend all of some part of their life cycle with the estuarine waters to mature and reproduce. Of the ten leading species in the commercial catch, all but one is dependent upon the estuary. The estuarine circulation system is responsible for the high productivity levels. The circulation of estuarine waters transports nutrients, propels plankton, spreads seed and flushes wastes from animal and plant life. It also mixes the water to create a multitide of habitats.

The management objective for this AEC is to safeguard and perpetuate its biological, socioeconomic and aesthetic values. Suitable land/water uses shall be consistent with NCAC Subchapter 7H guidelines.

The estuarine shoreline AEC is located adjacent to the estuarine waters AEC for a distance of 75 feet landward from the mean high water mark. This includes the shoreline areas downstream of Whitehurst Creek. The estuarine shorelines are considered to be an important component of the estuarine system because of their close association with the adjacent estuarine waters. Development along the estuarine shoreline directly influences the quality of life for estuarine organisms. This AEC is also especially vulnerable to the effects of shoreline erosion and flooding.

The management objective is to ensure that shoreline development is compatible with both the dynamic nature of estuarine shorelines and the values of the estuarine system. The NCAC sets the least restrictive set of allowable uses for the estuarine shoreline AEC. Development requests within the defined estuarine shoreline AEC must be granted permits.

All development must comply with the use standards established in the NCAC Subchapter 7H. Development must not violate the natural barriers to erosion or show to degrade the life of the estuarine system. Minimizing the amount of impervious surfaces and increasing the vegetative cover to increase evapotranspiration are two important considerations in permitting land uses in this AEC.

Public trust areas are those waters to which the public has a right of access. It includes all natural bodies of water and lands thereunder to the mean high water mark and all areas to which the public has rights of navigation, access and recreation. All surface waters in the area are in the public trust.

These areas are significant in that the public has rights including navigation and recreation. In addition, they support valuable commercial and sports fisheries, have aesthetic value and are important resources for economic development. These areas should be managed so as to protect the public's rights for navigation and recreation.

Acceptable uses should be consistent with the aforementioned management objectives. The NCAC states that uses which would negatively impact the public trust area will be prohibited. These include projects that would directly or indirectly block or impair existing navigation channels, increase shoreline erosion, deposit spoils below mean high tide, cause adverse water circulation patterns, violate water quality standards or cause degradation of shellfish waters.

Coastal wetlands, another defined AEC, are found on the banks of South Creek and its tributaries. Wetlands are defined as "any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides". The tide waters can reach the marshland through natural or artificial water courses. The NCAC sets forth a list of indicator plants for the designation of a wetland.

The wetland environment is one of the most productive in the estuarine system. Detritus (decayed plant material) and nutrients exported from the marshland support the estuary's food chain. The roots, rhizomes, stems and seeds of coastal wetlands act as the nursery area and food source for many fish and shellfish species. In addition, coastal wetlands act as the first line of defense in retarding estuarine shoreline erosion. Marshlands also act as nutrient and sediment traps by slowing the water which flows over them and causing suspended organic and inorganic particles to settle out. Pollutants and excessive nutrients are absorbed by the marsh plants, thus providing an inexpensive water treatment service.

The NCAC states that the management objective for this AEC is to give highest priority to its protection and management so as to and perpetuate its biological, socioeconomic and aesthetic values. The coastal wetland has the most restrictive set of allowable uses in the AEC system. It is recommended to utilize wetlands as a natural resource which is essential to the functioning of the entire estuarine system.

Suitable land uses in the wetland AEC should be consistent with the management objective of the NCAC. Acceptable uses would be utility easements, fishing piers, and docks. The natural functioning of the wetland must not be impaired by any development types in the wetland area.

The NRCD Division of Marine Fisheries (DMF), through many years of research, has developed a list of coastal water bodies which are known spawning areas for juvenile fish species. These

waters are called primary nursery areas (PNAs). According to DMF technicians, South Creek and its tributaries are not included on the PNA list because they are considered inland waters. Biologically, the tributaries of South Creek function as PNAs and should be protected as such. Spots and croakers depend on these waters for spawning and development during their juvenile stage. This area is not, however, on the DMF list because inland waters are out of the jurisdiction of DMF and considered within the jurisdiction of the Wildlife Resources Commission. It is recommended that these nursery areas be protected as potential resource areas because of their unique biological significance despite coastal/inland jurisdictional discrepancies.

The historical integrity of the Town also deserves special attention. There is no official historic district, but three structures in Town should be preserved for their historical value. These include the Henry Harding Home, the Hooker-Litchfield House and the Rutledge House. The former two structures are recognized and listed on the State Register of Historic Places. The Rutledge House, under consideration for the national register, has been renovated into the Aurora Civic Center. It houses the Town offices plus several human services operations. Historic redevelopment is encouraged in Town to preserve these sites for future enjoyment. The general area of these historic properties is shown on Figure 8.

The area is also rich in archaeological heritage. The N.C. Division of Cultural Resources lists one archaeologically significant site in the northern section of the planning area in

the vicinity of Whitehurst Creek. The NCDCR recommends that this site should be treated with the utmost respect. This can be accomplished through survey, mitigative recovery of significant data, avoidance, or preservation in situ. Also, the phosphate beds are rich in fossils. Some of these artifacts have been collected and displayed in the Aurora Fossil Museum. The archaeological heritage of the area is an irreplaceable resource which should be protected and preserved.

Areas which sustain remnant species are those places which support endangered species of plants and animals. An American Bald Eagle was recently sited near the ferry landing. The pilings for the ferry landing also provide a habitat for several ospreys. These sites are located outside of the Town's planning jurisdiction, but it is recommended that all precautions be taken to ensure the safe reproduction of these birds. Due to the mobility and reproductive patterns of these birds, an additional habitat could easily become established within the planning area.

AREAS WITH RESOURCE POTENTIAL

Although much of the land within the planning district is developed, there may be particular areas which should be excluded from or encouraged to be developed because of a particular soil or development impediment. The 1976 Land Development Plan outlines the sites which are considered to have resource potential. The entire planning area is situated on one of the world's largest phosphate deposits. All of Aurora has phosphatemining potential.

Productive soils could be considered a valuable resource as well. Prime agricultural are found within one mile of the Town limits (Figure 7). The NCNRCD Division of Soil and Water Conservation and the U.S. Soil Conservation Service assisted in gathering information necessary to map these soils. The existing land use map shows that most of the prime soils are currently under agricultural production or are still covered in forests. As of yet, none of these soils has been encroached or disturbed by development. The Town has weighed the importance of productive farmland and has developed policy statements regarding its protection in the "Resource Production and Management Policies" section of this plan.

CONSTRAINTS: CAPACITY OF COMMUNITY FACILITIES

Introduction

Development is often encouraged because of the increased tax base it brings. Eventually, however, the local government must spend some of its tax dollars to upgrade and expand the existing facilities to accommodate such growth. The land use planning process allows city officials to assess development trends and analyze the requirements placed on the community facilities. The following section discusses the existing conditions of the water and wastewater treatment facilities, the schools and the roads.

Water and Sewer Systems

The 1981 land use plan update details the real extent of water and sewer service in Town. Since that time, additional hook-ups have been made in the western section of the Highway 33 corridor and in the residential area south of that road.

The design capacity of the water system is 288,000 gallons and consists of two wells. This system is currently used at less than 35 percent of its capacity. For the purposes of this plan, an estimate of the average usage rate is measured. This is calculated by the total gallons used daily based on the number of people living in the area using the system. Given the present population and usage rate, theoretically, the average Aurora water customer utilizes 139 gallons per day. Assuming this theoretical constant usage rate, this system can accommodate approximately 1345 additional customers. Any peak load brought on by a population surge could easily be accommodated with the

existing facilities. Additional residential, commercial and industrial growth up to 1300 persons could occur without causing undue stress on the system.

The sewage treatment system's design capacity is .1200 million gallons. The average use is .0903 mgd which represents a 75 percent usage rate. During peak times, the flow rate often exceeds the design capacity by a factor of nearly two. Given the current average usage rate by the 724 persons in Aurora, this theoretically represents an average usage of 1247 gallons per day per person. Operating at this theoretical usage rate, only 238 more persons can be accomodated on the sewer system. This could present problems for future growth.

The Town sewer system has recently been put into an agreement between the state and Town officials. In January , 1986, the Division of Environmental Management (DEM) and the Town have agreed to a "Special Order by Consent" regarding the wastewater treatment plant. The plant has not been met effluent discharge requirements for several years. In the SOC, the Town has promised to make improvements at the discharge point within the next two years. The SOC also required the Town to submit a 201 Facilities Plan by May, 1986. The system is proposed to be altered by a relocation of the point of discharge. There are no plans for a major upgrade or expansion of unit processes. Until the plant meets requirements, only a limited amount of additional gallons of waste per day can be added to the system. The Environmental Management Commission is able to decide on further allocations for wastewater input into the system.

Information on the criteria for judging the advisability of making these additions can be obtained from the Regional Water Quality Secton staff of DEM.

Until an upgrade of the system is made, little growth is able to occur. The wastewater treatment system is inherently ill suited for the treatment of industrial wastes. Future growth will be limited by the capacity of the wastewater treatment facilities. Unless the system is improved to accommodate significantly more customers, very little growth, particularly industrial growth, will be able to occur.

Schools

The school facilities are often an item of concern for the local residents. Aurora's schools, under the jurisdiction of the Beaufort County School System, include Snowden Elementary and Aurora High School. The Elementary School is operating at approximately 96 percent of its capacity (Figure 9). The school was constructed in 1938 and since that time, only one improvement was made in 1953. The pupil/teacher ratio is not disproportionately high, however, which would indicate that the crowded conditions have not effected the attention given to each student.

If the school age population increases, contradictory to demographic predictions, the Town will have to request the Beaufort County Board of Education construct another facility or an addition to the existing structure.

The high school is currently operating at 68 percent

Figure 9

PUBLIC SCHOOL FACILITIES

School	Capacity	Enrollment	Teacher Allotment	Pupil/ Teacher Ratio	Grade Taught	Year Built	Additions
Southwest Snowden Elementary	650	625	34	1:18.4	K-8	1938	1953
Aurora High School	350	239	18	1:13.3	9-12	1954	1976

Source: Interview with Beaufort County School Superintendent, 1985.

capacity. Since its construction projects in 1978, there have been no additional improvements made to the school. The pupil/teacher ratio is considered to be quite good, indicating that no problems exist with attention being given to each student. This school could accommodate an influx of students should a population increase occur.

Solid Waste Collection and Police and Fire Protection

The Town Sanitation Department provides garbage collection and trash disposal within the Town limits. Two persons work for this department. Collection takes place two times per week and is deposited at the Silver Hill landfill fifteen miles away in Pamlico County.

Police service is provided for all persons located within the planning area. The police force consists of one person and one cruiser. Regular patrolling is limited to in Town locations only. In addition, three Beaufort County Deputies with offices in the Aurora area assist in servicing the area. All have jurisdiction within the Town limits.

The Aurora Fire Department is manned by nearly 25 certified volunteers. The Fire Department serves the entire Richlands Township, as it is funded through a Township tax. The equipment includes two pumpers, an equipment van, a brush truck, and a tanker. The size of the force can be increased when needed due to agreements with nearby Towns. In the event of a large fire, other departments can be called in for fire fighting assistance.

Roads

The road system in Town is currently sufficient for any traffic peaks which may occur. The NC Department of Transportation estimates that Highway 33 is extremely underutilized. It is currently used at less than 20 percent of its capacity. It is expected that any additional growth could be accommodated by the present road system. According to the NC Department of Transportation Transportation Improvements Program 1986-1995, there are no plans for any major improvements in the Aurora area. Some secondary roads may become paved under the priority system the DOT uses, but there will be no major improvements made to the roads of the area.

ESTIMATED DEMAND

Population and Economy

Population trends in Beaufort County have shown the population increasing at a moderate rate. Historically, this has been the trend for Aurora, also. It is anticipated that this growth will continue in the next ten years (Figure 10). The population is expected to be 767 by the year 1990. By 1995, it is projected that the Town will grow by 45 person bringing the total to 813 persons. The Town can easily accomodate such modest growth if the wastewater treatment problems are corrected. If the immigrant population brings small school age children, the Town may have to request the Beaufort County School System to consider constructing an addition to the elementary school. The water system in Town could adequately accommodate such growth as 65 percent of its capacity is not in use. The wastewater treatment facility cannot accommodate much growth as it is currently under a moratorium instituted because of failure to meet effluent standards. The road system could more than adequately service this population growth.

Strains on the land would be minimal. There is currently an adequate amount of undeveloped land within the Town limits which could be converted to residential uses. Given the average 2.8 persons per household calculated by the U.S. Bureau of the Census, an additional 31.7 dwelling units would need to be constructed to accommodate the growth. Residences could be placed south of Highway 33 or in areas zoned for residential that are not completely developed.

Figure 10

POPULATION PROJECTIONS

AURORA* AND BEAUFORT COUNTY

1984 - 1995

	1984[x]	1990	1995
Aurora	724	767	813
Beaufort County	43,818	45,404	47,645

*Aurora projections made by Mid-East Commission.
XMunicipal and County estimates provided by the N. C. Department of Administration.

Summary

The Aurora population is expected to grow at a modest rate by the year 1995. The water, wastewater, school, and road systems can adequately accommodate this growth. The land needed for development is currently available. Zoning would ensure that the land remain in its intended uses. Open spaces within each zoning district could be developed to accommodate the 31.7 residential structures plus the accompanying service-oriented, non-residential uses needed to accommodate the projected growth.

REVIEW OF 1981 POLICY STATEMENTS AND ACTIONS

During their October 1985 meeting, the Coastal Resources Commission reviewed a land use plan update which included a systematic analysis of all its 1980 policies as an introduction to their 1985 land use plan update. This analysis included an assessment of the effectiveness of the 1980 goals and a discussion of actions and activities used to implement these policies and goals. This "scorecard" approach gave the local government an opportunity to reflect on how it achieved its previous goals as a beginning step to formulating new policies. It also provided the opportunity to evaluate the strengths and weaknesses of the previous policies. It was recommended that all 1986 plan updates adopt this "scorecard" approach to policy evaluation.

The following section includes an evaluation of the policies addressed in the 1981 Aurora Land Use Plan Update. The planning board critiqued these at one of its earliest meetings. Each policy was analyzed for its content, means of enforcement, and implementation strategy effectiveness. In a "checklist" format, each implementation procedure was reviewed to see how well each goal had been carried out since its formation.

In addition to providing an outlet for evaluating accomplishments since 1981, this also proved to be an effective method for reflecting on the substance of each policy. The planning board members were asked to provide a grade on the substance and effectiveness of the 1981 policies. The board gave Aurora an "A". Most planning board members felt that the policy statements were well thought out and very few imple-

mentation methods had not been carried out. Most of the Town's goals had been attained. The following section outlines the policies for each major issue in the plan and describes the deficiencies found by the planning board.

RESOURCE PROTECTION

Listed below are condensed versions of the policies and implementation strategies regarding resource protection in the 1981 plan. The symbol ** indicates that the implementation strategies were not completely carried out.

Policies and Implementation Strategies

1. Protect AECs from potentially hazardous uses.
   a. Use of setback regulations.
   b. Change land classification map to reflect policy changes.
2. Support flood programs.
   b. Will participate in flood programs.
   c. Will publicize Federal Flood Insurance Rate Program and make maps available.
   d. Design publication to identify building restrictions.
   e. Stay abreast of Emergency Preparedness and distribute educational information.
   f. Town Board will review special restrictions.

All the above policies had been successfully followed through by means of the implementation procedures decided upon. The Board felt, however, that although the policies were strong

and good, all the issues required by the CAMA guidelines were not completely addressed. The Board was pleased that extracurricular efforts, such as the Building Restrictions Publication, had been completed. It was decided that in this year's plan, the policies formulated would be enforced only with existing regulations and policies. Additional efforts are often too much to expect without the assistance of a full-time professional planning staff for the Town of Aurora.

RESOURCE PRODUCTION AND MANAGEMENT

Policies and Implementation Strategies

1. Discourage open-pit mining within one-mile jurisdictional area.
   a. Allow mining within one mile area only with special use permit.
2. Protect agricultural lands.
   a. Check with soil survey to determine which areas are best suited to agricultural uses.
   b. Classify agricultural lands as rural-agricultural on land classification map.
3. Protect forested areas.
   a. Check with soil survey to determine which areas are best suited to forestry uses.
   b. Classify forested areas as rural on land classification map.

4. Protect estuary.

   a. Classify estuary as conservation on land classification map.

The planning board felt that while the above policies were good, the means for their support were not as strong as they could be. All implementation strategies had been followed through because, the board felt, they were not as substantive as they could have been.

ECONOMIC AND COMMUNITY DEVELOPMENT

Policies and Implementation Strategies

1. Encourage growth to 1,500 persons.

   ** a. Bring the sewage treatment plant into 201 compliance.

   b. Town Board will conduct survey to determine feasibililty of water and sewer expansion for every request.

2. Support industrial recruitment.

   a. Recruit phosphate-mining industries to take advantage of existing facilities.

   b. Recruit women-employing industries.

3. Support diversification of housing market.

   a. Identify vacant lots and encourage their owners to develop.

   b. Promote housing code enforcement.

   c. Review and implement zoning and subdivision regulations to ensure their compatibility.

d. Assist developers in complying with CAMA laws.

4. Support reconstruction of already developed land.

a. Assist owners of already developed land to get money to reconstruct.

b. Clean up and improve waterfront and housing to make land available for water-related uses.

c. Pave as many unpaved roads as possible.

** d. Develop downTown renewal plan which deals with destruction of old structures and makes them available for resale.

e. Provide for public access points, public facilities and services at waterfront.

5. Support state and federal programs which encourage growth.

a. Complete zoning and subdivision regulations study to implement specific aspects of land use plan.

6. Support Corps of Engineers efforts in channel maintenance.

a. Ensure that Corps of Engineers keeps track of channel depth for recreational navigation.

7. Discourage siting energy facilities in Town.

a. Limit siting of energy facilities to rural or transition areas.

8. Provide services only if the request is appropriate to the needs of the Town, the money is available for expansions, and there is no land use conflict.

a. Conduct survey to determine feasibililty of water and sewer expansion for every request.

9. Encourage capital improvements to in-Town facilities.

a. Buy new fire and rescue equipment.

b. Improve the Aurora library.

c. Encourge physical and curricular improvements to Snowden Elementary School and Aurora High School.

** d. Bring sewage treatment plant into 201 compliance.

e. Provide for cost to maintain Federal Management Account and continue to house Federal and N.C. Human Services programs.

10. Promote tourism.

a. Provide for public access points, public facilities and services at waterfront.

b. Consider future public access points.

c. Cooperate with state and federal tourism officials.

Of the policies listed above, the implementation strategies regarding the wastewater treatment facility were not addressed during the planning period. The Special Order by Consent between the Town and DEM reflects the Town's on-going commitment to bringing the system into compliance. The plant will be in compliance within two years.

The Board felt that the 1981 update was an excellent effort. Due largely to the extra five years of experience, they agreed that the 1986 plan would show continued improvement.

ISSUES AND POLICY STATEMENTS

The formulation of specific policy statements regarding growth and growth management objectives is probably the most important contribution of this land use plan update. The evaluation of the present population conditions, the condition of the land and water resources in Aurora, and the methods of enforcement for existing policies often suggest a need for modification of policy to accommodate changes in the living conditions.

The Coastal Resources Commission requires that policies are addressed in five categories:

Resource Protection

Resource Production and Management

Economic and Community Development

Citizen Participation

Storm Hazard Mitigation

Each policy category is intended to cover all issues associated with growth for the town in the coming years. The guidelines were prepared for a wide range of communities in coastal North Carolina. The diversity within this area causes some of the issues to be irrelevant to Aurora.

The policy statements in this section represent the result of recommendations, input from citizens, plus the Planning Board's experience in judging what is best for the future of Aurora. These statements define the problem or issue, possible alternatives for action, the selected alternative (s), and the means of implementing and enforcing the chosen alternative.

It must be noted that some issues are of such great importance that only one policy alternative exists. In other cases, several courses of action are possible. The following section represents the Town's best effort to guide development in the planning area.

RESOURCE PROTECTION

Aurora recognizes the need to protect its natural and cultural resources. It is understood that these are an irreplaceable asset which require protection. Often, these resources represent an economic return to the area's residents through their exploitation. It is in the best interest of all citizens of eastern North Carolina that these resources be protected and managed to their highest potential.

The natural and cultural resources of the Aurora area have been identified in the Constraints to Development: Land Suitability section of this plan. Development should not occur at the expense of the natural system. Conversely, the Town feels development should not be impaired by the characteristics of the natural system. For these reasons, development should be targeted to areas where it is not likely to jeopardize or be jeopardized by the natural system. The following section details the issues concerned with development and its relationship with the ecosystem.

DEVELOPMENT IN AREAS WITH CONSTRAINTS

The constraints to development in Aurora were discussed in the preceding section and relate to both physical constraints and limitations of community facilities. Physical constraints include man-made fuel storage areas, high hazard flood zones, Military Operating Airspace and areas with soil limitations. All of the soils in the Aurora planning area are not well suited for the safe placement of septic tanks. No soils are extremely hazardous to building foundations. The Town recognizes the importance of safe septic tank placement to prevent groundwater and well contamination and also realizes its inability to change or correct the characteristics of the soil.

Fuel storage facilities are located along Highway 33 west of town. The Town acknowledges that any adjacent development would be subject to a fire risk and well contamination from tank seepage. Also at risk is development located within the flood-plain of South Creek. Water from the 100 year flood would inundate about two-thirds of the land in town (Figure 6). Since most of town is subject to flooding, it is not realistic that all development should be prohibited from these areas.

Policy Alternatives

Possible policy alternatives for growth management and development in areas with identified constraints include :

1. Amendment of subdivision regulations to include stricter design standards.

2. Develop and adopt additional regulations in flood damage prevention ordinance and zoning ordinance to regulate or prohibit all development in areas with physical constraints.

3. Permit development in those areas, utilizing current state, federal and local regulatory processes, i.e., CAMA, flood insurance, subdivision regulations and Corps of Engineers 404 permitting system.

Policy Choices

Aurora adopts the following policies regarding development in areas with constraints:

1. Aurora recognizes the inevitability of some development occurring in high hazard flood areas due to the prevalence of flood-prone land in the area. Therefore, the Town will continue to participate in Federal Flood Insurance Program and promote enforcement through the County Building Inspection Program. Proposed large scale developments, such as housing subdivisions and industry, will be discouraged from locating in the flood prone area.

2. The Town recognizes that it is unable to change the condition of the soils to accommodate development. It has decided to continue to support the County Health Department and its decisions on septic tank placement. Aurora will continue to support the Town Building Regulations which decide where construction can occur based on soil characteristics.

3. Only industrial land uses will be encouraged around the fuel storage sites. The zoning ordinance will be changed accordingly.

AEC DEVELOPMENT

Aurora recognizes that the primary concern of the Coastal Resources Commission is to protect our coastal resources, especially Areas of Environmental Concern. The Town also shares this concern for the protection and sound management of these environmentally sensitive land and waters. The AECs in the Aurora planning area were identified in "Constraints: Land Suitability" section of this plan and include estuarine waters, the estuarine shoreline, public trust waters and coastal wetlands.

Aurora shares the state's policy and management objective for the estuarine system "to give the highest priority to the protection and coordinated management of these areas so as to safeguard and perpetuate their biological, socio-economic and aesthetic values and to ensure that development occurring within these AECs is compatible with natural characteristics so as to minimize the likelihood of significant loss of private property and public resources" (15 NCAC 7H. 0203). In accordance with this overall objective, Aurora will permit those land uses which conform to the general use standards of the North Carolina Administrative Code (15 NCAC 7H) for development within the estuarine system. The maintenance of the AECs was considered to be a top priority by the Town.

Policy Alternatives

The Town's policy alternatives for development in AECs are:

1. Continue to utilize the NCAC guidelines for permittable uses in AECs.

2. Prohibit all development in AECs.

3. Establish 75-foot conservation buffer zone from water or marsh's edge where no development shall be permitted. Classify this area as "Conservation" according to Land Classification system.

Policy Choices

1. The Town of Aurora has decided to continue to utilize the current system for permitted uses in all AECs taking advantage of Federal and State permit and review processes, i.e. CAMA and Dredge and Fill.

2. The Town will take added precautions by developing a 75 foot conservation buffer zone adjacent to the public trust waters where coastal wetlands do not exist. In this buffer zone only those uses will be allowed that are allowed in coastal wetlands. This buffer zone is intended to be a devise of the local government to show added protection for the resource. The Town would like to be more restrictive regarding the allowable uses than the state guidelines. To function most effectively, disturbance of this buffer should be kept to an absolute minimum, leaving natural tree and shrub vegetation in tact to hold soil, increase infiltration, and slow and filter runoff. This area will remain in the jurisdiction of the town and will preclude all forms of development, except for several restricted uses (See "Land Classification System"). These area are ideal for natural areas and/or parks.

Implementation Strategies

1. Current State and Federal permit and review processes will be employed to determine viable development types in AECs.

2. The land classification system will restrict development within the buffer zone.

3. Amend the zoning ordinance to reflect the establishment of the 75 foot buffer zone.

OTHER FRAGILE AREAS AND AECS

In addition to the AECs, other fragile areas in Aurora warrant special considerations. These include the undesignated primary nursery areas, the archaeological sites listed by the North Carolina Department of Cultural Resources, and the historic structures listed on the state and national Registers of Historic Places. The Aurora area is also known locally to serve as a habitat for the endangered American Bald Eagle.

A significant archaeological site has been located in the vicinity of Whitehurst Creek on the fringes of the planning area. The NC Department of Cultural Resources made several recommendations for management of these prehistoric sites: effective treatment of known or discovered archaeological sites may be accomplished through survey, mitigative recovery of significant data, avoidance or preservation in place. Efforts will also be made to provide recognition and protection through such means as the National Register of Historic Places, if appropriate, and through adherence to regulatory programs

administered by the North Carolina Division of Archives and History. The Town recognizes the historical and scientific importance of this archaeological site and is committed to preserving the valuable information it may contain.

The nursery areas in South creek and its tributaries are critical for the full development of several species of fish. Protection of these nursery areas is a high priority for the Town. Correction of the effluent standards violations for the wastewater treatment plant is the first step the Town needs to take to ensure the longevity of the nursery areas.

Several historically significant structures are located in the planning area. The downtown area has been included for its unique architectural style. The Town recognizes that the historical integrity of the town is a part of its heritage. All efforts should be taken to preserve this bit of history.

The Aurora area also houses several endangered American Bald Eagles. The need for the protection of these predators is widely recognized. The protection of these resources is of such importance that no real alternatives exist except to offer protection for the nesting sites if they are located.

The fragile areas not under the jurisdiction of state and federal authorities, but protected by the Town, are discussed in the Policy Choices above.

Policy Alternatives

As with the AECs, these fragile areas are of such importance that no reasonable alternatives exist but to offer protection for these sites. The amount of protection is reflected these policy alternatives:

1. Prohibit development over archaeological sites listed by NC Department of Cultural Resources.

2. Acknowledge that nursery areas are critical to the local economy and work to limit runoff into them.

3. Develop a program of "donating" historic properties to the Town and work to set up an historic district.

4. If eagle nesting site is determined, a thorough examination of the site must be conducted by the N. C. Wildlife Resources Commission.

5. Discourage development in all fragile areas.

Policy Choices

1. If archaeological site is identified, a thorough investigation must be conducted by N.C. Department of Cultural Resources before any building permit is granted.

2. Require a vegetative buffer from marsh or water's edge to limit amount of runoff entering nursery areas.

3. Encourage preservation of historic sites by providing Town assistance in locating funds for historic preservation efforts.

4. If eagle nesting site is determined, a thorough examination of the site must be conducted by the N. C. Wildlife Resources Commission.

Implementation Strategies

1. Work with building permits officer to require thorough investigation of site before permit is granted.

2. Classify areas within 75 feet of marsh's edge and water line as "Conservation" on land classification map.

HURRICANE AND FLOOD EVACUATION NEEDS

The policy statements regarding Hurricane and Flood Evacuation Needs are addressed in the Storm Hazard Mitigation and Post-Disaster Reconstruction section of this plan.

PROTECTION OF POTABLE WATER

The availability of potable water is a critical concern because of the large drawdown resulting from nearby phosphate mining operations. Beaufort County is included in a state groundwater management region, the Capacity Use Area. Recently, there has been discussion among legislators and community leaders about the possibility of constructing a pipeline to transport mined water from the Texasgulf site to the Virginia Beach area. This may one day jeopardize the supply for the Aurora area. There are no alternatives other than protection of the water. The Town recognizes the importance of the limited regional supply of groundwater and the need for its protection.

Policy Choices

1. Support state efforts to manage groundwater withdrawals in the Capacity Use Area.

2. Discourage activities which dangerously draw down the water supply.

3. Encourage Mayor to keep informed about the availability and quality of water from the Castle Hayne.

4. Discourage development of a pipeline or other system which exports water from the Aurora area thereby endangering the limited available supply for Beaufort County.

5. If the purpose of the pipeline is to generate revenue and to rid Texasgulf mining site of its surplus water, Town supports development of a county-wide water system.

Implementation Strategies

1. Continue to support Division of Environmental Management Groundwater Division efforts to protect water in Capacity Use Area.

USE OF SEPTIC TANKS

Soils are largely unsatisfactory for the safe placement of septic tanks in the planning area. Most soils are too wet. Unless care is exercised, this could present problems for the health and safety of area residents. Unsatisfactory performance of soils around septic tanks could contaminate groundwater wells. The Town recognizes that it has no power over the soils: they cannot be altered in any way to improve their efficiency. Because of these restrictions, little can be done for policy. The optimal solution would be to have all area residents hooked into the municipal wastewater treatment plant. This is currently not possible because of the limitations of the Special Order by

Consent between the Division of Environmental Management and the Town of Aurora. Given Aurora's poor soils for septic tanks, a central sewage treatment facility is very important.

Policy Alternatives

1. Require larger than average lot sizes.

2. Where use of septic tanks is unavoidable, town supports implementation of techniques to improve the efficiency of septic tanks, i.e. mound systems and waterless systems.

3. As minimum, any septic tank installation applications must meet State and County regulations.

4. Encourage that everyone in "developed" and "transition" zones hook up to town's wastewater treatment facility, providing that it is capable of handling the additions.

5. Improve the capacity and efficiency of the Town sewage treatment plant.

Policy Choices

1. Where the use of septic tanks is unavoidable, the Town supports the implementation of techniques to improve the efficiency of septic tanks, i.e. mound systems and waterless systems.

2. As a minimum, all septic tank applications must pass requirements set forth by the Beaufort County Health Department.

3. Improve the capacity and efficiency of the Town sewage treatment plant.

4. When able, Town will encourage residents of "developed" and "transition" areas to hook on to the wastewater treatment facility, providing that it is able.

Implementation Strategies

1. Enforcement will remain the responsibilities of the Building Inspector and the County Health Department, which grants permits for septic tanks.

2. Continue to work with Division of Environmental Management to improve wastewater treatment facility.

STORM WATER RUNOFF

Non-point pollution is considered a high priority for the Town of Aurora. The amount of fertilizers, pesticides, oil contaminants and litter which eventually enter the river system is increased significantly by a heavy rain. The marshes and other wetlands located along the river offer a water filtering system that works naturally to sift out or uptake any pollutants before they can enter the creek system. Storm water runoff contributes to the water quality problems often discussed by commercial fishermen and recreational boaters in the Aurora area. Several days after a heavy rainfall, a fish kill occasionally occurs in the creeks and river. Blame for the kill can be largely placed on the bottom water anoxia resulting from storm water runoff which enters the creeks and rivers after a rain. Storm water runoff and flooding problems are connected and often aggravated by the same land use practices.

The Town has selected policy options to mitigate storm water runoff. Several techniques that have been proven effective in slowing down runoff are costly and because of the limited amount of funds available for this issue, the methods must be passive. Aurora has decided to work to solve this problem by utilizing the natural system for passive control of non-point pollution.

Several methods are effective in minimizing the creation of runoff. It can be done throughout the town by minimizing impervious surfaces, draining streets and parking lots to grassed swales, and maintaining or planting as many trees and shrubs as possible to maximize evapotranspiration. The Town has found that land uses will be reviewed within 75 feet of the surface waters (through the DCM permitting system for estuarine shoreline AEC and the Town's established 75 foot vegetative buffer zone) and the review process should consider the effects of runoff in judging what uses will be allowed.

Policy Choices

1. Must control, treat and mitigate any storm water runoff in town.

2. Encourage development and maintenance of riparian vegetation.

3. Development adjacent to AEC must be designed so that runoff will not violate water quality standards.

4. Limit impervious surfaces to 15 percent within 100 feet of the shoreline.

Implementation Strategies

1. Continue to employ efforts of CAMA permitting system and Corps of Engineers 404 permitting in determining development types which do not violate water quality.

2. Reclassify land classification map to "Conservation" for areas 75 feet from water or marsh's edge to regulate land uses near creek.

3. Development in Conservation zone will be reviewed on a case-by-case basis by the Planning Board.

4. Regulate land uses within conservation buffer zone (for description of land uses, see definition of "Conservation" in Land Classification System section of this plan.

5. Consider revision of zoning ordinance to include the 75 foot vegetative buffer zone established by the Town.

MARINA AND FLOATING HOME DEVELOPMENT

Marinas are an essential convenience for boaters. Economically, they may benefit a town through slip rental, repairs and gasoline sales. Ecologically, marinas are known to degrade the water in which they are located. Aurora currently has a publicly-owned boat ramp, and in the recent past, several individuals have tried to develop a commercial marina.

Policy Alternatives

1. Encourage the development of marinas.

2. Discourage the development of marinas and location of floating homes in light of their contribution to water quality degradation.

Policy Choices

1. Support Marina development exclusively in the vicinity of the two canals. Confine marinas to the existing structures so as to not disturb the natural functioning of the primary nursery area.

2. Discourage floating homes because of their negative impact on water quality.

3. Allow marinas, but encourage their design and size to not violate water quality standards and the integrity of coastal wetlands.

Implementation Strategies

1. Continue working with zoning ordinance, CAMA and 404 permitting systems in regulating siting of marinas.

2. The Planning Board will examine each marina development request on a case-by-case basis.

INDUSTRIAL IMPACTS AROUND FRAGILE AREAS

The policies above address development of all types in and around fragile areas. Industry, another form of development, should be exposed to no different standards than the other types of development. In any location decision, the industry must comply with the policies stated above.

It has been demonstrated that the town wants to mitigate the effects of all development on its natural and cultural resources. It wants to take all efforts to try to protect these resources.

Therefore, in an effort to maintain consistency in the policies, the Town must work toward attracting economic growth while encouraging the protection of the environment.

Policy Choices

1. Location of industries in and around fragile areas shall be discouraged, except water-dependent industries, i.e. commercial fishing.

2. Industry shall be discouraged near wetlands.

3. Industries which produce toxic or hazardous substances will not be located near surface waters or groundwater recharge areas.

Implementation Strategies

1. Continued support of CAMA and 404 permitting systems, Building Inspector and County Building Requirements.

2. Areas within 75 feet of marsh and water's edges will be classified as "Conservation" on land classification map (See "Resource Protection" policies section).

3. Town Planning Board and Town Council will review each application for siting of industries on a case-by-case basis.

RESOURCE PRODUCTION AND MANAGEMENT

Appropriate management of productive resources is very important to any locality. In most cases, the productive resources are intricately tied into the economic fabric of the area. It is, therefore, wise to manage these resources to the best of their productivity and to ensure their existence for

future generations. The major productive resources in Aurora are related to agriculture, mining and commercial and recreational fisheries. Commercial forestry is not an important component to the economy of Aurora as no commercially-owned forested areas exist in the planning area. No policy statements regarding forestry were needed.

PRODUCTIVE AGRICULTURAL LAND

Agriculture, as discussed in the Existing Conditions section of this plan, is an important component of the local economy. Farming brings in a great amount of income to the area through the actual sale of farm commodities, farm supplies and equipment. A large portion of the planning area is currently or has been under cultivation. The Soil Conservation Service has identified and mapped the soils in the planning area which are considered to be some of the best in the county for agricultural productivity (Figure 7). These soils occupy a large amount of land in the planning area.

In principal, the Town could opt to conserve these farm soils for future use by restricting any development from occurring on them. Aurora realizes how important agriculture is to the economy, but it feels that there is an excess of land under cultivation already. This glut in farmland, and subsequently, farm products, has caused farm prices to fall and foster economic hardship for the family farmer. Programs, such as the Payment-

In-Kind, pay farmers to take their land out of production. The Town feels that it should not contribute to an already bad problem by requiring that certain agricultural soils be restricted from any other uses.

The Town realizes the implications for this decision. A policy choice not to conserve prime agricultural land could result in an irretrievable loss of a long-term renewable resource. In light of the present farm economy, the Town feels that its policy is a realistic choice.

Policy Alternatives

1. Town could strive to protect agricultural lands identified as "prime" by the SCS and Division of Soil and Water Conservation.

2. Prohibit any land use other than agriculture, forestry or conservation on prime agricultural soils.

3. Promote conservation of these lands by encouraging owners of these tracts to implement the Best Management Practices.

4. Classify lands as Conservation-A, meaning that these are agricultural areas which should be precluded from development.

5. Town could take no additional measures to preserve agricultural lands.

Policy Choices

1. Town will not take additional measures to encourage the preservation of "prime" agricultural soils. Any types of development, pending consistency with the zoning ordinance, will be permitted to located over these soils.

2. Encourage owners of these lands labelled as "prime" and other cultivated areas to implement the Best Management Practices.

Implementation Strategies

1. Continue to work with Agricultural Stabilization and Conservation Service and Soil Conservation Service workers in getting farmers to adopt BMPs.

EXISTING AND POTENTIAL MINERAL PRODUCTION AREAS

Open-pit mining has been the economic mainstay of Aurora and Beaufort County since the Texasgulf mining operations came to this county in 1965. The environmental and economic effects of the phosphate mining have been witnessed by Aurora area residents. Peat mining has also become an issue within recent years, but there are currently no known "prime" sites for peat mining in the Aurora area. All peat soils are low BTU and would be uneconomical to mine at this time.

In 1981, a policy was adopted which discouraged open pit mining within the one-mile extraterritorial area of town. Any mining activities proposed were required to apply for a special use permit which was to be granted on a case-by-case basis. The Town has decided that this policy is still applicable.

Policy Choices

1. Town discourages any type of open-pit mining within the one-mile jurisdictional limit of town. Any mining activities proposed must apply for a special use permit which will be granted on a case-by-case basis.

Implementation Strategies

1. Continued review process of applications for special use permits to Planning Board.

COMMERCIAL AND RECREATIONAL FISHERIES

The commercial fishing industry is vital to the local economy. Several independent full-time commercial fishermen live and work in the Aurora area, plus four crab processing plants are located in or near the planning area. South Creek and its tributaries also serve as nursery areas for several species. Concern has been raised by commercial fishermen and Division of Marine Fisheries technicians about the effect of runoff on the fisheries industries. Freshwater runoff from drainage ditches and non-point pollution has been detrimental to the fishing waters by altering the salinity content and adding pollutants to the estuarine system. Concern has also been raised over incidences of fecal coliform, largely from septic tank seepage, being identified in shellfish beds in other parts of the state. In order to support the commercial and recreational fishing industries, the town needs to implement techniques to maintain water quality.

To remain consistent with the aforementioned Resource Protection policies, the town has elected to take all measures possible to protect the fisheries. The Town has chosen to protect the commercial and recreational fishing areas within the town's jurisdiction and to take special care in protecting the nursery areas and other waters in the South Creek system.

Policy Choices

1. Town will protect the commercial and recreational fisheries areas within the town's jurisdiction. Also, those areas unofficially recognized by the Division of Marine Fisheries as significant resource areas will be treated as such. These include all tributaries of South Creek.

2. Establishment of Conservation buffer zone of 75 feet between all development and water and marsh's edges.

Implementation Strategies

1. The CAMA and 404 permitting system, as well as the town's subdivision ordinance will provide sufficient enforcement for this policy.

2. The County Health Department, largely responsible for the safe placement of septic tanks, will be responsible for minimizing the likelihood of contamination of fishing waters from the effluent of septic systems in unsuitable soils.

3. Classify areas within 75 feet of water or marsh's edge as Conservation.

OFF-ROAD VEHICLES

The mention of "off-road' vehicles in coastal North Carolina, typically conjures ideas of four-wheel drive type vehicles driving up and down the sandy beaches of the ocean front. In Aurora, there is no problem with these vehicles operating on the beaches. They most often operate illegally along the roadsides, frequently causing significant amounts of soil and vegetation loss, plus creating a nuisance from their noise. Many local residents have expressed a concern over these vehicles, ranging from complaints about noise to legitimate questions about their safety.

The Town is able to do very little to prohibit these vehicles, as they are most frequently operated on private property.

Policy Alternatives

1. Town requires that all off-road vehicle owners register their property at the Town Hall at the time of vehicle registration.

2. Prohibit the use of these vehicles from the planning area.

3. Restrict their use to areas classified as "Rural".

4. Discourage use of off-road vehicles in planning area.

Policy Choices

1. Town requires that all off-road vehicle owners register their property at the Town Hall at the time of vehicle registration.

2. Prohibit use of four-wheel vehicles in the vegetative buffer zone established 75 feet from water's edge.

Implementation Strategies

1. Cooperation with Town employees during time of vehicle registration.

2. Work with Town Policemen to enforce this policy.

IMPACTS OF DEVELOPMENT TYPES ON RESOURCES

Aurora, as discussed in the "Existing Conditions" section of this plan, is currently not undergoing large amounts of growth like some other eastern North Carolina cities. It is, therefore, not experiencing the same levels of development pressure as other towns.

The Town views itself as being in a position to accommodate growth and development. Consistent to the aforementioned policies, the town is pro-growth as long as the development is not environmentally degrading. The limitations imposed by the Town's policies on the protection of sensitive natural and cultural resources must not be violated in order to accommodate any type of growth. Residential, commercial and industrial land uses must meet these goals of the Town.

ECONOMIC AND COMMUNITY DEVELOPMENT

The analysis of the present conditions of the population and economy of the Aurora planning area revealed no alarming changes in the general economic atmosphere of the area. Aurora is very concerned about future growth in economic and community development. Since Texasgulf's location to the area in 1965, the town has had the potential for explosive growth. An immediate increase in population spurred from Texasgulf, but in proportion, this growth represented a small number of persons. Texasgulf employees live in other counties and towns in eastern North Carolina. Aurora serves as a part-time convenience center for the Tg employees.

Several factors are responsible for this stunted growth: lack of adequate housing, lack of recreational facilities, poor schools, limited retail opportunity, and lack of full-time pastors in the church facilities. Whatever the reason, or combination of reasons, the potential exists for an explosion of growth in Aurora. Policies need to be in place to accommodate this growth, when it occurs.

The following section outlines growth policies which have an impact on land use decisions. These policies define the goals Aurora has set for where it would like to be in the next ten years. Particular issues, related to growth and the town's commitment to economic development, are discussed below.

LOCATION AND TYPES OF INDUSTRIES DESIRED

Aurora, as discussed in the preceding section, is blessed with several natural and cultural resources. It sits on one of the world's largest phosphate deposits, is situated on South Creek, and has some of the county's most productive agricultural soils.

Manufacturing in the area takes advantage of these resources. The phosphate mining industry, one of the largest operations in eastern North Carolina, employs about 1150 persons. Four seafood processing operations are located within a five mile radius of the area. Farming is also an economic activity in the region, employing dozens of persons through farm labor or through the sale of farming equipment and supplies.

Aurora encourages the continued development or expansion of these types of resource-intensive industries. Aurora would also like to invite industry which takes advantage of the abundant supply of low-skilled workers. In particular, there is an abundant supply of low-skilled women workers. Expansion of the phosphate mining operations, additional seafood processing industries or light assembly manufacturing would be welcome in Aurora. A sewing factory, or something similar, could provide employment for the low-skilled female workers in the area.

All industries considering locating in the Aurora planning area must be low-pollution, light manufacturing industries in order to remain consistent with the aforementioned resource policy statements. All industries must be consistent with the Town's policies to protect its water quality and wetlands. All

industries must have a low waste load output, because the sewage treatment plant is unable to accommodate significant amounts of additional waste.

Several sites are available in the planning area for industry. The Town would like to see industry locate in two specific sites. The northeastern quadrant, currently undeveloped, would be well suited for a seafood processing firm or some other type of industry which would take advantage of the river and its resources. Another area, along Highway 33 west of Town, near Potter Oil Company, is zoned for industry. The Town feels that this site would be best suited to all other industrial types listed above. It has good access and is currently served by the water and sewer system.

Policy Choices

1. Encourage industry types which take advantage of natural resource base and existing labor supply.

2. Encourage low-pollution, light manufacturing types which are compatible with resource protection, production and management goals and policies.

3. Encourage low waste load industries to prevent contributing to wastewater treatment problems.

4. Encourage seafood-related industries to locate in northeastern quadrant of town, providing they are consistent with resource protection goals of Town.

5. Encourage industry which employs low-skilled workers, particularly women. Assembly-type manufacturing and a garment factory would be well suited for this purpose.

6. Industrial sites will be confined to areas zoned for manufacturing along Highway 33 and in northeastern section of town.

Implementation Schedule

1. Town will establish more active contact with state's industrial development representative for the region, making certain that the representative is aware of the Town's stated policy choices on economic development.

2. Zoning ordinance, CAMA and 404 permitting systems will regulate the development of industry in specific areas.

COMMITMENT TO PROVIDING SERVICES

The Town realizes the great importance associated with bringing the wastewater treatment facility into compliance with state discharge requirements. Unless this goal is attained, very little growth can be permitted to occur. Although the sewage plant is only operating at 75 percent of its intended capacity, no additions can be made to the plant until the "Consent by Order" is fully carried out between the state and Aurora. This is expected to occur by 1988. Also, at the current usage rate, only the amount equivalent to 238 persons can be accommodated. All but three percent of all in-town residents are currently served by this system.

Currently, nearly 100 percent of the area's residents are hooked up to the water system. This represents a 35 percent usage rate for that facility. Nearly 1350 more persons could be served by this system.

Aurora acknowledges that the region's soils are not conducive to septic tank usage and the optimal solution to this problem is to provide wastewater treatment service to all residents in the planning area. This is a very expensive and currently unfeasible proposition, however, because of the problems associated with the wastewater treatment facility.

Aurora is committed to providing basic services to serve increased development in the area. Industrial requests will be examined on an individual basis. In this issue, there are no alternatives; it is more of a question of scale.

Policy Choices

1. First priority in delivery of services is to areas classified as "Developed" on land classification map. Second priority is to "Transition" areas.

2. Pending wastewater treatment plant compliance, residential customers will be served first.

3. Industrial uses will be examined on a case-by-case basis by the Town Council and Planning Board.

DESIRED URBAN GROWTH PATTERNS

In 1981, considerable debate was held over the anticipated growth rates and size of Aurora. It was decided at this time to limit the population, no matter what trends might take place. Town officials decided that 1500 persons is a good limit, based on the design capacities of the water and sewer systems. Aurora's 1985 population is one-half of this intended goal.

Projected population figures suggest that the slow, but steady growth rates that Aurora has experience in the past will continue for the next ten year.

Another trend in the planning area which may affect urban growth patterns is the increasing number of mobile homes scattered throughout residential areas. The Town has adopted a mobile home ordinance, but the implementation of a mobile home zoning district would limit their location to sites specifically zoned for mobile homes.

Policy Alternatives

1. Limit growth to 1500 persons. Urban patterns will be limited by zoning ordinance.

2. Consider developing zoning ordinance exclusively for mobile homes.

3. Urban growth patterns will remain consistent with zoning ordinance.

Policy Choices

1. Limit growth to 1500 persons. Urban patterns will be limited by zoning ordinance.

Implementation Schedule

1. Urban growth patterns and densities will be limited by the subdivision ordinance, the County Health Department and the zoning ordinance.

REDEVELOPMENT OF DEVELOPED AREAS

The Town of Aurora's policy on redevelopment of developed land was discussed in the 1981 land use plan update. At that time, the Town was concerned mainly with improving local tourism through several redevelopment projects. The Aurora Library, Community Center, Fossil Museum, Civic Center and marina were projects associated with this community facilities development program. The establishment of these facilities are proof of the Town's commitment to redevelopment of older areas. Downtown revitalization has been encouraged for the past several years, but a limited amount of progress has been made toward this goal. The Town still feels committed to this effort, however.

About two-thirds of the town would be wiped out in the event of total devastation by a storm. In this case, all structures would be rebuilt to conform to the land use types as per the zoning ordinance. All non-conforming uses would not be permitted for reconstruction.

Policy Choices

1. Continued support of downtown beautification efforts. Town will work to help secure funds for rehabilitation projects.

2. In the event of destruction by a storm, redevelopment will occur in accordance with the prescribed land uses of the zoning ordinance. Non-conforming uses will not be permitted.

3. The Town supports the redevelopment of substandard housing within the town limits.

Implementation Schedule

1. The Town will coordinate with private individuals and organizations to secure financial support for downtown beautification efforts.

2. Town will consider the feasibility of applying for a Small Cities Community Development Block Grant to rehabilitate substandard housing in town limits.

COMMITMENT TO STATE AND FEDERAL PROGRAMS

The Town of Aurora is receptive to State and Federal Programs which provide improvements to the Town. Aurora will continue to fully support such programs that provide necessary resources to meet identified community needs that compliment the economic and community development goals of the town. Of particular significance is the N.C. Department of Transportation Road and Bridge Improvements program. The Pamlico River ferry system is also important to the economic health of Aurora. The Town will support these programs and will honor financial assistance requests when financially able and when the proposed project is in compliance with the town's goals for economic development.

The Erosion Control program, carried out by the Agricultural Stabilization and Conservation Service and the Soil Conservation Service are especially important to the farming community in the planning area. The Town supports the efforts of these agencies, including the implementation of Best Management Practices to mitigate soil loss through erosion. In addition,

the Town has established a policy for a 75 foot conservation buffer zone to reduce the sediment load from entering the system (See Resource Protection policy statements).

There has been continued debate over the expansion of the Military Operating Airspace in Beaufort County. Aurora is opposed to this expansion because of the restrictions it would impose on the local air traffic community. Noise levels were an additional concern for the discouragement of this airspace expansion.

ASSISTANCE TO CHANNEL MAINTENANCE

Proper channel maintenance is important in Aurora, mainly because of recreational boating and the commercial fishing industry. Special attention should be given to the amount of dredging that occurs, because excessive dredging can be just as damaging as none at all. Dredge lines often disrupt valuable fish habitat on the bottom of rivers, thereby robbing the river of some of its economic value and important fish habitat.

Aurora will support channel maintenance projects, but discourage excessive dredging because of its effect on fish habitat. Financial aid for channel maintenance will be made available when possible. Efforts will be made to provide spoil and borrow sites within the planning area.

ENERGY FACILITY SITING AND DEVELOPMENT

In recent years, the development of peat mining operations in Hyde, Tyrrell and Washington Counties has brought on the possibility of locating energy generating facilities in an area nearby the source of the raw material. Aurora believes that the development of energy generating facilities should be discouraged within the one mile jurisdictional area. Energy generating facilities will be subject to a special use permit, granted by the Planning Board. If approved, all facilities will be restricted to "Rural" areas as per the land classification map. Public facilities, such as water and sewer, will not be provided.

TOURISM AND BEACH/WATER ACCESS

Aurora has demonstrated its commitment to public access to public waters by having developed the Town boat ramp in 1982. The Town is also committed to increasing tourism in the area. Efforts to increase tourism were brought on when the Fossil Museum was reopened recently, and when Aurora was included as a part of the Historic Albemarle Tour Highway. The Town supports the efforts of the state agencies who work with these projects.

Policy Alternatives

1. The Town could establish no additional policies or courses of action for development of these industries assuming that the existing facilities are sufficient.

2. The Town could encourage acquisition of undevelopable waterfront properties for public access sites.

3. Development of a program for "donations" of waterfront property for public use.

4. Continued support for Aurora Fossil Museum, downtown revitalization efforts and other methods to increase tourism.

Policy Choices

1. The Town will encourage acquisition of undevelopable waterfront properties for public access sites.

2. Work with the Division of Coastal Management in developing a program of "donations" of waterfront property for public use.

3. Continued support for Aurora Fossil Museum, downtown revitalization efforts and other methods to increase tourism.

TYPES, DENSITIES AND LOCATION OF ANTICIPATED DEVELOPMENT

Overly dense development is not a problem in Aurora, nor is it anticipated to become a problem during the next ten years. Within the past five years, the land use trends have shown residential growth to occur in areas south of Highway 33, and commercial growth has expand along Fifth Street and Highway 33 west. Aurora would like to see continued development in areas which are best able to accommodate growth and where support services, like sewer and water, are feasible and practical to provide. Much of the growth in recent years has been outside the

hazard areas identified in Figure 11. Industrial growth will be targeted to the land along Highway 33 near Potter Oil and in the northeastern quadrant of town.

Policy Choices

1. Continue to enforce the subdivision ordinance with minimum lot size of 20,000 square feet for lots without public water and sewer.

2. Continue with efforts to upgrade sewage treatment plant to accommodate additional customers.

3. Ensure that future growth is consistent with the above policies in Resource Protection, Resource Production and Management. Also, the growth must be consistent with the zoning ordinance and additional goals of the community.

HURRICANE AND STORM HAZARD MITIGATION

INTRODUCTION

Hurricanes and severe coastal storms represent serious threats to people and property on the North Carolina coast. North Carolina has the second highest incidence of hurricanes (Neumann et al., 1978). To date, North Carolina has experienced 23 major hurricanes since 1890. This averages to one major hurricane every four years. In addition to hurricanes, tropical storms and "northeasters" present serious threats to eastern North Carolina. The most recent major hurricane, Gloria, originally classified as a Category 5 storm, skated past inland North Carolina and brushed a small stretch of Hatteras Island as it moved northward. If Gloria had made landfall near the mouth of the Pamlico River, as had been predicted by the National Weather Service at one period during the storm threat, much of eastern North Carolina could have been destroyed in its aftermath.

In order to effectively prepare for the hazards of storms like Gloria, experts recommend adoption of a plan which encompasses all aspects of the storm period. This plan should delineate areas most likely to sustain damage, methods to keep areas affected to a minimum, and guidelines for reconstruction after the storm. Beaufort County adopted a storm hazard mitigation plan, Before The Storm in Beaufort County: Avoiding Harm's Way, in September 1984. Aurora is under the authority of this plan.

The CAMA Land Use Plan guidelines require that procedures for pre-storm mitigation, recovery, and immediate and long term

reconstruction be addressed in each plan. The purpose is to assist Town and county officials in managing development in potentially hazardous areas and to be able to expeditiously "snap back" after a disaster. The first step taken to assess the hurricane vulnerability of a site is to analyze the types and locations of physical hazards within the planning area. An estimate of the amount of people and property that would be exposed to the hazard is also required. The following section is a discussion of the storm hazard mitigation, post-disaster reconstruction policies and evacuation plans included in Before the Storm. All policies, unless otherwise referenced, are county-wide policies included in the storm hazard plan.

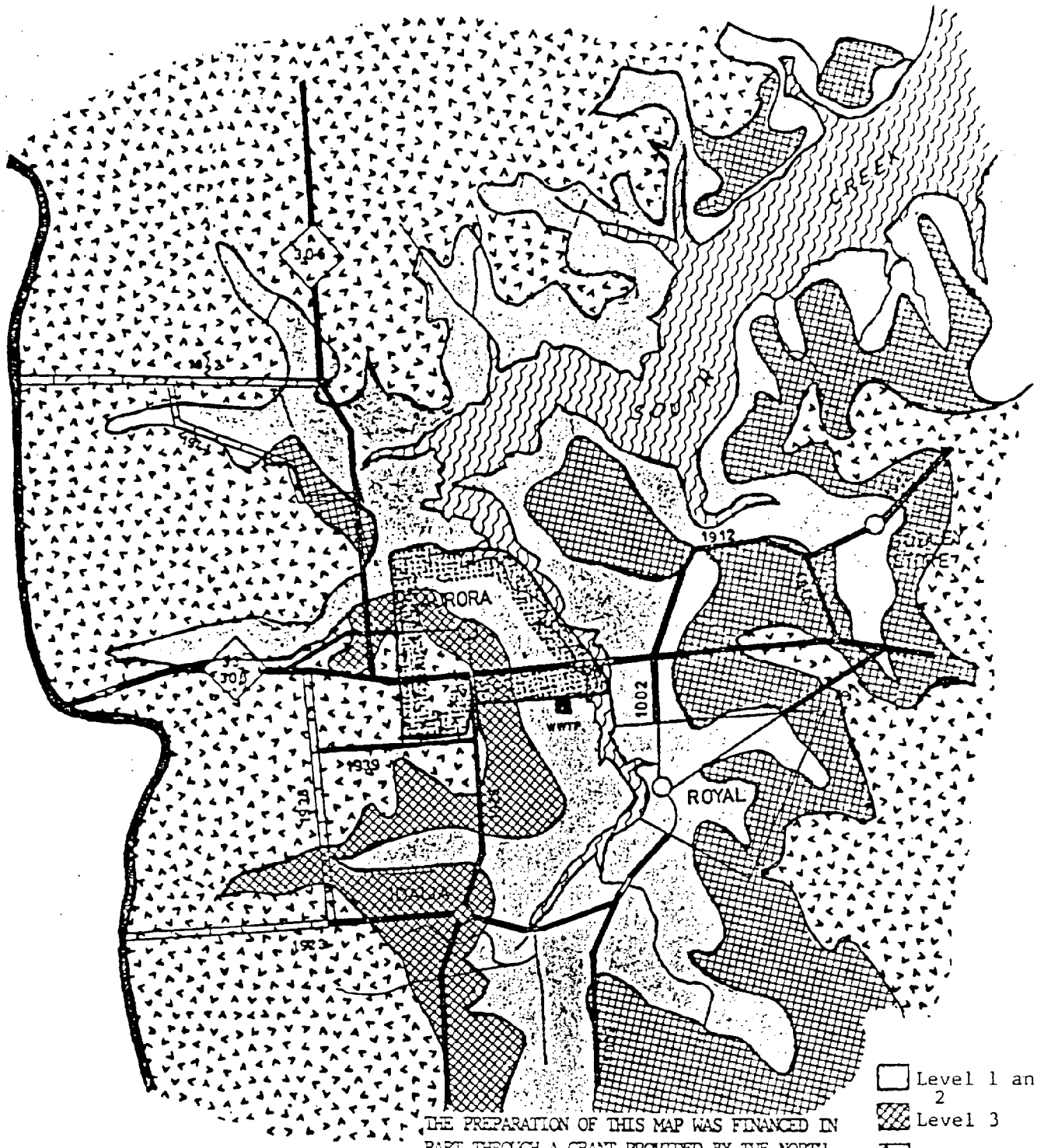
HAZARDS MAP

The areas most vulnerable to the devastating effects of a hurricane or other major coastal storm are identified in Figure 11. This map is the product of a computer model called SLOSH (Sea, Lake and Overland Surge from Hurricanes). The SLOSH model was developed by the U.S. Army Corps of Engineers to simulate the height of the storm surge from hurricanes of a predicted severity within a particular area. The National Weather Service ranks hurricanes into Categories 1 through 5 based on their wind speeds. The SLOSH model analyzes each hurricane category scenario and provides theoretical areal boundaries where flooding is expected to occur. For example, the Category 1 and 2 hurricanes, with wind speeds up to 110 miles per hour, would probably produce a storm surge that would flood a small stretch of land

Figure 11

INUNDATION LEVELS FOR HURRICANES

OF SPECIFIED INTENSITY



Source: U.S. Army Corps of Engineers S.L.O.S.H. Model.

THE PREPARATION OF THIS MAP WAS FINANCED IN PART THROUGH A GRANT PROVIDED BY THE NORTH CAROLINA COASTAL MANAGEMENT PROGRAM, THROUGH FUNDS PROVIDED BY THE COASTAL ZONE MANAGEMENT ACT OF 1972, AS AMENDED, WHICH IS ADMINISTERED BY THE OFFICE OF COASTAL RESOURCE MANAGEMENT, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.

along the river (Figure 11). The Category 3 storm, defined by winds up to 130 mph, would inundate points further landward than the Category 1 and 2 storms. The Category 4 and 5 storms, the highest intensity storms possible, would push the water to areas still further landward. In this scenario, water levels would be highest in the areas of Category 1 and 2 storms. The Category 4 and 5 flood zones have the least probability of inundation because storms of such strength are not very common. Since the category 1, 2 and 3 storms are more common, the discussion will be limited to their impact on the planning area.

In Aurora, the Category 1 and 2 flood zone incorporates a large portion of the eastern section of Town as well as all incorporated areas of South Creek. The flood boundary approximately coincides with Third Street. The limited development in this flood zone includes about one-eighth of the Town's residences. No major commercial establishments are located here. Development includes the public boat ramp, several homes along East Main Street, plus an apartment complex located on First Street. Within 75 feet of the shoreline, development is limited because much of the area is in undevelopable marshes. The combined value of structures in this flood zone is estimated at $ 1,500,000.

The area which would be inundated by the Category 3 storm is far more monetarily valuable to the Town. The boundary for the Category 3 storm goes beyond the Category 1 and 2 storm line and approximately coincides with the 100 year flood plain (Figure 6). A much greater amount of development is located in

Figure 12

INVENTORY OF STRUCTURES

IN THE HAZARD AREA - AURORA

	Conventional Homes	Dbl-wide Mbl Homes	Sng-wide Mbl Homes	Institution	Commer.	Industry	Util.	Total
Town	200	12	38	3	16	1	1	271
Median Value	26K	10K	4K	45K	20K	40K	40K	
Total Estimated Value	5.2mill.	120K	152K	135K	320K	40K	40K	6.727 mill.
Flood Prone Area (Category 1-3)	150	10	38	1	10	0	1	210
Total Estimated Value	3.9mill.	100K	42K	45K	200K	-	40K	4.327 mill.

Note: The total assessed value for tax purposes of the Town of Aurora was $5,946,224 in January, 1986. (Town Clerk)

Source: Before the Storm in Beaufort County: Avoiding Harm's Way.

this area. Approximately 150 conventional houses, 10 commercial establishments, 10 double-wide mobile homes and 38 single-wide mobile homes are located here (Town Clerk, 1986). The combined estimated value of all property in the Category 1, 2 and 3 zones is estimated at $ 4,327,000 (Figure 12). This figure is more than 70 percent of the total assessed tax value of the Town. The municipal wastewater treatment facility is also located in this flood zone. Consideration should be given to its relocation to a less hazardous site.

Although many structures would be at risk from a storm, the areas which would be most seriously affected would be the AECs in the planning area. These include estuarine waters, estuarine shorelines, coastal wetlands and public trust waters. Of these, the estuarine shoreline and coastal wetlands AECs will bear the greatest risk of destruction because they lie directly on the land-water interface and are among the most dynamic features of the coastal landscape. Shoreline erosion is a day-to-day phenomenon that is accelerated greatly with the energy of a major storm. Destruction that may take years to occur along a normal low-energy shoreline can occur in a matter of several hours during a strong storm. The shoreline area will be directly impacted by severe erosion and scouring, direct wave action, high winds and complete inundation by storm surge accompanying the storm. Development adjacent to the shoreline would obviously be at a great risk.

EFFECTS OF STORM COMPONENTS ON HAZARD ZONES

Hurricanes are extremely powerful, destructive meteorological events which are often unpredictable. Destruction is typically the result of the combined energy of high winds, flooding, erosion and wave action. Of these, the two most damaging components of the hurricane are the high winds which define it and flooding from excessive rains and the storm surge. In addition to these two forces, wave action and erosion are two by-products of the wind and rain along the land/water interface. The following section discusses the effect of each of these storm components on the planning area and delineates the sites which are most vulnerable to their forces.

HIGH WINDS

High winds are the greatest risk factor associated with hurricanes. Hurricanes are, in fact, defined in severity by their wind speeds. The entire planning area would be subject to the winds brought on by a hurricane making landfall nearby. Again, the areas most seriously impacted would be the shoreline areas, the wetlands, and other areas in the 100 year flood plain. Sites that experience backwash such as open field ditches would also be impacted. The high winds would result in flooding. Building restrictions concerning wind stress should be applied in areas closest to the shore and other areas with enough fetch to create strong winds.

FLOODING

Unlike high winds, flood waters may not impact all areas hit by a storm. According to the SLOSH model map, most of the

planning area would be subject to flooding from a Category 4 or 5 storms. The frequency a hurricane of this magnitude is less than a one percent chance in any given year. More common storms, like the Category 1 through 3 hurricanes, would flood nearly two-thirds of the area in Town. There are about ten commercial establishments located here, as well as nearly 150 homes. A rough estimate of $26,000 per home and $20,000 per commercial establishment would bring the figure to about 4.3 million dollars. This is a substantial portion of the Town's tax base.

Flooding cannot only cause damage to buildings, but salt-water flooding can also cause serious damage to cropland. An estimated value of this cropland is unavailable, but short term damage would be financially devastating. A large portion of the agricultural land located south of Town would be impacted by flood waters. Consideration of potential flood damage to crops is important to the overall storm hazard mitigation plan for the region.

WAVE ACTION

Damage from wave action is very strongly correlated to wind speed and direction. Most damage caused by waves will be in the immediate zone of the water along the estuarine shoreline and coastal wetlands. Development adjacent to or included as part of the estuarine shoreline would be subject to battering by waves. Since marshes occupy a very large segment of the shoreline, little would be at risk. In Town, the public boat ramp plus its pavement and docking would be at risk from wave

action. Other structures are located at a safe distance from the shoreline.

EROSION

The product of severe winds, high water and wave action is erosion. The areas most likely to be impacted by erosion are the shoreline areas within the planning jurisdiction. Riggs, Bellis, O'Connor (1979) studied shoreline types and their vulnerability to erosion. They concluded that the areas most likely to erode were the low bank, marsh and high bank forms of shoreline. The low bank and marsh are the most common shoreline types in the Aurora area. Marsh shorelines are generally characterized by vertical scarps which drop abruptly into one to eight feet of water. Much of the Aurora shoreline is in marshes. Further downstream, the low bank shoreline dominates.

Shoreline erosion could lead to structural damage to buildings, loss of tons of topsoil, and the destruction of bulkheads and other structures located at the land/water interface. The establishment of a required setback from the water's edge will mitigate most erosion caused by hurricane winds and waves.

SUMMARY

In summary, all four of the major damaging forces of a hurricane would negatively impact Aurora in the event of a storm. The areas most likely to receive damage are the sites located along the shoreline. The cumulative impacts of wind, water, waves and subsequent erosion will cause the most destruction. Damage from flood waters in the Category 1 through 3

zones would likely amount to $4.3 million, assuming total destruction. The wastewater treatment plant is located in a high risk zone. Relocation of this facility should be a top priority for the Town.

POST-DISASTER RECONSTRUCTION

INTRODUCTION

A post-disaster reconstruction plan allows the Town to deal with the aftermath of a storm in an organized and efficient manner. The plan provides for the mechanisms, procedures, and policies that will enable the Town to learn form its storm experience and to rebuild in a practical way.

A reconstruction plan typically has five purposes, according to Before the Storm: Avoiding Harm's Way (McElyea, Brower and Godschalk, 1982). It usually outlines procedures and requirements before damages occur, establishes procedures for putting storm mitigation measures into effect after the disaster, analyzes information about the location and nature of hurricane damages, assesses the community's vulnerability and guides reconstruction to minimize the vulnerability.

In 1982, Beaufort County adopted The Beaufort County Disaster Relief and Assistance Plan, a post-disaster recovery and reconstruction plan. As a municipality in Beaufort County, Aurora is covered by this plan. The disaster relief plan, in concert with Before the Storm in Beaufort County: Avoiding Harm's Way, provides Beaufort County with the tools necessary to serve all its communities during the recovery phase of a hurricane. Copies of these plans are available at the Beaufort County Emergency Management office in Washington.

It is important that local officials clearly understand the joint federal/state/local procedures for providing assistance to rebuild after a storm so that local damage assessment and

reconstruction efforts are carried out in an efficient manner that qualifies the community for the different types of assistance that are available. The requirements are generally delineated in the Disaster Relief Act of 1974 (P.L. 93-288) which authorizes a wide range of financial and direct assistance to local communities and individuals.

During reconstruction after a disaster, two phases of action are usually undertaken: immediate post-disaster clean-up and clean-up and repair over a longer period. Although these guidelines are directed for the county level, the Town of Aurora may take additional steps to complement this work. The following section discusses guidelines set forth for reconstruction in the county plan.

IMMEDIATE CLEAN-UP

The Disaster Relief and Assistance Plan, currently being updated and revised by the Division of Emergency Management, includes a program for immediate clean-up and debris removal from roads, beaches and other areas where public health and safety may be jeopardized. The responsibility for completing these duties will be a combined effort by several agencies from the public and private sectors. The Department of Transportation will be responsible for clearing debris from roads and the Forest Service will remove fallen trees from the area, if necessary. In addition, the county Emergency Management office will provide names of volunteers to call upon for assistance in the immediate clean-up efforts.

While clean-up efforts are taking place, a damage assessment team will be sent out to evaluate the extent of damage in the area. Damage assessment is defined as a rapid means of determining a realistic estimate of the amount of damage caused by a natural or man-made disaster. For a storm disaster, it is expressed in terms of: 1) the number of structures damaged, 2) magnitude of damage by type of structure, 3) estimated total dollar loss, and 4) estimated total dollar loss covered by insurance.

After a major storm event, members of the Damage Assessment Team should conduct two types of surveys: one which roughly estimates the extent and type of damage, and a more detailed second phase assessment after the initial damage reports are filed. The initial damage assessment should include an estimate of the extent of damage incurred by each structure and identify the cause such as wind, flooding or wave action of the damage of each structure. Rapid and general initial damage assessment reports are to be submitted by radio within one hour. Within six hours, private property summaries and more detailed reports should be nearly complete. The format for damage assessments will be conducted in accordance with Annex F of the Disaster Relief and Assistance Plan. This plan is currently being revised to accommodate for longer damage assessment periods; however, for the scope of this plan, the available data is the most accurate.

Under certain circumstances, interim development moratoria can be used to give a local government the time to assess

damages, make sound decisions, and to learn from storm experiences. Beaufort County can impose a development moratorium if it gets disaster declaration from the appropriate federal authorities. This disaster declaration must stipulate the type and extent of reconstruction that will be paid for by the Federal Insurance Agency. The length of the moratorium will depend on the extent of the damage. A decision will be made at that time.

RECOVERY TASK FORCE

Damage assessment operations are oriented to take place during the emergency period. After the emergency operations to restore public health and safety and the initial damage assessments are completed, the guidelines suggest that a recovery task force to guide restoration and reconstruction activities during a post-emergency phase which could lasts from weeks to possibly more that a year. The county has formed a group with members from all areas of the county to serve as a task force for recovery.

The responsibilities of this task force are to review the nature of damages in the community, establish an overall restoration schedule, identify and evaluate alternative approaches for repair and reconstruction, and make recommendations for community recovery. The Task Force will work with State and Federal representatives on the Interagency Regional Hazard Mitigation Team and also the Section 406 Hazard Mitigation Survey and Planning Teams. Members of the recovery task force will include:

Beaufort County Commissioners

County Engineer and Building Inspector

County Manager

City Managers and Engineers from each municipality

County Emergency Management Coordinator

County Health Department

The Mayor of Aurora, Grace Bonner, will be called upon to serve on this Task Force. John Pridgen, the Town Engineer, will also serve. Although this task force will review damages, the authority to approve or deny permits will remain the responsibility of the appropriate authorities.

SCHEDULE FOR REPAIR AND RECONSTRUCTION OVER LONGER PERIOD

The procedures listed above deal directly with policies or clean-up immediately after a storm or disaster. In conjunction with the policies stated above on storm hazard mitigation, consideration should be given to long-term reconstruction. Formulation of more stringent building standards should be considered to prevent the destruction from recurring.

In the aftermath of a disaster, reconstruction efforts will be rampant. A plan for the long-term reconstruction is essential. In order to handle the rush, a priority system has been designed to stage and permit repairs. Staging and permitting repairs and construction for the county are as follows:

First Priority:	Replacement of essential services such as power, water, telephone and streets and bridges.
Second Priority:	Minor repairs
Third Priority:	Major repairs
Fourth Priority:	New Development

In efforts to streamline the permitting process for the large number of applications for building permits, a policy has been established by the county to repair and rebuild essential service facilities first. Second priority is to repair other public facilities as necessary for shelter. A triage (worst damage) approach will be instituted for staging the reconstruction effort. Properties with little damage would be permitted immediately if they were in compliance with permit regulations before the storm. The schedule for permitting other properties is as follows:

1. Moderate damage, meeting permit regulations
2. Moderate damage, requiring permit decisions
3. Extensive damage, requiring permits

This system was established to avoid interference with the reconstruction of public utilities and facilities. The top priority in post-disaster reconstruction is the replacement of services.

The development standards for reconstruction will be in accordance with the Storm Hazard Mitigation policies set forth by the Town. As a minimum, the State Building Code will be enforced as well as building restriction imposed by the Federal Flood

Insurance Program. The County Commissioners will be the legislative body to enforce these policies.

Consideration of the possible relocation of public facilities to safer locations was not undertaken by the County. Since the Aurora wastewater treatment plant is located in the hazard area, this should be a priority for the decision-makers.

EVACUATION ROUTES AND TIMES

According to Before the Storm in Beaufort County, the current evacuation routes in the Aurora area are sufficient. Highway 33 is the principal route for evacuation to safer locations. This highway serves all of the Aurora area plus those persons living near the Pamlico County line.

The planning area is broken into two evacuation zones: Zones VI and VII. Since such a small portion of the planning area is located in Zone VI, this discussion will be limited Zone VII. The Zone VII evacuation route is Highway 33 North from the Pamlico County line to Highway 17 near Chocowinity. There are no surge inundation points along this route. It has an adequate capacity, but safe evacuation will depend on the amount of warning time provided and the willingness of the inhabitants to evacuate. Based on the model in the Storm Hazard Mitigation Plan, it would take less than seven hours to evacuate the estimated 1,000 people in Aurora and its vicinity. The 1200 Texasgulf employees located outside of Aurora could also be safely accommodated by this route. This time figure is well within the 12 hour warning time period provided by the National Weather Service. Highway 33 can accommodate approximately 455

vehicles per hour at 35 miles per hour. During a 12 hour period, 5460 vehicles could be relocated. This value is far above the calculated volume of traffic estimated in the model provided in the storm hazard plan.

Aurora area evacuees can find shelter at Aurora High School. The High School is located at a higher elevation outside of the flood hazard zone. A full description of the capacity and adequacy of this shelter is provided in Beaufort County Disaster Relief and Evacuation Plan.

SUMMARY

A large proportion of the Aurora Planning area is threatened by the hazards associated with storms. In the event of a major disaster, the planning area would be subject to the policies and guidelines set forth in the Beaufort County Mitigation Plan. In-Town reconstruction standards should be strengthened to mitigate disaster in the future.

INTERGOVERNMENTAL COORDINATION

The Town of Aurora is responsible for reporting all of its activities concerning storm hazard mitigation and hurricane preparedness with the following agencies:

N.C. Division of Coastal Management
State Office: Division of Coastal Management
Department of Natural Resources and Community Development
P.O. Box 27687
Raleigh, NC 27611-7687
(919) 733-2293

Field Office: Division of Coastal Management
Department of Natural Resources and Community Development
P.O. Box 1507
Washington, NC 27889
(919) 946-6481

N.C. Division of Emergency Management

State Office: Division of Emergency Management
Department of Crime Control and Public Safety
116 West Jones Street
Raleigh, NC 27611
(919) 733-3867

Regional Office: Area Emergency Management Coordinator
N.C. Division of Emergency Coordinator
607 Bank Street
Washington, NC 27889
(919) 946-2773

N.C. Division of Community Assistance
(National Flood Insurance Program Information)

Flood Insurance Coordinator
Division of Community Assistance
Department of Community Assistance
P.O. Box 27687
Raleigh, NC 27611-7687
(919) 733-2850

Federal Emergency Management Agency

National Office: Federal Emergency Management Agency
500 C Street, S. W.
Washington, D.C. 20472
Public Information (202) 287-0300
Publications (202) 287-0689

Federal Emergency Management Agency

Regional Office: Federal Emergency Management Agency
Region IV
1375 Peachtree Street, N.E.
Atlanta, GA 30309
Public Information (404) 881-2000
Disaster Assistance Program (404) 881-3641
Flood Insurance Program (404) 881-2391

STORM HAZARD MITIGATION AND POST-DISASTER RECONSTRUCTION POLICIES

Policy Choices

1. Support county Storm Hazard Mitigation and Post Disaster Reconstruction Policies.

2. Discourage development in same manner as existing structures destroyed in storm.

3. Consider relocation of public facilities to areas outside the hazard area.

4. Consider developing Recovery Task force for Town.

5. Increase public awareness and preparedness.

Implementation Schedule

1. Stay abreast of changes in Beaufort County Storm Hazard Mitigation plan.

2. Consider the adoption of new regulations for post-disaster reconstruction.

3. Due to the lack and cost of available land, Town facilities will be rebuilt at same pre-storm location.

4. Recovery Task Force members will include:

   Mayor of Aurora

   Planning Board Members

   Rescue and Fire Squad Volunteers

   Medical Board

   Town Engineer

5. Educate Town employees and public about evacuation procedures about their responsibilities in storm situation.

PUBLIC PARTICIPATION

Aurora realizes the importance of soliciting public input into the planning process. During the development period of this land use plan update, several techniques were employed to encourage involvement of Aurora area residents in the land use plan's policies.

At the beginning of the planning period, a citizen participation plan was developed. At the first meeting, the planning board decided to schedule regular monthly meetings every second Wednesday from November through April. It was decided that all planning board meetings concerning the CAMA Land Use Plan update should be made public. Citizen input was to be strongly encouraged.

The board decided that initially, emphasis would be placed on public education about the land use planning process. It was felt that once the public understood the importance of the plan, they would want to be involved in it. An effort was made to inform the public about the existence of the plan and the importance of their contribution on policy recommendations.

This was done in a variety of ways. First, news articles appeared in the local newspapers which discussed the plan and its purpose. Press releases were sent to three newspapers: the Washington Daily News, based in Washington; the New Bern Sun Journal; and the Pamlico News from Oriental. The purpose of the articles was to explain the role of the CAMA plan and the explanation of the issues addressed in it. Other methods

of public education involved direct communication with Aurora residents and planning board members.

In addition to the public education efforts, press releases were sent to the local newspapers prior to each meeting. Included in the press release was a description of the land use plan and its purpose as well as the agenda items. Upon completion of meeting, another news article was sent out which described the meeting's events. The combination of these newspaper articles intended to promote the understanding of the land use planning process as well as to encourage the public to provide their opinion on various issues. Examples of the newspaper articles and a listing of article dates are included as Appendix B.

Another measure was taken to attract citizen input. Letters were mailed to various civic and industry leaders in the community (Appendix C). Special attention was given to soliciting names from a wide cross-section of individuals. Economic, social, ethnic and cultural view points were considered in developing the list. The intent of the letter was to educate the individuals about the plan and to invite them to attend the public meetings. This proved to be effective, as citizen attendance increased markedly at subsequent meetings.

Draft sections of the plan were also made available for public review. A current draft of the plan was kept in the Town Hall and the public was encouraged to make written comments on it. The purpose was to have as much citizen input as possible.

It is the belief of the Aurora Planning Board and Town Board that all citizens should be provided adequate opportunity to participate in the governmental and planning decisions which affect them. In the future, citizen input will continue to be solicited, primarily through the planning board. All upcoming meetings will be advertised and adequately publicized to help keep citizens informed about the land use changes occurring in their community.

LAND CLASSIFICATION SYSTEM

The land classification system is a tool to identify the anticipated land uses within a planning area. The land classification map, the culmination of the land use planning effort, designates specific areas for certain types of development activities. It provides a uniform method of analyzing how the planned use of land interacts with environmentally sensitive areas during the development process of the Town. The land classification system promotes an understanding of the relationships between various land use categories and the need to develop policies to accommodate these relationships. The focus is to evaluate the intensity of land utilization and the level of services required to support that intensity. According to the CAMA guidelines:

> "The land classification system provides a framework to be used by local governments to identify the future use of all lands. The designation of land classes allows the local government to illustrate their policy statements as to where and to what density they want growth to occur, and where they want to conserve natural and cultural resources by guiding growth." (7B.0204) (b)

The CAMA guidelines include five general land use classifications for the land classification map: Developed, Transition, Community, Rural and Conservation. Their definitions are ranked according to the intended intensity of land uses within them. Areas classified as "Developed" require the traditional level of services associated with urban areas. "Transition" lands should

include areas developing or anticipating development which will eventually require urban services. Lower density which will not require services should be classified as "Community". Areas classified as "Rural" should be reserved for low intensity uses such as agriculture, forestry, mineral extraction and highly dispersed housing. Public water and sewer will not be provided in rural areas. The purpose of the Conservation class is "to provide for the effective long-term management and protection of significant, limited or irreplaceable areas". Public or private services should not be provided in this land classification.

The five land classifications and land classification map are intended to serve as a visual definition of the policies stated in this plan (Figure 13). The five land use classifications, as they are applied in the Aurora planning area, are discussed below.

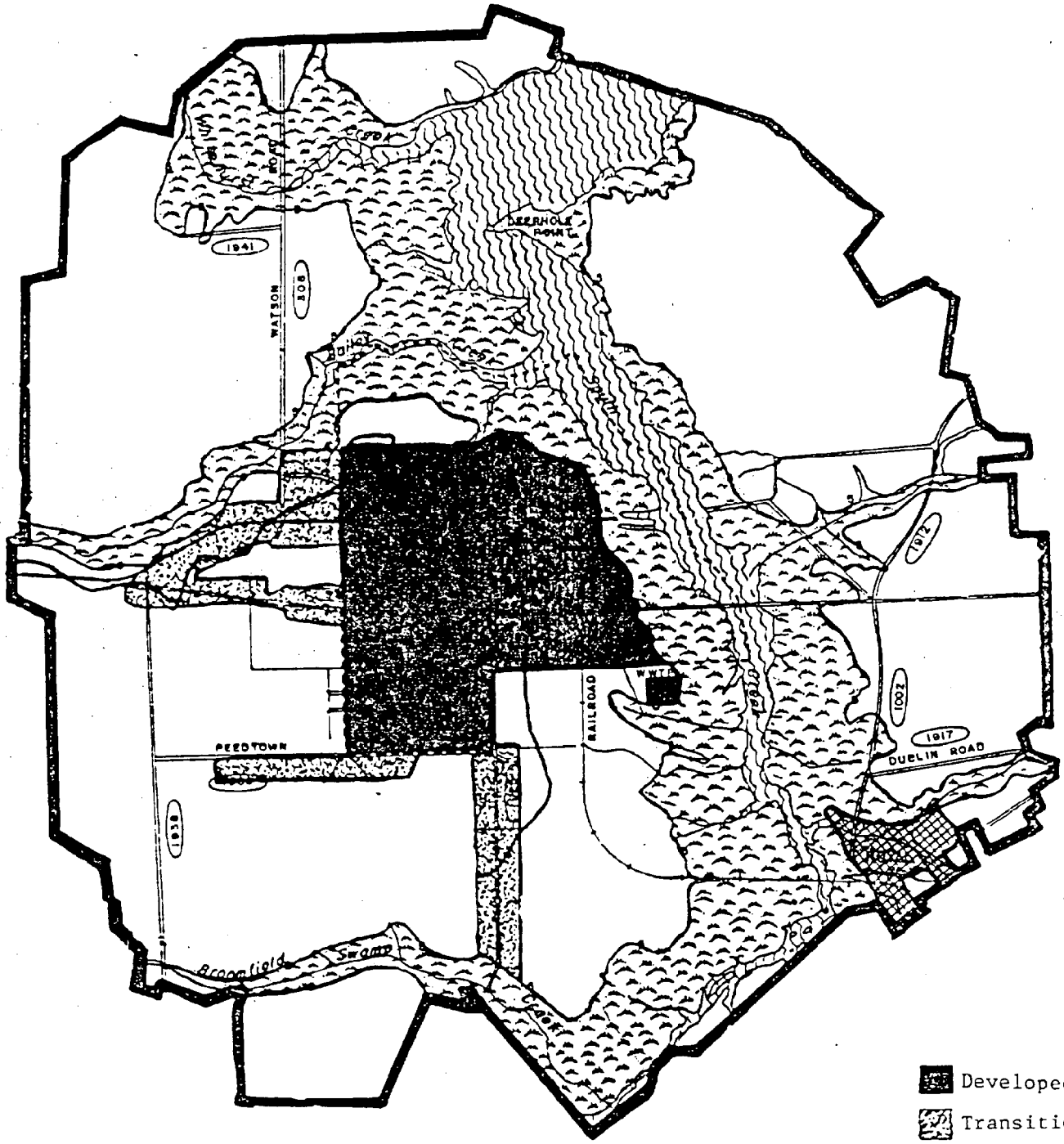
DEVELOPED

The Developed land classification is intended for continued intensive development and redevelopment of urban areas. It includes areas already developed as urban or those areas with a density of approximately 500 dwellings per square mile. In most cases, the Developed class includes all urban areas.

In the planning area, most of the land within the Aurora Town limits is classified as Developed. Exceptions include the forested wetland area north of the downTown area. Approximately 97 percent of the persons living within this boundary are served by sewer service. All residents are provided water service.

Figure 13

LAND CLASSIFICATION MAP



Developed
Transition
Community
Rural
Conservation

GRAPHIC SCALE

0' 1000' 2000' 3000'

THE PREPARATION OF THIS MAP WAS FINANCED IN PART THROUGH A GRANT PROVIDED BY THE NORTH CAROLINA COASTAL MANAGEMENT PROGRAM, THROUGH FUNDS PROVIDED BY THE COASTAL ZONE MANAGEMENT ACT OF 1972, AS AMENDED, WHICH IS ADMINISTERED BY THE OFFICE OF COASTAL RESOURCE MANAGEMENT, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

TRANSITION

Transition land is categorized as the lands providing for intensive urban development within the ensuing ten years. These areas will be scheduled for provision of water and sewer in the future. They will also serve as the overflow sites for development when additional lands are needed to accommodate growth. They will eventually become a part of the urban area.

The Transition classification includes the areas located adjacent to the transportation routes that run through Aurora. An additional concentration of the transition class exists in the western section of Town near the High School. This is the site of the new crab processing plant, as well as other commercial enterprises. Since 1981, much of the development located along Highway 33 West and Highway 306 North has been commercial. Trends over the past five years have shown most of the Town's residential development to occur in the area south of Highway 33 near the Town limits in an existing residential area. The land use analysis showed that although the soils are generally unsuitable for septic tanks, much of this area is not within the hurricane hazard zone.

The relationship between the Developed and Transition classes is important in a predominantly rural area like eastern Beaufort County. The area within these classes is where detailed local land use and public investment planning will occur. Large amounts of vacant land suitable for urban development within the Developed class should be taken into account when calculating the

amount of additional lands needed to accommodate projected growth.

The local zoning ordinance recognizes this by specifying each particular land use and intensity of use in both the Developed and Transition land classes. The Developed areas are zoned for commercial, industrial and residential uses and are currently served by the Town's facilities. The Transition areas are recognized on the zoning map as having potential for future growth. The zoning ordinance shows some these areas as rural; but areas along traffic arteries are incrementally zoned for less intensive commercial and residential uses. The zoning ordinance recognizes that future development will be located in these areas.

COMMUNITY

The "Community" classification is usually characterized by a small cluster of mixed land uses in a rural area which do not require municipal services. It usually serves to meet the housing, light shopping, employment and public services needs of a rural area. The Community classification typifies crossroads areas along primary and secondary roads.

In the Aurora planning area, only the Royal/St. Peter's Church area is classified as Community. The Royal community includes a small cluster of homes and a country store. It is not anticipated that Aurora's municipal services will be extended to this community. Wells and septic tanks currently serve the basic needs of this community, and there is a limited need to provide additional services to Royal.

RURAL

The "Rural" classification is designed for agriculture, forestry, mineral extraction and other low intensity uses. Urban services are not required because of the great dispersion of development in these areas. These are lands identified as appropriate locations for resource management and related uses; agricultural, mineral, or forest lands; and areas with enough limitations to make development hazardous or economically unfeasible.

The majority of the land within the planning area falls within this classification. In Aurora, most of this land is under agricultural production. In addition, the Rural classification is particularly important for the extension of phosphate mining operations. It should be emphasized that development should not be precluded from the agricultural lands located in this classification; this designation implies that urban services will not be extended to accommodate future development.

CONSERVATION

The "Conservation" class provides for the effective long term management of significant, limited or irreplaceable resources. This includes, as a minimum, all of the statutorily defined AECs such as the estuarine waters, the public trust waters, the estuarine shoreline and coastal wetlands. This also includes the land defined as the conservation buffer zone extending for a distance of 75 feet beyond the shoreline of the public trust waters and marshes (see Resource Protection policy statements). Because of difficulties with mapping detail, the

definition of this buffer for permitting purposes will need to be made on site. The Town has made a distinction between state regulated areas of environmental importance and other areas not offered state protection. The purpose of designating the conservation buffer area is to provide added protection for water quality in the surface waters in the public's trust.

The Conservation class does not imply "non-use". It is intended to provide for careful and cautious management of the uses allowed in it. Preservation, on the other hand, implies total restriction of all uses in an effort to keep the natural environment in tact. Through conscientious management, the Conservation class requires all uses to be as unoffensive as possible. The intention of the Conservation class is to strike a balance between careful long-term management of sensitive natural and cultural resources and the freedom of landowners to utilize their property to its best use.

In order to protect its natural integrity, various types of land uses should be prohibited from the Conservation classification. The Town has decided that the NCAC permitted uses for statutorially-defined AECs are consistent with the Town's long-term goal of resource protection. The Town does not feel the need to add specific uses to this already satisfactory list of restrictive uses. All uses permitted by the state will be considered consistent with the Town's objectives.

Within the conservation buffer zone, the Town has decided to be more restrictive than the state. In order to protect the natural integrity of the surface waters and marine life, Aurora

would like to prohibit most types of uses in this area. Any type of land use must meet a performance standard. Any disruption or destruction to the existing conditions of the land located in the buffer zone will not be tolerated. The purpose is to aim to provide for the most natural environment possible along the banks of the waterways. All development should be very low intensity and should prove not to damage the natural ecosystem. The following is a list of the examples of the types of uses that may be allowed within the conservation buffer zone.

1. Water-oriented uses such as docks, piers and bulkheading, if they are shown not to cause detriment to the public trust waters or Conservation lands.

2. Necessary utility service lines, such as water, sewer, electrical, natural gas, etc., when demonstrated that the environmental integrity of the Conservation area will not be violated.

3. Roadways and improvements to existing roads when construction can be conducted without significantly altering the ecological system, and in compliance with existing federal, state and local regulations.

4. Barge landings.

5. Marinas, provided that they are in compliance with size and water quality requirements set by state.

In conjunction with the Policy Statements section of this plan, each application for any type of use in the all Conservation classifications, both defined by the state and the Town, shall be reviewed on a case-by-case basis by the Town Council.

RELATIONSHIP OF POLICIES AND LAND CLASSIFICATION

As required by the Coastal Resources Commission, this plan must discuss the manner in which the policies developed in the Policy Statements section will be applied to each of the land classes. In addition, an identification must be made of the types of land uses which are appropriate in each class.

DEVELOPED AND TRANSITION CLASSES

Recent trends have shown that most of the growth in the Aurora planning area is occurring on the fringes of the Aurora Town limits. This is the area where basic services such as water, sewer and community support services are available or might be feasible within the planning period. These classes are designed to accommodate all intensive land uses, including residential, commercial, industrial, transportation and community facilities. Hazardous or offensive uses, such as land application systems, electrical generating facilities, airports, and noxious industries will not be permitted in the classes.

COMMUNITY CLASS

Intensive development will not be encouraged in this class due to the lack of urban services and/or physical limitations. The general range of acceptable uses are limited to residences, isolated convenience stores and churches, and other public facilities.

RURAL CLASS

The rural class is the broadest of the land classes and is designated to provide for agriculture, forest management, mineral extraction and other low intensity uses. Residences may

be located within the rural class where urban services are not required and where natural resources will not be permanently impaired. Energy-generating facilities and airports will be limited to this class.

CONSERVATION CLASS

The conservation class is designed to provide for the effective, long-term management of significant limited or irreplaceable areas including Areas of Environmental Concern and the Town's defined conservation buffer zone. Development in the estuarine system should be limited to uses such as piers, bulkheads, marinas, and other water-dependent uses (See Land Classification System section). Policy statements under Resource Protection and Resource Production and Management and the list of Conservation classification permittable uses in the previous section address Aurora's intentions for regulating development in fragile areas. The protection of water quality, a top priority for the Town, is the key determinant for permitting specific land uses within the Conservation class.

INTERGOVERNMENTAL COORDINATION

The land use plan is a tool for coordinating numerous policies, standards, regulations and other governmental activities. The plan provides the framework for budgeting, planning, and the provision and expansion of community facilities such as water, sewer, school and road systems. It is the principal policy guide for governmental decisions and activities which affect land use in the Aurora area. The implementation of policies in the land use plan requires coordination between the local government and the state and federal governments. Enforcement of the policies and goals requires a consistency with the higher levels of government. The formation of a policy without means of enforcement defeats the intention of the land use plan update.

Aurora has worked to ensure compatibility between the Beaufort County and Aurora Land Use Plans. There appeared to be no inconsistencies between the policies in each plan. A good working relationship exists between the Town of Aurora and Beaufort County. During its development period, the plan was continuously evaluated for its consistencies between state and federal regulation.

The Town of Aurora intends to foster intergovernmental coordination by working with state and federal agencies to implement policies to improve water quality, as well carry out goals for the agriculture and commercial fishing industries. In addition, Aurora will work with the N.C. Department of Cultural Resources in protecting and enhancing its heritage.

Coordination between the Division of Coastal Management and U.S. Army Corps of Engineers will be maintained in the permitting process for development in areas classified as wetlands. All additional efforts will be made to promote cooperation between the state, federal, county and Aurora governments.

APPENDIX A

FEDERAL DEVELOPMENT REGULATIONS

Agency	Licenses and Permits
Army Corps of Engineers (Department of Defense)	- Permits required under Sections 9 and 10 of the Rivers and Harbors Act of 1899; permits to construct in navigable waters.
	- Permits required under Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972.
	- Permits required under Section 404 of the Federal Water Pollution Control Act; permits to undertake dredging and/or filling activities.
Coast Guard (Department of Transportation)	- Permits for bridges, causeways and 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 offshore drilling.
	- Approval of OCS pipeline corridor rights-of-ways.
Nuclear Regulatory Commission (Department of Energy)	- 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.

CONTINUED

Federal Energy Regulation Commission (Department of Energy)	- 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 pipelines and associated facilities under Section 7C (b) of the Natural Gas Act of 1938.

STATE DEVELOPMENT REGULATIONS

Agency	Licenses and Permits
Department of Natural Resources and Community Development	- Permits to discharge to surface waters or operate wastewater treatment plants or oil discharge permits; NPDES Permits, (G.S. 143-215).
Division of Environmental Management	- Permits for septic tanks that serve industrial process water flow or are community owned. Such systems owned by the State or Federal government are under the jurisdiction of the Health Department, (G.S. 143-215.3).
	- Permits for air pollution abatement facilities and sources (G.S. 143-215.108).
	- Permits for construction of complex sources; e.g. parking lots, subdivision, 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 Division of Coastal Management	- Permits to dredge and/or fill in estuarine waters, tidelands, etc. (G.S. 113-229).
	- Permits to undertake development in Areas of Environmental Concern (G.S. 113A-118).
	Note: Minor development permits are issued by the local government.

CONTINUED

Department of Natural Resources and Community Development Division of Land Resources	- Permits to alter or construct dams (G.S. 143-215.66).
	- Permits to mine (G.S. 74-51).
	- Permits to drill exploratory oil or gas wells (G.S. 113-381).
	- Permits to conduct geographical explorations (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 oil refineries.
Department of Administration	- Easements to fill where lands are proposed to be raised above the normal high water mark or navigable waters (G.S. 146.6).
Department of Human Resources	- Approval to operate a solid waste disposal site or facility (G.S. 130-166.16).
	- Approval for construction of any public water supply facility that furnishes water to ten or more residences (G.S. 130-160.1).
	- Permits for septic tank systems of 3000 gallons/day or less capacity (G.S. 130-160).

APPENDIX B

PERSONAL INVITATION TO PUBLIC MEETINGS

MID-EAST COMMISSION

February 3, 1986

Mr. Joe Hollowell
P. O. Box 278
Aurora, North Carolina 27806

Dear Mr. Hollowell:

The Town of Aurora and the Mid-East Commission are currently engaged in updating the 1981 Aurora Land Use Plan. The land use plan is a document used to assess and guide development. It will be used by the county CAMA Permit Officers, developers and other stated and federal agencies to make decisions about development and preservation activities in the town.

Thus far, our work has concentrated on establishing a data base on the existing conditions, all plans and policies, and physical constraints which might pose a development impediment in the future. The next task of the planning board is to formulate recommendations for policy on future development issues.

Your input in this decision-making process is essential. You have been listed as one of the more prominent residents in the Aurora community who has an interest in the future of the town. We invite you to be heard in the community forum. During the next meeting scheduled for February 12, we will begin making policy statements on resource protection in the area. Also, we will be discussing the most relevant issues facing Aurora today. The incorporation of your opinion on these issues is one of our goals.

The meeting is scheduled for February 12 at 7:00 pm in the Aurora Community Building. Subsequent meetings will be held on the second Tuesday of each month at the time given above. We encourage you to attend to provide guidance and direction.

E. Peterson Building ■ 310 West Main St. ■ P.O. Drawer 1787 ■ Washington, North Carolina 27889 : (919) 946-8043

If you have any questions about the plan and its purpose or the meeting, please feel free to call me. We look forward to working with you to guide the future of your town.

Sincerely,

Lynn Phillips

Lynn Phillips
Consulting Planner

LP/lrw

Washington Daily News

December 13, 1985

Planning Board From Aurora Talks About Land Use Plan

AURORA — Aurora got a "B-plus" on the report card which shows how well goals are accomplished.

The town's planning board met Wednesday night to discuss the land use plan, which is being updated for 1986. The meeting focused on the policies and goals set in the 1981 plan and how well the implementation procedures have been carried out since that time.

The land use plan update is a document used to assess and guide development. Each of 20 counties covered by North Carolina's Coastal Area Management Act must update its land use plan every five years. Municipalities, like Aurora, have the option of updating their plans as well.

In a checklist format, each policy and implementation strategy was analyzed to assess how the town has moved forward in reaching each goal. Out of 25 implementation strategies listed, 22, or 88 percent, had been either partially or completely fulfilled. Each policy and implementation strategy dealt with the issue of resource protection, production and management, as well as economic and community development.

The planning board also overlooked the completed part of their 1986 plan which analyzes the existing socioeconomic and land use trends. Planner Lynn Phillips of the Washington-based Mid-East Commission presented the plan to the board. Groundwater availability in future years also was discussed.

The next meeting of the planning board is scheduled for Jan. 8 at 7 p.m. in the Aurora Community Building. The agenda will cover the town's current policies on resource protection. All members of the community are invited.

February 14, 1986

Planners Aim Toward Saving Water Quality

AURORA — The Aurora Planning Board has decided to stress water quality and over protection of agricultural land in the town's land-use plan.

In proposing policy for the town's 1986 land use plan this week, the planning board included policies to protect water quality and fish habitats in South Creek.

The board also elected not to emphasize protection of prime agricultural land. It cited an abundance of farmland.

Aurora is updating its Coastal Area Management Act Land Use Plan. The planning board met Wednesday night with consulting planner Lynn Phillips of the Mid-East Commission, who provided the technical information on which the board based its decisions.

Chairman W.B. Thompson noted that water quality and wetland resources and important to Aurora's commercial fishing and recreation industries.

The area of South Creek near the town functions as a "primary nursery area," according to biological data the board reviewed. That means that the waters and associated wetlands provide critical habitat and food for juvenile forms of fish and shellfish.

The board proposed policies on location of marinas and similiar facilities, and establishing a conservation buffer zone along the shoreline.

While the U.S. Soil Conservation Service has identified many areas in and near Aurora as "prime agricultural land," Thompson said preventing non-agricultural development on this land should not be a short-term priority.

Thompson said there is no shortage of good farmland in Aurora, while the town needs other types of economic development.

The plan is not finished, and public opinion is still encouraged. The board will meet again at 7 p.m. March 12 in the Aurora Community Building.

The Planning Board will consider recommendations for policy on economic and community development. All Aurora residents are invited.

Aurora Planning Board Seeks Limit On Growth

AURORA — After discussing anticipated growth over the next 10 years, the Aurora Planning Board has continued to put a ceiling on its growth.

The board met last night to discuss the policy recommendations for the Land Use Plan update. Storm hazard mitigation, economic and community development and urban growth patterns were some of the issues discussed.

The Land Use Plan is a document used to guide and assess development. Aurora is updating its 1981 plan.

Although growth is currently not a problem for the town, a population ceiling of 1,500 persons will be set. This figure represents the capacities of the municipal water and sewer capabilities. The town's current population is about 650.

The board also elected to emphasize the recruitment of industry which employs the abundant low-skilled workers in the planning area. "Assemble-type and seafood processing manufacturing firms would probably be best for this area," Chairman W.B. Thompson said. But any industry which comes to the area must prove its commitment to the environment, too, he added. Water quality is a top priority for the Aurora planners.

Specific sites for industry were also evaluated. The northeastern quadrant of town and a stretch of road along N.C. 33 west of town are the best suited industrial zones in Aurora. Both locations are easily accessible for most forms of transportation.

The board also decided that little could be done to mitigate the hazards to the wastewater treatment plant in the event of a strong hurricane. Floodwaters from a hurricane of medium intensity could inundate about two-thirds of the town. The sewage plant is included in this area. "In this case, the town will not be able to learn from its mistakes," said board member Marvin Sartin.

Little if any land would be available for relocating the sewage plant if it were destroyed. The town would have to rebuild at its present location.

The land classification map, a visual tool which shows growth areas over the next 10 years, indicated pockets of development along the highway arteries in town. Most residential and commercial building starts have been in these areas and it is anticipated that future growth will occur here as well.

The plan is not finished and public opinion is still being encouraged. A completed copy of the land use plan will be available for public review within the next two weeks. Interested persons can pick up a copy at the Town Hall. The Aurora Town Board is expected to review the document at its next meeting in early April.

Aurora Commences Work On Its Land Use Guidelines

AURORA — The town of Aurora took the first step last week toward setting its land use goals and priorities for the next five years.

The Aurora Planning Board met to discuss the organization of the 1986 land use plan update. The meeting was designed to introduce the board to the planning process and the board's responsibilities in plan development.

The Planning Board will meet monthly to discuss the plan. All meetings are open, and public participation is encouraged. The next meeting is set for 7 p.m. Dec. 11 in the Aurora Community Building.

The land use plan update is a document used to assess and guide development. Each of 20 counties covered by North Carolina's Coastal Area Management Act must update their land use plan every five years. Plans are optional for municipalities such as Aurora.

Lynn Phillips of the Washington-based Mid-East Commission, which is providing technical assistance, outlined components of the plan, including resource protection and economic development.

Ruth Leggett of the N.C. Division of Coastal Management discussed techniques for increasing public involvement.

Mayor Grace Bonner presided.

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