THE TOWN OF DENTON
2010 DRAFT COMPREHENSIVE PLAN

Denton, Maryland

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Prepared by Denton Planning Staff in Coordination with Denton Planning Commission

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CHAPTER 1 - INTRODUCTION

The Comprehensive Plan is the official statement of the Town Council and Planning Commission of Denton, setting forth policies concerning desirable future growth and serving as a general guide to public and private development decisions. Once adopted, it becomes the basis for the preparation of specific policies, programs, and legislation; such as zoning and subdivision regulations; and other actions which implement the growth policies set forth in the Plan.

The Plan is comprised of several major elements that are prepared in such a manner that they form an integrated, unified document for guiding future growth and development. As a policy document it is general, comprehensive, and long range in nature. It is comprehensive in that it encompasses the entire geographic area of the Town as well as projected growth areas outside the current corporate limits. The Plan includes all functional elements that bear upon its physical development, such as transportation, land use, and community facilities. It is general in that it summarizes policies and proposals but does not establish detailed regulations or indicate precise locations. It is long range in that it looks beyond current issues to problems and opportunities related to future growth over the next twenty years.

A VISION FOR DENTON

By characterizing local resources, identifying local values and needs, and developing a strategy to ensure that the needs and values of the community are met, the Town of Denton has developed its Comprehensive Plan. The Plan represents the Town's strategy for addressing growth and development issues that are important to the Town's future quality of life. Although there are goals and objectives in each of the Plan's elements, the overall vision for the Town is an integral unifying element. The vision underscores the key community expectations reflected in the Comprehensive Plan and provides a conceptual benchmark for future Town decisions. The Town has developed the following vision statement to guide growth and development in a manner that supports the values of the community and the goals and objectives of the Comprehensive Plan.

DENTON'S VISION

Denton will be an innovative, healthy, safe, well-balanced community that protects its historical integrity, preserves its unique natural resources, enhances its economical vitality and maintains its unique small town character. Denton's population will increase at an acceptable rate consistent with the ability of the Town and County to provide basic services and facilities.

The following, *Small Town Bound*[1], helps put the notion of "small town" as used here into an appropriate perspective.

> "What is a small town?
>
> Ask five people to define a small town and you'll probably get five different answers. (Ask the Census Bureau to define a small town and they'll refuse to answer: a population of 25,000 constitutes a "city," they say, and 2,500 to 25,000

[1] Small Town Bound, John Clayton, Copyright © 2005 John Clayton

is a "place," but a small town has no official definition.) To one of the seven million residents of New York City, a population of 100,000 residents may constitute a small town. On the other hand, Wyomingites see Cheyenne, with a population of 50,008, as not just a city but a metropolis.

Some urbanites use the terms "small town" and "country" interchangeably. Either is simply a place with fewer people than the city or its suburbs. On the other hand, some people make an important distinction: a "small town" (the term "village" is frequently used in the Northeast) is a place with businesses, shops, and residential neighborhoods; "the country" is simply farmland or forest or desert, perhaps with a residence every mile, or every twenty miles.

Nevertheless, when you think about moving to a small town, you're probably not thinking about a specific population figure. You're thinking about the benefits of a relative difference in population density, intangibles such as neighborliness, community, or a perceived simplicity of life. This book uses the term "small town" in that sense -- as a difficult-to-describe atmosphere, rather than a strictly-defined product of population or architecture. Perhaps the best summation of this state of mind was offered by a resident of my town, trying to define the most valuable characteristic of our friendly, close-knit community, who said, "Only in a place like this can you have a conversation with a misdialed phone number."

It's a quality of life you seek, rather than a population figure. You may find that quality of life in a town with 50 people or 50,000; you may find it "downtown" or in place where your nearest neighbor is seven miles up a dirt road. It depends on your personality, and that of the surrounding community. But regardless of how you define the small town, it's far different from the city or suburb you're leaving."

THE FRAMEWORK FOR PLANNING

As Denton and the surrounding environs grow and change over the next twenty years, this Comprehensive Plan will serve as a guide for making public and private decisions regarding the Town's growth and development. This Plan presents a future vision of Denton into the year 2030 along with recommendations for beginning to bring that vision to fruition. The ideas of the Plan are a distillation of the community's many desires, tempered by what seems feasible and reasonable. This Plan is not intended to be a static document. It will be reviewed and updated periodically to reflect new development trends, shifts in the economy, or changes in the community's goals and objectives.

Many significant changes have taken place since 1997 when the current Denton Comprehensive Plan was adopted, and depending on one's perspective, those changes can be labeled anywhere from dramatic to heartening or disheartening, depending on one's perspective. Denton has grown by over 1,909 acres by last count. The more than doubling its size in a period of thirteen years is dramatic. But it is important to point out that dramatic growth in size does not necessarily mean "Smart Growth."

In 1999, the Town encompassed approximately 1,382 acres. Today, Denton has grown its land area by 138 percent, and currently encompasses approximately 3,291 acres distributed upon approximately 2,047 individual parcels of land. Most of the annexations have been properties located in the future growth areas identified in the *1997 Denton Comprehensive Plan*.

The 2010 Comprehensive Plan reflects Town-sought changes from a review of various iterations of the then proposed draft Plan (2006 and 2007). The decade-long series of annexations reflected Town Council's aspiration to incorporate most of the area the Town had designated for growth. When confronted with the 2006 Draft Plan, it became evident to the Town Council that the probable residential growth due to the annexations was untenable: 1) ultimate population was projected to reach in excess of 30,000 individuals, a ten-fold increase from the then current population, and 2) plans, policies, legislation and regulations were insufficient and perhaps naïve as to how best address growth. As a consequence, the Draft Plan was not adopted and a major rework effort was undertaken. This Plan is the product of the extensive re-visitation of what constitutes "Smart Growth" for the Town of Denton.

To better ascertain the opinions of the community on numerous matter of importance that would guide appropriate changes to the Draft Plan, the Planning Commission undertook a town-wide survey. The responses (based on a 38% response rate) gave clear insight on many issues the residents felt were vitally important (Appendix I). Of specific note, is the overwhelming opinion expressed by the residents that the preferred maximum population size at build-out should be 10,000 residents or less. This Plan now reflects the overwhelming majority view of the Town residents.

Indicators of real growth portray a picture of slow growth moving toward moderately rapid growth and most recently, due to the current economic environment, no growth for a period of time. Consider the following:

- Since 2000, the Town has issued an average of 54 building permits per year, which equates to a population growth of approximately 123 persons (average of 2.29 persons per dwelling unit) per year. Permits peaked in 2006 at 147 and have dropped dramatically to just 2 in 2009.
- The rate of residential building accelerated mid-decade, averaging 140 units per year. This building permit data implies a population growth of approximately 321 persons per year.
- In 2009, the last full year of building permit data, the Town issued 2 residential unit building permits. This building permit data implies a population growth in 2009 of approximately nearly zero. In fact, although unsubstantiated by hard data and due to bank foreclosures, the population may have decreased.
- There are currently 776 new residential units planned (under construction, pending preliminary or final approval). Of these, 519 are either recorded and platted or pending recordation. Of these 519, 66 are not recorded and may never come to fruition due to developer decisions not to proceed or bank foreclosure. 157 units are in effect considered platted because of a Development Rights and Responsibility Agreement. The net residential lot inventory at this time is between

710 and 776 lots, which possibly may account for a population growth of 1,626 to 1,777 persons.

- Since 1997, the Town has issued 20 building permits for industrial buildings, 19 permits for commercial buildings, and 9 permits for institutional buildings.
- Over 100,000 square feet of new commercial floor area has been added, and another 155,000 square feet has been approved.
- 30,000 square feet of industrial building has been added, and over 60,000 square feet are in the permit approval process.
- Planning has begun for a new 16,000 square foot Town Hall to accommodate the needs of a growing population.
- Interest in redevelopment in older portions of the Town has increased, including an Arts and Entertainment District, the Gay Street residential redevelopment between Fifth and Sixth Streets, and other redevelopment projects.
- Twenty four acres of park and open space have been added.

Denton was in the midst of a building boom until 2007. Like others, it must now await the return of demand pending a nationwide economic recovery. While fluctuations associated with economic cycles will likely be a significant determinant of the future pace of growth, the indication is that the Town is poised to achieve many of its stated objectives, including strengthening its role as a regional center of commerce and employment and encouraging re-investment in older parts of the Town. The challenge for comprehensive planning is to establish a blue print for the future that integrates the best of the old Denton with the new Denton.

LEGAL BASIS FOR COMPREHENSIVE PLANNING

Article 66B of the Annotated Code of Maryland is the Zoning and Planning enabling legislation from which the Town of Denton derives its powers to regulate land use. Section 3.05 sets forth the minimum requirements for a comprehensive plan which shall include, among other things:

- A statement of goals and objectives, principles, policies, and standards;
- A land use plan element;
- A transportation plan element;
- A community facilities plan element;
- A mineral resources plan element, if current geological information is available;
- An element which shall contain the Planning Commission's recommendations for land development regulations to implement the plan; and
- Other elements, such as community renewal, housing, conservation, and natural resources, at the discretion of the Commission.

MARYLAND ECONOMIC GROWTH, RESOURCE PROTECTION AND PLANNING ACT OF 1992

The context for planning in the Town of Denton must also take into consideration the role that the Town will play in implementing the overall growth management policies established by the State of Maryland in the Planning Act of 1992. These policies, stated as "visions" for the future, were:

1. Development is concentrated in suitable areas;
2. Sensitive areas are protected;
3. In rural areas, growth is directed to existing population centers and resources are protected;
4. Stewardship of the Chesapeake Bay and the land is a universal ethic;
5. Conservation of resources, including a reduction in resource consumption, is practiced;
6. Economic growth is encouraged and regulatory mechanisms are streamlined;
7. Adequate public facilities and infrastructure under the control of the Town are available or planned in areas where growth is to occur; and
8. Funding mechanisms are addressed to achieve these "Visions."

The Maryland Economic Growth, Resource Protection and Planning Act of 1992 also added the requirement that the comprehensive plan contain a Sensitive Areas Element which describes how the jurisdiction will protect the following sensitive areas. Denton's plans and development codes were amended to provide protection for the following:

- Streams and stream buffers,
- 100-year floodplains,
- Endangered species habitats,
- Steep slopes, and
- Other sensitive areas Denton has determined require protect from the adverse impacts of development.

The 2009 Smart, Green, and Growing Legislation passed by the Maryland General Assembly, outlined twelve Planning Visions toward a more sustainable, more livable, and less costly future. The Visions address quality of life, public participation, growth areas, community design, infrastructure, transportation, housing, economic development, environmental protection, resource conservation, stewardship, and implementation approaches. These twelve Planning Visions are addressed throughout the Comprehensive Plan:

1. ***Quality of Life and Sustainability*:** A high quality of life is achieved through universal stewardship of the land, water, and air resulting in sustainable communities and protection of the environment.
2. ***Public Participation*:** Citizens are active partners in the planning and implementation of community initiatives and are sensitive to their responsibilities in achieving community goals.
3. ***Growth Areas*:** Growth is concentrated in existing population and business centers, growth areas adjacent to these centers, or strategically selected new centers.
4. ***Community Design*:** Compact, mixed-use, walkable design consistent with existing community character and located near transit options is encouraged to ensure efficient use of land and transportation resources and preservation and

enhancement of natural systems, open spaces, recreational areas, and historical, cultural, and archeological resources.

5. ***Infrastructure:*** Growth areas have the water resources and infrastructure to accommodate population and business expansion in an orderly, efficient, and environmentally sound manner.
6. ***Transportation:*** A well-maintained, multimodal transportation system facilitates the safe, convenient, affordable, and efficient movement of people, goods, and services within and between population and business centers.
7. ***Housing:*** A range of housing densities, types, and sizes provide residential options for citizens of all ages and incomes.
8. ***Economic Development:*** Economic development that promotes employment opportunities for all income levels within the capacity of the State's natural resources, public services, and public facilities is encouraged.
9. ***Environmental Protection*:** Land and water resources, including the Chesapeake Bay and its coastal bays, are carefully managed to restore, and maintain healthy air and water, natural systems, and living resources.
10. ***Resource Conservation*:** Waterways, open space, natural systems, scenic areas, forests, and agricultural areas are conserved.
11. ***Stewardship*:** Government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection.
12. ***Implementation*:** Strategies, policies, programs, and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, State, and interstate levels to achieve these visions.

The passage of House Bill (HB) 1141 during the 2006 Maryland General Assembly session mandated a change in the content of comprehensive plans. The new bill requires all municipal comprehensive plans to include additional elements or chapters. Two new elements are the "Municipal Growth Element" and "Water Resource Element. The Growth element incorporates information that was previously contained in the 1997 Land Use Chapter plus new, more detailed information of the Town's anticipated growth. The Comprehensive Plan's land use and community facilities elements now become three: municipal growth, community facilities, and land use. Some material that formerly resided exclusively in the land use and community facilities elements are now shifted to the municipal growth element. Consequently, the Land Use Plan will have a narrower framework than the 1997 Comprehensive Plan. Links among these three elements are necessary and all the chapters of a Comprehensive Plan are connected by incorporating a county and municipality visions for the future and how to achieve it. Most of the growth projections and discussion will be contained in the Municipal Growth Element. The Water Resource Element addresses the availability and adequacy of water supply sources and the capability of water bodies to incorporate wastewater and stormwater. The ability to support the

growth discussed in the municipal growth element will depend on the adequacy of water resources.

COMPONENTS OF A GROWTH MANAGEMENT PROGRAM

This Comprehensive Plan provides the basic framework and direction for all components of what may be considered the Town's overall Comprehensive Planning Program. It is not a stand-alone document but is supported and, in turn, supports related Planning Program documents such as the ones listed below.

- Zoning Ordinance
- Subdivision Ordinance
- Capital Improvements Budget

These documents and others, when used concurrently, are the basis for directing and managing growth in Denton. Since 1997, Denton has revised these growth and development management tools to reflect current conditions and needs.

CHAPTER 2 - COMMUNITY CHARACTERIZATION

HISTORICAL PERSPECTIVE

Figure: 2-1

Denton, the seat of Caroline County, is located on the eastern bank of the Choptank River and near the geographic center of the County and the Eastern Shore of Maryland. Today, Denton is the governmental, commercial, and employment center for a large rural area. The town began as a small settlement on Pig Point, which projects into the Choptank River. About 1773, the settlement was named Edentown in honor of Sir Robert Eden, a contemporary English statesman. Soon after the American Revolution, the village's name was contracted to Edenton, and in 1790, when the Assembly Act provided for the relocation of the County Seat from Melvill's Warehouse, it was shortened once more, to Denton. By this time, the town was a trade center of some importance. A wharf was constructed in the Town on the Choptank River in 1792. In 1793, four acres were secured for the construction of a Court House. The original Court House was replaced by a larger one in 1895, which remains in use today (a major addition was completed in 1967).

Photo: 2-1 Caroline County Court House

In 1796, seven commissioners were appointed to survey Denton. The Act appointing the commissioners empowered them to:

> "….survey and lay out any quantity of land, not exceeding fifty acres, including the public square called Denton, and the lands thereto contiguous and the same, when surveyed, to be erected into a village and to be called and known by the same of Denton; and such village when surveyed and laid out, to divide into lots. and (to) lay out a sufficient number of streets, not exceeding fifty feet wide, and also a sufficient number of alleys not exceeding twenty feet wide, through the said village, for the public convenience."

In 1827, a market place was opened where the Masonic Hall now stands, facing the public square. Farm produce was sold here as were slaves. In 1835, the first factory was built in Denton to manufacture plows.

Early travel to Denton was by water. The first steamboat came up the Choptank River to Denton from Baltimore before 1850. It made only one trip, but later the "Dupont" made weekly trips between Denton and Baltimore with freight and passengers. Photo 2-2 shows the “Joppa”, a Bay steamer on the Choptank River.

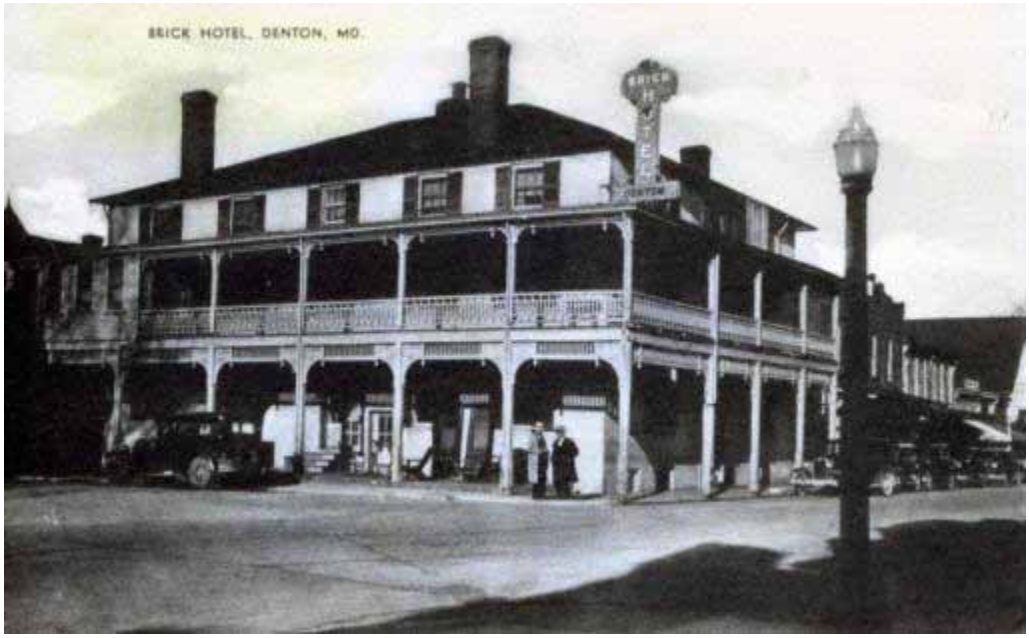
About 1792, probably to shorten the distance of the ferry across the Choptank, a causeway was built across the marsh on the east side of the river. In 1811, the Denton Bridge Company was formed and a toll bridge was constructed. This bridge remained a toll bridge until shortly before the Civil War, when it was sold to the County. In 1875, it was replaced by the iron bridge which remained standing until 1913, when another iron bridge was constructed. This bridge lasted until March of 1976. At that time, extensive reinforcement was done on the bridge until a new concrete bridge could be built. Construction of the new bridge was begun in early 1980 and the present bridge was dedicated on Memorial Day weekend, 1981.

Photo: 2-2

Sometime before 1860, there was a stage line started between Easton and Felton, Delaware via Denton. After 1860, the stage met the Chester Riverboat at Queenstown. Improved transportation routes enhanced Denton's position as a trade center and by the time of the Civil War, new stores, shops, schools, and churches were constructed.

The Brick Hotel, built in 1775, was first a tavern and inn. In the early 1900s, (as seen in Photo 2-3), it was a place for local men to gather and discuss issues of the day. The Brick Hotel was also the summer home for writer Sophie Kerr Underwood, and may have based her book "One Thing is Certain" on people in Denton. *http://www.mdhs.org/library/fotofind/PP0120lnk.html*

Photo 2-3

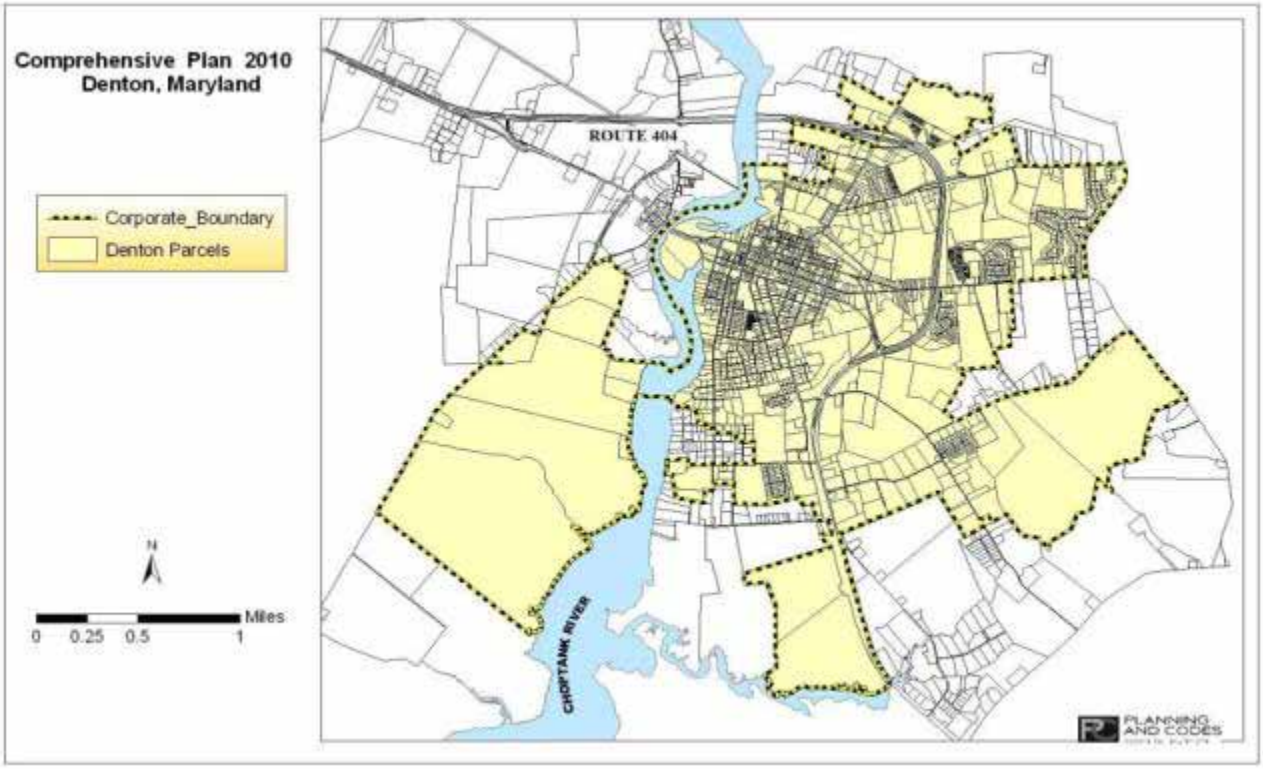


Map: 2-1: Caroline County

Most of the business district was wiped out by a fire in 1863, when a company of Union soldiers stationed as guards in the Town, celebrating the Fourth of July with fireworks, accidentally set fire to a shop building. The ensuing fire burned almost all of the business part of town, which consisted of several stores, a hotel, and a rum shop.

The downtown area of Denton has been designated as a revitalization area. Currently, the Town functions as the governmental and commercial center for Caroline County. Industrial activity has also been increasing in recent years along with commercial, residential growth and development. Although the Choptank River no longer plays an important role in the Town in terms of water-based transportation needs, the presence of Maryland Route 404, a primary east/west arterial, as shown in Map 2-1, continues to provide Denton with excellent land transportation access. Map 2-2, shows the current Town boundary, displaying the path Route 404 takes throughout the Town.

Map 2-2: Denton, Maryland



SOCIO-ECONOMIC BACKGROUND

Population Trends

Denton was the largest municipality in Caroline County in 2000 with a total population of 2,960 and accounted for 9.9% of the total population of Caroline County. The largest population increase occurred between 1980 and 1990, when the Town's population increased by 54.5% with an additional 1,050 residents. The population remained stable over the next ten year period from 1990 to 2000. Table 2-1 indicates population changes from 1940 through 2000.

Table 2-1: Population Comparison

YEAR	1940	1950	1960	1970	1980	1990	2000
Denton	1,572	1,806	1,938	1,561	1,927	2,977	2,960
Caroline County	17,549	18,234	19,462	19,781	23,143	27,035	29,772
Maryland	1,821,244	2,343,001	3,100,689	3,923,897	4,216,975	4,781,468	5,296,486

Source: U.S. Census Bureau

Age and Education

Table 2-2 outlines the changes in age distribution for Denton, Caroline County, and the State for 2000. The 25 to 44 age group is the largest segment of the population in Denton, as it is in both the County and the State. The median age in Denton is higher than that of the County and the State, and the Town's over-65 population is, proportionally, significantly larger than the County's or the State's. Denton has two retirement/nursing home facilities that contribute to the over-65 population age.

Table 2-2: 2000 Population by Age: Denton, Caroline County and Maryland

AGE RANGE	DENTON		CAROLINE COUNTY		MARYLAND	
	NUMBER	*PERCENT*	NUMBER	*PERCENT*	NUMBER	*PERCENT*
Under 5	174	*5.9%*	1,843	*6.2%*	353,393	*6.7%*
5 to 14	390	*13.1%*	4,723	*15.8%*	783,453	*14.8%*
15 to 24	370	*12.5%*	3,691	*12.3%*	670,248	*12.6%*
25 to 44	794	*26.8%*	8,592	*28.9%*	1,664,677	*31.4%*
45 to 54	349	*11.8%*	4,058	*13.6%*	755,032	*14.3%*
55 to 59	120	*4.1%*	1,601	*5.4%*	268,647	*5.1%*
60 to 64	111	*3.8%*	1,233	*4.1%*	201,729	*3.8%*
65 plus	652	*22.0%*	4,031	*13.5%*	599,307	*11.3%*
TOTAL	2960	*100.0%*	29,772	*100.0%*	5,296,486	*100.0%*
MEDIAN AGE	38.9		37		36	

Source: 2000 US Census Bureau Table DP-1 Profile of General Demographic Characteristics: 2000, Denton town, Maryland; Caroline County, Maryland

A higher percentage of the population 25 years and over in Denton graduated high school than was the case statewide (Table 2-3). A significantly lower percentage of Caroline County and Denton students went on to get a higher degree than was the norm in the State.

Table 2-3: Educational Attainment – 2000: Denton, Caroline County, and State of Maryland

EDUCATION ATTAINMENT CATEGORY	*DENTON*	*CAROLINE COUNTY*	*MARYLAND*
Population 25 years and over	*100%*	*100%*	*100%*
Less than 9th grade	*8.9%*	*7.2%*	*5.1%*
9th to 12th grade, no diploma	*20.2%*	*17.8%*	*11.1%*
High school graduate (incl. equivalency)	*33.8%*	*42.0%*	*26.7%*
Some college credit, less than 1 year	*16.2%*	*16.8%*	*20.3%*
Associate degree	*3.5%*	*4.1%*	*5.3%*
Bachelor's degree	*8.1%*	*7.3%*	*18.0%*
Graduate or Professional degree	*9.3%*	*4.8%*	*13.4%*

Source: 2000 US Census Bureau Table DP-2 Profile of Selected Social Characteristics: 2000, Denton town, Maryland; Caroline County, Maryland

Employment and Income

The Eastern Shore and Caroline County are gradually shifting away from the resource-based, agricultural economy of the past. Agriculture, forestry, and fisheries, while still very important, are no longer the dominant employment sectors. Overall a more diversified economy based on management and professional careers and sales and office occupations is emerging, with over 35 percent of the labor force engaged in the former and nearly a quarter of the labor force employed in the latter. The services industry, the leading employer in 1990, ranked third in employment totals for 2000.

Denton's labor force (those residents who are either employed or unemployed but seeking work) is lower as a percentage of the population over 16 years old than the County and the State (see Table 2-4). This could be attributed to the fact that there is a larger percentage of persons over the age of 65 living in Denton than in the County or the State. The percentage of unemployed was also lower in Denton than in the County and State, a notable improvement since 1990 when unemployment was significantly higher in Denton than in the County or State.

Table 2-4: Labor Force – 2000: Denton, Caroline County, and Maryland

EMPLOYMENT STATUS	DENTON	CAROLINE COUNTY	MARYLAND
Population 16 years and over	2,189	22,743	4,085,942
In labor force	1,168	15,045	2,769,525
Civilian labor force	1,162	15,016	2,737,359
Employed	1,112	14,297	2,608,457
Unemployed	50	719	128,902
% of civilian labor force	*4.3*	*4.8*	*4.7*
Armed Forces	6	29	32,166
Not in labor force	1,021	7,698	1,316,417

Source: 2000 US Census Bureau Table DP-3 Profile of Selected Economic Characteristics: 2000 Denton town, Maryland; Caroline County, Maryland

The leading occupations held by Denton residents were management, professional, and related occupations; followed by sales and office occupations; and then service occupations. The leading industries employing Denton residents were educational, health and social services; followed by manufacturing' and then retail trade plus professional, scientific, management, administrative, and waste management services. Table 2-5 provides details.

Table 2-5: Occupation and Industry – 2000: Denton

OCCUPATION OR INDUSTRY	*PERCENT*
OCCUPATION	
Management, professional, and related occupations	*35.5%*
Service occupations	*18.6%*
Sales and office occupations	*24.4%*
Farming, fishing, and forestry occupations	*0.5%*
Construction, extraction, and maintenance occupations	*9.4%*
Production, transportation, and material moving occupations	*11.5%*
INDUSTRY	
Agriculture, forestry, fishing and hunting, and mining	*0.5%*
Construction	*7.4%*
Manufacturing	*12.1%*
Wholesale trade	*4.9%*
Retail trade	*8.6%*
Transportation and warehousing, and utilities	*2.7%*
Information	*5.6%*
Finance, insurance, real estate, and rental and leasing	*2.5%*
Professional, scientific, management, administrative, and waste management services	*8.1%*
Educational, health and social services	*34.3%*
Arts, entertainment, recreation, accommodation and food services	*5.4%*
Other services (except public administration)	*2.4%*
Public administration	*5.5%*

Source: 2000 US Census Bureau Table DP-3 Profile of Selected Economic Characteristics: 2000, Denton town, Maryland.

In 2000, median incomes in Denton for all categories, i.e., households, families, and non-family households, were less than those of the County and State (see Table 2-6). The number of persons living in poverty was lower in Denton than in the County and the State, as were the number of households with income of $100,000 or more. Detailed household and family income figures for Denton appear in Table 2-7.

Table 2-6: Income and Poverty Status – 1999: Denton, Caroline County, and Maryland

JURISDICTION	PER CAPITA INCOME	MEDIAN INCOME			PERSONS LIVING IN POVERTY	HOUSEHOLDS WITH INCOME OF $100,000 OR MORE
		HOUSEHOLDS	FAMILIES	NON-FAMILY HOUSEHOLDS	*PERCENT*	*PERCENT*
Denton	$18,631	$34,936	$42,583	$20,896	*8.1%*	*3.2%*
Caroline County	$17,275	$38,832	$44,825	$21,935	*11.7%*	*5.8%*
Maryland	$25,614	$52,868	$61,876	$32,654	*8.5%*	*18.1%*

Source: 2000 US Census Bureau Table DP-3 Profile of Selected Economic Characteristics: 2000, Denton town, Maryland; Caroline County, Maryland

Table 2-7: Detailed Household and Family Income – 1999: Denton

INCOME IN 1999	PERCENT	INCOME IN 1999	*PERCENT*
Households	100.0	Families	*100.0*
Less than $10,000	7.9	Less than $10,000	*5.7*
$10,000 to $14,999	6.9	$10,000 to $14,999	*0.9*
$15,000 to $24,999	17.6	$15,000 to $24,999	*13.7*
$25,000 to $34,999	17.7	$25,000 to $34,999	*19.5*
$35,000 to $49,999	20.8	$35,000 to $49,999	*19.8*
$50,000 to $74,999	17.1	$50,000 to $74,999	*21.1*
$75,000 to $99,999	8.8	$75,000 to $99,999	*14.1*
$100,000 to $149,999	2.0	$100,000 to $149,999	*3.2*
$150,000 to $199,999	0.5	$150,000 to $199,999	*0.8*
$200,000 or more	0.7	$200,000 or more	*1.2*

Source: 2000 US Census Bureau Table DP-3 Profile of Selected Economic Characteristics: 2000, Denton town, Maryland.

Persons Per Household

In 2000, the State of Maryland calculated that the average number of persons per household in Denton was 2.29, down from 2.38 in 1990. It is expected that average household size will remain constant over the next several decades.

HOUSING CHARACTERISTICS

Between 1990 and 2000, a total of 172 housing units were added to Denton's housing inventory. Of the total inventory (1,260 units), the majority, 66 percent, are single family detached homes. There are 369 multi-family housing units; approximately 29 percent of the Town's housing

stock. Nearly a third of the entire inventory, 29.5 percent, was built before 1939. Ninety percent of the Town's housing units are occupied and of those, about 57 percent are owner-occupied. All housing units are equipped with complete plumbing and kitchen facilities. Detailed housing characteristics appear in Tables 2-8 and 2-9.

Table 2-8: Housing Characteristics; Occupied Housing Units and Tenure - 2000

OCCUPANCY STATUS	NUMBER	*PERCENT*
Total housing units	1,264	*100*
Occupied housing units	1,140	*90.2*
Vacant housing units	124	*9.8*
TENURE		
Occupied housing units	1,140	*100*
Owner-occupied housing units	645	*56.6*
Renter-occupied housing units	495	*43.4*

Source: 2000 US Census Bureau Table DP-1 Profile of General Demographic Characteristics 2000, Denton town, Maryland.

Table 2-9: Housing Characteristics: Units in Structure and Year Built - 2000

TOTAL HOUSING UNITS	1,260
UNITS IN STRUCTURE	*PERCENT*
1-unit, detached	*66.1%*
1-unit, attached	*4.1%*
2 units	*9.0%*
3 or 4 units	*6.3%*
5 to 9 units	*7.0%*
10 to 19 units	*6.0%*
20 or more units	*1.0%*
Mobile home	*0.5%*
Boat, RV, van, etc.	*0.0%*
YEAR STRUCTURE BUILT	*PERCENT*
1999 to March 2000	*2.4%*
1995 to 1998	*2.6%*
1990 to 1994	*8.7%*
1980 to 1989	*16.4%*
1970 to 1979	*9.9%*
1960 to 1969	*5.8%*
1940 to 1959	*24.7%*
1939 or earlier	*29.5%*

Source: 2000 US Census Bureau Table DP-4 Profile of Selected Housing Characteristics 2000, Denton town, Maryland.

TOPOGRAPHY AND DRAINAGE

The area around Denton drains into the Choptank River. Elevation ranges from 20 feet above sea level along the river's edge to 40 feet along a ridge line generally following Fourth Street. Increased elevation further inland is only nominal, as the dominant feature of the land is flatness. The relative flatness tends to impede drainage, with some areas being poorly suited for urban development.

Directly west of Market Street, a large land mass, or promontory, extends into the Choptank River. This tidal marsh and wooded land is unsuitable for building and has remained vacant. The Town's local Chesapeake Bay Critical Area Program protects environmentally sensitive areas within the Town's borders adjacent to the Choptank River.

Ground Water

Abundant ground water resources exist in Caroline County. Caroline, Dorchester, and Talbot counties lie in the North Atlantic Coastal Plain which is underlain by a mass of sediments resting upon a sloping surface of hard crystalline rock. It has been estimated that not less than 100 million gallons of water a day are available, or about nine times the current use.

The water bearing Coastal Plain sediments are composed of sands, greensands, gravels, silts, clay, shales, and shell beds. The sands and gravels are generally porous and permeable, yielding water freely, while the finer-grained beds contain water but yield it more slowly or not at all. Water is pumped from ten aquifers or bodies of sediments capable of yielding water that range in depth from the surface to more than 1,400 feet. Three of these aquifers are used extensively down to depths of 600 feet. In Caroline County, the more shallow sands ranging in depths from 50 to 100 feet provide water.

Natural Features Significance for Community Development

Level topography and abundant water supplies are features that are favorable to Town growth and continued urban development. Poorly drained soils represent an obstacle to easy development primarily because of waste disposal problems. Most of the Town's recent development expansion has been taking place in southerly and easterly directions where soil conditions permit the interim use of household septic tank filter fields. Experience has generally shown this to be a temporary means of waste disposal with an irregular level of acceptable performance, especially during wet seasons. Extensive growth to the east has been restricted because of poor drainage. These obstacles to easterly development can be overcome through provision of municipal sewerage service which can be readily extended into new growth areas as they become annexed. Development west of the Choptank River, also constrained due to poor drainage, must wait upon provisioning of public wastewater facilities.

Although most undeveloped land outside of Denton is actively used for farming, the soil types in question are in extensive supply elsewhere in the County. The loss of inlaying agricultural land to possible future development should not, therefore, pose any problem in scarcity or reduction of prime agricultural land. The Town's Critical Area Program will pose restrictions and constraints on development within the 1,000 foot wide designated Critical Area adjacent to the Choptank River in order to 1) minimize adverse impacts on water quality that result from pollutants that are discharged from structures or conveyances or that have runoff from surrounding lands; 2) conserve fish, wildlife and plant habitat; and 3) establish land use policies governing development in the Chesapeake Bay Critical Area that accommodate growth, but also address the fact that, even if pollution is controlled, the number, movement and activity of persons in that area can create adverse environmental impacts.

CHAPTER 3 - LAND USE PLAN

BACKGROUND

The Land Use Plan is a key element of a Comprehensive Plan. It describes the preferred land use characteristics for various areas of the Town, including future growth areas. The Comprehensive Plan establishes policies concerning the relationship between the Town's existing patterns of growth and development and the location, distribution, and scale of future development. It directs the location of public facilities and transportation system improvements, and is directly related to community perceptions about such things as quality of life and community character.

The Land Use Plan has been developed keeping in mind the potential impacts of local land use policies on the fiscal and physical resources of the Town and surrounding area. The Land Use Plan is a continuation of the planning and refinement of the projected build-out of our community, which began in 1997 with the adoption of the predecessor Comprehensive Plan. The Land Use Plan directs growth and development to areas with existing or planned infrastructure, and takes into account the need to manage for the impacts of growth and development on environmentally sensitive areas. The Land Use Plan provides a "long-range, big picture" that integrates the various planning goals and objectives contained in the Comprehensive Plan into a "vision" of the future. The Town's objectives for economic development, natural resource protection, mobility, community facilities, housing, and community character are reflected in the Land Use Plan.

The 2009 Smart, Green, and Growing Legislation passed by the Maryland General Assembly, outlined twelve Planning Visions toward a more sustainable, more livable, and less costly future. The Visions address quality of life, public participation, growth areas, community design, infrastructure, transportation, housing, economic development, environmental protection, resource conservation, stewardship, and implementation approaches. These twelve Planning Visions are addressed throughout the Comprehensive Plan:

1. ***Quality of Life and Sustainability*:** A high quality of life is achieved through universal stewardship of the land, water, and air resulting in sustainable communities and protection of the environment.
2. ***Public Participation*:** Citizens are active partners in the planning and implementation of community initiatives and are sensitive to their responsibilities in achieving community goals.
3. ***Growth Areas*:** Growth is concentrated in existing population and business centers, growth areas adjacent to these centers, or strategically selected new centers.
4. ***Community Design*:** Compact, mixed-use, walkable design consistent with existing community character and located near transit options is encouraged to ensure efficient use of land and transportation resources and preservation and enhancement of natural systems, open spaces, recreational areas, and historical, cultural, and archeological resources.

5. ***Infrastructure:*** Growth areas have the water resources and infrastructure to accommodate population and business expansion in an orderly, efficient, and environmentally sound manner.
6. ***Transportation:*** A well-maintained, multimodal transportation system facilitates the safe, convenient, affordable and efficient movement of people, goods, and services within and between population and business centers.
7. ***Housing:*** A range of housing densities, types, and sizes provide residential options for citizens of all ages and incomes.
8. ***Economic Development:*** Economic development that promotes employment opportunities for all income levels within the capacity of the State's natural resources, public services, and public facilities is encouraged.
9. ***Environmental Protection*:** Land and water resources, including the Chesapeake Bay and its coastal bays, are carefully managed to restore, and maintain healthy air and water, natural systems, and living resources.
10. ***Resource Conservation*:** Waterways, open space, natural systems, scenic areas, forests, and agricultural areas are conserved.
11. ***Stewardship*:** Government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection.
12. ***Implementation*:** Strategies, policies, programs and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, State, and interstate levels to achieve these visions.

The passage of House Bill (HB) 1141 during the 2006 Maryland General Assembly session mandated a change in the content of comprehensive plans. The new bill requires all municipal comprehensive plans to include additional elements or chapters. Two new elements are the "Municipal Growth Element" and "Water Resource Element. The Growth element incorporates information that was previously contained in the 1997 Land Use Chapter plus new, more detailed information of the Town's anticipated growth. The Comprehensive Plan's land use and community facilities elements now become three: municipal growth, community facilities and land use. Some material that formerly resided exclusively in the land use and community facilities elements may now shift to the municipal growth element. Consequently, the Land Use Plan will have a narrower framework than the 1997 Comprehensive Plan. The links among these three elements are evident, as illustrated by Figure 3-1, all the chapters of a Comprehensive Plan are connected by incorporating a county or municipality's vision for the future and how to achieve it. Most of the growth projections and discussion will be contained in the Municipal Growth Element. The Water Resource Element addresses the availability and adequacy of water supply sources and the capability of water bodies to incorporate wastewater and stormwater. The ability to support the growth discussed in the municipal growth element will depend on the adequacy of water resources.

Figure 3-1

Along with factors outside the control of local officials, such as regional and national economic trends, local market conditions, and individual land use decisions, the fundamental land use policy framework outlined in this Chapter will help determine the Town's growth and development patterns as well as the quality of life for existing and future residents.

GOALS

Through implementation of various recommendations contained in this Comprehensive Plan related to land use, the Town seeks to achieve the following goals:

- Assure balanced growth between residential, commercial, industrial, and public uses to meet the needs of our residents, and improve their quality of life.
- Achieve a pattern of compatible, effective, and efficient land utilization, preserving the positive features of our community, and conserving the small town character of the downtown.
- Improve the overall quality of the Town by implementing "smart growth" principles to direct development towards existing communities already served by infrastructure, seek to utilize the resources that existing neighborhoods offer, and conserve open space.
- Encourage economic growth with land use policies that retain and expand existing businesses, and promote the emergence of new businesses in locations that provide optimal benefit to the community.
- Provide for a desirable alternative settlement pattern to rural and suburban subdivision occurring in our County, which displaces agriculture and erodes the essential traditional character of our rural countryside. The Town will coordinate with the County and other municipalities concerning future growth outside of the current boundaries.

OBJECTIVES

In order to further its land use goals, the Town will pursue the following land use objectives:

- Ensure that new development does not adversely impact the provision of Town services and facilities. Ensure new residential neighborhoods are fully integrated into the community, reflect the positive characteristics of existing residential neighborhoods, and provide connectivity between new and existing neighborhoods.
- Ensure an appropriate mix of residential, commercial, and light industrial uses within the Town, including a full array of commercial services that increases employment opportunities while meeting the needs of the community and surrounding market areas.
- Ensure a user friendly and efficient urban transportation network; this should include public transportation (subsidized if necessary); alternative transportation modes such as bike paths, sidewalks, and more extensive pedestrian options; and mechanisms that encourage good traffic flow (fewer cul-de-sacs, more through streets, and more use of planning and street grid systems).
- Encourage a varied residential development that provides for a diverse mix of physical housing types and styles; and efficient arrangement of land uses. Maintain neighborhood stability and property values by avoiding incompatible land uses and encouraging compatible infill and redevelopment where appropriate.
- Create incentives to promote re-investment in the Central Business Commercial District (CBC) and along the waterfront.
- Support development of a viable economic base which encourages further economic investment, business retention, diversification and expansion and which offers a broad range of employment and business opportunities.
- Set aside land for development of employment uses, including small business and light industrial uses to meet the projected needs of residents.
- Support Caroline County's implementation of its Transfer of Development Rights (TDR) and Purchase of Development Rights (PDR) programs.
- Assist with the County's TDR program by exploring the opportunity to create an approved intergovernmental agreement designating in-fill property as a possible receiving area.
- Support efforts of the County to manage growth outside of the municipal growth area so that the County can remain essentially rural.
- Work with the County to address impacts of new development on the provision of County facilities, and services.
- Limit future growth through infill and redevelopment within the Town, and through annexation of the land included in the Town's designated growth area.
- Encourage open space preservation, a smart growth goal that can bolster local economies, preserving critical environmental areas, improving our

community's quality of life, and guiding new growth into existing communities.

- Reinforce the urban growth boundary with a "greenbelt" area, along the perimeter, consisting of forest, open space, very low density rural residential uses and other compatible low-intensity uses.
- Preserve environmentally sensitive areas, and natural resources; and
- Preserve forested lands to help decrease nutrient sediment runoff.

EXISTING LAND USE CHARACTERISTICS

Existing Land Use

An essential first step in preparation of the Comprehensive Plan is a systematic review of how a community is utilizing its land today. A land use survey entails documentation in both graphic and tabular form of the various land uses, ranging in intensity from single-family residences to industrial operations. The many individual parcels of land making up a community can, in this manner, be viewed as an overall picture of development and growth patterns.

In 1999, the Town encompassed approximately 1,382 acres. Today, Denton has more than doubled its land area and currently encompasses approximately 3,291 acres and approximately 2,047 individual parcels of land. Since 1999, the Town has annexed approximately 1,909 acres, a 138 percent increase. Most of the annexations have been properties located in the future growth areas identified in the *1997 Denton Comprehensive Plan*.

Denton's existing land use pattern is shown on Map 3-1 and Table 3-1. In some instances, properties classified in a category may be vacant, refer to Map 3-3 and Table 3-3. Most of the existing agricultural land use parcels are zoned as Rural County (Caroline County zoning at the time of annexation) with an overlay zoning of Planned Neighborhood Eligible. There are currently no projects under review to develop the lands on the west side of the Choptank River.

Table 3-1: Existing Land Use

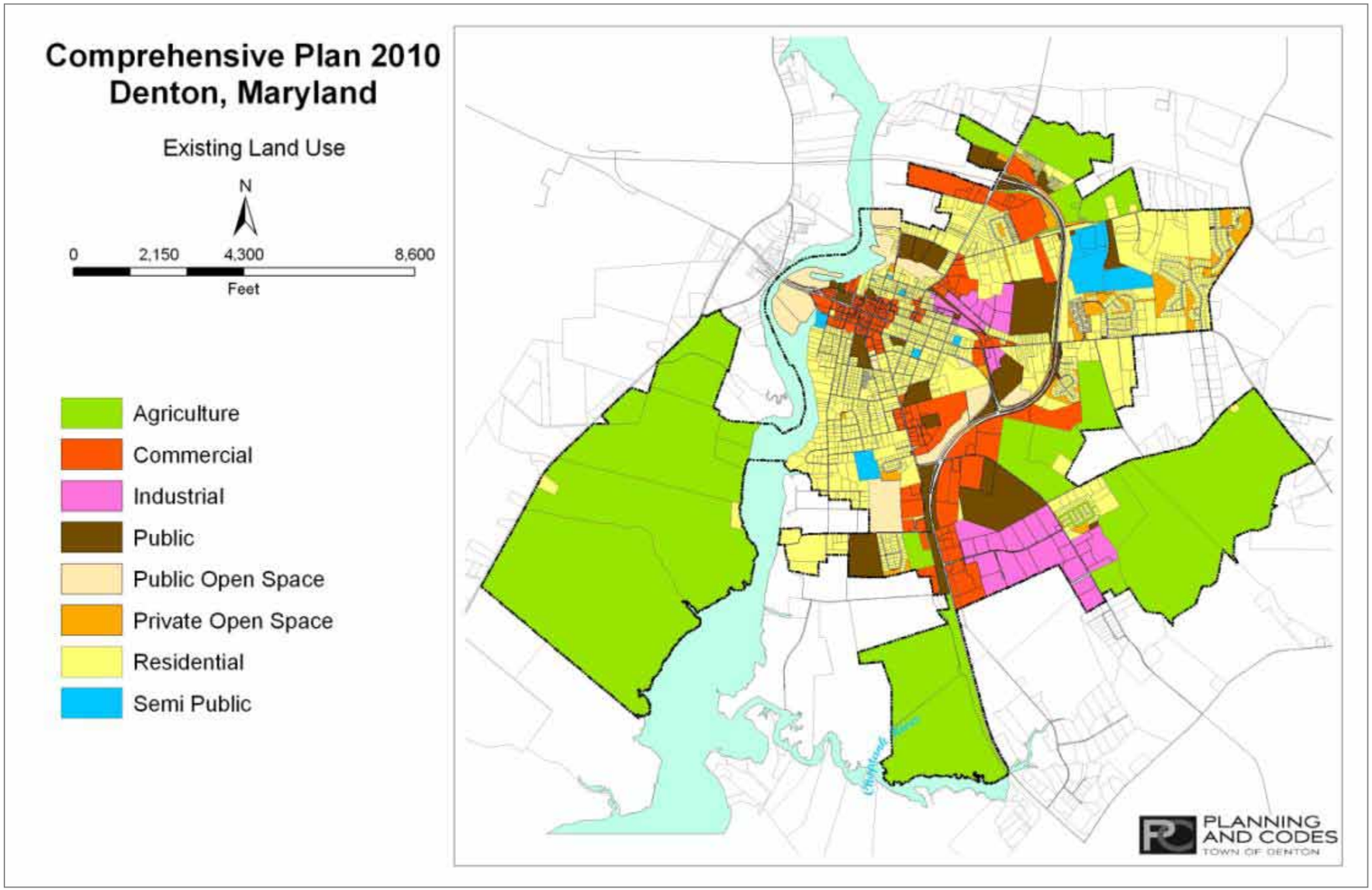
Land Use	Acres	Percentage of Total
Residential	**730**	***22%***
Commercial	**286**	***9%***
Industrial	**162**	***5%***
Public	**239**	***7%***
Semi Public	**68**	***2%***
Private Open Space	**66**	***2%***
Public Open Space	**107**	***3%***
Agricultural	**1,633**	***50%***
Environmentally Sensitive [note]	**0**	***0***
Total	**3,291**	***100%***

Note: Existing environmentally sensitive land is not identified as separate use

Description of Land Use Categories:

- Residential – Suburban Residential, Town Scale Residential, Mixed Residential Zoning Districts, Planned Neighborhood Eligible or Applied, and Redevelopment Eligible or Applied Floating Zones
- Commercial – Central Business Commercial, Regional Highway Commercial, Commercial Medical, and General Commercial Zoning Districts
- Industrial – Light and Heavy Industrial
- Semi Public – Churches ,and Private Camps (e.g., Wesleyan) or Private Recreation (e.g., Lions Club Park)
- Public – School and Town, County, State, or Federal-owned improved parcels
- Private Open Space – Subdivision-owned Common Open Areas
- Public Open Space – Parks and Town, County, State, or Federal-owned, nearly or all unimproved parcels
- Agriculture – All undeveloped Planned Neighborhood Eligible (PNE) zoned Rural County (R) when annexed, and various large vacant Suburban Residential (SR) parcels
- Environmentally Sensitive – All land constrained by Critical Area Rural Conservation Area (RCA), steep slopes, and stream buffers
- Growth Areas – Defined specifically by zoning district category later in this chapter

Map 3-1


Comprehensive Plan 2010
Denton, Maryland
Existing Land Use
N
0
2,150
4,300
8,600
Feet
Agriculture
Commercial
Industrial
Public
Public Open Space
Private Open Space
Residential
Semi Public
PLANNING AND CODES
TOWN OF DENTON

Map 3-2

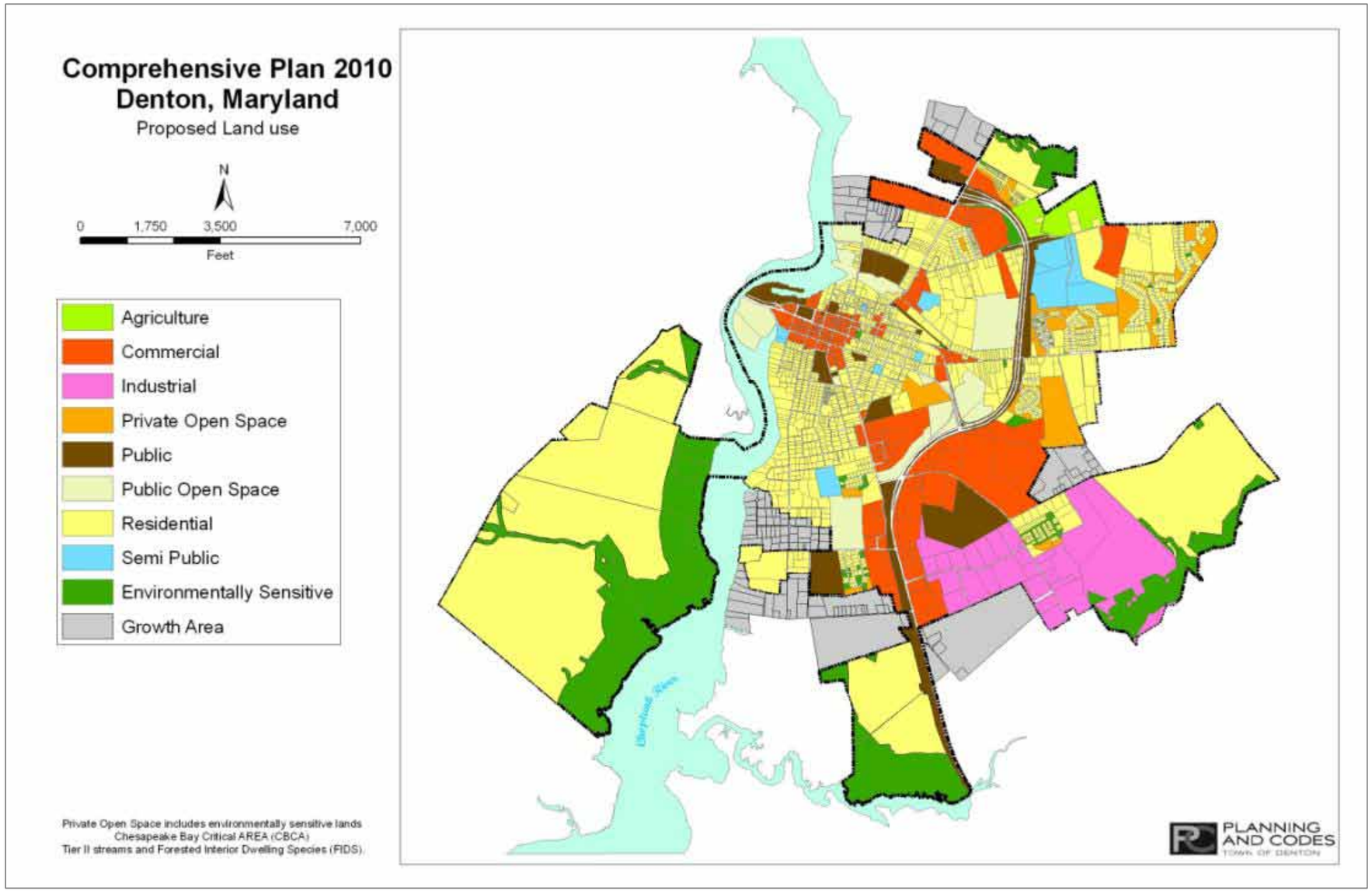

Comprehensive Plan 2010
Denton, Maryland
Proposed Land use
N
0
1,750
3,500
7,000
Feet
Agriculture
Commercial
Industrial
Private Open Space
Public
Public Open Space
Residential
Semi Public
Environmentally Sensitive
Growth Area
Private Open Space includes environmentally sensitive lands
Chesapeake Bay Critical AREA (CBCA)
Tier II streams and Forested Interior Dwelling Species (FIDS).
PLANNING AND CODES
TOWN OF DENTON

Table 3-2: Existing And Proposed Land Use

LAND USE	EXISTING		PROPOSED			
			Planned Neighborhood Eligible IF NOT Developed		Planned Neighborhood Eligible IF Developed	
	Acres	Percent	Acres	Percent	Acres	Percent
Residential	730	22%	861	26%	1,624	49%
Commercial	286	9%	401	12%	401	12%
Industrial	162	5%	257	8%	257	8%
Public	239	7%	194	6%	194	6%
Semi Public	68	2%	72	2%	72	2%
Private Open Space	66	2%	110	3%	110	3%
Public Open Space	107	3%	147	5%	147	5%
Agricultural	1,633	50%	1,070	33%	37	1%
Environmentally Sensitive	0	0	179	5%	449	14%
Total	3,291	100%	3,291	100%	3,291	100%

The proposed land use changes reflect two possible scenarios for the growth of Denton (Table 3-2). Much of the agricultural land use is zoned with an overlay of Planned Neighborhood. Land west of the Choptank River has no planned facilities and cannot be connected cost effectively to existing facilities serving the community east of the river. At the present time, there are no plans by the Town of Denton or developers to permit or construct facilities west of the river. The Proposed Land Use calculations with Planned Neighborhood not developed west of the river is the most reflective of the Town's vision for the next two decades.

The proposed land uses also exemplify the Town's vision of increased commercial and industrial properties and the preservation of environmentally sensitive areas. Land use is to be distinguished from zoning, the latter being the development regulations of a city or county where areas, or zones, are created, which specify allowable uses for real property and size restrictions for buildings within these zoning districts.. Zoning is a key implementation tool of a Comprehensive Plan. Land use is the types of buildings and activities existing in an area or on a specific site. Existing and proposed zoning for the Town is discussed later in the chapter.

Vacant Land

The "vacant lands" shown on Map 3-3 illustrate all vacant parcels in **all land use categories.** The vacant parcels that allow for residential development were used as the preliminary data to calculate the "Residential Capacity" as described in Chapter 4, Municipal Growth Element. Table 3-3 shows acreages for the existing land use classifications.

Table 3-3: Vacant Land

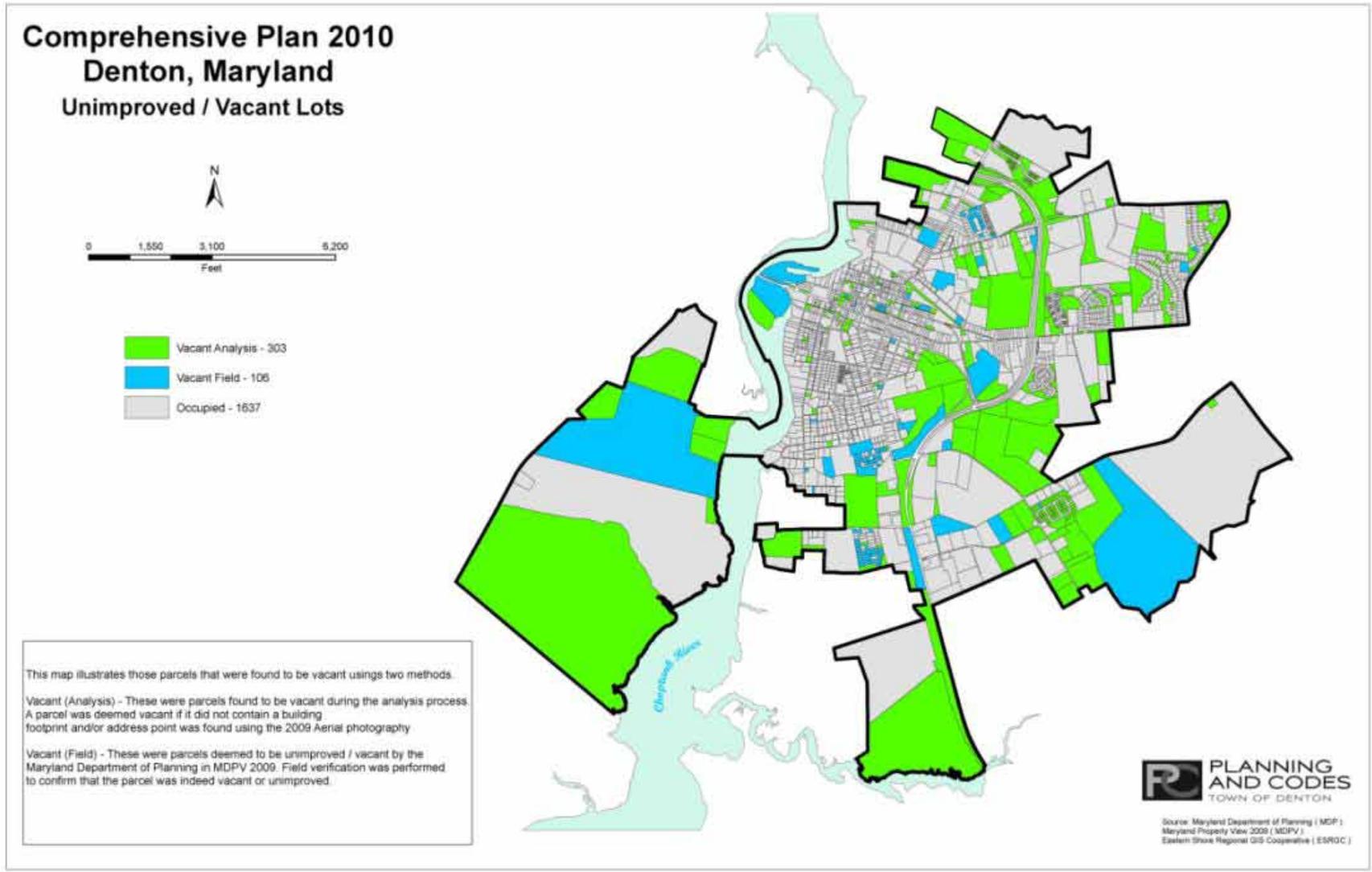
LAND USE CATEGORY: [calculated from the comparison of parcels in the existing land use classifications (Map 3-1) and the vacant parcels from Map 3-3]	ACRES	PERCENT
Vacant Residential Land Use	114	*7.4%*
Vacant Commercial Land Use	101	*6.5%*
Vacant Industrial Land Use	68	*4.4%*
Vacant Agricultural (includes Rural with PN overlay)	1,038	*67.2%*
Other (Private Open Space, Public, Semi Public and Public Open Space)	223	*14.4%*
TOTAL VACANT LAND	1,544	*100%*

Included in the residential vacant acreage calculations are 519 subdivision lots that are platted or have been given site plan approval and are currently undeveloped (Table 3-4). Map 3-4 shows the location of the major subdivisions in Denton.

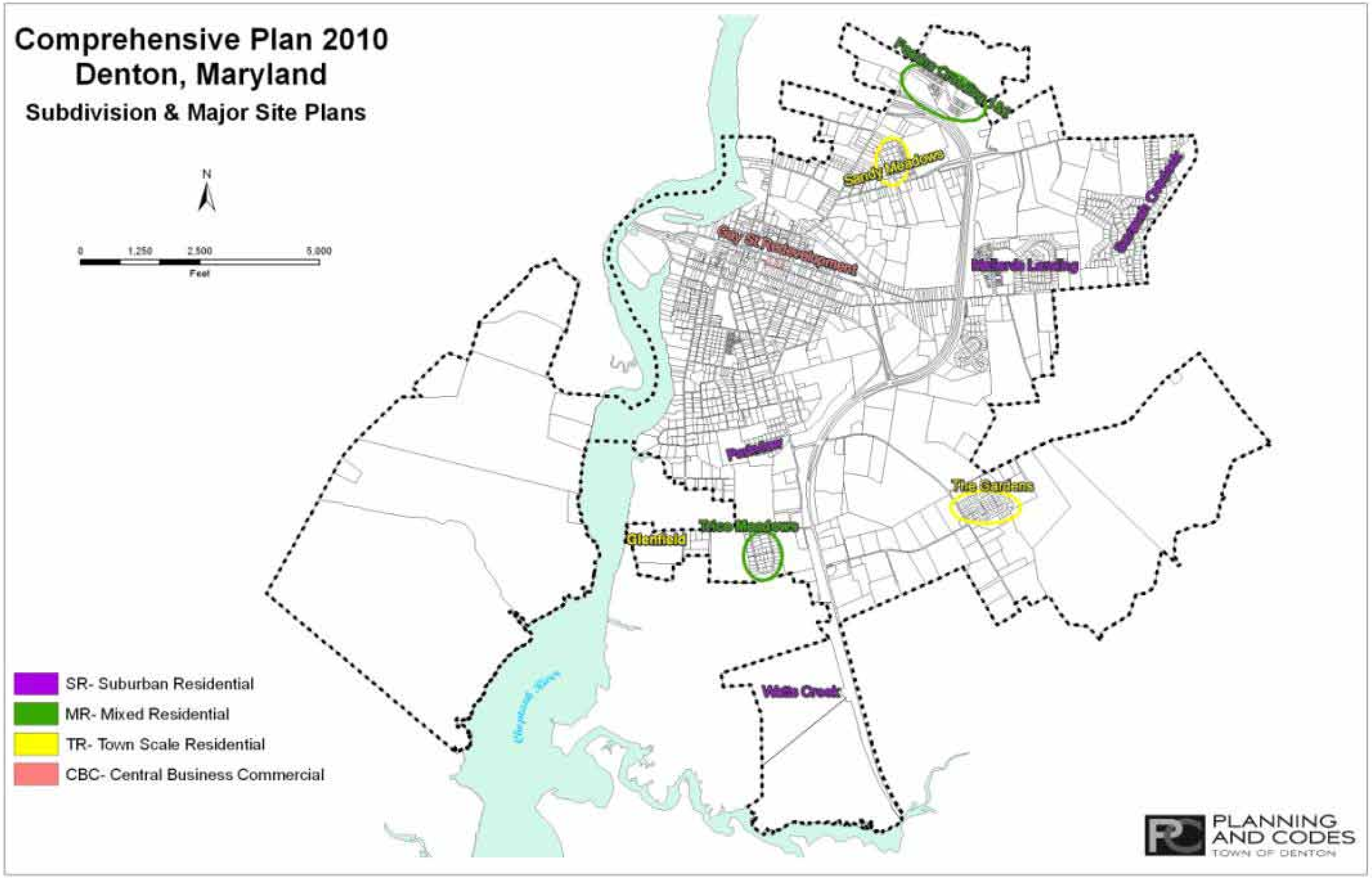
Table 3-4: Subdivisions

SUBDIVISION	UNDEVELOPED LOTS
Trice Meadows	29
Sandy Meadows	12
Parkview Estates	19
Mallard Landing	1
Fearins Crossing Phase I	60
The Gardens	62
Fearins Crossing Phase II	12
Savannah Overlook Phase IV	2
Glenfield	41
Village at Watts Creek	257
Gay Street Redevelopment	24
TOTAL	519

Map 3-3


Comprehensive Plan 2010
Denton, Maryland
Unimproved / Vacant Lots
N
0
1,550
3,100
5,200
Feet
Vacant Analysis - 303
Vacant Field - 106
Occupied - 1637
This map illustrates those parcels that were found to be vacant usings two methods.
Vacant (Analysis) - These were parcels found to be vacant during the analysis process. A parcel was deemed vacant if it did not contain a building footprint and/or address point was found using the 2009 Aerial photography.
Vacant (Field) - These were parcels deemed to be unimproved / vacant by the Maryland Department of Planning in MDPV 2009. Field verification was performed to confirm that the parcel was indeed vacant or unimproved.
Choptank River
PLANNING AND CODES
TOWN OF DENTON
Source: Maryland Department of Planning (MDP)
Maryland Property View 2009 (MDPV)
Eastern Shore Regional GIS Cooperative (ESRGC)

Map 3-4


Comprehensive Plan 2010
Denton, Maryland
Subdivision & Major Site Plans
N
0
1,250
2,500
5,000
Feet
Sandy Meadows
Millards Landing
The Gardens
Glenfield
White Creek
SR- Suburban Residential
MR- Mixed Residential
TR- Town Scale Residential
CBC- Central Business Commercial
PLANNING
AND CODES
TOWN OF DENTON

Current Zoning and Proposed Zoning Changes

The Town of Denton Zoning Ordinance currently has nine Euclidean (By-Right) zoning districts, three overlay zones, and four floating zones regulating land use, setbacks, and lot sizes in Town (Map 3-5). Below are the current districts plus proposed changes.

Zoning districts categorized by land use:

Residential:

- Suburban Residential (SR)
- Town Scale Residential (TR)
- Mixed Residential (MR)

Commercial:

- Commercial Business District (CBC) acronym changed from CC
- Commercial Medical (CM)
- Highway Commercial (HC) – name changed to Regional Highway Commercial (RHC)

Industrial:

- Light Industrial (LI) – to be changed to Industrial (I)
- Heavy Industrial (HI) – to be eliminated

County Zoning (holdover from five-year annexation hold):

- Rural County (R) – e.g., agriculture – to be eliminated

Overlay Zones:

- Historic (HD)
- Arts and Entertainment (AE)
- Critical Area (CA)

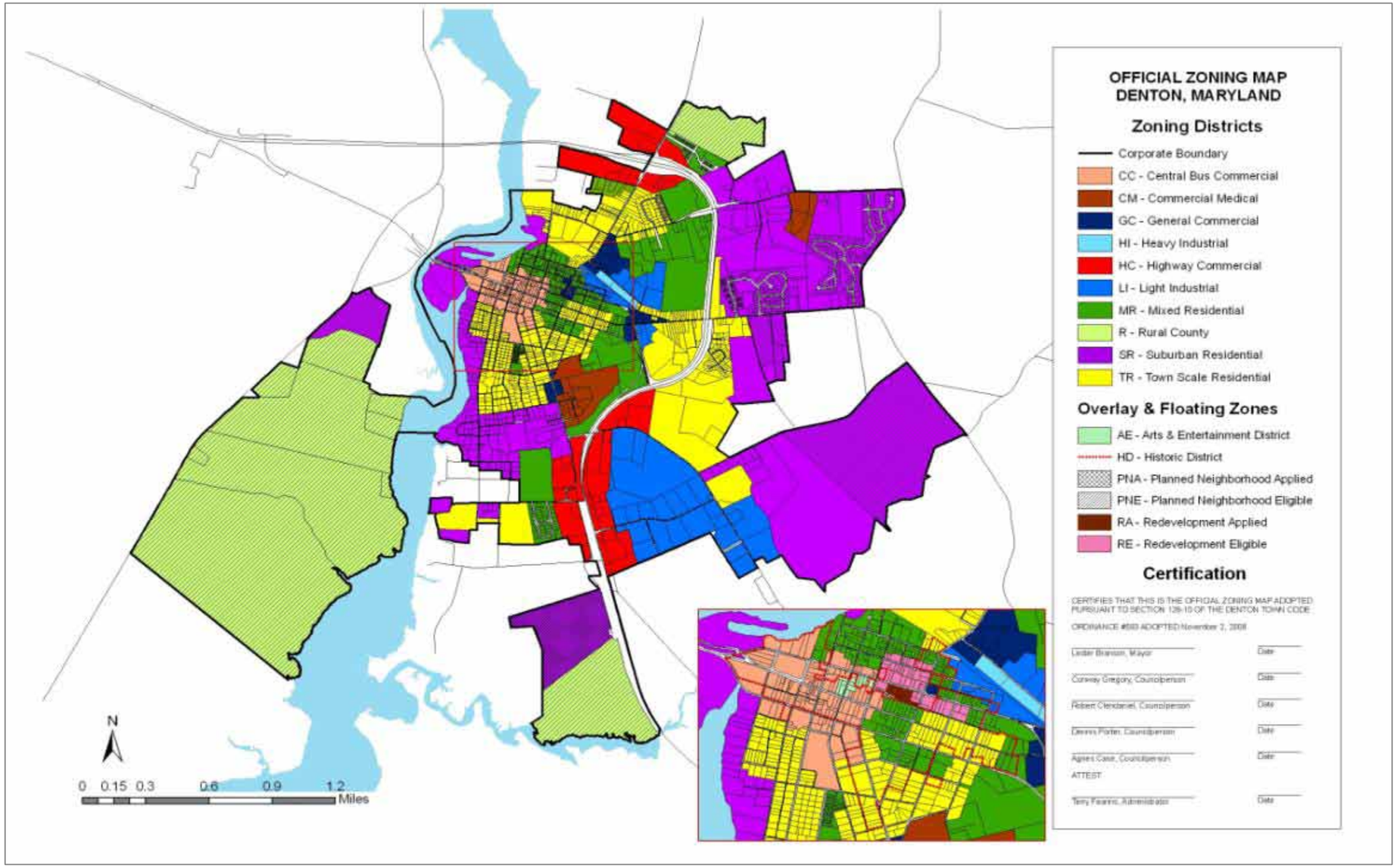
Floating Zones

- Planned Neighborhood Eligible (PNE)
- Planned Neighborhood Applied (PNA)
- Redevelopment Eligible (RE)
- Redevelopment Applied (RA)

Proposed New Districts:

- Rural Conservation (RC)
- Recreation and Parks (RP)
- Rural Agriculture (RA)

Map 3-5


OFFICIAL ZONING MAP
DENTON, MARYLAND
Zoning Districts
Corporate Boundary
CC - Central Bus Commercial
CM - Commercial Medical
GC - General Commercial
HI - Heavy Industrial
HC - Highway Commercial
LI - Light Industrial
MR - Mixed Residential
R - Rural County
SR - Suburban Residential
TR - Town Scale Residential
Overlay & Floating Zones
AE - Arts & Entertainment District
HD - Historic District
PNA - Planned Neighborhood Applied
PNE - Planned Neighborhood Eligible
RA - Redevelopment Applied
RE - Redevelopment Eligible
Certification
CERTIFIES THAT THIS IS THE OFFICIAL ZONING MAP ADOPTED PURSUANT TO SECTION 126-15 OF THE DENTON TOWN CODE
ORDINANCE #593 ADOPTED November 2, 2009
Lester Branson, Mayor
Date
Conway Gregory, Councilperson
Date
Robert Clendaniel, Councilperson
Date
Dennis Porter, Councilperson
Date
Agnes Case, Councilperson
Date
ATTEST
Terry Fearnis, Administrator
Date
N
0 0.15 0.3 0.6 0.9 1.2
Miles

Map 3-6

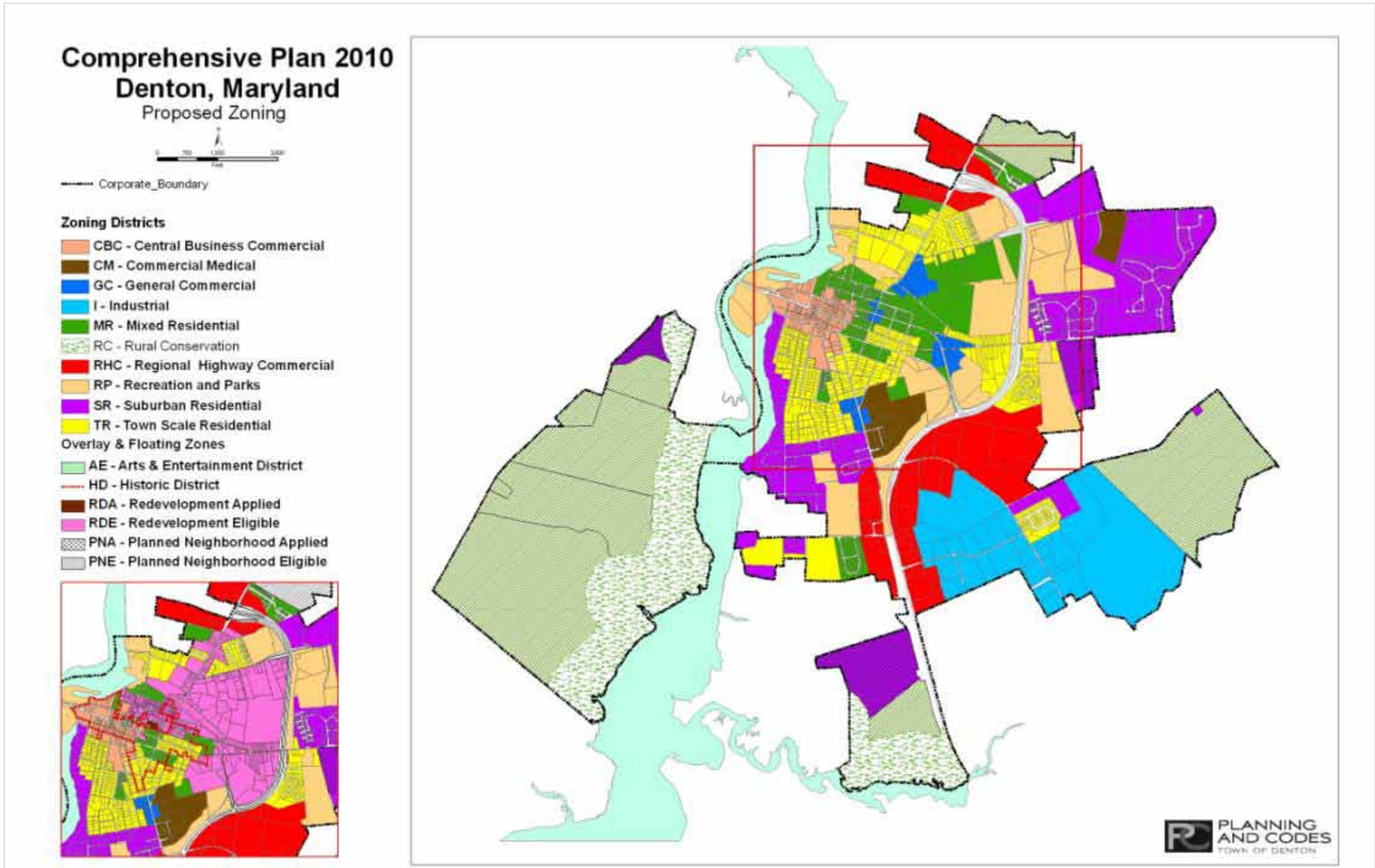

Comprehensive Plan 2010
Denton, Maryland
Proposed Zoning
Corporate_Boundary
Zoning Districts
CBC - Central Business Commercial
CM - Commercial Medical
GC - General Commercial
I - Industrial
MR - Mixed Residential
RC - Rural Conservation
RHC - Regional Highway Commercial
RP - Recreation and Parks
SR - Suburban Residential
TR - Town Scale Residential
Overlay & Floating Zones
AE - Arts & Entertainment District
HD - Historic District
RDA - Redevelopment Applied
RDE - Redevelopment Eligible
PNA - Planned Neighborhood Applied
PNE - Planned Neighborhood Eligible
PLANNING AND CODES
TOWN OF DENTON

Table 3-5: Comparison of changes in Current and Proposed Zoning

Current Zoning		Proposed Zoning			
	Acres		Acres	Change	% Change
Town Scale Residential (TR)	420	TR	282	-138	*-33%*
Suburban Residential (SR)	1,022	SR	473	-549	*-54%*
Mixed Residential (MR)	264	MR	175	-89	*-34%*
Total Residential	1,706	Total Residential	930	-776	*-45%*
Highway Commercial (HC)	178	Regional Highway Commercial (RHC)	275	97	*54%*
Commercial Medical (CM)	57	CM	57	0	*0%*
Central Business Commercial (CC)	45	Central Business Commercial (CBC)	45	0	*0%*
General Commercial (GC)	30	GC	42	12	*40%*
Total Commercial	310	Total Commercial	419	109	*35%*
Light Industrial (LI)	238	Industrial (I)	343	101	*42%*
Heavy Industrial (HI)	4				
Total Industrial	242	Total Industrial	343	101	*42%*
Rural County	1,033	RA - Rural Agriculture	860	-173	*-17%*
		RP – Recreation & Parks	355		
		RC - Rural Conservation	384		
TOTAL ACREAGE	3,291		3,291		
Planned Neighborhood Eligible	1,305	Planned Neighborhood Eligible	875	-430	*-33%*
Planned Neighborhood Applied	75				

As shown in Table 3-5, the rezoning plan decreases residentially zoned land from 1,706 acres to 930 acres (a 45% reduction). This decrease includes changes in Town Scale Residential, Suburban Residential, and Mixed Residential zones. Commercially zoned land increases from approximately 310 acres to 419 acres (a 35% increase), and industrial area increases to 343 acres from 242 acres (a 42% increase). These changes will give the Town the ability to expand its commercial and private sector employment bases.

Denton's current population is estimated to be 4,022. The Capacity Analysis explained in detail within Chapter 4 "Municipal Growth," of this comprehensive plan, concluded that there is available land to accommodate a population between 10,819 to 13,061 (4,724 to 5,703 dwelling units). The Town concluded that the population should be limited due to WWTP constraints, as discussed in Chapter 5, the "Water Resource" element. The decrease in residentially zoned lands is one tool that the Town will utilize to manage residential growth.

Residential

The residential neighborhoods, old and new, are the life blood of the community. The Town believes that every effort should be made to ensure that the neighborhoods are places where people want to live because the neighborhoods will meet more of the residents needs than the alternatives located in rural area.

The Town believes that neighborhoods should be compact, pedestrian friendly, and contain an appropriate mix of uses. Many activities of daily life should occur within walking distance of residents. A broad range of housing types and price levels should be available throughout the neighborhoods and the community. Civic, institutional, and neighborhood commercial activity should be embedded in the neighborhoods, and a range of parks, tot lots, commons and greens, and ball fields, should be distributed throughout. To achieve these ends, new neighborhoods should be designed based on sound urban place-making principles and stand in stark contrast to low-density rural and suburban subdivisions that destroy rural character, displace working farms, and fragment natural land forms.

For these reasons, Denton's residential development concept emphasizes two key objectives related to land use development. The first is that the positive features of existing neighborhoods are protected and encouraged to continue. Neighborhood conservation and revitalization are important Town objectives. A key to insuring neighborhood stability is to encourage re-investment in older properties and appropriate infill and re-development. The Town has adopted infill and redevelopment standards and guidelines to achieve this objective. The purposes for these infill and redevelopment standards and guidelines are to:

- Accommodate growth in the Town by encouraging and facilitating new development on vacant, bypassed, and underutilized land where such development is found to be compatible with the existing neighborhood.
- Encourage efficient use of land and public services in the context of existing communities.
- Stimulate economic investment and development in older established neighborhoods.
- Provide developers and property owners flexibility so that they can achieve high quality design and develop infill projects that strengthen existing neighborhoods.
- Create high quality neighborhoods compatible with the community environment. The "Pattern Book for Denton Neighborhoods" serves as a guide for redevelopment, certain Mixed Residential dwellings, and all Planned Neighborhoods. *(Urban Design Associates)*

- Improve approval certainty for infill development by providing clear development standards.
- Encourage compact development that is pedestrian-scaled and, if applicable, transit-oriented.
- Encourage **Leadership in Energy and Environmental Design** (**LEED**); which is a building or community that is designed and built using strategies aimed at improving performance: energy savings, water efficiency, CO_2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts. The LEED Green Building Rating System was developed by the U.S. Green Building Council (USGBC).

The second key objective is that new residential neighborhoods reflect the best in local precedents and the positive characteristics of the Town's older neighborhoods and be fully integrated parts of the Town. In order to achieve this objective, new neighborhoods must conform to basic community design principles:

- accommodate and promote pedestrian travel equally as much as motor vehicle trips;
- design residentially-scaled buildings fronting on, and generally aligned with, streets;
- include a diversity of household types, age groups, and income levels;
- adhere to traditional town building and site development patterns with an interconnected and broadly rectilinear pattern of streets, alleys, and blocks, providing for a balanced mix of pedestrians and automobiles;
- create functionally diverse, but visually unified, communities focused on central squares;
- use neighborhood greens, landscaped streets, boulevards, and "single-loaded" parkways woven into street and block patterns to provide space for social activity, parks, and visual enjoyment;
- plan for buildings for civic or religious assembly or for other common or institutional purposes in prominent locations as landmarks and symbols of identity;
- locate dwellings, shops, and workplaces in close proximity to each other and at a scale that accommodates and promotes pedestrian travel for trips within the community;
- preserve areas of open space, scenic vistas, agricultural lands, and natural areas; and;
- utilize designated growth areas efficiently.

The purpose of each category is to recognize existing development patterns and land use characteristics and establish policies to help ensure neighborhood stability where areas are

mostly developed. In areas where vacant or underutilized land remains, the intent is to ensure appropriate infill, redevelopment or new development.

Current Residential Land Use Category as defined by Zoning Districts

Suburban Residential (SR)

The purpose of the Suburban Residential zoning district is to provide for single-family residential development of spacious character, together with such public buildings, schools, churches, public recreational facilities, and accessory uses, as may be necessary or are normally compatible with residential surroundings. This district is situated to protect existing development of high character and contains vacant land considered appropriate for such development in the future.

An additional purpose of this zone is to identify areas where the Town will regulate development so as to protect existing suburban neighborhoods as well as provide limited new areas for single-family residential development of a similar character.

The Suburban Residential zoning district is located along the eastern shore of the Choptank River, large parcels on the east side of Route 404 and one large parcel south of Deep Shore Road. A large number of primarily vacant parcels are overlaid with a Planned Neighborhood land use (defined later). The parcels that border the east bank of the Choptank River, mostly improved, are included in the Denton portion of the Chesapeake Bay Critical Area. The Suburban Residential district encompasses approximately 1,022 acres, consisting of 549 parcels of the Town area and includes a mix of land uses, including town parks, school properties, churches, and other non-profit organizations (e.g., the Wesleyan Center). One parcel, 75 acres has an overlay Planned Neighborhood zoning.

Existing development and vacant properties in this category conform to State “smart growth” principles as they relate to density and compact design.

Town Scale Residential (TR)

The purpose of the Town Scale Residential zoning district is to provide for single-family residential development of town-scale character, together with such public buildings, schools, churches, public recreational facilities, and accessory uses, as may be necessary or are normally compatible with residential surroundings. This category is located to accommodate future single-family development in the patterns, forms, and densities which currently exist in established medium-density single-family neighborhoods within the Town. Limited amounts of two-family and multifamily residences are permitted in this category only in the context of a planned residential development.

The overall intent of this zoning district is to maintain the character of traditional and stable single-family neighborhoods within the Town core. Protecting the character of the existing neighborhoods and allowing appropriate infill and redevelopment should be the primary objectives of the Town within these neighborhoods. This land use area’s density is slightly higher than Suburban Residential and, accordingly, conforms to the State’s “Smart Growth” principles.

The Town Residential zoning district includes neighborhoods south of the Central Business Commercial (CBC) between Fourth and Eighth streets, east of the CBC along Market and Franklin Streets, north of the old rail road line straddling Sixth Street and along the MD 404 Bypass corridor between Sixth Street and Hobbs Road and Gay Street. It encompasses approximately 644 individual parcels, comprising 420 acres. Over half of the land within Town Residential category is currently developed and consists of detached single-family residential units, with a few scattered townhouse and apartments units in stable neighborhoods. About 104 acres of the land is owned by public or semi-public organizations including the Town of Denton, Caroline County Board Education, the Caroline County Commissioners, the Fire Department, the State of Maryland, and church organizations.

Mixed Residential (MR)

The purpose of the Mixed Residential overly zoning district is to provide for higher density single-family and multiple-family residences within the Town core, together with such public buildings, schools, churches, public recreational facilities, and accessory uses as may be necessary or are normally compatible with residential surroundings.

The Mixed Residential district, 410 parcels encompassing approximately 264 acres, accommodates a mix of higher density single-family and multi-family residential development. Land within this category is either currently developed with a mix of higher density (relative to the Suburban and Town Residential categories) single-family and multifamily development or is undeveloped but is considered appropriate for higher density residential neighborhoods. Density within this district also conforms to State "Smart Growth" principles.

This zoning district is often the classification of choice by applicants for annexation because of the higher density and mix of residential types permitted. Where the area is developed, the Mixed Residential land use category is characterized by a mix of detached single family, townhouse, and multi-family units.

Planned Neighborhood (PN)

The *1997 Comprehensive Plan* identified "residential" as the preferred land use for several portions of the future growth area. Since that time, the Town has refined its expectations for new residential neighborhoods, adopting the State's Smart Neighborhood guidance concerning the characteristics the new neighborhoods should exhibit. These characteristics are:

- Integrated mix of uses, including residential, commercial, employment/office, civic, and open space;
- Range of housing types and densities;
- Compact design;
- Interconnected streets designed to balance the needs of all users, with sidewalks and on-street parking;
- Open spaces integral to the community; and
- Location adjacent to and extended fabric of existing development.
  Source: Maryland Department of Planning, Models and Guidelines – Smart Neighborhoods, Publication # 2001-04, September 2001

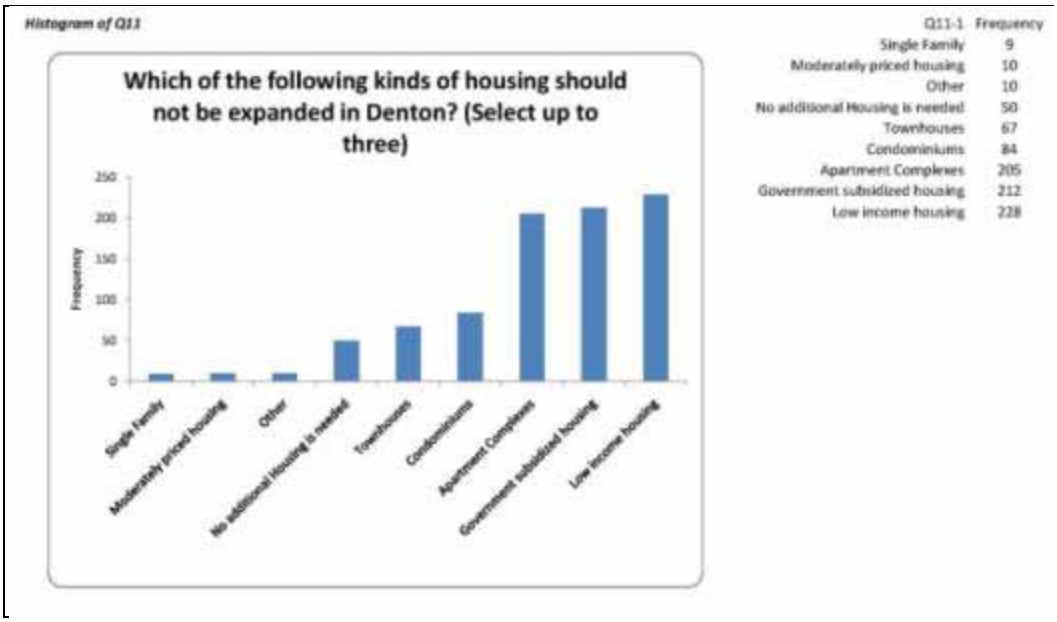
Densities within this land use category ranged from 3.5 to 5.0 dwelling units per acres and, therefore, conform to the State's "Smart Growth" principles. The State's guidance is reflected in the Planned Neighborhood Development standards and guidelines that apply to most of the recently annexed properties. The Planned Neighborhood overlay district encompasses approximately 1,305 acres, comprising 18 individual parcels of land. Approximately 75 acres of the Planned Neighborhood category has a "preliminary plan approval" with an approved development rights and responsibilities agreement. The Planned Neighborhood Applied project, Village at Watts Creek, has been approved for 257 single family lots.

Residential Summary

Differentiating factors among the residential land use areas in the older parts of Denton are density and the mix of unit types.

More multifamily units can be found in the Mixed Residential land use category than the other two but some townhouse and multi-family units may be found in the Suburban Residential and Town Scale Residential land categories as well. Single family units are located in all of the residential categories, as well as most of the commercial land use categories. Chart 3-1 shows responses to the "preferred housing types" question that was presented in the Town of Denton survey completed in September, 2009 (refer to Appendix 1). When residents were asked what type of housing should not be expanded, apartment complexes were ranked among the highest types chosen by respondents, with single family and moderate priced housing among the most desired type for new construction.

Chart 3-1



Current Commercial and Industrial Land Use Category as defined by Zoning Districts

As Denton continues to grow, its importance as a commercial center for the region will increase. In addition to the market potential that comes with being located on MD 404, a heavily traveled

route to Atlantic beaches, expected population and income growth will reinforce local shopping and create demand for more and a wider variety of commercial goods and services. The Land Use Plan anticipates this need by identifying land areas for a variety of commercial land uses, each appropriate to the scale and intensity of commercial activity anticipated. In addition to the traditional Central Business Commercial (CBC) area, the Land Use Plan provides for regional, larger scale, highway-oriented commercial uses, general commercial uses at in-town locations, limited commercial in transitional areas within reasonable proximity to MD 404, specialized commercial where clustering of related commercial and services uses can occur, and neighborhood commercial in appropriate locations as part of a mixed-use, planned neighborhood development. The following describes the intent of each of these commercial areas and outlines the Town's commercial land policies.

Central Business Commercial (CBC)

This zoning district has a non-substantive name change from its former name, Central Business District (CC), to Central Business Commercial (CBC). The purpose of the Central Business Commercial area is to provide retail and office development and redevelopment within the Central Business Commercial area of the Town. Appropriate uses are generally the same as for the GC area (see below), but with altered yard requirements and altered off-street parking requirements in recognition of the practical difficulty of providing off-street parking in the Central Business District, and in recognition of the collective responsibility to provide off-street parking for smaller establishments. Development/redevelopment in this district shall be compatible with the existing historic, aesthetic, and pedestrian character of the downtown area in terms of scale and design. Residential uses are also appropriate in this district in order to support commercial uses.

The Central Business Commercial (CBC) zoning district identifies the historic central shopping area where the Town will continue to accommodate a compatible mix of commercial, business, office, institutional, and residential uses. Town programs for the CBC will emphasize public-private partnerships in furtherance of the following policies:

- Future development and/or redevelopment within the CBC will be compatible and harmonious with the desired character of the Town Center in order to promote the development of the Town center as an economically vital and aesthetically pleasing place to live, work, visit and shop.
- The Town will continue to initiate streetscape improvements in the CBC, particularly in the vicinity of Market, Franklin, and Gay Streets and the Courthouse area. Public/private initiatives to improve the physical appearance of the streetscape should include: further development of landscaped, off-street municipal parking areas; incentive programs to encourage facade renovation of commercial and office buildings; and utilization of the "Pattern Book for Denton Neighborhoods" that includes standards for design and maintenance of non-residential structures and signs within the CBC.
- The Town will support and encourage the efforts of the CBC Merchants Association and Main Street Manager to promote the physical and commercial revitalization of the Town center.

- The Town will work with merchants and landowners to address traffic and pedestrian circulation issues and parking demand.

The Central Business Commercial (CBC) area is currently characterized by a mix of general retail, specialty retail, service businesses, restaurants, offices, and institutional facilities. The CBC consists of about 145 individual parcels consisting of about 45 acres, not including public streets and right-of-ways. Of this total, approximately 3.5 acres are unimproved and a total of 4 acres have improvements valued at between $0 and $10,000. Over half of the CBC land use category (44 parcels and about 23 acres) consists of tax exempt properties in Town, County, State, or church ownership. Approximately 13.5 acres or about one quarter of the CBC is in commercial or office use. In 2009, the gross floor area in commercial and office use was 266,463 square feet and the ratio of floor area to land (FAR) about 0.45 making the CBC the most intensely used commercial area in the Town.

It is not reasonable to assume that unimproved property could be developed at a FAR of 0.45 under current development standards, even with consideration for such things as available public parking and credit for pedestrian trade. A more realistic FAR would be 0.25. Applying this FAR to the 3.5 acres of unimproved property, the CBC could accommodate approximately 38,115 square feet of addition commercial and/or office use.

Future development and/or redevelopment in the CBC should be compatible with the existing historic and aesthetic character of the downtown area. There should be continued recognition of the practical difficulty of providing off-street parking in the CBC. As such, future development/redevelopment proposals should be of the type that do not generate excessive traffic and parking volumes and cater to pedestrian traffic.

Public/private initiatives should be undertaken to provide additional off-street parking areas within and on the perimeter of the CBC to serve existing and proposed businesses and offices. New development or redevelopment of the CBC should also be compatible with the pedestrian orientation of the area. Public/Private initiatives to encourage continued streetscape improvements and aesthetic amenities such as landscaping, thematic lighting, street furniture (benches, trash receptacles, and information kiosks), street tree plantings, facade improvements, etc., should continue.

Design codes and sign controls should apply to all new development, including public buildings and sites, to ensure the historic and aesthetic character of the downtown is maintained and improved. The CBC is included in the Denton historic district and efforts should be made to preserve structures and places of historic, cultural, and architectural significance. The overall intent of this district is to maintain and enhance the economic vitality and aesthetic appeal of the downtown area as it continues to transition from a traditional commercial center to an area more oriented towards specialty retail services, offices, and governmental uses.

General Commercial (GC)

The purpose of the General Commercial zoning district is to provide sufficient space in appropriate locations for a wide variety of business, commercial, and service activity, but which uses are not characterized by extensive warehousing, frequent heavy trucking activity, open storage of material, or the nuisance factors of dust, odor, and noise associated with

manufacturing. The overall intent of this area is to provide areas for local commercial needs within the core areas of the Town which are compatible with Town character.

The overall purpose for this district is to provide areas for commercial uses primarily catering to local needs within the core areas of Town and that are compatible with Town character. The General Commercial land use category provides sufficient areas in the Town core for a wide variety of business and miscellaneous service activities, particularly along certain major Town streets where a general mixture of commercial and service activity presently exists, but which uses are not characterized by extensive or large-scale warehousing, frequent heavy trucking activity, open storage or related nuisance factors such as noise, smoke, dust, odor, glare, or vibration. The Town's policy concerning land use in this category is:

- Development and/or redevelopment will be compatible with surrounding residential neighborhoods and not cause excessive traffic, noise, and glare impacts which would negatively affect the surrounding neighborhood.

The General Commercial zoning district appears in several clusters throughout the Town including two areas along the Sixth street corridor, on Fifth Street north of Kerr Avenue, and at the intersection of Gay and East Market Street. Land uses include auto repairs and service, personal service establishments, convenience stores, a fast food restaurant, offices, warehousing and apartments. General Commercial includes 41 individual parcels and encompasses over 30 acres. Of this total, approximately 4.38 acres are tax exempt properties including the County and School Board offices and a cemetery.

In 2009, approximately 15.45 acres of the General Commercial category was described as substantially improved. Collectively, these commercial uses consisted of 78,916 square feet of gross floor area, which equates to an FAR of about 0.12. Approximately 4.9 acres were unimproved in 2009. Assuming the FAR of 0.12 that is characteristic of existing developed properties, the potential development capacity remaining in this land use category represents about 25,613 square feet of additional commercial floor area.

Regional Highway Commercial (RHC)

This zoning district has a non-substantive name change from its former name, Highway Commercial (HC), to Regional Highway Commercial (RHC).

The purpose of the Highway Commercial zoning district is to provide for a number of retail and office establishments and commercial services for use by the traveling public on or near major roads or streets in the Town and at the same time is intended to maintain the appearance of the highways and their access points by limiting outdoor advertising and establishing high standards for development. Commercial development in this area shall be in the form of well-planned and heavily buffered commercial concentrations as opposed to traditional forms of highway strip commercial. Commercial development in this district shall be subject to high standards for buffering and landscaping, access control, efficient internal auto and pedestrian orientation, screening of loading/unloading and service areas, lot depth-to-width ratios which promote minimal road frontage, service roads and reverse lot frontage concepts and other site design amenities which enhance aesthetic appeal.

This zoning district is intended for more intense, auto-oriented regional commercial and office development at appropriate locations along MD Route 404 where easy and safe access is available or can be provided. While strongly supporting expansion of regional shopping and employment opportunities, the Town insists that development in this land use category is accomplished in a manner consistent with Town policies and objectives related to traffic and safety, aesthetics and efficient use of existing land resources. These objectives include the following:

- Locate future regional commercial development and/or redevelopment in areas designated in the Land Use Plan.
- Encourage infill and redevelopment of regional commercial sites.
- Improve the visual appearance along major highway and street corridors;
- Provide for the continued safe and efficient use of these roadways and improve pedestrian and traffic safety;
- Improve access and circulation to and within commercial and business sites;
- Implement access control standards to minimize intersection and site access points;
- Encourage appropriate design linkages between sites;
- Require context sensitive site planning and building design;
- Provide for reasonable, orderly, and effective display of outdoor advertising compatible with their surroundings;
- Enhance overall property values and the visual environment in the Town by discouraging signs which contribute to the visual clutter of the community;
- Ensure that new larger-scale, commercial development is designed as well-planned commercial parks or plazas with such features as extensive buffering and landscaping, efficient and landscaped internal traffic circulation and parking systems, screening of loading/unloading and service areas, and other site design amenities which improve the aesthetic appeal of the development; and
- Discourage typical strip-commercial forms of development.

The Regional Highway Commercial zoning district includes land located at the Sixth Street and MD 313/MD 404 interchange and along the MD 404 corridor at the intersection of Fifth Street/Legion Road and MD 404 southward. Current land uses include shopping centers, auto service, fast food restaurant, hotel, offices, and branch banks. This area includes about 59 individual parcels and encompasses about 178 acres, not including state highway properties. In 2009, approximately 69 buildable acres of this district are unimproved. According to the Department of Assessment and Taxation records, the improved land area for commercial uses includes 402,855 square feet of floor area on 113 acres which equates to floor area ratio (FAR) of about 0.08. Assuming that the 69 acres of vacant land is developed at this FAR, the estimated development capacity of this land use category is about 240,451 square feet. If infill and redevelopment could result in an average FAR of 0.20 throughout this land use category, the building capacity is over 601,128 square feet of additional commercial floor area. Within reason and where possible, the Town should encourage infill and redevelopment of existing regional commercial properties with the objective in mind of increased utilization of existing properties. Older existing shopping centers should be encouraged to redevelop the sites to increase

utilization, improve access and upgrade appearance. The ideal situation is a large-scale redevelopment project in accordance with a well-conceived master development plan.

The proposed changes to the Regional Highway Commercial district will increase the total acreage of the district to 275 total acres, an increase of 97 RHC zoned acres. According to the 2009 Department of Assessment and Taxation records, the improved land area of the proposed district is 105 acres, which includes approximately 359,883 square feet of floor area; this results in a FAR of 0.08. Unimproved land for the area is approximately 156 acres, developed at a FAR of 0.08 the estimated development capacity is about 543,628 square feet of additional commercial floor area. As suggested earlier, using a FAR of 0.20 the building capacity would increase to 1,359,072 square feet of additional floor space.

New regional highway commercial development in this district should be in the form of well-planned and appropriately landscaped commercial parks or centers as opposed to traditional forms of strip-commercial development. Business/Commercial parks in this district are required to address Town development standards for buffering and landscaping, access control, efficient internal auto and pedestrian circulation, screening of loading/unloading and service areas, lot depth to width ratios which promote minimal road frontage, service roads and reverse lot frontage concepts and other sites amenities to enhance aesthetic appeal.

Commercial Medical (CM)

The purpose of the CM Medical zoning district is to provide an area for the orderly development of medical-related uses including care facilities within the Town. Permitted uses in the district include those uses customarily associated with medical care and assisted living.

The CM Medical district includes 20 individual parcels and encompasses approximately 57 acres. About 61% of the land in this land use category is currently improved with uses including ambulatory assisted living, day care, medical, and nursing home facilities. According to the Department of Assessment and Taxation records, the CM Medical district is currently developed with 205,226 square feet of gross floor area on approximately 35 acres. This equates to an average FAR of about 0.13. Assuming the balance of the district, 22 acres, is developed at this rate, the floor area capacity of the CM Medical district is about 124,581 square feet.

Development in the CM Medical district can generally be described as infill and redevelopment. In this sense, development and design objectives are the same as for any commercial infill and redevelopment project, namely that development:

- Protect the character of existing historic commercial areas;
- Improve the visual appearance along major highway and street corridors;
- Improve access and circulation to and within commercial and business sites;
- Improve sales and property values;
- Encourage appropriate design linkages between sites; and
- Require context sensitive site planning and building design.

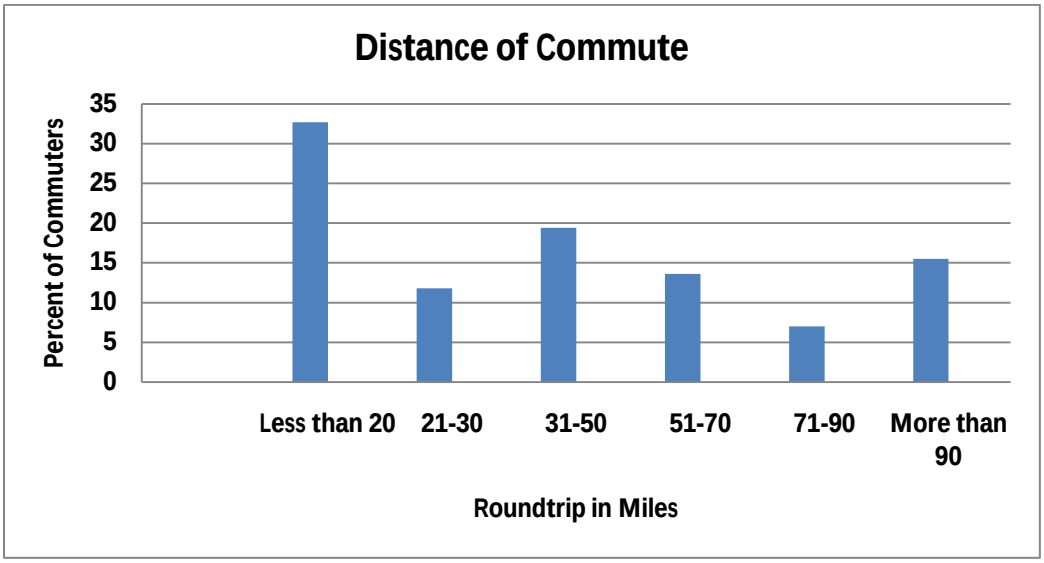
Industrial (I)

This zoning district has a non-substantive name change from its former name, Light Industrial (LI), to Industrial (I). Note that Heavy Industrial (HI) will no longer be a land use category.

The purpose of the Industrial district is to provide areas in the appropriate locations for light manufacturing, fabricating, warehousing, and wholesale distributing in low buildings with off-street loading and off-street parking for employees, and with access by major thoroughfares. Development standards for this district shall be adequate to control excessive heat, odor, noise, dust, and vibration nuisance impacts which could potentially occur. Extensive bufferyards and screening shall be required to screen industrial development from adjacent residential development. Residential development will not be permitted in this area. In addition, waste removal businesses and similar uses are not permitted in this area.

Providing more jobs closer to residents is important to the overall quality of life for County and Town residents alike. An important objective for any community is to achieve the best possible job/housing balance it can. In simple terms, job/housing balance means having jobs located close (e.g., 3 to 5 miles) to where workers live. Currently, many residents of Denton have to travel much further than five miles to their places of employment. In 2000, nearly 46 percent of workers in Caroline traveled outside of the County to work. The mean travel time was over 30 minutes (source: 2000 Census). Statistics below are showing answers to a Town of Denton survey that was completed in September, 2009. (Appendix 1) When residents were asked if they commuted to work 71% of respondents answered yes. Chart 3-2 shows the distance traveled (round trip); over 67% of respondents who commute traveled more than 20 miles roundtrip to work.

Chart 3-2



The Industrial zoning district is intended primarily for light manufacturing, fabricating, warehousing, and wholesale distributing in low buildings, with off-street parking for employees and with access by major thoroughfares. This district includes land within the Town that contains existing or planned "light" industrial development. It is the Town's intent to ensure that development in these areas is consistent with the following policies:

- Future industrial development and/or redevelopment will be located in those areas designated as appropriate by the Land Use Plan.

- Future industrial development will be encouraged to locate in planned employment parks.
- Industrial development will be required to provide controlled access and adequate bufferyards to screen adjacent non-industrial development from any potential negative visual, traffic, noise, dust, odor, and glare impacts.

The Industrial zoning district includes 59 individual parcels consisting of 246 acres. Of this total, approximately 151 acres, or 62 percent of the area, is developed as industrial/commercial use. The Town's Water/Wastewater Treatment Plant is located within the Industrial zoning district, the plant is located on a parcel that is approximately 42.8 acres and has been counted as improved. Currently, the industrial area is developed with establishments related to manufacturing and light industrial, warehousing, auto sales, office and building supply uses, with a total floor area of 622,830 square feet.

According to the 2009 Department of Assessment and Taxation data, approximately 95 acres of the Industrial district are unimproved. Based on current usage patterns, the average FAR in the land use category is 0.09 or about 3,920 square feet of gross floor area for every acre developed. Assuming this same usage pattern for the remaining 95 acres of vacant industrial land, the floor area capacity remaining in the area is about 372,438 square feet.

Going forward, this category will exclude the existing industrial areas adjacent to the old railroad spur (proposed area of residential redevelopment). The Denton Industrial Park within the Town's southeastern section town will remain and an additional 160 acres also within the Town's southeastern section will be added as the Town proposes some revisions to the current zoning districts as discussed later in this chapter. Older, existing industrial areas within the Town core have been eliminated to discourage new industrial development close to residential neighborhoods and to encourage future industry to locate in the newly designated industrial areas. The proposed changes to the Industrial district increase the total acreage to approximately 343 acres, an increase of about 101 acres. According to the 2009 Department of Assessment and Taxation records, the improved land area of the proposed district currently is 102 acres, with approximately 593,247 square feet of floor area; this results in a FAR of 0.13. Unimproved land for the area is approximately 225 acres, developed at a FAR of 0.13 the estimated development capacity is about 1,274,130 square feet of additional commercial floor area. As suggested earlier using a FAR of 0.20 the building capacity would increase to 1,960,200 square feet of additional floor space.

Commercial and Industrial Summary

Although not an exact science, the mix of employment-related land uses (primarily commercial and industrial) in the community must be judged against some criteria that relate to reasonable objectives for economic development and employment. One planning standard for a balanced, jobs-to-housing ratio is 0.65 jobs to every (1) one dwelling unit.

According to the Department of Assessment and Taxation, there is currently approximately 953,460 square feet (Table 3-6) of commercial floor area (includes office space) located in the Town. The Town has approximately 99.4 acres of undeveloped land within all of the "commercial" land uses, using the appropriate floor to area ration (FAR) for each use, the total gross floor area available is 459,252 square feet.

Using a planning estimate of one employee per 600 square feet of commercial floor area as an indicator of "reasonable expectation", there is approximately enough commercial land available for an additional 765 jobs in this employment sector, the current commercial floor area (953,460) would equate to approximately 1,589 jobs, for a total of 2,354 jobs (Table 3-8).

Using an average of one employee per 750 square feet of floor area as a measure of "reasonable expectation" for employment based on industrial floor area, the estimated employment capacity in the Industrial land use category, existing and vacant, is 1,327, an increase of 497.

Table 3-6: Existing and Estimated Commercial Floor Area Capacity

LAND USE CATEGORY	TOTAL ACRES	DEVELOPED ACRES	EXISTING GFA	FAR	UNDEVELOPED ACRES	CAPACITY Sq. Ft. GFA
Central Business Commercial	45	13.5	266,463	0.45	3.5	68,607
General Commercial	30	15.5	78,916	0.12	4.9	25,613
Regional Highway Commercial	178	113	402,855	0.08	69.0	240,451
Commercial Medical	57	35.0	205,226	0.13	22.0	124,581
TOTAL	310	177	953,460		99.4	459,252

Table 3-8 illustrates an employment estimate if all of the vacant **commercial and industrial** lands when developed. Commercial estimated GFA is the total number calculated in Table 3-6 using the applicable FAR for each zoning district, the total is 459,252 square feet of floor area. Industrial category used the FAR of 0.09; the total estimated GFA is 995,268. Estimated total employment that can be accommodated in the commercial and industrial land use categories is about 3,878, employment in establishments that is consistent with the "reasonable expectation" factors.

Table 3-7: Existing and Estimated Industrial Area Employment Capacity

	Acres	GFA	FAR	Estimated GFA	Estimated Employment
Existing (Developed)	151	622,830	0.09	622,830	830
Vacant	95	NA	0.09	372,438	497
Total	246	622,830		995,268	1,327

Source: Maryland Property View 2009

Table 3-8: Existing and Estimated Industrial and Commercial Area Employment

	Acres	Existing GFA	Observed FAR	Estimated GFA	Estimated Employment
INDUSTRIAL					
Existing (developed)	151	622,830	0.09	N/A	830
Vacant	95	NA	0.09	372,438	497
Subtotal	246	622,830		372,438	1,327
COMMERCIAL					
Existing (developed)	177	953,460	Variable (Table 3-6)	N/A	1,589
Vacant	99.4	N/A	Variable (Table 3-6)	459,252	765
Subtotal	276.4	953,460		459,252	2,354
TOTAL	522.4	1,576,290		831,690	3,681

Source: Maryland Property View 2009

Using the ratio of 0.65 jobs per dwelling unit as a measure of the adequacy of the potential employment that may be accommodated in the industrial and commercial categories, 3,681 jobs equates to 2,393 dwelling units.

The potential job capacity for the commercial and industrial land use equates to 2,393 dwelling units (DU's) and a population of 5,480. As calculated in the Development Capacity Analysis, as discussed in the Municipal Growth Element, the Town of Denton has enough available land to accommodate a population of 10,819 to 13,061 (4,724 to 5,703 DU's). After analysis of the Water and Wastewater Treatment Plant (WWTP) capacities as discussed in the Water Resource Element of this Comprehensive Plan, Denton has currently opted not to increase the capacities of either the water system or the WWTP systems which would thereby restrict the potential for population growth. The Town has also decided to prioritize the remaining water and WWTP capacities first to commercial and industrial growth, and then to residential. The population projection when limiting the WWTP systems resulted in a population estimate of 6,241 residents for the year 2030. The potential job capacity as shown in Table 3-8 supports a population of 5,480 using the current land use.

As shown in the "proposed land uses", (Table 3-2) the Town has increased commercial land use from 9% to 12% and industrial from 5% to 8% by rezoning appropriate areas to commercial and industrial use. This increase will supply additional acreage for increased commercial/industrial employment opportunity.

Table 3-9: Existing and Estimated Industrial and Commercial Area Employment Using Proposed Zoning Changes

	Acres	Existing GFA	Observed FAR	Estimated GFA	Estimated Employment
INDUSTRIAL					
Existing (developed)	**102**	**593,247**	**0.13**	**N/A**	**791**
Vacant	**225**	**NA**	**0.13**	**1,274,130**	**1,699**
Subtotal	**327**	**593,247**		**1,274,130**	**2,490**
COMMERCIAL					
Existing (developed)	**169**	**910,488**	**Variable**	**N/A**	**1,517**
Vacant	**186.4**	**N/A**	**Variable**	**762,429**	**1,271**
Subtotal	**355.4**	**910,488**		**762,429**	**2,788**
TOTAL	**682.4**	**1,503735**		**2,036,559**	**5,278**

Source: Maryland Property View 2009

Table 3-9 calculates the potential employment capacity that the new zoning proposal would create. The employment capacity could reach 5,278, an increase of 1,597 jobs from the current zoning job potential. Using the ratio of 0.65 jobs per dwelling unit as a measure of the adequacy of the potential employment that may be accommodated in the industrial and commercial categories, the new capacity of 5,278 jobs equates to 3,431 dwelling units. From this calculation of 3,431 dwelling units, the population estimate would reach 7,857. Rezoning would give the Town the resources to create opportunities for sufficient employment to support the predicted population up to the year 2030.

New Zoning Districts

Recreation and Parks (RP)

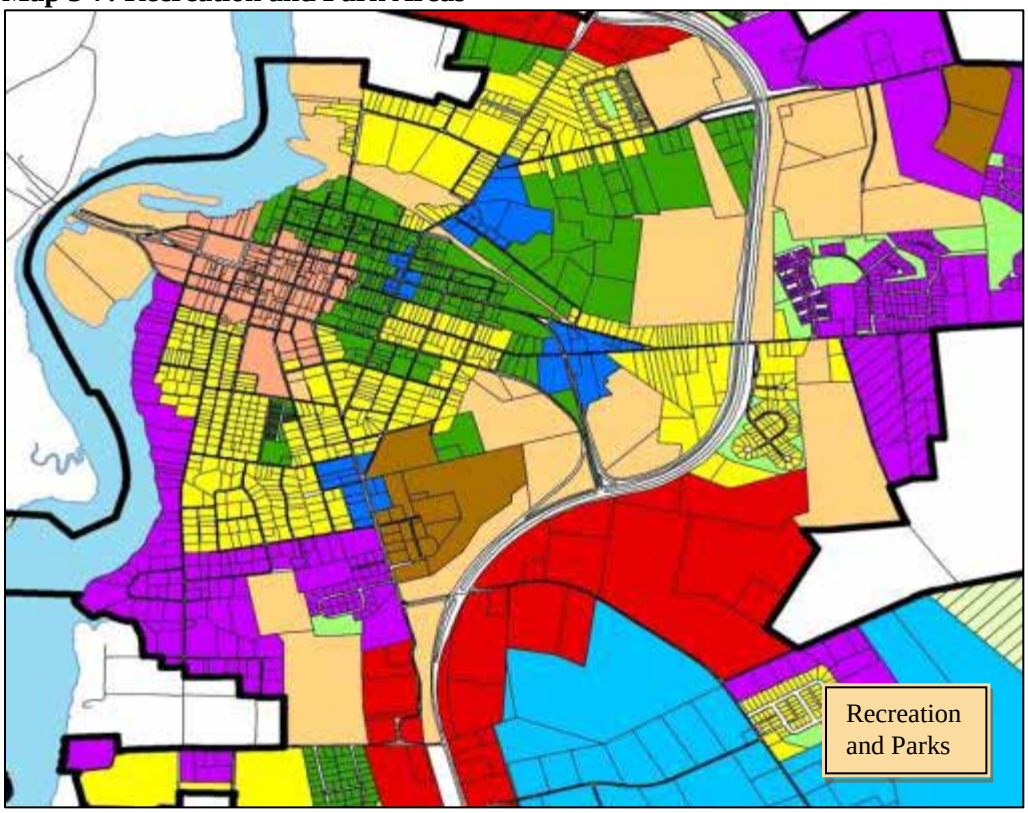
This primary land use area is intended to include properties that are either currently or proposed to be used as parks, open space, or outdoor recreation facilities. There are approximately 355 acres included in the RP zoning district. Some of the lands included in the new district are described by the following land uses:

- Semi Public – Churches and Private Camps (Wesleyan) or Private Recreation (Lions Club Park)
- Public Open Space – Parks and Town, County, State or Federal-owned, nearly or all unimproved parcels

The floodplain area of the Choptank River, wooded stream valleys and wetlands are environmentally sensitive areas of the Town unsuitable for development due to natural resource constraints. As such they are worthy of preservation as passive open space or for flora and fauna protection. As future residential growth continues within the Town it becomes increasingly important to develop additional community parks, and active and passive recreation areas throughout the Town to serve its residents. Some of the established parks within the district are; Lion's Club Park, Sharp Road Park, Towers Park, and Dan Crouse Park. As discussed within the Transportation Element of the Comprehensive Plan, the Town will encourage connectivity between the downtown and the parks, schools and subdivisions. Connectivity could be

accomplished not only through improved street systems but a proposed rail trail, greenways and sidewalk improvements to encourage alternate transportation such as walking and cycling.

Map 3-7: Recreation and Park Areas



Rural Agriculture (RA)

This zoning district is intended to protect and preserve areas of the Town which are presently rural or agricultural in character and use.

This zoning district is also intended for purposes of protecting watersheds and water supplies; to provide for development with approved Planned Neighborhood Master Plans; to protect forest, wetland and scenic areas; to conserve fish and wildlife; to promote forestry, the growing of crops and grazing. Land west of the Choptank River will see no development during the next two decades due to water and wastewater constraints. RA-zone parcels east of the Choptank River may see development as Planned Neighborhood if water and wastewater capacities are allocated and facilities provided.

Rural Conservation (RC)

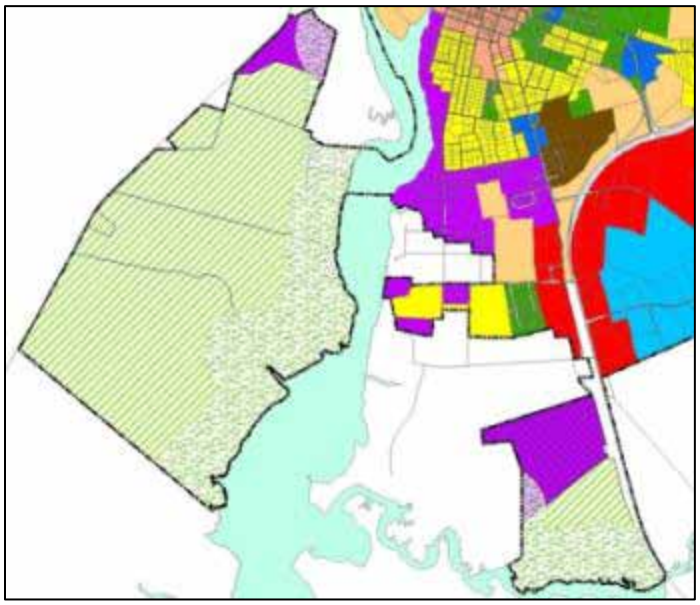
This zoning district encompasses approximately 384 acres that are included in the Town of Denton's Critical Area District. (Refer to Map 3-8) These particular parcels are defined as a management area classification called Resource Conservation Areas (RCA's). As described in **Comar 27.01.02.05,** the resource conservation areas are those areas characterized by nature-dominated environments (that is, wetlands, forests, abandoned fields) and resource- utilization

activities (that is, agriculture, forestry, fisheries activities, or aquaculture). The Town's policies when addressing resource conservation areas are:

- Conserve, protect, and enhance the overall ecological values of the Critical Area, its biological productivity, and its diversity;
- Provide adequate breeding, feeding, and wintering habitats for those wildlife populations that require the Chesapeake Bay, its tributaries, or coastal habitats in order to sustain populations of those species;
- Conserve the land and water resource base that is necessary to maintain and support land uses such as agriculture, forestry, fisheries activities, and aquaculture; and
- Conserve the existing developed woodlands and forests for the water quality benefits that they provide.
- Protect forest interior dwelling birds (FIDS), which require large forest areas to breed successfully and maintain viable populations.

Land use management practices for the RC district shall be consistent with the policies and criteria listed in **Comar 27.01.02.05. (Resource Conservation).** If developed, density will be limited to one dwelling unit per 20 acres, and if a change of density is requested, growth allocation by Town, County and Critical Area Commission would need to be approved.

Map 3-8: Rural Conservation



Development activity will be consistent with all current requirements (including buffer) that are listed in Comar 27.01.01.01 and any changes to these regulations that are relevant to this district. The new regulations are listed in COMAR 27.01.09.01, and became effective March 8, 2010.

Redevelopment Overlay Districts - Eligible (RDE) and Applied (RDA)

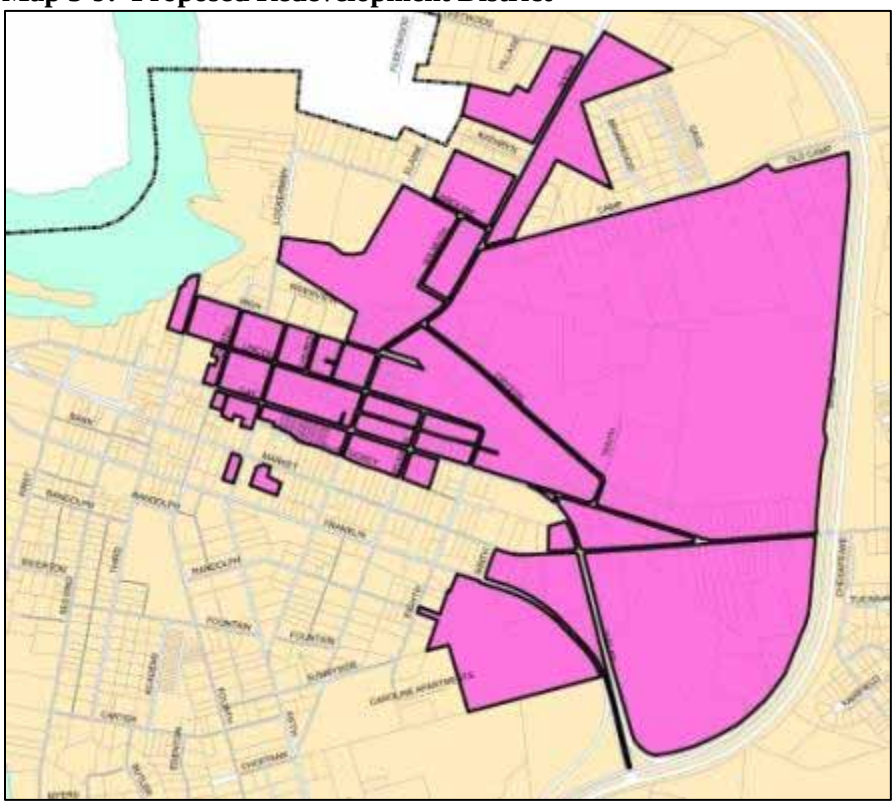
In 2006, the Town adopted an "Eligible Redevelopment District" floating zone, which is proposed to be enlarged by this Comprehensive Plan. The current redevelopment district is 10 acres consisting of approximately 58 lots and lies mainly east of the Central Business District. The proposed expansion of the Redevelopment Eligible District as shown in Map 3-9, will

include a much larger area that extends along Gay Street to MD State Highway 404, and then along MD Route 313 nearly to MD State Highway 404. The proposed expansion of the district increases the total acreage for the district to approximately 285 acres.

To date, there is one approved "Applied" Redevelopment District Floating Zone. The properties are located at the 500 block of Gay Street.

This district is intended to permit rehabilitation and redevelopment of properties within the Town that are considered less than an optimal use of the land following the State law and the Town's ordinances and regulations. This overlay district is further discussed in Chapter 4, Municipal Growth Element in regards to infill and redevelopment policies for the Town.

Map 3-9: Proposed Redevelopment District



Historic District Overlay (HD)

The Denton Historic Overlay Zone (Article IX, "Special District: Historic Overlay Zone," Denton Town Code § 128-43) was adopted in 1997 and is defined as an area designated by the Denton Town Council that contains significant features, woodlands, vegetation, structures, sites, monuments, landmarks, farmland, and/or archaeological sites (Map 3-10). This overlay zone is discussed in much greater detail within Chapter 11, "Historic Features."

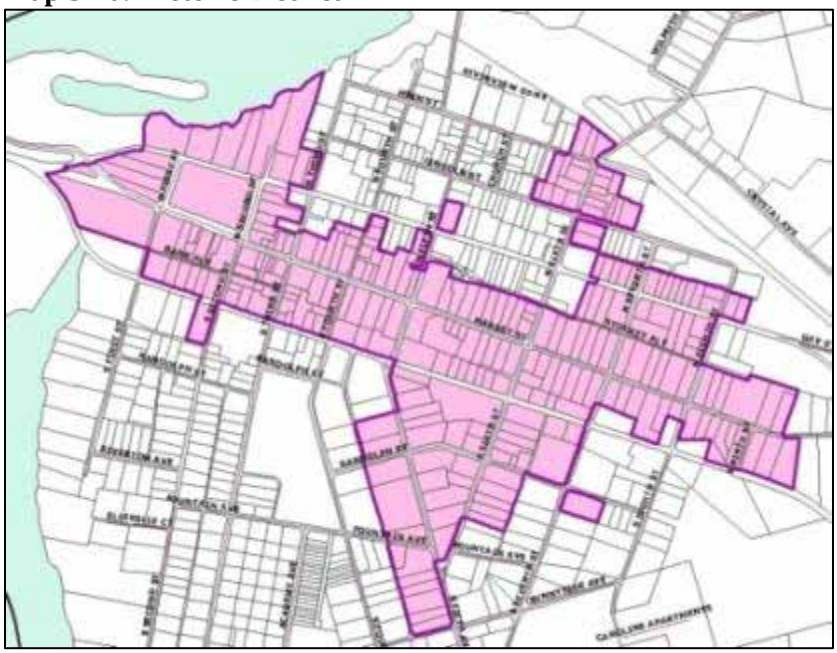
In 2002, a Historic and Architectural Review Commission was created with appointments to be responsible for overseeing the Town's Historic District as defined by the Historic Overlay Zone.

The Commission holds regular meetings no less than every three months and accepts submissions of applications for rehabilitation or construction involving the exterior of structures

located in the Historic District, and designation or removal of structures located in the District. Meetings are open to the public. All decisions are made in public forum and applicants receive written notification of the decision.

In 2005, the Town adopted Historic and Architectural Review Commission Guidelines to provide a common basis to discuss the appropriateness of proposed changes to historic structures as well as proposed construction of new structures in the Historic District. The procedures in the guidelines are designed to ensure compliance with existing Town codes, and to allow every applicant the same consideration of fairness and due process. The Commission may use these guidelines as they apply to the Secretary of the Interior's Standards for Rehabilitation to evaluate the appropriateness of changes to buildings or properties located in the Historic District.

Map 3-10: Historic District



Arts and Entertainment Overlay District (AE)

The Arts and Entertainment District overlay zone was adopted on April 11, 2005, and is intended to permit master planned, mixed-use infill and redevelopment with an emphasis on for-profit and nonprofit artistic, cultural, educational, and musical uses of properties. The floating zone's permitted uses are those allowed in the underlying zoning plus art craft/studio uses, artist live/work space, art use, and artistic work use shall be permitted and encouraged. Development standards for the district offer flexibility in density and dimensional regulations, while maintaining compatibility with the existing neighborhood.

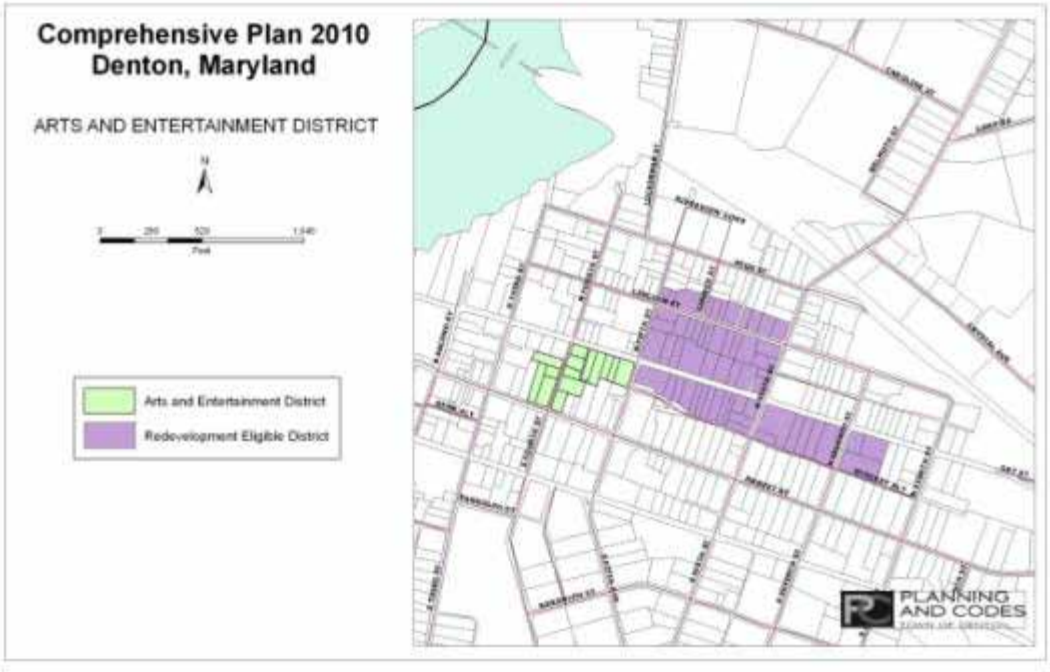
The intent of the A and E District is to accomplish the following:

- Promote the arts and to achieve public and cultural benefit through flexible and creative land use regulation in return for significant contributions to the arts;
- Utilize cultural and economic development as a tool to encourage the infill and redevelopment in planned redevelopment areas of the Town;

- Encourage public/private projects that make the direct link between art and economic development;
- Serve some of the needs of our arts community and stimulate revitalization by promoting the reuse of underused and vacant properties for artist live/work space, affordable housing, performance venues, galleries, and other creative commercial and retail enterprises;
- Create an arts and entertainment destination point for the region;
- Encourage a scale of development, a mixture of building uses, and other attributes such as safe and efficient conditions for pedestrian and vehicular movement;
- Encourage pedestrian activity, especially retail, entertainment, and residential uses; and
- Expand the Town's housing supply in a variety of rent and price ranges

The district consists of 13 parcels, located between N. Third Street and N. Fifth Street and Market Street and Gay Street, as shown on Map 3-11.

Map 3-11: Arts and Entertainment District

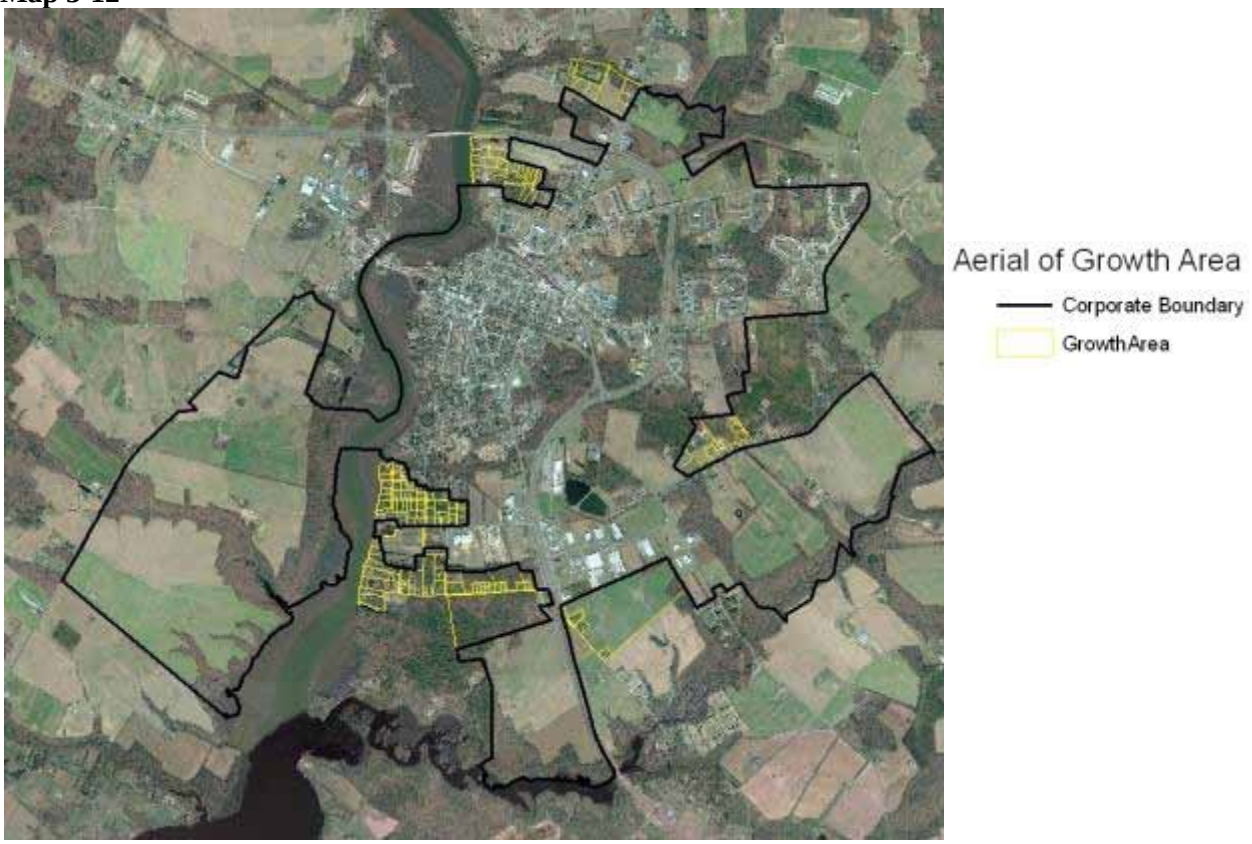


Proposed Growth Area

Map 3-12, illustrates the Town's total proposed growth area designated for future annexations. Growth for the Town of Denton is discussed in detail within Chapter 4, "Municipal Growth". Proposed zoning is Regional Highway Commercial on 115 acres, Industrial on one 76 acre parcel and Residential on the remaining 183 acres. Of the residential properties, 31 acres will be Mixed Residential, 111 acres Suburban Residential, and 41 acres Town Scale Residential.

The total growth area acreage is approximately 376 acres (an 11% increase). The growth area contains 126 parcels; 58 parcels are less than 1 acre, 63 parcels are between 1 to 10 acres, 3 parcels between 10 to 20 acres, and 2 parcels over 50 acres in size. Some parcels in the growth area are located in the Chesapeake Bay Critical Area where subdivision is constrained by State and local regulations.

Map 3-12



CHAPTER 4 - MUNICIPAL GROWTH ELEMENT

INTRODUCTION

This document serves as the Town of Denton's Municipal Growth Element mandated through House Bill 1141 by the Maryland State Legislature in 2006. House Bill 1141, Land Use – Local Government Planning, requires that each municipality that exercises planning and zoning authority add a Municipal Growth Element and Water Resources Element and to its Comprehensive Plan.

One of the goals of Denton's growth element is to provide a growth roadmap within and around the current Denton corporate limits. Another goal is to integrate components of Denton's Municipal Growth, Land Use, and Community Facilities Elements to ensure association among them, that is, each element meshes with the others. Lastly, where appropriate and achievable, obtain Caroline County's support for Denton's planned growth.

Collectively, the three aforementioned Denton comprehensive plan elements provide a comprehensive, long-term vision which identifies growth via annexations, infill development, and redevelopment. Population is addressed in the context of historical growth, various future projection scenarios, land capacity and its constraints, facilities and their constraints and services whether Town or County provided.

Denton's growth element incorporates the following Smart Growth Principles, "Maryland's Building Blocks for Quality Communities":

- Employ a mix of land uses
- Take advantage of compact building design
- Create a range of housing opportunities and choices
- Create walkable neighborhoods
- Foster distinctive, attractive communities with a strong sense of place
- Preserve open space, farmland, natural beauty, and critical environmental areas
- Strengthen and direct development toward existing communities
- As best possible, provide a variety of transportation choices
- Make development decisions predictable, fair, and cost-effective
- Encourage community and stakeholder collaboration in development decisions

Denton is a small urban center of approximately 4,000 residents in rural, agrarian-based Caroline County. Denton has a unique heritage as the County's seat and its location on the Choptank River (refer to Chapter 2 - Community Characterization). Until recent annexations, the Choptank River acted as a natural boundary. However, in 2004 the Town annexed approximately 850 acres west of the Choptank River, thereby significantly enlarging its land capacity while, at the same time, creating considerable challenges for servicing growth. After a decade of annexations which grew Denton's incorporated area significantly, this growth element provides a unique opportunity to complete an overdue situation assessment and formalize an acceptable growth plan. Much of the basis for the proposed growth plan came from a Town survey to 100 percent of the property owners (37.5% response rate), conducted in the summer of 2009. Its results were

enlightening and provided a context for the Town Council, the Planning Commission and planning staff on what constituted acceptable growth.

A VISION FOR DENTON

The overall vision for Denton, as expressed in the Comprehensive Plan introduction, is the integral unifying component throughout the document. The vision underscores the key community expectations and provides a conceptual benchmark for future Town decision-making. The Town has developed the following vision statement to guide growth and development in a manner that supports the values of the community and the goals and objectives of the Comprehensive Plan.

Denton's Vision

Denton will be an innovative, healthy, safe, well-balanced community that protects its historical integrity, preserves its unique natural resources, enhances its economical vitality and maintains its unique small town character. Denton's population will increase at an acceptable rate consistent with the ability of the Town and County to provide basic services and facilities.

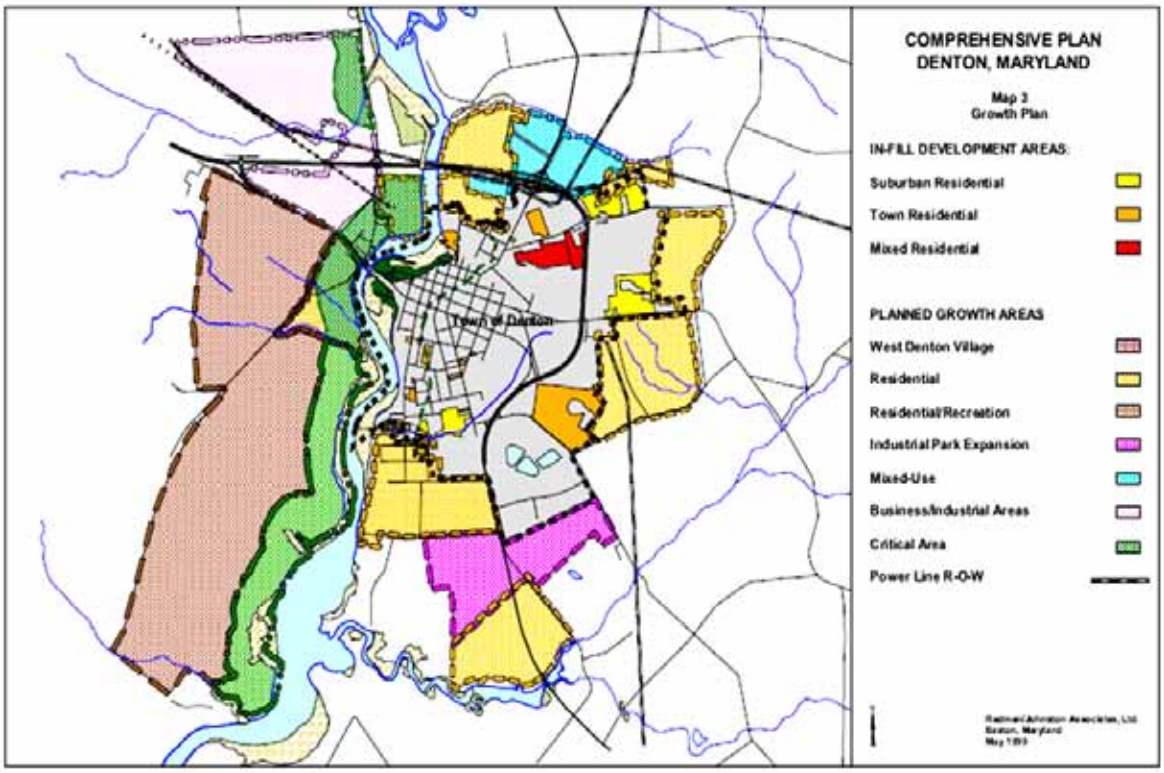
DENTON'S GOALS

Denton will remain a rural County seat and major population center suitable for sustainable growth as advocated under Maryland's statutory planning visions and in the framework of Caroline County comprehensive planning goals. Growth within the Town shall represent a collaborative effort between the Town and the County to suitably plan development, annexations and urban/rural boundaries (greenbelt); to protect environmentally sensitive areas and the Town's character; to provide adequate and safe water and wastewater services; and to offer exceptional and dependable services and facilities.

SITUATION ASSESSMENT

When the Town last adopted a Comprehensive Plan (1997), the town was comprised of 1,382 acres, all east of the Choptank River. At that time, the Planning Commission identified future growth areas beyond the corporate limits; including a large area west of the Choptank River approximately of 859 acres (Map 4-1). The 1997 Comprehensive Plan also described the general land use types planned for each property both within the existing corporate boundary and in the growth area. The 1997 planned town growth area was approximately 3,456 acres (a 350 percent increase over the incorporated area at that time).

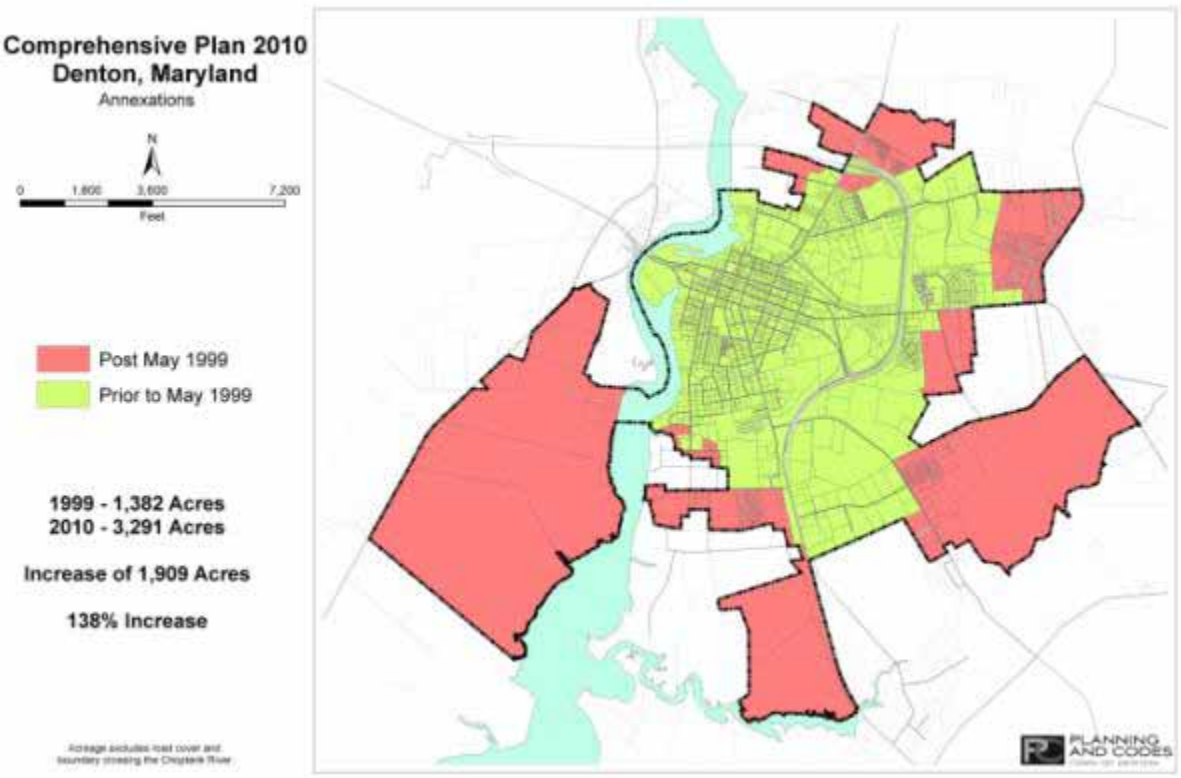
Map 4-1: 1997 Comprehensive Plan Growth Map



Source: Denton 1997 Comprehensive Plan

Since 1997, the Town annexed approximately 1,909 acres (Map 4-2) in the targeted growth areas (a 138 percent increase). The Town's annexation of a significant portion of its growth area during the last decade raised questions concerning Denton's ultimate size in terms of dwelling units (households), population and the impacts upon community facilities, taxes, and quality of life.

Map 4-2: Annexations



Source: Denton Planning and Codes, 2010

A 2006 Draft Comprehensive Plan was authored and indicated, due to the aforementioned decade of annexations, that the town's population at build-out would exceed 31,000 people. Upon realization of that revelation, the draft plan was shelved at the request of the sitting Town Council, and the Planning Commission and planning staff were instructed to revisit the plan in such a way to reduce the projected growth to a more acceptable level.

Subsequently, House Bill 1141 became law. Fortunately, the Maryland Department of Planning (MDP) provided the necessary guidance to comprehensively address municipal growth in context of its impact upon community facilities, land use, and water resources. The following portions of Denton's Municipal Growth Element and the Water Resources Element (Chapter 5) address these components.

In preparing the Land Use, Growth and Water Resources Elements of the 2010 Comprehensive Plan; the Planning Commission and planning staff re-examined projected growth projections in Caroline County and the Town's fair share as promulgated in State Smart Growth policies. The interrelationships among land use, population growth, and impacts on public facilities and services associated with projected growth are examined below.

GROWTH MANAGEMENT GOALS

Denton has experienced growth in most sectors within the Town over the last several decades. This growth is evident in the size of our population and the spatial area consumed as development occurred. The pace, location, and quality of our past and potential future growth are of concern to many citizens of Denton (refer to Town Survey, Appendix 1). As a result, the Town began focusing on strategies to manage change in a less disconcerting and more manageable manner. To this end, those charged with the Town's planning used their knowledge and skills, supplemented by MDP advice and counsel and the survey results; to revisit proposed land uses, better address natural constraints, and reduce the growth area significantly.

Natural Resource Conservation

The cumulative impact of Denton's growth and development on the natural environment may well be significant and detrimental without proper planning and implementation. To sustain our community, to balance the built and natural environments successfully, the Town must commit to protection of its and surrounding natural features. There is recognition of the need for additional passive and active recreation parks and open spaces. Denton's adjacency to the Choptank River, a significant tributary of the Chesapeake Bay, requires Town protection of its component within the Upper Choptank River Watershed; the river; and all local and regional natural features and ecosystems.

Public Facilities Planning

Community growth increases demand for community services. New homes and businesses require potable water provisioning, new stormwater systems and sanitary sewers, new roads and sidewalks, more police and fire protection, schools, and parks. Denton will need to address these services in the context of their impacts to taxpayers. To minimize inequitable fiscal impacts, the Town must be prudent in infrastructure and services investments while allowing for growth at an appropriate pace and place. Denton must ensure that it provide high quality public services to all of its citizens.

Transportation

As growth and development continue in Denton and surrounding towns, citizens have an ever-growing array of destinations from which to choose, some discretionary, and others mandatory (e.g, work related). Most often, the only option that the transportation system provides for reaching out-of-town destinations is the automobile. To improve traffic and its associated impacts, Town residents will require more transportation options. Within Town, spatial distances can be reduced between destinations by integrating land uses, exploring public transportation options, and implementing a network of bicycle and pedestrian pathways.

Community Character

What is the community character of Denton? One may have an idea of what this means, but it is ultimately a concept that is quite difficult to quantify succinctly. It is quite improbable that a precise definition can be agreed upon. However, persons seem to know it when they see it: It's in the historic architecture of the Downtown; it's in the streetscape of the Downtown; it's in the Town's rural setting and location on the Choptank River; it's in the working-class, agricultural,

and entrepreneurial business opportunities in the Town of Denton, that residents cherish. All of these aspects and more are crucial elements of what Denton calls its community character. Everyone must work together to protect, nurture, and enhance these characteristic qualities in the future.

Inter-jurisdictional Cooperation

The points of view given above do not stop at the Town limits. All perspectives must be addressed in the context of the Caroline County, the Eastern Shore, Chesapeake Bay region, and the State of Maryland. Community success depends substantially upon cooperation among local units of government. A positive working relationship with Caroline County is essential. The entire greater community benefits from compatible policy and process agreements.

How Should the Town Grow?

The Land Use Plan map shown in the Land Use Element (Chapter 3) reaffirms the belief that Denton should serve as a major residential, commercial, employment, and institutional center for Caroline County and surrounding markets. It also acknowledges that growth for growth's sake alone will not result in the type of community that the residents desire. As a consequence, the Planning Commission re-examined the Town's planned growth (from both the adopted 1997 and 2006 draft Comprehensive Plans) and revised it according to the following growth management principles:

- The planned growth areas are the "build-out" limits for the Town, i.e., they represent an urban growth boundary beyond which the Town does not plan to grow;

- This urban growth boundary should be reinforced with a "greenbelt" area along the perimeter consisting of forest, agriculture, open space, very low density rural residential uses and other compatible low-intensity uses. This area should be mutually acceptable to Caroline County and the Town of Denton; and

- The planned use of future growth areas should be specified in the Comprehensive Plan, including substantial areas for future economic development and employment uses to achieve a better job-housing balance for local (Town and County) residents.

Priority Funding Areas

Priority Funding Areas were established by the 1997 Priority Funding Areas Act (the Smart Growth Act). This Act authorized counties and municipalities to designate areas appropriate for growth as Priority Funding Areas (PFA's). Priority Funding Areas reflect Maryland's commitment to direct future development in the State into established communities that are supported by existing or planned public services and infrastructure and protect our natural resources. PFA's are areas defined under State law and designated by local jurisdictions to provide a map for targeting State investment in infrastructure. The law directs the use of state funding for roads, water and sewer plants, economic development, and other growth-related needs to Priority Funding Areas.

There have been many significant changes to the process of designating PFA's as a result of the passage of HB1141 in 2006. Beginning on October 1, 2006, an area certified as a PFA by a

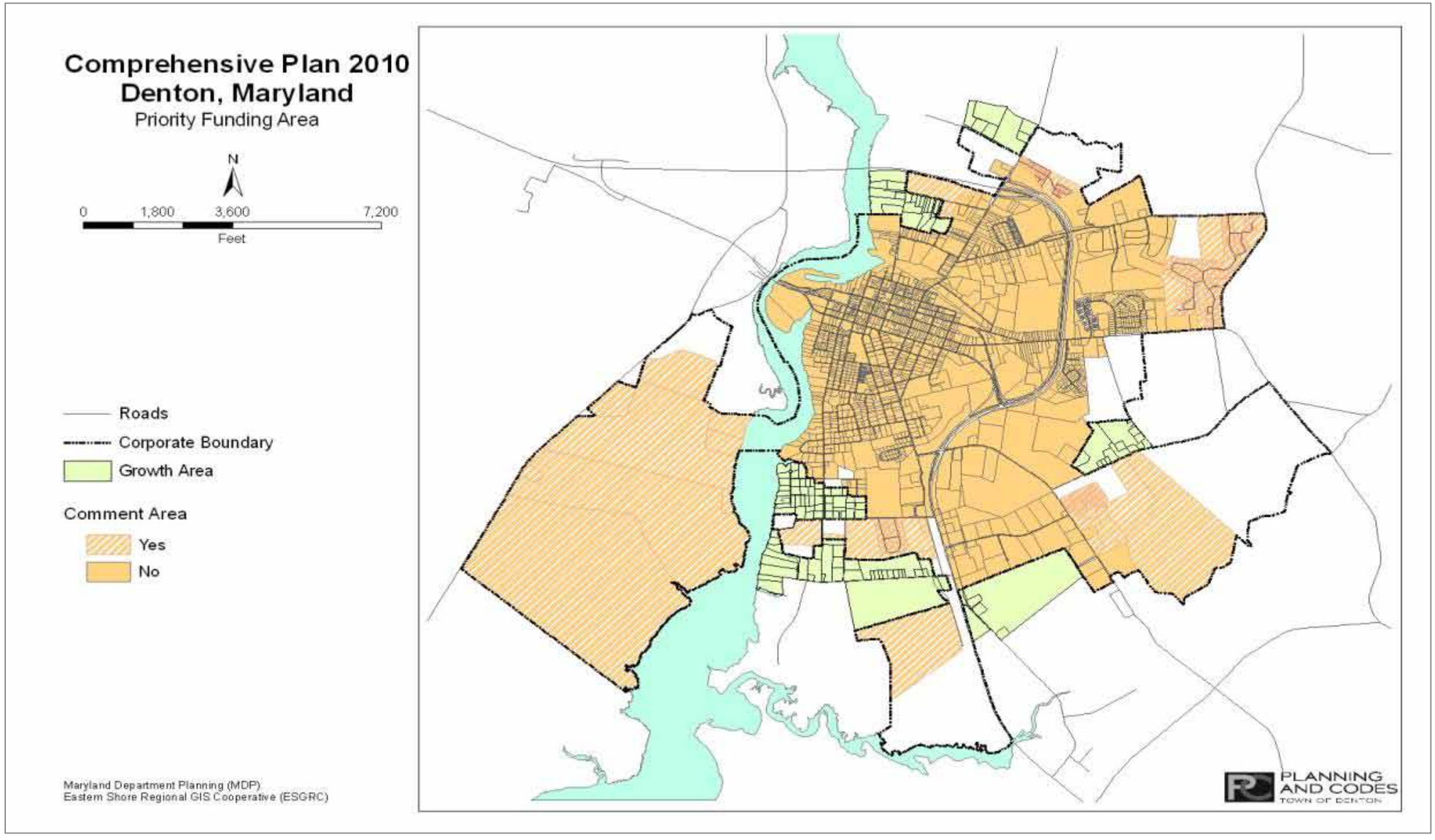
municipality shall be based on an analysis of the capacity of land areas available for development, including in-fill and redevelopment and an analysis of the land area needed to satisfy demand for development at densities consistent with the master plan.

It is important to note that as of October 2006, new municipal annexations seeking PFA designation must be submitted to the Maryland Department of Planning (MDP) for "PFA Certification." According to MDP, County properties annexed into the Town that currently have PFA status, do not retain such status and do not automatically become PFA's if annexed.

The Town is currently working with the Maryland Department of Planning to update Denton's PFA's to determine if revisions are needed. The State of Maryland Task Force on the Future for Growth and Development are looking to ascertain changes to the PFA's by examining ways in which the PFA law could be revised to promote better outcomes for development and State spending.

Denton's existing PFA's, those under scrutiny for designation (comment areas) and other areas not yet determined are illustrated on Map 4-3 – Priority Funding Areas.

Map: 4-3


Comprehensive Plan 2010
Denton, Maryland
Priority Funding Area
N
0
1,800
3,600
7,200
Feet
Roads
Corporate Boundary
Growth Area
Comment Area
Yes
No
Maryland Department Planning (MDP)
Eastern Shore Regional GIS Cooperative (ESGRC)
PLANNING AND CODES
TOWN OF DENTON

GROWTH PRINCIPLES

The following principles are addressed in the Land Use section but are also incorporated and stressed as Growth Element principles:

- Preserve open space, a smart growth goal that can bolster local economies, preserving critical environmental areas, improving our community's quality of life, and guiding new growth into existing communities.

- Insure that new development does not adversely impact the provision of Town services and facilities. Work with the County to address impacts of new development on the provision of County facilities and services.

- Insure new residential neighborhoods are fully integrated into the community, reflect the positive characteristics of existing residential neighborhoods and provide connectivity between new and existing neighborhoods.

- Insure a user-friendly and efficient urban transportation network: This should include public transportation (subsidized if necessary); alternative transportation modes such as bike paths, sidewalks, and more extensive pedestrian options; and mechanisms that encourage good traffic flow (fewer cul-de-sacs, more through streets, and more use of planning and street grid systems).

- Work with the County to insure that development along the Town/County borders creates a positive overall community image. Support efforts of the County to manage growth outside of the municipal growth area so that the County can remain essentially rural.

- Accommodate future growth primarily through infill and redevelopment within the Town and through appropriate annexation of land included in the Town's designated growth area.

- Support Caroline County's implementation of its Transfer of Development Rights (TDR) and Purchase of Development Rights (PDR) programs.

- Reinforce the urban growth boundary with a "greenbelt" area, along the perimeter, consisting of forest, open space, very low density rural residential uses, and other compatible low-intensity uses.

- Preserve environmentally sensitive areas and natural resources; and

- Conserve open spaces and preserve forested lands to help decrease nutrient sediment runoff.

Throughout the process of creating the Denton growth plan, individuals have weighed in with their own vision for the Denton of tomorrow. While many of those visions are not the same as others, many common themes have come to the surface. One of the areas of mutual commonality is population growth.

As mentioned earlier in the narrative, the Town of Denton conducted a 100% property owner survey in the summer of 2009. The survey received a 37.5% return rate (entire survey, results and comments are listed in Appendix 1). Some survey questions were included to gain insight about property owners' opinions on how large the Town of Denton should ultimately be and their preferences for growth. The responses were also grouped by zoning districts (primarily residential) to determine if property owners had differences of opinion (findings were that they mostly did not).

In response to the question asking respondents to choose the best statement that describes their preference for future growth of the Town (Question 20), 45% supported limiting growth to maintain small town character and 47% supporting controlled/managed growth to increase amount of services and tax base. When asked their preference for the Town's future population, (Question 22), 81% responded that population should be in a range of 3,800 – 10,000, while 19% responded with a preference for a future population range of 10,000 – 20,000.

GROWTH PLAN OBJECTIVES AND ASSUMPTIONS

As a result of the overall situation assessment and in deference to the majority of Town residents' wishes, the maximum population for this plan will be constrained to no more than 10,000 residents.

Due to the abundance of vacant infill area associated with the past decade of annexation activity and sizeable redevelopment area within Town, future residential growth will occur within the existing Town boundary.

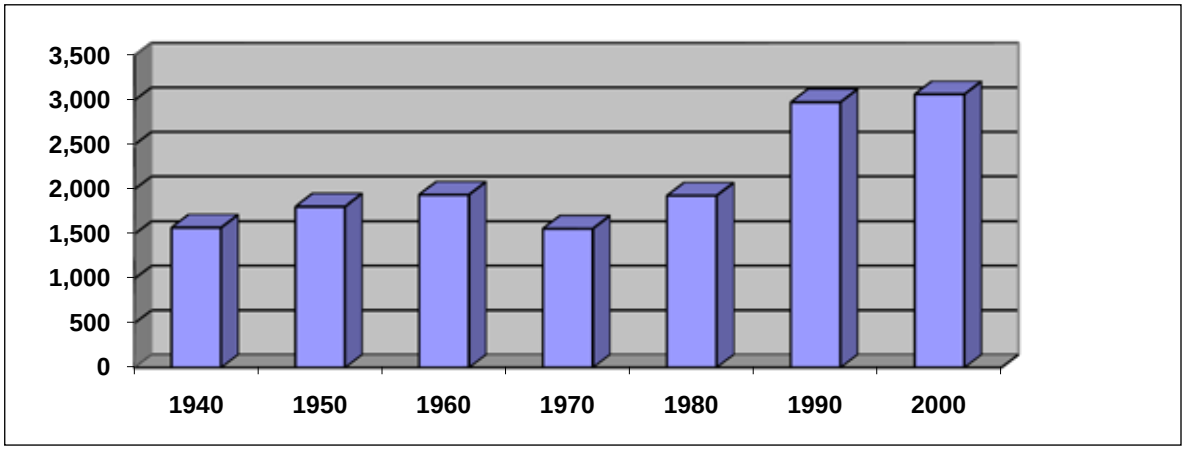
Planned growth area annexations shall be those which prioritize commercial/industrial land uses first followed by somewhat densely populated areas serviced by private wells and septic systems.

THE GROWTH OF DENTON

Population Trends

Between 1940 and 1990, Denton's population increased from 1,938 to 2,977, a 53.6% increase, with the predominant amount of growth occurring from 1980 to 1990 (Chart 4-1). Chapter 2, Community Characterization, of this comprehensive plan addresses Denton's historical population trends in greater detail.

Chart 4-1: Denton Historical Population Increase – 1940 - 2000



Source: U.S. Census Bureau

As shown in Table 4-1, population counts from the 2000 Census indicate that between 1990 and 2000, the population of the Town increased by 2.98%. The population of Caroline County increased during that same period by 10.12%. Population estimates prepared by the Maryland Department of Planning in the report, "Population Estimates for Incorporated Places in Maryland within Jurisdictions: April 1, 2000, to July 1, 2008," indicate that during that period, Denton's population grew from 3,066 to 4,022. The total population increase in those eight years was 956. This growth represents an average percent yearly change of 3.9%.

Table 4-1: Population Growth Trends - Denton and Caroline County

	1990	Percent of Total	April 1, 2000	Percent of Total	Increase 1990 - 2000	2008	Percent of Total	Increase 2000 - 2008	Average % Change 2000 - 2008
Caroline County	27,035	*100.0%*	29,772	*100.0%*	*10.1%*	33,138	*100.0%*	11.3%	*1.2%*
Denton	2,977	*11.0%*	3,066	*10.3%*	*3.0%*	4,022	*12.1%*	31.2%	*3.9%*

Source: Maryland Department of Planning, Maryland State Data Center: Population Projections: Population Estimates for Incorporated Places in Maryland within Jurisdictions: April 1, 2000 to July 1, 2008

The Maryland Department of Planning population projections for Caroline County from 2008 to 2030 are shown in Table 4-2. Projections for Denton assume that Denton's share of the total

County population (12.14 %) in 2008 (as shown in Table 4-1) will remain constant through the end of the planning period (2030), a simple geometric growth. The population numbers for Denton in Table 4-2 are based on past data relationships naïvely projected into the future.

Table: 4-2: Population Projections Denton and Caroline County

	2008	2010	2015	2020	2025	2030	Percent Change 2008-2030	Average Annual % Change 2008-2030
Caroline County	33,138	33,562	36,676	39,682	42,515	45,228	*36.5%*	*1.76%*
Denton	4,022	4,074	4,452	4,817	5,161	5,491	*36.5%*	*1.50%*
Denton (% of County)	*12.14%*	*12.14%*	*12.14%*	*12.14%*	*12.14%*	*12.14%*	---	----

Source: Maryland Department of Planning, Population Projections, Maryland State Data Center, Historical and Projected Household Population for Maryland's Jurisdictions (Revisions, February, 2009)

Table 4-3 shows alternative population projections for the Town using projections obtained from the Maryland Department of Planning, Strategic Development Department. The projections were calculated using many different techniques, including the "selected" MDP population projection. These techniques were grouped into two broad categories, "naïve" and "development pressure."

Table: 4-3: Population Projections from Maryland Department of Planning

	2010	2015	2020	2025	2030
Constant Share Method	3,456	3,775	4,084	4,378	4,661
Lowest Naïve Method (shift share_1990_00)	3,119	3,189	3,254	3,314	3,371
Highest Naïve Method (shift share_1980_90)	3,764	4,280	4,812	5,354	5,908
Ave. All Naïve Methods	3,423	3,702	3,969	4,221	4,462
Ave. All Naïve Methods (w/o High & Low)	3,408	3,670	3,919	4,153	4,375
Lowest Development Pressure Method (97_05, .125 miles)	3,461	3,795	4,126	4,449	4,770
Highest Development Pressure Method (00_05, .5 miles)	3,472	3,832	4,205	4,585	4,974
Ave. Development Pressure Methods (MDP Selected)	3,466	3,811	4,160	4,508	4,858
Ave. Development Pressure Methods (w/o High & Low)	3,466	3,810	4,158	4,505	4,854

Source: Maryland Department of Planning, Strategic Development Department

Table 4-4 illustrates four projections using a compound annual rate ranging from 2% - 5%. A compound annual rate was chosen, rather than a straight line rate, for calculations because the function more closely resembles what is believed to depict the nature of future growth. Comparison of the projections is made to MDP's "selected" projection (last row on the table). Each of these growth projections assumes no water or wastewater capacity constraints.

Table 4-4: Alternative Population Projections

Compound rate increase 2010 - 2030	2008	2010	2015	2020	2025	2030
2%	4,022	4,184	4,620	5,101	5,632	6,218
3%	4,022	4,267	4,947	5,734	6,648	7,707
4%	4,022	4,350	5,293	6,439	7,834	9,532
5%	4,022	4,434	5,659	7,223	9,218	11,765
MDP's "selected" projection *	3,177	3,466	3,811	4,160	4,508	4,858

** Source: Maryland Department of Planning, Strategic Development Department, Municipality Population Projections, January, 2010*

The growth rate from 1990 to 2000, as shown in Table 4-1, calculated an increase of 2.98% (3.0% rounded). The population change between 2000 and 2008 showed at average annual increase of 3.9%. Taking into consideration the recent economic downturn, it is the planning staff's opinion that any future growth will start out at a slow pace. Consequently all population projections from this point forward in this chapter are based upon compound growth rate methodology.

Growth within Current Town Boundary

Municipal Development Capacity Analysis

The following residential development capacity analysis should not be confused with population projections used for planning purposes. Residential capacity analysis estimates are simply a means of measuring potential "land" and "use" capacity to accommodate future population growth whenever such population growth may occur.

A development capacity analysis, sometimes referred to as "build out-analysis" or "buildable lot inventory," is an estimate of the total amount of development that may be built in an area under a certain set of assumptions, including applicable land-use laws, policies (e.g., zoning), and environmental constraints.

Data Used

Listed below are the data used to complete the Town of Denton's Development Capacity Analysis. This information was obtained from various sources, including the Eastern Shore Regional GIS Cooperative (ESRGC), Caroline County, Maryland Property View (MDPV), as well as The Town of Denton's Planning and Codes Department.

- High Resolution Aerial Photography – aerial imagery dated April 2009 was used for the aerial interpretation of the analysis.

- Digital Tax Parcel Layer – Using the most recent digital parcel layers dated May 2009 that included newly annexed land and recent subdivision plats. The parcel layer is from Maryland Property View 2009 and created by the ESRGC.

- Corporate Boundary – Town of Denton's 2009 Corporate Boundary was used and updated based on April 2009 aerial imagery.

- Official Zoning Map – The Town of Denton 2009 Comprehensive Plan official zoning map was used to determine zoning districts.

- Zoning Ordinances – The Town of Denton Table of Density and Dimension regulations. This table included the Minimum Lot Area (MLA), dimensions, density, and yard requirements.

- Addressable Building footprints – The building footprint layer was created by digitizing addressable buildings from aerial imagery; done by ESRGC.

- Address Points – The Caroline County Department of Emergency Management supplied a Denton Address Point layer obtained from 911 Maps.

- Environmental and protected features – These layers include the Chesapeake Bay Critical Area (CBCA) developed by the ESRGC in 2006 and Forested Interior Dwelling Species (FIDS).

- Water and Wastewater Treatment Plant capacity information – Information regarding the gross flow capacity, utilized capacity, and the net capacity of Denton Wastewater Treatment Plant facilities. The rated Denton-specific and County approved average of flow per dwelling was also included.

Methodology

The first step in creating the development capacity analysis was to identify any vacant land. To classify as vacant, a combination of field surveys, Maryland tax assessment records, and remote sensing was used, an extraction of those parcels were made. An evaluation of existing zoning district layers was done using the Official Zoning Map for Denton Maryland 2010 comprehensive draft plans. Queries were made for each zoning district based on minimum lot area and the number of existing dwelling units for maximum density calculation; and maximum lot area and the number of existing dwelling units for the minimum density calculation. Using the zoning districts' layers to recognize land that could be redeveloped or developed with greater intensity through infill and sub-dividing lots, layers were created based on attributes. These layers were merged with vacant lot extractions for each zoning district. The maximum and minimum lot area was used in later calculations in order to determine the number of potential dwelling units a parcel could support. The existing dwelling units for each parcel were taken into account in order to calculate the development capacity. There were various fully approved subdivisions (or extended by Maryland's tolling legislation) with remaining unimproved lot

inventories that were excluded from the vacant lot calculations. These were excluded from the zoning district square foot calculations because these lots available for infill were already platted. The total number of vacant lots from the various subdivisions were added to the dwelling unit and population calculations (Tables 4-6 & 4-7).

Environmental Overlay

For this analysis, a "protected environmental" overlay was used to deduct any land that was deemed environmentally sensitive and therefore not developable. A planning assumption was used whereby all environmental constrained land was not to be used for calculating development potential. In other words, the net area, devoid of environmentally constrained land, not the gross area, was used for calculating potential dwelling units.

The 1,000 foot Chesapeake Bay Critical Area (CBCA) buffer line, derived from the mean high tide level was used to determine intersections with parcel polygons and to bisect them wherever the line lay. The areas that lay inside the Chesapeake Bay Critical Area line were considered built-out (i.e., there would be no growth allocation if sub-dividable) and the areas outside remained potential parcels for growth. The Forested Interior Dwelling Species (FIDS) areas were overlaid and clipped out of the available parcels, as were stream buffers and wetlands, leaving a remainder of land unconstrained for development. Note that hydric soils and steep slopes were not considered constraints due to the former being servable by wastewater treatment plants and the latter nearly non-existent outside the CBCA.

Dwelling and Parcel Comparison

Once the aforementioned steps were completed, the total number of dwelling units were calculated. This process required obtaining a total count of existing dwelling units per parcel. A combination of address points, addressable building footprints, 2009 aerial photos and the 2009 Maryland Property View was used to establish these numbers. The address point and building footprint layers were used to identify and locate dwelling units within a specific parcel. The aerial photos were then used to confirm these findings. If any questionable dwelling unit was found, Maryland Property View was referenced and a field survey was conducted to validate its existence. The parcel land areas and acreages were closely examined through the attribute tables and the Maryland Property View figures. If a parcel area was debatable, the ArcGIS/ARCMAP measure tool and shape area was used to determine the correct parcel dimension.

The next step was to determine the number of potential dwelling units the parcels could support at 100% development capacity. This was done by summing the land area (square feet) of all the parcels in a selected zoning district and dividing by the zoning districts' classified minimum lot area and maximum lot area. The numbers of existing dwelling units were subtracted from that result in order to derive the count of potential dwelling units. The zoning districts which had overlay zoning for planned neighborhoods (PN), as part of an annexation agreement, were excluded from that zoning district's total area and calculated based upon the density criteria for the PN overlay zoning area.

Calculations and Extractions

The remaining parcels, after the aforementioned extractions, consisted of those areas that were eligible for new development and subdivision. For these parcels that have the potential for development, the following assumptions were used to determine development capacity.

The development capacity was considered for three mutually exclusive scenarios: full capacity (100%), partial capacity (75%), and limited capacity (55%).

The following equations were executed for each zoning district's eligible parcels to determine a development capacity for each scenario. Full capacity is not realistic, but used to determine a base number.

Scenarios and Equations:

1. 100% capacity (full):
    - (Parcel Area / MLA) - # of existing DU's = Raw # of available DU's, rounded to nearest whole number
2. 75% capacity (partial):
    - Raw # of available DU * 0.75, rounded to nearest whole number
3. 55% capacity (limited):
    - Raw # of available DU * 0.55, rounded to nearest whole number

Note: MLA is Minimum Lot Area, DU is Dwelling Unit.

The results of the above calculations were used to determine the number of dwelling units each parcel could support at these varying capacities. Planning assumptions were made to utilize a partial capacity of 75% to account for infrastructure improvements for all zones except PN zones; which were built out at limited capacity of 55% to account for both infrastructure, and its commercial and retail components.

Table 4-5 identifies an inventory of 519 buildable (vacant) lots from currently approved subdivisions.

Table 4-5: Approved Lot Inventory

Developer	Subdivision Name	Total Lots	Lots Finished	Lots Available
Approved Final Subdivisions				
Real Estate General	Trice Meadows	45	16	29
Cypress Custom Homes	Sandy Meadows	58	46	12
Stanley Halle Communities	Parkview Estates	26	7	19
Garland & Hobbs LLC	Savannah Overlook	161	161	0
Mallard Homes	Mallard Landing	187	186	1
Lacrosse Homes	Fearins Crossing Phase I	60	0	60
The Gardens Land Group, Inc.	The Gardens	62	0	62
Lacrosse Homes	Fearins Crossing Phase II	12	0	12
Garland & Hobbs LLC	Savannah Overlook Phase IV	2	0	2
Chris Coile Development D	Glenfield	41	0	41
	Sub Total - Final	**654**	**416**	**238**
Approved Preliminary with DRRA				
Gannons Purchase, LLC	Village at Watts Creek	257	0	257
	Sub-Total Approved (no expiration)	**911**	**416**	**495**
Pending Final				
CIII Builders, LLC	Gay Street Redevelopment	24	0	24
	Sub Total	**24**	**0**	**24**
	Grand Total	**935**	**416**	**519**

Source: Denton Planning and Codes, 2010

The maximum density development calculation for the existing Town boundary is shown in Table 4-6. Using the minimum lot allowance scenario for the zoning districts, the available buildable land area could accommodate 3,235 additional dwelling units. Adding the 519 approved vacant lots from Table 4-5 indicates that 3,754 dwelling units upon the current buildable land inventory are possible. This analysis illustrates that Denton's population could potentially grow to 12,619 within its current boundaries.

The calculation for the proposed growth area would add another 442 persons, which equates to a total projection population of 13,061 persons.

Table 4-7 shows a similar analysis using minimum density scenario to calculate dwelling units and population. With this scenario, the existing Town boundary can accommodate a population of 10,377 persons. The total projected population for the minimum density scenario, including the growth area, results in a total population of 10,819.

Table 4-6: Town of Denton Development Capacity Results for Minimum Lot Allowance (Maximum Density)					
CAPACITY WITHIN EXISTING CORPORATE BOUNDARY					
Zoning District	Parcel Area (sq ft)	MLA (sq ft) Note 1	# of Parcels	# of Existing DUs	Development Capacity (DUs) Notes 2 & 3
PN	36,749,732	**8,712**	13	10	2,315
CC	92,709	8,000	12	0	9
CM	50,611	8,000	6	3	2
GC	640,286	8,000	12	8	54
TR	1,123,726	8,000	92	14	95
SR	4,302,542	10,000	56	39	293
MR	1,885,732	**3,000**	130	6	467
Total	44,845,338	-	321	80	3,235
Approved Vacant Lots	-	-	519	0	519
Total Development Capacity					3,754
Population Increase Note 4					**8,597**
Existing Population Note 4					4,022
Total Population Note 5					**12,619**
Percent Increase					214%
EAST AND WEST DENTON INDIVIDUALLY					
West Denton (PN)	25,878,767	8,712	7	4	1,632
Approved Vacant Lots	-	-	0	0	0
Total West Denton Development Capacity					1,632
West Denton Population Increase Note 4					**3,736**
East Denton (non-PN)	8,095,606	Variable	299	54	920
East Denton (PN)	10,870,965	8,712	15	6	683
Total East Denton	18,966,571	Variable	314	60	1,603
Vacant Approved Lots	-	-	519	0	519
Total East Denton Development Capacity					2,122
East Denton Population Increase Note 4					**4,860**
RESIDENTIAL GROWTH AREA (EAST DENTON ONLY)					
SR	1,805,124	10,000	16	15	124
TR	558,525	8,000	9	6	48
Growth Area Total	2,363,649	Variable	25	21	172
Growth Area Population Increase (developable land) Note 4					394
Existing Population Note 4					48
Total Growth Area Population (existing plus growth) Note 6					**442**
TOTAL POPULATION GROWTH (EXISTING BOUNDARY PLUS GROWTH AREA)					
Combined Population Increase Note 7					**9,039**
Existing Population Note 4					4,022
Grand Total Population including Growth Area Note 8					**13,061**
Percent Increase					225%

Note 1 - MLA - Maximum Lot Area

Note 2 - Development Capacities are based on a variable zoning yield in accordance with the Maryland Department of Planning Guidelines (75%)

Note 3 - PN Zoning Development Capacity is calculated at 55% development capacity to account for commercial and retail

Note 4 - Population is based on the 2000 U.S. Census data for the Town of Denton (2.29 persons per household)

Note 5 - Total Population is based on 2008 U.S. Census data for the Town of Denton (est. 4,022 total population) + Projected population growth (excluding Growth Area)

Note 6 - Growth Area Population is the sum of projected growth and the estimated current population (based on the U.S.Census est. 2.29 average persons per household * # of existing DUs)

Note 7 - Combined Population Increase is the sum of population growth within the existing corporate boundary and the growth area population growth

Note 8 - Grand Total Population is based on 2008 U.S. Census data for the Town of Denton (est. 4,022 total population) + Projected population growth in Town + Growth Area population growth

Table 4-7: Town of Denton Development Capacity Results for Maximum Lot Allowance (Minimum Density)					
CAPACITY WITHIN EXISTING CORPORATE BOUNDARY					
Zoning District	Parcel Area (sq ft)	MLA (sq ft) Note 1	# of Parcels	# of Existing DUs	Development Capacity (DUs) Notes 2 & 3
PN	36,749,732	**12,446**	13	10	1,619
CC	92,709	8,000	12	0	9
CM	50,611	8,000	6	3	2
GC	640,286	8,000	12	8	54
TR	1,123,726	8,000	92	14	95
SR	4,302,542	10,000	56	39	293
MR	1,885,732	**7,500**	130	6	184
Total	44,845,338	-	321	80	2,256
Approved Vacant Lots	-	-	519	0	519
Total Development Capacity					2,775
Population Increase Note 4					**6,355**
Existing Population Note 4					4,022
Total Population Note 5					**10,377**
Percent Increase					158%
EAST AND WEST DENTON INDIVIDUALLY					
West Denton (PN)	25,878,767	12,446	7	4	1,141
Approved Vacant Lots	-	-	0	0	0
Total West Denton Development Capacity					1,141
West Denton Population Increase Note 4					**2,614**
East Denton (non-PN)	8,095,606	Variable	299	54	638
East Denton (PN)	10,870,965	12,446	15	6	477
Total East Denton	18,966,571	Variable	314	60	1,115
Vacant Approved Lots	-	-	519	0	519
Total East Denton Development Capacity					1,634
East Denton Population Increase Note 4					**3,741**
RESIDENTIAL GROWTH AREA (EAST DENTON ONLY)					
SR	1,805,124	10,000	16	15	124
TR	558,525	8,000	9	6	48
Growth Area Total	2,363,649	Variable	25	21	172
Growth Area Population Increase (developable land) Note 4					394
Existing Population Note 4					48
Total Growth Area Population (existing plus growth) Note 6					**442**
TOTAL POPULATION GROWTH (EXISTING BOUNDARY PLUS GROWTH AREA)					
Combined Population Increase Note 7					**6,797**
Existing Population Note 4					4,022
Grand Total Population including Growth Area Note 8					**10,819**
Percent Increase					169%

Note 1 - MLA - Maximum Lot Area

Note 2 - Development Capacities are based on a variable zoning yield in accordance with the Maryland Department of Planning Guidelines (75%)

Note 3 - PN Zoning Development Capacity is calculated at 55% development capacity to account for commercial and retail

Note 4 - Population is based on the 2000 U.S. Census data for the Town of Denton (2.29 persons per household)

Note 5 - Total Population is based on 2008 U.S. Census data for the Town of Denton (est. 4,022 total population) + Projected population growth (excluding Growth Area)

Note 6 - Growth Area Population is the sum of projected growth and the estimated current population (based on the U.S.Census est. 2.29 average persons per household * # of existing DUs)

Note 7 - Combined Population Increase is the sum of population growth within the existing corporate boundary and the growth area population growth

Note 8 - Grand Total Population is based on 2008 U.S. Census data for the Town of Denton (est. 4,022 total population) + Projected population growth in Town + Growth Area population growth

WATER/WASTEWATER CAPACITY ANALYSIS

After the initial land-based development capacity analysis was completed, a secondary analysis was conducted to account for the Water and Wastewater Treatment Plant (WWTP) capacities. The goal was to identify the amount of development the current Water/WWTP capacities could support (net of what is currently utilized or allocated to approved development). The information necessary for the analysis was provided by Denton's Department of Public Works. Data included the current Water/WWTP's gross and net capacities in gallons per day (gpd), and the average flow per day per dwelling.

The first step of this analysis was to identify the number of dwellings the current Water/WWTP capacity could support. This was completed with a simple equation (see calculations below). The Water/WWTP net available capacity (Table 4-8) was divided by the town's average flow per day per dwelling unit. The result was the maximum number of dwelling units the current net capacity could support. The equations are below the table.

Table 4-8: Water and Wastewater System Capacities, Usage and Availability

	Water Flow 2009 Gallons per Day (gpd)	Sewage Flow 2009 Gallons per Day (gpd)
2007	419,000	346,000
2008	401,000	420,000
2009	397,000	418,000
Average Flow	405,667	394,667
Permit	777,000	800,000
Balance Available	364,333	405,333
Allocated	11,905	11,107
Net Available	352,428	394,226

Source: Town of Denton, Planning & Codes, 2010

Calculations:
Note: Limiting factor is water due to its lesser remaining capacity (352,428 gpd).
Dwelling Units supported by current water flow net capacity:
352,428 gpd (net available) / 225 gpd (average flow per DU)
Resultant Dwelling Units = 1,566 additional DU's
Population supported by current water flow net capacity:
2.29 persons per dwelling unit (census average population per household) * Number of DU's
Resultant Population Growth =3,587 persons

The previous calculations represent the potential dwelling units and increased population the water system spare capacity can support. Daily flow capacity available currently is 352,428 gallons per day. This capacity is capable of supporting an additional 1,566 dwelling units. An additional 3,587 persons could be added to Denton's population by allocating 100% of the available water capacity to residential-only growth.

Land west of the Choptank River has no planned facilities and cannot be connected cost effectively to existing facilities serving the community east of the river. At the present time,

there are no plans by the Town of Denton or developers to permit or construct facilities west of the river. Consequently all projected growth, dwelling units and population, will be east of the river and supported by existing facilities at current capacities or future increments as may be approved by Denton.

Any growth of Denton will have significant effects on the capacities upon both water and sewerage facilities. These effects are addressed in much more detail within this comprehensive plan's Water Resource Element (Chapter 5).

GROWTH ANALYSIS

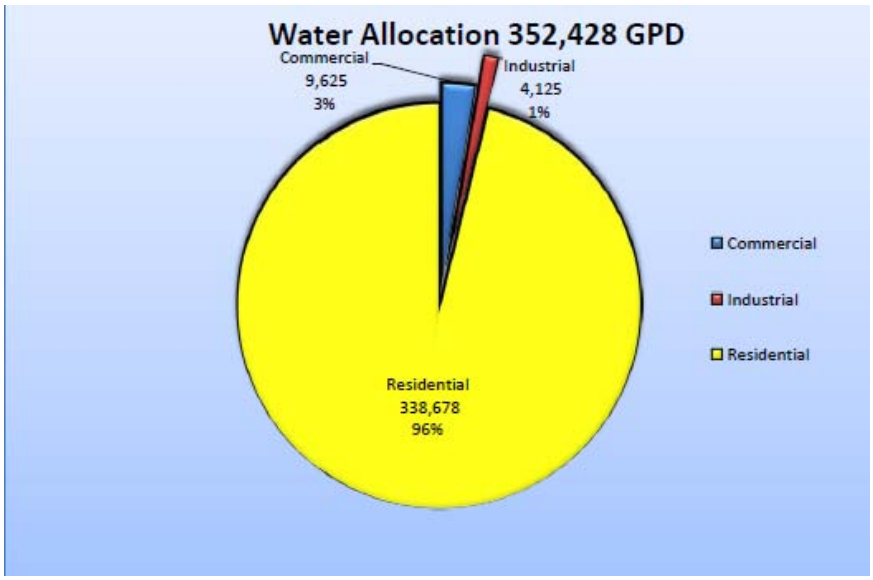
General Considerations

The residential capacity analysis determined that there are 321 developable parcels, an estimated 44,845,338 sq ft. or 1,030 acres of buildable land in Denton. This amount of available land can yield between 2,256 - 3,235 additional potential dwelling units (minimum & maximum density), which equates to 5,166 – 7,408 additional residents. (This count assumes a mix of 55% zoning yield in PN zones and a 75% zoning yield for all other zoning districts, and does not included approved subdivision or growth area.)

Using the Town of Denton's estimation of 2.29 persons per household (Census, 2000); the potential population growth with full build-out, including approved vacant subdivision lots, growth area, and unconstrained by facility provisioning; is capable of reaching a population between 10,819 - 13,061 by the year 2030 (minimum and maximum densities respectively). Growth at this scale is impossible due to existing infrastructure capacity limitations, i.e., Denton's water and wastewater systems. Furthermore, all potential growth is confined to east of the Choptank River and without significant capacity upgrades to the WWTP/water systems, Denton is constrained to 1,566 new eastside-only potential dwelling units and an estimated 3,587 additional residents. Added to the current population estimate of 4,022, Denton's population is constrained to 7,609 eastside residents (assumes all capacity allocated to residential growth).

The area of Denton west of the Choptank River is not scheduled to be serviced by water and sewer during this planning cycle. An estimated 570 "buildable" acres in this area will remain in buildable inventory until a developer is willing to supply the requisite infrastructure with Town concurrence. It is estimated that this buildable inventory can accommodate minimally 1,141 dwelling units and 2,614 persons or maximally 1,632 dwelling units and 3,736 persons depending on residential density (3.5 to 5.0 dwellings per acre respectively).

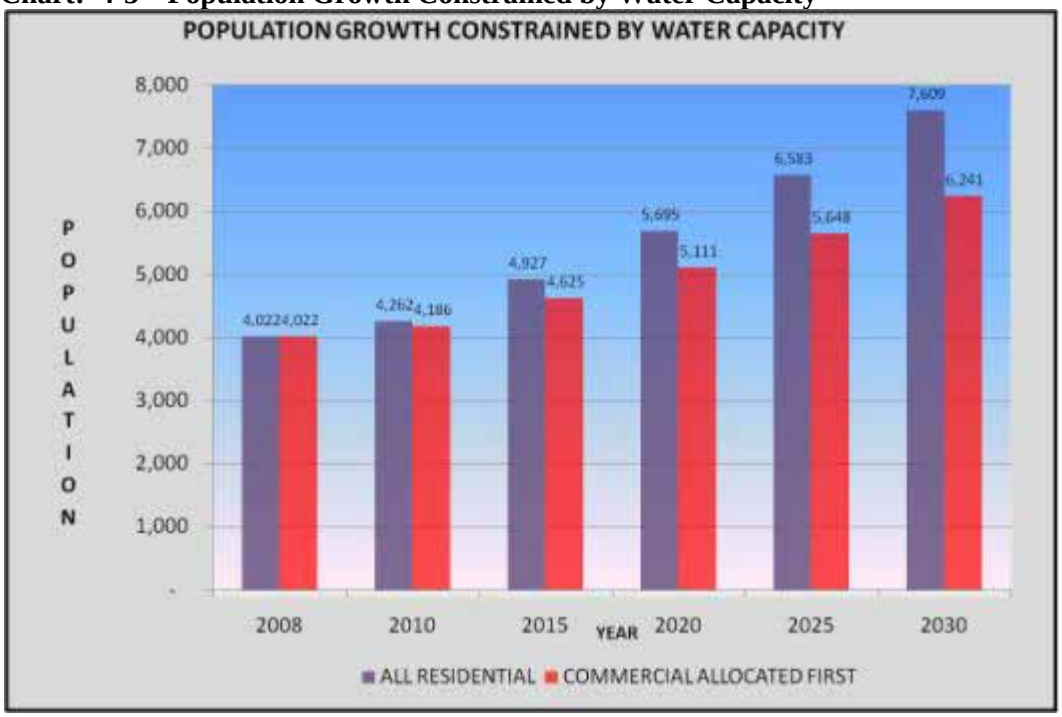
Chart: 4-2 – Water Allocation by Use



Source: Town of Denton, Planning and Codes, 2010

For this planning cycle, Denton has opted not to increase the capacities of either the water system or the WWTP systems (not to be confused with the pending ENR upgrade which enhances the removal of total nitrogen and phosphorus). In addition, to augment the Town and County employment opportunities and stimulate economic opportunity, the planning assumption is to prioritize the remaining water and WWTP capacities first to commercial and industrial growth, and then to residential. As a consequence of this priority, four percent of the remaining systems' capacities, sufficient for future non-residential water and wastewater needs, will be reserved for commercial and industrial purposes (Chart 4-2).

Chart: 4-3 – Population Growth Constrained by Water Capacity



Source: Town of Denton, Planning and Codes, 2010

Table 4-9: Population Projection Constrained by Water Capacity

	2008	2010	2015	2020	2025	2030
Population with Commercial / Industrial allocated first	4,022	4,186	4,625	5,111	5,648	6,241
Population with allocation for residential only	4,022	4,262	4,927	5,695	6,583	7,609

Source: Town of Denton, Planning & Codes, 2010

Chart 4-3 (previous page) and Table 4-9 illustrate two population projections both of which are constrained by water allocation: 1) commercial/industrial uses as first priority, and 2) without any preferential allocation toward commercial/industrial uses. The 2030 population projections are 6,241 and 7,609 with and without commercial/industrial priority respectively.

The planning assumption is that commercial/industrial uses have first priority and their allocations are reserved (i.e., receive priority over residential). As a result, the population throughout the planning period is assumed to be constrained to 6,241 persons.

Infill and Redevelopment

Infill refers to new development in a Priority Funding Area on vacant, bypassed, and underutilized land within built-up areas of existing communities, where infrastructure is already in place. Redevelopment of lots, all in these Priority Funding Areas, recognizes the need to revitalize non-vacant land.

Redevelopment of property can bring revitalization to a neighborhood that is just beginning to show signs of neglect or property that has been totally abandoned. Neighborhood revitalization can use many of the same techniques as other development projects, which require a good plan and incentives to help with the implementation. When looking at areas to be redeveloped, it is also appropriate to determine the cause of the degradation. Some of the reasons could be traffic flow, closures of nearby employment centers, closures of schools, crime, or even the current zoning in an area could be deterrence in the rehabilitation effort. Another key in the success of neighborhoods is the availability of retail and private services. Denton will consider all of these factors as the Town continues to encourage revitalization and infill of vacant lots.

Denton's infill area consists of the vacant and underutilized lands that are classified in the Priority Funding Area (PFA). Updates to the PFA are currently being discussed with the Maryland Department of Planning. Infill lots may also qualify as "receiving areas" for Caroline County's Transfer of Development Rights Program, which is discussed later in this chapter. The Town and Caroline County are currently reviewing the opportunity and feasibility of designating "infill" lots to the program.

The Town's zoning ordinance adopted Residential and Commercial Infill and Redevelopment Guidelines in 2004, which will apply to these areas, insuring that any development is designed to be "context sensitive," taking into account its impacts on adjacent properties. Infill can minimize

the need for new infrastructure, and more efficiently utilize emergency and public safety services for the Town.

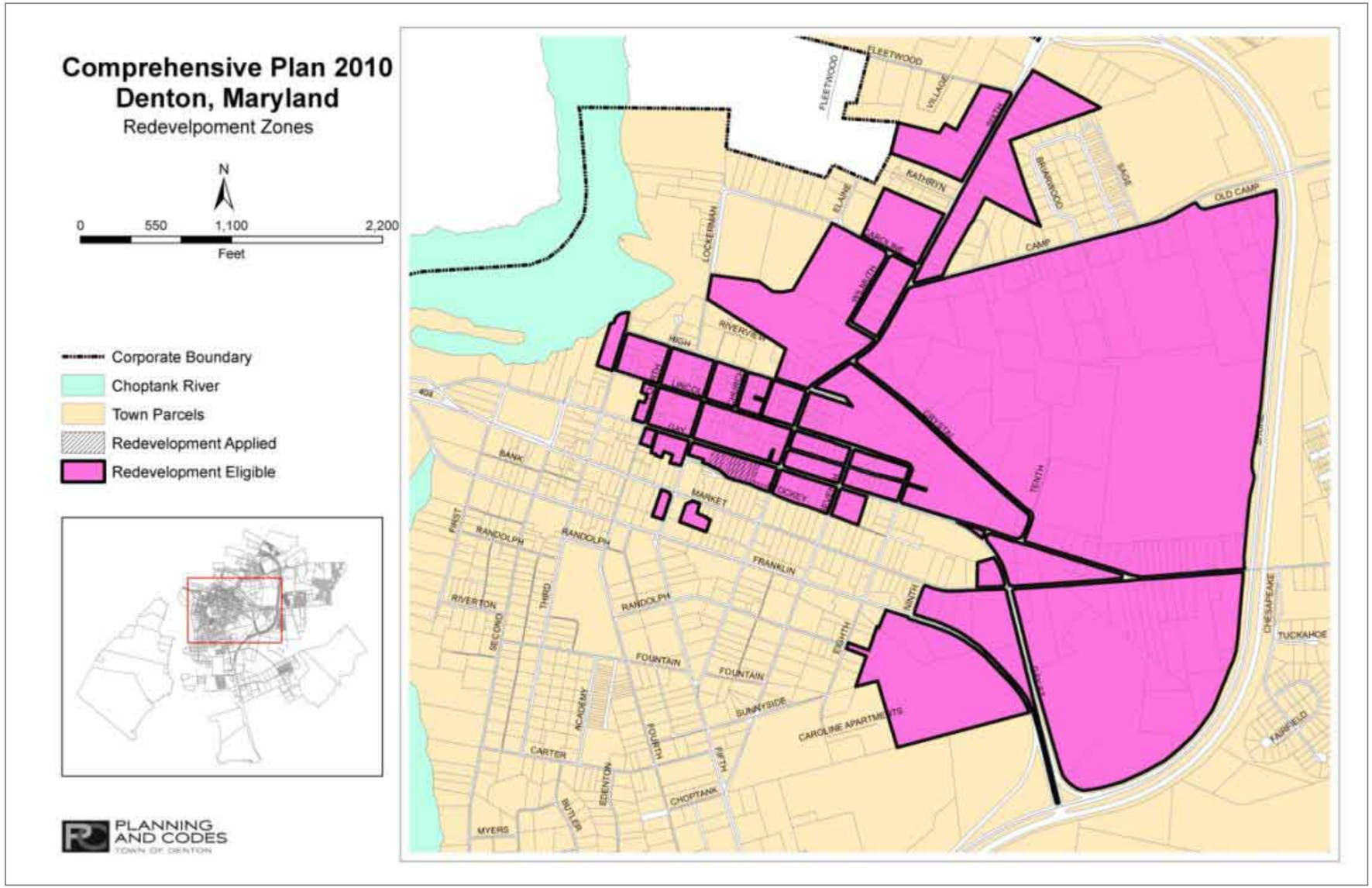
The following are some goals for infill and redevelopment:

- Encourage appropriate infill and redevelopment.
- Encourage restoration and improvement of deteriorated, dilapidated, unsanitary and unsafe structures to avoid the need for demolition.
- Reinforce the existing neighborhood fabric with appropriate infill and redevelopment.
- Make efficient use of existing infrastructure.

In 2006, the Town adopted an "Eligible Redevelopment District" floating zone, which is proposed to be enlarged by this Comprehensive Plan. This district is intended to permit rehabilitation and redevelopment of properties within the Town that are considered blight, slum, or less than an optimal use of the land pursuant to State law and the Town's ordinances and regulations. The intent of this district is to establish a land policy basis for flexible development regulations in order to encourage reinvestment in properties. This zone permits redevelopment with the approval of a master development plan approved by the Town Council. The master development plan shall apply development standards, which if approved, have the flexibility to reduce lot areas, lot frontage, lot widths and yards, and increase in height. The Town Council may apply the Redevelopment District to any lands identified on the Official Zoning Map as being eligible for the Redevelopment District floating zone designation.

To date, there is one approved "Applied" Redevelopment District Floating Zone. The properties are located at the 500 block of Gay Street. This plan proposes a mixture of residential structure types and incorporates the Town's design standards and the Residential Infill Guidelines. The current redevelopment district is a 10-acre area of approximately 58 lots and lies mainly east of the Central Business District. The proposed expansion of the Redevelopment Eligible District as shown in Map 4-4, encompasses a much larger area that extends along Gay Street to MD State Highway 404, and then along MD Route 313 nearly to MD State Highway 404. The proposed expansion of the district increases the total acreage for the district to approximately 285 acres.

Map 4-4: Redevelopment Area



Proposed Rezoning of Properties within Current Town Boundary

The Town's policy to limit residential growth due to water and wastewater system capacity constraints shall be accomplished by a prioritized three-tiered means. First, growth priority is assigned to all redevelopment and any centrally-located infill where infrastructure currently exists. Second, infill growth will be assigned to preferred uses and areas by appropriate rezoning. Finally, growth in the remaining infill areas (usually those not centrally-located) and currently devoid of existing infrastructure may be accommodated by development-funded infrastructure extensions with concurrence by the Town. The second and third prioritizations are not necessarily mutually exclusive.

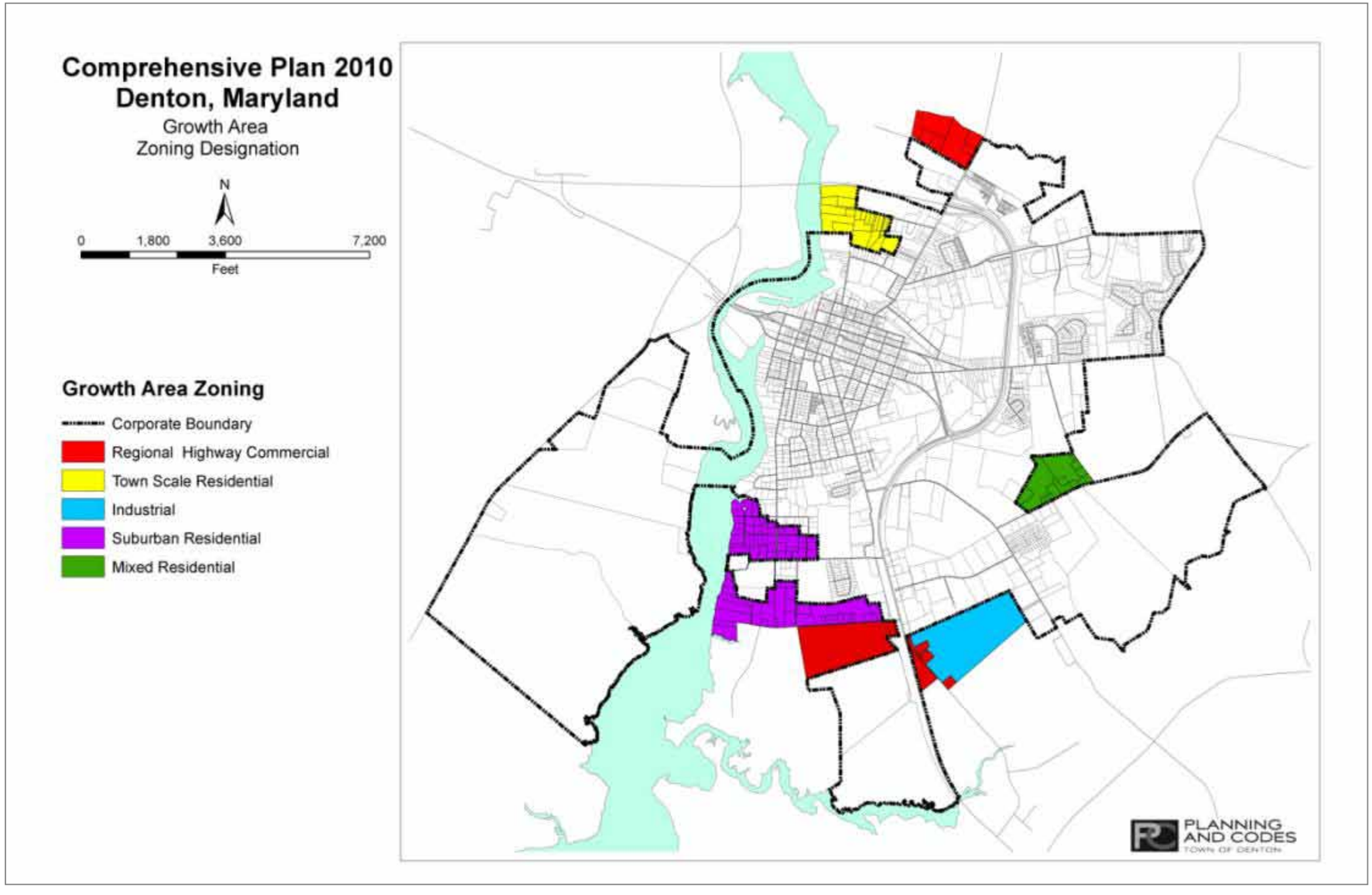
The rezoning strategy is detailed within the Land Use Chapter 3 of the Comprehensive Plan. The rezoning plan decreases residentially zoned area from approximately 1,664 acres to 930 acres (a 44% reduction), increases commercial zoned area from approximately 312 acres to 417 acres (a 34 % increase), and increases industrial to 342 acres from 237 acres (a 44% increase). These changes will give the Town the ability to expand its private sector employment base through the provision of greater business opportunities without adversely impacting housing or population growth.

Growth Area Outside of Current Town Boundaries

The total growth area acreage is approximately 376 acres (an 11% increase). The growth area contains 126 parcels; 58 parcels are less than 1 acre, 63 parcels are between 1 to 10 acres, 3 parcels between 10 to 20 acres, and 2 parcels over 50 acres in size. Some parcels in the growth area are located in the Chesapeake Bay Critical Area where subdivision is constricted by State and local regulations.

Map 4-5, illustrates the Town's total proposed growth area via future annexations. Proposed zoning is Regional Highway Commercial on 115 acres, Industrial on one 76 acre parcel and Residential on the remaining 183 acres. Of the residential properties, 31 acres will be Mixed Residential, 111 acres Suburban Residential, and 41 acres Town Scale Residential.

Map 4-5: Growth Area Zoning Designation



Map 4-6: Growth Area 1

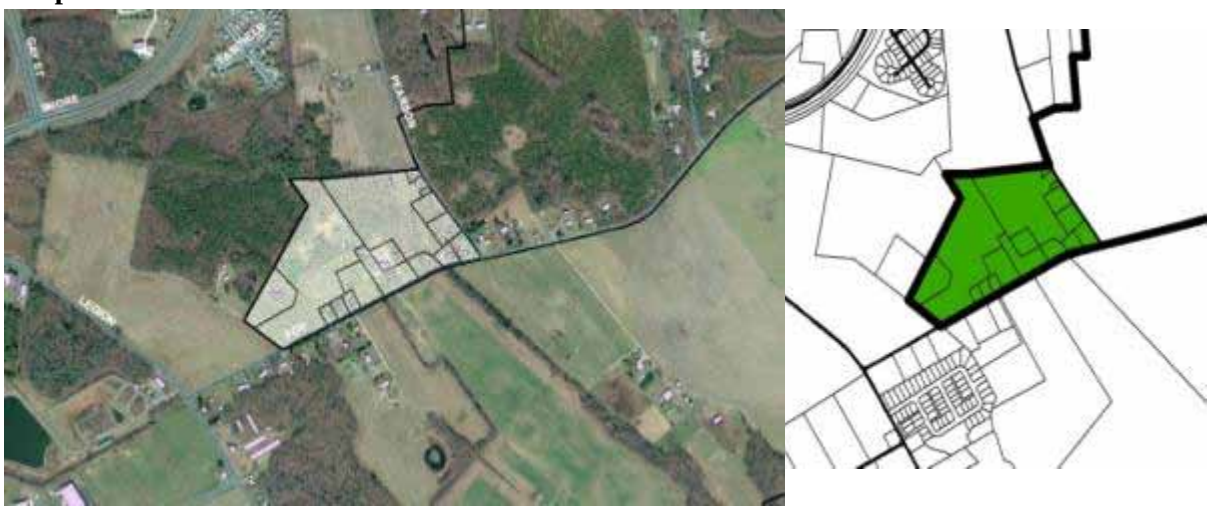
Source: Town of Denton, Planning and Codes, 2010

Maps 4-6 and 4-7 illustrate the proposed growth area located along the southeastern boundary of the current Town limits. As depicted in Map 4-6, lands indicated in purple have a proposed zoning of Suburban Residential allowing for residential maximum density of 4.3 dwelling units per acre. Those parcels west of the red line are within the Chesapeake Bay Critical Area. Map 4-7 shows parcels in red planned to be zoned Regional Highway Commercial. Lastly, one 76 acre parcel, shown in aquamarine, is planned to be zoned Industrial.

Map 4-7: Growth Area 2

Town of Denton, Planning and Codes, 2010

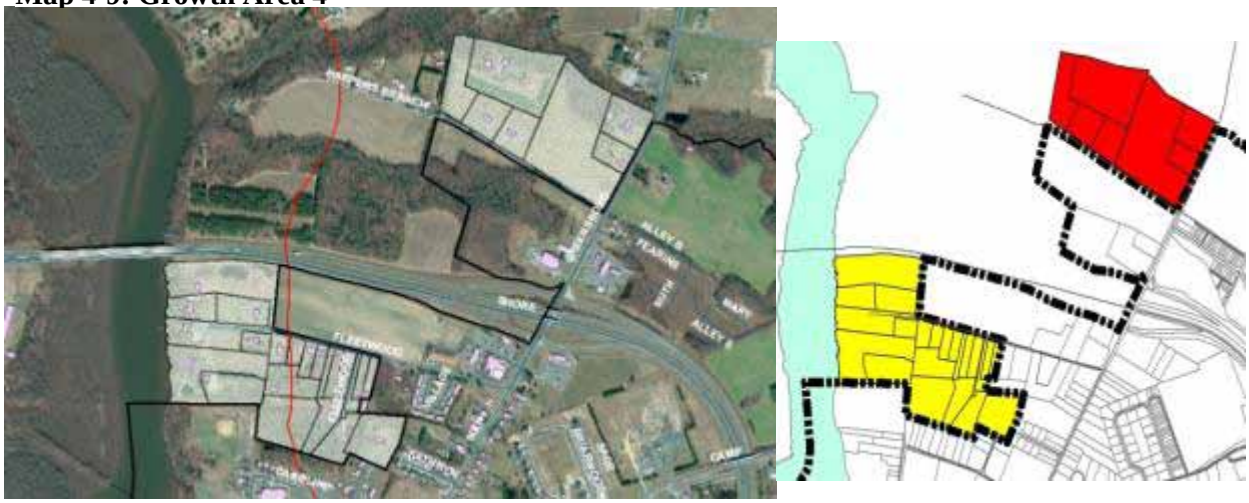
Map 4-8: Growth Area 3



Source: Town of Denton, Planning and Codes, 2010

Map 4-8 shows an area for proposed growth located on the east side of Denton, bordering the current town boundary. These parcels have been assigned a proposed zoning of Mixed Residential that will allow for single family homes (maximum density of 5.8 dwelling units per acre), and/or duplexes (6.0 dwelling units per acre), and/or townhouses (10 dwelling units per acre), and/or multi-family units, (12 dwelling units per acre) developments. Map 4-9 illustrates some parcels northwest of the current Town boundary with a proposed zoning of Town Scale Residential (yellow) that allows for single family homes with 4.3 dwelling units per acre density. Some of these parcels are inside the Chesapeake Critical Area (west of the red line). The parcels on the Town's northern boundary (red) are proposed with a zoning of Regional Highway Commercial.

Map 4-9: Growth Area 4



Source: Town of Denton, Planning and Codes, 2010

IMPACTS OF GROWTH

In implementing its Comprehensive Plan, including annexation and development of properties identified as future growth areas, the Town of Denton is facilitating the process of land conversion from an essentially rural to an urban character. This conversion process not only fulfills an essential role in the overall growth scheme for Caroline County by providing a place to accommodate population growth in compact areas where infrastructure can be extended most efficiently; it enables development of regional commerce, service, and employment centers while supporting the "Smart Growth" principles of the State.

Population growth will impact public services and facilities provided by the Town of Denton. The population projection of 6,241 (constrained by water system capacity) by the year 2030 will be used to calculate the impacts on public facilities and services such as schools, libraries, police, recreation land demand, and fire and rescue (emergency services). The Town does not anticipate development on the west side of Denton within the next twenty years because of proposed zoning, environmental constraints, and the absence of Water/WWTP infrastructure. This growth scenario is the most reflective of the Town's goal to restrain growth during the planning period and protect Denton and the County's natural resources. To illustrate what impact full build-out (maximum density) could have on the Town's resources, the full build-out population of 13,061 will also be addressed.

Sensitive Areas within Growth Area

Article 66B of the Annotated Code of Maryland requires that every county and municipality adopt policies to address the protection of environmentally sensitive areas, including:

- Streams, wetlands, and their buffers;
- (2) 100-year flood plains;
- Habitats of threatened and endangered species;
- Steep slopes;
- Agricultural and forest lands intended for resource protection or conservation; and
- Other areas in need of special protection, as determined in the plan

Denton's growth area is comprised of many parcels along the Choptank River; some of these areas are within the Town's Chesapeake Bay Critical Area (CBCA) and are subject to applicable land use regulations. The CA district imposes specific regulations for the development, use, and conservation of land within that area.

The Town's Zoning Ordinance includes a section requiring compliance to certain environmental standards for all subdivisions and development requiring site plan approval. These standards include:

- Perennial stream no-disturbance buffer
- Intermittent stream no-disturbance buffer
- Sensitive soil no-disturbance buffer
- Nontidal wetland buffer

- Steep slopes
- Habitats of rare, threatened, and endangered species, reviewed by the Maryland DNR and Maryland Department of Natural Resource's Heritage and Biodiversity Conservation Program (HBCP)

Steep Slopes

Steep slopes are considered sensitive because of their potential for soil erosion, slope instability, and for the increasing speed with which runoff is carried into adjacent streams and rivers. The degrees to which these lands are developed depend on the density of development and the carrying capacity of the slope due to the underlying geology. Since most steep slopes in Caroline County are near or along tidal rivers and streams, the Chesapeake Bay Critical Area District regulations protect these areas along with the Town's Environmental Standards ordinance addressed under the Buffer paragraph. Map 4-10, Topographic Contours demonstrates areas of close contour lines, potential areas of steep slopes.

Buffers

Buffers serve as protection areas adjacent to streams to preserve some of the biological and hydrological integrity of the stream basin. These areas act as run-off and groundwater pollution control systems by filtering pollutants through the soil and root zone of natural growth. For example, microscopic organisms that inhabit the soils in a forested buffer assist in the decomposition of pollutants much like microbes in a sewage treatment plant. Buffers along wetlands, shorelines, and streams are currently governed by federal, state, and local regulations. Section 128-149 of the Denton Town Code, Environmental Standards for all subdivisions and development requiring site plan approval governs buffer requirements for the Town:

A. Perennial stream no-disturbance buffer.
    1) A one-hundred-foot natural buffer from all perennial streams shall be required for all development. Permanent or temporary stormwater and/or sediment control devices shall not be permitted in this buffer.
    2) This buffer requirement may be reduced to no less than 50 feet by the Planning Commission for the following:
        a) If evidence is provided that the design, construction and use of the site will provide the same or better protection of water quality as the one-hundred-foot buffer, and if evidence is provided that said development will meet all other applicable requirements, as required.
        b) Road crossings, if disturbance is minimized.
        c) Other public or community facilities provided disturbance is minimized in so far as possible.

B. Intermittent stream no-disturbance buffer.
    1) A fifty-foot buffer from all intermittent streams shall be required for all development. Permanent or temporary stormwater management and sediment control devices shall not be permitted in this buffer.
    2) This buffer requirement may be waived by the Planning Commission for the following:

a) Road crossings, if disturbance is minimized.
b) Other public or community facilities provided disturbance is minimized in so far as possible.

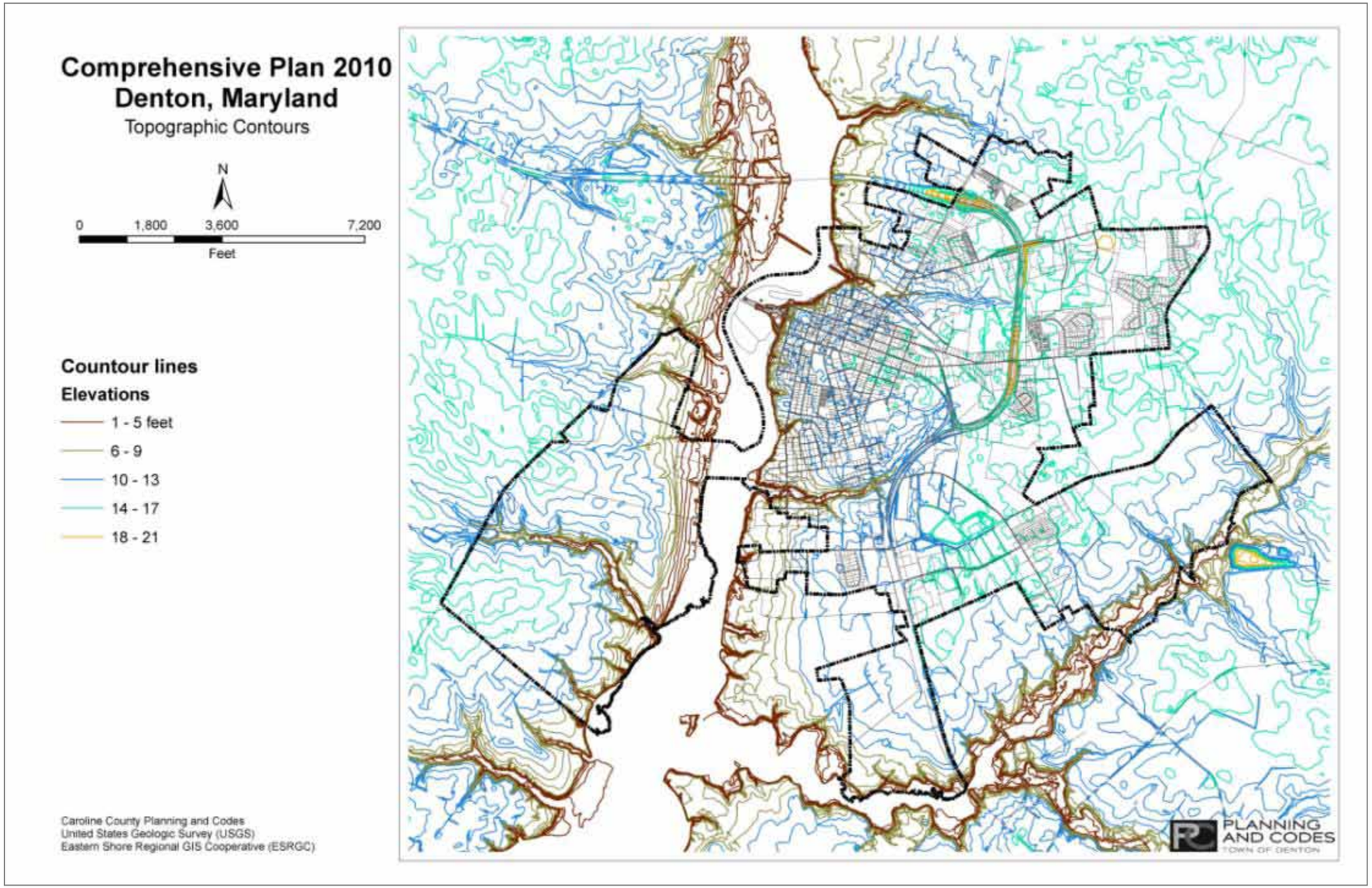
C. Sensitive soil no-disturbance buffer. The one-hundred-foot perennial stream buffer shall be expanded to include contiguous one-hundred-year floodplain and nontidal wetlands. In addition, the one-hundred-foot perennial stream buffer shall be expanded to include hydric soils, highly erodible soils and soils on slopes greater than 15% that are contiguous with the perennial stream, any one-hundred-year floodplain adjacent to the stream, or any nontidal wetlands adjacent to the stream to a maximum distance of 300 feet.

D. Nontidal wetland buffer. A twenty-five-foot setback from all nontidal wetlands shall be required for all development around the extent of the delineated nontidal wetland except as permitted by the U.S. Army Corp of Engineers and the State of Maryland, Department of Natural Resources, Nontidal Wetland Division.

E. Steep slopes.
1) No structure or impervious surface shall occur on any slope with a grade of 15% or more covering a contiguous area of 10,000 square feet or more.
2) On slopes between 15% and 25%, good engineering practices shall be used to insure sediment and erosion control and slope stabilization before, during and after disturbance activities and to minimize cut and fill.
3) A minimum fifty-foot buffer shall be established between development and the crest of slopes in excess of 25%.

The Forest Conservation Act is regulated by the Maryland Department of Natural Resources, but implemented and administered by local government. Chapter 60 of the Denton Town Code serves as authority for implementation of the Forest Conservation Act. The Town's Forest Conservation ordinance requires at least a 50 foot buffer adjacent to intermittent and perennial streams for afforestation and reforestation. The Town also addresses buffer requirements in the Critical Area Program; a 100 foot buffer is required where a tract of land borders tidal water, tidal wetlands or tributary streams and which is proposed for development.

Map 4-10: Topographic Contours



100 Year Floodplains

The Federal Emergency Management Agency has designated 100-year floodplains in the vicinity of the Choptank River and tributaries for Denton. The 100-year floodplain is the land area along a stream that is susceptible to inundation by a flood of a magnitude that would be expected to occur on average only once every 100 years as a result of rainfall and runoff from upland areas. To state it another way, it is a flood that has a 1% chance of occurring in any given year.

The Town Code, Chapter 58, Floodplain Zones, provides a unified, comprehensive approach to floodplain management which addresses natural floodplain functions and the federal and state programs concerned with floodplain management. Floodplains are an important asset to the community. They perform vital natural functions such as temporary storage of floodwaters, moderation of peak flood flows, maintenance of water quality, groundwater recharge, prevention of erosion, and habitat for diverse natural wildlife populations, recreational opportunities, and aesthetic quality. These functions are best served if floodplains are kept in their natural state. Wherever possible, the natural characteristics of floodplains and their associated wetlands and water bodies should be preserved and enhanced.

Public Schools

Denton is currently served by three public schools, Denton Elementary (Grades K-5, 635 Students), Lockerman Middle School (Grades 6-8, 781 Students), North Caroline High School (west of and outside Denton's corporate limits) (Grades 9-12, 1168 Students), and one private school, Wesleyan Christian School. The public school system in total is currently over-burdened and includes elementary schools in Greensboro (Grades K-5, 672 Students), Ridgely (Grades K-5, 524 Students), Preston (Grades K-5, 418 Students), and Federalsburg (Grades K-5, 462 Students); another middle school, Colonel Richardson Middle **(**Grades 6-8, 415 Students) in American Corner and another high school, Colonel Richardson High, **(**Grades 9-12, 576 Students) in American Corner. A Career and Technology Center (Grades 9-12) is also part of the North Caroline High School complex.

The Caroline County Board of Education has begun to observe a growing student population problem that is now challenging the capacities of three northern county elementary schools, including Denton's.

The mid-2008 population estimate for Denton is 4,022; the projected population for the year 2030 is 6,241, constrained by water capacity and 13,061 unconstrained. The analysis for full build-out is only a planning scenario and not the goal of the Town to reach full build-out population.

The projected dwelling unit growth amounts are 1,566 (constrained) and 3,926 (unconstrained).

Student population projections for both scenarios are:

- Constrained: 1,566 DU over the next 22 years * 0.476 = 745 total students
- Unconstrained: 3,926 DU over the next 22 years * 0.476 = 1,869 total students

The number of additional students per year for each school is determined by the projected new dwelling units multiplied by the student yield calculator for Caroline County schools.

Additional growth in Denton will exacerbate certain schools' overcrowding. Below are student population calculations by type of school:

Constrained:

- Elementary: 337 students or 15 per year (1,566 DU * 0.215)
- Middle: 167 students or 8 per year (1,566 DU * 0.107)
- High School: 241 students or 11 per year (1,566 DU * 0.154)

Unconstrained:

- Elementary: 844 students or 38 per year (3,926 DU * 0.215 elementary)
- Middle: 420 students or 19 per year (3,926 DU * 0.107 middle school)
- High School: 605 students or 27 per year (3,926 DU * 0.154 high school)

Table 4-10: Denton Elementary Student Projections (Denton impact only):

	2008	2010	2015	2020	2025	2030
Students (1,566 du)	578	608	683	758	833	908
Students (3,926 du)	578	654	844	1,034	1,224	1,414
State Rated Capacity	664	664	664	664	664	664
Facility Utilization (1,566 DU's)	*87%*	*92%*	*103%*	*114%*	*125%*	*137%*
Facility Utilization (3,926 DU's)	*87%*	*98%*	*127%*	*156%*	*184%*	*213%*

Source: Models & Guidelines, Volume 25, Writing the Municipal Growth Element to the Comprehensive Plan, May 2007, Caroline County Comprehensive Plan Draft June 2009, North County Elementary Task Force Report, May 2009, Appendix E.

Table 4-11: Lockerman Middle School Student Projections (Denton Impact Only):

	2008	2010	2015	2020	2025	2030
Students (1,566 DU's)	795	811	851	891	931	971
Students (3,926 DU's)	795	833	928	1023	1118	1213
State Rated Capacity	977	977	977	977	977	977
Facility Utilization (1,566 DU's)	*81%*	*83%*	*87%*	*91%*	*95%*	*99%*
Facility Utilization (3,926 DU's)	*81%*	*85%*	*95%*	*105%*	*114%*	*124%*

Source: Models & Guidelines, Volume 25, Writing the Municipal Growth Element to the Comprehensive Plan, May 2007, Caroline County Comprehensive Plan Draft June 2009, North County Elementary Task Force Report, May 2009, Appendix E.

Table 4-12: North Caroline High School Student Projections (Denton Impact Only):

	2008	2010	2015	2020	2025	2030
Students (1,566 DU's)	1,142	1,164	1,219	1,274	1,329	1,384
Students (3,926 DU's)	1,142	1,196	1,331	1,466	1,601	1,736
State Rated Capacity	1,213	1,213	1,213	1,213	1,213	1,213
Facility Utilization (1,566 DU's)	*94%*	*96%*	*100%*	*105%*	*110%*	*114%*
Facility Utilization (3,926 DU's)	*94%*	*99%*	*110%*	*121%*	*132%*	*143%*

Source: Models & Guidelines, Volume 25, Writing the Municipal Growth Element to the Comprehensive Plan, May 2007, Caroline County Comprehensive Plan Draft June 2009, North County Elementary Task Force Report, May 2009, Appendix E.

These projections (Tables 4-10 and 4-12) show that on or before the year 2015 North Caroline High and Denton Elementary could reach 100% capacity under the constrained population projection, simply from Denton student population growth and irrespective of other Caroline County or its municipalities' growth. The North County Elementary School Task Force Report dated May, 5, 2009, discussed a recommendation that a new intermediate school be built on property adjacent to North Caroline High (since revised to consider another location, yet to be determined, served by water and wastewater facilities). This new school is planned by 2015 and will alleviate the overcrowding for Denton Elementary along with Ridgley and Greensboro Elementary Schools. Additional renovations or redistricting of North Caroline High attendance area could be considered as possible solutions for overcrowding. Clearly, any possible considerations must be consistent with the Caroline Board of Education policies. Lockerman Middle School will reach capacity sometime between 2015 and 2020, again simply from Denton

student population growth and irrespective of other Caroline County or its municipalities' growth.

Libraries

American Library Association standard is 1,000 square feet of library space needed per 10,000 residents. Consequently, neither a predicted population of 6,241 or 13,061 would facilitate a need for expanding the Denton Branch of the Caroline County Public Library. The conclusion is parochial in nature as it does not address the impacts of growth from other municipalities and the county. The library branch located in Denton has a service area classification of 30,000 residents. *Source:http://library.publiclibraries.org/county/MD/CarolineCounty.html.*

Police

The Town of Denton currently provides thirteen (13) full-time officers, one (1) part-time, and two (2) administrative personnel. A national standard used by the International Association of Chief of Police and other agencies calculates needs for police at 2.6 officers for every 1,000 persons. The projected population total of 6,241 residents in 2030 would suggest that a total of sixteen (16) full-time officers would be needed. That would call for an increase of approximately three (3) full-time officers. If the unconstrained population were to increase to 13,061 by year 2030 that would create a need for thirty-four (34) full-time officers, representing an increase of twenty-one (21) full-time officers.

Fire and Rescue

The Denton Volunteer Fire Department is located at 400 South Fifth Street. There are approximately 50 active volunteer fire personnel, two ambulances, two fire engines, one tower truck, one rescue truck, and one tanker truck. The Insurance Services Office developed a standard that projects the number of in-service fire engines that would be required, based on population. Using the following formula:

> Number of Engines = 0.85 + [0.12 * (population in 1,000's)]
> Personnel = 1.59 personnel / 1,000 residents
>
> *Source; Managing Maryland's Growth: Writing the Municipal Growth Element to the Comprehensive Plan; Prepared by the Maryland Department of Planning as part of Maryland's Managing Growth Publications May 2007*

Denton currently has two fire engines in service. The projected population of 6,241 persons would not require an increase in fire engines. If the unconstrained population reached the projection of 13,061, the requirement would be 2.41 (round to 3) engines. Additional personnel would not be required for either growth scenario.

Recreation Land Demand

Denton currently has 157 acres of park and recreation land, which are dedicated public parks serving the existing population. The National Recreation and Park Association recommends a standard of 30 acres per 1,000 persons. A projected population of 6,241 would require approximately 187 acres for recreational uses, an additional 30 acres. An unconstrained projection of 13,061 total residents would require an additional 235 acres of recreational land.

Financing Mechanisms to Support Necessary Public Services and Infrastructure

Public Services and infrastructure costs are financed through five mechanisms: 1) property taxes, water and sewer allocation fees, 3) impact fees, and 4) negotiated exactions associated with Development Rights and Responsibility Agreements (DRRA's), and 5) State funding.

Due to the Town's decision not to increase East Denton water and wastewater capacities during the two-decade planning period, additional debt costs (excluding the WWTP upgrade to ENR) are anticipated to be near zero. Costs associated with the expansion of the distribution components of these systems for development projects will be borne by the developers.

To cover debt and operating costs for the existing water and wastewater systems, water and sewer allocation fees are assessed. These rates vary depending upon use and are payable in two stages: 1) 25% prior to preliminary approval and 2) 75% prior to plat recordation.

Current fees water and sewer allocation fees for single family residences are: $4,000 for water and $5,000 for sewer (multi-family dwellings have a different rate). Commercial rates are dependent upon fixtures and equivalent dwelling unit values. Industrial rates are $4,000 for the first 40,000 square feet and $1,000 for each additional 20,000 square feet of floor area. Certain areas of the Town have a $500 per equivalent dwelling unit surcharge.

In 2007, the Town instituted a schedule of impact fees associated with residential and non-residential unit development (excluding farm and public uses). These fees were established to provide a means of financing public facilities needed to accommodate new development in a safe and timely manner. Residential fees are dwelling unit based. Non-residential fees are based on the square feet of floor area and the proposed use. Impact fees are paid as permits are issued.

Currently the impact fees for residential are: $3,384 for a one bedroom residence and $4,362 for a two or more bedroom residence. Non-residential rates are: $1.67 per square foot of office, $1.12 per square foot of retail, $1.69 per square foot for live/work units, and $1.12 per square foot for hotels. *Source: An Economic, Fiscal and Capital Asset Impact Analysis of Thirteen Proposed New Developments in the Town of Denton, Maryland, Dean D. Ballas, PhD., President, Urban Analytics, Inc. Alexandria, Virginia*

The impact fees are allocated across Town departments according to the schedule in Table 4-13.

Table 4-13: Schedule of Impact Fee Allocation

General Government	Finance	Planning & Codes	Parks	Police	Public Works	Highway	Economic Development	Fire
13%	2%	2%	18%	8%	3%	30%	12%	12%

Denton property taxes, evaluated annually based upon assessed valuations and appropriate rates ensure adequate revenue to cover operational costs as well as capital costs not entirely covered by impact and allocation fees or state-provided funding.

DRRA exactions are determined through negotiations with the developer to ensure adequate funding for provisioning of facilities and other negotiated items. Currently, Denton has only one fully executed DRRA. All future Planned Neighborhoods will require DRRA's.

State grants are awarded for projects within Priority Funding Areas. Each grant is subject to application by the Town. Other state sources of funding are: 1) Highway User Fee for highway maintenance, operations, and debt servicing, 2) State Police Aid, 3) Income Tax, Emissions, and Amusement Tax, 4) Traders' License Fees and Chesapeake Bay Critical Area funding.

Town's Policies;

There will be no new development approved within the town unless adequate public facilities and infrastructure either already exist or have been planned and funded for construction within a reasonable time period.

Improvements recommended for areas within the Town should receive highest funding priority. The phasing of infrastructure, transportation improvements, and community facilities requiring public investment will occur over time in conjunction with coordinated Town and County Capital Improvement Programs.

Stormwater Management

Stormwater runoff is generated when rain and snowmelt flows over land or impervious surfaces, and this precipitation does not percolate into the soil. Runoff can accumulate debris, sediment, chemicals, and other pollutants as it moves across surfaces. Pollutants can adversely affect water quality if it is not treated. Any new development that occurs within the planned growth area and infill lots will be subject to the Town of Denton's Stormwater Management standards. These standards specify that no development for residential, commercial, industrial or institutional uses without having provided stormwater management measures that control or manage runoff from such developments.

Denton's current Stormwater Management ordinance was recently updated to meet changes in MDE's Stormwater Management Act of 2007. The Act requires that Environmental Site Design (ESD), through the use of nonstructural best management practices and other better site design techniques, be implemented to the maximum extent practicable (MEP). The goal is to maintain the predevelopment runoff characteristics even after development. The new practices will reduce stream channel erosion, pollution, siltation, and sedimentation, and local flooding, and use structural BMP's only when necessary. There are significant changes within the document that may create a need to update the current development review process.

Within the Critical Area District development and redevelopment will be required to identify stormwater management practices appropriate to site development that minimize adverse impacts to water quality caused by stormwater and which achieve the following standards:

1) Development and redevelopment proposals shall demonstrate that the best management practices for stormwater that result in reduction of 10% of predevelopment pollutant loadings.

2) If the required improvement of 10% will not be achieved, then offsets must be provided as approved by the Town. Offsets may be provided either on or off site as determined by the Town, provided that water quality benefits are equivalent, that the benefits are obtained within the same watershed, and that the benefits can be determined through the use of modeling, monitoring, or other computation of mitigation measures. Offsets must first be examined for use on site. Secondly, if it can be demonstrated that due to site constraints offsets cannot be achieved on site, then off-site mitigation, in the Critical Area, shall be used. Lastly, if neither on-site nor off-site mitigation cannot be achieved then a fee-in-lieu, paid to a dedicated Town Stormwater Fund, may be approved.

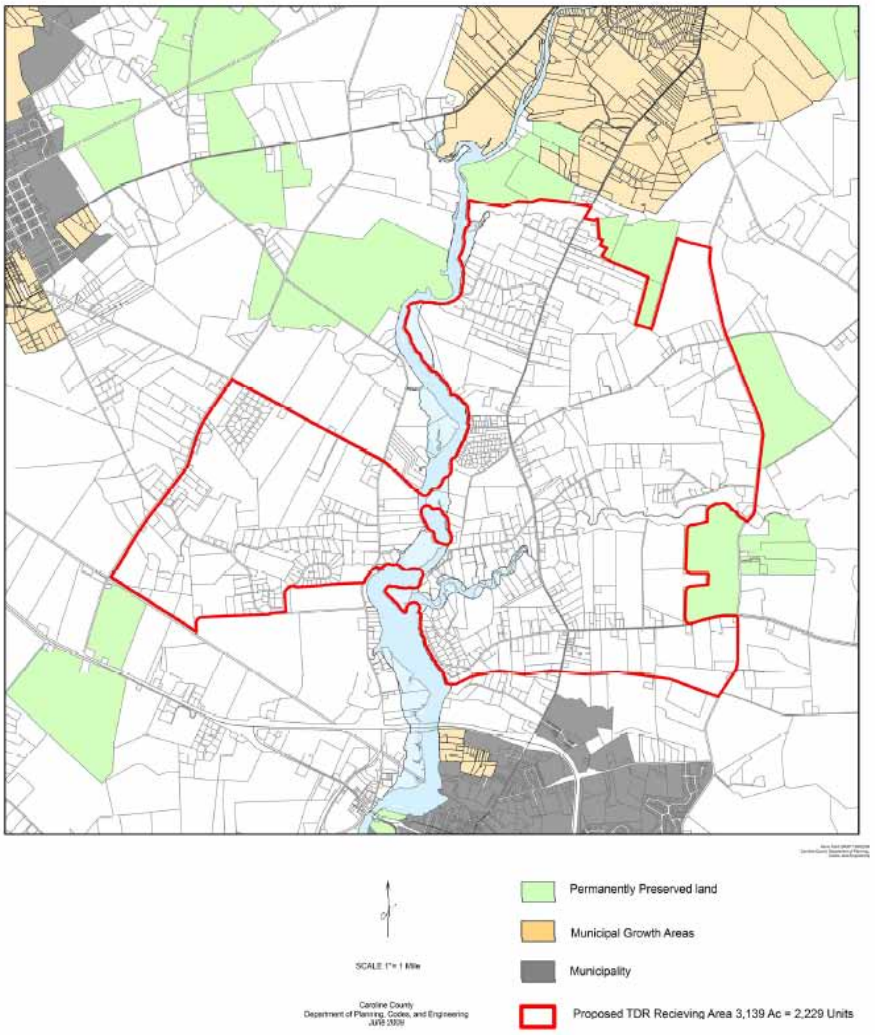
Transfer of Development Rights (TDR)

In 2006 Caroline County adopted a Transfer of Development Rights (TDR) program that allows the transfer of development rights from areas designated as sending areas to areas designated as receiving areas or municipal growth areas. The TDR program protects and preserves agricultural land and gives the owners of such property an equitable alternative to development, and provides an essential County-wide growth management tool.

TDR programs are used to preserve agricultural land and historic landmarks, to achieve efficient, concentrated growth patterns, to protect sensitive natural environments, to protect water quality, or simply to provide a convenience to property owners. When TDRs are used to protect a resource, the resource area is officially described (by maps or words) and this becomes a "sending area" where development rights may be transferred to another property in a designated "receiving area." The easements recorded in the sending area when rights are transferred serve to permanently protect the resource from development. When rights are transferred from a parcel (called the sending parcel), an easement or other notation is recorded in the land records to indicate that the development rights cannot be exercised any longer on that parcel.

The parcel to which the development rights are transferred (called the receiving parcel) is now eligible to exercise additional development rights. Proof of eligibility may take the form of a certificate issued to the purchaser of the development rights, a notation on a subdivision plat, a zoning certificate or some other instrument. Source: *Smart, Green & Growing Planning Guide Publication No. 2009-001*

Map 4-11: Caroline County Proposed TDR Receiving Area



Caroline County Planning and Codes.Caroline County Comprehensive Plan Draft, June 2009.

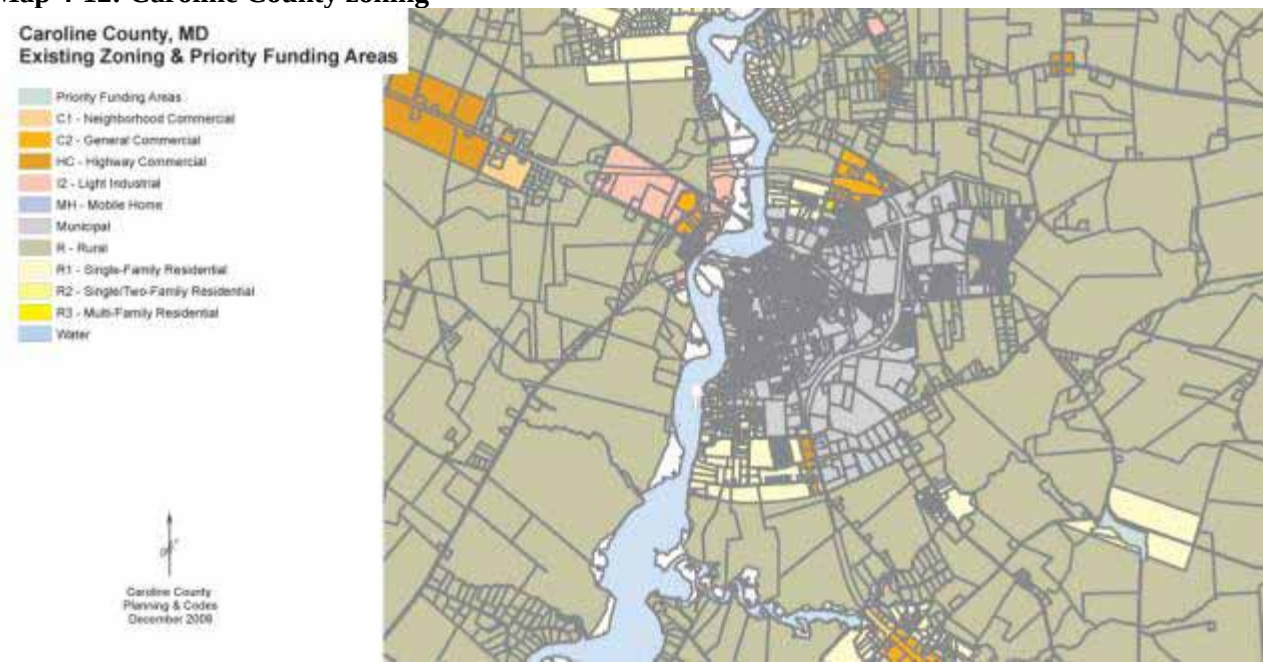
The current TDR area borders the northern limits of Denton; the proposed change (Map 4-11) moves the TDR boundary farther north as negotiated between the County and the Town. The new TDR boundary gives the Town the opportunity to expand the greenbelt, with Caroline County's concurrence, to include some additional parcels north of Town. The change also coincides with the Town's growth area parcels along the northern boundary line. The Town and County are also discussing the feasibility of including "infill and redevelopment" lots as possible "receiving areas" for the County. An inter-jurisdictional agreement is sought whereby any future dwelling units constructed in Denton will have a "TDR-fee" dedicated to fund land preservation within the County and Town concurred to greenbelt.

Greenbelt, Rural/Urban Transition Area

The term "greenbelt" refers to any area of undeveloped natural land that has been set aside near urban or developed land to provide open space, offer light recreational opportunities or contain development. Greenbelts are also important in efforts to limit sprawl, which is the tendency for cities to spread out and encroach on rural lands and wildlife habitat. The Greenbelt shown on Map 4-11 delineates the build-out limits of the Town and shows a place where the Town's vision is for an area to be permanently retained in very low intensity uses, dominated by agriculture, open space and forestry. The Town will work with the County to devise strategies to protect Denton's Greenbelt, including prioritizing this land for preservation through the use of Federal, State, and/or County programs.

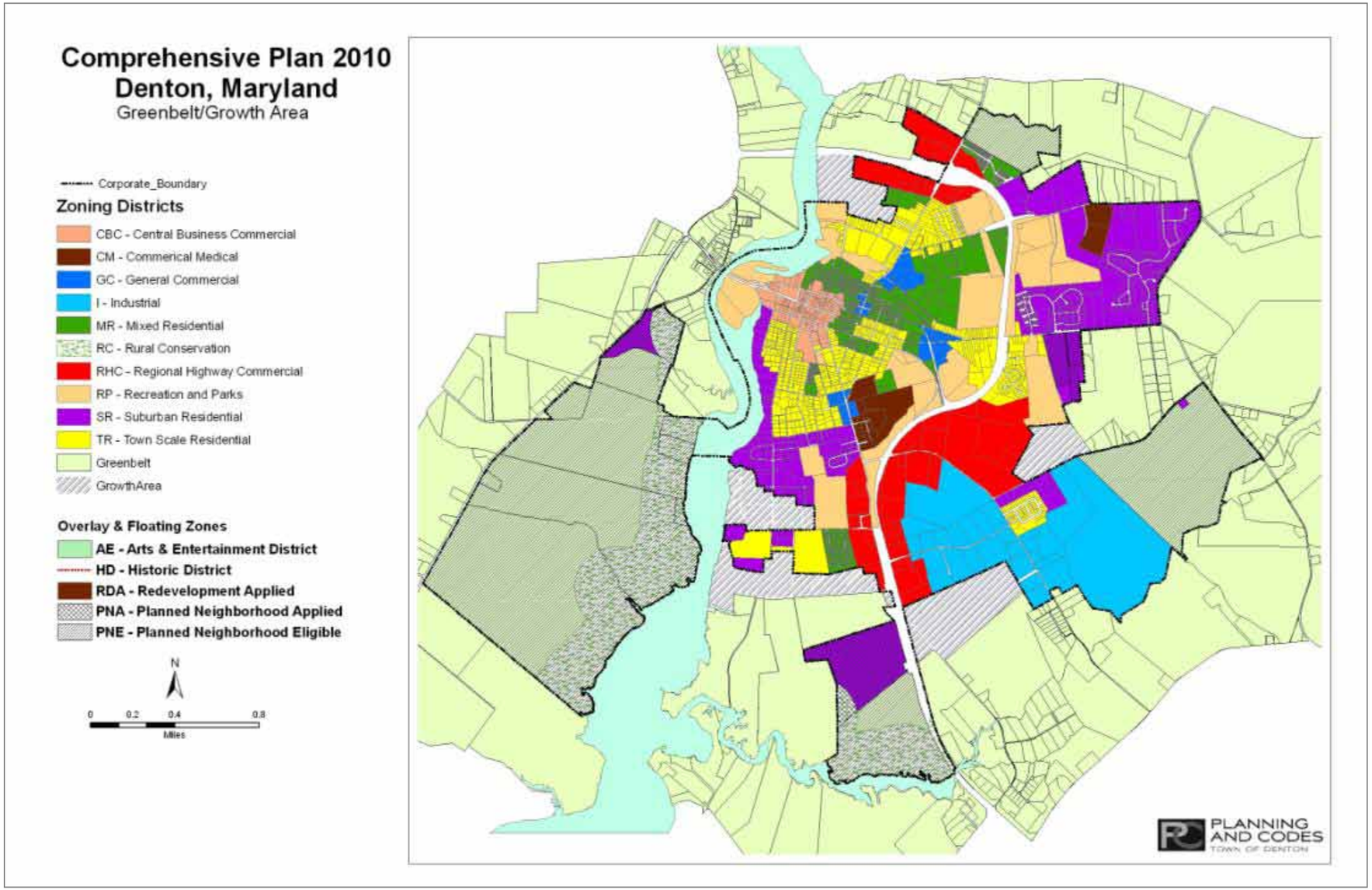
Land owners in this area will be urged to participate in any of the conservation programs available such as the Maryland Agricultural land Preservation Foundation (MALPF) farm easement purchase program and the conservation easement programs offered by the Eastern Shore Land Conservancy (ESLC), the Maryland Environmental Trust (MET), and the Maryland Historic Trust (MHT). The MALPF allows rural property owners to derive equity from their lands without actually developing them, in return for placing easements on the property which limit or prohibit its future development. The ESLC, MET, and MHT conservation easement programs provide tax credits and estate planning benefits to property owners who voluntarily place lands into these programs.

Map 4-12: Caroline County zoning



Source: Caroline County, Maryland Planning and Codes, 2009

Map 4-13: Proposed Growth Area/Greenbelt



These conservation areas help create a permanent buffer and greatly limit development in the greenbelt. Map 4-12 illustrates Denton and surrounding parcels that have been clipped from Caroline County's existing zoning map. As shown in Map 4-13, the Town's proposed greenbelt is composed almost entirely of county parcels that are zoned "rural".

SUMMARY AND RECOMMENDATIONS

During the two decade planning period, Denton's growth is projected to occur entirely east of the Choptank River and will be constrained by the existing capacities of the Wastewater Treatment Plant and Water systems. No growth is projected to occur west of the Choptank River.

East Denton land capacity, based upon proposed land uses and densities, is more than adequate to accommodate projected growth as constrained by the existing systems' capacities. Growth is estimated to increase Denton's total population from 4,022 to 6,421 persons (60% increase) beginning slowly due to current economic conditions and accelerating at a 2.0 percent annual compound growth rate.

Annexation of growth areas will be considered, however prioritized first toward those areas designated for commercial/industrial uses, followed by residential areas which may wish to be annexed for the sole purpose of obtaining access to public water and sewer facilities.

Those commercial and industrial uses already within the town boundary and their needs for water and sewer will take priority over residential growth within the current town limits and any annexation sought by property owners within the designated growth area.

Residential projects in the Town's redevelopment areas shall have priority over infill development for residential purposes.

The cost of facilities servicing any development, whether residential, commercial, or industrial will be borne by the developer. Impact fees, water and sewer allocation fees, and developer exactions as negotiated will be collected as development occurs to provide funding for necessary Town facilities, emergency services, parks, police, and emergency services.

CHAPTER 5 - WATER RESOURCES ELEMENT

INTRODUCTION

This plan serves as the Town of Denton's Water Resource Element mandated through House Bill 1141by the Maryland State Legislature in 2006. House Bill 1141, Land Use – Local Government Planning, requires that each municipality that exercises planning and zoning authority add a Water Resources Element and Growth Element to its Comprehensive Plan.

The Water Resource Element contains the framework for water resource protection and water quality improvements for the Town. The preparation of the WRE ensures that future comprehensive plans reflect the opportunities and limitations presented by local and regional water resources.

The recommended water resources goals and policies presented in this plan focus on reducing the harmful impacts on water quality from development and extension of facilities to accommodate an increase in population.

The Water Resources goals for Denton are:

- Maintain a safe and adequate water supply and adequate capacities for wastewater treatment to serve projected growth.

- Take steps to protect and restore water quality; and to meet water quality regulatory requirements in the Upper Choptank River Watershed.

- Take steps to reduce nutrient loads from agricultural land uses that contribute to loading in the Choptank River Watershed.

- Promote residential, commercial and industrial water conservation measures in order to reduce inflow to the wastewater treatment facility.

Objectives to support these goals are:

- Assure that existing and planned public water systems meet projected demand.

- Assure that existing and planned public wastewater collection and treatment systems meet projected demand without exceeding their permitted capacity.

- Assure that the Town's stormwater management policies reflect the most recent state requirements, and encourage ESD practices in both new and re-development.

- Maintain land use patterns that limit adverse impacts on water quality.

- Continue to focus growth to areas best suited to utilize the existing water and wastewater infrastructure efficiently.

- Conserve open spaces and preserve forested lands to help decrease nutrient runoff.

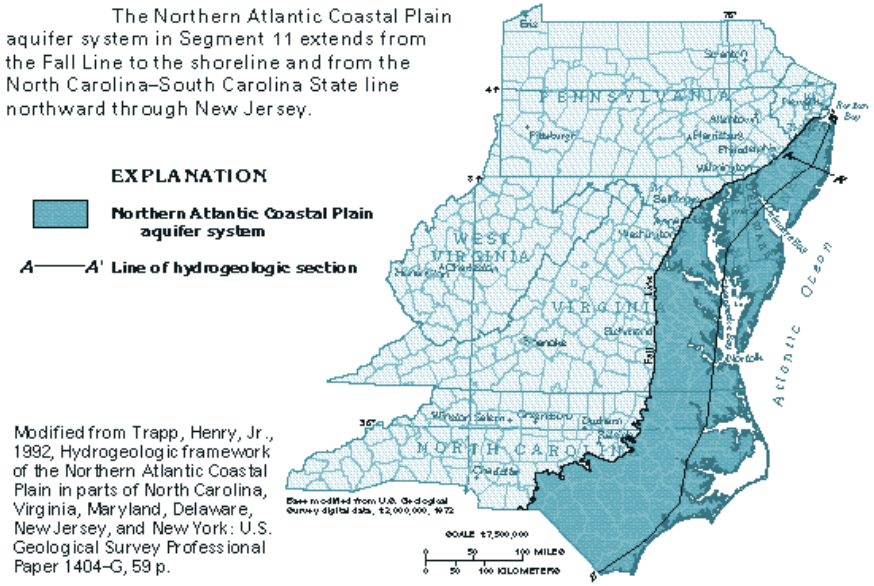
The Town of Denton acknowledges Caroline County Planning and Codes Department for their assistance in the preparation of the following topics discussed in this plan element: point source pollution, aquifers, water quality, and Federal and State programs available to achieve water quality goals. Numerous passages from the County's Water Resources Element are included herein.

WATER RESOURCES

Located in Caroline County and on the Choptank River, Denton's ability to provide a high quality of life to its residents and visitors is inextricably linked to the quality of the water resources.

The phrase "water resources" refers to the supply of groundwater and surface water in a given area. Caroline County lies within the Northern Atlantic Coastal Plain (NACP) aquifer system (Figure 5-1). The NACP system extends from the North/South Carolina border to Long Island, New York. In Maryland, the NACP is bounded in the west by the Fall Line and in the east by the Atlantic Ocean.

Figure 5-1: The Northern Atlantic Coastal Plain Aquifer

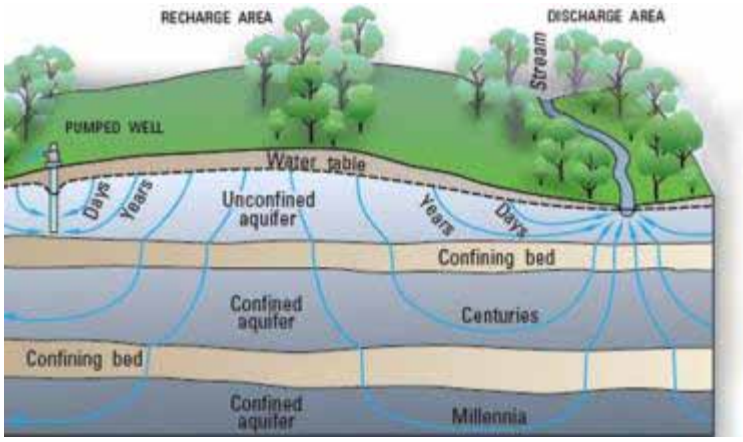


Source: USGS, Ground Water Atlas

The Coastal Plain system consists of sand and gravel aquifers interspersed with layers of silt and clay called confining beds. Beneath this system lies a layer of consolidated rock at depths ranging from zero at the Fall Line (an area where an upland region -- continental bedrock -- and coastal plain -- coastal alluvia meet) to about 8,000 feet at Ocean City. Water may become added to aquifers naturally as water infiltrates into the soil. The area over which water infiltrates into an aquifer is known as the "recharge zone." The recharge zone above unconfined aquifers is generally the area above the aquifer because water is able to move directly from the surface into the aquifer. However, for a confined aquifer, the recharge zone may be limited to the range where the impermeable layer reaches the surface. A confined aquifer has an impermeable layer called an aquiclude overlying the aquifer. These aquicludes are particularly

important in segregating relatively clean groundwater from brackish or contaminated groundwater. Figure 5-2 illustrates the difference between unconfined and confined aquifers.

Figure 5-2: Confined and Unconfined Aquifer



Source: Google Images, artmax_388.jpg

The major aquifers in the Coastal Plain system in Maryland are the Patuxent, Patapsco, Columbia (a surficial aquifer), Magothy, Aquia, and Piney Point, and the Chesapeake Group. With the exception of the Columbia Aquifer, the Coastal Plain aquifers generally are confined.

Withdrawals from Maryland Coastal Plain aquifers have caused ground-water levels in confined aquifers to decline by tens to hundreds of feet from their original levels. The current rate of decline in many of the confined aquifers is about 2 feet per year. The declines are especially large in southern Maryland and parts of the Eastern Shore, where ground-water pumpage is projected to increase by more than 20 percent between the years 2000 and 2030, with some regions experiencing significantly greater increases. Continued water-level declines at current rates could affect the long-term sustainability of ground-water resources in Maryland's heavily populated Coastal Plain communities and the agricultural areas of the Eastern Shore. Water quality in the Coastal Plain aquifers is a concern for several reasons. Contamination by saltwater intrusion is a significant water quality issue for the confined aquifers, and has been documented in several of Maryland's waterfront communities. However, the potential for saltwater intrusion is not well known in the deeper parts of the aquifer system because few data are available. Some areas have problems with naturally high concentrations of trace-element contaminants (including arsenic and radium), and further evaluation of these public health issues is warranted. Elevated concentrations of nutrients and agricultural chemicals in the surficial aquifer is a significant concern, especially on the Eastern Shore, where shallow ground water is the water-supply source for many homeowners and provides much of the base flow to streams. (*Sustainability of the Groundwater Resources*)

Groundwater sources in Caroline County include the Piney Point, Columbia, and Aquia Aquifers, and the Chesapeake Group, which includes aquifers within the Calvert and Choptank Formations. Aquifers within the Choptank and Calvert Formations yield small amounts of water, primarily to shallow, domestic wells. The Columbia aquifer is the surficial aquifer on most of the Eastern Shore. The Piney Point aquifer is tapped by wells in an area about 40 miles wide between Caroline and St. Mary's Counties and is a major water source for Caroline County. The Aquia is a major water source for parts of the Eastern Shore (including northern Caroline County), southern Maryland, and Anne Arundel County. (*The Status of the Quantity and Quality of Groundwater in Maryland*)

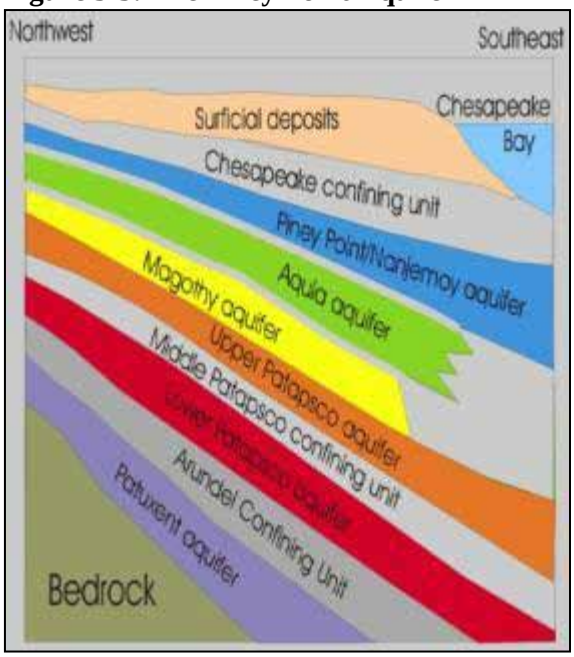
In the western half of Caroline County, which contains gently rolling, well-drained land, the water table lies between 10 and 30 feet below the surface. The eastern half of the County is

comparatively flat with poorly drained land, and the water table is generally within 10 feet of the surface.

Potential sources of contamination to confined aquifers include leaking storage tanks, landfills, sewer treatment discharges, and large-scale animal feeding operations. Wells that draw from confined aquifers can only be contaminated via direct injection of a pollutant into the aquifer from poorly constructed or abandoned wells and underground injection wells.

Piney Point Aquifer

Figure 5-3: The Piney Point Aquifer



Source: Maryland Department of Natural Resources. Maryland Geological Survey, David D. Drummond

Denton's water system is supplied by the Piney Point aquifer (Figure 3) which is one of many located within the Atlantic Coastal Plain. The Piney Point aquifer is one of the principal aquifers underlying the Delmarva Peninsula. The range of yield for wells in the aquifer is 10 to 1,200 gallons per minute (gpm). *(Water Assessment for Caroline County's Transient Water Systems)*

The first wells tapped from the aquifer were drilled at Cambridge in 1888 (Mack and others, 1971) and at the mouth of the Mahon River near Dover in 1897 *(Sundstrom and Pickett, 1968)*. The use of the Piney Point aquifer has created two regional cones of depression centered about the cities of Dover and Cambridge. *(University of Delaware)*

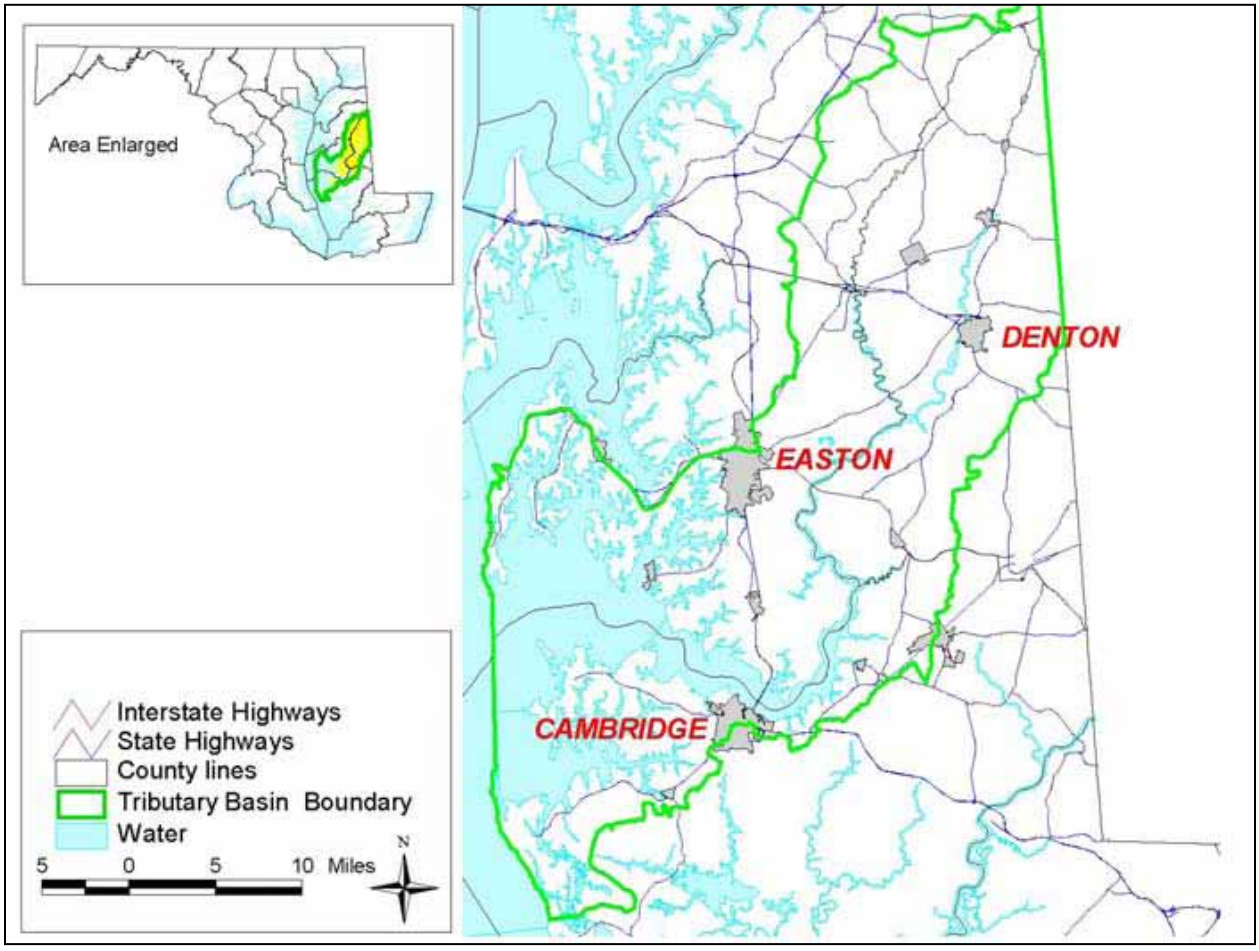
The Piney Point aquifer extends from North Carolina to New Jersey. Within Maryland, it provides 360 million gallons-per-day of potable water in Calvert and St. Mary's counties on the Western Shore; and in Queen Anne's, Talbot, Caroline, and Dorchester counties on the Eastern Shore. Within Caroline County, it is 100 feet down at its most shallow and 500 feet at its deepest.

Groundwater is an abundant, renewable natural resource in Maryland. Yet this "renewable" resource is constrained by human use, which imposes an element of finiteness. Although groundwater can be depleted by harvesting in excess of the replacement rate, if given sufficient time and the right conditions, natural processes will replace the groundwater. These processes take thousands of years, so the key to maintaining the availability of this life sustaining necessity is keeping our rate of use below the rate of natural replacement.

The Delmarva Peninsula relies primarily on groundwater for their freshwater supplies, it is the sole source of drinking water, and it plays a vital role in the industrial and agricultural sectors.

Population growth, development, and changing land use practices have resulted in an increased demand on this essential natural resource.

Map 5-1: The Choptank River Basin



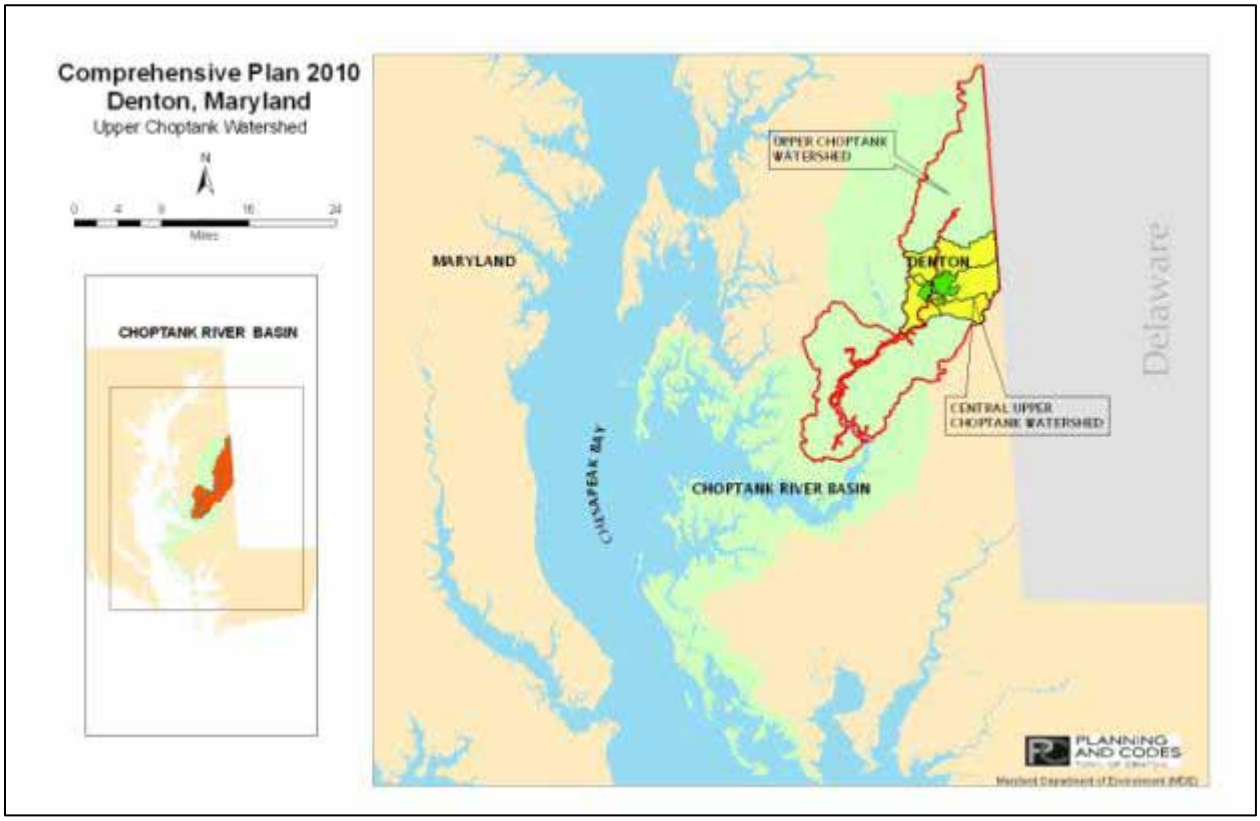
Source: Maryland Tributary Strategy Choptank River Basin Summary Report for 1985-2005 Data

The Choptank River Basin (Maps 5-1 & 5-2) drains approximately 700 square miles of land in Maryland, including portions of Caroline, Dorchester, Queen Anne's, and Talbot Counties in the middle of the Eastern Shore. Larger water bodies include the Choptank, Little Choptank, and Tred Avon Rivers; and Broad, Harris, and Tuckahoe Creeks. The Choptank River basin lies entirely within the Atlantic Coastal Plain. The basin supports over 80 species of fish in its freshwater streams and brackish waters, including striped bass, largemouth bass, and flounder. The lower portion of the watershed is an important concentration area for waterfowl. The Choptank River, along with all tributary basins in the Chesapeake, contributes to and is impacted by nutrient pollution. Nutrient pollution can be divided into two major categories – point sources (pollution that comes from a single, definable location, such as a wastewater treatment plant or industrial discharge) and non-point sources, (pollution that cannot be attributed to a clearly identifiable, specific physical location, such as runoff from land and atmospheric deposition). Runoff from different land uses, point sources, and atmospheric deposition are the major sources of nutrients within the bay watershed. In the Choptank watershed, agriculture is the primary land use and the leading source of nitrogen, phosphorus, and sediment. The remaining contributions

come from a combination of non-point and point sources. *(Maryland Department of Natural Resources, Chesapeake Bay Tributary Strategies)*

Choptank Watersheds

Map 5-2: Choptank River Basin and Watershed



Source: Town of Denton Planning & Codes

The Upper Choptank is entirely in the Mid Atlantic coastal of Maryland's Eastern Shore. Maryland is divided into 138 watersheds that are each identified by an 8-digit code, 02130404 UPPER CHOPTANK, hence the term "8-digit" watershed. These watersheds each have an average area of 75 square miles. The 8-digit watersheds can be further divided into 12-digit watersheds (each watershed identified by a 12-digit code). The 8-digit watersheds are an aggregation of the smaller 12-digit watersheds. The Upper Choptank watershed is part of the Choptank River basin. It extends through three Maryland Counties and into Delaware. Denton falls entirely inside the Upper Choptank Watershed. Table 5-1 illustrates counties in Maryland that fall within the Upper Choptank Watershed showing their approximate acreage and land use.

Table 5-1: Acreage and Land Use for the Upper Choptank Watershed

County	Watershed	Land Use (Acres)				
		Total	Agriculture	Forest	Wetland	Developed
Caroline	Upper Choptank	120,501	69,891	36,150	3,615	10,845
Queen Anne's	Upper Choptank	1,912	1,013	860	0	38
Talbot	Upper Choptank	36,284	23,222	8,708	2,177	2,177
	Total	158,697	94,126	45,718	5,792	13,060

Source: Caroline County Department of Planning and Codes

Denton's total acres of approximately 3,291; account for 1.5% of the complete watershed's land cover of approximately 220,000 acres, which includes watershed acreage in Delaware. The Upper Choptank River is listed on the State's 2008 Integrated Report as a Category 5 Priority Watershed. The watershed is cited for four impairments: biological, bacteria-fecal coliform, nutrients, and sediments. A watershed plan prepared for the Upper Choptank in 2003 recommended a number of strategies to address water quality issues; a plan update is scheduled and will include the establishment and funding of a long-term cover crop program, implementation of improved maintenance and buffer programs for public drainage ditches, better enforcement of local sensitive areas, flood protection, and stormwater management ordinances and development of Geographic Information Systems (GIS) data, approval standards, and management policies for on-site sewage disposal systems.

The Choptank River plays a significant role in the overall health of the Choptank River watershed. Denton has an estimated five and one-half (5.5) miles of shoreline comprised of the mostly developed land, urban land, on the river's eastern shoreline and undeveloped land, currently agriculture, on the river's western shoreline. Caroline County's portion of the watershed and most of the County's wetlands are associated with the River and its tributaries. (*Source: DNR, Upper Choptank River Characterization*)

Photo 5-1: Denton, Maryland Crouse Park Marina Basin

Source: Flickr, AMK1211

The USDA's Farm Service Agency and the Caroline County Natural Resources Conservation Service (NRCS) office work with farmers to take highly erodible land out of production for ten to fifteen years through the USDA's Conservation Reserve Program (CRP).

The soils in this region are poorly drained, the land is predominantly flat, and farmers have employed a network of drainage ditches to drain water off

of fields. The practice of clearing these ditches to allow for unimpeded water flow has contributed to the high levels of nutrients leaving farms and entering waterways. The U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS), as part of the Conservation Effects Assessment Project (CEAP) begun in 2003, is conducting a study of the Choptank River Watershed to assess nutrient reduction efforts and determine more accurate nutrient reduction efficiencies for agricultural best management practices (BMPs) including improved management of ditches, and the development of more efficient monitoring technologies for cover crops

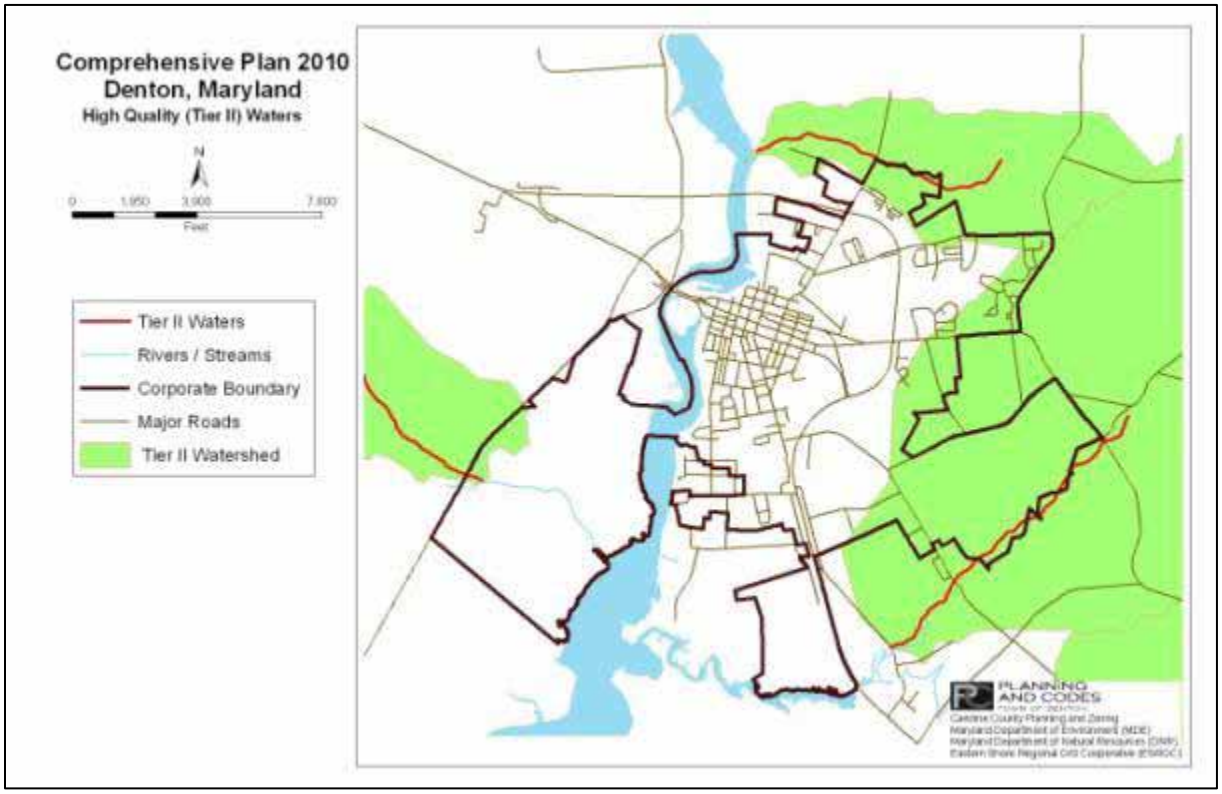
Tier II Waterways

The Federal Clean Water Act requires the State of Maryland to identify water bodies that are high in quality (Tier II water bodies). Maryland currently has 208 designated high quality streams. Map 5-4 illustrates Tier II waters in Caroline County. The Clean Water Act requires three components to water quality standards that set goals for and protect each States' waters. The three components are: (1) designated uses that set goals for each water body (e.g., recreational use), (2) criteria that set the minimum conditions to support the use (e.g., bacterial concentrations below certain concentrations) and (3) an antidegradation policy that maintains high quality waters so they are not allowed to degrade to meet only the minimum standards. The designated uses and criteria set the minimum standards for Tier I. As stated by the Maryland Department of Environment, Maryland's antidegradation policy has been promulgated in three regulations: COMAR 26.08.02.04 sets out the policy itself, COMAR 26.08.02.04-1, which is discussed here, provides for implementation of Tier II (high quality waters) of the antidegradation policy, and COMAR 26.08.02.04-2 that describes Tier III (Outstanding National Resource Waters or ONRW), the highest quality waters. No Tier III waters have been designated at this time. The anti degradation policy states as follows:

<u>1. 26.08.02.04 – 1(B)</u>
"General: An applicant for proposed amendments to county plans or discharge permits for discharge to Tier II waters that will result in a new, or an increased, permitted annual discharge of pollutants and a potential impact to water quality, shall evaluate alternatives to eliminate or reduce discharges or impacts. If impacts are unavoidable, an applicant shall prepare and document a social and economic justification. The Department shall determine, through a public process, whether these discharges can be justified." ***(****Source: Maryland Department of the Environment, Maryland's High Quality Waters (Tier II))*

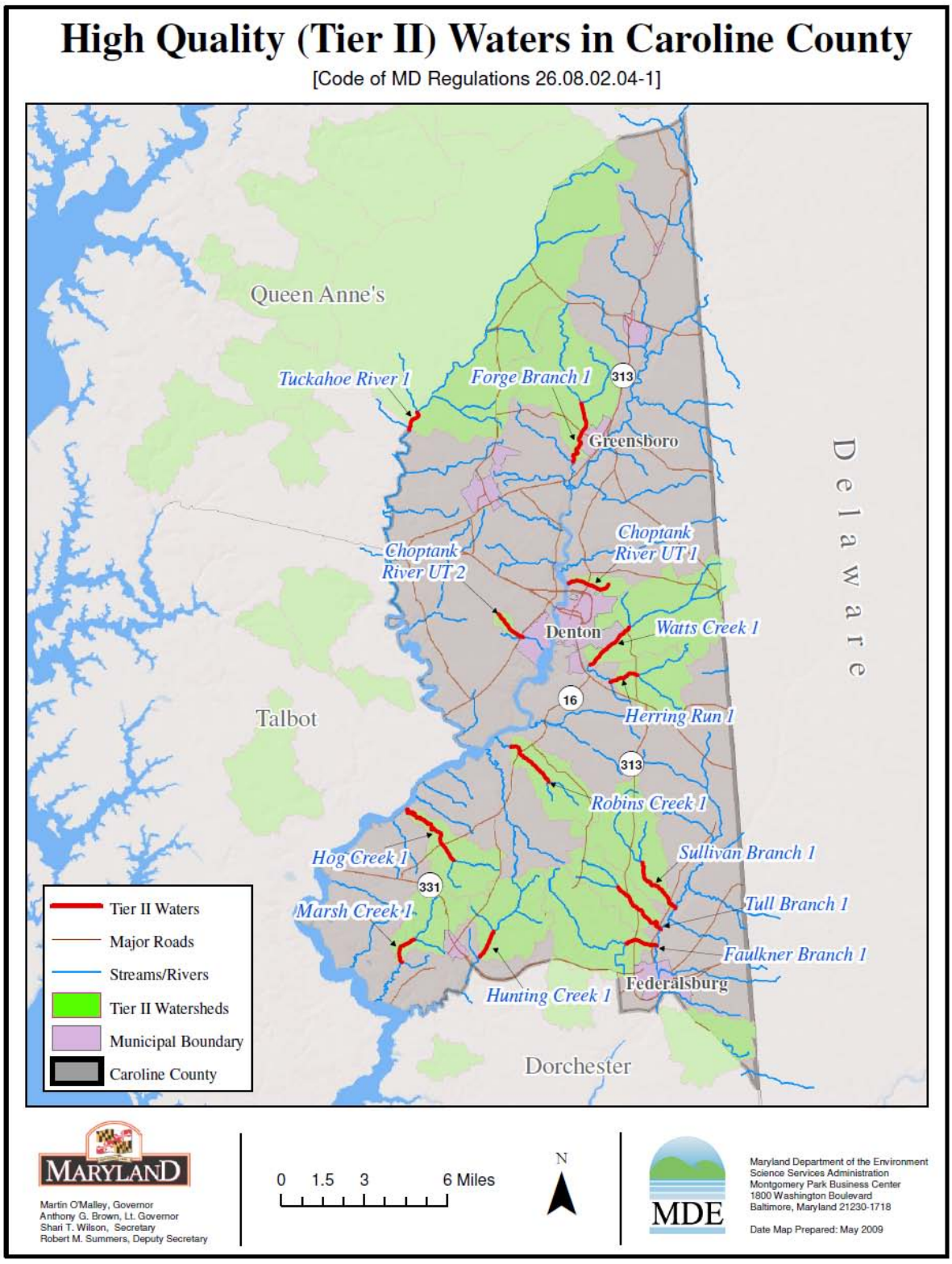
There are three Tier II designated water bodies within Denton's boundary. As shown on Map 5-3, all three streams are located along the Town's current boundary, proposed growth area and proposed "greenbelt." Potential developments for these parcels will have to address the impacts to water quality and as mentioned earlier; if a permit is required, the discharge permit process requirement will follow Maryland's antidegradation policy. The Town should monitor all development within the designations of Tier II waterways affected by urban runoff in Denton and should take measures to protect these high quality natural resources.

Map 5-3: Denton, Tier II Waters



Source: Town of Denton Planning & Codes 2009

Map 5-4: Caroline County Tier II Waters



Source: MDE

Water Quality

Federal Clean Water Act (CWA)

The Federal Clean Water Act (CWA) provides the framework for managing the nation's water resources. Water quality standards were developed "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (Clean Water Act §101). The standards include designated uses for waterways as well as specific criteria that indicate whether or not the uses are able to be achieved in each waterway. Uses are identified through a public process and are based on the use and value of the water body for 1) public water supply; 2) protection of fish, shellfish, and wildlife; and/or 3) recreational, agricultural, industrial, and navigational purposes. These designated uses provide the foundation for determining which of Maryland's waterways are managed under the CWA.

Once a waterway's designated use (or uses) has been established, stringent water quality criteria are developed to ensure the protection of the designated use. Water quality criteria identify quantifiable pollutant thresholds that are not to be exceeded. Once criteria are established they are inviolate, meaning that, "as a society, we have agreed not to violate standards regardless of implications unless we agree to change the underlying designated uses through an open public process, which then allows for the criteria to be changed in response. *(Maryland Department of the Environment, 2006 TMDL Implementation Guidance for Local Governments)*

A waterway is identified as impaired when it no longer meets the water quality criteria established for it and it is unable to achieve the use for which it is designated. Caroline County's major tributaries – Choptank River, Marshy Hope Creek, and Tuckahoe Creek – are all listed as impaired on the MDE's 2008 Integrated Report (formerly the 303(d) List and 305(b) Report).

A report on water quality in Maryland issued by the U.S. Geological Survey in 2004 indicates that the combination of soil and aquifer conditions and the regional predominance of agricultural land use are responsible for the concentrations of nitrogen, phosphorus, and pesticides in streams and rivers on the Eastern Shore.

While there are other, lesser contributors to nutrient levels in the region's tributaries including septic systems, wastewater treatment plants, and urban and suburban chemical applications, the study noted that primary sources of nutrients on the Delmarva Peninsula are inorganic fertilizer, and that the concentrations of nitrogen, phosphorus, and herbicide compounds in streams on the Delmarva Peninsula are similar to those in other predominantly agricultural areas of the United States. (*Judith M. Denver*)

In addition to the Federal Clean Water Act, a number of Federal and State programs exist to provide support for achieving Bay water quality goals and assurance that goals can be reasonably met, including:

Bay Restoration Fund Enhanced Nutrient Reduction (ENR)

The Bay Restoration Fund (BRF) was created by Senate Bill 246 in May 2004. The BRF uses funding from public sewer taxes to provide up to 100 percent state grant funds to local

governments to retrofit or upgrade sewage treatment plants to reduce the nutrient levels in plant discharge to Enhanced Nutrient Removal (ENR) levels: 3 mg/l total nitrogen (TN) and .3 mg/l total phosphorus (TP). Upon completion of an ENR upgrade, MDE requires the permittee to make a best effort to meet the load goals, providing reasonable assurance of implementation.

Denton will be upgrading its Wastewater Treatment Plant (WWTP) to ENR capabilities (operational beginning 2012). The quality of the total nitrogen and total phosphorus discharged by the facility shall be limited at all times to 9,746 lbs/yr for nitrogen and 731 lbs/yr for phosphorus as stated in the National Pollutant Discharge Elimination System (NPDES) permit.

The BRF also funds the cost of installing denitrification upgrades for septic systems throughout the Chesapeake Bay watershed through funding supplied by septic user fees paid by property owners with septic systems. Denitrification systems remove 50 percent or more of the nitrogen discharged by septic systems. The Chesapeake Bay Nitrogen Reduction Act, passed at the end of the State's last legislative session, requires that septic systems being built or replaced for homes located within the Critical Area must utilize the "best available technology" to reduce the level of nitrogen output of the septic system. The Caroline County office of Maryland Department of Environmental Health oversees implementation of the BRF program and administration of the new law.

The Maryland Water Quality Improvement Act

The Maryland Water Quality Improvement Act "requires that comprehensive and enforceable nutrient management plans be developed, approved, and implemented for all agricultural lands throughout Maryland." This act specifically requires that nutrient management plans for nitrogen be developed and implemented by 2002, and plans for phosphorus to be done by 2005. In 2008, 379 farming operations filed nutrient management plans with MDA; however only 80 percent, about 90,000 acres, reported that their nutrient management plans were actually implemented. EPA, through the Chesapeake Bay Program, continues to emphasize that achieving 100 percent implementation of agricultural nutrient management plans is critical to achieving nutrient reduction. Caroline County supports the 100 percent implementation goal and will identify opportunities to assist MDA with increasing implementation of nutrient management plans for Caroline County farms.

Chesapeake Bay Agreement

In the 1987 Chesapeake Bay Agreement, Maryland made a commitment to reduce nutrient loads to the Chesapeake Bay. In 1992, the Bay Agreement was amended to include the development and implementation of plans to achieve these nutrient reduction goals. The Tributary Strategies developed in support of the 1992 Agreement provide a framework to support the implementation of non point source pollution controls in the Choptank River and LES basins.

In 2006, Caroline County Planning staff convened a workgroup composed of representatives from the County, incorporated municipalities, non profits, the County Farm Bureau, and other interested citizens to update a watershed characterization document for the Upper Choptank River Watershed, and to develop a similar document for the Tuckahoe Creek Watershed. The

resulting document, released in 2007, is intended to establish the baseline information needed to develop a watershed plan. A Memorandum of Understanding circulated among the affected jurisdictions in which each signatory jurisdiction agrees to take the findings of the watershed characterization into consideration in its planning activities. Similar characterizations will be completed for the other major watersheds in the County, followed by the development of watershed plans.

Tributary Strategies

Tributary Strategies are river-specific cleanup strategies that detail the "on-the-ground" actions needed to reduce the amount of nutrients and sediment flowing into the Chesapeake Bay. When all 36 strategies are added together, cleanup plans will be in place in every part of the Chesapeake Bay's 64,000 square-mile watershed. The strategies outline how the Bay states and the District will develop and implement a series of "best management practices" to minimize pollution. This includes planting new riparian forest buffers, upgrading sewage treatment plants, implementing nutrient management on farms, wisely managing storm water runoff, and other innovative programs to accelerate the restoration of the Bay and its rivers.

Each strategy is tailored to that specific part of the Bay watershed - there is no "one size-fits-all" strategy for the entire Bay watershed. Pollution reduction actions needed in rural watersheds, like the Choptank River Basin, vary greatly from those needed in more urban areas. *(Maryland Department of the Environment, Frequently Asked Questions)*

WATER SUPPLY

The Town of Denton's water source is three potable wells in the Piney Point Aquifer. Two are operational wells. Well #3, drilled in 1970, is located off of Kerr Avenue and Md. Rt. 404 and has a pumping capacity of 439 gallons per minute (gpm). Well #5, drilled in 2000, is located south of Engerman Avenue and West of Park Lane has a pumping capacity of 510 gpm. The third well, Well #1, located off of Fifth and Gay Streets, has recently been abandoned because of silting problems. In 2009, the Town applied for financial assistance through the MDE Water Quality Infrastructure Program Capital Projects Financial Assistance program for the construction of new well. Well #6 will be 12 inches in diameter, 450 feet deep and has the pumping capacity of 700 gpm. The installation of the new well will help ensure adequate water capacity to the Town of Denton.

The average daily demand (refer to Table 5-2) in 2009 for Denton's water system was 371,000 gallons per day (gpd), about 48% of its permitted average daily capacity of 770,000 gpd. The three-year average daily use was 397,000 gpd, representing approximately 52% of the systems permitted daily capacity.

Table 5-2: Denton's Water Supply

2009 Average daily demand (gpd)	Permitted Daily Capacity (gpd)	Maximum Daily Demand (gpd)	Surplus (gpd)
371,000	770,000	1,000,000	201,440

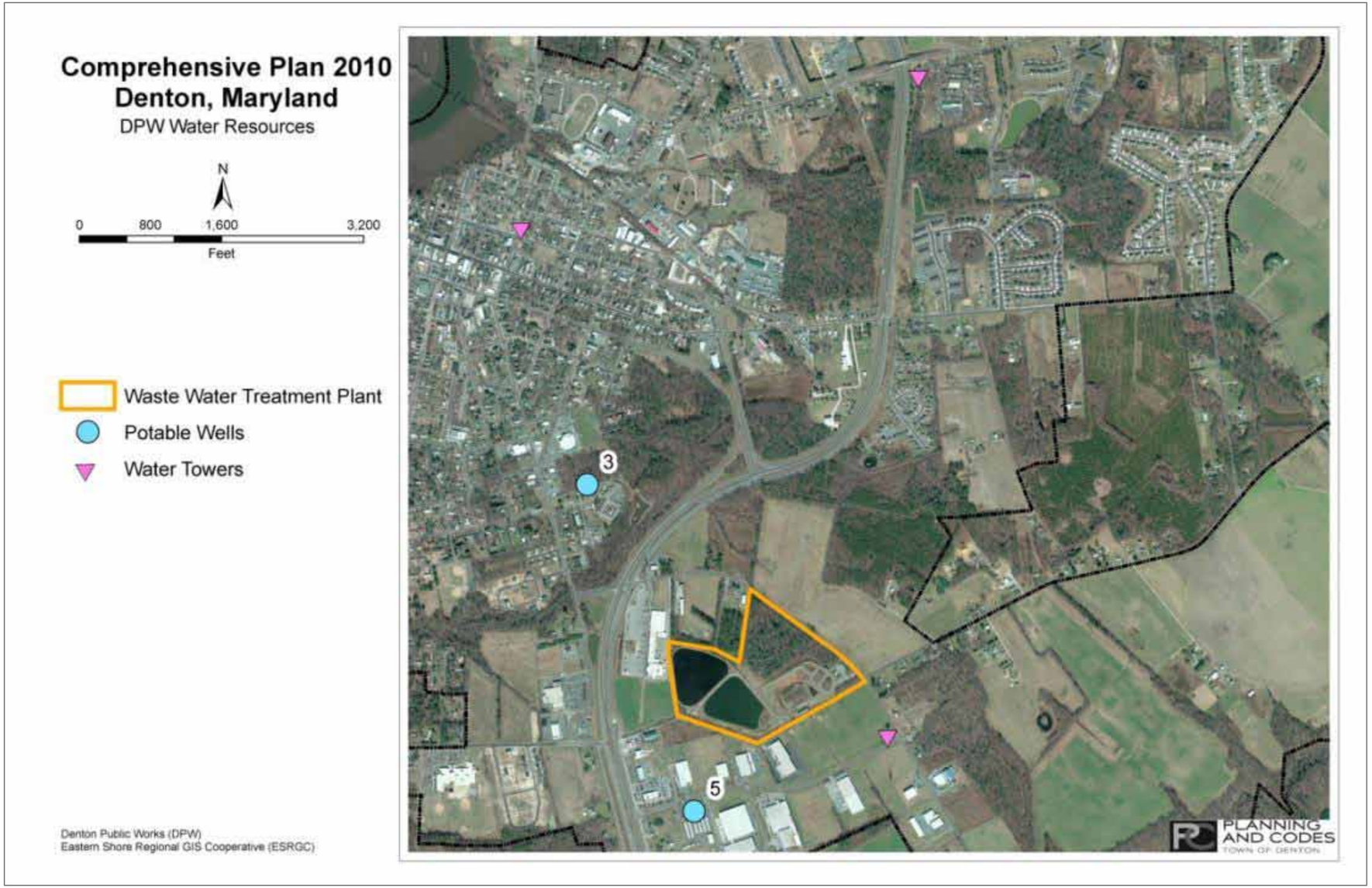
Source: Denton Planning and Codes

State design recommendations for water systems call for well capacity equal to the peak daily flow rate with the largest well out of service and remaining wells pumping 24 hours per day. Under current maximum daily demand of 1,000,000 gallons per day and a pumping capacity of 500 gallons per minute with the largest well out of service, the total well-field in Denton can produce 1,201,440 gallons per day which is a surplus of 201,440 gallons per day. Map 5-5 shows the locations of Denton's wells.

Water Storage Capacity

Denton has three water storage tanks. One tank has a storage capacity of 100,000 gallons and two tanks have a storage capacity of 300,000 gallons each. Map 5-5 shows the location of Denton's water towers.

Map 5-5: DPW Water Resources



Water Distribution System

The distribution system is a network of water main lines varying in size from 2 to 12 inches, two operational artesian wells and three elevated storage towers. Presently the Town produces its water from two operational artesian wells. For pathogenic disinfection the water is treated with Sodium Hypochlorite that is injected via peristaltic pumps located at the point of entry into the distribution system. The natural water quality warrants no other treatment methods. The water passes through the water meter at the main well, and is then distributed between the Town's three storage tanks. The water is then distributed via gravity-flows through an estimated 20 miles of pipe.

The details below reflect all actual improvement activity that has occurred since the year 2000 as well as planned improvement activity.

Actual Improvement Activity

Water lines in this category represent existing lines that were upgraded to 6-inch or greater. Most of these improvements were recommended in a study created by McCrone, Inc. in 1996. The lines were either undersized, failing or both. Replacing these lines has improved water quality and quantity for fire protection.

- 8th Street from Franklin to Sunnyside
- Market Street from 3rd Street to Gay Street
- Gay Street Extended; from 10th Street to Market Street
- 10th Street
- Crystal Avenue; from 10th Street to approx. ½ of the way to 6th Street
- 3rd Street from Market Street to Franklin Street
- 3rd Street from Gay Street to High Street
- High Street
- Lockerman from High Street to the Middle School

Planned Improvement Activity

Water lines in this category represent future improvements needed and planned. These lines are either undersized, failing or both.

- 5th Avenue from Market Street to Kerr Ave
- Randolph Street from 1st to 2nd
- Randolph Street from 4th to 5th
- Randolph Street from 6th to 7th
- 2nd Street from Randolph Street to Market Street
- Gay Street from 2nd to 3rd

Additions

Water lines in this category represent lines added to the existing system. The additions were necessary for new development needs, line looping or both.

- Sharp Road from 5th to Lupine Lane
- Loop created from 5th Avenue to Maryland Avenue through Parkview Estates
- Legion Road from Engerman Avenue to Walsh Way
- 6th Street from Fleetwood to the Town boundary line north (Goose Creek)
- Camp Road from the old Town line (nursing home) to Savannah Overlook
- Kathryn Court
- Market Street from Pearson to Mila Street

Source: Town of Denton, Department of Public Works

WASTEWATER TREATMENT SYSTEM

Photo 5-2: Denton Wastewater Treatment Plan, 650 Legion Road, Denton, MD

A series of facultative lagoons were constructed in 1964 and provided basic BOD, TSS and Fecal Coliform reduction prior to discharging into the Choptank River. At the time, there were no limitations or goals established for Nitrogen and Phosphorus reduction.

The Denton BNR WWTP was built in 1999 at the same location as the lagoons. The treatment plant operates by the activated sludge process with nitrogen conversion. Phosphorus removal by chemical precipitation is also provided. Included in the process is a head chamber, screening, grit removal, aeration reactor basins, secondary clarifiers, chlorination, dechlorination, and post aeration. Sludge handling consists of a sludge holding basin and sand/reed sludge drying beds.

The Denton WWTP operates by the activated sludge process with nitrogen conversion. Phosphorus removal by chemical precipitation is also provided. Included in the process is a head chamber, screening, grit removal, aeration reactor basins, secondary clarifiers, chlorination, dechlorination, and post aeration. Sludge handling consists of a sludge holding basin and sand/reed sludge drying beds.

The Head Chamber is the first structure that raw sewage enters into. The purpose of this structure is to divert raw sewage flow to an emergency overflow basin.

The raw wastewater flow passes through a mechanically cleaned bar screen via the influent channel. The mechanically cleaned bar screen is the primary device for removal of large debris from the wastewater flow stream. A manual bar screen is also provided for bypass of flow, for overflow or for maintenance down time of the mechanical screen. The screens protect the downstream plant equipment from being damaged by large debris in the wastewater stream such as rags, metal objects, sticks and other garbage. The screenings are collected in a dumpster and hauled off site for disposal.

The Grit Chamber is located downstream of the mechanically cleaned bar screen to remove grit from the wastewater stream. The grit is removed from the influent flow in a chamber containing a rotating paddle that includes a vortex settling grit to the bottom of the chamber. The grit is removed from the chamber by a vortex recessed impeller pump and is pumped to a grit concentrator/clarifier and grit washing screen. Dewatered grit is deposited into the screenings dumpster.

The headworks effluent flows by gravity to the reactor basin influent box where the flow is split equally to the two reactor basins. The Biolac reactors provide biological BOD, phosphorus, and nitrogen removal. Aeration to the reactors is accomplished using three positive displacement type blowers located in the operations building. Air enters the basins through a series of pipe headers and is diffused by diffuser tubes attached to the aeration chains.

Mixed liquor from the two reactors flows by gravity to a splitter box where the flow is divided equally to the two secondary clarifiers, and chemicals for precipitation of phosphorus are added. Each clarifier is equipped with a peripheral discharge weir. Reactor effluent flows over the weir and into a sloped effluent launder for conveyance by gravity to the chlorination tank. Secondary sludge is withdrawn from the bottom of the clarifiers and pumped to the reactor basins. The three variable speed RAS pumps are in the sludge pumping station which is located between the secondary clarifiers. Excess sludge is also drawn from the bottom of the secondary clarifiers in the form of waste activated sludge. This sludge is pumped to the sludge holding tank. The two constant speed WAS pumps are located in the sludge pumping station.

Chlorine is added to the secondary clarifier effluent at the secondary clarifier effluent weir. Then, the wastewater flow from the secondary clarifiers enters the dechlorination tank by gravity. A final v-notch weir meter measures the effluent flow in the tank. Sulfur dioxide is added to the stream in the dechlorination tank prior to the v-notch weir to dechlorinate the water.

A v-notch weir near the end of the dechlorination tank is used to add dissolved oxygen to the effluent stream. In the sludge holding tank, the sludge settles and thickens. The sludge is aerated by two blowers and coarse bubble diffusers located at the bottom of the tank. Sludge from the holding tank is deposited on sixteen sand/reed sludge drying beds. By a combination of evaporation, filtrate removal, and water uptake by the reed plants, a very high percentage of water is removed from the sludge. This very dense sludge may be stored on the beds for several years before requiring removal to an off-site location. *(Town of Denton, Department of Public Works, 2010)*

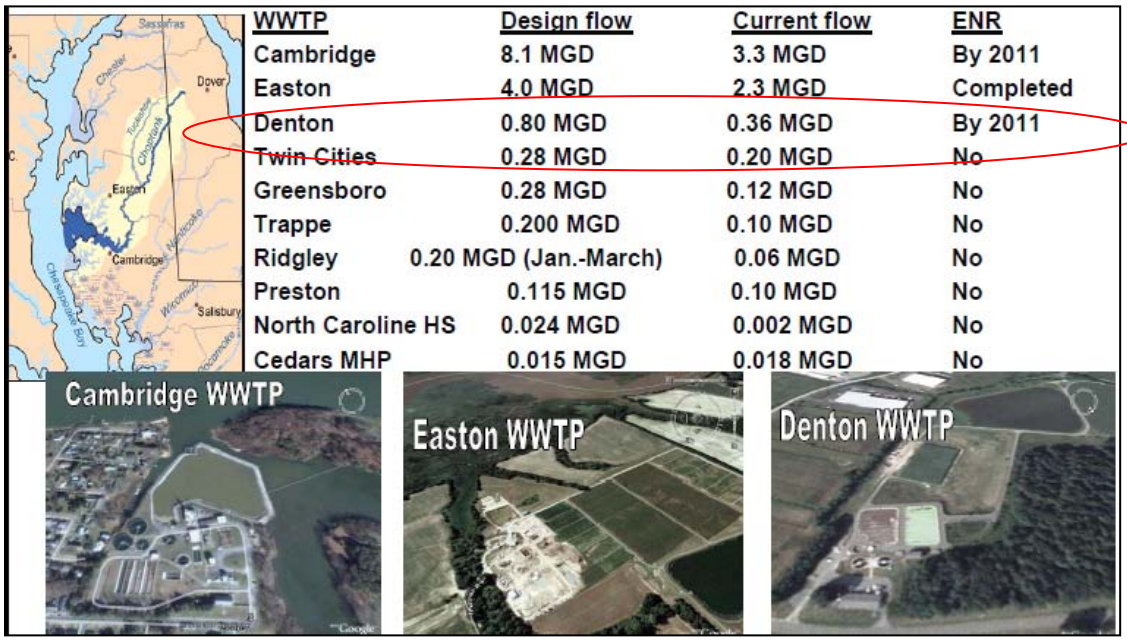
Wastewater Treatment Plant Capacity

The Treatment Plant is designed for an average daily flow of 800,000 gallons and for a peak daily flow of 2.67 million gallons. Currently the plant operates at a three-year rolling average of 394,667 gallons per day, which is 49% of the design capacity.

The Town is in the process of upgrading the existing Wastewater Treatment Plant (WWTP) to meet enhanced nutrient removal (ENR) capabilities. The Town's National Pollutant Discharge Elimination System (NPDES) permit for the facility was recently renewed, with ENR criteria in place. The permit stipulates that the facility must be ENR compliant by January 2012. The quality of the total nitrogen and total phosphorus discharged by the facility shall be limited at all times to 9,746 lbs/yr for nitrogen and 731 lbs/yr for phosphorus as stated in the NPDES permit. The capacity of the Denton WWTP will remain at 0.8 MGD with a peak of 2.67 MGD. Based upon performance data received for the years 2006 through 2008, the treatment system is capable of removing total nitrogen and phosphorus to effluent concentrations of less than 8 and 2 mg/l, respectively. *(GMB, George, Miles and Buhr)*

There are only three WWTP's that are scheduled or have been completed for ENR upgrades in the Choptank River Watershed. Easton's upgrade is completed; Denton and Cambridge plant upgrades are scheduled for completion in 2011-2012. Figure 5-4 lists the three plants with ENR upgrades, plus the design flow of surrounding Towns and facilities.

Figure 5-4: Wastewater Treatment Plants in the Choptank River Watershed



WWTP	Design flow	Current flow	ENR
Cambridge	8.1 MGD	3.3 MGD	By 2011
Easton	4.0 MGD	2.3 MGD	Completed
Denton	0.80 MGD	0.36 MGD	By 2011
Twin Cities	0.28 MGD	0.20 MGD	No
Greensboro	0.28 MGD	0.12 MGD	No
Trappe	0.200 MGD	0.10 MGD	No
Ridgley	0.20 MGD (Jan.-March)	0.06 MGD	No
Preston	0.115 MGD	0.10 MGD	No
North Caroline HS	0.024 MGD	0.002 MGD	No
Cedars MHP	0.015 MGD	0.018 MGD	No

Source: Maryland Department of the Environment, Status of the Choptank River

The primary way that the WWTP capacity is set is by the County Comprehensive Water and Sewer Plan. Any County proposed changes must be approved by the Maryland Departments of Planning (MDP) and the Environment (MDE) before they are adopted. The State agencies look at items such as available water and wastewater, priority funding areas, smart growth, etc.

Once a design flow for wastewater is established in the Water and Sewer Plan, MDE will set permit limitations based on the Chesapeake Bay Tributary Strategy and any local Total Daily Minimum Loads (TMDLs), whichever requires the stricter limits. Although flow itself is almost never a permit limit, the cap on pound loading set for nitrogen and phosphorus can establish a de facto maximum design flow based on the lowest concentrations of nitrogen and phosphorus that can be achieved by Enhanced Nutrient Removal (ENR) technology.

For example, a WWTP may have a total nitrogen (TN) allocation either from the Chesapeake Bay Tributary Strategy or from the Choptank River TMDL of 12,200 lbs/yr (based on ENR-level treatment of 4.0 mg/l TN and a design flow of 1.0 MGD). If a WWTP can be designed to achieve 3.0 mg/l TN (the practical limit of technology), then the design flow can be increased by 33% up to 1.33 MGD. Therefore, as long as the flow increase is consistent with the County Water and Sewer Plan, the permit flow can be increased. As stated in Caroline County's Comprehensive Plan 2010, even though upgrades to BNR and ENR treatment levels could result in a significant reduction in nutrient loading from WWTP point sources, the full potential of the advanced technology will go unrealized in plants whose flows increase to full capacity. Current NPDES permitting standards are based on plant flow capacity, i.e., the maximum number of gallons that can flow through a plant per day. A better permitting strategy would be to base permits on computed loads, i.e., nutrient concentrations times the volume of flow. Maximum limits of loads should be capped at values which sum to a 40 percent reduction from the 1985 load of a specific

plant. Otherwise, if permit limits continue to be based on ENR treatment levels applied to the design capacity of a treatment plant, the long-term result will be that ENR technology will result in a nutrient reduction that is less than the goal of 40 percent reduction from 1985 loads.
(Statewide Tributary Strategy Implementation Plan, Choptank Tributary Team/Public Comment)

A WWTP can have its nutrient allocations increased by receiving nutrient credits through connecting existing septic systems or an existing smaller WWTP, or by purchasing non-point sources nutrient credits. WWTP available flow can be increased by treating part of the wastewater through land application (spray or drip irrigation, for example) if suitable soils are available. (*Maryland Department of the Environment, Status of the Choptank River)*

PROJECTED WATER AND SEWER DEMAND

The Land Use and Municipal Growth Element chapters have indicated that the Town has land available to accommodate substantial growth in the future. The recommended water resource goals and policies presented in this Chapter are directed to account for the projected growth; and to reduce the impacts on water quality from development.

Both the water and wastewater systems have functional and permitted capacities (Table 5-3). The water system capacity is 770,000 gallons per day (gpd). The wastewater treatment plant capacity is 800,000 gpd. Average flows for the last three years are 405,667 gpd and 394,667 gpd respectively for the water and sewer systems. Net available capacities for future growth are calculated from the systems capacities, less three-year averages, less allocations granted to approved development projects. As Table 5-3 illustrates, the limiting capacity for future growth is the water system.

In projecting demand for water and sewer services, each dwelling unit (household) is equal to one Equivalent Dwelling Unit or EDU. In April 1992, the Caroline County Health Department authorized an EDU rate of 225 gallons per day (gpd) for the Town of Denton. One EDU is estimated to consume 225 gpd of drinking water and contribute 225 gpd to wastewater flow (Denton planning assumptions as compared to MDP's 250 gpd). The Denton Utility Commission established a usage table, adopted by the Town Council, which applies EDU's based on the proposed use.

Given the aforementioned water system capacity constraint, the maximum number of dwelling units the system will support can be derived. As shown in Table 5-4, the Water system net capacity divided by the town's average flow per day per dwelling unit (EDU) results in the maximum number of dwelling units the current net capacity could support (equations below). The maximum number of additional dwelling units that the current water/WWTP capacity could support, as derived, is 1,566 dwelling units.

Table 5-3: Water and Sewage Available Capacity

	Water Flow 2009 (gpd)	Sewage Flow 2009 (gpd)
2007	419,000	346,000
2008	401,000	420,000
2009	397,000	418,000
Average Flow	405,667	394,667
Permit	770,000	800,000
Balance Available	364,333	405,333
Allocated	11,905	11,107
Net Available Capacity	**352,428**	394,226

Table 5-4: Population Estimate With Current Water Capacity (Assuming All Allocation To Residential Growth)

A. Flow Balance Available (gpd)	**352,428**
B. Average Equivalent Dwelling Unit Usage (gpd)	225
C. Household Units or DU's (A divided by B)	1,566
D. Population from additional DU's (C times 2.29 PPDU)*	3,587
E. Current Population**	4,022
F. Total Population (D plus E)	7,609

* *2000 U.S. Census data for the Town of Denton of (2.29 persons per household)*
** *2008 U.S. Census data for Town of Denton (4,022 population estimate)*

Projected Population with Water System Capacity Limitation

Calculations for projecting Denton's future population were presented in the Municipal Growth Element of the Comprehensive Plan. Denton's population increase from 1990 – 2000 was 2.98%, and the estimated increase between 2000 and 2008 was 3.9%. Population projections in Table 4-3 of the Municipal Growth Element calculated four different annual compound growth rates of 2%, 3%, 4% and 5%. An analysis of current water and sewer systems' capacities in the above tables, illustrates how the Town's growth is constrained by these capacity limits. Because of the Town's decision at this time not to expand the Water and Wastewater facilities, the maximum population that these systems are able to support is 7,609 (Table 5-4). Further analysis prompted the Town to prioritize allocation first to commercial and industrial uses, and allocate the remainder for residential uses. The decision to prioritize the current capacity allocations resulted in a facility-supported population estimate of 6,241, representing an annual compound growth rate of 2.017% through 2030. As the Town reaches capacity, the Maryland Department of the Environment requests that a Wastewater Capacity Management Plan be submitted if the most recent three years average flow is over 80% of its design capacity or if it is anticipated to exceed 80% in the next year. The Town would need to determine courses of actions at this point. Possible actions might have to include a reconsideration to upgrade and expand the current

system, impose building moratorium, or allocate remaining capacity incrementally over a period of time.

Impact of Full Build-Out Analysis

The next analysis shows the impact on water/WWTP with full build-out of the Town as calculated in the capacity analysis for the Municipal Growth Element of the comprehensive plan. The Municipal Growth Element contains details about the process used for calculations of available land area for development.

- The build-out analysis looked at two scenarios:
  - Complete build-out for existing infill and growth area.
  - The maximum and minimum lot area was used to determine the number of potential dwelling units a parcel could support.
- Development Capacities are based on a variable zoning yield in accordance with the Maryland Department of Planning Guidelines (75%). Planned Neighborhood Zoning development capacity is calculated at 55% development capacity to account for commercial and retail. The infill lots consist of those areas that may be eligible for new development and subdivision.

The capacity analysis indicates that the existing wastewater treatment and water facilities are insufficient to meet the demand projected with full build-out (Tables 5-5 & 5-6) for a population between 10,819 – 13,061 residents**.** Total build-out cannot be achieved without capacity increase to the water and wastewater systems.

Table 5-5: Maximum Density

	Dwelling Units	Population
Infill	3,235	7,408
Growth Area	172	394
Current Population in Growth Area	21	48
Current Population		4,022
Approved subdivisions	519	1,189
Total Population		**13,061**

Table 5-6: Minimum Density

	Dwelling Units	Population
Infill	2,256	5,166
Growth Area	172	394
Current Population in Growth Area	21	48
Current Population		4,022
Approved subdivisions	591	1,189
Total Population		**10,819**

Denton is divided by the Choptank River. Until 2004, the Town boundary encompassed only land east of the river. In 2004, approximately 850 acres west of the river were annexed into the Town. The Town does not plan on extending Water/WWTP to the west side of Denton (Town

Council supported planning assumption). Consequently, the Denton properties west of the Choptank River cannot be developed unless separate water and wastewater systems are permitted and built to supply infrastructure demand. All available water and wastewater capacity will be utilized for development on the Town's east side only, including both infill and proposed growth areas.

POINT SOURCE POLLUTION

Pollution originating from a single, identifiable source, such as a discharge pipe from a factory or sewage plant, is called point-source pollution. Point sources are measurable inputs of pollutants that are discharged into streams, rivers, and lakes.

Table 5-7, shows point source discharges in the Upper Choptank portion of the Choptank River basin with loadings of 8.3% Nitrogen and 11.7% Phosphorus. Types of point source discharges are: 1) sanitary sewerage system discharge outfall, 2) industrial waste discharge outfall, 3) combined sanitary and storm sewer discharge outfall, 4) separated storm sewer discharge outfalls, and 5) groundwater heat pump discharge.

All of the above must apply for an individual National Pollution Discharge Elimination System (NPDES.) permit with the exception of the separated storm sewer discharge and watersource heat pumps discharging to waters of the State. An NPDES permit (required federally, but administered through the State MDE) specifies allowable discharge limitations, where applicable, of biochemical oxygen demand (BOD), suspended solids, coliform organisms, pH, dissolved oxygen, nitrogen, phosphorous, temperature, flow, heavy metals, and pesticides.

Agricultural activities which may require an NPDES permit include animal waste facilities, aquaculture operations, crop irrigation, and large concentrated animal feeding operations. Wastewater treatment plants (WWTPs) require NPDES permits to discharge treated sewage into surface water or the ground. Permitted facilities must adhere to water quality standards as well as effluent limits. A water quality standard is an "instream" standard and applies to a water body whether or not there is a discharge. An effluent limit is a condition of a discharge permit which limits the amount of a particular pollutant that may be discharged into the water body

Table 5-7: Upper Choptank River Watershed Sources of Impairment

	Nitrogen	Phosphorous	Sediment
Point Source	*8.3%*	*11.7%*	*0.0%*
Non-Point Source:			
Agricultural Land	*72.7%*	*66.6%*	*86.9%*
Mixed Open Land	*6.5%*	*12.2%*	*4.4%*
Urban Land	*5.6%*	*7.7%*	*3.4%*
Forest Land	*5.4%*	*0.8%*	*5.2%*
Atmospheric Deposition	*1.6%*	*1.0%*	*0.0%*

Source: Maryland Tributary Strategy Choptank Basin Summary Report for 1985-2003 and Caroline County Dept. of Planning, Codes and Engineering, 2008

Non-point sources are all discharges other than point source discharges, including stormwater runoff from land and erosion of stream and river banks. Table 5-7 includes a list of non-point

sources of impairments for the watershed. Non-point pollution sources are addressed later in the chapter.

Total Maximum Daily Loads (TMDL's)

TMDL's address a single pollutant for each water body. TMDL's are a tool for implementing Maryland's water quality standard. A TMDL is a calculation of the maximum amount of a pollutant that a body of water can receive and still meet water quality standards. TMDL's also allocates that load (amount) among pollution contributors. Maryland has listed the Choptank as impaired on the 303(d) list for failing to meet the state standard for dissolved oxygen in the water, caused by excessive TN & TP. A TMDL is required by the Clean Water Act for water bodies that fail to meet water quality standards. **To date no nutrient TMDL's targets have been set for the Upper Choptank watershed.** Data on water basin nutrient loads and recommended nutrient caps for the Choptank River Basin is included in Maryland Department of the Environment's Statewide Implementation Plan.

With the completion of Denton's ENR upgrade, the plant will be capable of achieving an effluent with Total Nitrogen of 3 mg/l and a Total Phosphorus of 0.3 mg/l. Chart 5-1 (pg 27) illustrates the total loads from 1984 up to projected 2015 after implementation of ENR upgrade.

Table 5-8 shows Denton's plant concentrations for the last four years, 2006-2009. Total Nitrogen concentrations range from 4.6 mg/l to 16.67 mg/l. Total Phosphorus concentrations range from 0.66 mg/l to 1.17 mg/l. Prior to 2008 the plant was operating at 50% flow and utilizing half the process treatment equipment. In 2008, operations staff made the decision to run both biological process basins instead of one. This was decided due to one basin being overloaded and having difficulty with denitrification during the warmer months. The incoming load was inadequate for complete denitrification utilizing both basins so operators were challenged to find the best operating parameters possible under these conditions. Ultimately optimal operating parameters were achieved.

Town of Denton Municipal Wastewater Treatment Facilities Effluent

Table 5-8: Nitrogen and Phosphorus concentrations and loadings

			CONCENTRATION		AVE ANNUAL FLOW LOAD		ANNUAL TOTALS	
	Average Daily Flow (mgd)	Design Capacity (mgd)	TN (mg/l)	TP (mg/l)	TN (lbs/yr)	TP (lbs/yr)	TN (lbs/yr)	TP (lbs/yr)
2009	394,667	800,000	8.93	0.86	1,056	97	12,677	1,166
2008			16.67	0.96	1,742	102	20,902	1,226
2007			8.89	1.17	705	103	8,456	1,240
2006			4.66	0.66	420	61	5,036	728

Source: Town of Denton, Department of Public Works, Denton WWTP Annual Nutrients.pdf

As shown in Caroline County's Comprehensive Plan 2010, there are five wastewater treatment plants (WWTP's) in Caroline County. Two municipalities in Caroline County have major treatment plants, also known as "significant" point sources: Federalsburg and Denton. The

Federalsburg WWTP ENR upgrade is currently underway; and as mentioned earlier Denton is in the later design phase of its upgrade. The towns of Preston, Greensboro, and Ridgely own minor treatment plants (flow less than 0.5 mgd).

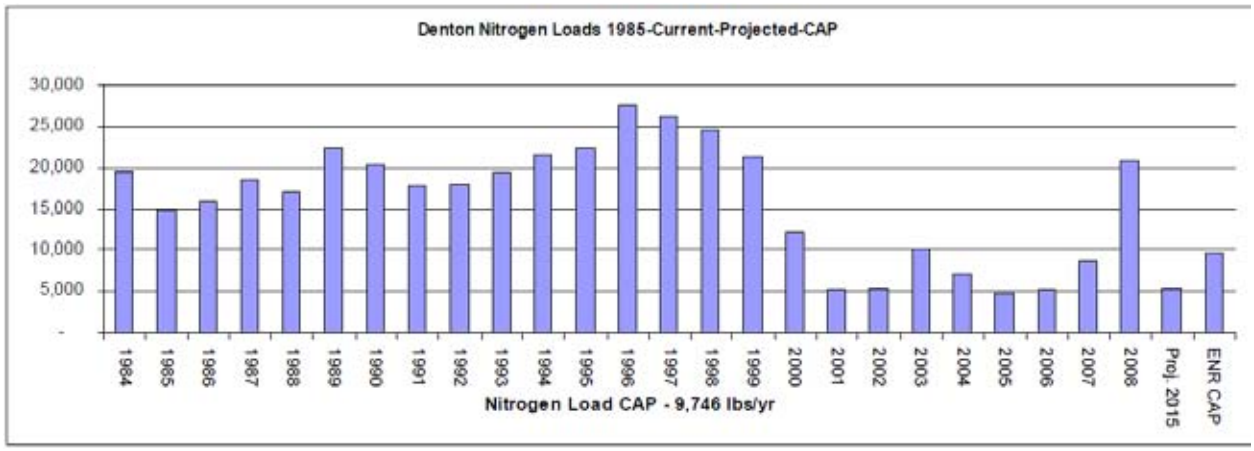
Table 5-9, provided by Caroline County, gives information on the five municipal plants located in Caroline County. Chart 5-1 shows pounds per year for total nitrogen and total phosphorus for years from 1984 to a projection load of approximately 5,000 lbs/yr for Total Nitrogen and approximately 500 lbs/yr for Total Phosphorus in the year 2015.

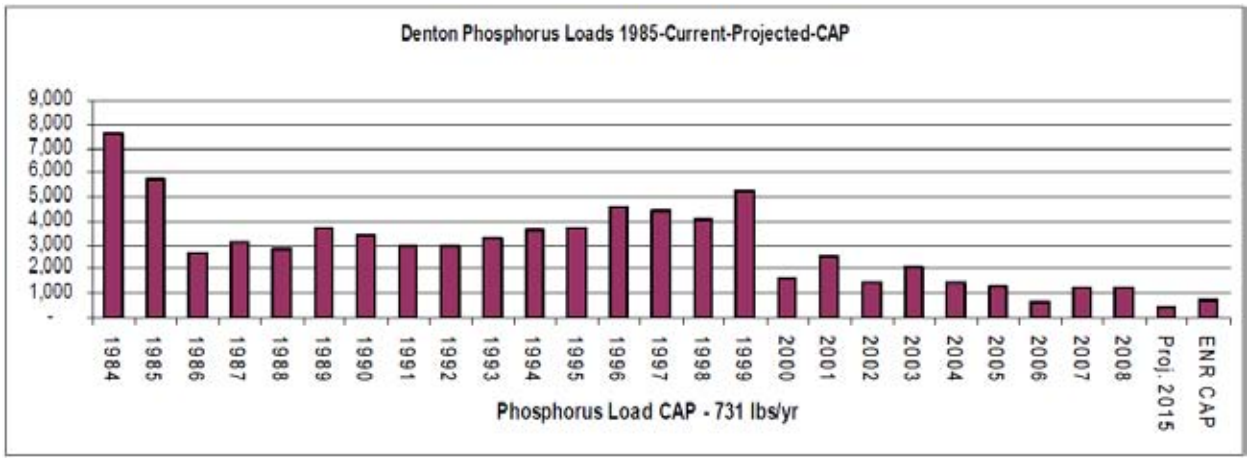
Table 5-9 - 2007 Municipal Water Flows and Nutrient Loads

WWTP	2007 Average Daily Flow (mgd)	Connections	Design Capacity (mgd)	2007 Data			
				TN mg/l	TP mg/l	TN lbs/yr	TP lbs/yr
Denton	0.349	1,396	0.8	8.10	1.18	8,605	1,254
Federalsburg	0.274	1,096	0.75	19.85	0.68	16,557	570
TOTAL MAJOR						25,162	1,823
Greensboro**	0.149	444	0.28	21.02	3.48	9,534	1,578
Preston	0.058	232	0.116	11.34	1.00	2,016	177
Ridgely	0.134	536	0.18	18.00	3.00	7,342	1,224
TOTAL MINOR						18,892	2,979
TOTAL POINT SOURCES						44,054	4,802

***2007 TN & TP mg/l concentrations are average of 2002-2006 data*
(EPA Chesapeake Bay Program Point Source Database; Caroline County Dept. of Planning, Codes and Engineering, 2008)

Chart 5.1: ENR CAPS FOR DENTON



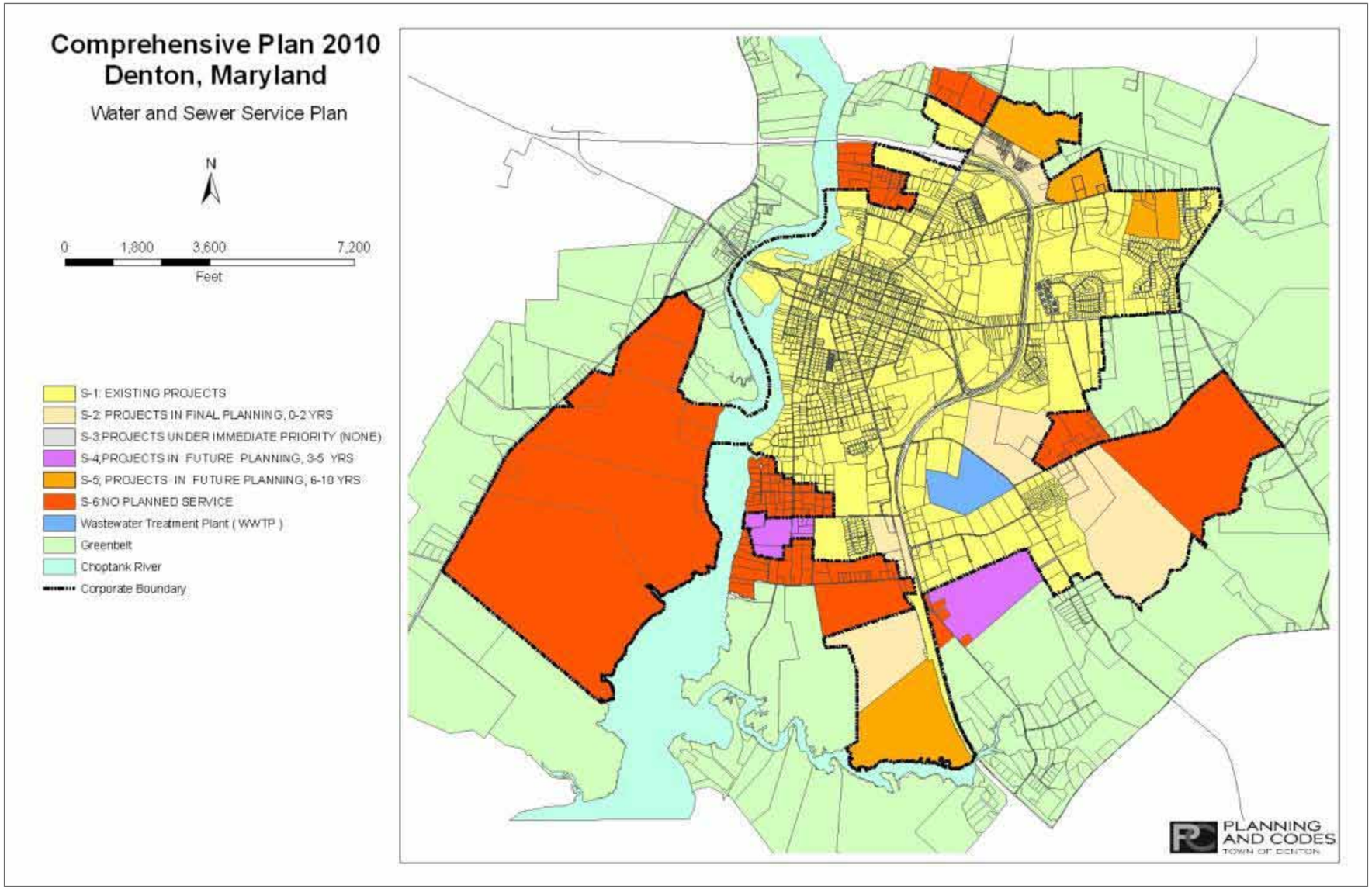


Source: Maryland Department of the Environment (MDE), Facts About...

Water and Sewer Service Plan

Denton's Water and Sewer Service Plan, Map 5-6, illustrates the existing and projected service areas. The properties listed in the S-2 grouping are projects that have gotten final approval and projects that are still in the process of review, while S-3 shows that there are no projects for immediate consideration. The S-6 category represents the areas where no water and sewer service is planned during the planning period. As shown in Map 5-6, the area west of the Choptank River, as discussed in the Municipal Growth Element and previously in the Water Resource Element narrative, is not scheduled for public water or non-septic wastewater provisioning.

Map 5-6


Comprehensive Plan 2010
Denton, Maryland
Water and Sewer Service Plan
N
0
1,800
3,600
7,200
Feet
S-1: EXISTING PROJECTS
S-2: PROJECTS IN FINAL PLANNING, 0-2 YRS
S-3:PROJECTS UNDER IMMEDIATE PRIORITY (NONE)
S-4;PROJECTS IN FUTURE PLANNING, 3-5 YRS
S-5; PROJECTS IN FUTURE PLANNING, 6-10 YRS
S-6:NO PLANNED SERVICE
Wastewater Treatment Plant (WWTP)
Greenbelt
Choptank River
Corporate Boundary
PLANNING AND CODES
TOWN OF DENTON

Septic Systems

The Maryland Department of the Environment standardizes all sewage disposal systems in Maryland. Their responsibilities include issuing permits, licensing septic system installers, and managing complaints. Aerobic treatment units, mounds, and alternative soil absorption designs are covered in current regulations available from The Maryland Department of the Environment. Alternative treatment technologies are approved on a per-case basis. Use of experimental systems is approved for system failures.

Authorized septic treatment and disposal systems approved for use in Maryland include waterless toilets with grey water, groundwater injection, wetlands treatment, spray irrigation, gravelless chamber systems, evapotranspiration beds, recirculating sand filters, and drip irrigation. Typically, a septic system does not remove nitrogen.

The Maryland Department of the Environment regulates septic systems in Maryland and oversees the Bay Restoration Fund, which was created by law in 2004 to provide improved OSDS technology throughout the state and reduce excess nitrogen and phosphorus in the Bay. As mentioned earlier in this chapter the Bay Restoration Fund offers funding to help with the cost of installing denitrification upgrades for septic systems. Senate Bill 554 requires any septic system for a newly constructed building or replacement system in the Critical Area must include Best Available Nitrogen Removal Technology (BAT). An upgraded septic system cuts a systems nitrogen load in half. The Maryland Department of the Environment will prioritize funding for septic system upgrades toward systems as follows: 1) failing septic systems in the Critical Area, 2) failing septic systems outside the Critical Area, 3) non-failing systems in Critical Area, and 4) all other systems, including new construction.

Caroline County's properties that are not located in corporate areas and some located within municipal boundaries, including Denton, are served by on-site sewage disposal systems – septic systems. Approximately 11,105 existed in the county as of the end of 2008. The nitrogen loading rate of a septic system is:

9.5 lbs nitrogen/person/year x average number persons per household x 0.4 (transport factor)
(***Source: Caroline County, Draft Comprehensive Plan, June, 2009, Caroline County Department of Planning and Codes)***

Denton's Town Code requires connection to the public sewer, provided that the public sewer is within 100 feet of the property line. There are several properties in Town that are serviced by private septic systems due to annexations over the last decade. These 84 properties are serviced by 84 septic systems. Applying the previous nitrogen loading formula to the number of current septic systems located in Denton, a total of 731 pounds of nitrogen could impact groundwater quality.

$$[(9.5 \times 2.29) \times 0.4] \times 84 \text{ systems} = 731 \text{ lbs/year}$$

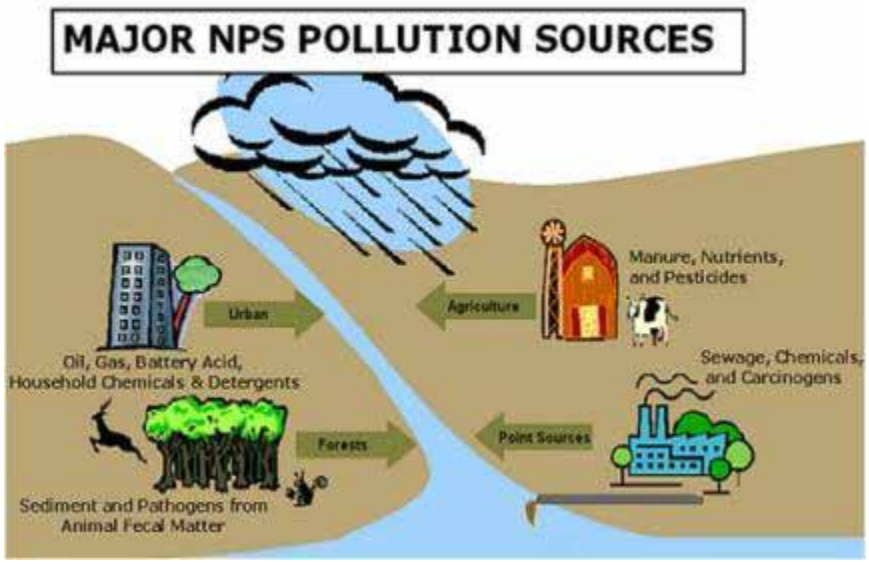
Using another estimate of nitrogen loading, a report from MDE, titled "Environmental Matters Committee Briefing on the Bay Restoration Fund." January 19, 2010, estimated 12 pounds per

year from each system reaches surface waters. Denton's 84 septic systems without upgrades could produce 1,008 lbs of nitrogen potentially impacting surface waters.

NON-POINT SOURCE POLLUTION & STORMWATER MANAGEMENT CONSIDERATIONS

Non-point source pollution occurs when surface runoff generated by rainfall, snowmelt, or irrigation is conveyed over-land, gathering pollutants along the way. The collected pollutants are then deposited directly into waterways or infiltrate into native soils, where they are introduced into ground water resources. Stormwater runoff is an important contributor to non-point source pollutant loading (Figure 5-5). As of 2005, the largest non-point source of nitrogen and phosphorus in the Choptank River Basin was agriculture, being 70 percent and 62 percent of the total contribution, respectively. Agricultural land use was also responsible for the highest volume of the river basin's sediment loads (85 percent).

Figure 5-5: Major NPS Pollution Sources



Source: roanokecountyva.gov/Departments/Engineering/1Stormwater/2NPSPollution.htm

According to the Maryland Tributary Strategy Choptank Basin Summary Report for 1985-2003, the Town of Denton, together with other Urban Uses in the Watershed contribute approximately 5.6% of non-point source nitrogen loadings, 7.7% of the non-point source phosphorus loadings, and 3.4% of the sediment loadings to watershed tributaries.

Stormwater runoff is part of the natural hydrologic process but human activities and the urbanization created by both new and in-fill development can alter natural drainage patterns and add pollutants to local waterways. Urban runoff, especially from impervious surfaces, is often a considerable source of water pollution, including flows released from urban land uses into public or private stormwater conveyance systems and, subsequently, receiving waters.

Traditional methods designed to manage stormwater runoff focused more so on the quantity of runoff that was being released (e.g., volume) while, in general, the overall quality of the runoff being released was of a secondary concern. More recently, though, such dominating policies have been altered and a more acute awareness for the need to improve water quality has

amplified. With a more concentrated focus, Federal, State, and Local guidelines have been established to effectively reduce the pollutant loads contained in the stormwater discharges that are directed to receiving waterways. These guidelines, along with associated programs, promote the perception and practice of preventing pollution at source locations, before it can create aggravated environmental problems.

Denton's Projected Non-Point Source Loading

Data available allows for the estimation of nitrogen and phosphorous loadings from non-point source runoff based on projected growth in the Town through 2030 (Table 5-10). To assist Caroline County with preparing a methodology for calculating nutrient loading rates for each of the County's land uses, MDE developed estimates of the County's nutrient loading rates and loads. Denton applied these same rates.

Land use acreage totals are applied to a formula developed by MDE that includes particular soil factors, average annual rainfall totals and impervious surface ratios (impervious surface ratios vary according to general land use – in brief, developed lands have higher ratios of impervious surface than that of undeveloped lands). The end result is a per-acre rate of loading for each land use. The "Developed Land" per acre rate of loading was applied to the Town of Denton since it reflects a mix of residential, commercial, and industrial uses.

Table 5-10: Denton's estimated non-point source loading rates and loads (2009 and 2030) (full build-out)

Estimated Acres of Developed Land*	Nitrogen Loading Rate (lbs/ac)	Phosphorus Loading Rate (lbs/ac)	Estimated Nitrogen Load (lbs)**	Estimated Phosphorus Load (lbs)**
Year 2009 1,358 acres	9.02	1.31	12,250	1,779
Year 2030† 2,452 acres	9.02	1.31	22,118	3,213
Net Increase	---	---	**9,868**	**1,434**

Notes: Loading rates are based on MDE/CBP land use load estimates.
* "Developed" includes residential, commercial, industrial and institutional land uses, along with those portions of public, semi-public and open spaces that are documented as being developed.
** Represents average load per acre of all acres including Town parkland but excluding agricultural land
† Year 2030 estimates assume full build-out of all undeveloped residential and commercial-zoned properties, while environmentally constrained areas remain undeveloped.

Estimates shown in Table 5-10 indicate that approximately **9,868** additional pounds of nitrogen loading and **1,434** additional pounds of phosphorus loading can be expected as a result of land development over the period. It should be noted that the year 2030 developed land acreage in this table assumes a "maximum" development scenario, where all undeveloped residential and commercial-zoned properties are developed, while any areas restricted by environmental constraints (buffers, preservation lands, etc.) remain undeveloped.

The Town of Denton has instituted a development strategy from year 2009 until year 2030 so as to restrict development by the ability to provide sanitary sewer and potable water service. More specifically, the available capacity of the Town's wastewater treatment facility and the distribution capability of the Town's well systems will be allocated over a twenty-year period to

properly manage growth and assure that upgrades to those associated infrastructures would be needless. As such, alternative estimates can be created that more pragmatically illustrate the non-point loading impact that future development would have in the Town of Denton, as exhibited in Table 5-11.

Table 5-11: Denton's estimated non-point source loading rates and loads (2009 and 2030) (WWTP constrained growth)

Estimated Acres of Developed Land*	Nitrogen Loading Rate (lbs/ac)	Phosphorus Loading Rate (lbs/ac)	Estimated Nitrogen Load (lbs)**	Estimated Phosphorus Load (lbs)**
Year 2009 1,358 acres	9.02	1.31	12,250	1,779
Year 2030† 1,689 acres	9.02	1.31	15,235	2,213
Net Increase	---	---	**2,985**	**434**

Notes: Loading rates are based on MDE/CBP land use load estimates.
* "Developed" includes residential, commercial, industrial and institutional land uses, along with those portions of public, semi-public and open spaces that are documented as being developed.
** Represents average load per acre of all acres including Town parkland but excluding agricultural land
† Year 2030 estimates assume build-out of undeveloped residential and commercial-zoned properties, where growth is restricted by available wastewater treatment capacity and well production capabilities.

When comparing the "maximum" development scenario (Table 5-10) estimates with the actual planned growth expected by the Town of Denton (Table 5-11), approximately **2,985** additional pounds of nitrogen loading and **434** additional pounds of phosphorus loading can be projected as a product of land development over the period. This results in net decreases of 6,883 and 1,000 pounds of nitrogen and phosphorous loading, respectively, when comparing potential and planned growth. All estimates assume that the loading rates per acre will remain the same through year 2030, where the uses of Environmental Site Design (ESD) strategies are not taken into consideration.

Table 5-12 represents results from use of an alternative method used to estimate future levels of pollution from non-point sources in Denton. This method utilizes the "Watershed Treatment Model for Urban Watersheds", developed by MDE and the Center for Watershed Protection. The model incorporates estimates made using measurements of annual rainfall and impervious surface area based on land use and Environmental Protection Agency (EPA) estimates of standard concentrations of nitrogen and phosphorous in urban area stormwater runoff. This model, also known as the "simple model" for calculating pollutant loads is as follows:

$$L = 0.226 * R * C * A$$

Where
L = Annual Load (lbs),
R = Annual runoff (inches),
C = Pollutant concentration (mg/l),
A = Acres of impervious surface, and
0.226 is the unit conversion factor for converting milligrams to pounds.

Table 5-12: Denton non-point pollutant loadings from projected infill development and growth within currently planned municipal areas (maximum development)

	Conversion factor for converting milligrams to pounds	(R) Runoff (annual inches of water) ††	(C) Pollutant Concentration	(A) Impervious Surface (acres) †††	(L) Total load (lbs/year)
Estimated Nitrogen loadings †	0.226	42.8 inches	2.0 mg/l Nitrogen concentration	977	18,901 Nitrogen
Estimated Phosphorus loadings †	0.226	42.8 inches	0.26 mg/l Phosphorus concentration	977	2,458 Phosphorus

† Source: Stormwater Manager's Resource Center (SMRC), EPA Offices of Water and Wastewater Management, "Watershed Treatment Model for Urban Watersheds", MDE and the Center for Watershed Protection. A surface multiplier (0.28) was used to calculate future impervious surfaces for residential use and (0 .72) for commercial.

†† Source: Worldclimate.com Global Historical Climatology Network (GHCN) for Denton, MD.

††† Impervious surface calculation assumes Year 2030 full build-out of all undeveloped residential and commercial-zoned properties, while environmentally constrained areas remain undeveloped. Those portions of public, semi-public and open spaces that are documented as being developed are also included in the calculation.

The use of this method generates results for loading estimates where nitrogen and phosphorus concentrations are lower when compared with similar projected increases in Table 5-10. The two methods institute a range of estimates in non-point source nitrogen loadings between 18,901 and 22,118 lbs per year, while the estimated range for projected phosphorus loadings fall between 2,458 and 3,213 lbs. per year. As with Table 5-10, Table 5-12 reflects the pollutant loading potential when utilizing a “maximum” development scenario, in which case impending growth is only limited to certain environmental constraints.

Since the Town of Denton has a clear strategy for the management of future growth, the same mathematical formula can be used to estimate non-point loading rates associated with development potential when limited to the capacities of existing infrastructure, as was exhibited by Table 5-11. Those estimates are more clearly illustrated in Table 5-13.

Again, the use of this method generates results for loading estimates where nitrogen and phosphorus concentrations are lower when compared with similar projected increases in Table 5-11. For actual projected growth, a range of estimates in non-point source nitrogen loadings between 14,761 and 15,235 lbs per year and between 1,919 and 2,213 lbs. per year for non-point source phosphorous loadings could be surmised. When comparing the results illustrated in Table 13 with the results illustrated in Table 5-12, net decreases of 4,140 and 539 pounds of nitrogen and phosphorous loading, respectively, are realized when limiting planned growth by available infrastructure capabilities.

Table 5-13: Denton non-point pollutant loadings from projected infill development and growth within currently planned municipal areas (constrained growth)

	Conversion factor for converting milligrams to pounds.	(R) Runoff (annual inches of water) ††	(C) Pollutant Concentration	(A)Impervious Surface (acres) †††	(L) Total load (lbs/year)
Estimated Nitrogen loadings †	0.226	42.8 inches	2.0 mg/l Nitrogen concentration	763	14,761 Nitrogen
Estimated Phosphorus loadings †	0.226	42.8 inches	0.26 mg/l Phosphorus concentration	763	1,919 Phosphorus

† Source: Stormwater Manager's Resource Center (SMRC), EPA Offices of Water and Wastewater Management, "Watershed Treatment Model for Urban Watersheds", MDE and the Center for Watershed Protection. A surface multiplier (0.28) was used to calculate future impervious surfaces for residential use and (0 .72) for commercial.

†† Source: Worldclimate.com Global Historical Climatology Network (GHCN) for Denton, MD.

††† Impervious surface calculation assumes Year 2030 build-out of undeveloped residential and commercial-zoned properties, where growth is restricted by available wastewater treatment capacity and well production capabilities. Those portions of public, semi-public and open spaces that are documented as being developed are also included in the calculation.

As previously mentioned, the single largest contributor of non-point source nitrogen and phosphorous loading in the Choptank River Basin is agricultural land use, being 70% of the total impact as of 2005. The nature of the land use makes it so the loading rates for nitrogen and phosphorous are significantly higher than what is experienced on developed properties. It is because of this, the development of agricultural properties helps to reduce the prevalence of non-point source pollutants contained in stormwater runoff, as evidenced in Table 5-14.

Table 5-14: Denton's estimated non-point source loading rates and loads from agricultural sources (2009 and 2030)

Estimated Acres of Agricultural Land*	Nitrogen Loading Rate (lbs/ac)	Phosphorus Loading Rate (lbs/ac)	Estimated Nitrogen Load (lbs)**	Estimated Phosphorus Load (lbs)**
Year 2009 1,633 acres	23.15	2.17	37,804	3,544
Year 2030† 1,070 acres	23.15	2.17	24,771	2,322
Net Decrease	---	---	13,033	1,222

Notes: Loading rates are based on MDE/CBP land use load estimates.

* "Agricultural" includes farmland and any other land use where cultivation of a harvested crop occurs.

** Represents average load per acre of all agricultural acres.

† Year 2030 estimates assume all remaining agricultural lands within the municipal limits that have not been developed.

Analysis indicates that the development of agricultural properties would have a significant effect in reducing the indicated non-point source pollutants. Additional reduction of non-point source pollutants would also be achieved on those developed parcels through the use of both ESD methods and Best Management Practices (BMPs).

Worth mentioning is that stormwater runoff from any land cover condition generates non-point source pollution. Properties that remain undeveloped yet uncultivated still contribute to the pollutant load in a watershed, although their impact is far less since the tendency is to leave such lands in a "natural" state where nutrients are not applied and man-made sources of said

pollutants are not present. As such, the pollutant contribution from these lands can still be quantified (Table 5-15).

Table 5-15: Denton's estimated non-point source loading rates and loads from undeveloped sources (2009 and 2030)

Estimated Acres of Undeveloped Land*	Nitrogen Loading Rate (lbs/ac)	Phosphorus Loading Rate (lbs/ac)	Estimated Nitrogen Load (lbs)**	Estimated Phosphorus Load (lbs)**
Year 2009 300 acres	1.48	0.02	444	6
Year 2030† 533 acres	1.48	0.02	789	11
Net Increase	---	---	345	5

Notes: Loading rates are based on MDE/CBP land use load estimates.
* "Undeveloped" includes private open space, environmentally sensitive areas and those portions of public, semi-public and open spaces that are documented as being undeveloped.
** Represents average load per acre of all agricultural acres.
† Year 2030 estimates assume all remaining undeveloped lands within the municipal limits where build-out has taken place and growth is restricted by available wastewater treatment capacity and well production capabilities.

Once the cumulative impact of development within the municipal limits is analyzed, a more definitive estimation can be made that depicts what the Town of Denton's approximate total contribution for the specified non-point source pollutants would be over the planning period (Table 5-16).

Table 5-16: Denton's estimated non-point source loading from all sources (2009 and 2030)

Total Acreage*	Estimated Nitrogen Load (lbs)**	Estimated Phosphorus Load (lbs)**
Year 2009 3,291 acres	50,498	5,329
Year 2030† 3,291 acres	40,321	4,252
Net Decrease	**10,177**	**1,077**

* Total acreage includes all agricultural, residential, commercial, industrial and undeveloped lands.
** Represents total load estimate of nitrogen and phosphorous from agricultural, residential and commercial development.
† Year 2030 estimates assume all agricultural acreage and build-out of undeveloped residential and commercial-zoned properties, where growth is restricted by available wastewater treatment capacity and well production capabilities.

As described, the development of agricultural acreage will have a significant effect on the non-point source loading within the watershed. Based on the data presented in Table 5-16, non-point source nitrogen and phosphorous pollutants could be effectively reduced by **10,177** and **1,077** lbs per year, respectively. Since the Town has implemented a specific growth strategy over the planning period, the total developed acreage included within the year 2030 estimate is based on the build-out of undeveloped residential and commercial properties, constrained by the ability to provide wastewater treatment and potable water service with existing infrastructures.

SUMMARY OF POINT AND NONPOINT SOURCE LOADS

With the information in the above narrative, an estimate of increases in nutrient loadings from both point (wastewater treatment facility) and non-point (stormwater) loads is shown in Table 5-17.

Table 5-17: Projected point-and nonpoint source pollutant loads 2009 - 2030

	Estimated load increase from point source	Estimated load from non-point sources	Estimated load from both sources
Nitrogen	9,746 lbs./yr.	40,321 (lbs/yr.)	50,067 (lbs. /yr.)
Phosphorous	731 lbs./yr.	4,252 (lbs/yr.)	4,983 (lbs. /yr.)

Review of the projected loads, though sizable, indicate that Denton's growth will represent a small proportion of total TMDL's likely to be allocated for non-point sources, and may therefore be able to be accommodated in watershed-wide context. The development strategy of the Town to restrict growth by the capabilities of existing infrastructure, coupled with the development of agricultural lands and the use of associated ESD methods and BMPs, show that the Town is looking to effectively limit pollutant loadings within the watershed. However, until such time as final TMDL's are assigned to non-point sources of pollution in the watershed, no conclusion can be drawn regarding the assimilative capacity of the watershed to indicate it is fit to support the combined additional loads resulting from wastewater and contaminated stormwater runoff attributable to future growth projected in the Town's Land Use Plan.

This evaluation also does not take into account the demands on the assimilative capacity of the watershed from orderly growth (e.g., County growth and Agricultural use) and underscores the importance to implement coordinated land use and growth management strategies based on sound watershed planning principles. It also underscores the importance of inter-jurisdictional coordination and cooperation between Caroline County, Denton, and other municipalities' need to sustain the Agricultural industry's efforts to reduce non-point loadings in the watershed.

For Total Maximum Daily Loads (TMDLs), Maryland has several well established programs that will be drawn upon: the Water Quality Improvement Act of 1998 (WQIA), the Clean Water Action Plan (CWAP) framework, and the State's Chesapeake Bay Agreement's Tributary Strategies for Nutrient Reduction. Also, Maryland has adopted procedures to assure that future evaluations are conducted for all TMDLs that are established. The implementation of point source nutrient controls will be executed through the use of NPDES permits. The NPDES permit for the Denton WWTP will have compliance provisions, which provide a reasonable assurance of implementation.

Finally, Denton's Land Use and Municipal Growth Plans reflect "smart growth" strategies. They are designed to assure that the capabilities of existing infrastructures can support orderly within the municipality without requiring that substantial upgrades to said infrastructures would be necessary. Limiting growth in such a method assures that impacts to the watershed will be limited over the planning period to year 2030, while focusing on ESD and BMP compliance

during development planning. This approach maximizes opportunities to minimize deterioration in the Upper Choptank River watershed.

WATER RESOURCE STRATEGIES AND RECOMMENDATIONS

As mentioned earlier, Denton's plan to limit development on the eastside of the Choptank River due to WTTP constraints will keep more agricultural land in production. The lands on the west side of the Choptank River that are zoned "rural" with a Planned Neighborhood overlay can only be developed if adequately served by sewer and water facilities provided by the developer. These requirements may serve as a limiting factor to the future development on the west side of the Choptank River, keeping additional acreage in agricultural use.

The single largest contributor of non-point source nitrogen and phosphorous loading in the Choptank River Basin is agricultural land use. The Town will encourage Best Management Practices (BMP)'s to be implemented, reducing nutrient loads for agricultural uses. Some of the agricultural BMP's utilized are; the installation of forest and grass buffers, implementation of soil conservation, water quality and nutrient management plans, planting of cover crops, and installation of drainage water control systems. These practices will support Caroline County's effort to reduce non-point source loads throughout the entire county. Table 5-18 is from Caroline County's Draft Comprehensive Plan and illustrates how implementation of BMP's can result in lowering nutrient loads from agricultural lands in the Choptank River Basin.

Table 5-18: Nutrient Reduction from 2008 Agricultural BMP's Implemented in Choptank River Basin

TN Reduction	TP Reduction	BMP	2008 Acres Implemented	BMP TN REDUCTION (lbs)	BMP TP REDUCTION (lbs)
3%*	5% *	Conservation Plans/ Conservation Till	55,439	31,187	6,062
8% *	15% *	Conservation Plans/ Conventional Till	5,544	10,267	2,245
24.3% **	7% **	Cover Crops Total	7,125	40,081	1,082
25% *	25% *	Forest Buffers	142	820	230
17% *	75% *	Grass Buffers	4,382	17,243	7,131
3.11 lbs/ac^	0.3 lbs/ac^	Nutrient Management	90,941	282,827	27,282
17% *	0 *	Small Grain Enhancement Total	10,267	40,406	0
25% *	50% *	Wetland Restoration	147	848	159
			TOTAL	423,680	44,193

* *Peer-Reviewed and CBP-Approved Nonpoint Source Best Management Practices for Phase 5.0 of the Chesapeake Bay Program Watershed Model, Revised 1/18/06.*

** *Chesapeake Bay Program Cover Crop TN Effectiveness for Phase 5 Watershed Model.*

^ *Chesapeake Bay Program Nutrient Sub-Committee, 2008 (Beth Horsey, MD Department of Agriculture)*

Sources: MD Department of Agriculture; Natural Resource Conservation Service; USDA Farm Service Agency

Source: Caroline County Comprehensive Plan Draft, 2009, Table 21, pg. 75

Caroline County stated that even though nutrient and phosphorus loads were reduced it was not sufficient enough to bring the County's NPS load within reach of the recommended nutrient cap.

EPA's published review of the accomplishments to date of the Chesapeake 2000 Agreement and progress on the 2010 Goals addresses the major issues impeding significant progress on Bay cleanup, one of which is the limited implementation of agricultural conservation practices. In March 2009, EPA issued a "Bay Barometer" that the agricultural community had achieved 50 percent of the 2000 Agreement goal for reducing nutrient loads from agricultural land. The 2009 Barometer also reported that wastewater plants Bay-wide had achieved 67 percent of the WWTP nitrogen reduction goal and 91 percent of the phosphorus reduction goal. EPA acknowledges that since the 2000 Agreement, "less pollution is coming from the agricultural sector but the reduction is not enough to meet the water quality goal." Of the major issues impeding progress in reducing nutrient loads to the Bay, the issue of limited implementation of agricultural BMPs is the one most relevant to the County's role in the impairment of Bay water quality. The predominance of agricultural land use in the County makes the attainment of agricultural nutrient loading goals central to the success of the County's efforts to improve basin-wide water quality. The gap between the progress anticipated as a result of agricultural BMPs, as stated in the Tributary Strategy goals for the Choptank and LES basins, and the actual performance of those BMPs has not fully been explained. The fact that achievements have been lower than expected has been attributed to actual BMP efficiencies being lower than those projected by the Chesapeake Bay Watershed Model, as well as farmers not fully or incorrectly implementing BMPs. The lack of consistent and sustained funding sources to underwrite the cost of implementing BMPs is also cited as an impediment to progress. The field-tested effectiveness of grass and forest buffers, cover crops and nutrient management plans continues to be significant enough to merit their inclusion in MDA and USDA cost-share programs. Caroline County supports effort to increase funding and implementation of these BMPs in the future. The County recommends the implementation of these BMPs and additional strategies to achieve reductions in agricultural land nutrient loads, including:

- Nutrient Management Plans
- Soil Conservation and Water Quality Plans (SCWQP)
- Traditional Cover Crops
- Riparian Forest and Grass buffers
- Ditch Erosion and Drainage Control Systems
- Retire Highly Erodible and Potentially Highly Erodible Agricultural Land
  Quoted in Caroline County Comprehensive Plan Draft, 2009, pg 76

Denton's goal is to assist in applying these techniques to the agricultural lands within the Town boundaries as a mechanism to reduce nutrient loads in the Town, County, and Choptank River Basin.

The Town will also initiate procedures that more intently support the practical management of stormwater flows to advance water quality. Such procedures would include:

- Use of "Environmental Site Design (ESD) Principles to manage Stormwater in new development. The Maryland Stormwater Management Act of 2007 is based upon Environmental Site Design (ESD) Principles, which attempt to imitate natural hydrology on developed properties. The Stormwater Management Act of 2007 is based upon 13 core principles, which are listed below:

    1. Increase onsite runoff reduction volumes
    2. Require a unified early ESD map
    3. Establish nutrient–based stormwater loading criteria
    4. Apply ESD techniques to redevelopment
    5. Integrate ESD and stormwater management together at construction sites
    6. Provide adequate financing to implement the Act and reward early adopters
    7. Develop an ESD ordinance that changes local codes and culture
    8. Strengthen design standards for ESD and stormwater practices
    9. Ensure all ESD practices can be adequately maintained
    10. Devise an enforceable design process for ESD
    11. Establish turbidity standards for construction sites
    12. Craft special criteria for sensitive and impaired waters of the State
    13. Implement ESD training, certification and enforcement

  The Stormwater Management Ordinance provides an exacting framework of both structural and nonstructural methods that shall be used, either alone or in a combination, to create a site design that promotes water quality perpetuation. Planning techniques and practices associated with specific site planning include, but are not limited to:

- Promoting bio-retention and infiltration techniques as a means of treating stormwater runoff. Design methods, such as a rain gardens, infiltration berms and bio-filtration swales provide for the extended detention of stormwater runoff so as to enhance the quality of local tributaries by using the soil and vegetative networks to remove pollutants from stormwater runoff.

- Minimizing impervious surface coverage on all new development.

- Reducing the impervious area within the limit of disturbance (LOD) by at least 50 percent on all redevelopment projects.

- Encourage water quality improvements for redevelopment through techniques such as rainwater harvesting and the use of native planting plans.

- Using green roofs, permeable pavements, reinforced turf and other alternative surfaces.

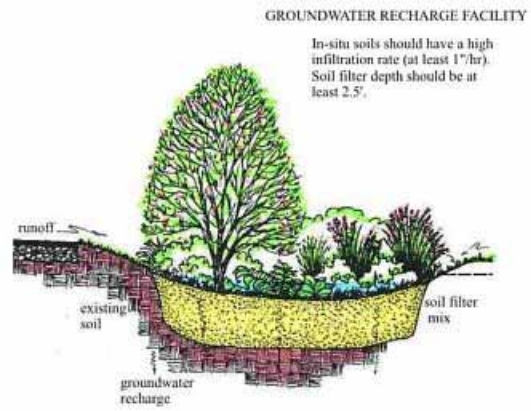
Rain gardens and bio-filtration areas are vegetated surface depressions, often located at low points in landscapes, which are designed to receive stormwater runoff from impervious surfaces. The highly permeable soil structure within the features allows stormwater to infiltrate rapidly into the native soil substructure and eventually contribute to groundwater recharge. Pollutants associated with the accepted runoff are detained by vegetation within the feature and soils

through biological and physical processes such as plant uptake and sorption to soil particles. When compared to the method that a traditional storm drain system utilizes to release captured runoff into a water body, bio-filtration practices reduce peak flows and stressor loadings.

- Utilize Environmental Site Design (ESD) treatment practices to facilitate a concentration on natural stormwater runoff quality treatment, prior to the design of structural Best Management Practices (BMP's). These include:

  § Bio-retention Facilities. Landscaped depressions that are filled with a special soil media and are designed to infiltrate and clean stormwater runoff. When incorporated into an urban environment, they can provide substantial filtering and nutrient removal before runoff is discharged into a conveyance system. These include rain gardens as previously discussed. (Figure 5-6)

Figure 5-6: Bioretention Area

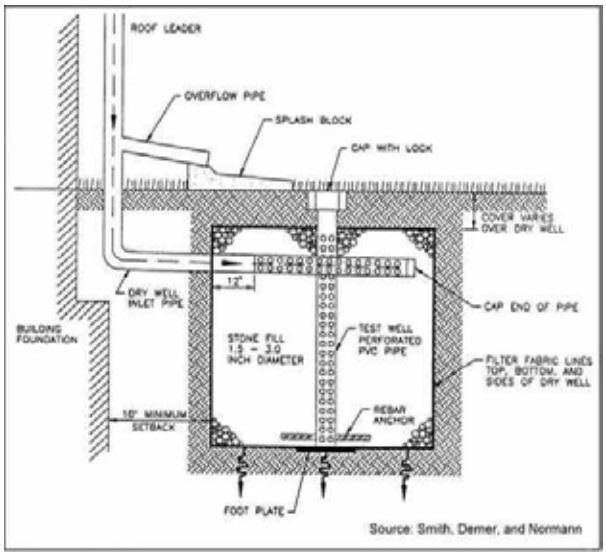


Source: Prince Georges County DER

§ Infiltration Trenches: Trenches filled with porous media such as bio-retention material, sand, or aggregate which collect runoff and allow for percolation into the soil substructure. When located in grassed swales, infiltration trenches provide additional wetted surface area and storage volume and often they can be designed to penetrate shallow impermeable soil profiles to recharge deeper horizons.

§ Dry Wells: Man-made, aggregate-filled pits, located adjacent to residential or commercial structures which are designed to collect runoff from downspouts or impervious surfaces (Figure 5-7)

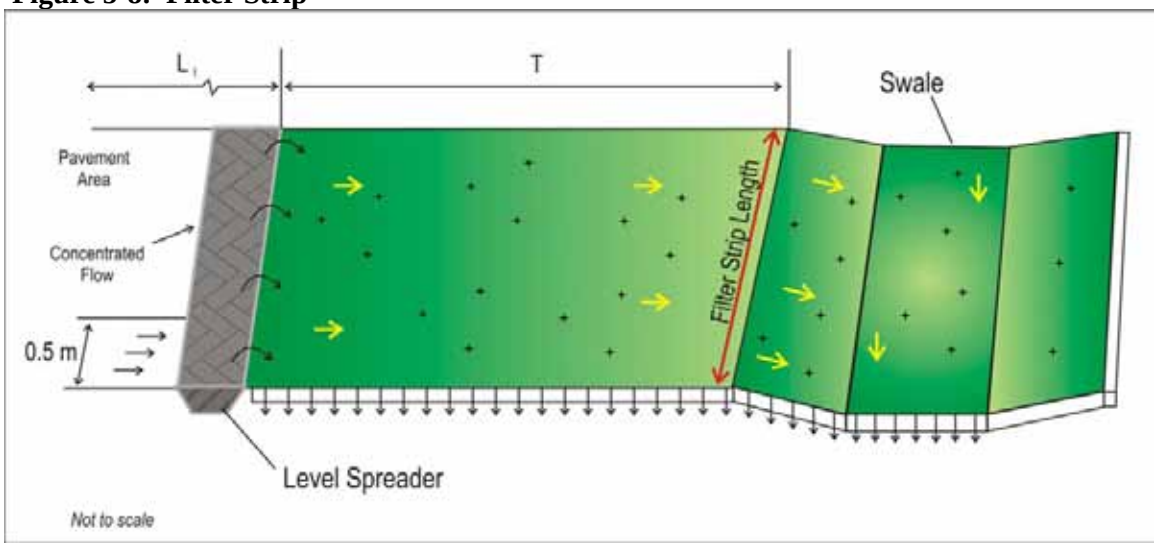
Figure 5-7: Dry Well Schematic



Source: Stormwater Management for Maine, 1995.

§ Filter Strips: Vegetated areas located immediately downstream of a runoff source designed to spread runoff uniformly over the filtering surface, providing infiltration and pollutant removal before runoff enters a natural conveyance or structural BMP (Figure 5-8).

Figure 5-8: Filter Strip

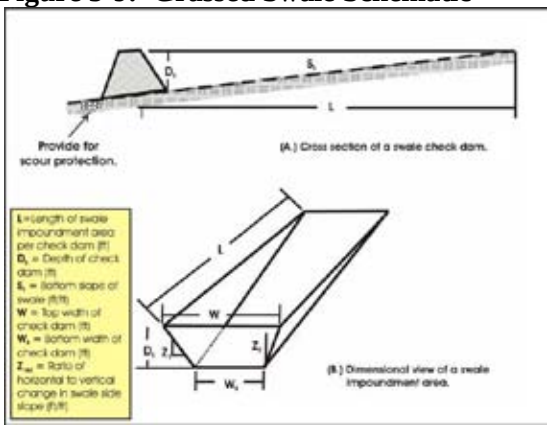


Source: Low Impact Design Manual, US Army Corps of Engineers, 2004

§ Inlet Pollution Removal Devices: Small management systems that are fitted to storm drain inlets that entrap or filter pollutants contained in runoff before they enter into a conveyance system.

§ Bio-filtration Swales: Vegetated conveyances that transmit runoff at shallow flow depths through wide, flat-bottomed swales. Very effective at removing suspended solids and absorbed metals (Figure 5-9)

Figure 5-9: Grassed Swale Schematic



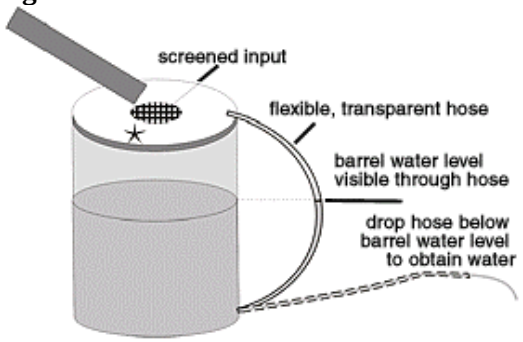
Source: NVPDC, 1991. In EPA, 1999d.

§ Permeable Pavement: Alternative paving surfaces rendered porous by their aggregate structure.

§ Permeable Pavers: Manufactured paving stones containing voids where stormwater runoff can infiltrate into the permeable, underlying media.

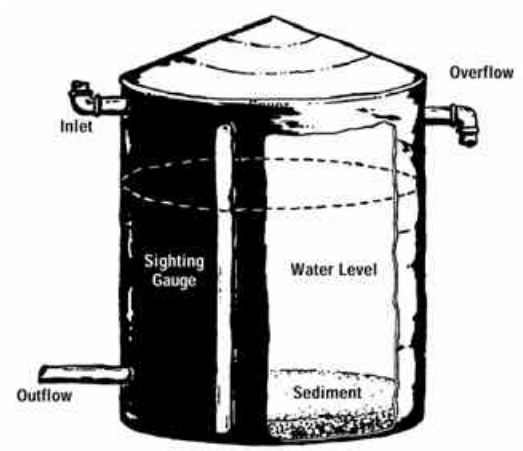
§ Rainwater Harvesting Devices: Structures of various sizes that capture the stormwater runoff conveyed through building downspouts. Rain barrels (Figure 5-10) are generally smaller structures that sit on finished grade while cisterns (Figure 5-11) are larger, are often below grade, and may possibly be connected to a building's plumbing or irrigation system. Rain barrels and cisterns are both low-expenditure conservation strategies that reduce runoff volume and, during smaller storm events, postpone and diminish peak runoff flow rates. Rain barrels and cisterns can afford a source of untreated 'soft water' for landscaping and compost, free of most sediments and salts that could be present in runoff from either impervious or pervious ground cover.

Figure 5-10: Rain Barrel



Source: Maryland DNR Green Building Program.

Figure 5-11: Cistern

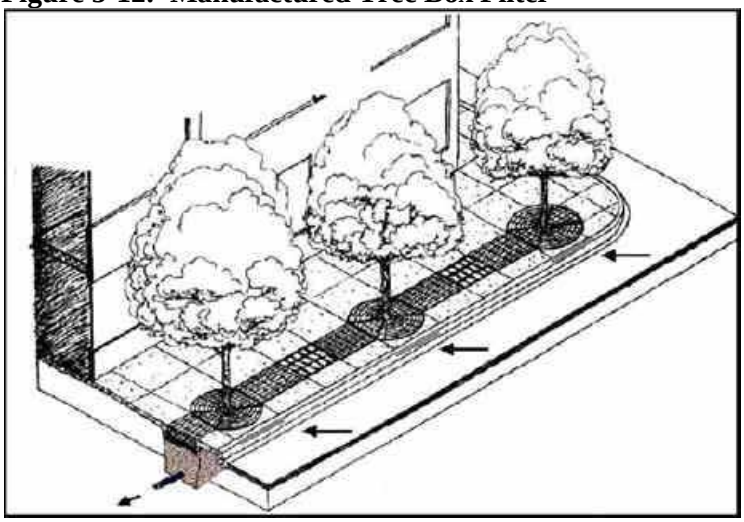


Source: Texas Guide to Rainwater Harvesting.

§ Soil amendments: Minerals and organic material supplementary to native soils to augment their capability for absorbing moisture and supporting vegetation.

§ Landscape Infiltration: Methods of conservation site design that focus on reducing the extent of impervious surfaces and increasing the extent of natural areas made available for the quality treatment of stormwater runoff. Tree box filters (Figure 5-12), for example, are curbside containers placed below grade, covered with a structural inlet. These areas are traditionally filled with highly permeable soil media and landscaped with trees or other native vegetation.

Figure 5-12: Manufactured Tree Box Filter



Source: Virginia DCR Stormwater Management Program.

Vegetated Buffers: Natural or man-made vegetated areas adjacent to a waterway providing erosion control, filtering of sediment and nutrients contained in runoff, and habitat for fauna.

CHAPTER 6 - NATURAL RESOURCES AND SENSITIVE AREAS

INTRODUCTION

The impact of growth and development on the natural resources and environmental quality of the area is an issue of increasing public concern. Caroline County is blessed with an abundance of valuable natural resources which contribute to the County's pleasant quality of life. The effects of increased population and physical development can manifest themselves on the natural environment in many ways, including:

- Clearing of trees and natural vegetation;
- Loss of plant, wildlife habitats, and populations;
- Loss of farmlands;
- Loss of important wetlands and aquatic habitats;
- Contamination of groundwater for drinking supplies;
- Reduced surface water quality in streams, rivers, and the Bay;
- Disruption of natural water drainage systems;
- Increased air pollution;
- Increased amounts of solid wastes and litter; and
- Loss of scenic natural views.

Environmental deterioration does not have to be an inevitable consequence of growth and development. The construction of the new homes, businesses, industries, schools, and roads necessary to accommodate growth can occur without unduly threatening the area's environmental quality if steps are taken to ensure that new development is designed and implemented in an environmentally sensitive manner.

Throughout the Town, there are areas that are much more susceptible to environmental degradation than others due to the presence or proximity of sensitive natural features. Future development should be directed away from sensitive environmental areas and guided towards areas where environmental impacts would be less severe. Regardless of location, all future development should be subject to minimum performance standards for environmental protection and natural resource conservation.

GOALS

- Preserve and protect the important natural features of the Town including streams, wooded areas, wildlife habitats, and other sensitive natural areas.
- Improve water quality in the Choptank River.
- Protect environmentally sensitive areas.
- Establish specific development policies for reviewing all development activities within natural corridors, with respect to impact on, and protection of groundwater and green infrastructure.
- Preserve natural drainage ways.

OBJECTIVES

- Assess future development proposals in light of the site's physical suitability to accommodate development while protecting natural resources, historic features, and the quality of the Town's groundwater.
- Provide specific protection measures for the following areas: 1) Streams and stream buffers, 2) 100-year floodplain, 3) endangered species habitats, and 4) steep slopes.
- Identify wetlands and flood plains in order to provide the special protection they may need.
- Preserve and protect fragile groundwater resources within the Town.
- Assure that proper stormwater management, and sediment and erosion controls are enforced in accordance with the Stormwater Management Ordinance.
- Conserve forest and woodland resources and, wherever possible, replenish them through tree conservation measures, and replanting programs in compliance with the Maryland Forest Conservation Act.
- Insure that all new development and redevelopment minimizes pollutant loadings and runoff from the site through the implementation of sediment, stormwater, and erosion control plans.
- Protect and preserve the most valuable remaining ecological lands (Green Infrastructure) in and around the Town, and encourage restoration of lands to a green infrastructure condition.

Chesapeake Bay Critical Area

Within the Town of Denton, there are environmentally sensitive areas located adjacent to the Choptank River, a tributary of the Chesapeake Bay. The Town, along with other local jurisdictions in the State of Maryland, was required to develop a local Critical Area program in accordance with the Environment Article of the Maryland Annotated Code and the Code of Maryland Regulations.

The Critical Area Law evolved out of recognition by the State of Maryland General Assembly that the effects of human activity have resulted in deteriorating water quality and productivity of the Chesapeake Bay and its tributaries. This activity has caused increased levels of pollutants, nutrients, and toxins in the Bay system. It has resulted in the decline of low intensity land uses such as forest land and agriculture. The restoration of the Chesapeake Bay and its tributaries is dependent, in part, upon improving water quality and minimizing further adverse impacts to the natural habitats of the shoreline and adjacent lands. The primary focus of this law is to provide for more sensitive development and conservation measures for shoreline development and uses, for all land at a minimum of 1,000' of the landward boundaries of the state or private wetlands and the heads of tide (mean high tide).

The Town of Denton Chesapeake Bay Critical Area Local Program was approved in 1988 and updated in 2004. Map 6-1 shows the area included in the Town's Critical Area Program. The Denton Critical Area Program establishes criteria and standards which will accomplish the three protective goals of the Critical Area Act, namely:

- Minimize adverse impacts on water quality that result from pollutants that are discharged from structures or conveyances or that have runoff from surrounding lands;

- Conserve fish, wildlife, and plant habitat; and
- Establish land use policies governing development in the Chesapeake Bay Critical Area which accommodate growth and also address the fact that, even if pollution is controlled, the number, movement, and activities of persons in that area can create adverse environmental impacts.

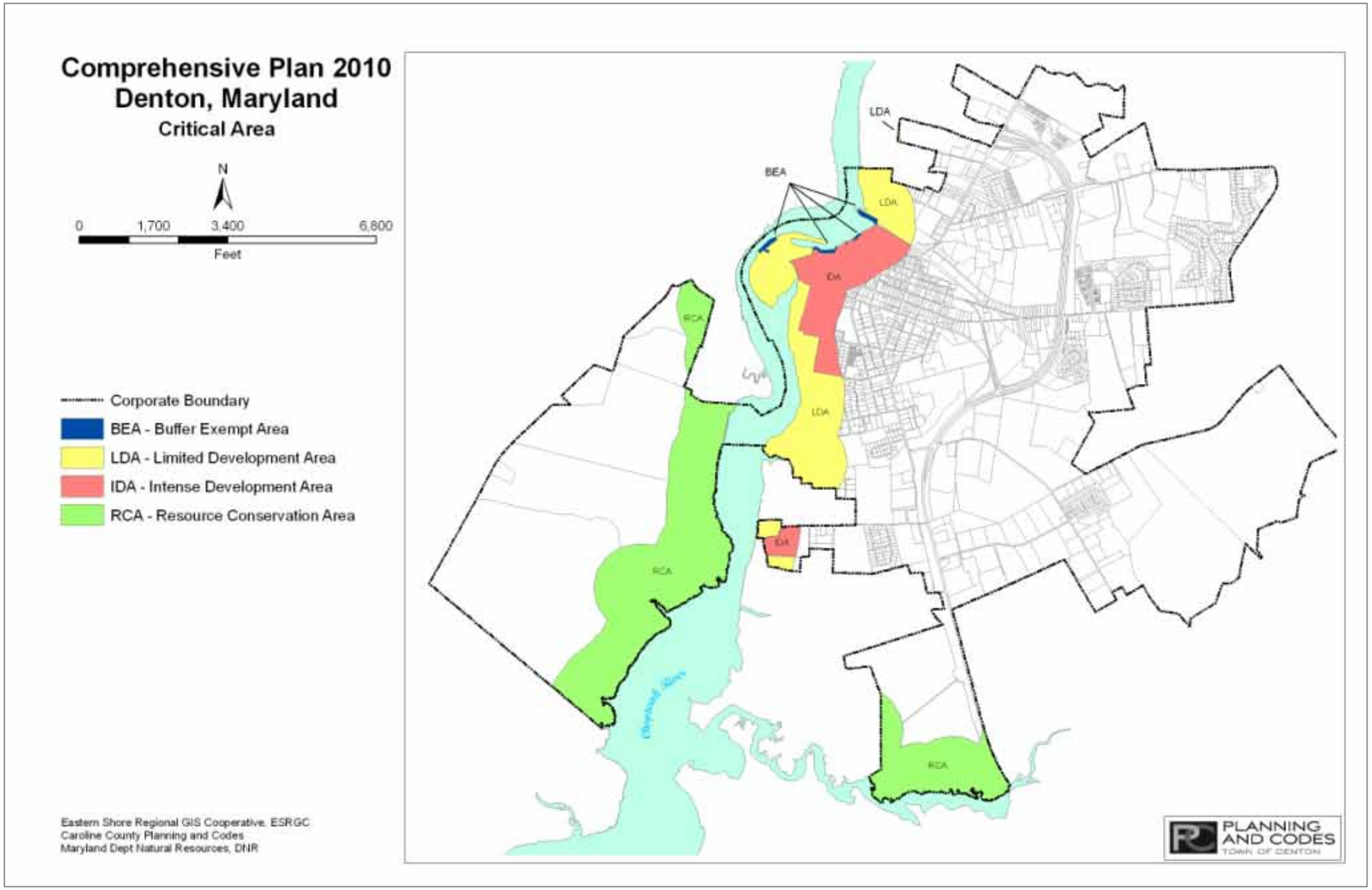
Following adoption of its Critical Area Program, the Town adopted ordinances and regulations to implement the protection standards recommended.

In July 1, 2008, House Bill 1253 took effect. These legislative changes were necessary to:

- Fill gaps in operational structure and enhance State-local coordination
- Clarify and strengthen enforcement procedures
- Streamline the Critical Area Program in order to enhance consistency, predictability, and fairness
- Protect Maryland's tidal shoreline from negative impacts of growth and development
  (Source: Critical Area Commission, Chesapeake and Atlantic Coastal Bays, Critical Area Update Summary, May 20, 2008)

Some of the changes were the expansion of the buffer to 200' feet for developments meeting certain criteria being located in the Resource Conservation Area, holding contractors accountable for Critical Area violations, and a change in terminology from "impervious surface" to "lot coverage" to better control the amount of surface run-off.

Map 6-1


Comprehensive Plan 2010
Denton, Maryland
Critical Area
N
0
1,700
3,400
6,800
Feet
Corporate Boundary
BEA - Buffer Exempt Area
LDA - Limited Development Area
IDA - Intense Development Area
RCA - Resource Conservation Area
Eastern Shore Regional GIS Cooperative, ESRGC
Caroline County Planning and Codes
Maryland Dept Natural Resources, DNR
LDA
BEA
LDA
IDA
RCA
LDA
IDA
RCA
RCA
PLANNING AND CODES
TOWN OF DENTON

Sensitive Areas

The Maryland Economic Growth, Resource Protection, and Planning Act of 1992 added provisions to Article 66 B of the Annotated Code for the State of Maryland that require the Denton Comprehensive Plan contain a Sensitive Areas Element which describes how the Town will protect the following sensitive areas:

- Streams and stream buffers;
- 100-year floodplains;
- Habitats of threatened and endangered species; and
- Steep slopes.

Many of these sensitive areas are shown on Map 4-1, "Municipal Growth Element, along with other habitats of State concern. Performance standards to protect these sensitive resource areas have been included in the Zoning Ordinance and Subdivision Regulations. These standards establish minimum protection levels for stream valleys, wetlands, forests, wildlife habitats, and sensitive soils.

Streams and Stream Buffers

Streams and their buffers are important resources. Streams support recreational fishing and serve as spawning areas for commercial fish stock. Development near stream areas subject to flooding can result in the loss of life and property. Streams and their adjacent buffers are home to countless species of animals and plants; and transport valuable nutrients, minerals, and vitamins to rivers and creeks and, in turn, the Chesapeake Bay. The floodplains, wetlands, and wooded slopes along streams are important parts of the stream ecosystem. There are three Tier II designated water bodies within Denton's boundary. All three streams are located along the Town's current boundary, proposed growth area, and proposed "greenbelt."

As development activity consumes large amounts of land, forest cover, and natural vegetation along streams are diminished. The cumulative loss of open space and natural growth reduces the ability of remaining land along streams to buffer the effects of greater stormwater runoff, sedimentation, and higher levels of nutrient pollution. Buffers serve as protection zones when located adjacent to streams and reduce sediment, nitrogen, phosphorous, and other runoff pollutants by acting as a filter, thus minimizing stream damage. The effectiveness of buffers to protect stream water quality is influenced by their width (which should take into account such factors as contiguous or nearby slopes, soil erodibility, and adjacent wetlands or floodplains), the type of vegetation within the buffer (some plants are more effective at nutrient uptake than others), and maintenance of the buffer.

Buffers also provide habitat for wetland and upland plants which form the basis of healthy biological communities. A wide variety of animals use the natural vegetation as a corridor for food and cover. A natural buffer system provides connections between remaining patches of forest in the area to support wildlife movement.

Floodplain

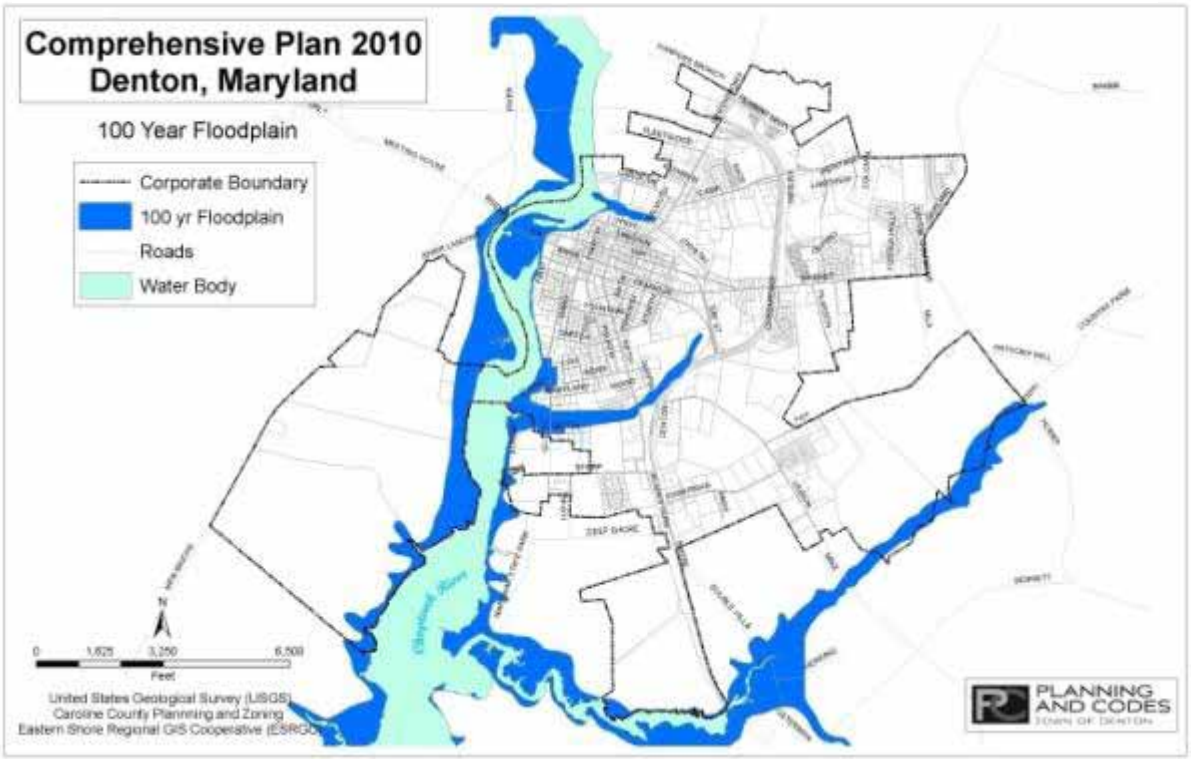
Some areas are subject to periodic flooding which poses risks to public health and safety, and potential loss of property. Flood and flood-related losses are created by inappropriately located

structures which are inadequately elevated or otherwise unprotected and vulnerable to floods, or by development which increases flood damage to other lands or development. (Map 6-2) While protection of life and property provided the initial basis for protection of floodplains, there has been a growing recognition in recent years that limiting disturbances within floodplains can serve a variety of additional functions with important public purposes and benefits.

Floodplains moderate and store floodwaters, absorb wave energies, and reduce erosion and sedimentation. Wetlands found within floodplains help maintain water quality, recharge groundwater supplies, protect fisheries, and provide habitat and natural corridors for wildlife.

The minimum requirements of the National Flood Insurance Program do not prohibit development within the 100-year floodplain. However, to adhere to the minimum federal requirements, the Town requires development and new structures in the floodplain to meet certain flood protection measures including elevating the first floor of structures a minimum of one foot above 100-year flood elevations and utilizing specified flood-proof construction techniques.

Map 6-2: Floodplain



Moreover, where alternative building sites on a parcel are available for construction outside the 100-year floodplain, then construction in the floodplain is prohibited. These requirements are established in the Town's Floodplain Management Ordinance.

Habitats of Threatened and Endangered Species

Materials and chemicals produced by plants and animals are a largely non-researched storehouse for products beneficial to people. More than half of all medicines in use today can be traced to wild organisms. Plant chemicals are the sole or major ingredient in 25 percent of all prescriptions written in the United States each year. Likewise, agriculture depends on the development of new varieties of crops, often created by cross-breeding strains with wild relatives of crop species, in efforts to develop pest, disease, or drought resistant crops. Maintenance of biological diversity today sustains future opportunities to advance health care and provide a number of other societal benefits.

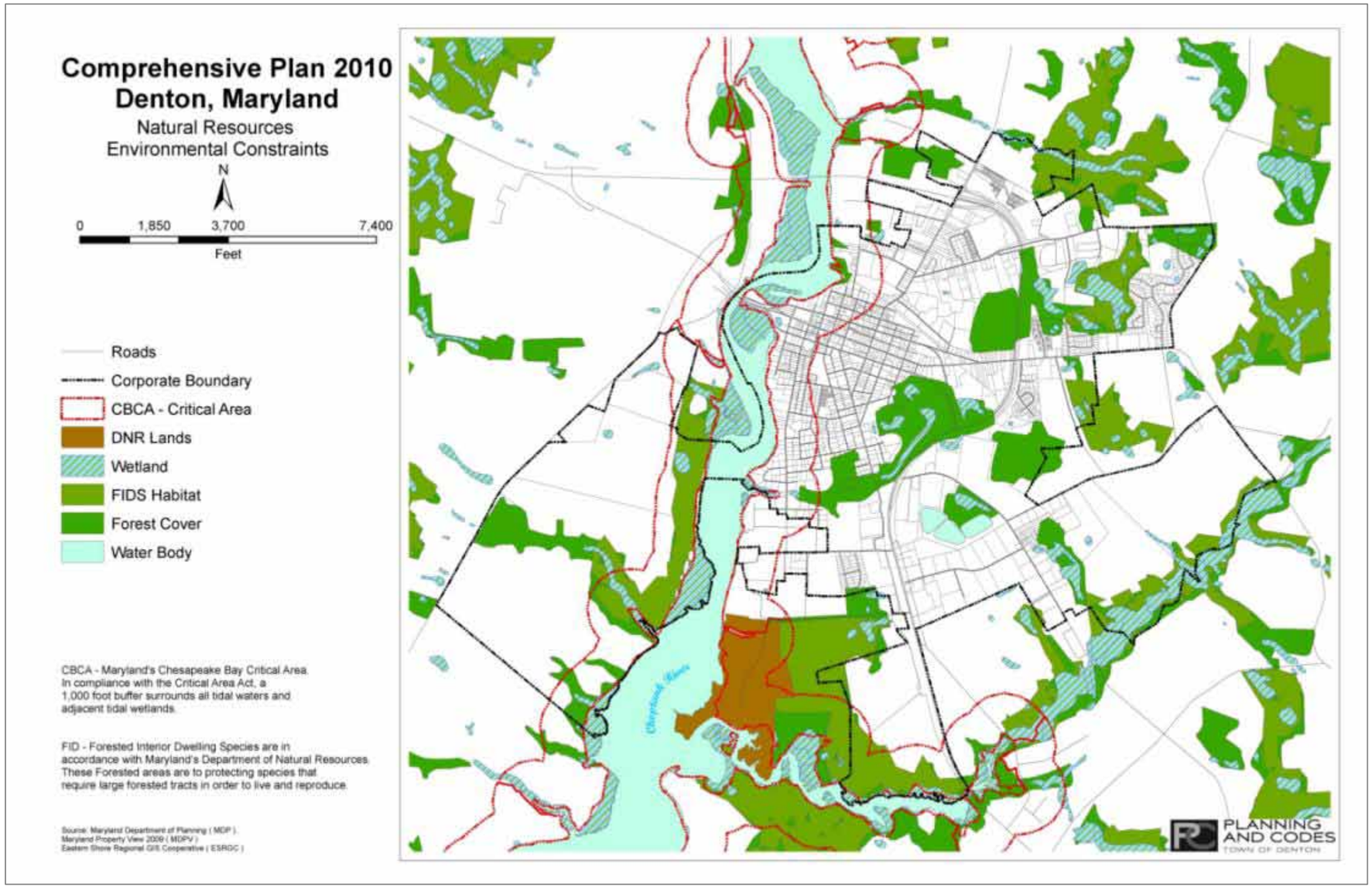
Habitat destruction and degradation is currently estimated to threaten some 400 native Maryland species with extinction. The key to protecting threatened and endangered species is protecting the habitats in which they exist. Map 6-3 shows the Town's Environmental Resource areas, such as Wetlands, Forested Areas, Forested Interior Dwelling Species (FIDS), and a large area (107 acres) just outside of Denton town limits that is DNR lands, Martinak State Park.

The Maryland Nongame and Endangered Species Conservation Act (Natural Resources Article, 10-2A-01 through 06) provides definitions of threatened and endangered species. Maryland law and regulations do not currently provide a definition of habitat. As a basis for establishing protection measures for habitats of threatened and endangered species, habitat is defined in this Plan as "areas which, due to their physical or biological features, provide important elements for the maintenance, expansion, and long-term survival of threatened and endangered species listed in COMAR 08.03.08. Such areas may include breeding, feeding, resting, migratory, or overwintering areas".

Steep Slopes

Slopes provide an environment that facilitates movement of soil and pollutants when land disturbances occur. Control of erosion potential is usually achieved through regulation of development on steep slopes because such areas represent the greatest opportunity for accelerated soil loss, and resultant sedimentation, and pollution to streams. For regulatory purposes, steep slopes should include, at a minimum, any slope with a grade of 25 percent or more covering a contiguous area of 10,000 square feet or more.

Map 6-3


Comprehensive Plan 2010
Denton, Maryland
Natural Resources
Environmental Constraints
N
0
1,850
3,700
7,400
Feet
Roads
Corporate Boundary
CBCA - Critical Area
DNR Lands
Wetland
FIDS Habitat
Forest Cover
Water Body
CBCA - Maryland's Chesapeake Bay Critical Area. In compliance with the Critical Area Act, a 1,000 foot buffer surrounds all tidal waters and adjacent tidal wetlands.
FID - Forested Interior Dwelling Species are in accordance with Maryland's Department of Natural Resources. These Forested areas are to protecting species that require large forested tracts in order to live and reproduce.
Source: Maryland Department of Planning (MDP).
Maryland Property View 2009 (MDPV)
Eastern Shore Regional GIS Cooperative (ESRGC)
Choptank River
PLANNING AND CODES
TOWN OF DENTON

Sensitive Areas Regulations

Streams and Stream Buffers

The Town of Denton has established development standards to protect sensitive environmental areas that apply to all subdivisions and development requiring site plan approval. These standards require retention or creation of natural buffers along all perennial and intermittent streams. Perennial streams require a 100 foot natural buffer and intermittent streams require a no-disturbance 50 foot buffer. The minimum perennial stream buffers must be expanded to include contiguous one-hundred-year floodplain and nontidal wetlands, hydric soils, highly erodible soils, and soils on slopes greater than 15% to a maximum distance of 300 feet.

The Federal Clean Water Act requires the State of Maryland to identify water bodies that are high in quality (Tier II water bodies). Denton has three Tier II streams within their jurisdiction, these streams also require a100 foot buffer, and must comply with Maryland's antidegradation policy. A further discussion concerning Denton's Tier II streams are found in Chapter 5, "Water Resource Element".

Buffers located within the Town's Critical Area are required to follow new regulations that became effective on March 8, 2010. The new regulations create standards for delineating the Buffer, measuring the Buffer, and mandatory expansion for contiguous sensitive areas. The minimal buffer requirement is 100 feet landward from tidal waters or tidal wetlands, within the Resource Conservation Area a buffer of at least 200 feet from tidal waters or a tidal wetland is required under certain conditions.

The buffer is expanded in the Critical Area when one or more of the following conditions exist:

- Steep slopes at a rate of four feet for every one percent of slope or to the top of the slope, whichever is greater,
- Nontidal Wetlands of Special State Concern to include the wetland and its regulated (by MDE) 100-foot buffer,
- Nontidal wetlands to the upland boundary of the nontidal wetland, and
- Highly erodible soils and hydric soils to the landward edge of the soil or 300-feet (which include the minimum 100-foot Buffer), whichever is less.

Environmentally sensitive building and site-design guidelines that follow LEED (Leadership in Energy and Environmental Design) guidelines should be incorporated into the subdivision review process to minimize the potential negative impacts of stormwater flows on adjacent aquatic resources and water quality.

Nontidal Wetlands

A twenty-five foot setback from all nontidal wetlands (except for the above mentioned conditions concerning nontidal wetlands in the Critical Area), is required for all development around the extent of the delineated nontidal wetland except as may be permitted by the U.S. Army Corp of Engineers and the State of Maryland, Department of Natural Resources, Nontidal Wetlands Division.

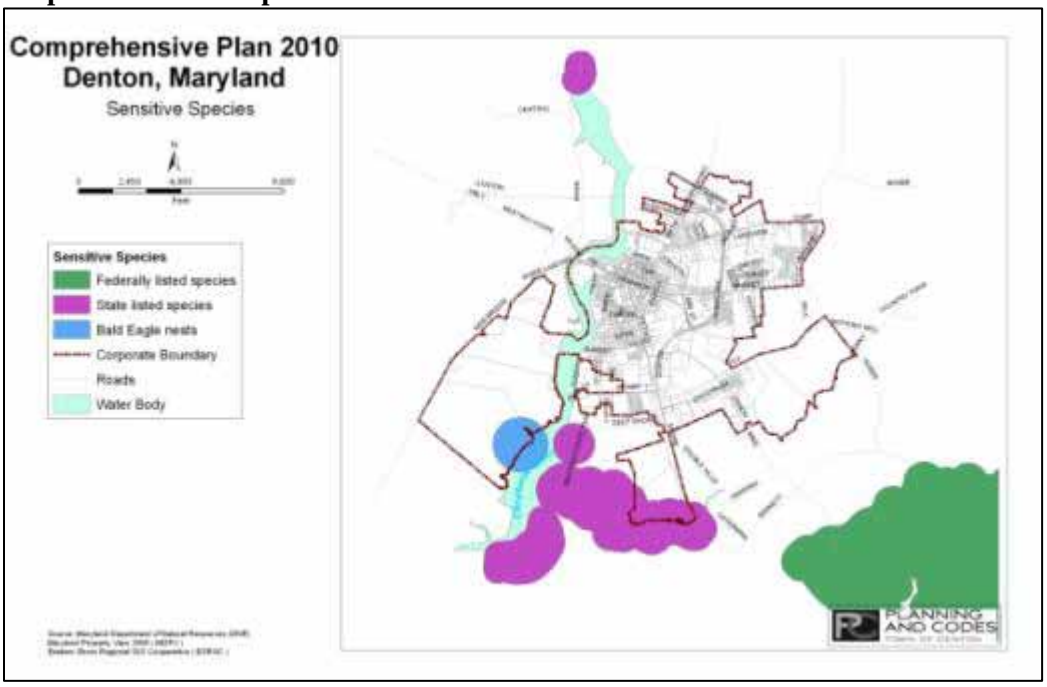
Steep Slopes

Structure or impervious surface may not be placed on any slope with a grade of 15% or more covering a contiguous area of 10,000 square feet or more. On slopes between 15% and 25%, good engineering practices shall be used to insure sediment and erosion control and slope stabilization before, during, and after disturbance activities and to minimize cut and fill. A minimum fifty foot buffer must be established between development and the crest of slopes in excess of 25%. Within the Critical Area, the buffer requirements are expanded if the steep slopes are at a rate of four feet for every one percent of slope or to the top of the slope, whichever is greater.

Habitats of Threatened and Endangered Species

The Town requires that development (as described by the Maryland Department of Natural Resources Natural Heritage Program) avoid habitats of rare, threatened, and endangered species. Proposed development projects must be reviewed by the Maryland Department of Natural Resources. Map 6-4 shows Sensitive Species areas in and around Denton. When a project is within a Wildlife Habitat (Project Review Area), the developer is required to contact the Maryland Department of Natural Resource's Heritage and Biodiversity Conservation Program (HBCP) and address any comments and/or recommendations made by that State agency. Populations of many Forest Interior Dwelling Bird species (FIDS) (Map 6-5) are declining in Maryland and throughout the eastern United States. The conservation of FIDS habitat is strongly encouraged by the Department of Natural Resources.

Map 6-4: Sensitive Species



Map 6-5: Inset Map of FIDS areas

Forest Conservation

The Forest Conservation Act of 1991 (Natural Resources Article, § 5-1601, et. seq.) was enacted to protect the forests of Maryland by making forest conditions and character an integral part of the site planning process. It is regulated by the Maryland Department of Natural Resources, but implemented and administered by local governments. The Forest Conservation Act seeks to maximize the benefits of forests and slow the loss of forest land in Maryland, while allowing development to take place. Map 6-6 shows forested areas within the Town boundary.

The Denton Forest Conservation Ordinance requires that a person making application for subdivision, project plan approval, a grading permit, or a sediment control approval on units of land 40,000 square feet or greater must submit a forest stand delineation and a forest conservation plan for the lot or parcel on which the development is located if the regulated activity cannot be exempted. A qualified professional reviews forest stand delineation and forest conservation plans for the Town to insure accuracy and compliance with the Town code.

Map 6-6: Forested Areas

The Ordinance establishes forest conservation thresholds for all land use categories. The forest conservation threshold sets the percentage of the net tract area at which the reforestation requirement changes from a ratio of 1/4 acre planted for each acre removed above the threshold to a ratio of 2 acres planted for each acre removed below the threshold. After reasonable efforts to minimize the cutting or clearing of trees and other woody plants have been exhausted in the development of a subdivision; site plan or project plan; grading and sediment control activities; and implementation of the forest conservation plan; the forest conservation plan must provide for reforestation, or payment into the forest conservation fund, consistent with the following forest conservation threshold for the applicable land use category:

Table 6-1 Forest Conservation Threshold Requirements

Category of Use	Threshold Percentage
Agricultural and resource areas	50 percent
Institutional development areas	20 percent
High density residential areas	20 percent
Mixed use and planned unit development areas	15 percent
Commercial and industrial use area	15 percent

Source: Forest Conservation & Critical Area Program, Town of Denton

Each acre of forest retained on the net tract area above the applicable forest conservation threshold will be credited towards the total number of acres required to be reforested for all existing forest cover cleared on the net tract area below the applicable forest conservation threshold, the area of forest removed shall be reforested at a ratio of two acres planted for each acre removed below the threshold.

If little or no forest exists in the site, the applicant must conduct afforestation on the lot or parcel. An agriculture or resource area tract having less than 20 percent of the net tract area in forest cover must be afforested up to at least 20 percent of the net tract area. Institutional development areas, high density residential areas, mixed use and planned unit development areas, and commercial and industrial use areas with less than 15 percent of net tract area in forest cover must be afforested up to at least 15 percent of the net tract area.

The 2009 Maryland Legislative Session enacted SB666 "No Net Loss of Forestry Policy." This bill modifies several provisions of the Forest Conservation Act, and supersedes conflicting regulations within the Town's current Forest Conservation Ordinance; Hence, the stricter provisions would apply.

Some changes are:

- limit the exemptions for forest clearing associated with a single lot, a linear project, and a dwelling house to a maximum disturbance of 20,000 (instead of 40,000) square feet of forest;
- limit the exemption for construction of dwelling houses to owners and their children, eliminating authority for an owner's grandchildren;
- eliminate an exemption for areas that were previously developed and covered by paved surface;
- authorize the use of an off-site protective agreement that applies to forests that are temporarily protected as a mitigation practice for meeting afforestation or reforestation requirements;
- broaden the acceptable uses of State and local Forest Conservation Funds to include maintenance of existing forests and achieving urban tree canopy goals; and
- require that priority be given to specified trees, shrubs, plants, and areas for retention and protection, unless a variance is granted.

The bill alters the fee-in-lieu contribution rate to State and local conservation funds that is required under specified circumstances from 10 cents per square foot to 30 cents per square foot of the area of required planting until September 30, 2014. After September 30, 2014, the rate must be adjusted for inflation as determined annually by DNR via regulation.

Regional Environmental Protection

Natural systems do not follow political boundaries. Consequently, any efforts to manage for adverse impacts to the natural environment must recognize the regional context for protection efforts and involve coordinated efforts at all levels of government to have any hope for success. State, county, and town strategies for environmental protection should be based on sound watershed management principles and coordinated resource protection strategies. Two components of regional strategies for natural resource protection are based on the region's geographic components: watersheds and green infrastructure.

Watershed Management

Impervious surfaces strongly influence watershed quality. Accordingly, critical analysis of the degree and location of future development (and impervious cover) that is expected in a watershed is important to the long-term health of the land and receiving waters. Planning at the watershed and sub-watershed level presents the opportunity to comprehensively address land use and environmental protection as intricately related topics. It enables decision makers to better understand the potential impacts of land uses on such things as stream health, water quality, and wildlife diversity; and devise strategies to offset or address potential adverse results. A 1996 publication by the Environmental Protection Agency entitled, "The Why Watershed Report," makes the following point in concerning the reasons watershed planning makes sense:

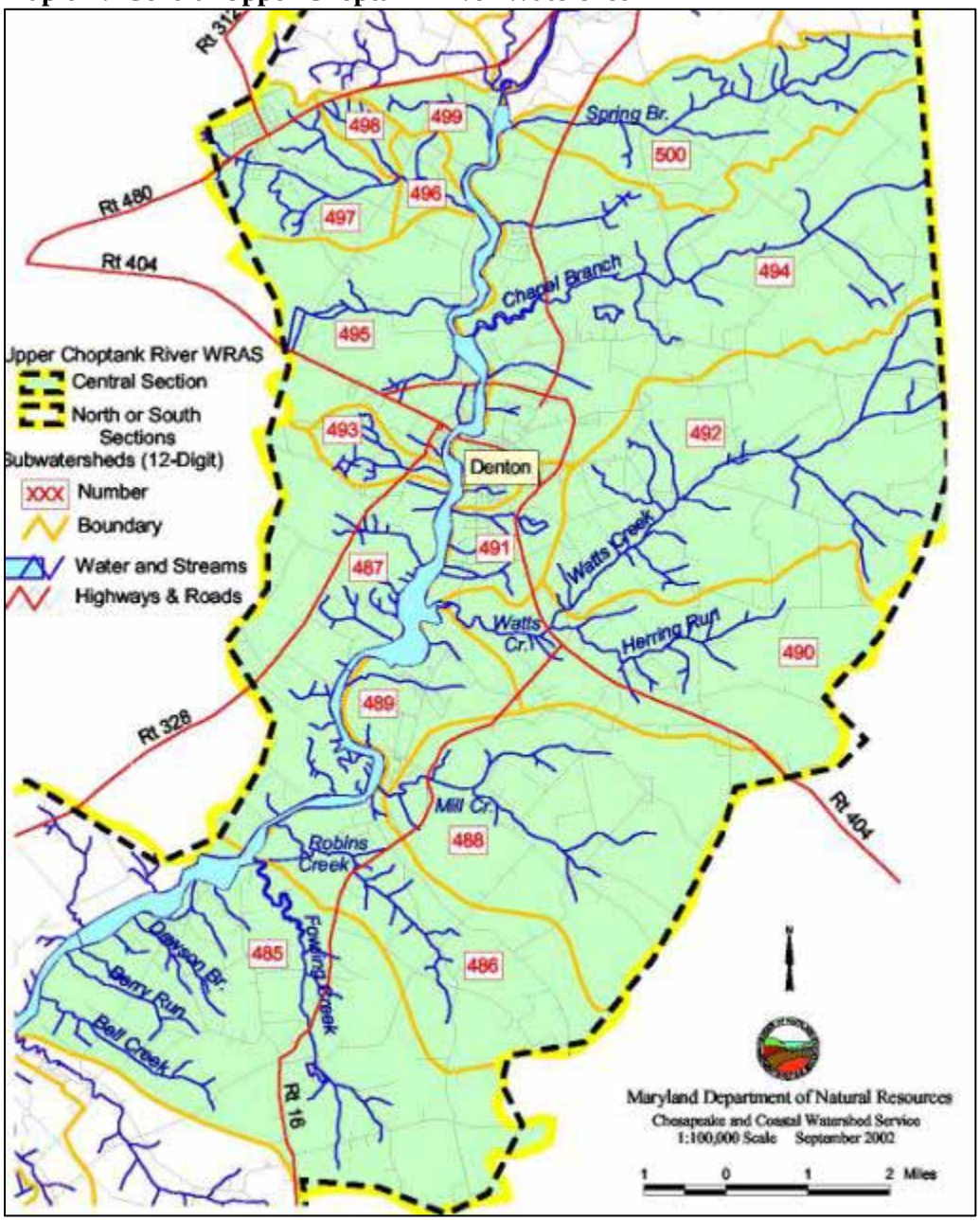
> "Because watersheds are defined by natural hydrology, they represent the most logical basis for managing water resources. The resource becomes the focal point, and managers are able to gain a more complete understanding of overall conditions in an area and the stressors which affect those conditions.
>
> Traditionally, water quality improvements have focused on specific sources of pollution, such as sewage discharges, or specific water resources, such as a river segment or wetland. While this approach may be successful in addressing specific problems, it often fails to address the more subtle and chronic problems that contribute to a watershed's decline. For example, pollution from a sewage treatment plant might be reduced significantly after a new technology is installed, and yet the local river may still suffer if other factors in the watershed, such as habitat destruction or polluted runoff, go unaddressed. Watershed management can offer a stronger foundation for uncovering the many stressors that affect a watershed. The result is management better equipped to determine what actions are needed to protect or restore the resource."

Because the incorporated area of Denton is wholly located in a sub-watershed that includes Caroline County, effective watershed planning must be a cooperative planning effort among both jurisdictions (Map 6-7). The potential benefit of undertaking sub-watershed planning with the County presents an opportunity to strengthen the comprehensive plans of both jurisdictions.

Maryland's Clean Water Action Plan, completed in 1998, identified water bodies that failed to meet water quality requirements. As part of the State's response, the Maryland Department of Natural Resources (DNR) established a program to offer funding and technical assistance to Counties willing to work to devise and implement a Watershed Restoration Action Strategy (WRAS) for the impaired water bodies. A watershed characterization has been developed for two of the four major watersheds in the County. The characterizations will be used to develop watershed plans for the County.

Currently Caroline County is developing a watershed plan for two twelve-digit watersheds within the Upper Choptank River watershed. The goal of this plan is to reduce nonpoint source pollution that enters the Choptank River. These watershed basins drain lands occupied by the municipalities of Greensboro and Denton. The Town of Denton has partnered with the County to assist with the development of the watershed plan.

Map 6-7: Central Upper Choptank River Watershed

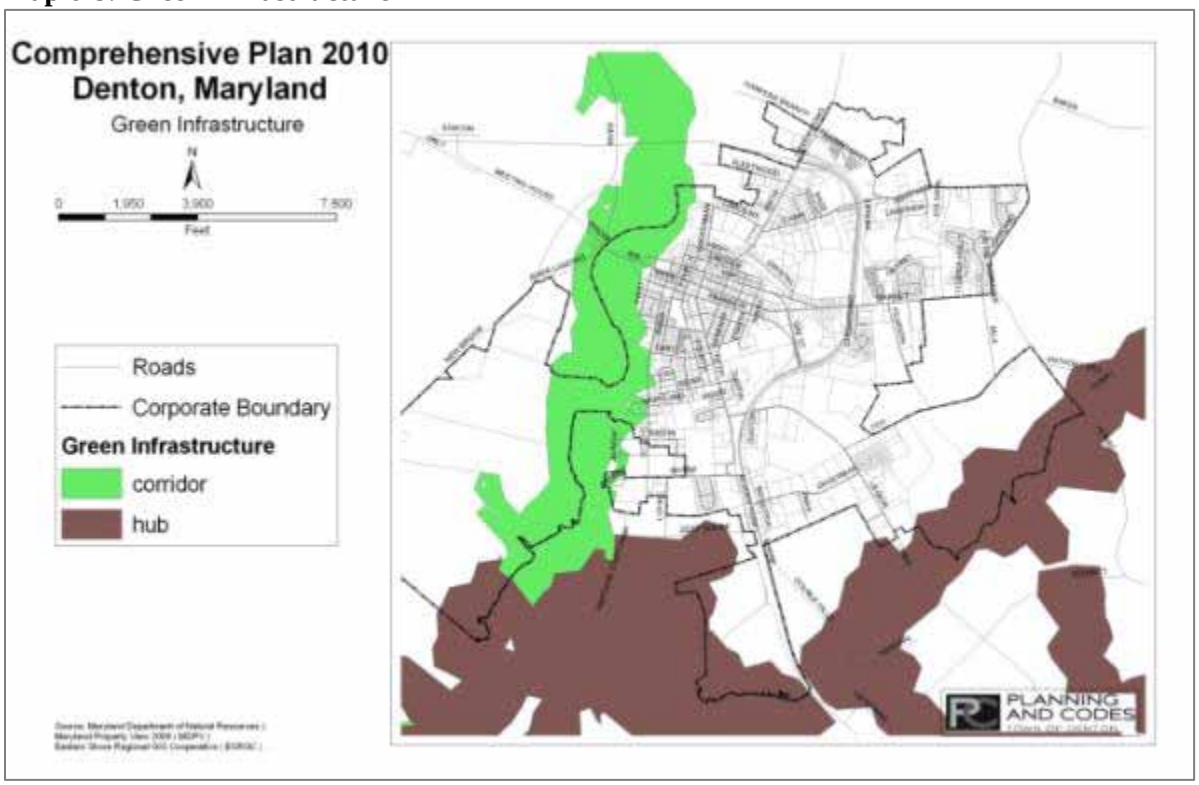


Source: Maryland Department of Natural Resource, Upper Choptank River Watershed Characterization", in partnership with Talbot County and Caroline County, 2002

Green Infrastructure

"Green Infrastructure" is defined as lands critical to long-term ecological health of a region. These lands provide the natural foundation needed to support a diverse plant and animal population and enable valuable natural processes, like filtering water and cleaning the air, to take place. Maryland's green infrastructure has been mapped using sophisticated satellite imaging technology, with the results being reviewed by scientists, local government officials, and conservation groups. The first step in the mapping process identified the heart of green infrastructure, called "Green Hubs." (Map 6-8) These are typically sweeping areas hundreds of acres in size and are vital to maintaining the County's vibrant and unique ecology. The second step is to connect hubs with "corridors" - linear remnants of natural land such as stream valleys and mountain ridges that allow animals, seeds, and pollen to move from one area to another. They also protect the health of streams and wetlands by maintaining adjacent vegetation. Preserving linkages between the remaining blocks of habitat will ensure the long-term survival and continued diversity of Maryland's plants, wildlife, and environment.

Map 6-8: Green Infrastructure



Protecting green infrastructure is vital in the effort to prevent the shrinking and fragmentation of undeveloped open space. Fortifying and restoring the green infrastructure can maximize the ecological potential of the landscape. In Green Hubs, distinctive wildlife will have access to a full range of habitat enabling animals to flourish amidst vast stretches of protected lands. Green Hubs also reduce the stress placed on forests, helping to renew woodlands, and preventing their collapse into isolated pockets of trees. Preserving linkages between the remaining large habitat

areas will help ensure the long-term survival and continued diversity of natural resources and the environment.

Caroline County and the Town should recognize the importance of natural resource protection objectives associated with conserving green infrastructure. Coordinated strategies should include development regulations that support new development design that maintains green infrastructure hubs and corridors to the maximum extent possible, and encourages opportunities to restore land to green infrastructure condition.

CHAPTER 7 - TRANSPORTATION PLAN

INTRODUCTION

Each incremental addition or improvement to the Town's overall transportation system should be seen as serving a vital role in protecting the health, safety, and welfare of the community. An effective program for enhancing mobility choices is important to maintaining quality of life for residents and visitors as well as promoting a strong local economy. This element of the Comprehensive Plan addresses the elements of Town services and infrastructure that serve the transportation needs of the community.

GOAL

- Insure the mobility needs of the community are met.

OBJECTIVES

- Maintain a functional road and street system for the safe, convenient, and efficient movement of people, goods, and services.
- Provide a balance of transportation facilities that meet the needs of Denton.
- Coordinate various modes of transportation so that they complement each other.
- Improve pedestrian and bicycle opportunities in the Town by insuring that pedestrian and bicycle facilities are an integral part of transportation project design.
- Coordinate local transportation planning with County, State, and Federal efforts to provide an efficient transportation system.
- Require that the lay-out of new street connections in undeveloped areas assures connectivity to the overall Town street system.
- Identify and address safety issues in the transportation system.
- Maintain the existing system to maximize the effective lifespan of transportation investments.
- Manage the existing system to maximize performance, including the use of new technologies.
- Expand transportation system capacity where necessary to support existing centers, planned growth areas, and increased demand for goods movement.

FUNCTIONAL CLASSIFICATION OF ROADS AND STREETS

Based on the function (through traffic versus local traffic versus land access) and level of traffic most frequently carried, roads and streets can be classified as either arterials, collectors, or local access streets. The Federal highway functional classification system and the Town's local functional classification system described below are shown on Map 7-4. The Town of Denton is designated as a rural area for purposes of the Federal Functional Classification system.

State/County Roads System

MD Route 404 (approx. 3.3 miles within Denton)

MD Route 404, which by-passes around the northern and eastern portions of Denton, is classified by the State as an Other Principal Arterial. MD 404 is a four-lane highway that by-passes most of the Town to the north. MD 404 has at-grade intersections at River Road (MD 328), Business Route 404 (Gay and Franklin Streets), Legion Road, and Deep Shore Road. There is a grade separated interchange at MD 313 (Sixth Street). The Legion Road and Deep Shore Road intersections are signalized. MD 404 is a major east-west highway serving the Eastern Shore. It runs 24.61 miles from MD 662 in Wye Mills to the Delaware State line where it continues to Nassau, DE (near Rehoboth Beach). It provides the most direct vehicular route from major metropolitan areas to the west (Northern Virginia, Washington, D.C., Baltimore, and Annapolis) via US Route 50 to the Delaware coastal resort towns. Peak use occurs during summer weekends when beach traffic is most intense and the road has a high accident rate. The State Highway Administration Highway Needs Inventory anticipates MD 404 becoming a four-lane highway from US 50 to the Delaware State line.

Map 7-1

MD 404 Business starts and ends at two intersections with MD 404 and is classified as a Rural Major Collector, along with MD 619 and Sixth Street. Components of MD 404 Business are Franklin Street (dual undivided lane west from Market Street intersection) and Gay Street (dual undivided lane east from Market Street intersection).

MD Route 313 (approx. 3.5 miles within Denton)

MD 313 is classified as an undivided Rural Minor Arterial. This north-south highway traverses directly through the Town of Denton where it becomes MD 619 (6th Street, also classified as an undivided Urban Major Collector), connecting Denton to Federalsburg to the south and Greensboro and Goldsboro to the north. State Routes 404, 328, and 313 afford access from Denton to other primary highways serving the region including US Routes 50, 301 and 13.

Map 7-2

MD Route 328 is classified by the State as an undivided Rural Minor Arterial. It runs north-south along the westernmost Town border.

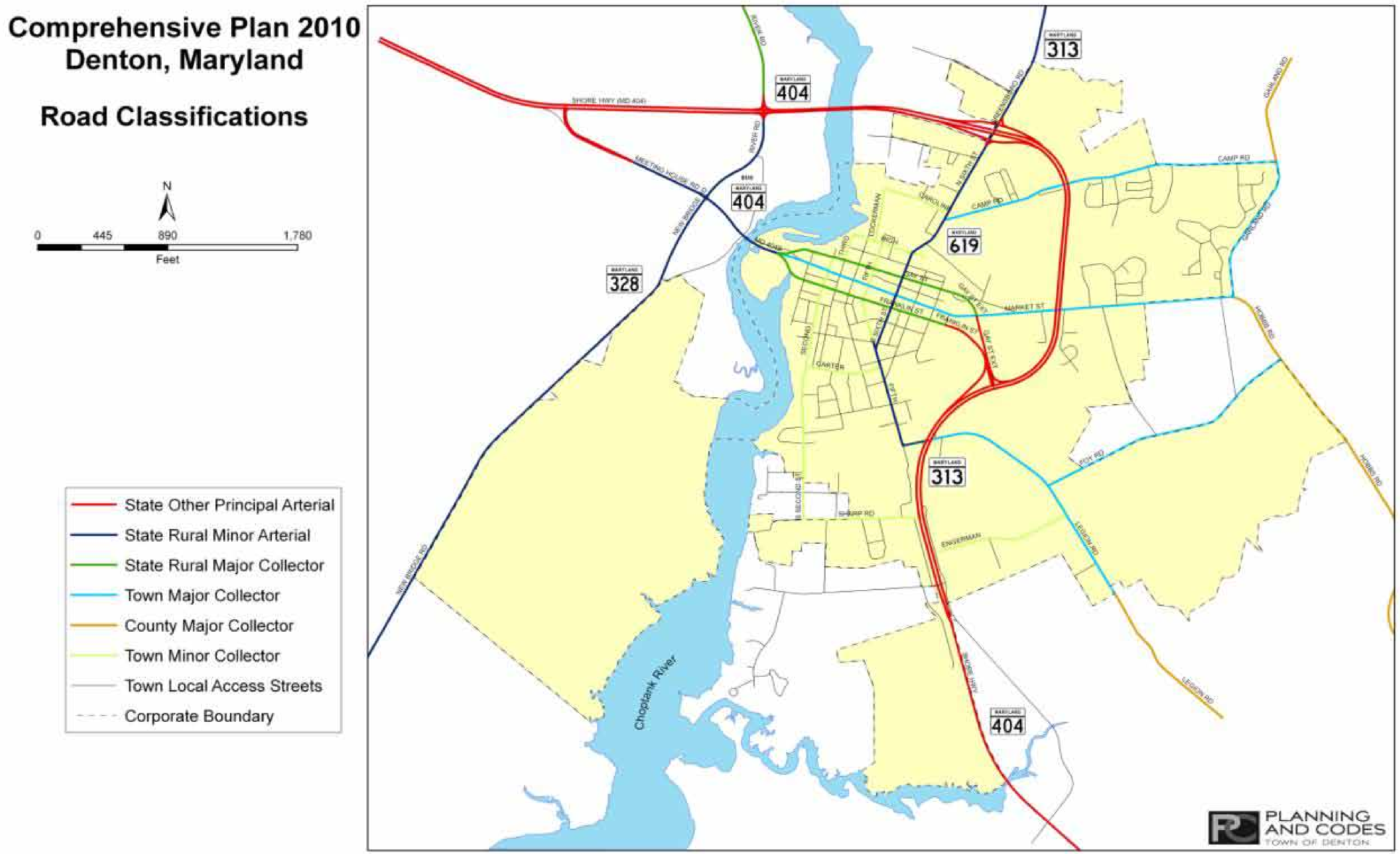
MD 328 (approx. 1.70 miles alongside Denton)

Map 7-3

Denton is also served by several collector roads which connect the Town to other areas of the County and points beyond. Camp and Foy Roads, and Market Street (Town Major Collectors), Hobbs, Garland, and Legion Roads (Town and County Major Collectors depending on segment) provide access to points east of Denton.

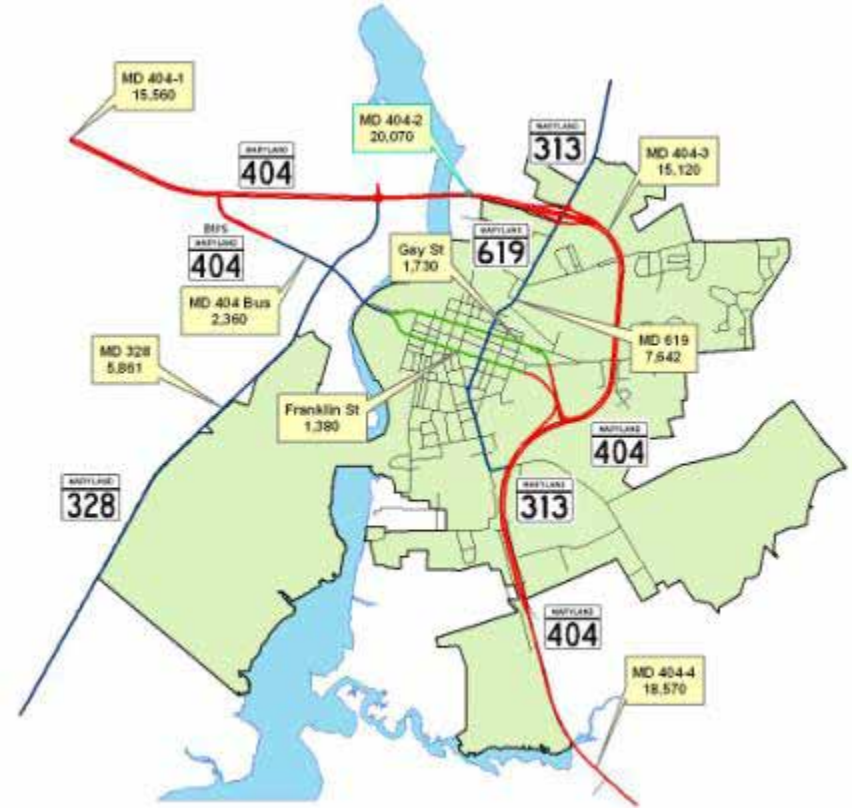
MD 619 (Sixth Street) is classified as an undivided Urban Major Collection (approximately 1.1 miles).

Map 7-4


Comprehensive Plan 2010
Denton, Maryland
Road Classifications
N
0
445
890
1,780
Feet
State Other Principal Arterial
State Rural Minor Arterial
State Rural Major Collector
Town Major Collector
County Major Collector
Town Minor Collector
Town Local Access Streets
Corporate Boundary
313
404
404
619
328
313
404
Choptank River
PLANNING
AND CODES
TOWN OF DENTON

Map 7-5 illustrates the State Highway Administration's 2008 Annual Average Daily Traffic Volume totals for State highways in the vicinity of Denton.

Map 7-5: 2008 Annual Average Daily Traffic Volume - Denton Vicinity



Source: State Highway Administration

Table 7-1: Annual Average Daily Traffic Volume – 2000 through 2008

YEAR	2000	2001	2002	2003	2004	2005	2006	2007	2008	% Chg.
MD 404-1	14,725	15,200	15,075	15,150	15,625	19,475	19,281	19,092	15,560	5.7%
MD 404-2	11,075	11,450	17,175	17,250	17,825	18,275	18,091	17,912	20,070	81.2%
MD 404-3	13,425	13,800	13,475	13,550	14,025	14,675	14,531	14,392	15,120	12.6%
MD 404-4	14,225	14,700	15,275	15,350	15,825	16,275	16,111	15,952	18,570	30.5%
MD 404-B	3,625	3,700	3,800	3,475	2,575	2,775	2,751	2,722	2,360	-34.9%
Franklin Street	na	na	na	na	3,650	1,575	1,561	1,552	1,380	-62.2%
Gay Street	na	na	na	na	1,875	2,275	2,251	2,232	1,730	-7.7%
MD 619 (Sixth)	6,675	6,950	7,225	7,375	7,650	8,025	8,120	8,041	7,642	14.5%
MD 313	10,375	10,750	11,225	11,475	11,850	12,325	12,750	12,621	11,992	15.6%
MD 328	5,725	5,875	6,150	6,225	6,375	6,650	6,582	6,170	5,861	2.4%

Source: State Highway Administration

The SHA Annual Average Daily Traffic Volume data for each of the above routes from 2000 to 2008 is depicted on the following pages (Charts 7-1 through 7-12).

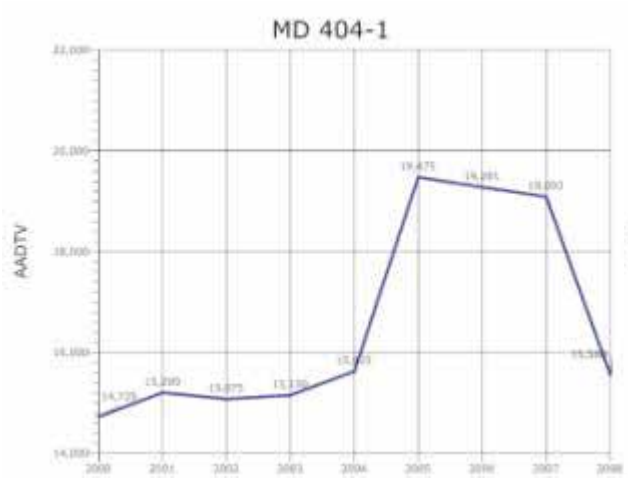


Chart 7-1

Chart 7-2

Chart 7-3

Chart 7-4

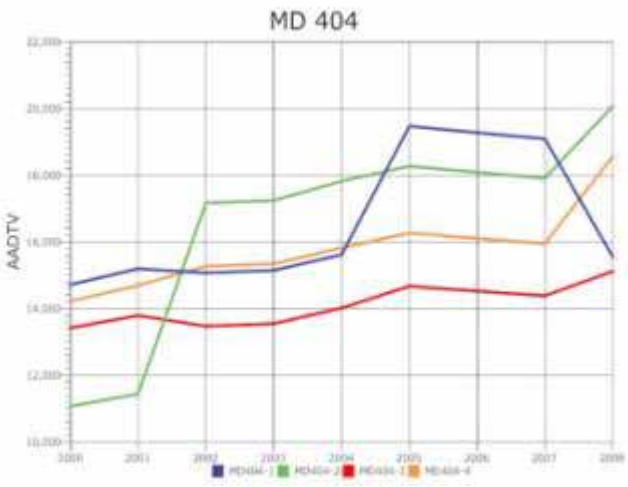


Chart 7-5

Chart 7-6

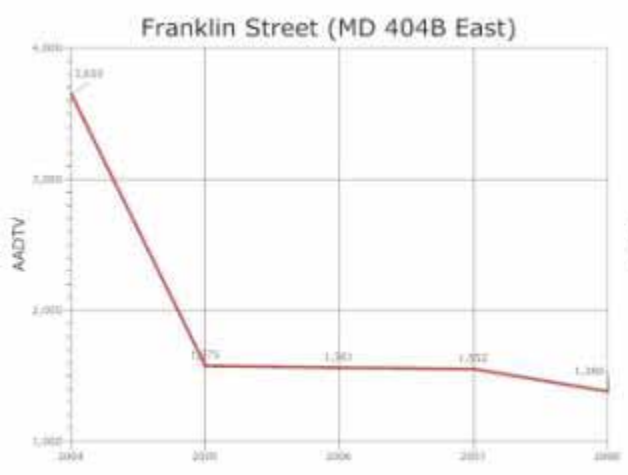


Chart 7-7

Chart 7-8

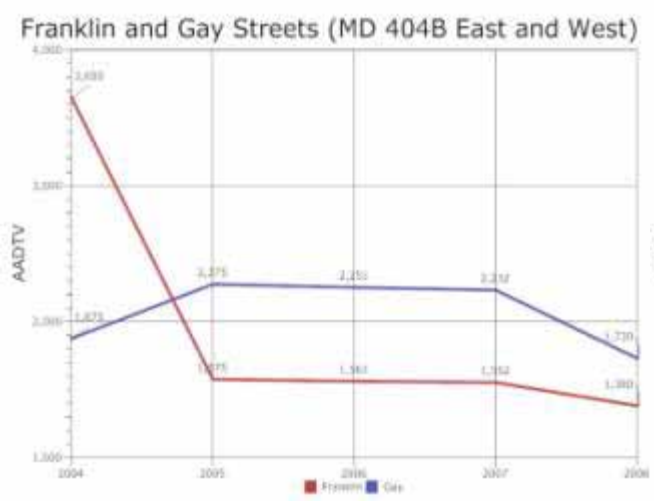


Chart 7-9

Chart 7-10

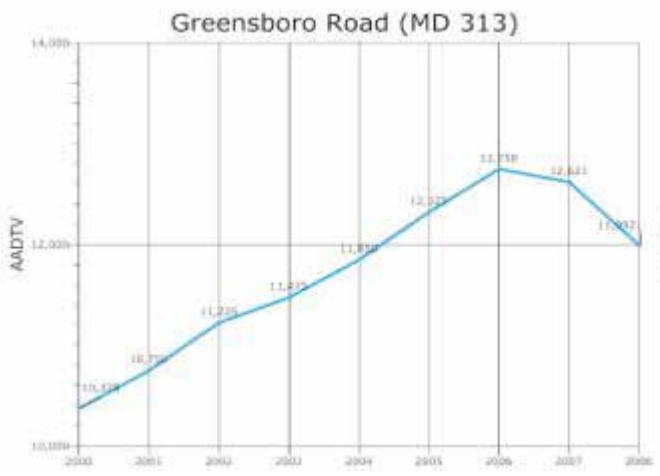


Chart 7-11

Chart 7-12

Below are some traffic volume observations during the last eight years:

- Volume on MD 404 has generally increased
  - Volume at point 2 (Choptank Bridge) increased significantly
  - Volume at points 1, 3 & 4 have increased to a lesser extent
- Volume on MD 404 Business has declined over the last five years
  - Volume on Franklin Street (eastbound MD 404B) has declined significantly
  - Volume on Gay Street (westbound MD 404B) has remained somewhat static
- Volume on MD 313 and MD 619 has increased steadily except for the last two years where it has declined slightly
- Volume on MD 328 has remained generally steady

At this time, no conclusions are drawn regarding these trends.

Town Roads System

For its purposes, the Town has classified its streets as Town Major Collectors, Town Minor Collectors and Local Access Streets (Map 7-4). Major Collector routes include Market Street, Legion Road, Foy Road, Hobbs Road, Camp Road, and Garland Road. Minor Collector routes include Caroline Street, Lockerman Street, Second Street, Fifth Street, High Street and portions of Third Street, Sharp Road, Carter Avenue ,and Engerman Avenue.

As currently undeveloped areas of the Town are urbanized, it is important that new and extended collector streets be planned and built to service new local streets within the development.

Transit

Public transit service in Caroline County is provided through Maryland Upper Shore Transit (MUST), a collaborative fixed route service that operates in Caroline, Kent, and Talbot Counties as USTAR (Upper Shore Take-A-Ride), in Dorchester County as DCT (Delmarva Community Transit), and Queen Anne's County as County Ride.

MUST provides for the transportation needs of the elderly and disabled persons of the service area, as well as the general public, with regular routes to major shopping centers, medical offices and employment areas within the five-county area (Map 7-6). The program also provides for the transportation needs of Medical Assistance clients, and coordinates services with other social service agencies. Special services are available for persons who are unable to use regional fixed routes. Fares for Senior Citizens and Disabled Persons are $1.00 per day, and include free transfer to complete a one-way trip within the MUST system. Fares for the General Public are $2.00 per day, and include free transfer to complete a one-way trip within the MUST system.

Map 7-6, next page, shows MUST system routes. The Red Route serves Denton, Queen Anne, Chesapeake College, and Easton. The Yellow Route serves Denton, Federalsburg, Preston, Bethlehem, and Easton. The Blue Route serves Denton, Greensboro, Ridgely, Queen Anne,

Cordova, and Easton. Transfers connect to other routes which enable transit to other major stops in Dorchester, Talbot, Queen Anne's, and Kent Counties.

MUST is in the planning stages to provide transfers which enable transit to the Western Shore.

Map 7-6

Level of Service

Level of service is a measure of a roadway or an intersection's volume versus capacity ratio. As the volume of traffic on any given roadway or at an intersection increases to approach the design capacity for traffic during peak traffic periods, level of service decreases. Table 7-2 describes the condition of traffic for various levels of service.

Table 7-2: Level of Service

Level of Service	Condition of Flow	Condition of Intersection	Volume to Capacity Ratio
A	Free Movement, Smooth Flow	Open	0.3
B	Occasional Restriction of Movement	Infrequent Backups	0.5
C	Movement Steady, Somewhat Restricted	Occasional Backups	0.8
D	Periodic Congestion, Movement Restricted	Frequent Backups	0.9
E	Frequent Congestion, Movement Very Restricted	Maximum Traffic Moves with the Cycle	1.0
F	Maximum Congestion, Very Slow, Very Restricted	Jammed Traffic occasionally Fails to Move on Signal Cycle	1.0+

In small urban centers such as Denton B, C, or D Levels of Service are normal, with Levels of Service A, B, or C preferred. Level of Service D is acceptable if confined to only brief periods during the peak hour of traffic. In no case should proposed new development be allowed to impact traffic flows on adjacent streets which would result in level of service of E or F.

The Planning Commission may require the applicants for development approvals to submit a Traffic Study for any project which they feel might negatively impact level of service on Town streets. Traffic studies cover all of the basic traffic issues, including the traffic characteristics and level of service of existing streets affected by the proposed project; trip generation rates for the proposed land uses; the impacts of traffic from the proposed use on the operation of existing streets; effects of any planned roadway alterations including added turn lanes, signalization, and improvements to the intersections and medians; and information about highway and intersection design capacities.

TRANSPORATION PLAN

Roads and Streets Policies

The following policies will apply to the construction of any new roads and streets within Denton:

1. All new streets will conform to the Town's functional classification of street types (Map 7-4).
2. The general layout of all new streets shall meet all safety and access requirements for fire, police, and emergency services.
3. Flow of arterial street traffic should not be significantly impeded. Local street intersections should be spaced to minimize interruptions of arterial traffic flow.
4. Site accesses and driveways should be minimized along arterial streets. Controlled and shared access is encouraged.
5. New streets should provide appropriate connection to streets in adjacent subdivisions or neighborhoods.
6. Vehicular movement at design speed must be assured. All streets must have proper widths of right-of-ways, curb-to-curb width, and radius of curvature of horizontal and vertical curves for required level of service.
7. All streets shall be designed and built in accordance with standards set forth in the Town Subdivision Regulations. Residential street standards for width of street and width of right-of-way may be reduced to fit the scale of the neighborhood.
8. Private streets shall be discouraged.
9. Cul-de-sacs shall be discouraged.

10. Proposed new development will be required to be served by access streets adequate to accommodate the vehicular traffic projected to be generated by the development. Developers will be required to pay for the construction of all new streets in accordance with Town standards and may be required to pay for improvements to existing off-site streets impacted by the development.
11. Curbs, gutters, and sidewalks shall be provided in accordance with Town standards and specifications. Sidewalks shall address the needs of the handicapped.
12. The Planning Commission will determine where sidewalks, curbs, and gutters are necessary and appropriate based on the pedestrian circulation recommendations in this plan element.
13. Street lights and fire hydrants as per Town specifications shall be provided on all future Town Streets.
14. Traffic studies may be required, at the discretion of the Planning Commission.

Planned Improvements

State Improvements

The Maryland Department of Transportation's Consolidated Transportation Program (CTP) identifies transportation projects throughout the State. Projects are identified by the State in consultation with the County for funding in a five year period. The State also prepares a long range Highway Needs Inventory (HNI) which identifies transportation projects by County jurisdiction. The CTP is updated annually by the Maryland Department of Transportation and reflects funded projects.

Consolidated Transportation Program (CTP)

The Maryland Draft Department of Transportation's Consolidated Transportation Program for the period Fiscal Year 2010 – 2015 contains the projects affecting the Denton area described below:

- MD 404 Shore Highway: Upgrade existing MD 404 to a 4-lane divided highway from 1500' west of Tuckahoe Road to 2000' east of MD 480 (Phase 1A). Shoulders will accommodate bicycles and pedestrians (1.07 miles). It is proposed to eliminate traffic congestion cause by high seasonal peaks associated with summer resort traffic and improve safety and service. Construction is underway.

- MD 404 Shore Highway: Upgrade existing MD 404 to a 4 lane divided highway with access controls from US 50 to MD 404 Business (11.83 miles). Shoulders will accommodate bicycles and pedestrians. This project is needed to reduce traffic congestion caused by high seasonal peaks associated with summer resort

traffic and to improve safety and service. Partial Engineering is underway. An additional $23.5 million is needed to complete Engineering.

- MD 328, New Bridge Road: Replace Bridge 5012 over Tuckahoe Creek. New bridge is to be built on parallel alignment. Shoulders will accommodate bicycles and pedestrians. This bridge is structurally deficient and functionally obsolete. Engineering and rights-of way acquisition are underway. Construction is scheduled to begin during Fiscal Year 2011.

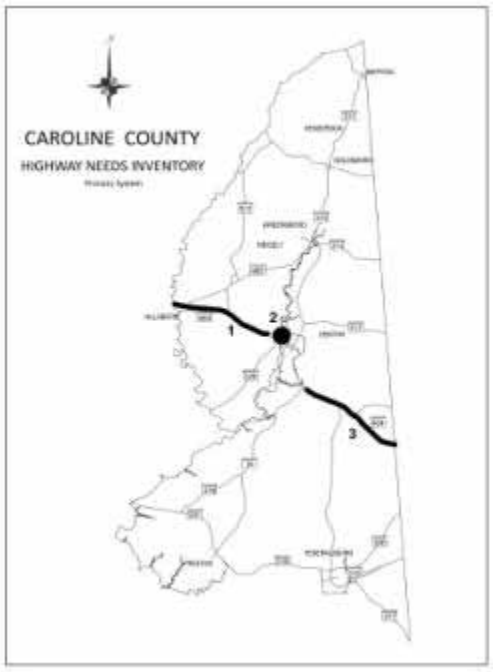
State Highway Needs Inventory

The Highway Needs Inventory (HNI) is a listing of projects developed by the Maryland Department of Transportation (MDOT) to address transportation needs throughout the state over the long term (20 years). Funding for the majority of projects on this list has not been identified by the State. Typically, projects on this list are eligible for inclusion as part of the Consolidated Transportation Program. The Highway Needs Inventory is also updated by MDOT every three years. The current HNI includes the following projects in the Denton area:

The latest Highway Needs Inventory is SHA's long range planning document. In addition to the MD 404 projects listed in the draft Fiscal Year 2010-2015 CTP, it includes a four lane divided highway with access controls on MD 404 from east of MD 16 South to the Delaware State Line, an interchange on MD 404 at MD 328 (River Road), a multi-lane reconstruction of MD 313 (Greensboro Road) from MD 404 to MD 317 (Burrsville Road), and a two lane urban reconstruction of MD 619 (Sixth Street) from MD 404 Business westbound (Gay Street) to Camp Road. Inclusion of a project in the HNI is recognition of future need, but does not represent a funding commitment. There is no timeframe implied for implementing projects included in the HNI.

<u>Primary System (Map 7-7 to the right):</u>

1. MD 404 Shore Highway - Queen Anne's County line to Denton Bypass 5.5 miles. Divided highway reconstruct with access control improvements.
2. MD 404 at MD 328 (River Road). An interchange construct.
3. MD 404 Shore Highway - Sennett Road to Delaware State line 6.1 miles. Divided highway reconstruct with access control improvements.



Map 7-7

Secondary System (Map 7-8 to the right):

1. MD 313 (Greensboro Road) from MD 404 to MD 317 (Burrsville Road). Multi-lane reconstruction of MD 313.
2. MD 619 Sixth Street - MD 404 Bus WB to Camp Road 0.5 miles 2 lane urban reconstruct.

Map 7-8

Programmed Town Transportation Capital Projects:

Short-range funded projects (Map 7-9) planned, funded, and soon to be implemented:

- Fifth Street Improvements – resurfacing and streetscape improvements including sidewalks and bicycle lane. Funding secured through USDA loan/grant and American Recovery and Reinvestment Act of 2009 (ARRA) through SHA. Groundbreaking in the spring of 2010.
- North Denton Phase II – Caroline Street. Should begin and finish in the spring of 2010.

Unfunded short and long-range projects (Map 7-9):

The scheduling and completion of these improvements is subject to phasing-based bid costs and annual capital budgets including state-provided funding.

- Various pavement management programs throughout Town as planned yearly.
- Various intersection enhancements throughout the Town are planned yearly.

Privately funded projects associated with commercial and residential development activity (Map 7-9):

- Legion Road widening from MD 404 to Foy Road to four median divided lanes from two will be funded by commercial property development on both sides of this corridor.

Highway Plan

The Highway Plan (Map 7-9) designates future recommended street improvements and new alignments to improve traffic circulation in the Town. These projects anticipate the build-out of the Denton growth area (Map 4-1). It is anticipated that the required rights-of-way for new alignments can be acquired through dedication at the time of subdivision or through utilization of pre-platted mapped streets. Proposed improvements and new alignments include:

Denton Parkway

The proposed Denton Parkway will serve as a major collector street in the Town System, providing both vehicular, bike, and pedestrian access to and providing secondary access from the Town's regional shopping district and several future projects along the route to Sixth Street northern part of MD 619 and the MD 404 / MD 313 interchange. This will in turn give local traffic an alternative means of reaching the downtown business district and MD 404. The proposed Denton Parkway East includes the following segments:

- Reconstruction of Legion Road to a 4-lane divided street with median and sidewalks from MD 404 to the intersection with the proposed Commerce Drive extension to MD 404 and Gay Street.
- Reconstruction of Legion Road to a 2-lane median divided street extending from Commerce Drive to the intersection with Foy Road.
- Reconstruction of Foy Road to a 2-lane median divided street from Legion Road to the Garland Road intersection.
- Reconstruction of Garland Road to a 2-lane median divided street north from Foy Road to the Camp Road intersection.
- Reconstruction of Camp Road to a 2-lane median divided street from the Garland Road intersection Sixth Street (MD 619).

Collector Routes

Two planned new road segments are intended to improve mobility by creating a more fine-grained collector system within the proposed Town growth area. They include:

- Legion Road to Foy Road Connector
- MD 404 north / south service road extension from Legion Road to existing service road

Anticipated increases in traffic volumes along Legion Road make it imperative that the Town take steps to insure adequate access to regional commercial uses located in this area. The Highway Plan includes one project intended to address changing conditions.

- Commerce Drive to Gay Street Connection

This project includes a new street (Commerce Drive) that extends north from Legion Road to MD 404, a new signalized intersection at MD 404 and connection to Gay Street north of MD 404. This project will reduce traffic volumes at the intersection of Legion Road and MD 404 and improve access to regional shopping. The juncture of Commerce Drive and Legion Road will be a four-way signalized intersection that includes a commercial service road that provides access to Denton Plaza (shopping center located at the intersection of MD 404 and Legion Road). These improvements include sidewalks on both sides of Legion Road. At this time, SHA is not in favor of another signalized intersection impeding shore traffic and prefers an overpass with access ramps. Nonetheless, a connection from Commerce Drive to Gay Street remains a high Town priority.

Key Intersections

In addition to the new street segments discussed above, improvements will likely be required at key intersections. Of special importance, considering the impact seasonal traffic on MD 404 has on local mobility, are the Gay Street/Commerce Drive/MD 404 intersection improvements. For this reason, the State and the Town should coordinate planning efforts. For its part, the State should consider the Denton Parkway concept in terms of how it supports development of the Town's commercial and residential growth in light of projected development projections and trends.

Pedestrian Systems Plan

The following policies will apply to pedestrian systems within the Town of Denton:

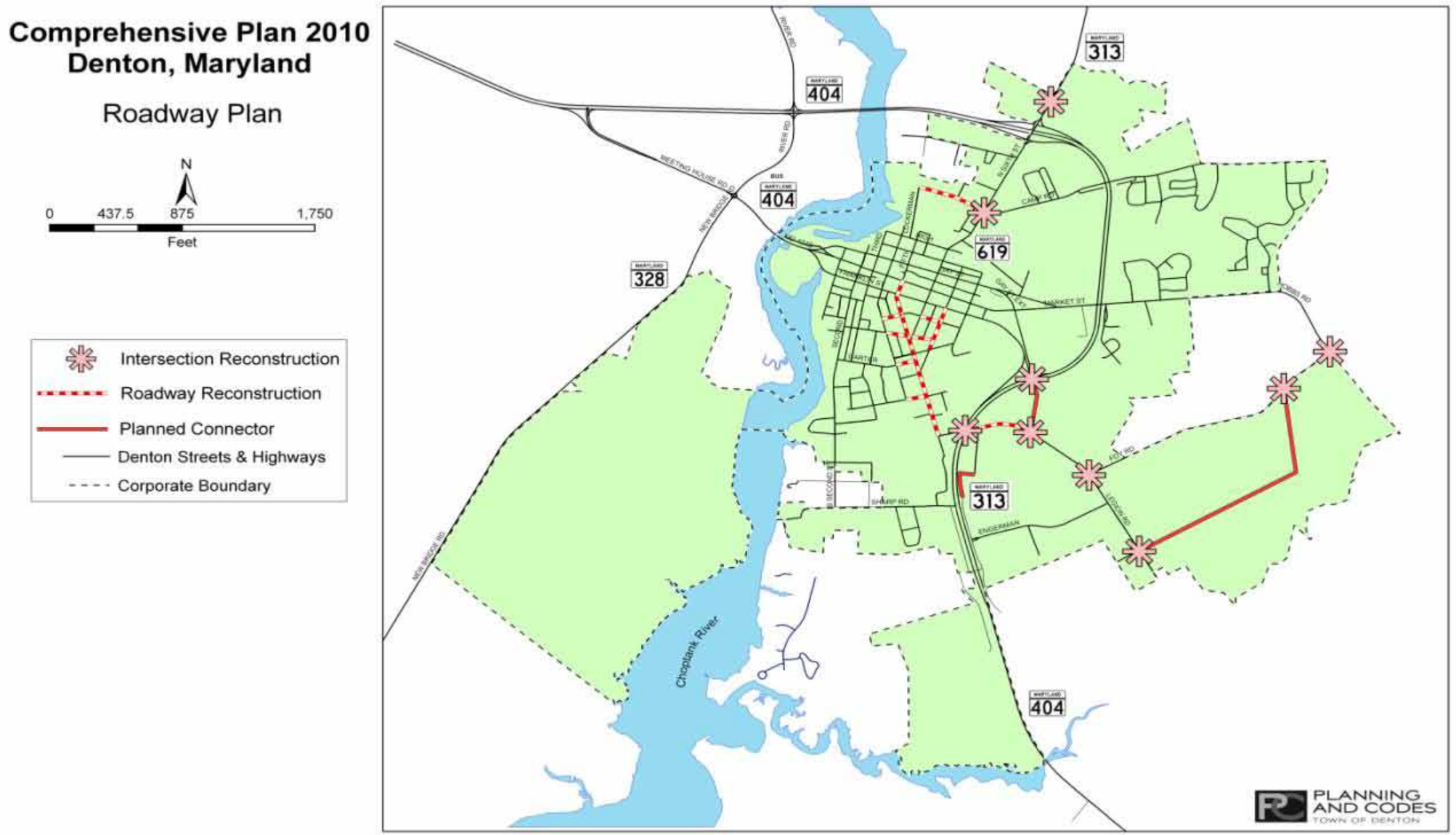
- Streets, large and small, should accommodate motorists, pedestrians, and bicyclists in safety and comfort.
- The Town will plan for the needs of non-motorized travel in the community.
- To reduce dependence on the automobile, pedestrian trails should link the neighborhoods with key destinations such as schools, parks, commercial areas, and centers of employment.

The pedestrian systems shown on Map 7-10 represent an ambitious, long range plan for providing a pedestrian trail system throughout the Town. The planned pedestrian system includes sidewalk extensions, pedestrian trails that can accommodate walkers and bicyclists as well as a recreation greenway trail system.

The central part of the community is served by sidewalks. The Town requires sidewalks in new developments and where appropriate, offsite sidewalk improvements are required to connect new systems to the existing system. New sidewalks have been added as part of the Seventh and Eighth Street upgrade projects. Improvements to Market Street sidewalks were made in the summer of 2007 as part of the Market Street Plan recommendations to improve pedestrian and automobile movement. Further enhancements to curbs and sidewalks in the downtown are also recommended in the Plan. Sidewalks also will need to be extended or added on Fifth Street,

along Camp Road, Market Street (east of MD 404), and Gay Street (at the proposed Gay Street / MD 404 intersection). Pedestrian trails (hiker/biker trails or sidewalks) are proposed as part of the Denton Parkway system to provide a route whereby pedestrians and bicyclists can reach the MD 404 underpass at MD 313. The pedestrian trail component also will provide access to shopping areas located at MD 404 and Legion Road. The pedestrian trail system makes full use of the abandoned railroad right-of-way as a means of providing pedestrian access between the West Denton growth area and the downtown business district.

Map 7-9


Comprehensive Plan 2010
Denton, Maryland
Roadway Plan
N
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437.5
875
1,750
Feet
Intersection Reconstruction
Roadway Reconstruction
Planned Connector
Denton Streets & Highways
Corporate Boundary
MARYLAND 404
MARYLAND 313
MARYLAND 328
MARYLAND 619
MEETING HOUSE RD
RIVER RD
NEW BRIDGE RD
MARKET ST
SHARP RD
ENGERMAN
HOG NECK RD
Choptank River
PLANNING AND CODES
TOWN OF DENTON

Following the Market Street Plan, the Town has provided better access to the river and made improvements to Crouse Park in order to increase recreational opportunities while promoting alternative modes of transportation. This Plan recommends establishment of a greenway along the abandoned rail line. These recommendations build on the existing pedestrian (sidewalk) system but should be expanded to provide for pedestrian connections between the CBD, the waterfront, and activity centers of interest to local residents (e.g., schools and neighborhood parks) and activity centers of interest to visitors (Martinak Park, the Choptank River as well as local historical sites).

Map 7-10 includes proposed greenways along the Choptank River in the western part of Town, along Watts Creek in the southern part of Town, and a pedestrian trail along the abandoned railroad right-of-way. Particularly in the case of the proposed rail trail, there are opportunities for the Town to work with the County to establish a county-wide greenway program. The greenways should be a place to walk, jog, and bike, and a means for residents and visitors to move between neighborhoods, travel to school, and reach recreation areas.

An important factor will be connecting the Central Business District to the pedestrian trails and greenways. The sidewalk and path system along 2nd Street should be extended east to meet with a pedestrian trail along Deep Shore Road (to Martinak State Park). Similar measures should be taken to connect the elementary school to the greenway. Sidewalks should also be extended along 5th Avenue to Sharp Road to provide access to shopping and recreation areas.

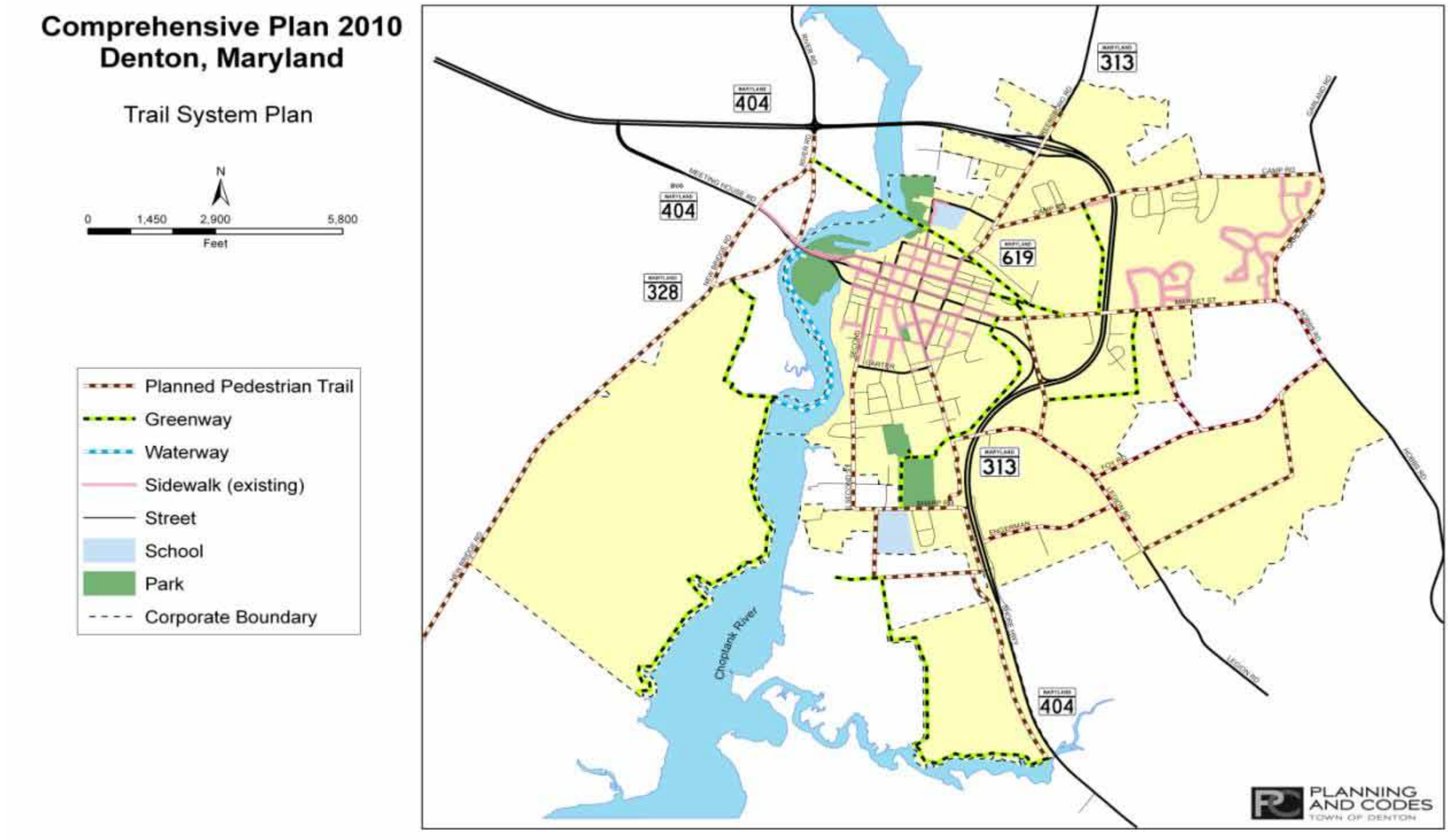
The Town zoning ordinances and subdivision regulations should provide that the Planning Commission may require that when properties which include portions of a designated greenway are developed, the owner must provide a public easement, dedication-to-public-use, or a cross-use easement along the greenway or along any 100-foot perennial stream buffers that feed into designated greenways.

Bike riders also need to be encouraged with good bike routes, bike racks at destinations, and showers and lockers at work and school. To encourage people to walk; streets, homes and businesses need to be built in ways that make streets inviting. The network of pedestrian trails and greenways recommended in this Plan specifically for the use of pedestrians and bicyclists should be implemented. This way people will be able to travel safely throughout the Town and adjoining areas without relying on the automobile.

Existing roads, together with new bikeways, can serve as the system to provide for bicyclists' travel needs, including recreational biking and commuter biking. Planning for bicycles should be conducted in conjunction with planning for other transportation modes.

The Town has amended the zoning ordinances to require space be provided for parking of bicycles in non-residential developments and permits appropriate reduction in parking based on the availability of space for parking bicycles. Future widening plans for planned bicycle routes should include rights-of-way for bicycle lanes to provide for a paved lane of eight (minimum) to ten (desirable) feet in width separated by a minimum six foot shoulder wherever possible.

Map 7-10


Comprehensive Plan 2010
Denton, Maryland
Trail System Plan
N
0
1,450
2,900
5,800
Feet
Planned Pedestrian Trail
Greenway
Waterway
Sidewalk (existing)
Street
School
Park
Corporate Boundary
MARYLAND 404
MARYLAND 313
MARYLAND 328
MARYLAND 619
Choptank River
PLANNING AND CODES
TOWN OF DENTON

Maryland Scenic Byways® Program

Maryland has designated 19 byways that encompass 2,487 miles of beautiful roads, which offer a taste of Maryland's scenic beauty, history, and culture. America's Byways® are a collection of routes recognized by the U.S. Secretary of Transportation as the most significant routes throughout the country, based on their scenery, culture, history, archaeology, and recreational opportunities.

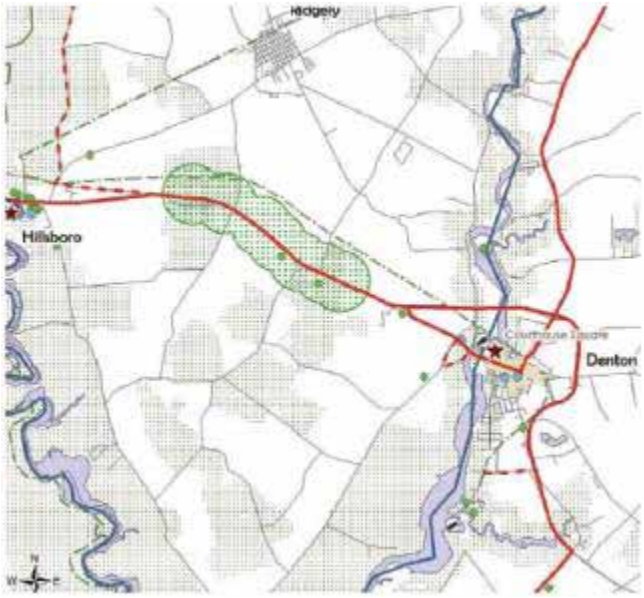
The following is a citation from the "Maryland Byway's" document for the Harriet Tubman Underground Railroad Byway which includes highways within Dorchester and Caroline Counties (Map 7-11 right).

Map 7-11

"Along a secret network of trails, waterways and sanctuaries known as the Underground Railroad, enslaved people fled north out of Southern states to escape bondage. For them, the Civil War couldn't end quickly enough, and the thirst for freedom far outweighed the dangers involved with trudging across strange lands, trusting no one and yet often counting on the selfless kindness of strangers.

Maryland is a state rich with African-American heritage but was often torn during the 19th century by divided opinions concerning the institution of slavery. Here you can learn more about these freedom seekers.

This Eastern Shore byway follows a mostly northern path across a landscape that has changed little in the last century and a half. It allows you to better understand the stories of the Underground Railroad, many of them as told by local anti-slavery activists who risked their own lives to aid their fellow Americans."



Map 7-12

The second leg of the byway travels through Caroline County and includes Denton (Map 7-12 left).

CHAPTER 8 - COMMUNITY FACILITIES ELEMENT

Public services and facilities provided by the Town and other government agencies ensure the health, safety and welfare of existing and future populations. To insure that adequate community facilities and services are available when needed, the Town must continually monitor demand and capacity. Preparation of a "Community Facilities Element" in the Comprehensive Plan is a preliminary step in addressing supply and demand for community facilities and services including roads, streets and sidewalks, water, sewer, storm drainage systems, police and fire protection, etc. This element of the Comprehensive Plan establishes Town policies for community facilities and services, examines existing conditions, and recommends actions the Town should take to insure an appropriate level of investment in facilities and services that meet the needs of existing and future populations and to support economic development. The water and sewer services are discussed in detail within the "Water Resource Element of this Comprehensive Plan and a further discussion concerning growth of the Town and continued facilities adequacy is detailed in the "Municipal Growth Element. The Comprehensive Plan's "Transportation" chapter fully addressed the Town's current and proposed recommendations for the road, street and sidewalk system.

GOAL

- Provide an appropriate array of adequate community facilities and services required to maintain the health, safety and welfare of the residents of Denton.

OBJECTIVES

- Assure the continued expansion of public facilities and services commensurate with local financial capabilities and demand for services.
- Assure the provision of community services and facilities in a manner which is the least disruptive to the environmental qualities of the area.
- Insure that all areas of the Town are afforded adequate public services necessary to promote public health, safety and welfare.
- Continue to examine the pattern and direction of future growth and assess impacts on public facilities and services.
- Establish priorities for water and sewer service extensions.
- Adopt impact fees and water and sewer connection charges to ensure that new development pays for the impacts on town services, as opposed to the existing citizens.
- Provide adequate parks, recreation areas and open space opportunities and ensure that they are equitably distributed throughout the Town for existing and future residents.

Water and Sewer Facilities

There is a comprehensive discussion concerning the Town's Water and Sewer Facilities within Chapter 5 "Water Resources Element" of this Comprehensive Plan.

Sewer

The Denton wastewater treatment plant (WWTP) is located on Legion Road at the intersection of Legion Road and Foy Road. The WWTP was expanded in the late 1990's to a capacity of 0.80 million gallons per day (mgd). There are ten pump stations located within the Town: 1) Second Street Pumping Station; 2) Industrial Park Pumping Station; 3) Denton Plaza Pumping Station; 4) Lupine Lane Pumping Station, 5) Wesleyan Pumping Station; 6) Wilmuth Street Pumping Station; 7) Cattail Pumping Station; 8) Lockerman Pumping Station; 9) Fairfield Pumping Station, and 10) Goose Creek Pumping Station. These ten stations all pump to one another; the first four (Second Street, Industrial Park, Denton Plaza and Lupine Lane stations) pump to the WWTP plant.

The Treatment Plant is designed for an average daily flow of 800,000 gallons and for a peak daily flow of 2.67 million gallons. Currently the plant operates at a three-year rolling average of 394,667 gallons per day, which is 49% of the design capacity. The Town is in the process of upgrading the existing WWTP to meet enhanced nutrient removal (ENR) capabilities. The wastewater treatment plant capacity will remain at 800,000 gpd after the upgrade.

Water

The water system capacity is 770,000 gallons per day gallons per day (gpd). Average flow for the last three years is 405,667 gpd for the water system.

The Town of Denton's water source is three potable wells in the Piney Point Aquifer. Two are operational wells.

- Well #3, drilled in 1970, is located off of Kerr Avenue and Md. Rt. 404 and has a pumping capacity of 439 gallons per minute (gpm).
- Well #5, drilled in 2000, is located south of Engerman Avenue and West of Park Lane has a pumping capacity of 510 gpm.
- Well #1, located off of Fifth and Gay Streets, has recently been abandoned because of silting problems.

In 2009, the Town applied for financial assistance through the MDE Water Quality Infrastructure Program Capital Projects Financial Assistance program for the construction of new well. Well #6 will be 12 inches in diameter, 450 feet deep and has the pumping capacity of 700 gpm. The installation of the new well will help ensure adequate water capacity to the Town of Denton.

Denton has three water storage tanks, water treatment facilities and a distribution system. One water storage tank has a storage capacity of 100,000 gallons and two tanks have a storage capacity of 300,000 gallons each.

Summary

The Town has adopted water and sewer connection charges and capacity fees, which are assessed on any new development. In addition, as part of any annexation, the Town requires that the property owner enter into an annexation agreement which sets forth that all water and sewer extensions are paid for by the property owner.

As summarized in the "Water Resource Element" of this comprehensive plan, the Town has decided to not expand the Water and Wastewater facilities. A decision was also made to prioritize the current capacity allocations first to commercial and industrial use, and the remainder to residential uses.

Public Buildings

Administrative Offices

The Town administrative offices are located at the southwest corner of Third and Gay Streets. The facility houses administrative staff, planning, and codes inspection staff, and finance staff.

The Department of Public Works staff is housed at the WWTP site at 650 Legion Road.

County Offices

County administrative offices for the County Commissioners are located in the Court House on Market Street. Other County administrative offices are located at 403 South Seventh Street in the Health and Public Services Building.

The Caroline County Department of Public Works is located at 520 Wilmuth Street in Denton. These services include Administration, Central Shop, Roads, and Special Services. Special Services consists of Mosquito Control, Noxious Weed Control, Gypsy Moth Control, Recycling, Building Maintenance, and Solid Waste.

The Caroline County Soil Conservation District is located at 640 Legion Road in Denton. The Caroline Soil Conservation District serves a predominantly agricultural region. Farming operations include dairy, swine, beef and a growing poultry industry.

State Highway

The State Highway Administration has a branch location at 508 Caroline Street in Denton.

Library

The Denton Branch of the Caroline County Public Library is located at 100 Market Street. The facility serves as the central facility for the library system for Caroline County. In addition to reading and lending materials, the library provides facilities for public access to the internet and meeting rooms.

Public Safety

Emergency Management

The Caroline County Department of Emergency Management, located at 7 North First Street, is responsible for emergency planning and coordination for county government; Emergency Communications including a new 800 MHz digital trunked public safety radio system, 911,

police communications for the Sheriff's Department and five town police departments; fire and rescue communications for eight Fire/EMS Departments, and manages the National Crimes Information Computer System for the police agencies. In addition, the department manages a comprehensive and progressive risk management program including employee safety, workman's compensation, general liability, property, and fleet insurance.

In addition to communications, the Department is responsible for the development and maintenance of the countywide Emergency Operations Plan and all related emergency/disaster preparedness functions, including writing, and updating all-hazards emergency plans, shelter and mass care plans, evacuation procedures, mutual aid agreements, and grant projects for response and recovery efforts. The Department also manages the State Fire Aid Program.

The County recently purchased 70 acres of land just outside of Denton for the future location (at some indeterminate period of time) of a County Public Safety/Emergency Operations Center which would house EMS operations, the Sheriff's Department, and the Emergency Operations Department. The site may be annexed to the Town to allow access to municipal sewer and water systems (identified as a growth area in the Growth Element – Chapter 4).

Emergency Medical and Advanced Life Support Services

The Caroline County Department of Emergency Medical Services augments the 24-hour basic life support (BLS) service provided by the County's eight volunteer fire companies, and is the County's primary provider of advanced life support (ALS) services. Funding for BLS and ALS programs is derived from the County (some of which is through Development Rights and Responsibility Agreement funds) fund raising activities and private donations.

Basic Life Support services in Denton are provided by trained members of the Denton Volunteer Fire Company, who respond to calls within the Company's first-due response area and provide supplemental support to second and third-due response areas. Because employment responsibilities prevent many volunteers from responding to daytime calls, the EMS Department provides trained ambulance crews during the day to ensure adequate coverage for the Town.

The County's ALS program employs trained paramedics and cardiac rescue technicians who provide advanced emergency medical treatment and also operate twenty-four hours a day.

The EMS Department regularly monitors the level of service provided by ambulance and ALS crews to ensure that adequate personnel are in place 24 hours a day to serve to the emergency medical needs of the entire County. The Department also reviews population projections to anticipate types and rates of emergency service needs based on population size and demographic (elderly, special needs, etc.). However, the most basic indicator of adequate service is the ability to respond to emergency calls. An ambulance crew is considered to be operating at optimum capacity if it is able to respond to 100 percent of the calls in its first-due area. When coverage falls to 50 percent (with the remaining 50 percent of the calls being answered by nearby second-due ambulances), the Department recommends adding an ambulance located within the first-due response area. The need to expand ambulance service will be continuously assessed as the population increases.

Fire Department

Fire protection for the Town and surrounding area is provided by the Denton Volunteer Fire Department (VFD). Denton Volunteer Fire Department currently consists of 40 volunteer firefighters and 10 volunteer non-fire fighters. The single Denton VFD fire station is located at 400 South Fifth Street. The need to expand fire department equipment and/or facilities should be continuously assessed as the Town's population increases.

Town Police Department

The Denton Police Department includes thirteen sworn Police Officers and two civilian Administrative Aides. The Department patrols the Town and answers calls for service 24 hours a day. The Town Police Department is housed in a recently constructed facility located at the northeast corner of Third and Gay Street. The need to increase the Town's police force and/or facilities should be continuously assessed as the Town's population increases.

Caroline County Department of Corrections

The Caroline County Detention Center is located at 101 Gay Street. The building houses facilities for the detention and confinement of pre-trial detainees and adjudicated offenders in a safe and secure institution.

County and State Police

The offices of the Caroline County Sheriff's Department are housed within the Caroline County Correctional Facility, located at 101 Gay Street. In January of 1995, the Caroline County Corrections Department and the Caroline County Sheriff's Office became two separate entities. The Sheriff's Office today consists of administration, patrol, criminal investigations, narcotics, Canine, Court Security, Civil Process, Teen Court, and Records.

State Police is located in the State Multi-Service Center at 207 South Third Street.

Courts for Caroline County

The Circuit Court for Caroline County is located in the Court House at 109 Market Street. District Court of Maryland is located in the State Multi-Service Center 207 South Third Street. District Court has jurisdiction over most landlord-tenant cases, small claims, motor vehicle violations, misdemeanors, and certain felonies, and peace and protective orders. All other cases are heard in Circuit Court.

Public Health

The Caroline County Health Department is located at 403 South Seventh Street. It is a local office of the Maryland Department of Health and Mental Hygiene, responsible for communicable disease prevention, wellness promotion, and environmental protection for all residents and the county in which they live. The Department operates ten programs concerned with addictions, developmental disabilities, health education and vital statistics, adult health and geriatrics, child health, communicable disease control, the environment, maternity and family planning, mental health and wellness promotion.

Complete hospital facilities are located in Easton, Maryland and Dover, Delaware. Caroline County operates an Advanced Life Support System (ALS) which provides fast medical attention to victims before they are transported to the hospital. ALS services are provided on a 24-hour

basis by the ALS staffs, who are trained and certified professionals. Memorial Hospital owns and operates a diagnostic lab located on Market Street.

Solid Waste Collection and Disposal

Solid waste collection from residences, businesses and industries within Denton is handled by a private waste hauler who is contracted by the Town. The Town's solid waste is disposed of at the regional landfill located in Dorchester County.

Recycling services are provided to Denton through the Mid-Shore Regional Recycling Program (MRRP). MRRP was formed in 1993 as a cooperative partnership between Caroline, Kent, Queen Anne's, and Talbot Counties. The program also provides free recycling services to residents of the four counties.

The Caroline County Public Works Department coordinates the program for municipalities in Caroline County. Curbside pickup is available to residents of Denton but it is limited to yard waste and bulky items only. The Denton Plaza on Route 404 is available as a 24-hour drop-off facility and accepts newspaper, mixed paper, aluminum cans, glass, aluminum and steel cans, plastic bottles and high grade office paper.

It is recommended that Denton develop and implement a Recycling Plan for the Town, with assistance from and in cooperation with the Mid-Shore Regional Recycling Program. The Plan should establish recycling targets, including:

- Regular residential and commercial curbside pickup of recyclable materials including glass, plastic, aluminum and paper;
- Departmental recycling programs within Town Departments that include source reduction goals;
- Public outreach and education programs and events; and
- Incentives for business participation.

Schools

Denton is currently served by three public schools, Denton Elementary (Grades K-5, 635 Students), Lockerman Middle School (Grades 6-8, 781 Students), North Caroline High School (west of and outside Denton's corporate limits) (Grades 9-12, 1168 Students), and one private school, Wesleyan Christian School.

- Denton Elementary School is located on Sharp Road serves grades kindergarten through 5th grade. The school is located on a 20 acre site that was recently annexed.
- Lockerman Middle School is situated on 18.78 acres located at 410 Lockerman Street. It serves grades 6 through 8.
- North Caroline High School occupies approximately 50 acres located on Central Avenue. It serves grades 9 through 12 and includes a career and technology center.

The School Master Plan includes a Facilities Needs Summary that states that Caroline County will need to build additional school capacity to meet anticipated need as the County population

increases. An in depth analysis of school capacity to meet future population needs is included in the "Municipal Growth Element" of this Comprehensive Plan.

New facilities are being considered in the County School Master Plan include two new elementary schools, one new middle school (to augment capacity at Lockerman Middle School) and additional high school capacity to supplement capacity at North Caroline High School and/or the career and technology center.

The Caroline County Board of Education has begun to observe a growing student population problem that is now challenging the capacities of three northern county elementary schools, including Denton's.

The CIP also includes the construction of a new middle school within the next five years in the Denton area for the new middle school. The timing and scale of improvements planned for the public schools that serve the Town of Denton indicate that the Town and the County have coordinated planning efforts to ensure that education facilities will expand to sufficiently accommodate anticipated growth.

Chesapeake Culinary Center

Chesapeake Culinary Center (CCC) is operated by Friends of the Grape, Inc., a local, non-profit organization governed by a Board of Directors and staffed by professionals from the hospitality industry. CCC operates a restaurant at the Shore Gourmet Denton Market currently located at 5 South Second Street. CCC's adult programs are offered through Caroline County Social Services, training participants for employment in food services industries.

The Center partners with the Upper Workforce Investment Board (WIB) to offer classes and training for WIB youth clients from Caroline, Dorchester, Queen Anne's and Talbot counties to secure summer employment in the food industry. The Center also has established a partnership with Caroline County Parks and Recreation to provide kid's cooking camps, and lessons on nutrition and culinary arts training for At-Risk youth who have participated in CCC after school programs, along with a supplemental class for the youths' parents. Additional CCC programs are provided through the Center's partnership with Spoons Across America, a national program that teaches children about nutrition, obesity and social skills. CCC also participates in Transitions, a program offered through the Caroline County Board of Education that teaches mentally challenged students life and social skills to enable them to live in group homes.

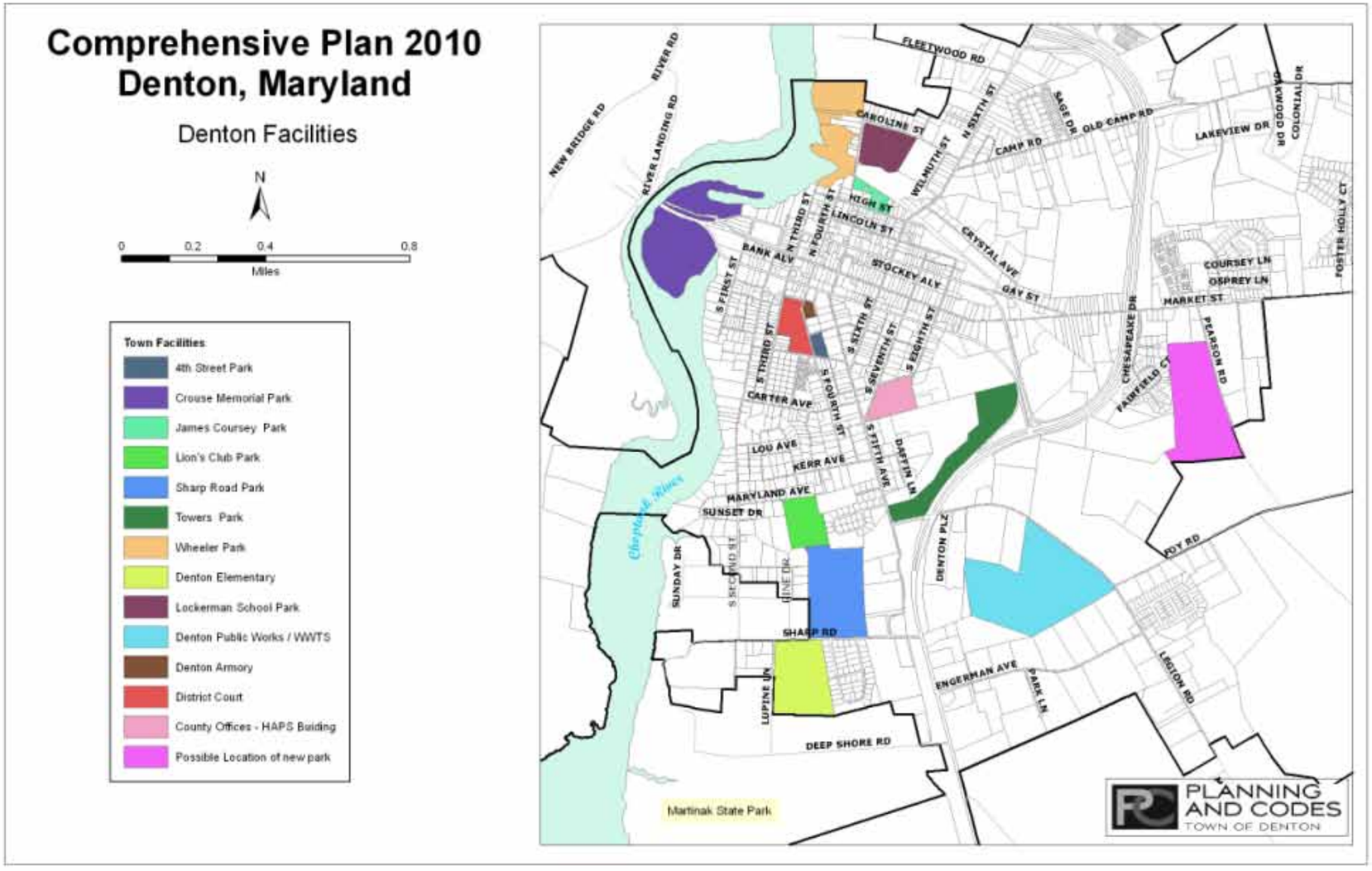
The Chesapeake Culinary Center has been successful in piloting and continuing programs and projects that are beneficial to Denton and the surrounding community. CCC is looking forward to establish a permanent headquarters that will enable CCC to realize its full potential as a facility dedicated to improving the quality of life in Denton and Caroline County through economic development, education, and cultural arts programs.

Parks

Denton contains a variety of public park and recreation facilities, described below.

- Towers Park - an 8.28-acre natural area located off of Fifth Street in the southern portion of Town. This wooded site is frequently used by the local Boy Scout Troop.
- Dan Crouse Park - a one-acre, Town-owned Park located on the Choptank River at Pig Point. The park contains basketball courts, boat ramp, pavilion, picnic area, playground, restrooms and parking. Recent additions to this park facility include a tourist information center and gazebo.
- Denton Lions Club Park - a 9.52-acre, quasi-public community park which contains two Little League Baseball fields and associated buildings. The park is located on Maryland Avenue in the southern part of Town.
- Lockerman School Park - a 4.73-acre community park located on the grounds of Lockerman Middle School and owned by the County Board of Education. Facilities include a baseball field, running track and soccer field.
- Wheeler Park – a 2.77-acre Town-owned community park located on the west side of Lockerman Street. Park facilities include tennis courts and a picnic pavilion (currently under construction).
- Denton School Park - a 6.67-acre community area co-located with the Denton Elementary School. Facilities include a hard surface area, two ball fields, nature trail, playground, and soccer field.
- James Coursey Sr. Memorial Park - a quasi-public neighborhood park and playground for the residents of the adjacent housing project. The site is owned and maintained by the Rural Housing Association. The park, previously named North Park, expanded after the Town acquired additional land in 1995.
- Fourth Street Park - a .5-acre facility owned and maintained by the Town of Denton and located next to the Armory. Facilities include a children's playground, with tot lot facilities and tennis courts.
- Denton Armory - a County-owned and operated facility which contains the offices of the County Parks and Recreation Department. Facilities include a gymnasium.
- Sharp Road Park - an approximately 24-acre Town-owned park. The current five-year development plan for this park includes development of a multi-use park to include a trail and other facilities for recreation activities.
- Martinak State Park - a 99-acre park owned and operated by the Maryland Department of Natural Resources. George Martinak deeded this land of forests, fields and marsh to the state in 1961 for preservation as a recreational facility and a natural area for the enjoyment of all. The park serves regional needs and is located immediately south of Denton. Facilities include an amphitheater, camping, boat ramp, fishing, nature trails, pavilion, picnic areas and playgrounds. Bordered by the Choptank River and Watts Creek, this area supports a wide variety of plant and animal life.

Map 8-1:


Comprehensive Plan 2010
Denton, Maryland
Denton Facilities
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Town Facilities
4th Street Park
Crouse Memorial Park
James Coursey Park
Lion's Club Park
Sharp Road Park
Towers Park
Wheeler Park
Denton Elementary
Lockerman School Park
Denton Public Works / WWTS
Denton Armory
District Court
County Offices - HAPS Building
Possible Location of new park
FLEETWOOD RD
RIVER RD
NEW BRIDGE RD
RIVER LANDING RD
CAROLINE ST
N SIXTH ST
SAGE DR
OLD CAMP RD
CAMP RD
LAKEVIEW DR
OAKWOOD DR
COLONIAL DR
WELMUTH ST
HIGH ST
N THIRD ST
N FOURTH ST
LINCOLN ST
CRYSTAL AVE
BANK ALY
STOCKEY ALY
GAY ST
COURSEY LN
OSPREY LN
FOSTER HOLLY CT
MARKET ST
S FIRST ST
S THIRD ST
S SIXTH ST
S SEVENTH ST
S EIGHTH ST
CHESAPEAKE DR
FAIRFIELD CT
PEARSON RD
CARTER AVE
S FOURTH ST
LOU AVE
KERR AVE
S FIFTH AVE
DAFFIN LN
MARYLAND AVE
SUNSET DR
DENTON PLZ
POY RD
SUNDAY DR
S SECOND ST
PINE DR
SHARP RD
LUPINE LN
ENGERMAN AVE
PARK LN
LEGION RD
DEEP SHORE RD
Martinak State Park
PLANNING AND CODES
TOWN OF DENTON

Community Facilities Policies

The following polices shall apply to the provision of community facilities within Denton:

1. The Town will develop a Capital Improvement Program (CIP) to outline the scheduling and phasing of public improvement projects for a revolving six (6) year period. The CIP will be coordinated with the Town's Annual Budget so that financing can be arranged on a pre-planned basis. The provision of public improvements as outlined in the CIP will be balanced against the fiscal ability of the Town and the Town's objectives for managing the location and rate of growth.
2. The Town has established priorities for sewer and water service extension in accordance with the *Denton Comprehensive Plan*. These priorities are shown on Map 5-6 in Chapter 5 the "Water Resource Element", and should be reflected in the *Caroline County Master Water and Sewer Plan*.
3. The Town requires all new development to pay for extensions of service (sewer and water) and also for a "fair-share" of the costs for capital improvements to community facility systems which will be necessary to accommodate the new development's community facility and service demands. Some costs associated with community facilities and services may be recouped through Town-levied impact fees.
4. The Town requires that all new development shall be adequately serviced by roads, sewerage, water, storm drainage, schools, fire and police protection, and solid waste collection and disposal as a condition of approval.
5. The Town will encourage stormwater management practices which utilize low impact, surface and on-site drainage treatment.
6. Annexation will be a condition for extending Town community facilities and services outside of the Town's corporate limits.
7. Future large-scale developments will be required to provide exactions (proffers) land dedications or fees-in-lieu of dedications for the provision of community facilities, including parks, schools and open spaces.

RECOMMENDATIONS

The following are recommendations relative to Town-supplied community facilities and services.

1. Develop a linear greenway park and pedestrian/bike trail along the abandoned railroad right-of-way in the northern end of Town and extend to connect Lockerman School Park to Sharp Road Park.
2. Plan for a new community park located east of MD 404 to serve existing and proposed new residential neighborhoods (Map 8-1).
3. Work with the County to identity and acquire appropriate sites within the Denton Growth Area for anticipated middle school facility.
4. Work with the County and State to identify and acquire an appropriate site for an emergency medical care facility within the Denton.

5. Work with the County to identify an appropriate site for expanded County offices and facilities as needed.

CHAPTER 9 – ECONOMIC DEVELOPMENT

ACKNOWLEDGEMENT

The majority of this chapter is derived from a December 2009 retail market study and branding strategy developed for the Denton Main Street Program by Arnett Muldrow & Associates, Ltd., from Greenville, South Carolina.

INTRODUCTION

Arnett Muldrow & Associates, Ltd., was hired to conduct the study of Denton looking at opportunities for the downtown; and develop a marketing strategy for promoting Denton as a place to shop, visit, and invest. The study began with a series of stakeholder interviews and roundtable work sessions along with a zip code survey of customers held in June and July 2009. The zip code research led to a market definition study and a sales and retail leakage analysis for the community. Altogether this information was used to craft a series of recommendations to grow Denton amidst challenging economic times.

Although the study was focused on downtown Denton revitalization, much of the retail market study is relevant to the greater Denton community. Map 9-1 shows the Town's commercially zoned areas. It reflects the objective of increasing acreage for Highway Commercial and Light Industrial zones. Each of these commercial zones, with the exception of Light Industry and Commercial Medical, can accommodate significant retail growth (refer to Land Use Element).

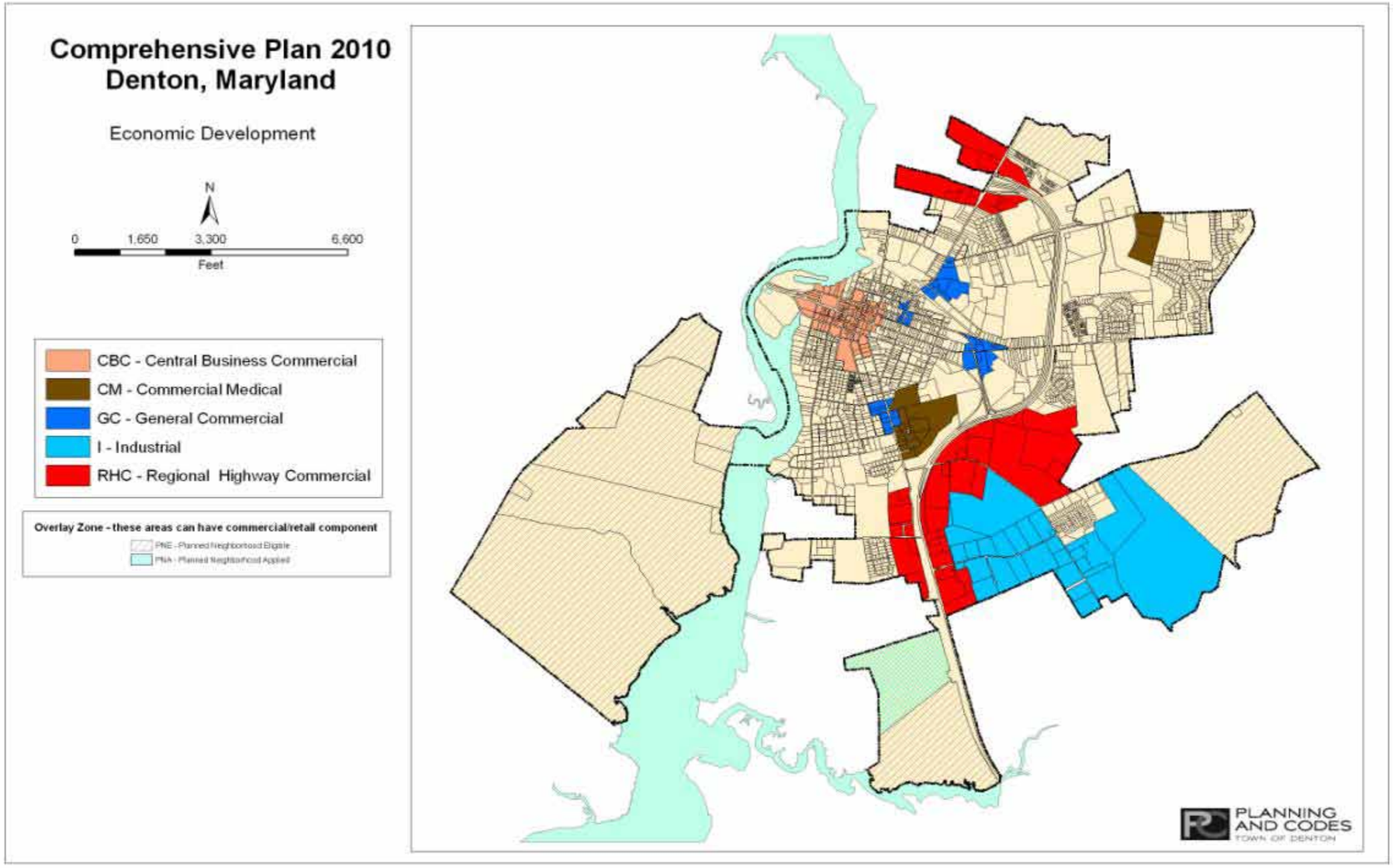
A retail analysis determined that much disposable income is "leaking" from the Denton area to retail establishments in other areas, primarily outside Caroline County. This analysis assessed what type of additional retail businesses might be attracted to Denton and what existing stores might do to diversify their offerings.

It should be noted that this independent study used demographic and population data, especially the latter, which may not entirely mesh with data portrayed in other chapters of this comprehensive plan. Nonetheless, the conclusions, and the proposed strategies and objectives, are legitimate and compelling.

RETAIL MARKET STUDY

This section of the report presents the findings of the retail market research for Denton and sets the stage for further analysis that can be used to recruit business, help existing businesses target customers, and implement the accompanying marketing strategy, which is detailed in the next chapter. The goal is to help Denton become a competitive center of trade for the community amidst dramatic change in the retail climate in America today.

Map 9-1


Comprehensive Plan 2010
Denton, Maryland
Economic Development
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Feet
CBC - Central Business Commercial
CM - Commercial Medical
GC - General Commercial
I - Industrial
RHC - Regional Highway Commercial
Overlay Zone - these areas can have commercial/retail component
PNE - Planned Neighborhood Eligible
PNA - Planned Neighborhood Applied
PLANNING AND CODES
TOWN OF DENTON

The Retail Market Study is divided into three sections:

The first section – COMMUNITY INPUT – is a summary of input gathered during over twenty individual and small group sessions held during the study process. The input provides insight into the strengths, challenges, and opportunities that exist in the Denton market from the important perspective of local stakeholders.

The second section – MARKET DEFINITION – is Denton's market definition based on zip code survey work completed by businesses in the community. It also provides insight into Denton's trade area demographics and presents market data related to Denton's primary and secondary trade areas.

The third section – TRADE AREA DEMOGRAPHICS – presents the retail market analysis that shows the amount of retail sales "leaking" from the primary and secondary trade areas. This information is based on the most recent data available and is a reliable source for understanding overall market patterns. This section concludes with some key opportunities for retail that could be used to both enhance existing businesses and recruit additional businesses to the community.

Community Input

Market data alone does not fully inform a study of this nature. A successful marketing strategy can only emerge as a result of the combination of market opportunities and the needs and desires of a local community. To that end, several different approaches were taken to gather input on the future of Denton to augment the market data identified above. The project team conducted over twenty individual interviews, roundtable meetings, and a public input session to gather information. In addition, the team had casual conversations with shopkeepers as they distributed the zip code survey forms. The following is a synopsis of the community input gathered during this process.

Assets

Like all cities, Denton enjoys certain unique characteristics that may be regarded as community strengths. Some of Denton's strengths include:

- A rich local history
- Prime location along the Choptank River
- Courthouse and Courthouse Green
- Caroline County Library and Performance Space
- Early settler style architecture and charming downtown district
- Two restaurants (Pub/Lily Pad)
- Caroline County Arts Council (The Foundry)
- Rural, small town charm
- Fishing, fresh produce, and the Farmer's Market
- A downtown that is walk-able and pedestrian-friendly
- Summerfest is an excellent event

- Great local schools
- Huge traffic counts from people driving to the beach

Challenges

At the same time, Denton is presented with a number of challenges that must be dealt with to ensure its future well-being. Some of Denton's challenges include:

- Many people wonder how Walmart* will affect downtown's business climate
- Tight town/county budgetary constraints limit the ability to do too much
- Involving new residents (commuters) can be a challenge
- Some in the community have an anti-tourism sentiment
- Some question the ability to move forward on three major projects at once? (Artsway, the Riverfront, and the Culinary Center)
- There is some confusion with regard to the array of groups with similar missions.
- Some have a resistance to change, "outsiders"—"I'm here; pull up the drawbridge"
- The community presents some barriers to entry—red tape, high rents
- "What's good about [Denton] is what's bad with it"
- We need to fill in the empty shops
- Business recruitment and retention is a challenge for this market as it is not as affluent as other markets

Desired Uses

Many expressed a desire for certain store types, additional amenities, and attractions in the community. These are:

- Additional grocery store(s)
- Good quality toys, children's clothes
- "A nice old movie or play theater"
- Have a place for kids (eateries, "hangouts")
- Ice cream parlors
- Swim at an indoor pool or at a YMCA
- Apartments/low-cost housing
- More housing/activities for elderly residents
- Better senior citizens' center
- Community garden
- Coffee Shop
- Expanded Rural Life Museum
- Nightlife (shops, restaurants, etc.)
- Bookstore/news center
- Water sports activities (rentals, rides, etc.)

- Music venues (ex. Bandstand)
- More Accommodations
- Improved sidewalks/streets
- Improved facades for downtown stores

Emerging Themes and Target Markets

The following represent a synopsis of the input gathered and begins to compile some emerging themes for Denton:

- Denton is still grappling with the impacts of growth. The community is divided on how to deal with growth and how to successfully manage it.
- Denton has ambitious plans for the future, which are each designed as significant economic catalyst projects (each of which has successful models in other places). These projects take time, effort, and a host of funding sources. Some in the community feel that the efforts are too much to take on at once.
- The Main Street program can play a significant role of recruiter, storyteller, and marketer of the downtown. Main Street can also be the partner that is the "glue" binding many other initiatives together in a common mission.
- Denton must cultivate its local and regional market but also not shy away from tourism or pass through traffic. This has been a "confounding" challenge for Denton for many years because of the numbers that drive through to the beach.

MARKET DEFINITION

Unlike other techniques that tend to use arbitrarily picked boundaries for customer trade zones (radii studies and the like), the method used for market definition in Denton is based on zip code survey work completed by cooperative merchants. Geographic zip codes are used because they are easy to track at the customer level and frequently follow reasonable boundaries within which a whole host of demographic data can be gleaned.

Eleven Denton retail businesses graciously participated in the zip code survey of their customers conducted in June and July 2009. Merchants were provided with a form to record customer zip codes and asked to keep the log for all customers during a two-week period. For residents of the 21629 zip code, customers were asked to indicate whether they lived in the Town of Denton or outside its corporate limits. All 990 individual customer visits were recorded during the two-week period.

Zip Code Results

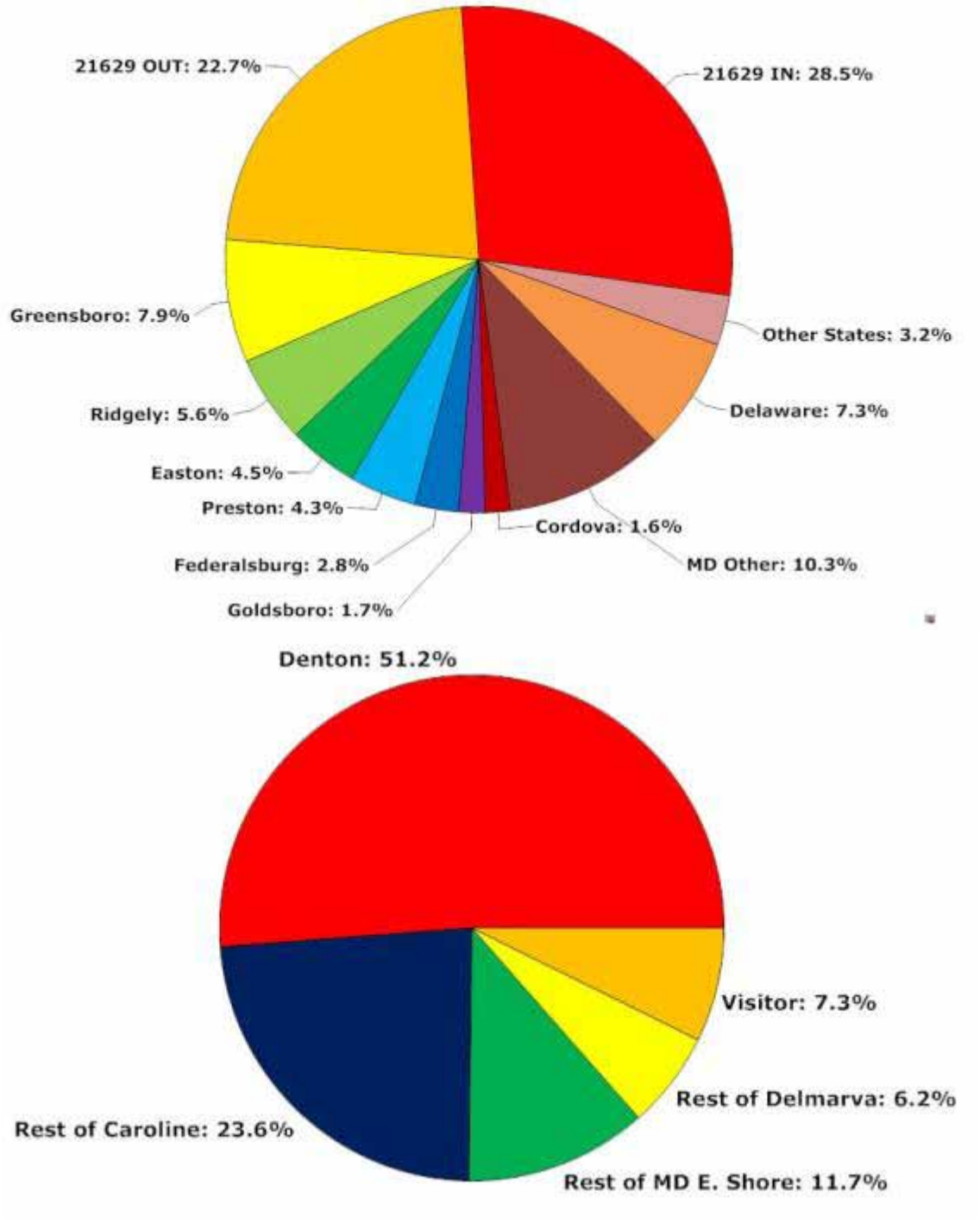
The results of the zip code survey are listed below (Chart 9-1):

- Denton businesses recorded customers from 105 unique different zip codes representing twelve unique states.

- Over one quarter of the customers (28%) lived inside the town limits of Denton and an additional 22.7% of the customers were from the Denton zip code but outside of the town limits. This makes the total "Denton" visits 51.3%, just over half of all customers.
- Greensboro had the second highest percentage of customers with 7.9% of the visits.
- Ridgely followed Greensboro with 5.6% of customer visits.
- Easton and Preston had approximately the same number of visits, each representing about 4.5% of the customer visits.
- Goldsboro also had 1.7% of the customer visits.
- In total, residents of Caroline County accounted for 74.8% of the overall visits.
- Residents from other Maryland Eastern Shore zip codes accounted for 11.7% of total customer visits.
- This leaves the rest of Delmarva at 6.2% of visits and those outside the region ("Visitors") at 7.3%.

Chart 9-1 provides two different insights into the breakouts of customer visits.

Chart 9-1: Percentage Origin of Customer Traffic for Participating Merchants



Information by Business

The preceding information examined how the stores did in aggregate when all results are combined into one "pot" of figures. This section looks at the results by retail store to determine if there are any anomalous figures that emerge with particular stores. To protect the confidentiality of the individual store results, the names of the stores are not included in the charts. The red bars indicate the overall percentage visits for all participating businesses.

Chart 9-2: Percentage Visits from the 21629 Zip Code by Business

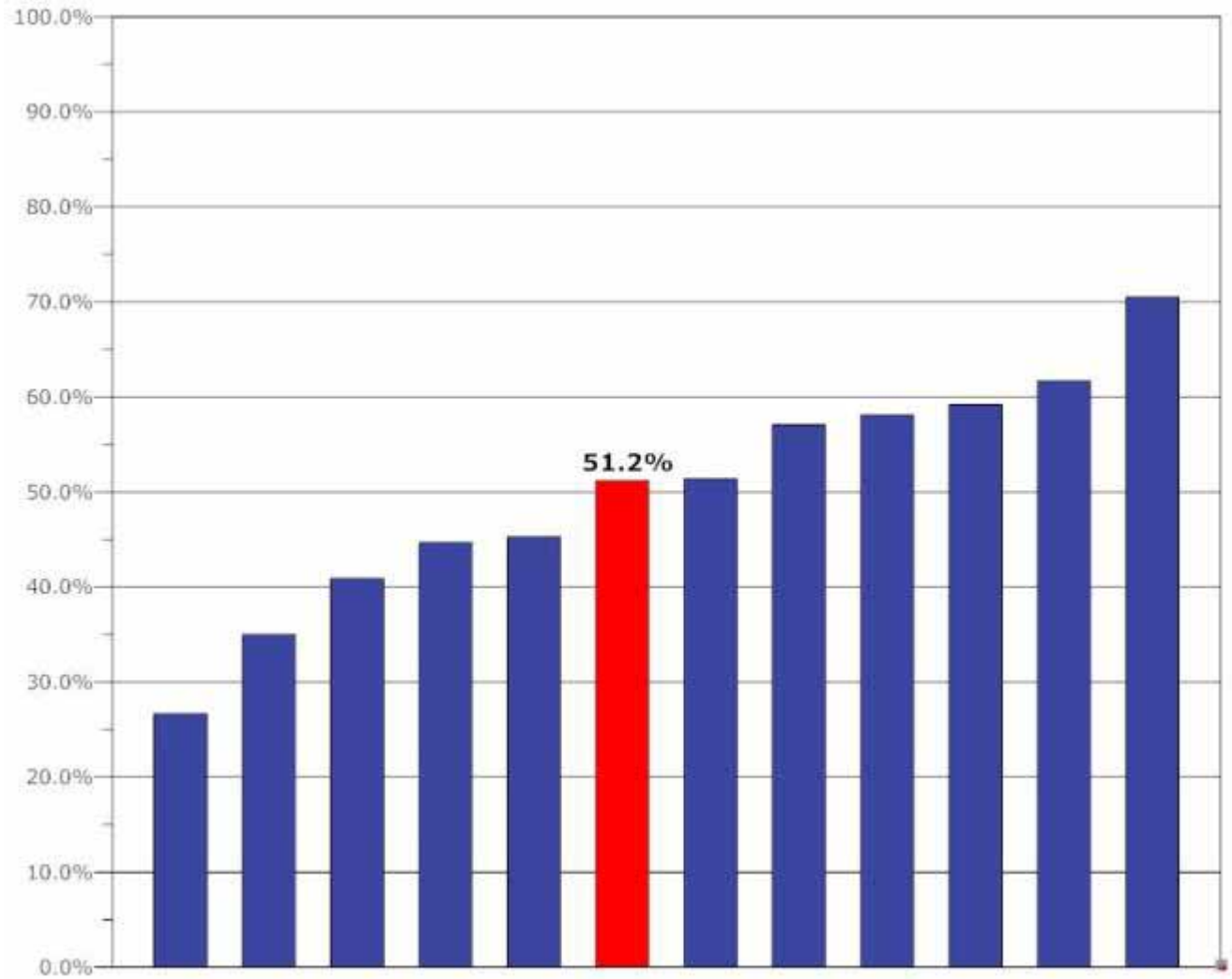


Chart 9-2 illustrates the percentage of visitors from the 21629 (Denton) zip code. The overall average, shown in red, is 51.2%. Six of the businesses participating in the survey had over one half of their customers from the 21629 zip code, while five had fewer than half of their customers from this location. In this case, only one business had less than one-third of their customers from the Denton zip code. By and large, Denton's downtown must depend on local customers to sustain its local businesses. This trend becomes even more evident in Chart 9-3, which shows the percentage of customers from

Caroline County. No business in the survey had under half of their customers from Caroline County and six had over three-fourths of their customers from inside the County.

Chart 9-3: Percent of Customers from Inside Caroline County by Business

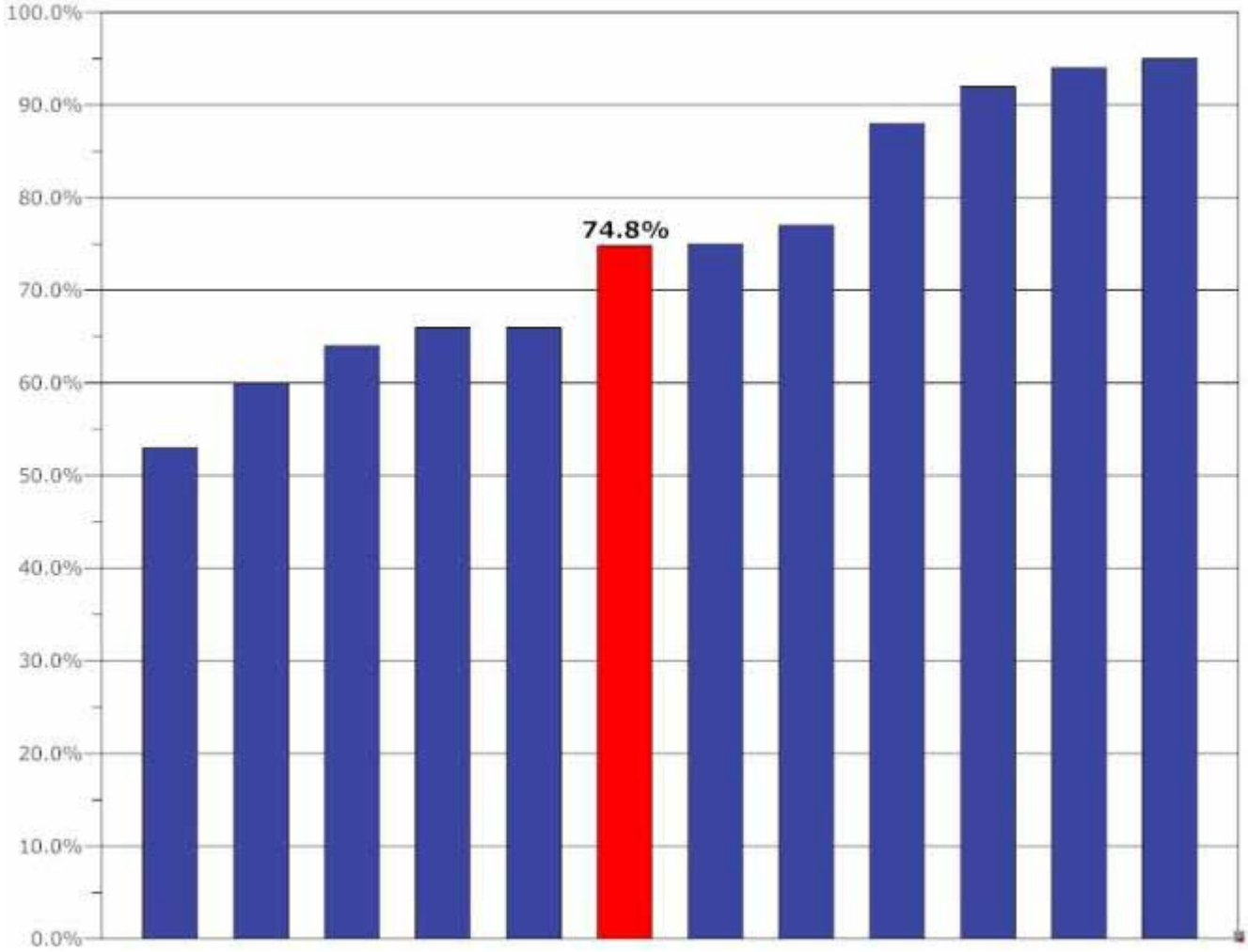
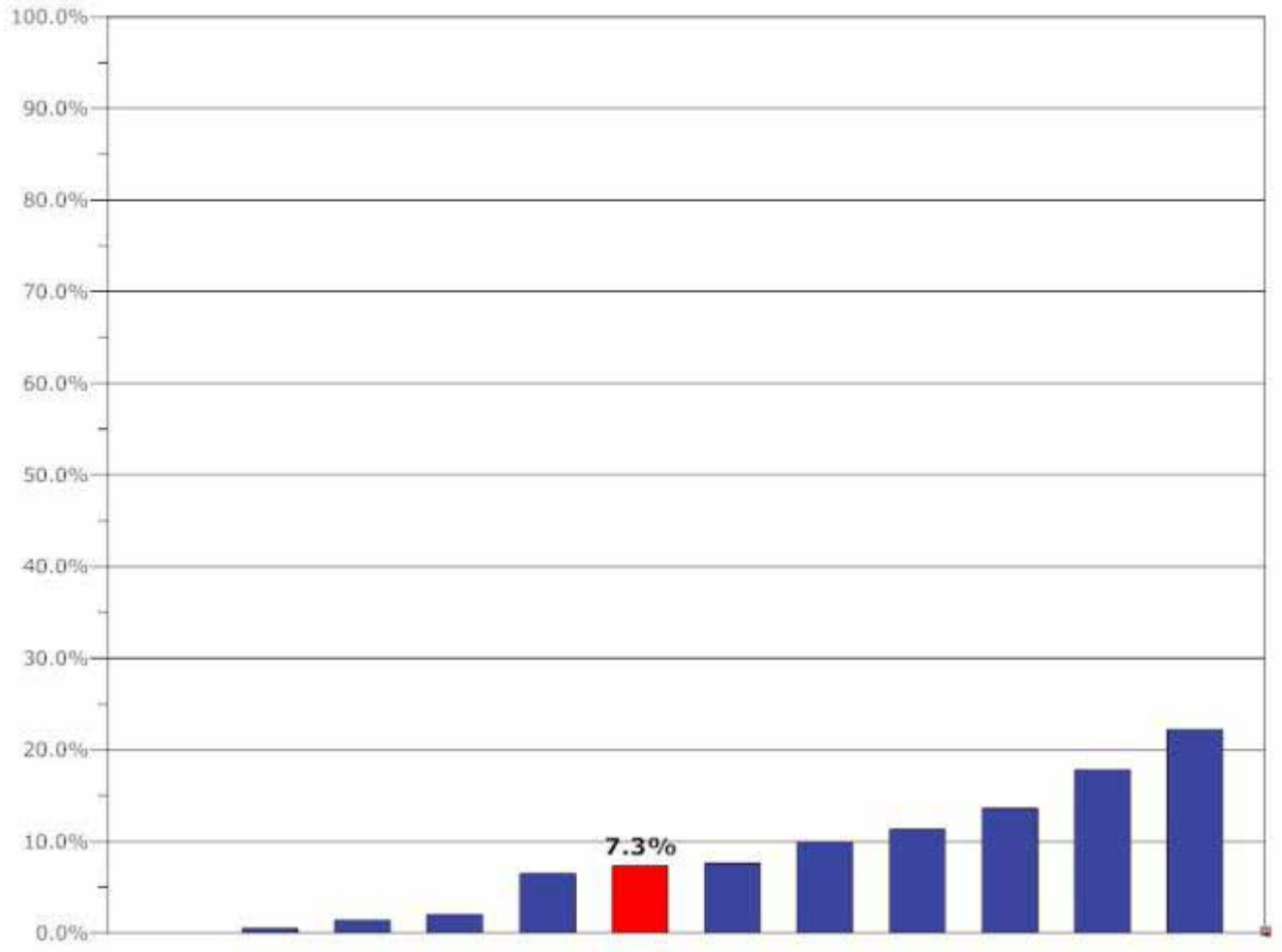


Chart 9-4 shows an estimated percentage of visits coming from outside Denton's local market. In this case, 7.3% of the customer visits came from "visitor" zip codes. Estimating true "visitors" is somewhat challenging since someone from other parts of the Eastern Shore are probably visitors. This definition accounts for only those on the Western Shore. Although each participating business had some customers from outside of the region, four businesses had over 10% of their customers from other places.

Chart 9-4: Percentage of "Visitors" by Business



Trade Area Definitions

The number of visits provides an overall viewpoint of where customers come from. A more accurate way to evaluate customer loyalty in the market is by looking at the local market itself. Since zip codes each have different populations, customer visits are most accurately tracked on the number of visits in relation to the population. This corrects for zip codes that have exceedingly large or small populations that might skew the market penetration data. By this measure, primary and secondary trade areas for the community can be established. The primary trade area is the geography where the most loyal and frequent customers to Denton reside. The secondary trade area represents an area where Denton businesses can rely on customers, but to a lesser degree. Table 9-1 below shows customer visits per 1,000 people for each of the highest representative visits.

Table 9-1: Customer Visits per Thousand for Top Zip Codes

Zip Code	Name	2009 Population	Visits	Visits per Thousand
21629	Denton	9,756	507	51.97
21639	Greensboro	4,694	79	16.83
21660	Ridgely	3,791	56	14.77
21636	Goldsboro	1,288	17	13.20
21655	Preston	5,418	43	7.94
21625	Cordova	2,306	16	6.94
21632	Federalsburg	6,487	28	4.32
21649	Henderson	1,798	6	3.34
21601	Easton	23,380	45	1.92
21643	Hurlock	7,758	6	0.77
21617	Centreville	9,267	6	0.65
19943	Felton, DE	11,504	7	0.61
19952	Harrington, DE	10,182	6	0.59
19973	Seaford, DE	25,705	8	0.31
21629 IN	Town of Denton	3,322	280	84.29
21629 OUT	Outside Town of	6,434	227	35.28
Caroline	All	33,738	741	21.96

Determining the primary and secondary trade areas can sometimes be more "art" than science. At times, significant breaks in customer visits are not obvious. However, in Denton's case the division for the *primary* trade area is quite clear. With 51.97 visits per thousand residents, the 21629 zip code (Denton) is clearly the primary trade area for the community. With double digit visits per thousand, the *secondary* trade area for downtown Denton extends also to the 21639 (Greensboro), 21660 (Ridgely), and 21636 (Goldsboro) zip codes.

Five additional zip codes with visits per thousand residents ranging between 7.94 down to 1.92 are also highlighted in green. These zip codes, which include Easton, represent areas where Denton might attract additional visitor traffic and whose visitation numbers are strong enough to warrant mention though their trade data is not included in the analysis below.

It is also important to note that within the 21629 zip code itself, the Town of Denton had many more visits per thousand and stronger customer loyalty than those customers with a Denton zip code that live outside of the town limits. Denton in-town residents had 84.29 visits per thousand residents during the

survey period. Those outside the town limits but inside the Denton zip code only had 35.28 visits per thousand. This indicates that Town of Denton residents are more loyal to the downtown businesses than those outside the town limits even though they are both central to the primary trade area.

Map 9-2 illustrates the combined trade area for Denton in map form. The Denton zip code is to the south of its secondary trade area which comprises three zip codes north of the community.

Map 9-2: Map of the primary (left) and secondary (right) trade areas for Denton.

TRADE AREA DEMOGRAPHICS

The Primary Trade Area

The 2009 population of Denton's primary trade area (the 21629 zip code) is 9,756. This population has had a very robust increase since 2000 with 20.3% growth from 8,112 people. The 21629 zip code population is expected to continue to grow at a rate of 9.5% through 2014 reaching a population of 10,682 in that year. This rate of growth is triple the growth rate of Maryland as a whole.

The median household income is also strong at $53,835 (comparing favorably with $55K for Easton) but per capita income is significantly lower at $25,649 (compared with $35,160 for Easton). The difference between per capita income and median household income is that Easton has a number of households with significantly higher incomes than Denton; although the rest of the demographics are remarkably similar.

Commuting is part of the day-to-day life on the Eastern Shore and Denton's primary trade area is no different with an average travel time to work of 32 minutes. This average travel time compares with 34 minutes for Maryland, 28 for the US, and 22 for Easton.

The Secondary Trade Area

Denton's secondary trade area including Greensboro, Ridgely, and Goldsboro zip codes has a 2009 population of 9,773 (nearly identical to the primary trade area). This population has also had a strong increase with 17.3% more people in 2009 than in 2000. Like the Denton zip code, these three zip codes are expected to have continued growth of 8.5% through 2014 when the population will reach 10,607.

The income level of the secondary trade area is not as robust as that of the primary trade area. The median household income of the secondary trade area is $51,963 compared with $53,835 for the primary trade area; and the per capita income is only $22,056 (compared with $25,649 for the primary trade area).

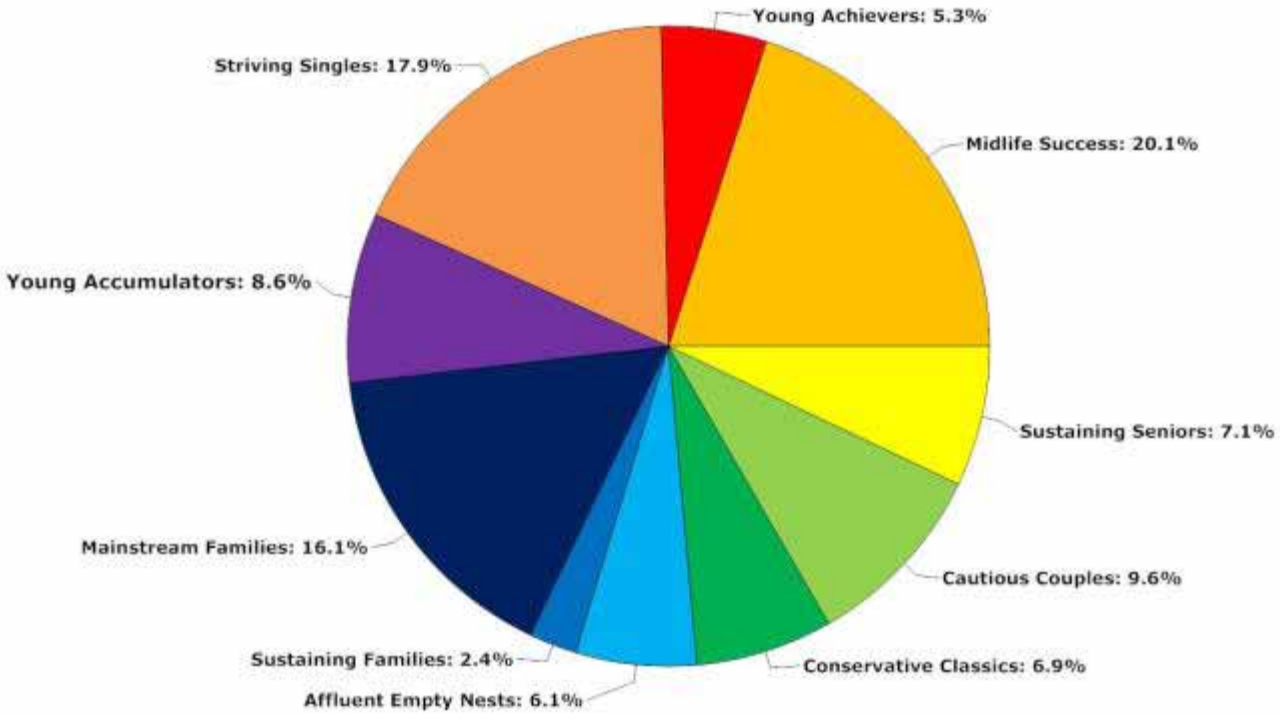
Average travel time to work is 34 minutes compared with 33 minutes for the primary trade area.

Market Segmentation

Market segmentation is a way to summarize demographic information into easy to understand categories. The market segmentation illustrated for Rutland's trade areas uses Claritas PRIZM data. PRIZM defines every US household in terms of 66 demographic and behavioral types to help determine the lifestyles, purchase behaviors, and likes and dislikes of the customer base. The segments shown here are aggregations of the 66 types and illustrate only ten of the segments (others are subsets of those illustrated).

The easiest way to understand the Charts 9-5 and 9-6 below is to note that generally the green colors represent unmarried households without families and generally younger populations, the blue represents families, and the red represents empty nesters and retirees. The darker the color shows more affluence.

Chart 9-5: Primary Trade Area Market Segmentation (*Source: Claritas*)



In the case of the Downtown Denton's primary trade area (Chart 9-5), the red or older demographics comprise about one third of the primary trade area market base. Of these, about half are households that are relatively affluent. These households represent 13% of the overall market.

Families in higher demographic categories (Mainstream Familiar and Young Accumulators) comprise about 25% of the market. "Midlife Success" represents the most robust single market for Denton with 20.1% of the market in this category. Lower income demographics are also a part of the primary trade area market with "Sustaining Seniors" at 7%, "Sustaining Families" at 2.4%, and "Striving Singles" at 18%.

The secondary trade area demographics (Chart 9-6) show a remarkable shift with many more families. In fact, "Mainstream Families" comprise a whopping 44% of the market base for the secondary trade area in this category. This segment comprises much of the market leaving both the more affluent and the less affluent categories at smaller percentages than the primary trade area.

Chart 9-6 – Secondary Trade Area Market Segmentation

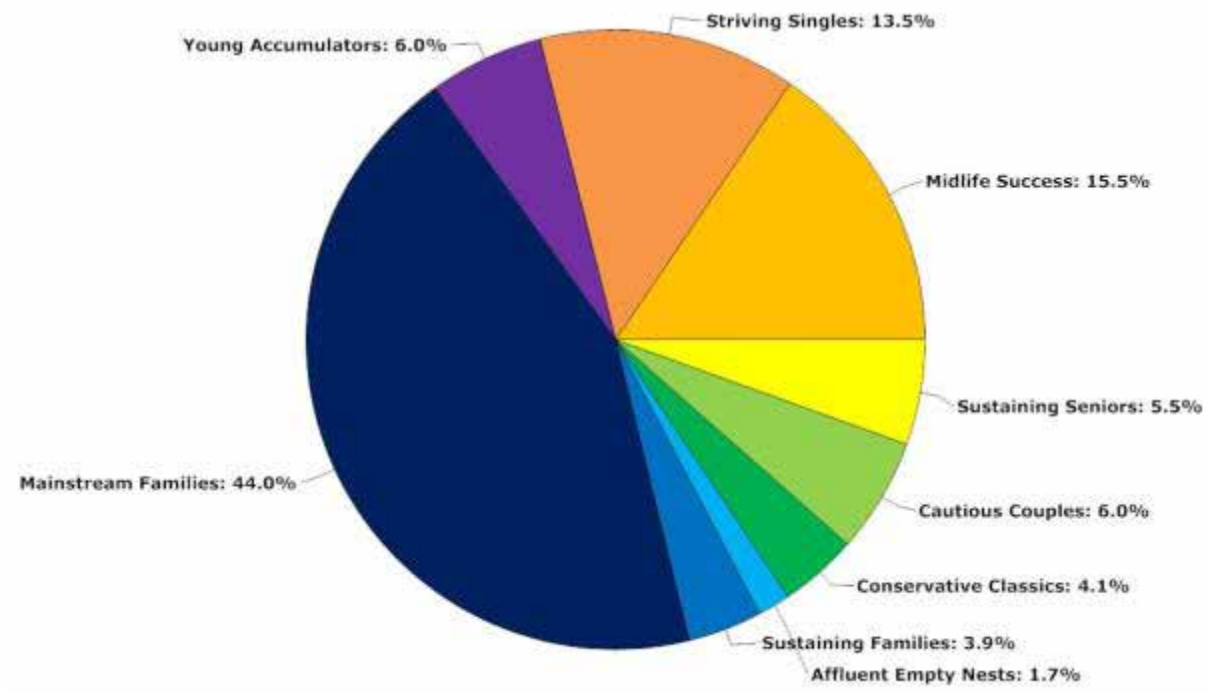
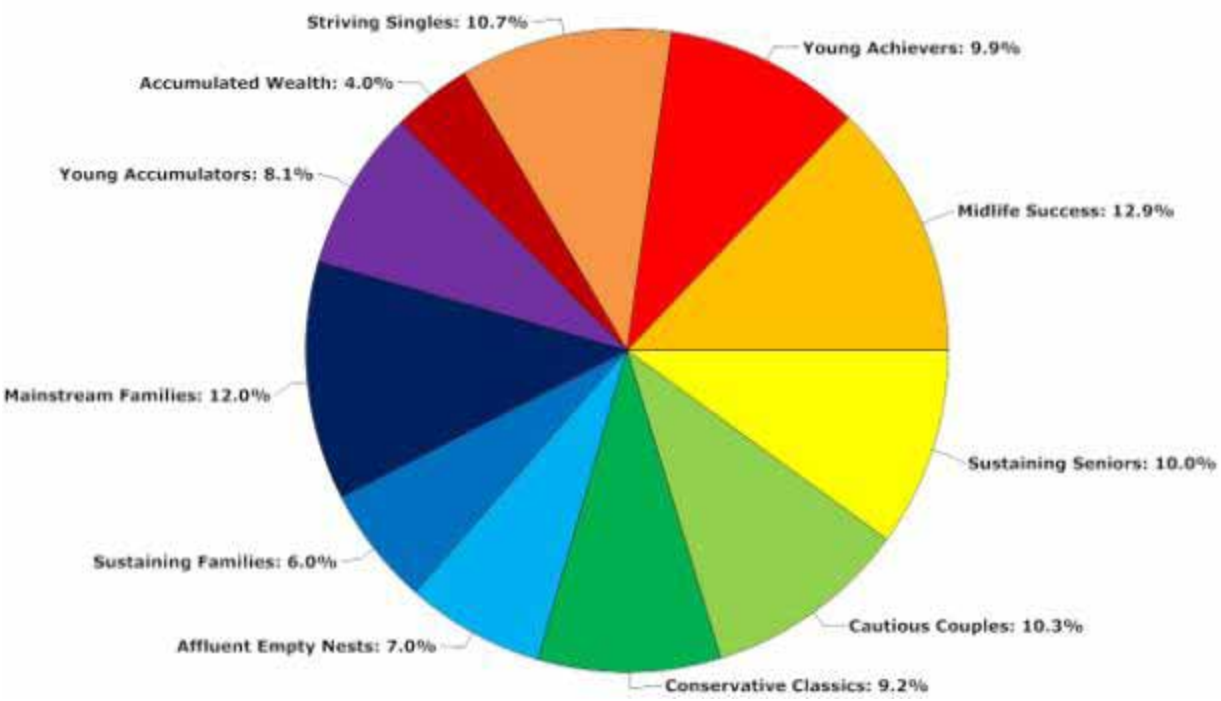


Chart 9-7 below shows the market segmentation for the entire country providing a quick way to compare Denton's trade areas with national trends.

Chart 9-7: Market Segmentation for the United States. (*Source: Claritas*)



Market Definition and Demographic Conclusions

- Denton's downtown shops cater to a strong local population base with 51% of the traffic from the 21629 zip code and nearly 75% from Caroline County as a whole.
- Visits per 1,000 drop sharply within the Denton zip code itself, with town residents constituting a much stronger customer base than unincorporated residents. The total customer visits for the Denton zip code are not as robust as they could be. This means that Denton has an opportunity to cultivate more customer loyalty from its own residents.
- Denton also has an opportunity to cultivate a stronger customer base from nearby geographies, including Cordova, Federalsburg, Henderson, Preston, and even Easton. This would be particularly true for specialty type retailers.
- Specialty type retail will also be attractive to the visitor market, which makes up one-in-ten customers for several businesses in the downtown.
- Denton's market demographics are quite strong despite some people's opinion that the community is economically distressed. Both the demographic analysis and the market segmentation figures show a robustly growing market with strong income characteristics. A growing and relatively affluent market is a fundamental for success for any community and Denton is fortunate to have this situation.
- All told, Denton's market must continue to cultivate the "bread and butter" local market while growing both regional and visitor traffic.

RETAIL MARKET ANALYSIS

Denton is a retail center serving the primary and secondary markets defined above. In this section, the Denton market will be examined to identify potential opportunities for new or expanded stores by examining "retail leakage." A retail leakage analysis will look at the primary and secondary trade areas to see how much money is "leaking" from the area to stores in other areas. This will allow the community to assess what kind of additional stores might be attracted to Denton and will help individual existing businesses understand how they might diversify product lines.

Retail Leakage in the Trade Areas

"Retail leakage" refers to the difference between the retail expenditures by residents living in a particular area and the retail sales produced by the stores located in the same area. If desired products are not available within that area, consumers will travel to other places or use different methods to obtain those products. Consequently, the dollars spent outside of the area are said to be "leaking." If a community is a major retail center with a variety of stores, it will be "attracting" rather than "leaking" retail sales. Even large communities may see leakage in certain retail categories while some small communities may be attractors in categories.

Such an analysis is not an exact science. In some cases large outflow may indicate that money is being spent elsewhere (drug store purchases at a Walmart* or apparel purchases through mail order). It is

important to note that this analysis accounts best for retail categories where households (rather than businesses) are essentially the only consumer groups. For example, lumberyards may have business sales that are not accounted for in consumer expenditures. Stores such as jewelry shops and clothing stores are more accurately analyzed using this technique. The leakage study for Denton is naturally conservative for two reasons. First, it is "frozen in time" looking at current conditions. Fortunately, Denton is part of an area growing in population. As a result, the market will naturally support more services over time. Second, the trade areas identified are limited to those outlined above. This means that we are only looking at opportunities to capture sales from four zip codes in the immediate vicinity of Denton. A successful store model might capture from well beyond this geography and could foster a strong visitor market as well.

With this information in mind, the following represents a synopsis of the retail leakage data for Denton:

- Stores in Denton's primary trade area for Denton sold $48.3 million in merchandise in 2008. Consumers in the same geography spent $119.8 million in stores of similar type in 2008.
- This means that overall the primary trade area for Denton is leaking sales to the tune of $71.5 million annually.
- With the exceptions just a few categories, Denton is leaking sales in nearly every retail category, including restaurants, clothing, general merchandise, sporting goods, building supply and gardening store, and a host of smaller specialty store types. The chart below will explore where Denton is indeed gaining sales versus where it is leaking sales by individual retail categories in greater detail.
- Stores in the three zip codes that comprise Denton's secondary trade area sold $28.7 million in merchandise.
- Secondary trade area consumers spent $115.4 million in the same retail store types.
- The secondary trade area is leaking sales in the large amount of $86.7 million each year.
- Combined, these four zip codes are leaking sales of $158.2 million annually representing a significant potential to capture additional sales into the market.

The influence of Easton and the Western Shore as retail destinations is strong and it will continue to "sap away" retail trade from Caroline County. However, there are strong opportunities in Denton to capture even a small portion of these sales back into the community resulting in a more vibrant retail climate for the city. Table 9-2 below explores these opportunities in greater detail for both the primary and the secondary trade areas. Please note that some categories are subsets of larger categories. The pink columns represent the primary trade area that includes the Denton zip code; the orange columns represent the three zip codes of the secondary trade area Greensboro, Goldsboro, and Ridgely.

Table 9-2: Retail Gap Analysis – Primary and Secondary Areas

RMP Opportunity Gap - Retail Stores 2008	PTA			STA		
	Demand (Expenditures)	Supply (Retail Sales)	Opportunity Gap/Surplus	Demand (Expenditures)	Supply (Retail Sales)	Opportunity Gap/Surplus
Total Retail Sales Incl Eating and Drinking Places	119,772,907	48,259,202	71,513,705	115,394,591	28,712,645	86,681,946
Furniture and Home Furnishings Stores-442	4,074,943	821,366	3,253,577	3,697,750	265,947	3,431,803
Furniture Stores-4421	2,203,656	550,256	1,653,400	2,020,240	151,051	1,869,189
Home Furnishing Stores-4422	1,871,287	271,110	1,600,177	1,677,510	114,896	1,562,614
Electronics and Appliance Stores-443	3,686,108	4,714,960	(1,028,852)	3,468,521	796,295	2,672,225
Appliances, TVs, Electronics Stores-44311	2,744,808	4,663,999	(1,919,191)	2,591,523	725,999	1,865,524
Household Appliances Stores-443111	623,083	0	623,083	589,115	725,999	(136,884)
Radio, Television, Electronics Stores-443112	2,121,725	4,663,999	(2,542,274)	2,002,408	0	2,002,408
Computer and Software Stores-44312	798,675	50,961	747,714	742,265	70,294	671,971
Camera and Photographic Equipment Stores-44313	142,625	0	142,625	134,733	0	134,733
Building Material, Garden Equip Stores -444	18,772,044	162,869	18,609,175	17,525,521	1,006,925	16,518,596
Building Material and Supply Dealers-4441	17,298,856	64,580	17,234,276	16,120,303	936,909	15,183,394
Home Centers-44411	6,792,213	0	6,792,213	6,339,082	0	6,339,082
Paint and Wallpaper Stores-44412	401,161	0	401,161	358,163	0	358,163
Hardware Stores-44413	1,348,291	49,002	1,299,289	1,261,557	0	1,261,557
Other Building Materials Dealers-44419	8,757,191	15,578	8,741,613	8,161,501	936,909	7,224,592
Building Materials, Lumberyards-444191	2,973,620	5,312	2,968,308	2,794,161	319,495	2,474,666
Lawn, Garden Equipment, Supplies Stores-4442	1,473,188	98,289	1,374,899	1,405,218	70,016	1,335,202
Outdoor Power Equipment Stores-44421	230,251	10,577	219,674	222,725	113	222,612
Nursery and Garden Centers-44422	1,242,937	87,712	1,155,225	1,182,493	69,903	1,112,590
Food and Beverage Stores-445	18,704,404	8,024,093	10,680,311	18,419,540	6,134,366	12,265,174
Grocery Stores-4451	17,127,113	7,972,711	9,154,402	16,923,331	5,993,843	10,929,488
Supermarkets, Grocery (Ex Conv) Stores-44511	16,252,441	7,245,183	9,007,258	16,058,698	5,993,843	10,064,855
Convenience Stores-44512	874,672	727,528	147,144	864,633	0	864,633
Specialty Food Stores-4452	519,516	42,269	477,247	518,349	19,272	499,077
Beer, Wine and Liquor Stores-4453	1,057,775	9,113	1,048,662	977,860	141,251	836,609
Health and Personal Care Stores-446	8,907,065	9,383,029	(475,964)	8,198,085	1,638,313	6,559,772
Pharmacies and Drug Stores-44611	7,775,442	9,118,047	(1,342,605)	7,162,387	1,563,095	5,599,292
Cosmetics, Beauty Supplies, Perfume Stores-44612	311,732	213,002	98,730	284,104	0	284,104
Optical Goods Stores-44613	271,180	0	271,180	246,719	0	246,719
Other Health and Personal Care Stores-44619	548,711	51,980	496,731	504,875	75,218	429,657
Gasoline Stations-447	18,474,665	13,392,517	5,082,148	18,913,803	13,771,352	5,142,451
Gasoline Stations With Conv Stores-44711	13,873,085	13,252,302	620,783	14,172,772	9,354,565	4,818,207
Other Gasoline Stations-44719	4,601,580	140,215	4,461,365	4,741,031	4,416,787	324,244
Clothing and Clothing Accessories Stores-448	7,284,129	469,001	6,815,128	7,059,957	0	7,059,957
Clothing Stores-4481	5,237,652	361,001	4,876,651	5,135,658	0	5,135,658
Men's Clothing Stores-44811	345,773	0	345,773	333,725	0	333,725
Women's Clothing Stores-44812	1,324,982	361,001	963,981	1,287,701	0	1,287,701
Childrens, Infants Clothing Stores-44813	276,107	0	276,107	306,239	0	306,239
Family Clothing Stores-44814	2,830,799	0	2,830,799	2,766,141	0	2,766,141
Clothing Accessories Stores-44815	121,715	0	121,715	111,936	0	111,936
Other Clothing Stores-44819	338,276	0	338,276	329,916	0	329,916
Shoe Stores-4482	950,619	0	950,619	978,419	0	978,419
Jewelry, Luggage, Leather Goods Stores-4483	1,095,858	108,000	987,858	945,880	0	945,880
Jewelry Stores-44831	1,010,731	108,000	902,731	869,383	0	869,383
Luggage and Leather Goods Stores-44832	85,127	0	85,127	76,497	0	76,497
Sporting Goods, Hobby, Book, Music Stores-451	3,002,281	918,473	2,083,808	2,860,077	2,238,812	621,265
Sporting Goods, Hobby, Musical Inst Stores-4511	2,214,673	677,995	1,536,678	2,127,596	1,901,005	226,591
Sporting Goods Stores-45111	1,179,895	670,056	509,839	1,127,240	1,777,943	(650,703)
Hobby, Toys and Games Stores-45112	686,708	7,939	678,769	670,720	123,062	547,658
Sew/Needlework/Piece Goods Stores-45113	173,325	0	173,325	162,443	0	162,443
Musical Instrument and Supplies Stores-45114	174,745	0	174,745	167,193	0	167,193
Book, Periodical and Music Stores-4512	787,608	240,478	547,130	732,481	337,807	394,674
Book Stores and News Dealers-45121	542,310	85,211	457,099	494,895	99,594	395,301
Book Stores-451211	512,481	85,211	427,270	468,068	99,594	368,474
News Dealers and Newsstands-451212	29,829	0	29,829	26,827	0	26,827
Prerecorded Tapes, CDs, Record Stores-45122	245,298	155,267	90,031	237,586	238,213	(627)
General Merchandise Stores-452	19,413,985	1,162,124	18,251,861	18,800,811	0	18,800,811
Department Stores Excl Leased Depts-4521	9,305,749	981,780	8,323,969	8,945,396	0	8,945,396
Other General Merchandise Stores-4529	10,108,236	180,344	9,927,892	9,855,415	0	9,855,415
Warehouse Clubs and Super Stores-45291	8,644,833	0	8,644,833	8,471,004	0	8,471,004
All Other General Merchandise Stores-45299	1,463,403	180,344	1,283,059	1,384,411	0	1,384,411
Miscellaneous Store Retailers-453	4,249,150	3,333,393	915,757	4,034,395	218,957	3,815,438
Florists-4531	309,368	860,400	(551,032)	283,682	0	283,682
Office Supplies, Stationery, Gift Stores-4532	1,665,775	1,225,897	439,878	1,542,162	62,478	1,479,684
Office Supplies and Stationery Stores-45321	953,364	0	953,364	882,324	0	882,324
Gift, Novelty and Souvenir Stores-45322	712,411	1,225,897	(513,486)	659,838	62,478	597,360
Used Merchandise Stores-4533	342,647	496,687	(154,040)	322,932	156,479	166,453
Other Miscellaneous Store Retailers-4539	1,931,360	750,409	1,180,951	1,885,619	0	1,885,619
Foodservice and Drinking Places-722	13,204,133	5,877,377	7,326,756	12,416,131	2,621,680	9,794,451
Full-Service Restaurants-7221	6,048,258	1,580,511	4,467,747	5,671,129	1,486,153	4,184,976
Limited-Service Eating Places-7222	5,437,097	2,892,858	2,544,239	5,150,985	678,436	4,472,549
Special Foodservices-7223	1,123,216	1,287,531	(164,315)	1,063,917	0	1,063,917
Drinking Places -Alcoholic Beverages-7224	595,562	116,477	479,085	530,100	457,091	73,009

Summary of Trade Area Statistics:

- PTA Selected Store Sales $48.3 million
- PTA Consumers spent $119.8 million
- Primary Trade Area is LEAKING $71.5 million annually overall each year.
- STA Store Sales $28.7 million
- STA Consumers spend $115.4 million
- Secondary Trade Area is LEAKING sales in the amount of $86.7 million each year.
- Combined the two trade areas are LEAKING: $158.2 million annually.

Logically, Denton could be absorbing some but not all of this retail leakage and the magnitude of the leakage is a clear indicator that there is some pent-up demand for additional retail in Denton. Within the categories above, some of the opportunities are specific to a more suburban setting while others could be oriented towards Denton's downtown district. The key for Denton is to begin to capture more sales from the trade area zip codes while cultivating customers in an even broader geographic area to augment existing retailers and support new retail opportunities.

It is important to note, however, that the data above is a "macro view" of retail leakage in the long term and the recent downturn in the economy will clearly be a temporary hindrance to recruiting new retail and a challenge for existing retailers.

Potential Capture Scenarios

It is not reasonable to expect that Denton will capture all of the leaking retail sales from the primary and secondary trade areas. Therefore, we examined the retail opportunities to present a "scenario" where Denton does indeed capture some of the retail trade leakage back into the community. The scenario suggests that 20% of the outflow from the primary trade area and 10% of the outflow from the secondary trade area is captured back into the market. This still leaves a huge amount of retail to continue to leak to nearby Easton and the Western Shore. Under this scenario and using typical sales per square foot figures from the Urban Land Institute's *Dollars and Cents of Shopping Centers*, the potential capture for Denton totals over 128,000 square feet of ADDITIONAL retail space. Table 9-3 below illustrates the scenario.

Table 9-3: Potential Capture Scenario for Denton Market

Retail Stores	20% of PTA Outflow	10% 0f STA Outflow	Potential Capture	Sales per Square Foot	Calculated Capture
Selected Retail Categories Below	12,956,644	8,215,076	21,171,719		128,809
Furniture Stores	330,680	186,919	517,599	141.84	3,649
Home Furnishing Stores	320,035	156,261	476,297	167.75	2,839
Household Appliances Stores	124,617	(13,688)	110,928	245.44	452
Building Material and Supply Dealers	3,446,855	1,518,339	4,965,195	142.38	34,873
Hardware Stores	259,858	126,156	386,014	121.08	3,188
Grocery Stores	1,830,880	1,092,949	2,923,829	371.79	7,864
Health and Personal Care Stores	(95,193)	655,977	560,784	247.29	2,268
Clothing and Clothing Accessories Stores	1,363,026	705,996	2,069,021	164.60	12,570
Women's Accessory & Specialty	192,796	128,770	321,566	164.60	1,954
Shoe Stores	190,124	97,842	287,966	158.81	1,813
Jewelry Stores	180,546	86,938	267,485	263.92	1,014
Hobby, Toys and Games Stores	135,754	54,766	190,520	146.28	1,302
Sew/Needlework/Piece Goods Stores	34,665	16,244	50,909	74.91	680
Book Stores	85,454	36,847	122,301	161.16	759
General Merchandise Stores	3,650,372	1,880,081	5,530,453	133.90	41,303
Foodservice and Drinking Places	1,465,351	979,445	2,444,796	201.63	12,125
Drinking Places -Alcoholic Beverages	95,817	7,301	103,118	88.07	1,171

The categories listed below describe both downtown and suburban opportunities that exist in Denton under the scenario in Table 9-3 above. This data should be augmented by individual research by each business wishing to locate in the community.

- *Grocers* – Under the scenario above, it is unlikely that Denton could support another full-line grocer. However, specialty food stores or expansion/improvement of an existing store might reduce the amount of leakage in this category.

- *Food Service & Drinking Places* – This represents one of the most important categories for Denton, particularly downtown as it will add foot traffic and continue to drive locals and visitors into downtown. While there have been recent setbacks on the casual dining sector with the economic downturn, full-service and to a lesser degree limited-service dining remain strong leakage categories that could reap success in the long term in Denton. 12,000 square feet of demand is shown in this category almost evenly divided between full service and limited service restaurants. This means that anywhere from two to five new restaurants could be supported in Denton under the rather conservative leakage scenario outlined above. This scenario follows the theory that restaurant clusters in a district such as downtown would also benefit existing restaurant owners in the district.

- *Clothing* – As is the case in many communities Denton's size, clothing sales tend to leak to nearby communities where malls and shopping centers offer many clothing store options. However, the amount of leakage and the potential to capture some of these sales could support additional stores, including downtown "mom and pop" stores and family

clothing stores in suburban settings. 12,500 square feet of demand exist in this category, suggesting the potential for several more "mom and pop" stores in downtown. These stores would need to carefully research market demand and review the demographic data shown here.

- *Smaller Specialty-Oriented Shops* – Many smaller specialty store types could be supported in Denton. The list above provides potential capture scenarios for stores such as home furnishings and furniture, books, hobbies, jewelers, and accessories.

The following categories are suburban in nature but will have a potential impact on trade for all of Denton:

- *General Merchandise* – As with clothing, general merchandise sales tend to leak to nearby communities where big box stores offer discounted prices and a variety of options. In total, over 40,000 square feet of retail space could be supported under this scenario, which represents about one-fourth of a typical Super Walmart*. When the rather conservative leakage factor is considered, the prospect of a new Walmart* is very pronounced. For Downtown Denton, this might have an actual positive effect by retaining customers locally that might otherwise travel elsewhere to do their shopping. It will benefit those retailers that concentrate on specialty items the most.

- *Building Materials & Supply Dealers* – Under the scenario above, Denton could support over 30,000 square feet building material and supply stores. This is roughly one-third of a Home Depot and means that there is potential for future building material expansion.

It is also important to recognize that this scenario looks only at local consumer demand in the primary and secondary trade areas and does not capture potential visitor traffic for stores. When visitor traffic and community growth are factored into the equation, support for these store types becomes even more significant. Once again, however, these demands represent a long-term view and may not be immediately supportable given the recent economic downturn.

Overall Market Conclusions

Based on retail leakage data, Denton has the opportunity to expand its retail presence for the two trade areas shown here. Denton is in the fortunate position to have experienced rapid residential growth without accompanying retail growth and downtown is a prime candidate to benefit from this situation. Existing successful stores are already a testament to the potential of downtown.

All told, Denton is positioned to grow as a retail destination in many different categories based simply on the local demand for retail. In order to capitalize on this growth Denton will need to augment its catalyst plans for growth with a series of marketing and recruitment strategies to retain local customers, create incentives for new retail, and expand the retail appeal of the community to capture a larger share of the market. The following chapter will explore these options.

RECOMMENDATIONS FOR DOWNTOWN DENTON

The following recommendations are compiled under three broad initiatives for Denton designed to organize the tasks around corresponding goals for downtown. These initiatives are:

- Creating the Denton Brand: A MARKETING STRATEGY
- Fostering Investment: A RETAIL RECRUITMENT AND RETENTION STRATEGY
- Welcoming Business: An ORGANIZATIONAL STRATEGY

Each of the three initiatives presented below begins with an explanation of the issues that fueled the decision to pursue this strategy and a "vision" as to what might be accomplished if the strategy succeeds. Following this introduction, each initiative has a series of recommendations divided into: first step projects designed to be completed in 2010; next step projects to be completed in 2011 and 2012; and long term projects that might take until 2015 and beyond to complete.

Marketing Strategy for Downtown Denton

Issues and Vision

Denton has a rich history and a unique downtown setting. In an effort to keep downtown vibrant and successful, the community has had a track record of successful planning initiatives. As a result of a Hyett Palma study completed in 2001, several significant projects are underway to enhance the downtown Denton's appeal to visitors and residents: the Denton Waterfront, the ArtsWay, and a Culinary School. These projects are designed as catalysts to spur continuing development and have been part of the plan for downtown Denton for several years. Despite the considerable effort put into these projects, there are some in Denton who feel that these efforts are not worthwhile pursuits and should be abandoned. Moreover, there are some who view downtown Denton as a district in continued decline. To convince doubters otherwise and to generate further support for downtown development, Denton needs to foster a positive image and begin to control its own message about the current successes downtown, the plans for the future, and the partnerships that are happening to reinvigorate the district.

Owning the message means that Denton should create a statement of what the community is about. A part of this project is to encapsulate the image of Denton and its downtown into a clear and concise brand statement. The brand statement for Denton is:

> *We are the quintessential Eastern Shore town. A place where farmers still gather on the courthouse lawn, where shops and restaurants line Market Street, and where kids gather after school at the library downtown. We look forward with measured steps... with creative spaces for artists inspired by the spectacular scenes of life on the Eastern Shore and places where you can dine on its bounty. We live life unhurried and unhassled yet we look forward with foresight and vision. Our history is tightly woven with farms and fields, African American freedom, and the dark Choptank water that laps on our shore. Discover our place... Denton, Maryland, the pace is different here.*

Recognizing this brand as a cohesive statement of Denton and its downtown will allow Denton Main Street and downtown retailers to assert a positive and consistent image. This image positions to achieve the following goal:

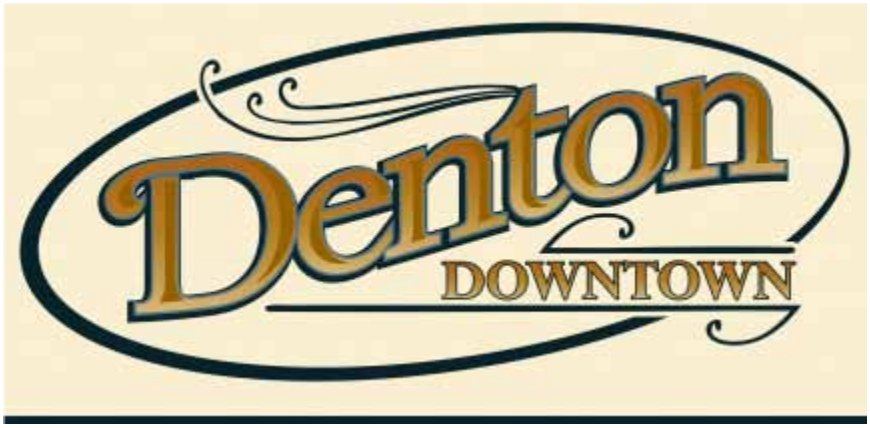
Denton is a center of civic life for its citizens; a waterfront community connected to the history of the Eastern Shore; a center of commerce; and a place for the arts in Caroline County and beyond.

Major Goals for Downtown Denton

- *Launch the Denton brand.*
- *Create a tagline for the brand – "The Pace is Different Here"* – which is a reflection of the vision and hope of the community to remain a tight-knit community that is proud of its traditional ways and quality of life. The tagline has an appeal both to visitors and to residents, and may be incorporated into various branded materials, such as print or online advertisements. For the local Denton resident, the brand will build pride of community, cultivate participation from new residents, and develop message consistency. For the regional customer, the Denton brand will help to consolidate Caroline County as a strong customer base and build awareness of a nearby choice for Talbot County residents. From a visitor perspective, the Denton brand should be used in partnership with county and regional tourism boards and should be used to capture a portion of drive-through traffic as well as cultivate heritage-, agriculture-, and nature-based tourism.

  The initial branding concept should land on a consistent logo, font, and color for Denton and be incorporated into an ad template for local businesses to use. For Downtown Denton, the brand concept has a couple of optional uses. A more traditional mark uses a marine blue and gold color combination; the Denton brand uses a classic serif font to evoke a sense of tradition and stability. The graceful flow of the lettering and the swirling tails on the "t" symbolize the town's connection with the Choptank River, the traditional steamboats, and the slow rise of downtown from the river, and the oval lends a contemporary flair. Figure 9-1 shows the brand for Downtown Denton.

Figure 9-1: Traditional Downtown Denton brand.



- *Create companion event branding*
- *Create a shopping and dining guide for downtown*
- *Initiate "The Pace is Different Here" advertising program*
- *Pursue grant for wayfinding signs.* Examples of a wayfinding sign system are illustrated in Figure 9-2.
- *Host a marketing summit with partners and retailers*

Figure 9-2: Wayfinding signs concepts for Denton

- *Implement a wayfinding program, focusing on parking and initial gateways to downtown. Continue rolling out brand with collateral material.*
- *Implement a custom banner program in downtown Denton (Figure 9-3).*
- *Expand brand to new projects.*

Figure 9-3: Examples of custom banner designs using the brand identity package

OVERALL RECRUITMENT/RETENTION STRATEGY

Issues and Vision

As indicated in the Retail Market Study above, Denton is currently experiencing huge retail leakage to the tune of $150 million per year in its combined trade areas. This represents a significant opportunity to capture some sales back into the community growing the retail base strictly off the local population base alone. When potential tourism traffic, a potential expanded market draw, and ongoing growth in the area is coupled with concerted business recruitment efforts; Denton will be able to see significant retail economic development opportunities in the coming years. Of course, there are current challenges with the market recession and vacancies in the downtown core that need to be filled. Fortunately, Denton has several "pacesetter" businesses that currently attract a large and diverse customer base to its downtown. With these thoughts in mind, the goal for this strategy becomes:

> *Vision: Denton will emerge as Caroline County's premier location for major national retailers, independently owned shops, restaurants, services, and businesses appealing to local and regional residents as well as visitors.*

Major Goals

- *Explore incentives for investment.*
- *Create a marketing grant program for local businesses in the downtown area.*
- *Form a retail recruitment team in partnership with commercial realty companies.*
- *Continue to package and promote small and large business incentives.*
- *Continue and expand micro-grant marketing program for downtown Denton.*
- *Attract three new restaurants and five new specialty stores to downtown Denton.*
- *Develop a retail catalyst project or a business incubator space for Downtown Denton.*

ORGANIZATIONAL STRATEGY FOR DOWNTOWN DENTON

Issues and Vision

Now that Denton Main Street has been reconstituted as an independent economic development organization, it finds itself with many partners: the Town of Denton, Denton Development Corporation, Caroline County Economic Development, Caroline County Tourism, the Caroline Chamber of Commerce, and the many downtown stakeholders. Denton Main Street has the ability to communicate with these partners and integrate their services into a streamlined approach to downtown investment. Denton Main Street can provide, or at least facilitate, what investors want: a clear, consistent development process for downtown projects. Furthermore, Denton Main Street can provide similar services to independent businesses, which often require assistance with startup procedures and expectations.

> *Vision: Denton Main Street will cultivate strong relationships with its partner organizations to develop a positive collaborative business climate to enhance economic development in the downtown with the ultimate goal of creating a more vibrant community and stable tax base for Denton and Caroline County.*

Major Goals for Downtown Denton

- *Present the findings of this market study to groups in the community and region.*
- *Develop a downtown investment "go team" comprised of Main Street and town staff.*
- *Re-examine downtown development standards: parking, site design, change of use.*
- *Publish a capital improvements schedule detailing infrastructure improvements*.
- *Develop a sign "idea book" for downtown businesses.*
- *Create a sign micro-grant to help businesses implement appropriate signs.*
- *Develop an annual "State of Downtown" summit to gather leadership in the community to review projects and progress.*
- *Conduct a traffic study to eliminate one-way pairs in downtown on Gay and Franklin Street.*
- *Remove one-way pairs on Gay and Franklin streets.*
- *Consider new parking resources as new developments downtown are completed.*

IMPLEMENTATION STRATEGY AND ACTION PLAN

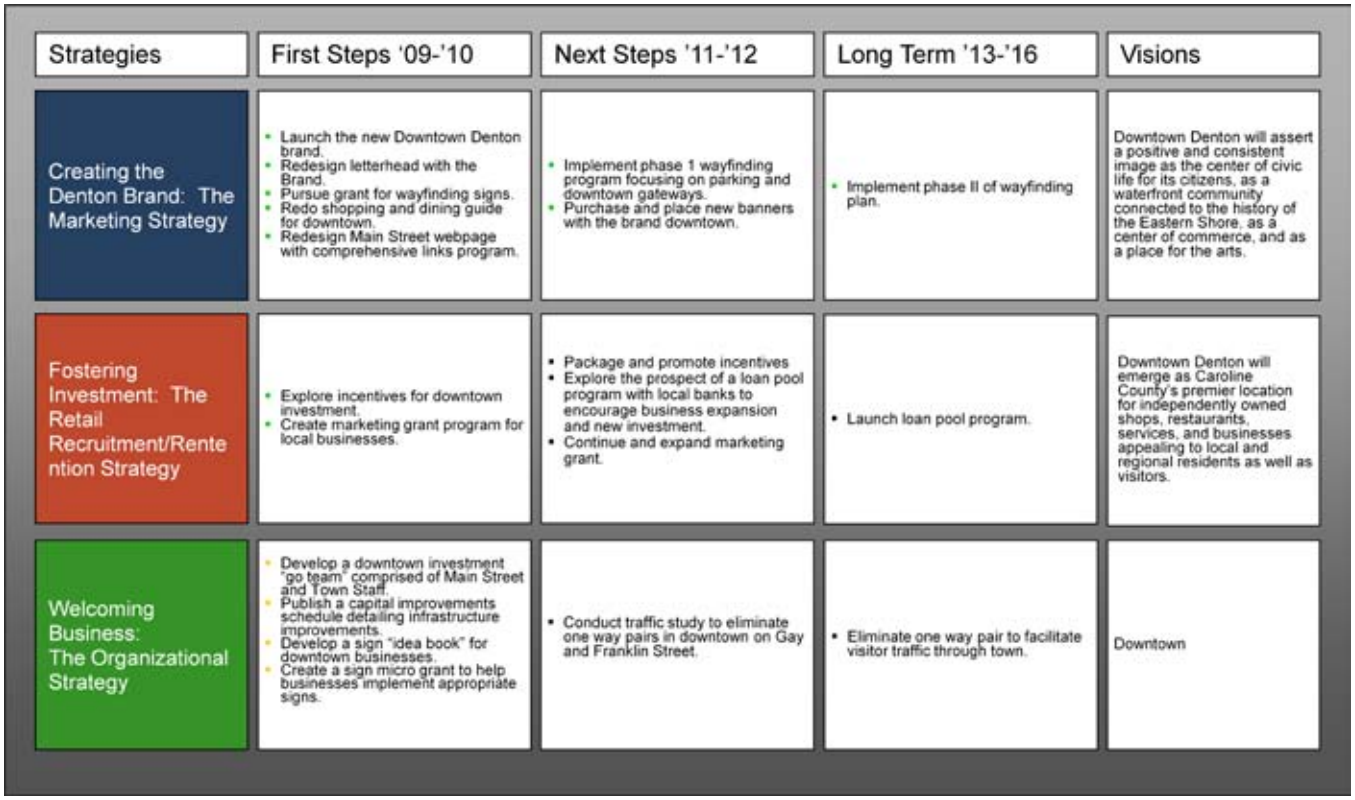
The "Strategy Board" (Table 9-3) summarizes all of the projects and recommendations included in the Market Study and Branding Strategy. The board is designed as a working document for benchmarking and ongoing evaluation of the implementation process. Each recommendation that is presented in brief on the strategy board is supported in this report documentation.

The projects are divided into three timeframes. The first series of projects are demonstration projects that should begin immediately. For the most part, these are simple projects that will be highly visible, have significant impact and should be completed within the first year after the plan is adopted. The second set of projects is labeled "next steps." Some of these are more advanced projects while others are continuations of projects that began during the demonstration period. The next step projects should be completed within the second year of the plan. The final series of projects are long-term or plan completion projects. While this category remains largely empty, many of the projects begun in the next steps phase will not be completed until later. Over time, this category will continue to fill up as priorities evolve.

The strategy board and its recommendations represent a "living document." As time goes by and implementation proceeds, some priorities will shift while other ones will arise. The implementation strategy board should be evaluated periodically, no less than annually. This evaluation process will allow for finished tasks to be indicated on the board, for responsibilities to be shifted between parties, and for time frames to be adjusted for individual projects.

Each of the plan strategies and visions are outlined in the strategy board. It is important to remember the ultimate marketing and development strategies that each project supports. Of course, each of these strategies is linked with one another, but failure to achieve any one goal does not negate the ability to achieve others.

Table 9-3: Implementation Strategy Board



Strategies	First Steps '09-'10	Next Steps '11-'12	Long Term '13-'16	Visions
Creating the Denton Brand: The Marketing Strategy	• Launch the new Downtown Denton brand. • Redesign letterhead with the Brand. • Pursue grant for wayfinding signs. • Redo shopping and dining guide for downtown. • Redesign Main Street webpage with comprehensive links program.	• Implement phase 1 wayfinding program focusing on parking and downtown gateways. • Purchase and place new banners with the brand downtown.	• Implement phase II of wayfinding plan.	Downtown Denton will assert a positive and consistent image as the center of civic life for its citizens, as a waterfront community connected to the history of the Eastern Shore, as a center of commerce, and as a place for the arts.
Fostering Investment: The Retail Recruitment/Retention Strategy	• Explore incentives for downtown investment. • Create marketing grant program for local businesses.	• Package and promote incentives • Explore the prospect of a loan pool program with local banks to encourage business expansion and new investment. • Continue and expand marketing grant.	• Launch loan pool program.	Downtown Denton will emerge as Caroline County's premier location for independently owned shops, restaurants, services, and businesses appealing to local and regional residents as well as visitors.
Welcoming Business: The Organizational Strategy	• Develop a downtown investment "go team" comprised of Main Street and Town Staff. • Publish a capital improvements schedule detailing infrastructure improvements. • Develop a sign "idea book" for downtown businesses. • Create a sign micro grant to help businesses implement appropriate signs.	• Conduct traffic study to eliminate one way pairs in downtown on Gay and Franklin Street.	• Eliminate one way pair to facilitate visitor traffic through town.	Downtown

CHAPTER 10 - HOUSING AND NEIGHBORHOOD CONSERVATION ELEMENT

INTRODUCTION

Housing conditions are a major determinant of the quality of Denton's neighborhoods. The focus of community planning is to improve the quality of life for residents and to promote the availability and affordability of decent, safe, and sanitary housing for all Town residents. Consequently housing and conservation of existing residential neighborhoods rank as an important local concern.

GOAL

- Provide opportunities for safe, sanitary, decent, and affordable housing for all citizens.

OBJECTIVES

- Encourage the use of innovative programs to provide a suitable mix of housing types in affordable price ranges.
- Insure high standards of quality in new construction, but with sensitivity to housing affordability.
- Require the renovation or removal of substandard housing.
- Encourage continued maintenance and upkeep of existing housing.
- Protect residential zones from incompatible activities and land uses to create comfortable and safe living environments while encouraging appropriate infill and redevelopment.
- Be proactive in efforts to provide a balanced housing stock with housing opportunities for all Town residents.

BACKGROUND

Two important historic factors, the availability of older, inexpensive housing stock and relatively low annual population increases, have helped Denton to avoid some of the most critical housing affordability issues that are confronting first-time homebuyers, and low to median income families in a number of towns and counties on the Eastern Shore. Between 2000 and 2008, however, data shows that these two factors are being significantly impacted by increases in median home prices that are outpacing increases in median household incomes. In short, since the start of the 21st century, home prices rose significantly faster than incomes, and the hardest hit have been first-time homebuyers and low to median income families. The downward trend in housing affordability that began at the end of the 1990s could worsen if significant measures are not taken to curtail it. Since 2008, the economic downturn has caused two trends: reduction in home values and increased unemployment. Many homeowners are "under water," now owning

homes worth considerably less than what was paid. First time buyers may find bargains that are more affordable than the recent past. Others seeking to sell may experience a significant loss in equity.

The availability of affordably priced homes and rental housing will be instrumental to serving the needs of both first-time home buyers and low to median income households, who make up 50 percent of the Town's population. Market rate rental stock with amenities such as gymnasiums or health clubs, clubhouses, and pools are also desirable.

The gap between household income and housing costs seen over the past eight years, and still prevalent in spite of the economic downturn, is not unique to Denton or to Caroline County. A number of neighboring counties have already seen significant increases in residential development, particularly in the form of higher-priced retirement, or age-restricted, communities. The ever-increasing, region-wide shortage of affordably priced housing is an issue that will require innovative long-range planning that encompasses and addresses regulatory, economic, and social issues.

While Denton has not experienced the dramatic increase in residential development that occurred in other Eastern Shore counties through 2008, applications for development permits in the Town during the 2000-2008 time period indicate that a substantial period of growth is on the horizon as soon as the economy improves. As this growth occurs, whether or not it happens as a result of a new populations and higher-income earners moving into the area, it presents great opportunities to serve the needs of the existing population, and all household income levels will need to be considered and incorporated into the Town's goals for housing.

Characteristics of Housing in Denton

In 2000, the U.S. Census reported 1,264 housing units in the Town of Denton. The majority of them (66 percent) were single unit detached dwellings. Multi-unit dwellings consisting of three or more housing units comprised a little over 20 percent of the total housing stock, and two-unit dwellings comprised fewer than 10 percent of the total stock.

According to the 2000 U.S. Census, almost 30 percent of Denton's homes were built in 1939 or earlier, and over 50 percent were built before 1960. The second to last significant residential building period in the town occurred between 1980 and 1989, when an additional 207 homes, comprising 16 percent of the total current housing stock, were added to the inventory. The detailed characteristics of Denton's homes, as recorded in Maryland PropertyView data (2007), are illustrated in Chart 10-2.

Since the 2000 Census, 535 houses were built in Town through 2009 (Chart 10-1). Housing starts peaked in 2006 and have dropped precipitously since due to the economic environment.

Chart 10-1: New Houses Built in Denton

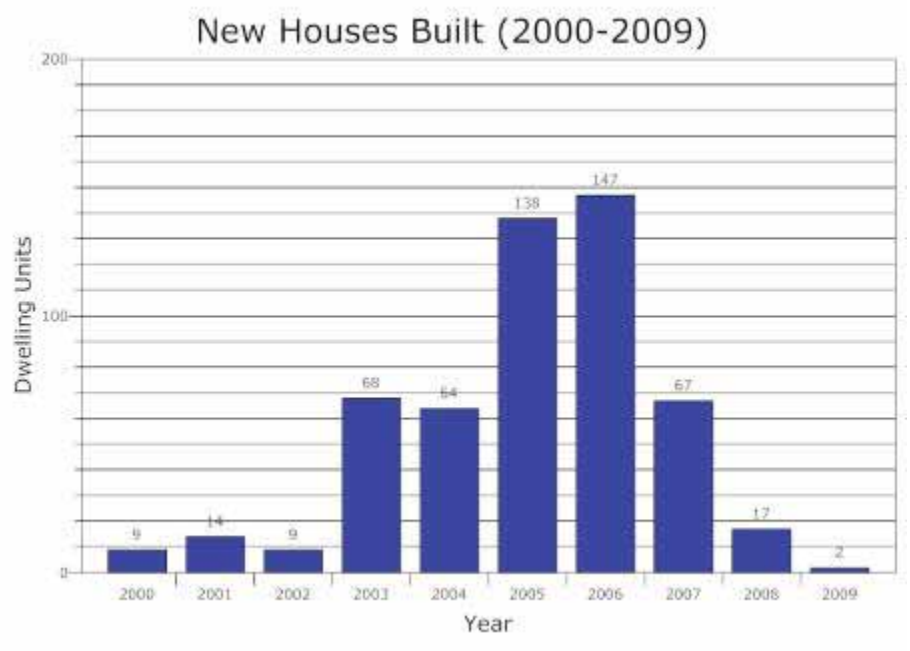
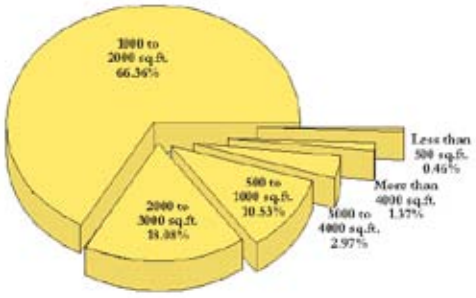
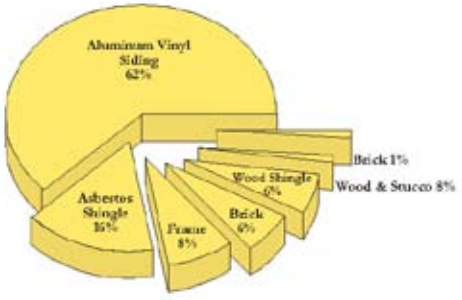


Chart 10-2

Distribution of Dwellings by Square Footage



Distribution of Dwellings by Style of Exterior



Home Prices and Home Owners

Owner-occupied housing units in Denton comprise 57 percent of the occupied housing stock. Slightly over 43 percent of homes are renter-occupied. The percentage of renter households in Denton is almost 20 percent higher than in Caroline and Talbot Counties; however it is lower than the percentage of households renting in Easton (Table 10-1).

Table 10-1: Total and Renter Households
Denton, Caroline County, Easton and Talbot County, 2000

Jurisdiction	Total Occupied Housing Units	Owner-Occupied Units as Percent of Total Units	Renter-Occupied Units as Percent of Total Units
Denton	1,140	57%	*43%*
Caroline County	12,028	74%	*26%*
Easton	5,031	54%	*46%*
Talbot County	16,500	72%	*28%*

Source: U.S. Census 2000 Census

Compared to surrounding counties and Easton, Denton's housing stock is older and of lesser value.

Table 10-2: Median Year Built and Median Value of Housing Units
Denton, Caroline County, Easton and Talbot County, 2000

	Denton	Caroline	Easton	Talbot
Median Year Structure Built	1957	1972	1972	1973
Median Value	$94,500	$101,700	$118,800	$149,200

Source: U.S. Census 2000 Census

Detailed current data on home sales and prices are not available at the municipal level. However, industry, federal, and state data collected from county jurisdictions is available, and as Caroline County data includes Denton, it is relevant and will be used for the following discussion.

Data on Caroline County home sales and median home prices indicate that growth in existing home sales rose 60 percent between 2000 and 2005 (Table 10-3). Median home prices for Caroline County grew 95 percent between 2000 and 2005. Surrounding counties experienced growth during 2000 and 2005, and Caroline was second only to Dorchester (Table 10-3). This increase in median home price suggests a growth between 2004 and 2005 in available housing stock that is newer and of higher value.

Table 10-3: Existing Home Sales and Median Home Prices 2000 -2005

Existing Home Sales in Units					Average & Median Sales Price		
Jurisdiction	Total Units Sold 2005	Total Units Sold 2000-2005	Average Units Sold 2000-2005	Unit Increase 2000-2005	Average Sales Price 2005	Median Sales Price 2005	Average Median Increase 2000-2005
Caroline	493	2,363	394	*60%*	$ 230,096	$ 195,000	*95%*
Dorchester	510	2,481	414	*81%*	$ 251,036	$ 195,000	*125%*
Kent	295	1,650	275	*22%*	$ 330,757	$ 245,000	*93%*
Queen Anne's	932	5,067	845	*40%*	$ 429,014	$ 353,500	*112%*
Talbot	782	4,240	707	*27%*	$ 566,651	$ 350,000	*99%*

Source: Maryland Association of Realtors, www.mdrealtor.org

Caroline County and surrounding counties experienced a decline in home sales during the period 2006 to 2009 (Table 10-4). Median home prices began to drop in 2007 and continued to drop during 2008 and 2009 for all counties.

Table 10-4: Existing Home Sales and Median Home Prices 2005 - 2009

Existing Home Sales in Units					Average & Median Sales Price		
Jurisdiction	Total Units Sold 2009	Total Units Sold 2005-2009	Average Units Sold 2005-2009	Unit Decrease 2005-2009	Average Sales Price 2009	Median Sales Price 2009	Median Sales Decrease 2005-2009
Caroline	222	1,894	316	*-55%*	$ 205,506	$ 175,000	*-10%*
Dorchester	242	1,990	332	*-53%*	$ 196,233	$ 150,000	*-23%*
Kent	147	1,231	205	*-50%*	$ 287,507	$ 210,000	*-14%*
Queen Anne's	407	3,392	565	*-56%*	$ 353,331	$ 285,000	*-19%*
Talbot	336	3,006	501	*-57%*	$ 576,079	$ 329,500	*-6%*

Source: Maryland Association of Realtors, www.mdrealtor.org

A look at the distribution of home sales by price range for Caroline County reveals that in 2000, an overwhelmingly higher percentage (97.1 percent) of homes in the County were priced below $300,000 as compared to most of the surrounding counties. By 2005, the percentage of homes priced under $300,000 had dropped to 79 percent, with most of the difference being made up in homes priced in the next-highest range ($300,000 to $399,000). Similar data for the more recent five-year period is unavailable.

Table 10-5: Distribution of Home Sales in Caroline and Surrounding Counties by Price Range, Percent of Total Sales

County	2000				2005			
	Under $300K	$300K to $399K	$400K to $499K	Over $500K	Under $300K	$300K to $399K	$400K to $499K	Over $500K
Caroline	97.1%	1.0%	1.9%	0.0%	79.1%	13.7%	4.2%	3.0%
Dorchester	92.6%	2.8%	2.5%	2.1%	76.4%	11.3%	5.7%	6.6%
Kent	89.2%	5.8%	2.1%	2.9%	65.9%	13.0%	6.5%	14.6%
Queen Anne's	84.4%	7.8%	2.4%	5.4%	36.5%	24.5%	18.3%	20.7%
Talbot	72.6%	10.4%	3.1%	14.0%	41.2%	19.1%	10.6%	29.1%

Source: Metropolitan Regional Information Systems, Inc., and DHCD, Office of Research, 2006

While median house prices are lower in Caroline County when compared to most of the surrounding counties, this does not mean that housing is more affordable. Household incomes are lower in Denton than in surrounding towns and counties (Table 10-6), with the result that people generally cannot afford to pay as much for housing.

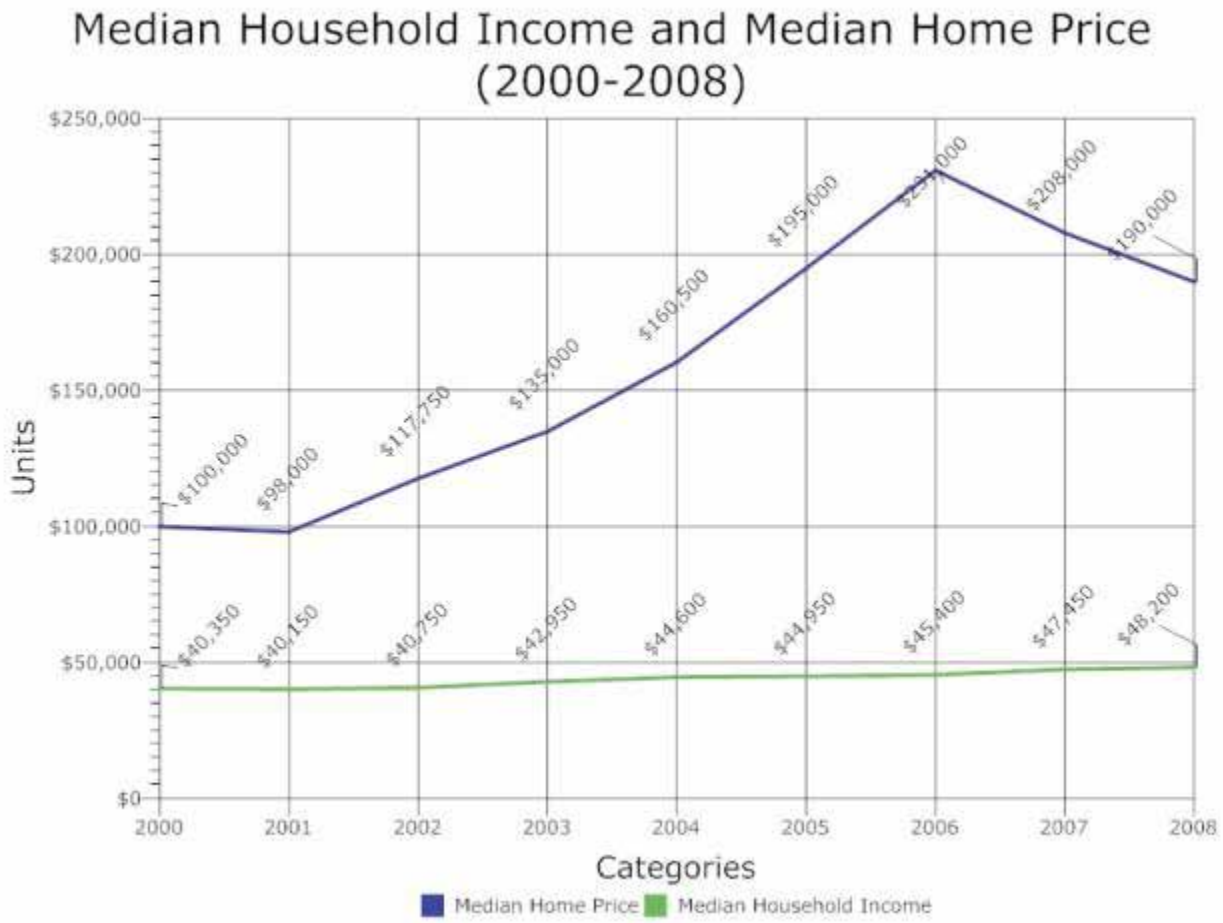
Table 10-6: Median Household Income 2008

Caroline County	$38,832
Easton	$36,464
Talbot	$43,532
Queen Anne's County	$57,037
Kent County	$39,869

Source: Maryland Department of Planning, www.mdp.state.md.us

Chart 10-3 illustrates that median home prices in the County were increasing at a faster rate than median household income. A substantial gap has grown since 2002 between Caroline County resident incomes and housing costs. While this is a State and nationwide trend, the gap is significant in the County. Between 2000 and 2005, median home sale prices in Caroline County increased by 95 percent. By comparison, during the same period the median household income grew from $40,350 to $44,950; an increase of 11.4 percent, significantly less than the increase in median home sale prices. Recently, between 2006 and 2008, the gap has narrowed, primarily due to the decrease in median home price.

Chart 10-3



Sources: Income - Maryland Department of Planning, www.mdp.state.md.us, Price - www.mdrealtor.org

Defining terms is basic to the discussion of affordable housing. Without a basic definition, it is difficult to set policy and objectives, or to establish performance measures. The Housing Cost Burden and the Maryland Housing Affordability Index provide useful input to help establish perimeters for affordable housing discussions for Denton.

A household has a "housing cost burden" if it spends 30 percent or more of its income on housing. A household has a "severe housing cost burden" if it spends 50 percent or more of its income on housing. The housing cost burden combines renter and owner occupied housing statistics. Owner housing costs consist of payments for mortgages, deeds of trust, contracts to purchase, or similar debts on the property; real estate taxes; fire, hazard, and flood insurance on the property; utilities; and fuels. Where applicable, owner costs also include monthly condominium fees. Renter calculations use gross rent, which is the contract rent plus the estimated average monthly cost of utilities (electricity, gas, water, and sewer) and fuels (oil, coal, kerosene, wood, etc.). Household income is the total pre-tax income of the householder and all other individuals at least 15 years old in the household.

Table 10-7 illustrates the disparity in income and housing costs of low-income families in Denton, with data from Caroline County, Easton, and Talbot County included for comparison purposes. The "low-income" category includes households with incomes at or below 80 percent of area median income ("middle income" refers to those with incomes between 80 and 120 percent of median, and "high-income" includes those who have income of at least 120 percent of area median income).

Including renters and homeowners, nearly half (48.3 percent) of low-income families are cost burdened in Denton, that is, spending 30 percent or more of their income on housing. A lower yet still substantial number of low income households in Denton are severely cost burdened (spending 50 percent or more of income on housing). Although it compares favorably with Easton, Denton has a higher percentage of cost-burdened households than Caroline and Talbot Counties.

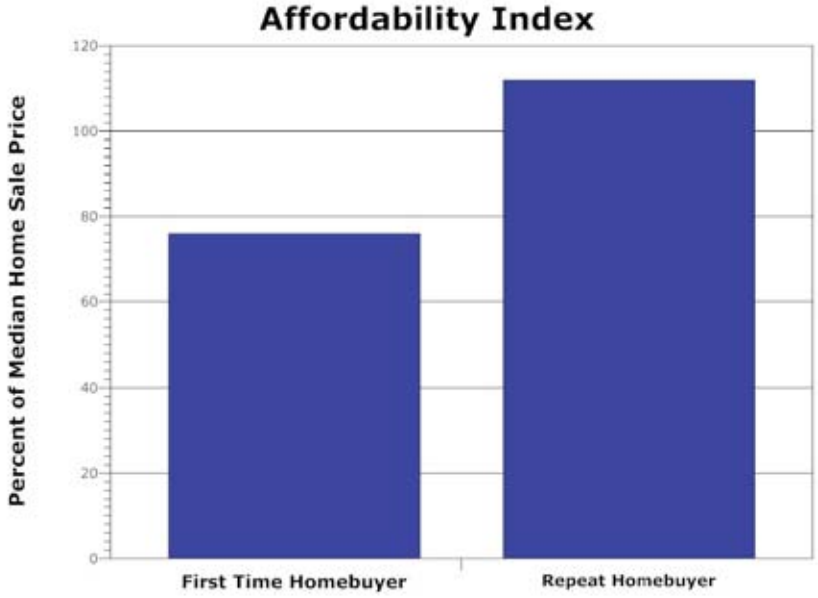
Table 10-7: Housing Cost Burden for Low Income Families, 2000

	Percent of Households Cost Burdened	Percent of Households Severely Cost Burdened
Denton	48.3%	15.9%
Caroline County	45.8%	21.8%
Easton	49.5%	19.9%
Talbot County	46.3%	22.5%

Source: Special Tabulation (Comprehensive Housing Affordability Study) Files, U.S. Census and HUD

While the housing cost burden is calculated using data from renter and owner-occupied housing, the two categories are not presented separately; and it is difficult to determine whether renters or homeowners are driving up the percentages of cost-burdened households. The Maryland Housing Affordability Index and U.S. Department of Housing and Urban Development (HUD) fair market rent and housing wage statistics help make the distinction, as the former measures home-owner statistics and the latter offers rent and wage comparisons.

Chart 10-4



The Maryland Housing Affordability Index, Chart 10-4, measures the ability of a typical family to qualify for a mortgage loan on a typical home. A typical family is defined as one earning the median household income and a typical home is defined as the median priced, existing single-family home. The affordability indices are

developed for both repeat and first-time homebuyers.

The index uses assumptions for first-time homebuyers that are modified from the repeat buyer affordability index. These modified assumptions take into account potential differences for the first-time homebuyers with respect to median household income, home prices, down payments, and loans as compared to the repeat homebuyers. A household with the exact median income to qualify for a mortgage on a median priced home has an index value of 100. By comparison, an index with a value above 100 signifies a household with more than enough income to qualify for a mortgage loan on a median priced home. On the other hand, an index with a value of less than 100 implies that the family does not have enough income to qualify for a mortgage loan on a median priced home.

The 2004 Housing Affordability Index for the average first-time home buyer in Caroline County is 76, meaning the average first-time home buyer is only able to afford a home that is priced at 76 percent of (or 24 percent below) the County's median home sale price. By comparison, the index value for the average repeat home buyer in the County was 112, meaning these buyers could afford homes priced at 112 percent of (or 12 percent above) the County's median home sale price (see Figure 2). Caroline County's affordability indices were in line with most of the surrounding counties', however they were down by 18 percent from 2003 indices, and 2003 indices were down by 7 percent from those of 2002, indicating a negative trend in affordability for home buyers in the County.

Rental Housing and Renters

A look at the statistics on renting in Caroline County reveals that even non low-income households are struggling to meet rental housing costs. Tables 10-8 through 10-12 provide detailed statistics on fair market rent, housing wage and hour requirements, and the percentage of households that cannot afford rental housing in Caroline County. Dorchester and Talbot County statistics are included for comparison.

Table 10-8: HUD Fair Market Rents, 2008

	Efficiency	One Bedroom	Two Bedroom	Three Bedroom	Four Bedroom
Caroline County	$830	$942	$1,102	$1,422	$1,794
Dorchester County	$444	$534	$680	$917	$944
Talbot County	$692	$694	$835	$1,130	$1,193

Source: National Low Income Housing Coalition (NLIHC)

Table 10-9: Housing Wage* (Hourly Wage Needed for Fair Market Rent), 2008

Jurisdiction	Housing Wage				
	Zero Bedroom	One Bedroom	Two Bedroom	Three Bedroom	Four Bedroom
Caroline County	$11.35	$11.73	$13.73	$18.56	$19.08
Dorchester County	$8.54	$10.27	$13.08	$17.63	$18.15
Talbot County	$13.31	$13.35	$16.06	$21.73	$22.94

* Housing wage means the wage earner must earn this wage 40 hours a week, 52 weeks a year.

Table 10-10: Work Hours a Week Necessary at Minimum Wage to Afford Zero to Four-Bedroom Apartments, 2008

Jurisdiction	Zero bedroom	One Bedroom	Two Bedroom	Three Bedroom	Four Bedroom
Caroline County	74	76	89	121	124
Dorchester County	56	67	85	115	118
Talbot County	87	87	104	141	149

Source: NLIHC

Table 10-11: Families Unable to Afford 2 Bedroom Fair Market Rent (FMR), 2008

Jurisdiction	Housing Wage				
	Rent affordable with full-time job paying minimum wage	Rent affordable with full-time job paying Mean Renter Income*	2 BR (FMR)	Hourly wage/hours per week needed to afford 2 BR FMR	Percent of families unable of afford 2 BR FMR
Caroline County	$439	$501	$714	$13.73/88 hrs	*26%*
Dorchester County	$413	$484	$680	$13.08/84 hrs	*30%*
Talbot County	$520	$504	$835	$16.06/104 hrs	*28%*

*Mean Renter Income: Estimated mean renter wage is based on Bureau of Labor Statistics data and adjusted using the ratio of renter to total household income reported in Census 2000. *Source: NLIHC*

Table 10-12: Percentage of Households That Cannot Afford Rental Housing, 2008

Jurisdiction	Two Bedroom
Caroline County	*43%*
Dorchester County	*49%*
Talbot County	*49%*

Source: NLIHC

Forty-three percent of households in Caroline County cannot afford -- using the HUD definition of affordability -- the fair market rent for a two-bedroom apartment. HUD defines affordable housing as housing that costs 30 percent or less of the worker's wage. To appreciate the full impact of this data, bear in mind that household incomes include incomes from multiple wage earners, people working two jobs, income subsidies, etc. The problem of housing affordability in Caroline County – and Denton – is not just a problem affecting the poorest families; it also impacts working families with secure jobs and multiple incomes.

Summary Conclusions

- Addressing the problem of affordable housing will require a regional approach at best, and a county-wide approach at a minimum. It is critical to effectiveness that the County and municipalities undertake a coordinated approach to addressing the affordable housing issue in Caroline County.
- State and federal programs that provide resources to address affordable housing are under-utilized or not utilized at all.
- Housing strategies in Denton will likely need to address the special needs of affordable housing for the elderly in addition to overall housing affordability.
- The basis for measuring housing affordability in Caroline County is the median home price ($190,000 in 2008) and the fair market rent for a two-bedroom apartment ($714 a month in 2008) (Table 10-11).
- Based on current data, in order for most households classified as low to median income to purchase a home in Caroline County, the home would have to sell at or below $145,301 to be considered affordable. (*Source: Derived from the Maryland Housing Affordability Index)*
- Based on current data, in order for most households earning minimum wage to afford a two-bedroom apartment, the apartment should rent for $439 a month to be considered affordable. (Table 10-11)
- Based on current data, a two-bedroom apartment should rent for $501 a month or less to be affordable to a family earning mean renter wage (Table 10-11.).
- Land development regulations and policies can impact housing affordability.
- Any long-term strategy addressing housing affordability must, by necessity, address household income.

Policy Options

A recent report published by the Brookings Institute's entitled *Rethinking Local Affordable Housing Strategies: Lessons From 70 Years Of Policy And Practice*[1] evaluates the effectiveness of three broad approaches to affordable housing—rental assistance, homeownership assistance, and regulatory policies, and discusses the lessons learned over the past seven decades. Key findings reported are informative to our discussion of potential affordable housing policies and strategies for Denton. These points are:

- The responsibilities for implementing affordable housing are increasingly shifting to state and local actors;
- Rental assistance programs require deep subsidies if they are to reach the neediest households; moreover, to be successful, rental assistance programs should avoid clustering affordable housing in low-income neighborhoods and include efforts to raise the incomes of low-income households;
- Homeownership among underserved populations has increased, mostly through improved access to mortgage credit; efforts to further expand homeownership should proceed cautiously; and
- Land use and other regulatory policies can have profound effects on the location and supply of affordable housing.

The authors make the point that, "… the success of affordable housing programs is determined by the extent to which it achieves a narrow set of objectives, such as the number of new units created or the number of households with affordable housing cost burdens. Although important, these narrow criteria do not reflect the array of demands currently being placed on affordable housing programs. Today, affordable housing policies must help promote healthy families and communities." The authors suggest that the following seven goals provide a comprehensive framework by which local leaders should evaluate the effectiveness of affordable housing programs:

1. Preserve and expand the supply of good-quality housing units.
2. Make existing housing more affordable and more readily available.
3. Promote racial and economic diversity in residential neighborhoods.
4. Help households build wealth.
5. Strengthen families.
6. Link housing with essential supportive services.
7. Promote balanced metropolitan growth.

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[1] *Rethinking Local Affordable Housing Strategies: Lessons From 70 Years Of Policy And Practice*, Bruce Katz and Margery Austin Turner, The Brookings Institution Center on Urban and Metropolitan Policy, The Urban Institute, December 2003

Although not all housing programs can meet all housing objectives simultaneously, the list provides a baseline for aligning housing policy with other desired community outcomes.

The lessons of the past also suggest a set of principles to guide local housing policy. As the authors state, "…some of these principles may seem obvious, but nonetheless are frequently ignored. Others run counter to the conventional wisdom, but following them could avoid some of the more dismal failures for which conventional thinking is responsible." The principles are:

- Regulation can be a powerful housing policy tool.
- Housing strategies should be tailored to local market conditions.
- Housing markets are regional, so housing policies should be.
- Income policy IS housing policy.
- Race matters.
- Implementation matters.

Regulations and Affordable Housing

Perhaps most directly related to affordable housing recommendations are those that may impact land use and other development regulations and policies. The Brookings Institute research and other studies demonstrate that, "state and local regulations governing land use, residential development, construction standards, subdivision design, and property maintenance play critical roles, even when they are not explicitly considered as part of an affordable housing strategy." As the Brookings study points out, "historically, local land use and development regulations have tended to undermine the goals of affordable housing policy, whether intentionally or not. Requirements for large lot sizes; expensive subdivision design standards and construction codes; prohibitions against manufactured housing, townhouses, or multifamily development; and time-consuming permitting processes have all been shown to make housing more expensive. These regulatory barriers have also prevented the development of affordable housing and reinforced patterns of economic and racial separation."

When considering the role of comprehensive planning and the affect of land use regulations on affordable housing, it is important to make the distinction between "growth control" and "growth management." Growth control policies are designed to limit the growth of the housing stock; "growth management" policies accommodate projected development. The goals of growth management are to: preserve public goods, minimize negative externalities, minimize public fiscal impact, maximize social equity, and elevate quality of life. These goals are consistent with, and often explicitly include, expansion of the supply and accessibility of affordable housing.

With these distinctions in mind it would be incorrect to assume that Caroline County's growth management strategies related to protection of natural resources and agricultural land, and its current development requirements for these areas, adversely affect affordable housing. In contrast, failure to advance strategies designed to effectively "manage growth" within the designated growth areas may adversely affect the provisions of affordable housing. Critics of regulations that attempt to limit urban sprawl or redirect new development to already designated growth areas have argued that these regulations undermine housing affordability. However, research evidence suggests that regional growth management strategies that explicitly include

affordable housing can promote economic and racial diversity, limit sprawl, and preserve open spaces, all while helping to revitalize urban neighborhoods

Fragmented authority among individual municipalities and counties is cited as another constraint on the effective use of regulatory tools for affordable housing. When one or more jurisdictions in the region employs exclusionary zoning and land use regulations, e.g., low density, large lot zoning, building permit caps, development moratoriums and high permitting fees, the results can be to place an even greater burden on the resources of other jurisdictions to address the problem. Strategies intended to expand the availability of affordable housing, promote racial and economic diversity, or promote balanced growth are more effective when all jurisdictions in the region participate.

Inclusionary Zoning

A recent zoning technique that is becoming more popular as an affordable housing strategy is inclusionary zoning. Inclusionary zoning is a technique that can be used to increase the number of affordable units—for both ownership and rental. Inclusionary zoning can be either mandatory or voluntary. In either case developers "set aside" a certain percentage of units in new residential developments for low and moderate income households. The zoning usually provides some form of developer incentive such as density bonuses and/or reduced fees. The intent is that these incentives reduce or offset some of the cost of producing the affordable units. Some communities accept an in lieu fee. These cash contributions are allocated to an affordable housing fund. These fees may be used by a local housing authority and/or nonprofit organization to buy and/or develop affordable units and operate them as a scattered-site public housing program.

The Brookings study cited earlier concluded that:

- inclusionary zoning programs have been found to constitute an important source of affordable housing production in the jurisdictions where they exist;
- housing markets may affect production of affordable housing, with more produced in "hot" markets than when housing sales slow;
- mandatory programs are more effective than voluntary programs;
- inclusionary zoning programs generally do not produce housing units that are affordable for the poorest households (with incomes at or below 50 percent of area medians) however set-aside programs and other inclusionary zoning strategies can be linked to other subsidy programs that supplement what the poorest households can afford to pay for housing (e.g., Montgomery County explicitly requires that some affordable units be purchased by the local public housing authority and set aside for occupancy by very low income households);
- inclusionary zoning in affluent suburban areas can play a part in regional strategies to open up the suburbs to lower-income and minority households, however, inclusionary zoning programs that include "in-lieu of" provisions (allowing developers to produce affordable units off site or contribute to a housing fund in lieu of incorporating them into the new development) may limit the extent to which racial and economic integration is encouraged; and

- inclusionary zoning programs have succeeded in creating considerable opportunities for first-time home buyers of modest means.

Accessory Dwelling Units

The Town may consider permitting accessory apartments as another strategy to increase the supply of affordable rental housing. Accessory apartments, in-law apartments or "granny flats," offer Denton an opportunity to make adaptations to some single-family neighborhoods to accommodate changing housing needs. With the trend toward larger numbers of one- and two-family households, accessory apartments provide opportunities for Town residents to make their housing available to the community at-large, including young unmarried, divorced, or widowed individuals. Although likely dependent on the availability of public wastewater treatment facilities, this particular housing option offers a number of benefits including the following:

- Provides older homeowners with an opportunity to generate some additional income.
- Increases the supply of low- and modest-cost rental housing.
- Provides young singles, couples, and single parents with another source of income. This option may allow them to buy into the housing market; maintain ownership of their present home; or make available modest-priced rental housing in neighborhoods which provide a wholesome environment for children.
- Modestly increases economic activity in the private sector, which benefits commercial lenders, real estate agents, builders, and retail businesses.
- Results in small increases in property appraisals, which generate modest amounts of additional tax revenues.
- Creates opportunity to continue to live in one's own home and maintain contact with the neighborhood.
- Tenants may add a measure of security and alleviate the fear of break-ins.
- Tenants may provide companionship.
- Tenants may be willing to provide personal services in lieu of rent. This could include the performance of routine maintenance work around the house; maintaining the yard; shoveling snow; performing light housekeeping tasks; providing modest, personal in-home health services; and providing occasional transportation.

To prevent the occurrence of inappropriate or unsafe conversions to accessory apartments, the Town should consider incorporating refinements and safeguards into any code provisions permitting conversion to accessory apartments. Such refinements may include any of the following:

- Restricting the conversion option to senior citizens over a specified age.
- Requiring the homeowner to reside in one of the living units within the house.
- Restricting the conversion to homes which were constructed prior to a given date.

- Requiring a minimum square footage as a prerequisite for a house to be considered eligible for a conversion.
- Specifying the particular zoning classifications where conversions may be considered eligible.
- Permitting conversions only by homeowners who have resided in the home for a designated number of years prior to making an application for a conversion.
- Prohibiting exterior modifications to the house.
- Specifying minimum or maximum floor sizes for accessory apartments requiring that a conversion not exceed a designated percentage of the total floor space of the house. Typically such floor areas required in ordinances establish a minimum of 400 to 500 square feet in size to a maximum of 900 to 1,100 square feet.
- Placing a limit on the number of people who can occupy the accessory apartment or designating the aggregate number of people who can occupy the entire house.
- Encouraging barrier-free design considerations for persons with handicaps or limited mobility.

From a public policy perspective, accessory apartments provide an alternative to the popular "add-on" strategy of continually relying upon new construction (houses, streets, sewers, utilities, and public services) to satisfy the needs of a growing community. They concentrate on preserving, refurbishing, and making more efficient use of existing housing and the expensive community infrastructure, which is not maximized. Accessory apartments allow a community to:

- Create new living units without the expense of new infrastructure,
- Upgrade the energy standards of existing houses that will reduce the overall consumption of gas and electricity,
- Generate a flow of new dollars within the community from home equity,
- Avoid the "empty school syndrome" where large amounts of funds are invested in new additions to the infrastructure. These temporarily satisfy the needs of a large group of people who may be gone in one or two generations leaving unused facilities.
- Reduce the costs of medical care for the elderly who can receive less-expensive, in-home care services while living in an accessory apartment rather than being forced to move to a more costly nursing home or long-term health care facility.

Recommendations

The Comprehensive Plan can recommend a number of actions related to regulatory and other policies that impact affordable housing including the following:

- Insure that regulatory policies align with affordable housing goals and correct regulations or requirements that explicitly exclude affordable housing types or that unnecessarily raise the cost of construction.
- Consider adopting a Town inclusionary zoning ordinance that requires a portion of housing units in a new development be reserved for affordable housing. As appropriate coordinate this program with Caroline County.

- Allow for garage apartments and other kinds of secondary or accessory apartment units.
- Maximize density in development or redevelopment projects where appropriate. This means permitting townhouse and multi-family in the mix of residential units in a project.
- Implement public water and sewer projects that enable higher-density residential development and mixed-use neighborhoods in designated growth areas and encourage a mix of housing densities and types in new subdivisions through Planned Unit Development or cluster zoning provisions.
- Modify building codes and/or make them more flexible to eliminate unnecessarily costly construction requirements.
- Reduce required street widths and other unnecessary infrastructure requirements.
- Streamline approval processes to make the development process less time consuming.
- Waive or reduce fees (e. g., impact fees, excise tax) and infrastructure requirements for affordable housing developments to make them financially feasible.

Organizations and Programs

There are many Federal and State programs designed to address components of the affordable housing issue. In addition, profit and non-profit organization may be underutilized resources in the community and/or offer opportunities for partnerships. Some actions the Town can consider include:

- Form a Denton Roundtable, a coalition of community organizations, local government representatives, private business owners (including builders and developers), and individuals who assess and recommend affordable housing policy for the Town.
- Insure that affordability concerns are made part of the Denton Pattern Book development process.
- Explore avenues to significantly address better housing options, including:
    - developing zoning and design standards that increase the mix of uses and housing types;
    - employer-assisted housing;
    - creating housing trust funds solely to build affordable homes in low, moderate and middle income brackets;
    - forging partnerships with nonprofit, semi-public developers, and other financers of affordable housing.
- Develop initiatives that require developers to address low to moderate income and affordable homeownership opportunities as part of any new housing development strategy, and mandate, through inclusionary zoning, that low to moderately priced dwellings comprise a percentage of all new developments.
- Contact the Maryland Department of Housing and Community Development (DHCD) to investigate opportunities for Denton to participate in affordable housing program partnerships with the State.

The Governor's Affordable Housing Subcommittee, working with the DHCD, made primary recommendations for State affordable housing programs in 2004, including:

- Link workforce housing needs with local job creation/economic development strategies and projects;
- Maintain and increase resources for affordable housing (multi-family and single-family) through a dedicated revenue stream (Federal, State, local, private, foundations);
- Consider a pilot program of funding for housing units targeted to households between 60% and 100% of Area Median Income;
- Encourage, develop, and fund educations programs including financial literacy, credit counseling, and homeownership counseling.

- Take greater advantage of U.S. Department of Housing and Urban Development (HUD) programs.

  Presently, the Caroline County participates in the HUD Section 8 program; however, there are a number of additional federal, state, and private programs available that encourage redevelopment and rehabilitation of the existing housing stock which the County and/or the Town should explore.

Neighborhood Conservation

New development should fit in comfortably with existing neighborhoods. The qualities of neighborhoods that brought people to live in them should be respected and protected. For this reason the Town is concerned with the conservation and rehabilitation of the existing housing stock and the stability of housing values in existing neighborhoods. Neighborhood conservation does not just mean insuring housing is decent, safe, and sanitary or that properties are properly maintained. It means insuring that when properties are developed or redeveloped the architectural style of the residence and the way it is placed on the site are compatible with and help maintain the existing neighborhood character. Each new home built in the neighborhood should be viewed as a part of an incremental growth process, creating an identity of its own, but in a manner that it is integrated with the current neighborhood character. New residences should reflect a unity and positive relationship to the overall character of the neighborhood. In this way, new homes can enhance the order and richness of the community.

It is desirable that infill, new development, or redevelopment in existing residential neighborhoods conform, to the extent possible, with the site development and architectural character of the neighborhood. For example, if the prevailing character in the neighborhood is two-story residences, set close to the street, a single story rancher-type structure set well back from the street (and possibly turned sidewise in order to fit on the lot), would be out of character. The Town cannot directly regulate architectural style (except to some extent in historic districts). For this reason, the Town encourages infill, new development, and redevelopment in existing residential neighborhoods in a manner that fits in with existing neighborhood character.

The 1997 Denton Comprehensive Plan recommended Neighborhood Conservation areas where incentives for development and redevelopment that is in character with the existing residential

neighborhoods should apply. Map 10-1 illustrates the areas for Neighborhood Conservation. Incentives that may be considered by the Town include:

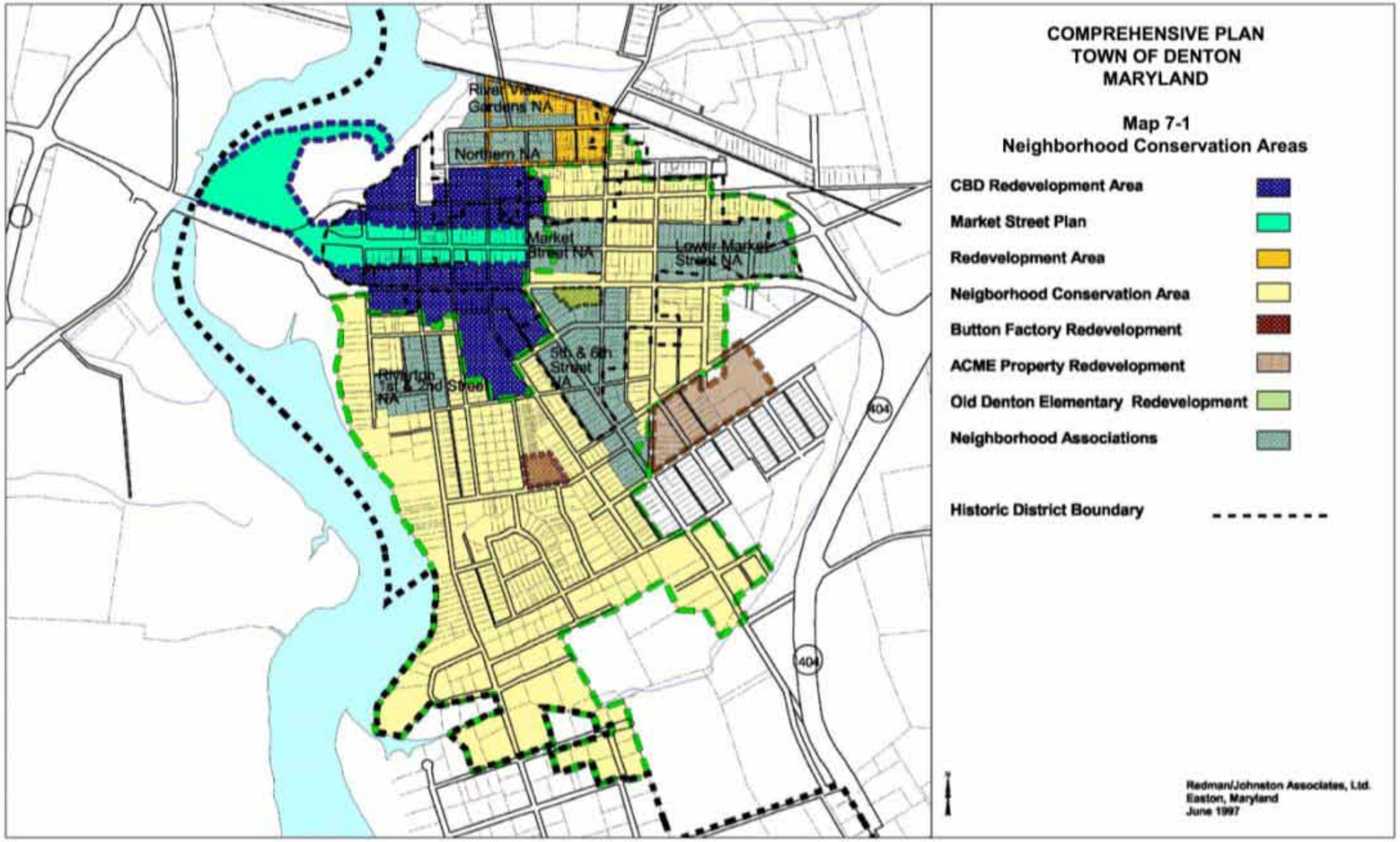
- Waiver of basic fees
- Short term tax relief
- Reduced development standards
- Others

Neighborhood Associations can play a useful role in defining and implementing the Town's housing and community conservation policies. There are six neighborhood associations that are located throughout the Town. They include:

- "Helping Hands" Neighborhood Association
- Market Street Neighborhood Association
- Riverton First and Second Streets Neighborhood Association
- Fifth and Sixth Streets Neighborhood Association

The neighborhood associations provide residents with an advocacy organization and a means to present a collective neighborhood perspective in matters of Town policy. The Town encourages neighborhood association involvement in community planning as a positive aspect of civic life.

Map 10-1: Reprint of 1997 Map 7-1, Comprehensive Plan Neighborhood Conservation Areas – to be updated for 2010 Comprehensive Plan



CHAPTER 11 - HISTORIC FEATURES

BACKGROUND

A community that perpetuates the use of its original or historic features to serve the needs of current and future generations maintains a physical and emotional link with its past, and ensures that the town's unique identity will not be lost. The past is a building block for the future, and if a plan is to be comprehensive, it must incorporate its past as a key element of planning for its future.

Brief Historical Perspective

Denton, the seat of Caroline County, is located on the banks of the Choptank River and near the geographic center of the County and the Eastern Shore of Maryland. Today, Denton is the governmental, commercial, and employment center for a large rural area. The town began as a small settlement on Pig Point, which projects into the Choptank River. About 1773, the settlement was named Edentown in honor of Sir Robert Eden, a contemporary English statesman. Soon after the American Revolution, the village's name was contracted to Edenton, and in 1790, when the Assembly Act provided for the relocation of the County Seat from Melvill's Warehouse, it was shortened once more, to Denton. By this time, the town was a trade center of some importance. A wharf was constructed in the Town on the Choptank River in 1792. In 1793, four acres were secured for the construction of a Court House. The original Court House was replaced by a larger one in 1895, which remains in use today (a major addition was completed in 1967).

In 1827, a market place was opened where the Masonic Hall now stands, facing the public square. Farm produce was sold here as were slaves. In 1835, the first factory was built in Denton to manufacture plows.

During the early 1800's, the Courthouse Square was the site of a slave market and a jail that held fugitive slaves and Underground Railroad operators. Slavery was a major part of the nation's economy until the Civil War and by 1804 slavery was abolished in all the states north of Maryland. The Harriet Tubman Underground Railroad Byway traces the likely movements of freedom seekers across the landscape connecting a number of historic towns, including Cambridge, East New Market, Preston, Denton, Hillsboro, and Greensboro. It also provides access to key historic landscapes with connections to slavery, the Underground Railroad, Harriet Tubman, Frederick Douglass, and numerous others who risked everything to secure freedom for themselves and/or others.

Early travel to Denton was by water. The first steamboat came up the Choptank River to Denton from Baltimore before 1850. It made only one trip, but later the "Dupont" made weekly trips between Denton and Baltimore with freight and passengers. About 1792, probably to shorten the distance of the ferry across the Choptank, a causeway was built across the marsh on the east side of the river. In 1811, the Denton Bridge Company was formed and a toll bridge was constructed. This bridge remained a toll bridge until shortly before the Civil War, when it was sold to the County. In 1875, it was replaced by the iron bridge which remained standing until 1913, when another iron bridge was constructed. This bridge lasted until March of 1976. At that time, extensive reinforcement was done on the bridge until a new concrete bridge could be built. Construction of the new bridge was begun in early 1980 and the present bridge was dedicated on Memorial Day weekend, 1981.

Sometime before 1860, there was a stage line started between Easton and Felton, Delaware via Denton. After 1860, the stage met the Chester Riverboat at Queenstown. Improved transportation routes enhanced Denton's position as a trade center and by the time of the Civil War, new stores, shops, schools, and churches were constructed. Most of the business district was wiped out by a fire in 1863, when a company of Union soldiers stationed as guards in the Town, celebrating the Fourth of July with fireworks, accidentally set fire to a shop building. The ensuing fire burned almost all of the business part of town, which consisted of several stores, a hotel, and a rum shop.

Historic Preservation

A number of historic preservation programs exist to help individuals and groups temporarily or permanently protect sites and structures considered significant. Historic preservation involves the inventory, research, restoration, and ongoing protection of sites and structures having a significant local or national historic interest. The protection of these resources will safeguard the heritage of Denton by preserving areas and structures which reflect elements of that heritage. Continued historic and cultural resource preservation and enhancement through sensitive land use planning and other administrative means will provide Denton with a number of benefits including:

- Promotion of a strong sense of community pride for Town residents,
- Community revitalization through the renovation or adaptive reuse of older structures,
- Increased property values and tax revenues as a result of renovation and restoration, and
- Increased revenues generated from tourism.

The Maryland Inventory of Historic Places, in recognizing the importance of Denton in the history of Maryland and the Eastern Shore, wrote:

> "The Denton Historic District is significant historically for its role as the seat of Caroline County and as a regional market center on Maryland's Eastern Shore from the early nineteenth century through the mid 1930s. Represented by a wealth of commercial, residential, public, and religious architecture in a variety of periods, styles, and forms, the district is also architecturally significant. Apart from a few clusters of modern development near Market Street at Second and Fifth Streets, the district exhibits a strong sense of historic integrity and continuity."

Each generation of Denton serves as a temporary steward of the Town's historic integrity and continuity, with each generation learning from the successes and failures of the one before it. This generation's goals and objectives for Denton's historic resources, as outlined in this Chapter, will be the standards against which its stewardship is measured.

Goal:

- Preserve structures of historical significance.

Objectives:

- Encourage the preservation, renovation, restoration, and adaptive reuse of buildings with historical and architectural significance,
- Support the promotion of historic sites through tourism efforts and business services that are complementary to historic areas,
- Support the efforts of preservation and cultural organizations in the Town,
- Encourage school and community participation in historical resource management programs through education and public awareness, and
- Consider the use of Federal and State funding programs which might be used to assist restoration and upkeep of the buildings.

HISTORIC DISTRICTS

Denton's historic area is comprised of just over 400 properties as identified by the Maryland Historic Trust (MHT) in its Maryland Inventory of Historic Places (MIHP) (Map 11-1 & Appendix 2). The MHT inventory contains examples of a wide variety of styles of nineteenth and early twentieth century residential and commercial architecture, including Colonial Revival, Queen Anne, Federal, Victorian, Victorian Gothic, Gothic Revival, and Romanesque. Many of

the buildings found in the MHT inventory are true examples of a particular architectural style, however there are also a number of buildings that are vernacular interpretations of popular styles, and their decorative detailing reflects the influences of these styles. The overwhelming majority of buildings and structures within the Denton MHT inventory are considered to be contributing to the District's significance by virtue of their age and architectural character.

The MHT inventory area begins at First Street and extends east along the length of Market Street to Ninth Street, incorporating many of the original streets of the Town. It continues north of Market Street and includes the blocks between First and Second Streets and all properties extending to the river, including the courthouse and the courthouse square. A number of structures dating from the mid-nineteenth and early twentieth centuries surround the square. The simple architecture of these flat-fronted, symmetrical buildings reflects strong influences from the Federal period of architecture. Popular on the East Coast in the late eighteenth and early nineteenth centuries, houses built in the Federal style were commonly made of brick, however the frame buildings surrounding the courthouse square exhibit the hallmarks of this style: low-pitched roofs, flat facades, doors with sidelights and fanlights, and restrained classical ornamentation on cornices around doors and windows.

East of the square, along Market Street, is a mixture of late-nineteenth and early-twentieth century frame residences, two-story brick storefront buildings, and one-story concrete block commercial structures. Typical residential architecture forms of this period included the two or three bay wide, two-story, gable-front house, sometimes with a one-story front porch, as well as bungalows, and hip-roofed houses showing a Colonial Revival influence. South of Market Street, the MHT inventory area encompasses the blocks located between Market and Franklin Streets. The Denton Schoolhouse, listed on the National Register of Historic Places in 1978, sits at the corner of Franklin and Second Streets. The schoolhouse was built during the last quarter of the nineteenth century with a Latin Cross plan, and incorporates several features of the Gothic Revival style. The use of a style that is most often found in ecclesiastical architecture gives the schoolhouse an unusual character.

The MHT inventory area continues south of Franklin Street down both sides of Fifth and Sixth Streets, ending on Sixth Street at Fountain Avenue and continuing down the west side of Fifth Street to Sunnyside Avenue. The houses along Fifth Street sit well back from the street on expansive lots, and are larger and more elaborate than those in the rest of the District. Domestic architectural styles found along Fifth Street include Colonial Revival and Shingle Style, both fashionable in the early twentieth century. Colonial design was revived as a popular style in the 1870s, when the United States celebrated its first centennial. The style is reminiscent of early American architecture, and is typically seen in the design of residences, but is also apparent in

many bank buildings and churches of the period. Common characteristics of Colonial Revival include symmetrical facades, side porches, and architectural embellishments such as cupolas, classical cornices, fanlights and sidelights at entryways, and classical window detailing including swags, garlands, and urns.

The influence of Victorian architecture is also visible in the MHT inventory area. Popular at the end of the nineteenth century, Victorian architecture was more elaborate than the classical, stately styles of the Federal and Colonial Revival periods. Victorian architecture, including its Queen Anne and Gothic Revival forms, was decoratively rich. Typical details included irregular rooflines, cross gables, gingerbread, eaves on several levels, and asymmetrical window and door openings.

In the downtown business district of Denton, the historic commercial buildings are the defining feature of the landscape. Historic storefronts along Market Street share many common characteristics, including height and width, setbacks from the street, proportions of window and door openings, and roof profiles. A typical nineteenth century storefront consisted of a centrally located door, recessed for protection from inclement weather and flanked on either side by commercial buildings with large display windows. Many storefronts featured glass transoms above doors and windows. Canvas awnings were often installed to shade the storefront, and a signboard placed above the storefront was a prominent part of the facade. The commercial buildings along Market Street exhibit many of these features and invoke a strong sense of Denton's historic identity as a regional market center during the nineteenth century.

The MHT inventory area also includes some good examples of ecclesiastical architecture. The Town's first substantial church building, constructed on Market Street in 1867, was a brick Romanesque style structure built for the local Methodist Episcopal congregation. The Romanesque style of this church was reflected in the design of two buildings that appeared later as fixtures in the landscape of downtown Denton: the first National Bank building, constructed circa 1885 at the corner of Market Street and Fourth Street, and the Caroline County courthouse, which was built in 1895. A second, smaller church, built in the Victorian Gothic style, was erected circa 1873 by the Town's Protestant Episcopal congregation. The town's third church, the Methodist Protestant Church, was erected on Market Street in 1897.

Historic District Overlay Zone

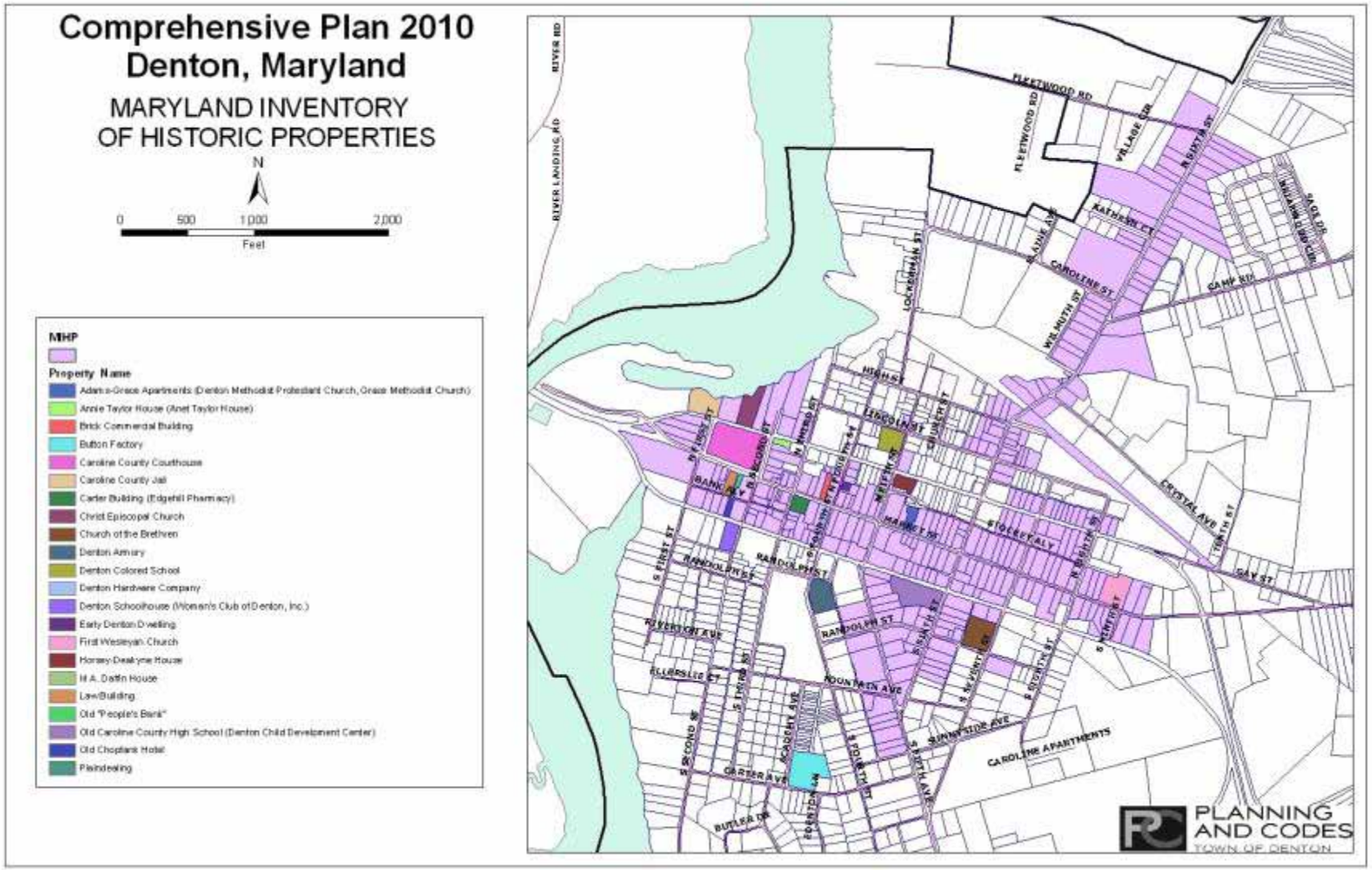
The Denton Historic Overlay Zone (Article IX, "Special District: Historic Overlay Zone," Denton Town Code § 128-43) was adopted in 1997 and is defined as an area designated by the Denton Town Council that contains significant features, woodlands, vegetation, structures, sites, monuments, landmarks, farmland, and/or archaeological sites (Map 11-2).

In 2002, a Historic and Architectural Review Commission was created with appointments to be responsible for overseeing the Town's Historic District as defined by the Historic Overlay Zone. The Commission is comprised of five members, all of whom must be qualified by special interest, knowledge, or training in such fields as history, architecture, archaeology, preservation, or urban design. Four of the five members are required to be residents of the Town, and two of the five members are required to have professional qualifications in one or more of the above-mentioned or related fields. Members serve three-year terms and appoint a new Chairman annually.

The Commission holds regular meetings no less than every three months and accepts submissions of applications for rehabilitation or construction involving the exterior of structures located in the Historic District, and designation or removal of structures located in the Historic Overlay Zone. Meetings are open to the public. All decisions are made in public form and applicants receive written notification of the decision.

In 2005, the Town adopted Historic and Architectural Review Commission Guidelines to provide a common basis to discuss the appropriateness of proposed changes to historic structures as well as proposed construction of new structures in the Historic District. The procedures in the guidelines are designed to ensure compliance with existing Town codes, and to afford every applicant the same consideration of fairness and due process. The guidelines are also meant to assist owners of historic properties, architects, builders, members of the Historic and Architectural Review Commission, and others to understand appropriate treatment of historic sites, structures, and districts in Denton. The Commission, in turn, may use these guidelines as they apply to the Secretary of the Interior's Standards for Rehabilitation to evaluate the appropriateness of changes to buildings or properties located in the Historic District.

Map 11-1


Comprehensive Plan 2010
Denton, Maryland
MARYLAND INVENTORY
OF HISTORIC PROPERTIES
N
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500
1,000
2,000
Feet
MHP
Property Name
Adams-Grace Apartments (Denton Methodist Protestant Church, Grace Methodist Church)
Annie Taylor House (Anet Taylor House)
Brick Commercial Building
Button Factory
Caroline County Courthouse
Caroline County Jail
Carter Building (Edgehill Pharmacy)
Christ Episcopal Church
Church of the Brethren
Denton Armory
Denton Colored School
Denton Hardware Company
Denton Schoolhouse (Woman's Club of Denton, Inc.)
Early Denton Dwelling
First Wesleyan Church
Horsey-Dealy-ne House
H.A. Daffin House
Law Building
Old "People's Bank"
Old Caroline County High School (Denton Child Development Center)
Old Choptank Hotel
Plaindealing
RIVER RD
RIVER LANDING RD
FLEETWOOD RD
VILLAGE DR
N FOURTH ST
KATHRINE CT
SAGE DR
CAROLINE ST
LOCKERMAN ST
WILMUTH ST
CAMP RD
HIGH ST
LINCOLN ST
CHURCH ST
N FIRST ST
N SECOND ST
N THIRD ST
BANK ALY
MARKET PL
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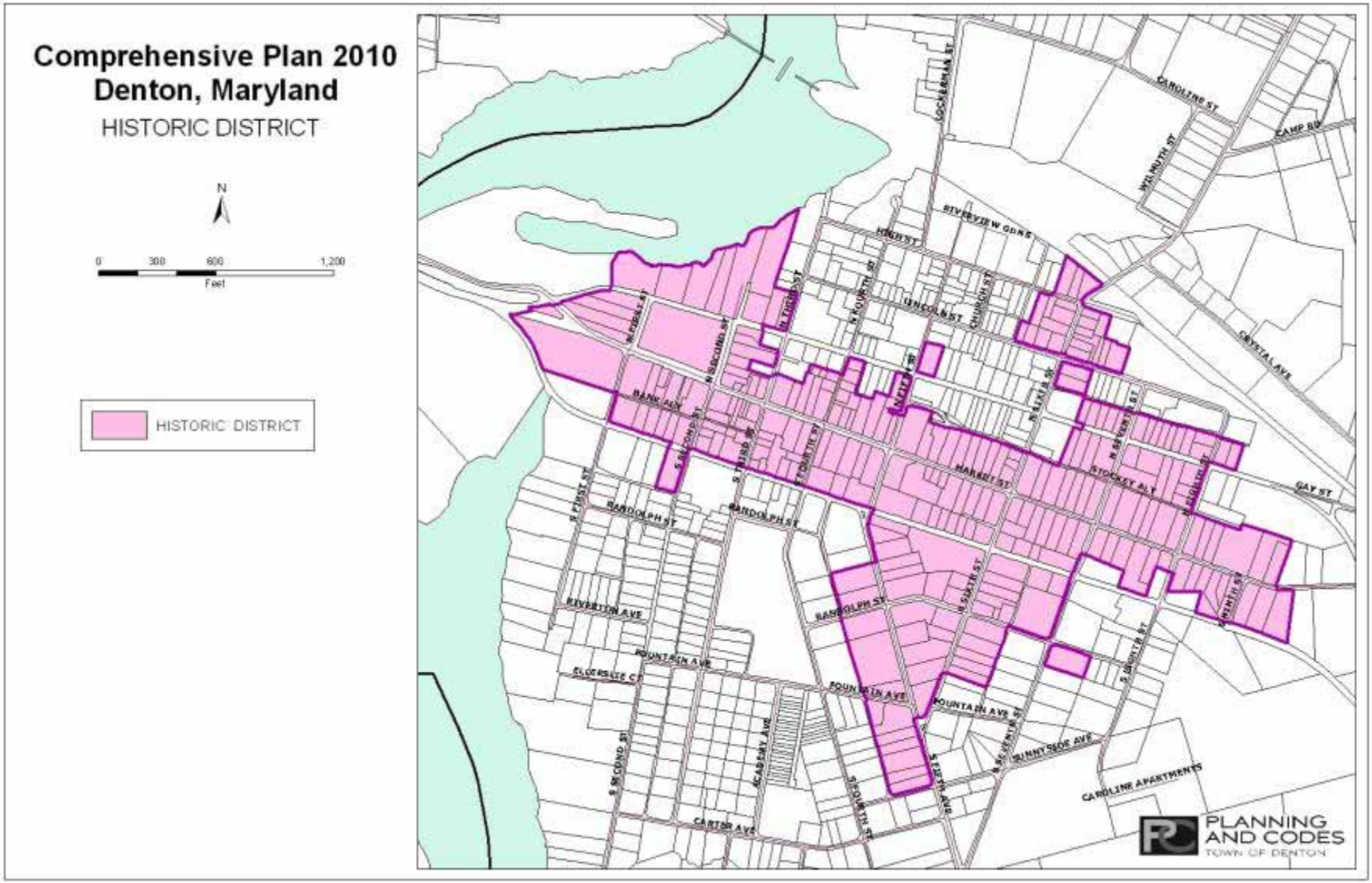
CRYSTAL AVE
TENTH ST
BAY ST
S FIRST ST
RANDOLPH ST
RIVERVIEW AVE
ELLERSLIE ST
S THIRD ST
S FOURTH ST
S SIXTH ST
S NINTH ST
S TENTH ST
MOUNTAIN AVE
SUNNYSIDE AVE
CAROLINE APARTMENTS
ACADEMY AVE
GARNER AVE
BUTLER DR
PLANNING
AND CODES
TOWN OF DENTON

Map 11-2


Comprehensive Plan 2010
Denton, Maryland
HISTORIC DISTRICT
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300
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HISTORIC DISTRICT
PLANNING AND CODES
TOWN OF DENTON

Significant Historical Features

The Maryland Historical Trust has compiled an Inventory of Historic Sites in Denton. The complete list appears in Appendix 2 of this Comprehensive Plan; some of the most significant properties are listed below;

- Plaindealing, early 19th century
- Christ Episcopal Church, 1874
- Caroline County Courthouse, 1791, 1895, 1966
- 328 Market Street, Denton Hardware, late 19th century
- 12 Fifth Avenue, Horsey Deakyne House, circa 1883
- Colored School, early 20th century
- Annie Taylor House, circa 1800
- 7 N. Fourth Street, Early Denton Dwelling, circa 1810 with additions
- Denton Schoolhouse/Woman's Club of Denton, 1883
- Peoples Bank; Kent, Orgltree, and Thornton Law Offices, circa 1900
- Emerson-Fisher-Horsey House, circa 1879
- Law Building, circa 1905
- Denton Armory, circa 1938

RECOMMENDATIONS

The following programs and strategies are designed to facilitate achieving this Plan's goal of preserving and enhancing the Town's rich cultural and historic heritage.

Adaptive Re-Use

The Town should adopt zoning provisions that promote the adaptive reuse of historic structures for public and private uses including, but not limited to, bed and breakfast establishments, restaurants, craft/gift shops, museums, and studio space for artisans, when such uses minimize exterior structural alteration.

Development Policies

The "Denton Pattern Book" establishes comprehensive architectural guidelines for the construction and renovation of houses in Denton, based on the Town's historic architectural character and patterns of development. The Town should continue these efforts to incorporate measures that protect historic integrity into development standards to preserve the traditional identity of Denton's buildings and neighborhoods.

The Zoning Ordinance and Subdivision Regulations for the Town should require developers to identify cemeteries/burial grounds/archaeological sites/historical structures on a property prior to any disturbance of the site, and support archaeological and historical research through preservation of significant sites.

Heritage Tourism

Heritage Tourism is an economic development strategy that attempts to increase visits by persons from outside the area who are interested in the historical or lifestyle offerings of the community. Heritage Tourism emphasizes the linkages and interconnections between the area's physical features (rivers, streams, forests, wildlife) and its cultural features such as roads, buildings, towns, history, art, etc. Nationwide studies have determined that cultural landscapes and regions with special natural and historic qualities are among the most important attractions to tourists (Lower Susquehanna Heritage Greenway Resource Report, 1994).

Recognizing the potential benefits of eco-tourism, the Maryland Legislature passed House Bill 1, entitled "Heritage Preservation and Tourism Areas," in April 1996. Among other things this legislation authorizes grant and loan funds for planning, design, development, preservation, restoration, interpretation, marketing, and programming of certified heritage areas. In addition, the legislation expands the local jurisdiction's authorized income tax credits for qualified rehabilitation of properties included in the boundaries of a certified Heritage Area. These heritage areas are identifiable and significant landscapes that are the focus of cooperative public and private efforts to recognize, organize, and communicate a community's natural, cultural, recreational, and economic attributes to stimulate the local economy and improve the quality of life.

Denton is located in the Stories of the Chesapeake Heritage Area which was certified in 2004. This Heritage Area encompasses Caroline, Kent, Queen Anne's, and Talbot Counties. The Heritage Area's Management Plan designates a number of potential Target Investment Zones (TIZ's), which are sites and areas where significant private investment in support of heritage tourism is to be encouraged. The program requires that TIZ's must be able to "encourage demonstrable results and return on public investment within a relatively short period of time" – generally five years – and are to be defined using local heritage-area criteria based on state criteria. Certain financial benefits available from the State of Maryland in support of heritage areas are available only to projects within Target Investment Zones.

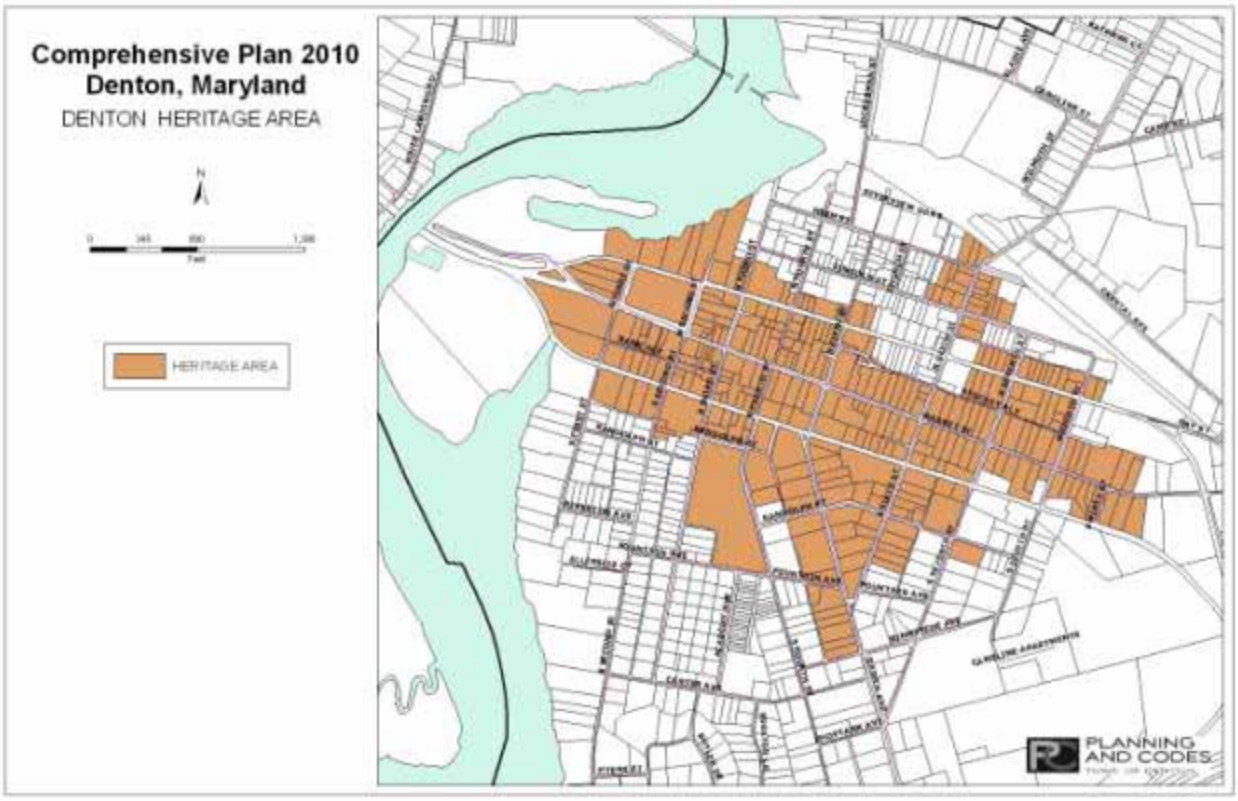
The Chesapeake Heritage Area Plan was adopted by the Town of Denton through Ordinance No. 514 on June 5, 2006, amending the Denton Comprehensive Plan. This Management Plan includes the creation of Denton's Heritage Area (Ordinance No. 555 on April 7, 2008) to include

the central business district and the historic district as a designated TIZ which was, (Map 11-3). The Management Plan recommends a number of projects that would benefit from receiving TIZ status, including projects relating to the Wharves at Choptank Crossing, Fourth Street economic development projects, the Caroline High School, the Rural Life Museum, and other projects that could be identified in the process of planning the final TIZ designation.

It is recommended that the Town work closely with the Stories of the Chesapeake Heritage Area, not only to have the downtown designated as a Target Investment Area, but to help strengthen the initiatives of the Heritage Area Management Plan and insure that the towns and counties located within it receive its many tangible benefits, some of which include:

- Increased visitor spending. Heritage tourism projects attract more visitors, with higher incomes, for longer trips, making more repeat visits.
- Shared resources. Heritage tourism projects increase the amount of funds available to accomplish projects. They increase a community's ability to compete more effectively for outside money.
- Alternatives to homogenizing tourism. Heritage tourism offers alternatives to sprawl-types of tourism, instead focusing on a "sense of place" allowing Denton to preserve its social character and environmental resources.

Map 11-3



PROTECTION AND PRESERVATION PROGRAMS

Local

The Town of Denton recognizes the importance of preserving the buildings and properties that are the vestiges of its past. The Town's Historic District and Historic District Overlay Zone have established measures to ensure that significant properties and structures are not only recognized and appreciated, but are also protected from demolition, neglect, or alterations that damage or destroy historic integrity. These efforts are overseen by the Town Council and the Town's Historic and Architectural Review Commission.

It is recommended that properties located within Denton's proposed Growth Areas and Greenbelt that are eligible for designation within the Historic District Overlay Zone or Historic District be considered for nomination to the Historic District or inclusion in the Historic Overlay Zone.

Federal and State

A number of existing federal and State programs provide assistance in protection or preservation of significant properties and also offer tax benefits, provide professional historical/architectural consulting, and other resources to assist homeowners and property owners. More detailed information on programs including the National Historic Landmark, National Register of Historic Places, Conservation and Preservation Easements, and Historic Overlay Districts can be found from various historic preservation organizations such as the Maryland Historical Trust.

National Register of Historic Places

In 1966, Congress established the National Register of Historic Places as the Federal Government's official list of properties, including districts, significant in American history and culture. In Maryland, the Register is administered by the Maryland Historical Trust. Some benefits resulting from a listing in the National Register include the following:

- National recognition of the value of historic properties individually and collectively to the Nation.
- Eligibility for Federal tax incentives and other preservation assistance.
- Eligibility for a Maryland income tax benefit for the approved rehabilitation of owner-occupied residential buildings.
- Consideration in the planning for federally and state assisted projects.
- Listing does not interfere with a private property owner's right to alter, manage or dispose of property.

Maryland Historical Trust

The Maryland Historical Trust (MHT) surveys historic buildings, structures and archaeological sites to determine eligibility of being listed on the state register. As with being on the National Register of Historic Places, listing does not limit or regulate the property owner in what can or cannot be done with the property. In order to be considered for listing on the National Register or having an easement on the property to be accepted by the MHT, the site usually must first be listed on the Maryland Historical Trust Register.

Maryland Historic Preservation Easement

A state-held historic preservation easement monitored by the MHT is an excellent means of perpetually preserving a historical structure and property for future generations. Regulations state that easements may be assignable to other parties or run with the land. The benefits for a property owner to donate his land to the MHT include income, estate, inheritance, gift, and property tax benefits. In exchange, the owner gives the MHT the final word regarding proposed alterations. However, for properties whose fair market value is largely based on the value of

development rights, this method of preservation may not be the most financially expedient for the property owner or for the MHT.

Preservation Incentives

The Maryland Historical Trust also provides financial assistance programs to encourage heritage preservation projects through several grant, loan, and tax credit programs. These include Capital and Non-Capital Historic Preservation Grants, the Museum Advancement Program, the Certified Local Government Subgrant Program, Historic Preservation Loan Program, State Tax Credit Program, and Federal Tax Credit Program.

Historic Preservation Grant Fund

The Historic Preservation Grant Fund was created to encourage the preservation of historic properties statewide. Capital grant monies are available to nonprofit organizations, local government, business entities, and individual citizens committed to preserving their historic resources. The funds can be used for development activities including acquisition, rehabilitation, and restoration of historic properties that offer some form of public benefit. The maximum grant award is $50,000 for capital and non-capital grant funds. Matching requirements apply to local governments, individuals, and business entities. Non-capital grant monies are available to nonprofit organizations and local governments. Funds can be used for research, survey, planning, and educational activities involving architectural, archeological, or cultural resources. Special priority will be given to projects located within state certified Priority Funding Areas (PFA's). A perpetual preservation easement between the property owner and the Trust may be required to be executed prior to the release of funds from the Maryland Historical Trust. The easement coverage will be on the land or such portion of the land acceptable to the Trust which protects the historic buildings, structures, and associated archeological resources.

Museum Advancement Program

This program offers Museum Education and Planning Grants that support long range planning activities, Museum Project Challenge Grants that support museum projects, and Museum Enhancement Challenge Grants that support the state's flagship museums with program enhancements based on a percentage of operating budgets.

Certified Local Government (CLG) Subgrant Program

This federal pass-through matching grant is available only to local jurisdictions that achieved CLG status. This program supports a wide variety of projects such as historic site research and survey work, National Register nomination development, community planning, and public education.

Historic Preservation Loan Program

The Historic Preservation Loan Program provides loans to non-profit organizations, local jurisdictions, business entities and individual citizens to assist in the protection of historic property. Loan funds can be used to acquire, rehabilitate, or restore historic property. They may also be used for short-term financing of studies, survey, plans, and specifications, and architectural, engineering, or other special services directly related to pre-construction work. The low interest loans are available on a first-come, first-serve basis throughout the year. Successful applicants must convey a perpetual historic preservation easement to the Trust.

Rehabilitation Tax Incentive Programs

Historic structure rehabilitation tax incentives are available at the federal and state level. The federal tax program allows owners or long-term lease holders of income-producing certified historic structures to receive a federal tax credit of up to 20 percent of the cost of the rehabilitation that meets the Secretary of the Interior's Standards for Rehabilitation. The state program allows owner-occupants and owners of income-producing property to receive a state income tax credit equal to 20 percent of the qualified capital cost of rehabilitation.

SUMMARY

Preserving Denton's historical heritage is vitally important and recognized as necessary by the community.

The overall goal is to preserve structures of historical significance. It is understood that this is best accomplished by various methods, including 1) encouraging the preservation, renovation, restoration, and adaptive reuse of buildings with historical and architectural significance; 2) supporting the promotion of historic sites through tourism efforts and business services that are complementary to historic areas; 3) supporting the efforts of preservation and cultural organizations in the Town; 4) encouraging school and community participation in historical resource management programs through education and public awareness, and 5) utilizing Federal and State funding programs which might be used to assist restoration and upkeep of the buildings.

CHAPTER 12 – IMPLEMENTATION

The *2010 Town of Denton Comprehensive Plan* is intended to capture a vision of the future of Denton. As such, it provides a basis for a wide variety of public and private actions and development decisions which are to be undertaken in the Town. It provides general guidelines to the local community in order that piecemeal improvements or day-to-day decisions can be properly evaluated against a long-range framework and their relationship to existing settlement patterns. The Land Use and Growth Elements portray a conceptual development pattern for the build-out of the community. Although not a detailed blueprint, the Plan is a clear guide to patterns of development which permit orderly and economical growth of the community in a manner which can be most efficiently served with a variety of governmental services and facilities.

Progress Since 1997

Following adoption of the *1997 Denton Comprehensive Plan* the Town proceeded to implement most of the recommendations of that plan, most notably the following:

- The Mayor and Council adopted the 1997 Denton Comprehensive Plan after appropriate review, discussion, and public hearings.
- The Planning Commission completed comprehensive revisions to the zoning ordinance, zoning maps, and subdivision regulations to implement the land use policies of the Comprehensive Plan which were adopted by the Town Council.
- The Planning Commission completed special studies and projects that examine specific land policies and implementation alternatives, including the West Denton Master Plan study, the Sixth Street Streetscape Study, the Sixth Street Commercial Development Study, and Regional Commercial Overlay District study, the Medical District Concept Study, and others.
- Through course work and individual initiative, the Planning Commission has improved its ability to critically review development proposals to ensure consistency with the Comprehensive Plan, and the requirements of the Denton Zoning Ordinance and Subdivision Regulations.
- The Planning Commission and staff have taken positive steps to improve work relations with the County Planning Commission and staff.

In 1997 Denton completed a comprehensive rezoning, amending the text of the Zoning Ordinance and the Official Zoning maps to reflect the recommendations of the *1997 Comprehensive Plan*. Since then the Town has adopted several key zoning ordinance amendments and related implementation tools that have significantly improved the effectiveness of zoning as a tool for guiding community growth and revitalization. The following sections briefly describe these amendments.

<u>Historic District Overlay Zone</u>

As part of the 1997 rezoning process, the Town adopted a local historic district overlay zone. This overlay zone (described in Chapter 11) established a Historic and Architectural Review Commission whose responsibilities include assuring that development activities occurring in the

Denton historic district comply with standards and guidelines. As the Zoning District states, the purpose of the Historic Overlay Zone is:

- safeguard the heritage of the Town by preserving areas and structures which reflect elements of its cultural, social, economic, political, or architectural history or pre-history;
- stabilize and improve property values in the area of historic districts and strengthen the local economy;
- foster civic beauty;
- promote the use and preservation of historic districts for the education, welfare, and pleasure of the residents of the Town, County, the State of Maryland, and the United States of America;
- develop an awareness among property owners of the value of preserving, protecting, and restoring areas of historical significance; and
- enable the Town government to identify and officially designate structures and sites of historical and cultural importance to the Town in order to protect, preserve, and promote the continued use and enhancement of the identified structures and sites; and, in order to make such structures and sites eligible for specific benefits conferred by this and other Town ordinances and policies which may be adopted.

The Town has assisted the Historic and Architectural Review Commission in its efforts to raise awareness of the Town historic and cultural resources by preparing a guidance publication and information mailings to property owners in the historic district.

Residential Infill and Redevelopment Guidelines

The Town adopted residential infill and redevelopment guidelines to implement the recommendations of the Comprehensive Plan concerning neighborhood conservation and redevelopment areas and to ensure appropriate infill development and redevelopment in existing residential neighborhoods. The Residential Infill and Redevelopment Guidelines were incorporated as part of the Zoning Ordinance and have the effect of law. These guidelines apply to new residential principal structures, or accessory structures located in the Community Development Program areas as set forth in the Denton Comprehensive

Commercial Infill and Redevelopment Guidelines

The Town adopted Commercial Infill and Redevelopment Guidelines as a means of improving the visual and functional characteristics of it commercial areas. Like the Residential Infill and Redevelopment Guidelines, theses commercial guidelines were incorporated as part of the Zoning Ordinance and have the effect of law. The purposes served by the guidelines are

- Protect the character of existing historic commercial areas;
- Improve the visual appearance along major highway and street corridors;
- Improve access and circulation to and within commercial and business sites;
- Improve sales and property values;
- Encourage appropriate design linkages between sites; and
- Require context-sensitive site planning and building design.

The guidelines supplement community appearance standards that were adopted in 1997.

Planned Neighborhood Floating Zone

The Planned Neighborhood Floating Zone is one of the primary implementation tools adopted by the Town to ensure that new large-scale developments are well-planned, mix-use neighborhoods that exhibit the following characteristics:

- integrated mix of uses, including residential, commercial, employment/office, civic, and open space;
- a range of housing types and densities to accommodate a diverse population of age groups and income levels;
- compact design;
- interconnected streets designed to balance the needs of all users, with sidewalks and on-street parking;
- open spaces integral to the community; and
- location adjacent to and extending the fabric of existing development.

The guidelines and standards included in the Planned Neighborhood Floating Zone address the many aspects of place making including design for vehicular and pedestrian circulation, buildings and architecture, open space, landscaping, and natural resource protection, and efficient use of land and infrastructure. The development review process gives Town officials a stronger role in order to ensure that the design of new development is consistent with the existing character of to the Town. The review process includes execution of a Developers Rights and Responsibilities Agreement (DRRA) that, among other things, addresses payment of fees to address development impacts.

Redevelopment District

As part of its commitment to community revitalization, the Town adopted zoning provisions to permit redevelopment districts. The redevelopment district is intended to encourage urban renewal through master planned, revitalization, and redevelopment of existing infill properties in areas of the Town that exhibit blighted or slum conditions. The objectives for use of this district are to:

- Undertake urban renewal by redeveloping and rehabilitating slum or blighted properties or neighborhoods pursuant to a master redevelopment plan;
- Restore existing neighborhood communities and stimulate revitalization by promoting reuse and redevelopment of existing infill lots within the Town;
- Provide workforce housing opportunities to accommodate a diverse population of age groups, income levels, and professions;
- Expand the Town's housing supply with a variety of rents and price ranges;
- Require efficient utilization of existing underutilized infill properties within the Town; and
- Encourage appropriate development of underutilized properties and consolidation of developable land for redevelopment where it will achieve a more efficient land use and improved site design.

Design standards applicable to an approved redevelopment project promote compatible infill and redevelopment by, among other things, allowing development on sites that may not meet the minimum land area and dimension requirements of the current zones. Two major redevelopment

projects have been approved thus far. One project involved the creation of an Arts and Entertainment District. The other project, currently approved, involves replacing five existing dilapidated residential units with twenty-five new, moderately priced residential units.

Arts and Entertainment District

The Maryland Department of Business and Economic Development created the Arts and Entertainment District Designation in 2001 as a way to stimulate the economy and improve quality of life in cities and small towns across the State. Local jurisdictions, municipalities, or counties that receive State designation for an Arts and Entertainment District within their boundaries qualify for tax incentives provided by the State.

An Arts and Entertainment (A&E) District is defined by Americans for the Arts as a well-recognized, labeled, mixed-use area of a town or city in which a high concentration of arts and cultural facilities serve as the anchor attraction.

The benefits offered to designated districts include:

- property tax credits for renovation of certain buildings that create live-work space for artists, and/or space for arts, and entertainment enterprises;
- an income tax subtraction modification for income derived from artistic work sold by qualifying residing artists;
- an exemption from the Admissions and Amusement tax levied by an arts and entertainment enterprise, or, qualifying residing artist in a district.

Denton applied for, and received, A&E District designation in 2005 for the area within the Town's Central Business District, as part of the Fourth Street Redevelopment Project.

Chesapeake and Atlantic Coastal Bays Critical Area

The Town adopted a Critical Area Program to protect and enhance its environmental resources. Following adoption, the Town included appropriate Critical Area development standards in the Denton Zoning Ordinance and Subdivision Regulations. These standards apply to any development activities which will affect land use in the critical area. Proposed development projects must be reviewed by the Town and proposed development activity must comply with the regulations of the Critical Area Overlay Zone in addition to applicable County, State, and Federal laws. The Town updated its Critical Area Program and implementation provisions in 2003.

In 2008, the State Legislature, with House Bill 1253, empowered the Critical Area Commission (CAC) for the Chesapeake and Atlantic Coastal Bays to adopt regulations. The CAC has adopted: 1) State & Local Government Notice Requirements, 2) Lot Consolidation & Reconfiguration, and 3) Buffer Regulations and more are planned. The Town has adopted some and will adopt other ordinances to conform to these regulations.

Implementation Recommendations

The following describes recommended actions to be undertaken by the Town to implement the objectives and policies contained in this Plan.

1. As appropriate, amend the Zoning Ordinance and Subdivision Regulations to implement the recommendations of the Denton Pattern Book. Such revision may include development standards, guidelines, and/or incentives.
2. Work with the County to undertake a sub-watershed planning process for the Denton region.
3. Work with the County to development appropriate funding mechanisms for land preservation in Denton's Greenbelt.
5. Utilize the Transportation Model established by Salisbury University, or appropriate Traffic Engineering expertise, to evaluate the planned road improvements identified in the Transportation Element of this Plan.
6. Prepare and adopt an official Transportation Map that identifies where new streets and pedestrian links will be built.
7. Develop a community park in the east Denton area.
8. Request the County amend the *Caroline County Master Water and Sewer Plan* to reflect the recommendations of this plan.
9. Amend the Denton Municipal Priority Funding Area (PFA) boundary to reflect the recommendations of this plan. Have the PFA boundary certified by the State.
10. Work with the County and regional organizations to address affordable housing issues.

Annexation Policies

The Comprehensive Plan maps out the proposed build-out limits of the Town. All properties located within this growth area, and no others, are eligible for annexation. This policy includes small properties where annexations will be undertaken to clarify boundaries, prevent "enclaves", and extend service to areas in need of municipal services for health or safety reasons.

Prior to annexing any land area not included in the current growth plan, the Town will first consider appropriate amendments to this Comprehensive Plan and will follow the procedural requirements for comprehensive plan amendments and annexation established in State law, including those of House Bill 1141. This will ensure that the proposed annexation is consistent with the goals and objectives of the comprehensive plan, that appropriate consideration has been given to the adequacy of public facilities and services, and that the County and State agencies are afforded an opportunity to comment on the proceedings.

Financial policy is equally important to public policy criteria for annexation and for resolving practical problems for people living in future Town areas. Financial considerations play a paramount role in determining the course of future annexations both from the standpoint of the Town and its current residents and prospective residents of the area proposed for annexation. The Town completed a comprehensive study that evaluates the fiscal impacts of implementing the Town's growth plan on the costs of providing Town services and facilities. To avoid Town-County conflicts which might result from annexation, the following annexation policies have been adopted to guide for future annexation efforts.

- The primary purpose of annexation should be to provide existing residents and future citizens of the area with public facilities and services necessary for protection of health and property.
- Proposed annexation areas will be economically self-sufficient and will not result in larger municipal expenditures than anticipated revenues, which would

indirectly burden existing Town residents with the costs of services or facilities to support the area annexed.

- The costs of providing roads, utilities, parks, and other community services will be borne by those people gaining the most value from such facilities through either income, profits, or participation.
- Specific conditions of annexation will be made legally binding in an executed annexation agreement. Such agreements will address, among other things, zoning and development expectations, responsibility for appropriate studies, and preliminary agreements concerning responsibilities for the cost of facilities and services provided by the Town. These preliminary agreements may be further revised in a Development Rights and Responsibility Agreement (DRRA).
- For annexations involving larger parcels of land, the Town may require appropriate impact studies, including an environmental impact assessment that addresses the potential impact of the proposed annexation and planned development on the environment of the site and surrounding area.
- If necessary, applicants for annexation shall pay the cost of completing all studies related to expanding capacity in existing public facilities and/or services.

Interjurisdictional Coordination

The Economic Development Planning and Resource Protection Act of 1992 directs local governments and the State to coordinate their planning and development efforts to achieve the "Eight Visions." Under the Act, local governments must adopt comprehensive plans which include the State's Visions. Zoning and other planning implementation mechanisms must be consistent with these plans. Under the Planning Act, local comprehensive plans must include recommendations for improving planning and development processes to encourage economic expansion, and to direct future growth to appropriate areas. Such development and economic growth often have interjurisdictional impacts on transportation infrastructure, environment, and other areas of concern. For this reason, it is necessary for planning, growth strategies, and policies to promote and encourage cooperation among adjacent jurisdictions.

The 2009 Smart, Green, and Growing Legislation passed by the Maryland General Assembly, outlined twelve Planning Visions toward a more sustainable, more livable, and less costly future. The Visions address quality of life, public participation, growth areas, community design, infrastructure, transportation, housing, economic development, environmental protection, resource conservation, stewardship, and implementation approaches. These twelve Planning Visions are addressed throughout the Comprehensive Plan and will form a basis for interjurisdictional discussion.

House Bill 1141 (Land Use – Local Government Planning) requires the Town to include in the comprehensive plan a growth element that specifies where the municipality intends to grow outside its existing corporate limits. The Town must discuss how it intends to address service, infrastructure, and environmental protection needs for identified growth areas and surrounding environs.

A plan for the growth of Denton is included in this Comprehensive Plan. This document also includes strategies that address water and sewer service, stormwater management, and environmental impact associated with the build-out of the Town's growth area. Preparation of

the growth element included a complete analysis of land capacity available for development, including infill and redevelopment and an analysis of the land area needed to satisfy demand for development at densities consistent with the Denton Comprehensive Plan and State "smart growth" legislation.

House Bill 1141 requires the Town to consult with Caroline County concerning its growth element. Prior to approving the Town's growth element, the Town will provide a copy of the Comprehensive Plan to the County, accept comments from the County on the growth element, meet and confer with the County regarding the growth element and on request of either party engage in mediation to facilitate agreement on a growth element. The bill encourages municipalities and counties to participate in joint planning processes and agreements.