



Chapter 5. Land Use Element

5.1. PURPOSE

The Land Use Element provides guidance and direction regarding land use planning efforts in Orange County. The goals and objectives identified within this element serve as the foundation for establishing future land use policies and action strategies undertaken by Orange County, its advisory boards, and staff. The specific process for developing a land use implementation strategy is outlined in *Section 1.4: Administration and Implementation Guidelines*.

Critical to the success of land use planning efforts in Orange County is the consideration of not only the goals and objectives contained within the Land Use Element, but also those contained within each of the Elements of this Comprehensive Plan. Achieving sustainable growth and maintaining the quality of life, community, and health for its citizens, is fundamentally linked to the County's commitment to a coordinated land use plan that is responsive to the County's Planning Principles shown to the right and discussed in *Chapter 2: Board of County Commissioners' Planning Principles*.

How land is being used and developed in Orange County is a direct reflection of the County's land use policies, plans, regulations, and ordinances, all of which are guided by the community's values, goals, and objectives expressed in this Comprehensive Plan.

As described later in this Chapter, land use ordinances and regulations helped to form the foundation for development of Orange County's Comprehensive Plan. Likewise, it is this Comprehensive Plan, and implementation of its objectives, that will guide the development of Orange County's future land use ordinances, regulations, and a coordinated land use plan that is based on community values.

5.2. OVERVIEW

BACKGROUND

A fundamental and repeated concept expressed throughout each of the Elements of the Comprehensive Plan is the need to plan for sustainable growth. A definition of sustainable growth is growth that *"meets the needs of the present generation without compromising the ability of future generations to meet their own needs."*

Sustainable growth and coordinated, community-based land use planning are inherently connected to the ongoing quality of life and health in a community, and a sustainable balance between the economic, social, and environmental systems that make up the community.

ORANGE COUNTY BOARD OF COMMISSIONERS' PLANNING PRINCIPLES

1. Efficient and Fiscally Responsible Provision of Public Facilities and Services
2. Sustainable Growth and Development
3.
 - A. Encouragement of Energy Efficiency, Lower Energy Consumption, and the Use of Non-Polluting Renewable Energy Resources
 - B. Promotion of Both Air Quality Protection and the Development of an Effective Transportation System
4. Natural Area Resource Preservation
5. Preservation of Rural Land Use Pattern
6. Water Resources Preservation
7. Promotion of Economic Prosperity and Diversity
8. Preservation of Community Character



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Environmental conservation, natural resource preservation, energy efficiency, affordable housing, social equity, a healthy economy, regional and local agricultural production, are all representative of sustainability issues expressed throughout each of the Elements and linking them with the Land Use Element of this Plan.

PLANNING WITHIN ORANGE COUNTY

Planning for sustainable development within the greater Orange County community can be more effectively achieved with the cooperation of, and integrated planning efforts between, the County and its municipalities.

ORANGE COUNTY'S PLANNING AND ZONING JURISDICTIONS

Land use planning within the County is governed by multiple jurisdictions working in coordination to plan for future development. Orange County has sole planning and zoning jurisdiction in the unincorporated areas of the County. The Towns of Chapel Hill, Carrboro, Hillsborough, and Mebane, on the other hand, have planning and zoning jurisdiction within their corporate boundaries and Extra-Territorial Jurisdictions (ETJ's).

Map 5-1: Orange County Planning and Zoning Jurisdictions illustrates the planning and zoning jurisdiction boundaries of the municipalities in gray and the County's jurisdiction in tan.

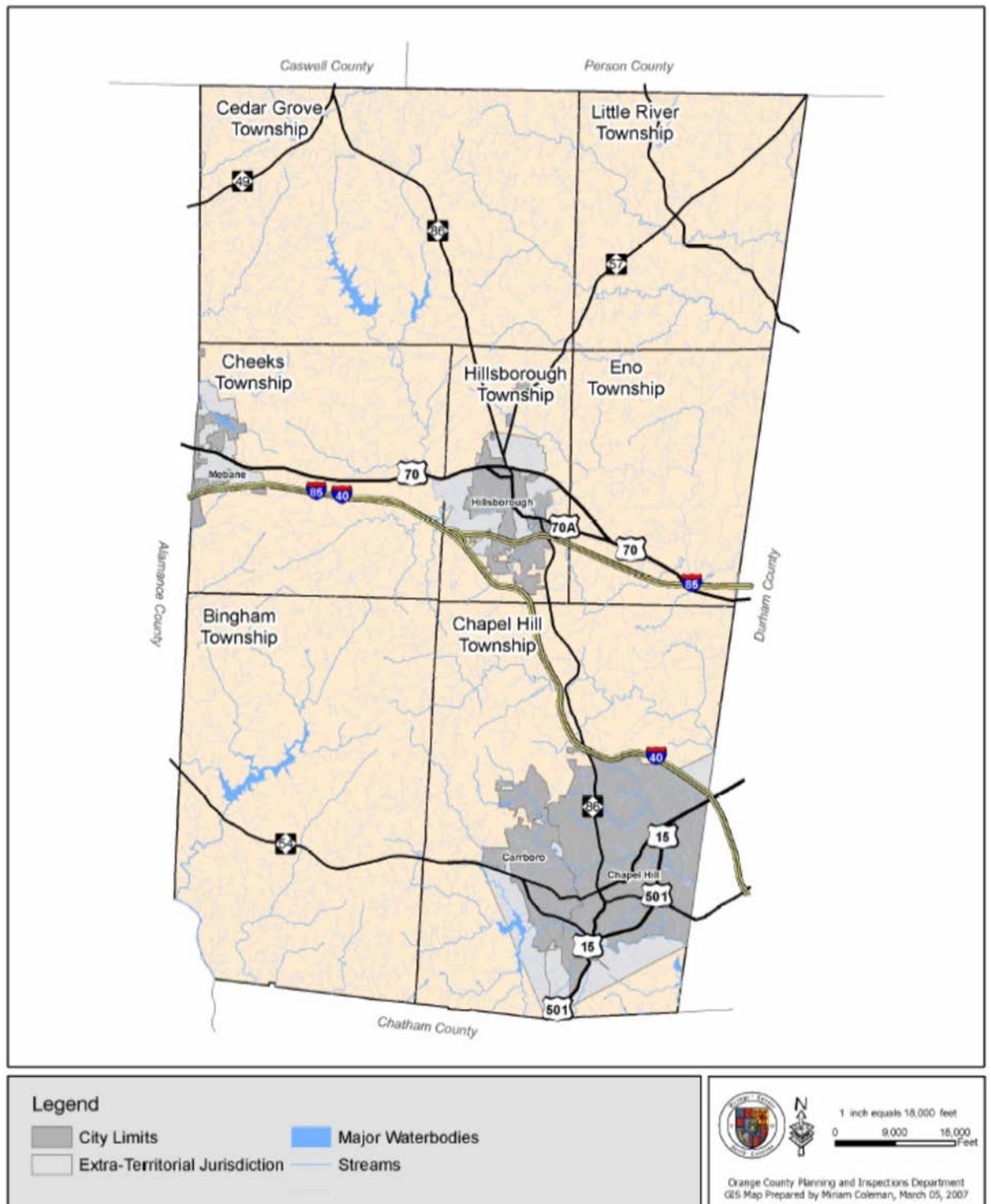
ORANGE COUNTY - CHAPEL HILL - CARRBORO JOINT PLANNING AGREEMENT AND LAND USE PLAN

As defined in the Orange County-Chapel Hill Carrboro Joint Planning Agreement and Land Use Plan, the County and the Towns of Chapel Hill and Carrboro share review approval of land development projects in designated Joint Planning Areas and resource planning activities that cross jurisdictional boundaries (i.e. water resources and transportation planning). Orange County has sole planning and zoning jurisdiction outside of municipal planning jurisdictions and Joint Planning Areas. A description of the Orange County - Chapel Hill - Carrboro Joint Planning Agreement and Land Use Plan can be found later in section 5.2 in a subsection entitled INTER-GOVERNMENTAL PLANNING HISTORY AND CONTEXT.

Map 5-2: Joint Land Use Planning Areas identifies the areas for joint planning and zoning review by the County and Chapel Hill or Carrboro.



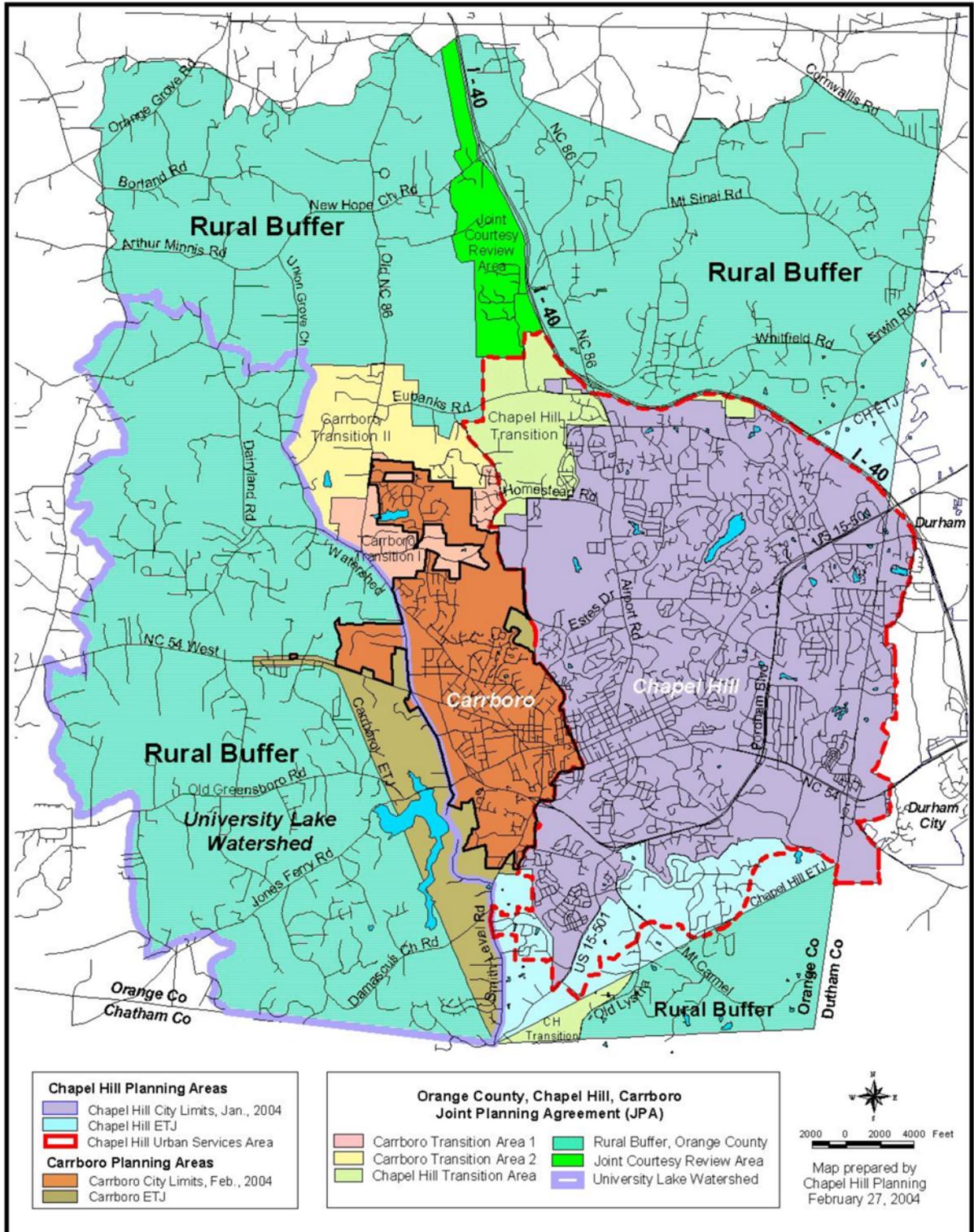
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MAP 5-1: ORANGE COUNTY PLANNING AND ZONING JURISDICTIONS



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MAP 5-2: JOINT LAND USE PLANNING AREAS

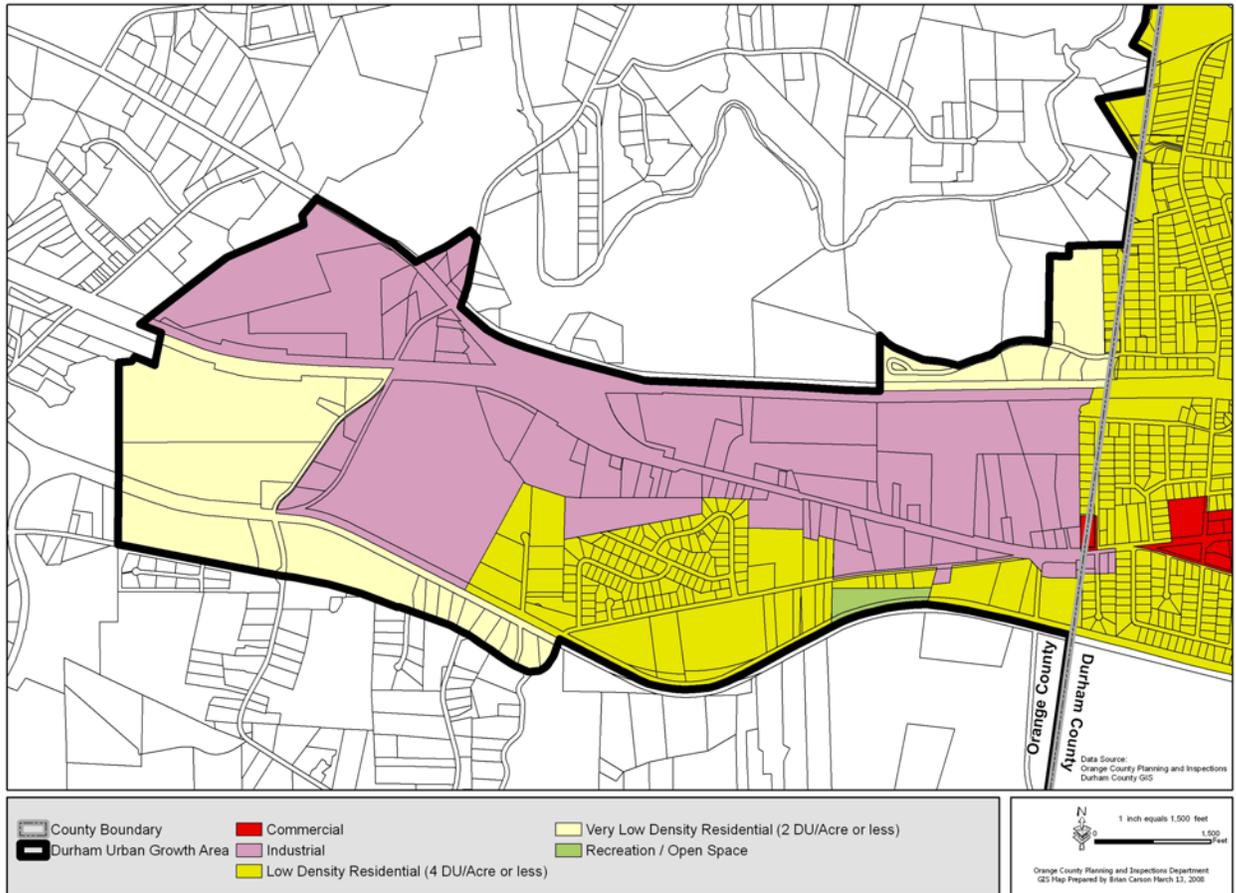


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CITY OF DURHAM'S URBAN GROWTH AREA WITHIN ORANGE COUNTY

Although the City of Durham has only a small area of land within Orange County's borders (17 acres), the City's long range plan includes an Urban Growth Area that extends into Orange County and includes the Eno Economic Development District and a few surrounding properties. (See Map 5-3, below.)

City of Durham's Urban Growth Area and Future Land Use Within Orange County



MAP 5-3: CITY OF DURHAM'S URBAN GROWTH AREA WITHIN ORANGE COUNTY

ADVISORY BOARDS

The basic concept of planning for sustainable growth in Orange County is not a new challenge or goal. As described in *Chapter 1: Plan Overview*, the Board of County Commissioners has established a number of volunteer citizen Advisory Boards and Commissions to provide recommendations on many aspects of land use planning in the County.

Beginning with the adoption of the County's first zoning ordinance in the mid-1960's, over the last 40 years the County has continued to evolve its economic,



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social and environmental systems, relying on the work of many community and volunteer based planning activities and commissioned studies.

REGULATORY HISTORY AND CONTEXT

In the mid 1960s and continuing through the early 1980s, Orange County implemented a series of land use and zoning regulations that helped to establish the framework for the development of the 1981 Land Use Plan and subsequent implementation of the goals and objectives of the Plan.

- 1967: Chapel Hill Township adopted a zoning ordinance and subdivision regulations.
- 1970: Zoning ordinance and subdivision regulations became effective in Eno Township.
- 1974: Orange County began to enforce the North Carolina State Building Code in all townships and Hillsborough.
- 1975: Orange County Planning and Inspections Department was established. Within a year, the department produced a report that included a land classification system for the County, and a sketch plan and policies for Chapel Hill Township.
- 1977: Township Advisory Councils were organized to involve citizens in the development of a countywide land use plan, and to develop sketch land use plans for each township.
- 1978: Subdivision Regulation authority extended to Bingham, Cedar Grove, Cheeks, Hillsborough, and Little River Townships.
- 1981: Orange County became the first county in North Carolina to adopt watershed protection zoning. See also section 6.4.5.
- 1981: Zoning Ordinance text and Zoning Atlas adopted for Hillsborough, Chapel Hill, Eno and Bingham Townships.
- 1984: Zoning extended to Cheeks Township.
- 1986: Joint Planning Land Use Plan adopted by Orange County and Chapel Hill.
- 1987: The Joint Planning Agreement (JPA) among Orange County, Chapel Hill, and Carrboro was enacted.
- 1987: Erosion Control and Stormwater Ordinances adopted.
- 1988: Joint Planning Land Use Plan amended to address the addition of Carrboro to the JPA.
- 1994: Zoning authority extended to Cedar Grove and Little River Townships.

COMPREHENSIVE PLANNING HISTORY AND CONTEXT

Orange County has engaged in numerous land use planning efforts over the last 25 years. The development of the 1981 Orange County Land Use Element and the



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products of the Shaping Orange County's Future planning initiative have played a large role in County planning and provide a foundation for development of the *2030 Comprehensive Plan*.

1981 ORANGE COUNTY COMPREHENSIVE PLAN LAND USE ELEMENT

In 1981, Orange County adopted its first Comprehensive Land Use Element or Land Use Plan providing a policy framework to guide future development within the County's jurisdiction. A corresponding Land Use Plan Map (described at the end of this section) was included as a key component to the Plan, which designated the types of development that would occur in specified areas of the County. The Element was amended numerous times over more than 20 years to address emerging land use planning issues. This current Comprehensive Plan is a continuation of this planning effort, and serves as the updated version of the 1981 Land Use Element.

In 1988 the Land Use Plan began to evolve into a new format with an extended scope. The Land Use Plan was renamed to the Land Use Element, and under separate cover, additional topical Elements of the emerging Comprehensive Plan were added. These Elements included:

- The Economic Development Element (adopted in 1989);
- The Recreation Element (adopted in 1988 and updated in May 1999);
- The Housing Element (1989);
- The Transportation Element (1990 - combined with the Land Use Element);
- Services and Facilities Element (initiated in 1992, not completed);
- Historic Preservation Element (adopted in April 1996);
- In 2001, a process to update the Land Use Element was initiated but stopped in March of 2006 to reevaluate the process and overall format for the Comprehensive Plan; and
- In February 2005, work on the Natural and Cultural Systems Element was initiated.

SHAPING ORANGE COUNTY'S FUTURE.

Beginning in 1993, a landmark County planning initiative called *Shaping Orange County's Future* (SOCF) began an intensive public process to create a vision for the County's future.

This initiative began shortly after a conference on quality growth planning for Orange County. The SOCF process involved more than 400 hours of meetings, community forums, and outreach activities to identify and communicate the community values and a vision for future development that "reflects the values and visions of the people."

In April 2000, the SOCF task force produced a report describing: a vision statement for Orange County as a community in the year 2030; the overarching sustainability and community building themes within this vision; and a series of



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goals, objectives, and action strategies to encourage a movement toward becoming a sustainable community.

As the following list indicates, some of the SOCF goal statements and values are reflected in the eight current Board of County Commissioners' (BOCC) Planning Principles and also to some degree within the goals and objectives of this Comprehensive Plan.

SOCF Goal Statements and Applicable BOCC Planning Principles:

1. Putting community building first. (See BOCC Planning Principle #8.)
2. Address citizen concerns about representation in government. (See BOCC Planning Principle #8.)
3. Create and maintain a centralized information base for decision-making.
4. Improve government efficiency and effectiveness.
5. Adopt policies to move the community toward sustainability. (See Planning Principle #2.)
6. Promote land use patterns that meet people's needs while protecting natural resources. (See BOCC Planning Principle #4, #5, and #6.)
7. Conserve natural areas, farmland, and other important open spaces. (See BOCC Planning Principle #5.)
8. Create environmentally sustainable transportation systems that meet people's needs. (See BOCC Planning Principle #2 and #3.)
9. Pollution prevention and waste reduction. (See BOCC Planning Principle #3.)
10. Supporting a diverse economy that meets local needs. (See BOCC Planning Principle #7.)
11. Protect our water supply. (See Planning Principle #6.)
12. Ensure availability of affordable, quality housing.
13. Address human services and education priorities. (See BOCC Planning Principle #1.)

The SOCF's report was accepted by the County Commissioners as well as the Town Boards for Chapel Hill and Carrboro. Although its recommendations were never officially adopted by the County or the Towns, progress has been made toward realizing these goals.

[THE NEED TO UPDATE THE COMPREHENSIVE PLAN](#)

The County's individual Plan Elements have provided guidance for setting County policies for the last two decades, but they are now in need of updating. Our community has changed and continues to change, requiring a new plan for the future. Population projections show that between 160,000 and 215,000 people will live in Orange County by 2030 -- increasing our current population by more than 40,000 people. These new people will need housing, jobs, and places to



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shop and recreate. Public services will need to be expanded to serve these new households. The transportation system will need to accommodate the future travel needs of these people. New parks and recreational facilities will need to be provided. Protection of natural areas and water resources from inappropriate development will be paramount for ensuring a high quality of life over the long-term. The County is now in a strategic position to plan for these changes.

The County has many choices to make in the future. It will need to balance future development with the need to protect rural character, preserve important natural areas and water resources, provide a range of housing opportunities, and provide an efficient level of public services. The Land Use Element alone can not balance all of these issues. A plan that integrates and coordinates the goals and objectives of the many Plan Elements is a necessary framework for balancing these goals.

Recognizing the need for a plan that addresses the comprehensive needs of the community, in October 2006, the Board of County Commissioners adopted a new process for updating and integrating the 1981 *Comprehensive Plan*. The Orange County Planning Board was responsible for developing the process and schedule for this update, and over the next two years, Orange County staff, advisory boards and commissions, Orange County citizens and community organizations, worked together to create the content, goals and objectives of this Plan (See *Appendix C: 2030 Comprehensive Plan Update Schedule*.)



Part of this process was an evaluation of the 1981 *Comprehensive Plan*. This evaluation identified key areas to address through the new 2030 Plan. These include:

- Sustainability indicator data shows that three major challenges facing the County in progressing toward sustainability are: loss of natural habitats; dependence on automobiles; and housing affordability. These are large and complex issues and planning for them requires a coordinated approach.
- The guidelines for Plan review and evaluation that were contained within the 1981 Plan were not followed. Guidelines for Plan



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evaluation and update are included in the updated 2030 Plan in *Section 1.5: Monitoring and Evaluation Procedures*.

- The format of the original 1981 Land Use Element/Plan, which contained all components of the Comprehensive Plan under one cover, was good, and has been incorporated into the updated Plan.
- The key structural components of the 1981 Land Use Element/Plan were successful in limiting development in inappropriate areas and preventing undesirable land use patterns from occurring. The 2030 Plan builds on these established goals and policies and provides fresh ideas and goals for improving land management in the County.
- The County has had mixed success realizing development in appropriate areas as denoted on the Land Use Plan Map (i.e., 10 and 20-year Transition Areas, Rural Activity Nodes, and Economic Development Districts). This Plan includes objectives to address this issue and coordinate land planning, economic development, and public infrastructure efforts to encourage development in targeted locations.
- In general, completed Small Area Plans in the County have revealed the need to pursue additional interlocal agreements; add new partners to the Water and Sewer Management Planning and Boundary Agreement; amend the County's Land Use Map (contained within the Land Use Element); and amend the County's Zoning Ordinance text and map. The Plan identifies these needs and sets out an implementation strategy for setting priorities among them.
- More emphasis is needed on Objectives and Policies that further address the following 1981 Plan Goals:
 - The promotion of economic development which emphasizes employment meeting local needs while preserving the character of communities and protecting the natural environment;
 - The continued use of agricultural land and the maintenance of the farming way of life in rural areas as a viable part of the County's economy;
 - Adequate, reasonably priced safe housing in an appropriate variety of types in proximity to jobs and daily activities for all citizens; and
 - The provision of water and sewer lines in those areas, delineated in the land use plan, which can be practically and efficiently served by these facilities. These goals are incorporated herein and should be considered when setting priorities for implementation.
- The need to establish and implement a set of sustainability indicators should be addressed. *Chapter 1: Plan Overview* sets the framework for developing sustainable indicators.



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In addition, there are other key issues identified that were addressed during the 2030 Plan update process. These include:

- Coordinating and reconciling land use plans with the plans for future public facilities and services to achieve long-term sustainability;
- Preserving the County's rural landscape and natural and cultural features;
- Promoting the sustainable use of the County's natural resources; and
- Compiling, evaluating, and working to set priorities among the stated goals and objectives of the Plan that are related to and guide future land use, as a foundation for updating the Land Use Plan Map and Comprehensive Plan implementation activities.

INTER-GOVERNMENTAL PLANNING HISTORY AND CONTEXT

The County has a history of working closely to coordinate planning efforts with the four Towns, particularly in the areas along the edges of the Towns' and County's planning and zoning jurisdictions. These successes have helped shape the County into what it is today. Continued coordination between the County and Towns is necessary to ensure that future growth and development occurs in a sustainable manner.

ORANGE COUNTY-CHAPEL HILL-CARRBORO JOINT PLANNING AGREEMENT (JPA) AND LAND USE PLAN.

In response to urban growth pressures occurring on the fringes of Chapel Hill and Carrboro's planning jurisdictions, Orange County and the Towns of Chapel Hill and Carrboro developed and adopted a Joint Planning Agreement (JPA). It was initially approved in 1984 by Orange County and Chapel Hill, and later amended in 1987 to include Carrboro. The 1984 agreement called for the preparation of a Land Use Plan for the transition areas between the Towns and County jurisdictions, and joint planning procedures for the approval of land development projects.

A Joint Planning Area Land Use Plan was adopted in 1986 which designated land uses as urban, transition, rural buffer, or watershed. These land use categories are used in the County's Land Use Plan discussed in Section 5.3. A process for joint development approval within transition areas was developed and adopted by the three jurisdictions, and continues today.

Of key importance was the designation of the rural buffer around the Chapel Hill and Carrboro planning areas. The establishment and maintenance of the Chapel Hill-Carrboro Urban Growth Boundary has influenced the development patterns in this area. The rural buffer serves as a low density, primarily residential area, surrounding the urban boundaries of Chapel Hill and Carrboro. It contains approximately 38,000 acres and is defined generally by the New Hope Creek drainage basin to the north and the University Lake watershed to the west. This area is intended to remain rural in character, not require urban services (i.e. public water and sewer), and annexation within this area is prohibited. (See Map 5-2 for an illustration of the joint planning areas.)



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The Orange County-Chapel Hill-Carrboro Joint Planning Agreement is included as *Appendix E*.

RURAL CHARACTER STUDY.

In response to the establishment of the Rural Buffer around Chapel Hill and Carrboro, Orange County initiated a process to identify ways to protect open space within the Rural Buffer with an appropriate balance between the rights of private property owners and the protection of the environment for the common good. This effort began in 1987 and continued for several years, producing a series of reports, including Phase 1 and Phase 2 Rural Character Study Committee Reports, and the Conceptual Guidelines for Rural Orange. These reports contained citizen-generated ideas for further study and analysis, and identified strategies for preserving the County's rural character.

ORANGE COUNTY/TOWN OF HILLSBOROUGH URBAN TRANSITION AREA TASK FORCE REPORT & THE ORANGE COUNTY/TOWN OF HILLSBOROUGH STRATEGIC GROWTH PLAN.

In 2004, Orange County and the Town of Hillsborough began planning discussions for Transition Areas on the edges of Hillsborough's planning jurisdiction, specifically focusing on recommendations for the locations of these Transition Areas and the provision of public services to these lands. A Joint Orange County/Town of Hillsborough Urban Transition Area Task Force was formed, and in January 2005 the task force completed a report that included:

- Principles of Agreement and a conceptual map that would serve as the basis for future planning efforts in these areas;
- Recommended implementation strategies for the Principles of Agreement; and
- A scope of work for developing a Joint Strategic Growth Plan.

In 2006, the County and Town initiated the process for development of a Strategic Growth Plan, and Phase 1 of the Plan was completed in 2007. The Orange County Board of County Commissioners and the Hillsborough Board of Commissioners are now engaged in Phase 2, implementing the Plan by preparing a planning agreement that would accomplish recommendations identified during Phase I. Completion is targeted for the end of 2008.

ORANGE COUNTY STRATEGIC GROWTH AND RESOURCE CONSERVATION PROGRAM.

In 2004, Orange County began a process to study the possible use of a Transfer of Development Rights (TDR) strategy for the County. This effort was subsequently renamed a Strategic Growth and Resource Conservation Program. This study has examined the provision of alternative ways for landowners to retain the development value on rural properties and to be able to transfer that value to areas suitable for urban-scale development.

Phases 1 and 2 of the study were completed in June 2006. Phase 1 of the study included background research and data gathering, and Phase 2 included development of a feasibility and concept plan for the program. Phase 3, which includes a final written report and potential implementation measures, has been extended to follow the completion of the 2008 Comprehensive Plan update.



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CONTINUED INTERGOVERNMENTAL COORDINATION

The County will continue to work with the municipalities to achieve the goals and objectives set in this plan. Through this planning process, several cross-jurisdictional issues have arisen that will be addressed through the implementation of this plan such as adding new partners to the Water and Sewer Boundary Agreement, planning for future water resource needs countywide, encouraging appropriate development in transition areas, and establishing interlocal agreements with Mebane and Hillsborough and neighboring counties regarding land use plans for the edges of the jurisdictions. To guide these efforts, each Plan Element provides an *Intergovernmental Coordination* section that discusses the key areas for coordination.

SMALL AREA PLANNING HISTORY AND CONTEXT

Since the adoption of the 1981 Land Use Element/Plan, several Small Area Plans (SAP) have been completed for various parts of the County. The number of small area plans that have been completed in the last 10 years emphasizes the need for regular updates to the Comprehensive Plan. Changes in population, land use, and availability of public services and community needs, have all provided the impetus for the completion of the following SAPs in Orange County.

1991 EFLAND AREA STUDY

The purpose of the 1991 Efland Area Study was to “examine the greater issues affecting the comprehensive long-range plans for the Efland area, the location of non-residential development, and the protection of the community’s character.” The study was created in response to the community’s expressed interest in maintaining the community character of Efland and was completed with a great deal of citizen support. The study included an informal citizen survey, a citizen-appointed Steering Committee, and seven community meetings. The result of the study were recommendations that the “community as a whole felt were important to the future of Efland.” This plan was approved by the County Commissioners in April 1991.

STONEY CREEK BASIN SMALL AREA PLAN.

In 1994, Orange County initiated a process to develop a small area plan for the Stoney Creek Basin, a 4,700-acre area southeast of the Town of Hillsborough. A 22-member Planning Group prepared a plan to achieve two goals:

1. Preserving landowners’ rights to get fair value for their property, and
2. Protecting the area’s rural character. The plan recommended implementation of voluntary flexible development options as an alternative to conventional subdivision development.

Although the Stoney Creek Plan was approved by the County Commissioners in 1996, it has not been implemented through Land Use Element or Zoning amendments.

EFLAND-MEBANE SMALL AREA PLAN.

In 2004, the Board of County Commissioners appointed a citizen task force to develop a Small Area Plan for the Efland-Mebane area. The plan included an assessment of the existing Small Area Plans for the area and analysis of existing infrastructure, land uses, community issues, and economic conditions. The



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Efland-Mebane Small Area Plan was adopted in June 2006 and includes implementation recommendations for water and sewer, land use, transportation, housing, parks, recreation and open space, communications, inter-governmental agreements with Mebane, and design overlays for the US 70 Corridor and Efland town core.

[NC HIGHWAY 57 SPEEDWAY AREA SMALL AREA PLAN.](#)

In 2007, Orange and Durham County completed a Small Area Plan for the 930-acre North Carolina Highway 57 Speedway Area. This area is located in the northeast corner of Orange County near the border with Durham County. The area was selected as an opportunity for further long-range planning because of multiple factors 1) existing businesses of non-conforming status, 2) the area's location within a protected watershed, and 3) Orange County's desire to encourage compatible non-residential development that protects the existing rural character of the area. The planning process included an identification of issues and concerns for the area, public feedback through scheduled meetings, and drafting of the plan for public review and consideration. The plan includes nine goals for guiding future planning efforts in the area, as well as objectives and policies for implementing the goals.

The NC Highway 57 Speedway Area Small Area Plan was adopted by the County Commissioners in August 2007. The implementation of recommendations included in the Plan is forthcoming.

[PANTRY STUDY](#)

The Pantry Study was to ensure that subsequent developments were in accordance with municipal and County land use objectives and included participation from the Town of Hillsborough. The plan established development standards for transition areas and additional protection for environmentally sensitive areas. The plan was approved by the BOCC in July, 1986.

[HOW SMALL AREA PLANS INFORM UPDATES TO THE COMPREHENSIVE PLAN](#)

Development of Small Area Plans has allowed the County to take a more detailed look at targeted areas in the County. The goals and objectives of these Plans provide a foundation for improving the County's Comprehensive Plan to effect needed change in these locations. In general, these Small Area Plans have highlighted the need for the County to: 1) Pursue additional interlocal agreements; 2) add additional partners to the Water and Sewer Management Planning and Boundary Agreement; 3) amend the County's Future Land Use Map (contained within the Land Use Element); and 4) amend the County's Unified Development Ordinance text and map for consistency and to implement the recommendations that have been included in the adopted Small Area Plans.

5.3. [THE LAND USE PLAN](#)

One of the fundamental planning tools used to achieve the stated goals and objectives of the Comprehensive Plan in Orange County is the design and application of a Land Use Plan and Map. Land Use Element implementation is accomplished primarily through the application of zoning, although a variety of land use ordinances are available for various aspects of implementation. A key feature of land use planning in Orange County is the requirement for consistency between the Future Land Use Map and the application of zoning. The Land Use and Zoning Matrix matches each of the Land Use Plan classifications with



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compatible zoning districts. If a zoning district is not listed as compatible with a land use classification in the Matrix, re-zoning cannot take place unless the Future Land Use Map is amended. (See *Appendix F: Relationships Between Land Use Classifications and Zoning Districts*)

The Future Land Use Map defines the location of coordinated and appropriate land use classes and is designed to accommodate a particular combination of land uses that would achieve a desired pattern of development. The linkage between the 1981 Plan and zoning has helped to guide new development to appropriate locations in the County. As a result of the County's strong commitment to the Future Land Use Map, it can be and is used as a primary tool by staff, the Planning Board, and elected officials during review of re-zonings. The Map also provides the development community and staff with clear guidance to the locations in the County where re-zonings may be appropriate and where they are not.

There are three basic land use categories (Developed, Transition, and Rural) and a series of overlays used on the Map. All have been refined into a more detailed classification system to meet the specific development needs of the County. The land use categories and overlays consist of the following:

DEVELOPED LAND USE CLASSIFICATIONS

Urban

Land that is within the corporate limits or Extra-Territorial Jurisdiction (ETJ) of a town and, therefore, under the planning and zoning jurisdiction of the town.

TRANSITION LAND USE CLASSIFICATIONS

10-Year Transition

Land located in areas that are in the process of changing from rural to urban densities and/or intensities, that are suitable for higher densities and/or intensities and could be provided with public utilities and services within the first 10-year phase of the Plan update or where such utilities and services are already present or planned. Non-residential uses implemented in accordance with small area plans and/or overlay districts may be appropriate.

20-Year Transition

Land located in areas that are in the process of changing from rural to urban, that are suitable for urban-type densities and should be provided with public utilities and services within the second 10-year phase of the plan.

Commercial Transition Activity Node

Land located at major road intersections or near major transportation routes that could be provided with public water and wastewater services and is appropriate for retail and other commercial uses.

Commercial-Industrial Transition Activity Node

Land near major transportation routes that could be provided with public water and wastewater services and is appropriate for retail and other commercial uses; manufacturing and other industrial uses; office and limited (not to exceed 25% of any Node) higher density residential uses.



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Economic Development Transition Activity Node

Land in areas of the County which has been specifically targeted for economic development activity consisting of light industrial, distribution, office, service/retail uses, and flex space (typically one-story buildings designed, constructed, and marketed as suitable for use as offices but able to accommodate other uses such as a warehouse, showroom, manufacturing assembly, or similar operations.) Such areas are located adjacent to interstate and major arterial highways, and subject to special design criteria and performance standards.

RURAL LAND USE CLASSIFICATIONS

Rural Buffer

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 during the plan period.

Rural Residential

Land in the rural areas of the County which is appropriate for low intensity and low-density residential development and which would not be dependent on urban services during the plan period.

Agricultural-Residential

Land in the rural areas where the prevailing land use activities are related to the land (agriculture, forestry) and which is an appropriate location for the continuation of these uses.

Rural Community Activity Node

Land focused on designated road intersections which serve as nodal crossroads for the surrounding rural community and is an appropriate location for any of the following uses: church, fire station, small post office, school, or other similar institutional uses and one or more commercial uses.

Rural Neighborhood Activity Node

Land focused on designated road intersections within the rural area that is appropriate for small-scale commercial uses characteristic of "Mom and Pop" convenience stores and gas stations.

Rural Industrial Activity Node

Land focused on designated road intersections within the rural area that is appropriate for small scale industrial uses which do not require urban type services.

OVERLAYS

Public Interest Area

Land which contains public or quasi-public uses such as publicly owned land, research forests or known archaeological or historical sites.

Water Supply Watershed

Land draining to existing reservoirs which serve as public water supplies, or to potential reservoir sites or stream intakes for drinking water withdrawal which have been designated for protection against



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threats to the water quality of future water supplies, in accordance with County watershed protection programs and the North Carolina Water Supply Watershed Protection Act of 1989.

Watershed Critical Area, County Designated

The land area within one-half mile of the normal pool elevation (or designated elevation) of an existing Class II water supply reservoir, or the ridgeline of the watershed, whichever is less; and the land area within one-half mile of the normal pool elevation (or designated elevation) of a proposed water supply reservoir, or the ridgeline of the watershed, whichever is less; and the area within one-half mile on each side of streams flowing into Class I reservoirs, as designated for protection within the Zoning Ordinance.

Watershed Critical Area, State Required

The land area within one-half mile of the normal pool elevation of public water supply reservoirs in which an intake is located (i.e., Class I reservoirs), or the ridge line of the watershed, whichever is closest to the normal pool elevation of the reservoir.

Reservoir, Class I

A body of water, such as a pond or lake, confined by a dam or other barrier to be used for public water supply from which water flows by gravity or is pumped directly to a treatment plant or to a small intervening storage basin and thence to a treatment plant.

Reservoir, Class II

A body of water, such as a pond or lake, confined by a dam or other barrier to be used for public water supply from which water flows by gravity or is pumped to a Class I reservoir prior to final entrance to a water treatment plant.

Resource Protection Area

Land designated as Primary Conservation Area which contains sensitive environmental resources, historically significant sites, and features considered unbuildable because of their limitations or unsuitability for development. This includes wetlands and floodplains along drainage tributaries, steep slope areas, (15% or greater), natural areas, wildlife habitats and corridors, and significant historic and archaeological sites. These areas form the basis for a conservation network within which other land uses are situated.

New Hope Creek Corridor Open Space

Some of the land in the Resource Protection Areas and a portion of the Public Interest Area designated as significant and worthy of protection according to the New Hope Corridor Open Space Master Plan completed in April of 1991. This classification is 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. The New Hope Corridor Open Space is made up of critical environmental areas such as stream beds, floodplains, steep slopes, and larger tracts of historic, educational, or recreational value.



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Stoney Creek Basin

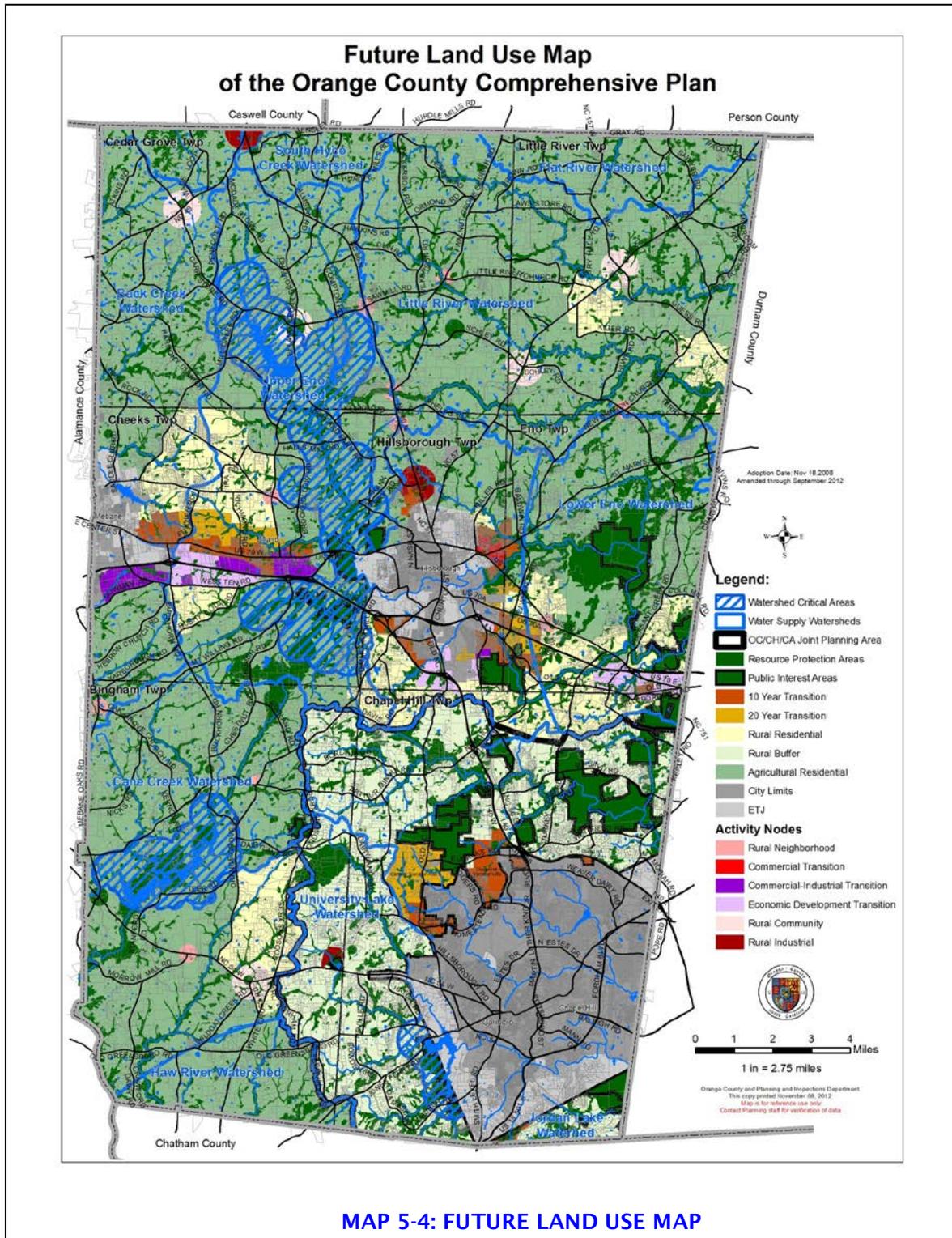
Land within the boundaries of the 4,696 acre Stoney Creek Drainage Basin southeast of the Town of Hillsborough in portions of Hillsborough, Eno, and Chapel Hill Townships. The area is triangular in shape and is bound generally by I-85 to the north, the University Spur of Southern Railroad to the east, and NC Highway 86 to the west.

For each land use classification and overlay, sets of criteria have been developed that describe the physical and environmental context, the projected population change, and resulting land requirements. (See *Appendix G: Land Use Classification and Overlay Locational Criteria*.)

Map 5-4: Future Land Use Map, designates the areas where these classifications are applied.



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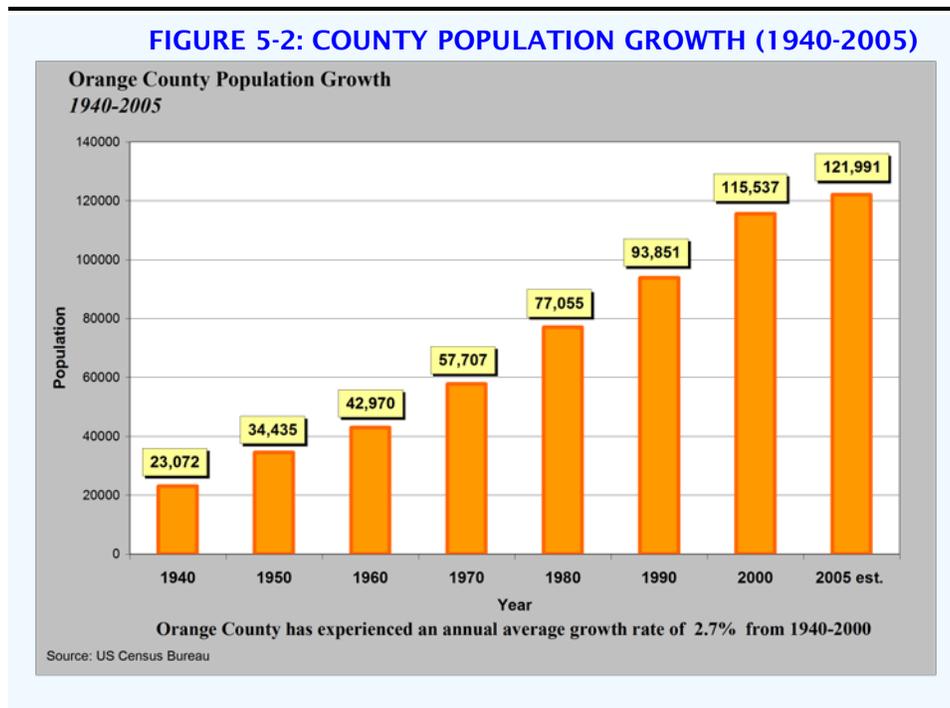
Although minor amendments have been made since the Plan was originally adopted in 1981, the most significant amendment last occurred in 1994 when the County's three Economic Development Districts were created. As the County works to implement the goals and objectives of this Plan and of the adopted Small Area Plans, the Land Use Plan categories and map will need to be reviewed and revised.

5.4. HISTORIC DATA, CURRENT DATA, EVALUATION OF TRENDS

Data analysis is a critical component to any planning effort. The following information provides a snapshot in time and illustration of trends for population, housing, economic development, environmental features, and land development in Orange County. This information provides an informational basis to support the land use goals and objectives described in this Element, and can inform decisions regarding future implementation strategies. Additional data can be found in *Appendix A: County Profile (Data) Element*.

POPULATION

Orange County's growth rate is ranked in the top 25% for the state and it is the 3rd fastest growing County in the region at 2.1%. As an integral part of the Triangle, Orange County has experienced dramatic increases in population during the past few decades, increasing nearly fifty percent since 1980 to its estimated population of 121,991 in 2005. That means that since the adoption of the 1981 Plan, the County's population has increased by almost 45,000 people. Between 1990 and 2000, the majority of Orange County's growth (75%) was attributed to the in-migration of new residents (19,000). (See Figure 5-2.)



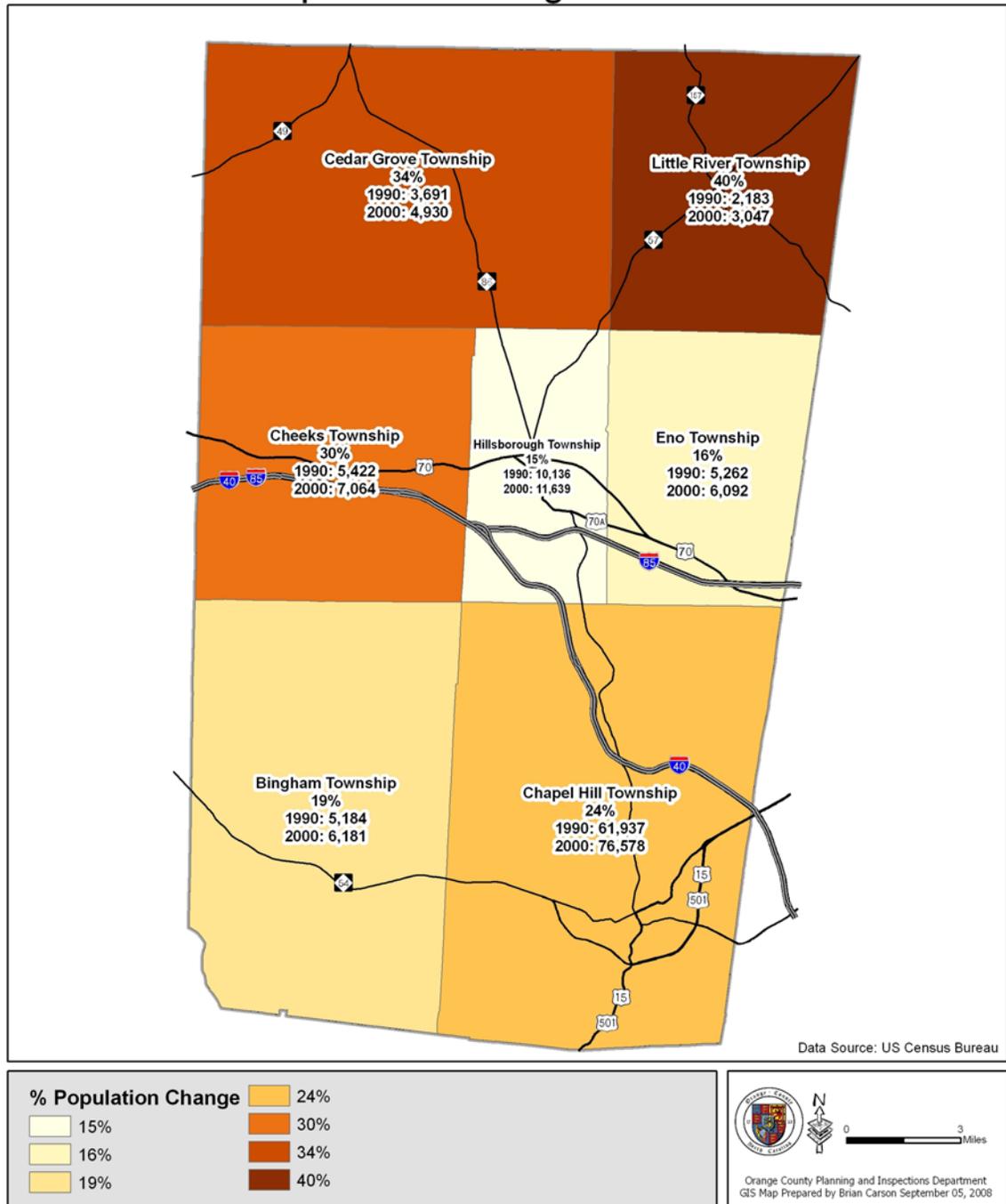


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With a total land area of 254,720 acres or 399 square miles, Orange County had an overall population density of 305 persons per square mile in 2005. However, population is not evenly distributed throughout the County. Density is focused in the southern section of the County with fifty-seven percent of the population residing within the Towns of Chapel Hill and Carrboro. While the majority of people are located in the southern sections of the County, other parts of the County experienced the highest percentage of growth between 1990 and 2000. The Little River Township grew by 40%, Cedar Grove Township by 34%, and Cheeks Township by 30%. In comparison, Chapel Hill and Bingham Townships grew by 24% and 19%, respectively. While the Towns continue to grow, other areas of the County have also experienced significant growth. (See Maps 5-5 and 5-6.)



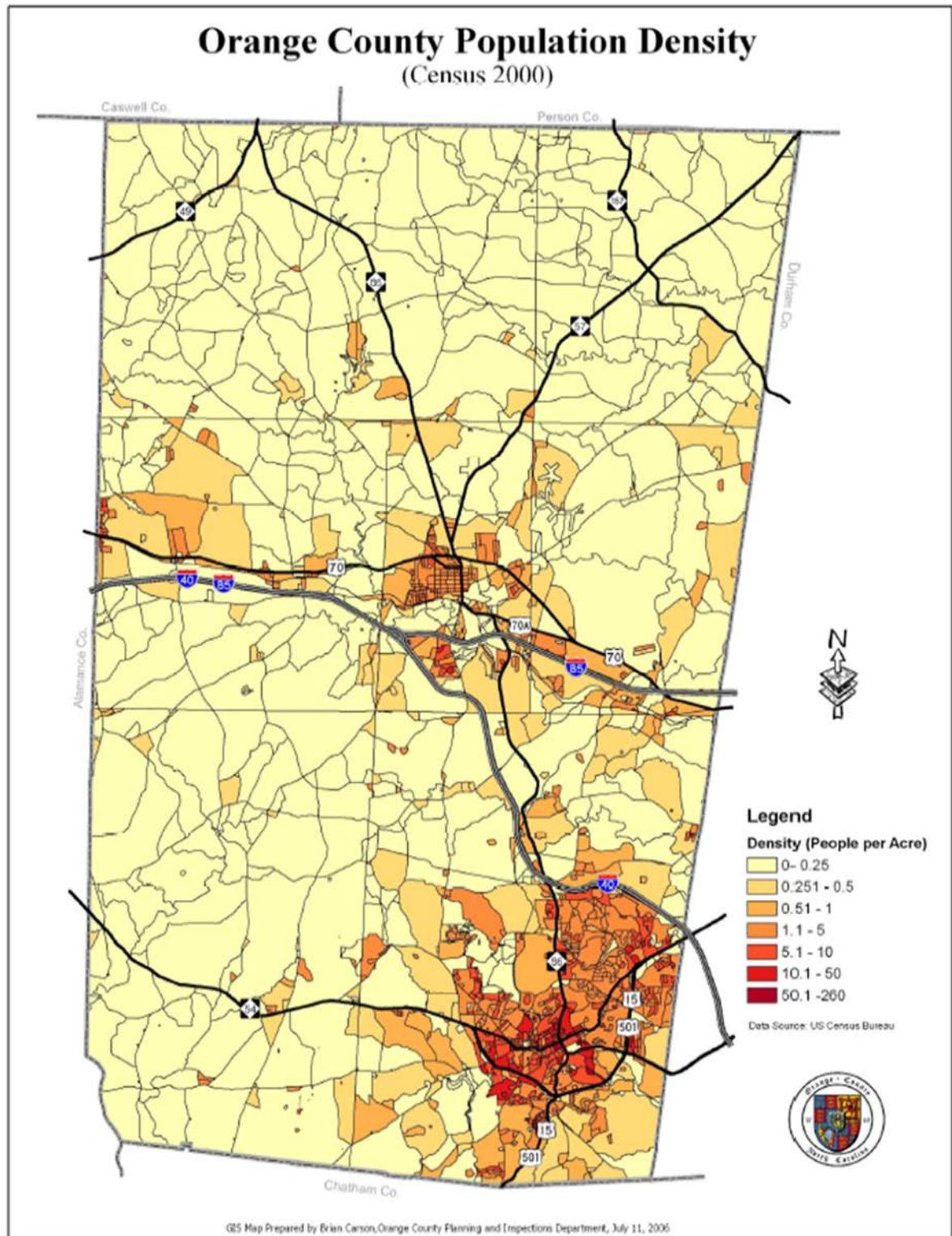
Orange County % Population Change 1990 - 2000



MAP 5-5: PERCENT OF POPULATION CHANGE (1990-2000)



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MAP 5-6: ORANGE COUNTY POPULATION DENSITY



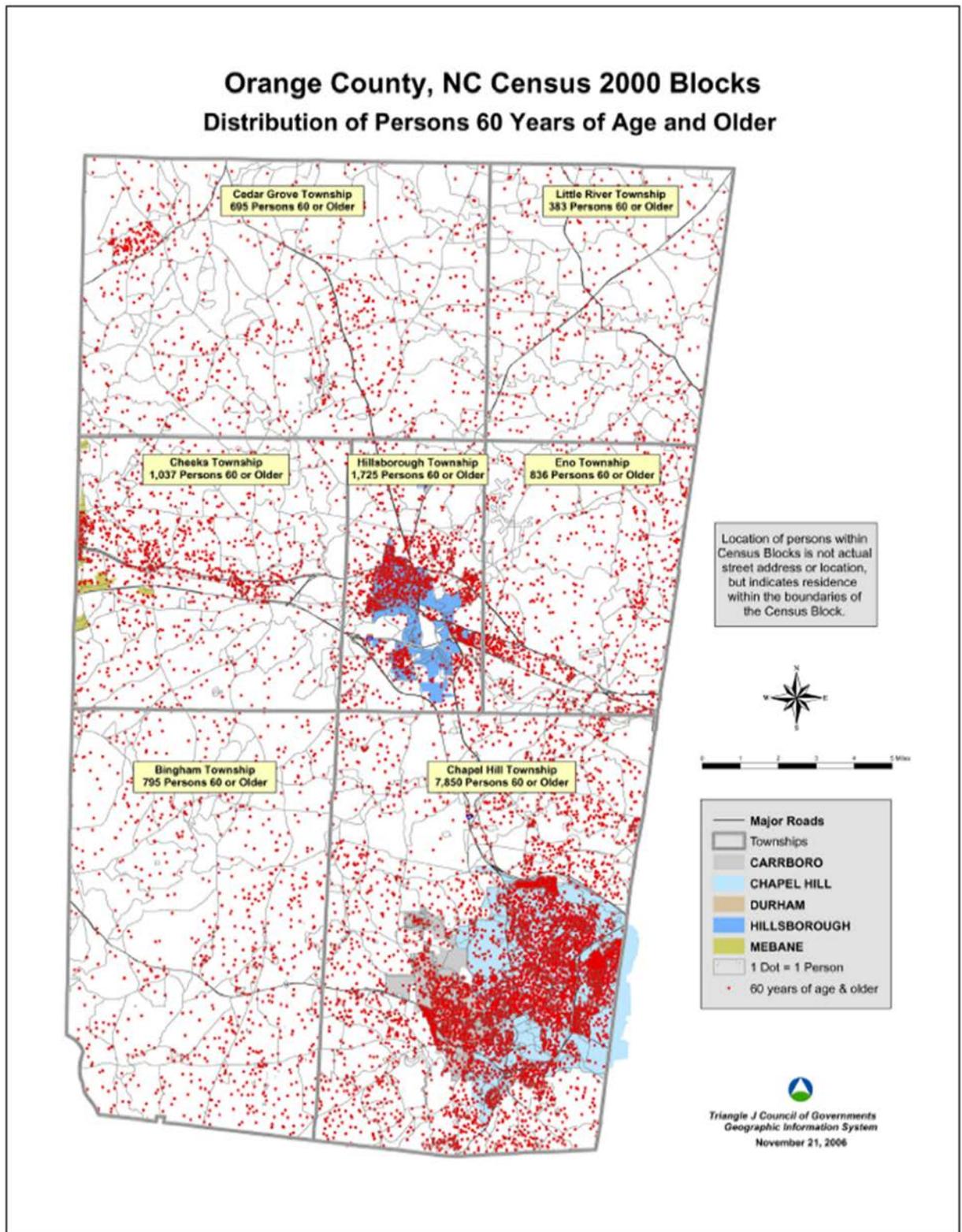
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DEMOGRAPHICS

The Hispanic/Latino community is the fastest growing segment increasing from 1% in 1980 to 4.5% in 2000. It should be noted that minority populations are often undercounted during Census periods. Since these data were drawn from the 2000 Census, there are even more Hispanic/Latino individuals who now call Orange County home.

The median age for Orange County has increased from 25.7 in 1980 to 30.4 in 2000. This trend is expected to continue in the future with the "graying" of America. In absolute terms, population growth for the 65(+) age group has doubled since 1980 from 5,783 to 10,639. Primarily, the County's older population lives in the Towns. However, seniors also live in other parts of the County where needed services are not as proximate. (See Map: 5-7.)

The school age population (5-18) has grown by 8,000 since 1980. Orange County's population is slightly younger in comparison to the State, with age spikes in the 15-19 and 20-24 age groups, due to the presence of UNC-Chapel Hill and other universities in the area.



MAP 5-7: DISTRIBUTION OF PERSONS 60 YEARS AND OLDER BY CENSUS BLOCK

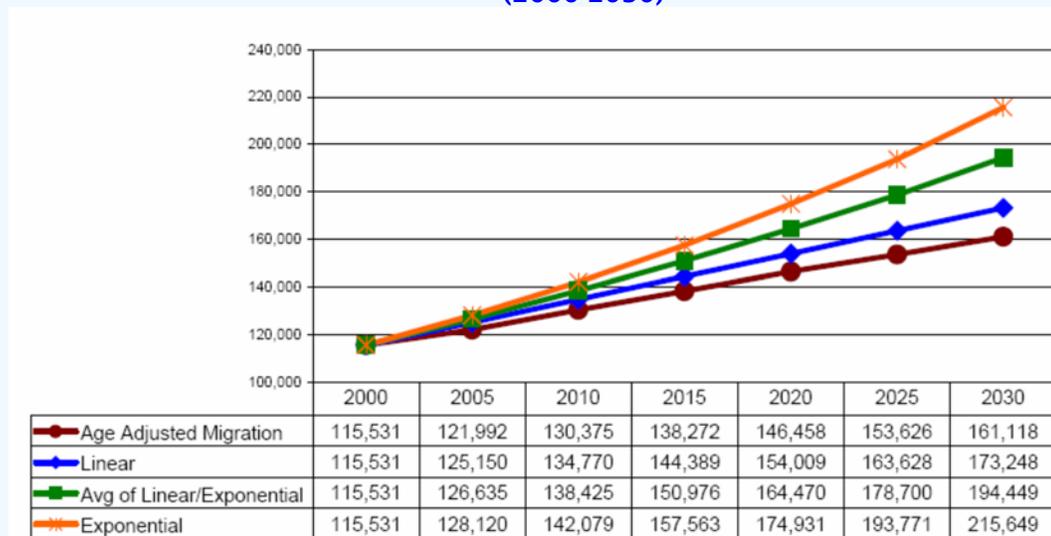


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POPULATION PROJECTIONS

Population Projections are professional estimates for future population based on sets of assumptions about potential growth. Projections provide an important framework for estimating the extent of future impacts on human, economic and environmental conditions resulting from the increased demand for the use of land and resources. To maintain objectivity and provide different scenarios for future growth trends, alternative methods have been used for the County Profile Element, yielding a low, medium, and high projection of future population growth. (See *Appendix A County Profile (Data) Element* for details on the three population projection methodologies.)

FIGURE 5-3: COMPARISON OF POPULATION PROJECTIONS (2000-2030)



Source: Appendix A: County Profile (Data) Element

These population projections reveal the following:

- **Projected Total Growth.** The range of projected population growth for Orange County through 2030 is between 161,118 and 215,649. Even under the conservative estimate, the County's population is expected to increase by 40,000.
- **Monthly Growth,** On average, Orange County can expect to add between 127-279 people per month through 2030.
- **Growth in the Unincorporated Areas.** The population in the unincorporated portions of the County is projected to decrease from 42 percent of the population in 2000 to between 36-40%. This, however, does not mean that growth will not continue to occur in these areas.



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- **Growth of Elderly Population.** During the decades (2000-2030) the elderly population will be growing both in absolute numbers as well as a percent of total population. In 2000, this group represented 8.6 percent of the total population, but is expected to increase its share to 16.8 percent by the year 2030. The elderly population will nearly triple during these three decades (2000-2030), increasing from 9,931 in 2000 to 26,499 by the year 2030. The very old population (85 and over) will more than double during this time period, increasing from 1,174 in 2000 to 2,909 in the year 2030.
- **Growth of School Age Children.** The growth rate of school-age children is expected to track overall population growth rates. The school-age population of students ages 5-18 years old will remain steady around 15% of the total population between these decades. Growth rates for teens 15-18 will decline by almost two-thirds between 2010 and 2030. Likewise, growth rates for the very young 0-4 will drop by half. However, in terms of real numbers, this growth will likely require the development of more schools and student facilities for these new residents.

Continued population growth is one of the primary reasons for updating the Plan. These new populations will require expanded services and new development to meet their needs. Planning ahead for the projected growth gives the County the ability to direct growth to identified areas and to make sure that infrastructure improvements keep pace with new development.

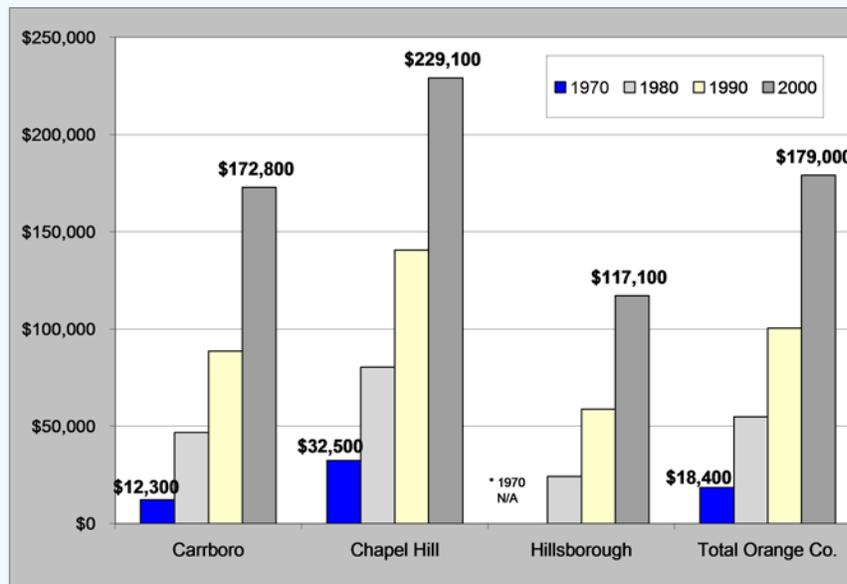
HOUSING TRENDS

Orange County has a highly valued housing stock, with the highest sales prices in the region. Prices have continued to increase over the last decades, at rates faster than neighboring counties. The number of housing units affordable to those earning low and even moderate-incomes has been decreasing and will likely continue to decrease. These housing value trends are illustrated in Figure 5-4.



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FIGURE 5-4: MEDIAN HOUSING VALUE TRENDS FOR OWNER-OCCUPIED UNITS (1970-2000)



Source: US Census Bureau, 2000

A review of Orange County's housing data shows the following:

- **Regional Housing Price Comparison** - Of the Triangle counties, Orange County has the highest housing sales price. The sales price gap continues to widen among these counties, with housing prices increasing nearly twice as fast in Orange as in Durham and Wake counties since 1995.
- **Housing Units and Average Household Size** - According to the 2000 Census, there were 47,706 housing units in Orange County with an average household size of 2.6 people. With the graying of the population, it is likely that the average households size will be smaller in the future.
- **Median Housing Value** - Median house values for owner occupied housing in all of Orange County has increased by more than \$160,000 (a nine-fold increase) since 1970.
- **Home Sales Values** - Orange County's re-sale and new housing sales prices (for homes on the real estate market) have increased 87% from 1995-2005 to an average price of \$320,489 for homes sold in 2005.
- **Distribution of Price** - Availability of homes with sales prices in the \$120,000 and less range has dropped more than 40% while the number of homes available in the \$250,000+ range has increased 32% since 2000.



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- **Percent Deemed Affordable** - Only 18% of homes on the market in 2005 were considered affordable for families of four making median income or less.
- **Rental Units** - Renters occupy more than 50% of available housing units in Chapel Hill. Likewise, the majority of large complex rental apartments are in Chapel Hill, accounting for 56.7% of all large complex apartments in Orange County for 2005. Unincorporated Orange County only contains 1.8% of available apartment housing. Average monthly rents in Orange County were \$708 in 2005. Median contract rent prices have nearly tripled since 1980.
- **Lack of Affordable Rental Housing** - Based on information by the Orange County Department of Housing & Community Development, in 2005, there were a significant number of three bedroom apartment units available at all income levels except for those at the incomes less than 30% of median.

There is a clear need to expand housing options in the County. Real estate values in Orange County have held, even during the downturn in the national housing market. Given that fact, future residents seeking affordable housing options may be forced to go to outer areas of the County where land is less expensive, to relocate to another county altogether, or be forced to live in inadequate housing conditions to afford shelter. (See *Chapter 4: Housing Element* and *Appendix A: County Profile (Data) Element* for further discussion of housing conditions and needs.)

ECONOMIC TRENDS

Orange County is fortunate to be located within an economically vibrant region that includes the Research Triangle Park. Economic conditions and employment opportunities are often the catalyst for changes in population trends, land use, and resource consumption. Further discussion of the economy is covered in *Chapter 3: Economic Development Element* and *Appendix A: County Profile (Data) Element*. Key economic trends facts for Orange County include:

- **Median Family Income** - Median family incomes at \$59,874 in 2000 for Orange County are 23% higher than the US and 35% higher than the North Carolina average. Incomes have been steadily rising over the past 10 years.
- **Poverty Rate** - In the year 2000, 14.1% of Orange County residents, which includes college students, were considered to be in poverty compared to 12.3% of the State of North Carolina.
- **Unemployment** - In the Triangle Area, Orange County has the lowest unemployment.
- **Educational Attainment** - Orange County has two-times the percent of college graduates as the state of North Carolina and the United States.
- **Private Industry Employment** - Private Industry employs slightly more than one-half of the Orange County population. Within the private sector, retail trade has the greatest number of employees, at slightly more than 6,000; however, its growth has leveled off



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since the late 1990's. Manufacturing jobs have decreased nearly 40% since 2002 in part due to factory closings and relocations.

- **Agriculture** - According to the 2002 Census of Agriculture, Orange County contains 19,405 acres in harvested cropland, with an average farm size of 113 acres. Agriculture generated \$42 million dollars in income in 2005, which is comparable to the average income generated during the time period of 1997-2005.
- **State Employment** - The State government generates nearly half of annual wages paid in Orange County, owing to the number of people employed by the County's largest employer, UNC - Chapel Hill, with approximately 11,000 employees.
- **Commercial Development** - In 2005, fifty-five commercial occupancy permits with a total value of more than \$40 million dollars were issued by the Orange County Planning and Inspections Department for establishments located within their jurisdiction.

While the economic climate in Orange County is good, there is concern regarding the need to diversify the County's tax base from one primarily composed of residential property (86.4% in 2005) to a more balanced tax base that includes a diversity of businesses and services. Making that change will require a countywide economic development strategy that recruits desired businesses to the area. The County has identified three Economic Development Districts that are targeted for future development, and the provision of infrastructure to these areas will need to be considered if development is to be realized.

ENVIRONMENTAL TRENDS

According to the *2004 Orange County State of the Environment Report*, over the last two decades, the County may have lost as much as 25% of its prime forestland to development. This does not include additional lands that may have been converted from active agricultural use. The report also states that at least four of the County's 64 significant natural areas identified in 1988 have been lost or modified substantially from their former condition. County lands have been converted from agricultural or natural uses to developed lands that provide County residents with housing, commercial and employment opportunities, and needed public facilities.

Residential development has fragmented the natural landscape, decreasing the ecological integrity of natural areas that support wildlife. For example, since 2002 the North Carolina Natural Heritage Program has changed the designation of three species from "Current" status to "Historic" status, meaning that they have not been observed in the County in the last 20 years because they no longer had appropriate habitat.

Protecting finite water resources is vital to insuring a thriving and sustainable community. Because Orange County contains the upper reaches of three of the State's major river basins - the Neuse, the Cape Fear, and the Roanoke, many rivers begin here, but few flow into the County. Overall, about one third of Orange County residents rely on ground water resources; however, rural areas outside of public sewer service areas rely almost exclusively on groundwater. Recent droughts have required water providers and local governments to reassess water usage in the County and to look at long-term potable water needs for future residents.



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There are, however, positive signs of community commitment to land and watershed preservation with Orange County establishing a Lands Legacy Program and the Triangle Land Conservancy increasing the acreage it owns in the County. In addition, private land owners have taken positive steps towards protecting environmental resources through the provision of conservation easements. By the end of 2007, a total of 20,400 acres (8% of the County) were protected through various public and private means. One of the goals of the Plan is to protect 10% of lands in the County by 2010. Even if this goal is achieved, more will need to be done to protect the integrity of the natural landscape in Orange County. Given the forecasts for continued growth in development in the County, land planning efforts will need to direct growth to designated areas and away from prime natural areas.

TRANSPORTATION TRENDS

The County's population has become increasingly dependent on the automobile for transportation. Since 1990, approximately 70% of the County's workforce has driven alone to work each day, with an average 22 minute commute. Looking at travel data, the North Carolina Department of Transportation expects that the total daily vehicle miles traveled will increase from 2000 to 2015 by 51%. County vehicle registrations increased by 33% between 1990 and 2005, showing that more and more cars are driving on County roads. This increased travel has, in turn, increased vehicle emissions in the County. In 2004, Orange County was declared part of a "non-attainment" area by the U.S. Environmental Protection Agency for violating federal ozone standards. In late 2007, however, the EPA approved a request from the State to redesignate the Raleigh-Durham-Chapel Hill area to "attainment" and it is now in a maintenance program to follow a State plan for maintaining the ozone standard through 2017.

The increase in vehicle use has contributed to impaired local air quality and increased traffic congestion. Changing these trends will require coordinated planning efforts, both locally and regionally, to provide alternative means of transportation.

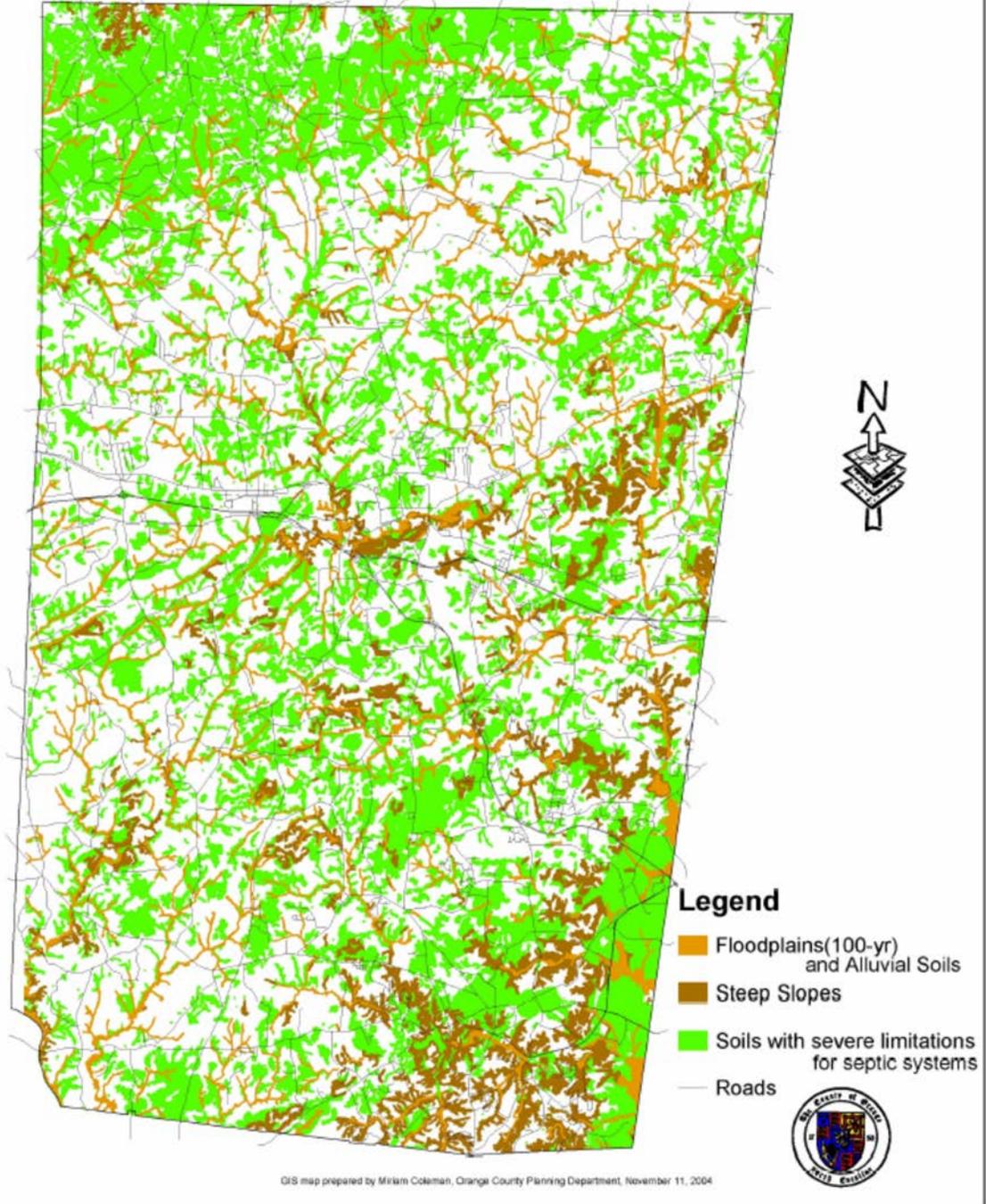
DEVELOPMENT CONSTRAINTS

In addition to regulatory constraints to development, such as zoning regulations that limit densities and use types in certain zoning districts, Orange County's physical features, including topography, suitability of soils, and drainage areas or floodplains serve as constraints on future development in some areas of the County. Map 5-8 illustrates the locations of these development constraints. Some of these areas are also identified on the Future Land Use Map 5-4, shown previously, as Resource Protection Areas.

The construction and engineering industries have seen great improvements in building technologies over the last few decades. Natural development constraints that would once prohibit development from occurring can now be overcome through new building materials and engineering designs. In response, the County has been very successful at regulating development to reduce soil erosion, sedimentation, and stormwater flows from new developments, and is seen as a leader in the state in terms of watershed protection. These efforts should be continued into the future.



Development Constraints



MAP 5-8: DEVELOPMENT CONSTRAINTS



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DEVELOPMENT ACTIVITY IN THE COUNTY

Although 8% of Orange County's land area is within municipal borders, 61.5% of the population resides in the Towns. However, there has been significant development in the unincorporated areas.

Data needed to evaluate countywide land development trends over time, and future development potential are not currently available. However, subdivision permit data can provide some insight into land development trends over recent years. Between 1999 and 2006, more than 1100 lots were developed as part of the major subdivision process (i.e., division of land into more than five lots) in Orange County, and more than 600 lots were created as part of the minor subdivision process (i.e., division of land into five or fewer lots). It is likely that development in the unincorporated areas of the County will continue into the future. (See Tables 5-1, 5-2, and 5-3.)



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TABLE 5-1: MAJOR SUBDIVISION DATA FOR ORANGE COUNTY (1999-2006)

Major Subdivisions	1999	2000	2001	2002	2003	2004	2005	2006	Total 1999-2006
Number of Major Subdivisions	12	12	12	5	6	4	2	3	56
Total Number of Lots Created	192	155	294	102	102	92	91	73	1101
Total Gross Acreage of Lots Created*	617.2	211.18	684.56	153.52	265.22	236.15	81.87	73.4	2323.1
Average Gross Lot Size of Lots Created (ac)*	3.21	1.82	2.07	1.56	2.6	2.57	0.9	1.01	2.0
Average Gross Lot Size - Rural Areas***	3.21	2.85	2.93	2.18	2.6	2.57	1.96	1.6	2.5
Average Gross Lot Size - Urbanizing Areas****	0	.079	1.2	0.93	0	0	0.6	0.6	0.5
Average Net Lot Size of Lots Created (ac)**	1.77	1.5	1.24	1.3	2.15	1.33	1.16	1.01	1.4
Average Net Lot Size - Rural Areas***	1.77	1.73	1.97	1.91	2.15	1.33	1.8	1.6	1.8
Average Net Lot Size - Urbanizing Areas****	0	.62	0.5	0.69	0	0	0.53	0.6	0.4
Average # of Lots Created per Subdivision	16	12.91	24.5	20.4	17	23	45.5	24.3	23.0

* Includes any acreage in deeded open space required to meet Flexible Subdivision open space standards. Although Flexible Subdivision provisions were created in 1996, they were rarely chosen until 2001. The Planning and Inspections Department began tracking flexible subdivisions in 1999.

** Excludes any acreage in deeded open space and roadways

*** Rural areas are areas with private well and septic systems

****Urbanizing areas are areas with public water and sewer services

Source: Orange County Planning and Inspections Department

Key conclusions from reviewing the county's major subdivision activity between 1999 and 2006 include:

- There were nearly three times the number of Major Subdivisions created between 1999-2002 than between 2003-2006



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- The number of lots created has significantly decreased since 1999. There were more than twice as many lots created between 1999-2002 than between 2003-2006
- The number of lots created has significantly decreased since 1999. There were more than twice as many lots created between 1999-2002 than between 2003-2006
- Average net lot size, which excludes any acreage in deeded open space and roadways, is decreasing

Note: Gross lot size includes acreage in deeded open space and roadways, and net lot size excludes acreage in deeded open space and roadways

TABLE 5-2: MINOR SUBDIVISION DATA FOR ORANGE COUNTY (1999-2006)

Minor Subdivisions	1999	2000	2001	2002	2003	2004	2005	2006	Total 1999-2006
Number of Minor Subdivisions	58	42	24	39	25	25	44	25	282
Total Number of Lots Created*	106	95	54	79	66	51	114	61	626
Total Gross Acreage of Platted (new) Lots*	341	323	168	259	199	198	437	247	2172
Average Lot Size of Platted (new) Lots (ac)*	3.2	3.1	3.1	3.3	3	3.9	3.8	4	3.5
Average # of (new) Lots per Subdivision	1.8	2.3	2.3	2	2.6	2	2.6	2.4	2.3
* Excludes residual lots and associated acreage. A residual lot may be defined as the parent parcel from which the subdivision was created.									
Source: Orange County Planning and Inspections Department									

Key conclusions from reviewing the county's minor subdivision activity between 1999 and 2006 include:

- Between 1999 and 2002 there were slightly more Minor Subdivisions per year and more lots created than during the period 2003-2006. The year 2005 is a notable exception with 114 lots created.
- Average lot sizes and number of lots created per subdivision remained fairly consistent for the years 1999-2006.

According to State law, subdivision of lots that are 10 or more acres in size are considered "Exempt Subdivisions." Table 5-3 shows the statistics on exempt subdivision in the county from 1999-2006.



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TABLE 5-3: EXEMPT SUBDIVISION DATA FOR ORANGE COUNTY (1999-2006)

Exempt Subdivisions	1999	2000	2001	2002	2003	2004	2005	2006	Total 1999-2006
Number of 10+ acre Exempt Subdivisions	44	48	43	35	23	35	42	25	295
Total Number of Lots Created*	103	103	90	107	67	65	109	57	701
Total Acreage of Subdivisions*	1198	1206	1138	1211	774	923	1299	749	8498
Average Lot Size of Lots Created*	12	12	13	11	12	14	12	13	12.4
Average # of Lots Created per Subdivision*	2	2	2	3	3	2	2	2	2.3
<p>* Excludes residual lots and associated acreage. Residual lots are defined as parent parcels twenty (20) acres or more from which the subdivision was created 1999-2002 figures obtained using Orange County Land Records Dept. data 2003-2006 figures obtained using Planning and Inspections Department data</p> <p>Source: Orange County Planning and Inspections Department</p>									

Key conclusions from reviewing the county's exempt subdivision activity between 1999 and 2006 include:

- Since 1999, there has been a noticeable decrease in the number of Exempt Subdivisions and lots created, with 2005 as a notable exception
- Average lot size, excluding residual acreage, has remained consistent, averaging approximately 12 acres
- Most Exempt Subdivisions contain only two (2) or three (3) lots

Sustainable use of the land in Orange County has required that portions of the County's undeveloped lands are reserved as critical areas for maintaining adequate reservoirs and clean water supplies, current and future parkland provisions, agricultural use, habitat and natural resource protection, County schools and government facilities, and riparian buffers and stream protection to name a few. As the population of the County increases there will be increasing demands on the existing land reserves due to the direct conversion of undeveloped land for residential and commercial development and to satisfy the population's indirect needs for supporting services and resources. Long-range land planning efforts are needed to identify the future land development needs for public infrastructure and for future development that will service projected populations.



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5.5. ORANGE COUNTY LAND USE NEEDS

As stated in the Introduction to this Chapter: The manner in which land is being used and developed in Orange County is a direct reflection of the County's land use policies, plans, regulations and ordinances. And it is this Comprehensive Plan and implementation of its objectives that will guide the development of Orange County's future land use ordinances, regulations, and a coordinated land use plan that is based on community values.

Much has been accomplished in planning for future land use patterns in Orange County, but more needs to be done. Specific needs follow:

- **The County's Future Land Use Map needs to be updated and re-drawn to reflect current policies and plans**, to provide guidance and information to residents and property owners. The revised Future Land Use Map needs to be drawn to include the following:
 - Chapel Hill-Carrboro Joint Planning Area Land Use Plan;
 - Hillsborough-Orange County Strategic Plan;
 - Most Current Economic Development Districts;
 - Most Current Rural Activity Nodes and other growth opportunity areas;
 - Most Current Inventory of Natural and Cultural Resources; and
 - Identification of Preservation Areas.
- **Inter-local Agreements are needed between the County and the Towns of Hillsborough and Mebane**, similar to the agreements with Chapel Hill and Carrboro, to jointly plan for and regulate development on the edges of those municipalities.
- Following updates to the Future Land Use Map, **the County's Unified Development Ordinance will need to be assessed for necessary adjustments**. These zoning changes should encourage meeting the objectives that promote sustainability including mixed-use development patterns, transportation linkages, economic development, and diversity in housing opportunities.
- **Adjust zoning regulations and apply zoning categories in preservation areas** to discourage intensive and unsustainable development.
- Continue to **study mechanisms for transfer of development rights** from preservation areas to areas targeted for growth.
- The County needs to **refine policies to encourage green building practices** for public and private construction projects. This may entail an assessment of current building codes and development ordinances to identify barriers to using green construction practices, and/or creating incentives for private developers to use more environmentally friendly construction and demolition



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techniques. Deconstruction for the purpose of reuse is preferred over demolition.

- The County needs to work in partnership with the towns to **assess the countywide workforce housing need**, and, if needed, identify strategies for increasing the supply of workforce housing in the county.
- A **County database that tracks the location, density, and land use of developed lands and the location of undeveloped lands** is needed. This data can be used over time to illustrate land development trends and will provide great benefit to future County planning efforts.

5.6. GOALS

The Orange County Planning Board, in collaboration with Orange County Staff, advisory boards and commissions, citizens, and community organizations have reviewed and revised the goals of the 1981 Comprehensive Plan, and as needed, have created new goals to express current community values and needs.

The following land use goals will be used as a foundation for future policy decisions and implementation strategies related to land use planning for the County. They represent the first step in the process to translate statements expressed as community values into land use planning strategies and activities.

Land Use Overarching Goal: Coordination of the amount, location, pattern and designation of future land uses, with availability of County services and facilities sufficient to meet the needs of Orange County's population and economy consistent with other Comprehensive Plan element goals and objectives.

Land Use Goal 1:

Fiscally and environmentally responsible, sustainable growth, consistent with the provision of adequate services and facilities and a high quality of life.

Land Use Goal 2:

Land uses that are appropriate to on-site environmental conditions and features, and that protect natural resources, cultural resources, and community character.

Land Use Goal 3:

A variety of land uses that are coordinated within a program and pattern that limits sprawl, preserves community and rural character, minimizes land use conflicts, supported by an efficient and balanced transportation system.



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Land Use Goal 4:

Land development regulations, guidelines, techniques and/or incentives that promote the integrated achievement of all Comprehensive Plan goals.

Land Use Goal 5:

Life, health, and property safe from hazards.

Land Use Goal 6:

A land use planning process that is transparent, fair, open, efficient, and responsive.

5.7. OBJECTIVES

The intent of this Plan is that the following list of objectives will help guide regular and ongoing decision-making by the County related to land use initiatives. Each objective has a recommended timeline for completion. (Definitions of timelines provided in *Section 1.4: Administration and Implementation Guidelines*.)

Land Use Goal 1: Fiscally and environmentally responsible, sustainable growth, consistent with the provision of adequate services and facilities and a high quality of life.

Objective LU-1.1:

Coordinate the location of higher intensity / high density residential and non-residential development with existing or planned locations of public transportation, commercial and community services, and adequate supporting infrastructure (i.e., water and sewer, high-speed internet access, streets, and sidewalks), while avoiding areas with protected natural and cultural resources. This could be achieved by increasing allowable densities and creating new mixed-use zoning districts where adequate public services are available. (See also Economic Development Objectives ED-2.1, ED-2.3, ED-2.10, and Water and Wastewater Objective WW-2.)

Objective LU-1.2:

Evaluate and report on whether existing and approved locations for future residential and non-residential developments are coordinated with the location of public transportation, commercial and community services, and adequate supporting infrastructure (i.e., water and sewer services, high-speed internet access, streets and sidewalks).

Objective LU-1.3:

Create a “sustainable development checklist” to be included as part of the development review process that would evaluate and report on whether proposed developments are appropriate considering existing on-site environmental conditions and features, whether they are compatible with existing natural and cultural resources, whether adequate provision of public services exist for the proposed land use, and whether the proposed development will enhance community character.



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Land Use Goal 2: Land uses that are appropriate to on-site environmental conditions and features, and that protect natural resources, cultural resources, and community character.

Objective LU-2.1:

Maintain the rural, low-density land surrounding Chapel Hill and Carrboro Transition Areas as Rural Buffer land, as designated on the Future Land Use Map. Future consideration should be given to designating Rural Buffer areas around other municipalities where such interest exists.

Objective LU-2.2:

Continue to protect valuable resource land such as productive agricultural areas, natural areas, historic sites and properties, and potential reservoir sites through the County's Lands Legacy Program, and by directing incompatible development away from these areas through land use and zoning policies and regulations. (See also Natural Areas Objectives NA-5 and NA-17, and Water and Wastewater Objective WW-14.)

Objective LU-2.3:

Require non-residential and higher-density residential developments within Transition Areas to use Best Management Practices (BMP's) for stormwater control, as outlined within the Orange County Unified Development Ordinance, to ensure that potential adverse impacts on the water quality of existing and proposed reservoir sites are avoided. (See also Erosion Control EC-1 and Natural Areas Objective NA-4.)

Objective LU-2.4:

Evaluate the development potential in rural crossroads communities to identify whether current regulations permit appropriate development that is in character with these communities, and whether potential development in these areas would require significant expansions or cause depletions of public services.

Objective LU-2.5:

Adopt and implement policies that specify appropriate land uses and intensities of development in Protected and Critical Water Resource Areas that will not have potential adverse impacts on water resources. (See also Water and Wastewater Objective WW-15.)

Objective LU-2.6:

Protect prime reservoir sites from adverse development impacts and ensure that regulations for these areas are appropriate.

Objective LU-2.7:

Refine green building standards to guide the design, siting, construction, and management of publicly owned and managed buildings in a manner that conserves energy and/or uses non-polluting renewable energy sources. Explore the development of green



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building standards for private development. (See also Air and Energy Objective AE-11.)

Objective LU-2.8:

Develop performance standards for development on lands with non-renewable resources to ensure a sufficient level of environmental protection for these resources.

Objective LU-2.9:

Evaluate the carrying capacity of groundwater and surface water resources of the 15 watersheds in Orange County. (See also Water Resources Objective WR-7.)

Objective LU-2.10:

Develop design standards or guidelines that address scale, density, and aesthetic considerations for residential, mixed-use, industrial, and commercial land uses to promote community aesthetics and the protection of the visual and cultural environment of the County. (See also Housing Objective H-3.1.)

Land Use Goal 3: A variety of land uses that are coordinated within a program and pattern that limits sprawl, preserves community and rural character, minimizes land use conflicts, supported by an efficient and balanced transportation system.

Objective LU-3.1:

Discourage urban sprawl, encourage a separation of urban and rural land uses, and direct new development into areas where necessary community facilities and services exist through periodic updates to the Land Use Plan. (See also Economic Development Objective ED-2.8.)

Objective LU-3.2:

Coordinate land use patterns to facilitate the expanded use of non-auto modes of travel, the increased occupancy of automobiles, and the development and use of an energy-efficient transportation system. (See also Transportation Objective T-1.1, Economic Development Objective ED-2.3, and Air and Energy Resources Objective AE-8.)

Objective LU-3.3:

Discourage new intensive non-residential land uses, or the expansion of existing intensive uses, in the area designated Rural Buffer. (See also Economic Development Objective ED-2.8.)

Objective LU-3.4:

Recognize the right to farm and discourage the location of new non-farm development, particularly more intensive residential development, within farming areas to minimize the incidence of complaints and nuisance suits against farm operations. (See also Agriculture Objectives AG-1 and AG-3.)

Objective LU-3.5:

Encourage energy and water use in an efficient manner by industries and encourage energy efficient industries to locate or expand in the



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County in Rural Industrial, Commercial/Industrial, and Economic Development Nodes. (See also Economic Development Objective ED-2.9.)

Objective LU-3.6:

Establish consistency between the Land Use Plan and the Water and Sewer Management Planning and Boundary Agreement and Map. (See also Water and Wastewater Objective WW-3.)

Objective LU-3.7:

Ensure that new development patterns in non-residential nodes encourage a clustered, walkable development pattern and discourage strip development.

Objective LU-3.8:

Develop a process for implementing small area plan recommendations through the revision of County policies and regulations.

Objective LU-3.9:

Create new zoning district(s) which allow for a mixing of commercial and residential uses, a mixing of housing types, and creates a more pedestrian friendly development pattern. New districts should be applied in areas where public services exist or are planned for in the future, in areas that promote higher intensity and high density uses on the Future Land Use map.

Objective LU-3.10:

Identify prime viewsheds along major transportation corridors and other areas, and amend County land use ordinances to ensure long-term protection of viewsheds. (See also Natural Areas Objective NA-16, Parks and Recreation Objective PR-5.4, and Transportation Objective T-1.5.)

Objective LU-3.11

In response to development plans at Carolina North, including the possible relocation of Horace Williams Airport, review County land use ordinances and amend if needed to protect the interests of Orange County's residents.

Land Use Goal 4: Land development regulations, guidelines, techniques and/or incentives that promote the integrated achievement of all Comprehensive Plan goals.

Objective LU-4.1:

Support the use of individual manufactured housing units as a useful housing resource in the County by increasing the opportunities where these units can locate by-right. (See also Housing Objective H-4.1.)

Objective LU-4.2:

Review and amend the Orange County Unified Development Ordinance to identify and eliminate existing regulatory impediments to objectives identified in the Comprehensive Plan. Such objectives include but are not limited to the development of energy efficient buildings within the County, water efficiency standards for new development, and



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development of affordable housing. (See also Housing Objective H-4.4 and Solid Waste Objective SW-4.)

Objective LU-4.3:

Determine how private developments can best accommodate or provide public and private commercial recreational facilities to serve Orange County's residents. (See also Parks and Recreation Objective PR-1.3 and Natural Areas Objective NA-10.)

Objective LU-4.4:

Encourage the provision of a range of affordable and suitable low and moderate income housing by means of development incentives in order to provide a balanced housing stock for the residents of Orange County. (See also Housing Element Objective H-4.3.)

Objective LU-4.5:

Work within the Orange County government system to identify and resolve existing land development policies that may be in conflict with historic preservation goals. (See also Cultural Resources Objective CR-3.)

Objective LU-4.6:

Prepare an analysis of subdivision trends in the County, providing pros and cons of Minor, Major, and Exempt Subdivisions, and recommendations on any ordinance amendments that may be appropriate.

Land Use Goal 5: Life, health, and property safe from hazards.

Objective LU-5-1:

Prohibit new development in special flood hazard areas as defined by the Federal Emergency Management Flood Insurance Rate Map, effective February 2, 2007.

Objective LU-5-2:

Continue to implement the Orange County Hazard Mitigation Plan.

Objective LU-5-3:

Develop and coordinate an emergency disaster plan and community education program to increase awareness of the dangers of natural and human-made emergency events and understand how best to prepare.

Land Use Goal 6: A land use planning process that is transparent, fair, open, efficient, and responsive.

Objective LU-6.1:

Undertake a comprehensive effort to inform and involve the citizens of Orange County in the land use planning process.

Objective LU-6.2:

Maintain a cooperative joint planning process among the County municipalities and those organizations responsible for the provision of



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water and sewer services to guide the extension of service in accordance with the Comprehensive Plan, the Orange County-Chapel Hill-Carrboro Joint Planning Agreement and Land Use Plan, and the policies of the municipalities. (See also Water and Wastewater Objective WW-4.)

Objective LU-6.3:

Develop internal process audits and customer surveys to ensure customer satisfaction of the development review and approval process.

Objective LU-6.4:

Develop educational and public information programs to increase awareness of the potential for the design, construction and rehabilitation of commercial and residential structures that are energy efficient and/or use non-polluting renewable energy sources.

Objective LU-6.5

Establish a "one-stop" County central permitting office.

Objective LU-6.6

Evaluate and consider the "Community Building" recommendations of the Shaping Orange County's Future's Task Force.

Objective LU-6.7

Add an index to the adopted Comprehensive Plan and develop an executive summary of its contents.



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TABLE 5-4: GOALS AND OBJECTIVES LINKS TO PLANNING PRINCIPLES

GOAL/ OBJECTIVE	BOARD OF COUNTY COMMISSIONERS' PLANNING PRINCIPLES									
	<ol style="list-style-type: none"> 1. Efficient and Fiscally Responsible Provision of Public Facilities and Services 2. Sustainable Growth and Development 3. A. Encouragement of Energy Efficiency, Lower Energy Consumption, and the Use of Non-Polluting Renewable Energy Resources B. Promotion of Both Air Quality Protection and the Development of an Effective Transportation System 4. Natural Area Resource Preservation 5. Preservation of Rural Land Use Pattern 6. Water Resources Preservation 7. Promotion of Economic Prosperity and Diversity 8. Preservation of Community Character 									
	1	2	3A	3B	4	5	6	7	8	
Overarching Goal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Goal 1 and Objectives LU-1.1 – H-1.3	✓	✓	✓	✓		✓	✓	✓		✓
Goal 2 and Objectives LU-2.1 – LU-2.10	✓	✓	✓	✓	✓	✓	✓			✓
Goal 3 and Objectives LU-3.1 – LU-3.11	✓	✓	✓	✓	✓	✓	✓			✓
Goal 4 and Objectives LU-4.1 – LU-4.6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Goal 5 and Objectives LU-5.1 – LU-5.3		✓	✓	✓	✓					✓
Goal 6 and Objectives LU-6.1 – LU-6.7	✓	✓				✓		✓		

5.8. LINKS TO OTHER ELEMENTS

Land use planning coordinates the efforts of economic development, housing, transportation, park and recreation facilities, and community services into one consolidated strategy for future growth and development. Linkages between specific land use goals and objectives have been identified in this element. The following summarizes the objectives from other Elements that are linked with Land Use objectives.



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ECONOMIC DEVELOPMENT

Objective ED-2.1:

Encourage compact and higher density development in areas served by water and sewer.

Objective ED-2.3:

Promote public transportation, alternative modes of transportation, and encourage carpooling and park-and-ride participation.

Objective ED-2.8:

Adjust ongoing designation and zoning of Economic Development Districts to avoid the area designated as the Rural Buffer.

Objective ED-2.9:

Consider industrial sites in Agricultural-Residential areas along the U.S. 70/I-85 highway and rail corridor to take advantage of the corridor's locational attributes. A limited number of small scale Rural Industrial Nodes, not requiring urban type services, may be appropriate elsewhere in the County where good access exists.

Objective ED-2.10:

Extend public water and sewer into all three Economic Development Districts.

HOUSING

Objective H-3.1:

Achieve residential neighborhoods that are attractive and well-maintained.

Objective H-4.1:

Continue to permit HUD code-compliant manufactured housing as a form of affordable housing in the County.

Objective H-4.3:

Evaluate the feasibility of development incentives to stimulate the production of needed affordable low income housing.

Objective H-4.4:

Working collaboratively with the towns, identify regulatory barriers to be removed and opportunities for development incentives to encourage the construction of a diverse range of housing types countywide.

NATURAL AND CULTURAL SYSTEMS

Objective AG-1:

Recognize and support the right to farm. Protect farm operations from incompatible adjacent land uses or activities that will adversely affect the long-term agricultural investment in land and improvements.

Objective AG-3:

Develop programs and associated infrastructure facilities to make local farms more economically viable, including local farm product



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processing, development of a distribution center, and marketing initiatives.

Objective AE-8:

Improve transportation efficiency: promote more public transportation, ride sharing, and alternative transportation such as bicycling and walking.

Objective AE-11:

Improve the energy efficiency of buildings through several action steps: 1) upgrade existing buildings, including County and school buildings; 2) educate planning and building inspection officials about the technologies and techniques of energy efficient construction; and 3) encourage the use of LEED "Gold" (or equivalent) as a standard in new construction.

Objective CR-3:

Work within the Orange County government system to identify and resolve existing policies, which may be in conflict with the County's historic preservation mission.

Objective NA-4:

Encourage adequate stormwater runoff controls in existing developed areas and require these controls for new subdivisions to protect sensitive downstream aquatic habitats.

Objective NA-5:

Prohibit development that would cause adverse impacts on highly significant natural areas and wildlife habitat.

Objective NA-10:

Require that all major subdivisions (defined as having more than 5 lots according to the Orange County Unified Development Ordinance) include within their boundaries open space suitable for low-impact recreation and wildlife habitat.

Objective NA-16:

Create a system of public and private open space and conservation areas, including parks, nature preserves, and scenic vistas representative of the Orange County landscape.

Objective NA-17:

Maintain and protect land that contains valuable productive resources, such as prime farmland and prime forestland, by directing incompatible development away from these areas.

Objective WR-7:

Promote land use patterns that preserve the natural hydrologic system and maintain a sustainable "carrying capacity" balance for the future between ground water and surface water resources.

PARKS AND RECREATION

Objective PR-1.3:

Develop a land use planning mechanism for securing new parks through the development approval process.



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Objective PR-5.4:

Encourage development of a system of private open space and conservation areas, including nature preserves, parks, linear parks, and scenic vistas compatible with the character of Orange County.

SERVICES AND FACILITIES

Objective WW-2:

Coordinate the provision of potable water and sanitary sewer services with the County's Land Use Plan and Orange County-Chapel Hill-Carrboro Joint Planning Agreement and Land Use Plan, targeting these services to urban, transitional, and economic development districts in a manner that does not endanger environmental resources.

Objective WW-3:

Maintain and add new partners to the existing Water and Sewer Management Planning and Boundary Agreements with the Towns of Chapel Hill, Carrboro, and Hillsborough and OWASA. Work to establish similar agreements with the Cities of Mebane and Durham and Orange-Alamance Water System.

Objective WW-5:

Maintain a cooperative joint planning process among the County, the municipalities, and water and wastewater providers and guide the extension of service in accordance with the Comprehensive Plan, the Orange County-Chapel Hill-Carrboro Joint Planning Agreement and Land Use Plan, and the policies of the municipalities.

Objective WW-14:

Designate prime reservoir sites in the County, and protect those sites from adverse development.

Objective EC-1:

Continue to use Best Management Practices (BMP's) for stormwater control, as outlined within the Orange County Unified Development Ordinance, to minimize potential adverse impacts on the water quality.

Objective SW-4:

Use land use planning, zoning regulations, and the process of development approvals to enable the appropriate environmental controls and oversight of necessary solid waste facilities.

TRANSPORTATION

Objective T-1.1:

Increase the occupancy of automobiles through ridesharing and other means; and expand the use of public transit (including bus and rail), walking, and biking as primary modes of travel.

Objective T-1.5:

Identify prime viewsheds along major transportation corridors and protect these areas for their scenic and natural resource values.



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5.9. OTHER KEY DOCUMENTS

Several documents were used as resources in the development of this Element and are listed below. (See *Section 1.2.5: Where to Look for Related Information* if you would like to obtain one of these documents.)

- *1981 Orange County Land Use Element* (September, 1981)
- *Joint Planning Area Land Use Plan* (1986)
- *Planning Board Evaluation of 1981 Plan* (May, 2007)
- *Shaping Orange County's Future* (2003)
- *Rural Character Study Committee (RCSC) Phase I & II Report* (1990)
- *Rural Character Study Commission Conceptual Guidelines for Rural Orange* (1993)
- *2004 Orange County State of the Environment Report.*
- *Hillsborough Strategic Growth Plan* (2006)
- *Draft Land Use Element Update* (2006)
- *Efland/Mebane Small Area Plan* (2006)
- *Orange County Transfer of Development Rights Feasibility Study, Phase II Report* (2006)
- *NC Highway 57 Speedway Area Small Area Plan* (2007)
- *Proposed 2007 Amendments to Land Use Element* (August, 2007)

5.10. INTERGOVERNMENTAL COORDINATION

Coordination of land use planning is critical for creating a sustainable land use pattern in Orange County. Courtesy Review Agreements with Durham County and the Towns of Hillsborough, Chapel Hill and Carrboro are key institutionalized tools for ensuring information regarding future development is discussed among jurisdictions. As development occurs in the transitional areas around the urban centers, the County will need to continue an active dialogue with the towns.