Hillsborough and Orange County, NC

STRATEGIC GROWTH PLAN



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CLARION

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ACKNOWLEDGMENTS

This Strategic Growth Plan Report was developed over the course of a year through the joint efforts of the Town of Hillsborough, Orange County and planning consultants. This report is the result of significant contributions from the following groups and people.

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Executive Summary

Hillsborough and Orange County have a constructive history of collaborating and cooperating on land use management issues in the developing areas surrounding the Town. That cooperation has continued in this effort to produce this Hillsborough-Orange County Strategic Growth Plan.

This document provides planning direction and guidance for the Town of Hillsborough and Orange County in the immediate environs of the Town. The



Plan was developed jointly by the Town of Hillsborough and Orange County through a Steering Committee and with the assistance of planning consultants. The Plan reviews existing conditions, evaluates the impacts of expected development, and offers recommendations in two major areas: a recommended land use pattern, and a recommended structure for an Interlocal Agreement.

The key foundation for these ideas is a premise that an Urban Services Area should be defined for Hillsborough - - an area within which urban and suburban development will be expected to occur, consistent with the character and scale of Hillsborough, an area within which public water and sewer services will be expected to be available, and an area that can be expected, at some point, to become part of the corporate limits of Hillsborough. Outside this Urban Services Area the expectation would be for low density residential and/or agricultural uses, with no public water or sewer service and no annexation.

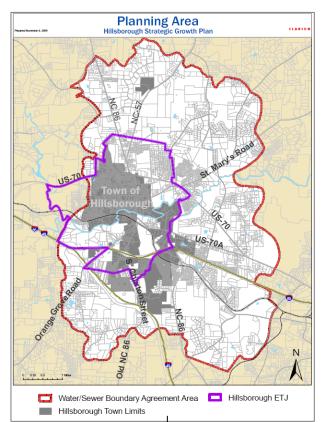
This concept of an Urban Services Area surrounded by a Rural Buffer is already in place in the southern end of Orange County, and the Chapel Hill-Carrboro Rural Buffer abuts the area around Hillsborough being considered here. Establishment of a Hillsborough Urban Services Area will create a similar Rural Buffer Area around Hillsborough that is continuous and coordinated with the Rural Buffer designations to the south.

New Interlocal agreements are necessary for implementation of this plan. Shared jurisdictional responsibilities are proposed for "edge" areas where both Hillsborough and Orange County have interests in land use patterns.

This Strategic Growth Plan report serves as Phase 1 of this initiative. Phase I involves establishing boundaries (annexation boundary, Rural Buffer, areas of joint concern), with general land use principles and the construction of a framework for Interlocal Agreements. Phase II will move to implementation of the Plan, and preparation of parcel-specific Land Use designations. Phase II will include negotiation and execution of an Interlocal Agreement as suggested in the Plan, specifying jurisdiction and procedures for land use planning, zoning, and development review. Phase II will also include examination of priorities for transportation improvements within the Plan area.

Background, Purpose and Goals of Plan

The Town of Hillsborough has been subject to significant development interest in recent years. Growth has been occurring both within the Town of Hillsborough, as well as in areas adjacent to the Town, in unincorporated Orange County. Much of this development has occurred at the edges of Town in locations that do not reinforce an efficient pattern of development. Because



of this, and the need for the Town to be strategic about the provision of its limited public water and sewer services in and adjacent to Hillsborough, the Town and County agreed to enter into a joint planning process to define the areas where future growth should occur, the type of development and development densities that should be undertaken, and the strategy for implementing the growth management plan.

This Hillsborough-Orange County Strategic Growth Plan provides planning direction and guidance for the Town of Hillsborough and Orange County in the immediate environs of the Town. The Plan was developed jointly by the Town of Hillsborough and Orange County through a Steering Committee and with the assistance of planning consultants. The Steering Committee, Staff and Consultant Team are listed in the Acknowledgments section at the beginning of the plan document.

The Strategic Growth Plan identifies the desired type, rate, timing, and location for future growth occurring over the next 20 years within and around the Town of Hillsborough. The boundaries of the area included in this Plan are defined by Hillsborough's current Water-Sewer Boundary Agreement, as shown on the map to the left called "Planning Area." This effort builds upon the previous work

of the Hillsborough *Vision 2010 Plan*, and the Orange County/Town of Hillsborough *Urban Transition Area Task Force*, which prepared a Principles of Agreement document between the two jurisdictions regarding land use planning and public utility extension in areas around Hillsborough.

There were five phases of planning involved in the development of the Strategic Growth Plan:

- 1. Development of plan goals by the Steering Committee;
- 2. Identification of existing conditions and development constraints within the planning area;
- 3. Modeling and analysis of four alternative land use patterns using existing constraints;
- 4. Identification of a preferred land use pattern; and
- 5. Development of an implementation strategy for the preferred land use pattern.

Goals of the Plan

The Town of Hillsborough and areas outside of the Town in unincorporated Orange County are currently experiencing significant growth pressures. As the Triangle region continues to grow, Hillsborough is becoming an attractive location for new development. Its small-town atmosphere, proximity to the major regional highways and roads, and availability of developable areas combine to create strong market demand for development. Additional considerations include UNC's plans for Carolina North (proposed research campus) in north Chapel Hill, and Durham's long-range plans to extend its City limits into east central Orange County. It is expected that Hillsborough and its surrounding environs will experience significant growth pressure over the next few decades.



Hillsborough and Orange County have teamed together through the Strategic Growth Plan process to address these growth pressures, and to work together to guide future development patterns that will occur in the planning area. The planning process began with the development of a set of common goals. These common goals were developed by the Strategic Growth Plan Steering Committee and have guided project research and informed plan recommendations

throughout the Strategic Growth Plan process. The growth management strategies developed to address the planning issues raised through this process promote these common goals. The common goals are as follows:

1. Preserve and enhance the Hillsborough core area

The focus of this Strategic Growth Plan is on the edges - - attending to land use patterns on the periphery of Hillsborough. But a fundamental reason for paying attention to patterns on the edges and outlying areas is to assure that development in those areas enhances, rather than detracts from, the ongoing vitality of Hillsborough's core downtown foundation.

2. Preserve significant cultural and natural resources

The natural setting surrounding Hillsborough contains sensitive and valuable environmental resources (hillsides, streams, wetlands, vistas) as well as important cultural resources. Land use patterns should take forms that preserve these key resources including corridors and buffers.

3. Coordinate growth with water/sewer availability

Development patterns should be coordinated with orderly and efficient extension of public water and sewer service. Growth should be targeted to areas where water and sewer service is currently available or most readily provided, and minimized in areas that require expensive solutions to extend services. Levels and timing of growth should correspond with water and sewer capacities.



4. Grow in a fiscally-responsible way

Along with costs of extending public utilities, other public costs and revenues associated with growth should be considered in land use strategies such that growth occurs in a fiscally responsible manner.

5. Keep existing businesses healthy

As strategies for growth, land development and land preservation are considered, the needs and vitality of existing businesses in and around Hillsborough should be components of decision-making.

6. Assure continuity in public service provision

Planning for land use patterns should be coordinated with capital and operating budgets to assure continuity in the provision of essential public services.

These goals serve as the foundation for the Strategic Growth Plan.

Existing Conditions

Regional Context

The Town of Hillsborough is located in the center of Orange County north of the Towns of Chapel Hill and Carrboro. The Town serves as the seat of Orange County government. Hillsborough has historically been a small-town community. However, the regional growth that has occurred in recent years has made Hillsborough a more desirable location for both residential and non-residential development. As shown in the "Regional Context" map on the following page. Hillsborough is located just miles from the planned location for



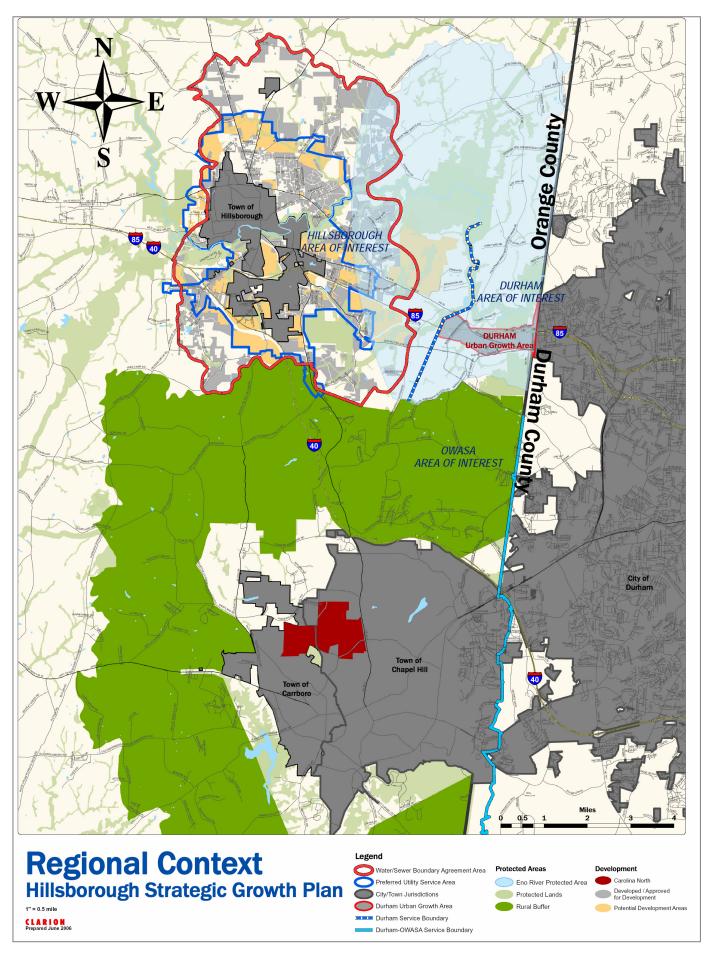
the University of North Carolina's new research campus, *Carolina North*. Because the Towns of Chapel Hill and Carrboro are now approaching build-out, and because the Town of Hillsborough is located just up I-40 from Chapel Hill, it is expected that much of the new development spurred by the Carolina North project will be located north of Chapel Hill and proximate to Hillsborough. Another reinforcing factor is the Rural Buffer located between Hillsborough and Chapel

Hill/Carrboro. This area is zoned for low-density residential use and will not be served by public water and sewer utilities, per a multi-party County-wide Water and Sewer Management Planning Boundary Agreement limiting the potential for larger scale development in this area.

Another contributing factor to the development pressure in Hillsborough is the City of Durham's plans to extend the city limits into Orange County along the Interstate 85/U.S. 70 corridor and proximate to Hillsborough – called the "Durham Urban Growth Area" on the following "Regional Context" map. Development along this corridor is likely to create additional development pressures in Orange County near Hillsborough.

All of these factors – the development of Carolina North, the buildout of Chapel Hill/Carrboro, being located proximate to the primary regional interstates, and being located proximate to the strong employment market in Durham – are key factors contributing to the growth pressures occurring in Hillsborough and its surrounding environs.

This land use plan was developed in consideration of existing constraints on growth. Based upon limited capacity over the long-term, water, sewer, and transportation system capacities are the primary constraints to growth in the Hillsborough planning area. Therefore, there are natural and man-made limitations on the size and intensity of the Hillsborough area's urban form. The following sections discuss the current status of these systems.



Current Status of Water Supply

The availability of water is a significant factor to consider when planning for Hillsborough's future. Hillsborough's water supply is limited, and growth management decisions need to take this constraint into account.

Raw water supply (from the Eno River, Lake Orange, and the West Fork Reservoir) can provide a maximum amount of 3 million gallons per day (MGD) to the Hillsborough water service area, The Town can treat up to 3 MGD of potable water per day. Currently, Hillsborough has a current demand of 1.9 MGD (63% of total capacity). In terms of storage capacity, the Town is served by three water pressure zones (north, central, and south) with the northern zone nearing capacity. The central zone has good water pressure, and the pressure in the southern zone will be improving with the new tower at the Waterstone project. A map in Appendix A depicts the current water system lines that extend outside of the Town limits.

The Town has recently completed a Water Capacity Study which indicates that given the current committed development, the water demand will outstrip the available supply in approximately fiscal year 2009 (assuming a fairly constant rate of development). The Town has plans for reservoir improvements that are expected to be completed during fiscal year 2011 which will create a total capacity of 4.5 MGD. The Town may have to make some decisions about how it will address anticipated shortfalls between fiscal year 2009 and fiscal year 2011, when the Phase II reservoir improvements come on-line.

In terms of wastewater, the Town has a current wastewater treatment capacity of 3 MGD. The Town's current peak demand is 0.8 MGD, but the equipment used to remove nitrogen from treated wastewater is functioning at 50% of its capacity. Given this issue, the nitrogen removal equipment will likely be the first upgrade to treatment capacity. A map in Appendix A depicts the force main and gravity fed sewer lines that extend outside of the Town limits.

While there are more areas served by water than sewer, and the Town's water distribution lines are in good shape, the Town's wastewater system depends on 27 lift stations, which is a large number given the size and capacity of the system. Long term maintenance and operation of the wastewater system will likely be more expensive than the water system.

The short term issue for consideration is potable water capacity in the near term, while the cost of sewer service is the primary issue over the long term. Given these issues, it will be important for the Town to allocate its remaining resources carefully to ensure the maximum return on public investment and development patterns that match Town and County objectives.

The current plan to expand Hillsborough's water system will accommodate new development in an amount equivalent to 1,900 additional dwelling units and 1.65 million additional square feet of non-residential development.

Current Status of Transportation

The Town of Hillsborough is faced with a number of transportation challenges. While the presence of the interstate highways I-85 and I-40 provide convenient access to major employment centers and other destinations to the east in the Raleigh/Durham/RTP area, as well as to the west in the Burlington and Triad area, the Town's roadway infrastructure is inadequate to handle the volume of traffic accessing the interstates. Specifically, the Town lacks viable north-south routes with capacity to handle traffic traveling to and from the interstates in the southern part of Town. As a result, much of the north-south traffic uses Churton Street (averaging approximately 18,000 vehicles per day), imposing negative impacts on the Town's downtown and historic district.



Because Hillsborough lacks a significant employment base, many of its residents commute out of town for work. Travel data¹ show that only 25 percent of Hillsborough residents live and work in Hillsborough. Eighty-one percent drive alone to work and approximately 57 percent drive more than 20 minutes to work. Half of Hillsborough residents drive to Durham and Wake Counties for work. The lack of alternative travel modes, and specifically the lack of regional transit connections to Hillsborough, leave Hillsborough residents little choice but to drive to work and other activities.

Several of the key routes through and into Hillsborough are now congested at the peak travel times. This includes Churton Street, which now carries more traffic than the capacity of a two-lane road. As a result of continued regional growth, traffic is projected to increase substantially on Churton Street and other thoroughfares in and around Hillsborough.

A variety of transportation improvements are planned or programmed for the Hillsborough area. Many of these projects are new roadways or roadway widenings, but there are also projects that emphasize alternative modes, such as HOV lanes, a new park-and-ride lot, improved transit routes, bicycle facility improvements, and corridor enhancements. Not all of the projects are funded, and traffic congestion in some of the key problem areas will not be addressed by the proposed improvements.

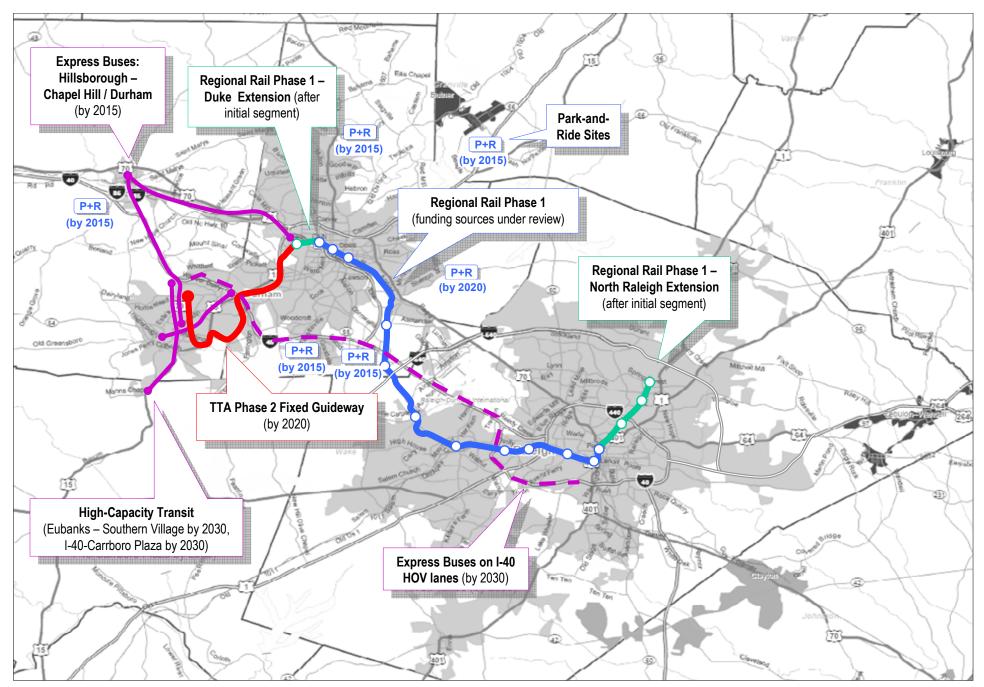
The Research Triangle region adopted a Regional Transit Plan in the mid-1990s. The plan, developed by the Triangle Transit Authority (TTA) in conjunction with regional transportation and planning agencies, includes regional rail service, expanded bus service, shuttles, park-and-ride facilities, and enhanced transit access for pedestrians and bicycles. A key element of the Plan was the Phase I rail line between Durham and Raleigh using an existing rail corridor (see map on following page 12). It was expected that the federal government would provide up to 60% of the funding.

1

¹ Data for commuting patterns were derived from 2000 U.S. Census and the Triangle Regional Model.

In August 2006, however, after extensive attempts to meet federal funding criteria on forecast ridership and costs, TTA announced that it was abandoning its request for federal funding for Phase 1. Effectively there will now be a reappraisal of whether – and how – the project can be funded. TTA will be exploring other potential capital funding methods, which may include capturing land development value around the stations and possibly also a new dedicated local revenue source. It is important to note that, as of now, the Phase I rail project has not been canceled.

Even prior to the withdrawal of the TTA application, other potential regional transit improvements began to be explored, either as an alternative in the event the regional rail project was not funded, or as improvements that could be implemented earlier. It is conceivable that the overall strategy for transit may be reappraised, with a shift in focus to more incremental bus-based projects, possibly as an intermediate stage until a rail project can be funded or as a permanent strategy. It is likely that bus service to Hillsborough would be improved as part of these new initiatives.



Based on DCHC MPO and CAMPO 2005 Long Range Transportation Plans. Alignments shown are indicative. Programmed completion dates shown in parentheses.

Only selected projects of regional significance are shown. The official definition of 'Regionally Significant' projects includes many additional projects.

Conceptual Base for Land Use Plan

Given Hillsborough's water constraints and transportation constraints, accounting for market pressures and nearby land uses, protecting environmentally sensitive land, and in consideration of Orange County's plans



and policies regarding Countywide development patterns, a set of concepts is offered for constructing a Land Use Plan for the areas around Hillsborough. This desired land use pattern should represent an efficient use of land, minimize negative effects on the local transportation system, provide density for making alternative travel modes feasible, and offer a fiscally prudent model for providing Town services.

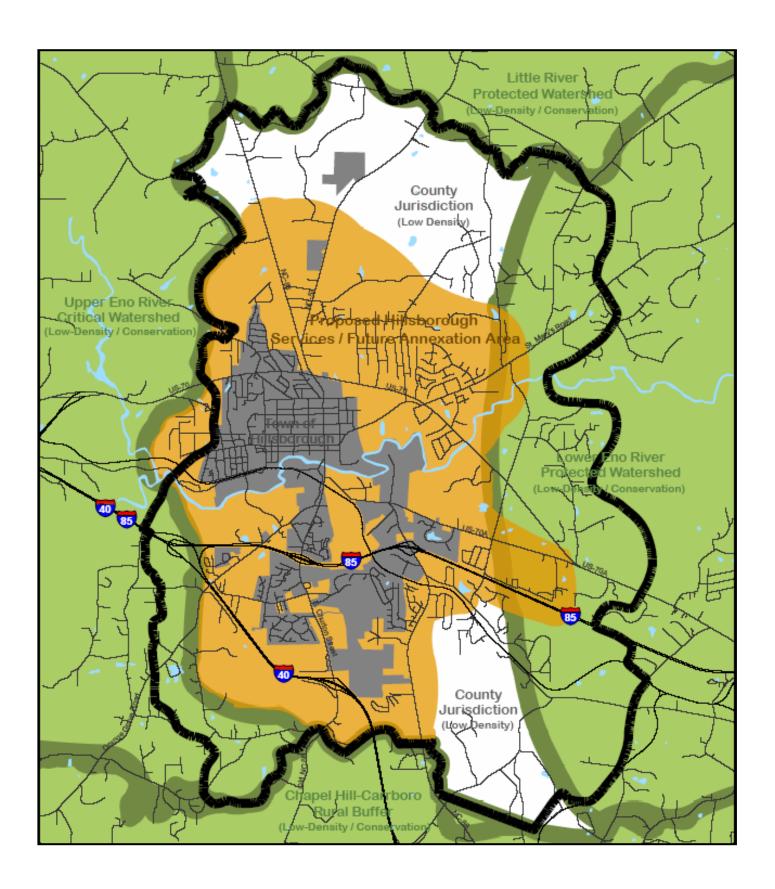
This Phase of the Strategic Growth Plan does not recommend specific land uses (type and intensity of use) for specific parcels of land; but this Phase I does identify the areas for which growth will be targeted, and into which public services are intended to be extended. Further, this Phase I document includes, as a starting point and foundation, a list of the categories of land use that are to be considered for these targeted growth areas. Those categories of land use are listed on page 13, below, and are recommended for use in preparing future land use plans.

It is expected that, once this Phase I document is extended, Hillsborough will undertake preparation of a parcel-specific Land Use Plan for areas shown as gray on the map on page 23 of this document (existing Town limits and new adjusted Extraterritorial Area). Hillsborough and Orange County will jointly prepare a parcel-specific Land Use Plan for the area shown in orange and blue on this same map, areas of joint interest. The policies contained in this Phase I document will serve as a starting point and foundation for designation of parcel-specific land use.

The map that follows on page 12, and the map shown on page 23, both highlight an Urban Growth Boundary for Hillsborough. This new boundary would be accompanied by a policy assumption that no municipal water and sewer service and no municipal annexation would occur outside of this boundary. The following map on page 12 also shows area in which the Town would give up existing ETJ area, and gain new ETJ area.

It is suggested that the Land Use Plans that will be prepared incorporate a main corridor of commercial and mixed use space located along S. Churton Street. Non-residential development in this corridor is primarily located just south of downtown Hillsborough and at the southern end of the planning area, and with some commercial development occurring to the east along U.S. 70 and to the north of town along N.C. 86. The S. Churton Street corridor serves as the main activity corridor for the Town.

Residential development along the S. Churton Street corridor would ideally be primarily medium-density and multi-family residential. Single-family residential uses would be desirable along the periphery of this S. Churton Street corridor, reinforcing a density gradient that peaks along the corridor and decreases in lands further out in Orange County.



The table below shows the land use categories that are recommended for use in preparing future Land Use Plans.

Land Use Classification	Type of Development	Expected Density of Development	
Agricultural Residential – Rural Buffer	Low-density, rural residential and agricultural uses	.33 DU/acre	
Low-Density Residential	Detached single-family residential	<2 DU/acre	
Moderate-Density Residential	Detached and attached single-family and multi-family residential	2-4 DU/acre	
Medium-Density Residential	Detached and attached single-family and multi-family residential	4-8 DU/acre	
Multi-Family Residential	Attached single-family and multi-family residential	>10 DU/acre	
Commercial/Office	Retail, office, and commercial uses	0.18 FAR	
Industrial	General industrial and flex-space	0.20 FAR	
Community Mixed-Use	Retail, commercial, and office	0.30 FAR	
WINCU USC	Attached single-family residential	5.0 DU/acre	
Community Mixed-Use	Attached multi-family residential	10.0 DU/acre	

Agricultural Residential - Rural Buffer (0.33 du/acre)

Agricultural residential lands should preserve the rural character in areas surrounding the Town of Hillsborough in unincorporated Orange County. These lands effectively provide a Rural Buffer around the Town and prohibit suburban style development from occurring in the rural areas. Residential development in these areas should include low-density, rural-style housing and rural clustered lots with shared open space, and should be developed at a maximum density of 0.33 units per acre (one dwelling per three acres).

Low-Density Residential (<2 du/acre)

Low-density residential development should occur in the areas to the east and west of Town separating the denser core of Town and the more rural areas in the County. This type of development includes suburban-style detached single-family residences developed at an average density of 1 dwelling units per acre, and no greater than 2 dwelling units per acre.

Moderate-Low Density Residential (2 du - 4 du/acre)

Moderate-density residential development provides a diversity of housing types and should be located in the northern parts of the ETJ. Moderate-density residential development should incorporate single-family residential units

developed at an average density of 3 units per acre, ranging between 2 and 4 dwelling units per acre.

Medium-Density Residential (4 du - 8 du/acre)

Medium-density residential development provides a diversity of housing types and should be located in close proximity to the commercial corridor. The land use plan identifies medium-density residential development along S. Churton Street south of downtown, and along N.C. 86 near the new Waterstone development. Medium-density residential development should incorporate detached and attached single-family residential units and multi-family units developed at a maximum density of 6 units per acre, ranging between 4 and 8 dwelling units per acre.

Multi-Family Residential (> 10 du/acre)

The multi-family residential land use classification includes medium-density multi-family apartment, and multiplex housing units that should be developed at a maximum density of ten (10) units per acre. These land uses are located along N.C. 86 east of the new Waterstone development.

Commercial/Office

The commercial/office land use classification includes all non-residential development except for industrial and institutional uses. This includes retail, hospitality/restaurant, wholesale, office, and other non-residential uses. Commercial/office land use classifications are located east of town along Interstate 85, south of town interspersed with the community mixed-use land uses, and north of Town along N.C. 86. Commercial/office development should be developed at a maximum intensity of 0.18 FAR² for each project.

Industrial

Industrial development includes general and low-impact industrial uses such as storage facilities, warehouses and flex space and should be developed at a minimum of 0.20 FAR for each project. Industrial land uses are located north of Town along NC 57.

Community Mixed-Use

The community-mixed use land use classification allows for three different types of uses within a given development: commercial/office space, attached single-family residential units and multi-family residential units. It should be required that a minimum of two of these land use types should be incorporated within any new development located in a community mixed-use planning land use area. At least one shall be a residential use and one shall be a non-residential use. A minimum of 25 percent of the acreage of every project should be used for residential purposes, and a minimum of 25 percent should be used for non-residential purposes. This development standard provides the flexibility for the market to determine the appropriate mix of uses for a location, while incorporating both residential and non-residential uses. Every development proposal submitted within a community mixed-use area should meet the mix requirements.

² Floor area ratio (FAR) is calculated as the total amount of building square footage divided by the total square footage of the lot.

Institutional and Conservation Uses

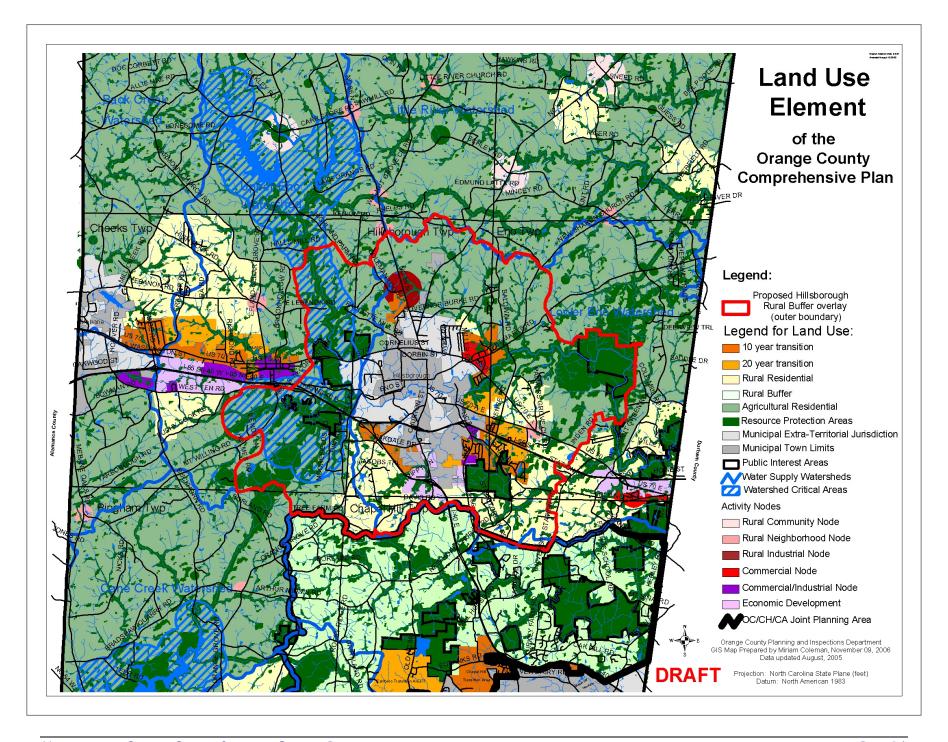
Institutional and conservation uses are also included within the land use plan. The institutional designation includes government facilities, schools, churches and other public facilities. Conservation lands include both private and publicly held lands that are protected for the long-term. This includes properties held by the Eno River Association and Duke Forest lands, as well as Hillsborough's parklands and other dedicated open spaces.

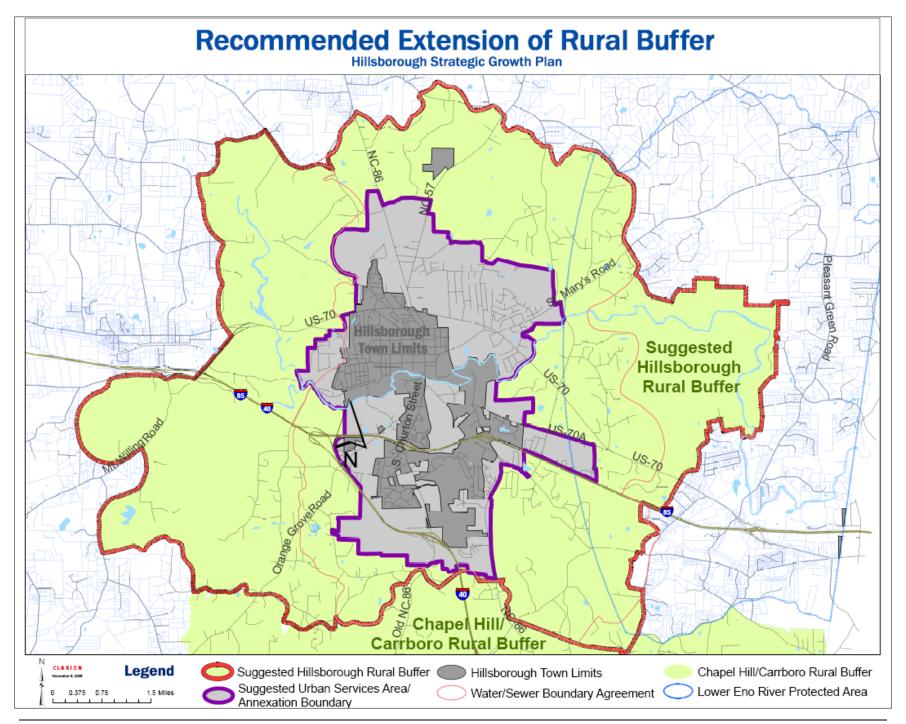
Recommended Rural Buffer

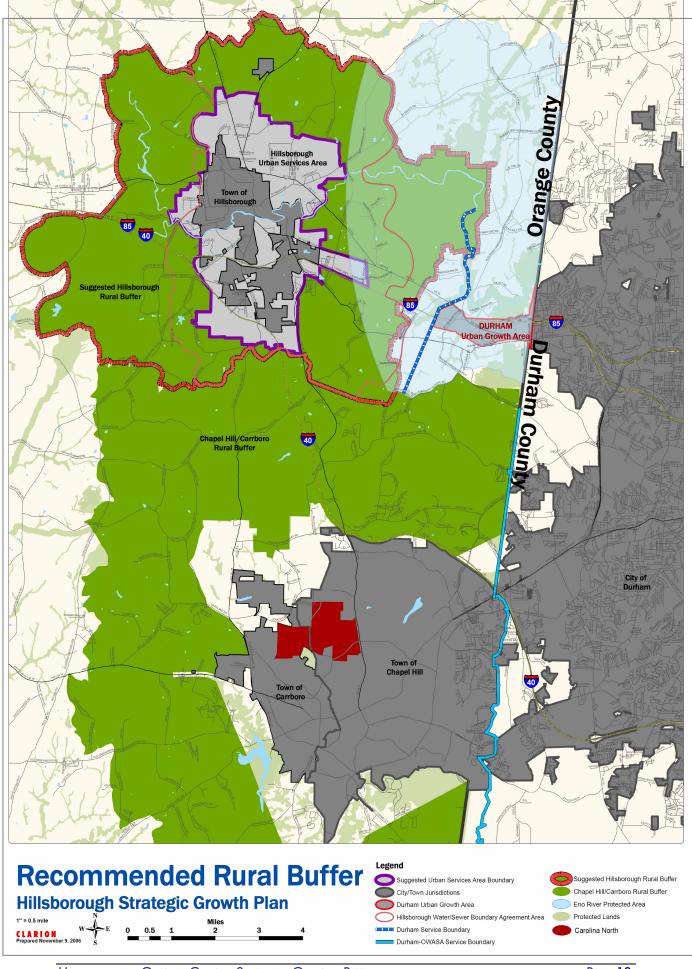
In addition to the preparation of this recommended Land Use Plan for the main Planning Area under review, consideration is also appropriate for the areas immediately surrounding the designated Planning Area.

As discussed previously in this document, the Chapel Hill-Carrboro Rural Buffer abuts the Hillsborough Planning Area to the south. On the west is environmentally sensitive and protected land. To the east is the Lower Eno Watershed Protection District. As a new Rural Buffer is established surrounding Hillsborough, it becomes possible to merge that new Rural Buffer with the existing Chapel Hill-Carrboro Rural Buffer to establish a continuous area where land use policy is consistent, where extension of public utilities would be avoided, and where rural and environmental preservation are the main objectives.

Maps on the following pages illustrate this extended recommendation. Immediately following is a map that would adjust Orange County's Land Use Element to incorporate this new and extended Rural Buffer around Hillsborough. Following that map is another map showing this extended Hillsborough Rural Buffer. Following that map is a third map that shows how these ideas fit together to define two Urban Services Areas (Chapel Hill-Carrboro and Hillsborough), surrounded by a continuous Rural Buffer around Hillsborough connecting to the existing Rural Buffer to the south. This coordinated land use policy would cover most of Southern and Central Orange County.







Plan Implementation

Implementation of the Land Use Plan will require revision of existing planning policies for both the Town of Hillsborough and for Orange County.

Currently, the Hillsborough Town boundary, Hillsborough's extraterritorial jurisdiction (ETJ) boundary, and the Hillsborough/Orange County Water and Sewer Boundary Agreement area boundary are not well-aligned. Because Hillsborough provides water and sewer service within the agreement area but does not have planning jurisdiction within the entire agreement area, it is critical for Orange County and Hillsborough to be coordinated in their planning efforts. One of the objectives of this Strategic Growth Plan is to better align jurisdictional boundaries and to develop the framework for the exchange of information and approval of developments of joint interest for both the Town and County. It is also critical to define a boundary within which the Town of Hillsborough can be expected to grow and provide public services.

Based on the analysis conducted through this process, the Town's Urban Services Area boundary is proposed to include the areas that currently receive water and/or sewer service from the Town, and the areas which are the most likely to see development and Town annexation in the future. The suggested boundary is shown in the map that follows.

The issue of jurisdiction over development activity (i.e., who approves development proposals and by what process) needs to be spelled out in order for this plan to be implemented. Within the proposed Urban Services Area, there are key parcels of land that need the attention of both the Town and the County, because both will be providing services. Managing the review and approval process for these "edge" locations is critical to successful implementation of this proposed plan. Accordingly, the following structure and protocol is suggested, described below with a map and accompanying narrative.

Jurisdictional Designations

Four designations are called out for the Planning Areas covered by this Plan, and for which a Land Use Plan has been prepared and recommended:

- Hillsborough Jurisdiction, Information exchange
- Urban Transition Hillsborough Jurisdiction, Courtesy Review by County
- Urban Transition County Jurisdiction, Joint Review by Hillsborough
- Rural Buffer County Jurisdiction, Information exchange

These designations are described below:

Hillsborough Jurisdiction: Development proposals in this area would be subject to review and approval by the Town of Hillsborough solely, with information about major proposals exchanged with Orange County. There are two components to this designation: land within the corporate limits of Hillsborough, and land within an adjusted Extraterritorial Jurisdiction (ETJ) for Hillsborough that is NOT included within an Urban Transition Area. Areas are available for annexation when appropriate, and extension of water and sewer lines. In the following map, areas within Town Limits are shown in dark gray, areas with ETJ subject to Hillsborough review/approval only shown in light gray.

Urban Transition - Hillsborough, Courtesy Review by County: Following adoption of this Strategic Growth Plan and an Inter-local Agreement, which includes a land use plan, development proposals in this area would be subject to review and approval by the Town of Hillsborough, but only after Orange County has had an opportunity for courtesy review and comment. County comments would be considered in approvals. Zoning changes would require joint approval. Town zoning and subdivision regulations will be implemented and day-to-day land use administration will be ceded to Town. Zoning changes that are consistent with Plan recommendations have to be approved by Town and County following a joint public hearing. Zoning not consistent with Plan requires consideration of a Plan amendment, also requiring a joint public hearing and joint approval. If Plan amendment approved, rezoning request can be considered at a subsequent joint public hearing. Areas are available for annexation when appropriate, and extension of water and sewer lines. In the following map, areas within this category are shown in orange.

Urban Transition - County, Joint Review: Development proposals in this area would be subject to review and approval by Orange County, but only after Orange County and Hillsborough have both reviewed plans and have had an opportunity to meet jointly to review and discuss. Hillsborough comments would be considered in approvals. County zoning (consistent with the Plan) and subdivision regulations would be in effect and day-today land use administration is responsibility of County. Zoning changes here have to be consistent with the Plan, but are approved by County only following County public hearing. Plan amendments require approval of both Town and County following a joint public hearing. Annexation requires that development first take place under County regulations. Outer fringe of this area forms annexation and urban services boundary. Water and Sewer Management, Planning and Boundary Agreement (WSMPBA) will be amended to define area as boundary of Hillsborough Primary Service Area. Areas are available for annexation, but the expectation is that development and subsequent annexation would not be immediate, and the intent of this area is a longer time frame for development and buildout. In the following map, areas within this category are shown in blue.

An additional designation here is that there is an area currently served by Hillsborough water (not sewer), but which is <u>outside</u> the designated Urban Services Area, outside the area that Hillsborough would ultimately annex. This area has Town water, but no sewer and is largely built out. Residential lot sizes range from 0.5 to two acres plus. The area meets "developed for urban purposes" criteria defined in State statutes on annexation, but is not currently contiguous to existing town limits (a requirement for annexation). This area was formerly identified as Town primary service area in the WSMPBA. The amended WSMPBA will change it to Hillsborough Long-Term Interest Area. This area is shown in a lighter shade of blue.

Rural Buffer: Development proposals in this area would be subject to review and approval by Orange County. The County would exchange information with Hillsborough about development proposals and approvals, but there would be no joint review. This area is outside the Urban Services Area, with the expectation that there would be no annexation and no extension of utilities. Allowable development intensities would be very low. County zoning and subdivision regulations would be in effect and day-to-day land use administration is responsibility of County. Zoning changes have to be consistent with the Land Use Element of the Orange County Comprehensive Plan and County approves Plan and zoning changes only. This area is to remain rural/low-density with no extension of urban services and no annexation. This area was formerly identified as Town primary service area in the WSMPBA. The amended WSMPBA will change it to Hillsborough Long-Term Interest Area. In the following map, areas within this category are shown in light yellow.

Summary

This Strategic Growth Plan proposes adjustments in the approach to regulating development in the vicinity of the Town of Hillsborough. The report's main two recommendations focus on future land use patterns, and on Interlocal agreements and mechanisms to assign responsibility / process for managing development.

Land Use

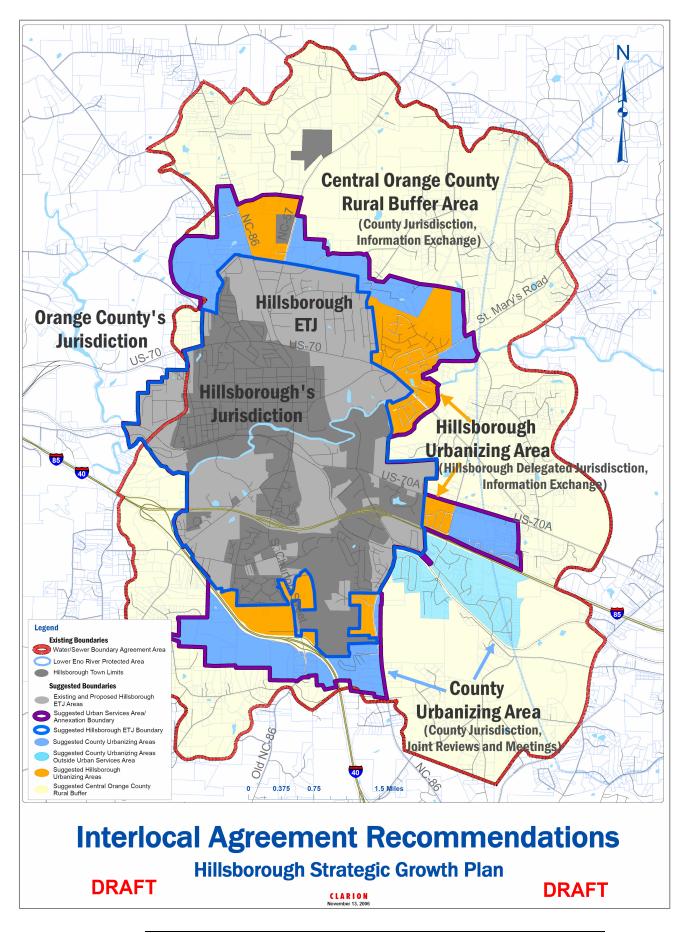
Existing data and constraints are reviewed in this report. Following evaluation of those circumstances, this report proposes a land use pattern to serve as a blueprint for future development in and around Hillsborough. Key features of the proposed land use pattern are (1) Attention to constraints imposed by limited water supply; (2) Emphasis on mixed-use development; (3) Concentration of new residential development to the south and east of the current Town limits; and (4) Establishment of an Urban Services Area, beyond which public water and sewer would not be extended and beyond which land would not be annexed into the corporate limits of Hillsborough.

Interlocal Agreements

Implementation of this proposed Land Use Plan requires cooperation between Orange County and the Town of Hillsborough. A system is proposed here based on the designation of an Urban Services Area to distinguish between those areas that are to be developed at Hillsborough-scale urban intensities, and those that are to remain low-density residential or agricultural in nature. Within that Urban Services Area, Hillsborough's current Extraterritorial Jurisdiction (ETJ) would be expanded to include those areas that are most likely to be, soon, the subject of urban-intensity development proposals, with annexation to follow, and contracted in areas where urban-intensity development is to be discouraged. This area is shown in gray on the accompanying map.

Within the Urban Services Area but outside areas of Hillsborough's sole jurisdiction (corporate limits and ETJ), two new procedural categories would be created. One would be called "Hillsborough Urbanizing Area," wherein the County would delegate administration of regulations to Hillsborough under the terms of the agreement, and requests for zoning changes would require joint review and approval. This area is colored orange on the map. Another category would be called "County Urbanizing Area," wherein joint approvals by both the County and Hillsborough would be necessary for new development and the expectation would be that development would occur later in time. This area is blue on the map.

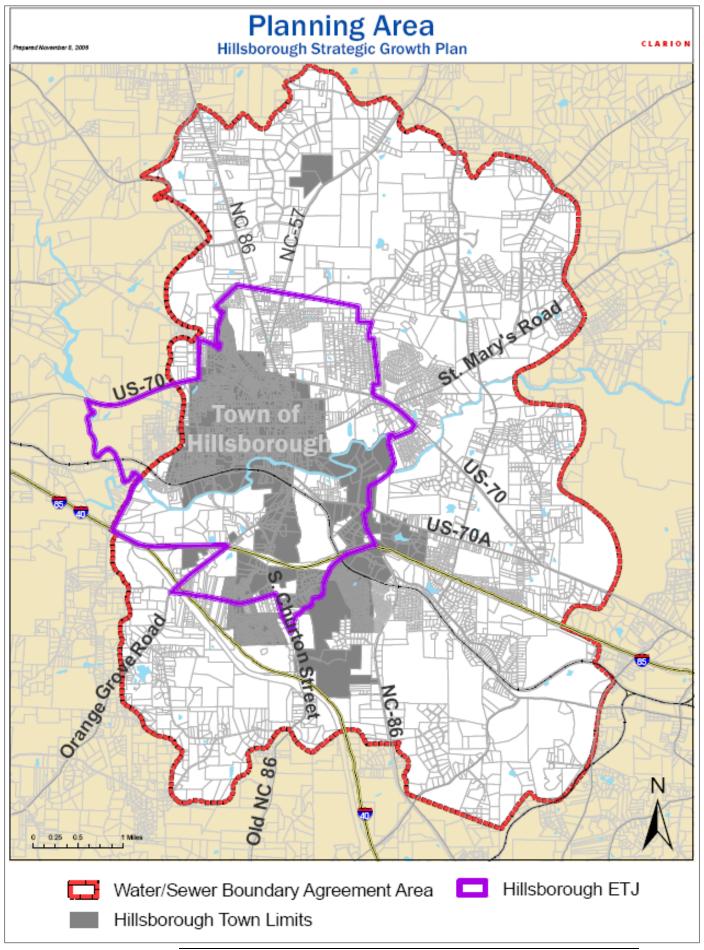
The area outside the Urban Services Area, but within the area of Hillsborough's interest as defined by the Water and Sewer Boundary Agreement, would be called "Central Orange County Rural Buffer." Jurisdiction over new development here would remain with Orange County, but with courtesy review opportunities extended to Hillsborough. This area is colored yellow on the accompanying map.

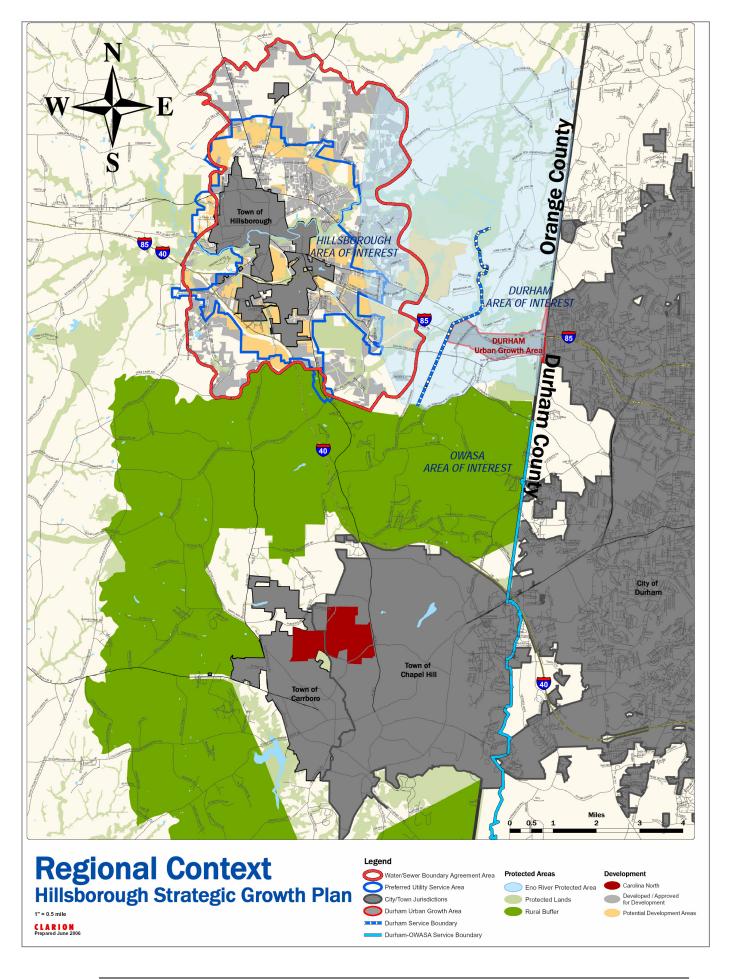


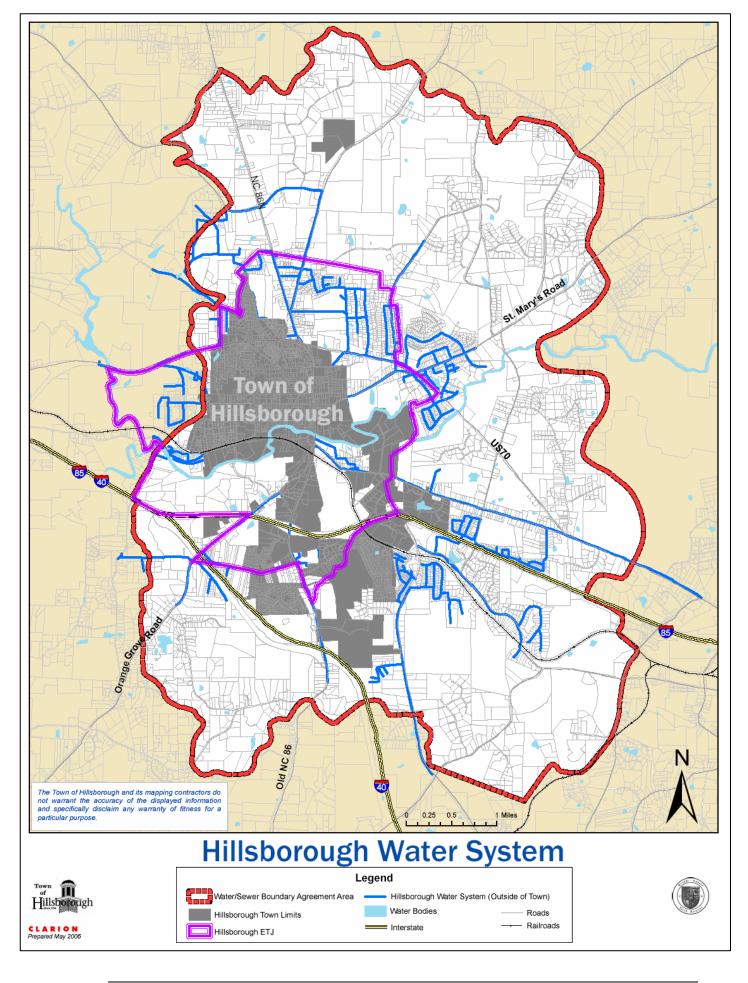
Designation	Can Water be extended?	Can Sewer be extended?	Can area be annexed?	Joint Review Process?	Who has final approval jurisdiction?
Hillsborough Town Limits (dark gray on map)	Yes	Yes	na	No	Hillsborough
Hillsborough ETJ (existing and new) (light gray on map)	Yes	Yes	Yes	No	Hillsborough
Hillsborough Urbanizing Area (orange on map)	Yes	Yes	Yes	Hillsborough process for development approvals Joint Approval Process for Land Use Plan and Zoning decisions	Hillsborough for developments Joint for Zoning
County Urbanizing Area (Within Urban Services Area) (dark blue on map)	Yes	Yes	Yes	County process for development approvals Joint Approval Process for Land Use Plan	Orange County for developments Orange County for Zoning Joint for Land Use Plan
County Urbanizing Area (Outside Urban Services Area) (light blue on map)	Yes	No	No	No	Orange County
Central Orange County Rural Buffer (yellow on map)	No	No	No	No	Orange County

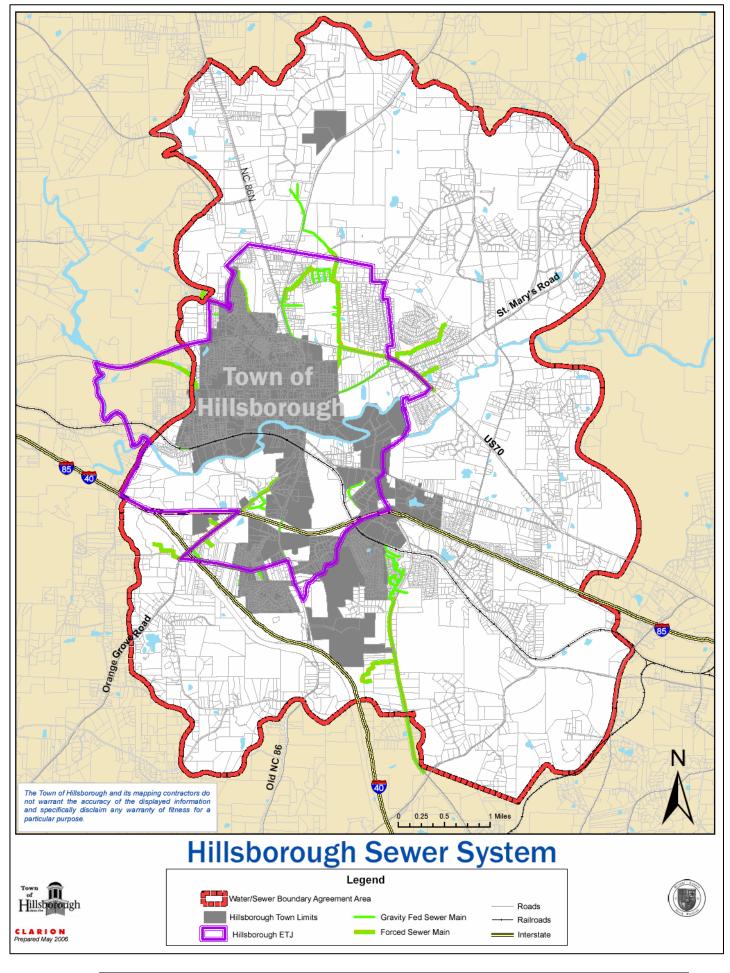
Appendix A: Maps

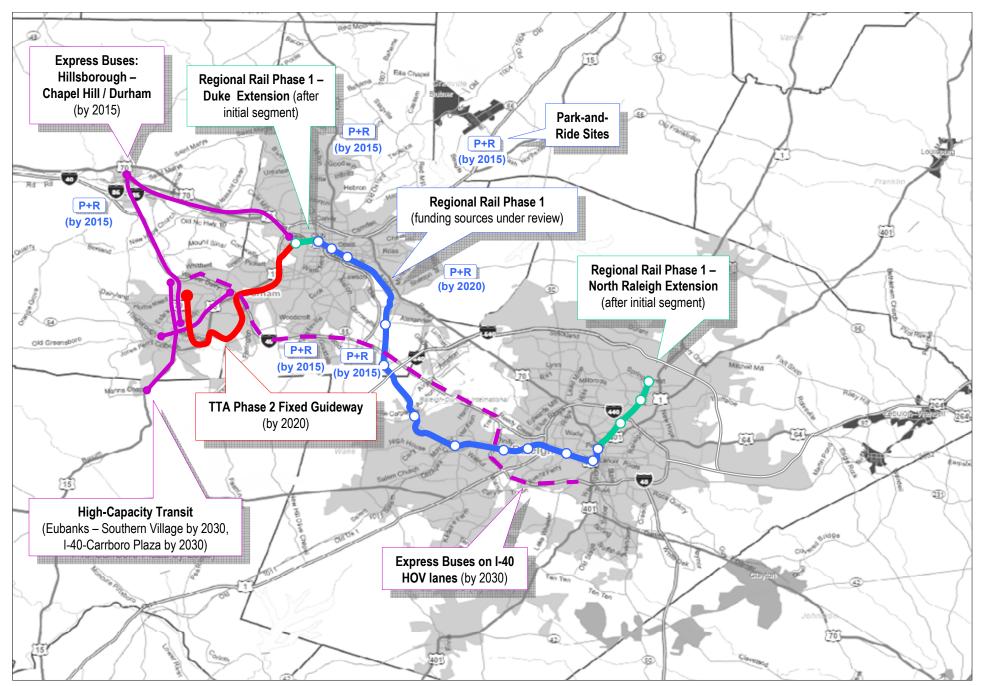
- Planning Area
- Regional Context
- Hillsborough Water System
- Hillsborough Sewer System
- Planned Transportation Improvements
- Future Land Use Plan
- Proposed Adjustment of Orange County Land Use Element
- Recommended Extension of Rural Buffer
- Recommended Rural Buffer
- Interlocal Agreement Recommendation





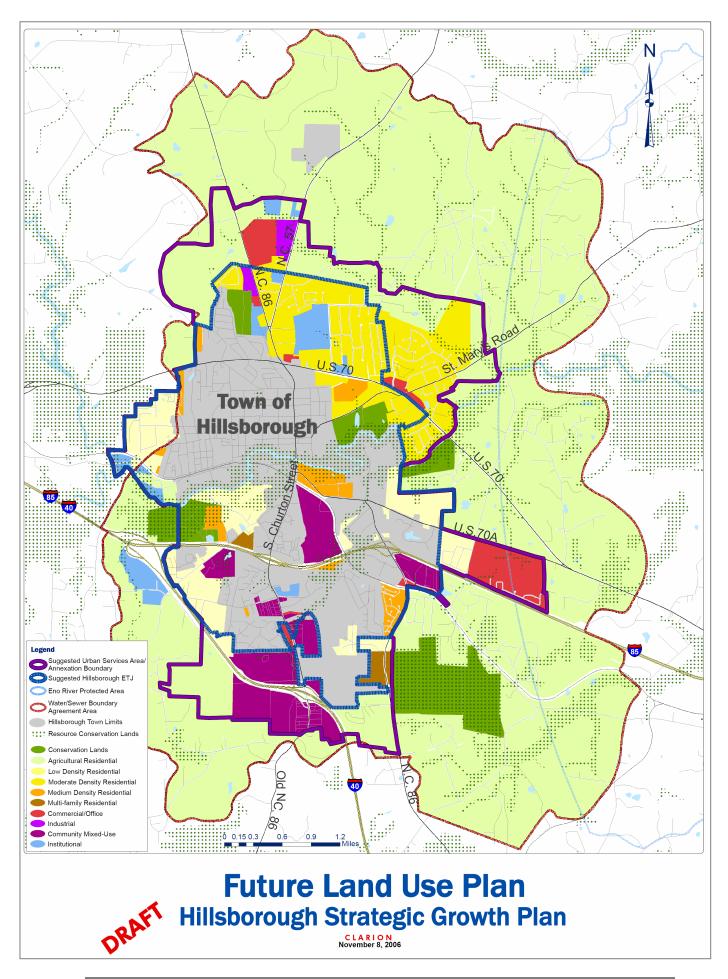


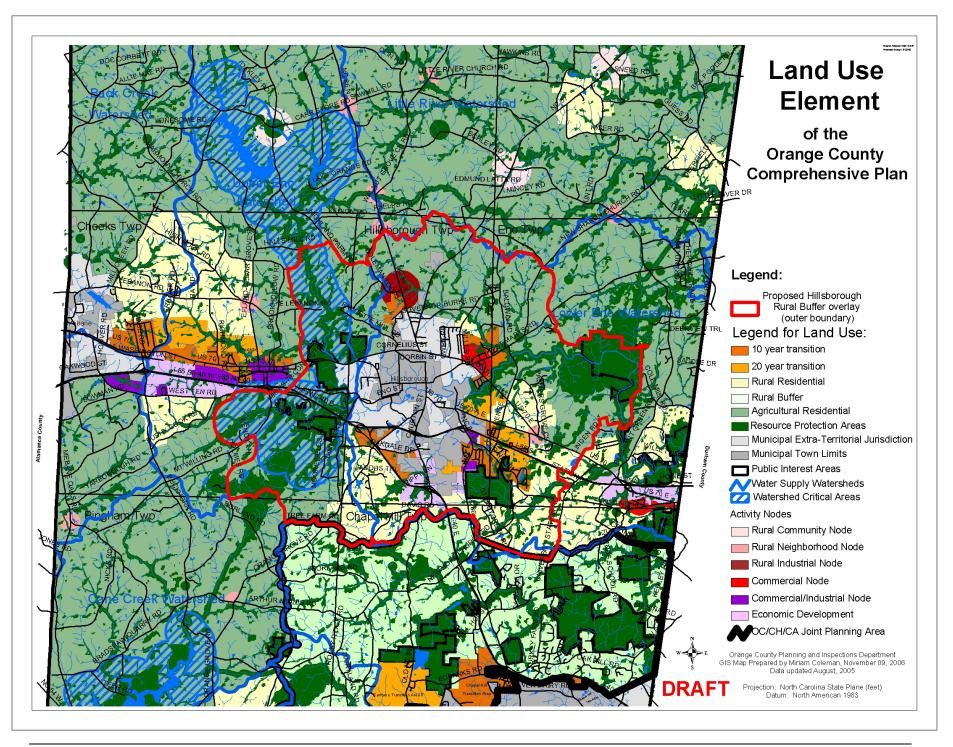


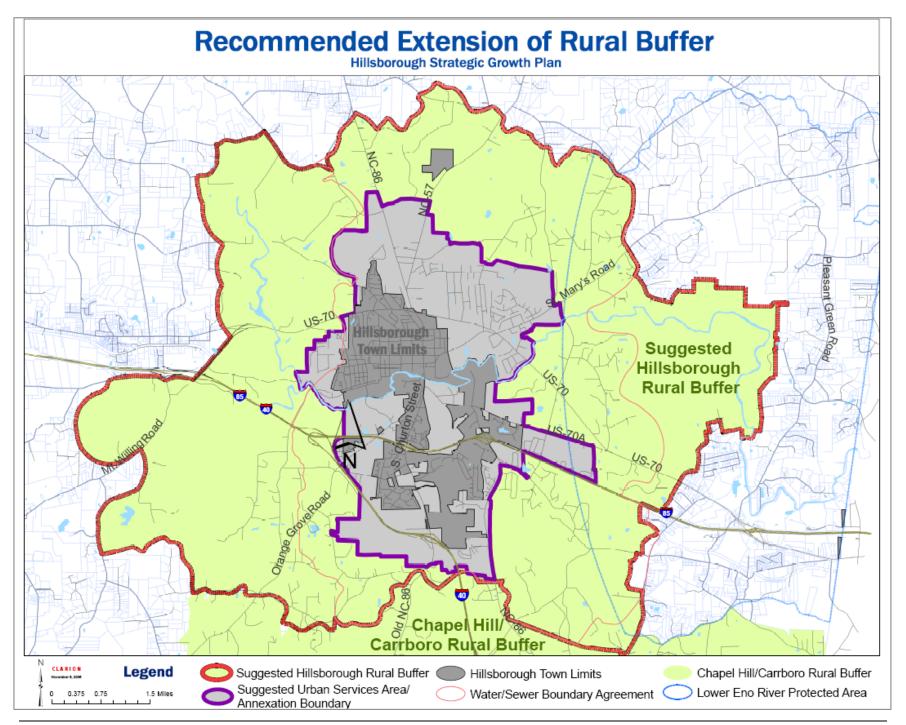


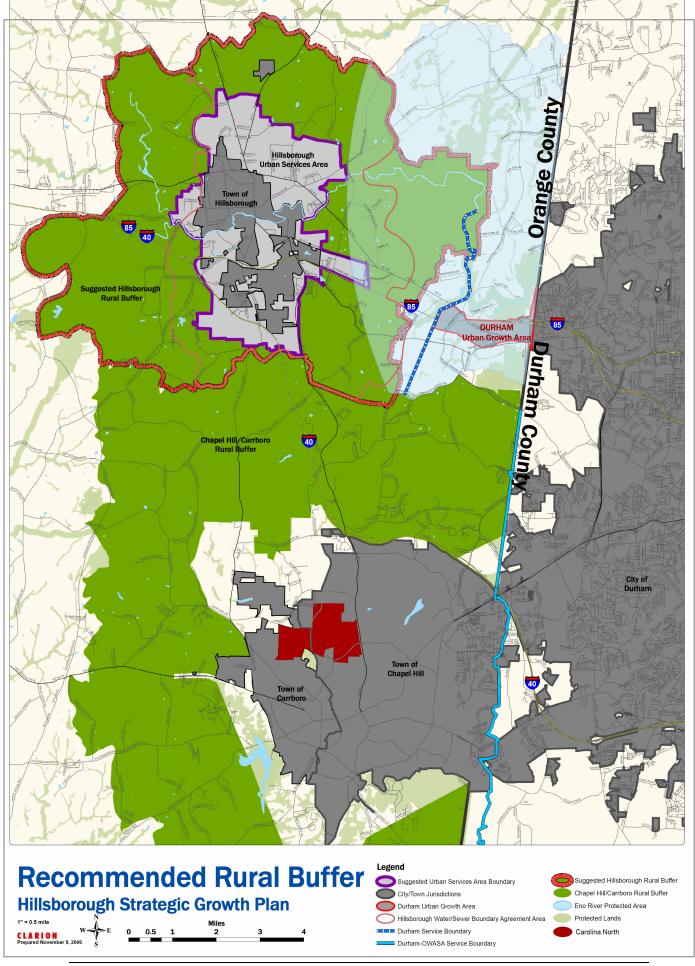
Based on DCHC MPO and CAMPO 2005 Long Range Transportation Plans. Alignments shown are indicative. Programmed completion dates shown in parentheses.

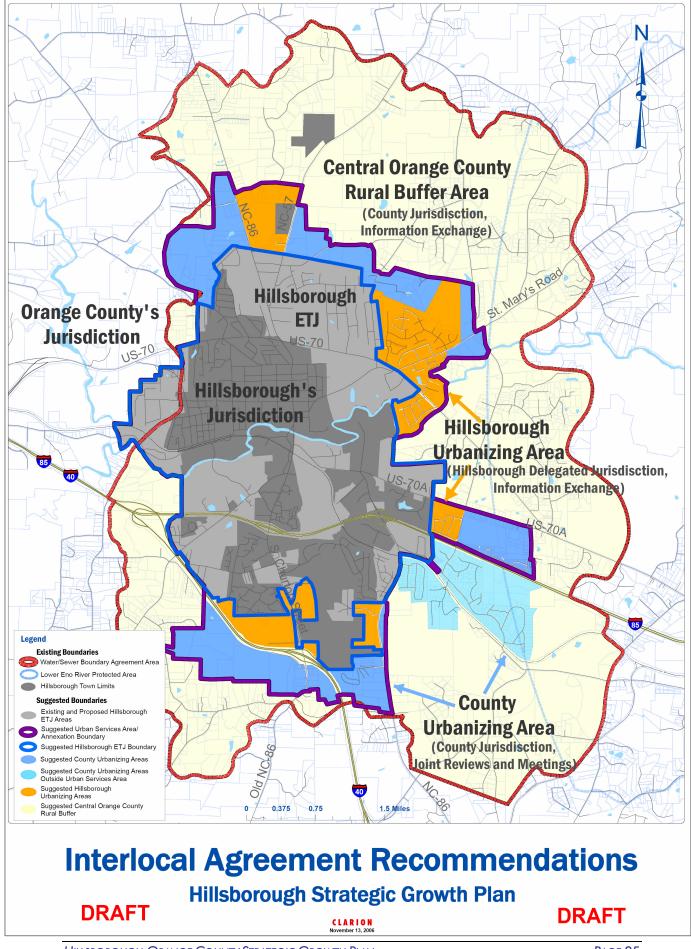
Only selected projects of regional significance are shown. The official definition of 'Regionally Significant' projects includes many additional projects.











Appendix B: Plan Methodology

This Hillsborough-Orange County Strategic Growth Plan was developed using a five phase of planning approach. These steps include:

- 1. Development of plan goals by the Steering Committee;
- 2. Identification of existing conditions and development constraints within the planning area;
- 3. Modeling and analysis of four alternative land use patterns using existing constraints;
- 4. Identification of a preferred land use pattern; and
- 5. Development of an implementation strategy for the preferred land use pattern.

What follows is a summary of the five phase methodology used to develop this Strategic Growth Plan.

Development of Plan Goals

The project was initiated by the appointment of a Steering Committee by the Orange County Board of Commissioners and by the Hillsborough Town Council. The Steering Committee was charged with providing guidance and direction throughout the Strategic Growth Plan process over a one year period. The committee began by developing a list of issues and common goals that would be addressed in the plan. The Committee worked through two meetings to define the common goals for the plan. These common goals serve as the guiding factors for the land management policies developed in this Plan. The common goals are listed in the "Background, Purpose, and Goals" section of this Plan.

Identification of Existing Conditions

The next phase of the plan was to analyze existing planning policy and physical conditions for the Planning Area that includes Hillsborough and its surrounding environs. This included a review of the following current planning documents to understand the current status of planning in the area:

- Town of Hillsborough's Vision 2010 Plan
- Orange County's Comprehensive Plan, in particular the Land Use element;
- Water and Sewer Agreement between the Town of Hillsborough and Orange County;
- Urban Transition Area Task Force Report; and
- Zoning regulations for both the Town and County.

Based on evaluations of the possible factors affecting the areas development potential, water system capacity and transportation capacity within the Town of Hillsborough, in particular the north-south Churton Street corridor were identified as the primary constraints to growth in the area. Therefore, the next phase of the plan was to evaluate the following physical planning elements:

- Hillsborough's water system and sewer system capacity;
- Regional and local transportation systems; and
- Potentially developable parcels, including their acreage and location.

Water System Capacity

The results of this evaluation were that approximately 1,900 additional dwelling units and approximately 1,650,000 additional square footage of non-residential development could be supported by the existing water system capacity. Table B.1 shows the available water capacity after the planned expansion, and Table B.2 shows the development capacity based upon this available water capacity.

Table B.1 Hillsborough Water System Capacity Peak Gallons Per Day (GPD)				
Development	Residential GPD	Non-Residential GPD	Total GPD	
Capacity after Expansion			3,825,000	
Existing Development	(1,441,500)	(491,067)	1,932,567	
Committed Development	(589,800)	(363,552)	953,352	
Available Capacity			939,080	

Table B.2 Water Capacity for New Development (Peak Gallons Per Day)				
	% of Water Usage	Water Capacity	Peak Use Factor (GPD)	Development Capacity (approximation)
Water Allocated to Residential Development	63%	591,620.80		
Dwelling Units			300.00	1,900
Water Allocated to Non-residential Development	37%	347,459.84		
Square Footage			0.21	1,650,000
Total Allocation	100%	939,080.64		

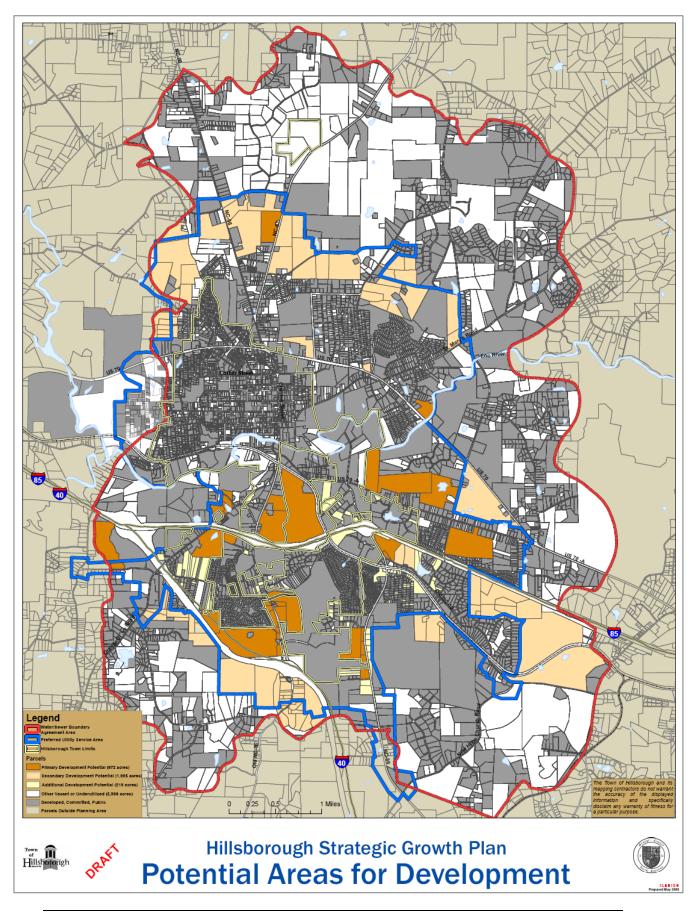
Transportation System Capacity

Analysis of 2002 and projected 2030 traffic conditions for the current Hillsborough transportation system were conducted by Martin/Alexiou/Bryson. This analysis assumed a constant rate of growth over the period and the development of the Elizabeth Brady Road extension. This analysis produced the following results:

- Churton Street was over-capacity in 2002 and 2030;
- Even with increased capacity from scheduled improvements; I-40 and I-85 are congested in 2030;
- US-70 and US-76 Bypass are less congested in 2030 because of the Elizabeth Brady Road Extension; and
- The rural road network is equally congested in 2030 as in 2002.

Potentially Developable Parcels

Based on expert knowledge of the Hillsborough real estate market and the parcel data from the County and Town's geographic information systems, consultants and planning staff evaluated the potentially developable parcels located within the planning area. Three levels of parcels were identified: parcels experiencing immediate development potential (primary), parcels with development potential in the near future (secondary), and parcels with development potential in the some time in the future (additional). The following map outlines these three categories of potentially developable parcels. The dark orange parcels have a high potential for development (primary), the lighter orange parcels have a moderate potential for development (secondary), and the yellow parcels have a low potential for development (additional).



Modeling and Analysis of Alternative Land Use Patterns

The next phase was to evaluate four different land use patterns given the capacity constraints identified in the water and transportation systems analysis and the identified parcels available for development.

The four growth scenarios (Status Quo, Planning Emphasis, Market Realities, and Unconstrained Growth) provide an illustration and evaluation of four different patterns of growth that could occur in the areas outside of Town limits, but within the Hillsborough Water/Sewer Service Area. These alternatives provided a basis for the Steering Committee and the Town to begin making decisions on the type and pattern of growth that should occur proximate to Town limits over the next 20 years. Likewise, this information can serve to inform future discussions regarding annexation of surrounding lands into the Town of Hillsborough.

The Steering Committee approved the general development patterns and general assumptions for the four scenarios at the June 2006 Steering Committee meeting, and the consultant team worked over the summer to develop the scenarios and analyze them based on their land use, transportation and fiscal impacts. Below is a short description of each of these scenarios.

<u>Scenario 1 - Status Quo Development</u> illustrates what would happen in the future if current policies were maintained. Residential development would be located north of Town and commercial development would be located along S. Churton Street. This scenario assumes lower-density development occurring within future water capacity limitations and does not include any mixed-use development.

<u>Scenario 2 - Planning Emphasis</u> represents a more compact form of growth that utilizes both higher densities and mixed-use development. It assumes policy changes that would direct growth to infill sites proximate to the current Town boundaries and limits growth by future water capacity. Commercial mixed-use development located along the S. Churton Street Corridor north of I-40 and residential development is located just south of downtown and east of current Town boundaries.

<u>Scenario 3 - Market Realities</u> is a hybrid of Scenario 1 and 2. Densities are higher in Scenario 3 than Scenario 1, but the development is not allocated as compactly as Scenario 2. Like Scenarios 1 and 2, growth is limited by future water capacity. Commercial and mixed-use developments are located south of Town along the S. Churton Street corridor and residential development is located east and west of the current Town boundaries.

<u>Scenario 4 - Unconstrained Growth</u> focuses development south of Town along the S. Churton Street corridor near I-85 and I-40, primarily in the form medium-density, mixed-use developments. Some lower density residential development is located east of Town on Business 70. Scenario 4 does not limit development by future water capacity, and assumes that additional water sources will be identified.

These four scenarios were developed using Orange County parcel data through a Geographic Information System (GIS). Scenario development included determining density assumptions and development allocations for each scenario and allocating both residential and non-residential development to the potentially developable/redevelopable parcels in a manner that emphasized each alternative land use pattern.

Scenarios 1-3 assumed that the future expansion to the water system is the limit on the amount of development that can be accommodated. Scenario 4 assumed an unconstrained development capacity, and also assumed that additional water supply will be supplied via other sources. The Steering Committee decided upon the amount of development that would be allocated in Scenario 4. Table B.3 summarizes the amount of development that can be allocated under each of the scenarios, and the amount of land required to accommodate this development.

Table B.3: Development Allocated for Constrained and Unconstrained Scenarios				
Units	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4
Total Housing Units	1,900	1,900	1,900	3,000
Total Non-Residential (Square Footage)	1,650,000	1,650,000	1,650,000	2,500,000
Acreage Required	1,164	801	837	1,133

They key land use implications of these alternative growth patterns are as follows:

- Scenario 2 provides the most efficient pattern of development. Because Scenario 2 (Planning Emphasis) uses medium-density and mixed-use development patterns, it can accommodate the same amount of residential and non-residential development as Scenarios 1 and 3, but consumes less land.
- Scenario 4 assumes development that exceeds future water system capacity by 1,100 residential units and 850,000 square feet of non-residential development. Because this Scenario uses medium-density development patterns, it is able to allocate this additional development and still use 30 fewer acres than Scenario 1.

These scenarios were then evaluated in terms of their effects on transportation and the provision of public services.

Transportation Impacts

In general, the transportation analysis shows that Scenario 2 has the least negative impact on the local transportation system, and provides the most opportunities for public transit. Along with Scenario 4, Scenario 2 utilizes compact development in a manner that is expected to make efficient use of the existing transportation system and locate development in ways that do not exhaust future road capacities.

Scenario 1: Status Quo

Scenario 1 assumes that most low density single family residential growth will be concentrated in the northern part of town, north of US 70. This scenario would exacerbate the existing congestion along the Churton Street corridor, as commuters would have few other options to access I-85 and I-40. Also, because the projected residential development is concentrated north of the downtown and away from the interstates, this scenario has low potential for public transit usage.

Scenario 2: Planning Emphasis

Scenario 2 assumes that low density residential development will be focused along the US 70 and US 70A corridors and in the southwestern part of Town, between the interstates. The

scenario also assumes significant mixed-use just south of the downtown on the Collins/Daniel Boone property. Commercial development is concentrated between I-85 and I-40. Because of the concentration of development in the southern part of town, new commuters have much better access to the interstates and avoid the Churton Street corridor and downtown area. The concentrated mixed-use development close to downtown would also promote public transit use, walking, and bicycling. Overall, Scenario 2 has the fewest negative impacts on the area's transportation system.

Scenario 3: Market Realities

Scenario 3 is a hybrid of Scenarios 1 and 2, with some residential development north of US 70, but most concentrated in the southern part of town along the US 70 and US 70A corridors. Like Scenario 2, Scenario 3 includes a significant mixed-use development south of downtown and concentrated commercial development between the interstates. Overall, the transportation impacts of Scenario 3 and very similar to Scenario 2, although not as beneficial with the low density development in the north. Like Scenario 2, the concentration of development in the southern part of town gives new commuters much better access to the interstates, avoiding the Churton Street corridor and downtown area. The concentrated mixed-use development close to downtown would promote public transit use, walking, and bicycling.

Scenario 4: Unconstrained Growth

Scenario 4 assumes that future growth is unconstrained. The Scenario includes 1,100 more new residential units than the other three scenarios and almost 1,000,000 square feet more of commercial development. As such, Scenario 4 results in the highest number of total trips of any scenario. Scenario 4 is also the only scenario that includes any growth south of I-40, concentrating mixed-use and commercial development at the major I-40 interchange in the southern part of town.

Fiscal Impacts

In general, the fiscal analysis of the four scenarios shows that Scenario 1 is more expensive than the other two constrained growth scenarios because of the necessity to extend services (i.e., schools, solid waste, police, fire/ems, sewer, and roads) to areas north of Town. Areas south of town are deemed more feasible and efficient for extending public services, and therefore Scenarios 2, 3 and 4 have better fiscal implications for the Town. What follows is a summary of the fiscal implications of each scenario.

Scenario 1 (Status Quo)

- Allows for logical extension of Hillsborough Town boundary and services south of the Eno River.
- Medium density residential development in core area supports existing and future retail uses and creates high per acre property tax revenues.
- Low density residential development north of U.S. 70 creates demand for additional support activities (e.g., park & recreation facilities).
- Leapfrog annexation or full annexation to incorporate new residential areas results in additional costs to provide public safety, solid waste and other municipal services.

Scenario 2 (Planning Emphasis)

- Allows for logical extension of Hillsborough Town boundary and services south of the Eno River.
- Medium density residential development in core area supports existing and future retail uses and creates high per acre property tax revenues.
- Low to medium-density residential development located east along Business U.S. 70 will add costs to the municipal budget if annexed. If not annexed, development will not add costs or revenues to Town.

Scenario 3 (Market Realities)

- Similar fiscal impacts as Scenario 2.
- Allows for logical extension of Hillsborough Town boundary and services south of the Eno River, but not to the low-density growth north and west of town
- Low to medium density residential development located along Business U.S. 70 will add cost to the municipal budget if annexed. If not annexed, development will not add costs or revenues to Town.
- Non-residential activity along S. Churton Street adds tax revenue in excess of costs whether areas remain in County jurisdiction or are annexed into the Town.

Scenario 4 (Unconstrained Growth)

- Growth south of I-40 requires a leap of services to a somewhat isolated development area. Additional demands for recreation facilities, solid waste collection, public safety, fire protection, and other services might be offset by extremely high design and development standards and development impact fees.
- Will require new water supplies from outside source.

Identification of Preferred Land Use Pattern

The Steering Committee was presented with the Alternative Land Use scenarios and the transportation and fiscal analysis of the impacts of the land use alternatives over a two-month period. The Steering Committee agreed that Scenario 2 (under current water constraints) and Scenario 4 (with the assumption that additional water capacity would be obtained) were the preferred land use patterns due to their efficient use of land, their effective use of future transportation capacity, and the fiscal implications of their physical development patterns.

Following the Steering Committee's recommendation and based upon Scenarios 2 and 4, planning staff and consultants then worked to develop a formal land use plan that identified the location and densities of land uses to occur in the planning area. The Land Use Plan in this document is the result of this work. This Land Use Plan includes the specific land uses within the planning area, a suggested expansion of Hillsborough's Extraterritorial Jurisdiction boundary, and a suggested Urban Services Area outside of which water and sewer services would not be extended, and development would be limited to rural scale densities. This Land Use Plan is included in the Recommended Land Use Plan section.

The Steering Committee reviewed this Land Use Plan at their October meeting. One of the results of this discussion was the recommendation to include a rural buffer around the identified urban services area. This rural buffer has been included as a part of this land use pattern in the Plan.

Development of an Implementation Strategy

One reason for the development of this Plan was for the County and Town to reach agreement on the future expectations on lands outside of Hillsborough, and the entity that would provide planning jurisdiction over those lands. Under the guidance of the Steering Committee, planning staff and consultants worked to develop a formal strategy for managing future development within the planning area. This was based on an evaluation lands that are prime for development/annexation in to the Town, as well as areas that are currently served by water and/or sewer services. As many areas within the planning area are of interest to both jurisdictions, it is recommended that the Town and County utilize several tiers of jurisdictional discretion regarding land use planning and development approvals, dependent upon the location of a property. These tiers of jurisdiction are outlined in the Plan Implementation Section.