# The Church Hill Comprehensive Plan 2010

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# 1.1 PURPOSE OF THE 2010 COMPREHENSIVE PLAN

This 2010 Comprehensive Plan sets forth policies governing growth, development, and conservation in Church Hill. This Plan is long-range, general, and comprehensive.

Long-range: This Plan is forward-looking. It addresses Church Hill's future needs through the year 2030.

General: This Plan does not focus on matters of detail, which can distract from important policies and proposals. To the extent possible, it focuses on the broad arrangements of land use,

transportation, and environmental resources.

Comprehensive: This Plan uncovers relationships between local and regional factors influencing development and conservation. It addresses major elements of the natural and built

environments.

This Comprehensive Plan expresses basic goals. It is a guide for the future of Church Hill. As a guide it allows Church Hill to make day-to-day development decisions based on reasoned and adopted policies rather than solely on the merits of individual proposals. This document—its text, maps, and illustrations—provides the basis for changes to zoning, subdivision, and other regulations that govern land use and infrastructure development in Church Hill.

# 1.2 EVOLUTION OF CHURCH HILL TOWN PLANNING

This Comprehensive Plan builds on the Town's 1995 and 2003 Plans. The 2003 Plan focused on encouraging a small-town atmosphere, maintaining a connection to the natural landscape, and accommodating development within the existing Town. Church Hill has taken steps to implement the goals and objectives of the 2003 Comprehensive Plan. The Town has:

- Conducted a community character analysis.
- Defined a community character district and adopted design guidelines for new construction within this district.
- Established building and site design standards for commercial development.
- Implemented requirements for the connection of pedestrian pathways and sidewalks.
- Implemented a streetscape project, including sidewalks on Main and Walnut Streets.
- Adopted a road ordinance with traditional road design standards.
- Promoted planting of shade trees on new residential lots and along new streets, substantially increasing the tree canopy in Town.
- Established a planted buffer along MD Route 213.
- Adopted a forest conservation ordinance.
- Adopted a sewer allocation policy.
- Conducted a feasibility study for public sewer system upgrades and of the development of a public water system.

# 1.3 LOCATION

Exhibit 1.1 shows the location of Church Hill. The Town's location may be defined in several ways:

- Close proximity to the Chester River: Church Hill is located just over three miles east of the main stem of the Chester River. Known for its fish (Perch, Striped Bass, Striped Rockfish, etc.) and nesting birds (American Bald Eagles, Canadian Geese, etc.), the river provides ecological and recreational opportunities.
- Within the Southeast Creek Watershed: Church Hill is located in the Southeast Creek Watershed, which is part of the Chesapeake Bay Watershed. It is the only Town located in this Watershed, which covers 54 square miles.
- Eastern Shore Location: Church Hill is located approximately 30 miles east of the Chesapeake Bay, a 40-minute trip from the Chesapeake Bay Bridge on Maryland's Eastern Shore in Queen Anne's County with access to U.S. 301.

**Exhibit 1.1: Natural Area Location** 



# 1.4 REPORT ORGANIZATION

Following this introduction, the Comprehensive Plan is organized into two sections. Each is a vital part of the Comprehensive Plan.

- Section 2: This section presents background information on recent development activity, the Town's population and physical elements—natural areas, land use, transportation, community facilities, community design, and historic resources. It provides the basis for a shared understanding as the Town looks to its future.
- Section 3: This section provides a projection of growth through 2030 and discusses the impacts this growth could have on community facilities and services. This section also presents the Town's long-range vision and the recommended policies in the areas of Municipal Growth, Land Use, Sensitive Areas, Circulation, Community Facilities, Water Resources, Community Design and Historic Preservation, and Regulation and the Advancement of Good Planning.



# 2.0 INTRODUCTION

The Planning Commission reviewed and concurred on the existing conditions presented herein. This section creates a baseline for anticipating how change will affect Church Hill's resources and it helps inform choices about the Town's future. An overview of the section is provided below. Map 1, Existing Conditions is included on the following page. It shows the Town and its surrounding land use pattern including sensitive environmental features.

2.1 RECENT AND ONGOING PLANS AND PROJECT	Church Hill is making improvements to streets and has studied the feasibility of expanding sewer facilities and adding a municipal water system. Development in Church Hill includes four residential properties under development.		
2.2 DEMOGRAPHICS AND ECONOMICS	Population has increased over recent decades. Owner-occupied housing units are more than double that of renter-occupied housing units. Local businesses are generally small and concentrated in the construction and automotive repair industries.		
2.3 HOUSING	The Town contains nearly as many houses built since 1980 as homes built before 1939. More than half of the housing units in the Town are single-family units. Slightly less than six percent of housing units are vacant.		
2.4 NATURAL ENVIRONMENT	Church Hill is located in the Southeast Creek Watershed. Wetlands are abundant in areas around the Creek. Floodplains, streams, forested areas, and steep slopes are located around and within the Town		
2.5 LAND USE	Land use in the Town consists of a traditional central Main Street with adjacent residential neighborhoods. Agricultural fields and forests surround the Town however, a pattern of low-density residential subdivisions is emerging.		
2.6 COMMUNITY DESIGN	The Town's heritage is evident in its historic character, seen along Main and Walnut Streets. Natural environmental features along the outer edges of Town also create the sense of place.		
2.7 TRANSPORTATION AND CIRCULATION	The main travel way within Church Hill is Main Street, MD Route 19. The Town lies to the east of MD Route 213 and MD Routes 300, 405, and 19 connect it to nearby U.S. Route 301. Within Town, local streets connect residential areas to Main Street.		
2.8 COMMUNITY FACILITIES	Public facilities in Town are adequately sized for now. Church Hill Park provides recreational opportunities for residents and visitors. The capacity of the wastewater treatment plant will need to be expanded in the future.		

# 2.1 RECENT AND ONGOING PLANS AND PROJECTS

Ongoing public and private projects and plans are indicators of future growth and development. The public and private projects recently completed and underway in Church Hill are described here.

### PUBLIC INFRASTRUCTURE PROJECTS

The following improvement projects have been recently completed.

- The Maryland State Highway Administration completed improvements to the sidewalks on Main Street and Walnut Streets.
- The Town modernized and expanded the capacity of its two public sanitary sewer pumping stations.
- The Town conducted a study of the feasibility of increasing sewerage treatment capacity and of creating a municipal water supply system. This study assessed the potential location of infrastructure and the costs associated with upgrades. Section 3.7 of this report provides details on the study's findings.

### PRIVATE DEVELOPMENT PROJECTS

There are four private development projects in Church Hill.

- 1. Church Hill Hunt is a residential development located between Walnut Street and Cemetery Lane that will have 80 houses when completed. The Town has issued about 40 permits for new home construction so far.
- 2. The Meadows is residential development located between MD Route 213 and Main Street in the northern part of Town. It will have 15 houses when completed. The Town has issued four permits. The adjoining mixed-use Meadows Center is also underway. When completed, it will contain 16,400 square feet of commercial space and up to eight residential apartments.
- 3. Pine Ridge is a townhouse community between MD Route 213 and Main Street It will have 20 townhomes when completed.
- 4. The Ponds is a senior housing community to the west of Church Hill Park. It will have 43 units when completed. It is nearly half completed.

# 2.2 DEMOGRAPHICS AND ECONOMICS

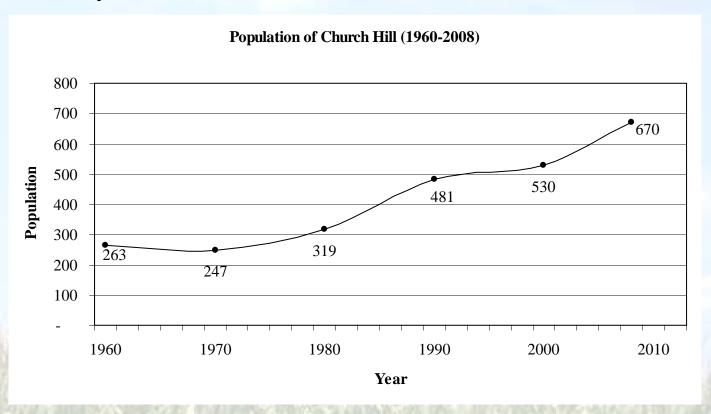
This overview compares Church Hill's population and housing to that of Queen Anne's County and, where relevant, to nearby towns. In so doing, it provides a point of reference for local statistics to be seen in a meaningful and broader context. The data presented herein establishes baseline information and trends necessary to project future growth and understand the needs of existing and future residents.

### POPULATION

Exhibit 2.1 charts the change in the Town's population between 1960 and 2008. During that 48-year period, Church Hill grew by 407 residents at an average annual growth rate of 1.97 percent. The largest decade-to-decade growth occurred between 1980 and 1990 in which the Town grew by approximately 50 percent, from 319 residents to 481. Table 2.1 provides data on historic population change.

The Town has continued to grow since 2000. Between 2000 and 2008, the Town added 140 residents, growing at an average annual rate of 2.97 percent.

Exhibit 2.1: Population – Church Hill 1960-2000



Source: U.S. Census Bureau and Jakubiak & Associates, Inc.

Table 2.1: Population Growth by Decade – Church Hill and Queen Anne's County

	1960- 1970	1970- 1980	1980- 1990	1990- 2000	2000- 2008	1960- 2008
Church Hill						
Percent Change	-6.08	29.15	50.78	10.19	26.42	-
Percent Rate of Growth	-0.63	2.59	4.19	0.97	2.97	1.97
Queen Anne's County						
Percent Change	11.18	38.46	33.11	19.47	16.09	-
Percent Rate of Growth	1.07	3.31	2.90	1.79	1.88	2.20

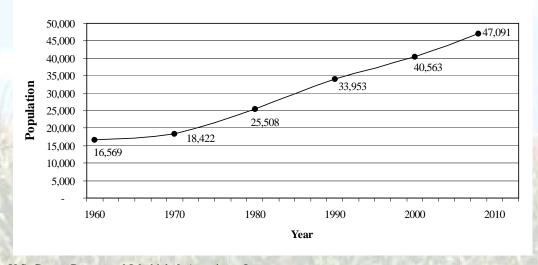
Source: U.S. Census Bureau and Jakubiak & Associates, Inc.

Queen Anne's County experienced a steady increase in population since 1980, with an average annual growth rate of 2.25 percent. The U.S. Census Bureau estimated the 2008 population for Queen Anne's County at 47,091 residents, indicating a 16 percent increase between 2000 and 2008.

Church Hill and Queen Anne's County have both grown consistently since 1960. The population in Church Hill has remained a steady 1.3 percent of the total County population since 1970.

**Exhibit 2.2: Population – Queen Anne's County 1960 -2000** 

**Population: Queen Anne's County (1960-2008)** 



U.S. Census Bureau and Jakubiak & Associates, Inc.

Source:

### A G E

In 2000, Church Hill's median age was 36.1 years. Queen Anne's County had a median age of 38.8 years. Table 2.2 shows the distribution of Town and County population this is under 18 and over 65. Representation in both of these groups is only slightly higher in Church Hill than in the County overall.

**Table 2.2: Population by Age Group** 

Years of Age	Church Hill (%)	Queen Anne's County (%)
Under 18	26.6%	25.4%
Over 65	13.8%	12.9%

Source: U.S. Census Bureau and Jakubiak & Associates, Inc.

### HOUSEHOLDS

A household is an occupied housing unit. Households are the main demand unit when towns prepare for growth and the impacts of growth. By knowing the number of households, for example, a town can project estimated water and sewer demand or estimate the traffic impacts new development will have. There was steady household growth in Church Hill between 1990 and 2000. Within this timeframe, the Town added 26 households—increasing the total number of households by about 14 percent, from 184 households in 1990 to 210 households in 2000.

As shown in Table 2.3, the percentage of owner-occupied housing units in Church Hill was about 65 percent in 1990 and 71 percent in 2000. This reflects a growing level of homeownership over time. Owner occupied housing was slightly higher in the County in 2000, at over 83 percent.

**Table 2.3: Housing Occupancy** 

	Church Hill		Queen Anne's County	
	Total	(%) of Total	Total	(%) of Total
Total Housing Units	226	TENTA DOMENT	16,674	OF BUILDING
Occupied	210	92.9	15,315	91.8
Vacant	16	7.1	1,359	8.2
Occupied housing units	210		15,315	
Owner-occupied	149	71.0	12,772	83.4
Renter-occupied	61	29.0	2,543	16.6

Source: U.S. Census Bureau & Jakubiak and Associates, Inc.

Table 2.4 shows U.S. Census data on households by type—family and non-family households. Family households are households that contain persons that are related by birth, marriage, or adoption. As shown, 66 percent, or two-thirds, of households in Church Hill were family households in 2000. Non-family households, households that might contain only one person or unrelated persons, made up 34 percent of all households. As shown in the table, married-couple families accounted for about 47 percent of total households. Children were present in 76—or 36 percent—of households.

Table 2.4: Households in Church Hill (2000)

Households	Children in	Household	Sum	% of Total Households
	Yes	No		
Family Households				
Married-Couple Families	49	49	98	46.7
Male Householder, no wife	5	4	9	4.3
Female Householder, no husband	20	12	32	15.2
Subtotal	74	65	139	66.2
Non-Family Households	2	69	71	33.8
Total Households	76	134	210	100.0

Source: U.S. Census Bureau and Jakubiak & Associates, Inc.

### ECONOMIC STRUCTURE

Church Hill is located amid large tracts of farmland. Farming is now and has historically been, an important part of Church Hill's economy. Businesses located in Town include a gas station and convenience store, an automotive repair shop, and two banks. In 2005, within the zip code area including Church Hill there were 40 businesses that employed 121 people. Along with agriculture, the construction industry forms the base of the economy in and around Church Hill.

### WORKFORCE, EMPLOYMENT, AND INCOME

Table 2.5 shows where Church Hill's labor force, of 256 people, was employed in 2000. (Residents over the age of 16 that are either working or have worked in the past and are looking either for work or are on temporary leave comprise the labor force.) About 94 percent of the labor force worked within Maryland. About 10 percent were employed within Church Hill.

Employment—the number of employees in Church Hill—is an indicator of the local jobs that are available to the workforce. Employment in Church Hill has grown steadily between 1998 and 2006 and has kept pace with employment growth in Queen Anne's County. Table 2.6 shows the number of people employed in the Church Hill zip code area in 1998, 2000, and 2006. Table 2.5 and 2.6 indicate that of the 115 employees in the Church Hill zip code in 2000, 27, or about 23 percent, lived in the Town.

Table 2.5: Place of Work for Church Hill Residents (2000)

	Total	Percent of Total (%)
Total Employed	256	
Worked in Maryland	241	94.1
Worked in Queen Anne's County	104	40.6
Worked in Church Hill	27	10.5

Source: U.S. Census Bureau and Jakubiak & Associates

The Church Hill median household income in 2000 was \$48,250, which was at least \$5,500 higher than all the other municipalities in the County. The median household income for the County overall was about \$57,000.

Table 2.6: Number of Employees (1998-2005)

	1998	2000	2006	% Change	Growth rate
Queen Anne's County	8,666	9575	11,632	30.4	4.29
Church Hill	96	115	102	26.0	0.87

Source: U.S. Census Bureau County Business Patterns and Jakubiak & Associates

# 2.3 HOUSING

Housing units differ from households in that housing units represent the number of housing structures that exist, while the number of households represents only those housing units that are occupied. An analysis of housing units provides information about the availability, affordability, and quality of housing.

## HOUSING STOCK

In 2000, the Census counted 225 total housing units in Church Hill. The Town's housing stock is largely comprised of historic buildings constructed before 1939 (see Exhibit 2.3). Recent development activity since the 2000 Census has added to the housing stock.

The housing stock in Church Hill is largely comprised of single-family houses, which made up 73 percent of all units in Town. Mobile homes made up 11 percent of units in 2000. Newer, single-family homes on larger lots are under development in many areas in the Town. Additionally, some neighborhoods with older housing stock and vacant housing have seen redevelopment in recent years.

**Exhibit 2.3: Age of Housing Units – Church Hill 2000** 

Source: U.S. Census Bureau & Jakubiak & Associates, Inc.

# 2.4 SENSITIVE NATURAL AREAS

The Town is within the Southeast Creek Watershed (an area of approximately 34,994 acres), which is a tributary to the Chester River. The sensitive natural areas found in Church Hill (streams, 100-year floodplains, wetlands, woodlands, and open space) are discussed in this section and shown on Map 1, Church Hill Existing Conditions.

### CHESAPEAKE BAY CRITICAL AREA

Chesapeake Bay Critical Area law regulates development within the Critical Area, a ribbon of land 1,000 feet wide extending from the head of tide of Chesapeake Bay shorelines, wetlands, and tidal tributaries. Church Hill has the responsibility under State law to designate Critical Area lands as one of the three land-use management overlay zones. The zones are summarized below.

- Intensely Developed Area (IDA): Land developed with high-density residential or other high intensity uses, including commercial and industrial uses. It has housing densities greater than four units per acre, and may include areas with public water and sewer service. In addition, these features are concentrated in an area of at least 20 adjacent acres, or the entire upland portion of the Critical Area within the boundary of a municipality, whichever is less.
- <u>Limited Development Area (LDA)</u>: Land developed in low or moderate intensity uses and containing areas of natural plant and wildlife habitat. The quality of runoff from these areas has not been significantly degraded or altered. The intention of the Critical Area Law is to allow continued development in LDAs at an equal or lesser density so as not to change the prevailing character of the area. Development must be sensitive to protection of habitat and serve to improve runoff and groundwater entering the Chesapeake Bay. It includes areas where densities are less than four units per acre and areas served by public water or sewer.
- Resource Conservation Area (RCA): Land dominated by features such as wetlands, forests, and farmland. Residential density may not exceed one unit per 20 acres.

### GEOLOGY AND TOPOGRAPHY

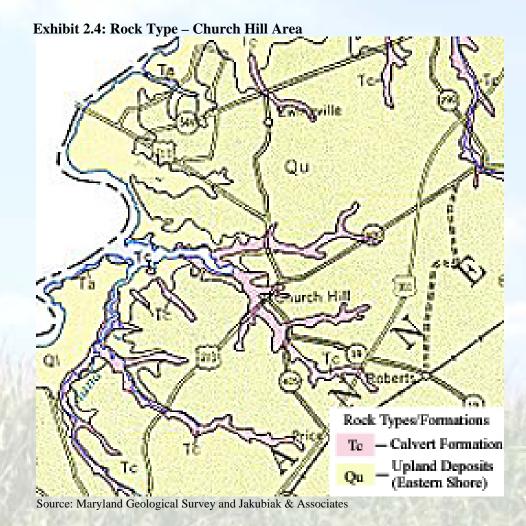
Understanding the primary geologic features of Church Hill can help to determine what type of development would be best for the future.

# **Geologic Formations**

Formations of Upland Deposits (Eastern Shore) and Calvert Formation (Plum Point Marls Member and/or Fairhaven Member) underlie the Church Hill area. Upland Deposits consist of gravel, sand, silt, and clay. The thickness can be from zero to 90 feet. The Calvert Formation, which is concentrated along the tributaries of Southeast Creek and the Chester River, consists of sand, sandy clay, shell beds, and sandstones. Total thickness for this formation is 0 to 150 feet. Church Hill is on the edge of a shelf, gradually eroded by a series of branching creeks and streams that drain to the Chesapeake Bay. Exhibit 2.4 shows the rock types and the creeks described.

### **Mineral Resources**

The only mineral resources in commercial quantity in Queen Anne's County are sand and gravel. Deposits are found in the Pennsauken Formation, mostly located in the eastern part of the County. There is no mining activity or any known commercial mineral resource near Church Hill.



<sup>&</sup>lt;sup>1</sup> "Geologic Map: Queen Anne's County." 1968. Maryland Geological Survey. http://www.mgs.md.gov/esic/geo/que.html (6 June 2000).

# **Steep Slopes**

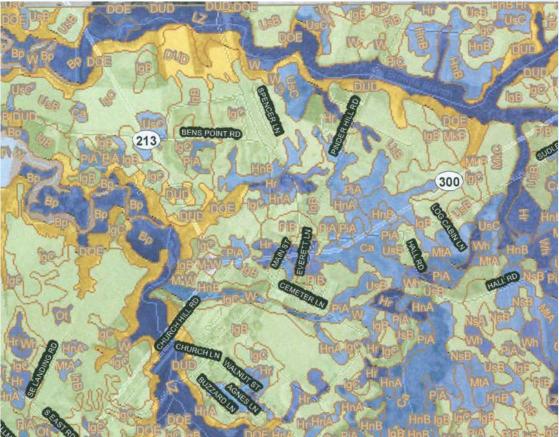
Steep slopes are slopes that have sufficient grade to cause erosion or increased flooding when disturbed for land development or agriculture. A slope may have more or less erosion depending on the underlying soils.

In Church Hill, steep slopes (greater than 25 percent) are generally located adjacent to floodplains and along the banks of Southeast Creek and its tributary. Another band of steep slopes run along the edge of non-tidal wetlands found north of Town. There are no steep slopes in any of the areas proposed for development in this Plan.

# Soils

In Church Hill, the drainage qualities of soil directly relate to the area's wetlands and water sources. The majority of Church Hill contains moderate soil drainage, indicated by the color green in Exhibit 2.5. Well-drained areas, shown in yellow generally extend outward from the banks of Southeast Creek and Brown's Branch. The blue areas indicate moderate to poorly drained soils.

# **Exhibit 2.5 Church Hill Soils**



Source: USDA Natural Resources Conservation Service

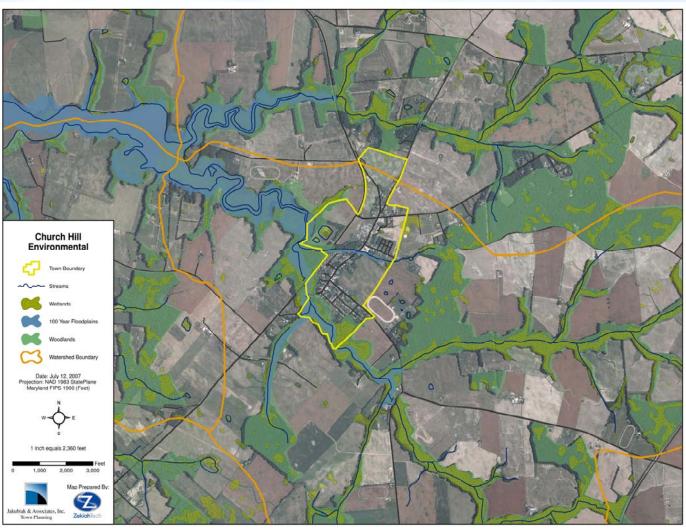
### WOODLANDS

Woodlands in the Southeast Creek Watershed enhance water quality and provide habitat for plants and animals contributing to the conservation of the region's biodiversity. Benefits of preserving and expanding woodlands include stabilization of steep slopes, slowing of storm water run-off, and cleaning of the air during photosynthesis. Major stands of forests, at a large scale, act as natural buffers to harsh weather conditions and help to moderate ambient temperatures.

Woodlands absorb and store carbon dioxide, removing this greenhouse gas from the atmosphere. Afforestation—converting lands to forest—increases the rate at which carbon is removed from the atmosphere. As an example, converting cultivated farmland to forest can result in between two and ten tons of carbon per year being removed for every 2.5 acres converted; making afforestation an important ecological tool to mitigate local carbon emissions.<sup>2</sup>

Large forested areas extend along the eastern boundaries of Church Hill. Wetlands are contained within them and along Southeast Creek. Healthy wetlands protect habitat of native species. Vegetation above and around wetlands helps wetlands absorb more water and filter out more nutrients and pesticides from urban and agricultural runoff. Exhibit 2.6 shows the forested areas in and around Church Hill.

**Exhibit 2.6: Woodlands and Environmental Features** 



<sup>&</sup>lt;sup>2</sup> Richards, K.R. and C. Stokes. 2004. "A Review of Forest Carbon Sequestration Cost Studies: A Dozen Years of Research." Climatic Change 63(1-2): 1-48.

Maryland's Forest Conservation Act of 1991 (Natural Resources Article Sections 5-1601-51613) was enacted to protect forests by making forest conditions and character an integral part of the site

**Table 2.8: Optimal Forest Size by Function** 

Function	Recommended Size
Protecting forest interior dwelling	ng species Minimum 500 contiguous acres. (can range up
(FIDS)	to 6,250 acres for some birds)
Provide habitat for mammals	2.5 - 25 acres
Nutrient Removal	300 feet of edge

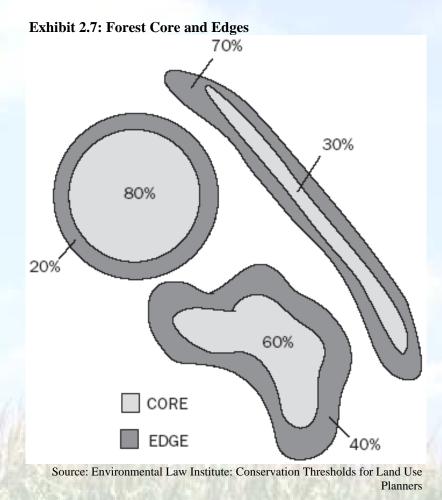
planning and development process. The Forest Conservation Act, is implemented and administered by the Town of Church Hill through its own local ordinance. The ordinance seeks to maximize the benefits forests provide and slow the loss of forests while allowing development to take place. Expanding existing stands of forest is an important goal.

Maryland has conducted considerable research into the optimal conditions for healthy forests. Exhibit 2.7 shows three hypothetical forests settings. The circular forest has the largest portion of core area, or interior habitat, while minimizing the amount of forest edge. The linear shaped forest, by contrast, is dominated by forest edge conditions. Forest edges, shown as dark grey areas in the illustration, create dangerous environments for plant and animal life by increasing exposure to invasive species, predators, and disease. Edges also increase exposure to wind, sun, water, nutrients, and pesticides. Edge effects generally exist in the first 750 feet of a forested area. As a rule then, expanding existing forests in Church Hill, can help protect the core, or forest interior, and the wildlife values these forests provide.

# Forest Interior Dwelling Bird Habitat

According to Maryland's Department of Natural Resources (DNR) High Quality Forest Interior Dwelling Bird Species (FIDS) habitat is forest of at least 100 acres of mature hardwood or hardwood/pine containing at least 25 percent of forest interior. To realize the full benefits from forested areas a high-quality FIDS environment is necessary. It is recommended that protecting and establishing high quality forest stands occur by foresting around existing areas and creating forest edges of new growth, while protecting existing old growth in the interior forest. According to DNR to be classified a Forest Interior Habitat, a forest must generally contain:

• contiguous forest greater than 500 acres; or

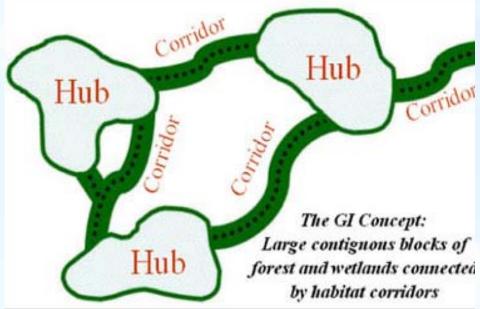


- riparian forest along a perennial stream with an average width of 600 feet; or
- one or more highly area-sensitive species or Black-and-white Warbler; or
- mature hardwoods at least 300 feet interior from the forest edge; or
- at least five contiguous acres of old growth forest at least 300 feet from the forest edge.<sup>3</sup>

### **DNR** "Green Infrastructure"

Green infrastructure refers to an interconnected network of forested areas and open spaces. Green infrastructure provides all the benefits of the natural features discussed in this section and connects these natural features to one another. Exhibit 2.8 illustrates the concept of Green Infrastructure. Large forested areas act as hubs in the green infrastructure system. DNR defines hubs as "contiguous forest blocks and wetland complexes of at least 250 acres, rare or sensitive species habitats, biologically important rivers and streams, and existing conservation lands managed for natural values." These wooded hubs are connected though a system of open space and woodland corridors. Well-connected forested areas allow for movement of species over time. Large forests can be connected by smaller patches a short distance away or through forested corridors. DNR recommends corridors at least 1,100 feet wide to provide the most ecological and natural route.

### **Exhibit 2.8: Green Infrastructure**



Source: Maryland Department of Natural Resources

# **Endangered/Sensitive Species Habitat**

The Maryland Nongame and Endangered Species Conservation Act provides definitions of threatened or endangered species. Habitats of threatened and endangered species may include breeding, resting, migratory, or overwintering areas. Habitat destruction and degradation is currently estimated to threaten some 400 native Maryland species. The key to protecting these endangered species is protecting the habitat in which they exist.

<sup>&</sup>lt;sup>3</sup> MD DNR High Quality FIDS Habitat. http://www.dnr.state.md.us/forests/planning/sfla/indicators/hi\_qual\_fids.htm.

### WATER RESOURCES

### **Streams and Stream Buffers**

Streams and their buffers are important resources. Streams support recreational fishing and serve as spawning areas for commercial fish stock. Streams and their adjacent buffers are home to countless species of animals and plants and transport valuable nutrients to creeks and rivers, and, in turn, to the Chesapeake Bay. The floodplains, wetlands, and wooded slopes along streams are important parts of the stream ecosystem. Development near streams subject to flooding can result in loss of life and property.

Development activity can impair water quality. The cumulative loss of open space and natural areas reduces the ability of remaining land along streams to buffer the effects of greater stormwater runoff, sedimentation, and higher levels of nutrient pollution. Buffers adjacent to streams serve as protection zones. They reduce sediment, nitrogen, phosphorus, and other runoff pollutants by acting as a filter, minimizing stream impairment. Buffers also provide habitat for wetland and upland plants, which form the basis of healthy biological communities. Wide varieties of animals use natural vegetation as a corridor for food and cover. A natural buffer system provides connections between remaining patches of forest to support wildlife movement. The effectiveness of buffers is influenced by their width (which should take into account such factors as; contiguous or nearby slopes, soil erodability, and adjacent wetlands or floodplains), the type of vegetation within the buffer (some plants are more effective at nutrient uptake), and maintenance of the buffer.

Table 2.9 describes the recommended size of buffers by function. The optimum stream buffer to realize full benefits is 300 feet or greater; although, most benefits can be achieved by a stream buffer of 200 feet. Buffer widths should also account for steep slopes and highly erodable soils.

**Table 2.9: Riparian Buffer Functions and Size** 

Function	Description	Reccomended Buffer
Flood and Storm Surge Mitigation	Riparian vegetation minimizes down river flooding.	70 - 200 feet
Sediment Control and Stream Stability	Sedimentation is controlled by vegetative buffers which trap sediments before they reach the stream channel. Reduced sedimentation combined with the forest structure helps to stabilize streams and prevent excessive erosion.	50 - 100 feet
Nitrogen / Phosphorous Removal	Nitrogen is removed from water entering the stream channel through vegetation consumption of nitrogen and through the conversion of nitrogen into nitrogen gas. The sediment control function helps to reduce phosphorous as sediments often contain phosphorous.	50 - 100 feet
Pesticide Reduction	Bacteria in the soil of riparian buffers help to reduce the pesticides in streams and rivers.	45 feet
Food Production	The rich organic matter provided by natural vegetation supports fish stock and other river inhabitants that are dependent on it for food.	25 feet
Habitat for wildlife	Forested areas provide a habitat for birds and mammals. Certain species can exist in smaller forests; however, most species require forest interior dwelling areas.	300 - 1,600 feet

Source: USDA Forest Service-Northeastern Area State and Private Forestry

### Southeast Creek

Southeast Creek is approximately 5.1 miles in length—measuring from its confluence with the Chester River to the upper reaches of its headwaters. The Southeast Creek Watershed includes an area of 34,994 acres. An over-enrichment of phosphorous impairs Southeast Creek's water quality. This causes algae blooms, low dissolved oxygen levels, and degrades aquatic habitat.

Southeast Creek crosses under Main Street and MD Route 213, running parallel and to the south of Buzzards Lane. One tributary of Southeast Creek, Taylor's Branch, also runs roughly parallel and just south of Cemetery Lane. Another tributary runs north of Town.

Southeast Creek from the western edge of Town eastward is classified as high-quality (Tier II) water. This classification brings with it certain restrictions on the amount of development that can occur within the drainage, or catchment, area for this portion of the Creek. The Southeast Creek Watershed is biologically impaired and impaired by bacteria, nutrients, and sediment. TMDL documents have been completed for the Southeast Creek Watershed for phosphorus. A Total Maximum Daily Load (TMDL) considers the amount of nutrients that enter a stream from point sources (such as wastewater treatment plants) and non-point sources (such as runoff) and established limits on the amount of nutrients that the stream can receive. The TMDL report estimated that, in 1997, non-point sources of phosphorus contributed about 49,127 pounds per year. (Nitrogen from non-point sources was estimated to be about 545,711 pounds per year.) The two point sources in the Town, the Church Hill Waste Water Treatment Plant and the Eastern Pre-Release Unit, contributed 1,462 (2.88 percent) and 1,683 (0.3 percent) pounds per year of total phosphorus, respectively.

Mixed agricultural land uses, which comprise about 67.3 percent of the watershed, contribute about 94.2 percent of total phosphorous and 93.1 percent of total nitrogen in Southeast Creek. Urban or developed non-point sources—houses, roads, etc.—account for 2 percent of total phosphorous and 3.2 percent of total nitrogen to Southeast Creek. Atmospheric deposition—pollutants carried through the air from land-based sources—contributes 0.5 percent of total phosphorous and 0.8 percent of total nitrogen. Forested/herbaceous areas contribute the remaining 0.42 percent of phosphorous and 2.7 percent of nitrogen to the Creek.

<sup>&</sup>lt;sup>4</sup> During discussion of this Plan in its draft form before the Queen Anne's County Planning Commission, two members of the County Planning Commission expressed concern that the State's data on the contribution of agricultural run-off to nutrient pollution in area waterways may be out of date and overstated and that better land management practices have actually lowered concentrations of nutrients in run-off.

# 100-Year Floodplain

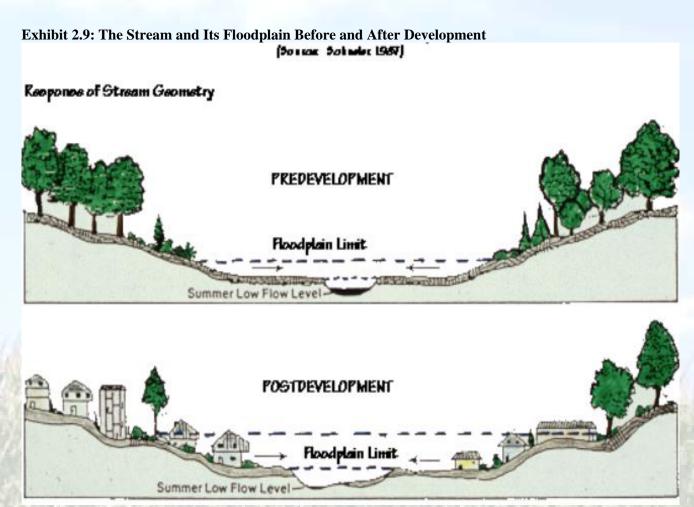
The 100-year floodplain limits are delineated by the Federal Emergency Management Agency (FEMA) as areas that have a one percent chance of being flooded each year. The limit of floodplain is generally determined by the size of the watershed, local geology, and the pattern of surrounding land uses. FEMA defines flood zones according to varying levels of flood risk according to elevation above sea level. Flood zones are often congruent with floodplains.

Periodic flooding poses risks to public health and safety, and potential loss of property. Flood losses and flood-related losses of property are created by inappropriately located structures that are inadequately elevated or otherwise unprotected and vulnerable to floods, or by development, which increases flood damage to other lands. While protection of life and property provided the initial basis for protection of floodplains, there has been a growing recognition 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 Church Hill Existing Conditions Map shows the floodplains in and around Church Hill. Development within the floodplain makes flooding and potential damage worse. The Town's Floodplain Ordinance requires a 100-foot setback beginning from the edge of the stream banks. If the 100-foot setback extends less than 50 feet beyond the edge of the 100-year floodplain, a 50-foot setback from the edge of the floodplain also applies.

Exhibit 2.9 shows a stream and its floodplain before and after development. The Exhibit illustrates the expansion of the stream channel and floodplain limit as a result of development. The floodplain limit has risen in the bottom illustration. Newly developed structures are now in the expanded floodplain.



# Wetlands

Wetlands play a pivotal role in regulating the interchange of water within watersheds. By definition, they are characterized by water saturation at or above the soil surface for a certain amount of time during the year. Precipitation and surface water in wetlands is stored and released slowly into water resources, such as groundwater, and into the atmosphere. Acting as a sink for nutrients, wetlands provide organic compounds, nutrients, and other components necessary for plant and aquatic life. There are two types of wetlands, non-tidal and tidal. The water table is usually at or near the surface in non-tidal wetlands.

There is an abundance of wetlands throughout and around the Town. They are found predominantly to the south of Town, along Southeast Creek and in the large forested area to the east of Town. They are also present among agricultural areas around the Town and along the tributaries of Southeast Creek.

# 2.5 LAND USE

Agricultural and natural areas form the edges of the Town. Within Town limits, residential uses surround a Main Street, which forms the backbone of Church Hill. The land use pattern in is illustrated on the Map 1, Church Hill Existing Conditions.

Land use and zoning regulations help to ensure that residents and businesses in Church Hill can enjoy the full benefits of their location. These regulations can ensure that uses that may have negative impacts on one another, such as industrial and residential uses, are kept separate; and that uses that benefit from being near one another, for example shopping centers and residential uses, are encouraged near one another.

### LAND USE

Church Hill is predominately residential with a linear mixed-use corridor along Main Street, MD Route 19. Institutional uses in this corridor include the Town Hall, local churches, the post office, and Church Hill Elementary School. Local streets intersecting Main Street connect the residential areas to Main Street. Church Hill is surrounded by agricultural land. However, some of the agricultural land base is now being fragmented by large lot residential subdivisions. This is altering the rural farming-based character of Church Hill.

### CURRENT ZONING

There are five zoning districts provided in the Church Hill Zoning Ordinance. Table 2.10 describes them generally. Current zoning provides a range of residential types and helps to ensure that commercial development does not affect the character of nearby residential areas. As the Town grows, it may be necessary to modify existing zoning to accommodate a mix of uses and/or office development.

**Table 2.10: Zoning Designations** 

Zoning Districts	Description	Permitted Uses
Residential Single-Family District (R-SF)	The minimum lot size is 14,500 square feet, with a minimum front yard setback of 15 feet, side yard setback of 12 feet, and rear setback of 25 feet.	single-family residential - detached
Residential District (R-1)	The minimum lot size is 10,000 square feet, with a minimum front yard setback of 15 feet, side yard setback of 10 feet, and rear setback of 25 feet.	single-family residential - detached; two-family duplex; monasteries, convents; public buildings, cultural, administrative
Residential District (R-2)	This residential zone allows multiple housing types and other low impact land uses compatible with residential development. The minimum lot size is 10,000 square feet, with a minimum front yard setback of 15 feet, side yard setback of 10 feet, and rear setback of 25 feet.	single-family residential - detached; single-family residential - attached; two-family duplex; semi-detached dwellings; monasteries, convents; public buildings, cultural, administrative; day care center, nursery school
Commercial District ( C )	This district provides locations for commercial and other non-residential uses (which are compatible in scale and impact with nearby residential neighborhoods) as well as a safe and attractive environment for shopping, entertainment, and community gathering.	monasteries, convents; public buildings, cultural, administrative; day care center, nursery school; lodges, clubs, fraternal organizations, trade and vocational schools; studios for instruction in dance, art, music, similar; funeral home; artists, photographer galleries, studios; retails shops; convenience, grocery, department, variety, hardware, dry goods stores; hotels, motels; inn; personal service shops, salons, shoe repair, dry cleaning; TV and radio repair shops, small appliance repair, similar; health spa, fitness center, indoor recreational facilities; banks, financial institutions; movie cinema, theater, places of indoor amusement; professional office; business offices, including finance, insurance, real estate; restaurants, Class I and Class II restaurants; taverns, nightclubs; business services, plumbing shops, contractor shops; nursery for plants; automobile parking lots; dwelling for resident watchman
Resource Conservation District (RC)	This district protects natural and other environmentally sensitive areas, provides locations for parkland and recreational activities, and avoids intense development on lands not suitable for development.	single-family residential - detached; public buildings, cultural, administrative; public or non-profit park and/or recreational area

Source: Town of Church Hill Zoning Ordinance

## 2.6 COMMUNITY DESIGN

## HISTORIC AND CULTURAL RESOURCES

Church Hill incorporated in 1876. It's history can be read in the Town's buildings and layout. The Mill (Collins Mill) was built in 1698 and is the site of one of the earliest documented water mills on the central Eastern Shore. It played a role in the agricultural economy of Queen Anne's County until it ceased to operate during World War II. The mill has since been removed. During the Civil War, Federal troops used St. Luke's Episcopal Church (one of the oldest intact brick churches in the State, built in 1732) as a barracks. Several historic properties have had a number of different uses over the past hundred years. Those listed on the National Register of Historic Places are found in Table 2.11.

**Table 2.11: Historic Properties in Church Hill** 

Property	Location
Bishopton	Pinder Hill Rd.
Churchill ThreatreCommunity Building	Walnut Street
Kennersley	Clabber Hill Rd.
St. Luke's Church	Junction of Walnut and Main Streets

Source: National Register of Historic Places and Jakubiak & Associates, Inc.

Church Hill recently created a Community Character Overlay District that includes many historic homes. This overlay district establishes guidelines to maintain the character of the Town's traditional core. Redevelopment is required to maintain consistency with surrounding structures. In establishing this district, Church Hill developed a photographic inventory of the homes, which is available at the Town Hall.

Church Hill Theater

CHURCHLA AUG TO THRU 28 PT A R T U F F E P

<sup>&</sup>lt;sup>5</sup> "Church Hill, Maryland". Maryland Municipal League. http://www.mdmunicipal.org/cities/index.cfm?townname=churchhill (2007).

#### COMMUNITY DESIGN

Design elements found in Church Hill include Gateways, Corridors, Gathering Places, Focal Points, and Edges. Each of these design elements is described here.



Intersection of Main and Walnut Streets

#### Gateways

Gateways provide transition and entry into a developed area. They are the first sign that an individual is entering a distinct place. There are two main gateways into Church Hill, a southern gateway and a northern gateway.

The southern gateway is found at the southern intersection of Main Street and Route 213 and extends to the intersection of Main and Walnut Streets. This gateway is characterized by the natural environment along with a few homes. Progress into Church Hill is along a tree-lined street to the intersection of Main and Walnut Streets. This intersection is the traditional center of Church Hill.

A northern gateway can be found along Route 300. The entrance to this gateway is dominated by agricultural and open spaces, which lead to an area of residential and commercial uses along with the elementary school.



Intersection of Main and Rte 300 looking west



Southeast Creek west of Town

## Edges

Edges are created in areas where the Town ends and the countryside begins. These edges help to define the Town, separate it from other developed areas, and create a distinct identity. Agricultural uses and the natural environment create edges for Church Hill. These edges are formed by Route 213 on the west, a large forested area on the east, Southeast Creek on the south, and open space and farmland to the north.

#### **Corridors**

Corridors are well-used transportation routes that function to move individuals through an area. They become characterized by the land uses that border them.

The Main Street corridor in Church Hill is characterized by historic properties in the Town's Community Character District. Sidewalks and a mix of institutional, commercial, and residential properties are found along this corridor. Traveling from the south, this corridor begins surrounded by the natural buffer of Southeast Creek. The corridor passes over Southeast Creek and the entrance into Town is marked by a gentle uphill slope and natural areas and residential uses. At the intersection of Walnut and Main Streets, the corridor is characterized by institutional, residential and commercial uses. Land uses and the character of buildings in this area are historically single and multi-family residential. Side setbacks vary from none to narrow. Roof ridges parallel the street, and buildings are built right to the edge of the sidewalk. Glimpses between the buildings provide views of residential areas behind. Main Street continues north with churches and residences on both sides and commercial uses on the east side, passing over Taylor's branch, a tributary of Southeast Creek. At Taylor's branch the emphasis is on natural areas, the houses are on larger lots and the post office is located to the north of the Creek. As Main Street continues north, the corridor is characterized by a mix of residential and commercial uses, leading to the intersection of Main Street and MD Route 300, with the Elementary School on the west, and a mix of commercial and residential uses on the east.



Main Street north of intersection with Walnut Street

The Route 213 corridor is characterized by farmland and a forested stream buffer. The character of this corridor is changing—agricultural lands are being converted to residential and commercial uses. The character of the area is flat, open farmland that borders this high-speed highway. There is recent subdivision development on the west side of the road, to the north of Route 300, along Ben's Point Road. The residences of Church Hill, on the east side of MD Route 213, are buffered from the road by forested area and open fields. The roadbed of MD Route 213 is cut into the rolling landscape maintaining a gradual descending slope as motorists drive through the area. This area has a sense of separateness, or sense of distance and isolation, from the built up areas of Town.

## **Gathering Places**

Gathering places are areas that provide ample space and pedestrian/bicycle access to become a natural location for neighbors to meet and interact with one another. These places can occur along downtown streets or in centrally located parks or plazas.



Church Hill Park

The Town Park and local churches provide gathering places for residents. Few areas in Town serve as natural gathering places, where pedestrian traffic is high and residents congregate and interact with one another without having intentionally set out to do so. The intersection of Main and Walnut Streets, because it is a location of the Town Hall and Church Hill Theater, provides and informal gathering place. One other informal gathering place in the Town is the Rhodes store located on Main Street about halfway between Walnut Street and Route 300.



Church Hill Theater

#### **Focal Points**

Focal points are areas that can be identified as defining locations within a town. These focal points draw the attention of individuals and create a distinct "sense of place" to make a town unique from other towns. One major focal point in Church Hill is at the intersection of Walnut and Main Streets. This area has been recently improved to include brick pavers and sidewalks. It is also a part of the southern gateway to Town and provides a sense of place for the Town.



Intersection of Walnut and Main Streets

# 2.7 TRANSPORTATION AND CIRCULATION

Together highways, streets, and roads form a network of routes that provide for the local and regional movement of people, goods, and services. Church Hill's Functional Road Classification, as designated by the Maryland State Highway Administration (SHA), is shown on the Existing Conditions Map. <sup>6</sup> The functional categories of roads in Church Hill are described below.

Principal Arterials	Principal arterials link large population and employment centers. Access to principle arterials is typically limited to major highway intersections. Under SHA's 200	4
	Functional Classification of Roads, Blue Star Memorial Highway (U.S. Route 301) is classified as a principal arterial.	

<b>Minor Arterials</b>	Minor arterial roads provide links with the collector roadway system, connecting population centers to the regional highway system. SHA has classified Church Hill Road
	(MD Route 213) and Sudlersville Road (MD Route 300) as minor arterials.

Collectors	Collectors provide a network for movement within residential, commercial, industrial, and agricultural areas. There are two types of collectors, major and minor. SHA
	classifies Main Street, Walnut Street (MD Route 19), and Price Station Road (MD Route 405) as major collectors. It classifies Roberts Station Road (Route 19) and John
	Powell Road as minor collectors.

<b>Local Streets</b>	Local streets function primarily to provide access to adjoining properties. Church Hill has a network of local streets, many of which intersect with Main and Walnut Streets.
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<sup>&</sup>lt;sup>6</sup> Federal Highway Functional Classification. Queen Anne's County, Maryland (2004).

#### LOCAL CIRCULATION

MD Route 213 is the main regional access road to Church Hill. MD Routes 213, 300, 405, and 19 all provide access from the Town to U.S. Route 301, which provides access to the lower eastern shore and Maryland's western shore. Access to MD Route 213 is limited to three intersections in Town. Traffic congestion is not currently an issue along the Town's streets and roads.

Access between neighborhoods in Church Hill generally requires a trip along Main Street. This is because the residential areas are not connected to one another by north/south access streets. Planned development in Church Hill Hunt will provide a north/south connection between existing neighborhoods on the east side of Town for pedestrians and bicyclists as well as vehicles. This connection will improve circulation and reduce pressure on Main Street as the Town grows.

Traffic volumes on the main routes in and around Church Hill in 2006 are listed in Table 2.12. For example, the table shows that Walnut Street in Church Hill carried 2,822 vehicles per day on average in 2006.

Table 2.12: Church Hill Average Annual Daily Traffic (AADT)

Road Section	AADT
MD Route 213, between Union Church Road and John Powell Road	10,771
U.S. Route 301, after intersection with MD Route 300	9,830
Intersection of Shine Smith Road and MD Route 300	2,051
MD Route 213, before intersection with John Powell Road	10,071
MD Route 300, after intersection with Hall Road	971
MD Route 213, after intersection with Southeast Creek Road	7,901
Walnut Street (MD Route 19)	2,822
U.S. Route 301, after intersection with MD Route 19	14,170
Main Street (MD. Route 19)	1,040

Source: Maryland State Highway Administration and Jakubiak & Associates, Inc.

#### REGIONAL AND COUNTY TRANSIT ACCESS

## **Maryland Upper Shore Transit**

Maryland Upper Shore Transit (MUST) provides regional and local fixed routes and demand response for Church Hill, with a stop at Rhodes Store. The system provides stops as far south as Salisbury and as far north as Chestertown and Millington. There are stops in most of the towns throughout Caroline, Talbot, and Queen Anne's Counties. It is comprised of two separate transit systems within the Delmarva Peninsula—Queen Anne's County Ride and Delmarva Community Transit.

## Queen Anne's County Ride

Queen Anne's County Ride provides demand response services primarily throughout Queen Anne's County, but also includes a few stops in Talbot and Kent Counties.

## **Delmarva Community Transit**

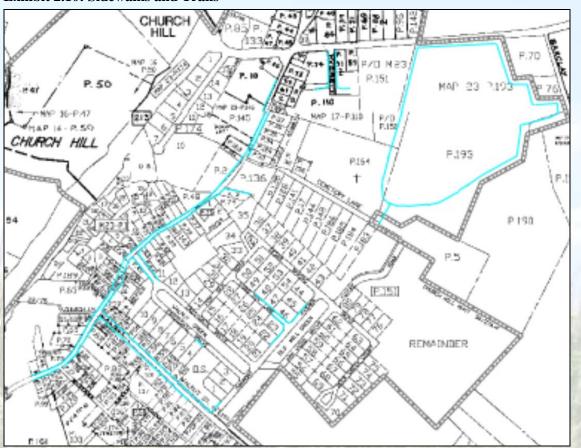
Delmarva Community Transit provides demand response services and stops in Queen Anne's, Talbot, Kent, Dorchester, Wicomico, and Caroline Counties.

#### SIDEWALKS/TRAILS

The Exhibit 2.9 illustrates the sidewalk and trail network in Church Hill with blue lines. Main Street has complete sidewalks from the entrance of Town in the south nearly to the intersection with MD Route 300. The Church Hill Elementary School is located in past the end of the sidewalk on Main Street. The residential development projects that are presently under development all will have sidewalks; however, the streets in older neighborhoods—for example, Buzzards Lane, New Street, Green Street, Village Drive and Cemetery Lane do not have sidewalks.

New neighborhoods, such as the Church Hill Hunt development, will contain complete sidewalk networks when fully developed. Sidewalks will connect the park to residential areas via Church Hill Hunt. Additional connections could be made between the Park and Main Street; this could connect the Elementary School to the park, allowing school children the ability to walk safely to the park. This connection is partially complete between Main Street and The Pond.

**Exhibit 2.10: Sidewalks and Trails** 



## 2.8 COMMUNITY FACILITIES

#### TOWN HALL

The Town Hall is located on Main Street. Since the current building is too small for well-attended public meetings and parking is limited, the Town is considering options for meeting future Town Hall needs.

#### WATER & SEWER

Church Hill does not have a municipal water supply system. Church Hill gets water from individual, private, deep wells in the Town that are about 130 to 140 feet deep. Yields range from 20 to 60 gallons per minute. Deep wells are more reliable during dry periods, which is why the majority of the Town has abandoned the use of shallow wells. There are two public deep wells in Town that are used for fire protection.

The Wastewater Treatment Plant (WWTP) is located on Southeast Creek, just to the north of Taylor's Branch to the west of Route 213. The plant discharges into Southeast Creek and consists of a lagoon-type facility. The design capacity of the WWTP is for an average flow of 80,000 gallons per day and a peak flow of 140,000 gallons per day. Peak flow between 2007 and 2009 was on average 44,000 gallons per day.

#### PUBLIC SCHOOLS

Residents of Church Hill send their children to the Queen Anne's County School System. This includes Church Hill Elementary School, Sudlersville Middle School, and Queen Anne's County High School. Table 2.13 shows the enrollment and capacity of each of these schools in the winter of 2009. Queen Anne's County High School is over capacity and the elementary and middle schools are approaching capacity.

**Table 2.13: School Enrollment and Capacity (Winter 2009)** 

SUCH SUCH STATE		State Rated	
School	Enrollment	Capacity	% of Capacity
Church Hill Elementary School	368	393	94%
Sudlersville Middle School	345	359	96%
Queen Anne's County High School	1,227	1,179	104%

Source: Queen Anne's County Public Schools

<sup>&</sup>lt;sup>7</sup> "Chapter 4: Sewerage Disposal". *Queen Anne's County: 2006 Comprehensive Water and Sewerage Plan.* Department of Public Works, Planning and Zoning, and Environmental Health (2006): 71.

#### PARKS AND RECREATION

Church Hill Park, which is owned by Queen Anne's County is the only park in Town. It is located on MD Route 300. The Park contains basketball courts, a football field, two multi-purpose fields, two baseball/softball fields, and trails. In addition to this park, Southeast Creek Landing offers boat access to Southeast Creek. Church Hill Elementary school also provides open recreational space and a playground. The "Village Greens" in Church Hill Hunt are a system of linear open spaces that will include publicly accessible trails connecting to Church Hill Park.

#### POLICE

Police protection for the Town is provided by the Maryland State Police and the Queen Anne's County Sheriff's Office. The Town hires off-duty deputies from the County Sheriff's Office to be present regularly throughout the month and during special events.

#### FIRE AND EMS

The Church Hill Volunteer Fire Company is located at 316 Main Street. There are 35 volunteer firefighters and 15 non-firefighting volunteers. The Company's response area is the second largest in Queen Anne's County with approximately 64 square miles. This includes areas in Kent County, along the shoreline of the Chester River, and eight miles of Route 301. The fire company operates two engines, one tanker, one brush unit, one ALS and BLS equipped ambulance, and an incident command unit.

#### POST OFFICE

The United States Post Office in Church Hill is located at 558 Main Street and has a small, off-street parking lot.

#### TRASH REMOVAL

Waste and refuse removal is contracted by the Town with private haulers who transport directly to the Tri-county Regional Land Fill in Easton. A County transfer station is located near Church Hill by the intersection of Routes 405 and 19. Town residents may use this site for recycling of oil, aluminum, paper, glass, plastic, and ferrous metal. Yard waste disposal and "white goods" (i.e. refrigerators, stoves, water heaters, etc.) removal is the responsibility of individual households.

## MEDICAL SERVICES

Medical services are provided in Centreville and Chestertown. The Chester River Hospital Center, in Chestertown, provides basic hospitalization. Additional specialized medical diagnostic and treatment services are available through Easton Memorial Hospital.

# SECTION 3: The Church Hill Comprehensive Plan

Goals, Policies, and Actions to achieve our future vision

## 3.0 INTRODUCTION

This Comprehensive Plan is long-range and comprehensive. It provides the organizing framework for more detailed planning and design work. It is a guide for the Town and its residents, land developers, and outside agencies and units of government. The Plan is a compilation of what is most important to Church Hill as it contemplates change over the next 20 years and beyond. Notably, this Plan envisions a citizen population engaged in formulating and implementing adopted policies and proposed actions. It also anticipates consistent outreach to other agencies and units of government with the resources and expertise to advance the interests the Town shares with others.

## 3.1 VISION

This Comprehensive Plan focuses on the long-term future of Church Hill. It is as much about a plan for today as it is about how Church Hill will be many generations from today. In the future, Church Hill will be a thriving community where residents can live out all stages of life within a rural setting of farmland and natural areas. Church Hill will be a Town unified in design, connected by recreation and transportation networks, supported by strong local institutions, and unified with the surrounding natural areas.

To achieve this vision it is essential that today, the Town lay out a plan for its ultimate boundaries and for the rural areas surrounding these boundaries. If Church Hill plans only for 20 years and remains silent about the surrounding countryside, this countryside and Church Hill's vision could be lost to the uncoordinated subdivision of land and the development of farmland and forests. Without a change in public policy, the subdivision development that has occurred just outside the Town, under jurisdiction of Queen Anne's County, will continue. This threatens to fragment our rural setting and is contrary to the goals of this Plan. Dispersed and uncoordinated land development outside of Church Hill reduces development potential in the Town, increases stormwater and nutrient runoff into area streams, de-centralizes the economic base on which Church Hill businesses rely, and hinders the Town's ability to maintain its unique sense of place.

It is therefore fundamental to Church Hill's future that the development potential in the area surrounding the Town be transferred to the Town or be managed through agricultural preservation and sound land use regulation. This means that the Town's Growth Area must be sized to handle a reasonable amount of the development potential held in the areas surrounding the Town. Many questions must be answered about how this growth will occur in Church Hill.

- Where will houses, businesses, and offices be located?
- How will natural areas be protected?
- How will people travel to and within the Town; including those residents who do not have access to cars?
- Where will children learn and play?
- What will be needed to ensure that the Town is protected by emergency services?
- Where will residents get their water?
- What needs to be done to ensure sanitary sewer services are available?
- How will the Town's rural character be protected in light of this growth?
- What will be done to ensure existing neighborhoods are sustained in good condition and improved?

The answers to these questions are the subject of this Comprehensive Plan. Article 66B of the Annotated Code of Maryland gives towns the authority to plan for the future and to regulate development in the public's interest. The law requires that a comprehensive plan include various elements. These are listed below, organized by the chapter section as they appear in this report.

- 3.2 Municipal Growth
- 3.3 Land Use
- 3.4 Sensitive Areas (including mineral resources)
- 3.5 Circulation
- 3.6 Community Facilities
- 3.7 Water Resources
- 3.8 Community Design and Historic Preservation
- 3.9 Regulation and the Advancement of Good Planning (Implementation)

Map 2, the Comprehensive Plan Map, following page 39 is a composite map. It illustrates many of the key recommendations of the Plan. This Map illustrates the Town's vision for land use, circulation, municipal growth, and the protection of sensitive environmental areas. The Comprehensive Plan Map is meant to provide a long-term planning context for development. Article 66B of the Annotated Code of Maryland provides twelve statements of vision that comprehensive plans should seek to advance. These are provided below:

- 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 available or planned transit options is encouraged to ensure efficient use of land and transportation resources and preservation and enhancement of natural systems, open spaces, recreation areas, and historic, 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 sustainable 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 provides residential options for citizens of all ages and incomes.
- 8. *Economic Development*: Economic development and natural resource-based businesses that promote employment opportunities for all income levels within the capacity of the state's natural resources, public services, and public facilities are encouraged.

- 9. *Environmental Protection*: Land and water resources, including the Chesapeake and coastal bays are carefully managed to restore and maintain healthy air and water, natural systems, and living resources.
- 10. Resource Conservation: Waterways, forests, agricultural areas, open space, natural systems, and scenic 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.

Inherent in these visions is the recognition that cooperation among all levels of government is necessary to promote good and sustainable community development. With this Plan, Church Hill has committed to a well-balanced and ecologically sound development pattern that firmly supports statewide policies for smart growth. There is then a fundamental obligation on the part the State of Maryland to support the Town in its efforts, most notably in the financing of expensive upgrades to municipal infrastructure. Further, to the extent that good town planning helps to preserve open spaces and agricultural lands and implement County policies for land preservation, Queen Anne's County has a role to play in improving essential municipal infrastructure. The availability of funding needed to accommodate compact and planned municipal development is a challenge that all levels of government must address together. Failure to cooperatively meet this challenge renders the aforementioned visions blind.

## 3.2 MUNICIPAL GROWTH

All towns have a vital interest in the pace, type, character, and impact of development outside of their boundaries. The Town, its residents, and the public at large depend on an informed long-range guide to area development and land conservation. Church Hill has proposed a growth area plan for the land around its boundaries in order to accommodate its growth forecast and to guide and direct development into compact, thoughtful patterns that reflect small town development patterns. Map 3, the Municipal Growth Map, shows a Planning Area and a Growth Area. Church Hill recommends that the Planning Area remain, to the extent possible, in natural and agricultural uses. The "development potential" in the Planning Area should occur in the Town's Growth Area. The Town intends to work with Queen Anne's County to achieve this.

This section of the report lays the framework for a discussion of municipal growth. It begins by describing the Town's past growth trends, planned development, overall development capacity, and provides a forecast of development through 2030. The impacts of forecast growth are then discussed and a plan for addressing these impacts is described. This plan focuses on concentrating development in Town and on adjacent lands while protecting the broader rural landscape.

#### BACKGROUND

As discussed in Section 2.2, Queen Anne's County is one of the fastest growing counties on Maryland's Eastern Shore. Development activity in Church Hill has also been strong over the last decade. To forecast growth for a small municipality like Church Hill, it is essential first to establish a baseline—that is, an estimate of current households.

## **Establishing a Baseline**

A household is an occupied housing unit. Households are the main "demand" unit when a town contemplates changes and the impacts of future growth. With a reasonable forecast of households, for example, a town can estimate future water and sewer demand or the likely traffic to be generated by new development. In 2000, the U.S. Census recorded 210 households in Church Hill. Between 2000 and February 2009, the Town issued 81 building permits as shown in Table 3.1. Seventy-four of these permitted housing units have been built and 67 of these are occupied. This means that the Town has added 67 households since 2000, at a rate of about 2.96 percent per year. The baseline estimate of current households for Church Hill is therefore 277.

Table 3.1: Building Permits Issued (2000-2009)

Year Issued	Total
2000	5
2001	0
2002	1
2003	1
2004	1
2005	16
2006	14
2007	20
2008	23
2009*	0
2000-2009	81

<sup>\*</sup> As of June 2009

Source: Town of Church Hill

<sup>&</sup>lt;sup>8</sup> Based on an analysis by Town staff, as of the writing of this plan, there are seven houses for which building permits have been issued since 2000 but construction has not been completed. When compared with the 81 building permits that were issued this leaves 74 houses constructed since 2000. Of these 74, seven have not been issued Use and Occupancy permits although construction is complete. This means that only 67 of the total 81 units could be occupied.

## **Growth Through 2030**

The baseline provides a starting point for forecasting future growth. A comprehensive forecast of growth considers past growth trends in the area and the potential for future development to be located in the Town.

## **Development Capacity**

Development capacity is the amount of development that could be permitted in the Town under current land use patterns and zoning regulations. Table 3.2 provides both the number of approved housing units in ongoing residential development projects and infill potential. Without any further action on the part of the Town, recent development approvals could add 101 households to the baseline. Two additional properties—the Remainder of Church Hill Hunt and Northside (shown in Exhibit 3.2)—could add about 34 and 95 households, respectively. Other infill could add a net of 70 new households. This means that the combined development potential or "capacity" in Church Hill is 300. Added to the 2009 baseline, this infill potential could increase the number of households in the Town to 577.

There is also capacity for added commercial development in Church Hill. The Meadows Center is primarily a commercial subdivision located on MD Route 19. It is approved for 17,000 square feet of commercial space. The "Northside" annexation parcel could provide about 131,000 square feet of commercial space upon its development. There is one vacant lot zoned commercial on MD Route 300 that could accommodate about 6,000 square feet of commercial space. This development potential equals a total of 154,000 square feet of new commercial space that could be developed in the Town.

**Table 3.2: Infill Potential** 

Name	Units Approved	Permits Issued	Potential Units
Church Hill Hunt	80	40	40
The Meadows	15	4	11
The Meadows Center	16	0	16
Pine Ridge	20	10	10
The Pond	43	19	24
Sub-Total	174	73	101
Church Hill Hunt Remainder			34
Northside			95
Other Infill			70
Total	174	73	300

Source: Town of Church Hill and Jakubiak & Associates, Inc

(As of June 4, 2009)

<sup>&</sup>lt;sup>9</sup> Based on desired density (see Section 3.3, Land Use, and acreage of that site. Infrastructure, open space, and commercial space were removed from calculations before the density was applied.

<sup>&</sup>lt;sup>10</sup> Infill refers to new housing units that could reasonably be expected to be built under current zoning. Sometimes infill can come about when an existing lot is subdivided to create another buildable lot. Sometimes infill can come about when single-family lots are converted into multifamily development projects. However, for the most part, infill happens when vacant lots are developed and/or large undeveloped lots are subdivided into residential lots. The estimate of 70 potential units was derived through an assessment of land available within the Town assessing such land uses available for development under the zoning in place prior to adoption of this plan.

<sup>&</sup>lt;sup>11</sup> Based on a final development plan for the Meadows Center.

<sup>&</sup>lt;sup>12</sup> Based on a concept development plan prepared during the preparation of this Comprehensive Plan.

## Forecast of Future Growth

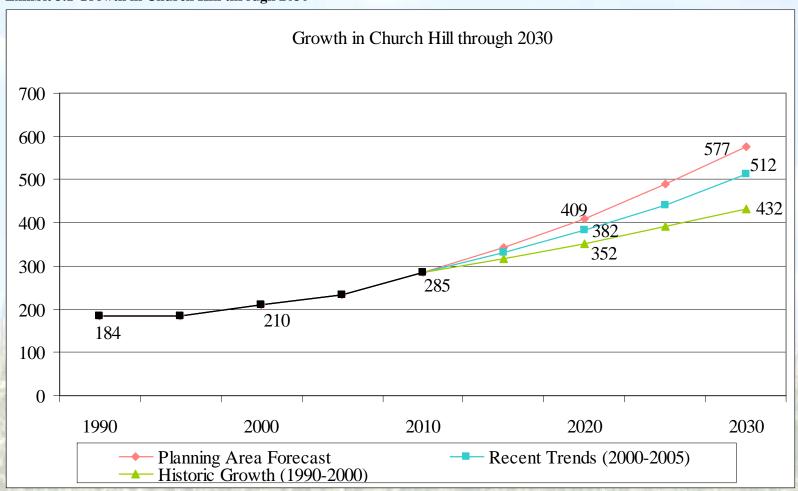
A reliable forecast allows a town to anticipate and prepare for the impacts and needs that may arise from long-range growth. It also helps a town guide development into appropriate arrangements. Understanding the impacts of future growth on community facilities and services also helps ensure adequate facilities are in place to meet future needs. In forecasting growth, the Planning Commission considered three scenarios. Alternative growth rates, described below, are also shown in Exhibit 3.1 and Table 3.3.

1. Historic Growth (1990 and 2009): The recent historic rate of household growth in Church Hill—that is, between 1990 and 2009, was 2.12 percent per year. This reflects an increase of 93 units or about five units per year.

Should growth in Church Hill continue at this rate through 2030, the Town would have added 155 new households bringing the total to 432 households. This would represent 2.5 percent of all the growth projected for Queen Anne's County. It would put the Town's share of County households in 2030 at 1.7 percent.<sup>13</sup>

Because this alternative forecast only considers historic trends within the Town itself, it does not properly reflect the nature of local growth pressures. Using this growth rate would ignore the growth pressures that have mounted on the outskirts of Church Hill—that is, in what this Plan adopts as the Church Hill Planning Area, which is discussed later in this chapter.

Exhibit 3.1 Growth in Church Hill through 2030



<sup>&</sup>lt;sup>13</sup> Queen Anne's County's projected households for 2030 is 24,975, this is 5,925 more households than are estimated in 2010. Source Maryland Department of Planning.

2. Recent Growth (2000-2009): During this period, construction began on five approved subdivisions. The Town grew at an average annual rate of 2.96 percent, or on average, by about seven units each year. Continued growth at this rate would result in 512 households in 2030.

Should the Town continue at this rate through 2030, it would have added 235 new households, bringing the total to 512. This would represent nearly four percent of all the growth projected for Queen Anne's County. It would put the Town's share of County households at 2.1 percent by 2030; above the 2000 level of 1.4 percent.

Again, this scenario does not consider the residential development that has occurred in the Planning Area. A substantial number of units have been developed in subdivisions outside of the Town. It is in the Town's interest to direct future growth into the Town's borders and to prevent further subdivision development from occurring in the Planning Area. For this reason, the Town considered a third and higher growth rate for forecasting purposes.

Table 3.3: Alternative Growth Scenarios for Church Hill

	2009	2030	new units	growth rate
Historic Growth (1990-2009)	277	432	155	2.13
Recent Trends (2000-2009)	277	512	235	2.96
Planning Area Forecast	277	577	300	3.55

3. *Planning Area Forecast*: In light of this Plan's policies, the Town based this Comprehensive Plan on a forecast growth rate of 3.55 percent per year resulting in 300 new households by 2030. This would result in a total of 577 households in Church Hill by 2030. It would represent nearly five percent of all the growth projected for Queen Anne's County. It would put the Town's share of County households at 2.3 percent by 2030.

This growth rate is a reasonable and reliable indication of a 20-year growth potential. It is based on recent growth and infill potential in the Town and the broader Planning Area as well as potential development on those lands surrounding the Town<sup>14</sup>. A forecast for growth cannot ignore the policies regarding rural land protection set forth in this Plan. These policies should direct growth pressure from adjoining rural areas to the Town over the next twenty years.

A population projection can be roughly estimated from this household forecast by multiplying the number of households by an estimated household size. This results in a population of 1,360 residents in Church Hill in 2030. Table 3.4 summarizes this household size and population projection.

Table 3.4: Household and Population Forecast 2009-2030

			Change			
	2009	2030	(#)	(%)	Annual Average Rate	
Households	277	577	300	108.3	3.6	
Average Household Size	2.41	2.32	LALE.		A LANGE TO SERVICE AND A SERVI	
Population	669	1,338	670	100.1	3.4	

Source: U.S. Census Bureau and Jakubiak & Associates, Inc.

<sup>&</sup>lt;sup>14</sup> The designated Planning Area has a build-out potential under County zoning of about 640 new residential lots, assuming all development projects use the residential cluster provisions under County code and do not participate in non-contiguous transfer of development rights options, either as receiving or sending parcels.

<sup>&</sup>lt;sup>15</sup> It is estimated that the 2009 household size for Church Hill (2.41 persons per household) is approximately 95 percent of the projected County household size in 2010 (2.55 persons per household). Church Hill's household size in 2030 could be expected to be 2.32 persons per household. This is 95 percent of Queen Anne's County's 2030 projected household size in 2030—2.45 people per household. In 2000, Church Hill had a household size of 2.58 people per household while County household size was 2.96 persons per household.

## **Impact to Community Facilities**

Table 3.5 shows the impacts that a forecast growth of 300 new households by 2030 could have on community facilities and services. Policies addressing infrastructure needs are in Section 3.6, Community Facilities, and Section 3.7, Water Resources. Outside agencies maintain many of the services and facilities that the Town relies on. This means that as Church Hill grows, cooperation with other levels and agencies of government will be essential to ensuring the adequate provision of services.

**Table 3.5: Impacts of Forecast Growth** 

	Service Provider	Existing	Capacity	Impact of 2030 forecast	2030 Demand	Capacity Expansion
Water	Private	<u>-</u>	-	-	-	
Sewer	Town	44,000 gpd*	80,000 gpd	68,000 gpd	148,000 gpd	expansion / upgrade
Schools	County					
Church Hill Elementary		368 students	393 students	61 additional students	429 students	expansion necessary
Sudlersville Middle		345 students	359 students	35 additional students	350 students	expansion necessary
Queen Anne's County High		1,227 students	1,175 students	40 additional students	1,267 students	expansion / additional school necessary
Parks						
Neighborhood	Private	0 acres	-	0.8 acres	1.8 acres	park space dedicated
Community	Town	39 acres	-	3.5 acres	8.4 acres	sufficient park space

<sup>\*</sup>gpd = gallons per day (impacts based on 250gpd/per household; 0.134 gallons per sqare foot commercial space)

Other Services: While it is possible to quantify the level of police and emergency services provided in Queen Anne's County, quantifying these services does not translate directly to ensuring adequate services for Church Hill's future. Police, Fire, and EMS are provided to an area that extends beyond the Town's boundaries. In addition to considering the impacts of Town growth, it is necessary to consider growth in the entire service area, and any changes that may be necessary to the service area. The County and Town should consider existing and future services in light of projections for growth in the service area, including the Town's planned growth.

**Police:** The Town supplements County services by contracting to have Sheriff's Deputies in the Town during special events and certain days of the week. The Town may wish to consider increasing supplementary police services as growth occurs. They should review and evaluate public safety needs semi-annually.

#### **Town and Growth Area Build-out**

The foregoing discussion addressed forecast growth through 2030. In addition to planning for a 20-year forecast, this Plan addresses the full development, or build-out, of the Town's boundaries and its planned Growth Area. The Growth Area is shown in Exhibit 3.2. For the purposes of long-term planning, boundaries incorporate more area than is needed to accommodate a 20-year growth forecast. In order to ensure the cohesive development of the Town over the long term, this plan makes recommendations for the entire Growth Area.

Table 3.6 provides an estimate of the potential development in each of the infill and growth areas. Table 3.6 is not meant to show how much residential or non-residential (mainly commercial) development would be permitted in each area. Nor does it constitute an agreement or plan for actual development approval or sewer allocation. It is meant only as a general guide for the long-term growth of the Town. It is, in effect, a build-out assessment. It provides a reasonable estimate of the development potential if the Town and its Growth Area were to be "built out" completely.

Exhibit 3.2: Church Hill's approved development and Growth Areas

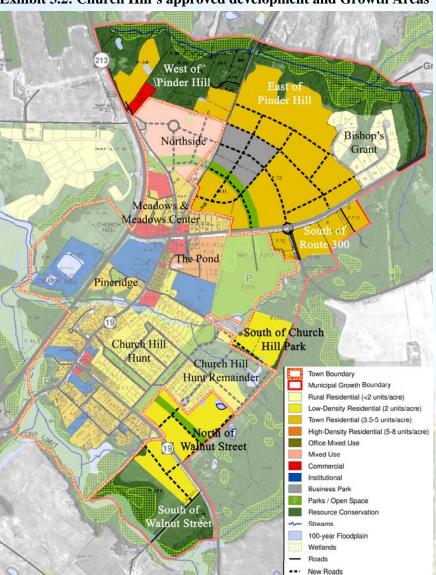


Table 3.6: Residential Potential—Existing Town and Growth Area

	Developmen	t Potential		
	Houisng Lots <sup>1</sup>	Acres	Density (units/acre)	New non- residential sq. ft.
INFILL			(	
Church Hill Hunt	40	_	_	-
Church Hill Hunt Remainder	35	20	2	_
Northside	94	134	3	131,000
Pineridge	10	_	-	-
The Meadows	11	-	-	-
The Meadows Center	16	-	-	17,000
The Pond	24	_		_
Other Infill <sup>2</sup>	70	-	-	6,000
	300	-	-	148,000
GROWTH AREA				
West of Pinder Hill	95	27	4	-
East of Pinder Hill	365	104	4	87,120
Bishop's Grant	18	-	-	-
South of Route 300	50	16	4	-
South of Church Hill Park	45	26	2	-
North of Walnut Street	60	34	2	-
South of Walnut Street	32	19	2	
	665	226	4000	87,120
TOTAL BUILD-OUT	965	MADI	W. W. Co.	235,120

<sup>&</sup>lt;sup>1</sup> In estimating development potential acreage reduced by 20% for open space and infastrucutre.

<sup>&</sup>lt;sup>2</sup> Includes an invenory of vacant and underutilized lots in the Town.

A build-out assessment looks at the land available for development and estimates the number of units that could theoretically be located on that land based on densities called for in this Plan. Table 3.6 shows that the build-out potential of the Town and its Growth Area is 965 households and 235,120 square feet of non-residential building space. As discussed in previously, this Plan provides a forecast of 300 households by 2030, which is far less than the ultimate build-out of the Town and its Growth Area. However, provided municipal services are available, the Town will allow development either in the Town (through infill) or in the Growth Area (through annexation). The Town will work to prevent any further incursions of sprawl into its Growth Areas, but recognizes that Queen Anne's County must be a partner in this effort.

Without a plan, the Town's Growth Area could be lost to low density, large lot residential development under County zoning. Recent developments near Church Hill's borders include; "The Preserve at Southeast Creek", "Bishop's Landing", and multiple subdivision developments near the intersection of MD Routes 405 and 19. These projects feature large houses on large lots with private septic systems and broad impervious surface areas. This Comprehensive Plan seeks to eliminate this type of low-density subdivision development and replace it with coordinated town development in the Growth Area through annexation and the extension of municipal services.

## Impacts to Community Facilities and Services

Table 3.7 shows the impacts of full build-out of the Town and its Growth Area. Policies addressing infrastructure needs are in Section 3.6, Community Facilities, and Section 3.7, Water Resources. This would add 965 households and 235,120 square feet of commercial space to the Town. While full build out is not anticipated by 2030 it is useful to understand the impacts of the Town's ultimate development plan. This will allow the Town and other agencies to make plans for community facilities within a long-term context. For example, sewer upgrades that are necessary to serve the 2030 forecast could be constructed with future expansions or upgrades to treatment technology in mind. This allows the Town to make investments that will allow cost-effective upgrades in the future.

Table 3.7: Impacts of Build-out

					Demand from fully	
	Service Provider	Existing	Capacity	Impact (975 households)	developed Town	<b>Capacity Expansion</b>
Water	Private	July Kild		A CHILD LAND	day - delle	11
Sewer	Town	44,000 gpd*	80,000 gpd	295,000 gpd	375,000 gpd	expansion / upgrade
Parks		The state of		Charles of Allen		
Neighborhood	Private	0 acres	ALL STATES	3.4 acres	4.4 acres	park space dedicated
Community	Town	39 acres	W 45 45 4	16 acres	20.6 acres	sufficent park space

<sup>\*</sup>gpd = gallons per day (impacts based on 250gpd/per household; 0.134 gallons per sqare foot commercial space; 0.05 gallons per square foot business park)

Schools: Impacts of build-out of the Town on area schools will depend on the number of new students from newly developed areas as well as the number of students for existing areas of Town and the school district. It will depend on the difference between how many students graduate and the number of new students. One element of the Town's vision is creating a place where residents can "age-in-place"—where residents can spend all stage of life within the community. This means the Town will include a variety of housing types and not all will generate schoolchildren. Regardless, it is likely that schools will need to be expanded to serve the area's future population. Indeed, Queen Anne's County High School is over capacity today. The aforementioned build out assessment provides information that the Queen Anne's County School Board might consider as it plans for the future.

Other Services: The service areas for police and fire fighters extend far beyond the Town's boundaries. In addition to considering the impacts of the Town's ultimate growth, it is necessary to consider growth in the entire service area and any changes that may be necessary to the service area. Other relevant factors that impact service provision can include the design of roads, the layout of houses, businesses, and offices, and other considerations. These assessments and decisions must be determined through ongoing coordination between the Town, the County, and the service providers.

#### MUNICIPAL GROWTH PLAN

This section outlines the recommended policies related to accommodating forecast growth in Church Hill and in the Growth Area. Many of these policies address the long-term development of the Town's Growth Area in order to ensure that the Town's long-term goals are achieved. This section is accompanied by Map 3, the Municipal Growth Map. Map 3 shows the growth planned outside of the Town's borders within the timeframe of this plan. This map also shows a Planning Area around Church Hill. This section includes recommendations for the development of the designated Church Hill growth areas and the preservation of land in natural resource and open space uses in the larger Planning Area.

Map 3 shows the recommended land uses for the Growth Area. The largest portion of the Growth Area is to the northeast of the Town's current boundaries. The Plan recommends that this area be developed at Town Residential densities of between 3.5 and 5 units per acre. There is also a future business park planned for this portion of the Growth Area. It would be approximately 20 acres in size and could contain about 87,000 square feet of space. Importantly, the Plan recommends that a buffer of resource conservation be established extending at least 500 feet from the southern edge of the northern tributary of Southeast Creek or greater where shown on Maps 2, 3, and 4. This Plan seeks to secure the permanent protection of stream quality in the northern growth area and allow the expansion of the forest edge extending outward from the stream.

The southern portion of the Growth Area is recommended for residential development at about 2 units per acre. The Plan recognizes that this is less than the 3.5 units per acre density required to meet State mandated criteria for designation as a Priority Funding Area (PFA). After substantive discussions about the merits and effectiveness as the State PFA designation, the Town Planning Commission determined the two conditions were of overriding local importance to Church Hill and that PFA status therefore was not critical. First, this section of the Growth Area lies adjacent to the Church Hill Hunt subdivision where lots sizes approximate 20,000 square feet, such that densities approach only two units per acre. In response to citizen comments opposed to smaller lots sizes located in the vicinity of this subdivision, the Commission directed that the pattern of larger lots should extend into the Growth Area. The second condition centered on the proximity of this growth area to the Tier II waters of Southeast Creek. The Planning Commission determined that limits on the amount of development that might occur were warranted to secure a high level of stream quality protection. A more detailed discussion of the land uses and densities in the Growth Area is found in Section 3.3, Land Use.

Full build-out of the Town and its growth area would occur at some point well beyond the year 2030. Nonetheless, this Plan discusses the full development of the Town to encourage responsible and cohesive growth, development, and conservation. The Town does not want the Growth Area to develop in the uncoordinated way subdivision development has been occurring in the Planning Area. Mindful of the eventual development of the Town's Growth Area, individual projects can be designed to advance long-range goals and long-term infrastructure needs can be anticipated.

Three principles will guide how growth occurs in the Town's Growth Area:

1. Development near an existing town should occur through annexation, through the provision of municipal facilities and services, and should be guided by strong but flexible land use, zoning, and other regulations and standards intended to protect the public interest. All towns have a vital interest in the pace, type, character, and impact of development.

Coordinated planning between Church Hill and Queen Anne's County is essential to achieving the Town's vision as illustrated on the Comprehensive Plan Map. This map envisions a growing Town surrounded by natural areas and farmland. Map 3 shows a Planning Area boundary around Church Hill. This is meant to be a "Joint Planning Area" where coordination should occur between the Town and County. This Joint Planning Area should be a target area for natural resource and agricultural preservation.

<sup>&</sup>lt;sup>16</sup> The Town has an infill potential of around 154,000 square feet of non-residential space. Detailed estimates of non-residential space are provided previously in this Section.

The Planning Area covers approximately 7,830 acres or about 12.2 square miles. Queen Anne's County has achieved notable success in land preservation and about 30 percent of this area is either in deed restricted open space now or in the process of being preserved. Several residential development projects in the Planning Area are underway as discussed elsewhere in this section. In total, the Planning Area has an estimated build-out potential under current County zoning of 640 additional residential lots. This number would be higher or lower depending on a number of factors, the most important one being the use of the non-contiguous transfer of development rights provisions allowed under County code. For example, if properties in the Planning Area were targeted as receiving areas for development rights derived from agricultural lands elsewhere in the County, the development potential would be higher. Obviously, this Plan opposes the transfer of development rights that would promote further sprawl within the Town's Planning Area.

The County's Adequate Public Facilities Ordinance (APFO) regulations would temporarily limit development in the Planning Area to about 200 new housing units because it would limit the size of any given subdivision until the County expanded school capacity.<sup>17</sup> However, an APFO is not an appropriate long-term tool for limiting development. An APFO is meant to ensure that development does not occur without there being adequate public facilities in place. One assumption inherent in an APFO is that facilities will be made adequate over time; either government fulfills its responsibility to make facilities adequate or uses zoning and other authority to limit growth pressures. Ultimately, APFO restrictions may be removed allowing substantially more units to be constructed in the Planning Area than the current APFO-restricted 200. The following is a list of recommendations regarding the Planning Area.

- The Town is situated between two branches of Southeast Creek on the north and south and bordered on the east by a large stand of forest. This stand of forest and streams along with the agricultural lands found throughout the Planning Area should be a target location for afforestation requirements under forest conservation regulations.
- There should be no subdivision development allowed within the Planning Area, except as necessary to complete existing projects. Further demand for housing and commercial development within this area should be directed into the Town.
- The Resource Conservation Area (RCA) portion of the Chesapeake Bay Critical Area should remain RCA. This area is not an ideal location for growth. There is sufficient land in and around Church Hill (as illustrated on the Comprehensive Plan Map) to accommodate future growth through and beyond 2030. The RCA should not be entitled to Critical Area growth allocation except as may be needed to correct past mapping errors.
- To facilitate land preservation in the Planning Area, Queen Anne's County should use a combination of strong agricultural zoning, Maryland Agricultural Land Preservation Foundation (MALPF) easements, and the County's Purchase of Development Rights (PDR) program. The County should prioritize the Church Hill Planning Area for these programs. The Planning Area should be designated as a Priority Perseveration Area by Queen Anne's County. The County should also consider adopting a viable Transfer of Development Rights (TDR) program (see below). Approximately 24 percent of the Planning Area is in MALPF or some other form of permanent preservation, with another six percent pending purchase of MALPF easements. The County should continue to seek to secure agricultural easements and connect existing MALPF easements within the Planning Area.
- Queen Anne's County should adopt strong agricultural and resource conservation zoning to prevent further development in and fragmentation of the agricultural lands in the Church Hill Planning Area with special emphasis on those areas contained within the Tier II drainage area of Southeast Creek, shown on the Sensitive Areas Map in Section 3.4. County agricultural zoning could, for example, limit the number of housing units that could be constructed on farmland with densities requiring 20 or 50 acres per dwelling unit. Many other counties in the State and Region have adopted agricultural zoning. As noted above, the County could also consider a viable transfer of development rights program to direct development into Church Hill and its Growth Area. Transfer of Development Rights (TDR) is a program by which the right to develop is transferred from agricultural lands to planned growth areas. A TDR

<sup>&</sup>lt;sup>17</sup> According to the Queen Anne's County Land Use, Growth Management, and Environment staff.

program works by establishing "sending areas"—undeveloped agricultural lands that have a right to develop because of zoning and "receiving areas"—targeted development areas, such as Church Hill. Developers could purchase development rights from sending areas and "transfer" those rights to willing buyers in receiving areas. When development rights are transferred, agricultural lands are preserved while landowners receive direct payment reflecting the market (development) value of land. The County and Town should work together to promote a workable TDR program to help protect farmland resources and the farming community.

2. A municipal comprehensive plan must consider and provide direction to long-term growth and development—that is, it must provide a vision for future municipal expansion beyond 20 years. The development potential of a town must be balanced against the capacity of the land and water resources to accommodate long-term development of the town and surrounding area.

The Town has identified a Planning Area as a target for the preservation of agricultural and natural resource areas. Much of Planning Area is within the drainage area for high-quality waters in Southeast Creek. A high-quality (or Tier II) water is a State designation that a stream or portion of a stream has a high water quality. High-quality water designation brings with it limitations on the amount of development that can occur. County subdivision development within the Planning Area could limit the growth of Church Hill and impact the quality of water in Southeast Creek. The Municipal Growth Map shows the areas that Church Hill has designated for development. It is a goal of Church Hill to direct growth to the Town's expansion areas and ensure that the natural areas and farmland surrounding the Town are preserved and protected from development. The Map also shows the larger Planning Area in which Church Hill has an interest. Church Hill recommends that development not occur in this area and intends to work with Queen Anne's County to achieve this goal.

3. Natural Areas should define edges of a Town and guide the location of development. In all decisions, the underlying resource base should be considered. Natural areas that are susceptible to damage by development should be protected.

This principle addresses how the Sensitive Areas in the Growth Area will be protected over the long-term. Church Hill's Municipal Growth Area and the Planning Area contain sensitive environmental areas as shown on the Municipal Growth Map. This includes Southeast Creek and its tributaries, wetlands floodplains, and forested areas. The boundaries of the Municipal Growth Area are largely defined by such natural resources.

## **Streams**

Streams in the Growth Area include Southeast Creek, its tributary to the north of Town, and Taylor's Branch, a tributary of Southeast Creek that runs through the Town. Taylor's Branch is unbuffered east of Main Street and it runs through a farm field in the undeveloped "remainder" portion of the Church Hill Hunt subdivision. Taylor's Branch and Southeast Creek are within the catchment (or drainage) area of a high-quality water. Development within these catchment areas is limited to ensure that the high quality of the water is maintained. As the work progressed on the design of this Plan, the Planning Commission revised an initial draft land use plan to reduce the amount of potential development within Tier II catchment areas. Future development south of MD Route 19 is limited and there is a large buffer between the Creek and this planned development area. Taylor's Branch should be protected by stream buffers as described in the Sensitive Areas section of this Plan.

## Wetlands

Wetlands are found associated with the streams in the Town's growth areas. This Plan calls for streams to be buffered and shows that the Resource Conservation land use designation is to be applied to these areas to ensure that wetlands are protected.

## **Floodplains**

The 100-year floodplain is found along Southeast Creek on the southern border of Town. The Growth Area south of MD Route 19 includes a large Resource Conservation area which extends beyond this floodplain.

#### Forested Areas

The growth area is planned for lands that are not forested. The Town does not show expansion to the south or east where large stands of forests and stream buffers remain. Where municipal growth is planned, sensitive areas are prioritized. The most sensitive areas are found in the southern portion of the Town's growth area.

## **Municipal Growth Goals**

In summary, the following are Church Hill's goals regarding municipal growth, development, and conservation outside of its borders:

- Farmlands, open space, and natural areas define the edges of the Town Beyond this edge, within a Joint Planning Area, resource and agricultural preservation is of utmost importance.
- Church Hill is the center of growth and development for the Southeast Creek Watershed, to allow for the most efficient use of available land while allowing for preservation of open space in rural areas of the watershed. Growth of the Town will consider not only those areas to be developed, but also those areas to be preserved for their resource value.
- Growth of Church Hill enhances the common good through its contributions to the continuation of a unified Town design, expansion of the Town's recreational network, and its focus on preservation of the natural environment.

## SUMMARY OF MUNICIPAL GROWTH RECOMMENDATIONS

The following is a summary of the recommendations regarding Municipal Growth in Church Hill.

- No urban development takes place on the west side of Route 213. No municipal services including water and sewer will be extended to the west side of MD Route 213.
- Development occurs in accordance with the Comprehensive Plan Map
- No development occurs in the Town Planning Area unless through annexation into the Town in accordance with this Comprehensive Plan.
- When a parcel is annexed, associated sensitive areas are annexed as well and preserved in perpetuity. Streams and wetlands in annexed areas will be protected and buffered. Stream buffers will be linked to the Town's open space network and become focal points for the surrounding development.
- The natural features of sites are preserved and incorporated into a Town open space recreational network.
- Public facilities are made to be adequate to support municipal growth. Existing residents do not bear the quality of service or financial burden for new development. As development is proposed, the Town will work with community service providers to ensure that development can be adequately served without negative impacts to existing residents.

#### Actions

A list of recommended actions for the Town to undertake follows. This list identifies the actions that the Town should take in implementing its goals and these recommendations.

- 1. Establish a Joint Planning Agreement between the Town and County for the Town's Planning Area to implement strong farmland preservation and sensitive areas protection.
- 2. Apply zoning to newly annexed areas consistent with the Comprehensive Plan Map.
- 3. Continue to require annexation agreements that contain a development concept plan consistent with the Comprehensive Plan Map and this Comprehensive Plan.
- 4. The Town will require that developers seeking annexation contribute to area wide improvements.

## 3.3 LAND USE 18

This section focuses on the general pattern and distribution of land use activities through 2030. It references the land use categories recommended on the Comprehensive Plan Map. This Map shows the general and preferred land use for every parcel in the Town based on the goals and policies of this Plan. For example, the Comprehensive Plan Map designates forests, wetlands, and open spaces as "Resource Conservation". In doing so, it reflects the Town's policy that these areas only be used in ways that protect the values that the underlying open spaces provide. By designating an open space area as "Resource Conservation", Church Hill seeks to achieve land preservation, environmental, and other related goals. The same applies to lands designated residential, commercial, etc. on the Map.

#### **BACKGROUND**

A land use plan map is not a zoning map. A zoning map divides a town into districts or zones for regulating development. For example, there are certain "residential" zones, which permit residential development while excluding certain commercial and industrial activities that are incompatible with housing. A zoning map is required to be consistent with a land use plan, but it is not the same as the plan. A plan is best thought of as an official guide to development, while the zoning map is the law. To carry the above example forward, the current Church Hill Zoning Ordinance has a district called "Resource Conservation". The regulations that attend to this district limit the amount, type, or density of development in these areas and implement the Town's land preservation goals. A zoning map is one of the main ways a town implements its land use plan.

This Land Use Plan will help determine the Town's future pattern of growth and development. It will be a guide to development through the year 2030 and beyond. Some of the general land use ideas and recommendations highlighted in this section are detailed in Section 3.8, Community Design and Historic Preservation. In addition, Section 3.2, Municipal Growth, addresses how lands in the designated growth and Planning Areas should be treated over the long term.

## An Organizing Pattern for the Town

As documented in Section 3, Church Hill will absorb a portion of the region's development pressure in the form of new households and commercial businesses. Over the next two decades, this will happen through the completion of development projects begun in recent years and through new development projects both within the Town's current boundaries and within a planned Growth Area. So the question that Church Hill faces is How will this new development be arranged on the future landscape? The answer, at least in part, is that Church Hill's existing character and

 $<sup>^{18}</sup>$  The Town's existing Land Use Pattern is described in Section 2.5, Land Use.

development patterns can be a model for future development. Church Hill will remain a small compact community interconnected with sidewalks and open spaces surrounded by a greenbelt of farms and forests.

#### Village Centers

At a town-wide scale, the land use plan recommends the emergence of three "village centers" along Main Street (MD Route 19). The village centers are meant to be commercial and institutional centers easily accessible by walking. Each village center is located within walking distance of town residents (existing and future). The new centers can be established with attention to unified architecture and village design principles. The public streets will feature on-street parking, sidewalks, street trees, streetlights, and bicycle parking at activity centers.

- The first "village center" is already established—downtown Church Hill. However, in order to be a credible model for future development, this traditional center of Church Hill has to remain viable and economically sound. Section 3.8, Community Design and Historic Resources addresses this need. Downtown includes the present Town Hall, the Church Hill Theatre, and several underutilized commercial buildings. Efforts should get underway to actively promote the revitalization and reuse of buildings for commercial establishments.
- The second "village center" is located at the intersection of Main Street and MD Route 300. Church Hill Elementary School occupies one quadrant of this intersection. A commercial auto repair business and residences now occupy the other quadrants. The Plan proposes commercial uses for each corner as well for several adjoining parcels in the long term. This center is readily accessible to the residents of The Ponds senior housing neighborhood, the Meadows subdivision, and the houses along both MD Routes 19 and 300. The nearby open spaces in the Town's Growth Area between Pinder Hill Road and MD Route 300 are planned for residential development. The new village center will have sidewalks, coordinated parking, and commercial signage. The Town will adopt design guidelines to promote a unified architectural standard largely based on the character of the bank building built on MD Route 300 in 2006.
- The third "village center" would be located on the 34-acre Northside tract of land that the Town annexed in 2004. It would be accessible by a direct extension of Main Street (MD Route 19). This center, advantaged by its accessibility to and visibility from MD Route 213 would be larger than the other centers and would develop with emphasis as a retail shopping location. The land adjacent to the center would be developed in residential use; again with the goal of locating future population within easy walking distance of commercial uses.

## The Pattern of Development

Within the Town's Growth Area, new neighborhoods can be developed in patterns reflective of the Town's traditional street and lot patterns. Church Hill Hunt, a subdivision that is currently under development, reflects the traditional pattern: lots sizes are generally consistent in size with nearby older lots and the subdivision maintains and extends the surrounding grid system of streets. As shown on the Comprehensive Plan Map, planned residential density varies depending on location in Town. The seven-acre parcel adjacent to the Church Hill Park on MD Route 300 could develop at about six units per acre in a variety of residential building types. Areas north of MD Route 300 in the planned growth area would develop at densities of at least 3.5 housing units per acre with lots sizes of 10,000 square feet or smaller depending on the availability of public water. The areas east of Church Hill Hunt and along Walnut Street east of Town would be developed at about two units per acre with lots sizes of about 20,000 square feet in size. Areas most closely associated with the Tier 2 catchment area along Southeast Creek might also be developed in a smaller lot clustered format to minimize impervious surface area.

## **Low-Impact Development**

Low Impact Development (LID) uses the natural environment and non-structural stormwater management systems to manage stormwater at its source. LID approaches include preserving the natural landscape and restoring natural features as part of development. This approach seeks to minimize impervious surfaces and re-use stormwater. Approaches to LID include stormwater management such as bio-retention, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. LID can help to reduce the impacts of development. This land use plan focuses on locating development outside of sensitive areas and improving water quality with stream buffers. The natural environment is the base on which Church Hill will build and develop. Church Hill will insist that all development use LID techniques and that stormwater be managed on-site through non-structural techniques and shared stormwater management systems to the extent possible.

## **Environmental Site Design**

Environmental Site Design (ESD) is based upon the same principles as LID. Maryland's Stormwater Management Act of 2007 defines ESD as "using small-scale stormwater management practices, nonstructural techniques, and better site planning to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources." ESD techniques optimize the conservation of natural features, minimize impervious surfaces, slow runoff to maintain discharge timing and increase infiltration and evapotranspiration, and use other nonstructural practices or innovative technologies approved by the Maryland Department of the Environment. In addition, ESD emphasizes early planning of a site, where the natural resources of the land inform the location of development and design process so that key natural elements of the site are identified, preserved, and integrated into the stormwater management approach. This Plan sets the stage by protecting natural areas and stream buffers and encouraging the use of pervious paving surfaces and preservation of natural areas.

<sup>&</sup>lt;sup>19</sup> This description is based on the U.S. Environmental Protection Agency's internet-based publication on Polluted Runoff (Non-point source pollution) and Low Impact Development (LID). Additional information may be found at http://www.epa.gov/nps/lid/.

## LAND USE PLAN RECOMMENDATIONS

The proposed Land Use Plan shown on the Comprehensive Plan Map shows the recommended use of every parcel in the Town through 2030. These land use designations shown on the map are described below.

Land Use	Purpose	<b>Use/Intensity</b>
Rural Residential	To indicate locations where very low-density development has occurred outside of the Town.	Single-family residences on large lots, natural areas, open space.
Low-density residential	To acknowledge the presence of larger lot development within the Town and guide adjoining lands into similar arrangements as they develop.	Single-family residences (2 units per acre, with min. lots sizes of 20,000 sf).
Town Residential	To reflect and continue the traditional pattern of residential development.	Single-family residences, duplexes, townhomes (3.5 to 5 units per acre, with min. lots size of 7,000 sf if public water is available)
High-density residential	To provide senior housing in close proximity to community facilities and services.	Senior housing (up to 8 units / acre).
Office Mixed Use	To provide for a mix of residential and home office uses, to allow the conversion of houses into office uses and related non-residential uses.	Single-family residences, offices (such as professional office, daycare, institutional uses).
Mixed Use	To designate the Town's intention that presently undeveloped areas be developed in both commercial and residential uses in a master planned community setting.	Commercial, residential uses of a variety of types (up to 5 units per acre), duplexes, townhomes, institutions, parks, open space.
Commercial	To provide locations for retail and office services and businesses.	Businesses, offices, retail, general commercial uses, offices.
Institutional	To designate the locations of stand-alone institutions.	Government offices, schools, churches, other community facilities.
Business Park	To provide a centrally located employment center in a campus setting.	Offices, light Industrial uses, warehousing, open space, sports fields
Parks	To designate the location of parks and open spaces.	Parkland, trails, sports fields
Resource Conservation	To protect natural resources and important open spaces from development.	Trails, open space, woodland protection, parkland, farming, very low density rural-type residential.

#### ZONING RECOMMENDATIONS

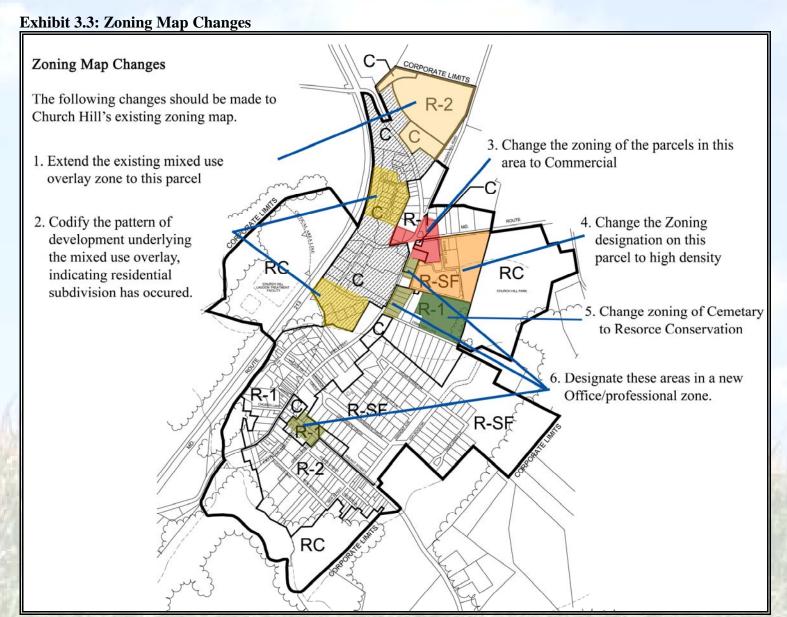
Zoning is one of the main ways that the land use plan is implemented. While the Land Use Plan serves as a guide, the Zoning Map is the law.

A Zoning Map divides the Town into distinct zones for the purpose of regulating development and restricting the types of uses permitted in each zone. The Zoning Ordinance establishes the permitted uses and regulations regarding these uses in each zone. The Zoning Ordinance is required to be consistent with the Town's Comprehensive Plan. The following changes to the Town's Zoning Map and Ordinance are recommended to help ensure consistency between zoning and the land use plan.

## **Zoning Text Changes**

The following are the primary land use related zoning changes:

- 1. Add an Office Professional zoning district. This district should permit uses such as residential, home-to-office conversions, professional offices, day care centers, and institutional uses.
- 2. The permitted residential density in the RC district should be reduced from one unit per acre to a very low rural type residential density.
- 3. Reduce required minimum lots width in the R-2 district to 50 feet. This is more reflective of the existing conditions and helps to streamline infill development.
- 4. Add an Employment Center district for use in the future growth area. This district should allow office and research uses, light industrial uses, community open space, and recreation.



#### **Land Use Goals**

- Main Street becomes a unified corridor of activity centers serving a variety of economic, social, and cultural functions. Three commercial areas are connected: downtown, the Main Street/Rt. 300 intersection, and a new commercial center at the northern end of Town.
- Natural areas and farmland in Church Hill's Planning Area are protected. (The Planning Areas is described in the Municipal Growth Section of this report.)
- New residential areas are developed with great attention to residential amenities such as walking trails and open spaces, and are undertaken in compact arrangements at densities that can cost effectively be served by water and sewer facilities. Low impact development techniques are used to reduce the ecological impact of future development and to minimize impacts to area water resources resulting from land development.
- The Town's Zoning Ordinance is amended to promote infill development that is compatible with the character of the Town.

#### SUMMARY OF LAND USE AND ZONING RECOMMENDATIONS

This list below identifies the main recommendations regarding land use and zoning in Church Hill.

- Promote downtown as a central civic area.
- Encourage development of commercial centers at the intersection of MD Routes 19 and 300 and in the Northside area.
- Promote the development of a business park in the Growth Area. The business park is not meant to be laid out in an overly suburban pattern. Instead, it should have a traditional street pattern, coordinated parking lots, and unified building design.
- Natural areas and farmland in the Planning Area are protected.
- Accept higher levels of development in the Town in order to preserve open spaces and and limit development in the Planning Area surrounding Church Hill.
- No further subdivision development should occur in the Planning Area.
- Residential development occurs at densities similar to existing town development.
- LID techniques are the standard for development in Church Hill.

#### **Actions**

A list of recommended actions that the Town should take in implementing its goals is below.

- 1. Update the zoning ordinance and map to support the development of new commercial centers at the intersection of MD Routes 19 and 300 and in the Northside area.
- 2. Help bring about initiatives to promote downtown Church Hill as a destination for cultural activities, specialty retail, and entertainment including a mix of civic and residential uses.
- 3. Promote a mix of housing, retail, and other related uses in the Northside area.
- 4. Amend the Zoning Ordinance and Map.
- 5. Update the Zoning Ordinance to incorporate minimum lot sizes as recommended in the recommendations for Land Use.
- 6. Work with Queen Anne's County and other agencies to use zoning and land preservation techniques such as the County's PDR program, and the MALPF to preserve farmlands and natural areas outside of the Town.
- 7. Update the Church Hill Zoning Ordinance to allow clustering when a project in the Town or its Growth Area permanently preserves open space in the Planning Area.
- 8. Require that development plans show how streams and other natural resources will be protected and preserved.
- 9. Require all plans for development to include connections to and development of the system of parks and trails shown on the Comprehensive Plan Map. This includes:
  - Continuation of village greens from the Church Hill Park northward; and
  - Connecting Church Hill Park to the Mill site and natural areas on the south edge of Town.
- 10. Invest in improvements in the neighborhood along New Street/Buzzards Lane as well as The Village including as appropriate installing sidewalks, streetlights and street trees, and developing a new town park.
- 11. LID should be required of all new development. Update the zoning ordinance to require non-structural methods of stormwater management and low amounts of impervious surface.
- 12. Actively promote energy conservation in all manner of building and land use development.
- 13. Adopt regulations in the building and zoning code specifically related to environmental performance.
- 14. Conduct an energy audit of existing Town buildings and seek ways to improve efficiency and reduce energy costs.

# 3.4 SENSITIVE AREAS<sup>20</sup>

#### BACKGROUND

Church Hill is situated between two branches of Southeast Creek. The area has a large amount of forested land and the Creek and its tributaries are well buffered with forests. There are large quantities of wetlands associated with the streams and the forests surrounding the Town. Church Hill's presence among these natural resources provides the Town with the opportunity to exhibit lasting environmental stewardship. Natural resources can guide the location of development and improve the quality of life in Church Hill.

Table 3.8 shows the ideal size of stream buffers by the function they are intended to serve. Southeast Creek is well buffered around Church Hill largely due to the stream buffers. The average buffer is between 200 and 300 feet on either side of Southeast Creek. This provides benefits for water quality, flood protection, and wildlife habitat.

Although the main portions of Southeast Creek are well buffered, the smaller tributaries of the Creek are poorly buffered. In some cases, these tributaries are un-buffered and even buried. Because these tributaries are not buffered, nutrients and pollutants run off the land directly into streams. Most of this runoff is transported directly to Southeast Creek. This is particularly true in areas where streams are channeled or buried. Channeling or burying a stream increases the impermeable surface over which water flows. The result is that water does not have any opportunity to percolate into the ground and achieve filtering before entering groundwater aquifers. Protecting small streams is essential to protecting overall water quality.

**Table 3.8: Stream Buffer size by Function** 

Function	Buffer (feet)	
Habitat for Wildlife	300 - 1,600	
Flood and Storm Surge Mitigation	70 - 200	
Sediment Control and Stream Stability	50 - 100	
Nitrogen/Phosphorous Removal	50 - 100	
Pesticide Reduction	45	
Food Production	25	

Source: USDA Forest Service Northeastern Area State and Private Forestry

Fortunately, runoff from lands along the main section of Southeast Creek travels through a large forested buffer before reaching the Creek. This buffer filters out many of the nutrients and pollutants present in runoff. Despite this, nutrients and pollutants are entering Southeast Creek from upstream locations. For example, Taylor's Branch, which runs somewhat parallel to Cemetery Lane has little to no buffer as it travels behind the houses along Cemetery Lane. In some areas, the stream is partially buried. A tributary to Taylor's branch originates in the forested area to the east of Town and travels through an agricultural field before joining Taylor's Branch and then Southeast Creek. Along the way, this small tributary picks up pollutants and nutrients, most significantly from the agricultural field where the stream is not buffered.

Farming can contribute a high amount of nitrogen and phosphorus nutrients to streams. As noted in Section 2.4, Sensitive Natural Areas, agriculture is estimated to contribute about 94 percent of the nutrients in Southeast Creek. When smaller streams or drainage ditches are farmed to their edge and seeds, fertilizers, and pesticides can be deposited directly into the streambed. With no buffer to filter out pollutants and nutrients, they enter the water directly. It is in this way, that farming can have a significant, direct, and negative impact on water quality in streams and rivers while providing its essential benefits.

<sup>&</sup>lt;sup>20</sup> The Sensitive Areas of Church Hill are described in Section 2.4 of this Plan.

In the Town's growth area, the responsible conversion of agricultural lands to residential and commercial uses and the preservation and expansion of existing forested areas can actually help improve water quality. When forested environmental corridors are established along streams and floodplains or when open space and parks are required as part of the development process, growth can improve environmental conditions. When farmlands are converted to development in this fashion, the Town can help protect stream water quality and the Chesapeake Bay.

#### SENSITIVE AREAS PLAN RECOMMENDATIONS

This Plan addresses meeting this challenge: Within the Town's Growth Area it calls for the conversion of farmland to developed uses in a way that protects and restores the natural environment. The Sensitive Areas Plan Map on the following page shows the natural features of Church Hill and illustrates the goals, policies, and actions described in this section.

#### **Sensitive Areas Goals**

The following are Church Hill's goals regarding sensitive areas in and around the Town:

- The stream buffers along Southeast Creek and its tributaries contribute to water quality improvements and diversity of wildlife. These riparian areas continue in perpetuity to serve this function and enhance the quality of life of Church Hill residents.
- The forested areas that surround Church Hill are preserved and responsibly managed. Imagine that these areas may become the future old growth forest of Church Hill. For generations these forested areas contribute to regional biodiversity and enhanced water quality in Southeast Creek and the Chesapeake Bay.
- Biodiversity in the Church Hill area is preserved through the preservation of forested areas and the preservation and expansion of stream buffers. Biodiversity is the measure of the variety of all levels of life within a given ecosystem. A high level of biodiversity is self-sustaining and resilient.

## SUMMARY OF SENSITIVE AREAS RECOMMENDATIONS

The list below identifies the main recommendations regarding sensitive areas in and around Church Hill.

- Protect forested areas within the Town and its Planning Area from development.
- Maintain forested lands surrounding Church Hill.

- Prevent deforestation along Southeast Creek and its tributaries.
- Repair and restore the riparian environments of smaller stream tributaries in Church Hill.
- Protect the biodiversity of the surrounding area including the habitat of rare, threatened, and endangered species.
- As annexation occurs, lands surrounding the tributaries of Southeast Creek should be annexed for the purpose of preserving the forested buffers along streams and protecting water quality.

## **Actions**

The following list identifies the actions that the Town should take in implementing its goals.

- 1. Work with Queen Anne's County to protect the Planning Area from continued subdivision development.
- 2. Apply Resource Conservation zoning (this is a distinct Town zoning district not the Critical Area RCA zone) to forested areas that are within the Town or annexed into the Town under this Comprehensive Plan.
- 3. Apply Resource Conservation zoning to forested areas, stream buffers, and undeveloped portions of the Critical Area.
- 4. Work to restore Taylor's Branch and its riparian environment. This should be a priority target area for reforestation.
- 5. Secure protection and preservation of environmental resources, as part of annexation agreements.
- 6. Wetlands are not disturbed by development but are preserved and buffered.
- 7. Update the Zoning Ordinance to require that development maintain at least a 50-foot buffer around all wetlands.
- 8. Stream buffers and forest protection measures are implemented.

# 3.5 CIRCULATION<sup>21</sup>

#### BACKGROUND

The local pattern of streets in Church Hill includes access roads to residential areas, which provide all residential areas in the Town with direct connections to MD Route 19. The direct connection between residential areas and Main and Walnut Streets encourages walking to downtown and the planned village centers and subsequently to other areas of Town. The opportunity exists to continue this pattern of connectivity between local roads and activity centers. The existing network provides opportunities to continue and improve local road and pedestrian connections as new areas of Town develop, improving mobility for all residents.

#### CIRCULATION PLAN RECOMMENDATIONS

The future road network is shown on the Church Hill Circulation Plan, Map 5. This Map illustrates the system of roads that will serve development in the Municipal Growth Area; connecting growth areas to developed parts of Town. In the northern growth area, a new arterial road would connect Hall Road and MD Route 300 to Route 213 across from Ben's Point Road. This would become the main connection between Routes 300 and 213. This extension of Hall Road would serve to provide access to new residential areas and a planned business park as well as move traffic through Town.

The extension of Hall Road would provide access to a grid system of local streets to serve future residential development in the northern portion of Town. These local streets would be located about 400 feet apart, mirroring the pattern of streets found in Church Hill today. This street network would also connect the Bishop's Grant subdivision into the fabric of the new growth area making this subdivision a part of Church Hill.

Route 19 will no longer connect directly with Route 213 in the northern part of Town. Traffic will travel north to connect to the extension of Hall Road at a roundabout, which will become a central organizing feature in the northern part of Church Hill. This location is one of the Village Center's discussed in Section 3.3, Land Use.

Through traffic would no longer travel along Route 300 between Hall Road and Route 213. This section of road would become a collector road, a central road to the community. Planted medians, sidewalks, bike lanes, pedestrian-scale lighting, and street trees would be added to improve the appearance of the street, reduce speeds, and improve the pedestrian environment.

<sup>&</sup>lt;sup>21</sup> The Town's transportation network is described in Section 2.7, Transportation and Circulation.

In the southern growth area including the Church Hill Hunt Remainder (which is in the Town today), the grid-like system of streets will be continued as new developments takes shape. This could allow a connection between Cemetery Lane and Walnut Street.

As development occurs, the new streets described above should be designed with the pedestrian in mind. New streets should have sidewalks, bicycle lanes or pathways, attractive lighting, and trees planted along the roadway. These road design elements provide the basis for a unified Town streetscape. Improvements should be made to existing roads. Sidewalks can be connected to create uniformity of high-quality pedestrian environments throughout the Town. Driveway connections to the public right-of-way should enhance the appearance of the street.

The Town's existing park and Village Greens set the stage for a trail network and the connection of open space and natural environmental areas within and around Town. These connections provide pedestrians efficient paths to parks and open space.

#### **Circulation Goals**

The following are Church Hill's goals regarding its future circulation pattern:

- Circulation occurs on a series of well-designed and beautiful streets, which enhance the experience of driving, walking, or biking in Church Hill through their attractive design.
- The same attention paid to the quality of newly developed streets in Town is invested in the streets of the Town's existing residential areas; pavement repairs are made, design and drainage issues are remedied, inadequate street lights and sight distance issues are resolved, street trees are planted, and sidewalks are improved or installed.
- Residents in all stages of life have the ability to move about the Town and be an active part of the Town's social and cultural life. Younger and older residents often have limited transportation options. They may not be able to drive to the store, church, school, or other place in Town. Having a well-connected pedestrian network can improve mobility for these residents, allowing them to participate more freely in community life.

## SUMMARY OF CIRCULATION PLAN RECOMMENDATIONS

The list below identifies the main recommendations regarding circulation within and to Church Hill.

- In-town traffic between residential areas largely does not need to travel on the regional road system but can flow through local roads.
- The impacts of regional traffic do not affect the mobility of local residents.
- A unified design applies to all Town streets.
- Streets and roads follow good design principles and contribute to the overall attractiveness of Church Hill.

- Existing streets are improved to the same quality standards as are applied to new streets.
- Where possible, neighborhoods in the Town should have a complete sidewalk network or at least be connected to the sidewalk network.
- Neighborhoods are connected to the Town's commercial centers, parks, and institutions via sidewalks and trails.

#### Actions

The following list identifies the actions that the Town should take in implementing its goals and these recommendations.

- 1. Require that the northern growth area include a road connection of the northward extension of Hall Road to Route 213 at the current northern intersection of Routes 213 and 19.
- 2. Work with SHA to ensure that, upon completion of the extension of Hall Road, Route 19 is re-routed prior to its northern intersection with Route 213.
- 3. Hall Road is extended to MD 213 and becomes a parkway, including street trees, separated bike and pedestrian access, and an overall design speed of 35 miles per hour.
- 4. As the Church Hill Hunt remainder is developed, Church Hill Hunt's street system is extended eastward. A second connection to Walnut Street is provided.
- 5. Route 300 becomes a collector road between Hall Road and Route 213. A planted median, bike lanes, sidewalks, street trees, and pedestrian scale lighting are installed. On-street parking is permitted and parking requirements for businesses in the commercial center at Routes 300 and 19 are reduced.
- 6. Require that development in the southeast of Town connect to existing public streets and improve the quality of the street network.
- 7. Update the Road Ordinance to allow non-structural stormwater management within street rights-of-way.
- 8. Roundabouts are planned for the intersections of Route 300 and 19 and at the intersections of the extension of Hall Road with Route 300. These roundabouts should add to the attractiveness of Church Hill and provide distinctive gateways into the Town.
- 9. Streets should be planted with trees and unified, town-wide, pedestrian-scale lighting should be installed in areas of Town where it is absent, including Buzzards Lane.
- 10. Where possible, sidewalks should be installed. Connections should be completed to the Elementary School. A crosswalk and signage should be installed at MD Route. 19 near the school.
- 11. Connections are provided to the Town's institutions via a sidewalk network connected to the trail system, and bicycle parking is available at activity centers.
- 12.A trail connection is made between Church Hill Elementary School and Church Hill Park. This off-road trail provides safe access to both locations.
- 13. Ensure that sidewalks and trail networks provide connections between residential areas.
- 14. Install sidewalks along Buzzards Lane, New Street, Village Drive, and Lauren Court.
- 15. Extend sidewalks on Route 19 North and Pinder Hill Road.
- 16. Develop pedestrian trails throughout proposed growth areas and the Northside development.
- 17. Extend the Village Green and trails to Southeast Creek and northern growth areas.
- 18. Support Maryland Upper Shore Transit in continuing to provide service to Church Hill.

# 3.6 COMMUNITY FACILITIES<sup>22</sup>

#### BACKGROUND

Ensuring adequacy and planning for the expansion of the Town's community facilities is essential to responsible governing. Community facilities in Church Hill include sewer, government buildings, parks, police, fire, EMS. Sewer services and drinking water (which is provided by private wells) are discussed in Section 3.7, Water Resources. Section 3.2 of this report discusses the impacts that planned growth will have on the Town's facilities. That assessment indicates that the following community facilities will need some form of improvement by 2030 and will require expansions to serve the full development of the Town's Municipal Growth Area.

- Sanitary Sewer an expansion to the Town's Wastewater Treatment Plant and collection system will be needed. This is discussed in Section 3.7, Water Resources.
- Schools The public schools will need to be expanded by the County Board of Education. Growth in Church Hill will contribute to this need. The full development of the Town's Municipal Growth Area may require the eventual expansion of school facilities.
- Parks Parks would need to be developed in planned growth areas as well as in Northside and Church Hill Hunt Remainder. Additional parks will be necessary to serve the full development of the Town's Municipal Growth Area. Small parks that serve residents in the immediate vicinity should be required in all new development.
- Town Hall The current Town Hall is no longer sustainable. A larger meeting space is needed. The Town owns a property on Walnut Street that would be an appropriate location for a future Town Hall.
- Police The Town may wish to supplement existing services with additional County Sheriff services. The County should consider adding additional Sheriff's deputies in light of growth in Church Hill and other parts of the County Sheriff's service area.
- Fire The Town and County should work with the Church Hill Fire Department to evaluate if additional officers and equipment will be necessary to serve the forecast growth. While additional officers and equipment may not be necessary by 2030, expansion will certainly be necessary when the Town's Municipal Growth area is fully developed over the long term.

<sup>&</sup>lt;sup>22</sup> The Community Facilities in Church Hill are described in Section 2.6.

#### COMMUNITY FACILITIES PLAN

This section describes the goals and recommendations related to maintaining, expanding, and improving these facilities. Through 2030, it is expected that the Town will grow by 300 units. This Plan seeks to anticipate long-term community facilities needs. The actions necessary to address the impacts of the 2030 forecast are addressed more specifically on the following page.

This plan calls for expansion of the sanitary sewer system, monitoring of school capacity with expansion of the High School, development of a Town-wide park and trail system, a new Town Hall, and monitoring of demands on emergency service providers and equipment. It also recommends continued study of a new municipal drinking water system.

A Capital Improvements Program (CIP) should guide the development of community facilities in Church Hill. There will be costs associated with necessary infrastructure improvements to the Town. A CIP can help the Town organize and prioritize funding for infrastructure projects. The costs and funding of projects discussed here is addressed in Section 3.9, Regulation and Advancement of Good Planning.

## **Community Facilities Goals**

The following are Church Hill's goals regarding community facilities:

- The Town's essential community facilities and services are expanded as growth occurs, ensuring adequate services are provided. Church Hill's public facilities are of exceptional quality.
- Church Hill Elementary School is the Town's school and shall always remain in Town.

## SUMMARY OF COMMUNITY FACILITIES RECOMMENDATIONS

The list below identifies the main recommendations regarding the community facilities and services used by residents of Church Hill.

- Sequence town growth in balance with municipal facilities.
- Coordinate with Queen Anne's County to ensure facilities are expanded to serve Town growth.
- The presence of the Elementary School is of utmost importance in all development decision making. Planning in the area should be mindful of the essential presence of the Elementary School and the essential role the school plays in the lives of the Town's children and families.
- A rich array of recreational uses is provided throughout the Town.

• All residents have access to open space and parkland.

#### **Actions**

The following list identifies the actions that the Town should take in implementing its goals and these recommendations.

- 1. Expand the Municipal Sewer System.
- 2. Develop funding for a Municipal Drinking Water System.
- 3. Coordinate with Queen Anne's County to accommodate new students expected by 2030 and beyond.
- 4. Build a new town hall along Walnut Street on Town owned property.
- 5. Work with Church Hill Fire and EMS to expand volunteer base and equipment availability as may be needed. Emergency service providers should continue to be asked to provide input on how development proposals and annexation proposals will affect services.
- 6. Expand the supplemental police services provided by the County Sheriff's Deputies as may be needed over time.
- 7. Require that new development consider the traffic impacts around the school and take any measures necessary to ensure student safety along pedestrian and bike routes and at the school building.
- 8. Require that new development provide adequate pedestrian and bicycle connections to the Church Hill Elementary School.
- 9. Develop a network of roads, green spaces, and trails connecting Church Hill's residential areas to parks within the Town as growth occurs.
- 10. Expand the linear park system in Church Hill Hunt northward connecting to the County Park and continuing through to the northern growth areas of Town.
- 11. Require that parks are dedicated in new development areas.
- 12. Create a new Town park along MD Route 19 adjacent to Southeast Creek.

# 3.7 WATER RESOURCES<sup>23</sup>

This section addresses water resources. Background information about the capacity and use of the water and sewer systems, information about water quality, and information about pollution from stormwater runoff is included below.

#### BACKGROUND

## **Water Quality**

### **Total Maximum Daily Loads**

Church Hill is located in the Southeast Creek Watershed, which is a part of the Upper Chester River Watershed. Water quality in Church Hill is described here through total maximum daily loads (TMDLs). TMDLs are established by considering the amount of nutrients that enter a stream from both point sources (such as wastewater treatment plants) and non-point sources (such as stormwater runoff from farm fields and roads).

MDE established limits --from point and non-point sources-- on the maximum quantity of nutrients that can enter a stream. Section 2.4 of this report discusses the impacts to water quality and the benefits of natural environments around streams in maintaining and improving water quality. Table 3.9 shows MDE's TMDL limits for phosphorus in Southeast Creek.

Table 3.9: Total Maximum Daily Phosphorus Loads for Southeast Creek

	May-Nov lbs/month	lbs/year
Point source (Church Hill WWTP)	122	1,462
Non-point source	130	19,078
Margin of Safety	7	572
TMDL	259	21,113

Source: TMDL for Southeast Creek

The largest contributor of nutrients is not the wastewater treatment plant, but non-point sources—
land uses. As shown in Table 3.9, a cap (130 pounds per month between May and November and 19,078 pounds per year) has been placed on phosphorus loading from non-point sources. The land use plan described in Section 3.3 will help reduce non-point source loads over the long term by converting some agricultural lands into environmentally sensitive development areas, while reducing the amount of subdivision development outside of the Town on septic systems. This subdivision development outside of the Town creates larger areas of impervious surfaces because of the need for new roads to be constructed to serve these rural areas. The amount of paving necessary to provide roads to rural subdivisions is greater than what would be needed to serve the same population located in the Town. While impervious surfaces on lands in the Town will naturally increase along with development, in-town development will have less nutrient loading impact than

<sup>&</sup>lt;sup>23</sup> Information about the Town's water resource can be found in Sections 2.5 and 2.6. Information regarding projected growth and its impacts can be found in Section 3.

development outside of the Town because: 1) open space and natural vegetation will increase, which helps to remove phosphorus along with other nutrients and substances from water before it enters the stream system, 2) low impact development techniques will be required, 3) stormwater management requirements in the Town along with preserved natural areas, open-spaces, and parks will help to mitigate the effects of impermeable surface, 4) the areas where development occurs would establish, preserve, and expand buffers along Southeast Creek and its tributaries, and 5) development in the Town will make use of existing infrastructure, minimizing the need for roads and other impervious surfaces and reducing the impacts from septic systems by connecting development to the Town's WWTP.

# **Drinking Water**<sup>24</sup>

Church Hill does not have a municipal water supply system. Church Hill residents, businesses, and institutions get water from private wells. Yields range from 20 to 60 gallons per minute. Deep wells are more reliable during dry periods, which is why the majority of the Town abandoned the use of shallow wells. There are two public deep wells in Town for fire protection.

Drinking water in Church Hill is drawn largely from the Aquia aquifer. According to Maryland Department of the Environment (MDE) staff, sufficient capacity exists in the aquifer to serve Church Hill's forecast growth. Table 3.10 shows the additional capacity that would be required under the Town's 2030 forecast and full development of the Town as described in Section 3.2 of this Comprehensive Plan.

**Table 3.10: Drinking Water** 

		Additional Demand (gpd)	
	2009	2030	Buildout
Use			
Private Well Connections		75,000	75,000
Residential	-	60,000	193,000
Non-residential	-	16,200	19,600
TOTAL	-	151,200	287,600

# Wastewater Treatment<sup>25</sup>

The Wastewater Treatment Plant (WWTP), located on Taylor's Branch west of MD Route 213, consists of a lagoon-type facility that discharges into Southeast Creek.<sup>26</sup> The design capacity of the WWTP is for an average flow of 80,000 gallons per day and a peak flow of 140,000 gallons per day. Flow between 2007 and 2009 was on average 44,000 gallons per day.<sup>27</sup>

The Town code requires that all improved lots be connected to the Town's sanitary sewer system and all are. The Town's system includes two sewerage pumping stations; both are located along Main Street. Two pumping stations that convey discharge to the Town's wastewater treatment plant (WWTP) located west of Route 213 on Southeast Creek have recently been upgraded. The

Table 3.11: Wastewater Treatment Capacity and Forecast Demand: 2009 and 2030

	Demand (gpd)		
	2009	2030	Buildout
Capacity	V 10-		
WWTP	80,000	80,000	80,000
Discharge			
Current Use	44,000	44,000	44,000
Forecast			LA STEMPS
Residential	19 Th - 125	60,000	193,000
Non-residential	111-14-111	16,200	19,600
Total	44,000	120,200	256,600
Remaining Capacity	36,000	-40,200	-176,600

<sup>&</sup>lt;sup>24</sup> Mapping of the system is available in the Town of Church Hill Water and Sewer Study (March 2009).

<sup>&</sup>lt;sup>25</sup> Mapping of the system is available in the Town of Church Hill Water and Sewer Study (March 2009).

<sup>&</sup>lt;sup>26</sup> The location of the Town's WWTP is identified on the Existing Conditions Map.

<sup>&</sup>lt;sup>27</sup> "Chapter 4: Sewerage Disposal". Queen Anne's County: 2006 Comprehensive Water and Sewerage Plan. Department of Public Works, Planning and Zoning, and Environmental Health (2006): 71.

plant currently treats 44,000 gpd. Table 3.11 shows the capacity and impacts to the plant of the 2030 forecast and of the full development of the Town described in Section 3.2 of this Comprehensives Plan. This assessment indicates the WWTP will need to be expanded by 2030.

While the treatment plant could be expanded to accommodate the additional discharge resulting from growth in Church Hill, the plant would also need to remain below its total discharge caps. This means that any expansions of the Church Hill WWTP to accommodate additional growth would also need to improve the quality of treatment at the plant. Improved treatment levels would mean lower concentrations of BODs, suspended solids, phosphorus, and other substances and nutrients. If improved treatment levels are met, the Town will be within the discharge limits in Southeast Creek at full build-out development.

## WATER RESOURCES PLAN RECOMMENDATIONS

# **Water Quality**

This section addresses protection of water resources by limiting the impacts of stormwater runoff and protecting Tier II waters. It should be noted that throughout this Plan water quality protection measures are encouraged including restoration and expansion of stream and wetland buffers and the protection and expansion of forested areas. These policies are detailed in Section 3.3, Land Use and Section 3.4, Sensitive Areas. This section regarding Water Resources reinforces these measures and discusses the study of potential well sites and well recharge areas. The Town's source water—the Aquia Aquifer—does not stay within municipal or county boundaries. The Town must take the steps it can to protect source water and look to the State to ensure that other towns and counties do the same.

## Stormwater Runoff

The extent of the increase in impervious surface coverage is analyzed at a Countywide, watershed scale. This allows the impacts of development on the watershed to be assessed at an appropriate scale. Queen Anne's County has completed its analysis of the future impacts of stormwater runoff. The results are described in Table 3.12.

In general, concentrating development in Church Hill and preserving large areas of open space around the Town will result in lower non-point source loading impacts than would developing the area around Church Hill at low densities. The increased non-point source loading that could result from increased development in the Town of Church Hill may be offset to some extent by reduced non-point source loading from converted farmlands and from reduced impervious surfaces associated with subdivision development outside of the Town. Queen Anne's County's analysis of

Table 3.12: Point and Non-point Source Loading: Southeast Creek Watershed 2030

CONTRACTOR OF THE SECOND	2008 Estimate		Watershed Buildout	
	Nitrogen	Phosphorus	Nitrogen	Phosphorus
Point source	916	259	4,095	497
Non-point source	237,280	20,201	257,594	20,865
TOTAL	238,196	20,460	261,689	21,362

Source: Queen Anne's County Watershed Analysis

point and non-point source loading is summarized in Table 3.12.<sup>28</sup> It is important to understand that this model estimates the nitrogen and phosphorus impacts of development; it does not provide the exact amount of future loading.

## Suitability of Receiving Waters

As indicated by Table 3.12 total phosphorus loading to Southeast Creek at build-out of the watershed (beyond 2030) would be 21,362 pounds per year, more than the TMDL cap identified in Table 3.9. The Church Hill WWTP is a minor source of pollution as compared with the non-point sources including agricultural lands and stormwater runoff from development on septic systems within the Church Hill Planning Area. In order to address phosphorus loading, appropriate stormwater runoff treatment measures must be implemented on agricultural lands. Further improvements can occur through targeting of development into the Town rather than permitting continued development in the Planning Area served by individual septic systems. This will reduce impervious surfaces (and therefore stormwater runoff) and eliminate new septic systems, further reducing non-point impacts.

The "Watershed Build-out" column reflected in Table 3.12 is based on an assessment conducted by Queen Anne's County that assumes development will continue in the Town's Planning Area on septic systems. This Comprehensive Plan calls for development to be directed out of the Planning Area and into the Town, connected to the Town's WWTP. This will reduce phosphorus loading because the cumulative loading from the WWTP will be lower than all the individual septic systems. Discharge from the Town's WWTP will be well within its TMDL for phosphorus (1,462 as indicated in Table 3.9). Phosphorus from point sources as estimated in 2008 is less than the cap of 19,078 (Table 3.9). Growth in Church Hill should not suffer because of the impacts of existing non-point sources of nutrients. Phosphorus loading will be further reduced by the smaller amount of impervious surface that is needed to develop in the Town, and the responsible conversion of agricultural lands to developed uses. It is not known what the exact reduction in phosphorus will be at this time. In the next update of the Queen Anne's County Comprehensive Plan, the County should consider these changes in land use and septic system use. The Town should work to encourage Queen Anne's County to direct development in the watershed into Church Hill, to implement nutrient management plans for local farms, and to reduce the nutrient loading from non-point sources. The Town will require that development within its borders be low-impact development and apply environmental site design (discussed in the land use section of this plan). The implementation of these techniques over time can help to reduce nutrient loading. The Town and County should work together to continue to evaluate the nutrient loading implications of build-out in the watershed.

# Antidegradation of High Quality Waters (Tier II)

Southeast Creek as it runs along the southern edge of Church Hill is classified as a Tier II water by the Maryland Department of Natural Resources (DNR). The catchment (drainage) area for this high-quality water is illustrated on the Environmental Stewardship Map in Section 3.4. The Creek is protected by a buffer of 200 to 300 feet in width as it travels south of Church Hill. Low-density subdivision development on County lands to the west of Town at the intersection of Routes 19 and 405 has placed well over 40 houses within 200 feet of this Tier II water.

This Comprehensive Plan shows preservation along this Tier II portion of Southeast Creek. It calls for development within the Tier II catchment to be concentrated in the Town subject to a minimum 300 feet of forested stream buffer on each side of the stream to help protect streams from the negative impacts of development including degradation of water quality. To protect water quality further, this Plan shows a Resource Conservation area more than 600 feet in width along the Creek and calls for low-impact development techniques throughout the Town. Development that occurs in the Tier II catchment areas in the Town of Church Hill will be required to meet high environmental standards and preserve a large amount of open space, particularly as stream buffer. Further, this plan calls for the connection of development to the Town's wastewater treatment plant, reducing the long-term impacts of septic systems.

<sup>&</sup>lt;sup>28</sup> The model used for analyzing the impacts of stormwater runoff does not consider the low impact development techniques and location of the 300-foot stream buffers. Therefore, this Table likely overestimates the actual impacts of non-point source loading.

# **Drinking Water**

The Town completed a water and sewer feasibility study in 2009. This study addresses the distribution, storage, and treatment needs of a public water system to serve the Town. The cost of a town wide public water distribution system would approximate \$5.3 million. A municipal water system could serve existing residents and/or just future growth areas. This Comprehensive Plan recommends that a Town wide water system eventually be developed when it is feasible. This system would provide municipal water to the planned growth areas as well as connecting existing residents to safe and reliable water access. The study estimates that to serve the Town's current population, 75,000 gpd of water could be needed. The Town would need a total of 138,200 gpd to serve the 2030 population and 296,600 gpd to serve full build-out.<sup>29</sup>

A Town wide system would use the Aquia Aquifer as a water source. This aquifer can have levels of iron near or slightly above the recommended level and contains levels of arsenic at or above the regulatory limits in some areas. The Town would need to test and monitor water quality of the aquifer at potential well sites and plan for appropriate treatment to remove iron and arsenic if necessary.

#### Wastewater

The 2009 water and sewer feasibility study also considered the expansion of the wastewater treatment plant and collection system. The study calls for Enhanced Nutrient Removal (ENR) Treatment Technology to be used in order to meet the nutrient caps on the WWTP at full build-out. The cost of upgrading the collection system and WWTP to serve the planned development could be \$3 to \$4 million. Costs could be reduced by upgrading the WWTP to Biological Nutrient Removal (BNR) in the short term, which could allow for an efficient and cost effective upgrade to ENR at a later date. This is the recommended course of action as it allows the Town to serve its 2030 growth while creating the basis for an economical upgrade to the plant as the Town approaches full build-out well into the future. In addition to upgrades to the WWTP, the Town's collection system may need to be upgraded by either enlarging the size of the force main connected to the northern pumping station or by installing a new larger pump station.

<sup>&</sup>lt;sup>29</sup> Town of Church Hill, Maryland Water and Sewer Study, March 6, 2009.

# Water and Sewer Planning

Queen Anne's County identifies six main categories for the purposes of water and sewer planning. These categories are as follows.

- S1 and W1: The area is currently being served by sewer or water.
- S2 and W2: Service planned for the next one to three years.
- S3 and W3: Service planned for the next four to ten years.
- S4 and W4: Service planned for the next 11 and 20 years.
- S5 and W5: Service planned beyond 2030.
- S6 and W6: No service planned for this area.

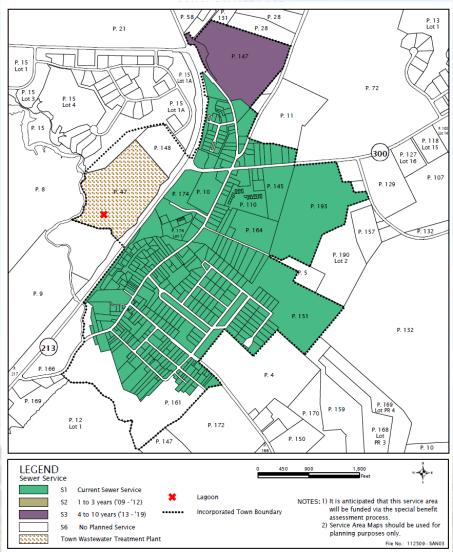
The Queen Anne's County Master Water and Sewer Plan should be updated to include planned upgrades and growth areas described in this Comprehensive Plan. All areas in Church Hill's existing boundaries should be identified as S1 for sewer and W3 for water. The Town's growth areas should be identified as S4 for sewer and W4 for water.

#### **Water Resources Goals**

The following are Church Hill's goals regarding its water resources:

- Church Hill provides its residents with safe and adequate sanitary sewer services while minimizing the environmental impacts of water use and wastewater discharge.
- Church Hill studies the feasibility of providing drinking water to existing development and sets a course of action only after thorough review and study. Future residential areas should be provided with municipal drinking water.
- Church Hill's water resources are not impacted by pollution. Wastewater treatment achieves a high level of pollutant removal and water sources are protected.
- Church Hill is an example community with regard to stormwater management. Stormwater is treated on-site through non-structural means. Very little stormwater is conveyed directly to the stream system.

**Exhibit 3.4: Town of Church Hill Sewer Service Area** 



<sup>&</sup>lt;sup>30</sup> The Comprehensive Plan Map identifies the municipal and growth area boundaries. These should also be considered the water and sewer service boundaries.

## SUMMARY OF WATER RESOURCES RECOMMENDATIONS

The list below identifies the main recommendations regarding Church Hill's water resources, including drinking water, wastewater treatment, water quality, and stormwater runoff.

- Provide all residents with safe drinking water from a municipal system
- Serve all residents with sanitary sewer while minimizing environmental impacts to Southeast Creek.
- Prevent degradation of Southeast Creek.
- Monitor and take steps to improve water quality of drinking water sources.
- Protect water quality by reducing the amount of and impacts from stormwater runoff.

#### **Actions**

The following list of recommended actions identifies the actions that the Town should take in implementing its goals and these recommendations.

- 1. Public water is provided to new areas of Town. Connections are made to existing parts of Town as the system is developed.
- 2. New development is only approved if water and sewer capacity is available to serve the new residents and businesses.
- 3. The approval of any request for annexation, zoning, or development approval should be contingent upon the availability of adequate water supply and sewer capacity.
- 4. The Town should develop and implement a water conservation plan that specifies water conservation goals, implementation actions, and evaluation measures.
- 5. New development shall include water conservation devices and the means for rainwater re-use.
- 6. Building permits are approved only if wastewater treatment capacity is available as outlined in the Town's Sewer Allocation Policy. The Town will review and, if necessary, update its Sewer Allocation Policy every three years.
- 7. The WWTP should be expanded and treatment technology should be upgraded to BNR or ENR. If the plant is upgraded to BNR it should be done in a way that facilitates efficient and cost effective upgrade to ENR at a later date.
- 8. The 6-inch force main, that is part of the sanitary sewer collection system, should be replaced with an 8-inch force main. A more direct path between the pumping station and the WWTP, if possible, should be considered when making this upgrade.
- 9. New development will bear at least a proportional cost of capacity and treatment upgrades to the wastewater system made necessary by the discharge that development would be expected to generate.

- 10. Study well locations, determine appropriate well sites, and establish recharge areas. Adopt wellhead protection regulations that restrict development and impervious surface in the wellhead recharge area.
- 11. The Town should seek funding assistance for upgrades to sewer infrastructure and development of a Town-wide water system.
- 12. Maintain the riparian buffers along Southeast Creek and its tributaries in and around Church Hill.
- 13. New development should incorporate "green" building standards for new residential, commercial, office, and other development.
- 14. Future upgrades to the WWTP should reduce nutrient loads in discharge.
- 15. Development around Church Hill should only occur upon annexation and connection to the municipal sewer system to reduce nutrients that can result from long-term use of individual septic systems.
- 16. The Town should develop wellhead protection requirements to prohibit uses in well recharge areas that have the potential to negatively impact the Town's drinking water supply.
- 17. Work with Queen Anne's County to ensure that development in the County within the Tier II catchment of Southeast Creek establishes a significant forested buffer from the stream.
- 18. Apply Resource Conservation zoning for 600 feet along Southeast Creek in the proposed growth area between the Creek and Walnut Street.
- 19. New construction should minimize the amount of impervious surface area.
- 20. Construction of new roads should incorporate rainwater retention/absorption methods to reduce stormwater runoff.
- 21. On-site rainwater collection and reuse is encouraged in all new developments. This might include the use of rain barrels or cisterns with water reuse for irrigation or heating needs.
- 22. To the fullest extent possible, new development should use non-structural techniques to manage stormwater and otherwise comply with the highest standards of the Maryland Department of the Environment (MDE).
- 23. Pervious driveway and parking surfaces will be encouraged in all residential and non-residential development.
- 24. Work with Queen Anne's County to review projected nutrient impacts to Southeast Creek from non-point sources in the watershed and adopt regulations to reduce these impacts.

# 3.8 COMMUNITY DESIGN AND HISTORIC RESOURCE PRESERVATION

#### BACKGROUND

The character and design of Church Hill reflects its historic past. Church Hill has worked to preserve and enhance the traditional elements of the Town. A Community Character overlay guides redevelopment in the traditional center of Church Hill, located along Main and Walnut Streets, ensuring that infill development is consistent with the existing, historic structures that embody Church Hill's past. Commercial design guidelines in the zoning ordinance ensure that new commercial development will be pedestrian scaled and contribute to the overall attractiveness of the Town. Section 2.6, Community Design, discusses the design elements and historic features of Church Hill.

MD Route 213 is a nationally designated Scenic Byway. Church Hill should seek to preserve the rural nature of the Route 213 corridor. This plans calls for restricting growth on the west side of MD Route 213 and maintaining and creating a forested buffer between the developed Town and MD Route 213.

#### COMMUNITY DESIGN AND HISTORIC PRESERVATION PLAN RECOMMENDATIONS

The Comprehensive Plan identifies areas for development that are currently undeveloped. These areas should add to the character of Church Hill through an approach to development consistent with the traditional pattern in Church Hill. Plans for development at the northern end of Town should reflect a mix of commercial and residential uses at a pedestrian scale. The area should have streets with sidewalks and street trees; blocks should be about 500 feet in length, commercial and residential buildings should be located close to the street, parking should be provided in the rear of buildings rather than the front. These elements will facilitate walking and biking, encouraging social interaction among residents. The design of new development areas should be laid out with scenic views in mind; residents should be able to enjoy the rural and natural beauty of the Church Hill setting. Where applicable, the built environment should incorporate attractive buildings that anchor street intersections. Land should be set aside within development areas for institutional uses: libraries, community centers, parks, churches, etc.

An essential tenet of this plan is that development contributes to the overall improvement of the Town. The existing neighborhoods should also benefit from access to entertainment and shopping by walking or biking. Sidewalk connections should be enhanced and public gathering places should be accessible by walking. The sidewalk network should be extended and connections made to the parks and institutions in Church Hill. This will require a coordinated effort by the Town to commit to investing in existing neighborhoods and developing a housing and infrastructure plan for the older areas of Town. As new areas of Town develop and the municipal tax base increases, existing areas should be improved to the standards required of newly developed areas. The Town should engage in public/private partnerships to improve older areas of Town that have seen disinvestment. The Town could invest in purchasing distressed properties and coordinate with local developers to sell the property with requirements for public space, affordable housing, and the quality of development on the site. Profits from the sale of land could be re-invested in the community in the form of additional land purchases and sales and infrastructure improvements to existing areas of the community. Infrastructure improvements needed include upgrading streets and installing sidewalks, street lighting, and street trees.

## **Community Design and Historic Resource Preservation Goals**

- The small town character of Church Hill is maintained as development occurs. There is a focus on providing opportunities for interaction among residents and ensuring a unified and well connected Town.
- The Town's historic properties and traditional pattern of development guide future development. Historic properties are protected.

## SUMMARY OF COMMUNITY DESIGN AND HISTORIC PRESERVATION RECOMMENDATIONS

The list below identifies the main recommendations regarding community design and historic preservation in Church Hill.

- To use the Town's planning and zoning powers to guide development in a way that is compatible with the Town's existing pattern of development.
- To promote business development in downtown.
- To preserve the character of the traditional downtown while advancing the quality of modern architecture.
- To preserve the Town's essential historic structures
- That the traditional character of Church Hill is enhanced. Investments are made in traditional areas of Town. Blighted structures are restored or removed.
- To encourage the development of community among residents and local business and property owners.
- To purchase blighted properties and plan for redevelopment as a contributor to improving the quality of the surrounding neighborhood.
- To support affordable housing in both new and historic areas of Town.

#### Actions

The following is a list of recommended actions the Town should take in implementing its goals and these recommendations.

- 1. Apply village-scale town planning principles (i.e. grid streets, village greens, small blocks, institutional uses) to future growth areas.
- 2. Continue the well-connected grid pattern of streets found in existing areas of Town into new development areas, while connecting new and existing streets.

- 3. Ensure the roundabouts shown on the Compressive Plan Map provide distinctive gateways into Church Hill through coherent and distinctive design.
- 4. Require that future development and annexations be subject to a thoughtful development plan led by the town planner and endorsed by the Planning and Zoning Commission.
- 5. Protect the integrity of MD Route 213 as a National Scenic Byway. New development should not be focused along the highway. Planned development should be buffered along Route 213. The buffer should only allow filtered views of future development.
- 6. Continue to encourage infill development and redevelopment in existing neighborhoods.
- 7. Upgrade drainage to modern standards along the Town's historic streets.
- 8. Make improvements to the streets in Church Hill; this includes streetscape improvements to Buzzards Lane, Cemetery Lane, New Street, Green Street, Agnes Lane, Wilson Road, Village Drive, and Lauren Court. This is called for in Section 3.5, Circulation.
- 9. Update the zoning ordinance to permit only single-family homes in the southern parts of the Town (Buzzards Lane/New Street Area and Church Hill Hunt) and the southern portions of the growth area.
- 10. Modify regulations to create incentives for redevelopment of traditional areas of Town.
- 11. Create a revolving loan or other financing program to direct improvements in existing neighborhoods.
- 12. Support the vital function that Church Hill's institutions provide to the Town. The structures that house these institutions should be preserved and/or restored as development occurs. Development adjacent to these structures should complement them in height and size, to preserve the role of these buildings in defining the character of the Town.
- 13. Work with the owner of the Church Hill Theater to ensure its continued use and perseveration.
- 14. Encourage the cohesive development of the Village Centers discussed in Section 3.3 of this Plan. Ensure that "civic space" is an essential element of these centers.
- 15. Ensure that a cohesive sidewalk network is developed, providing connections to all areas of Town.
- 16. Develop a neighborhood reinvestment and affordable housing strategy. This strategy could call for the purchase of blighted properties for redevelopment through public private partnerships that also includes a plan for infrastructure improvements in older neighborhoods.
- 17. Individual driveway connections to the public right-of-way impact the appearance of the street. Connections to the right-of-way should consist of materials that improve the appearance of the streetscape.
- 18. Support fair affordable housing options and enforce building codes against owner-violators who would over-crowd residents into houses or apartments.

# 3.9 REGULATION AND ADVANCEMENT OF GOOD PLANNING

## ACCOMPLISHMENTS OF GOOD PLANNING

Church Hill has a history of good planning. Recent developments have been coordinated in a way that advances the Town's interests, continues the pattern of development in historic areas, and connects open space and parks to residential areas. The Planning Commission should be congratulated on the steps it has taken to advance good planning and be encouraged to continue in its efforts. Some of the recent accomplishments:

- A community character analysis that used to establish a community character district with design standards for all new construction. This effort has led to compatible infill development in historic parts of Church Hill.
- Design standards for commercial development were created and adopted. These regulations will guide the layout and design of commercial space in the newly annexed northern part of Town.
- Implemented requirements for connection of pedestrian pathways and sidewalks.
- A streetscape project was implemented for Main and Walnut Streets. One of the results of this project is the attractive intersection of Main and Walnut Streets and the brick walkways along Main Street.
- Adopted a road ordinance and promoted traditional street design standards, landscaping, and street lighting.
- Adopted a forest conservation ordinance allowing State conservation requirements to be met in Town in accordance with Town goals.
- Adopted an update to the sewer allocation policy that is being used to guide development in the Town. This policy allocates sufficient capacity to serve infill. This ensures that reinvestment in historic areas of Church Hill remains a priority.
- Conducted a feasibility study for sewer and water system capacities. This study will be used to guide the Town in modernizing its sewer system and in deliberations about municipal drinking water.

## IMPLEMENTATION

The implementation of this Plan will require continued thoughtful attention to details of the planning process and the way individual projects fit into the Town's vision. The actions listed in each part of Section 3 create a guide for the Planning and Zoning Commission. The Commission should implement these actions, and in six years review the Town's progress in accomplishing them. This will require investments in infrastructure and planning. It will require a commitment to the goals and policies stated in this document on the part of the Planning and Zoning Commission and Town staff. It will require changes to the Town's regulations and the development of new funding sources. The Town can implement this Plan—it has achieved its efforts to advance good planning and will continue to do so.

## REGULATIONS

Throughout this plan there are recommended changes to the Town's regulations. These changes are compiled in the list below. In implementing the Plan one of the first things the Town should do is update its regulations as recommended by this Comprehensive Plan. This will further the Town's goals and advance its vision at its most essential point.

Zoning Ordinance	• Amend the Zoning Ordinance as called for in Section 3.3 under the heading "Recommendations for Zoning".	
	• Apply zoning consistent with Map 2, the Comprehensive Plan Map to all newly annexed areas.	
	• Update minimum lot sizes as per the Land Use Chart in Section 3.3.	
	Allow increases in density in the Town when open space is preserved in the Planning Area.	
	Require LID in new development.	
n de la	Adopt regulations related to environmental performance.	
V 10 1V 10	Apply resource conservation zoning consistent with the Comprehensive Plan Map.	
A CONTRACTOR OF THE PARTY OF TH	Require 50 foot buffers around wetlands.	
C. March College College	Require buffering around streams and the restoration of the stream buffer environment.	
PARAMETER AND	Review Commercial Design standards and revise as necessary.	SHARE WELL THE PLANT OF THE PERSON OF THE PE
	是一种的人。这种人们也是一种,我们就是一种的人们的一种,我们就是一种的人们的一种,我们就是一种的人们的一种,他们们的一种,我们们们们们们的一种的人们的一种,他们	
Subdivision Regulations	Require vehicle and bike/pedestrian connectivity between new and existing neighborhoods.	
AND THE STATE OF T	Require that blocks in residential neighborhoods be no more than 400-500 feet long.	
	Require sidewalks, unified street lighting, and street trees in all new neighborhoods.	
AND VENY OF THE RE	Require open space dedication and preservation of natural areas in new development.	

# FUNDING

The Town will need to secure and supply funding to support implementation of this Plan. Section 3.6 discusses the development of a Capital Improvements Program (CIP). The Town should adopt a CIP that creates priorities for the actions laid out here in this document. The Town will also need to seek outside funding assistance for some projects. Projects that will need to be added to the CIP include:

Table 3.13: Capital Improvements, Estimated Cost, and Funding Source

Capital Improvement	<b>Preliminary Estimated Cost</b>	Possible Funding Sources
Expansion of the Town's wastewater treatment plant	\$3-4 million	State Assistance – Grant or Low Interest Loan; Municipal Bond; Development Fees
Development of municipal drinking water system	\$9 million	State Assistance - Grant or Low Interest Loan; Development Fees
Infrastructure improvements in the Buzzards Lane/New Street Area and The Village	\$_	Town Re-Investment Strategy
Town-wide park and trail system	-	Developer contributions; Town Re-Investment Strategy
Southeast Creek Park	\$77,000	Town Re-Investment Strategy, State Grant
New Town Hall	\$_	Annexation fees, Grant or Low Interest Loan; Town Re-Investment Strategy
New Roads in future development areas	· 1 / 1 / 1 / 1	Required to be constructed by developer

The Table 3.14 identifies potential sources for funding and technical assistance for the improvements listed above and other goals put forth by this plan; such as farmland preservation.

**Table 3.14: Possible Sources of Funding or Technical Support** 

Goal	Funding or Technical Support Agencies
Farmland Preservation:	The Maryland Department of Natural Resources-Rural Legacy Program as a coordinating entity for land acquisition, the purchase of conservation easements, and technical and strategic planning assistance. The Maryland Agricultural Land Preservation Fund for the purchase of conservation easements. Eastern Shore Land Conservancy-assistance with acquiring donated conservation easements.
Natural Area Preservation:	The Maryland Department of Natural Resources-Program Open Space, Rural Legacy Program. Eastern Shore Land Conservancy-assistance with acquiring donated conservation easements.
Park Dedication:	The Maryland Department of Natural Resources-Program Open Space, Community Parks and Playgrounds.
Neighborhood Revitalization:	The Maryland Department of Housing and Community Development-Community Legacy Program, Community Development Block Grants, Revolving Loan Funds. The Maryland Department of Transportation-Street and Sidewalk Program.
Water & Sewer Infrastructure:	The Maryland Department of the Environment-Water Supply Financial Assistance Program; Drinking Water Revolving Loan Fund.
Pedestrian and Bicycle Improvements	The Maryland Department of Transportation – sidewalk Retrofit Program, Streetscape Program, Community Safety and Enhancement Program, Transportation Enhancement Program.
Historic Preservation:	The Maryland Department of Housing and Community Development-Community Legacy Program. Maryland Historic Trust capital and non-capital grants and technical assistance.
Downtown Revitalization:	The Maryland Department of Housing and Community Development-Main Street Maryland Program for technical assistance and guidance on available grants.

## PRO-ACTIVE AND ONGOING DEVELOPMENT PLANNING

Thoughtful ongoing planning should guide infill development and changes in the Town's growth areas to ensure that Church Hill retains a cohesive and traditional town form. The various stages of the Town's development will obviously be apparent but they should be well integrated too. This will require that the Town Planner and Planning Commission work with interested and property owners to create and refine conceptual development plans. The Town should not simply wait for a developer to propose a plan and then either approve or deny it. The Town should actively engage

in the process so that any future development results from the combined efforts of the Town and the developer. By approaching development in this way, the Town can ensure that any final development plan is consistent with this Comprehensive Plan.

## THE ESSENTIAL WORK OF THE PLANNING AND ZONING COMMISSION

The Planning and Zoning Commission has the most essential role to play in the advancement of good planning. The Commission is the first body to see and review development plans. It is responsible for ensuring that private development and public investment advances the goals of this Comprehensive Plan.

#### PUBLIC INVOLVEMENT AND PARTICIPATION

Achieving the vision of this plan requires an active and involved community. A community is a group of people living in the same area who have a shared interest in each other's well being and are thus involved in the growth and development of one another and of the place—their town—that they share. Active engagement of residents with the Town and with the organizations and associations that advance the wellbeing of the Town will be required The Planning Commission has a role to play in fostering community involvement in town planning and development. The Planning Commission should continue to advertise its meetings and encourage neighbors to be active in all stages of planning.