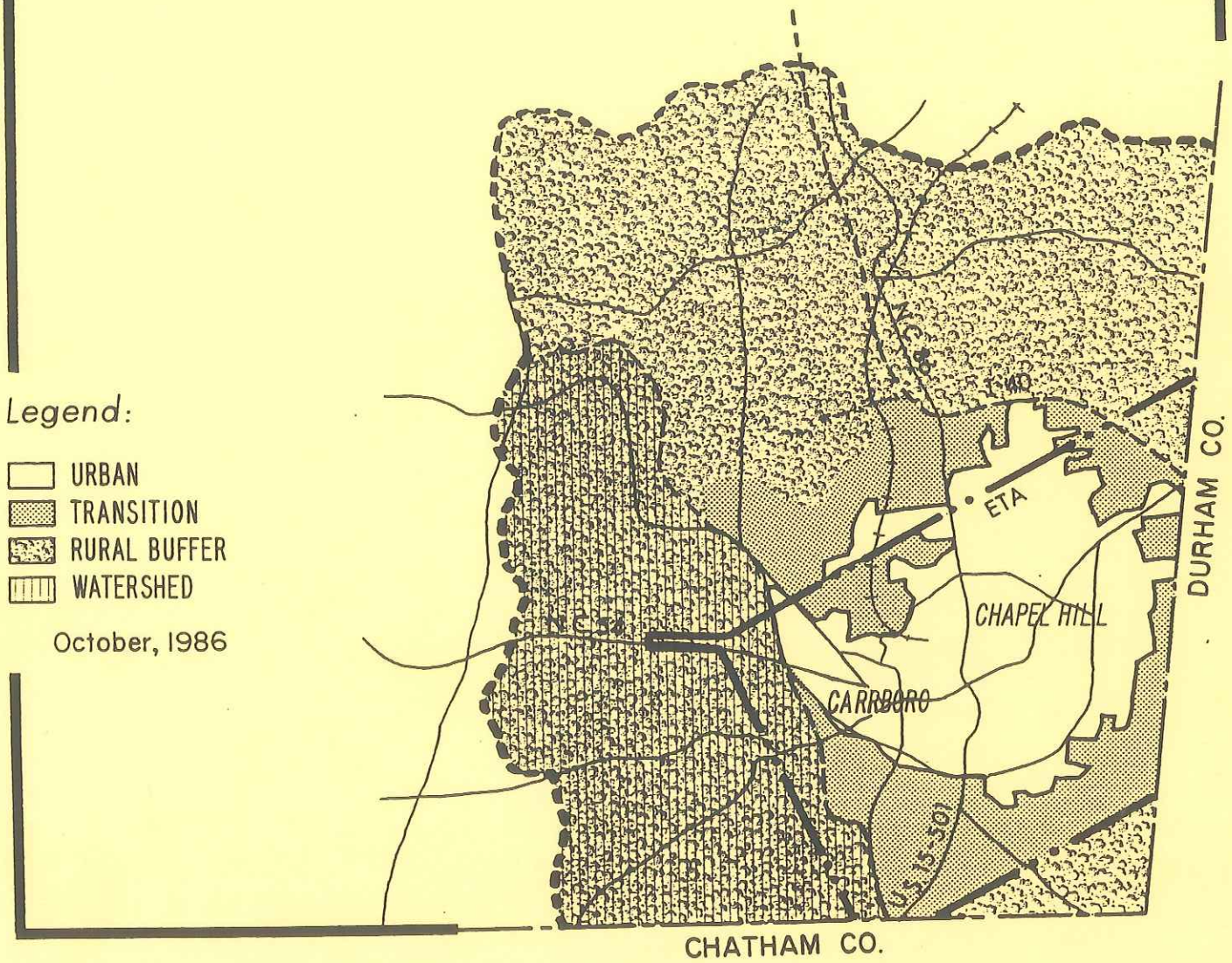
ORANGE COUNTY - CHAPEL HILL - CARRBORO

JOINT PLANNING
LAND USE PLAN



Adopted 10-13-86
Amended 8-16-88
9-6-88
4-2-90
2-3-92 (effective 2/24/92)
2-1-93
2-2-99
8-20-02
6-24-03
10-1-03

JOINT PLANNING LAND USE PLAN
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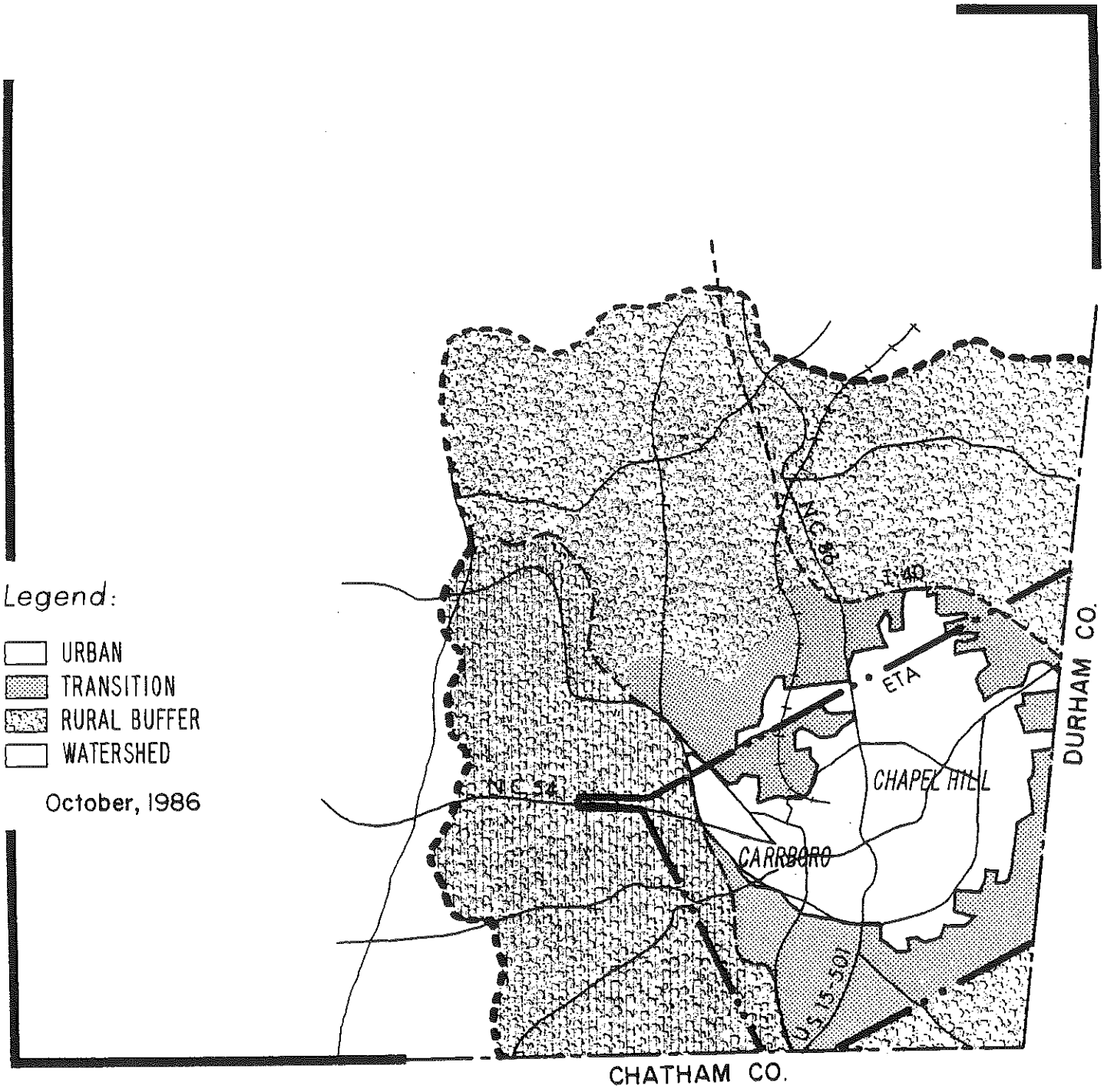
I. INTRODUCTION



SECTION I

INTRODUCTION

Chapel Hill and Orange County entered into a Joint Planning Agreement in 1984 which called for the preparation of a Land Use Plan for the areas immediately surrounding Chapel Hill and Carrboro but outside the extraterritorial planning jurisdictions of the two towns. At the same time, Chapel Hill was also in the process of revising its Land Use Plan.

The two efforts were pursued simultaneously as a Land Use Plan for Chapel Hill and the Joint Planning Area. The work was undertaken by the staffs and Planning Boards of Chapel Hill and Orange County. Background data was collected and analyzed as the starting point for preparation of the Plan. Hundreds of pages of text and tables along with dozens of maps were assembled. Though not a party to the Joint Planning Agreement, Carrboro was also updating its Land Use Plan. It also participated in the preparation of the Land Use Plan.

In an effort to promote public review of this information and stimulate public discussion about the issues, a public information meeting was held on November 13, 1985. The results of the meeting coupled with the background data and public hearings in January and April of 1986 were merged to produce the Joint Planning Area Land Use Plan. The Plan was recommended by the Chapel Hill Town Council on July 14, 1986, partially adopted by the Orange County Board of Commissioners on August 19, 1986, and adopted in its entirety by both the Town Council and Board of Commissioners on October 13, 1986.

In addition to the preparation of a Joint Planning Area Land Use Plan, the 1984 Joint Planning Agreement established procedures for the approval of land development projects in designated Transition Areas. Projects were presented at joint public hearings involving the Chapel Hill Town Council and the Orange County Board of Commissioners, and required the approval of both governing boards to proceed to the construction phase.

The procedure proved, however, to be administratively awkward, and, on February 3, 1987, a revised Agreement was adopted by Chapel Hill and Orange County. While streamlining the cumbersome review/approval procedures inherent in the original Joint Planning Agreement, the revised version was never implemented. The Town of Carrboro entered into discussions with Chapel Hill and Orange County, and, on November 2, 1987, a new Joint Planning Agreement was adopted

involving all three jurisdictions. The new Agreement did not take effect, however, until the following steps were taken:

1. Amending the Orange County Zoning Ordinance (including Zoning Atlas) and Subdivision Regulations to include the following:

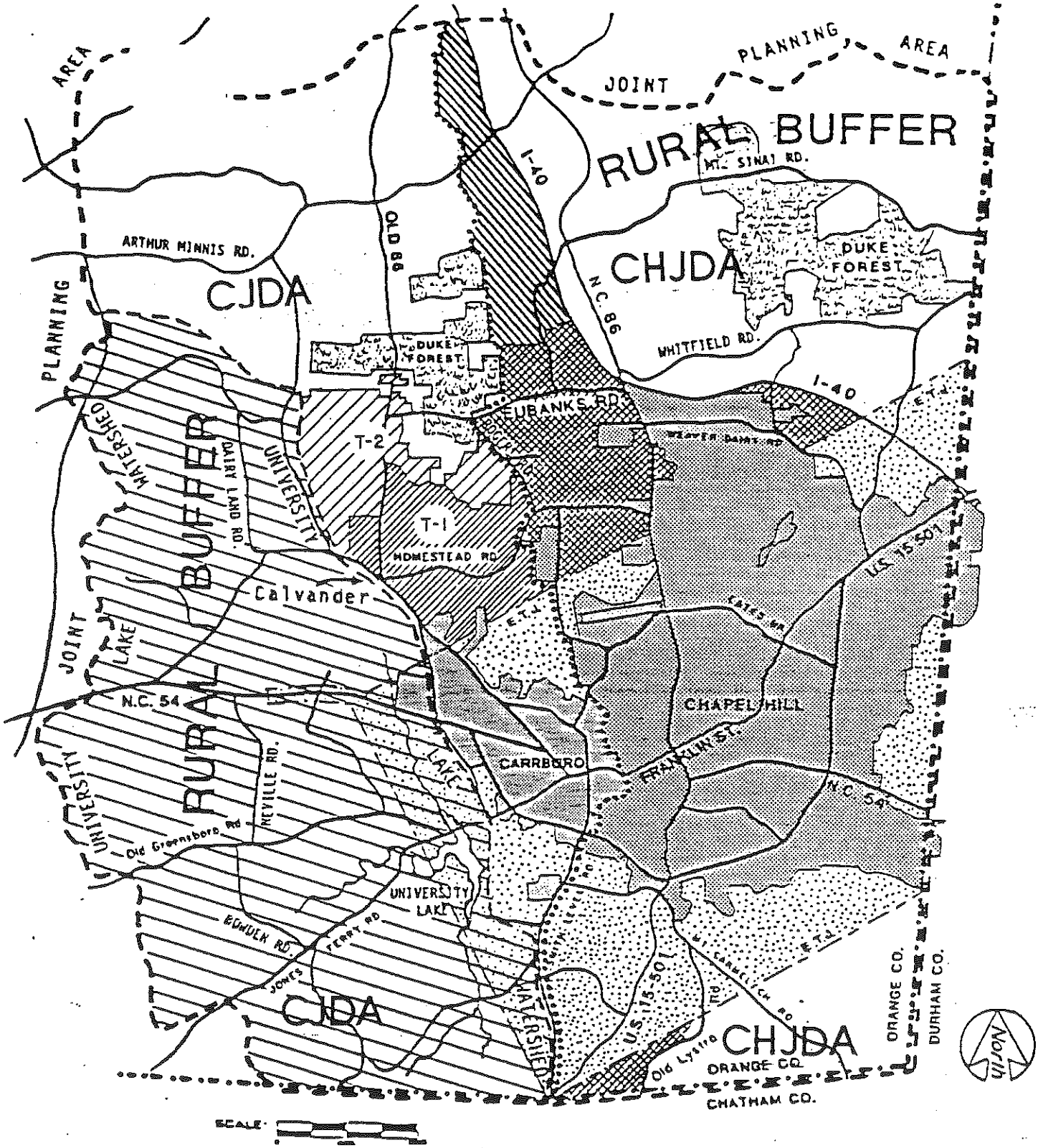
   a. A Zoning Map prepared by Chapel Hill for that portion of the Transition Area that lies in the Chapel Hill Joint Development Area (CHJDA), and the Chapel Hill Land Development Ordinance, making its provisions applicable to that portion of the Transition Area located within the CHJDA; and

   b. A Zoning Map prepared by Carrboro for that portion of the Transition Area that lies in the Carrboro Joint Development Area (CJDA), and the Carrboro Land Use Ordinance, making its provisions applicable to that portion of the Transition Area located within the CJDA; and

2. Amending the Joint Planning Land Use Plan text and map to reflect the existence and show the location of Transition Area I and II designations.

On June 30, 1988, public hearings were held to receive citizen comment on the proposed Chapel Hill and Carrboro Zoning Plans and the incorporation, by reference, of the Land Development Ordinances of the two municipalities into the Orange County Zoning Ordinance. Hearings were also conducted on the designation of Transition Areas I and II, as well as other map and text amendments, in the Joint Planning Area Land Use Plan.

On September 6, 1988, the Board of Commissioners adopted the amendments to the Joint Planning Area Land Use Plan, and Orange County Zoning Ordinance and Atlas. The amendments to the Joint Planning Area Land Use Plan were adopted by the Chapel Hill Town Council and the Carrboro Board of Aldermen on July 11, 1988 and July 12, 1988, respectively. Concurrent with the Board of Commissioners action, the Joint Planning Agreement adopted on November 2, 1987 took effect. Major provisions of the Agreement are summarized on the accompanying pages. A complete copy of the Agreement is provided in Appendix A.



SCALE:

- Carrboro Transition Area 1
  Carrboro Transition Area 2
- Chapel Hill Transition Area
- Carrboro/Chapel Hill Joint Planning Boundary
- Extraterritorial Jurisdiction (Existing)
- University Lake Watershed in Orange County
  University Lake Watershed in Carrboro E.T.J.
- Chapel Hill/Carrboro Corporate Limits
- Joint Courtesy Review Area

CHJDA Chapel Hill Joint Development Review Area
CJDA Carrboro " " " "

THE JOINT PLANNING PROCESS FOR THE LAND USE PLAN

In August of 1985, the Planning Board Chairs of Chapel Hill and Orange County met and agreed on an outline for the Joint Planning process. The outline, as revised in September, 1985, includes the following major points:

I. Plan Development

The four major elements of the Land Use Plan development phase along with the important categories of information included with each are as follows:

A. Natural Environment

The element addresses the ability of the natural environment to support development with particular attention to environmental constraints.

1. Physiographic characteristics (Land suitability)
2. Water resources
3. Soil suitability for septic tanks

B. Infrastructure and Public Services

The element addresses the provision of adequate infrastructures and services to support development.

1. Water and sewer
2. Transportation
3. Other public facilities and services

C. Joint Planning Operating Principles

The element addresses the question of what the citizens and governing bodies wish land uses to be. The Joint Planning Operating Principles represent a set of guidelines which encompass only the important policy statements necessary for guiding the formulation of the Land Use Plan. There is not a conflict between the goals and objectives for Orange County and Chapel, and there is no attempt to merge the sets of goals and objectives.
An initial list of the principles has been compiled, but additions or changes may be made as growth issues and other policy questions are discussed.

D. Sociological Characteristics

The element focuses on selected characteristics of the Joint Planning Area population. It addresses the question of the number of people living and working in the area now along with projections for the next twenty years. The element also addresses the existing use of land.

1. Population
2. Employment
3. Existing Land Use

II. Plan Formulation

The information and policy decisions derived in the Plan development stage are integrated in the Plan formulation stage.

A. Land Use Plan Categories/Location Standards

A list of Land Use Plan categories has been developed as well as a list of location standards for each of the Plan categories.

B. Land Use Plan

A Joint Planning Area Land Use Plan (text and map) has been formulated by integrating the four major Plan development elements above and Plan categories and locations standards to allocate land uses and required acreages.

SUMMARY OF THE JOINT PLANNING AGREEMENT

The Joint Planning Area is an area outside the extraterritorial planning jurisdictions of the Towns of Chapel Hill and Carrboro, but with the Joint Planning Area boundary as shown on the accompanying map. The Joint Planning Agreement adopted on November 2, 1987 is a formal agreement between Orange County, Chapel Hill, and Carrboro. A summary of the major provisions of the Agreement is as follows:

1. Provides for the application of Chapel Hill and Carrboro development standards within Transition Areas designated in the Joint Planning Area Land Use Plan, following the adoption of a zoning map and district designations based on the Towns' respective Land Development Ordinances and consistent with the land use categories contained in the Joint Planning Area Land Use Plan.

2. Permits the Towns of Chapel Hill and Carrboro to perform all functions related to the administration of their respective Land Development Ordinances within designated Transition Areas. Such functions may include, but are not limited to, processing applications, issuing permits, approving site/construction plans, and conducting building inspections. Orange County would have the right to review and comment on development applications.

3. Provides for Orange County's continued application and administration of its development standards within designated Rural Buffer areas. Chapel Hill and Carrboro would have the right to review and comment on development applications.

4. Provides amendment procedures for the Joint Planning Area Land Use Plan text and map, including the required approval of all three governing bodies.

5. Provides amendment procedures for the Towns. development standards applicable within Transition Areas, including referral to and approval by Orange County.

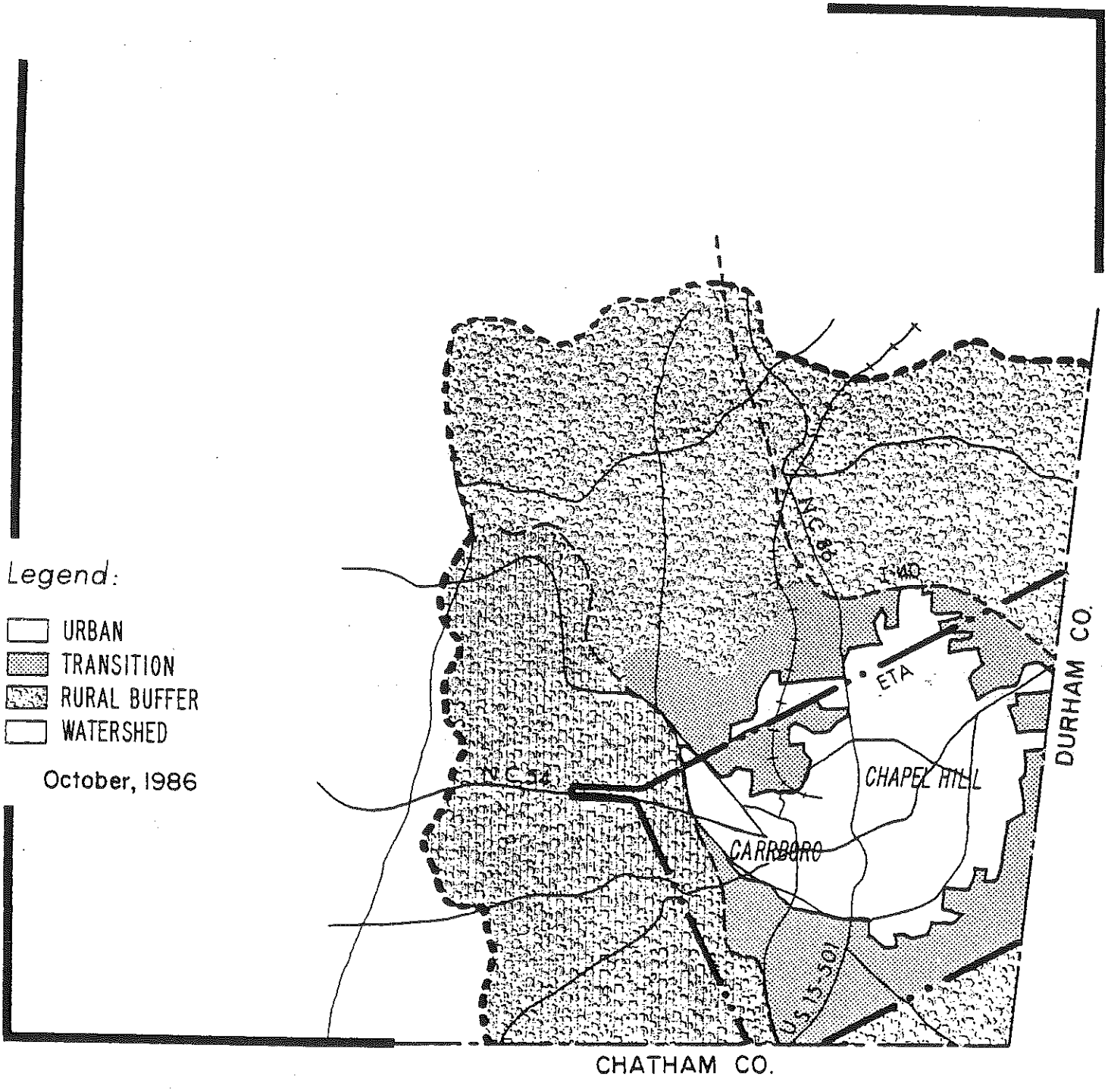
6. Places limitations on the ability of the Towns to annex within the Rural Buffer areas and within each other's Transition Areas.

7. Provides for representation on the Towns' Planning Boards and Boards of Adjustment by Transition Area residents.

8. Until Orange Water and Sewer Authority completes a study of University Lake Watershed, no party to the agreement can annex in the watershed, or approve or encourage water and sewer extensions into the watershed. The provision is contained in an appendix to the Joint Planning Agreement.

A complete copy of the Joint Planning Agreement is provided in Appendix A.

II. NATURAL ENVIRONMENT



II.

NATURAL ENVIRONMENT

This element addresses features of the natural environment that affect development: soil types, slopes, waterways and floodplains, and vegetation. Some of these natural features act as constraints to growth -- that is, there are areas where development should not take place or take place at low densities because of natural features. Natural features can also affect development in a positive way -- indicating areas that are most suitable for development activity.

A. Physiographic Features

Physical characteristics of the natural environment are the starting point for preparation of this Land Use Plan. The basic approach is to assess the relative suitability of land for development as a first step and then introduce other considerations.

Physiographic characteristics considered in the preparation of the Land Use Plan include topography (degree of slope), existing vegetative cover, and soil stability.

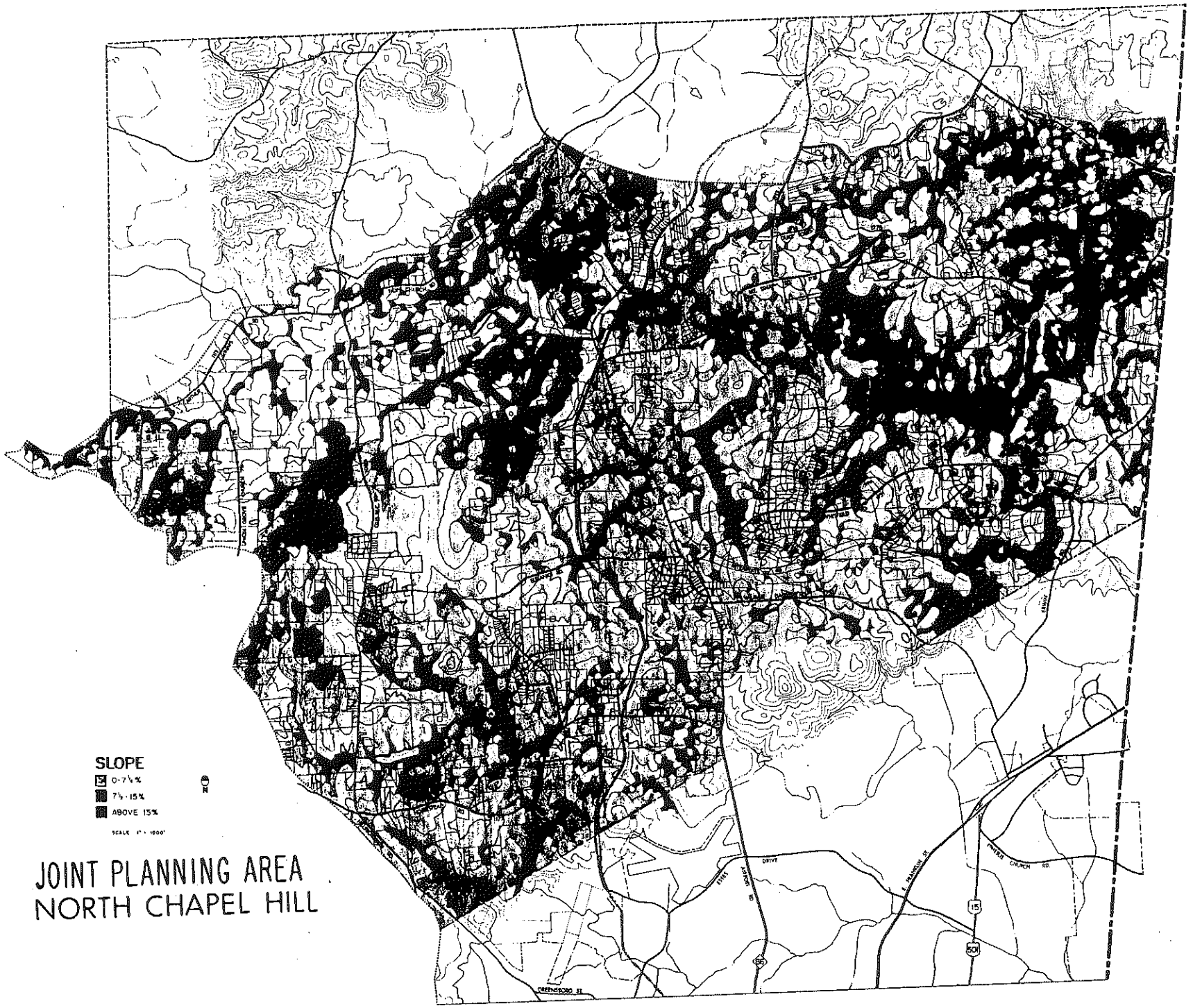
Degree of Slope: Slope can affect development intensity. Degree of slope is measured in percentages: number of feet up or down for each horizontal foot. A slope of 45 degrees is a 100% slope. The greater the percentage, the steeper the slope.

Slopes have been grouped into three categories: less than 7.5%, between 7.5 and 15%, and greater than 15%. Land with slopes in the first category are most suited for intense development, but constraints can be present (particularly where slopes are less than one percent and drainage is slow). Land with slopes above 15% are most difficult to develop due to increased construction costs and the potential for increased erosion and flooding. Such lands are more suited for conservation and open space purposes.

Vegetative Cover: Vegetation provides important benefits in urban and rural settings. Principal among them are moderation of winds and storms, flood and erosion reduction, moderation of temperature extremes, and buffering more intensive land uses from less intensive ones. Three categories of vegetative cover have been employed in preparation of the Land Use Plan: wetlands, woodlands, and cleared areas. Cleared areas are most suited for development, while wetlands should be earmarked for preservation.

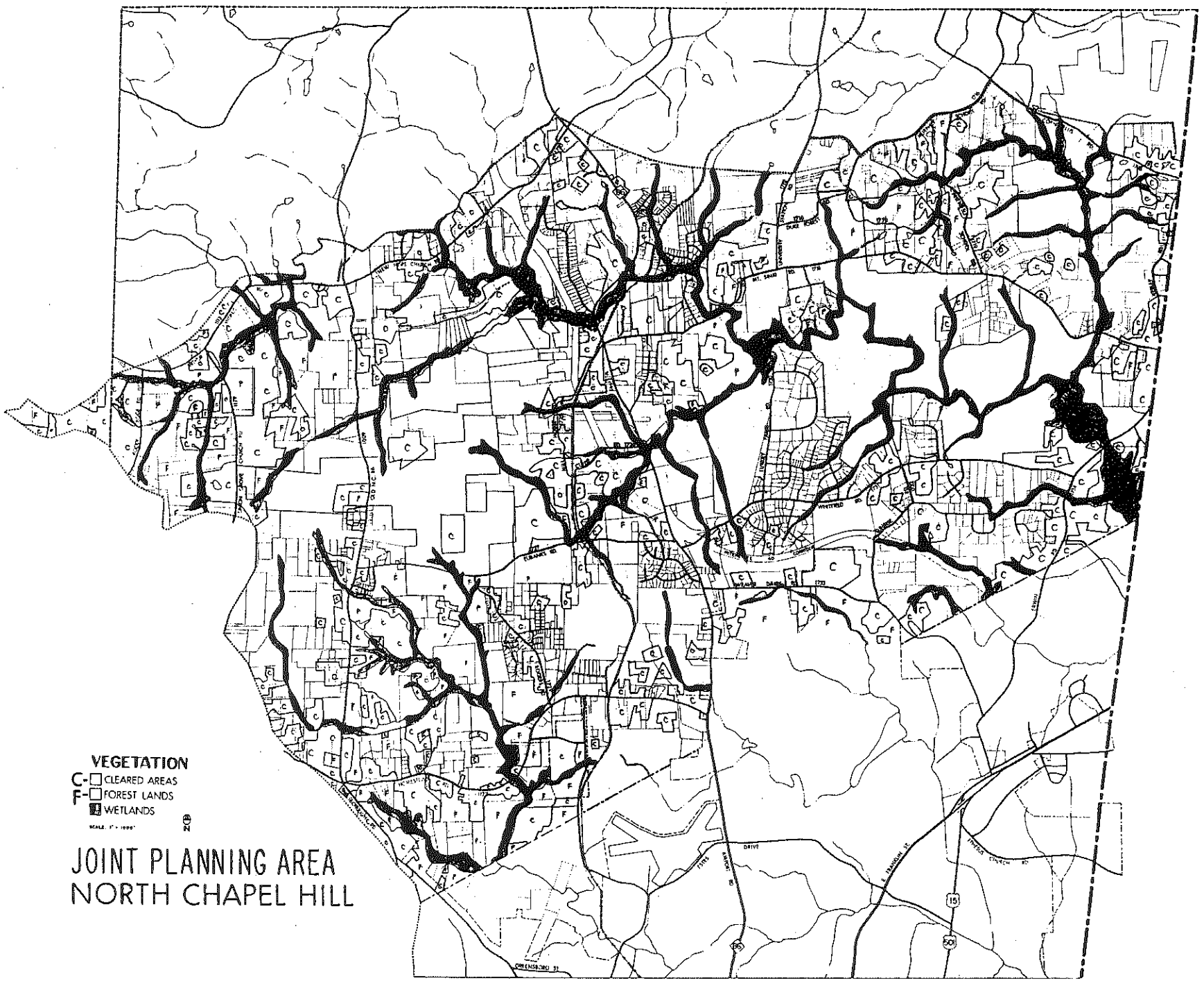
Soil Suitability: Soils can pose serious constraints to development affecting the construction of buildings, streets, and utility lines. Soils in this area have been evaluated on the basis of wetness, shrink-swell potential, slope, plasticity, and depth to groundrock. Three categories of suitability have been identified based on those characteristics: desirable, marginal, or undesirable for development.

One important characteristic of soils is suitability for septic tank absorption fields. In areas where public sewer service is not available, development occurs with the use of septic tanks.

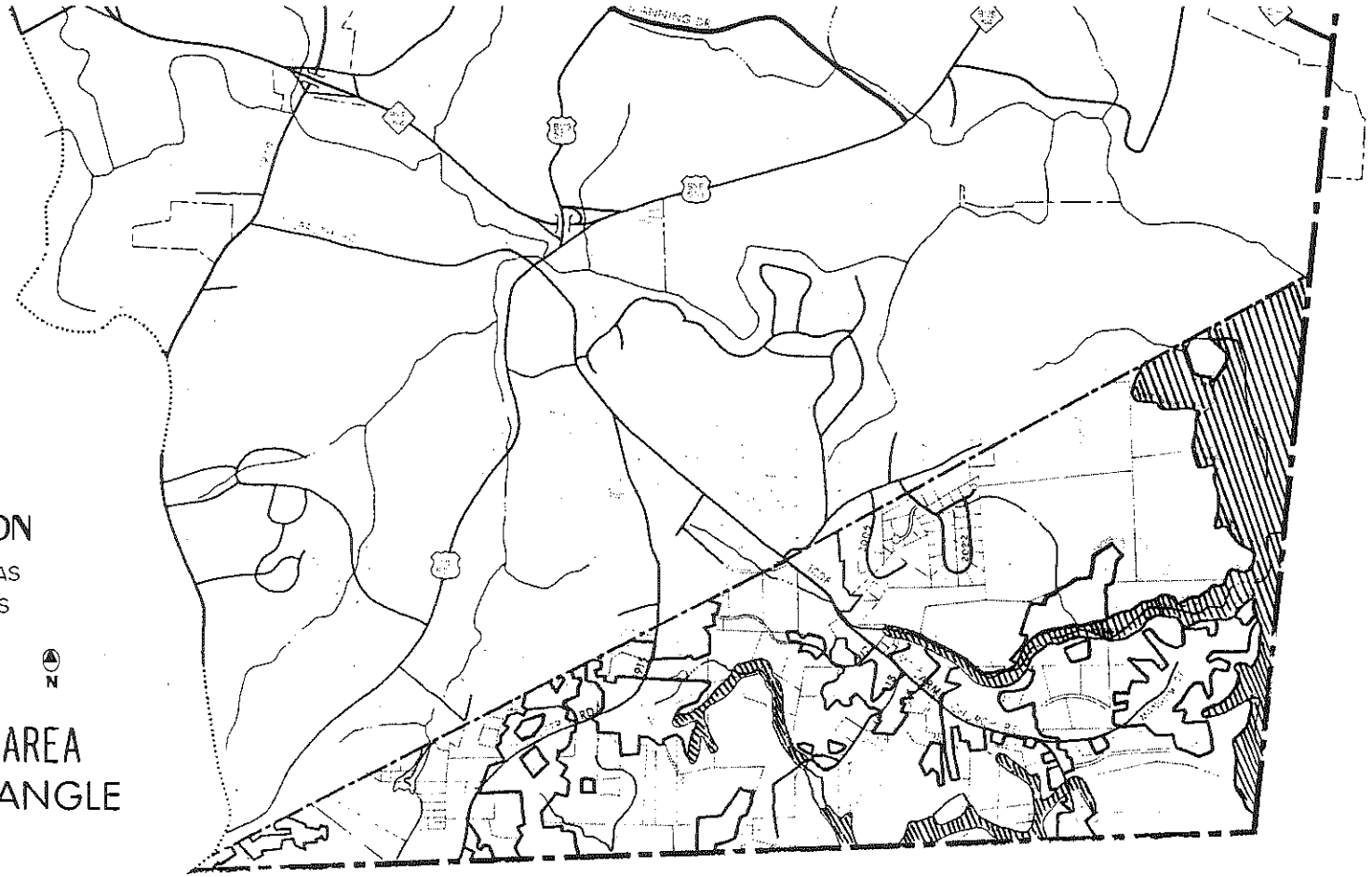

SLOPE
0-7½%
7½-15%
ABOVE 15%
SCALE 1" = 1000'
JOINT PLANNING AREA
NORTH CHAPEL HILL

JOINT PLANNING AREA
UNIVERSITY LAKE WATERSHED

JOINT PLANNING AREA
SOUTHERN TRIANGLE


VEGETATION
C- CLEARED AREAS
F- FOREST LANDS
WETLANDS
N
JOINT PLANNING AREA
NORTH CHAPEL HILL

VEGETATION
CLEARED AREAS
CONIFEROUS
DECIDUOUS
MIXED
FOREST LANDS
WETLANDS
UNIVERSITY LAKE WATERSHED
JOINT PLANNING AREA
LEGEND:
EXTRATERRITORIAL JURISDICTIONAL LINE
TOWNSHIP LINE
N



JOINT PLANNING AREA
SOUTHERN TRIANGLE

This characteristic is not relevant for land use planning in areas where sewer service is expected to be available. It is relevant, however, in areas where such service will not be available in the near future.

Suitability for development using septic tanks is expressed in terms of constraints. Categories utilized include slight, moderate, and severe. If the degree of limitation is slight, soils are generally favorable for the specified use and limitations are minor and easily overcome. If moderate, soil properties or site features are unfavorable for the specified use, but limitations can be overcome by special planning and design. If severe, soil properties or site features are so unfavorable or difficult to overcome that major soil reclamation, special design, or intensive maintenance is required.

Soils in southeast Orange County are all in either the moderate or severe categories.

*B. Water Resources

*Amended
4/2/90

Residents of southeast Orange County obtain water from two sources: groundwater (wells) or reservoirs. However, the most reliable source of water for urban use is a reservoir. Until recently, Chapel Hill, Carrboro, and surrounding areas relied exclusively on University Lake. That source was recognized as inadequate as a long-term water source, and Cane Creek reservoir west of the Joint Planning Area has been constructed and is now operational. The two reservoirs should provide a raw water supply adequate for the next 20 years. In addition, the Land Use Element of the Orange County Comprehensive Plan has identified possible future reservoir sites to the north of Chapel Hill.

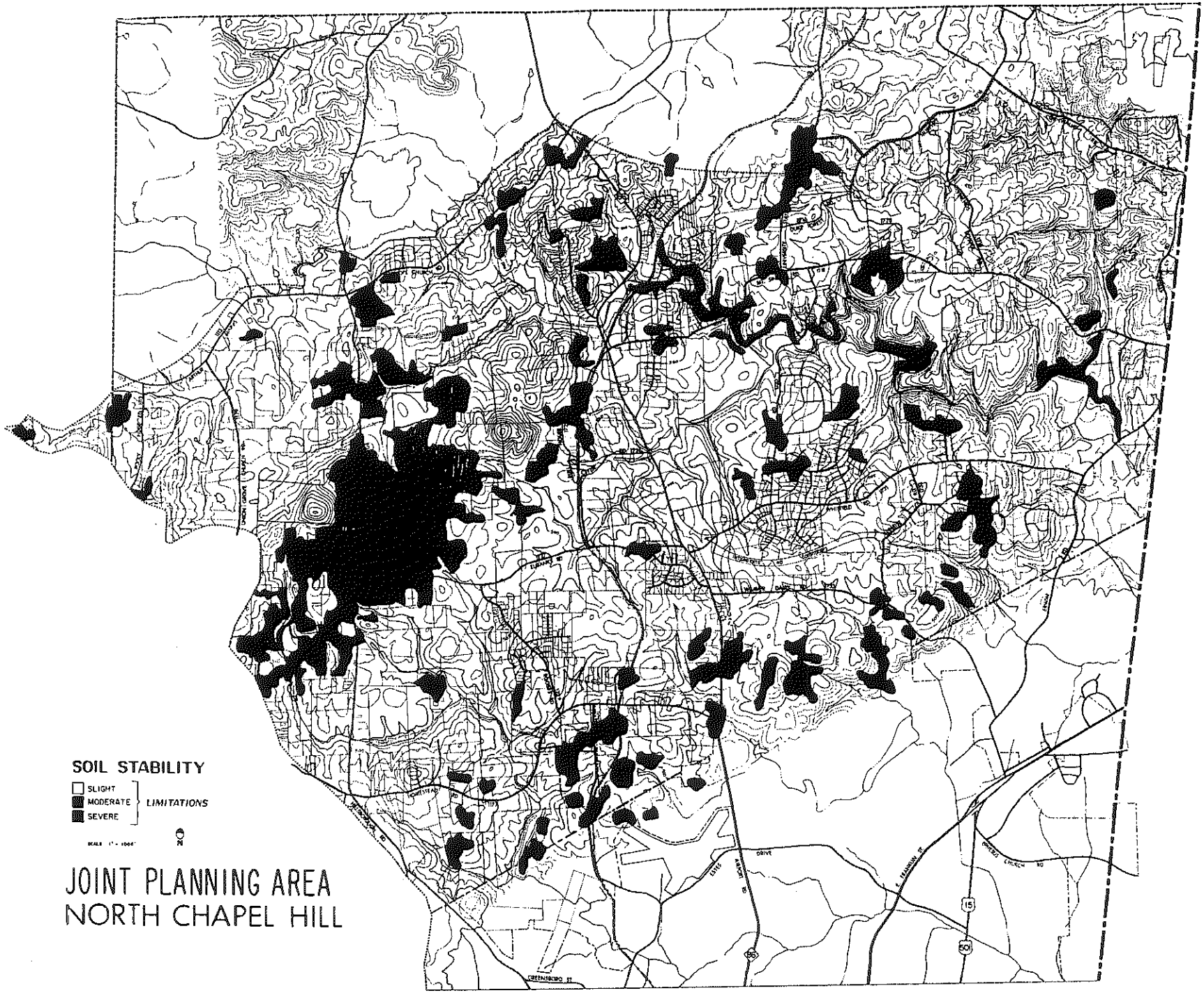
The link between land use planning and water resources in the Joint Planning Area lies in protecting water quality by limiting development in University Lake watershed. In 1988, the Orange Water and Sewer Authority commissioned a study to develop a range of options for protecting the University Lake watershed. The consulting firm of Camp, Dresser and McKee (CDM), nationally recognized experts in watershed evaluation, completed the study in March, 1989. Because the consultants did not find improving water quality to be a practical objective, they recommended preventing significant future water quality deterioration in University Lake as a primary goal.

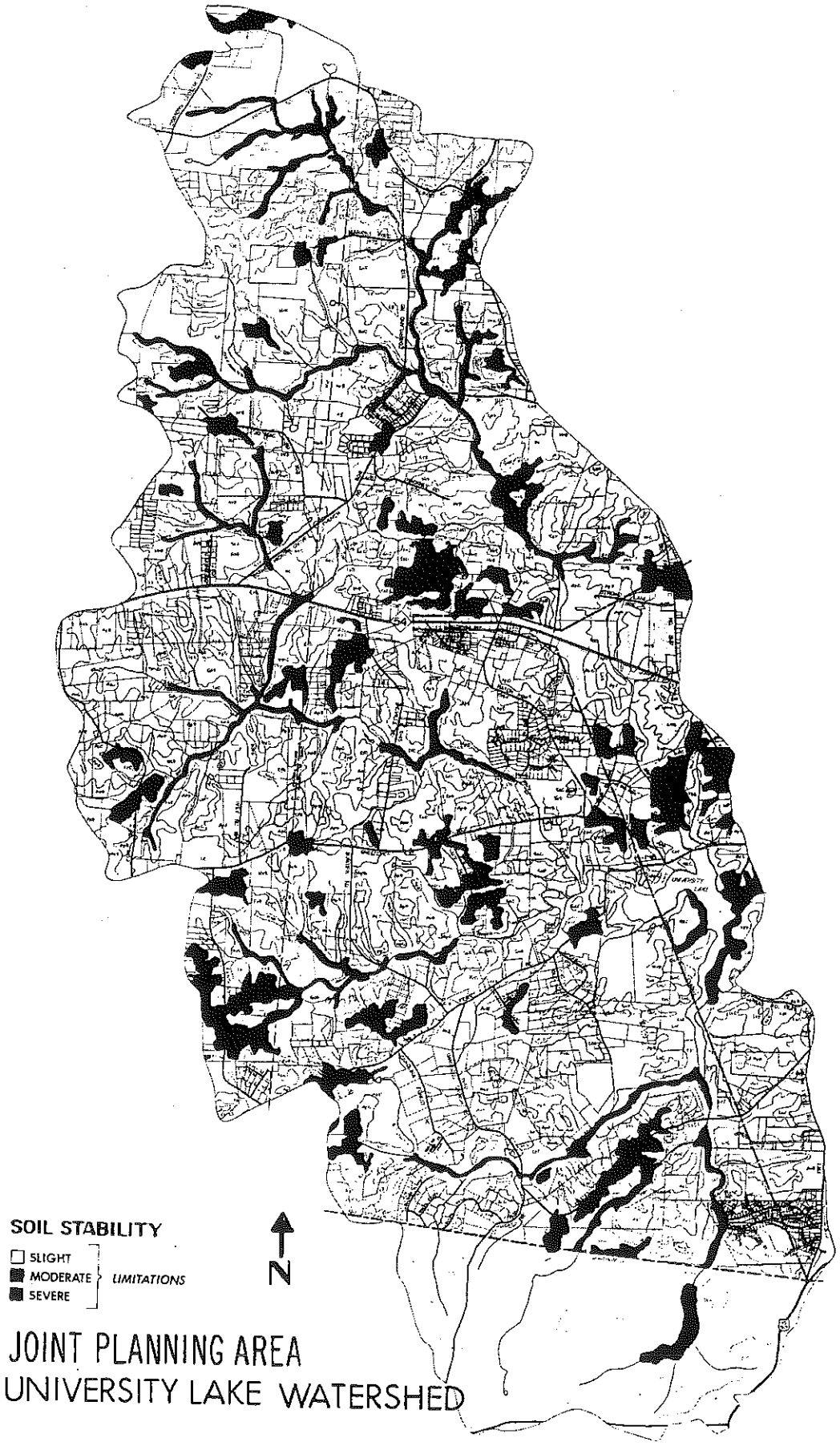
The CDM report presented two fundamental ways of meeting the University Lake water quality goal. Nonstructural management practices, such as controlling land use through local zoning and subdivision regulations, could reduce the pollution generated from future development by controlling the amount and location of impervious surfaces and other pollution-causing activities. Structural practices, such as stormwater detention ponds, would not reduce the amount of pollution generated but prevent substantial portions of it from reaching University Lake by trapping pollutants near their point of origin.

The report recommended nonstructural methods as the preferred approach to watershed protection. Basic elements of the proposed

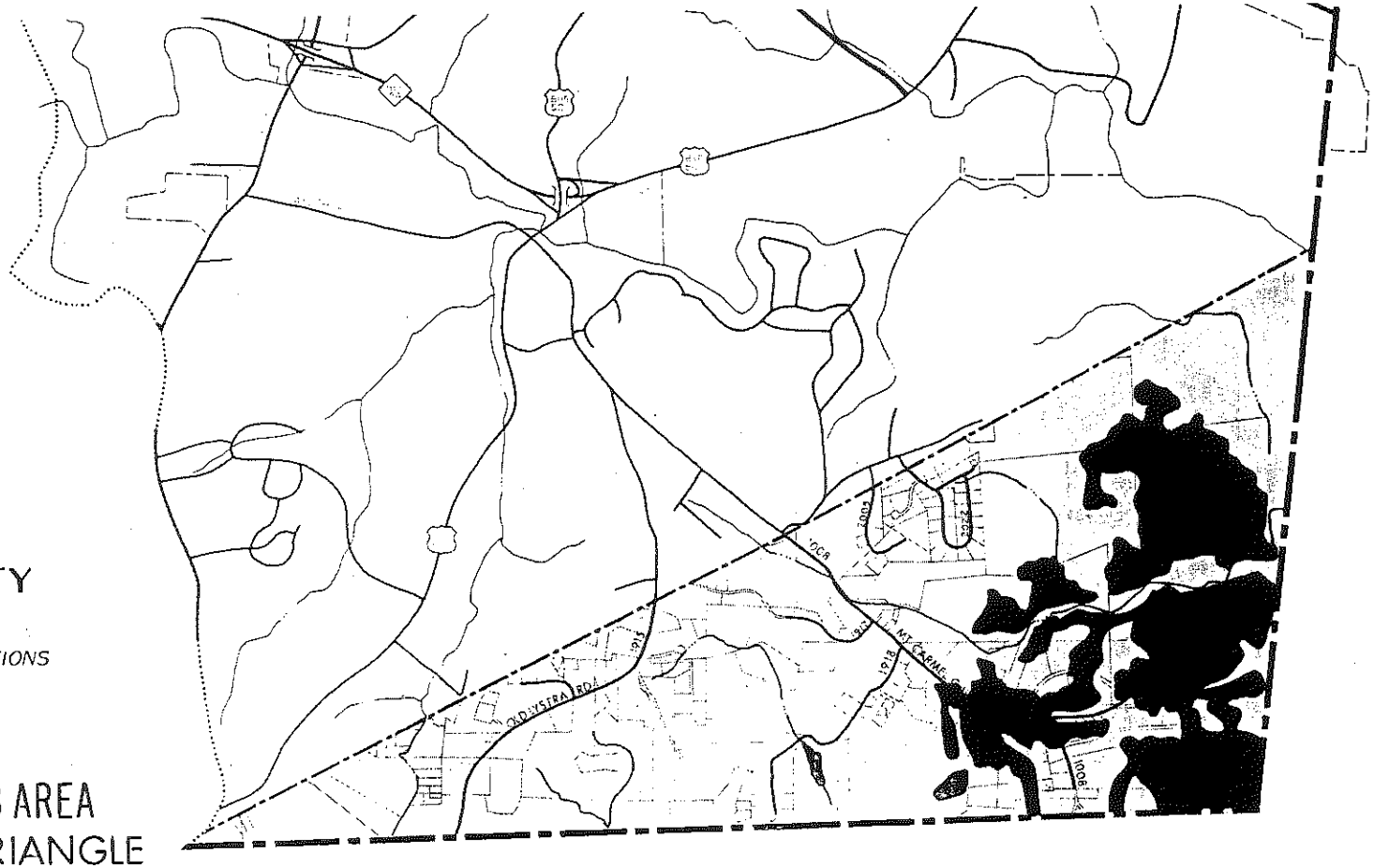
nonstructural plan included large lot (five-acre) residential zoning, limits on impervious surfaces, and the preservation of stream buffers along streams. The advantages of the nonstructural approach included the lower amount of pollution generated and its reduced risk of entering the lake, the elimination of construction and maintenance costs for stormwater devices, and the ability to provide wastewater disposal through individual septic systems rather than risky community wastewater systems.

The CDM report did find that the water quality goal could be achieved through adopted land use plans and regulations (two-acre zoning) and the construction of a significant number of stormwater detention ponds. While the approach would provide for continued growth in the watershed, the high public and private costs associated with a system of 72 larger regional detention ponds or an indeterminate number of smaller individual-development-detention ponds and intensive on-going maintenance requirements were noted as disadvantages. In addition, there would be no way to convert back to a nonstructural control strategy if a structural program resulted in unsatisfactory watershed protection.


SOIL STABILITY
SLIGHT
MODERATE
SEVERE
LIMITATIONS
N
JOINT PLANNING AREA
NORTH CHAPEL HILL



JOINT PLANNING AREA
UNIVERSITY LAKE WATERSHED



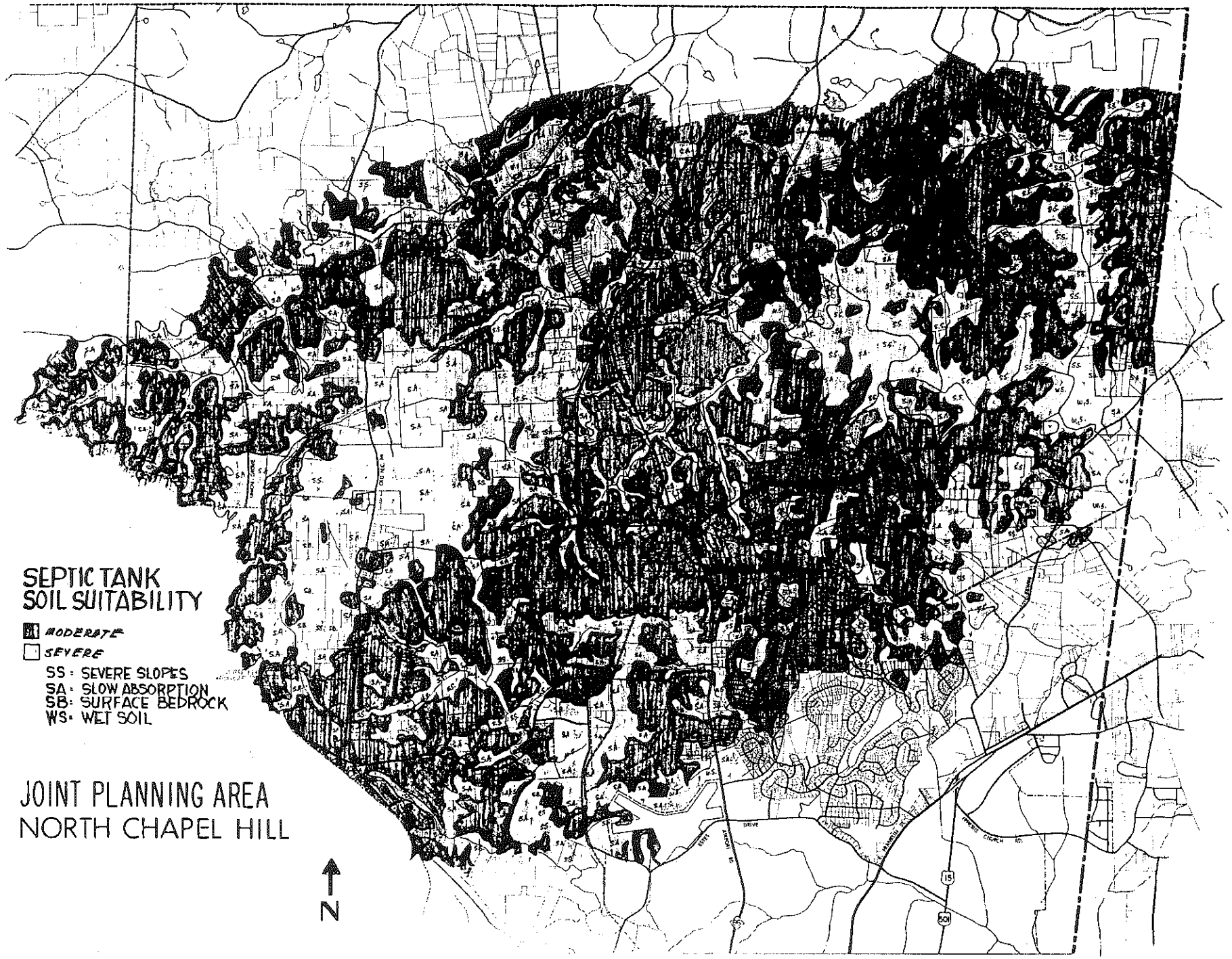
SOIL STABILITY

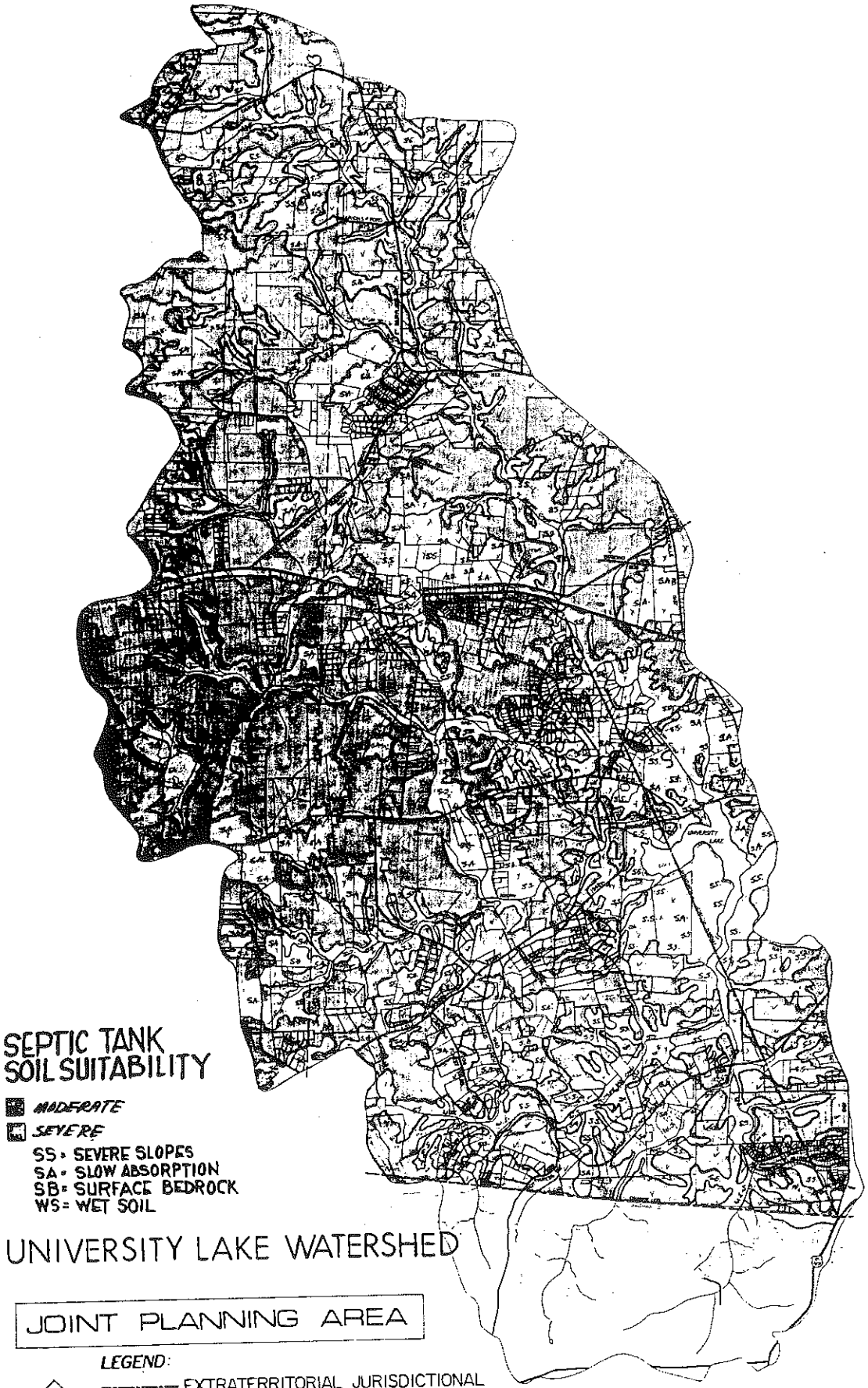
SLIGHT
MODERATE } *LIMITATIONS*
SEVERE

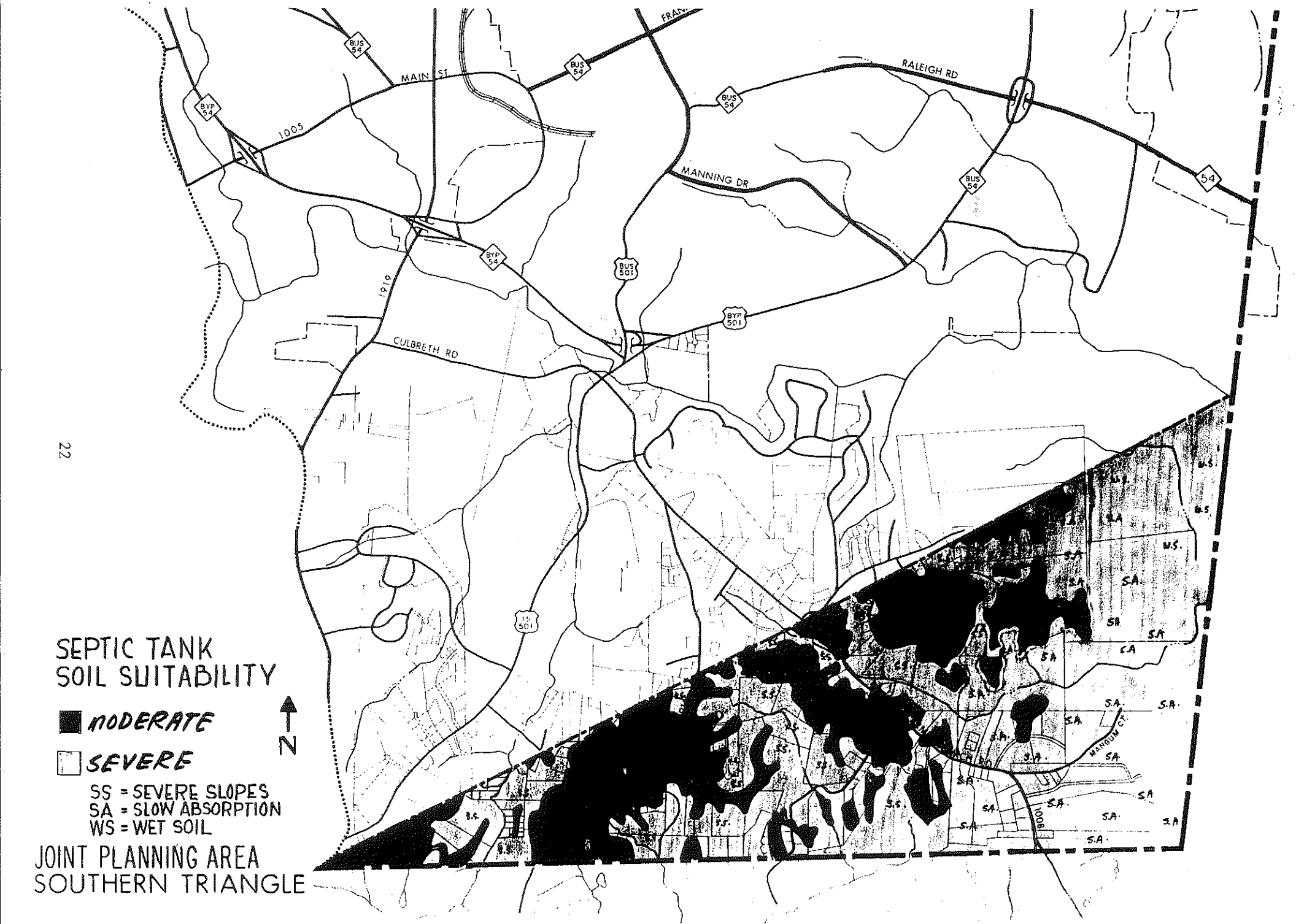
SCALE: 1" = 1000'

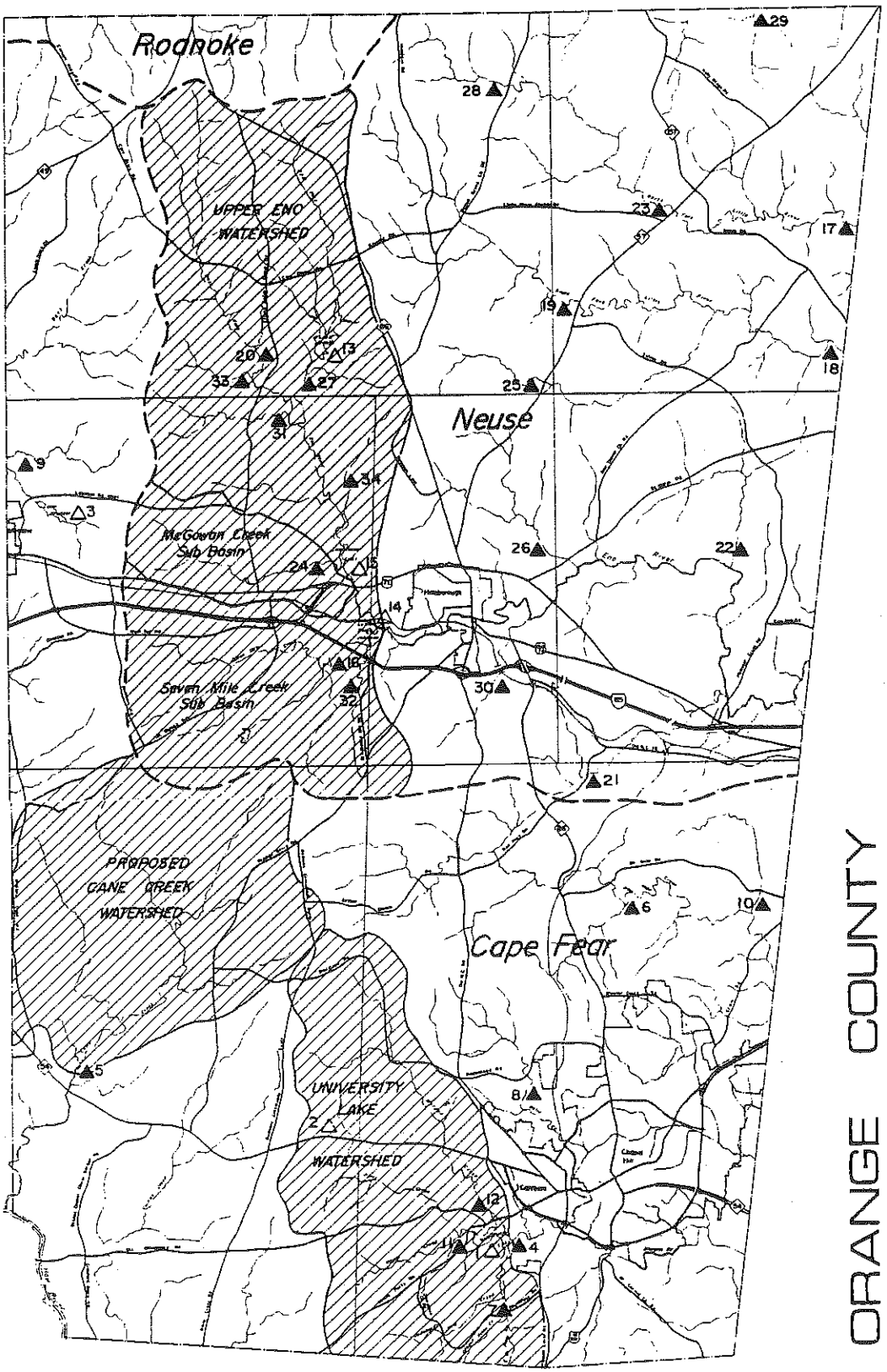
N

JOINT PLANNING AREA
SOUTHERN TRIANGLE


SEPTIC TANK
SOIL SUITABILITY
MODERATE
SEVERE
SS : SEVERE SLOPES
SA : SLOW ABSORPTION
SB: SURFACE BEDROCK
WS: WET SOIL
JOINT PLANNING AREA
NORTH CHAPEL HILL
N


SEPTIC TANK
SOIL SUITABILITY
MODERATE
SEVERE
SS = SEVERE SLOPES
SA = SLOW ABSORPTION
SB = SURFACE BEDROCK
WS = WET SOIL
UNIVERSITY LAKE WATERSHED
JOINT PLANNING AREA
LEGEND:
EXTRATERRITORIAL JURISDICTIONAL LINE
TOWNSHIP LINE
N


SEPTIC TANK
SOIL SUITABILITY
MODERATE
SEVERE
SS = SEVERE SLOPES
SA = SLOW ABSORPTION
WS = WET SOIL
N
JOINT PLANNING AREA
SOUTHERN TRIANGLE
MAIN ST
RALEIGH RD
MANNING DR
CULBRETH RD
BUS 54
BYP 54
BUS 501
BYP 501
54
1005
1919
1008
MANGUM CT.


Roanoke
Neuse
Cape Fear
UPPER ENO WATERSHED
McGowan Creek Sub Basin
Seven Mile Creek Sub Basin
PROPOSED CANE CREEK WATERSHED
UNIVERSITY LAKE WATERSHED
ORANGE COUNTY
EXISTING AND POTENTIAL RESERVOIR SITES & WATERSHEDS
EXISTING RESERVOIR
POTENTIAL RESERVOIR
MAJOR WATERSHED
WATER SUPPLY WATERSHED
NORTH
SCALE: 1" = 8000'
0 8000' 16000'
MAY 1981
PREPARED BY ORANGE CO. PLANNING DEPT.

EXISTING AND POTENTIAL RESERVOIR SITES - ORANGE COUNTY

	SITE NAME	SAFE YIELD 20 (mgd)	DRAINAGE AREA (SQ. MI.)	RESERVOIR STORAGE VOLUME (AC-FT)	REFERENCE
	Existing Reservoirs - Cape Fear Basin				
1.	University Lake	3.0	30.5	2147	(f)
2.	American Stone Quarry	2.0	N.A.	614	(f)
3.	Lake Michael	0.5	2.7	613	(e)
	Potential Reservoirs - Cape Fear Basin				
4.	University Lake (Raise Dam)	10.0	30.5	2147	(c)
5.	Cane Creek	10.0	31.5	510	(c)
6.	New Hope Creek A	4.9	9.8	5131	(a) (b)
7.	Price Creek	2.9	N.A.	N.A.	(a)
8.	Bolin Creek	2.5	8+	N.A.	(c)
9.	Mill Creek B	1.8	6.8	390	(b)
10.	Piney Mountain Creek	1.0	3.4	390	(b)
11.	Nevile Creek	0.7	N.A.	N.A.	(a)
12.	Morgan Creek	0.4	N.A.	N.A.	(a)
	Existing Reservoirs - Neuse Basin				
13.	Lake Orange	2.5	10	1504	(a)
14.	Lake Ben Johnson	1.6	65	90	(a)
15.	Corporation Lake	1.3	42	92	(a)
	Potential Reservoir Sites - Neuse Basin				
16.	Seven Mile Creek	6.3	13.1	6800	(b) (d)
17.	North Fork Little River A	4.2	22.8	1350	(b) (d)
18.	South Fork Little River A	4.1	22.8	1350	(b) (d)
19.	South Fork Little River B	3.2	11.1	1440	(b) (d)
20.	Eno West Fork C	2.9	N.A.	N.A.	(a)
21.	Stoney Creek	2.9	10.6	1230	(b) (d)
22.	Buckwater Creek	2.3	8.0	930	(b) (d)

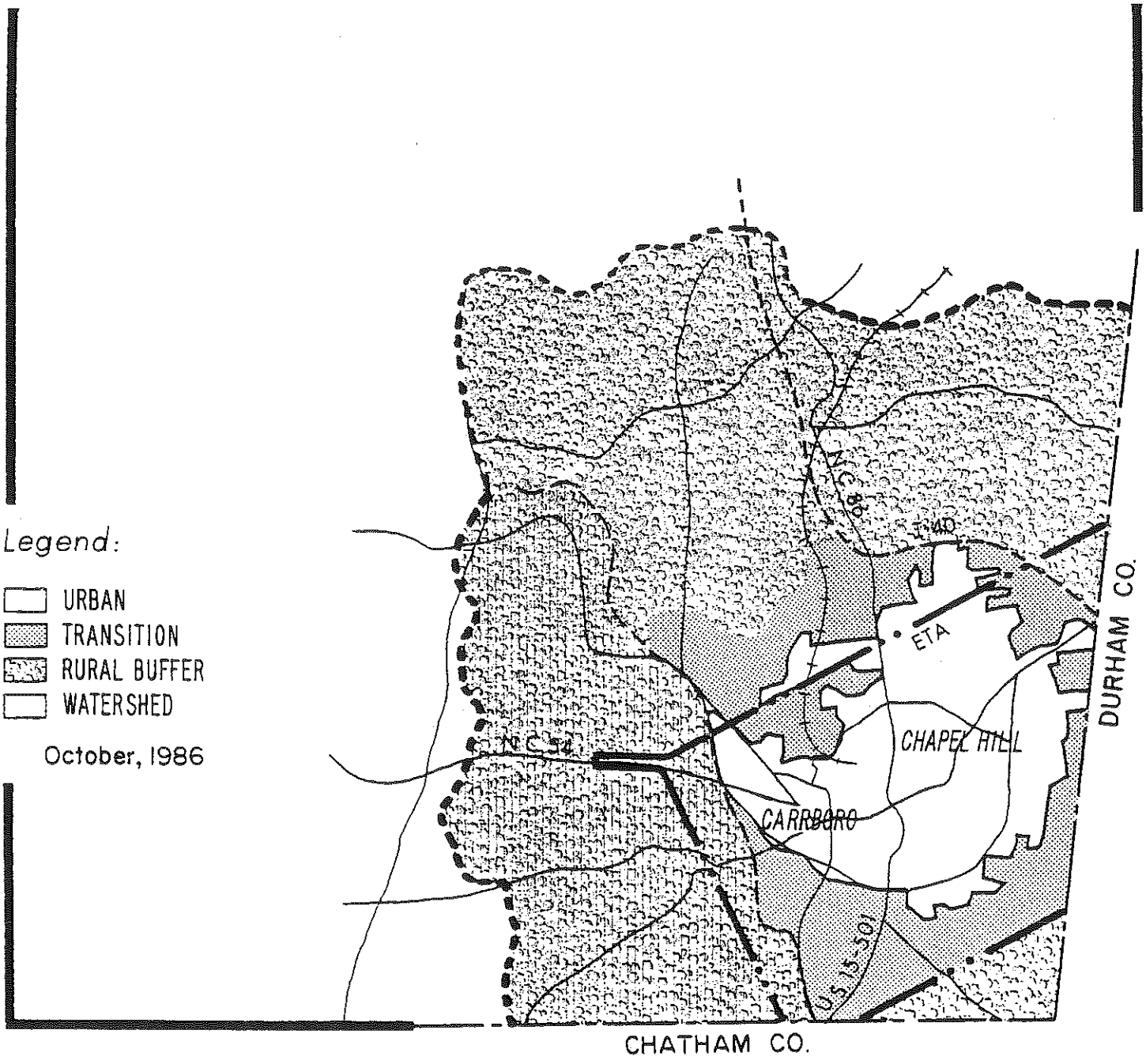
EXISTING AND POTENTIAL RESERVOIR SITES - ORANGE COUNTY

	SITE NAME	SAFE YIELD 20 (mgd)	DRAINAGE AREA (SQ. MI.)	RESERVOIR STORAGE VOLUME (AC-FT)	REFERENCE
24.	McGowan Creek	1.8	6.6	750	(b) (d)
25.	Forest Creek	1.4	5.1	600	(b) (d)
26.	Strouds Creek	1.3	4.4	N.A.	(a)
27.	Lower Lake Orange	1.1	N.A.	N.A.	(a)
28.	North Fork Little River C	1.0	4.0	450	(b) (d)
29.	Quarry Creek	1.0	3.9	390	(b) (d)
30.	Cates Creek	0.9	3.7	552	(b) (d)
31.	Eno West Fork A	0.7	N.A.	N.A.	(a)
32.	Rocky Run	0.6	2.6	300	(a) (d)
33.	Eno West Fork B	0.4	N.A.	N.A.	(a)
34.	Eno X	0.4	N.A.	N.A.	(a)

References

(a) Research Triangle Development Guide; Research Triangle Regional Planning Commission, 1969.
(b) The Potentials for Outdoor Recreation Development, Orange County, N.C.; 1971.
(c) Report to the University of North Carolina on Water Supply for Chapel Hill, N.C., Hazen and Sawyer, 1969.
(d) Economic Analysis of Water Supply Alternatives for the Area of Chapel Hill, N.C., Army Corps of Engineers, 1979.
(e) Personal communication: Mr. Arthur Mouberry, Office of Water Resources, Department of Natural Resources and Community Development, State of North Carolina, March, 1980.
(f) Draft Environmental Impact Statement Orange Water and Sewer Authority Cane Creek Water Supply Reservoir, U.S. Army Corps of Engineers, 1980

III. INFRASTRUCTURE AND PUBLIC SERVICES



III.

INFRASTRUCTURE AND PUBLIC SERVICES

This element addresses the public improvements that have been made to southeastern Orange County which allow and support urban development patterns. Without public water and sewer, good roads and other necessary public facilities, urban development is not possible.

These components of the public support system, "infrastructure," will be discussed below. Existing conditions are described along with observations about possibilities for further improvement or expansion. Observations are also provided about how the status of these systems affects future growth and development patterns.

Water and Sewer Issues in The Joint Planning Area

The availability of public water and sewer service is the major determinant of growth patterns. In areas where water and sewer are available, development is possible. The form and intensity of development is then governed by plans, policies, and ordinances. In areas where water and sewer are not available, development occurs as subdivisions on large lots with individual wells and septic tanks, by using community well and septic systems, or it does not occur at all.

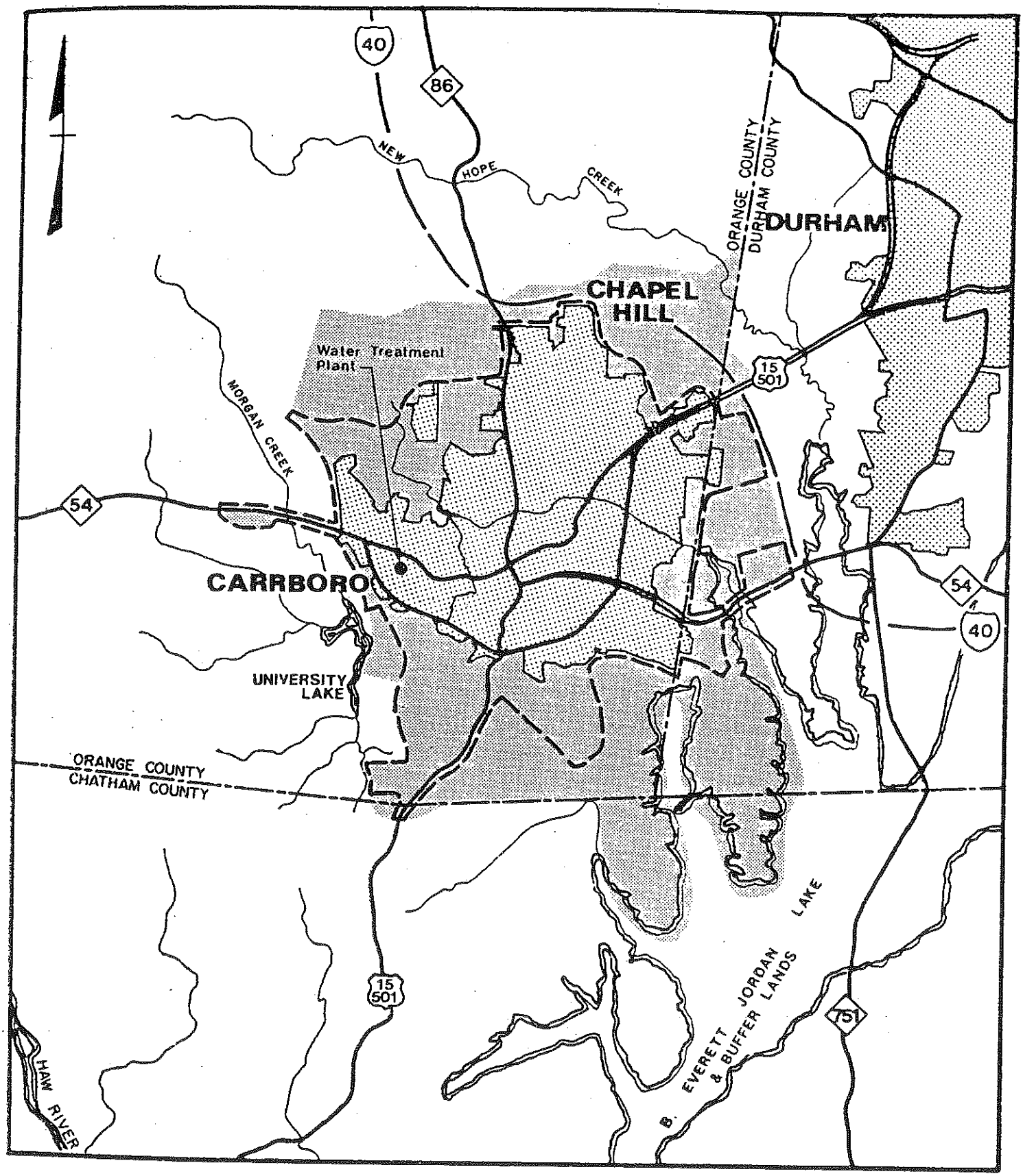
Soils in Chapel Hill, Carrboro and the Joint Planning Area are, for the most part, poorly suited for the use of septic tanks. In most areas, an acre or more of land is required in order for a single-family house to safely use a septic tank. There are instances of malfunctioning septic systems in the area. Maps were presented in the preceding section which identified areas with soils more or less suitable for septic tanks.

The Orange Water and Sewer Authority (OWASA) provides water and sewer service to Chapel Hill, Carrboro, and surrounding unincorporated areas. The components of OWASA's system are:

- Raw water supply (University Lake, Cane Creek Reservoir)
- Water Treatment Plant
- Tanks for storage of treated water
- Distribution system (water lines)
- Sewage collection system (sewer lines)
- Wastewater treatment plant.

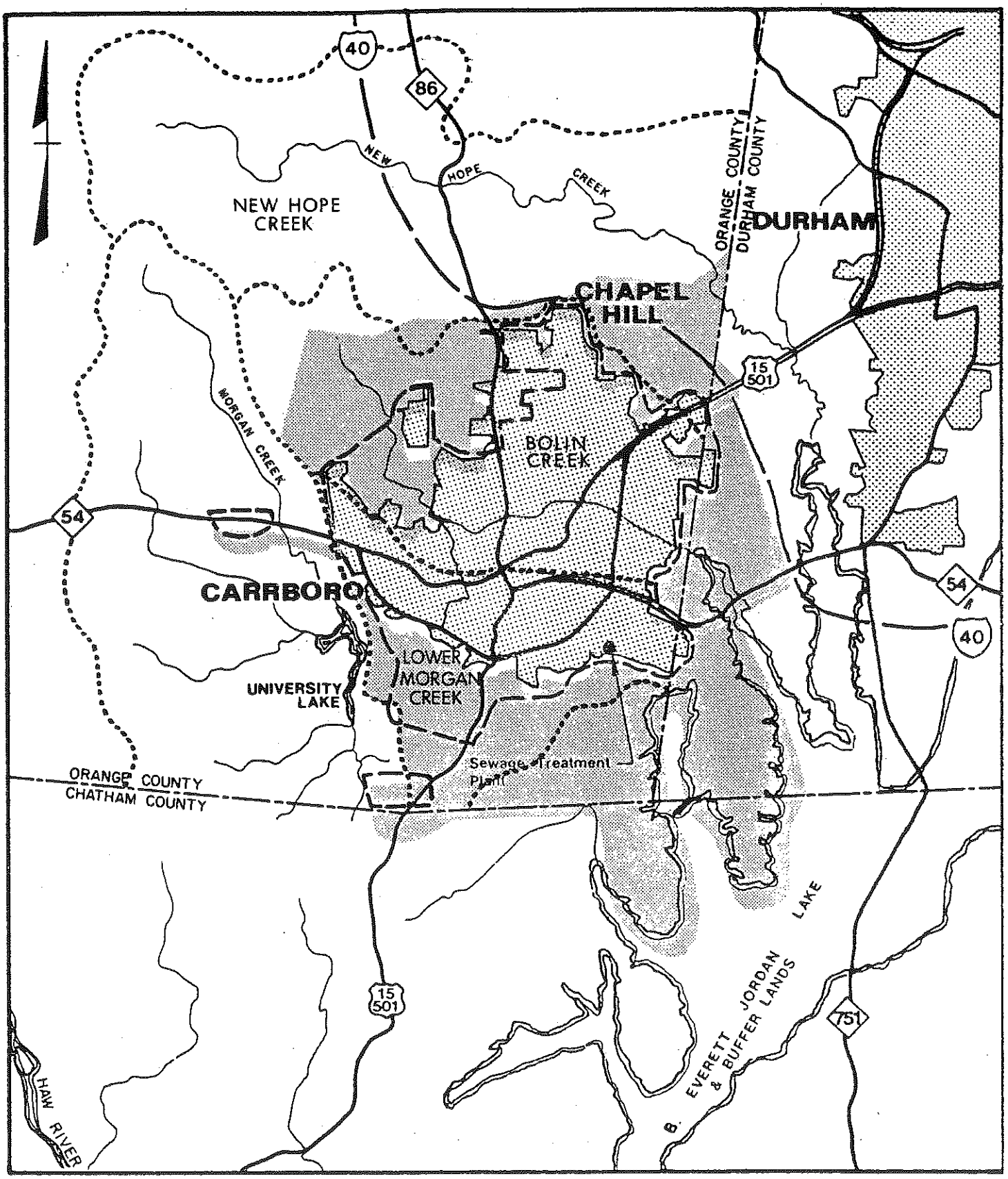
It should be noted that, until the recent availability of the interim Cane Creek impoundment, raw water supply was the most constraining component of this system. Although the raw water supply has been increased by the interim impoundment, inter-basin transfers from Hillsborough must be made during drought situations. When the permanent Cane Creek impoundment is completed, an adequate raw water supply will be available.

All other components of the system have excess capacity. The water treatment plant located in Carrboro on Jones Ferry Road has a treatment capacity of 10.0 MGD (million gallons per day). The average daily consumption is 6.0 MGD, while the population served is approximately



ORANGE WATER AND SEWER AUTHORITY WATER SERVICE AREA

HAZEN AND SAWYER, P.C.
Engineers



0 1 2 4

scale in miles

CORPORATE LIMITS

PRESENT SANITARY SEWER SERVICE AREA

EXISTING SANITARY SEWER SYSTEM

DRAINAGE BASIN BOUNDARY

ORANGE WATER AND SEWER AUTHORITY SEWER SERVICE AREA

HAZEN AND SAWYER, P.C.
Engineers

52,000 persons.

The Mason Farm waste treatment plant serves the Chapel Hill-Carrboro area and has a treatment capacity of 8.0 MGD (million gallons per day). The population served by the plant is 45,000 and the average daily wastewater load is 5.2 MGD.

OWASA has defined its current service area -- areas with water and sewer lines in place, or areas where extension of existing lines can be easily accommodated. OWASA has also delineated tentative future service areas -- where lines might be extended in the future, but at considerable expense.

In looking at possibilities for water and sewer extensions, it is important to look at drainage basins. There are four main drainage basins in the Chapel Hill/Carrboro area:

- Bolin Creek Basin, containing developed and developing areas to the northwest and east of Chapel Hill and north of Carrboro.
- Lower Morgan Creek Basin, containing newly developing areas to the south.
- University Lake Basin, containing undeveloped or sparsely developed areas west of Carrboro.
- New Hope Creek Basin, containing developing areas to the north.

Bolin Creek and Lower Morgan Creek basins can all be served, ultimately, by a gravity sewer collection system that will feed into OWASA's existing wastewater treatment facility. Sewer lines have not been extended into the University Lake Basin and Orange County, Chapel Hill and Carrboro have committed to keeping this basin sparsely developed in order to protect the area's water supply. Significant questions are being posed, however, about whether or not sewer service should be extended into the New Hope Creek basin to the north since substantial portions of Duke Forest are located there. Extensive development in that basin may upset the research and educational aspects of that resource.

Maps of these basins and existing land use shows a great deal of undeveloped land in the Bolin Creek basin, most of it northwest of Chapel Hill and north of Carrboro. There is also considerable undeveloped land in the Lower Morgan Creek Basin to the south. These are all areas that can be served by gravity sewer systems.

The New Hope Creek basin cannot easily be served since it is "over the ridge" from the existing wastewater collection system and treatment plant. Alternative means of providing wastewater collection, treatment and disposal services in the New Hope Creek basin are:

- Major pump station and force main
- Limited number of smaller, interim pump stations
- Construction of a new wastewater treatment facility
- Series of private package treatment facilities
- Individual on-site wastewater disposal systems

Transportation

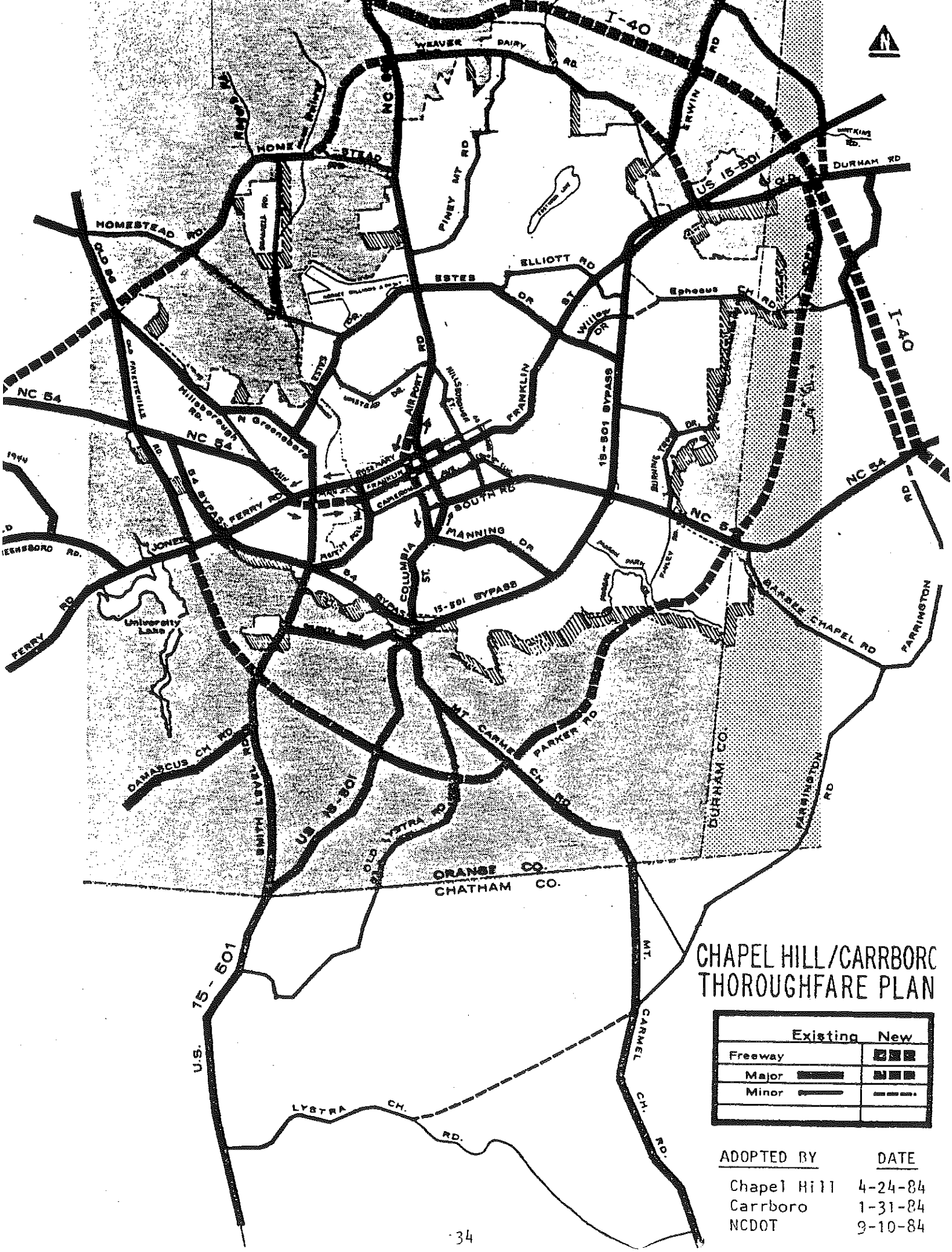
The Chapel Hill - Carrboro Thoroughfare Plan describes the basic network of roads that is intended to serve the urban area. It identifies existing streets and roads that are to serve as major and minor thorough fares and calls for the construction of new roads to complete the system. The plan covers an area extending from University Lake on the west to Farrington Road in Durham County on the east. I-40 forms the boundary on the north, and Lystra Road in Chatham County is the southern boundary. Major features of the plan include I-40 and a circumferential outer loop system which connects existing segments of Weaver Dairy Road, Homestead Road, Old Fayetteville Road, Parker Road, and Pope Road. The Land Use Plan will utilize this road network as the basis of the transportation system serving southeastern Orange County.

The Thoroughfare Plan classifies roads into three general categories: local streets, collector streets, and thoroughfares. The primary purpose of local streets is to provide access to adjacent property. Collector streets serve both traffic and access purposes. The primary function of thoroughfares is traffic movement.

One of the key transportation issues not addressed in the Thoroughfare Plan is the design of collector streets - those streets that provide access between developed areas and thoroughfares. When new tracts go into development, an increasingly common conflict is the desire to protect existing neighborhoods from increased traffic volumes. This clashes with the desire for an integrated, efficient network of roads that link neighboring areas. A collector roads plan will not be a component of this Land Use Plan. Rather, statements of policy, in the form of goals and objectives in the text of the Land Use Plan, can be expected to influence new development on a site-by-site basis.

A constraint on transportation planning is source of funding. Major and minor thoroughfares that support urban development are State roads. These roads are built, maintained, and improved by the North Carolina Department of Transportation. The State determines when and where improvements will be made. Thus, the local governments involved in preparation of this Land Use Plan have less control over major road improvements than any other public facility.

Another key transportation matter is public transit service. The Thoroughfare Plan and the current zoning atlas work together to encourage increased densities along major arterial routes in the Chapel Hill Carrboro area. Increased densities make transit service more economical and feasible. This is a key concern in light of possible future federal reductions in transit subsidies. This concept is one of the factors to be considered in drawing a new Land Use Plan and specifying development densities.



CHAPEL HILL/CARRBORO THOROUGHFARE PLAN

	Existing	New
Freeway		
Major		
Minor		

ADOPTED BY	DATE
Chapel Hill	4-24-84
Carrboro	1-31-84
NCDOT	9-10-84

Other Public Facilities

Community facilities in an urban setting are the responsibility of local government. In Chapel Hill and Carrboro community facilities have been put into four categories:

- Leisure Activities:
  - Open Space
  - Recreation
  - Library
- Public Safety:
  - Police
  - Fire
  - Animal Control
  - Emergency Preparedness
- Transportation:
  - Bikeways
  - Parking
  - Sidewalks
  - Streets
  - Public Transportation
- General Municipal
  - Administration and Support
  - Cemeteries
  - Maintenance and Operations
  - Solid Waste
  - Storm Drainage

Water, sewer, and roads have been discussed above. All have direct and significant impacts on land use planning. Of the remaining facilities listed here, most are not items to be considered in preparation of a Land Use Plan. Most are site-specific projects, to be planned as part of the Capital Improvements Program (CIP), required of new development on a case-by-case basis or addressed in general policy statements.

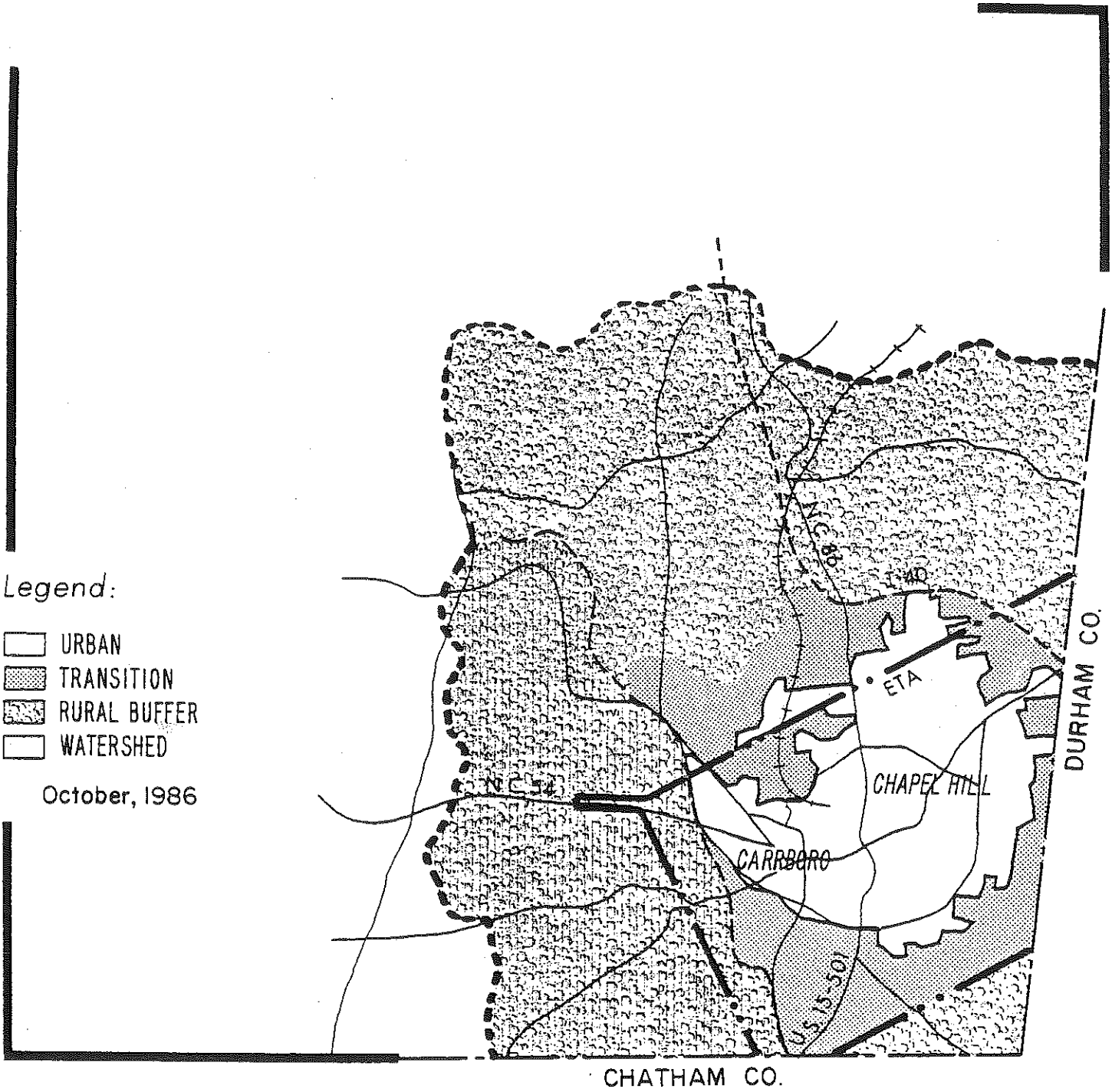
The exceptions are in the areas of public safety, open space and recreation. Response times for police, fire, and emergency medical services are critical. Given the locations of current facilities, as significant urban development begins to occur outside the areas of acceptable response time, major public safety questions arise. Such a situation currently exists to the south of Chapel Hill where development is occurring at the outer limits of the acceptable response area of existing fire stations. A new fire station south of Chapel Hill is an item in the CIP, but construction is years away. The Land Use Plan should consider the timing of new development along with the timed expansion of public safety facilities in order to avoid compounding such problem areas.

Both Chapel Hill and Carrboro have active recreation programs and have provided a variety of parks and open space facilities for their residents. Orange County has concentrated on "programs" to date but is contemplating a more active role in the acquisition and development of park facilities.

Recently Chapel Hill has given particular emphasis to the development of a park system linked by a series of greenways. With the presence of numerous drainage tributaries and environmental constraints (flood plains and steep slope areas) adjacent thereto in the Joint Planning

Area, a greenway system connecting neighborhood and community parks should be incorporated into the Land Use Plan. Such a system would provide the framework for other urban development and insure the provision and preservation of natural areas for future residents to enjoy.

IV. SOCIOLOGICAL CHARACTERISTICS



IV.

SOCIOLOGICAL CHARACTERISTICS

This element addresses three sociological components of land use: the patterns and spatial relationships that currently make up the built environment (existing land use), the demographics of the current and expected population, and estimates of future employment opportunities that will fuel population growth.

Existing Land Use

A field survey of all existing land use in the urban area was completed as of May 1985. Attached is a tabulation of acreages. Note that the area surveyed includes all of Chapel Hill and its Planning Area, all of Carrboro and its Planning Area, and the Joint Planning Area surrounding these two municipalities. It is an area almost exactly coterminous with Chapel Hill Township.

The tabulation shows that the size of the urban area is just over 58,000 acres and that forty percent of the area is currently undeveloped. "Undeveloped" means not actively cultivated as agriculture, not built upon (except at densities of one dwelling unit per five or more acres) and not publicly owned. The definition of "undeveloped" includes all land that is not presently, but could conceivably be developed to urban densities.

The next most frequent land use is open space (18,654 acres) comprised of agriculture, forest and recreation lands.

The next most frequent land use is residential use (7,251 acres). About 12.5% of the land in the study area is used for residential purposes. Of that amount, almost all residential acreage is developed at low densities (five or fewer dwelling units per acre). Service uses (business, professional, educational) occupy 4,504 acres or eight percent of the Planning Area.

Population Estimates For The Joint Planning Area

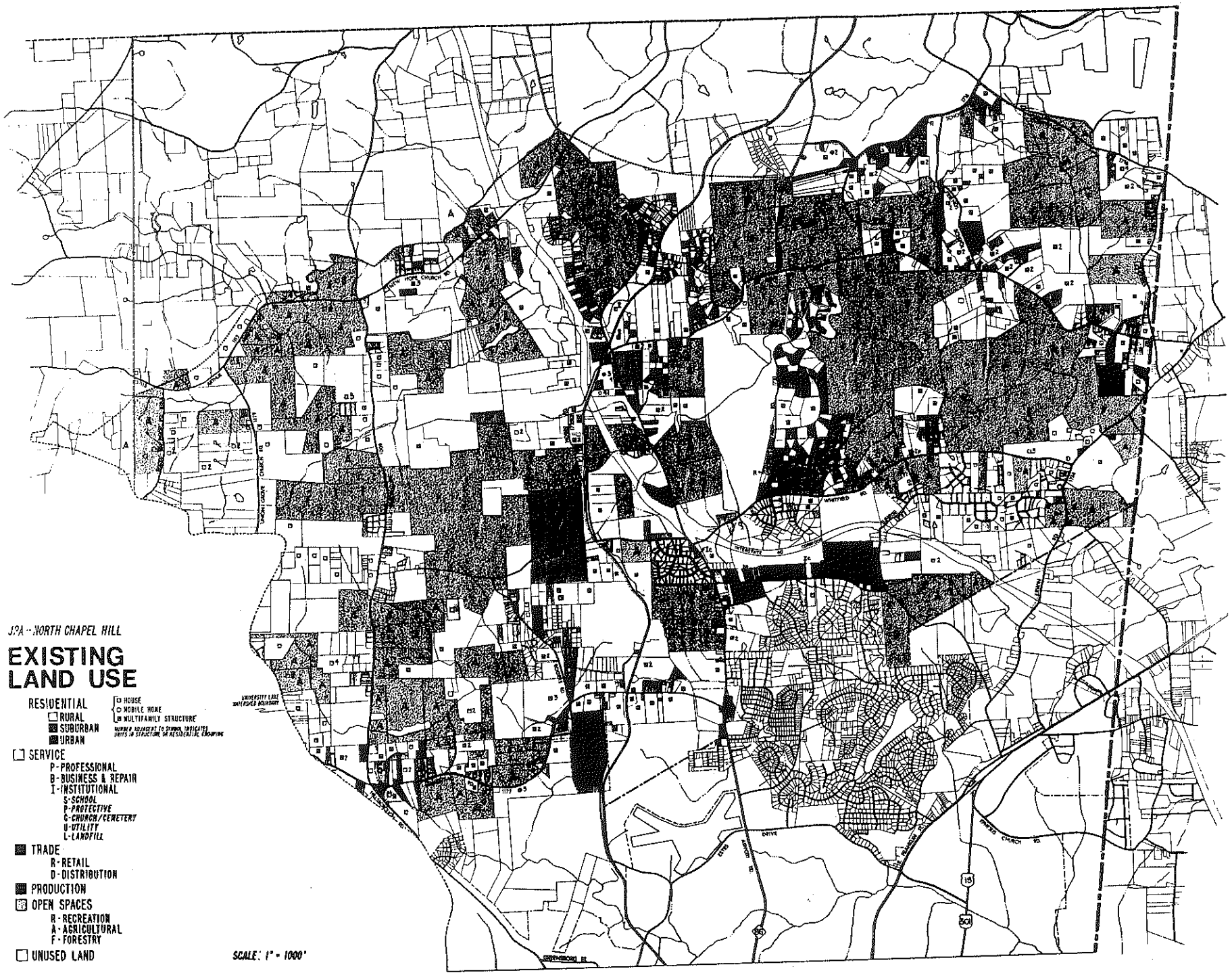
A series of preliminary projections of the full-time resident population in the Joint Planning Study Area has been developed for the period 1985 to 2000. In reality, these projections are for Chapel Hill Township (which makes up the bulk of the study area). These are based on a study of historical patterns and trends of population change in Orange County, Chapel Hill Town and Township, and Carrboro. They will be used to develop different scenarios illustrating how new residents might locate themselves in the Chapel Hill - Carrboro urban area, given particular natural and man-made constraints, and how land uses and existing infrastructure would change as a result. The current population of the area is approximately 52,000 people.

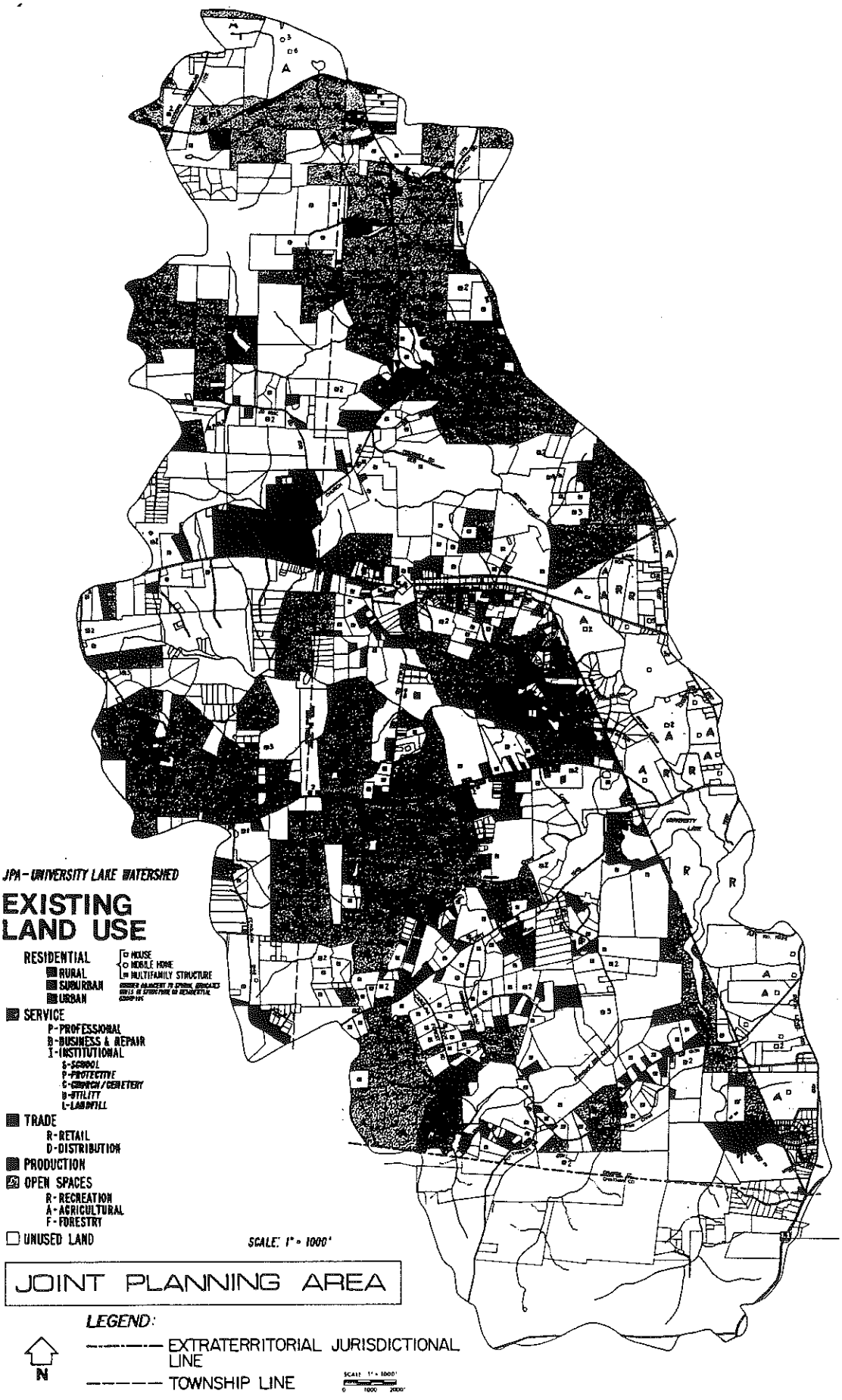
Three series of projections have been developed, the differences being the estimated rates of net migration into the study area (township). The medium migration series is illustrated below.

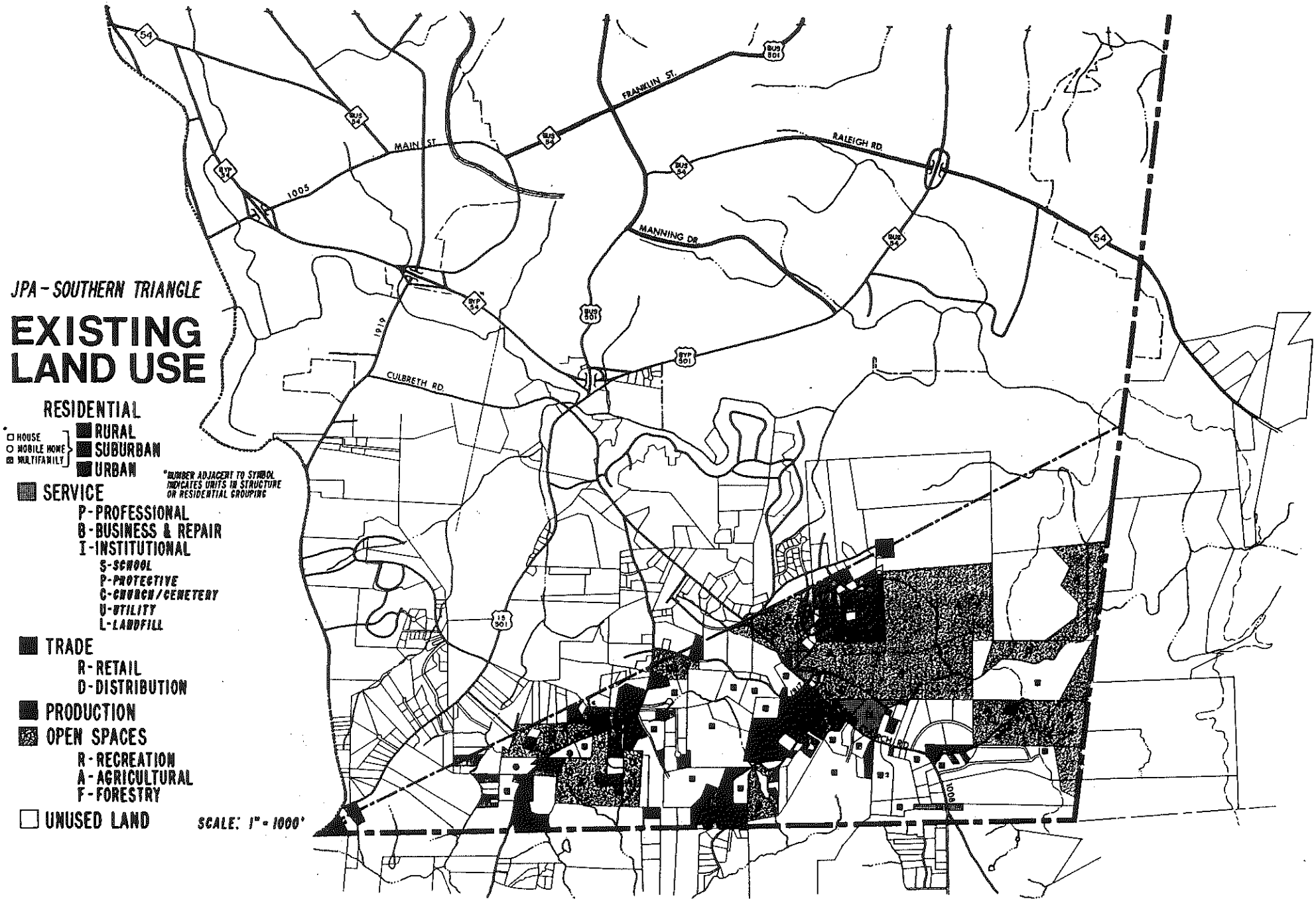
SUMMARY OF EXISTING LAND USE:

SOUTHEAST ORANGE URBAN AREA

LAND USE CATEGORY	# OF ACRES		
	Total Urban	(JPA)	(Municipal)
Residential	7,251	(3,565)	(3,686)
Service - Professional - Business - Institutional - Repair - School - Protective - Church/Cemetery - Utility - Landfill	4,504	(469)	(4,035)
Trade - Retail - Wholesale - Distribution	340	(53)	(287)
Production	272	(178)	(94)
Open Space - Recreational - Agricultural - Forestry	23,854	(21,459)	(2,395)
Other	2,634	(2,634)	
Undeveloped	24,637	(15,512)	(9,125)
TOTAL	63,492	(43,870)	(19,622)


JPA - NORTH CHAPEL HILL
EXISTING LAND USE
RESIDENTIAL
RURAL
SUBURBAN
URBAN
HOUSE
MOBILE HOME
MULTIFAMILY STRUCTURE
NUMBER ADJACENT TO SYMBOL INDICATES UNITS IN STRUCTURE OR RESIDENTIAL GROUPING
SERVICE
P - PROFESSIONAL
B - BUSINESS & REPAIR
I - INSTITUTIONAL
S - SCHOOL
P - PROTECTIVE
C - CHURCH/CEMETERY
U - UTILITY
L - LANDFILL
TRADE
R - RETAIL
D - DISTRIBUTION
PRODUCTION
OPEN SPACES
R - RECREATION
A - AGRICULTURAL
F - FORESTRY
UNUSED LAND
UNIVERSITY LAKE WATERSHED BOUNDARY
SCALE: 1" = 1000'


JPA - UNIVERSITY LAKE WATERSHED
EXISTING LAND USE
RESIDENTIAL
RURAL
SUBURBAN
URBAN
HOUSE
MOBILE HOME
MULTIFAMILY STRUCTURE
SERVICE
P-PROFESSIONAL
B-BUSINESS & REPAIR
I-INSTITUTIONAL
S-SCHOOL
P-PROTECTIVE
C-CHURCH / CEMETERY
U-UTILITY
L-LANDFILL
TRADE
R-RETAIL
D-DISTRIBUTION
PRODUCTION
OPEN SPACES
R-RECREATION
A-AGRICULTURAL
F-FORESTRY
UNUSED LAND
SCALE: 1" = 1000'
JOINT PLANNING AREA
LEGEND:
EXTRATERRITORIAL JURISDICTIONAL LINE
TOWNSHIP LINE
N


JPA - SOUTHERN TRIANGLE
EXISTING LAND USE
RESIDENTIAL
HOUSE
MOBILE HOME
MULTIFAMILY
RURAL
SUBURBAN
URBAN
*NUMBER ADJACENT TO SYMBOL INDICATES UNITS IN STRUCTURE OR RESIDENTIAL GROUPING
SERVICE
P-PROFESSIONAL
B-BUSINESS & REPAIR
I-INSTITUTIONAL
S-SCHOOL
P-PROTECTIVE
C-CHURCH/CEMETERY
U-UTILITY
L-LANDFILL
TRADE
R-RETAIL
D-DISTRIBUTION
PRODUCTION
OPEN SPACES
R-RECREATION
A-AGRICULTURAL
F-FORESTRY
UNUSED LAND
SCALE: 1" = 1000'
MAIN ST.
FRANKLIN ST.
RALEIGH RD.
MANNING DR.
CULBRETH RD.
1005
1010
1008
54
BUS 54
BYP 54
BUS 501
BYP 501
15 501

Summary of Findings

Substantial growth is foreseen in Orange County, Chapel Hill Township, and the Towns of Chapel Hill and Carrboro. The 1980 population of Chapel Hill was 32,500, Carrboro was 8,118 and Orange County was 77,055. The projections (with a moderate migration assumption) indicate a year 2000 population for Chapel Hill of about 59,000 for Carrboro 13,788 and 120,000 for Orange County.

A table summarizing these projections follows.

SUMMARY OF POPULATION PROJECTIONS FOR ORANGE COUNTY, CHAPEL HILL TOWNSHIP, AND THE TOWNS OF CHAPEL HILL AND CARRBORO 1980 - 2000

Year	Orange County	Chapel Hill Township	Chapel Hill	Carrboro
1980	77,055	50,572	32,038*	7,517
1985	88,197	61,415	35,837	9,307
1990	99,652	70,187	44,494	10,757
1995	109,078	77,620	50,314	12,299
2000	121,253	86,973	58,640	13,788

* Does not include portion of Chapel Hill in Durham County

Estimates Of Total Employment In The Joint Planning Area

Area planning staffs are in the process of estimating future area employment for the revised Regional Transportation Plan. These estimates are developed by comparing current population estimates from the Office of State Budget and Management to current employment figures and then projecting total employment for areas of the County (broken up into traffic zones) based on estimated future land use patterns and population. This technique provides an indication of how the local employment market could change given some basic assumptions about how and where the majority of area residents will be working by the year 2000.

Character Of The Local Employment Market

Chapel Hill, Carrboro and Orange County are part of the Triangle J Region of the state, better known as the Research Triangle. This six-county area is characterized as having a consistently high rate of growth in employment opportunity compared to its rate of population growth. This translates into a very favorable employment climate. These additional jobs are concentrated in the government, higher education, research and development and service sectors. This favorable climate has been noted across the state and nation, and as a result, the area continues to experience a net in-migration of persons from within and outside of the state.

The major center for research and development employment continues to be Research Triangle Park (RTP), located in Durham and Wake Counties. RTP also serves to encourage commercial and industrial development in areas surrounding the Park.

Major centers for higher education and service employment in Durham, Orange, and Chatham Counties are the three area universities (University of North Carolina, Duke, and North Carolina Central), N.C. Memorial Hospital, and Blue Cross Blue Shield. Three of these major employers are located in Orange County, and more specifically, in Chapel Hill. In fact, of the 26 County employers with work forces greater than 100, over 60% are located in the Chapel Hill/Carrboro area.

Increases in commercial and retail trade employment have not kept pace with growth in these other sectors. The major commercial employment centers for the Triangle are all located outside of Orange County. In fact, the annual survey of resident buying income and retail sales by Sales Marketing and Management Magazine indicates that the City of Raleigh and Wake County are the only areas in the Triangle where total sales consistently exceed estimated resident buying income. Orange County retail sales (in 1984) amount to only 47% of the total estimated buying income of county residents.

A majority of Orange County's major commercial centers are in the Chapel Hill/Carrboro area. Of the nine commercial centers noted in the 1982 Chapel Hill Thoroughfare Plan, all but two have been developed to some degree. It is believed that little commercial development should be encouraged outside of these centers because of concerns about the impacts on the existing living environment, traffic patterns, traffic activity

levels, and the stability of the Town Center business- commercial district.

Commuting patterns indicate that approximately 31% of the County resident work force works outside of the County, while nearly 10,000 persons work in Orange County but live elsewhere. These patterns indicate that regional transportation options afford residents good access to employment centers both inside and outside of Orange County. This level of accessibility is expected to increase with the completion of Interstate 40 (in June, 1987, for the Chapel Hill to RTP section). These patterns also indicate that:

1. A number of individuals and families have been attracted to the County for reasons other than employment. These reasons could include such things as perceived quality of life, educational opportunities, or other intangibles;

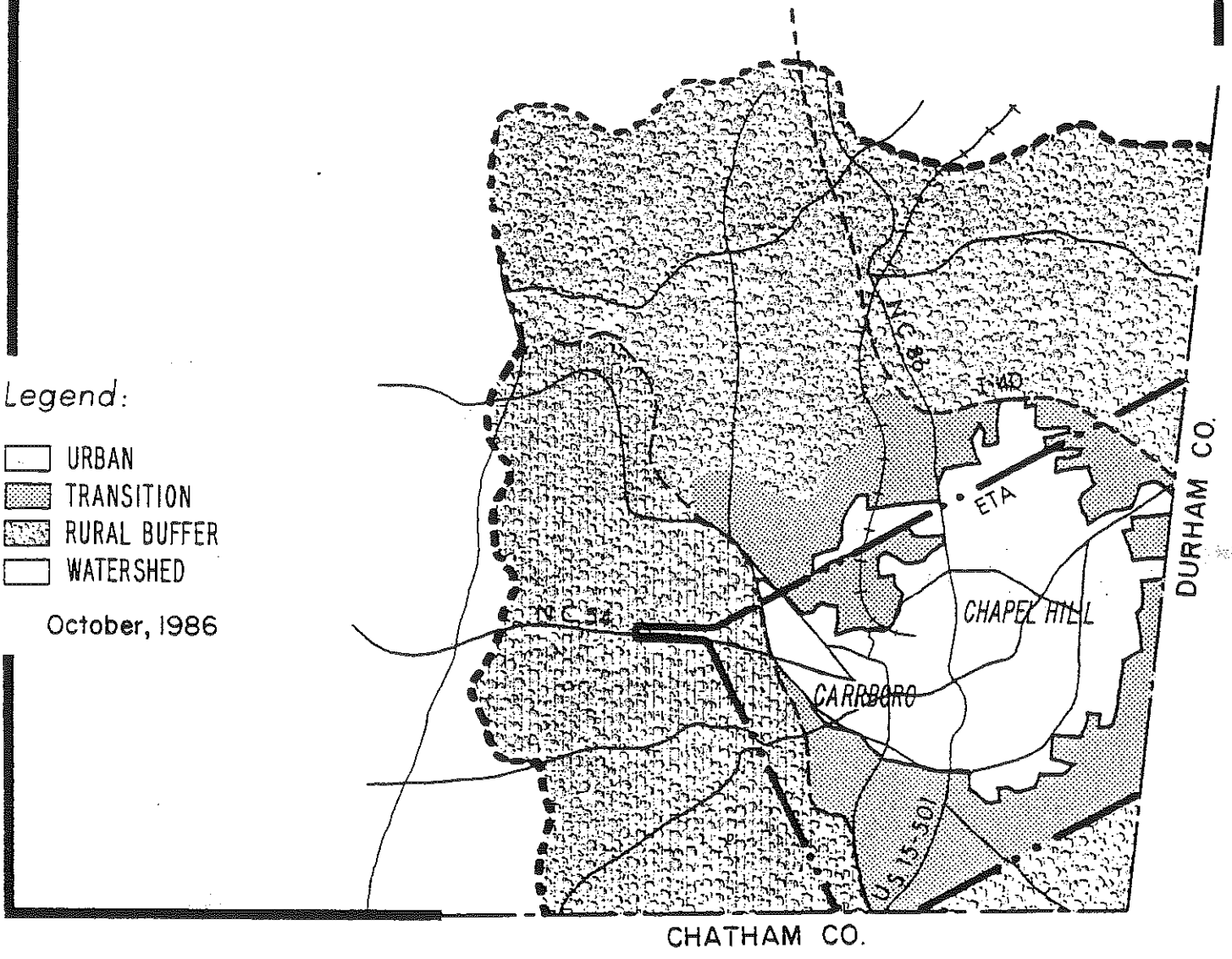
2. Many persons continue to reside outside of Orange County in spite of their employment locally. Factors contributing to this situation include the relatively high cost of living in the County and the fact that a majority of employment opportunities offered in the County are in the lower paying service sector.

Acreage for the development of new employment centers is also limited. Protection of the many watersheds surrounding Chapel Hill/Carrboro from high intensity development is a high priority.

Summary of Findings

Regional employment is expected to increase from the 1980 figure of 135,000 jobs to 260,000 jobs in the year 2000. Orange County is not likely to experience the same rate of new job creation as that of neighboring Durham or Wake Counties. Area increases are expected to reflect increases in University, service, and office employment. County employment is estimated to go from 31,200 positions, 23.1% of the regional total, to 37,700 positions in 2000, 14.5% of the regional total.

V. JOINT PLANNING OPERATING PRINCIPLES



V.

JOINT PLANNING

OPERATING PRINCIPLES

This section is the springboard for preparation of the Land Use Plan. What has been described in Sections I-IV represents critical background information. This section suggests the setting in which the plan will be drawn (Growth Trends) and guidelines for drawing the plan (List of Principles/Location Standards/Strategies).

GROWTH TRENDS

The Chapel Hill/Carrboro area does not exist or grow as an isolated urban area. It is increasingly becoming viewed as a component of the Research Triangle Area, an area that stretches from Carrboro on the west to Garner on the east. The Triangle area includes parts of Orange, Durham, Wake, and Chatham Counties, and contains eight municipalities. The economies, housing markets, commuting patterns, and lifestyles of all of these areas are linked -- what happens in Raleigh affects Chapel Hill.

What has been happening is growth -- at unprecedented levels. The increased development activity in southeast Orange County has been mirrored in Durham and Wake Counties as well. In terms of absolute numbers, Wake County development has dwarfed everything else going on.

Population growth in the Triangle area has been fueled by in-migration. Migration accounts for approximately two-thirds of our recent population increases (one-third from natural increase). The reasons for this large migration are economic opportunity and overall high quality of life.

The key to understanding Triangle area growth is job creation. The reason people are moving here is that employment opportunities are exploding. Even in the low points of recent recessions, Triangle area unemployment never rose above 3%, often recording the lowest unemployment rate in the nation. At the focal point of new job creation is Research Triangle Park.

Existing Growth Patterns

In the Chapel Hill/Carrboro area, development accelerated beginning around the end of 1982. Altogether during the early 1980's, approximately 6000 dwelling units were approved for construction in Chapel Hill. These were generally located as follows:

- 1000 in the central part of Town
- 1000 east of 15-501
- 1000 south of NC 54 bypass
- 3000 north

Clearly, the direction of growth is currently to the north. Areas along Weaver Dairy Road that were once considered "country" are now fully developed at urban intensities.

Growth Shapers

There are a number of developments underway or on the horizon that will have a major impact on growth trends.

Research Triangle Park: Job growth in the Park has been spectacular, and it should continue. Many recent announcements of plant openings or expansions include phased expansion plans, adding thousands of new jobs over the next several years.

Interstate 40: I-40 is expected to be complete from Research Triangle Park to the Orange/Durham County line (at 15-501) by June, 1987. The segment of I-40 between 15-501 and NC 86 should be complete by the end of 1987, and the last segment (up to I-85) ready shortly thereafter. The combination of I-40 at our doorstep and job growth in RTP is a powerful one. We can expect intense pressure for development in the I-40 corridor, particularly at interchanges.

Durham-Chapel Hill Convergence: The existing undeveloped and underdeveloped areas between Chapel Hill and the City of Durham are not likely to remain in their present state. Durham is growing in all directions and Chapel Hill is growing to the east, north, and south. The two municipalities will eventually share a common border.

Carrboro Growth: Development activity in Carrboro is also accelerating, with encouragement. Carrboro cannot grow much further west, because of University Lake Watershed. Its growth will be north and south.

Chatham County Urbanization: Subdivisions containing single family houses and duplexes have been developed in northern Chatham County, and a major retirement community has been planned on the Orange/Chatham line. We can expect to see increased development activity in northern Chatham, especially residential development with a Chapel Hill/Carrboro orientation.

Duke Forest: At present, growth to the north of Chapel Hill and Carrboro faces an eventual barrier - 3600 acres of Duke Forest land. These major tracts represent both an opportunity and a threat. For supporters of the concept of a "rural buffer" around Chapel Hill/Carrboro, Duke Forest presents an opportunity to be the core of such a buffer, a physical limit to growth; the threat is that the property will not remain in its present ownership.

For those favoring development, the prospect of developing Duke Forest lands is an attractive one.

Jordan Lake: The construction of Jordan and Falls Lakes have added major amenities to the recreation-poor Triangle Area. As such, these lakes have enhanced the attractiveness of the Triangle area and will serve as "development magnets," attracting growth. For Chapel Hill, Jordan Lake presents both an amenity, and a barrier to growth on the southeast side of Town.

Drainage Basins: Last is the subject of basins and limitations on extension of water and sewer service. This issue is discussed in more detail in Section III. In summary, natural topography hinders extension of sewer service to the west into the University Lake Watershed. The most likely areas for extension are south, northwest, and east.

*INITIAL LIST OF PRINCIPLES

*Amended
4/2/90

The following Operating Principles are a compilation of guidelines taken from the Chapel Hill Township section of the adopted Orange County Land Use Plan (OC) and from the discussion paper on Land Use Plan Assumptions prepared by the Chapel Hill Planning Board (CH). The purpose of this compilation is to provide a starting point for a statement of the principles which will be used to formulate the Joint Planning Land Use Plan. Of course, each jurisdiction has an extensive set of Goals and Objectives, but this compilation utilizes two available smaller lists which seem to identify most of the important policy issues.

The compilation was done by classifying the guidelines which appeared in the two documents cited. The Orange County guidelines deal with Chapel Hill Township rather than the Joint Planning Area, but in fact the two areas are very similar (see Orange County Land Use Plan Map) and the guidelines are therefore instructive. This brief compilation shows a great deal of similarity in the thinking of the two jurisdictions, as does a comparison of their stated Goals and Objectives.

The Goals and Objectives statements for Chapel Hill and Orange County should be consulted for other information concerning these and other policy issues.

The statements that follow are grouped into 7 categories:

- Open Space
- University Lake Watershed
- Higher Intensity Uses/Transition Areas
- Rural Areas
- Urban Form
- Utility Extensions
- Allocation of Growth

Open Space

The existing open space system in Chapel Hill Township, which includes Duke Forest Lands, the UNC buffer around University Lake, the Morgan Creek Wildlife area, and existing agricultural and forest land, should be protected from intrusion by incompatible land uses. (OC)

***University Lake Watershed**

*Amended
4/2/90

University Lake water supply watershed should be developed in a manner which will protect the quality of the water supply. Very low density residential, low intensity commercial and agricultural land uses are appropriate in this area. (OC)

The University Lake Watershed Area should be protected for reasons of water quality; development should occur only at low densities, and water and sewer lines should not be extended into this watershed. (CH)

Higher Intensity Uses/Transition Areas

The more intensive land uses are most appropriately located within the towns and then within the areas adjacent to the Towns likely to become urban. (OC)

A transition area should be designated, between existing developed areas and the rural buffer, as a target area for new development to occur. (CH)

Rural Areas

The rural residential and agricultural character of the Township outside the Towns and adjacent transition areas should be maintained. (OC)

Rural lands currently existing between the Chapel Hill/Carrboro urban area and Hillsborough (rural buffer) should be preserved. (CH)

Urban Form

A compact form of development should be achieved avoiding urban sprawl. (CH)

The urbanizing areas of the Towns are the major growth centers in the Township. The "infill" of existing urban areas is the guiding principle upon which the Chapel Hill Township Plan is based. "Infill" development of suitable vacant land within the Towns at existing or projected densities, as set forth in the Towns' 1977 Land Use Plans should be encouraged. (The Chapel

Hill Township Land Use Plan will be based on the assumption that development at a level of 75% infill will occur during the period 1980-2000. The infill goal, however, will remain at 100% infill and all relevant policies will be directed toward achieving a maximum infill.) (OC)

It is important to distinguish between the polity of infill development and the density at which that development takes place. A policy of infill development means that development should take place first within the urban area where public services are available, rather than "leapfrogging" into rural areas, thereby consuming farmland and open space and making the extension of public services expensive or impossible. What is "filled in" depends on the land use plan and zoning ordinance, and it could include residential, commercial, industrial, or recreational uses. The density of development also depends on the land use plan and zoning and each jurisdiction determines the densities allowed in its planning area.

Utility Extensions

The timing of utility extensions and the pace of growth should be coordinated. (CH)

Water and sewer service should not be extended outside the boundaries of the Joint Planning Area. (CH)

Allocation of Growth

Areas where public facilities and services are available should be developed before areas where such services are not yet available. (CH)

To the maximum extent feasible, no "spillover" growth from the two Towns will occur in Chatham or Durham Counties or in Bingham Township. In other words, all "spillover" development will be absorbed within the boundaries of Chapel Hill Township. ("Spillover" development refers to that growth which overflows into the land adjacent to the Towns' current planning jurisdiction boundaries after 75% of the suitable vacant land within the Towns' jurisdiction has been absorbed at densities set out in the Towns' Land Use Plans.) (OC)

The area north of the Town is assumed to be most suitable for absorbing "spillover" because of transportation access, the large efficiently sewerable area below the Morgan Creek-New Hope Creek divide, and existing growth patterns. (OC)

The "Southern Triangle" area will develop only after all the suitable land south of and between the Duke Forest tracts has been developed. (OC)

Duke Forest tracts will not be developed over the period 1980-2000. (OC)

PUBLIC INFORMATION MEETING QUESTIONNAIRE SUMMARY

On November 13, 1985, a Public Forum on the Joint Planning Project was hosted by the Planning Boards of Chapel Hill and Orange County. The approximately 175 persons in attendance were given the opportunity to comment on the proceedings and the Project by filling out a questionnaire. A total of 76 questionnaires were received. This represents approximately 43% of the Forum attendees or 10% of the 735 property owners, individuals and organizations that were mailed notices of the meeting.

Over 41% of the respondents indicated that they live within the Chapel Hill Town Limits, 39% in the Joint Planning Area, and nearly 18% in the Chapel Hill Extraterritorial Jurisdiction. Among the residents of the Joint Planning Area (JPA), the majority live in either the North Chapel Hill Transition Area or the Southern Triangle. All but two of the respondents live in Chapel Hill Township, and most are in the area due to job or education-related reasons. An overwhelming majority of the respondents own single family homes in a subdivision and work in Chapel Hill. In general, the commute to work covers from 0-5 miles for most respondents and they shop for the majority of their needs in the Chapel Hill area. Only ten indicated that they are retired.

Changes to Transition Areas: Most respondents would leave the transition areas as they are (42%) or expand them. The proposal for a permanent rural buffer or "greenbelt" around Chapel Hill was endorsed by over 82% of those who responded. Most endorsed densities of development of 1 unit/acre or less (1 unit/2 acres+) with some persons indicating an interest in being allowed to develop some units on larger tracts for use by family.

Natural Environment: Restrictions on development in the Joint Planning Area because of environmental constraints, limited water resources, and the possible future construction of reservoirs were endorsed overwhelmingly. The comments generally supported restrictions on development in wetlands, in areas of undesirable soils or slopes, near streams and around University Lake. There was also the recognition that the completion of Cane Creek Reservoir may resolve the water quantity issue, thus making the preservation of potential reservoir sites less important.

Most respondents also expressed the belief that there are problems with the use of septic tank systems in the Joint Planning Area.

Infrastructure and Public Services: Respondents endorsed the limitation of water and sewer line extensions to the Towns and Transition areas and the use of the same to direct development in the JPA. Development in areas not to be serviced should, according to the majority of respondents, be limited to allow wells and septic tanks with up to a two acre minimum lot size. The conviction was also expressed that area elected officials, and not developers, should control the rate and location of development in Chapel Hill and the JPA.

Nearly all respondents recognized some problem(s) with the existing road system with the amount of traffic, size, and location of roads getting the most mention. Most comments mentioned the problem of residential streets being used as collectors. The frustration of using U.S. Highway 15-501 and N.C. 54 to "bypass" downtown traffic was noted very frequently. However, respondents also indicated overwhelmingly that when the objective of neighborhood preservation conflicts with traffic efficiency, neighborhood conservation should prevail.

Overall, 86% of the respondents consider the projections of potential future population totals for Chapel Hill Township to be either too high or acceptable. Favored densities of new development range from a minimum low density of one unit/acre to a maximum density of five units/acre. An overwhelming majority of the respondents also indicated that changes in residential land use (either higher density or different land uses) should be changed only by a majority vote of the governing body after signatures (of approval) have been received from the owners of the directly affected properties in the vicinity.

Form of Urban Development: Respondents were split on whether urban development should be constrained geographically, creating a more compact urban form, 53% Yes and 30% No. They also split on their preference for the design of residential communities of uniform type and density, while 35% endorsed mixtures of low, medium, and high density residential uses with small scale commercial areas.

Location and Types of Land Uses: The three options offered in the questionnaire for the location of commercial land uses were endorsed by an equal number of respondents. A total of 21 persons indicated larger commercial centers downtown and along major highways as their preference, while 24 persons chose the same with moderate size centers along major roads in outlying areas. Twenty-two persons preferred the development of larger commercial centers downtown with moderate size centers along major roads in outlying areas, and small centers at intersections in major neighborhoods.

An overwhelming majority of respondents indicated that areas for commercial land uses should be designated in Chapel Hill and the JPA prior to these areas being developed and commercial development then limited to those areas for a planning period of 10 to 20 years.

Location of industrial land uses received a split response. Just over 34% of the respondents indicated a preference for locating industrial land uses in large industrial centers along major highways outside of the Joint Planning Area. The development of such centers outside of Town, but inside the JPA received approximately the same support (by 17% of the respondents) as developing the same with moderate size centers located in Town along major roads.

There was overwhelming support expressed for the designation and reservation of recreational areas and parks in Chapel Hill and the JPA by government purchase (through bond referendums) or, in certain areas, a prohibition of development.

LAND USE CLASSIFICATION SYSTEM

One of the fundamental methods used to achieve the stated goals and policies of a land use plan is the design and application of a land classification system. Each category of the classification system is designed to accommodate certain uses throughout the plan area to achieve a desired pattern of development. Land in the Joint Planning Area (JPA) was classified initially into categories according to the public policies expressed in the "Operating Principles", the set of location standards defining the appropriateness of the physical-environmental setting and the projected population change, and resulting land requirements in the County. During the evolution of the Joint Planning Area Land Use Plan, however, changes in the classification system resulted in response to citizen concerns and jurisdictional policy decisions.

Orange County Land Use Plan Classification System

The Orange County Land Use Plan served as the starting point for a land use classification system for the Joint Planning Area. The Plan, adopted in 1981, contains five basic land use categories which were refined into a more detailed classification system to meet the needs of the County. The basic categories and land use plan categories contained in the Orange County Land Use Plan are shown on the accompanying page. A map illustrating the application of the categories in the Joint Planning Area at the time of Plan adoption in 1981 is also provided.

Joint Planning Area Land Use Classification System

Three of the basic categories - Transition, Rural, and Conservation - have been retained in the Joint Planning Area Land Use Plan. The categories and refinements to them during the joint planning process are discussed below.

*Transition Areas

*Amended
2/3/92 (effective 2/24/92)

Transition. Transition areas are located adjacent to the urban areas of Chapel Hill and Carrboro. They are in the process of changing from rural to urban uses or are already urban in use; are developed at or suitable for urban-type densities; and are now provided or are projected to be provided with urban services. Transition Areas are denoted as a subclass or overlay-type of land use classification, providing a link with the basic land use categories of the Orange County Land Use Plan but permitting the development of a more detailed series of underlying land use plan categories.

*ORANGE COUNTY LAND USE PLAN CATEGORIES

*Amended
2/3/92 (effective 2/24/92)

Basic Category	Land Use Plan Category
DEVELOPED	Urban Existing Urban Activity Node Proposed Urban Activity Node
TRANSITION	Ten-Year Transition Twenty-Year Transition Commercial Transition Activity Node Commercial-Industrial Transition Activity Node
COMMUNITY	Rural Community Activity Node
RURAL	Rural Buffer Rural Residential Agricultural-Residential Rural Neighborhood Activity Node Rural Industrial Activity Node
CONSERVATION	Public Interest District Water Supply Watershed Water Quality Critical Area New Hope Creek Corridor Open Space

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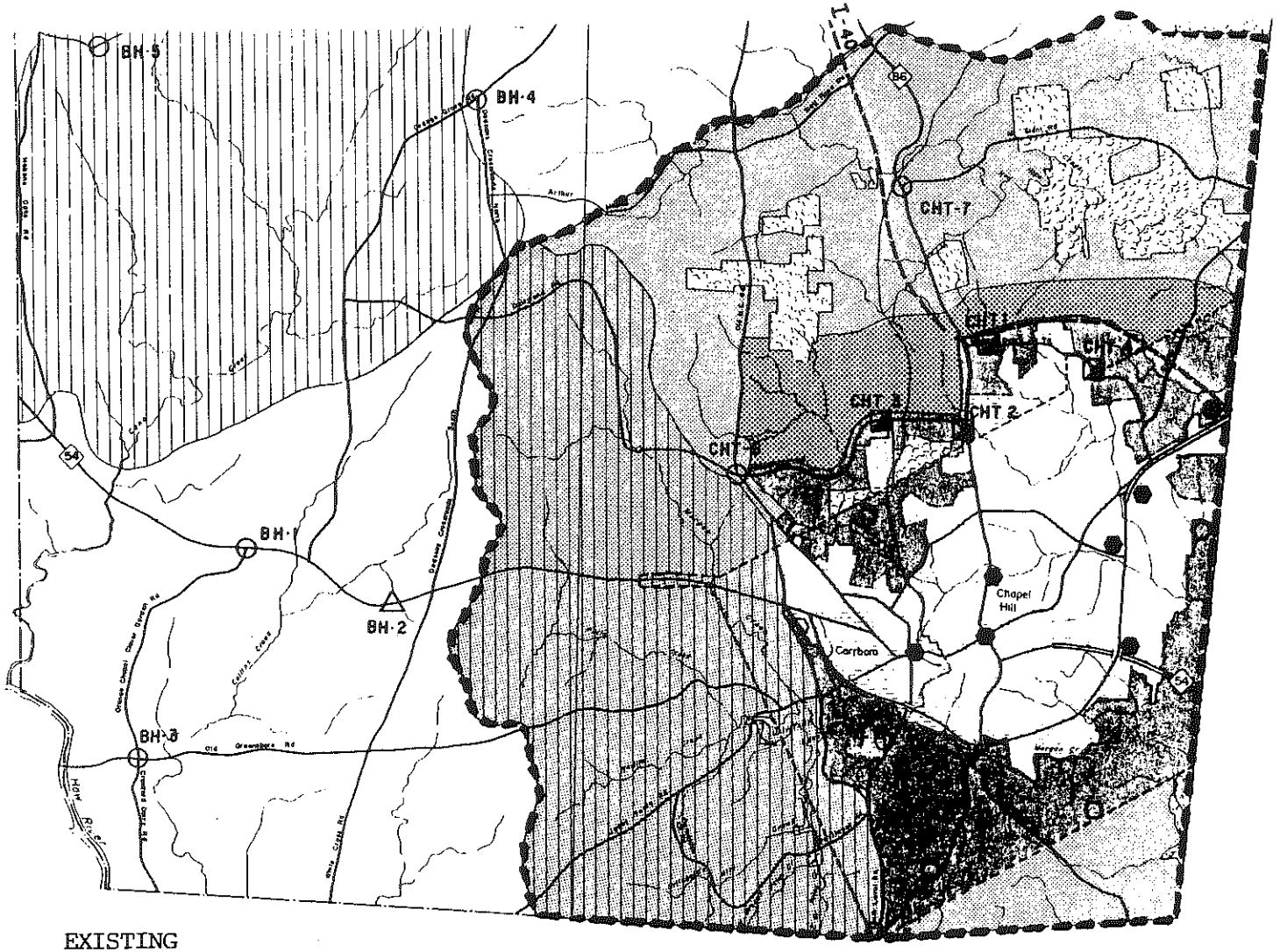
*JOINT PLANNING AREA LAND USE PLAN CATEGORIES

*Amended
4/2/90
2/3/92 (effective 2/24/92)

Major Class	Subclass	Land Use Plan Category
TRANSITION	Transition Transition I Transition II	Resource Protection Public-Private Open Space New Hope Creek Corridor Open Space Suburban Residential Urban Residential Office-Institutional Future UNC Development Retail Trade Light Industrial Disposal Use
RURAL CONSERVATION	Rural Buffer	University Lake Watershed Resource Protection Public-Private Open Space New Hope Creek Corridor Open Space Agricultural Rural Residential Retail Trade Extractive Use



EXISTING

LAND USE PLAN

ORANGE COUNTY

PLAN CATEGORIES:

- URBAN
- 10 YEAR TRANSITION
- 20 YEAR TRANSITION
- RURAL BUFFER
- RURAL RESIDENTIAL
- AGRICULTURAL RES.
- PUBLIC INTEREST AREA
- WATER SUPPLY WATERSHED

ACTIVITY NODES:

- COMMERCIAL TRANSITION
- COM./INDUSTRIAL TRANSITION
- RURAL INDUSTRIAL
- JOINT PLANNING AREA
- RURAL COMMUNITY
- RURAL NEIGHBORHOOD
- PROPOSED URBAN
- EXISTING URBAN

NORTH

SCALE

0 4000' 8000' 16000'

SEPT. '81

The portion of the Transition Area located north of Carrboro has been further divided into Transition Area I and Transition Area II designations on the Joint Planning Area Land Use Plan. Transition Area I may be developed at densities and for uses identified in the underlying land use plan categories described below. Within Transition Area II, however, no tract may be approved for development at a density that exceeds one (1) housing unit per gross acre until at least seventy-five percent (75%) of the gross land area of Transition Area I consists of any combination of the following:

1. Lots containing one (1) acre or less:

2. Residential developments approved for development at a density of at least one (1) unit per acre:

3. Streets, roads, and utility easements located outside of lots containing one (1) acre or less;

4. Lots or tracts that are used for commercial, industrial, institutional, or governmental purposes; and

5. Tracts that are owned by the University of North Carolina or other non-profit entities and that are not available for development.

*Amended 2/2/99

*This density limitation does not apply to Village Mixed Use districts or Office/Assembly districts as provided for in the Facilitated Small Area Plan for Carrboro's Northern Study Area.

The underlying or more detailed land use plan categories include: Resource Protection; Public-Private Open Space; New Hope Creek Corridor Open Space; Suburban Residential; Urban Residential; Office-Institutional; Future UNC Development; Retail Trade; Light Industrial; and Disposal Use. These categories are described below.

Resource Protection Areas designated within Transition Areas of the Joint Planning Area Land Use Plan include floodplains, wetlands along drainage tributaries, and steep slope areas (15% or greater). The areas form the basis for a parks and open space system (see Strategy Maps) which provides the framework within which other land uses are situated.

Public-Private Open Space Areas in the Transition Areas include UNC lands (excluding Horace Williams Airport and adjacent tracts), the 100-foot buffer along I-40, and a tract connecting the two landfill sites. These sites provide open space in the midst of areas planned for urban expansion.

New Hope Creek Corridor Open Space Areas include some of the Resource Protection Areas and a portion of the Public/Private Open Space Areas which were designated as significant and worthy of protection according to the New Hope Corridor Open Space Master Plan completed in April of 1991. (See Master Plan Map following Strategy Maps). The areas are part of a system of open space in Durham and Orange Counties along New Hope Creek and its tributaries between Eno River State Park and U.S. Army Corps of Engineers land north of Jordan Lake. This category is made up of critical environmental areas such as stream beds, floodplains, steep slopes, and larger tracts of historic, educational, or recreational value.

*__Suburban Residential Areas__ are designated for housing densities ranging from one (1) to five (5) dwelling units per acre. Such areas are located where land is changing from rural to urban, suitable for urban densities, and to be provided with public utilities and services. Housing types range from single-family homes to duplexes to multi-family dwellings.

*However, densities may be lower than one dwelling unit per acre in Suburban Residential Areas. Chapel Hill as part of its Southern Small Area Plan has identified certain areas in the Southern Triangle as being suitable for densities not exceeding one (1) unit per acre for areas immediately east of U.S. 15-501 and densities not exceeding one (1) unit per five (5) acres for areas immediately west of Old Lystra Road.

*Amended 2/1/93

__Urban Residential Areas__ are similar to Suburban Residential Areas in terms of both housing types and public service availability. However, densities are higher, ranging from six (6) to thirteen (13) dwelling units per acre.

__Office-Institutional Areas__ is a category consisting of establishments which offer an array of financial, insurance, real estate, legal, medical, and business services. Such areas generally have public utilities and services available and are located adjacent to heavily traveled streets.

__Future UNC Development__ is a category established for lands owned by the University of North Carolina, including Horace Williams Airport and adjacent parcels. Such lands are contemplated for expansion of the UNC campus, provided the Airport is relocated.

__Retail Trade Areas__ are limited in Transition Areas, including existing establishments at Starpoint and Calvander. Modest room for expansion is available in both areas.

__Light Industrial Areas__ are singular, consisting of the Chapel Hill Industrial Park on Eubanks Road. No additional industrial growth was projected in Transition Areas.

__Disposal Use Areas__ consist of landfill sites, either existing or future. The existing landfill on Eubanks Road and the proposed site between Eubanks Road and Homestead Road are included in this category.

*Rural Buffer and Conservation

*Amended
4/2/90
2/3/92 (effective 2/24/92)

The basic categories of Rural Buffer and Conservation have been combined in the Joint Planning Area Land Use Plan to form a single land use classification - Rural Buffer.

The Rural Buffer is defined as being a low-density area consisting of single-family homes situated on large lots having a minimum size of two (2) acres. The Rural Buffer is further defined as land which, although adjacent to an Urban or Transition Area, is rural in character and which will remain rural, contain low-density residential uses, and not require urban services (public utilities and other Town services). The Rural Buffer consists of the following Joint Planning Area Land Use Plan categories: Rural Residential; Agricultural; Public-Private Open Space; Resource Conservation; New Hope Creek Corridor Open Space; Extractive Use; and the overlay category designated University Lake Watershed Area.

Rural Residential Areas are low-density areas consisting of single-family homes situated on large lots two acres in size or greater. In that respect, Rural Residential Areas are identical to the definition of the Rural Buffer.

Agricultural Areas include land areas currently in use for farming and forestry operations and which qualify for, or are listed for, use value taxation purposes.

Public-Private Open Space Areas include major land areas owned or controlled by public and private interests in the Rural Buffer. Such holdings as Duke Forest, Camp New Hope, U.S. Government lands associated with Jordan Lake, the 100-foot buffer along I-40, and Orange Water and Sewer Authority lands adjacent to University Lake and the quarry site on N.C. Highway 54 provide open space through research, educational, forest management, and recreational functions.

Resource Conservation Areas in the Rural Buffer are identical to those in Transition Areas; i.e., floodplains, wetlands along drainage tributaries, and steep slope areas (15% or greater). The areas form the basis for a parks and open space system (see Strategy Maps) which provides the framework within which other land uses are situated.

New Hope Creek Corridor Open Space Areas include some of the Resource Protection Areas and a portion of the Public/Private Open Space Areas which were designated as significant and worthy of protection according to the New Hope Corridor Open Space Master Plan completed in April of 1991. (See Master Plan Map following Strategy Maps). The areas are part of a system of open space in Durham and Orange Counties along New Hope Creek and its tributaries between Eno River State Park and U.S. Army Corps of Engineers land north of Jordan Lake. This category is made up of critical environmental areas such as stream beds, floodplains, steep slopes, and larger tracts of historic, educational, or recreational value.

Extractive Use Areas encompass mining and quarry operations. Only one such site exists in the Rural Buffer, the American Stone Company quarry on N.C. Highway 54 west of Carrboro.

Retail Trade Areas in the Rural Buffer include low intensity neighborhood centers which serve the immediate area and generate low traffic volumes. Only one such area is designated in the Rural Buffer -Blackwood Station on N.C. Highway 86.

*University Lake Watershed Area

*Amended
4/2/90

The University Lake Watershed Area includes all lands which drain into the University Lake reservoir. Based on a preferred watershed protection strategy of land use controls as recommended by Camp, Dresser and McKee in the University Lake Watershed Study, only low-density residential uses are permitted. A minimum lot size of five (5) acres and a maximum density of one (1) unit per five (5) acres is required for any development. Cluster subdivisions with lot sizes of not less than one (1) acre are also allowed as well as the creation of a limited number (5) of two-acre lots.

LOCATION STANDARDS

The principal task in formulating a land use plan is determining where specific land uses will be located. The primary elements feeding into this step include the operating principles outlined previously and a defined set of location standards.

The location standards proposed for the preparation of the Joint Planning Area Land Use Plan are based upon previously enumerated background elements - natural environment and compatibility with existing land use patterns. On the accompanying page, these elements are listed on the horizontal axis of the Location Standards Matrix. Included in the matrix, but not previously defined are various street classifications listed under Transportation Accessibility. These classifications are defined as follows:

STREET CLASSIFICATIONS

STREET TYPE	FUNCTION	SPEED	ROW	DAILY VOLUME	TRIP LENGTH	ACCESS	TRAVEL LANES
INTERSTATE	Movement	55 mph	200-300'	>40K	>3 mi.	Limited	4
ARTERIAL	Movement	45 mph	120-150'	10K-25K	>1 mi.	Unlimited	4
COLLECTOR	Movement/ Access	35 mph	60-70'	800-3K	<1 mi.	Unlimited	2
LOCAL	Access	25 mph	50'	75-200	<1/2mi.	Unlimited	2

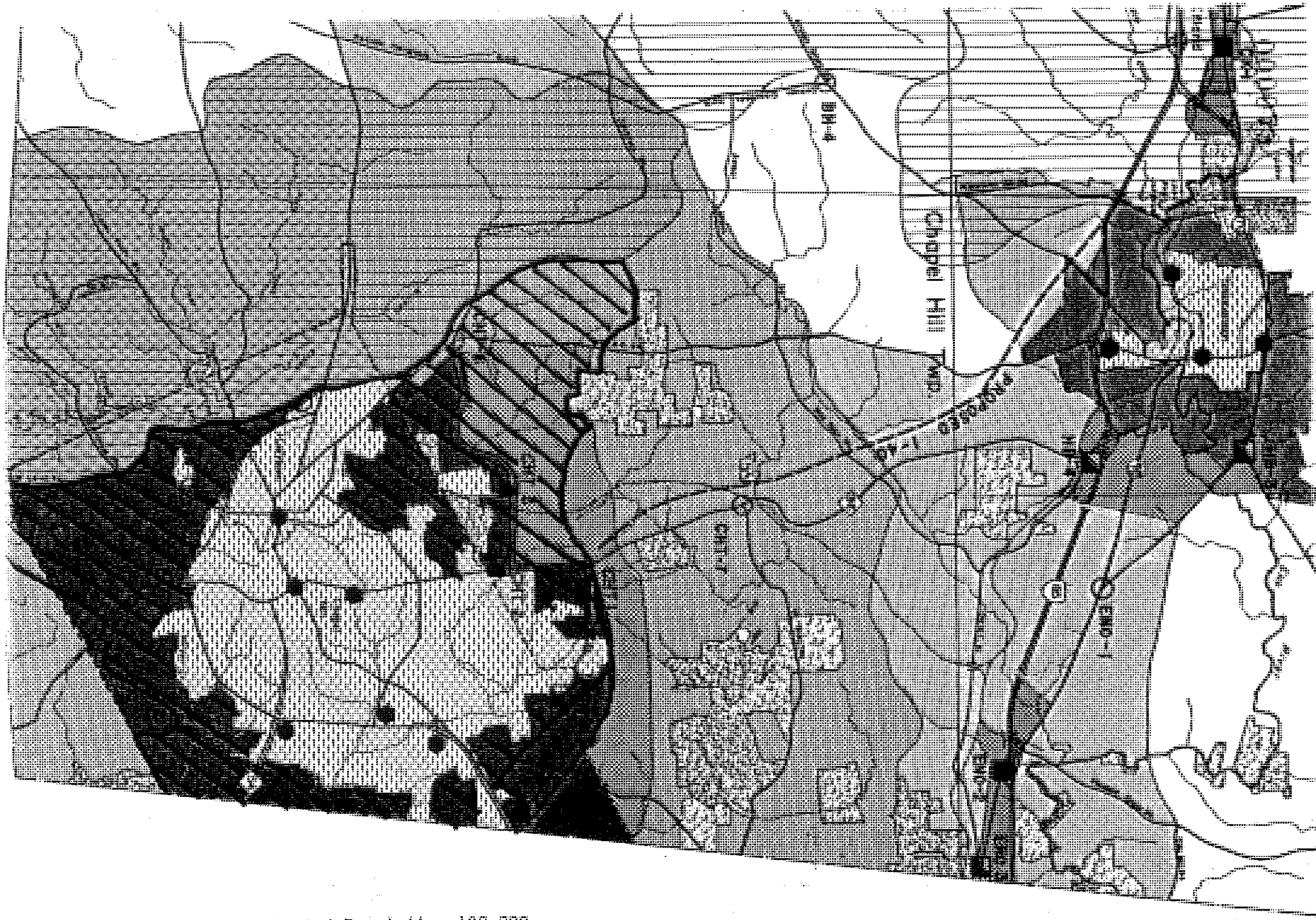
Listed on the vertical axis are the general land use planning categories. By locating the desired land plan category on the vertical axis, it is possible to read from left to right and identify by the "X" symbol desired locations for each land use type.

CONCEPTS AND STRATEGIES

Following the November Public Information Meeting, four alternative strategy maps were prepared which illustrated various development scenarios for the Joint Planning Area. The four maps sought to identify those areas which would be classified as urban, transition, and rural buffer without identifying specific 10 and 20 year growth areas. The four maps are reproduced in sketch form on the following pages. The basis premises governing each alternative are listed below.

LOCATION STANDARDS MATRIX

LAND USE CLASSIFICATION	LAND SUITABILITY									COMPATIBILITY WITH EXISTING LAND USE												TRANSPORTATION			
	SLOPE			SOIL STABILITY			VEGETATION			RESIDENTIAL				COMMER.					OPEN AREA			ACCESSIBILITY			
	0 - 7½ %	7½ - 15%	15% +	SLIGHT	MODERATE	SEVERE	CLEAR	FOREST	WETLAND	RURAL	SUBURBAN	URBAN	HIGH URBAN	OFFICE	RETAIL	PUBLIC/QUASI-PUBLIC	INDUSTRIAL	RECREATIONAL	AGRICULTURAL	FORESTRY	INTERSTATE	ARTERIAL	COLLECTOR	LOCAL
RESIDENTIAL																								
Rural	X	X	X	X	X		X	X		X	X					X		X	X					X
Suburban	X	X		X	X		X	X		X	X	X				X		X					X	X
Urban	X			X			X				X	X	X	X	X	X		X			X	X	X	
COMMERCIAL																								
Office	X	X		X			X					X	X	X	X	X		X			X	X	X	
Retail	X	X		X	X		X					X	X	X	X	X					X	X	X	
INDUSTRIAL	X			X			X										X				X	X	X	
RESOURCE-CONSERVATION																								
Recreational	X	X	X	X	X		X	X		X	X	X	X	X		X		X	X	X			X	X
Agricultural	X	X		X	X		X			X						X		X	X	X	X	X	X	X
Fore[illegible]	X	[illegible]	X	[illegible]	[illegible]	X		[illegible]	[illegible]									[illegible]	X	[illegible]	X	[illegible]	[illegible]	X



Strategy Map A - Estimated Population 102,200

ORANGE COUNTY

ORANGE COUNTY
Strategy Map B - Estimated Population 100,000
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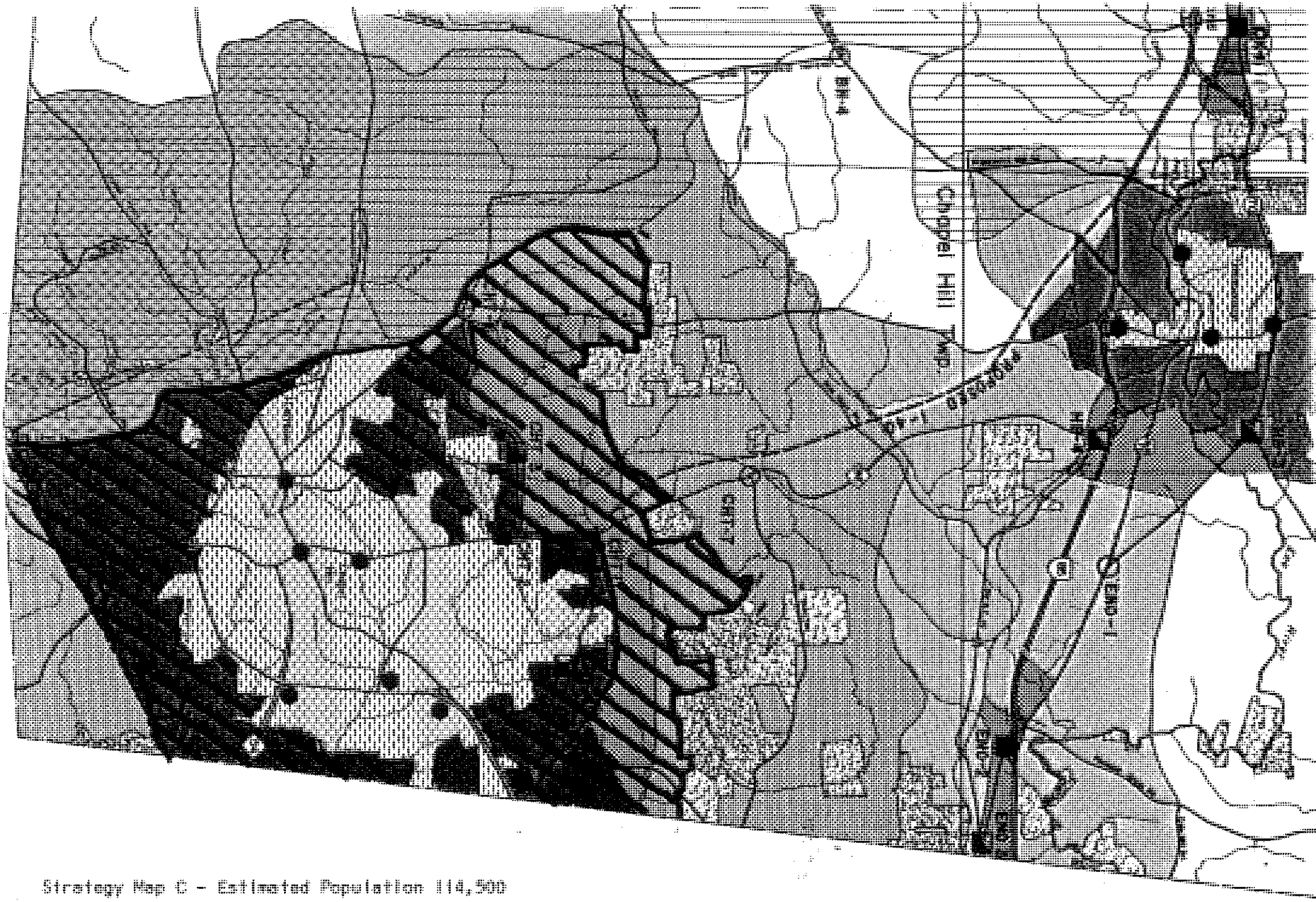


Strategy Map C - Estimated Population 114,500

ORANGE COUNTY

Strategy Map D - Estimated Population 173,400

ORANGE COUNTY

2000

Alternative A- "A" limits growth or the transition areas to the Bolin Creek and Morgan Creek drainage basins where development can be served with gravity flow sewer lines.

Alternative B- "B" allows some further development beyond the Bolin and Morgan Creek basins, but uses I-40 as the growth limit line to the northeast and permits development to occur at the I-40/NC 86 Interchange.

Alternative C- "C" uses Duke Forest, drainage tributaries and the Bolin Creek basin as the dividing line between rural buffer and transition areas.

Alternative D- "D" places no limit on transition areas other than the northern boundary of the Joint Planning Area.

In each alternative, University Lake Watershed was retained in its rural buffer classification. Furthermore, the area south of Chapel Hill (Southern Triangle) was retained as rural buffer. Some adjustment was made in the "Triangle" to follow the Morgan Creek basin line.

For each alternative, population projections were prepared using an average density of 4.5 persons per acre for transition areas and one unit per two acres for rural buffer areas. Based on these figures, the following population estimates were derived:

A - 102,200
B - 104,800
C - 114,500
D - 173,400

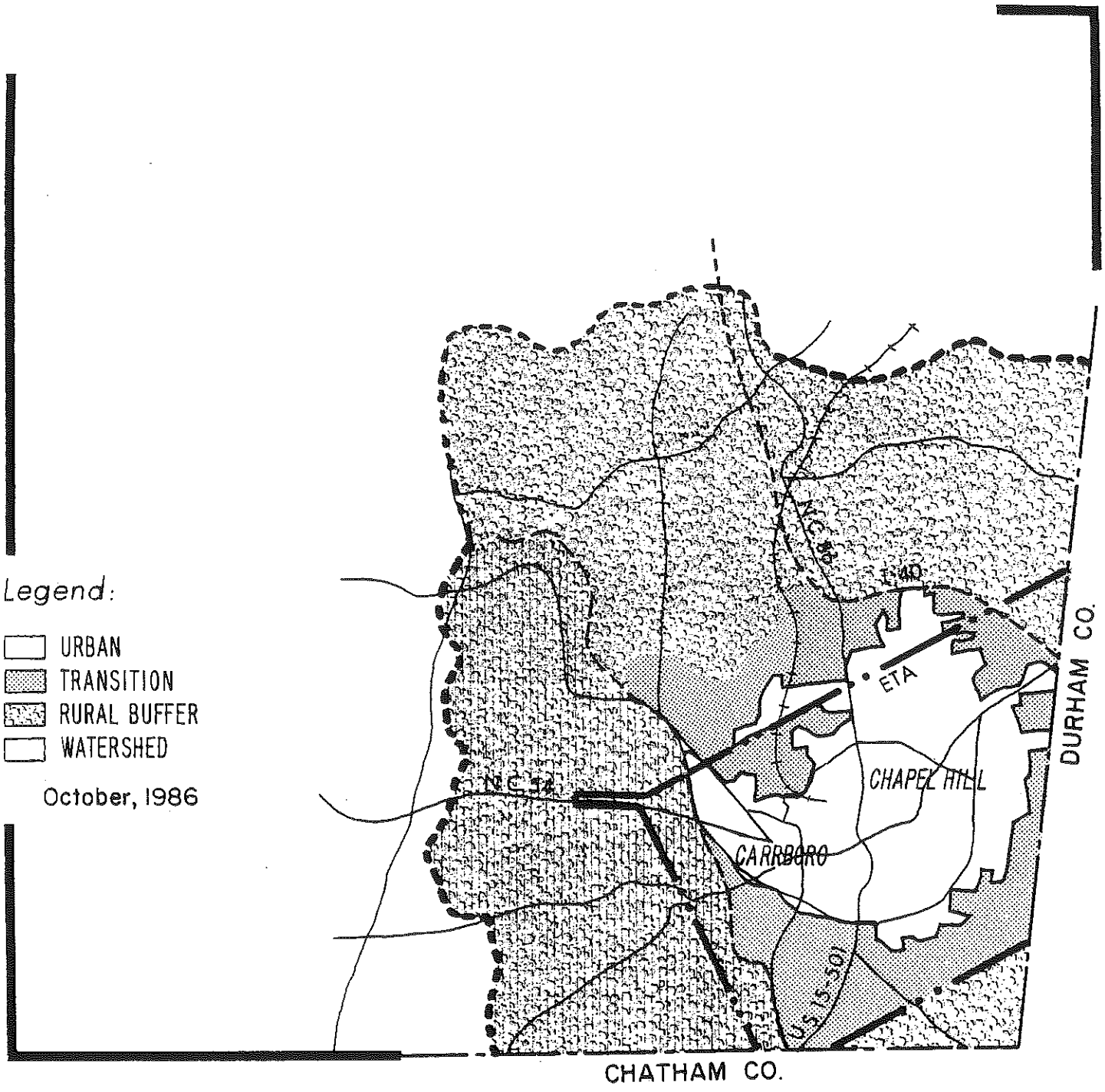
By way of comparison, population projections prepared by the Chapel Hill Planning Department indicated a range of estimates for Chapel Hill Township (Joint Planning Area) from 86,000 to 120,000.

Following preparation of the alternative strategy maps, they were presented to the Chapel Hill Township Advisory Council and the Orange County Planning Board to decide which general strategy maps should be used in developing the detailed Land Use Plan. The Township Advisory Council elected to use Alternative C, while the Planning Board selected a modified "B" version which allowed some expansion of the transition areas north of I-40, but not as far north as Duke Forest. The latter map was selected by Planning Staff on which to base the Land Use Plan.

One final step was taken prior to drafting of the Land Use Plan - preparation of a detailed strategy map. This map

identified proposed water and sewer line extensions, thoroughfare improvements recommended as part of the Chapel Hill-Carrboro Thoroughfare Plan, major land areas owned or controlled by public/private interests, a greenway and park system, agricultural preservation areas, and future activity node sites. The map formed the framework within which future land use patterns would be set.

VI. FUTURE LAND USE - JPA



SECTION VI

FUTURE LAND USE – JOINT PLANNING AREA

In this section, anticipated patterns of future land development are outlined for the Joint Planning Area, exclusive of Carrboro and Chapel Hill. The future land use patterns described in this section are based, in part, on the population, economic and existing land use trends identified in background studies. Also considered in the formulation of these patterns were environmental features, infrastructure and service concerns, operating principles, locational standards and concept/strategy maps developed for the Joint Planning Area or currently existing in the Orange County Land Use Plan. Finally, comments received at public hearings, public information meetings, and the recommendations of town and county advisory and governing boards were considered in the formulation of the plan. The discussion of the Plan centers on two broad categories of land use – Transition Areas and the Rural Buffer.

*TRANSITION AREAS

*Amended
2/3/92 (effective 2/24/92) **2/2/99

Transition areas are located adjacent to the urban areas of Chapel Hill and Carrboro. They are in the process of changing from rural to urban uses or are already urban in use; are developed at or suitable for urban-type densities; and are now provided or are projected to be provided with urban services. The portion of the Transition Area located north of Carrboro has been further divided into Transition Area I and Transition Area II designations on the Joint Planning Area Land Use Plan. Transition Area I may be developed at densities and for uses identified in the underlying land use plan categories described below. Within Transition Area II, however, no tract may be approved for development at a density that exceeds one (1) housing unit per gross acre until at least seventy-five percent (75%) of the gross land area of Transition Area I has developed. (See Section V for specific details.) **The density limitations detailed in this paragraph do not apply to Village Mixed Use districts or Office/Assembly districts as provided for in the Facilitated Small Area Plan for Carrboro's Northern Study Area.

Ten categories of Transition Area have been depicted on the Joint Planning Area Land Use Plan. These categories include Resource Protection, Public-Private Open Space, New Hope Creek Corridor Open Space; Suburban Residential, Urban Residential, Office-Institutional, Future UNC Development, Retail Trade, Light Industrial, and Disposal Use. These categories are described below. **The Facilitated Small Area Plan for Carrboro's Northern Study Area supersedes the Joint Planning Area Land Use Plan in the Carrboro Transition Area to the extent that it is inconsistent with the Joint Planning Area Land Use Plan.

Resource Protection Areas

Resource Protection Areas in Transition Areas have been designated on the Land Use Plan to include flood plains, and wetlands along drainage tributaries and steep slope areas (15% or greater). These areas form the basis for a comprehensive parks and open space system which provides the framework within which other land use categories are to function. Parks have been

generally located throughout the Joint Planning Area using a neighborhood park one-half mile service radius. The parks are linked together by a system of greenways extending along drainageways, and pedestrian routes (sidewalks) along thoroughfares.

Public/Private Open Space Areas

Land areas owned or controlled by both public and private interests in the Transition Areas have been designated on the Land Use Plan. These areas include UNC lands (excluding Horace Williams Airport and adjacent tracts) and a tract connecting the two landfill sites. These sites provide open space in the midst of areas planned for urban expansion.

A Public/Private Open Space Area has also been designated along Interstate 40 in both Transition and Rural Buffer Areas to recognize the Major Transportation Corridor (MTC) district established to provide a 100-foot buffer along that route. The Plan recommends utilization of portions of the buffer to link proposed park and greenway areas together.

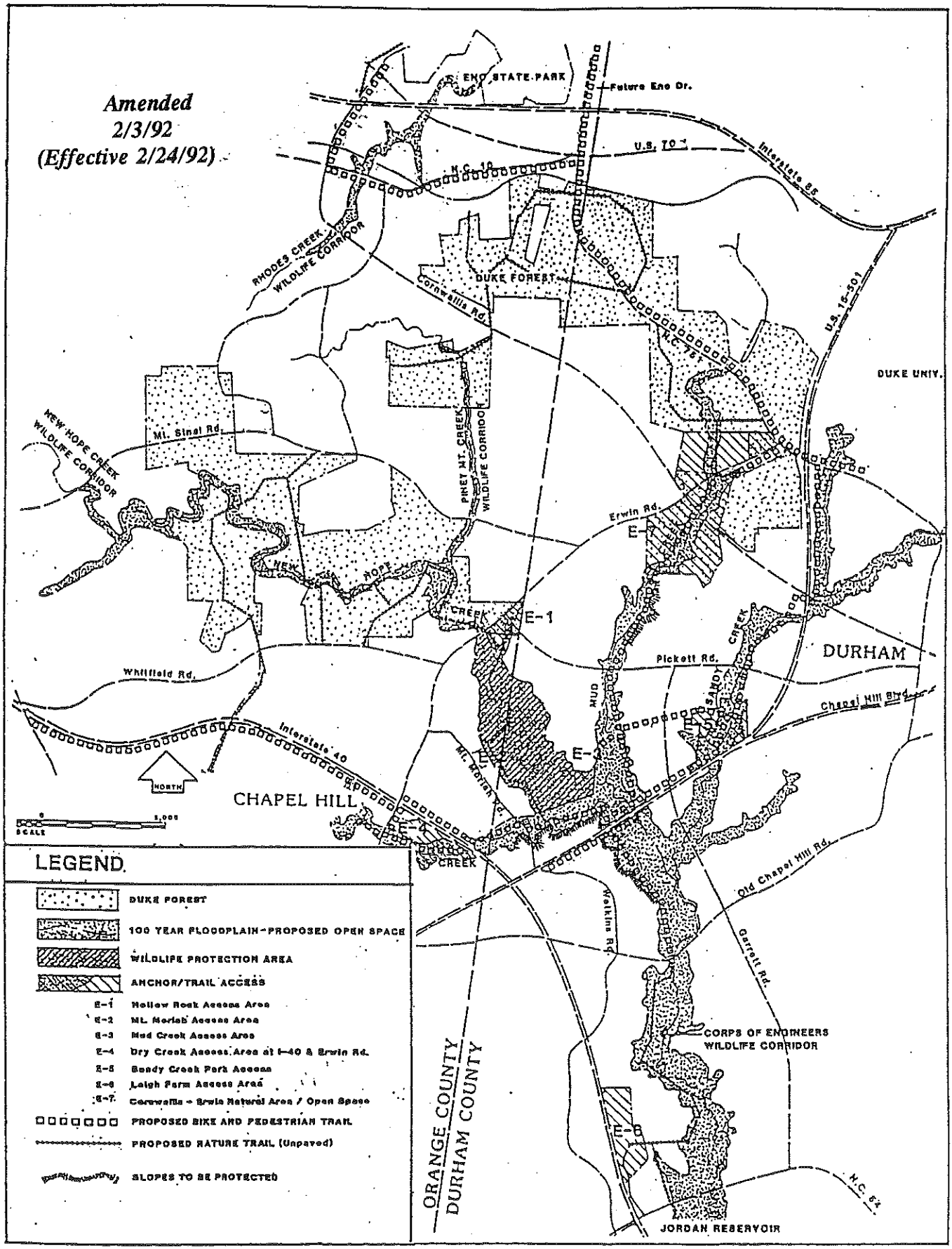
New Hope Creek Corridor Open Space Areas include some of the Resource Protection Areas and a portion of the Public/Private Open Space Areas which were designated as significant and worthy of protection according to the New Hope Corridor Open Space Master Plan completed in April of 1991. (See Master Plan Map following Strategy Maps). The areas are part of a system of open space in Durham and Orange Counties along New Hope Creek and its tributaries between Eno River State Park and U.S. Army Corps of Engineers land north of Jordan Lake. This category is made up of critical environmental areas such as stream beds, floodplains, steep slopes, and larger tracts of historic, educational, or recreational value. The New Hope Corridor Open Space Master Plan describes these areas in detail and makes specific recommendations as to how they should be protected or utilized for environmental, educational, and/or recreational purposes.

***Suburban Residential Areas**

*Amended 2/1/93

Suburban Residential Areas include single-family homes, duplexes, apartments, condominium and townhouse projects. Areas designated as Suburban Residential are located where land is in the process of changing from rural to urban, suitable for urban-type densities and should be provided with public utilities and services. Housing densities in the Suburban Residential category range from one (1) to five (5) units per acre.

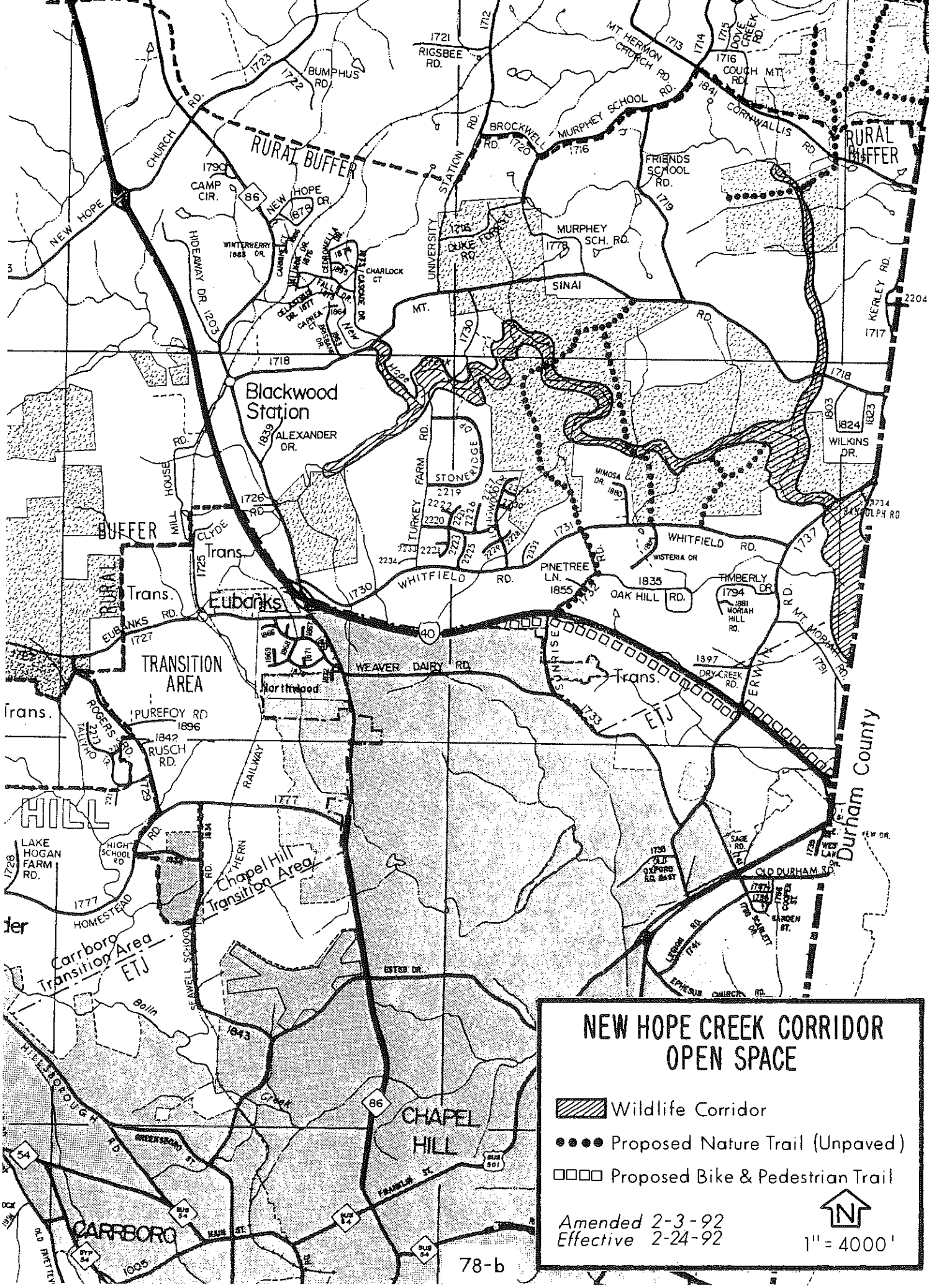
*However, densities may be lower than one dwelling unit per acre in Suburban Residential Areas. Chapel Hill as part of its Southern Small Area Plan has identified certain areas in the Southern Triangle as being suitable for densities not exceeding one (1) unit per acre for areas immediately east of U.S. 15-501 and densities not exceeding one (1) unit per five (5) acres for areas immediately west of Old Lystra Road.



NEW HOPE CORRIDOR OPEN SPACE MASTER PLAN MAP

CITY OF DURHAM, N.C.
CITY OF CHAPEL HILL, N.C.
DURHAM COUNTY
ORANGE COUNTY

COULTER ASSOCIATES - Landscape Architects - Land Planners Durham, N.C.


RURAL BUFFER
Blackwood Station
Eubanks
TRANSITION AREA
BUFFER
RURAL
Trans.
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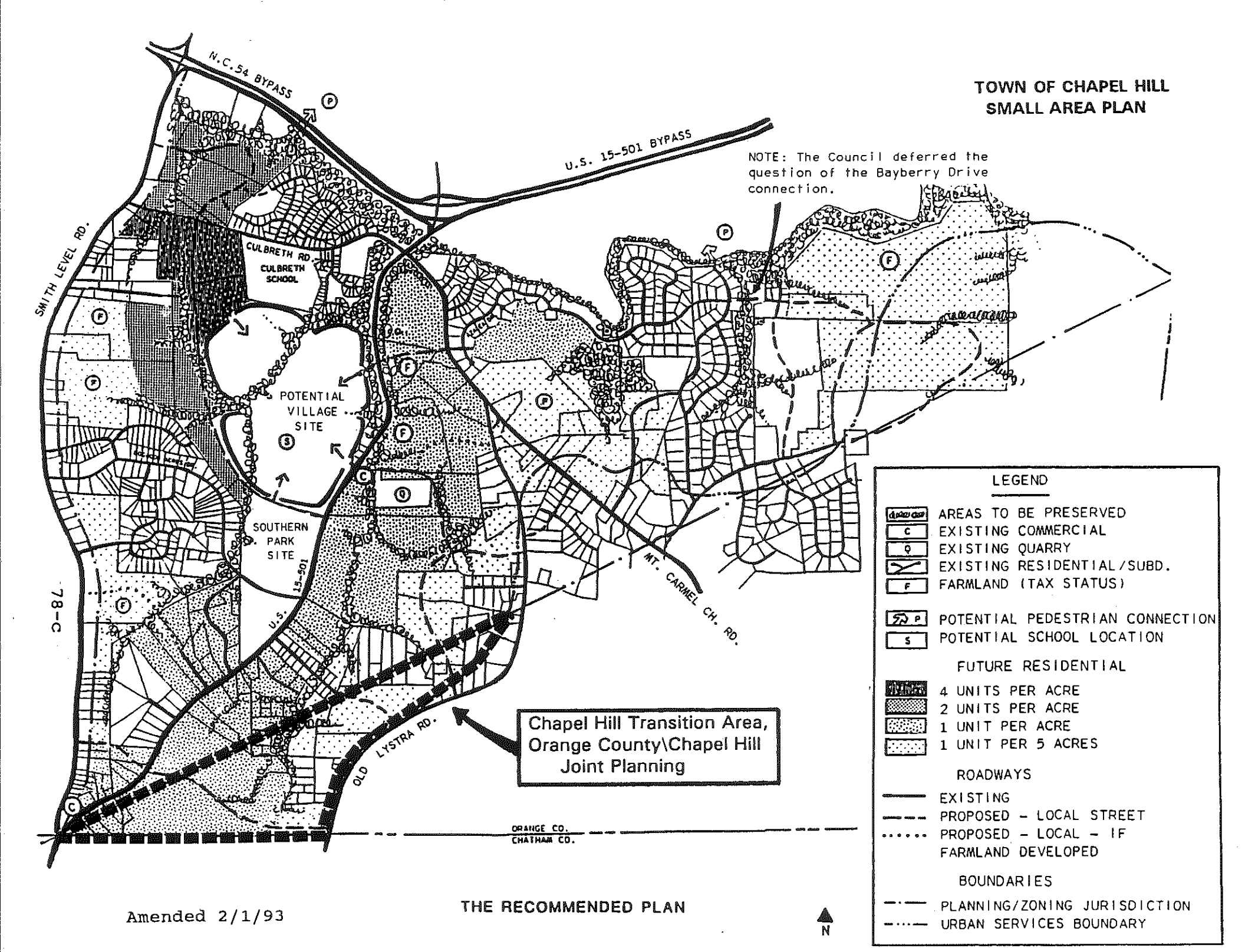
HILL
Chapel Hill Transition Area
Carrboro Transition Area
ETJ
ETJ
CHAPEL HILL
CARRBORO
Durham County
NEW HOPE CREEK CORRIDOR
OPEN SPACE
Wildlife Corridor
Proposed Nature Trail (Unpaved)
Proposed Bike & Pedestrian Trail
Amended 2-3-92
Effective 2-24-92
1" = 4000'
78-b



Amended 2/1/93

THE RECOMMENDED PLAN

The majority of land designated for Suburban Residential is situated in the Bolin Creek drainage basin north of Carrboro and Chapel Hill. Gravity sewer lines can be extended from existing lines to the south to service the area without a need for sewage pump stations. The Suburban or medium-density residential areas provide a step-down between higher densities to the south within municipal jurisdictions and lower density Rural Residential areas to the north. Such areas were initially located where stable soils exist, slopes range from 7- 1/2 to 15 percent and tree cover present, but were revised to reflect citizen comment at public hearings and neighborhood meetings.

There are an estimated 2,035 acres of land designated on the Land Use Plan for Suburban Residential purposes. If developed at an average density of two and one-half dwelling units per acre with 15% of the area subtracted out for streets and roads, the holding capacity of the area would be 4,325 dwelling units. Using the 1980 Census figure for population per household (2.6), the estimated population in Suburban Residential areas would be 11,245.

With more land designated Suburban Residential through the expansion and creation of Transition Area II, additional population growth will result. Transition Area II contains approximately 1,175 acres. If developed to similar densities as other Suburban Residential areas, it would contain approximately 2,495 dwellings and 6,487 people.

Urban Residential Areas

This category includes housing types identical to those found in Suburban Residential areas. However, densities are higher, ranging from six (6) to thirteen (13) units per acre. Land in the Urban Residential category is also located where public utilities and services are projected.

There is one area designated for urban residential which lies west of N.C. 86 at its intersection with Homestead Road. The area, which includes the existing Brookstone Apartment complex, has been situated in proximity to major thoroughfare intersections (collector and arterial streets) to diminish the possibility of large traffic volumes passing through lower density residential neighborhoods. The area has also been used to provide a buffer or step-down between low- density areas and business establishments, and to reduce traffic congestion and travel time for residents.

The higher density area was also located according to the natural constraints present on the land. Areas with relatively level slopes (0 to 7-1/2%), stable soils and clear of vegetation were initial location determinants but were revised to reflect citizen comment at hearings and neighborhood meetings. In the latter case, cleared areas were assumed to be more desirable for higher density developments rather than encouraging their location in areas where extensive tree removal would result.

There are approximately 62 acres of land designated for Urban Residential purposes on the Plan. Using the same

population per household figure (2.6) from the 1980 Census and assuming a minimum density of six dwelling units per acre, the estimated population residing in these areas would be 967.

The combined acreage in all residential categories, including Rural Residential Areas in the Rural Buffer, is 12,532. Subtracting out 15% of the area for streets and roads results in a net acreage of 10,662. The total population which would reside in the Joint Planning Area if completely built out, would be 23,743 persons. This is equivalent to an average population density of 2.2 persons per acre or slightly less than one dwelling unit per acre.

Population projections prepared by the Towns of Chapel Hill and Carrboro, if subtracted from projections for Chapel Hill Township, indicate an estimated population range of 15,000 to 38,300 persons residing in the Joint Planning Area. The holding capacity of the three residential categories designated on the Plan would approximate the middle range of the population projections.

Office/Institutional Areas

Office/Institutional Areas consist of establishments which offer an array of financial, insurance, real estate, legal, medical and business services. These types of uses are to be found primarily in Transition areas where public utilities and services are available. One major office/institutional area has been depicted on the Land Use Plan in conjunction with the Activity Node at N.C. Highway 86 and Interstate 40.

Office/Institutional areas were located adjacent to arterial and collector streets to reduce traffic congestion on local streets and travel times for customers and employees. Such areas have also been used to provide a land use buffer or step-down between more intensive retail areas and lower density residential neighborhoods. Flat and moderate slopes, soils with few stability problems and areas generally clear of vegetation were the initial environmental determinants used in locating office/institutional uses.

Approximately 130 acres of land have been designated Office/Institutional on the Land Use Plan. The amount is equivalent to providing 5.2 acres of Office/Institutional land per 1,000 population, based on the projected holding capacity of residential areas (25,116). The ratio is slightly less than the current figure (6.5/1,000) for the entire Joint Planning Area, including Chapel Hill and Carrboro.

Future UNC Development

This category is established for lands owned by the University of North Carolina, including Horace Williams Airport and adjacent parcels. Such lands are contemplated for expansion of the UNC campus, provided the Airport is relocated.

Retail Areas

No new retail areas have been designated in the Plan. Any substantial increase in retail acreage is expected to take place in the planning jurisdictions of Chapel Hill and Carrboro. The existing activity nodes of Calvander and Starpoint have been retained in Transition Areas, and there is room for modest expansion of low intensity commercial and service uses. The approximate retail area at Calvander is 13.8 acres.

In its Interim Land Use Plan, the Town of Chapel Hill has recommended small expansion of the Starpoint node. It is the Town's position "... that expansion of the area designated for commercial use will encourage development/redevelopment of Starpoint under current development regulations ..." and "... that these regulations (buffers, signage, etc.) will help assure attractive development."

Light Industrial Areas

The only area on the plan classified as industrial is a 20-acre tract north of Eubanks Road and east of the railroad tracks. The property is known as CHIP (Chapel Hill Industrial Park) and has been zoned Light Industrial since the mid 1970's. It has been retained in the plan as industrial to reflect its zoning history.

No new industrial areas have been identified in the plan. This is due, in large part, to numerous comments received at public hearings and public information meetings expressing opposition to industrial uses in the Joint Planning Area.

Disposal Uses

This Land Use Plan category has been established to identify sites which pose problems in terms of planning for appropriate land uses. Two such sites have been identified, the existing and future landfill sites along Eubanks Road.

The existing landfill site is bisected by Eubanks Road and lies immediately west of the railroad tracks. Estimates of remaining capacity in the landfill range from 8 to 12 years. The proposed landfill site lies immediately west of the railroad tracks about halfway between Eubanks Road and Homestead Road. It contains approximately 170 acres and was purchased jointly by Orange County and the towns of Chapel Hill and Carrboro. Prior to being used as a landfill, the site would require additional study as well as the issuance of a Class A Special Use Permit. A public hearing is required before a Class A Special Use Permit can be issued.

*THE RURAL BUFFER AREA

*Amended
4/2/90
2/3/92 (effective 2/24/92)

Eight categories of Rural Buffer land use have been depicted on the Land Use Plan. These categories include Resource

Protection Areas, Public-Private Open Space Areas, Agricultural Areas, Rural Residential Areas, Retail Trade Areas, Extractive Uses, and the overlay category designated University Lake Watershed Area.

Resource Protection Areas

As was the case with Transition Areas, Resource Protection Areas have been designated on the Land use Plan to include flood plains, and wetlands along drainage tributaries and steep slope areas (15% or greater). These areas form the basis for a comprehensive parks and open space system which provides the framework within which other land use categories are to function. Parks have been generally located throughout the Joint Planning Area using a neighborhood park one-half mile service radius. The parks, as well as portions of Duke Forest, are linked together by a system of greenways extending along drainageways, and pedestrian routes (sidewalks) along thoroughfares.

Public/Private Open Space Areas

Major land areas owned or controlled by both public and private interests in the Joint Planning Area have been designated on the Land Use Plan. These areas include the following:

1. Duke Forest;

2. University of North Carolina lands (excluding Horace Williams Airport and adjacent properties);

3. U.S. Government lands associated with conservation areas around the Jordan Lake Reservoir;

4. Orange Water and Sewer Authority lands associated with conservation areas around University Lake and raw water storage in the former quarry site on NC Highway 54; and

5. Camp New Hope conference and recreational center.

A Public/Private Open Space Area has also been designated along Interstate 40 to recognize the Major Transportation Corridor (MTC) district established to provide a 100-foot buffer along that route. The Plan recommends utilization of portions of the buffer to link proposed park and greenway areas together.

While the status of such holdings as Duke Forest, UNC lands and Camp New Hope is uncertain in the future, their continued existence appears likely during the planning period. This is due to the research, educational, forest management and recreational functions related to such areas. If decisions are made to change the use of such large tracts of land, negotiations should be initiated to secure the use of all or portions of the tracts for recreation and/or open space purposes. Such areas contribute greatly to the natural setting of the Joint Planning Area and every effort should be made to retain such features.

New Hope Creek Corridor Open Space Areas include some of the Resource Protection Areas and a portion of the Public/Private

Open Space Areas which were designated as significant and worthy of protection according to the New Hope Corridor Open Space Master Plan completed in April of 1991. (See Master Plan Map following Strategy Maps). The areas are part of a system of open space in Durham and Orange Counties along New Hope Creek and its tributaries between Eno River State Park and U.S. Army Corps of Engineers land north of Jordan Lake. This category is made up of critical environmental areas such as stream beds, floodplains, steep slopes, and larger tracts of historic, educational, or recreational value. The New Hope Corridor Open Space Master Plan describes these areas in detail and makes specific recommendations as to how they should be protected or utilized for environmental, educational, and/or recreational purposes.

Agricultural Areas

During the compilation of background information, a land use survey was conducted of the Joint Planning Area. The survey indicated those land areas currently in use for agricultural purposes. This information was further verified through the Orange County Tax Office to determine those farms which were qualified and listed for use value taxation purposes.

The Land Use Plan designates those farm and agricultural uses which are anticipated to continue in the same status during the planning period. Agricultural areas existing within Transition Areas are expected to change from rural to urban uses as Chapel Hill and Carrboro continue to grow and as public water and sewer services are expanded. Agricultural areas are located principally in University Lake Watershed but are also prominent along the northern perimeter of the Planning Area boundary. As development occurs in these areas, it will be of a very low-density nature and will generally consist of farm dwellings and outbuildings.

***University Lake Watershed Area**

*Amended
4/2/90

The University Lake Watershed Area includes all lands which drain into the University Lake reservoir. Based on a preferred watershed protection strategy of land use controls as recommended by Camp, Dresser and McKee in the University Lake Watershed Study, only low-density residential uses are permitted. A minimum lot size of five (5) acres and a maximum density of one (1) unit per five (5) acres is required for any development. Cluster subdivisions with lot sizes of not less than one (1) acre are also allowed as well as the creation of a limited number (5) of two-acre lots.

***Rural Residential**

*Amended
4/2/90

The Rural Residential category is a low-density area consisting of single-family homes situated on large lots two

acres in size or greater. The Rural Residential designation is identical to the Rural Buffer category contained in the current Orange County Land Use Plan. The Rural Buffer category is described in the Plan as land adjacent to an Urban or Transition area which is rural in character and which should remain rural; contain very low-density residential uses; and not require urban services (water and sewer) during the Plan period.

To the north of Chapel Hill and Carrboro in the New Hope Creek drainage basin, low-density residential development has taken place along Whitfield Road, Sunrise Road and Erwin Road. Residential developments similar to Sedgefield, Stoneridge, Oak Hills, Birchwood Lake Estates and Falls of the New Hope are expected to continue, relying on wells and septic tanks for water supply and sewage disposal.

To the west of Carrboro, Rural Residential development is also expected in University Lake Watershed. However, only low-density residential uses are anticipated. For this reason, residential development will continue to rely on wells and septic tanks for water supply and sewage disposal.

The remaining area designated for Rural Residential development is the Southern Triangle area in the extreme southeastern portion of the County. The area drains to the southeast toward Jordan Lake and is beyond the ridge line of the Morgan Creek basin, an area which can be served by gravity sewer lines. The Southern Triangle is also characterized by environmental constraints such as steep slopes, flood plains and soils with poor stability, so low-density development is projected.

There are approximately 9,260 acres of land designated for Rural Residential purposes in the Land Use Plan. If developed at an average density of one dwelling unit per two acres with 15% of the area subtracted out for streets and roads, the holding capacity of the area in terms of dwellings is 3,935. If multiplied by the 1980 Census figure for population per household (2.6), the estimated population would be 10,231.

Retail Trade Areas

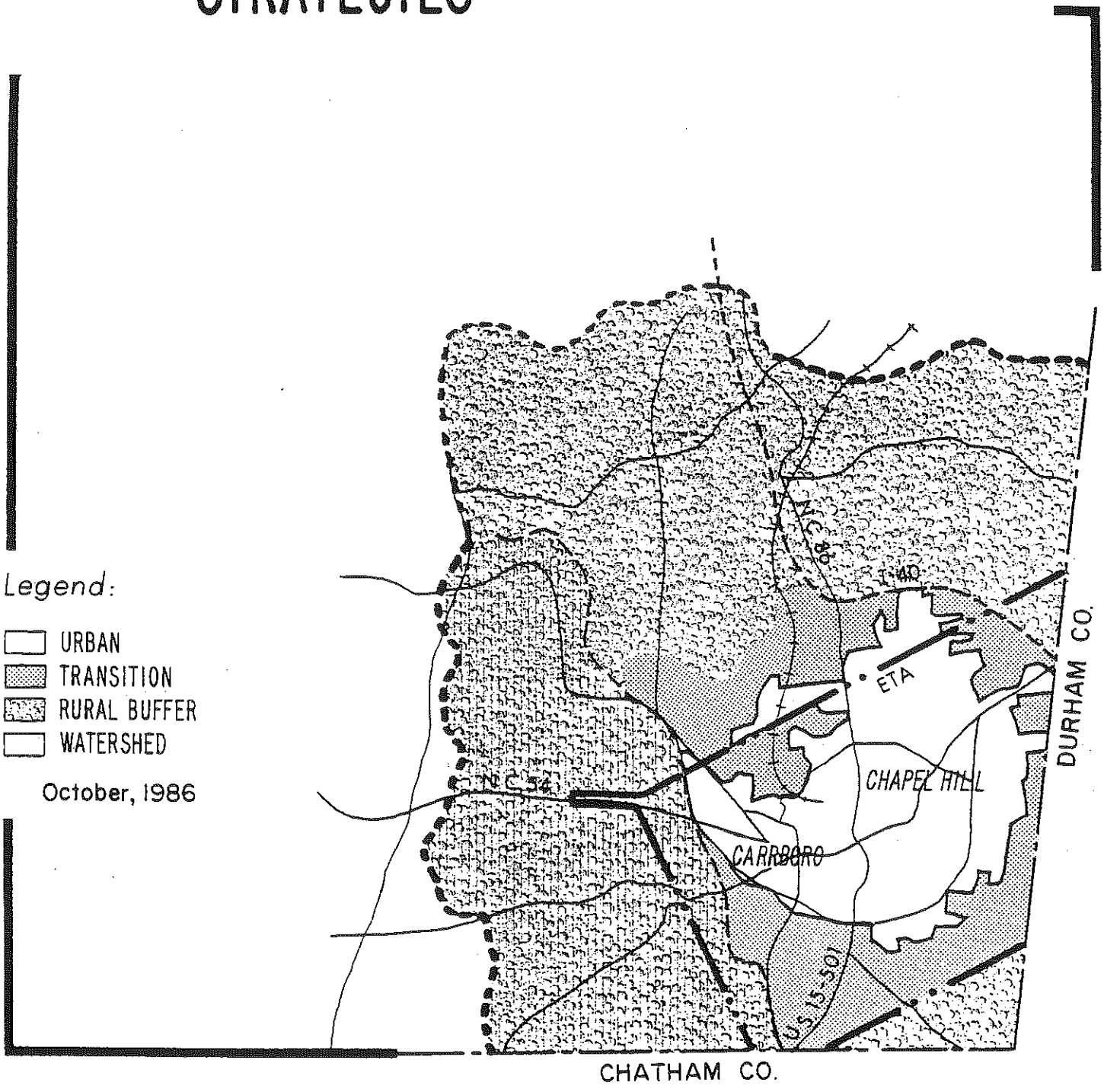
No new retail areas have been designated in the Rural Buffer. Any substantial increase in retail acreage is expected to take place in the planning jurisdictions of Chapel Hill and Carrboro.

The existing activity node at Blackwood Station has been retained, and there is room for modest expansion of low intensity commercial and service uses. The approximate retail acreage at Blackwood Station is 16.1 acres.

Extractive Uses

This Land Use Plan category, along with Disposal Uses in Transition Areas, has been established to identify sites which pose problems in terms of planning for appropriate land uses. One such site has been identified in the Rural Buffer, the American Stone Quarry west of Carrboro on N.C. Highway 54.

VII. OVERVIEW OF IMPLEMENTATION STRATEGIES



VII.

OVERVIEW OF IMPLEMENTATION STRATEGIES

The awareness and desire for appropriate and managed growth and use of the land which led to the conception and development of the Joint Planning Area Land Use Plan will remain merely a "good idea" unless a commitment is made to translate the concept into physical form through adoption and implementation. As the long-range planning framework, it should be considered in day-to-day decision-making and implementation of policies affecting the use of land.

The success of the planning activity, however, is dependent on the degree to which public and private development actions and decisions are coordinated since the Plan is not "self-executing". Legal, financial and administrative tools must be utilized effectively. These implementation tools include a zoning ordinance, subdivision regulations, sedimentation and erosion control ordinance, a flood damage prevention ordinance, building and fire codes, water and sewer extension policies, a thoroughfare plan, public investments, coordination with other plans, and public education and awareness.

Zoning Ordinance

The Zoning Ordinance is the major legal tool for implementing the Land Use Plan. The Zoning Ordinance serves as the means to achieve the desired relationships between land uses, to prevent incompatible land use associations, and to encourage and provide incentives for the more compact and efficient land use patterns delineated in the Plan. Simply stated, zoning is the division of a jurisdiction into different districts and the regulation within those districts of the density of population, intensity of the use of buildings and land, and lot coverage and required setbacks. Most zoning ordinances divide land uses into three general categories of residential, commercial and industrial uses and specify the areas where each of these uses is permitted.

Upon completion and adoption of the Land Use Plan, a zoning map for the Ten and Twenty Year Transition Areas will be prepared. Orange County is to adopt, on the Chapel Hill side of the Joint Planning Area located within the Ten and Twenty Year Transition Area, that portion of the Land Use Plan, zoning map, and development standards of the Chapel Hill development ordinance which shall be applicable to the Chapel Hill side. Similar provisions would be applicable on the Carrboro side of the Joint Planning Area.

Subdivision Regulations

Subdivision Regulations govern the conversion of raw land for intensive use. They serve as the means to secure a well designed and coordinated pattern of streets, lots and utilities in advance of subdivision, given the relative permanence of the character of the subdivision once completed. This implementation tool is particularly necessary to coordinate existing and potential future development with proposed development. As the interest of the developer is generally short term, the application of subdivision regulations protects not only the individual homeowner, but also the general public by providing for a review process which suggests and facilitates coordination of the proposal with the long range specifications of the Plan. By providing an opportunity for negotiation it likewise allows for the potential coordination of public and private activities.

Dedication of resource protection areas during the subdivision process, has been approved as another means of acquiring such areas. However, all sites do not contain resource protection areas. In such situations, "payment-in-lieu" is a technique designed to more equitably distribute the costs of preserving resource protection areas. The developer of a site not containing defined resource protection areas would be required to make a payment toward the purchase and/or development of resource protection areas elsewhere. Monies from "payment-in-lieu" would, in turn, be used to purchase and/or develop resource protection areas where the dedication process would not be applicable, as in the case of areas already developed or areas not proposed or suitable for development.

Erosion and Sedimentation Controls

Soil erosion has been and is a serious problem in the Piedmont of North Carolina, resulting in land degradation and water supply deterioration. The Orange County Sedimentation and Erosion Control Ordinance, adopted in 1976, provides the legal means by which the adverse impacts of land disturbing development activities can be minimized. The Ordinance serves to control and prevent accelerated soil erosion, maintain the ecological balance, prevent the obstruction of natural and artificial drainageways, inhibit flooding, reduce the undermining of roads and protect water quality.

Orange County presently administers a strong erosion and sedimentation control program for the entire County, including the Towns of Chapel Hill, Carrboro, Hillsborough and Mebane. Before a construction permit is granted, a developer must submit an erosion and sedimentation control plan to the County's erosion control officer. These plans include the type of soils present on site, the topography and location of nearby streams, erosion control measures to be taking during construction, and the operation and maintenance of any structural controls during the life of the project.

Flood Damage Prevention Ordinance

Orange County is a participant in the National Flood Insurance Program of 1974. The County was admitted into the program on March 2, 1980 upon acceptance of the proposed Flood Damage Prevention Ordinance by the Federal Emergency Management Agency. The adoption of the Flood Damage Prevention Ordinance for Orange County provides a means for prohibiting or restricting development within areas environmentally constrained by floodways and floodplains. This ordinance seeks to prevent property loss, insure human safety and enable the safe and natural flow of streams.

Codes

Building, plumbing, electrical, mechanical, and housing codes protect the health, safety and welfare of individuals in the community by establishing minimum standards for individual structures. These codes supplement the broader influence of the Zoning and Subdivision Ordinances and are enforced throughout the county and in the Town of Hillsborough by the Orange County Planning and Inspections Department. The Towns of Chapel Hill and Carrboro are responsible for enforcing the codes within the municipal jurisdictions.

Thoroughfare Plan

A major functional plan and integral element of the comprehensive Land Use Plan is a thoroughfare plan. A thoroughfare plan addresses the means and manner of transporting goods and people throughout the County and into and from adjacent counties. The major purpose of the thoroughfare plan is to assess the capacity of the existing system in terms of future development requirements. A Thoroughfare Plan is premised on a road classification system which specifies the level of service provided by each road in the network.

As the location and type of transportation system serving the County is inextricably tied to the pattern of land use, a thoroughfare plan for the County should be completed in the immediate future. The County has developed the Orange County Highway Classification System and Map which identifies major roads in the County that currently provide the greatest level of transportation service as major arterials and collectors.

The Towns of Chapel Hill and Carrboro adopted a Thoroughfare Plan in 1984 and, along with the N.C. Department of Transportation, are currently in the process of revising and updating this plan to meet the future transportation needs. This revision is regional in scope in that it covers all of Durham County, the Research Triangle Park portion of Wake County, northern Chatham County, and the major urban areas of Orange County. In addition, the Town of Hillsborough in conjunction with NCDOT will begin working on a new thoroughfare plan during

the spring of 1986. Following this, Orange County has requested NCDOT assistance in designing a thoroughfare plan for the rural areas of the County.

Economic Development Plan

The physical land use planning activity cannot be separated from economic considerations. In determining the appropriate pattern of land use for the County an assumption is implicitly made regarding the type of growth favored and the response of the economy to such growth. Conscious efforts to broaden and diversify the economic base of the area and promote certain forms of economic development should complement physical planning considerations affecting land use patterns, particularly as they impact on the maximization of opportunities for County residents for housing, work and environmental protection. An economic development plan and related policies would significantly contribute to reducing potential problems resulting from inappropriate economic development patterns.

*Sewer and Water Extension Policy

*Amended
4/2/90

A sewer and water extension policy refers to an official or unofficial policy or policies regarding the expansion of centralized sewer and water systems into previously unserviced areas. The presence or absence of water and sewer facilities significantly affects location and intensity of development in a given area. Without the provision of centralized sewage collection and disposal, land can only be developed for rural uses and at rural densities.

The Orange Water and Sewer Authority (OWASA) is the provider of water and sewer in the Joint Planning Area. OWASA policy is to extend water and sewer in accordance with the adopted policies of the applicable local governments. Current Orange County policy is to approve water and sewer extensions generally only to recognized Transition Areas, and, outside of Transition Areas, to approve extensions of water or sewer systems only to provide service to an essential public service, such as a school, or to remedy a public health emergency, such as a failing septic tank or failing package treatment plant.

Refinements to this policy have been recommended as part of Joint Planning Area implementation strategies. Under consideration currently is a temporary prohibition on public water extensions in University Lake watershed until a study can be undertaken of the advisability of extending such service. Furthermore, either an out- right prohibition or a temporary prohibition on public sewer extensions appears likely, excepting sewer service extensions to remedy a public health emergency. If a temporary prohibition is adopted, the provision of sewer

service in the watershed would be reconsidered following a study regarding the advisability of such extensions.

Public Investments

Development of a capital improvements program and budget is a key implementation tool. It requires integrating both County and municipal plans with recommendations and priorities for programming the fiscal outlay for capital improvements during the plan period. This administrative tool provides decision-makers with guidance mechanisms aimed at coordinating the improvement of the provision of public services and facilities with the private development they are intended to serve. In particular the provision of water and sewer facilities, roads, schools and parks, among others, should be considered and approved in light of their development inducing impact on a specific area.

***Coordination with other Plans**

*Amended 2/2/99

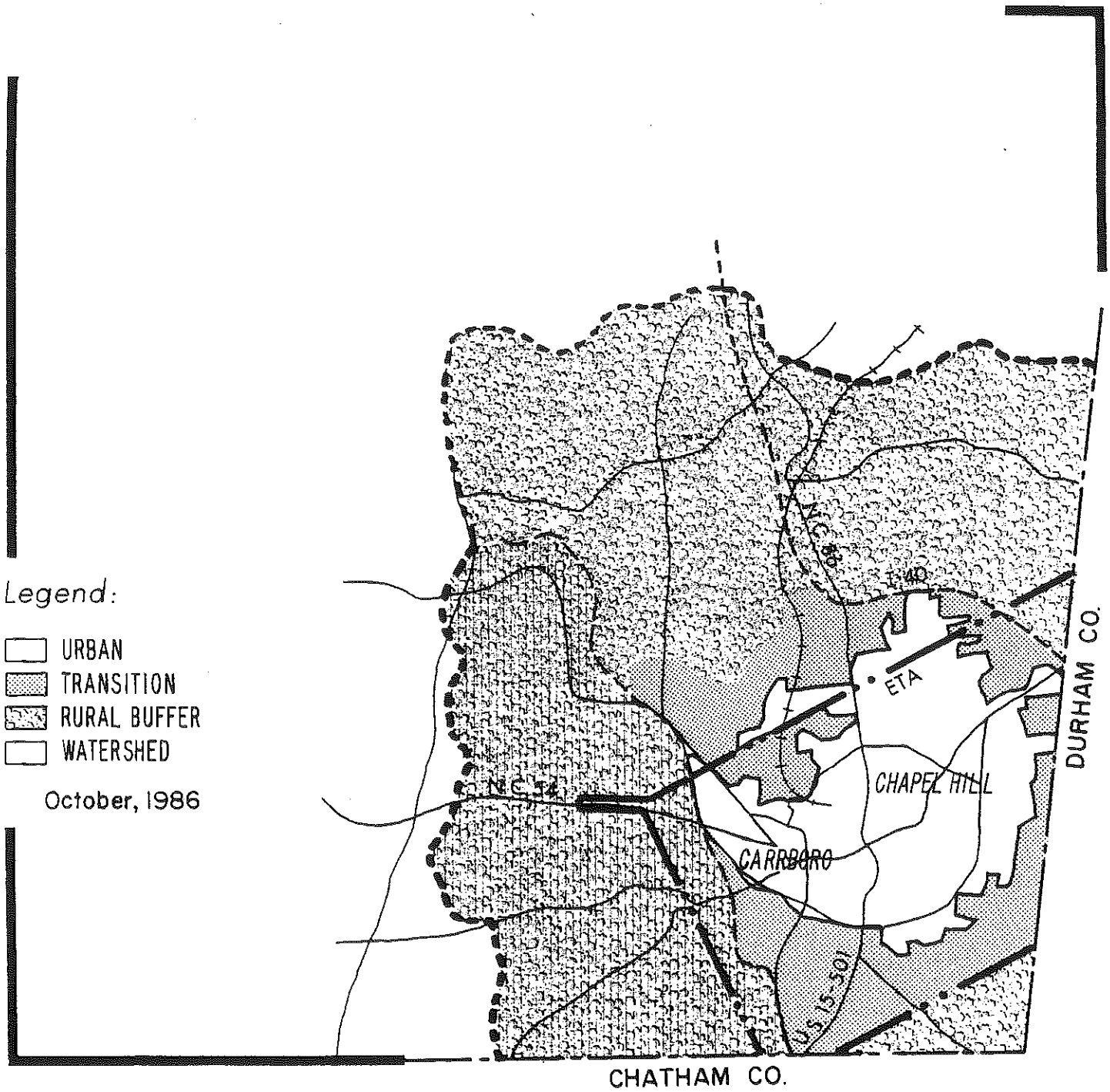
A successful and acceptable planning program necessitates the maximization of coordination between the Land Use Plan and other official plans and policies and the minimization of "conflicting signals". The Plan should seek consistency with existing local, regional, state and federal plans and policies.

*Without limiting the generality of the foregoing, the "Facilitated Small Area Plan for Carrboro's Northern Study Area," accepted by the Carrboro Board of Aldermen on August 19, 1997 and revised December 1998, is specifically incorporated by reference into this Plan and supersedes any provisions of this Plan that are inconsistent with the Small Area Plan with respect to the CJDA Transition Area.

Public Education and Awareness

The primary and most effective implementation tool is the acceptance and commitment of the general citizenry to the concept of the planning process and the product evolving from that process: a Land Use Plan. Since the planning process necessitates tradeoffs between the public and private use of land in a legal climate where property ownership and use is highly revered, public awareness and support and, consequently, public participation in the process should be facilitated and encouraged.

APPENDIX


Legend:
URBAN
TRANSITION
RURAL BUFFER
WATERSHED
October, 1986
N.C. 86
ETA
CHAPEL HILL
CARRBORO
NC 54
US-15-501
DURHAM CO.
CHATHAM CO.

APPENDIX A

Joint Planning Agreement

September 22, 1987
Amended April 2, 1990
Amended September 30, 1998
Amended February 2, 1999
Amended August 20, 2002
Amended June 24, 2003

JOINT PLANNING AGREEMENT

THIS AGREEMENT, made and entered into this 2nd day of November, 1987, by and between the COUNTY OF ORANGE, a political subdivision of the State of North Carolina, the TOWN OF CHAPEL HILL, and the TOWN OF CARRBORO, municipal corporations duly created and existing under the laws of North Carolina.

WITNESSETH:

In consideration of the public benefits expected to flow from the cooperative efforts of the parties in establishing a coordinated and comprehensive system of planning within their respective areas of public concern, the parties to this Agreement hereby mutually agree as follows:

ARTICLE 1. PURPOSE, DEFINITIONS, EFFECTIVE DATE, LINKAGE

Section 1.1 Purpose of the Agreement

The purpose of this Agreement is to establish a method of coordinated and comprehensive planning in the Orange County-Chapel Hill-Carrboro Joint Planning Area, as defined herein.

Section 1.2 Definitions

A. Joint Planning Area. The area within the Rural Buffer and Transition Areas designated on the Joint Planning Area Land Use Map lying outside the extraterritorial planning jurisdiction of Chapel Hill and Carrboro.

B. Joint Planning Area Land Use Plan. The Orange County-Chapel Hill-Carrboro Joint Planning Land Use Plan dated April, 1986, adopted by Orange County August 19, 1986 (revised October 13, 1986), amended May 4, 1987 and as it may be amended from time to time.

C. Joint Planning Area Land Use Map. The Orange County-Chapel Hill-Carrboro Joint Planning Area Land Use Map, adopted August 19, 1986 (revised October 13, 1986) and as it may be amended from time to time.

D. Carrboro Joint Development Review Area (CJDA). The area lying generally west of a division of the Joint Planning Area and shown as such on the copy of the Joint Planning Area Land Use Map attached to this Agreement, labeled Exhibit A, and incorporated herein by reference. Exhibit A is appended to this Agreement solely for the purpose of indicating the CJDA and the CHJDA boundary. Exhibit A is an accurate copy of the Joint Planning Area Land Use Map as of the effective date of this agreement. However, it will only be changed as the Joint Planning Area Land Use Map is amended if the Map amendments change the location of either the CJDA or the CHJDA.

E. Chapel Hill Joint Development Review Area (CHJDA). The area lying generally east of a division of the Joint Planning Area and shown as such on the copy of the Joint Planning Area Land Use Map attached to this Agreement, labeled Exhibit A, and incorporated herein by reference. Exhibit A is appended to this Agreement solely for the purpose of indicating the CJDA and the CHJDA boundary. Exhibit A is an accurate copy of the Joint Planning Area Land Use Map as of the effective date of this

agreement. However, it will only be changed as the Joint Planning Area Land Use Map is amended if the Map amendments change the location of either the CJDA or the CHJDA.

F. Joint Courtesy Review Area. A portion of the northern Rural Buffer Area bounded on the east by I-40 and shown as such on Exhibit A.

G. Rural Buffer. That portion of the Joint Planning Area designated on the Joint Planning Area Land Use Map as such and designated in the Joint Planning Area Land Use Plan as Rural Residential, Agricultural, Public/Private Open Space, Resource Conservation, Extractive/Disposal Use and the overlay district designated University Lake Watershed Area. This area is further defined as being a low-density area consisting of single-family homes situated on large lots having a minimum size of two (2) acres. The Rural Buffer is further defined as land which, although adjacent to an Urban or Transition area, is rural in character and which will remain rural, contain low-density residential uses and not require urban services (public utilities and other town services).

H. Transition Area. That portion of the Joint Planning Area designated on the Joint Planning Area Land Use Map as such. This area is further defined as being in transition from rural to urban or already urban in density. Urban services (public utilities and other town services) are now provided to this area or are projected to be provided to this area. The portion of the Transition Area located in the CJDA shall be further divided into Transition Area I and Transition Area II on the Joint Planning Area Land Use Map. The Joint Planning Area Land Use Plan shall provide that, within

Transition Area II, no tract may, after the effective date of this Agreement, be approved for development at a density that exceeds one (1) housing unit per gross acre until at least 75% of the gross land area of Transition Area I consists of any combination of:

1. lots containing one acre or less;
2. residential developments approved for development at a density of at least one unit per acre;
3. streets, roads and utility easements located outside of lots containing one acre or less;
4. lots or tracts that are used for commercial, industrial, institutional or governmental purposes;
5. tracts that are owned by the University of North Carolina or other non-profit entities and that are not available for development.

This density limitation does not apply to Village Mixed Use districts or Office/Assembly districts as provided for in the Facilitated Small Area Plan for Carrboro's Northern Study Area.

I. Development Permit. Major subdivision preliminary plat approval and any discretionary permit (whether called conditional or special use permit or some other term) issued by the Orange County Board of Commissioners, the Chapel Hill Town Council, or the Carrboro Board of Aldermen.

J. Involuntary Annexation. Annexation authorized or undertaken pursuant to G.S. 16OA-31, Article 4A, Part 3.

K. Voluntary Annexation. Annexation authorized or undertaken pursuant to G.S. Chapter 16OA-31 or G.S. Chapter 160A, Article 4A, Part 4.

Section 1.3 Effective Date and Duration

A. This Agreement, except as provided below, shall become effective on the effective date of an Orange County ordinance (1) adopting this Agreement (after it has been approved by Chapel Hill and Carrboro); (2) amending Orange County's Zoning Ordinance (including Zoning Atlas) and Subdivision Regulations as prescribed in Section 2.1 of this Agreement; (3) amending the Joint Planning Area Land Use Plan to reflect the existence of Transition Area I and Transition Area II; and (4) amending the Joint Planning Area Land Use Map to show the location of Transition Area I and Transition Area II as indicated on Exhibit A. Any previously adopted Agreements shall become null and void upon this date. The Appendix to this Agreement shall become effective upon the execution of this Agreement.

B. This Agreement, including any Appendix hereto, shall remain in effect until terminated by mutual agreement or by withdrawal of any party. Subject to termination provisions of this Agreement, annexation provisions of this Agreement shall be valid for not more than 20 years and may thereafter be renewed. A party may not withdraw until it holds a public hearing on the proposed withdrawal followed by written notices to the other parties within thirty (30) days of the public hearing. The withdrawal shall be effective one (1) year following receipt by the other party of the written notice. Withdrawal of one party shall not invalidate the Agreement with respect to remaining parties.

C. Upon execution of this Agreement, the parties agree that each will take, in a timely manner and without unnecessary delay, all steps (including but not limited to preparation and adoption of Zoning maps, appointment of Transition Area representatives to Planning Boards and Boards of Adjustment, and all required land use ordinance amendments) required to cause this Agreement to become effective, and will notify the other parties when those steps have been taken. Orange County will notify the Towns by resolution when this Agreement becomes effective. This Agreement may become effective as to two parties pending completion of steps necessary to make effective a 3-party Agreement.

Section 1.4 Linkage with the Water and Sewer Management, Planning and Boundary Agreement

The Water and Sewer Management, Planning and Boundary Agreement (hereinafter WSMPBA) is incorporated into this agreement by reference. A copy of the WSMPBA is Exhibit B to this agreement. Termination of the WSMPBA does not terminate this agreement. The withdrawal by a party from the WSMPBA does not constitute withdrawal from this agreement. Termination of this agreement or withdrawal from this agreement can only be accomplished as provided in this agreement.

ARTICLE 2. ADOPTION, ADMINISTRATION AND AMENDMENT OF STANDARDS

Section 2.1 Standards Within the Transition Area

A. Chapel Hill shall prepare a Zoning Map for that portion of the Transition area that lies within the CHJDA and shall recommend its adoption by Orange County which, upon

approval and adoption as prescribed in Subsection C of this Section, shall become part of the Orange County Zoning Ordinance. The Zoning Map shall be prepared using zoning districts which correspond to the text of the Chapel Hill Land Development Ordinance and which correspond with the density designations and plan classifications as prescribed in the adopted Joint Planning Area Land Use Plan and the adopted Joint Planning Area Land Use Map for the CHJDA.

B. Carrboro shall prepare a Zoning Map for that portion of the Transition area that lies within the CJDA and shall recommend its adoption by Orange County, which upon approval and adoption as prescribed in Subsection C of this Section, shall become part of the Orange County Zoning Ordinance. The Zoning Map shall be prepared using zoning districts which correspond with the density designations and plan classifications as prescribed in the adopted Joint Planning Area Land Use Plan and the adopted Joint Planning Area Land Use Map for the CJDA. Transition Area II shall have density limited pursuant to Section 1.2H.

C. Upon completion of the Zoning Maps referred to in Section 2.1A and B above, Orange County shall amend its Zoning Atlas in accordance with said Maps. Orange County shall also adopt by reference (i) the Chapel Hill Land Development Ordinance and make its provisions applicable to that portion of the Transition area located within the CHJDA, and (ii) the Carrboro Land Use Ordinance and makes its provisions applicable to that portion of the Transition area located within the CJDA.

Section 2.2 Standards Within the Rural Buffer

Within the Rural Buffer, the Orange County Zoning Ordinance (including Zoning Atlas) and Subdivision Regulations that are in effect on the effective date of this Agreement shall remain in effect unless amended in accordance with Section 2.6 of this Agreement.

Section 2.3 Permit Administration Within the Transition Area

A. Except as otherwise provided in Sections 2.5 and 2.6, the Town of Chapel Hill and the Town of Carrboro, respectively, shall perform all functions related to the administration of the ordinances referenced in Section 2.1C. Subject to the remainder of this Section, Chapel Hill and Carrboro shall administer the referenced ordinances just as if the land were located within the respective Towns' planning jurisdictions. Administration shall include, but not be limited to, the following:

1. Receipt and processing of applications;
2. Issuance of any required permits and certifications;
3. Review and approval of required site/construction plans;
4. Conducting necessary site/building inspections;
5. Enforcement of all standards;
6. Any other acts or things necessary to administer the Ordinances;

and shall be carried out in a manner so as to insure that a developer complies with all applicable ordinance requirements and the terms and conditions of any permit issued by the respective towns. The towns may also charge fees for processing applications, conducting site/construction plan reviews, and carrying out site/building inspections in accordance with fee schedules applicable within their respective planning jurisdictions.

B. Whenever Chapel Hill or Carrboro receives an application for a development permit as defined in this Agreement relating to land within their respective portions of the Transition area, it shall forward copies of the application to Orange County for review. The towns shall establish timetables to insure that Orange County has an opportunity to make recommendations regarding such applications within the framework of the County's regularly scheduled meeting dates. To the extent possible, the timetables of the County and the towns shall provide for simultaneous review to expedite application processing; provided, however, the towns may not vote to issue or deny a permit until they have received the recommendations of Orange County or until the expiration of forty-five (45) days after orange County has received the application, whichever comes first.

C. From time to time a development moratorium is appropriate in order to address exigent circumstances or the results of a study of density designations, plan classifications or other matters prescribed by the adopted Joint Planning Area Land Use Plan, the Joint Planning Area Land Use Map or any of the land use ordinances of the Town of Chapel Hill or the Town of Carrboro. To preserve the status quo pending the consideration of a land use ordinance amendment designed to address exigent circumstances or the results of a study, the Town of Carrboro or the Town of Chapel Hill may propose the adoption of a development moratorium pending consideration of the ordinance amendment. With respect to the CJDA, any proposed moratorium shall not be effective until adopted by the Town of Carrboro and approved by Orange County following a public hearing conducted by the Town of Carrboro. With respect to the CHJDA, any proposed moratorium shall not be effective until adopted by the Town of Chapel Hill and approved by Orange County

following a public hearing conducted by the Town of Chapel Hill. Any such adopted and approved moratorium shall initially be no more than six months in duration and may be extended one time for no more than six months for the reasons and following the procedures prescribed here.

Section 2.4 Permit Administration in the Rural Buffer

A. Except as otherwise provided in Section 2.6 and the remaining provisions of this Section, Orange County shall perform all functions related to the administration of the ordinances referenced in Section 2 .2 in the same manner as if the land were located outside the Joint Planning Area.

B. Whenever Orange County receives an application for a development permit relating to land located within the CHJDA Rural Buffer or the Joint Courtesy Review Area, it shall forward copies of the application to Chapel Hill for review. Similarly, whenever Orange County receives an application for a development permit relating to land located within the CJDA Rural Buffer or the Joint Courtesy Review Area, it shall forward copies of the application to Carrboro for review. The County shall establish timetables to insure that the towns have an opportunity to make recommendations regarding such applications within the framework of their respective regularly scheduled meeting dates. To the extent possible, the timetables of the respective towns and the County shall provide for simultaneous review to expedite application processing; provided, however, Orange County may not vote to issue or deny a permit until it has received the recommendations of the respective Towns or until the expiration of forty-five (45) days after the respective towns have received the application, whichever occurs first.

C. From time to time a development moratorium is appropriate in order to address exigent circumstances or the results of a study of density designations, plan classifications or other matters prescribed by the adopted Joint Planning Area Land Use Plan, the Joint Planning Area Land Use Map or any of the land use ordinances of Orange County. To preserve the status quo pending the consideration of a land use ordinance amendment designed to address exigent circumstances or the results of a study, Orange County may propose the adoption of a development moratorium pending consideration of the ordinance amendment. Any proposed moratorium shall not be effective until adopted by Orange County following a public hearing conducted by Orange County. Any such adopted moratorium shall initially be no more than six months in duration and may be extended one time for no more than six months for the reasons and following the procedures prescribed here.

Section 2.5 Enforcement Remedies.

A. Permit revocation, if necessary and authorized by ordinance, shall be handled by the same individual or board authorized to issue the original permit.

B. Within those portions of the Joint Planning Area where the ordinances specified in Section 2.1C are administered by the respective towns, enforcement efforts through the use of civil penalties, criminal penalties or injunctive relief shall be initiated by the respective towns. The towns shall have the duty to defend at their own expense and shall indemnify and hold harmless, to the extent they can legally do so, Orange County, its Board of Commissioners, its advisory boards, its staff and all members of its boards and staffs, in their official and individual capacities, from any and all claims, actions, proceedings,

expenses, damages or liabilities, including attorneys' fees and courts costs, resulting from the towns' administration of the ordinances specified in Sections 2.1(C).

C. Orange County shall notify the respective towns and the towns shall notify Orange County as soon as practicable thereafter of any such claim, action or proceeding.

Section 2.6 Text and Map Amendments

A. Proposed amendments to the Joint Planning Area Land Use Plan and/or the Joint Planning Area Land Use Map may be initiated by (i) Orange County or (ii) the Towns or any other party by filing a request for such an amendment with Orange County. Any petition or request to amend the Joint Planning Area Land Use Plan received by the County shall be referred to the respective Towns. No such amendment may become effective until after it has been adopted by Orange County, Chapel Hill and Carrboro following a joint public hearing by all three governing bodies.

B. Except as provided herein, proposed amendments to the text of the Orange County Zoning and Subdivision Ordinances that are applicable within the Rural Buffer as well as proposed changes in zoning district classifications (i.e., zoning map changes) that affect property within the Rural Buffer shall be initiated and adopted in accordance with the procedures set forth in those County ordinances. All such proposals that affect the CHJDA shall be referred to Chapel Hill for review and recommendation, and all such proposed amendments that affect the CJDA shall be referred to Carrboro for review and recommendation. Orange County may not adopt such proposed amendments until the respective Towns have made their recommendations, or until the expiration of thirty (30) days following such referral, whichever occurs first.

C. Whenever Chapel Hill proposes to amend the text of its Land Development Ordinance, and whenever Carrboro proposes to amend the text of its Land Use Ordinance, the respective towns shall deliver a copy of the full text of the proposed amendment to Orange County not later than thirty (30) days before the date of the public hearing on any such amendment. However, with the written consent of the Orange County Manager or his designate, this thirty (30) day period may be reduced to not less than ten (10) days. Unless Orange County files with the respective towns a written objection on or before the date of the public hearing on the proposed ordinance amendment, then adoption of the amendment by the respective town shall automatically effect a corresponding amendment to the applicable ordinance adopted by reference by Orange County as provided in Section 2.1C. Any such objection shall be based on a determination by Orange County that the proposed amendment is inconsistent with the adopted Joint Planning Area Land Use Plan. If a town adopts an amendment despite Orange County's objection, then it shall refer such amendment to Orange County with a request that the County make corresponding changes as expeditiously as reasonably possible so that the town may continue to enforce within its portion of the Transition area the same standards that it enforces within its own planning jurisdiction. In the event of objection by Orange County as provided herein, no such amendment shall be effective within the Joint Planning Area until it is adopted by Orange County.

D. Orange County may not unilaterally amend the text of its zoning or subdivision ordinances applicable to the Transition areas (i.e., those ordinances adopted by reference pursuant to Section 2.1C). Amendments to the ordinances referenced in Section 2.1C by Orange

County may be accomplished only pursuant to subsection C above (including adoption by Orange County following a request to do so by the applicable town). Any petitions or request to amend these ordinances received by the County or initiated by the County shall be referred to the respective Towns.

E. With respect to property that is located within the CHJDA Transition area, changes in zoning classifications may not be made unless and until an ordinance approving such zoning map amendment has been approved both by Orange County and Chapel Hill following a joint public hearing by the two governing bodies. With respect to property that is located within the CJDA Transition area, changes in zoning classifications, including the creation of or changes to the 'floating' conditional use districts designed to implement the recommendations of the 'Facilitated Small Area Plan for Carrboro's Northern Study Area' (Village Mixed Use conditional use districts or Office/Assembly conditional use districts) may not be made unless and until an ordinance approving such zoning map amendment has been approved both by Orange County and Carrboro following a joint public hearing by the two governing bodies. Requests for rezonings within the Transition areas that are filed with the County shall be referred to the respective towns to initiate the amendment process.

F. Proposed amendments to the text of this Agreement shall not become effective until approved by the towns and an Orange County ordinance adopting the amendment is adopted by Orange County.

Section 2.7 Representation of Transition Area Residents

Chapel Hill shall revise its Land Development Ordinance and Carrboro shall revise its Land Use Ordinance to provide that at least one resident of each town's respective Transition area shall be appointed to each town's respective planning board and board of adjustment, in the same manner as representation of extraterritorial planning area residents is provided for in each Town's ordinance.

ARTICLE 3. LIMITATIONS ON ANNEXATIONS

Section 3.1 No Annexation Into Rural Buffer

Except pursuant to the written consent of all parties to this Agreement, neither Chapel Hill nor Carrboro may annex into the Rural Buffer (whether by voluntary or involuntary annexation or any other method authorized by law) nor shall any party seek special legislation accomplishing such annexation.

Section 3.2 No Annexation by One Town Into Another Town's Transition Area

Except pursuant to the written consent of the other town, neither Chapel Hill nor Carrboro may annex into the other's Transition area (whether voluntary or involuntary annexation) or any other method authorized by law, nor shall either Town seek special legislation accomplishing such annexation.

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THIS AGREEMENT entered into this 2nd day of November, 198 7.

Shirley E. Marshall
Chair, Orange County Board of Commissioners

Attest:

Beverly A. Blythe
Clerk to the Board of Commissioners

James C. Williams
Mayor, Town of Chapel Hill

Attest:

Town Clerk

James V. Potts Jr.
Mayor, Town of Carrboro

Attest:

Sarah C. Williamson
Town Clerk

APPENDIX TO
JOINT PLANNING AGREEMENT
AMONG ORANGE COUNTY, CHAPEL HILL
AND CARRBORO

WHEREAS, Orange County, Chapel Hill and Carrboro have executed a Joint Planning Agreement which agreement is that to which this Appendix pertains; and

WHEREAS, a Joint Planning/Watershed Work Group, including representatives of the Towns of Carrboro and Chapel Hill and Orange County, developed an "Outline of Agreement in Principle" containing thirteen (13) statements of principle; and

WHEREAS, the governing boards of Carrboro, Chapel Hill and Orange County have, by resolution, each approved in concept the "Outline of Agreement in Principle;" and

WHEREAS, the Joint Planning Agreement to which this Appendix pertains implements those matters in the "Outline of Agreement in Principle" upon which there is agreement among Carrboro, Chapel Hill and Orange County except as provided in this Appendix; and

WHEREAS, Carrboro, Chapel Hill and Orange County wish to fully implement those matters in the "Outline of Agreement in Principle" upon which there is agreement.

Carrboro, Chapel Hill and Orange County hereby mutually agree as follows:

1. They have requested OWASA to commission a University Lake Watershed carrying capacity study. They will request OWASA to commission a carrying capacity study for the Cane Creek Watershed. The University Lake Watershed study shall be completed as soon as reasonably possible.

2. For the period of time ending ninety (90) days following the completion of the University Lake carrying capacity study the following restrictions on Carrboro, Chapel Hill and Orange County shall apply:

a. Except pursuant to the written consent of all three parties, neither municipality may annex into the University Lake Watershed (whether by involuntary or voluntary annexation or any other method authorized by law) nor shall either town seek special legislation accomplishing such annexation.

b. Except pursuant to the written consent of all three parties, no party shall seek or approve or encourage extension of water and sewer lines into the University Lake Watershed.

3. The University Lake Watershed is, for the purpose of this Appendix, defined in the Joint Planning Area Land Use Plan and located outside of the corporate limits of Carrboro as those limits exist on the date this Appendix is executed.

4. It is the intent of Carrboro, Chapel Hill and Orange County to jointly discuss watershed planning and protection procedures, standards and/or regulations which may be incorporated into ordinances and into the Joint Planning Agreement.

This Appendix entered into this 2nd day of November, 1987.

Shirley E. Marshall
Chair, Orange County Board of Commissioners

Attest:

Beverly A. Bobbitt
Clerk to the Board of Commissioners

James C. Wallace
Mayor, Town of Chapel Hill

Attest:

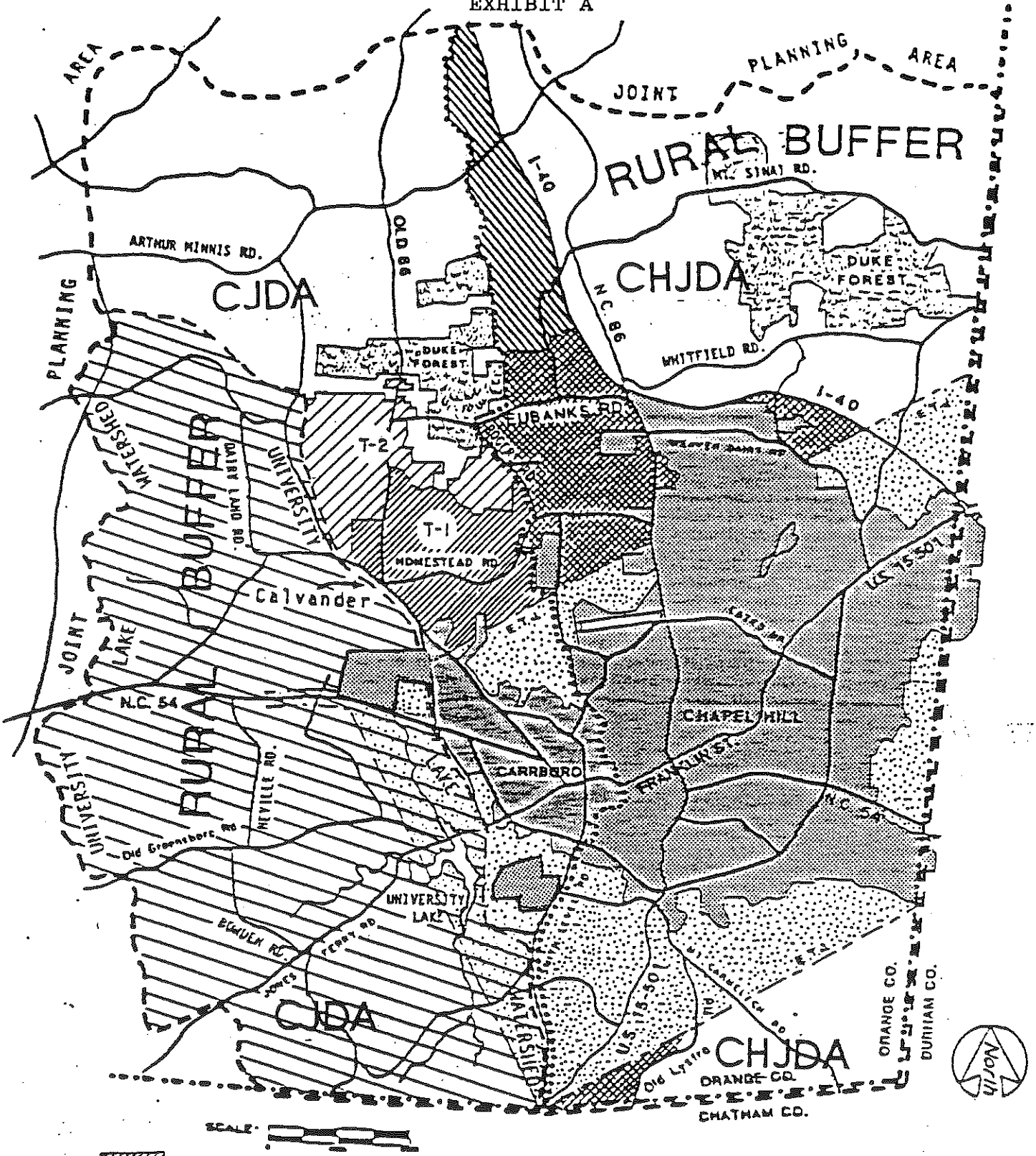
Town Clerk

James V. Porter
Mayor, Town of Carrboro

Attest:

Sarah C. Williamson
Town Clerk

EXHIBIT A



Carrboro Transition Area 1
Carrboro Transition Area 2
Chapel Hill Transition Area
Carrboro/Chapel Hill Joint Planning Boundary
Extraterritorial Jurisdiction (Existing)
University Lake Watershed in Orange County
University Lake Watershed in Carrboro E.T.J.
Chapel Hill/Carrboro Corporate Limits
Joint Courtesy Review Area

CHJDA Chapel Hill Joint Development Review Area
CJDA Carrboro " " " "

Exhibit B

WATER AND SEWER MANAGEMENT, PLANNING AND BOUNDARY AGREEMENT

THIS AGREEMENT, made and entered into this 3rd day of December, 2001, by and between the COUNTY OF ORANGE, a political subdivision of the State of North Carolina; the TOWN OF CARRBORO, the TOWN OF CHAPEL HILL, and the TOWN OF HILLSBOROUGH, municipal corporations duly created and existing under the laws of North Carolina; and the ORANGE WATER AND SEWER AUTHORITY, a public water and sewer authority duly created and existing under Chapter 162A, Article 1 of the North Carolina General Statutes.

WITNESSETH:

In consideration of mutual benefits regarding the definition of water and sewer service boundaries and the management and planning thereof, the parties to this agreement hereby mutually agree as follows:

I. PREAMBLE

A. Charge to the Water and Sewer Boundary Task Force

Since the mid-1980's, several attempts to define water and sewer service boundaries for Orange County and the municipalities of Chapel Hill, Carrboro and Hillsborough have been undertaken. In 1994, a Task Force was formed consisting of elected officials from Carrboro, Chapel Hill, Hillsborough and Orange County, as well as two members of the Orange Water and Sewer Authority Board of Directors. The charge to the Water and Sewer Service Boundary Task Force is attached as Appendix B.

B. Purpose of Water and Sewer Boundary Agreement

1. To provide a comprehensive, County-wide system of service areas for future utility development and interest areas for dealing with private water and wastewater system problems in areas without public water and sewer service.

2. To complement growth management objectives, land use plans and annexation plans in existing agreements, such as the Orange County-Chapel Hill-Carrboro Joint Planning Agreement and Joint Planning Area Land Use Plan

3. To resolve in advance and preclude future conflicts about future service areas and annexation areas.

4. To provide for predictable long-range water and sewer capital improvement planning and financing.

5. To provide for limitations on water and sewer service in certain areas, as defined.

II. HOW THE AGREEMENT WORKS

A. Effective Date of the Agreement

This agreement shall become effective upon execution by all of the parties and signature by the chief elected or appointed official.

B. Term of Agreement

This agreement shall remain in effect for ten (10) years from its execution, and shall be renewable as provided in the following subsection.

C. Procedure for renewal

At the end of each ten year term, the agreement shall renew automatically, unless written notice is provided of intent to withdraw as noted in subsection E below.

D. Procedure for proposing and acting on changes in agreement including boundaries

1. Any change to the agreement (including boundaries) requires approval of all parties to the agreement.

2. The addition of other parties to this agreement shall be by consent of the current parties.

E. Procedure for withdrawal from/decision not to renew the agreement

1. A party may not withdraw from the agreement, until it holds a public hearing on the proposed withdrawal followed by written notice to the other parties within 30 days of the public hearing. The withdrawal shall be effective one (1) year following receipt by the other parties of the written notice.

2. If a party to the agreement withdraws as provided above, the agreement remains in effect as to the other parties until all but one party withdraws in the manner provided for the in this agreement.

F. Accountability of Future Parties

Future utility providers that wish to become parties of this agreement must be financially and technically capable of providing water/sewer service to address public health emergencies or other identified public facility needs, as defined by the parties of the boundary agreement. The provider must have adequate system capacity, technical capability and financial assets to address system problems within its interest area without compromising service to current customers.

G. Courtesy Review of Development Proposals Within Service and Interest Areas

The water and sewer providers that are parties to this agreement will be provided courtesy review and the right to provide written input into utility design and the provision of easements for all new major subdivisions and other residential and non-residential site plan approvals within their service area and

interest area. The party to this agreement with development plan review authority shall retain approval authority for all development proposals within its planning jurisdiction.

H. Linkage with the Orange County-Chapel Hill-Carrboro Joint Planning Agreement and other future agreements

This agreement shall be made part of the Orange County-Chapel Hill-Carrboro Joint Planning Agreement, by reference, and to any future cooperative planning agreements that may be entered into among some or all of the parties. Termination of the Joint Planning Agreement or any other cooperative planning agreement does not terminate this agreement. Termination of this agreement can only be accomplished as provided in this agreement. Similarly, the withdrawal of a party from the Joint Planning Agreement or from any other cooperative planning agreement does not constitute withdrawal from this agreement. Withdrawal from this agreement can only be accomplished as provided in this agreement.

III. DEFINITIONS

Primary Service Area: An area (as shown on the Water and Sewer Service Boundary Map, which is Appendix A) where water and/or sewer service is now provided, or might reasonably be provided in the future, according to adopted plans and future amendments to adopted plans (hereinafter referred to as "service area")[2].

2. *As per the map in Appendix A, the Town of Hillsborough Long-Term Interest Area and Primary Service Area are combined and for purposes of this agreement is its Primary Service Area.*

OWASA Long-Term Interest Area: An area (as shown on the Water and Sewer Service Boundary Map, which is Appendix A) within which public water and/or sewer service is not anticipated to be made, but if such services are to be provided, OWASA will be the responsible utility service provider. Long-Term Interest Areas are not service areas, and do not include areas outside of Orange County.

OWASA's Long-Term Interest Area is hereinafter referred to as OWASA's "interest area."

Orange County Long-Term Interest Area: The areas of Orange County planning jurisdiction (as shown on the Water and Sewer Service Boundary Map, which is Appendix A) not part of a Primary Service Area or another Long-Term Interest Area within which public water and/or sewer service is not anticipated to be made, but if such services are to be provided, Orange County will be responsible for coordinating the provision of utility service. Long-Term Interest Areas are not service areas, and do not include areas outside of Orange County. Orange County's Long-Term Interest Area is hereinafter referred to as Orange County's "interest area."

Essential Public Facility: A publicly-owned facility, or a facility wholly financed by Federal, State or local government (or a combination thereof) that provides a service for the health, safety and general welfare of County residents (for example, a school, fire station, public safety substation or solid waste convenience center).

Adverse Public Health Condition: An Adverse Public Health Condition exists in the case of a wastewater system(s) when it is (1) failing, (2) documented to be failing by the Orange County Health Department, and (3) no on-site repair is approvable or recommended by the Orange County Health Department; or, in the case of a well water supply system, it meets all of the following criteria:

- the well water supply system is contaminated with a microbial, chemical or other agent which is known to cause disease or other serious health effects;
- the well water supply system is not reparable to the point where the contamination can be eliminated;
- the water from the well water supply system is not treatable prior to withdrawal to the point where the threat of disease or serious health effects is eliminated;
- there is no alternate location on-site for a new well water supply system which can be permitted under Orange County Health Department regulatory

criteria in effect at the time of the contamination or an alternative site is unacceptable because widespread existence of contamination or because of the potential of contaminant migration to the alternate site.

A description of these terms and their application is provided in Section VI of this Agreement.

Public Water or Public Sewer Service: The provision of water and/or sewer service by a party to this agreement. This definition does not include consulting services and/or technical assistance services.

Emergency Water Transfer: Any short-term transfer of raw water supply or finished drinking water supply from one service provider to assist another service provider in meeting water needs during:

a) unanticipated disruptions or emergencies relating to raw or finished water supply. Such disruptions or emergencies may result from events including, but not limited to: (i) human error; ii) equipment or power failure; iii) supply contamination; iv) major fires, floods, droughts or other disasters; and v) operations or facility maintenance activities, or

b) periods when temporary, short-term disruption of water supply or finished water service may occur as a result of planned or unplanned maintenance of major water supply, pumping, transmission, treatment, or storage facilities.

Non-Emergency Water Transfer: Any transfer from one water service provider to another water service provider of raw water supply or finished drinking water supply which is not an emergency water transfer.

Wastewater Transfer: Any transfer from one wastewater service provider to another wastewater service provider.

Water and/or Sewer Provider: A municipal corporation, county, private non-profit water system, or public water and sewer authority

under the N.C. General Statutes that provides water and/or sewer service to the public.

IV. BOUNDARIES

A. Service Areas and Interest Area Boundaries

The service area and interest area boundaries are as shown in Appendix A.

B. Adherence to Boundaries

1. The boundaries on the map (Appendix A) define the areas in which the parties may provide water and sewer service, and no party to this agreement shall extend service beyond the designated boundaries, except as provided in this agreement. In no case shall service be extended beyond the boundaries of Orange County without the approval of the elected boards which exercise planning jurisdiction on either side of the County boundary. Any extension of lines or service into Chatham County requires the approval of Orange County, Chapel Hill or Carrboro, and OWASA.

2. OWASA presently provides water and sewer service outside of the OWASA Service Area shown on Appendix A as follows:

location	service provided
Heritage Hills Subdivision	water and sewer
Rangewood Subdivision	water and sewer
Piney Mountain Subdivision	sewer only

OWASA may continue to provide water and sewer service and may extend water and sewer service within these subdivisions provided it does so consistent with OWASA policies and interlocal agreements related to these services that exist on the effective date of this agreement. Any change to those policies and interlocal agreements after the effective date of this agreement can only be accomplished by an amendment to this agreement.

V. PROCEDURES FOR PROVIDING SERVICE

A. Policy Issues

Planning and growth management issues are influenced by the location of water and sewer. This agreement is not intended to supersede other land use agreements made by the local governments.

B. Procedures for the provision of service within the Service Areas and Interest Areas

1. When water and sewer service provision is required to address an adverse public health condition, or to provide service to an essential public facility, the designated provider for the service area or interest area shall have the right of first refusal to provide such service.

2. Within the service areas and interest areas, the water and sewer provider will agree to provide service, as defined in this agreement, as system capacity, financial resources, and other reasonable utility considerations allow, and as provided in this agreement.

C. Policy of "first-refusal"

1. The designated water and sewer provider within a service area or interest area has first right to provide service if an adverse public health condition or essential public facility service need is established, and public water or public sewer service is determined to be required to address the adverse public health condition.

2. If the designated water and sewer provider declines to provide service, it must notify the other parties to the agreement with a statement of rationale.

3. The designated water and sewer provider may contract with another service provider to address the situation, in the manner prescribed in Section VI of this agreement, upon consultation with other jurisdictions.

4. If no other water and sewer provider is available, Orange County retains the right to address the adverse public health condition or essential public facility need in the manner prescribed in Section VI of this agreement.

VI. LIMITATIONS ON SERVICE

A. Prohibitions and Limitations on Extension Into Interest Areas

The development of land within interest areas is not projected to occur at urban densities, and therefore, public water and sewer service shall be prohibited in these areas, except as provided in this agreement. Individual on-site and small/community-scale alternative water supply and wastewater treatment systems not physically connected to central systems will be the primary methods of meeting the water and sewer service needs of existing and future development.

B. Adverse Public Health Conditions

An exception to the prohibition of public water and sewer service in interest areas may be made to allow the extension of lines in the event the Orange County Health Department documents an "adverse public health condition."

An adverse public health condition exists where:

1. In the case of existing wastewater system(s), it meets all of the following criteria:
   - the wastewater system is failing;
   - the wastewater system is documented to be failing by the Orange County Health Department;
   - there is no on-site repair approvable or recommended by the Orange County Health Department.

   The following terms used in the criteria above mean:

   Failing Wastewater System: A wastewater system is failing when sewage or effluent is seeping or discharging to the ground surface or to surface waters. A permitted, properly-functioning non-discharge wastewater system (e.g., a spray-irrigation system) and a permitted, properly-functioning discharge system are not failing wastewater systems.

   Approvable On-Site Repair: An approvable on-site wastewater system repair that can be completed in a designated repair area which is approvable under Orange County Health Department regulatory soil/site criteria in effect at the time of the needed repair.

   Recommended On-Site Repair: A recommended on-site repair is one that is not an approvable on-site repair, but is one that in the best professional judgment of the Orange County Health Department will reasonably enable the system to function properly. A recommended on-site repair may incorporate engineered design (a design certified by an engineer to overcome all soil/site limitations in the particular situation), site

or system modification, flow reduction or other measures calculated to improve functionality of the system.

2. In the case of an existing well water supply system(s), it meets all of the following criteria:

- the well water supply system is contaminated with a microbial, chemical or other agent which is known to cause disease or other serious health effects;
- the well water supply system is not reparable to the point where the contamination can be eliminated;
- the water from the well water supply system is not treatable prior to withdrawal to the point where the threat of disease or serious health effects is eliminated;
- there is no alternate location on-site for a new well water supply system which can be permitted under Orange County Health Department regulatory criteria in effect at the time of the contamination or an alternative site is unacceptable because widespread existence of contamination or because of the potential of contaminant migration to the alternate site.

The following terms used in the criteria above mean:

Well: A well is any excavation that is cored, bored, drilled, jetted, dug or otherwise constructed for the purpose of locating, testing, developing, draining or recharging any ground water reserves or aquifer, or that may control, divert, or otherwise control the movement of water from or into any aquifer.

Well Water Supply System: A well water supply system is any well that is intended for use or is usable as a source of water supply for domestic use (including household purposes, farm livestock, or gardens) and the pump and

pipe used in connection with or pertaining thereto, including well pumps, distribution pipes, plumbing pipes, tanks, fittings, and water treatment devices.

The Orange County Health Department shall make the determination as to whether an adverse public health condition exists, and shall make a recommendation on the appropriate remedy to the governmental entity(ies) in the appropriate interest area.

The final decision to use any particular means or tool for rectifying any particular adverse public health condition remains, through zoning regulations or other land use ordinances, with the governmental entity or entities having zoning or planning jurisdiction over the area where the adverse public health condition exists. In the Orange County-Chapel Hill-Carrboro Joint Planning Area, the Joint Development Review Areas shall be used to determine which of the JPA parties shall jointly decide on the appropriate means or tool for rectifying an adverse public health condition. Public water or public sewer lines extended to provide service to an adverse public health condition or essential public facility cannot be used for other purposes or other parties, except as provided in Section VI.D.

C. Sizing of Lines Extended Into Interest Areas

The extension of public water or public sewer lines into an interest area shall be sized so as to comply with State technical and engineering regulations and only to serve the intended use, as defined in this agreement. However, in the case of a public water line extension, provisions shall be made to address adequate line sizing for pressure and volume considerations.

D. Controlling Access to Lines In Interest Areas

Public water or public sewer lines extended to provide service to an adverse public health condition or essential public facility cannot be used for other purposes or other parties, except to remedy another adverse public health condition.

E. Siting of Essential Public Facilities Within Interest Areas

The location of some essential public facilities, particularly schools, requires special consideration for access to public water and sewer lines.

Where possible, schools shall be sited in a manner that promotes the efficient use of existing water and sewer service. Preferably, a set of criteria governing such situations would be developed based on consultations between the appropriate school boards and the elected officials of affected jurisdictions, and applied as necessary.

Publicly-owned facilities other than a public school shall be located in a manner that promotes the orderly provision of water and sewer service. The preferred method of connection is to lines that already exist, or in a manner that would minimize the need to extend existing lines.

F. Water and Sewer Service Into/Out of Orange County

Water and sewer service of any of the service providers that are parties to this agreement shall not be extended outside of the boundaries of Orange County without the approval of the elected boards which exercise planning jurisdiction on either side of the County boundary. Any extension of lines or service into Chatham County requires the approval of Orange County, Chapel Hill or Carrboro, and OWASA. This approval is not required when water and sewer service is required as a condition of annexation by the towns of Chapel Hill or Carrboro.

VII. WATER TRANSFERS AND WASTEWATER TRANSFERS

A. **Emergency Water Transfers** (This subsection shall not apply to any system operated by a municipality)

Emergency water transfers are transfers that:

1. Are made for short-term duration. For the purpose of this Agreement, short-term duration shall be reviewed at 30 days, 60 days and 90 days, with subsequent 90-day intervals up to one year, as per the following process:

    a. After 30 days duration, a memo from the chief administrative officials of the service providers will be sent to the managers of the jurisdictions that are parties to this Agreement. The memo shall document the emergency, steps being taken to address the situation, and notify the managers of the potential for a longer period of the emergency water transfer.

    b. At 60 days, the service provider sending the water shall notify its elected board (or, in the case of OWASA, the member government elected boards) on the status of the emergency and provide opportunity for the boards to review and comment on the situation. The receiving provider shall provide similar information.

    c. Between 60 days and 90 days from inception of transfer, the elected boards which exercise planning jurisdiction on either side of the boundary in which the service is provided shall review and approve or not approve the continuation of the transfer beyond 90 days. If continuation of the transfer is approved, it may continue for an additional 90-day period. Approval shall be required for each subsequent 90-day period, with a maximum emergency water transfer duration of 365 days from inception. Lack of action by the elected boards as provided in this subsection

constitutes approval for the subsequent 90-day period.

d. At the 30-day point, the service provider shall determine that adequate water and other resources and facility capacities are available to support the extended emergency transfer without adversely affecting the quality and quantity of water supply and services to customers within its service area, and without adversely affecting environmental quality within its service area;

AND

2. Are not intended to provide raw or finished water supply necessary to support new growth and development within the service area of the service provider receiving the transfer. Neither party shall, in planning for future growth and associated increases in water supply needs, rely upon water from the other party supplied under this agreement to serve such growth.

a. A service provider experiencing a water emergency and receiving emergency water transfers must agree to act expeditiously and adequately to mitigate and remove the causes of the emergency conditions.

B. Non-Emergency Water Transfers (This subsection shall not apply to the Town of Hillsborough until January 1, 2005.)

Non-emergency water transfers are only permitted with the approval of the Orange County Board of Commissioners and the elected or appointed boards of the service providers providing and/or receiving the transfer. If OWASA is the service provider, approval must come from the OWASA Board

of Directors and the elected boards of Carrboro, Chapel Hill and Orange County.

C. Wastewater Transfers

Wastewater transfers are only permitted with the approval of the Orange County Board of Commissioners and the elected or appointed boards of the service providers providing the transfer. If OWASA is the service provider, approval must come from the OWASA Board of Directors and the elected boards of Carrboro, Chapel Hill and Orange County.

VIII. LINKAGE TO OTHER AGREEMENTS

Linkages to Other Agreements

There are a number of existing agreements among the parties to this agreement that are relevant to the management and planning of public water and sewer service. In addition, this agreement and those listed below should all be read together. Where inconsistencies exist, this agreement shall control, except as otherwise provided by law. Included among these relevant agreements with linkages are:

- Hillsborough-Durham Service Area Agreement
- OWASA-Durham Service Agreement
- Eno River Capacity Use Agreement
- Hillsborough/Orange-Alamance Water Systems Agreement
- OWASA-Hillsborough Service Agreement
- OWASA-Hillsborough Bulk Water Transfer Agreement
- Chapel Hill-Durham Annexation Agreement
- Mutual Aid Agreement
- Jordan Lake Allocations from NC DEHNR
- OWASA Agreements of Purchase and Sale between 1) OWASA and Carrboro, 2) OWASA and Chapel Hill, and 3) OWASA and UNC

- OWASA Agreement and Policy related to extensions of water and sewer into University Lake Watershed (applicable to water and sewer service to Rangewood Subdivision and Heritage Hills Subdivision)
- OWASA-Orange County Agreements related to Piney Mountain Subdivision sewer service

IX. APPENDICES

A. Water and Sewer Service Boundaries Map
B. Charge to the Water and Sewer Boundary Task Force
C. Toolbox of Remedies for Adverse Public Health Conditions
D. Joint Planning Area Boundary Map
E. Comprehensive Plan Land Use Maps for all Orange County local governments, and of Chatham County

THIS AGREEMENT ENTERED INTO THIS 3rd DAY OF December, 2001.

Chair, Orange County Board of Commissioners

Attest:

Clerk to the Orange County Board of Commissioners

Mayor, Town of Chapel Hill

Attest:

Town Clerk, Town of Chapel Hill

Mayor, Town of Carrboro

Attest:

Town Clerk, Town of Carrboro

Mayor, Town of Hillsborough

Attest:

Town Clerk, Town of Hillsborough

Chair, OWASA Board of Directors

Attest:

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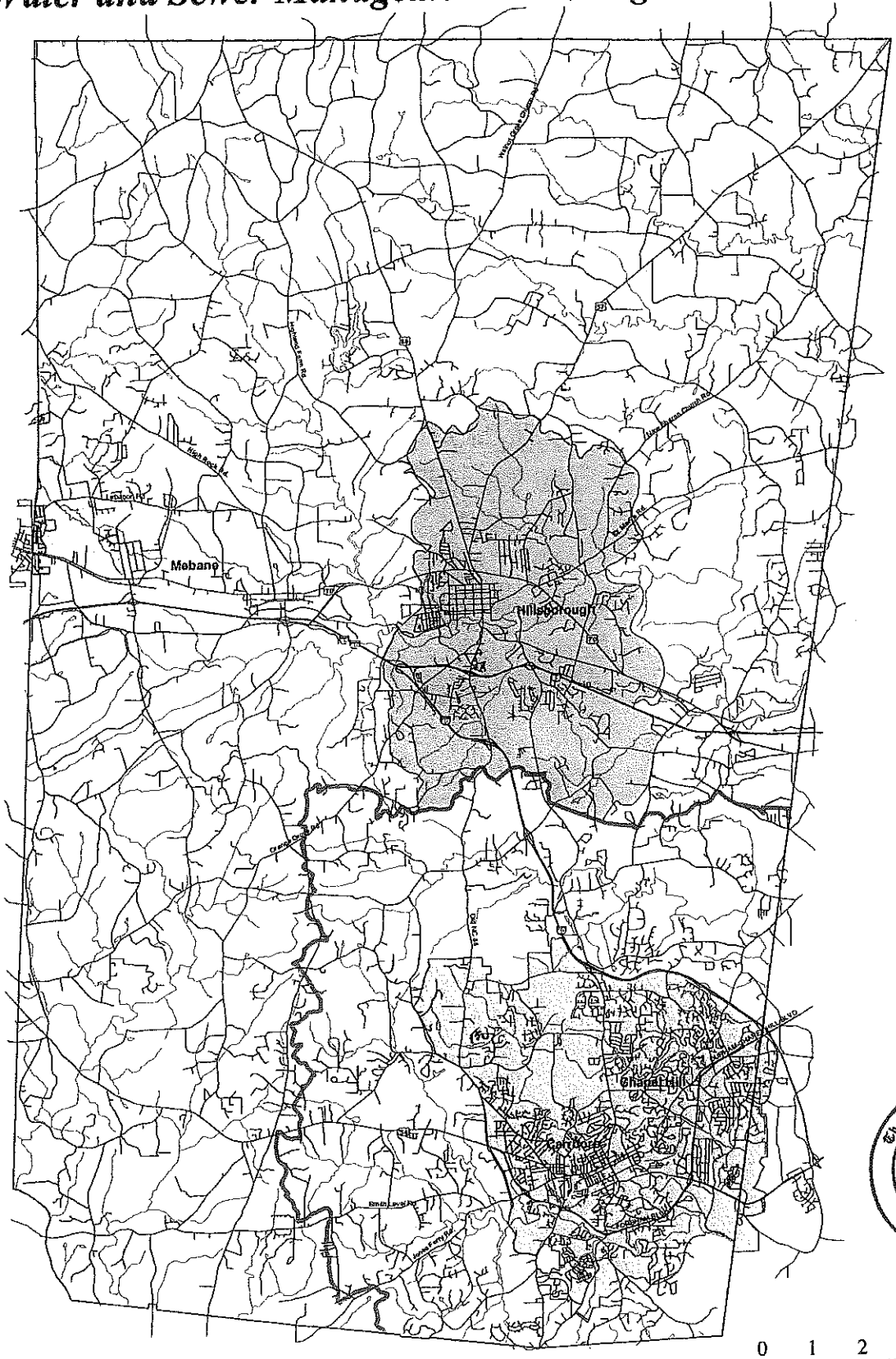
Appendix A

Water and Sewer Management Planning and Boundary Agreement



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North Carolina

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Legend

Water and Sewer Boundaries

- Hillsborough Primary Service Area
- OWASA Long-Term Interest Area
- Orange County Primary Service Area
- OWASA Primary Service Area
- Orange County Long-Term Interest Area

Rural Buffer Boundary

Orange County Planning and Inspections Department
Revised Map to show retracted Chapel Hill Urban Service Boundary
Prepared by Carrie Whitehill
11/14/01
Original Map Prepared by Beth McFarland
04/17/97

APPENDIX B

Chapel Hill, Carrboro, Orange County adoption resolutions.

RESOLUTION B
MANAGER'S RESOLUTION

RESOLUTION RECOMMENDING ADOPTION OF A LAND USE PLAN FOR THE JOINT PLANNING AREA (86-7-14/R-2b)

WHEREAS, the Council of the Town of Chapel Hill and the Orange County Board of Commissioners have adopted a Joint Planning Agreement to establish a method of coordinated and comprehensive planning; and

WHEREAS, the Joint Planning Agreement provides for the development of a land use plan in the Joint Planning Area; and

WHEREAS, the staffs and governing bodies of both the Town of Chapel Hill and Orange County have sought public input at many points during the process of developing the plan.

BE IT RESOLVED by the Council of the Town of Chapel Hill that it hereby adopts a Land Use Plan for the Chapel Hill/Orange County Joint Planning Area, such being comprised of a set of maps and narratives contained in the document "Draft Orange County-Chapel Hill-Carrboro Joint Planning Land Use Plan," dated April, 1986.

BE IT FURTHER RESOLVED that this adoption refers only to those portions of the draft Land Use Plan lying east of the line shown on Joint Planning Area maps, such line indicating the distinction between Chapel Hill's area of interest and Carrboro's are of interest, such line being part of the Joint Planning Agreement signed by Chapel Hill and Orange County.

BE IT FURTHER RESOLVED that the following specific changes be made conditions of the Town Council's approval of this plan.

Revisions to Map and Narrative:

1. In the Star Point area, along 15-501 at the Chatham County line, no expansion of the existing commercial uses should be permitted. The area that is not now developed for commercial uses should be designated "suburban residential."

2. Change all area north and east of I-40 to Rural Buffer.

3. Make the following changes in the vicinity of the I-40/NC 86 Interchange, to reflect the designations on the draft Chapel Hill Land Use Plan:

   a. Delete all light industrial; make all areas "office," with emphasis on mixed use.
   b. Call for public acquisition of area between landfill sites (public/private open space").

c. Change small triangle of O-I on south side of Eubanks Road, near railroad, to residential.

4. Change designation of area on Homestead Road, between school and railroad, and east of railroad, from urban residential to suburban residential.

5. Change designation of future landfill site to "Potential Landfill -- Pending Further Study."

BE IT FURTHER RESOLVED that the Council respectfully recommends that the Orange County Board of Commissioners adopt the Land Use Plan for the Chapel Hill/Orange County Joint Planning Area in the same form.

This the 14th day of July, 1986.

Carrboro N.C.

P.O. Box 337
301 West Main Street
Carrboro, North Carolina 27510
(919) 942-8541

The following resolution was introduced by Alderman Tom Gurganus and seconded by Alderman Zona Norwood.

A RESOLUTION STATING THE TOWN OF CARRBORO'S RECOMMENDATIONS ON THE JOINT PLANNING AREA DRAFT LAND USE PLAN
Resolution No. 51/85-86

WHEREAS, the Town of Carrboro, Chapel Hill and Orange County intend to jointly plan for and regulate the land use activities in the "Joint Planning Area"; and

WHEREAS, the Town of Carrboro, as a participant in the joint planning process, intends to mutually adopt a "Joint Planning Area Land Use Plan"; and

WHEREAS, the Town has jointly conducted two public hearings to receive comments on the joint planning area draft land use plan.

NOW, THEREFORE, THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO RESOLVES that the Town is receptive to the mutual adoption of a joint planning area land use plan which incorporates the following:

1. That the proposal for a commercial and industrial transitional node on Homestead Road be withdrawn and that the area be proposed for residential development.

2. That the proposal for an office-institutional node at Rogers Road be withdrawn and that the area be proposed for residential development.

3. That the constraint system proposed for determining permissible intensity of development be modified by limiting the constraint for vegetated areas to only areas whose vegetation is (a) mature and wooded, or (b) indicative of a wetland area. Also, that relief from the constraint system be allowed for land within 500 feet of the Northern Loop to allow additional densities to justify mass transit and that a wooded buffer be retained along all arterials.

4. That sewer lines be allowed in the University Lake Watershed; that government continue the present practice of having developers pay for and construct their own systems and that developments within the transition area be required to be served by public water and sewer service.

5. That a rural buffer be created around the Towns; that the buffer be characterized and attained through the retention of large tracts developed at low densities with cluster development, together with the preservation of the Duke Forest Lands with conservation uses.

6. That the local governments inventory lands which have aesthetic value or are environmentally sensitive; that lands that are particuarly aesthetically pleasing and particularly environmentally sensitive be preserved.

7. That the surburban and urban residential designation on the Land Use Map be merged into one classification called "transitional residential" with the density to be determined on a tract-by-tract basis by applying capacity densitites as worked out in the naturual constraint system, with a maximum density of six (6) units per acre.

The foregoing resolution having been submitted to a vote, was duly adopted this 20th day of May, 1986:

3. INDIRECT COST PLAN CONTRACT

To approve entering into a contract with David M. Griffith Associates for a sum not to exceed $8,000 for preparation of Orange County's indirect cost plan.

Motion was made by Commissioner Lloyd, seconded by Commissioner Marshall that the forgoing action be taken by the Board.
VOTE: UNANIMOUS.

G. ITEMS FOR DECISION

1. ZONING ORDINANCE - MOBILE HOME STANDARDS

Planning Director Marvin Collins presented for consideration a recommendation from the Planning Board that a special hearing be held on September 16, 1986. The purpose would be to consider removing Article 6.21.1 a) (2) of the Zoning Ordinance which requires all existing non-conforming mobile home parks to comply with park standards adopted 3/18/86 when units are replaced.

Motion was made by Commissioner Lloyd, seconded by Commissioner Walker to hold a special public hearing for September 16, 1986 for the purpose of considering deletion of Article 6.21.1 a) (2) from the Zoning Ordinance.
VOTE: UNANIMOUS.

2. JOINT PLANNING AREA LAND USE PLAN

Marvin Collins gave background information on Joint Planning and reviewed the major recommendations for each of the draft Land Use Plans. He outlined the revisions as a result of the first public hearing. These include:

(1) Expansion of the rural buffer area to follow the boundaries of the New Hope Creek Drainage Basin.
(2) Deletion of the proposed Industrial-Commercial Activity Center at the New Hope Church/I40 Interchange.
(3) The combining of the larger Commercial-Industrial node and a smaller one proposed in the Calvander area into one larger activity center.
(4) Reinstitute a smaller activity node limited to office uses in the Homestead Road/Rogers Road Intersection.
(5) Revisions recommended to the Eubanks Road/I40 Interchange area in terms of location of office and high density areas in relation to that interchange.

At the second public hearing, the two major areas of concern identified were the Activity Center proposed at Calvander and the designation of a future landfill site south of the Eubanks Road area near the railroad.

Collins noted that Chapel Hill adopted the Joint Planning Land Use Map on July 14. They recommended adoption of the Land Use Plan that went to public hearing in April with the following changes:

(1) Allow existing commercial uses at Starpoint but permit no further commercial expansion in that area. The area which is not commercial should be designated suburban residential.
(2) Designate the area north and east of I-40 rural buffer.
(3) With regard to the I-40/NC86 Interchange, change all light industrial designations to office use with emphasis on mixed use development (office-residential-limited retail).
(4) With regard to a small area located south of Eubanks Road and adjacent to the railroad - change the designation to

residential.

(5) With regard to the area bounded by Homestead Road, Chapel Hill High School, the railroad and the area east of the railroad - change from suburban residential to urban residential.

(6) Designate the future landfill site as "potential landfill site - pending further study".

The Carrboro recommendations include:

(1) That the proposed Commercial-Industrial node in the Calvander area along Homestead road be designated for residential development.

(2) That the proposed small Office-Institutional node at the intersection of Homestead Road and Rogers Road be changed back to residential.

(3) With regard to the constraint system, that it be changed to allow determination of permissible intensity of development.

(4) That based on environmental features, relief from the constraint system be provided along the Homestead Road corridor, forming the northern link of the Chapel Hill Carrboro Thoroughfare Plan for a distance of 500 feet to encourage higher residential densities adjacent to mass transit routes.

(5) Permit sewer lines to be extended into University watershed.

(6) That developments within the transition areas be required to be served by public water and sewer.

(7) That a Rural Buffer be developed around the Towns.

(8) That an inventory of the environmentally affected areas be performed.

(9) That the suburban and urban residential category proposed by the Orange County Planning staff be combined into one classification called "transitional residential" and that the density be determined on a tract by tract basis based on the natural constraint system with a maximum of six (6) units per acre.

The Planning Board recommended adoption of the Joint Planning Area Land Use Plan with revisions. They also adopted a five-part resolution regarding its commitment to joint planning.

Collins reviewed in detail all the revisions and the differences (if any) between the Planning Board recommendation and the recommendations of Carrboro and Chapel Hill. He answered questions to clarify any area of concern expressed by the Board.

Planning Board Chair Barry Jacobs commented that the recommendations of the Orange County Planning Board, where possible, reflect the wishes of Carrboro and Chapel Hill.

Chapel Hill Planning Director Roger Walton remarked that the moment is a historic one. He offered praise for the cooperative spirit displayed by Orange County. He pointed out two differences that still remain and explained these in detail: (1) the area on Eubanks Road and (2) density in the rural buffer.

Chair Willhoit asked if the plan could be adopted with amendments so that further discussion could be held between Orange County and the Towns on items not agreed upon and Attorney Geoffrey Gledhill indicated the plan could be adopted with "holes" to be filled in later.

Motion was made by Commissioner Marshall, seconded by

Commissioner Carey, to approve the Joint Planning Area Land use Plan as recommended by the Planning Board. (The recommendation is listed on page _____ of these minutes).

With reference to revision #1, motion was made by Commissioner Carey, seconded by Commissioner Marshall to adopt a Suburban Residential designation at the Rogers Road/Homestead Road Intersection.
VOTE: UNANIMOUS.

With reference to revisions #6a and #6c, motion was made by Chair Willhoit, seconded by Commissioner Carey to defer decision on these two items.
VOTE: UNANIMOUS.

With reference to revision #7, Motion was made by Chair Willhoit, seconded by Commissioner Carey to defer decision on all of #7.
VOTE: UNANIMOUS.

With reference to revision #10, motion was made by Commissioner Carey, seconded by Commissioner Marshall to defer decision on this item.
VOTE: UNANIMOUS.

Motion was made by Chair Willhoit, seconded by Commissioner Marshall to approve a density of one dwelling unit per two acres in the rural buffer.
VOTE: AYES, 4; NOES, 0.
NOTE: COMMISSIONER WALKER WAS NOT PRESENT FOR THE VOTE.

All deferred items were referred to the County Manager with a request that he meet with the Towns to resolve any conflict.

The County Manager was requested to work with the Town Managers to formulate the procedures for implementation of Joint Planning.

VOTE ON THE MOTION TO ADOPT THE JOINT PLANNING AREA LAND USE PLAN AS AMENDED
VOTE: AYES, 4; NOES, 0.
NOTE: COMMISSIONER WALKER WAS NOT PRESENT FOR THE VOTE.

Motion was made by Commissioner Marshall, seconded by Commissioner Carey to reaffirm the County's policy on extension of water and sewer into the watershed area.
VOTE: UNANIMOUS.

13. INSPECTION FEES - JOINT PLANNING PROJECTS

Marvin Collins presented for consideration a request to schedule a public hearing on September 16, 1986 to receive public comment regarding a proposed inspections fee schedule for projects approved under the terms of the Joint Planning Agreement with Chapel Hill.

Motion was made by Commissioner Carey, seconded by Commissioner Marshall to set Tuesday, September 16, 1986 as the public hearing date for proposed amendments to the Inspections Fee Schedule regarding Joint Planning projects.
VOTE: UNANIMOUS.

4. PLANNING BOARD WATER POLICY RESOLUTION

Marvin Collins presented for consideration of approval a

ADDENDUM #1 TO THE JOINT PLANNING AGREEMENT AMONG ORANGE COUNTY, CHAPEL HILL AND CARRBORO

WHEREAS, Orange County, the Town of Chapel Hill, and the Town of Carrboro entered into a Joint Planning Agreement, dated September 22, 1987, as amended; and

WHEREAS, Carrboro, Chapel Hill, and Orange County have worked cooperatively since the adoption of the Joint Planning Agreement on matters related to annexation, as specified in the Agreement;

WHEREAS, Section 1.3.B of the Joint Planning Agreement provides for the renewal of the annexation provisions of the Agreement for a period of not more than 20 years;

NOW Carrboro, Chapel Hill and Orange County hereby mutually agree as follows:

1. Section 3.1 (No Annexation Into Rural Buffer) of the Joint Planning Agreement shall be renewed for a twenty year period from the date of execution of this Addendum.

2. Section 3.2 (No Annexation by One Town Into Another Town's Transition Area) of the Joint Planning Agreement shall be renewed for a twenty year period from the date of execution of this Addendum.

This Addendum entered into this 24th day of June, 2003.

Margaret W. Brown
Chair, Orange County Board of Commissioners

Attest:
Clerk to the Board of Commissioners

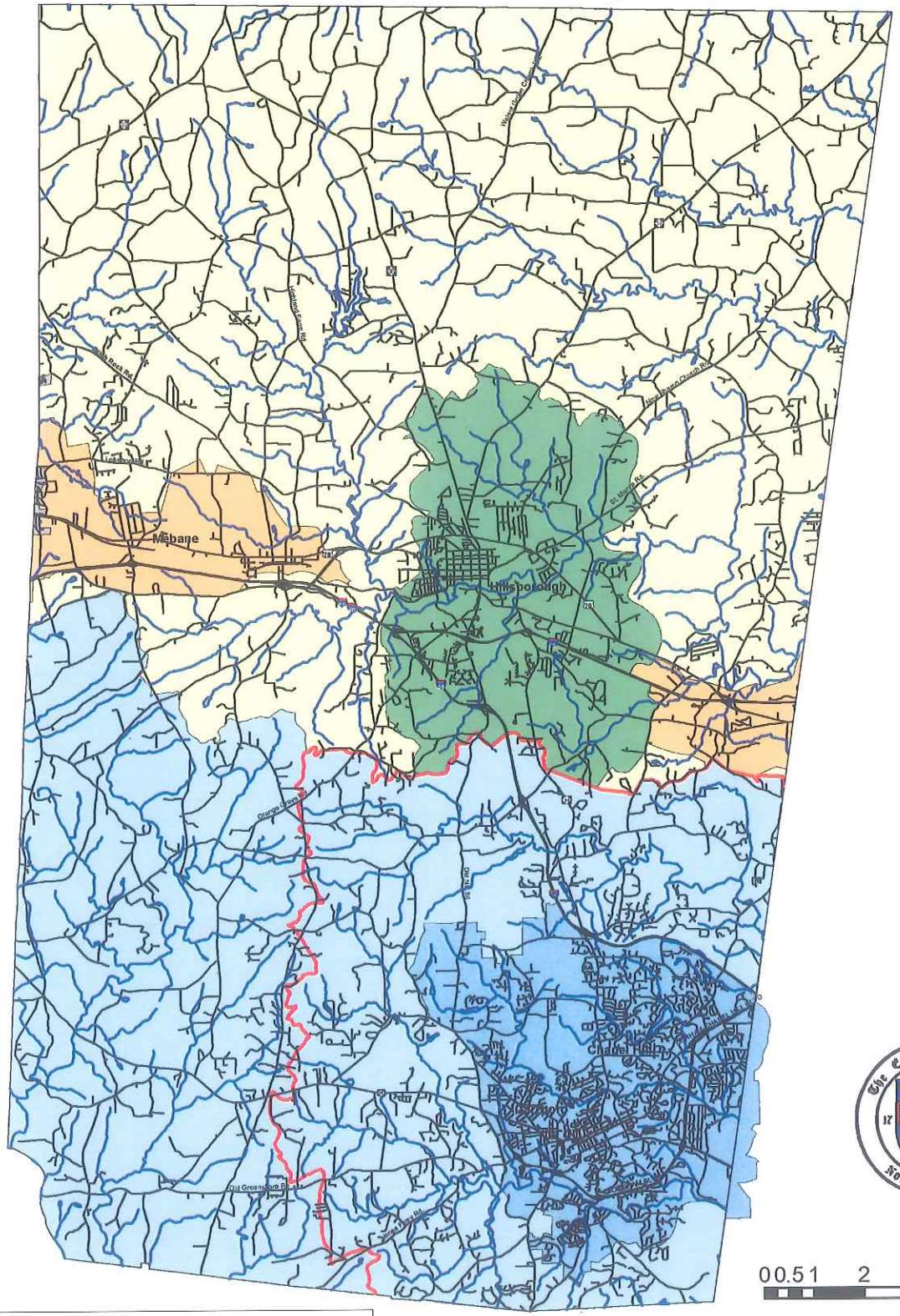
Mayor, Town of Chapel Hill

Attest:
Town Clerk

Mayor, Town of Carrboro

Attest:
Town Clerk

Appendix A
Water and Sewer Management Planning and Boundary Agreement



0 0.5 1 2 3 4 5 Miles

Legend

Water and Sewer Boundaries

- Hillsborough Primary Service Area
- OWASA Long-Term Interest Area
- Orange County Primary Service Area
- OWASA Primary Service Area
- Orange County Long-Term Interest Area
- Rural Buffer Boundary

Orange County Planning and Inspections Department
Updated Streets, Miriam Coleman, 2002
Revised Map to show retracted Chapel Hill Urban Service Boundary
Prepared by Carrie Whitehill
11/14/01
Original Map Prepared by Beth McFarland
04/17/97