



Comprehensive Plan

2007



RESOLUTION NUMBER 2009-01

A RESOLUTION OF THE MAYOR AND COUNCIL OF FEDERALSBURG
ADOPTING THE 2009 FEDERALSBURG COMPREHENSIVE PLAN

Introduced By: _____

WHEREAS, the Mayor and Council of Federalsburg is authorized and required by the provisions of Maryland Annotated Code Article 66B § 3.08 to adopt a comprehensive plan for the purposes of assuring the orderly development of the Town and for the other purposes as set forth in Article 66B §§ 3.01 - 3.08. The Federalsburg Planning and Zoning Commission, with the participation of members of the Federalsburg Community, has prepared such a plan for the Mayor and Council of Federalsburg; and

WHEREAS, both the Federalsburg Planning and Zoning Commission and the Mayor and Council have conducted public hearings on the proposed Comprehensive Plan.

WHEREAS, the Comprehensive Plan has been approved by the Federalsburg Planning and Zoning Commission and it appears to the members of the Mayor and Council that adoption of the Comprehensive Plan by the Mayor and Council will benefit the Town; and

Now, therefore, the Mayor and Council of Federalsburg hereby resolves:

Section 1. The Comprehensive Plan prepared by the Federalsburg Planning and Zoning Commission entitled "Federalsburg Comprehensive Plan" is hereby adopted as the Comprehensive Plan of the Mayor and Council of Federalsburg. A photocopy of the Comprehensive Plan shall be maintained by the Town Clerk as part of the official records of the Town.

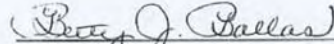


Section 2. In accordance with Section C3-6 of the Federalsburg Town Charter, this Resolution shall become effective upon passage by the Mayor and Council and recordation in the Minute Books.

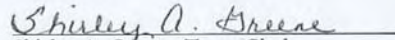
YEA/NAY

Betty J. Ballas	<u>YEA</u>
Hattie M. Gasser	<u>YEA</u>
Phillip Gutkin	<u>YEA</u>
Michael W. Fluharty	<u>YEA</u>
Eric Willis	<u>YEA</u>

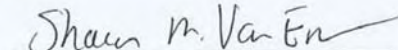
I hereby certify that the above Resolution was passed by a yea and nay vote of the Council this 5th day of January, 2009.


Betty J. Ballas, Mayor

Delivered by the Mayor and recorded by me in the Minute Books of the Mayor and Council of Federalsburg this 5th day of January, 2009.


Shirley A. Greene, Town Clerk

Approved as to form:


Sharon M. VanEmburch, Town Attorney

Date Introduced 1-5-09
Date Amendments Introduced —
Date Passed 1-5-09
Effective Date 1-5-09



**COMPREHENSIVE PLAN
TOWN OF FEDERALSBURG, MARYLAND
TABLE OF CONTENTS**

INTRODUCTION	5
BACKGROUND.....	8
INTRODUCTION	8
HISTORICAL SETTING.....	8
REGIONAL SETTING	11
DEMOGRAPHIC SETTING	16
<i>Table 3 – Age, Sex, and Race Characteristics from 2000 Census</i>	18
<i>School Enrollment</i>	19
<i>Employment Status</i>	20
<i>Commuting</i>	20
<i>Income in 1999</i>	21
<i>Total Housing Units</i>	22
PHYSICAL SETTING	24
TOPOGRAPHY, DRAINAGE, AND STEEP SLOPES	24
CHESAPEAKE BAY CRITICAL AREA PROGRAM	26
SOIL CHARACTERISTICS.....	28
<i>Constrained Soils</i>	29
<i>Soils Suitable for Building</i>	30
MINERALS.....	30
GROUND WATER.....	30
VEGETATION.....	30
WILDLIFE AND HABITAT	31
SENSITIVE AREAS.....	33
INTRODUCTION	33
STREAMS	34
100-YEAR FLOODPLAINS.....	34
HABITATS	35
STEEP SLOPES	35
NON-TIDAL WETLANDS	36
CHESAPEAKE BAY CRITICAL AREA	36
GROWTH ALLOCATION	38
WOODLANDS AND FOREST AREAS.....	39
GENERAL PROTECTION POLICY	41
MINERAL RESOURCES ELEMENT.....	42
VISION, GOALS AND OBJECTIVES.....	43



THE VISION.....	43
GOALS AND OBJECTIVES.....	44
COMMUNITY CHARACTER.....	45
ECONOMICS	47
LAND USE AND GROWTH.....	48
HOUSING.....	49
ENVIRONMENT.....	50
TRANSPORTATION.....	51
PUBLIC SERVICES AND FACILITIES.....	52
INTERGOVERNMENTAL COORDINATION.....	53
LAND USE	55
SUITABLE INTOWN DEVELOPMENT SITES	65
ANNEXATION	66
COMMUNITY CHARACTER.....	81
NEIGHBORHOODS.....	81
<i>Idlewild</i>	82
<i>North Side</i>	82
<i>Bloomingtondale</i>	83
<i>West Side</i>	83
<i>Federalsburg Industrial Park</i>	84
<i>South Side</i>	84
<i>Marina</i>	85
<i>Downtown</i>	85
<i>East Side</i>	86
<i>Chambers Park</i>	87
<i>Caroline Industrial Park</i>	89
<i>Rifkin Village/MD 315</i>	90
<i>Brooklyn</i>	90
REDEVELOPMENT AND REVITALIZATION.....	94
COMMUNITY FACILITIES AND SERVICES	98
WATER	98
SEWERAGE.....	99
TOWN HALL.....	100
EMERGENCY SERVICES	100
SCHOOLS.....	101
LIBRARY	102
PARKS AND RECREATION.....	104
TRANSPORTATION	106
PUBLIC TRANSIT/TRANSPORTATION	109
FUTURE ROADS.....	109
BICYCLE ENHANCEMENT	113



IMPLEMENTATION.....	117
GLOSSARY.....	121
APPENDIX A: CENSUS DATA.....	123
APPENDIX B: MAPS FROM THE 1996 COMPREHENSIVE PLAN.....	127
APPENDIX C: DOWNTOWN REVITALIZATION IMAGES.....	132
APPENDIX D: STORIES OF THE CHESAPEAKE HERITAGE AREA.....	144
APPENDIX E: GREENBELT AND PLANNING REVISIONS.....	146
APPENDIX F: FOREST AND WOODLAND PROTECTION.....	148
APPENDIX G: INTERJURISDICTIONAL COORDINATION.....	150
APPENDIX H: DORCHESTER COUNTY RIGHT-TO-FARM LAW.....	152
APPENDIX I: ADDITIONAL CONSIDERATIONS.....	154
APPENDIX J: MUNICIPAL GROWTH ELEMENT.....	157
(adopted on September 29, 2009)	
APPENDIX K: WATER RESOURCES ELEMENT.....	167
(adopted on September 29, 2009)	



Acknowledgements

This Comprehensive Plan was prepared by the Federalsburg Planning Commission with assistance from Town staff and the Maryland Department of Planning, Upper Eastern Shore Regional Office. Principal assistance was provided by Mark Gradecak, Senior Planner.

Financial assistance was provided by:

The Coastal Zone Management Act of 1972, as amended, administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration (NOAA); and



The Maryland Sustainable Communities Initiative



Martin O'Malley, Governor
Anthony Brown, Lt. Governor
Richard E. Hall, Secretary MDP



INTRODUCTION

On December 2, 1996, the Mayor and Council of Federalsburg adopted a new Comprehensive Plan to guide and direct land use and growth decisions for the Town. This action was taken within the framework of new guidelines for Comprehensive Plans as outlined by the State of Maryland in the Maryland Economic Growth, Resource Protection, and Planning Act of 1992. This Act amended Article 66B of the State Annotated Code (i.e. the Planning Enabling Legislation for some counties and all municipalities) to require, among other things, certain new Elements (e.g.. Sensitive Areas) in local Comprehensive Plans, as well as a schedule for updating these plans.

In 1997, the State took an even stronger step in influencing State-wide growth patterns when the Legislature passed Governor Parris Glendening's Smart Growth Initiatives. In a nutshell, these initiatives directed all State growth-related spending to existing communities with the hope of halting, or at least slowing, the spread of development outside of such areas.

As a result of the Smart Growth initiatives of the 1990's, Federalsburg, along with all other municipalities in the State, was targeted as a growth area. The end result was that Federalsburg realized 10.8% growth in the 90's. This is especially significant in that it represented the second consecutive decade in which the rate of growth for the preceding ten years exceeded double-digits. It was also the second consecutive decade in which the Town's growth rate exceeded that of the County.

It is within this background that this Comprehensive Plan for the Town of Federalsburg has been prepared in 2005. In many ways our town personifies small-town America. However it does so while being located in a growing County (which is also located adjacent to even more rapidly growing Counties) and at a time when State policies direct growth to municipalities. It is therefore critical for our community to determine and communicate the type of place we hope to become over the next 20 years or so. This Comprehensive Plan is the first step in this process.

Article 66B of the Maryland Annotated Code, entitled *Zoning and Planning*, delegates basic planning and land use regulatory powers to the Town of Federalsburg. When these powers are exercised, they must be exercised in accordance with the applicable provisions of the statute. Accordingly, this Comprehensive Plan for Federalsburg is prepared in compliance with Sections 3.05, 3.06, 3.07, and 3.08 of the statute. Sections 3.05 and 3.06 address the Plan's content and organization, and Sections 3.07 and 3.08 address procedures for the Plan's review and adoption.



Article 66B specifies that the minimum requirements of a Comprehensive Plan shall include the following:

- A statement of **goals and objectives, principles, policies, and standards** which shall serve as a guide for the development and economic and social well-being of the jurisdiction.
- A **land use element** which includes proposals for public and private land as far into the future as is reasonable. Such land use may include public and private, residential, commercial, industrial, agricultural, and recreational land uses.
- A **transportation element** which includes proposals for traffic routes and general circulation of persons and goods as far into the future as is reasonable. Such proposals may include all types of highways or streets, railways, waterways, airways, routings for mass transit, and terminals.
- A **community facilities element** which includes proposals for the general location, character, and extent of public and semipublic buildings, land, and facilities as far into the future as is reasonable. Such facilities may include parks and recreation areas, schools, and other educational and cultural facilities, libraries, churches, hospitals, social welfare and medical facilities, institutions, fire stations, police stations, jails, or other public office of administrative facilities.
- A **mineral resources element** that identifies undeveloped land that should be kept in its undeveloped state until the land can be used to provide a supply of minerals, as defined in Section 7-6A-01 (i) of the Natural Resources Article. It should also identify appropriate post-excavation uses for this land that are consistent with the Comprehensive Plan.
- An **element** which contains the planning commission's recommendation for land development regulations to implement the plan that encourages:
Streamlined review of development applications; *flexible development regulations* that promote innovative and cost-saving site design while protecting the environment; *economic development* in designated growth areas through the use of *innovative techniques*; and inclusion of *areas of critical State concern*, if any.
- A **sensitive areas element** that at a minimum addresses:
Streams and their buffers;
100-year floodplains;
Habitats of threatened and endangered species; and
Steep Slopes.
The sensitive areas element may also include other areas in need of special protection, as determined in the Plan.



- The Plan may also include any additional elements which, in the judgment of the Planning Commission, will further advance the purposes of the Plan.

The Federalsburg Comprehensive Plan establishes Town polices relative to the most desirable development patterns for Federalsburg and environs. It identifies in both narrative and graphic form, proposed areas for living and working activities and related services which are required to assure a quality environment for all residents. Implementation proposals are included as methods for coordinating public and private development activities, which together will influence development form and function. Attention is also given to the Town's role in the development of Caroline County.

The Federalsburg Town Commissioners are responsible under Maryland Law for adopting the Plan. The Town Planning Commission is responsible for general administration and enforcement of the Plan. All development proposals should be reviewed for conformance to basic policies and programs identified by the Plan.

The general purpose of the Federalsburg Comprehensive Plan is to guide and achieve coordinated and harmonious development in the Town and its planning area. Also, the plan promotes health, safety, order, convenience, prosperity, and the general welfare, as well as efficiency and economy in the development process. Plan goals include adequate provisions for traffic, adequate provisions for light and air, conservation of natural resources, the prevention of environmental pollution, the promotion of the healthful and convenient distribution of population, the promotion of good civic design and arrangement, wise and efficient expenditure of public funds, and the adequate provision of public utilities and other public requirements.

After adoption, the Plan will serve as:

- A unified statement of desirable development policies.
- A framework within which specific development issues can be evaluated and public policy effectuated consistent with the long-range growth and development goals and objectives of the Town.
- An information document for local elected officials, citizens, developers, and special interest groups concerning critical development issues as well as Town development policies.

The content, focus, and thrust of the Federalsburg Comprehensive Plan are guided by the following eight visions, which provide the framework for growth management and sound planning within our Town and its environs:



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

BACKGROUND

Introduction

Before jumping to the main purpose of a Comprehensive Plan, namely outlining our community's preferred future and the method by which to realize that future, it is first helpful to provide some background information. Such things as the history of a community, as well as the demographic profile for both the community and the region within which it is located, provide the context for planning, as the Comprehensive Plan is prepared. Thus this chapter will examine the historical, regional, and demographic setting of Federalsburg in August 2005.

Historical Setting

As early as 1682, James and William Wright settled on Marshyhope Creek, the headwaters of the Northwest Fork of the Nanticoke River. By the 18th century, vast hardwood forests, together with the ability to dam the Marshyhope Creek, led to the development of what would eventually become Federalsburg around a host of water-powered industries, including iron furnaces, flour mills, sawmills, shipyards, and wool-carding mills. Much of this land fell within the boundaries of Caroline County when it was created in 1774. By an act of the General Assembly in 1792, the County's southern boundary was extended to Northwest Fork Ford, (because a newly erected bridge at that spot was a well known reference).



Industry has long been important in Federalsburg. Today we have two industrial parks that are home to a host of businesses. Going back to our Town's early days, in Revolutionary War times, the nearby Douglas iron furnace supplied important materials for the Continental Army of General George Washington. Later, local sawmills provided the wood products needed to rebuild the U.S. Capitol and White House after the British burned them in the War of 1812.

Trade possibilities for the early settlement, where cross-country traffic forded the river, were foreseen, and a store was built there around 1789. It became the nucleus of a small village, which was called the "Northwest Fork Bridge" or "The Bridge" until early 1812, when politics influenced the renaming of the town.

The Federalist Party was strong on the Delmarva Peninsula, and a rousing mass meeting was held at "The Bridge." People came from far and near, the Militia drilled with pomp and ceremony replete with fife and drums. Prominent speakers of the day fostered civic pride and rekindle enthusiasm in the party. The emotion of that day demanded an outlet, and, out of this, our town was given a new name, Federalsburg.

The road following the Marshyhope Creek had been made the boundary between Caroline and Dorchester counties. It also divided the Town of Federalsburg. As new homes were built and the settlement increased in size, the fact that the western side of town was in Dorchester County and the eastern side in Caroline County, created a hardship for its citizenry. So great and so general was the inconvenience concerning issues such as taxes and education that a petition was signed in 1880 by all seventy voters in the Dorchester part of Town. This eventually resulted in a boundary change. For a payment of \$614 into the Dorchester County treasury, this change allowed the Dorchester part of Federalsburg to be moved into Caroline County and for the town to become a unified jurisdiction.

There is a rich African-American History in our community as well. Some of this is presented on the waterfront park trail. A sign along this trail summarizes the history of slaves and slave-trading as follows:

English colonists who were attempting to meet the labor shortfall caused by the cultivation of tobacco brought enslaved Africans to the Marshyhope Creek Region in the early eighteenth century. By the early nineteenth century, the agricultural economy had changed from tobacco to grain crops. This greatly reduced the need for slaves along the Marshyhope Creek. During the same time, however, the demand for slaves rose dramatically in the "Deep South" where the economy was based on labor intensive crops such as cotton, sugar, and rice.



Beginning around 1819, slave purchasers from the “Deep South” regularly visited the Marshyhope Creek Region. By 1829, one in every ten slaves in Caroline County had been “sold South.” The value of slaves greatly increased, due to southern demand. Gangs formed along the Nanticoke River to kidnap and sell slaves, as well as free African Americans, to corrupt slave traders. Patty Cannon, the leader of the most notorious gang, apparently began her nefarious activities (circa 1820-29) at a tavern at the southeast corner of the Central Avenue Bridge. She later relocated to the lower Nanticoke River.

Marshyhope Creek also played a critical role in the Underground Railroad. Harriet Tubman, a native of Dorchester County, came to Caroline County a number of times to rescue slaves, including her brothers in 1854 and her parents in 1857. “Conductors” like Tubman and slaves followed the Marshyhope Creek northeastward to safe “stations” in Delaware. Dams along the Marshyhope Creek provided crossing points.

Despite the overwhelming adversity they faced, African Americans in this region forged a tight-knit community that assisted the Underground

Railroad, established churches, and regularly purchased the freedom of enslaved relatives. By the time of the War Between the States, 79% of African-Americans in Caroline County were free. Many leased or owned small farms, and one, Rixom Webb, owned over 1,000 acres of land.

Shipbuilding was probably our earliest industry. The surrounding white oak forests supplied all the necessary building materials. However, the water was too shallow for ships to be launched at Federalsburg. Notwithstanding this problem, keels were laid at many different points in the southern part of Town. Upon completion, they were moved downstream to Brown's Wharf, a landing four miles farther down the river. There they were completed, launched, laden and began their careers as a bay and river trading vessels. This industry ceased at Federalsburg sometime before the Civil War.

Besides shipbuilding, early commercial activity revolved around the milldam, which was located at the northern end of Town. The mills there, later known as the "Idlewild Mills," converted logs, floated upstream on high tide, into lumber which was then sent downstream and on to Baltimore. Fleece from the countryside was processed into yarn there, and wheat was ground and eventually made into "Maryland Biscuits." The dam was used continually until



the last mill burned in 1916. Only faint traces of the dam remain following severe flooding in the 1930's.

River traffic with Baltimore, as with some other small towns on the Chesapeake, began at an early date. Heavy scows were loaded and pushed down the river by four or five muscular men using long poles. At Brown's Wharf, they were reloaded onto schooners and other sailing vessels destined for ports along the Bay and eastern seaboard.

Before the Civil War, there was relatively little cross-country travel except for mail delivery and passenger service provided by stagecoaches. Even after the Civil War, stages made daily trips from Bridgeville to Federalsburg to Cambridge and on to Easton.

The Seaford and Cambridge Division of the Pennsylvania Railroad was opened on October 12, 1868. This date marked a new era in the history of Federalsburg, because refrigerated railcars made Philadelphia, New York, and other northern cities the markets for perishable fruits and produce grown in our region. By the late 1800's, Federalsburg was a center for canning fruits.

Today, agriculture is still a major industry for the area; however, more and more, Federalsburg is being discovered as a location suitable for industrial growth. We have three industrial parks, Federalsburg Industrial Park and Caroline Industrial Park and the Frank M. Adams industrial park. They support businesses with work forces numbering in the hundreds. They also offer town water, sewer, police protection, rail service, and electric power to serve almost any need. They are zoned for warehousing, wholesaling, manufacturing, laboratories, printing and similar businesses. These three Industrial Parks are in addition to individual industrial properties located in other parts of our Town.

Regional Setting

When planning for the future of Federalsburg, it is vitally important to consider the location of the Town and its interdependence with other geographic and economic regions, such as Caroline County, the Eastern Shore, the Delmarva Peninsula, and the larger metropolitan areas within reasonable proximity.

Federalsburg's location in the southeasterly corner of Caroline County places it near the center of the Delmarva Peninsula. The early Town settlement on Marshyhope Creek (along the headwaters of the northwest branch of the Nanticoke River) afforded inland access to the Chesapeake Bay by water. The bridging of the Marshyhope Creek at this point provided a cross-country route, which together gave rise to the nucleus of the original settlement reputed to date back to 1789.



The 2000 Census indicated that our population was 2,620. This makes us the second largest Town in Caroline County [after Denton – 2,960] and the 14th largest on the Eastern Shore. Eastern Shore jurisdictions closest in size to our Town are Worcester County's Snow Hill (2,409) and Somerset County's Crisfield (2,723).

Our resources have traditionally been tied to the land. Prior to the Civil War, Federalsburg enjoyed importance as a shipbuilding center with surrounding white oak forests furnishing much of the material. Agricultural productivity in the surrounding areas supported the Town's position as a "hinterland" trade center, and agriculture continued to be a basic economic activity. Manufacturing activities have also developed, providing diversification and growth to our Town's economic base.

With the development of modern highways, Federalsburg's links to the larger region have been strengthened. Major transportation routes linking the Delmarva Peninsula with the continental land mass have evolved into north-south routes (generally 113 and 13 to the east in Delaware and 50/301 in Maryland.) Recent dualization of parts of Maryland Route 404, which is continuing, and other improvements have also helped.

Caroline County, in the north-central portion of the Eastern Shore, is characterized by very flat to gently rolling land areas bounded on the west by the Talbot and Queen Anne's Counties, on the south by Dorchester County, and on the east by the State of Delaware. The Eastern Shore's major link to the rest of Maryland is via the Chesapeake Bay Bridge, which is located in Queen Anne's County. Caroline's 2000 population was 29,772, smaller than either of its Eastern Shore neighbors (Dorchester, Talbot, Caroline, and Queen Anne's) and smaller than all but Kent and Somerset Counties on the whole Shore. The 29,772 residents represented a 10.1% increase over the 1990 population of 27,035.

Caroline County is also located adjacent to Sussex County, Delaware. Sussex is a large and very rapidly growing jurisdiction. Sussex is geographically the largest County east of the Mississippi River and it had a 2000 population of 156,638. Federalsburg in particular is located in close proximity to Seaford and Bridgeville in Delaware. Seaford had a 2000 population of 6,699 and Bridgeville had a population of 1,436. In October of 2002 Bridgeville residents approved a new development that will bring a golf course and some 2000 new homes.

The Eastern Shore of Maryland contains nine counties with a 2000 population of 395,903. This represents an increase of 15% over the 1990 population. An abundance of fresh water and favorable soil characteristics enhance the Eastern



Shore's value for agricultural purposes. Industrial activity in the region has historically been related primarily to agricultural activities and processing of seafood taken from the Bay and its numerous tributaries. However, since 1970 several industries have located on the Shore that are not reliant upon food products. These include manufacturing, electronics assembly and commercial services, resulting in significant industrial diversification.

"Delmarva" is a term that describes the 6,057 square mile peninsula encompassing the nine Eastern Shore of Maryland Counties (although some descriptions of the region do not include Cecil County, for the purposes of this Plan it is included), all of the State of Delaware, and the two counties on Virginia's Eastern Shore. In 2000 the population of Delmarva was 1,230,901. 55% of the land area and roughly 1/3 of the population of the Delmarva Peninsula is in Maryland. The peninsula is bounded by the Chesapeake Bay on the west and south, and the Delaware Bay and Atlantic Ocean on the east. The peninsula lies almost entirely within the Atlantic Coastal Plain.



Map 1 - Regional Location

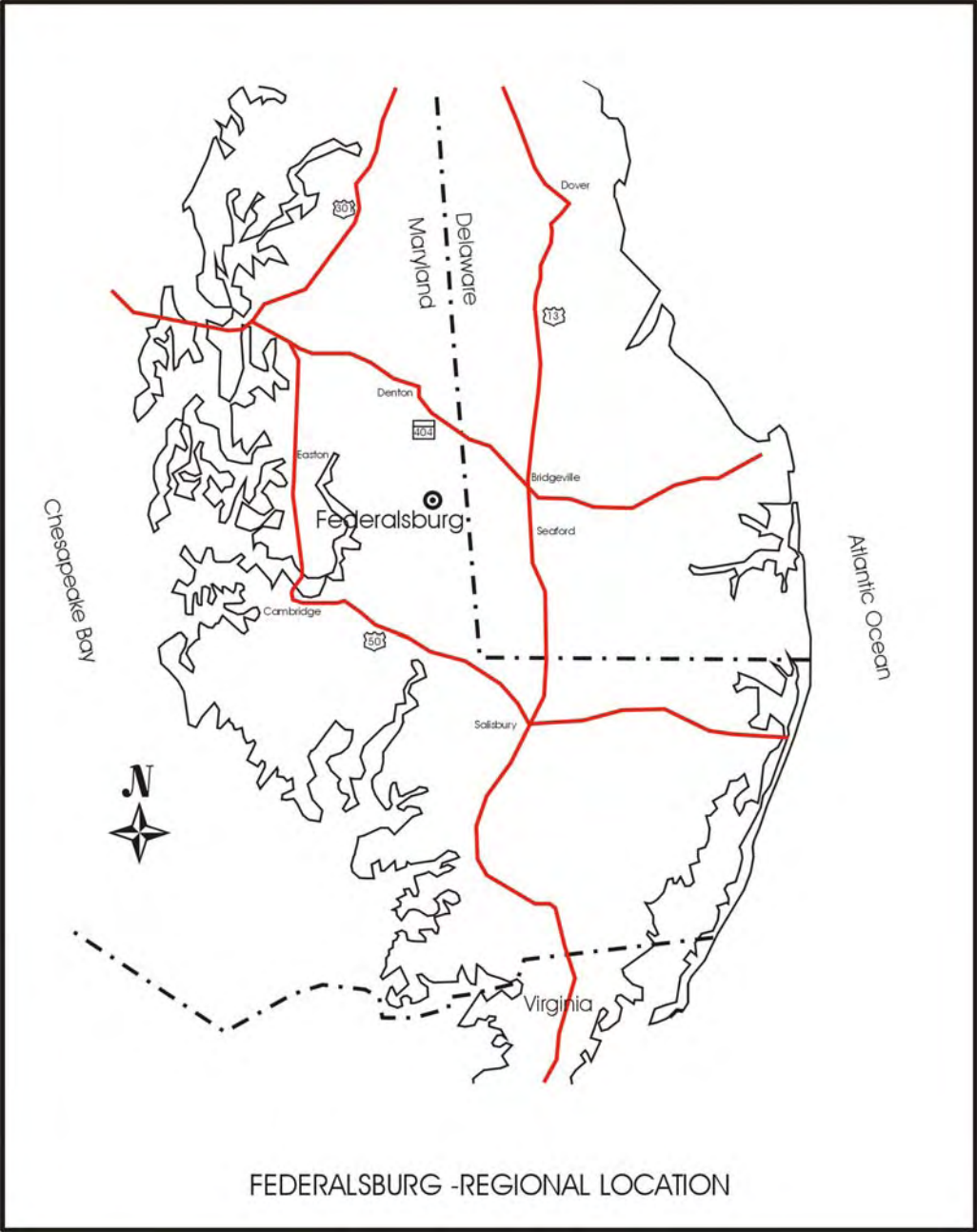




Table 1 lists the population of Federalsburg, Caroline County, and the Eastern Shore since 1970. This table demonstrates the small town nature of Federalsburg as we have consistently provided a relatively small proportion of the residents of Caroline County and the Eastern Shore.

Table 1, 30-Year Population Comparison

	2000	Federalsburg as %	1990	Federalsburg as %	1980	Federalsburg as %	1970	Federalsburg as %
Federalsburg	2,620	--	2,365	--	1,952	--	1,917	--
Caroline County	29,772	8.8%	27,035	8.7%	23,143	8.4%	19,781	9.7%
Eastern Shore	395,903	0.7%	343,769	0.7%	296,620	0.7%	258,329	0.7%

One factor, which may make Federalsburg specifically, and the Eastern Shore in general, more attractive to both people and businesses looking to relocate, is its relative proximity

to surrounding states and economic markets. In fact, Washington, D.C. and five state capitals (Annapolis, MD, Dover, DE, Richmond, VA, Harrisburg, PA, and Trenton, NJ) are within approximately three hours driving time of Federalsburg.

Major regional metropolitan centers include Washington, Baltimore, and Philadelphia; each is approximately a hundred miles from Federalsburg and requires about two hours driving time to reach. Federalsburg is also within the market area of local "regional" commercial centers such as Salisbury (35 miles to the south) and Dover, Delaware (40 miles to the north). Easton, which is developing into the shopping and employment center of the mid-shore, is about 17 miles to the west.

Federalsburg is also conveniently located for easy access to major recreational opportunities and attractions. Numerous Chesapeake Bay destinations are 30 to 35 miles to the west, while Delaware's Atlantic Ocean beaches and parks are only 40 miles to the east. Sixty-five miles of high-speed highways link Federalsburg to Maryland's Ocean City - the premiere Mid-Atlantic ocean resort and destination of vacationers from as far away as Canada and the Midwest.

The highway system on Delmarva has recently undergone very extensive upgrading (which is continuing). New bridges, overpasses, and the elimination of some at-grade intersections have elevated much of the link with Washington, D.C. and Baltimore to interstate status. Similarly, improvements in Delaware constitute the nations largest current interstate project. When complete, these improvements will better link the Northeast with the Southeast effectively moving these regions closer together. Other north-south and east-west highway improvement projects on Maryland's Upper Eastern Shore will continue the trend, started by the construction of the Chesapeake Bay Bridge in the late 1950s, of



bringing the Delmarva Peninsula into the mainstream of American economic development. All this means that Federalsburg is not the isolated little place that it was for hundreds of years, right up until the time the Bay Bridge opened. Today, in fact, we are located 60-90 minutes from the heart of the fourth largest consumer market in the United States, the Washington-Baltimore metropolitan area. Two other large consumer markets, Philadelphia and New York, are within 2-3 hours travel time from Federalsburg. Thus within 350 miles of our Town, more than one-third of the U.S population lives and approximately 40% of the U.S. industrial market is based.

Improvements to secondary and regional airports have achieved much of their promise to raise awareness about and access to the area. Federalsburg is served by a modern regional airport in Easton capable of handling small commercial jets which provide commuter service to all major metropolitan centers. Other general aviation airfields are available in Cambridge, Salisbury,

Ridgely, and Dover, Delaware. Medevac helicopter service to the University of Maryland's Shock Trauma Center is dispatched from Salisbury and Centreville.

Major medical centers are also available locally in Easton, Cambridge, and Salisbury. The nearest hospital is eleven miles away in Seaford, Delaware. Satellite offices for all hospitals are located in Town on Bloomingdale Avenue.

Demographic Setting

Information from the 2000 Census is in the process of being released in stages. Some has yet to be released, but much is available at this time. Table 2 provides an overview of some of the data that has been released to date. It provides this data not only for Federalsburg, but also for Caroline County and the State of Maryland as a whole for comparison purposes.



Table 2 - Comparison of Federalsburg, Caroline County and State of Maryland in Selected Demographic Characteristics from the 2000 Census			
Subject	Federalsburg	Caroline County	Maryland
Total Population	2,620	29,772	5,296,486
% Male/Female	45.0/55.0	48.9/51.1	48.3/51.7
Median Age	33.2	37.0	36.0
% < 18	30.8	26.8	25.6
% 65+	14.2	13.5	11.3
% White	58.9	81.7	64.0
% Black or African American	36.8	14.8	27.9
Total Households	1,045	11,097	1,980,859
Average Household Size	2.51	2.64	2.61
Total Housing Units	1,130	12,028	2,145,283
% Owner-occupied	46.0	74.1	67.7
% High School Graduate or higher	68.8	75.0	83.8
% Bachelor's Degree or higher	5.2	12.1	31.4
% born in MD	72.1	68.6	49.3
Average (mean) commute	25.0	30.4	31.2 minutes
Median Household Income	\$24,266	\$38,832	\$52,868
Median value of owner-occupied homes	\$84,300	\$101,700	\$146,000
% lived in home 10+ years	31.7	42.3	36.5
Growth Rate in 90's	10.8	10.1	10.8

Perhaps what this Table shows more than anything else is that Federalsburg is a community of young people. The median age is notably younger than that in Caroline County and the State as a whole. Also, the differences in many of the other categories, such as educational attainment and household income, can be explained in large part by the fact that our population is so much younger. This has immediate implications for policies in this Plan. A community with a disproportionately high percentage of young people will have more interest in such things as day care facilities. Also, while parks are clearly beneficial to all segments of a community, the fact that we have so many children and young adults suggests the need to improve these parks with active recreational amenities such as hiking trails, playing fields, playground equipment, etc.



Table 3 looks in more detail at one of the sets of data that has been released by the Census Bureau, age, sex, and racial characteristics of Federalsburg. The corresponding data for Caroline County is provided for comparison purposes.

Table 3 – Age, Sex, and Race Characteristics from 2000 Census Federalsburg and Caroline County				
	Federalsburg		Caroline County	
	Number	Percent	Number	Percent
Total Population	2,620	100.0	29,772	100.0
Total Male	1,179	45.0	14,571	48.9
Total Female	1,441	55.0	15,201	51.1
Under 5	230	8.8	1,843	6.2
5 – 9	228	8.7	2,277	7.6
10 - 14	230	8.8	2,446	8.2
15 - 19	177	6.8	2,128	7.1
20 - 24	194	7.4	1,563	5.2
25 - 34	313	11.9	3,684	12.4
35 - 44	369	14.1	4,908	16.5
45 - 54	296	11.3	4,058	13.6
55 - 59	126	4.8	1,601	5.4
60 - 64	86	3.3	1,233	4.1
65 - 74	185	7.1	2,116	7.1
75 - 84	154	5.9	1,423	4.8
85 +	32	1.2	492	1.7
Median Age	33.2	--	37.0	--
18+	1,814	69.2	21,794	73.2
Male	777	29.7	10,423	35.0
Female	1,037	39.6	11,371	38.2
21+	1,718	65.6	20,790	69.8
62+	422	16.1	4,763	16.0
65+	371	14.2	4,031	13.5
Male	142	5.4	1,685	5.7
Female	229	8.7	2,346	7.9
White	1,544	58.9	24,322	81.7
Black or African Amer.	965	36.8	4,398	14.8
Amer. Indian or Alaskan	8	0.3	110	0.4
Asian	17	0.6	163	0.5
Hawaiian & Other Pacific Islanders	1	<0.1	5	<0.1
Other Single Race	10	0.4	376	1.3
Two or More Races	75	2.9	398	1.3



Table 4 looks at educational characteristics of the populations of Federalsburg and Caroline County from the 2000 Census.

Table 4 – Educational Characteristics of the 2000 Population of Federalsburg and Caroline County				
	Federalsburg		Caroline County	
	Number	Percent	Number	Percent
School Enrollment				
Population 3+ enrolled in public school	752	100.0	7,456	100.0
Nursery school, preschool	50	6.6	442	5.9
Kindergarten	57	7.6	398	5.3
Elementary School (grades 1-8)	366	48.7	3,905	52.4
High School (grades 9-12)	210	27.9	1,875	25.1
College or Graduate School	69	9.2	836	11.2
Educational Attainment				
Population 25+	1,607	100.0	19,550	100.0
< 9 th Grade	179	11.1	1,401	7.2
9 th – 12 th grade, no diploma	322	20.0	3,482	17.8
H.S. Graduate (includes equivalency)	740	46.0	8,219	42.0
Some College, No degree	233	14.5	3,291	16.8
Associate Degree	50	3.1	796	4.1
Bachelor's Degree	41	2.6	1,424	7.3
Grad. or professional degree	42	2.6	937	4.8
% High School grad. +	68.8	--	75.0	--
% Bachelor's degree +	5.2	--	12.1	--



Table 5 provides a glimpse of the employment characteristics of Federalsburg and Caroline County.

Table 5 – Employment Characteristics of the 2000 Population Of Federalsburg and Caroline County				
	Federalsburg		Caroline County	
	Number	Percent	Number	Percent
Employment Status				
Population 16 + years old	1,971	100.0	22,743	100.0
In labor force	1,164	59.1	15,045	66.2
Civilian Labor Force	1,164	59.1	15,016	66.0
Employed	1,103	56.0	14,297	62.9
Unemployed	61	3.1	719	3.2
% of Civilian Labor Force	5.2	--	4.8	--
Armed Forces	0	0	29	0.1
Not in Labor Force	807	40.9	7,698	33.8
Commuting				
Workers 16 + years old	1,075	100.0	14,093	100.0
Drove alone	759	70.6	10,854	77.0
Carpooled	241	22.4	2,071	14.7
Public Trans./Taxi	5	0.5	48	0.3
Walked	28	2.6	254	1.8
Other	22	2.0	159	1.1
Worked at Home	20	1.9	707	5.0
Mean Travel Time	25.0 minutes	--	30.4 minutes	--



Table 6 compares income characteristics of Federalsburg and Caroline County.

Table 6 – Income Characteristics of the 2000 Population Of Federalsburg and Caroline County				
	Federalsburg		Caroline County	
	Number	Percent	Number	Percent
Income in 1999				
Households	1,073	100.0	11,098	100.0
<\$10,000	236	22.0	1,033	9.3
\$10,000 - \$14,999	121	11.3	819	7.4
\$15,000 - \$24,999	193	18.0	1,471	13.3
\$25,000 – \$34,999	122	11.4	1,597	14.4
\$35,000 - \$49,999	123	11.5	2,165	19.5
\$50,000 - \$74,999	192	17.9	2,276	20.5
\$75,000 - \$99,999	52	4.8	1,087	9.8
\$100,000 - \$149,999	20	1.9	501	4.5
\$150,000 - \$199,999	4	0.4	100	0.9
\$200,000+	10	0.9	49	0.4
Median Household Income	\$24,266	--	\$38,832	--
With Earnings	775	72.2	9,003	81.1
Mean Earnings	\$36,130	--	\$45,514	--
W/Social Security Income	407	37.9	3,227	29.1
Mean SS Income	\$9,418	--	\$10,424	--
W/ Supplemental Security Income	49	4.6	497	4.5
Mean Supplemental Security Income	\$5,370	--	\$5,470	--
W/ Public Assistance Income	58	5.4	342	3.1
Mean Public Assistance Income	\$1,855	--	\$2,542	--
W/ Retirement Income	159	14.8	1,877	16.9
Mean Retirement Income	\$12,075	--	\$15,976	--
Per Capita Income	\$13,878	--	\$17,275	--
Families below poverty level	156	21.0	730	9.0



Finally, Table 7 provides selected housing characteristics of Federalsburg and Caroline County.

Table 7 – Housing Characteristics of the 2000 Population Of Federalsburg and Caroline County				
	Federalsburg		Caroline County	
	Number	Percent	Number	Percent
Total Housing Units	1,157	100.0	12,028	100.0
Year Structure Built				
1999 – March 2000	21	1.8	311	2.6
1995 - 1998	45	3.9	971	8.1
1990 - 1994	114	9.9	1,264	10.5
1980 - 1989	197	17.0	2,015	16.8
1970 - 1979	89	7.7	1,893	15.7
1960 - 1969	80	6.9	975	8.1
1940 - 1959	258	22.3	1,976	16.4
1939 or earlier	353	30.5	2,623	21.8
Occupied Housing Units				
Year Householder moved into unit				
1999 – March 2000	256	24.1	1,769	15.9
1995 - 1998	277	26.1	2,716	24.5
1990 - 1994	193	18.2	1,921	17.3
1980 - 1989	112	10.6	2,041	18.4
1970 - 1979	110	10.4	1,323	11.9
1969 or earlier	113	10.7	1,327	12.0
Lacking complete plumbing facilities	0	0	96	0.9
Lacking complete kitchen facilities	0	0	59	0.5
No telephone service	87	8.2	403	3.6

These statistics provide a useful profile of Federalsburg for a variety of purposes. Perhaps the most crucial purpose is the background it provides for preparing population projections. These are an important part of any Comprehensive Plan because they shape much of the overall growth philosophy of the Plan.

A major obstacle in preparing population projections for Federalsburg, as is the case for many Eastern Shore communities, is that mathematical models or techniques are much less reliable when the population that is being projected is small. While it is relatively easy to project a continuation of past trends and/or to adjust those projections to account for anticipated or planned policy changes, it only takes one or two unexpected events to render these projections essentially useless. That being said, we still must look ahead and provide our best guess as



to what the future population of our Town might be. To that end, Table 8 provides a series of possible future populations for Federalsburg.

	2000 (actual)	2005	2010	2015	2020	2025
MDP projections for Caroline Co.	29,772	30,950	32,050	33,000	33,850	34,600
1.0% average annual growth rate	2,620	2,754	2,894	3,042	3,197	3,360
Constant % of County population (8.8%)	2,620	2,724	2,820	2,904	2,979	3,045
Increasing % of County population (by 0.1% every 5 years)	2,620	2,754	2,885	3,003	3,114	3,218

Table 8 projects Federalsburg's future population on the basis of three different scenarios. The first uses a 1.0% annual growth rate. This was selected because it proved to be very accurate when used in the last Comprehensive Plan, which predicted a 2000 population of 2,600 based on 1.0% annual growth. As we now know that turned out to be off by only 20 people. The second scenario projects the Town's population as 8.8% of Caroline County's projected population. 8.8% was Federalsburg's share of the total Caroline County population in 2000. The third scenario is similar to the second except that it projects Federalsburg's population as a slightly increasing percentage of the county total. This may be logical if the consequences of Smart Growth policies are, as intended, that the majority of future growth occurs in Towns and designated growth areas.



Physical Setting

The natural attributes of the landscape continue to influence how and where a community grows despite advances in technology and the capability for altering many limitations. Topography, drainage, soil characteristics, and other natural features, in large part, define areas suitable for development. A review of relevant characteristics will serve to highlight those features that exert an influence on the Town's pattern of growth, identify potential problem areas, and provide the context for recommendations contained in our Land Use element.

Topography, Drainage, and Steep Slopes

The Town of Federalsburg lies within the Marshyhope Creek watershed, a drainage basin of some 218 square miles, originating in Delaware and taking in part of southeastern Caroline and northeastern Dorchester Counties. The upper reaches of the watershed are flat, lack defined floodways, and are characterized by poorly developed natural drainage patterns. Although these conditions are not as acute in the Caroline County portion of the drainage basin (about 40,240 acres), the area is subject to periodic flooding after heavy rainfall. The location of Federalsburg at the head of the tidal waters of the Marshyhope Creek exposes it to a vulnerable potential for floodway overflow from the creek. Floods dating back to the 19th century have inundated parts of the Town.

Topographic and FEMA floodplain maps of the Federalsburg area reveal the overall flatness of the terrain and indicate the low-lying parts of the Town subject to flood dangers. Elevation data in the Marshyhope Creek Watershed Work Plan indicates that the average valley floor level in Federalsburg is about two feet mean sea level.

The western bank of the creek defines the rear property lines of the Town's Central Business District, running parallel to the creek. Elevation of Main Street above the creek's waters is nominal as the ground slopes gradually to the river's edge. The ground elevation rises to only 20 feet within a distance of about 1,200 feet from the creek along a line approximately parallel to Buena Vista Avenue, or an area covering about one third of the built up portion of the Town west of Marshyhope Creek. Land on the eastern side of the creek is also low-lying, but has not been built upon to the same extent.

The U.S. Army Corps of Engineers has established 10.0 feet mean sea level as the stage at which serious flood damage would begin. This 10.0-foot flood stage has been equaled or exceeded six times since 1876. In 1935 the Town experienced its worst inundation when flood stage rose to 17.4 feet mean sea level. The 1935 flood resulted from a hurricane that released 13 inches of rain



over a three-day period. Resulting damages were estimated at one-half million dollars (\$4,319,000 in 1993 dollars.) Earlier floods date back to 1876, with intervening floods in 1889, 1919, and 1933.

Efforts to seek a solution to recurring flood hazards have been extensive. Several plans and alternatives were prepared by the Army Corps of Engineers under the authority of the Flood Control Act of 1936. Later efforts by the Watershed Operations Division of the U.S. Soil Conservation Service were under authority of Public Law 566.

The Marshyhope Creek Watershed Work Plan provided a limited flood prevention channel through Federalsburg. This channel was designed to remedy the periodic flooding problem and is also geared to handle the increased run-off that resulted from installation of field drains in the agricultural areas of the watershed. These drainage improvements and allied land treatment measures on the watershed's farms were completed during the 1970's.

Construction of the flood channel through the Town also provided a floodway zone running along the creek's banks which includes development restrictions. The floodway was improved and planted with grass, thus providing incidental benefits in the form of a linear Town park.

In 1976, the Federal Insurance Administration of the U.S. Department of Housing and Urban Development conducted a Flood Insurance Study for the Town. For Marshyhope Creek, the boundaries of the 100-year and the 500-year flood were delineated using the flood elevations determined at each cross section shown on the sensitive areas map.

Encroachment on floodplains, such as development and other artificial fill, reduces their flood carrying capacity and increases flood stage elevations, thus increasing flood hazards in areas beyond the encroachment itself. One aspect of flood-plain management involves balancing the economic gain from flood plain development against the resulting increase in flood hazard. For purposes of the Flood Insurance Program, the concept of a floodway is used as a tool to assist local communities in their efforts at floodplain management. Under this concept, the area inundated by the 100-year flood is divided into a proposed floodway and a floodway fringe. The floodway is the channel of a waterway, plus any adjacent floodplain areas, that must be kept free of encroachment in order that the 100-year flood can be carried without substantial increase in flood stage heights. Criteria adopted by the Federal Insurance Administration limit such increases in flood heights to 1.0 foot, provided that hazardous velocities are not produced.

The area between the floodway and the boundary of the 100-year flood is termed the floodway fringe. The floodway fringe thus encompasses the portion of the



flood plain that could be completely obstructed without increasing the water surface elevation of the 100-year flood more than one foot at any point.

For land use planning and development approval purposes the Flood Hazard Boundary map and the Flood Boundary and Floodway map should be used and are hereby specifically referenced.

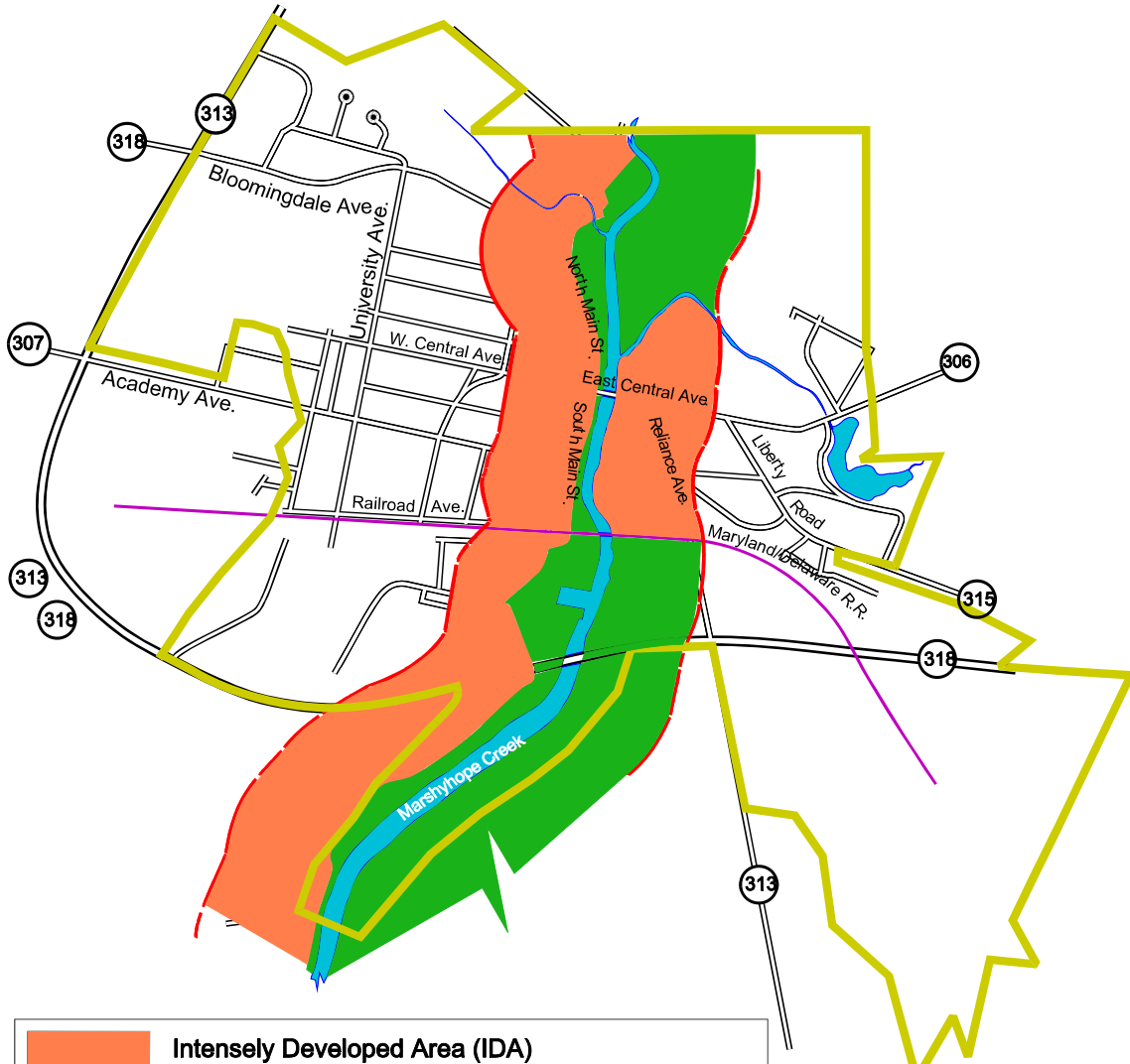
Chesapeake Bay Critical Area Program



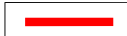


In 1988 Federalsburg adopted its local Critical Area Program in compliance with the requirements of Natural Resources Article 8-1808(d), Annotated Code of Maryland. This Program applies to all lands within 1000 feet of the mean high tide boundary of tidal waters of the State. The Program establishes appropriate land uses and provides environmental protection measures which establish criteria designed to minimize adverse impacts on water quality, natural resources, wildlife habitats, and spawning grounds, while *accommodating growth in the area*. The Program is designed to control the land coverage density and the activities thereon, particularly activities which are inconsistent with environmental protection issues.

The Town of Federalsburg has developed program criteria that are consistent with the state law's requirements for protecting the critical area. These criteria were developed for ease of implementation and monitoring and to minimize any effects that might reduce the Town's appeal to potential developers. The Program is lengthy and provides detailed guidance concerning the decision rules that govern development and redevelopment within the critical area. The Program is hereby referenced, and the reader is cautioned to read and review the officially adopted land use policies contained therein.

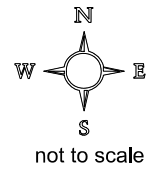


Town of Federalsburg Chesapeake Bay Critical Area



-  Intensely Developed Area (IDA)
-  Resource Conservation Area (RCA)
-  Critical Area Boundary Line (1000' from mean high tide)
-  Town Boundary Line
-  Water

Prepared by the Maryland Office of Planning
Upper Eastern Shore Regional Office





Soil Characteristics

The majority of soils within the Marshyhope drainage basin, in which Federalsburg is situated, are characterized by poor natural drainage. Soils within the vicinity of Federalsburg fall within two groups. In the immediate vicinity of Federalsburg, the dominant soil pattern consists of good quality soils, favorable for agricultural use. This pattern, or group, is found to the west, south, and east of Federalsburg within the limits of the planning area are (as noted on the generalized soils map.) North of Federalsburg the soil pattern falls within the pattern, or group, that reflects the drainage limitations of much of the Marshyhope basin.

Many diverse kinds of soil characteristics are recognized in the land-capability classification system used by the Soil Conservation Service as published in the Soil Survey for Caroline County. The land-capability classification is an arrangement of land units according to those natural characteristics that determine how land can be used safely over a long period. Natural characteristics such as hardpan or tight subsoil make land difficult to use. Slope of land also limits safe land use. Eight land-capability units are defined in the overall classification, ranging from favorable conditions to unfavorable conditions. Capability units I and II are generally good for development, while III through VIII become increasingly restrictive. The characteristics of the units relating to vacant land in the Federalsburg area are described below. Determining the suitability of various soil types for septic tank installations is also possible by means of a classification ranging from good to poor. Some areas around Federalsburg subject to perk limitations may be annexed into Town limits where development could be accommodated on the Town's central water and sewerage systems.

North of Town and west of Smithville Road soils are a patchwork of Sassafras loamy sand, Sassafras sandy loam, Woodstown sandy loam, and Fallsington sandy loam. The Sassafras soils range in slope from flat to 5 percent, are deep moderately well-drained to well-drained soils suitable for septic fields and agriculture. The Woodstown and Fallsington soils are very poorly drained with almost impermeable subsoils causing seasonally high water tables. Septic field failures are common. These soils groups are not suitable for conventional on-lot septic disposal. Development on Fallsington soils should be discouraged unless the site is within Town limits and able to tap into municipal water and sewerage facilities.

The area west of MD 313 is predominantly Fallsington sandy loam. Patches of Woodstown sandy loam and Pocomoke loam are found along both sides of MD 307 for a distance of approximately one half mile west of MD 313 and extend into the northwest corner of Town. Except where Sassafras sandy loam exists, the



soils west of Town are unsuitable for on-lot septic disposal. The best land use is maintenance of existing forest.

Fallsington sandy loam also extends eastward of MD 313 from near the Town boundary (north of MD 307) and south past the Maryland-Delaware Railroad right-of-way and around the curve to the Town's southern boundary at MD 313. Fallsington sandy loam comprises about 50 percent of this area, which changes to Sassafras sandy loam in 2 to 5 percent slopes as one approaches the Town limits. A large inclusion of Fallsington sandy loam is located in the northwestern quadrant of Town on both sides of University Avenue from Morris Avenue north on Vernon Avenue and across Bloomingdale Avenue. The balance of in-Town soils west Smithville Road are Sassafras sandy loam in 2 to 5 percent slopes. A narrow band of soil paralleling Smithville Road has much steeper slopes. North of Central Avenue the slopes increase to 15 to 30 percent.

A different soil, Galestown loamy sand in 2 to 5 percent slopes, predominates between Smithville Road and Marshyhope Creek. Plummer loamy sand, a very poorly drained soil, predominates in the area below the intersection of Buena Vista Avenue and Railroad Avenue south to the Dorchester County line and eastward to Marshyhope Creek.

The northeast quadrant to Town is a mixture of Galestown sand and Galestown loamy sand generally in the 2 to 5 percent slope range with steep slopes in the 15 to 30 percent range dropping to muck and marsh edges along Marshyhope Creek, Tanyard Branch, and northward into the Idylwild Wildlife Management Area.

The eastern and southeastern areas of Town are underlain by Galestown loamy sand varying between 0 to 5 percent slope. This soil is highly suitable for septic disposal and forestry. The soil is acid, rapidly permeable, low in nutrients, low in organic matter and low in moisture holding capability. It is also subject to wind erosion when bare. Agricultural production requires lime, large amounts of fertilizer and irrigation. If subject to development activity erosion control measures should be strictly adhered to and enforced.

Constrained Soils

The soil types illustrated on the Generalized Soils Map are presented in three general suitability groups: Good, Fair and Poor. Soils in the Poor Group are Woodstown, Fallsington, Pocomoke, Mixed Alluvial, Tidal Marsh, Muck, Made, Galestown sand (15-30% slopes), and Sassafras loamy sand (15-30%) slopes. These soils are generally very poorly drained, not suitable for winter and wet weather testing, highly susceptible to frost action, and not suitable for septic drain fields. The Galestown and Sassafras soils in this group are highly susceptible to



erosion and are therefore listed as having development and agricultural constraints. Some of these soils may be adequate for agricultural use only after being drained.

Soils Suitable for Building

Soils suitable for development in the Planning Area of Federalsburg are limited to two series. The Galestown and Saasafras soil groups both exhibit engineering properties conducive to development. In Federalsburg, these soils generally occur on the east side of Marshyhope Creek although these soils also occur on the west side of the creek extending to an area that generally corresponds to the Town boundary. The Sassafras soils are generally well-suited to agricultural use whereas the Galestown soils fall into the capability subclasses below Class III making them more appropriate for development in the planning area.

Minerals

Mineral deposits in the vicinity of Federalsburg consist of sand and gravel. Areas to the south of Federalsburg and in Dorchester County have extensive sand and gravel extraction operations. Appropriate zoning should protect this resource base.

Ground Water

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

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

Vegetation

The first settlers in the Federalsburg area would have found densely forested areas consisting mainly of hardwood species. Oak was the dominant species in most parts of Caroline County though Loblolly pine, Pond pine, Virginia pine,



Short-leaf pine, Yellow poplar, Holly, Gum, Hickory, Maple, and Dogwood were also important. Pure stands of pine were rare in this area before European settlement and the relatively pure stands of pine that exist today are generally in areas that were once cleared and cultivated. Soils that are highly acidic, as are those in the Federalsburg area, are better suited to pine than to most hardwoods as pine does not require a large amount of calcium and other bases. Loblolly pine will become dominant in heavily cut areas and on abandoned cropland where drainage is impeded. Where the soils are sandy and droughty, Virginia pine is better suited.

Marsh vegetation in the area consists mainly of cattail, pickerelweed, duckweed, Olney's three-square, salt marsh bulrush, big cord grass and marshy cord grass. This vegetation is vital to the ecological health of the tributary and provides valuable habitat for wildlife in the watershed.

A wooded "hallway" carries the MD Route 318/313 Federalsburg By-pass through the western and southern edges of the planning area. This southern wooded buffer, although compromised at points by roadway intersections and limited development, currently defines the edge of the Federalsburg area and the extent of the development that has begun to surround it.

To the north lies the Idylwild Wildlife Demonstration Area, a 2,979-acre area that is almost entirely wooded. Idylwild pierces the center of Federalsburg where Town-owned parklands continue the wooded cover along the eastern edge of the Marshyhope Creek. Opportunities for creating or continuing wildlife corridors along this north-south axis are strong and very feasible given the public ownership patterns of the large, key parcels.

Street trees in the Town are healthy and mature in some neighborhoods while nearly non-existent in others. An aggressive street tree program might be combined with the regulations of the Forest Conservation Act to help restore "treescape" of Federalsburg. Along the commercial corridors of Main Street and Central Avenue, the planting of street trees would contribute to a cooler pedestrian environment in the warmer days of the spring and summer while also providing a finished look to a revitalizing downtown.

Wildlife and Habitat

A variety of natural areas will support the necessary biodiversity that is of such cultural, historic, and ecological importance on Maryland's eastern shore. Important habitats include uplands, lowlands, deep woods, narrow tree lines, wet meadows, stream banks, woodland edges, and tidal marshes.



In Federalsburg, the two major habitat features that are readily apparent are the Marshyhope Creek basin and the wooded corridors which radiate out from the Town center towards the north and east.

Vegetation, whether cultivated crops, pasture, or the natural vegetation of forests, swamps, and marshes, determines what kinds of wildlife live in a specific area. Cultivated legumes and grasses valuable for wildlife food and cover include sericea lespedeza, alfalfa, clover, tall fescue, bromegrass, and bluegrass. Native plants of value include switch grass and other prairie grasses, partridge peas, desmodium, and various native lespedezas. Trees and shrubs of wildlife value include sumac, dogwood, persimmon, sassafras, hazelnut, shrub lespedezas, multiflora rose, autumn-olive, oak, hickory, wild cherry, bayberry, blueberry, huckleberry, highbush cranberry, red-osier dogwood, silky dogwood, blackhaw, sweetgum, holly, willow oak, pin oak, swamp white oak, virginia pine, loblolly pine, shortleaf pine, red pine, norway spruce, atlantic white-cedar, and pond pine. Wetland plants are particularly valuable for food and cover to waterfowl and fur-bearing animals. These include smartweed, wildrice, barnyard grass, three-square, bulrush, spikerush, widgeon grass, rice cutgrass, pondweed, duckweed, sedge, cord grass, cattail, arrow arum, pickerelweed, buttonbush, waterwillow, and spatterdock.

Woodland corridors in the Federalsburg area are natural retreats capable of supporting a rich diversity of native plants and animals. The field-woodland edge, of which there is much to the east and west of the Town, provides a home for a great many species, especially birds. The edge is a critical place for nesting, breeding, hiding, and as a source for food. When wildlife corridors are not isolated islands but are linked into continuous bands, more species are supported and contiguous areas become large enough to support predators and larger animals.

Animals characteristic of Federalsburg's habitats include: Open-land wildlife-birds and mammals that frequent areas of cropland, meadows, pastures, and areas overgrown with grasses, herbs, and shrubby vegetation (rabbit, quail); Woodland wildlife - birds and mammals that frequent areas of hardwood trees, coniferous trees, shrubs, and mixtures of such plants (deer, squirrel, raccoon); Wetland wildlife - birds and mammals that frequent wet areas such as ponds, marshes, and swamps (muskrat, various types of waterfowl).



SENSITIVE AREAS

Introduction

This element supports and addresses Vision Two: *Sensitive areas are protected.*

The four sensitive areas mandated for management and protection include:

- streams and their buffers;
- 100-year floodplains;
- habitats of threatened and endangered species; and
- steep slopes.

Sensitive Areas act as natural constraints to development and the expansion of our town. They are shown on the Sensitive Areas map. The existing developed fabric of Federalsburg predates organized recognition of the problems and limitations of these issues. As a result, our limited areas of steep slope and much of the floodplain of Marshyhope Creek have been already developed. However, for new development we will apply the protections that follow:

Protection and improvement of water quality and wildlife habitat is our overall goal for managing "sensitive areas."

Within this context, it is our objective to protect the quality of the air, water, and land from the adverse effects of development and growth. Growth areas will be selected and designated to avoid sensitive areas. However, potential development activities should avoid impacting sensitive areas located outside designated growth areas also. Within designated growth areas, development should be controlled so that negative on-site and off-site impacts are minimized.

When sensitive areas are disturbed, the disturbance can result in increased speed and volume of over the ground runoff. This can increase land erosion, siltation, and sedimentation in waterways. That in turn pollutes the water column and reduces light for submerged aquatic vegetation and chokes important parts of the aquatic food chain. Ultimately, spawning grounds and benthic habitats are destroyed and also leads to serious problems for many commercial fisheries.

In addition to direct deposition of soil particles, runoff carries chemicals such as fertilizers, pesticides, and herbicides that have bonded to the soil or are leached from farmland, yards, driveways, and streets into the Marshyhope and eventually into the Nanticoke River and the Bay. All the nonpoint sources of pollution related to man's impact on the landscape eventually flow into the Bay unless filtered or retained by some structural or nonstructural technique.



For these reasons natural woodlands and grasslands are critical to restoring and maintaining the health of the aquatic environment. These natural vegetated areas act as filters to trap various chemicals and soil particles before they enter our area's streams and drainage system. The protection of a healthy biosphere is a common sense thing to do. It is the cheapest and easiest way to avoid the economic and environmental costs associated with trying to correct problems after they occur.

We intend to establish a *sensitive areas buffer* to protect our identified sensitive areas, protect and improve water quality and enhance wildlife habitats.

Streams

Streams are shown on the Sensitive Areas map. A 50-foot stream protection buffer should be adopted that begins from the edge of bank of any stream or waterway that does not have a mapped 100-year floodplain. The 50-foot "stream protection buffer" should be applied next to the unnamed tributary that lies north of and runs parallel to Bloomingdale Avenue along that part that lies outside of the 100-year floodplain of Marshyhope Creek.

100-year Floodplains

The 100-year floodplain is shown on the Sensitive Areas map. This floodplain includes lands that have a projected probability of one percent of being inundated in any given year. This does not mean that these lands will only be flooded once every hundred years. The flood potential is explained in more detail on the FIRM map.

The 100-year floodplain is identified on the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency. The floodplain generally exists along Marshyhope Creek and includes most of our historical downtown including North Main Street and South Main Street.

Tanyard Branch has its own 100-year floodplain that extends beyond Town limits to the eastern end of our planning area. Miles Branch also has a mapped floodplain which extends through the southern portion of our planning area.

The floodplain extends quite far from the stream banks where the slope of the land is very flat. In other areas, where adjacent slope is steeper, the floodplain is very close to the edge of the stream bank.

Our Flood Ordinance stipulates a 100-foot setback beginning from the edge of stream bank for any waterway that has a mapped floodplain and a 50-foot setback beginning at the stream bank of any waterway that does not have a



mapped floodplain. Our floodplain ordinance already addresses the issue of sensitive area protection due to our unique combination of topography and historical development.

Habitats

The Maryland Fish, Heritage and Wildlife Administration have indicated the presence to two rare and/or endangered species within Federalsburg: the Eastern tiger salamander (endangered) and the Seaside alder (rare). Also, within ½ mile of Town in the Marshyhope Creek, the Glassy darter has been identified as an endangered species. Finally, within ¾ mile of Town in the Marshyhope Creek, the DNR has indicated the presence of Parker's pipewort, also endangered.

It is our general belief that these species are either aquatic or have a habitat range that is within our mapped floodplains. The movement inherent in aquatic species creates a challenge for map makers trying to locate resources with geographic specificity. Therefore, we will rely on our floodplain maps to provide a general indication of their potential presence.

We will require certification by a recognized expert before final project approval that these species are not present, or that they will not be negatively impacted by specific development projects that may be proposed. Accordingly, our floodplain ordinance should provide adequate protection for these resources.

Steep Slopes

"Steep slope" means a change in topographic elevation of 15 feet or more over a horizontal distance of 100 feet. Areas subject to steep slope conditions are shown on the Sensitive Areas map and are generally located along Buena Vista Avenue and along Park Lane. Information about steep slopes is based on the Caroline County Soil Survey prepared by the U.S. Department of Agriculture, Soil Conservation Service.

A 50 foot buffer setback for new construction, from the top-of-slope, should be applied to all areas found to include steep slopes. Variances from this requirement may be granted based on a site review of actual circumstances since many of our steep slope areas have already been built upon and building permit requests are likely to be primarily building additions or renovation activities. In those cases where a new structure may be proposed on a vacant parcel, or on the only feasibly buildable part of an existing lot, our policies favoring infill development and the property rights of individuals owning an



otherwise buildable lot should be given due consideration. Further, building permit requests under those circumstances are presumed to be consistent with our overall policies favoring flexibility, economic activity, and the efficient use of resources, and with this Comprehensive Plan.

If construction is permitted in or next to steep slope areas, sediment and erosion controls should be strictly monitored and enforced.

Creation of new lots that contain so much steep slope area that building a residence or siting a principal building would encroach on the area of steep slope, or result in requiring extraordinary sediment and erosion control measures, should be avoided.

Non-tidal Wetlands

Nontidal wetlands include important environmental conditions that support plant and animal habitats important to our rural landscape. These wetland areas also support important groundwater recharge functions. As a step toward achieving sensitive areas protection and developing an environmental stewardship ethic in all residents, we have added nontidal wetlands to the list of conditions that should be protected from development impacts. This Plan expands local protection of nontidal wetlands to include those located outside the Chesapeake Bay Critical Area. The State also has a Non-tidal Wetlands Program administered by the Maryland Department of the Environment.

Because federal and State regulations govern nontidal wetlands, and wetlands have implications for limiting growth, we have identified locations of nontidal wetlands mapped on the National Wetlands Inventory. The general locations of these wetlands are included on the Sensitive Areas map.

Combinations of forested and emergent nontidal wetlands are present throughout the floodplains that border our waterways and especially in the Idylwild Wildlife Management Area to our north and in the wooded areas to the west of MD 313. The presence of these nontidal wetlands contribute to our policies for limiting growth and expansion. More detail concerning nontidal wetlands buffers is included in our critical area program. However, for consistency and ease of administration (as well as increased protection) we intend to adopt a 50-foot buffer for all nontidal wetlands, both within and outside the Critical Area.

Chesapeake Bay Critical Area

The Critical Area includes tidal waters and the first one thousand feet landward from the head of tide and edge of tidal wetlands. The Critical Area map shows the relationship of the Critical Area to the rest of our town. Our Critical Area



Program meets the goals of the Chesapeake Bay Critical Area Act and our goals for development and resource protection. It is implemented with the assistance of a State Critical Area Circuit Rider.

We will protect and conserve the Federalsburg Critical Area by:

- minimizing adverse impacts on water quality that result from pollutants discharged from structures or conveyances, or that have run off from surrounding lands;
- conserving fish, wildlife, and plant habitat; and
- establishing land use policies for development in the Chesapeake Bay Critical Area which accommodate growth and also address the fact that, even if pollution is controlled, the number, movement, and activities of person in that area can create adverse environmental impacts.
- encourage the planting of trees, shrubs, and herbaceous plants to create multi-storied habitat for plants and wildlife where feasible within town;

The Program recognizes three types of existing and potential development intensity in the Critical Area:

Intensely Developed Areas (IDA)

those areas where residential, commercial, institutional, and/or industrial developed uses predominate, and where relatively little natural habitat occurs.

Limited Development Areas (LDA)

those areas which are currently developed in low or moderate intensity uses. They also contain areas of natural plant and animal habitats, and the quality of runoff from these areas has not been substantially altered or impaired.

Resource Conservation Areas (RCA)

those areas characterized by nature-dominated environments (that is, wetlands, forests, abandoned fields) and resource-utilization activities such as agriculture, forestry, fisheries activities, or aquaculture.

In Federalsburg, much of our intense development historically occurred inside the Critical Area. As a result, most of our Critical Area lands are classified as Intensely Developed Areas.



Our Critical Area Program establishes a 100-foot buffer in the first hundred feet of the critical area. It is a strip of land that has its own specific management criteria and forms the "first line of defense" for the Bay and its tributaries. Where existing built properties include buffer areas that do not function as originally conceived and intended under the Program, these properties may be exempt from the buffer restrictions included in the Program. However, as currently written, our floodplain ordinance is more restrictive and places extensive restrictions on potential activities within the buffer.

As defined, we have no Limited Development Areas.

We do have Resource Conservation Areas, along the Marshyhope, which are chiefly designated for forestry, fishery activities, and other resource utilization activities such as natural parks and habitat protection.

New development or redevelopment in RCA areas should:

- Conserve, protect, and enhance the overall ecological values of the Critical Area, its biological productivity, and its diversity;
- Provide adequate breeding, feeding, and wintering habitats for wildlife populations that require the Chesapeake Bay, its tributaries, or coastal habitats to sustain those species;
- Conserve the land and water resource base necessary to maintain and support land uses such as agriculture, forestry, fisheries activities, and aquaculture; and
- Conserve existing developed woodlands and forests for the water quality benefits that they provide.

Development in the RCA is limited to one dwelling unit per twenty acres, with provisions for including certain wetland acreages in density calculations, subject to an overall limit of one dwelling unit per eight acres.

In RCA areas the buffer may be revised for agricultural activities under certain circumstances described in our Program. However, at present, there are no farms in the critical area within Town limits.

Growth Allocation

Our critical area program includes a procedure for changing the designation of RCA lands to either LDA or IDA. This procedure is known as "growth allocation" and involves both Caroline County and the State Chesapeake Bay Critical Area



Commission. We have not requested any growth allocation from Caroline County. Based on our land use policies, physical layout, and locations of sensitive areas, it is unlikely that future growth allocation requests will be made.

However, if they do occur, we will follow the program criteria and procedures, and adopt appropriate policies and procedures for reclassified lands at that time.

Our Critical Area program also includes an "agricultural plan", a "forests and developed woodlands plan", addresses shore erosion protection, surface mining, natural parks, habitat protection areas, buffer management policies, plant and wildlife habitat management, management of anadromous fish propagation waters, and enforcement provisions.

Woodlands and Forest Areas

Woodland areas are noted on our existing land use map in the Background Element. Within Town limits, the major forested parcels are along MD 318 and the railroad tracks and on the vacant lands between the Marshyhope and the Brooklyn neighborhood. The woodlands adjoining the railroad tracks are zoned for industrial development, and most are part of the Federalsburg Industrial Park. However, even in the this industrial park, future development activities should keep tree cutting to a minimum and include protection measures for the roots of trees to help ensure their survival during construction.

The woodlands in the northeast corner of Federalsburg continue into the Idylwild Wildlife Management Area and provide an important natural connection with that area. There exists today a "greenway" of wooded and partially wooded wetlands that follows the Marshyhope Creek all the way to the Nanticoke River. Although most of this greenway is outside our planning area, we encourage identification of appropriate protection techniques and strategies to protect what we consider to be a regional sensitive area of considerable natural and recreational value. It is our intention to preserve and enhance our portion of this corridor through conservation projects, recreational access, and additional tree planting.

Forested sites within our planning area closely parallel the location of nontidal wetlands on the west side of MD 313. Those woodlands should be protected for their wildlife habitat values and also for their role in defining the built edge of Town. The nonforested portions of parcels adjoining the intersection of MD 313 and the Preston Road (MD 318) suggest some logical potential for development due to their proximity to our new commercial area at Bloomingdale and MD 313 and ease of access. However, due to their habitat value, contributions to our character, and general value for improving environmental quality, tree clearing in any forested site should be kept to a minimum.



The Forest and Woodland Protection Section (1-117) of the Town's Critical Area Ordinance provides implementation of both Critical Area and Forest Conservation Act requirements. In a cooperative effort the State and Town developed this section to efficiently protect forest resources. Section 1-117 provides the following policies for forest and woodland protection, recognizing the value of forested land for its water quality benefits and for habitat protection while accommodating the utilization of forest resources:

Maintain and increase the forested vegetation in the Critical Area;

Conserve forests and developed woodlands and provide for expansion of forested areas;

Provide that the removal of trees associated with development activities shall be minimized and, where appropriate, shall be mitigated; and

Recognize that forests are a protective land use and should be managed in such a manner so that maximum values for wildlife, water quality, timber, recreation, and other resources can be maintained, even when they appear to be mutually exclusive.

Encourage programs for the enhancement of biological resources within the Town for their positive effects on water quality and urban wildlife habitat. These programs may include urban forestry, landscaping, gardens, and wetland and aquatic habitat restoration.

The Town has identified and mapped forests and developed woodlands within the Critical Area and has identified and mapped habitat protection areas within the Critical Area.

Section 1-117 requires the protection of Forest Habitat through implementation of various measures including naturally vegetated stream banks for wildlife corridors, conservation of a minimum 100-foot Buffer landward from the mean high water line of tidal water, tributary streams and tidal wetlands, conservation of forest areas utilized as breeding areas by forest interior dwelling birds, and conservation of existing mature riparian forests.

The Town ordinance includes policies for the establishment or replacement of forest including establishment of a diversified plant community such as canopy trees, shrubs and herbaceous plants and promotes the use of native species.

Section 1-117 specifically relates to development review on a zone and land use category basis. There are separate standards for 2 groups of zones and land use



categories in Town. The first group is Limited Development and Resource Conservation Areas within the Critical Area and R-1, R-2, and R-3 Zoning Districts outside the Critical Area. The second group is Intensely Developed Areas in the Critical Area and in B-1, C-1, ID-1 and ID-2 outside the Critical Area.

Finally, Section 1-117 includes requirements for performance bonds, grading permits, enforcement, mitigation, application process, and allowances for tree cutting in the Buffer.

General Protection Policy

In Federalsburg, sensitive areas and wild life corridors can best be protected by establishing a 50 foot "nondisturbance" setback buffer beginning from the edge of nontidal wetlands, the edge of stream banks that do not have a mapped floodplain, the top of slope for steep slope areas, and the edge of forested areas (except in our designated industrial areas).

Our floodplain ordinance establishes detailed protection measures for our 100-year floodplains and floodways. It provides good protection. However, in order to stimulate economic development, commercial revitalization, and the implementation of our Comprehensive Plan and our Central Federalsburg Revitalization Study, we may need to revise the floodplain ordinance in the Downtown Main Street Neighborhood. However, we also do not want to jeopardize the availability of flood insurance or the salability of properties in this neighborhood. Therefore, in order to achieve competing goals we will consider creating a "historical downtown commercial district" with an appropriate accompanying overlay zone.

Since the drainage basin of Marshyhope Creek is primarily under the land use control of Caroline County, we encourage the County to adopt even more restrictive policies for managing the sensitive area resources in the areas near Town. The more restrictive the County's policies are the greater a developer's incentive is to become part of our town. In general, this will also help ensure that development is concentrated and supported by Town infrastructure.



MINERAL RESOURCES ELEMENT

The only mineral resource in commercial quantity within our planning area is sand and gravel. Extraction supplies local construction needs only. Deposits are present in the Galestown and Plummer Formations, found mostly along the Marshyhope and its tributaries. The locations of mineral deposits do not conflict with present or planned development projects.

There is no significant present mining activity in or near Federalsburg. The old abandoned pits on the south side of Town have filled with water and may provide scenic or recreational amenities for possible development that could be sited around them. However, the safety aspects related to possible shear sides and deep dropoffs should be evaluated, and protections, as needed, should be applied.



VISION, GOALS AND OBJECTIVES

The Vision

Federalsburg will continue to be the hub of town life and economic activity in southern Caroline County. Our businesses and industries will remain viable and competitive ensuring our residents good employment opportunities into the 21st century. We will maintain our unique sense of place and protect and enhance the character of our various neighborhood areas. The Marshyhope Creek will continue to be the defining feature of our physical landscape and will become more and more the focus of cultural and recreational activities. Our on-going efforts have resulted in a greenway corridor through the center of Town that links recreational opportunities in the Idylwild Wildlife Management Area with improved Bay access via the Nanticoke River. Our revitalized central business district will be oriented toward the Marshyhope, and visitors will come from throughout the Delmarva Peninsula to enjoy our shops, restaurants, lodging facilities and recreational opportunities.

We will provide a wide range of affordable housing opportunities for our active and diverse population. Our housing opportunities will meet the needs of all ages and incomes and families of all sizes. Our compact development pattern will make it easy and cost-effective to provide urban services including public water and sewer that will help keep housing costs affordable. Older neighborhoods will be rejuvenated, and small scale home based businesses and traditional neighborhood convenience services will be encouraged to promote economic vitality and appropriate reuse of older buildings. Historic resources will be valued and preserved. New developments will be designed to complement historic buildings rather than clash with them. Our citizens will take pride in our heritage, and we will promote new commercial enterprises that develop and expand a theme centered on hobbies, crafts, and tourism.

We will continue to work to insure that future growth is consistent with our Comprehensive Plan. Existing wooded stands will help to define our built edges and will continue to play an important role in anchoring our "sense of place." Continual efforts to repair our environmental damage from earlier development will also show great benefits. Improved stormwater management, improved sewage treatment, less polluting vehicles, lower trash output per person, an ethic of resource conservation, reduced consumption and recycling will pay off. Our immediate environment and that of the Chesapeake Bay and its tributaries will be cleaner and more productive at the same time that we will be experiencing population growth. Stewardship of our air, land and waters will become a universal ethic taught to our children both at school and in the home. Our schools will provide relevant and advanced instruction on a sound foundation of fundamentals that will prepare our young for the educational and employment



challenges they will face in a rapidly changing and technologically oriented work place.

While we will study harder and work harder, we will also have more opportunities for relaxation and play. Our community parks will be more fully developed and older facilities renovated or replaced. There will be convenient places for children and adults to play, and quiet places to just relax. The Board of Education will play an active part in expanding the roles of schools into the evening hours and on weekends with specialized classes and recreational programs that will benefit all age groups.

Caroline County and Federalsburg will become increasingly oriented toward a coordinated partnership approach based on working closely with each other to find and implement solutions to common problems. Interjurisdictional coordination among all levels of government will be commonplace as resources are stretched to provide services in a world where efficiency, creative financing, and public/private partnerships are crucial to meeting the needs of all. Neighborhood groups and citizen's organizations will take a more active role in Town government, decision-making, and public service. Pride in their Town will be reflected in pride in their neighborhood's appearance and in the quality and maintenance of individual properties. Each segment of the population will be more aware of the whole and how individual decisions affect the overall interests of the community.

This vision will not be easy to achieve. It will not be adequate to simply build higher density housing. We will need to use growth as a tool to reshape our Town into a more sustainable form. We will need to change the way we think about our land and natural resources. We will need to change the way we think about our neighbors next door and across Town. We will need to rediscover the roots of our cultural heritage and work to bring our environment back into balance with the way we live. We will once again need to place the needs of our community first. We will need to work together, and with dedication and effort we can do it.

Goals and Objectives

During the development of this Comprehensive Plan, the Mayor and Council, Planning Commission members, Maryland Office of Planning staff, and interested citizens focused on defining the character of Federalsburg and its importance to our community. These discussions developed and sharpened an awareness of the direction the Town should take and activities we should support to move forward in a positive way. Expanding economic opportunities, providing housing, and enhancing the appearance of Federalsburg all contribute to preserving and enhancing the unique character of our Town. We want a vital



and dynamic future for our Town and its residents.

Goals and objectives for economic development, environmental protection, and individual responsibilities for civic involvement and stewardship were defined. General goals, with more specific objectives, are listed below which, collectively, describe a vision for our future and prosperity of Federalsburg. Our goals focus our thinking about the future, and our objectives focus our efforts.

Consensus was reached on how much growth should occur and on how and where it should take place. These issues are addressed in the Land Use Element.

Community Character

Continue to be a community that embraces traditional values such as "neighbor helping neighbor" and public service.

- Encourage civic participation on volunteer boards and committees through active outreach and solicitation.
- Support projects and activities that meet the needs of families in our community.
- Develop an application sheet for anyone interested in serving on a volunteer or appointed board or committee and publicize its availability.

Preserve our family oriented and relatively slow pace and way of life as much as possible.

- Encourage family use of Town recreational facilities and the development and maintenance of these facilities.
- Encourage the use of non-motorized and low horsepower boats on Marshyhope Creek.
- Periodically solicit ideas from organizations and individuals on their ideas for things to improve and projects and activities to sponsor by holding public meetings attended by the mayor and Council, Planning and Zoning Commission, and our citizens.

Ensure that Federalsburg remains a safe community where residents and visitors can walk on the streets day or night and not fear for their safety.

- Ensure adequate funding of emergency services.



- Enhance neighborhood watch programs and other safety programs in cooperation with the school and police department.
- Develop a "safe house" program in conjunction with local police departments. Design and display "safe house" signage and educate residents, and especially children, about the program.

Maintain our historical connection to our rural landscape.

- Coordinate with the County to ensure the continuation of a rural edge around Town that is clearly defined.
- Propose zoning that supports and protects agriculture on the edges of our Planning Area.
- Incorporate and protect visual access to our surrounding farmland by ensuring that new development does not "wall off" rural vistas.
- Include provisions for agricultural zoning in our Zoning Ordinance.
- Support the creation and expansion of agricultural districts and easements in the vicinity of Federalsburg.

Maintain the diversity of character apparent in the various neighborhoods that make up our Town.

- Ensure variety in zoning to accommodate and protect our present mix of land uses.

Improve the physical appearance of existing development and ensure that future development of all types is consistent and harmonious with that of Federalsburg as a whole and especially with the neighborhood within which the development is proposed.

- Improve our design and site plan submission and review processes to provide more useful and appropriate guidance for making planning and project decisions.
- Incorporate architectural and more intensive landscaping guidelines and requirements in future commercial and residential development construction proposals should be reviewed in terms of compatible size, height, roof pitch, setback, and materials.



- Improve the appearance of various neighborhoods by applying the new design and landscaping guidelines to renovation projects as well as new developments.

Continue to protect property values and promote stability by emphasizing building maintenance, neat yards, and clean streets.

- Continue to update and monitor the property maintenance regulations.
- Continue to use the BOCA codes and provide for their administration.
- Control incompatible uses or activities on adjacent lots that are found to be detrimental to the existing character of a neighborhood.

Economics

Promote an adequate supply of commercial land to satisfy the demand for the goods and services needed by our population.

Promote the continued viability of our existing employers to help ensure adequate employment for our population.

- Start an outreach effort to our major employers to help them identify and communicate their needs to the Town administration and other agencies, as appropriate.
- Sponsor projects that use State or federal funds, loans, or loan guarantees that are consistent with this Plan.

Promote innovation and encourage entrepreneurship, small businesses, home occupations, and part-time ventures to stimulate economic activity and increased incomes for Town residents.

- Support efforts to improve communications systems and access to regional, State, and national information sources.
- Adopt flexible regulations that support and promote entrepreneurial ventures in keeping with the town ordinances.
- Provide for flexibility of use in revitalizing our existing inventory of buildings.



- Develop streamlined information submission standards and review procedures for revitalization projects on specific sites or in targeted areas.
- Relax off-street parking requirements for revitalization projects in specific or targeted areas.
- Serve as a clearinghouse of information and small business assistance sources for Town residents.

Support and promote adult education and retraining to raise the income potential of all Town residents.

Implement the recommendations of the commercial district revitalization study and action plan.

- Create a "historic commercial activity district" that will stimulate building renovation in the Main Street central business district without requiring the elevation of structures.

Ensure the availability of federal flood insurance, but minimize obstacles to the renovation and rehabilitation of existing structures.

- Continue to review, and revise as appropriate, our Floodplain Ordinance #199 enacted August 2, 1993.

Encourage the continuation of farming and agricultural activities in the areas surrounding our planning area.

Land Use and Growth

Retain a small town atmosphere.

Keep the pace of development compatible with the ability to provide public services.

Protect and promote the existing mixed-use character of our residential and commercial neighborhoods.

Encourage the demolition and removal of dilapidated buildings that cannot be rehabilitated in order to improve the health, safety and character of the Town and to make room for new construction.



Improve communication and build cooperative understanding with surrounding landowners in our planning area.

Work toward establishing realistic priorities for annexation based on maintaining the ability to service our existing infill development opportunities.

- Encourage the development of existing vacant lots in Town.
- Encourage population growth that is consistent with projections in this Plan.
- Encourage the Town's physical expansion into areas within the Planning Area.
- Remain flexible in order to consider and respond to unexpected development proposals and opportunities using the Comprehensive Plan as a guide.

Promote phased development of larger parcels based on an overall concept plan that integrates new development, including streets and general circulation patterns, into the existing character and fabric of Federalsburg.

- Avoid development proposals that would result in new neighborhoods that have the character or feel of being "adjacent to, but separate or apart from" the Town of Federalsburg.
- Ensure that functional plans, such as the Caroline County Water and Sewerage Plan, are accurate, complete, and up to date.

Housing

Promote the opportunity for every person to live in a safe, decent and affordable home.

- Adopt and implement livability and housing codes.

Promote an adequate supply of various housing types that meets the needs of all Town residents.

- Provide for flexible use and reuse of existing buildings, as well as new construction, to encourage creative and appropriate housing opportunities that are compatible with the character of the neighborhood in which they are proposed.



- Encourage appropriate housing and living arrangements which meet the needs of extended families.
- Provide options for "accessory units" under certain conditions.
- Promote and encourage single-family homes as the fundamental housing type in Federalsburg.
- Provide density or design flexibility for development proposals that include "affordability" components.
- Control the amount of new multi-family units.
- Encourage general yard maintenance and beautification.
- Encourage owners to perform needed building maintenance and repairs.
- Sponsor and promote voluntary participation in an annual "spring cleaning" event.
- Promote fire safety awareness in cooperation with the volunteer fire department.

Environment

Ensure the protection of the natural environment, especially in areas not designated for growth.

- Promote a universal ethic of environmental "stewardship" among Town residents.
- Promote the concept of living in harmony with nature.
- Respect and protect natural systems.
- Promote an attitude among all residents to improve Federalsburg, leaving it a better place.
- Ensure the maintenance and improvement of water quality in that part of the Chesapeake Bay watershed under the Town's control
- Promote tree planting and voluntary limitation of the use of fertilizers, fungicides and pesticides.



- Promote the use of biological controls in home gardens as an alternative to chemical controls.
- Promote the concept of "sustainable use" in all activities.
- Promote reductions in consumption and assist efforts to increase reuse and recycling.
- Consider the limitations of the land and its suitability for different uses before making development decisions.
- Consider establishing a street tree program on infill projects as an alternative to the "model" forest conservation program.
- Enhance and re-establish the Town's historical character by promoting a leafy canopy along public rights-of-way.
- When development occurs in field lots, promote tree planting that is compatible with, and a continuation of, the existing vegetation pattern.
- Protect and enhance existing wildlife corridors that may be impacted by development proposals.
- Provide wildlife corridors and linkages that allow wildlife to move up and down the Marshyhope floodplain.
- Protect existing woodlands and forest stands as animal habitats within our planning area.
- Add to and increase existing tree stands whenever practical by using afforestation in-lieu-of monies.

Transportation

Both local and regional traffic must be accommodated in a manner that maintains the physical unity of our Town.

Provide an efficient, safe circulation system throughout Town for automobiles, trucks, bicyclists, and pedestrians.

Increase opportunities for safe walking and bicycling by providing convenient and attractive ways and walks.



Provide public facilities such as benches and bicycle racks in appropriate locations to encourage walking and biking, especially to commercial and recreational areas.

Continue to seek funds for the paving of all Town streets and establish an adequate maintenance and repair fund to maintain high quality of our public streets and ways.

Ensure that streets and sidewalks in new residential developments connect with the existing network in a manner that is consistent with the recommendations in the Transportation Element of the Plan.

Ensure that adequate performance bonds are part of subdivision approvals that include public infrastructure.

Ensure that any private infrastructure is brought up to Town standards (or Caroline County standards if the Town lacks standards of its own) and that they are inspected and approved by the Town prior to public acceptance.

Encourage walking and remain a pedestrian-friendly Town.

- Continue efforts to maintain and improve the Town's sidewalks and river walk.
- Ensure that all parts of Town are accessible by pedestrians and the disabled in a safe and efficient manner.
- Determine the need for, and if warranted, possible locations and costs for benches and exercise stations.
- Explore establishing walking trails or sidewalks for access and passive recreation through areas of the town which are not currently served by such systems.

Encourage public transportation including bus or transit stops at appropriate places including the "Downtown/Main Street" area and other appropriate neighborhoods.

Public Services and Facilities

Provide a system of community services, facilities, and utilities that is responsive to our citizen's needs.

Ensure that our public facilities are handicapped accessible.



- Continue to develop Marina Park and the recreational aspects of the Marshyhope Creek corridor and its floodplain.
- Continue to explore future potentials for "greenway" with links to Idylwild Wildlife Management Area and to Nanticoke River tributary strategy planning to include Chambers Park and Chambers Lake.
- Ensure maintenance and improvement of Chambers Park, Chambers Lake and "greenway" links.
- Determine the need for and possible location of a public swimming facility.
- Promote development of safe new recreation opportunities at the old sand and gravel sites.

Ensure that all project approvals and favorable recommendations are consistent with this Comprehensive Plan.

Ensure that our adopted project review procedures for projects that utilize State and/or federal funds are followed.

Ensure that the Town Commissioners remain well informed regarding the long-term needs of the Town through comprehensive and ongoing planning efforts.

Ensure that adequate information is provided to the Town Commissioners about needed and planned capital improvements.

Consider the need to limit public maintenance costs and liability exposure for projects approved by the Planning Commission or the Board of Appeals or projects recommended to the Town Commissioners.

Intergovernmental Coordination

Coordinate with the State and County on planning matters, transportation issues, environmental and natural resource management issues, economic development and assistance opportunities for sites in the Planning Area and in the general vicinity of Federalsburg. The views of Federalsburg residents should be expressly solicited and considered as part of any potential project within our planning area and followed through with Town meetings.

- Coordinate with other levels of government at the earliest practical time when considering projects that impact or may be funded, even in part, through State or County assistance.



- Protect the long-term interests of Federalsburg by discouraging development sprawl outside the town limits and especially within our planning area.
- Discourage development within our planning area that is not consistent with this Plan by encouraging the County to incorporate this Plan as a growth subarea plan within the Caroline County Comprehensive Plan.
- Participate in long-term transportation planning efforts that may affect regional and local traffic patterns and facilities.
- Coordinate the amount of Chesapeake Bay Critical Area Growth Allocation acreage available to us with the Caroline County planning office as part of each jurisdiction's mandated four-year Critical Area Program review.
- Participate in environmental initiatives to improve the health of the Chesapeake Bay and its watershed.
- Explore the potential for, and the possible mechanics of, an inter-jurisdictional Transfer of Development Rights (TDR) Program.

Work with Caroline County on its Land Preservation and Recreation Plan to ensure inclusion of needed local projects.

- Ensure that Federalsburg receives needed Program Open Space funds.

Continue to use the technical abilities and assistance of State and County agencies.



LAND USE

Background

The existing land use and lotting pattern in Federalsburg clearly illustrates the impact of transportation on our townscape. Growth and expansion in and around the Town has been focused and defined by boats and barges, horses, pedestrians, railroads, and automobiles. The early settlement along Marshyhope Creek forms the spine of our present downtown development. Commercial and mixed-use parcels straddle Main Street, giving way eventually to larger industrial tracts along the rail corridor. The railroad right-of-way, which runs along an east-west axis through the southern portion of Town, forms a secondary spine of developed lands which are home to several industries. The Federalsburg By-pass connects the two newest areas of development around Town: the industrial parks to the south and the retail commercial area at the upper end of Bloomingdale Ave. (Main St. extended), creating an automobile oriented commercial gateway to Town.

Residential use predominates on the west side of Marshyhope Creek beginning behind the Main Street commercial strip and extending west to beyond University Avenue, the principal north-south connector next to Main Street. In all, residential use makes up about 7% of the land use in our planning area. Most of that is in Town, but several larger clusters are found along MD 315 (the "Bridgeville road") between the east end of the "By-pass" and Houston Branch Road (MD 306). Meadowbrook Park, a relatively new residential area, is also beyond Town limit on the east side of Reliance Road (MD 577).

Town streets form a modified grid pattern following a roughly rectangular 2:1 layout. Buena Vista cuts a gentle angle across "the grain" of topography as it slopes down to the floodplain of the Creek. Linear development parallels all of the principal access roads that extend beyond Town limits. The majority of this development is single family residential although scattered commercial uses can be found. Most of these commercial activities predate planning and zoning and consist of taverns or other service related activities. Before the By-pass was built (1964), Smithville Road, the Preston Road (MD 318), Williamsburg Road (MD 307), Reliance Road (MD 577), the Bridgeville Road (MD 318) and Houston Branch Road (MD 306) were the principal routes into and through Federalsburg. Houston Branch, Bridgeville, and Reliance all fed into East Central Avenue and crossed the Marshyhope in the center of Town at the corner of Main Street and Central Avenue. North Main Street ends at the fork where Smithville Road continues north (along the west side of the Marshyhope) and Bloomingdale Avenue becomes Preston Road outside of Town. Academy Avenue begins at Main Street two blocks south of Central Avenue, heads west past the Elementary



School, and becomes Hurlock Road beyond Town. This latter road carries traffic to Hurlock and on into Cambridge.

From this description and the included 2005 Land Use map, it is clear how "the Bridge" was a vital link in early transportation. We were the hub, or switch link, that travelers and commerce used to move throughout the south central parts of Delmarva. Early industrial uses, banking, and later rail access created commercial patterns, supported by residential and service activities, that continue today. Rail access, good rural highways, and nearby trucking companies and truck services support and help explain our "competitive advantages."

Marshyhope Creek serves as both a common public focal point and as an east-west divider. The Central Avenue corridor begins west of Main Street above the downtown area. After crossing Main, Central Ave. bridges the Creek and carries some commercial and industrial activity with it. However, most of the land uses on the eastern side of Marshyhope Creek remain residential. Public park land, including ballfields, the fairgrounds, and a large pond (Chambers Lake) form an "open space corridor" into Town and help to anchor the neighborhoods north of the industrial areas.

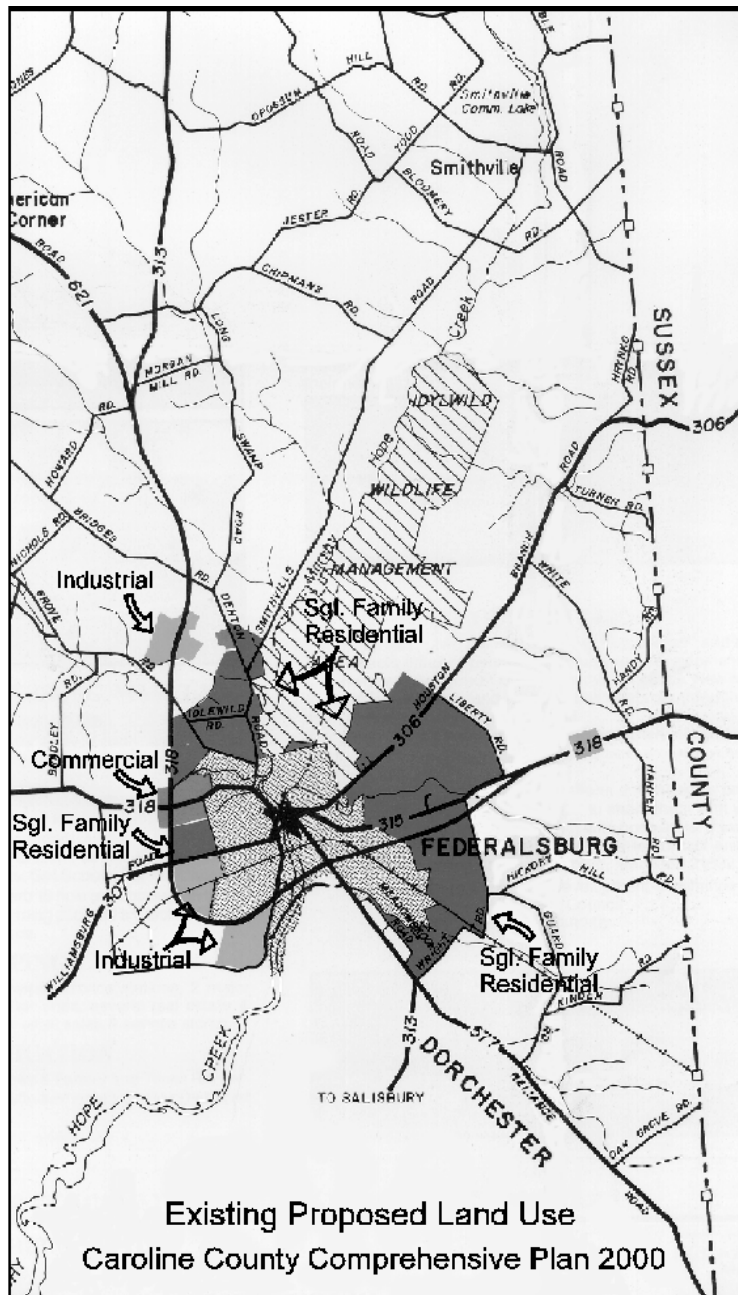
Clusters of new multifamily housing are located north and east of our newer commercial areas off the western end of Bloomingdale Avenue. On the east side of Town, most multifamily housing is located north of and behind older preexisting single-family homes along East Central Avenue. A relatively large trailer park (included by annexation in 1987) is located behind single-family homes along the north side of West Academy Avenue extended.

Recreational land use and activities once focused on Chambers Park (about 55 acres in all) and Chambers Lake, which was used for public swimming until the mid 1970's. However, this resource is lightly used today and in need of renovation and enhancement. The recreational focus over the last ten years has been on the Marshyhope corridor. About 30 acres of Town-owned lands along its banks now contain a nineteen acre linear park that includes walking trails, picnic pavilions, basket ball courts, and a small boat marina and boat ramp. In 1995, this facility was used by Federalsburg to host for the first time the Delmarva Chicken Festival that attracted about 40,000 people.

The Caroline County Planning Department prepared a Comprehensive Plan for Caroline County in 1986. That Plan addresses the areas included in our revised planning area. The following graphic shows the County's existing land use plan for the areas adjacent to Federalsburg:



Our general observation is that the County has designated inappropriate areas for development. Our Land Use Element contains more specific recommendations for the areas within our planning area. The maps and graphics on the following pages illustrate our current land use pattern and the existing land uses within our planning area. We encourage the County to incorporate our plans, priorities, and recommendations into their Comprehensive Plan to ensure consistency and improve development coordination.





Greater Planning Region

Ideally, projections for planned growth in the Federalsburg Planning Area should account for the effects of other planned growth areas within “the region.” The greater “region” includes other parts of Caroline County and portions of surrounding counties that impact the lives of Federalsburg residents and our local businesses. This region includes Denton, Easton, Cambridge, and Seaford, Delaware. A good system of roads makes travel between Federalsburg and these destinations easy and convenient.

Development and growth pressures in those places are anticipated to have spillover effects on our town, and increasing residential development within the region is anticipated to spur interest in businesses, residential growth and economic development in Federalsburg. It is just as easy for people to come to or pass through Federalsburg as it is for our residents to patronize businesses or commute to jobs in those places. We have an opportunity to encourage local growth and development by providing needed land and infrastructure, and the immediate Federalsburg area enjoys a competitive advantage in land costs. Some land and infrastructure capacity for expansion already exists, but more is needed. How much more will be a related to how much growth the Town wants, where it should be directed to, and how fast it should be accommodated.

Generally, we already see the beginnings of a number of changes in the type of residential development occurring in the Mid-Shore. We see “age qualified” communities (defined as developments that are limited to households with at least one member aged 55 or older and no school aged children) being built in Talbot, Queen Anne’s, and Sussex counties. Initial indications are that a portion of Denton’s planned neighborhood expansion includes age-qualified housing. This type of development is an economic engine for a town and its surrounding areas. Active adults require numerous professional services, and demand a variety of recreational and educational resources. Many of the services and amenities they require are provided directly by the developer, often partly as a sales incentive. Other businesses and services can only be economically provided when a “critical mass” of demand is achieved through minimum population thresholds.

Older households pay a disproportionate share of taxes to help fund local schools yet add no school aged children to the public school system. Crime rates tend to be low in these developments adding little burden to the public safety system. Active adults also support local charities and have time to serve on local volunteer boards and committees. They tend to be active in churches and other organizations. Their largest budgetary impact tends to be felt in increased demand for advanced life support and related medical emergency



services. However, the net impact on government revenues versus services is clearly positive.

Life expectancies continue to rise, and many of today's retirees anticipate working part-time or pursuing a second career, many from home based businesses. The "baby boom" generation is wealthier, more educated, and more technically sophisticated than their parent's generation. High on their list of housing requirements are energy efficient designs that include casual open floor plans and spacious well equipped home offices. To accommodate this demographic and their slice of market demand, we anticipate adding additional zoning tools to our Zoning Ordinance. One possible technique to guide "age qualified" development, with a mixed-use component of community facilities, recreational amenities, and possibly home based business support, could be through an overly zone or a floating zone.

This decision will be made by the Town Council when it considers a comprehensive update to the Zoning Ordinance. Housing variety is a key part of our land use strategy. Variation in size, type, density, and affordability is needed to address the range of household types we want to encourage as well as the range of demand we anticipate our region will experience. Our relatively lower land prices provide a competitive advantage in the scramble to address housing affordability and the demands for workforce housing throughout our region. Accordingly, we will require some type of housing affordability component in any large scale project that may be proposed. Large lots may be permitted to include accessory dwelling units above detached rear yard garages or in attached "in-law" apartments. Alley access may also provide for rear loading garages that preserve the pedestrian character of the primary streetscape while encouraging the provision of some affordable housing options. However, the key to success will be the amount of variety and innovative building designs we are able to encourage through flexible laws and ordinances that grant a premium for careful and attractive design effort.

One way to help encourage innovative design and pricing is to permit flexibility and variation in lot size and to encourage minimal front yard setbacks through the use of "build to" lines. In conjunction with traditional neighborhood design standards that include narrower residential streets, this will maximize private rear yard space and encourage a more intimate pedestrian friendly streetscape. Many communities in our "region" have adopted development design standards based on these concepts. It is our intent to review those efforts and incorporate the best ideas that fit with the goals of Federalsburg. We intend to continue to use the professional and technical assistance offered by the Maryland Department of Planning to implement these objectives.



At the same time, we want to ensure that growth in Federalsburg is carefully managed and controlled. That means setting priorities for actual development within our defined growth areas and limiting the allocation of water and sewer capacity to rates that ensure equitable distribution and consumption such that adequate time frames exist for the prudent planning and engineering of system upgrades and capacity expansions, including financial planning and budgeting so that the town is not overwhelmed. Our Town has limited staff and a small operating budget. That means that development project submissions may be limited from time to time to permit adequate reviews, approvals, and inspections as part of our growth management processes. A serious commitment to managed growth will probably require the hiring of a professional planner and expenditures for equipment and other resources, including consultant studies. These additional costs should be recovered from the development community that generates the need for these services. Any large-scale annexation and development proposal should include specific private sector funding commitments to the Town as part of the annexation agreement documents. Developer Rights and Responsibilities Agreements should also be carefully considered for large-scale phased projects with long-term multi-year buildouts.

Adequate professional development reviews require coordinated inter-jurisdictional planning efforts that recognize the staffing limitations of surrounding jurisdictions and the time constraints imposed by growth management efforts that impact them, including planning for, funding, and constructing schools, parks, and highway improvements at the County and State levels. The anticipated acceleration in the rate of change means already stressed agencies and staffs need to find ways to coordinate more effectively and efficiently.

Annexations and development interest in the municipalities of the MidShore have increased to unprecedented levels in the last few years. We have seen significant growth in Easton and Cambridge, anticipate several thousand additional households in Denton over the coming decades, and have witnessed explosive growth in the Seaford, Delaware and Delaware coastal bays area that is continuing unabated.

For these reasons, it is imperative that Federalsburg gain control of its own future by ensuring that any future growth in and adjacent to our current boundaries occurs when, where, and how we believe makes logical and practical sense. Not all land is “fair game” for development, and some areas are environmentally sensitive or should be protected for other reasons. We intend to limit growth by preserving a “green belt” of open space and agricultural lands that will help ensure our “sense of place” in the rural landscape of southern Caroline County. We have a rich cultural and historical heritage that has many ties to the land and the families that have made there homes here for generations. It is our intent to preserve, protect, and enhance that heritage by maintaining a balance between



growth and preservation while ensuring the economic health of the town and promoting its continued prosperity and that of our residents.

A green belt will also ensure potential spray irrigation sites for future wastewater treatment plant upgrades that may be anticipated based on increased mandatory treatment and discharge limitations. The Choptank tributary strategies limit the stream loadings that are allowable into Marshyhope Creek. As efforts continue to improve water quality in the Chesapeake Bay, we anticipate that discharge limitations will become so restrictive that some combination of stream discharge and spray application will be mandated by the Maryland Department of the Environment (MDE). Accordingly, part of our planning area is envisioned to form a land bank to ensure adequate and appropriate sites for that purpose.

In order to ensure that those farms are not developed prematurely, we intend to reach out to and work with farmers and other land owners to ensure their needs are met and those of Federalsburg are protected. Annexation of agricultural areas is explicitly intended to form part of our growth management strategy. To help accomplish that goal, to ensure compatibility with County land use policies, and to ensure protection of farmer's right to farm and the maintenance of their preferential agricultural tax structure, it is our intent to add one or more agricultural zones to our Zoning Ordinance. We see agricultural land uses, including potentially more intensive agribusiness uses, as compatible with future growth and expansion of both population and businesses in the town of Federalsburg. The Maryland Department of Planning (MDP) has classified 14 parcels totaling 192 acres within the current corporate limits as agricultural land.

Smart Growth and Priority Funding Areas

The Town of Federalsburg was well into its State-mandated six year Comprehensive Plan update process when many of the foregoing issues and concerns began to become apparent. Mayor and Council, together with the Planning Commission, determined that additional work was needed and that the Town should look both further into the future and physically further into surrounding lands to develop a long-term vision and strategy for the Town. Toward that end, our Planning Area was expanded a number of times based on landowner questions and concerns and due to growing developer interest.

In 1997, the General Assembly enacted what has commonly become known as Smart Growth legislation. That Act provided for a number of changes in planning practices. Among those changes was the designation of the State's municipalities (defined by their corporate limits at that time) as Priority Funding Areas (PFA). PFA's are areas where the State is allowed to invest or approve funds in support of growth related projects. State law now prohibits State participation in funding for growth related projects outside Priority Funding Areas



except in accordance with specific and limited exceptions detailed in the Act. The Maryland Department of Planning (MDP) prepares maps that locate PFA's on a county wide basis. These maps are provided to State agencies that have funding authority for use in determining compliance with the requirements of the Act.

Municipalities that expand their limits through annexation subsequent to 1997 may certify to MDP that these new areas qualify for PFA certification pursuant to tests and conditions also described in the Act. Of principal note are the requirements that developed lands include an average net density of 2 dwelling units per acre (for residential land use) and that undeveloped land be zoned for a minimum of 3.5 dwelling units per acre. Additionally, the area must be served by public sewer or by planned for service (by being included in a planned service category in the County Water and Sewer Plan).

This is a State strategy to target its available infrastructure resources in areas that are already developed and served (as a means for more efficiently managing both its limited resources and to reduce inefficient sprawl land use patterns that predominate in many rural settings). Other strategies for protecting natural resources and improving environmental quality work together with funding policy to encourage future land use patterns that are more compact, more efficient to serve, and more environmentally friendly. An underlying thread to this vision is more involvement and better communication and coordination in both the public and private sectors and also between citizens and government officials, whether they are State or local. In the end, it's all about building better communities and improving the quality of life for the citizens of Maryland.

That vision, (for a better, healthier, more enjoyable community), is at the core of this Comprehensive Plan and forms the foundation of Federalsburg's Vision for the future and is described more fully under: "Vision, Goals and Objectives." We have set goals for our community, its character and its economic vitality. We want to ensure that we meet the needs of our residents, both present and future, in such a way that we can sustain a high quality of life for all and that our built environment does not conflict with the maintenance of a healthy natural environment.

From data and projections in our Background Element, we will need about 115 additional housing units by 2015 (assuming 1% average growth). These units may include attached or accessory housing, mixed-use conversions and single-family housing. Based on results of the 2000 census, a little over half of these new housing units will be renter occupied. However, it is our intent to promote home ownership and owner occupied dwelling units (as an increasing percentage of total dwelling unit stock) in the future. It is also the Town's intent to promote residential, commercial, and industrial expansion above the 1%



annual growth rate. As stated above, fundamental shifts in the demographics of the population together with our advantageous location and land values lead us to anticipate demand that exceeds that of the last half century or so.

Review of our existing land use pattern reveals a number of vacant lots with residential zoning within our present Town limits that are zoned for housing. The graphic on the following page identifies the location and distribution of these vacant residential parcels. They total about 82 acres, but many are not practical for development. Based on their zoning (R-1, R-2, and R-3), a realized net density for actual development suggests those parcels have the combined potential for about 230 dwelling units. With limited exceptions, subdivision potential is relatively minor, and diverse ownerships suggest that only small infill development is likely with this inventory. However, market forces may result in fewer units being constructed in some locations. It is the intent of the Planning Commission to become thoroughly study and become more familiar with this inventory of vacant parcels in order to develop better and more realistic development potential estimates.

The land use summary table on the following page breaks down existing land uses in Town and in our Planning Area by subarea, number of parcels, and acreages. The relatively urban nature of Federalsburg compared to the planning area is clear.

Open space (much of it wooded) and agricultural fields make up the majority of land uses within our planning area. About 5 percent of the planning area is classified "vacant," and over 5440 acres, or 56 percent, of the area is in agriculture. Roads cover over 18 percent, and commercial uses include just two percent of the planning area.

In Town, 15 percent of our land is vacant or agricultural. Another 14 percent is residential. Surprisingly, tax-exempt land (comprising public, semi-public, and institutional uses comprise 31 percent of our inventory. Roads make up 21 percent. Together, more than half of Federalsburg property does not generate income to the Town. Commercial and Industrial uses combined only account for a little over 15 percent. To ensure long term fiscal health, the Town needs to promote and encourage significant investment in real estate growth and development.

The challenge is to identify priorities for growth and priorities for preservation. Among the potential growth areas, priorities should be established for annexation and the extension of infrastructure. However, these priorities are intended to serve mainly as a guide to both property owners and Town officials as they consider options. It is entirely possible that annexation proposals will be received that were not anticipated by the Planning Commission, as they drafted this Plan.



In that event, additional analysis of the consistency of those proposals to the goals and objectives of this Plan will surely be required. If sufficiently large scale developments are proposed, developers may have the financial ability to fully fund major infrastructure expansions that will serve long term phased development projects and benefit from economies of scale. It is the clear intent of Federalsburg that new growth be paid for by developers and their customers.

Planning Areas	Acres by Land Use Category										totals	
	10 (mu)	11 (low)	12 (med)	13 (high)	14 (comm)	15 (Indus)	16 (exem)	20 (Ag)	50 (water)	80 (roads)		90 (vacant)
area7 (Town)	3	100.5	152	43.5	119	201	640	192.5	53	432	121	2057.5
area6	0	28.5	1	0	6.5	0	5	1125.5	0	180	10.5	1357
area5	0	56.5	16	0	1	30.5	31.5	645	0	179	35	994.5
area4	0	55	4	0	0	0	20.5	498	17	157	93.5	845
area3	0	97.5	6.5	0	22	112	73	496	3	308	174	1292
area2	0	28	2	0	1.5	0	1	1253	0	200.5	11.5	1497.5
area1	0	100	6	0	5	0	0.5	1230.5	0	353	22.5	1717.5
totals	3	466	187.5	43.5	155	343.5	771.5	5440.5	73	1809.5	468	9761
Planning Areas	Parcels by Land Use Category										totals	
	10 (mu)	11 (low)	12 (med)	13 (high)	14 (comm)	15 (Indus)	16 (exem)	20 (Ag)	50 (water)	80 (roads)		90 (vacant)
area7 (Town)	2	114	589	54	124	25	128	14	13	9	209	1281
area6	0	14	2	0	1	0	3	23	0	4	5	52
area5	0	56	34	0	1	5	5	12	0	3	28	144
area4	0	44	9	0	0	0	5	10	2	4	22	96
area3	0	61	26	0	11	5	9	18	1	7	27	165
area2	0	19	4	0	1	0	1	26	0	2	4	57
area1	0	26	8	0	2	0	1	19	0	5	13	74
totals	2	334	672	54	140	35	152	122	16	34	308	1869

source: MDProperty View 2004 – Caroline County

Table prepared in March 2005



Potential for large scale projects exists in the large parcels adjacent to Federalsburg in areas 1, 2, 3, and 4. Such potential projects should be carefully reviewed, approved with conditions, where consistent with this Plan, and controlled by the Town of Federalsburg (subsequent to formal annexation). Larger long-term projects should only be approved when accompanied by a Developer's Rights and Responsibilities Agreement (DRRA). A DRRA clearly identifies what is to be built, where and when and what site improvements are required, and an overall process for phasing development approvals and allocations and commitments for infrastructure capacity. Developer contributions, fees, and other obligations – financial and otherwise – should be clearly identified to minimize confusion, especially in the event real estate interests pass from one party to another prior to project completion. DRRA's also identify the stage of development at which lots may be sold and the order of development pursuant to an approved master plan.

Suitable InTown Development Sites

Our environmental concerns suggest that lands between the Marshyhope and our Brooklyn neighborhood should remain in their natural state as much as possible. However, some development potential is possible and appropriate within the Brooklyn area. Additional potential for residential development exists between Hargreaves Drive and Laurel Grove Road on the west side of Town. The Town's desire is to create more single- family residential neighborhoods to act as a compliment to our large industrial base.

The general area between University Avenue and MD 313 is an area that could easily be served by community water and sewer. The parcels just west of University Avenue form part of the current built edge of our urbanized envelope. Land use in this part of Town is mainly single family residential, and we encourage the gradual expansion of individual homes in this area. The street pattern there should continue the existing Town grid with connections forming four way intersections where possible. The inclusion of rear yard alleys is encouraged to create internal secondary circulation including pedestrian, bicycle, and resident parking, additional emergency service access, and to provide for cost efficient and attractive utility corridors.

This area includes about half a dozen vacant lots that are similar in size to nearby residential parcels. Several larger parcels, totaling about 20 acres, are located behind the currently developed lots. Based on parcel configurations and existing development patterns, these vacant areas could be developed with 50 to 60 single- family homes. Lots of between 1/3 and 1/4 acre are consistent with existing residential character in this part of Town.



Academy Avenue west of University Avenue is characterized by much larger residential lots, most of which are beyond Town limits. A large lot of about six acres is located on the southwest corner of University and Academy. This parcel is partly in Town and partly beyond Town limits. It includes a home site and pastures and is classified "agricultural" in terms of overall land use. Just beyond Town limits on the north side of Academy is a vacant parcel a little over two acres in size. These two parcels are considered prime residential building locations. A lot of about 11 acres on the northeast corner of Academy Avenue and MD 313 is in Town but indicated for the presence of nontidal wetlands, and it is heavily wooded. That site should be preserved in its natural state and continue to help define one of our "gateway" entrances into Federalsburg.

The existing agricultural activity near the corner of MD 313 and Bloomingdale Avenue should continue as long as property owners desire. However, those parcels should eventually be rezoned to accommodate either commercial or multifamily residential, or mixed use, with access off Bloomingdale Avenue and single family residential in the southern and eastern portions of those properties. Actual development suitability will, however, be dependent upon on-site field verification that sensitive areas are not present. Some parcels, or portions of parcels, in this area are believed to contain nontidal wetlands and forest cover.

Vacant lands in Town between the Caroline Industrial Park and the railroad tracks should remain industrial, and infill and expansion is encouraged.

Annexation

It is our intention to annex about 112 acres (all the land between Town limits and MD 313). Much of this land (about 80 acres) is "vacant" but wooded. It is bisected by the railroad, and is a suitable area, generally, for industrial expansion in the future as our other in-Town sites are utilized. However, woodland conservation and preservation and avoidance of sensitive areas will play a role in actual development approvals. We will strengthen our site plan submission standards and review procedures to ensure future development in this area is of the highest quality.

On the northwest side of Town, we intend to annex the area within our planning area as defined by the accompanying graphics at the end of this element (see pages 60–71). Existing uses will be zoned to permit their continuation, and future land use will be primarily residential. Immediate development priority will be infill residential. About 62 acres of agricultural land in this area have been annexed.

On the east side of Town, we will work to annex the small County inholding that exists off Liberty Road in the Rifkin Village neighborhood. Also, we encourage



the development of the remainder of the platted lots in Rifkin Village as single-family residential properties. The greatest obstacle to such infill is lack of improved street access to those lots and an absence of public water and sewer. This neighborhood was subdivided quite a number of years ago before strong land use controls or plans were created. The problems we face there today stem from not requiring the extension of public services and the improvement of public roads to required standards. We will explore options to implement the recorded plats including the creation of a special taxing district to finance needed public improvements. Another option is the potential resubdivision of the undeveloped parcels if ownership can be consolidated. Whatever the eventual solution is, the Town and the Planning and Zoning Commission will need to be a partner in working with the property owners for the benefit of all.

Further out, Liberty Road becomes MD 315. Both sides of MD 315 are almost fully developed with relatively new single-family homes. We intend to annex these homes and continue the long-term growth of Federalsburg in an easterly direction inside a corridor formed by Houston Branch Road (MD 306) and Bridgeville Road (MD 318). The areas closer to Town contain about 80 acres of land suitable for single-family residential development and could supply our long-term growth needs. A new subdivision that is only partly developed is in this "development wedge" and is accessed off Houston Branch Road.

Higher density residential is an appropriate use for parcels adjacent to an existing older mobile home site off Bridgeville Road. One lot is about 7 acres and the other is about 6 acres. However, these potential "opportunity sites" should be annexed first and developed only in conjunction of the extension of community water and sewer. This would also be a good location for a planned unit development (PUD) that could include convenience retail and services intended for residents of the immediate neighborhood that would be created.

The large agricultural tracts in the eastern end of our planning area are not envisioned to be developed or annexed in the foreseeable future. We encourage the County to sharply restrict development in this area in order to concentrate growth within Town and to maintain the character of our built edges. Similarly, we intend to keep MD 313 as our growth boundary line on the west side of Town for some time. This may change in the future. Agriculture and woodlands in the western and southwestern portions of our planning area should not be annexed until closer properties are brought into Town, and they should be maintained in their present land use. Again, this will help concentrate growth within Town and protect our visual character and sense of "place." Therefore, we discourage any further development around the west sides of the intersections of the Preston Road (MD 318) and the Hurlock Road (MD 307) with the By-pass (MD 313).



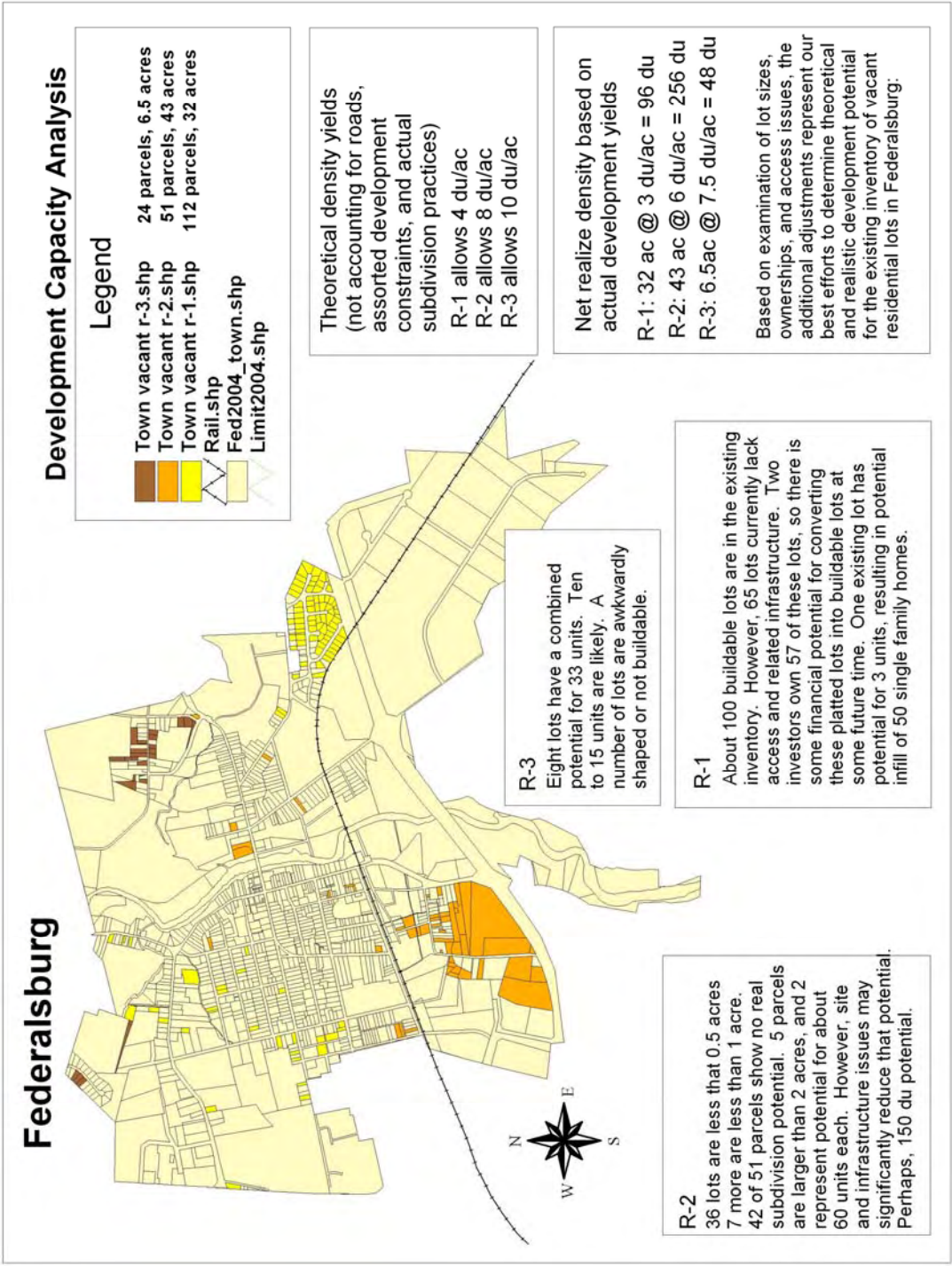
Planning Area 4 recognizes the potential for development and the need to extend public water and sewer south along MD 313 when it becomes economically feasible. Some property owners have approached the Town about potential annexation, but no firm plans exist. The costs, public benefits, and the Town's obligations need further study before any areas in Dorchester County are annexed.

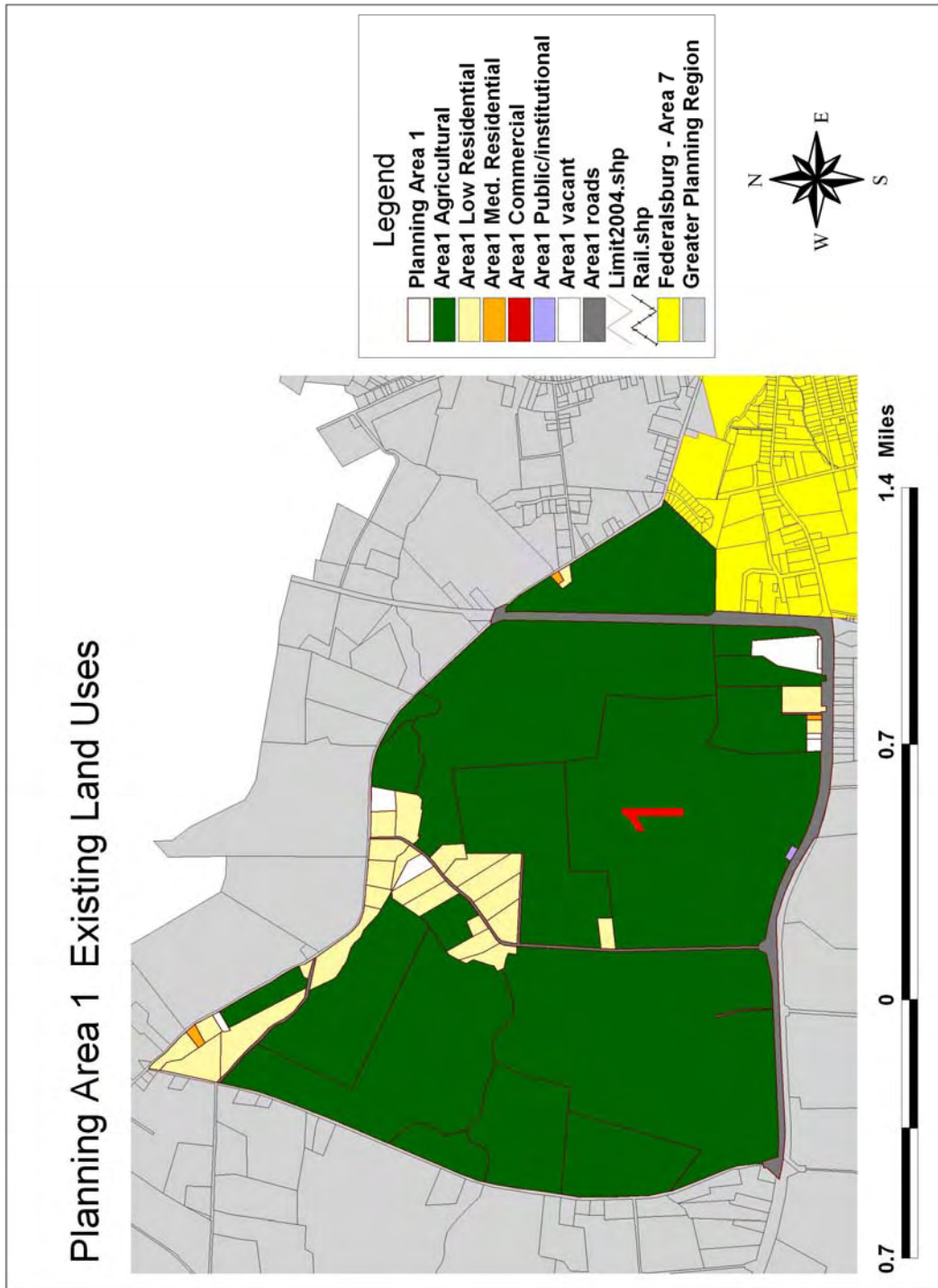
The series of 6 planning area graphics detail the areas that include specific annexation and growth priorities for the foreseeable future. We intend to pursue this pattern of future development, and we will amend our Zoning Ordinance accordingly. We encourage Caroline and Dorchester counties to assist us with these strategies by adopting appropriate land use policies and zoning controls.

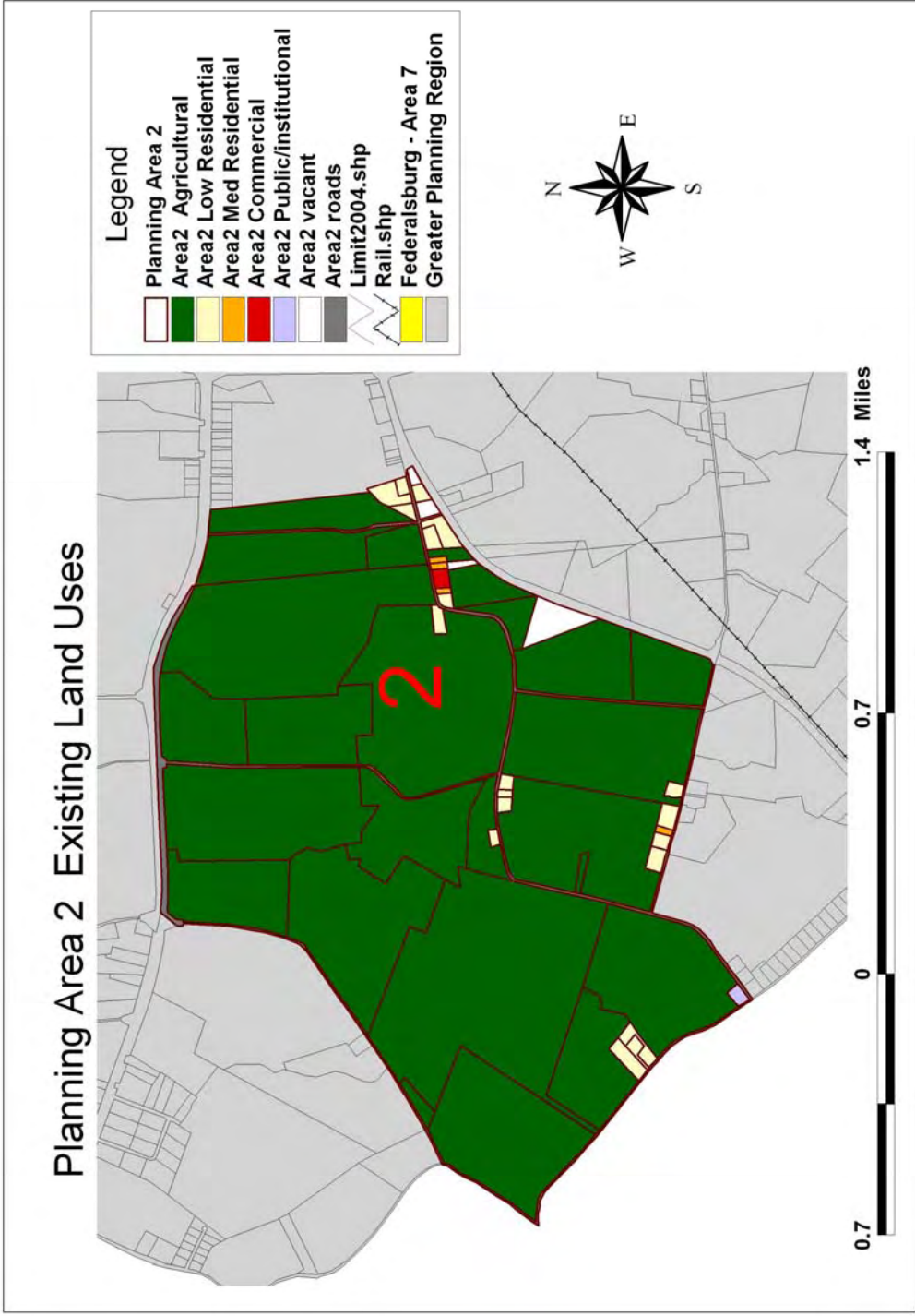
The development capacity summary on the following page provides additional information on the ability of the various planning areas to accommodate future growth.

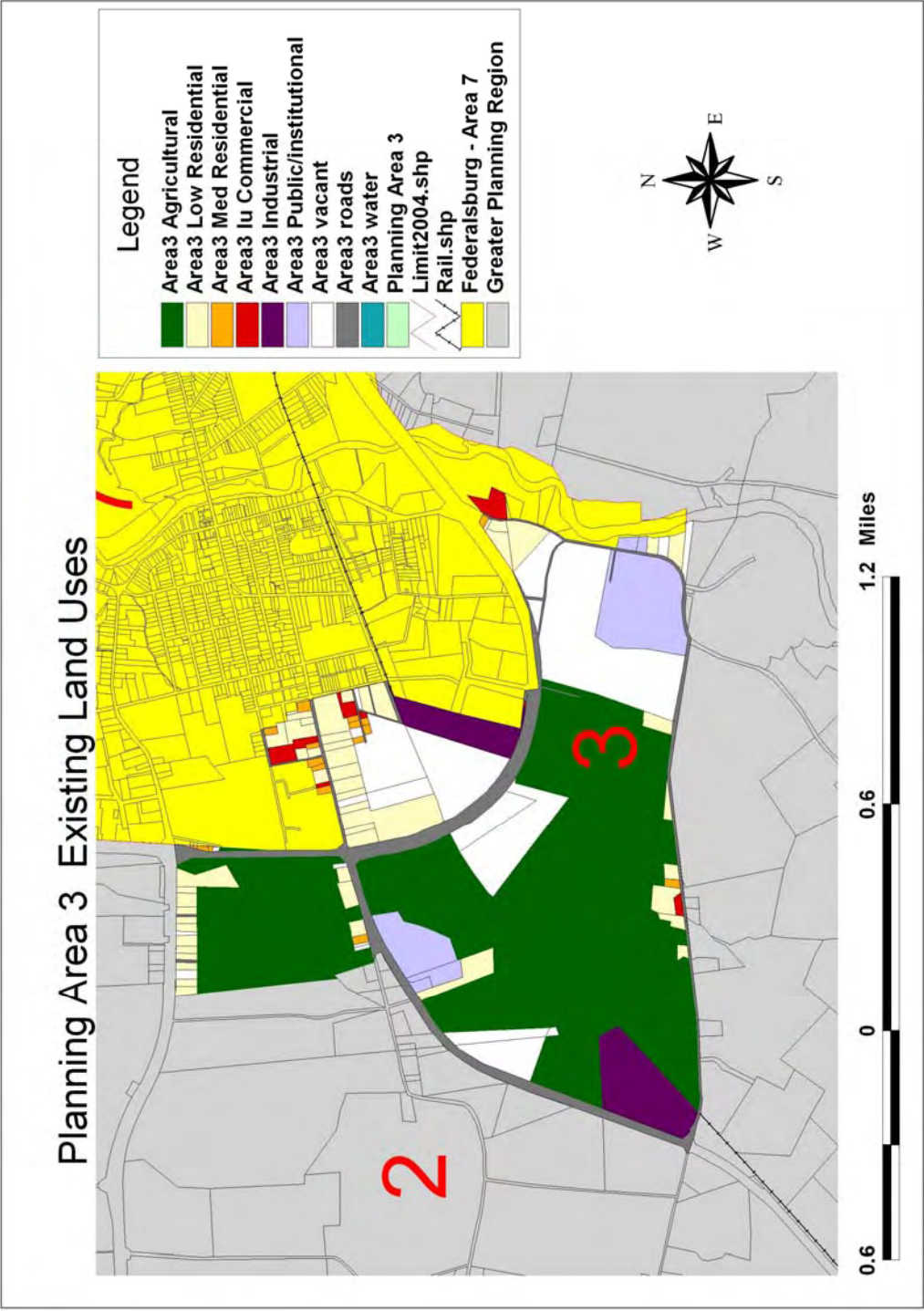
Future Land Use and Planning Areas

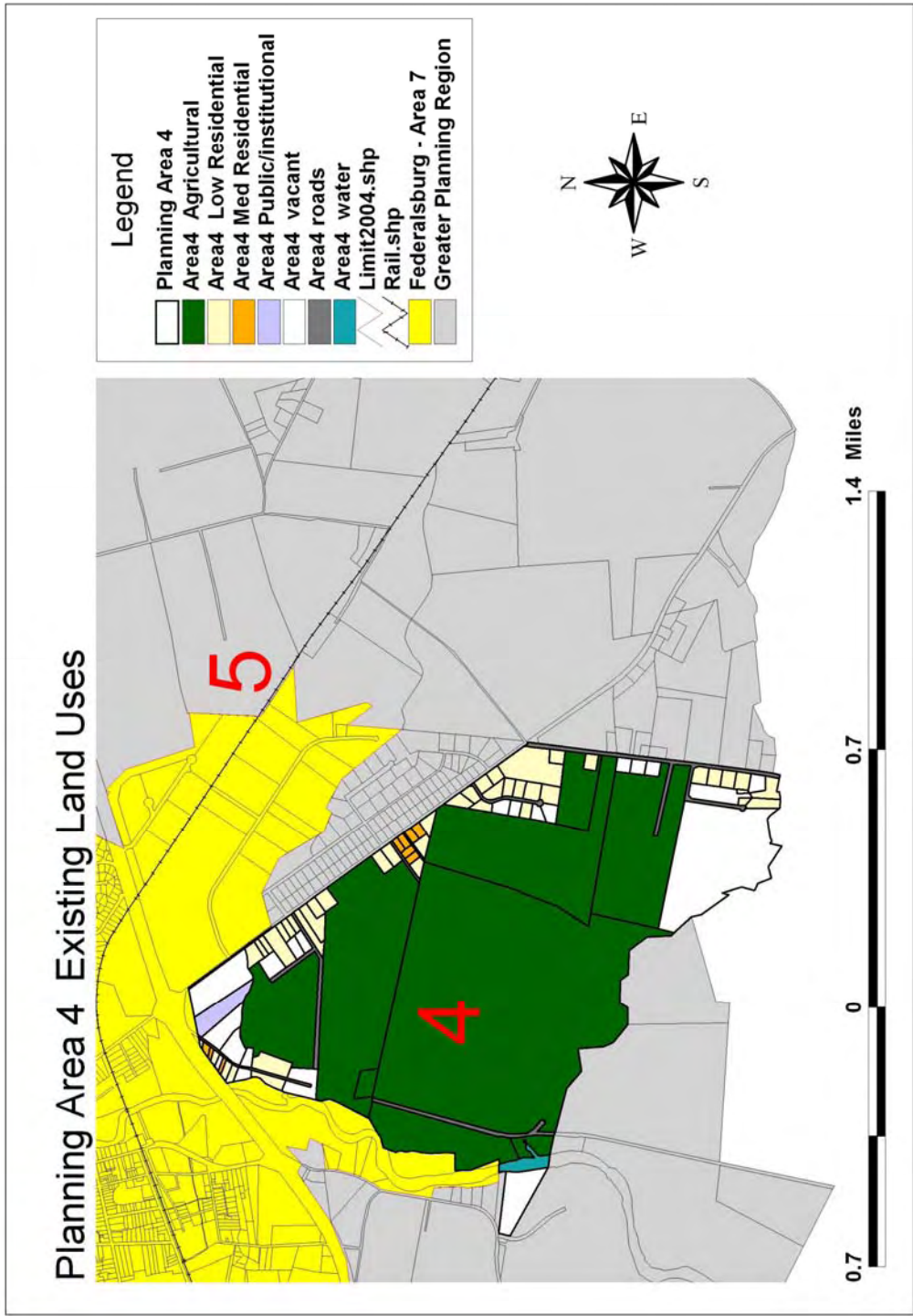
The Town's Comprehensive Land Use Plan is included at the end of this element. The Plan includes future land use for the Town and the surrounding planning areas, as well as areas beyond the Town that are planned for rural preservation by Caroline and Dorchester Counties.

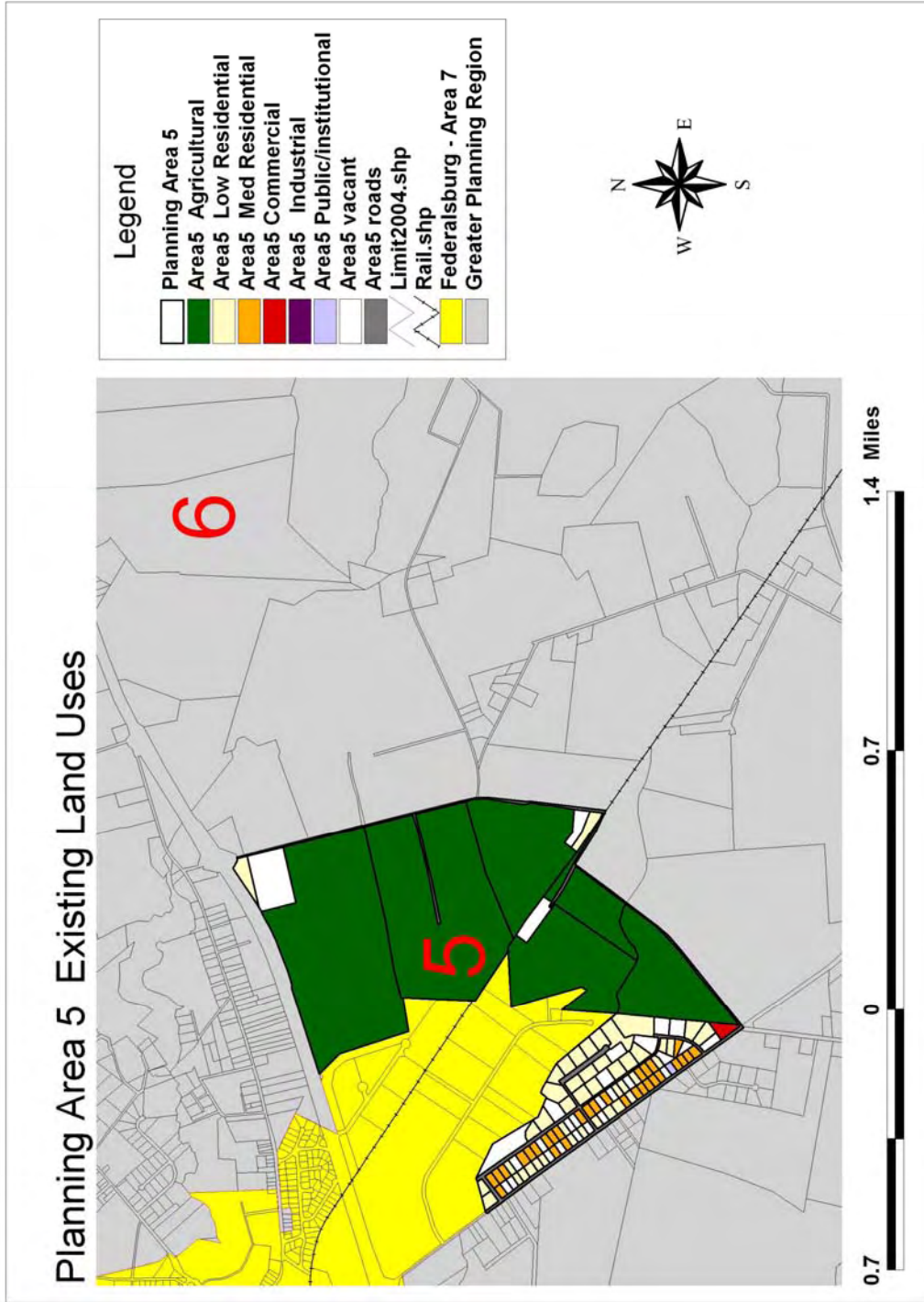


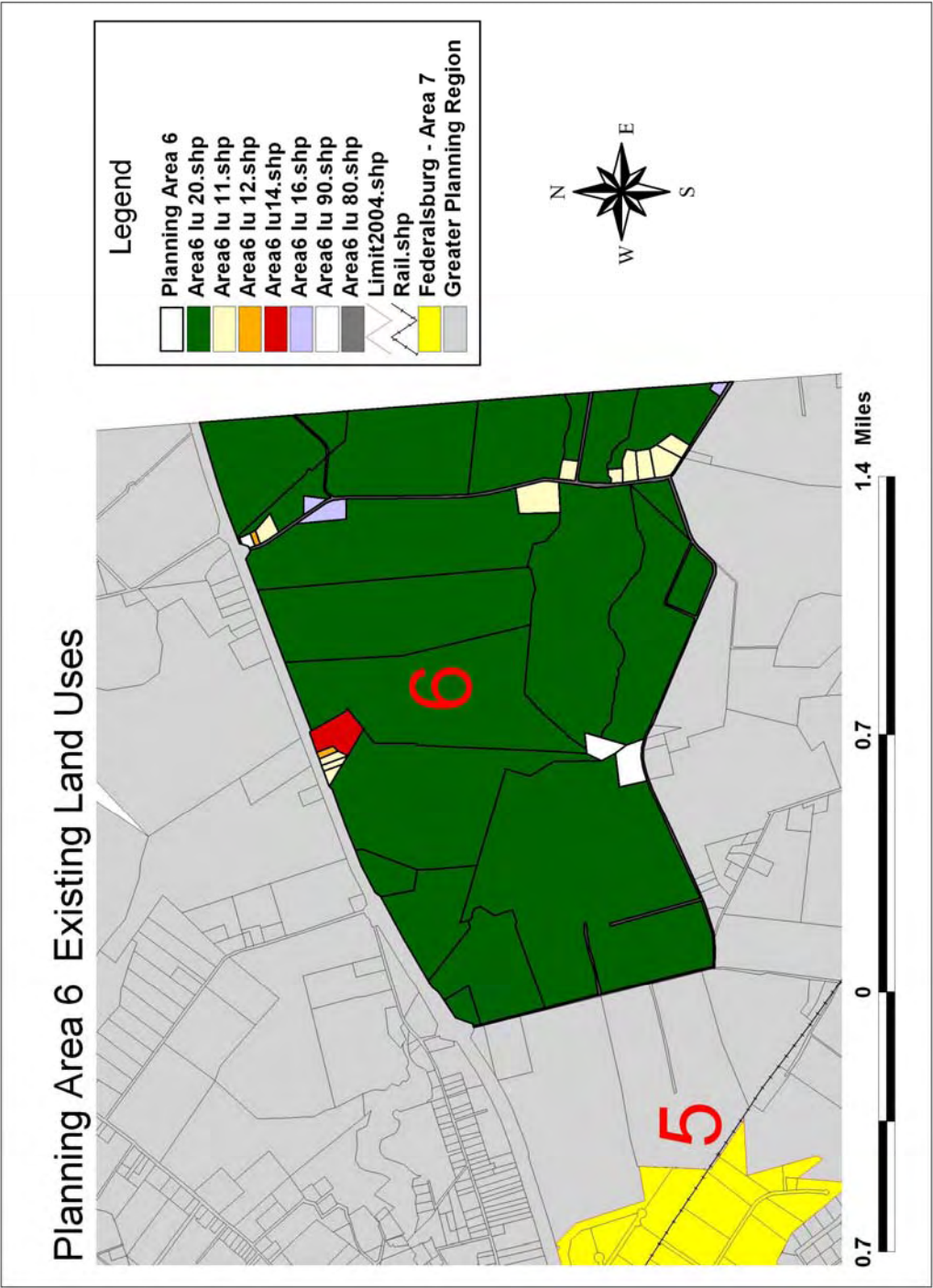














Generalized Priorities for Annexation and Growth

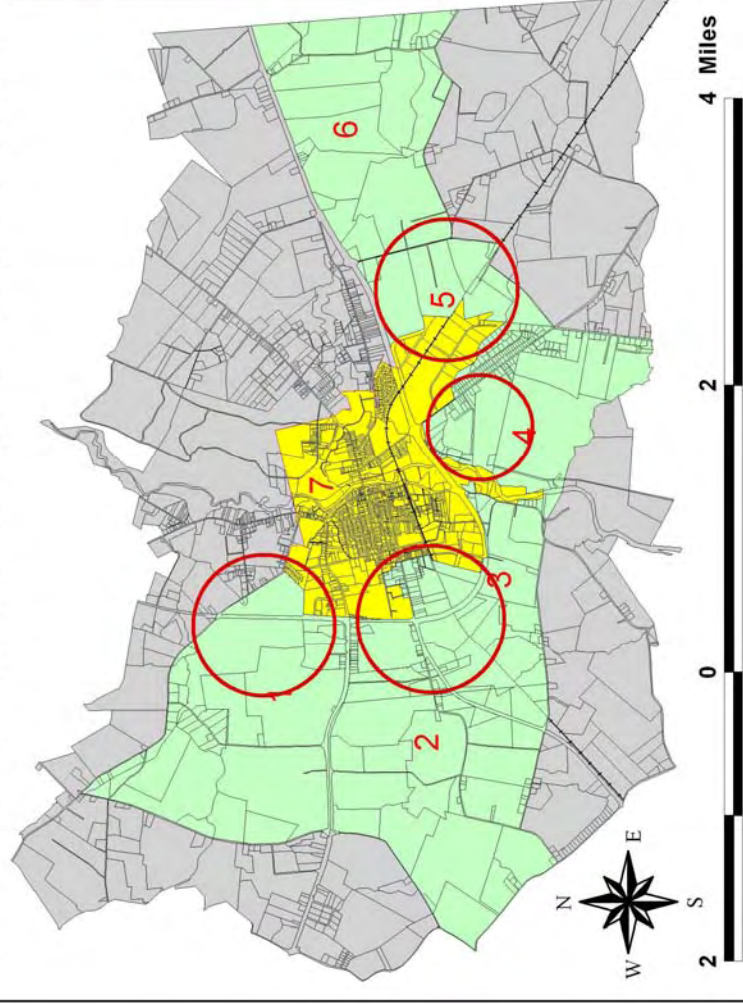
Legend

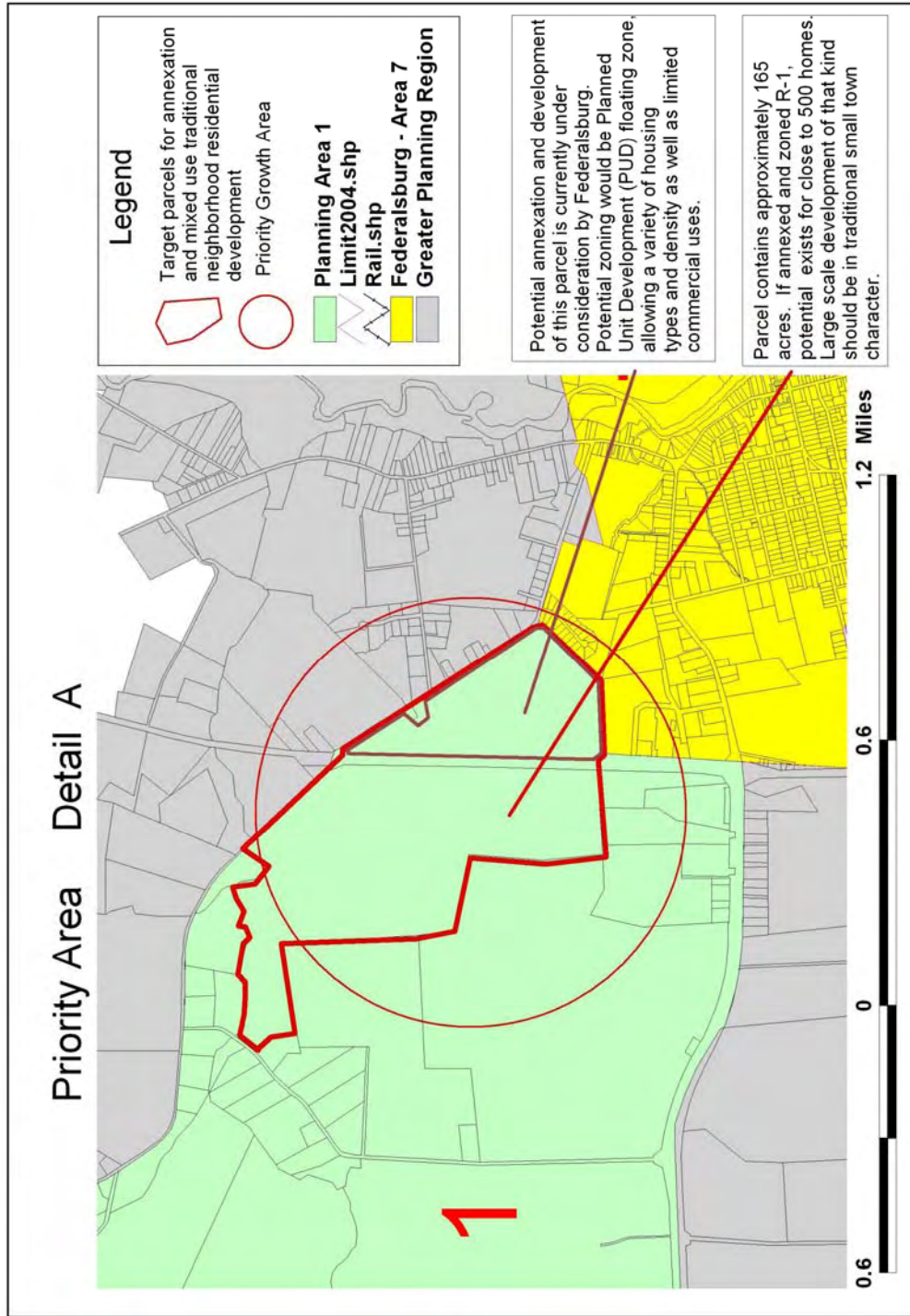
- Priority Areas for Annexation and Growth (Red circle)
- Planning Area 6 (Light green)
- Planning Area 5 (Light green)
- Planning Area 4 (Light green)
- Planning Area 3 (Light green)
- Planning Area 2 (Light green)
- Planning Area 1 (Light green)
- Limit2004.shp (White)
- Rail.shp (Black line)
- Federalsburg - Area 7 (Yellow)
- Greater Planning Region (Grey)

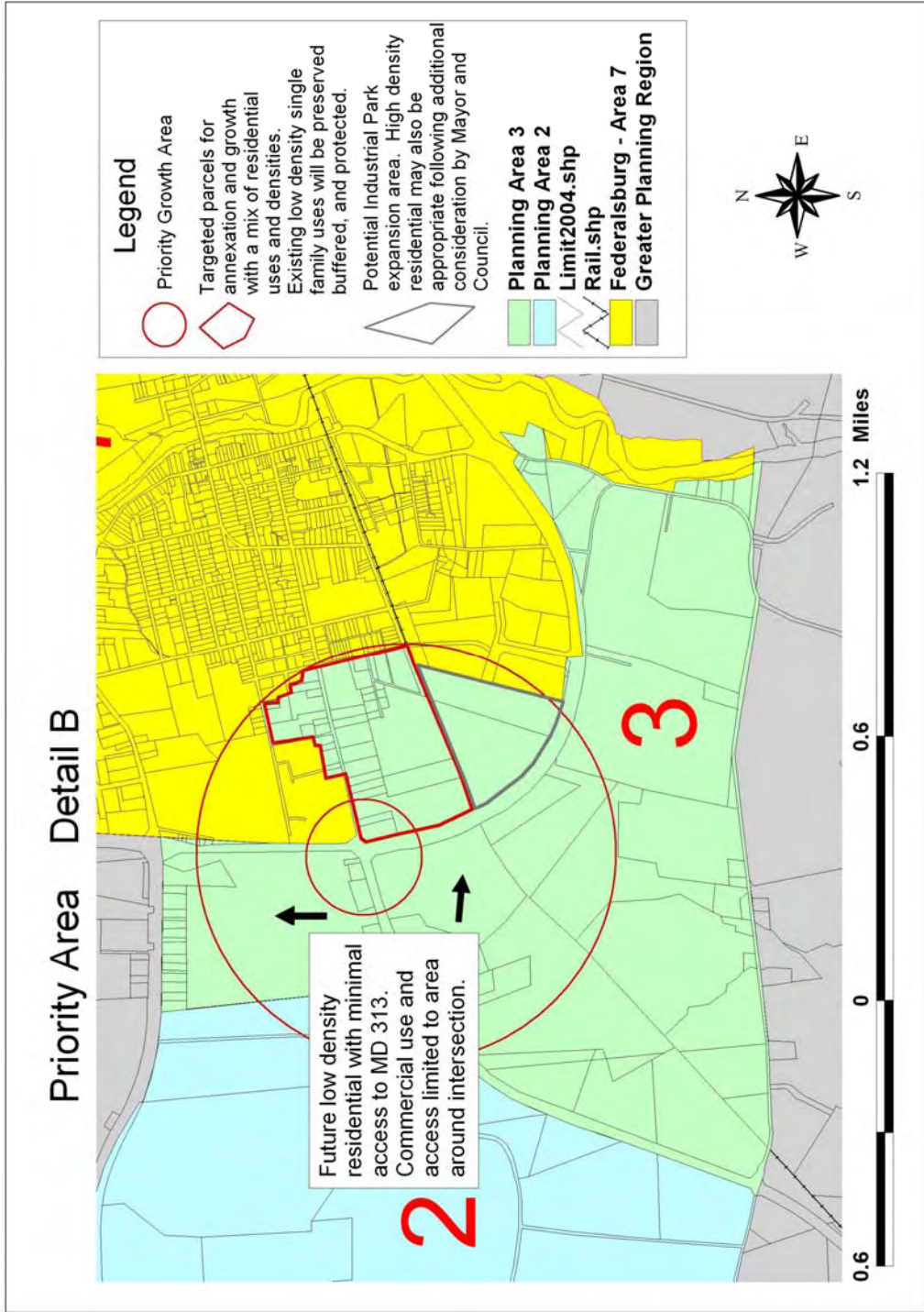
Annexation Policy

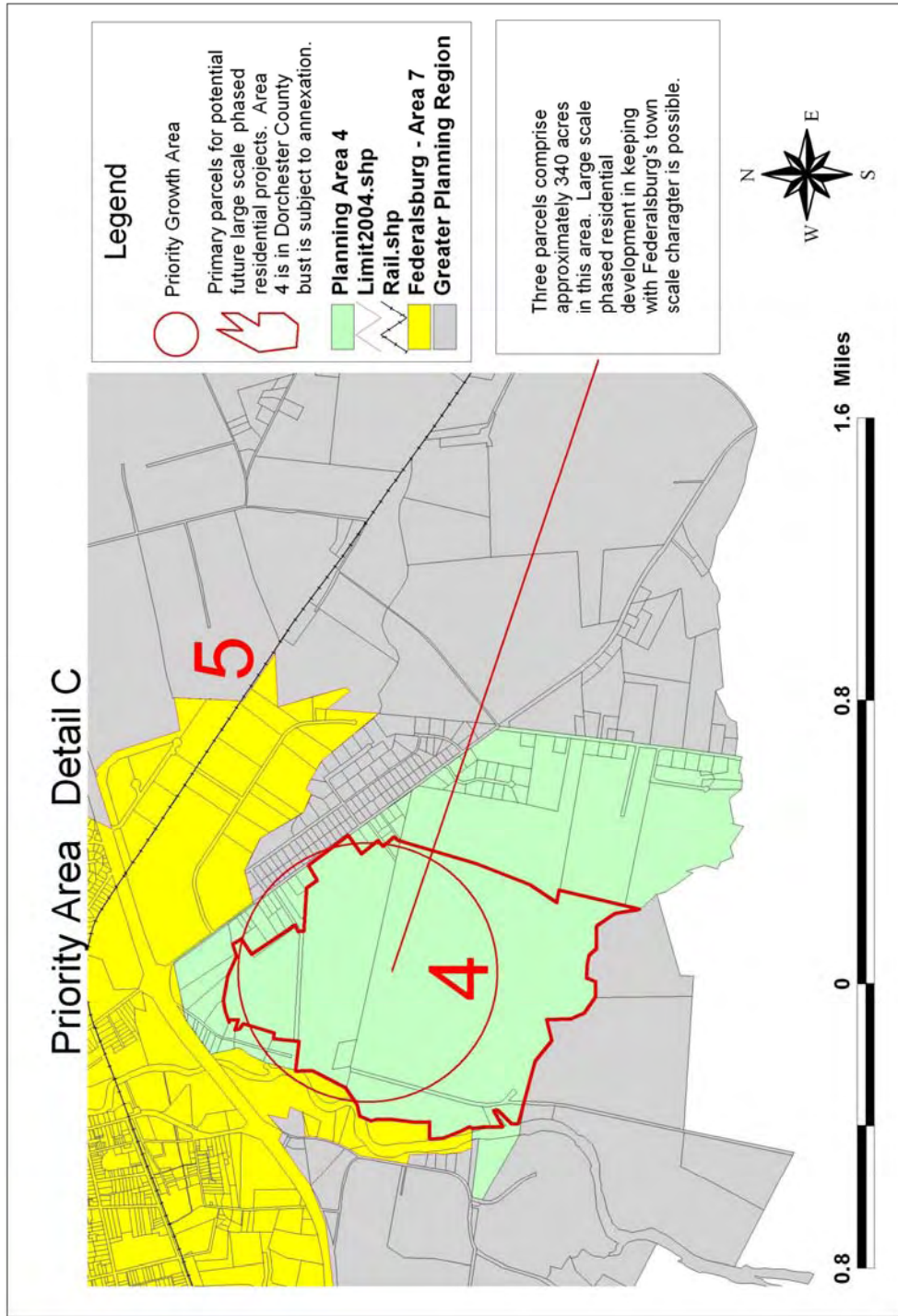
The four red circles indicate Federalsburg's initial priorities for annexation and possible growth. These areas are suitable for a variety of uses, and parcel sizes support medium size projects.

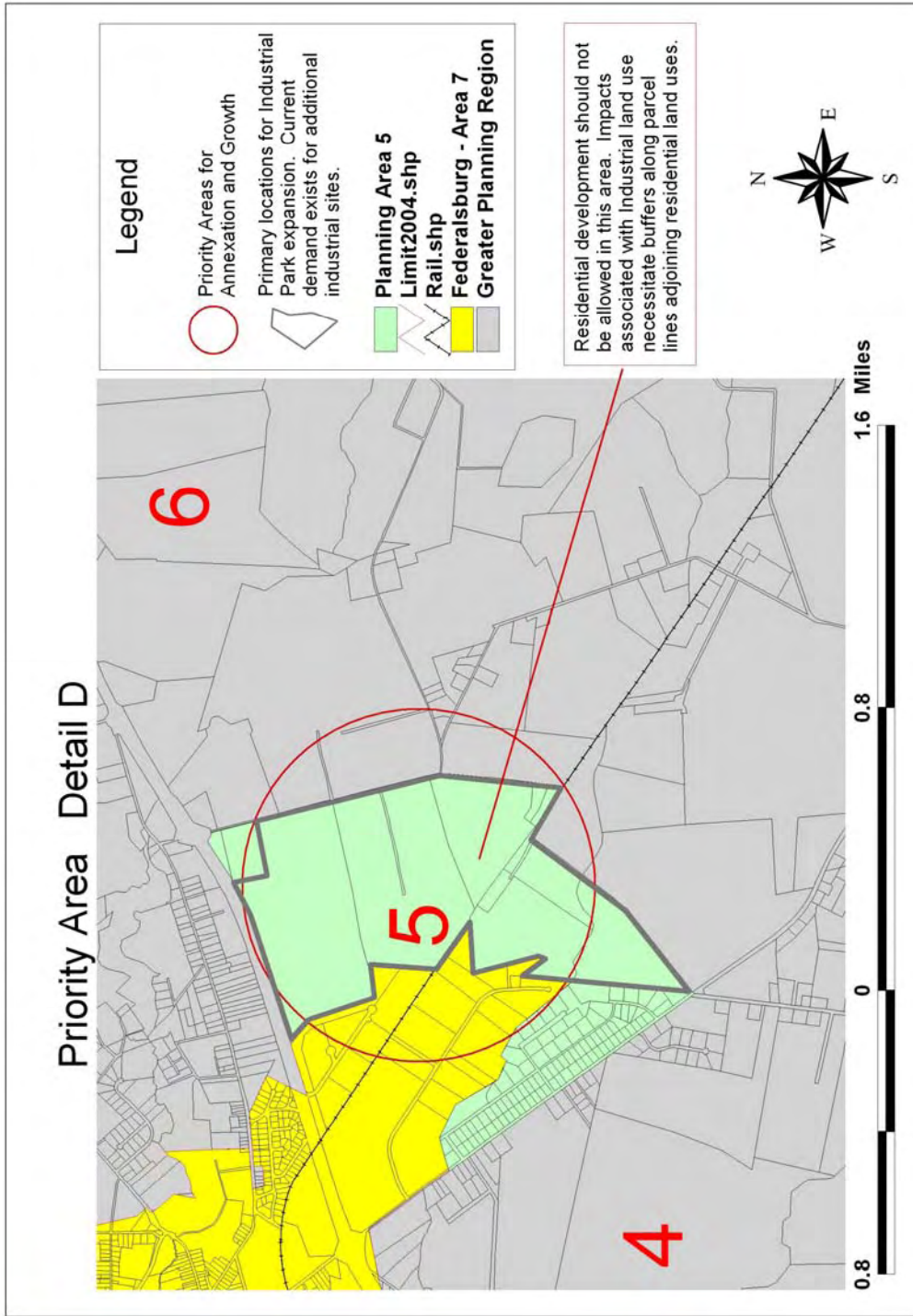
Potential large scale development projects that may be proposed outside our generalized priority areas will be carefully considered for long term suitability with the goals and objectives of the Plan and the needs of the Town of Federalsburg. Generally, annexation of planning area lands is encouraged in order for the Town to gain control of these lands for planning and good growth management.

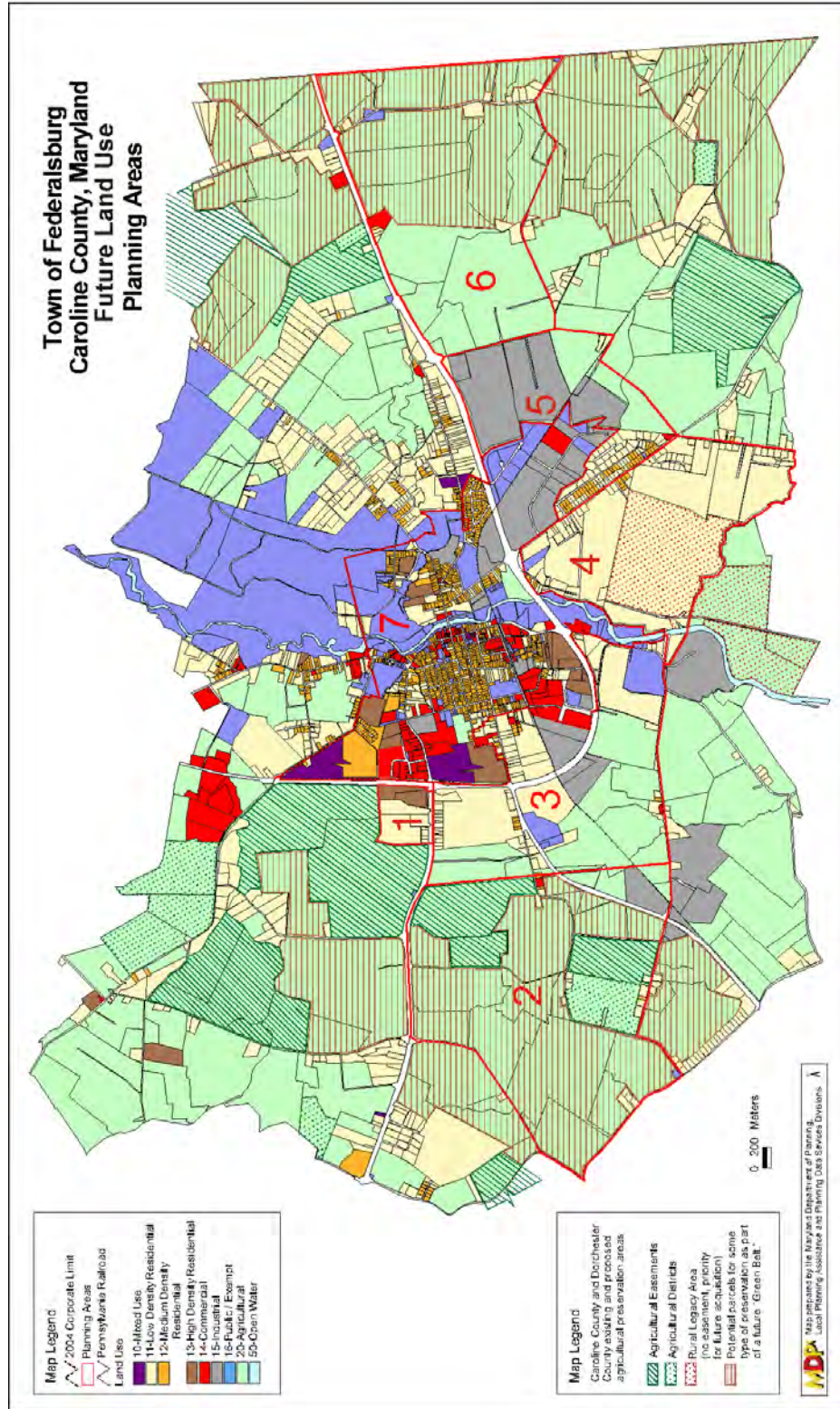














COMMUNITY CHARACTER

Introduction

The Community Character Chapter of the Comprehensive Plan is concerned primarily with issues of design. Whereas the Land Use and Growth Chapter looks at *where* growth should occur, this chapter examines *how* it should occur. It considers what redevelopment and new development should look like and it does so by looking at big picture issues such as how subdivisions should be laid out and arranged, as well as smaller picture issues such as what is the appropriate scope, scale, architecture, etc. for individual buildings or developments. We begin by looking at the building block of our Town, our neighborhoods.

Neighborhoods

We have identified areas of Town as “neighborhoods” although they do not conform to the traditional use of this term. Our neighborhood areas are parts of Town that have unique character, identity, use, or easily identifiable location. We refer to these areas, or neighborhoods, in terms of their existing character and land uses and think about them as the basis for our Land Use element, which describes the character and land uses we hope to enjoy in the future.

The neighborhood areas map locates the various neighborhoods and should be referred to in conjunction with these textural descriptions.



Idlewild

This neighborhood lies in an area bounded by the old Denton Road, Laurel Grove Road, and Idlewild Road. Most of the developed parcels are along Denton Road and Laurel Grove Road. The interior of this area is agricultural land. The neighborhood is beyond Town limits but includes older single family homes and some scattered commercial activities. We service this area with water but not with sewer.



Mobile Home and Single Family Home



Single Family Home

North Side

This neighborhood lies between Laurel Grove Road and the properties that front on Bloodmingdale Avenue. It also includes the land east of the Denton Road to Marshyhope Creek. The agricultural fields between Laurel Grove Road and MD 313 are not part of this neighborhood. The westerly portions of this neighborhood contain new single-family development and a multifamily rental complex. Older single-family homes and church and cemetery parcels line Laurel Grove Road as one moves east toward the Marshyhope.





Apartment Complex

Single Family Housing

Bloomingtondale

This neighborhood begins at MD 313 and follows Bloomingtondale Avenue east to the intersection with Denton Road, North Main, and Park Lane. It includes most of Federalsburg's new commercial development as well as new multifamily complexes located behind the commercial areas. Single-family development begins in the vicinity of University Avenue paralleling both sides of Bloomingtondale toward North Main. This area is automobile and highway oriented. Pedestrian links to commercial uses are not present.



Food Lion Shopping Center



New Bank & Fast Food at the west end of Bloomingtondale Ave.

West Side

This neighborhood forms a rough rectangle between Bloomingtondale Avenue on the north, University Avenue on the west, and the downtown area along Main Street on the east, and Railroad Avenue to the south. This area is the principal single-family residential concentration that marks the majority of our housing development over the last century. It is characterized by a rectangular grid street pattern slightly modified by Park Lane and Buena Vista Avenue, which cut across and follow the areas of steepest slope. The land slopes down toward the Marshyhope from these roads and forms a gentle plateau towards the west. Sidewalks are present in front of most properties in this neighborhood although there are gaps, especially on portions of Greenridge Road, Maple Avenue and Park Avenue.



Federalsburg Elementary School



Single Family Housing

Federalsburg Industrial Park

This neighborhood lies south of the railroad tracks and west of South Main Street. It is marked by industrial activities and includes opportunities for infill development of vacant parcels as well as redevelopment of older properties that may be marginally profitable now.



Solo Cup Factory



Overnite Trucking Terminal

South Side

This neighborhood is a residential neighborhood of modest homes located between MD 313, South Main Street, and the industrial areas north and east. It is somewhat "cut off" from the rest of Town by these surrounding features and is accessed via Smith Street. The neighborhood includes several deep flooded sand and gravel pits that some potential building sites surround.



Commercial Buildings on periphery of neighborhood



Housing and Institutional Uses in neighborhood

Marina

This neighborhood lies between MD 313, South Main Street, Marshyhope Creek, and the railroad tracks. It is mostly open grassy space and includes the recreational facilities of the public marina and marina park. It is essentially all floodplain.



Marina Park



Boat Ramp

Downtown

This neighborhood includes the parcels lining North and South Main Street between Bloomingdale Avenue and the railroad tracks and extends to the east bank of the Marshyhope. It includes our old traditional mainstreet commercial core. Many of the older single-family residences have been converted to include apartments, commercial, or mixed residential/commercial uses. Sidewalk renovations, attractive brick edging, defined angled parking, and attractive pedestrian scale lighting are some of the recent improvements added to the area. We also have an extensive economic analysis that includes specific recommendations for the revitalization and enhancement of this neighborhood. Central Avenue divides the neighborhood into north and south parts, and is the basis for North and



South Main Streets. Central Avenue is also the main in town route across the Marshyhope, site of "the bridge," and link with the rest of Federalsburg. The corner of West Central and Main Street is the historic focal corner of Federalsburg and the location of our two principal banks.



Greenway between Downtown and Marshyhope



Downtown Federalsburg

East Side

This neighborhood is bounded by Marshyhope Creek on the west, MD 313 on the south, Reliance Avenue on the east and follows the edges of Chambers Park out to East Central Avenue. Land uses are mainly residential following the traditional neighborhood design of narrow deep lots, small side yards, and homes located close to the road. The neighborhood also includes the sewer plant and Maryland Plastics, a large industrial employer located on the extreme eastern end of the area across from Chambers Park. Sidewalks are present, but usually only on one side of the street. Soils are very sandy, and curbs are lacking in many areas. Street paving, especially near Reliance and East Central and Liberty and East Central show signs of deterioration. Many of the homes are of modest size, and quality of maintenance varies widely. The older "historic" homes on East Central have retained much of their character and appearance over the last sixty years. New multifamily development is located north of East Central Avenue and is accessed from that road.



Carroll Residence on East Central Avenue



Kinder residence of East Central Avenue

Chambers Park

This neighborhood is centrally located on the east side of Town and stretches from Reliance Avenue on the west to the Town limits on the east. It is divided into two parts by Liberty Avenue. The western part, including ball fields and the fair ground, was dedicated in 1929. The eastern part, including Chambers Lake, was dedicated in 1938. Chambers Lake was formerly a popular swimming area but is no longer used for that purpose. Potential exists to revitalize the park and to restore and expand its recreational value and amenities.



The second dominant use in this neighborhood is industrial development that is under way as of the writing of this Comprehensive Plan. A large pre-fabricated metal building is being erected for an expanded Maryland Plastics manufacturing facility.



Picnic Area at Chambers Park



New Maryland Plastics Facility under Construction



Caroline Industrial Park

This neighborhood is defined by the railroad tracks on the east and Reliance avenue, MD 313 (Reliance Road) on the west and the Town limits to the south. MD 318 divides the neighborhood. Land east of the railroad tracks and south of MD 318 is part of the industrial park site but remains wooded and undeveloped. It is accessed by a right-of-way that originates on Industrial Park Road.

The developed residential area of Meadowbrook Park lies just south of the Caroline Industrial Park and is outside Town. It is included in the southeastern corner of our planning area. The homes there are relatively new, and we do not supply water or sewer to that area.



An active rail line runs through this neighborhood



Caroline Industrial Park as viewed from MD Route 313



Rifkin Village/MD 315

This neighborhood forms a long narrow sliver bounded on the south by MD 318 and divided roughly down the middle by MD 315 (Liberty Avenue extended). Rifkin Village is a subdivided and partially developed residential area next to Chambers Park that marks the beginning of the neighborhood. Most of this neighborhood lies outside of Town and extends to the easterly limits of our planning area. Most of the parcels along MD 315 are developed with single-family homes, but we do not supply water or sewer service to this area. The majority of areas within our planning limits east of Town lie north or south of this neighborhood and are predominantly agricultural fields. A small rectangle of land adjacent to Rifkin Village is part of Caroline County. This tract forms an "inholding," being completely surrounded by lands within the Town of Federalsburg. The creation of such patterns is now prohibited by Maryland's annexation law.



Rifkin Village with new single story homes, no sidewalks

Brooklyn

This neighborhood lies north of East Central Avenue adjacent to the Town limits. It is accessed off Gerardi Boulevard and leads to several multifamily developments and some modest single family homes. It is topographically



separated from the rest of Town by Tanyard Branch. Most of the land to the north and west is wooded and undeveloped all the way to Marshyhope Creek. This neighborhood also adjoins a small part of Idylwild Wildlife Management Area that extends into Town limits.



Multi-family Housing in Brooklyn



New single family detached housing in Brooklyn

The balance of land within our planning area on the west side of Town and beyond is agricultural fields or woodland. As such, we have not defined this



as a neighborhood. An exception is the strip of residential development along West Academy beyond Town limits. This pattern of developed parcels ends at MD 313 and creates a "gateway" into Federalsburg on the road from Hurlock.

While much of our neighborhoods are in a somewhat downtrodden state, they do exhibit many good qualities that we should build upon for future development. For one thing, several of our neighborhoods have characteristics that many on the so-called cutting edge of planning are now trying to emulate. Many of our neighborhoods have mixed uses. They are walkable and they are relatively dense. This is less true of newer development, but the older parts of Town provide a blueprint on which to build.

Future development in Federalsburg should pay close attention to the past. It should once again encourage mixed uses within neighborhoods to promote community and to minimize vehicle trips.

New development should also consider the natural features of a site and rather than trying to engineer a solution to overcome these features, the development should be designed to avoid and even enhance such features. The following objectives can help achieve this desire:

- Neighborhoods should only be located on land suitable for development.
- Development should avoid impacts to air, land, water, and vegetation. Any negative impacts of these resources should be mitigated.
- Site landscaping should utilize existing vegetation complemented with native species.
- Important visual features should be preserved and made an integral part of the design of the site.
- Site design and development should consider noise and light impacts on adjacent properties.

The appearance of new development in Federalsburg can be greatly improved by requiring substantial landscaping for all future projects. Some initial steps to achieve this goal include:

- Require developers to leave as much existing forest and trees as possible rather than clearing and leveling the sit prior to development.
- Require large, healthy (i.e. nursery stock) landscaping.



- Require replacement and maintenance bonds to insure the survival of the desired landscaping.
- Use native species as much as possible. Native species are adapted to our environment and thus more likely to survive here, even through climatic extremes.

The Town government can also do its part by installing and maintaining street trees along existing public rights of way. The Town should also set the example for the community by extensively landscaping its Town-owned facilities and properties.

Another key to improving the appearance of Federalsburg is to require architecture that reflects our Town's traditional development. New development, not just in Federalsburg but also all over the country, is sadly by and large ubiquitous. That is to say, new housing in Federalsburg looks no different than new housing in Denton, or Seaford, or the Midwest or Pacific Coast. Worse yet, it is plain and boring. It need not be that way. New development and redevelopment should be required to emulate the best of Federalsburg, such as the large, ornate, and architecturally interesting homes found in the older parts of our Town.



Looking to the past for the blueprint for future development and building true neighborhoods rather than single-use subdivisions can go a long way towards improving the livability of Federalsburg. Both redevelopment projects, as well as new development should be strongly encouraged to follow these guidelines.

Redevelopment

With a large amount of vacant land, as well as a number of underutilized parcels, Federalsburg possesses great redevelopment potential. In 2002, one such plan for redevelopment was advanced for properties near downtown on the west side of the Marshyhope Creek. In fact, our Comprehensive Plan was amended to include this redevelopment proposal. This 2002 amendment is reproduced below:

Parcel List

P. 701:
P. 702:
P. 698:
P. 696:
P. 695:
P. 694:
P. 693:
P. 692:
P. 691:
P. 690:
P. 689:
P. 688:
P. 687:
P. 686:



Narrative:

It is the intention of the Town of Federalsburg to stimulate and ensure the revitalization of a two-block area on South Main Street between East Central Avenue and Academy Avenue between Main Street and Marshy Hope Creek. The Old Town Barn (parcel 702, which is in unsafe and dilapidated condition and located in the flood plain of Marshy Hope Creek) has been removed. An attractive highly landscaped parking lot with defined pedestrian access to Marshy Hope Creek Park, South Main Street and East Central Avenue will be designed and constructed. An existing alleyway between parcels 698, 696 and 695 will provide one way vehicular access to the parking lot, and traffic will be directed back out on to South Main Street via an existing Town-owned driveway between parcels 692 and 690.



The old Radio Station and the Crowfoot Building, though deteriorated will be renovated and returned to a mix of commercial uses. Other structures along the streetscape of South Main will also be renovated for reuse. Two structures in the flood plain on parcel 691 will be removed, and this parcel will be combined with parcel 702 to provide the necessary area for the new parking area. This parking area will provide needed spaces for the business on South Main Street and park users.

The old “hotel” on parcel 687 and Brownie’s Tire shop on parcels 688 and 689 may eventually provide a site for redevelopment as mixed use or residential that will be oriented toward the waterfront and linked to existing pedestrian walks along Marshy Hope Creek through the park. Sidewalk sections in need of repair on South Main Street will also be addressed. Overall, the existing streetscape will be protected and enhanced, residential, commercial, and public uses will be mixed, and it is hoped this initiative will stimulate additional revitalization efforts on the west side of South Main Street, especially in the area of Academy Avenue.

Similar opportunities exist for redevelopment throughout Federalsburg. There is one large impediment to such projects though. That is the fact that so much of our Town lies within the 100-year Floodplain. Worse yet, much of this area is actually in the floodway. This is a serious hindrance to redevelopment as the goal of most Floodplain Ordinances (ours included) is to keep such areas free of obstructions so as to not alter the flow of floodwaters or to contribute any possible debris during flooding.

Redevelopment in Federalsburg will not be simple. It never is, but in our town, the problem is made worse by the fact that we are the victims of competing, albeit legitimate, interests. On the one hand, State Smart Growth policies direct new growth to Towns such as Federalsburg and encourage higher density in the heart of Town in order to slow the outward expansion of Town boundaries. On the other hand, another State (and Federal) policy seeks to protect floodplains by severely limiting development therein. The problem in our Town is that these two places, the heart of downtown where density should be the highest, and the floodplain, which should be protected from development, occupy much of the same ground. In an attempt to reconcile these competing interests, we will take the following actions:

- Work with the Maryland Emergency Management Agency to develop an alternative to the State’s model floodplain Ordinance for Town’s such as Federalsburg with a river running right through the downtown.



- Acquire as much land as possible and convert it to uses with little or no impact on the floodplain. These may include an expansion of riverfront linear park or non-structured parking for uses that are located out of the floodplain.
- Require that when development does occur in the floodplain, it be built on piers and raised to an elevation above the 100-year flood level. The area beneath the piers may be used for parking, but nothing should be stored there.
- Site any development that may be permitted as far away as practical from the banks of the river.

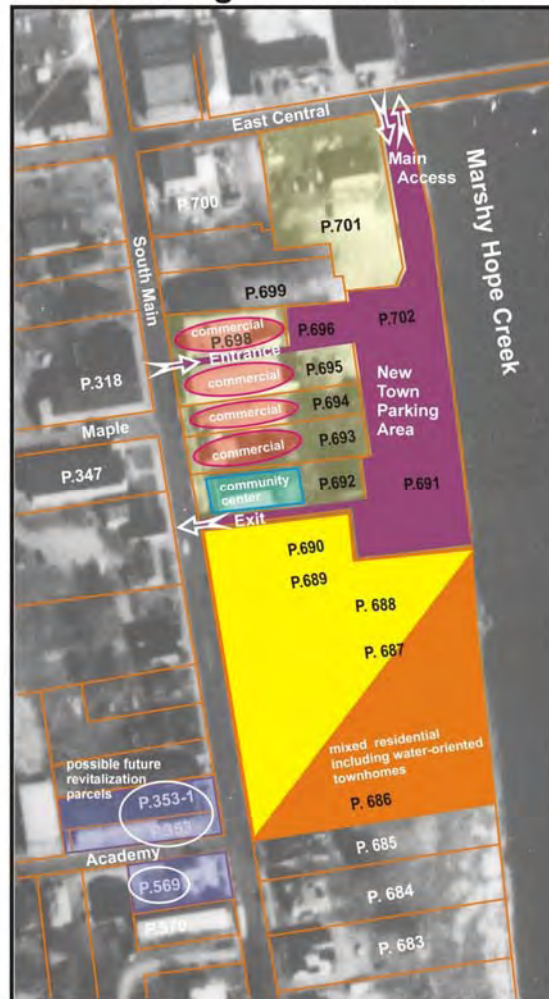
In another attempt to stimulate redevelopment, our Town has recently (November 2001) hired a Main Street Manager for the purpose of revitalizing the downtown commercial district and promoting Federalsburg. Some of the specific tasks accomplished for this position have been:

- promoted economic development, retention and expansion
- promoted downtown Federalsburg as a pleasant experience - to visit and enjoy
- organized quarterly business and civic meetings held at the Town Office and established relationship with local merchants and business owners in Town and in the Industrial Parks
- conducted business survey with local businesses
- organized ad campaign in the March 2002 Caroline Review which included eight pages with ads for 33 local businesses, an article about the Town and a calendar of upcoming events
- created a business folder of information for prospective new business owners
- created a listing of commercial and independent businesses located within Federalsburg
- promoted the Towns' revolving loan program
- maintained vacant commercial property listing for prospective new businesses
- promoted local and county tourism (currently a member of the Caroline County Tourism Advisory Committee)
- established relationship with the Caroline County Times-Record Newspaper - submitting numerous calendar of events and news in brief releases and requesting reporters for various functions
- published the quarterly Town Newsletter which includes Mayor and Council monthly meeting minutes and promotes local events, businesses and organizations, and personalities



- assumed an active role with civic organizations, such as Caroline County Habitat for Humanity, the Federalsburg Volunteer Fire Company, the Anything Goes Main Street Parade and Festival committee, The March of Dimes, Federalsburg Historical Society, and the Federalsburg Ministerial Association.
- published various brochures including a Calendar of Events, a Visitor's Guide to Federalsburg, a Guide for Town Services and a Business Guide, established municipal web site: www.federalsburg.org
- supported establishment of the Federalsburg Historical Society.
- attended training seminars provided by National Main Street Center, The Downtown Institute, and Maryland Municipal League

Federalsburg Revitalization Area



assistance provided by: Maryland Department of Planning, Upper Eastern Shore Regional Office

Appendix C includes assorted images of this revitalization area [that provide more detail].



Community Facilities and Services

Water

We have three water storage tanks. The newest (1982) holds 200,000 gallons. The other two, built around 1926, hold 150,000 and 100,000 gallons of water. These tanks are supplied by five active wells which can pump a total of about 1,150 gallons per minute (gpm). Wells 1, 2, and 6 are abandoned, and well #4 is only used for fire protection. This existing water supply is generally adequate and of good quality.

Fire hydrants provide coverage for the entire Town. There are three dry hydrants installed in Chambers Lake, and two in Marshyhope Creek. One of these is located in the Federalsburg Marina and the other is located near the East Central Avenue Bridge.

Water lines are various sizes in different parts of Town. They are mostly old iron lines with lead soldered joints and are brittle. This presents problems whenever excavation is required to work on stormwater or sanitary sewers because earth slippage easily cracks these old lines. Water pressure is good however because our water is not acidic (pH 7) and has not corroded the inside diameters of the water lines.

Water use is metered for billing and analysis. Average use per dwelling unit is calculated to be about 125 gallons per day per unit.

Our water system plans are to replace our old tanks at Morris Avenue and at M&M Refrigeration with a new tank of about 300,000 gallons. The larger size is envisioned to meet our needs over the life of the bond (usually 40 years) needed to pay for the improvement. Also, this will help ensure that we have adequate available water for water use by intensive industries that may locate at the Federalsburg Industrial Park, the Caroline Industrial Park, or other industrial sites within Town. Also, we need to extend a 12 inch water main from our existing tank in the Caroline Industrial Park to the site of the new tank. This will provide pressure equalization and ensure even draw downs from all our water tanks. The new tank will be located in the Caroline Industrial Park.

Water main extensions will also need to be planned and a capital expenditure program developed for service extensions into our annexation areas. This is especially true for the lift station and water lines that would service the Idylwild neighborhood and areas that may develop on Laurel Grove Road. These specifics will be addressed by amendment to the Caroline County Water and



Sewerage Plan. Timing issues may require special attention to inter-jurisdictional coordination and scheduling of public hearings.

Sewerage

Our Sewage Treatment Plant is a trickling filter design that has a design capacity of 750,000 gallons per day (gpd). This is also our permitted capacity. Average flows are around 250,000 gallons per day in the summer, and average flows have reached 375,000 gpd in wet weather. The Town is currently in the planning stages for upgrading to treat for Nitrogen and Phosphorous.

The Treatment Plant is located on the east side of Marshyhope Creek on about four acres at the end of Kerney Street. This is also the location of our Town Barn, which is used for vehicle storage and maintenance.

The collection system is made up of 6, 8, 10, 12, 18 and 21 inch gravity sewers with 6 and 12 inch force mains conveying flows to the treatment plant from six pumping stations.

The Main Street/Central Avenue Storm Drain and Sewer Project has been completed, as well as Academy Avenue. However, Maple Avenue and Railroad Avenue have not been completed at this time.

Our wet weather average flows of 375,000 gallons per day should be further reduced when our storm drain separation project is completed (on Maple and on Railroad Avenue). The Central Avenue and Academy Avenue portions are complete. However, we learned to expect to replace old brittle water mains as a byproduct of this construction activity and expect to bear those costs on Maple and Railroad Avenue also.

A project to address Nitrogen and Phosphorous removal will have to happen after average flows exceed 500,000 gallons per day. We have preliminary estimates of two to three million dollars for such work. Nitrogen removal will only be done if absolutely required by the Maryland Department of the Environment and would require fundamental changes to our trickling filter process. Federalsburg has very little available borrowing power and wants to keep tax increases to manageable levels for our population. We would probably not be able to afford the full cost of Nitrogen removal under any circumstances.

The addition of a third primary clarifier would add about 200,000 gallons per day treatment capacity. This is regarded as a potentially cost effective improvement but would only be done if unanticipated growth required such expansion. Under



such circumstances, we anticipate requiring developers to pay their "fair share" of system improvements based on a percent of benefit to project cost formula.

Sewer interceptor extensions will also need to be planned and a capital expenditure program developed for service extensions into our annexation areas. Priorities, phasing/timing, and related planning issues will require special attention to interjurisdictional coordination and scheduling of needed public hearings. Details will be included in an amended Caroline County Water and Sewerage Plan.

Town Hall

Our Town Hall occupies a three-story brick structure that was originally built as a movie theater. It is located downtown on the southwest corner of Main Street and Morris Avenue. The first floor houses office space and public meeting facilities. The second floor, served by elevator, houses the Federalsburg Senior Center. The third floor is used for storage. The building is in good physical condition.

Our office space is generally adequate, and we do not anticipate major additions or renovations to the Town Hall.

Emergency Services

The Federalsburg Police Department is located in a former storefront owned by the Town. It will be relocated on Morris Avenue behind Town Hall. We employ a staff of about ten (10) certified police officers that handle all calls for service and crimes within the town limits. The Police Department is a full service department that operates 24 hours a day. The office is operated by one (1) civilian employee between the hours of 8:00 am to 4:30 pm weekdays. The officer on duty carries a duty cell phone so that they can be reached by the citizens directly for non-emergency information. The officers are dispatched to calls from the 911 center located in Denton through the use of an 800 megahertz radio system.

Some of the other duties that the officers are responsible for are, foot patrol, bicycle patrol, traffic direction for parades, organized walks, soap box derby races, and all events that assistance or security is needed or requested. All officers are on call 24 hours a day in case of very inclement weather, natural disasters, serious crimes or manpower needs. Some of the other organizations that the police officers assist are: Maryland State Police, Caroline County Sheriff's Department, Caroline Humane Society, Public Works, and the Caroline County Drug Task Force.



The Federalsburg Volunteer Fire Company (FVFC) provides fire and Emergency Medical Services. They are located at 208 N. University Avenue. The facilities and equipment are adequate for our projected growth during the planning period and is replaced at regular intervals as needed.

The communications equipment has been improved utilizing new technology as available allowing inter communication between the Counties and States.

FVFC ambulances are advanced life support equipped and meet the Maryland seal of Excellence. The EMS is staffed by County Paramedics, Certified County Career Support and Certified Community Volunteers.



Federalsburg Volunteer Fire Department's Fire Station

Our emergency services are considered presently adequate although the fire company has recurring and ongoing needs to replace and upgrade fire and rescue equipment. The Town has purchased the former Fox's 5Cent to \$1.00 store. The Mayor and Council are currently seeking funding assistance to renovate this building as the Public Services Building. The Police Department plans to relocate to this building.

Schools

Students in Pre-Kindergarten through the fifth grades attend Federalsburg Elementary school, which is located on the southeast corner of University Avenue and Academy Street. This facility was recently (2001) extensively



renovated. The 70,187 square foot brick building sits on almost ten acres and provides classroom space for a maximum of 568 students. Enrollment in 2001 was 446 students and was projected to decline slightly or remain about the same through the year 2011.

Following completion of study at the Elementary School, our students move on to Colonel Richardson Middle and High Schools, located several miles northwest of Town. Currently, there are no private schools in Federalsburg.

Our County School Construction Program only shows a need for facility maintenance. Our growth projections do not point to the need for additional schools or classrooms. If our projections prove to be low, there may be an interim need for relocatable classrooms at the elementary school. However, the site is adequate and could easily handle such additional classrooms. We will coordinate with the County regarding our growth management efforts and growth rates.



Federalsburg Elementary School

Library

The Federalsburg Woman's Club, organized in 1920 once operated its own independent library in their building at 123 Morris Avenue. They started with a single bookcase in a room with a few books lining the shelves. The library was



open one night a week. It was noted in a May 13, 1973 FEDERALSBURG TIMES article that the club members felt the library service was not sufficient and discontinued it. The Town of Federalsburg saw the need for improved library service since 1965. The Kent-Caroline Counties Public Library was founded in 1961. The first county library service to Federalsburg was a weekly visit from the library's bookmobile. A 1968 COUNTY RECORD article listed the bookmobile stop in Federalsburg on Fridays 2-5:15 PM, 6-8 PM.

In October 1969, the President of the Board of Library Trustees reported that the Federalsburg Woman's Club had contacted him in reference to the establishment of a branch library in the Woman's Club building in Federalsburg. The Caroline County Public Library began using the Woman's Club building for a library branch in May 1974.

The Woman's Club of Federalsburg donated its building to the County for use as a library in 1979.

The building was renovated in 1987, creating a 6,000 square foot handicapped-accessible building with a meeting room with the capacity of 75, kitchenette and public bathrooms upstairs and the library downstairs.

Currently, the Federalsburg Branch contains 17477 volumes. The Federalsburg Branch, the southern satellite facility in the Caroline County Public Library system, offers a complete array of library services to Federalsburg residents and other customers in the southern region of the county. The primary function of the Federalsburg Branch is to mirror those public services of the Central Library. Reference, inter-library loan and children's programming are made available free of charge to the public. It shares resources with the Central Library, North County Branch, Bookmobile, Caroline County Public Schools, and all public libraries throughout Maryland. Technology services including Internet access, public access catalog, word processing and various on-line reference services are provided free of charge. Photocopying and computer printouts are also available for a small fee. There is also a conveniently located book drop for customers to return borrowed library materials.

The State's SAILOR network serves us via Salisbury University, linking users to Maryland libraries, universities, and government agencies. SAILOR also provides a local gateway to the Internet. In addition to a convenient location for pedestrians and cyclists, the library has access to the adjacent municipal parking lot off Morris Avenue.

We anticipate no expansion to the library. It is adequate to our current needs. However, fully automated collections circulation may require additional equipment upgrades.



Parks and Recreation

Existing park areas are located mainly in the southern and eastern parts of Town. Chambers Park, situated north of the railroad in the east central section of Town, provides a mixture of outdoor recreational spaces, including ball fields, a lake, a playground, picnic tables, barbeque grills, and a Town-owned pavilion.

The park is split into two areas. The western area, adjacent to Reliance Avenue, provides for active recreation and team sports, while the eastern section remains in a more natural state better suited for passive recreation.

The Marshyhope Creek park areas are "works in progress." The marina area has been the focus on much recent activity. In addition to a small boat marina with about two-dozen slips, lighted basketball courts and pavilion structures have added to the recreational opportunities along our waterfront. A Greenway trail has been completed along various parts of both the eastern and western banks of the riverfront. A pedestrian bridge over the Marshyhope Creek now connects these park areas.

A few smaller "pocket parks" exist within Town limits. A wedge-shaped island at the intersection of Buena Vista and West Central Avenues creates the opportunity for a pleasant space in the middle of this established residential neighborhood. Federalsburg Elementary School also maintains open playing fields on its property off University Avenue.

We expect to do some facility improvements at Chambers Park with Program Open Space funds as we can cooperatively work out with Caroline County. However, we have determined that the cost of cleaning up Chambers Lake to make it again suitable for swimming is too expensive for us to undertake in the near future. We will explore alternatives, such as building a public swimming pool. However, no decisions have been reached yet in that regard.

Work on the Marshyhope Creek Hike and Bike trail is continuing. Phases I and II have been completed. In Phase I, the Greenway is an active recreational trail extending from behind Union United Methodist Church through the Federalsburg Marina. A pedestrian bridge between the East Central Avenue bridge and the Maryland/Delaware Railroad Bridge connects both sides of the Trail. Phase II of the trail is a nature habitat that runs from the State Route 313 bridge to the VFW boat ramp, and is connected to the Federalsburg Marina by a pedestrian walkway underneath the State Route 313 bridge.

Future plans for Phase III of the trail extends from behind the Union United Methodist Church to behind the Zion United Methodist Church along an open



floodway adjacent to the riverbank. Phase IV will include a trail and boardwalk along the west side of the river from the East Central Avenue bridge to the Marshyhope Creek pedestrian bridge. Phase V will construct a pedestrian bridge from the trail and enter the Idylwild Wildlife Management Area.



Northern portion of the Marshyhope Creek Greenway



The Pedestrian Bridge on the River walk



View of the River walk looking north from Pedestrian Bridge

TRANSPORTATION

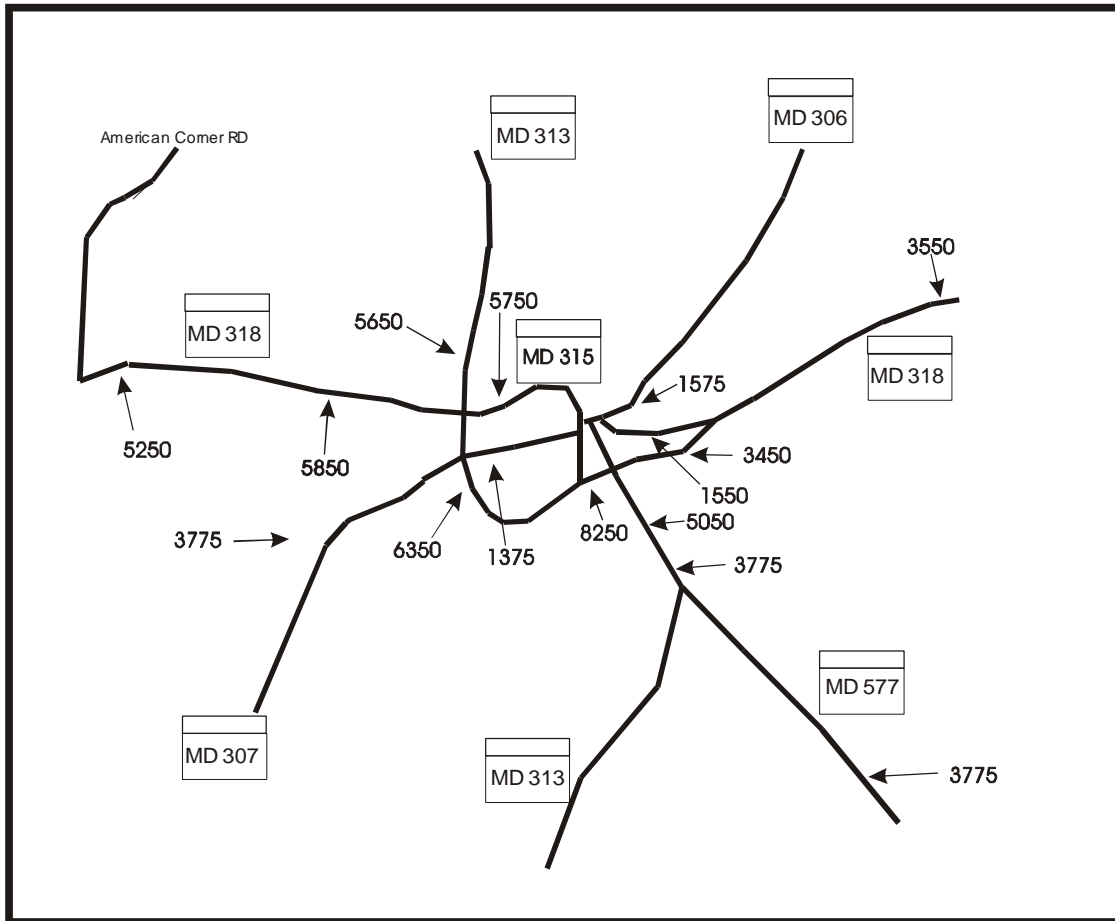
Transportation and land use are closely linked. Our history, first as a place and then a town, is tied to transportation. "The Bridge" was one of the earliest transportation infrastructure links providing a route across the Marshyhope. Hinterland water access to the Chesapeake Bay and the location of early mills here resulted in our becoming a cross roads of trade and commerce for much of the agricultural areas in our part of the south central Delmarva Peninsula.

Today, these early dirt trails and unpaved roads have been widened, paved, and developed into a modern system of highways, collector roads, and local streets. Also, the Maryland and Delaware Railroad (headquartered in Federalsburg) connects us to Cambridge and Seaford, Delaware, where service connects to Delaware's main north-south Conrail line. Rail service through Federalsburg is freight only. However, it is important to many of our industries and also some in Cambridge. The feasibility of occasional tourism excursions is being explored. Recreation and tourism are also the primary active uses for Marshyhope Creek today. The waterway has been channeled through Town, and water is shallow providing sufficient draft only for small pleasure boats. The Marina Park and the



public boat ramp off Veterans Drive south of the By-Pass provide public access to the Marshyhope river.

Our road system is in excellent condition and functions at a Level of Service A standard. Congestion is nonexistent by all practical measures. We are a "hub" of numerous trucking companies located in or near Federalsburg. Nationally known trucking companies, and truck sales, service and support are located just beyond our planning boundary. The State Highway Administration released the most recent available traffic counts for 2001. The following map depicts these traffic counts:



2001 Average Daily Trips in and around Federalsburg

In view of these conditions, we have developed the following overall transportation goal:

To provide a functional road and street system for the safe, convenient and efficient movement of people, goods and services among places of residence,



employment, shopping and recreation and to provide a circulation system which is compatible with, and promotes, the logical and rational development of the Town of Federalsburg.

Specific objectives include:

- Maximize the capacity, safety, and efficiency of the existing street and highway system.
- Improve access to, and movement within, the Central Business District. This will focus on improved parking and pedestrian/bicyclist options.
- Limit the growth of commercial activities requiring access off the By-Pass (MD 313).
- Continue to use MD 313 as our western urban growth boundary and work to ensure that County planning policy supports and reflects our priorities for growth management.
- Provide for more and easier bicycle travel in and through Town.
- Direct Town resources to maintaining and improving in-Town residential streets and intersections.
- Do what we can to ensure the continued viability of the Maryland Delaware Railroad, recognizing it for the significant resource it is.
- Continue to develop appropriate recreation and environmental protection projects along the Marshyhope with an eye toward increasing public use and access while minimizing environmental problems.

We have adopted the following implementation strategies to help us achieve the foregoing objectives:

- We should coordinate planning efforts with the County and with the State Highway Administration with an emphasis on remembering to provide for local transportation needs in addition to the needs of through-traffic.
- We should develop detailed plans for bicycle routes, parking and storage facilities, and signage including an easily identified logo that signifies bike routes.



- We should adopt a five year capital budget that clearly identifies projects by year with cost estimates so citizens know what to expect regarding system maintenance and expansion.
- We will ensure that future subdivision proposals include street patterns that are consistent with this Comprehensive Plan. Our overall circulation plan will be consulted and used during the development review process in order to obtain any necessary rights-of-way and/or improvements as affected properties are improved.
- We will maintain communication with officials of the Maryland and Delaware Railroad to ensure we are aware of issues of concern to the railroad and to work cooperatively to improve the appearance of the South Side, especially along Railroad Avenue. Landscaped parking areas should be a priority.

Public Transit/Transportation

Federalsburg is served by Upper Shore Aging, which provides demand response service to destinations in Kent, Caroline and Talbot counties. The service is available each weekday. Our population density is insufficient to support other public transit. Also, our rural location has caused residents to accommodate their living habits and transportation needs to the rural lifestyle we enjoy. Accordingly, we will encourage private transportation services but have no plans or intentions to actively pursue providing them as a municipal service.

Future Roads

We do not plan to construct new roads. New road construction will be addressed through development review of private developer proposals. Widening or other improvements to State roads is the responsibility of the State Highway Administration. No system improvements are needed or planned for the foreseeable future in our planning area.

Figures 1, 2, and 3 below show possible road alignments that support in-fill development at a scale and density that is compatible with our Town's character and the visions we have adopted for our future. These alignments are not "cast in stone," but rather are provided to illustrate opportunities and guide future discussions. Consideration has been given to practical solutions that avoid sensitive areas while supporting our land use objectives.



Figure 1

Figure 1 suggests the general concept for extending the existing grid street system into larger vacant parcels suitable for subdivision and infill. This graphic focuses on the west side of town and is a major opportunity area for new development that will compliment and blend with existing neighborhoods. It is important that new development blend in with and not appear as something separate for the existing fabric of the Town.

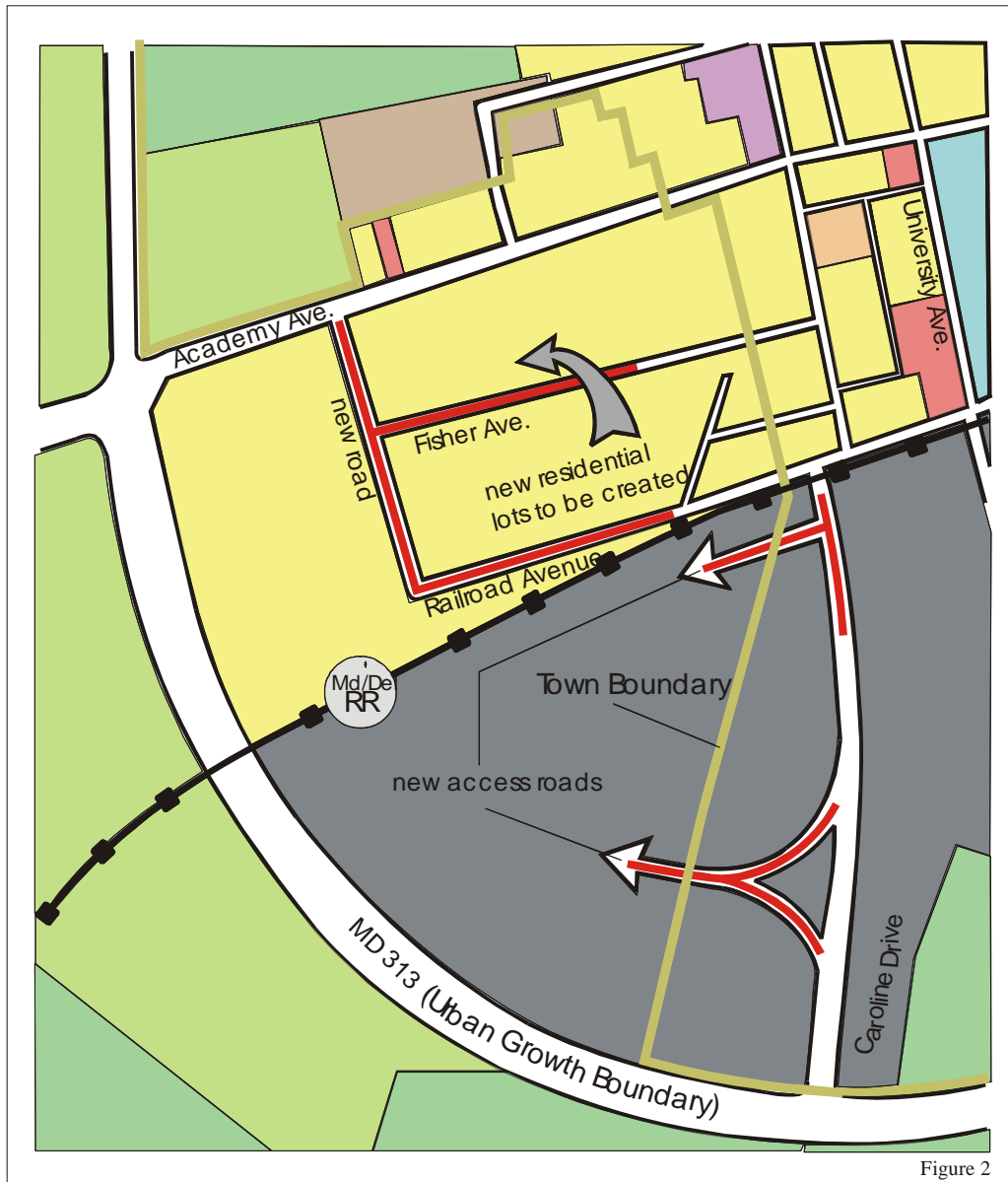
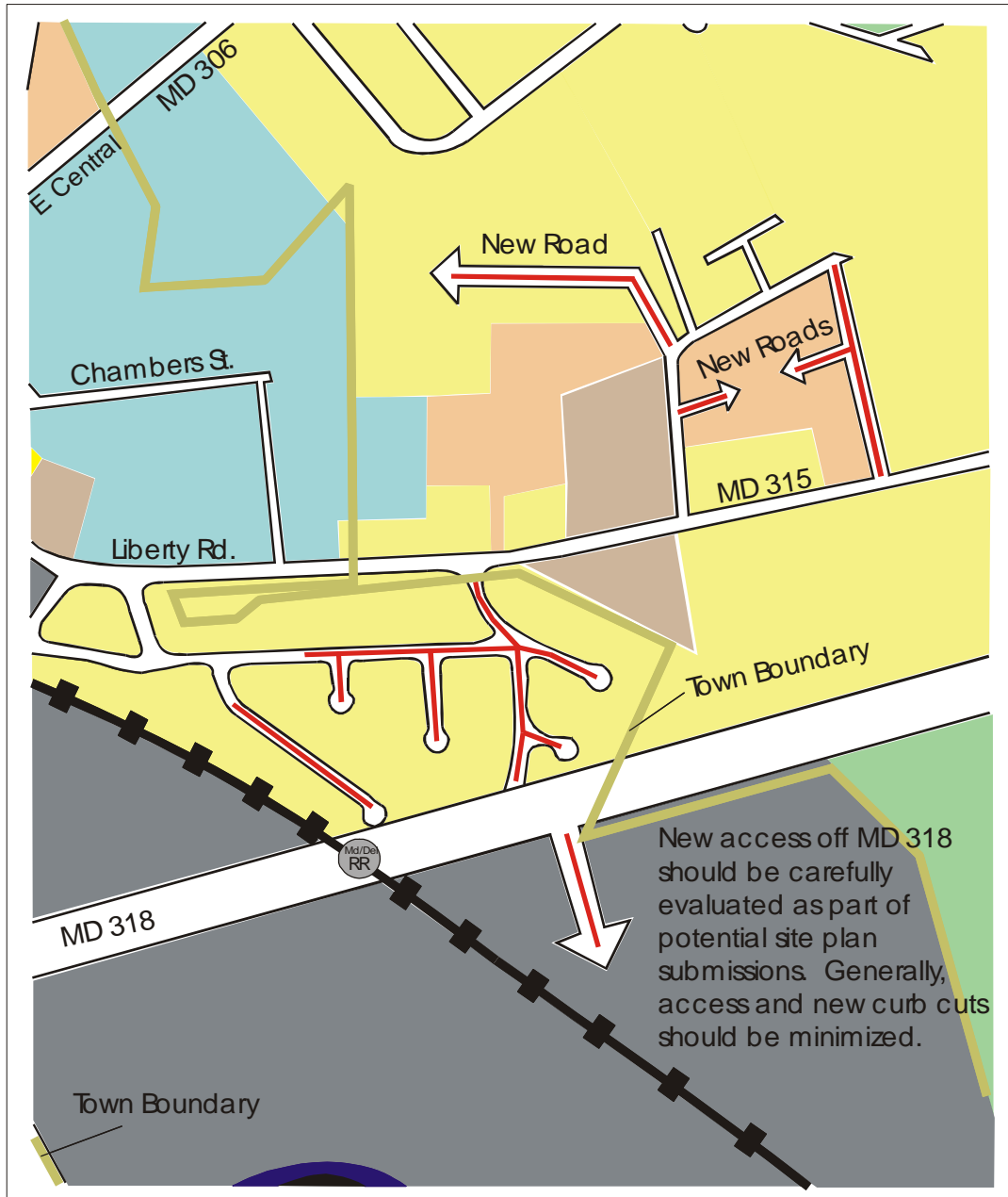


Figure 2

Red lines indicate general locations of future road extensions. Review criteria will include preference for "grid" patterns that promote traditional deep/ narrow lots.

Figure 2 shows one possible extension of our grid, creating the possibility for resubdivision and increased density along Academy Avenue (to more closely resemble the character of other in-Town areas).



Red lines indicate possible future road improvements Figure 3

Figure 3 shows the build out of Rifkin Village as currently subdivided. Other road alignments are possible with resubdivision. New road access off Liberty Road depict potential access to parcels identified as having good development potential (subject to annexation).



Bicycle Enhancement

While specific routes and bike rack/storage locations have not yet been established, the following design principles will be used:

- We will utilize existing rights-of-way as much as possible.
- We will coordinate with the State, County, and surrounding jurisdictions to integrate our bikeway plans into a cooperative regional strategy.
- We will use standardized bicycle route signs as indicated in Section IX of the Manual of Uniform Traffic Control Devices to identify routes along the paved shoulders of State roads in our area with the cooperation of the State Highway Administration.
- We will link the Marshyhope hiker/biker trail with an expanded bikeway within and around Town. If regional bikeways are not designated and/or the State Highway Administration recommends against the use of shoulders for bikeways along State highways in our planning area we will do additional investigation of our intown roads to identify opportunities and obstacles to local bikeway designations
- We will use the following graphic examples to guide our planning and discussions. They are intended only as potential types of signs and controls for consideration by our Town officials in their discussions with others:

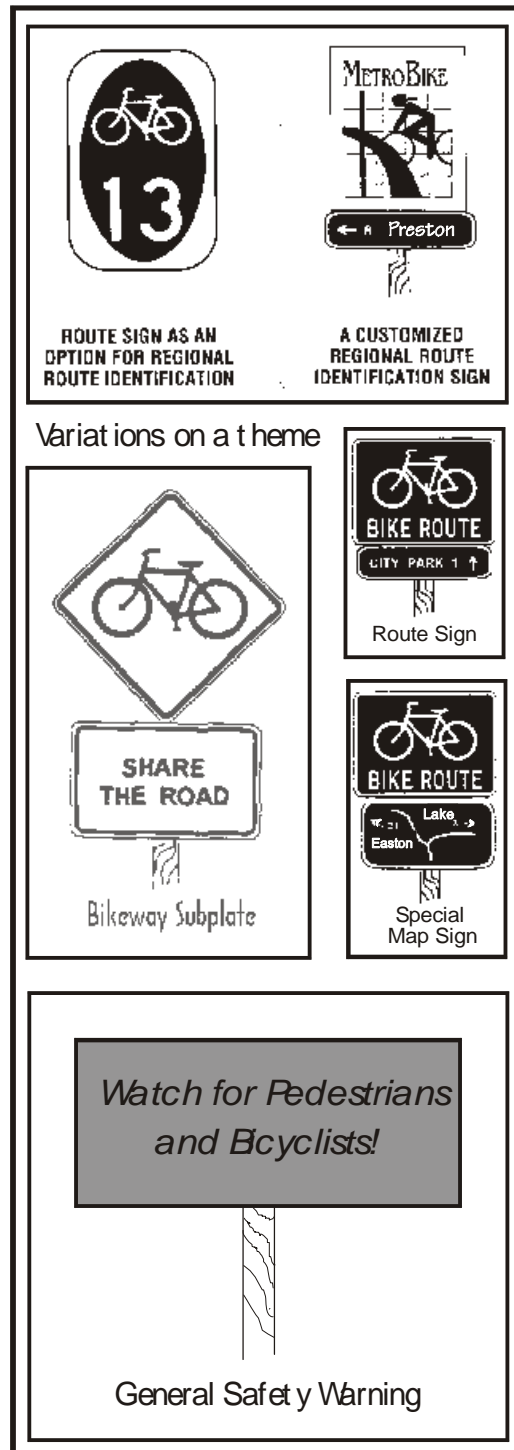


Figure 4

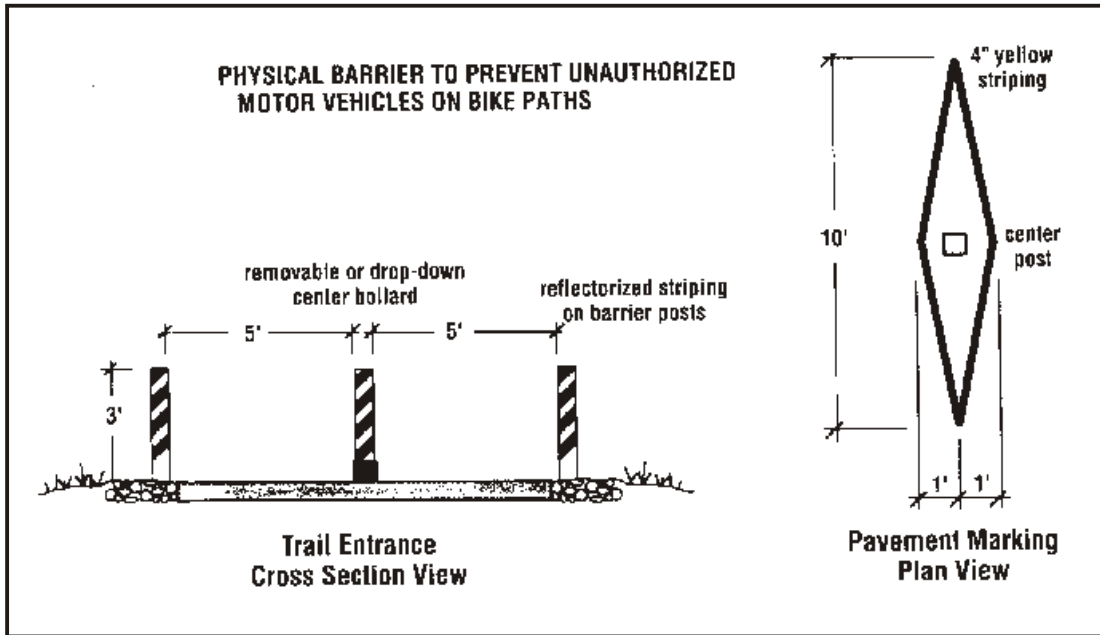


Figure 5

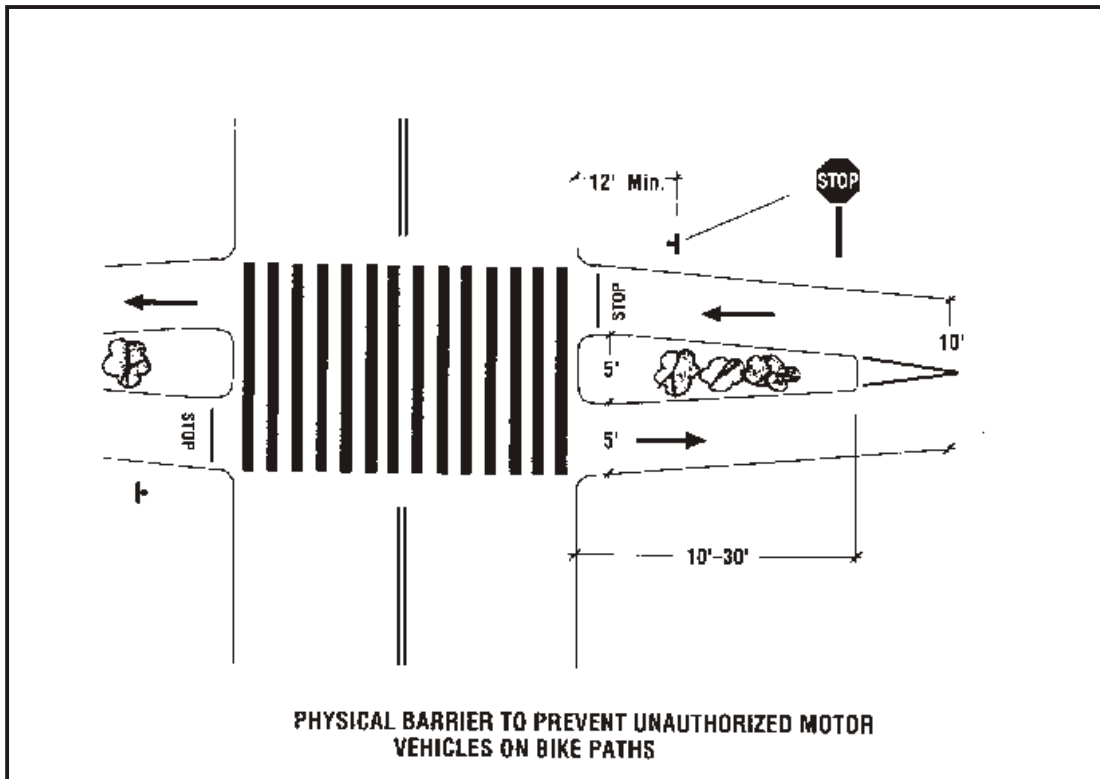


Figure 6

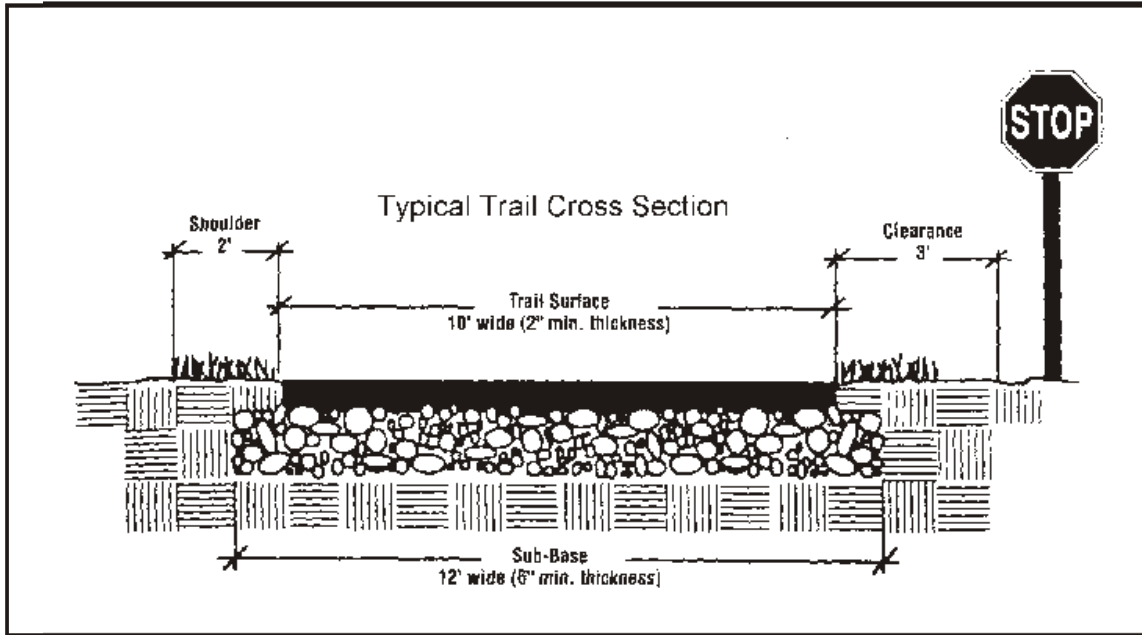


Figure 7

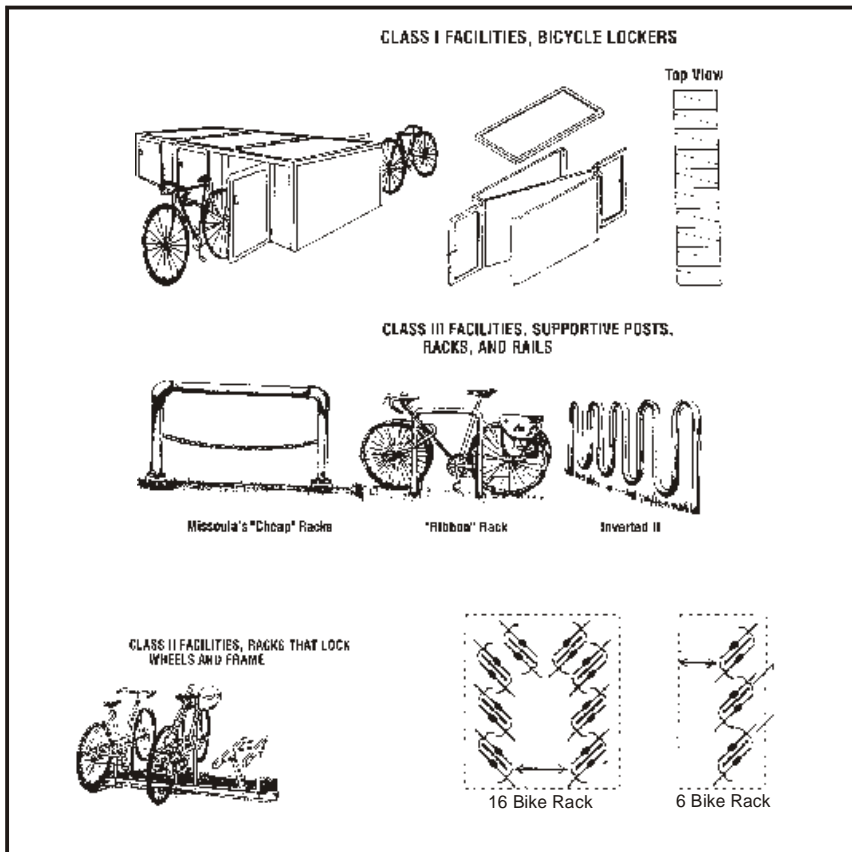


Figure 8



IMPLEMENTATION

The protection and enhancement of high quality living environments is an important aspect to achieving the visions of the 1992 Planning Act. In order for new development and growth to occur in areas designated in the Plan, these "growth areas" must attract people.

One way to attract people is to provide a visually stimulating and enjoyable sense of place. When careful attention to detail, color, scale, materials, plants, lighting, signage, etc. all work together the result can be stunning. One look and we know if it looks and feels right - if it is somewhere that we want to be. Accordingly, we will reexamine our zoning ordinance, subdivision regulations, and other development controls to find ways to incorporate appropriate community design guidelines that encourage raising the overall level of quality in our built environment.

The key to better growth management, regionally, rests with improved coordination among jurisdictions, especially those charged with providing the infrastructure and services necessary to support growth and maintain a desirable quality of life. The first step to improving coordination is to adopt consistent planning principles and priorities. We will reach out to Caroline County and Dorchester County seeking their incorporation of this Federalsburg Comprehensive Plan as an integral part of their comprehensive plans, relying on the counties to adopt zoning controls that implement our policies regarding priorities for growth and protection within the greater Federalsburg Planning Area [beyond town limits].

The urban design profession has identified a number of basic tenets, or points in common, for creating high quality neighborhoods in rural settings:

- Neighborhoods are compact and identifiable, and their boundaries are visually discernable.
- Neighborhoods are linear, crossroads or gridded, with variations to enhance views or landmarks.
- Neighborhoods are visually coherent. Character is established through consistent rules of organization and architecture.
- Street corridors are visually bounded and intimate in feeling. Street trees, sidewalks, and front yard design elements create visual layers and contribute to the intimacy of the streetscape.



- Street blocks help describe component neighborhoods, suggesting the role of the street as a channel for neighborly interaction.
- Neighborhoods accommodate a mix of uses, even at the "hamlet" scale.
- Neighborhoods typically include a range of housing types.
- Parking is accommodated in a mix of on-street and unobtrusive off-street strategies. Large-scale parking lots are avoided, and older lots are redesigned into smaller landscaped segments.
- Most important, neighborhoods and their settings convey a strong "sense of place."

These issues have contributed to the identification of "neighborhoods" discussed in our Community Character Element. The next step is to incorporate traditional neighborhood design principles into our planning and development approval processes.

Our Zoning Ordinance and Subdivision Regulations will be amended to include provisions for implementing and administering traditional neighborhood design concepts in preferred growth areas. Mixed commercial/residential uses will also be permitted, especially in our downtown redevelopment area and in "transitional" areas like Railroad Avenue and Bloomingdale Avenue. Innovation, good design and high quality construction will be encouraged and rewarded with streamlined approvals. Flexibility will be particularly encouraged on in-fill developments of small sites and in renovation and reuse proposals that revitalize existing neighborhoods.

We will provide a mix of residential densities to ensure we meet the needs of our whole population: young and old and those of all income levels. The Community Character element should be referred to for further guidance concerning appropriate scale, density, intensity, and type of development. Density should be compatible with existing average density for a given neighborhood. Actual lot sizes should be varied but appropriate to nearby examples. Development on annexed lands should be compatible with and blend in with adjacent neighborhoods already in Town.

We will annex lands within our planning area, and focus new growth on the opportunity sites identified in our Land Use and Transportation elements.

We will require new development to preserve existing trees and add screens, buffers, and a mix of evergreen and hardwood species to maintain and continue our "feeling of place." New development should seem to be a part of Town, not



adjacent to and separate from Town. Caroline County and Dorchester County will be encouraged to apply very low density zoning to lands within our planning area and immediate surroundings. We want to encourage growth to occur within Town, not near by on individual well and septic/large lot "sprawl." The Town and County should maintain an ongoing dialog and develop a partnership approach to growth management that directs growth into Town on central public services.

We will refer to graphic on page 85 in discussions with the county to amend the type, amount, and location of growth proposed by each County Comprehensive Plan for the portion of our planning area that is beyond town limits. We will work with the counties to incorporate our Comprehensive Plan as a "growth subarea plan" into their overall planning.

Toward that end, we will improve our information and development review processes. We will adopt site plan review and community design guidelines to further clarify these issues and to provide guidance to both developers and Town officials.

We will add requirements for conceptual sketches and other graphics to be provided at the earliest stages of the development review process.

We will review our fee structures and explore appropriate means for generating sufficient additional revenues to allow the Town to hire professional consultant services to assist with review of specialized complex developments, should any be proposed.

We will add a traditional residential neighborhood zone to our ordinance to facilitate pedestrian scale development in appropriate areas, as suggested by our Land Use and Transportation elements.

We will add sensitive areas controls and protections to our land development regulations consistent with our Sensitive Areas Element.

We will provide mechanisms to encourage home occupations and home-based businesses.

We will continue with our revitalization efforts and pursue the recommendations that have been adopted for the downtown town center area.

We will streamline development reviews as much as possible. However, to the extent that State or Federal agencies provide specific approvals, we see the greatest potential for improvement and streamlining through more flexible permit and program administration at those levels.



We will create a Historic District.

We will add a Town Center Redevelopment Overlay zone.

We will evaluate and adopt, as feasible, other innovative zoning techniques to provide additional planning tools for use by Town officials in implementing this Comprehensive Plan.

We will make provisions for accessory housing for the needs of our elderly and extended families.

We will develop and adopt a street tree program in lieu of the current unwieldy Forest Conservation Program and work to preserve existing forest stands through zoning and sensitive areas designation.

We will undertake a study of Chambers Park and prepare a master plan for its rehabilitation. This will be done in cooperation with the County and will be funded through the use of Program Open Space funds. We will also use technical assistance available through the Maryland Department of Natural Resources and the Maryland Department of Planning.



Glossary

Accessory Unit -
rooms that

an accessory dwelling unit is a room or group of rooms that may be part of the principal dwelling unit on a lot or part of an accessory structure, such as a detached garage, so long as it contains separate living, sleeping, cooking and sanitary facilities and includes a separate entrance. An accessory unit is intended for the use of extended family members who may wish to maintain separate households on the same lot. It is not intended to provide housing for unrelated family members, but roommates are permitted so long as at least one member of the household occupying the accessory unit is related to the principal householder occupying the principal dwelling unit.

**Flag or Panhandle or
Pipestem lot -**

a lot having a long and narrow strip of land that provides access to the majority of the lot. A lotting practice that results in the creation of inordinately long driveways and placement of homes whose front yards often abut the rear yards of homes on the parcel between a public road and the flag lot.

Greenways -

interconnected tracts of land or waterways that provide buffering from the impacts of human activity and promote the free movement of wildlife. Greenways may include paths designed to accommodate horses, bicycles and pedestrians, particularly through natural or landscaped areas. In urban settings, Greenways may include sidewalks and existing road rights of way to achieve linkages between natural areas. Greenways may also include easements or land protection and preservation instruments that do not necessarily include rights of public access.

**Habitats of Threatened
and Endangered Species**

-an area which, due to its physical or biological features, provides important elements for the maintenance, expansion, and long term survival of threatened and endangered species listed in COMAR



08.03.08. This area may include breeding, feeding, resting, migratory, or overwintering areas.

Infrastructure -

the physical structure of an area that supports development, including roads, sidewalks, rail lines, bridges, water lines, sewer mains, public buildings, utilities, etc.

Stream -

a water course identified on U.S. Geological Survey 1:24,000 scale Quadrangle maps.

Stream Buffer -

a 25 foot nondisturbance area between the top of any stream bank and the closest point of any development activity.

Transfer of Development Rights (TDR) Program -

Transfer of Development Rights increase the permitted development density that exists by virtue of a parcel's zoning classification pursuant to the authority in Section 11 of Article 66B of the Annotated Code. The purpose of a TDR program is to encourage the preservation of natural resources; and to facilitate orderly growth and development in the State. A TDR program typically includes designated sending and receiving areas that facilitate the transfer of development rights from areas the address a public resource protection priority to areas most suitable for development. Development rights are usually bought and sold in an unregulated arena where market forces and private negotiation determine price. However, parcels whose development potential or "rights" have been sold must reflect the transaction in a recorded deed that restricts future development of the parcel. A purchased development right increases the permitted dwelling unit yield on a designated receiving parcel on a one for one basis over the net yield otherwise permitted by the zoning.

100-year Flood Plain -

an area that has a one percent chance of being inundated by floodwaters in any given year and is delineated on Federal Emergency Management Agency (FEMA) flood insurance rate maps.



Appendix A

Profile of General Demographic Characteristics: 2000 Census U.S. Census Bureau, Census 2000.

Table DP-1. Profile of General Demographic Characteristics: 2000

Geographic area: Federalsburg town, Maryland

[For information on confidentiality protection, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
Total population	2,620	100.0	HISPANIC OR LATINO AND RACE		
SEX AND AGE			Total population	2,620	100.0
Male.....	1,179	45.0	Hispanic or Latino (of any race).....	29	1.1
Female.....	1,441	55.0	Mexican.....	10	0.4
Under 5 years.....	230	8.8	Puerto Rican.....	6	0.2
5 to 9 years.....	228	8.7	Cuban.....	1	-
10 to 14 years.....	230	8.8	Other Hispanic or Latino.....	12	0.5
15 to 19 years.....	177	6.8	Not Hispanic or Latino.....	2,591	98.9
20 to 24 years.....	194	7.4	White alone.....	1,536	58.6
25 to 34 years.....	313	11.9	RELATIONSHIP		
35 to 44 years.....	369	14.1	Total population	2,620	100.0
45 to 54 years.....	296	11.3	In households.....	2,620	100.0
55 to 59 years.....	126	4.8	Householder.....	1,045	39.9
60 to 64 years.....	86	3.3	Spouse.....	401	15.3
65 to 74 years.....	185	7.1	Child.....	835	31.9
75 to 84 years.....	154	5.9	Own child under 18 years.....	693	26.5
85 years and over.....	32	1.2	Other relatives.....	173	6.6
Median age (years).....	33.2	(X)	Under 18 years.....	88	3.4
18 years and over.....	1,814	69.2	Nonrelatives.....	166	6.3
Male.....	777	29.7	Unmarried partner.....	91	3.5
Female.....	1,037	39.6	In group quarters.....	-	-
21 years and over.....	1,718	65.6	Institutionalized population.....	-	-
62 years and over.....	422	16.1	Noninstitutionalized population.....	-	-
65 years and over.....	371	14.2	HOUSEHOLD BY TYPE		
Male.....	142	5.4	Total households	1,045	100.0
Female.....	229	8.7	Family households (families).....	715	68.4
RACE			With own children under 18 years.....	388	37.1
One race.....	2,545	97.1	Married-couple family.....	401	38.4
White.....	1,544	58.9	With own children under 18 years.....	163	15.6
Black or African American.....	965	36.8	Female householder, no husband present.....	261	25.0
American Indian and Alaska Native.....	8	0.3	With own children under 18 years.....	192	18.4
Asian.....	17	0.6	Nonfamily households.....	330	31.6
Asian Indian.....	-	-	Householder living alone.....	285	27.3
Chinese.....	-	-	Householder 65 years and over.....	144	13.8
Filipino.....	1	-	Households with individuals under 18 years.....	436	41.7
Japanese.....	-	-	Households with individuals 65 years and over.....	288	27.6
Korean.....	2	0.1	Average household size.....	2.51	(X)
Vietnamese.....	2	0.1	Average family size.....	2.97	(X)
Other Asian ¹	12	0.5	HOUSING OCCUPANCY		
Native Hawaiian and Other Pacific Islander.....	1	-	Total housing units	1,130	100.0
Native Hawaiian.....	-	-	Occupied housing units.....	1,045	92.5
Guamanian or Chamorro.....	-	-	Vacant housing units.....	85	7.5
Samoa.....	-	-	For seasonal, recreational, or occasional use.....	3	0.3
Other Pacific Islander ²	1	-	Homeowner vacancy rate (percent).....	5.1	(X)
Some other race.....	10	0.4	Rental vacancy rate (percent).....	5.2	(X)
Two or more races.....	75	2.9	HOUSING TENURE		
Race alone or in combination with one or more other races: ³			Occupied housing units	1,045	100.0
White.....	1,563	59.7	Owner-occupied housing units.....	481	46.0
Black or African American.....	1,032	39.4	Renter-occupied housing units.....	564	54.0
American Indian and Alaska Native.....	13	0.5	Average household size of owner-occupied units.....	2.61	(X)
Asian.....	24	0.9	Average household size of renter-occupied units.....	2.42	(X)
Native Hawaiian and Other Pacific Islander.....	2	0.1			
Some other race.....	62	2.4			

- Represents zero or rounds to zero. (X) Not applicable.

¹ Other Asian alone, or two or more Asian categories.

² Other Pacific Islander alone, or two or more Native Hawaiian and Other Pacific Islander categories.

³ In combination with one or more of the other races listed. The six numbers may add to more than the total population and the six percentages may add to more than 100 percent because individuals may report more than one race.

Source: U.S. Census Bureau, Census 2000.



Table DP-2. Profile of Selected Social Characteristics: 2000

Geographic area: Federalsburg town, Maryland

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
SCHOOL ENROLLMENT			NATIVITY AND PLACE OF BIRTH		
Population 3 years and over enrolled in school.....	752	100.0	Total population.....	2,699	100.0
Nursery school, preschool.....	50	6.6	Native.....	2,634	97.6
Kindergarten.....	57	7.6	Born in United States.....	2,606	96.6
Elementary school (grades 1-8).....	366	48.7	State of residence.....	1,946	72.1
High school (grades 9-12).....	210	27.9	Different state.....	660	24.5
College or graduate school.....	69	9.2	Born outside United States.....	28	1.0
EDUCATIONAL ATTAINMENT			Foreign born.....	65	2.4
Population 25 years and over.....	1,607	100.0	Entered 1990 to March 2000.....	42	1.6
Less than 9th grade.....	179	11.1	Naturalized citizen.....	16	0.6
9th to 12th grade, no diploma.....	322	20.0	Not a citizen.....	49	1.8
High school graduate (includes equivalency).....	740	46.0	REGION OF BIRTH OF FOREIGN BORN		
Some college, no degree.....	233	14.5	Total (excluding born at sea).....	65	100.0
Associate degree.....	50	3.1	Europe.....	15	23.1
Bachelor's degree.....	41	2.6	Asia.....	-	-
Graduate or professional degree.....	42	2.6	Africa.....	-	-
Percent high school graduate or higher.....	68.8	(X)	Oceania.....	-	-
Percent bachelor's degree or higher.....	5.2	(X)	Latin America.....	50	76.9
MARITAL STATUS			Northern America.....	-	-
Population 15 years and over.....	1,995	100.0	LANGUAGE SPOKEN AT HOME		
Never married.....	610	30.6	Population 5 years and over.....	2,489	100.0
Now married, except separated.....	874	43.8	English only.....	2,376	95.5
Separated.....	105	5.3	Language other than English.....	113	4.5
Widowed.....	190	9.5	Speak English less than "very well".....	59	2.4
Female.....	162	8.1	Spanish.....	29	1.2
Divorced.....	216	10.8	Speak English less than "very well".....	3	0.1
Female.....	140	7.0	Other Indo-European languages.....	81	3.3
GRANDPARENTS AS CAREGIVERS			Speak English less than "very well".....	56	2.2
Grandparent living in household with one or more own grandchildren under 18 years.....	92	100.0	Asian and Pacific Island languages.....	3	0.1
Grandparent responsible for grandchildren.....	27	29.3	Speak English less than "very well".....	-	-
VETERAN STATUS			ANCESTRY (single or multiple)		
Civilian population 18 years and over.....	1,873	100.0	Total population.....	2,699	100.0
Civilian veterans.....	239	12.8	Total ancestries reported.....	2,463	91.3
DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION			Arab.....	-	-
Population 5 to 20 years.....	730	100.0	Czech ¹	9	0.3
With a disability.....	66	9.0	Danish.....	-	-
Population 21 to 64 years.....	1,314	100.0	Dutch.....	45	1.7
With a disability.....	294	22.4	English.....	271	10.0
Percent employed.....	55.1	(X)	French (except Basque) ²	26	1.0
No disability.....	1,020	77.6	French Canadian ³	-	-
Percent employed.....	79.4	(X)	German.....	211	7.8
Population 65 years and over.....	445	100.0	Greek.....	9	0.3
With a disability.....	202	45.4	Hungarian.....	-	-
RESIDENCE IN 1995			Irish.....	289	10.7
Population 5 years and over.....	2,489	100.0	Italian.....	58	2.1
Same house in 1995.....	1,404	56.4	Lithuanian.....	-	-
Different house in the U.S. in 1995.....	1,071	43.0	Norwegian.....	9	0.3
Same county.....	618	24.8	Polish.....	21	0.8
Different county.....	453	18.2	Portuguese.....	-	-
Same state.....	255	10.2	Russian.....	-	-
Different state.....	198	8.0	Scotch-Irish.....	24	0.9
Elsewhere in 1995.....	14	0.6	Scottish.....	11	0.4
			Slovak.....	6	0.2
			Subsaharan African.....	99	3.7
			Swedish.....	6	0.2
			Swiss.....	-	-
			Ukrainian.....	10	0.4
			United States or American.....	257	9.5
			Welsh.....	22	0.8
			West Indian (excluding Hispanic groups).....	56	2.1
			Other ancestries.....	1,024	37.9

-Represents zero or rounds to zero. (X) Not applicable.

The data represent a combination of two ancestries shown separately in Summary File 3. Czech includes Czechoslovakian. French includes Alsatian. French Canadian includes Acadian/Cajun. Irish includes Celtic.

Source: U.S. Bureau of the Census, Census 2000.



Table DP-3. Profile of Selected Economic Characteristics: 2000

Geographic area: Federalsburg town, Maryland

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
EMPLOYMENT STATUS			INCOME IN 1999		
Population 16 years and over	1,971	100.0	Households	1,073	100.0
In labor force	1,164	59.1	Less than \$10,000	236	22.0
Civilian labor force	1,164	59.1	\$10,000 to \$14,999	121	11.3
Employed	1,103	56.0	\$15,000 to \$24,999	193	18.0
Unemployed	61	3.1	\$25,000 to \$34,999	122	11.4
Percent of civilian labor force	5.2	(X)	\$35,000 to \$49,999	123	11.5
Armed Forces	-	-	\$50,000 to \$74,999	192	17.9
Not in labor force	807	40.9	\$75,000 to \$99,999	52	4.8
Females 16 years and over	1,154	100.0	\$100,000 to \$149,999	20	1.9
In labor force	609	52.8	\$150,000 to \$199,999	4	0.4
Civilian labor force	809	52.8	\$200,000 or more	10	0.9
Employed	566	49.0	Median household income (dollars)	24,266	(X)
Own children under 6 years	229	100.0	With earnings	775	72.2
All parents in family in labor force	164	71.6	Mean earnings (dollars) ¹	36,130	(X)
COMMUTING TO WORK			With Social Security income	407	37.9
Workers 16 years and over	1,075	100.0	Mean Social Security income (dollars) ¹	9,418	(X)
Car, truck, or van -- drove alone	759	70.6	With Supplemental Security Income	49	4.6
Car, truck, or van -- carpooled	241	22.4	Mean Supplemental Security Income (dollars) ¹	5,370	(X)
Public transportation (including taxicab)	5	0.5	With public assistance income	58	5.4
Walked	28	2.6	Mean public assistance income (dollars) ¹	1,855	(X)
Other means	22	2.0	With retirement income	159	14.8
Worked at home	20	1.9	Mean retirement income (dollars) ¹	12,075	(X)
Mean travel time to work (minutes) ¹	25.0	(X)	Families	742	100.0
Employed civilian population 16 years and over	1,103	100.0	Less than \$10,000	96	12.9
OCCUPATION			\$10,000 to \$14,999	69	9.3
Management, professional, and related occupations	121	11.0	\$15,000 to \$24,999	135	18.2
Service occupations	174	15.8	\$25,000 to \$34,999	88	11.9
Sales and office occupations	343	31.1	\$35,000 to \$49,999	109	14.7
Farming, fishing, and forestry occupations	9	0.8	\$50,000 to \$74,999	176	23.7
Construction, extraction, and maintenance occupations	131	11.9	\$75,000 to \$99,999	40	5.4
Production, transportation, and material moving occupations	325	29.5	\$100,000 to \$149,999	20	2.7
INDUSTRY			\$150,000 to \$199,999	4	0.5
Agriculture, forestry, fishing and hunting, and mining	23	2.1	\$200,000 or more	5	0.7
Construction	79	7.2	Median family income (dollars)	32,059	(X)
Manufacturing	259	23.5	Per capita income (dollars) ¹	13,878	(X)
Wholesale trade	79	7.2	Median earnings (dollars):		
Retail trade	105	9.5	Male full-time, year-round workers	28,438	(X)
Transportation and warehousing, and utilities	91	8.3	Female full-time, year-round workers	21,296	(X)
Information	26	2.4			
Finance, insurance, real estate, and rental and leasing	79	7.2			
Professional, scientific, management, administrative, and waste management services	67	6.1			
Educational, health and social services	124	11.2			
Arts, entertainment, recreation, accommodation and food services	83	7.5			
Other services (except public administration)	53	4.8			
Public administration	35	3.2			
CLASS OF WORKER					
Private wage and salary workers	912	82.7			
Government workers	137	12.4			
Self-employed workers in own not incorporated business	49	4.4			
Unpaid family workers	5	0.5			
				Number below poverty level	Percent below poverty level
			POVERTY STATUS IN 1999		
			Families	156	21.0
			With related children under 18 years	133	30.2
			With related children under 5 years	68	45.6
			Families with female householder, no husband present	124	45.8
			With related children under 18 years	118	49.2
			With related children under 5 years	68	69.4
			Individuals	680	25.3
			18 years and over	384	20.5
			65 years and over	81	18.2
			Related children under 18 years	280	35.2
			Related children 5 to 17 years	186	31.4
			Unrelated individuals 15 years and over	174	37.5

¹Represents zero or rounds to zero. (X) Not applicable.

²If the denominator of a mean value or per capita value is less than 30, then that value is calculated using a rounded aggregate in the numerator. See text.

Source: U.S. Bureau of the Census, Census 2000.



Table DP-4. Profile of Selected Housing Characteristics: 2000

Geographic area: Federalsburg town, Maryland

[Data based on a sample. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see text]

Subject	Number	Percent	Subject	Number	Percent
Total housing units.....	1,157	100.0	OCCUPANTS PER ROOM		
UNITS IN STRUCTURE			Occupied housing units	1,061	100.0
1-unit, detached	651	56.3	1.00 or less	1,040	98.0
1-unit, attached	62	5.4	1.01 to 1.50	10	0.9
2 units	71	6.1	1.51 or more	11	1.0
3 or 4 units	171	14.8			
5 to 9 units	122	10.5	Specified owner-occupied units	429	100.0
10 to 19 units	22	1.9	VALUE		
20 or more units	7	0.6	Less than \$50,000	37	8.6
Mobile home	51	4.4	\$50,000 to \$99,999	258	60.1
Boat, RV, van, etc	-	-	\$100,000 to \$149,999	104	24.2
			\$150,000 to \$199,999	23	5.4
YEAR STRUCTURE BUILT			\$200,000 to \$299,999	4	0.9
1999 to March 2000	21	1.8	\$300,000 to \$499,999	3	0.7
1995 to 1998	45	3.9	\$500,000 to \$999,999	-	-
1990 to 1994	114	9.9	\$1,000,000 or more	-	-
1980 to 1989	197	17.0	Median (dollars)	84,300	(X)
1970 to 1979	89	7.7			
1960 to 1969	80	6.9	MORTGAGE STATUS AND SELECTED		
1940 to 1959	258	22.3	MONTHLY OWNER COSTS		
1939 or earlier	353	30.5	With a mortgage	267	62.2
ROOMS			Less than \$300	-	-
1 room	9	0.8	\$300 to \$499	22	5.1
2 rooms	43	3.7	\$500 to \$699	53	12.4
3 rooms	170	14.7	\$700 to \$999	98	22.8
4 rooms	226	19.5	\$1,000 to \$1,499	86	20.0
5 rooms	193	16.7	\$1,500 to \$1,999	4	0.9
6 rooms	252	21.8	\$2,000 or more	4	0.9
7 rooms	77	6.7	Median (dollars)	908	(X)
8 rooms	95	8.2	Not mortgaged	162	37.8
9 or more rooms	92	8.0	Median (dollars)	288	(X)
Median (rooms)	5.2	(X)	SELECTED MONTHLY OWNER COSTS		
Occupied housing units	1,061	100.0	AS A PERCENTAGE OF HOUSEHOLD		
YEAR HOUSEHOLDER MOVED INTO UNIT			INCOME IN 1999		
1999 to March 2000	256	24.1	Less than 15.0 percent	139	32.4
1995 to 1998	277	26.1	15.0 to 19.9 percent	100	23.3
1990 to 1994	193	18.2	20.0 to 24.9 percent	44	10.3
1980 to 1989	112	10.6	25.0 to 29.9 percent	30	7.0
1970 to 1979	110	10.4	30.0 to 34.9 percent	35	8.2
1969 or earlier	113	10.7	35.0 percent or more	81	18.9
			Not computed	-	-
VEHICLES AVAILABLE			Specified renter-occupied units	569	100.0
None	202	19.0	GROSS RENT		
1	443	41.8	Less than \$200	154	27.1
2	320	30.2	\$200 to \$299	46	8.1
3 or more	96	9.0	\$300 to \$499	142	25.0
			\$500 to \$749	160	28.1
HOUSE HEATING FUEL			\$750 to \$999	40	7.0
Utility gas	14	1.3	\$1,000 to \$1,499	5	0.9
Bottled, tank, or LP gas	72	6.8	\$1,500 or more	-	-
Electricity	515	48.5	No cash rent	22	3.9
Fuel oil, kerosene, etc	443	41.8	Median (dollars)	432	(X)
Coal or coke	-	-			
Wood	9	0.8	GROSS RENT AS A PERCENTAGE OF		
Solar energy	-	-	HOUSEHOLD INCOME IN 1999		
Other fuel	4	0.4	Less than 15.0 percent	85	14.9
No fuel used	4	0.4	15.0 to 19.9 percent	59	10.4
			20.0 to 24.9 percent	107	18.8
SELECTED CHARACTERISTICS			25.0 to 29.9 percent	77	13.5
Lacking complete plumbing facilities	-	-	30.0 to 34.9 percent	71	12.5
Lacking complete kitchen facilities	-	-	35.0 percent or more	136	23.9
No telephone service	87	8.2	Not computed	34	6.0

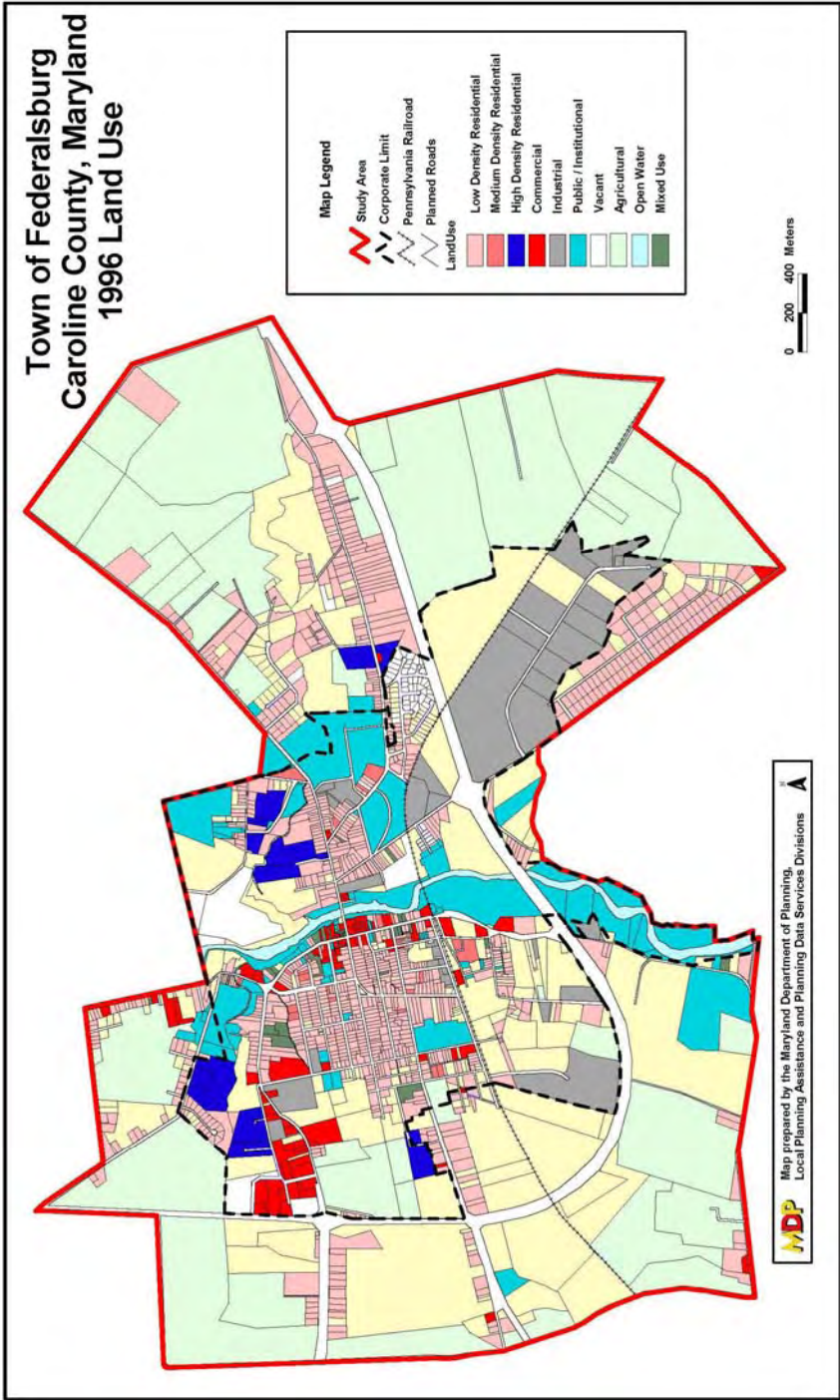
-Represents zero or rounds to zero (X) Not applicable.

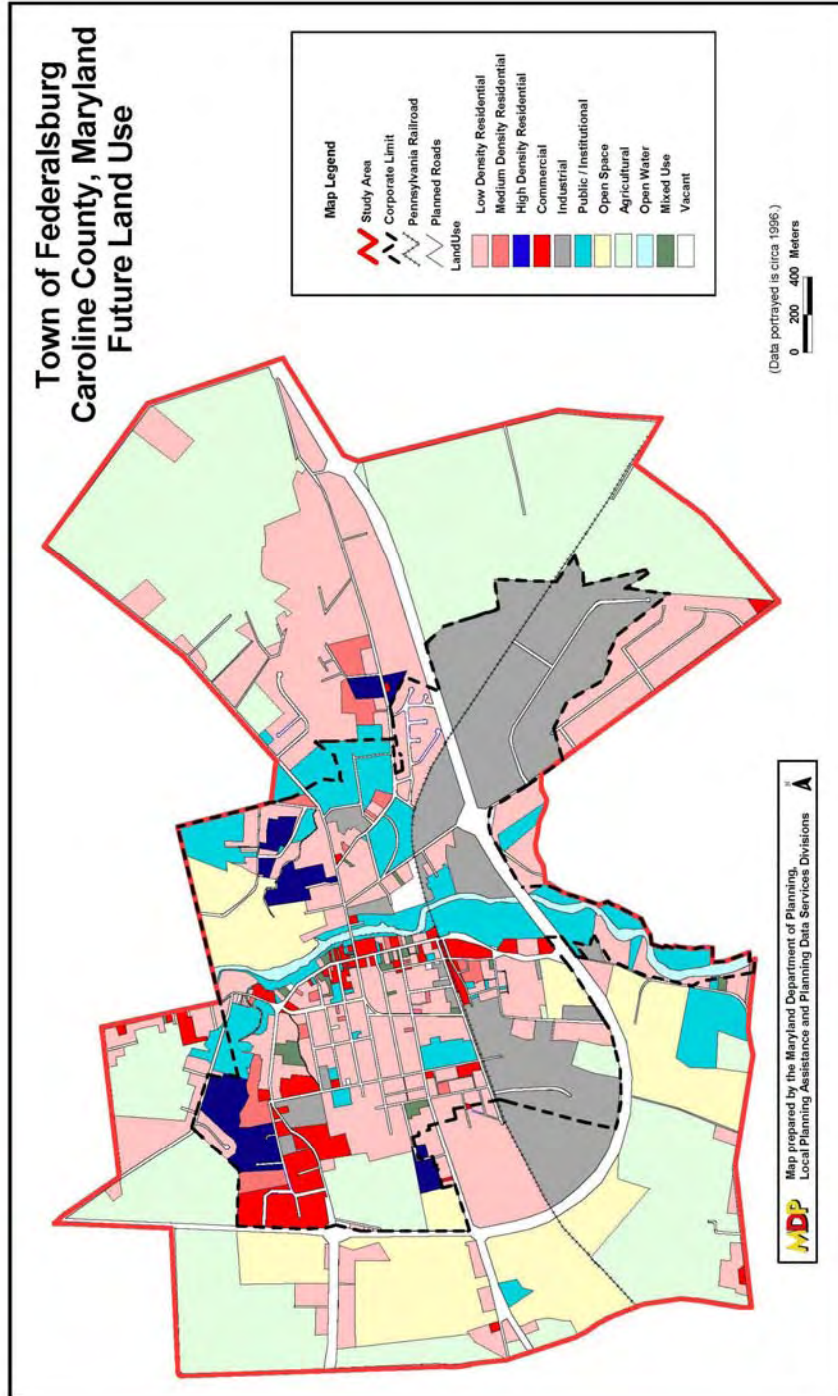
Source: U.S. Bureau of the Census, Census 2000.

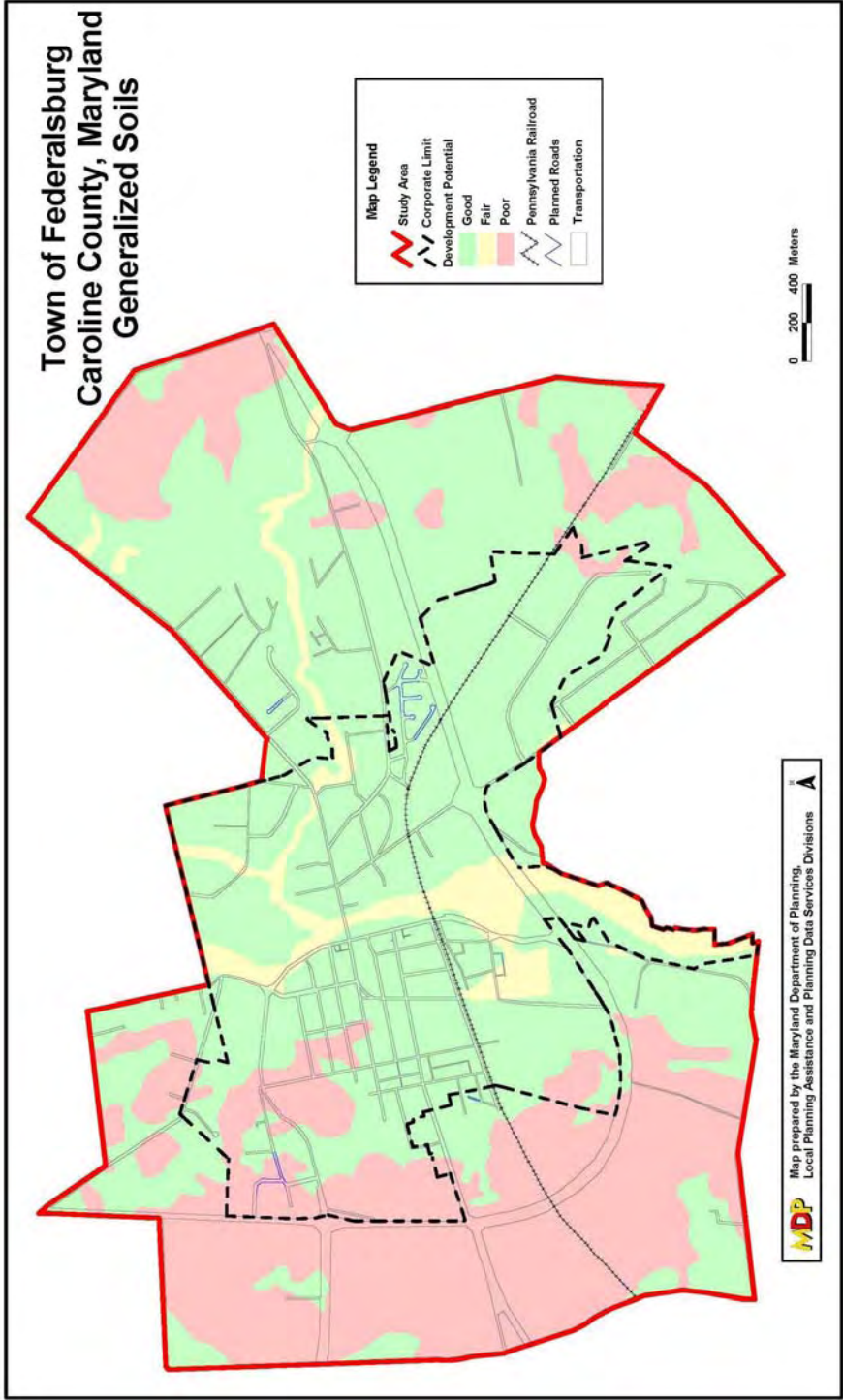


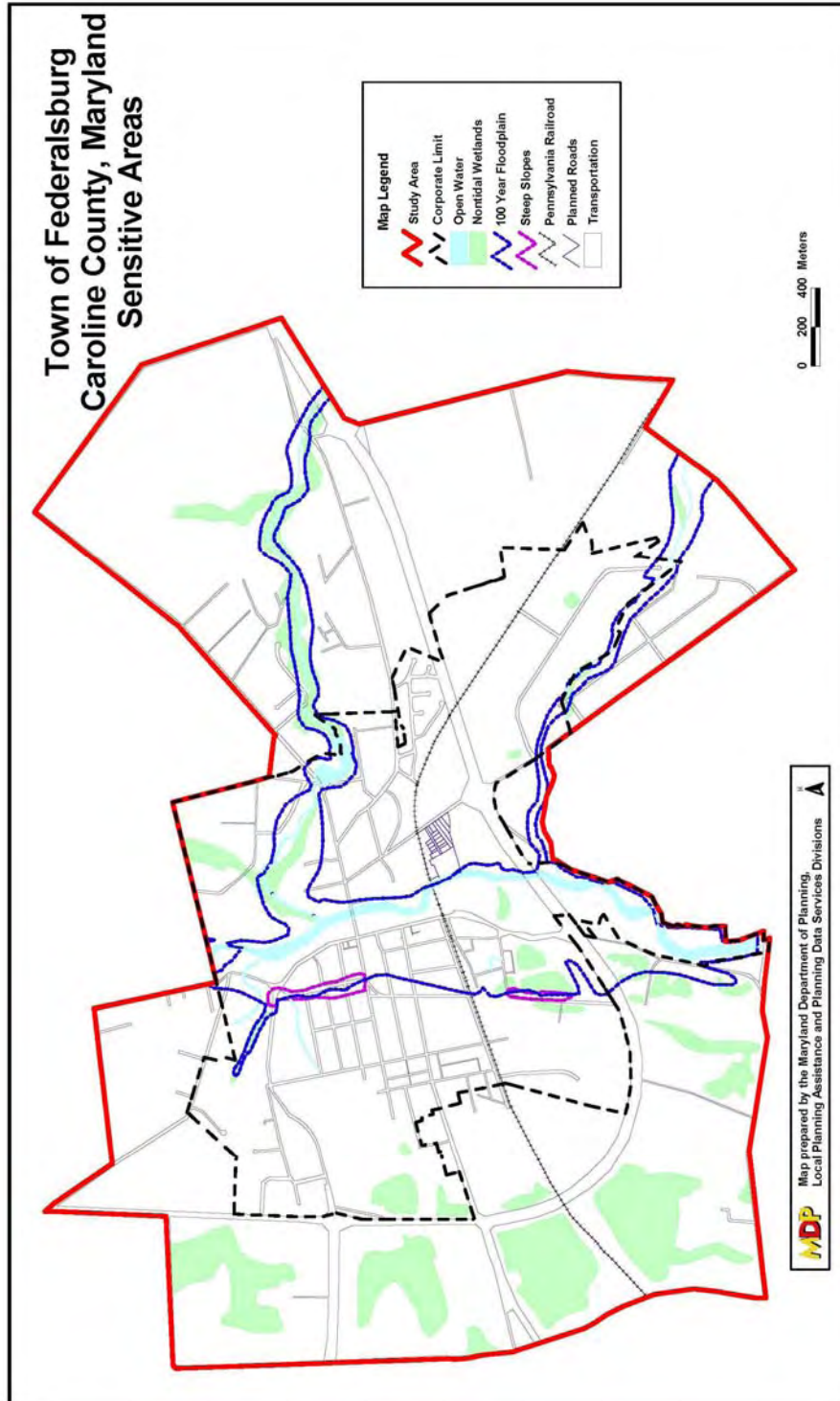
Appendix B

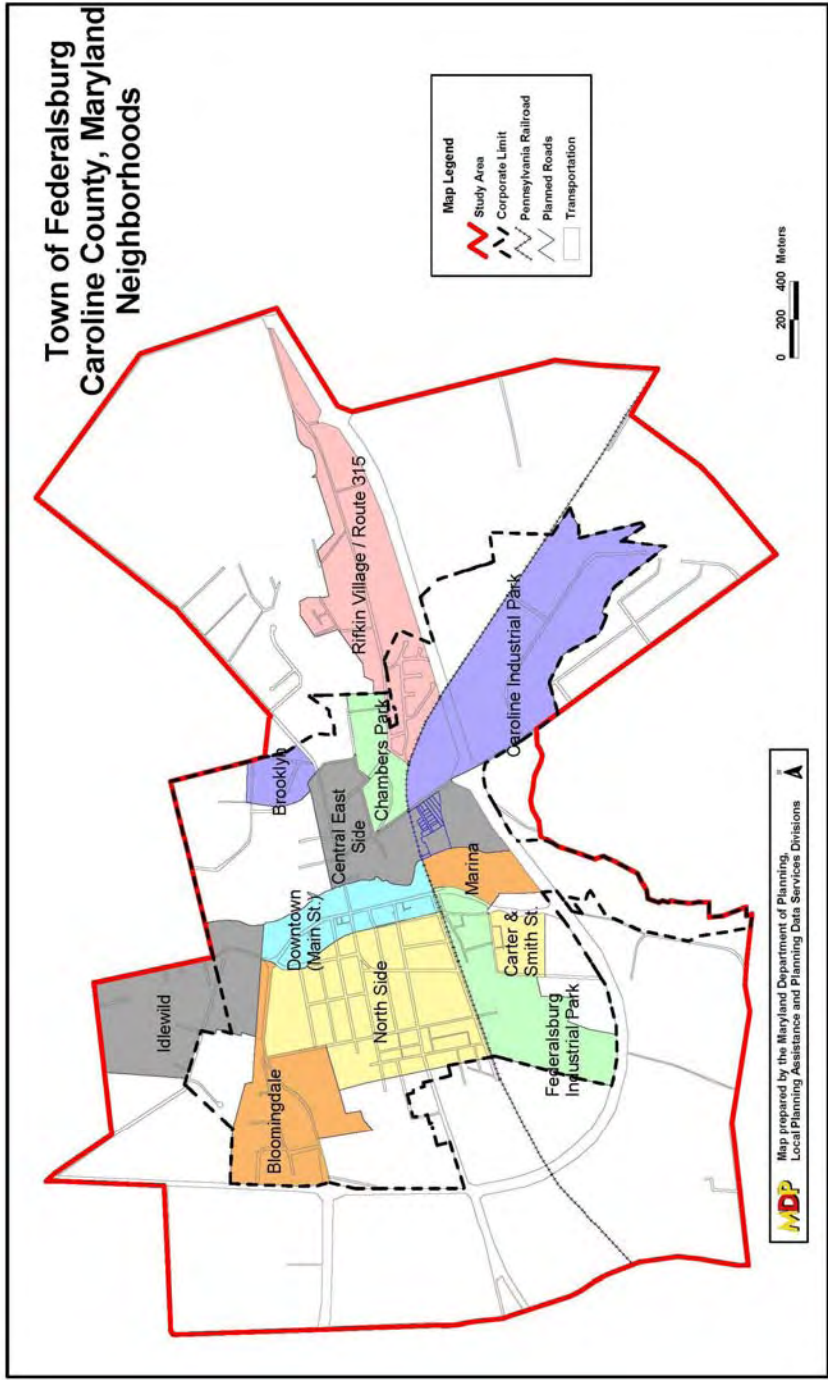
Maps from the 1996 Federalsburg Comprehensive Plan: Existing Land Use, Future Land Use, Generalized Soils, Sensitive Areas, and Neighborhoods.







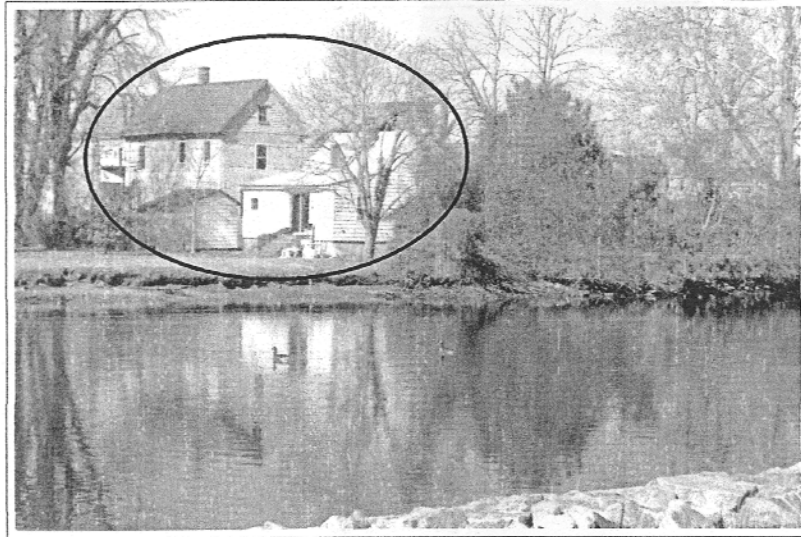




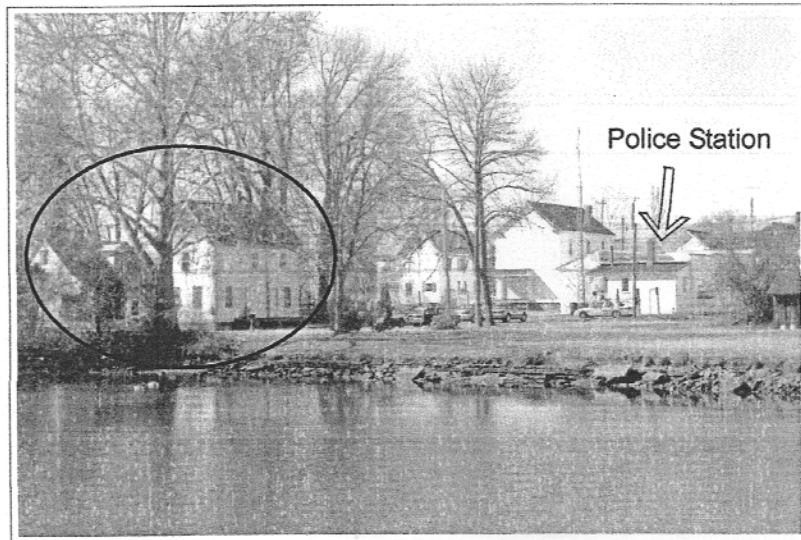


Appendix C

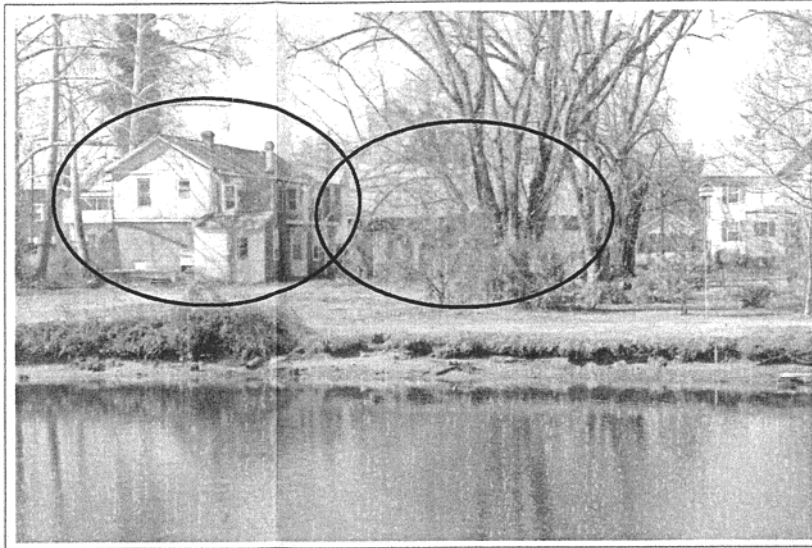
Downtown Revitalization Area (additional images)



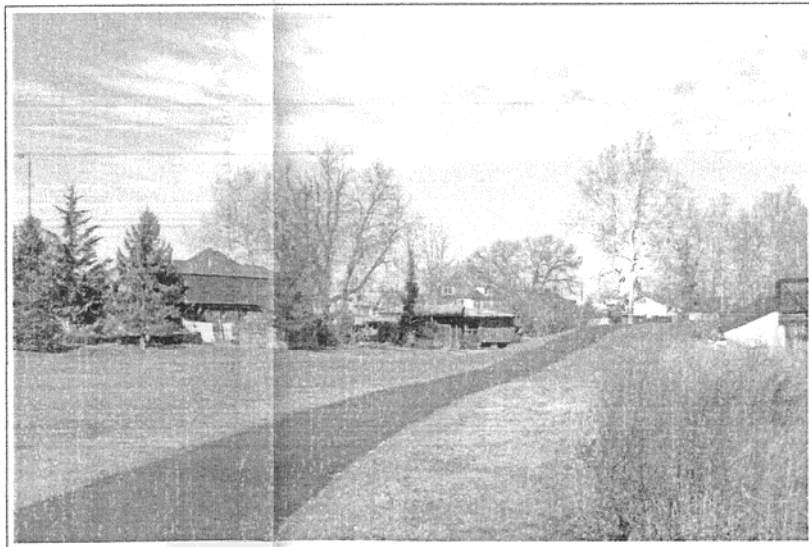
Residences on parcel 691 which will be acquired and removed from the flood plain. This parcel will be combined with the adjacent parcel 702 to provide the area needed for the new Town parking lot. Removal of existing vegetation will be minimized, and special emphasis will be given to preserving and protecting existing trees during and after demolition and reconstruction phases.



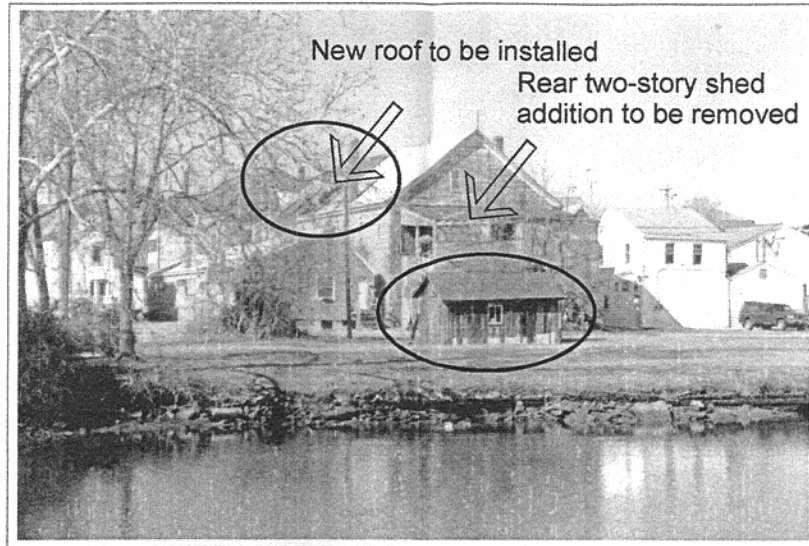
Buildings to be acquired and removed. Police station will be converted to a community center, and an access lane will be designed and constructed to run between the police station and the adjoining two story residence to connect the new parking lot to South Main Street.



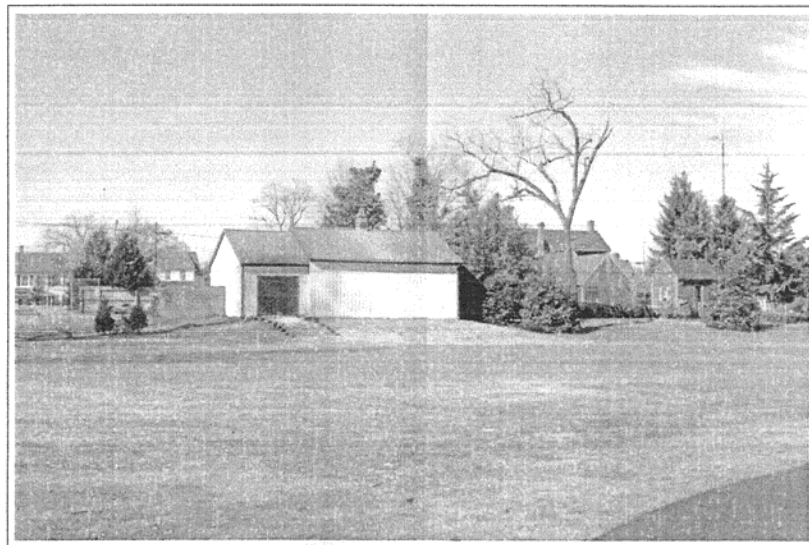
The old hotel (on parcel 687) and the adjacent barn building will be acquired and removed. Existing trees will be protected during demolition and subsequent construction of new water oriented townhouses.



Marshy Hope hiker-biker trail leading from the park northward toward the new pedestrian bridge that crosses over Marshy Hope Creek and carries the trail up the east side of the Creek.



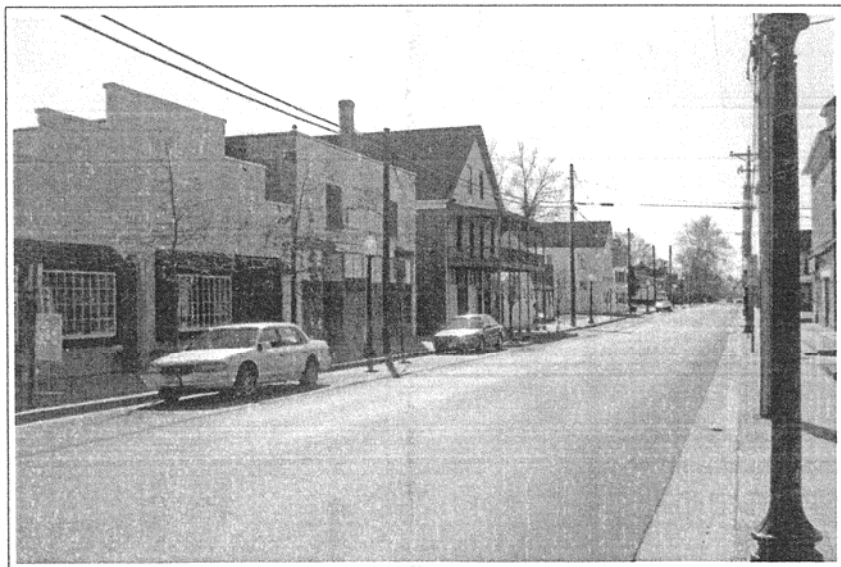
The small red-roofed shed will be removed to provide additional area for the new Town parking lot. The other structural improvements to the Old Hardware store (Crowfoot bldg.) on parcel 695 will be accomplished as part of the private renovation of the building.



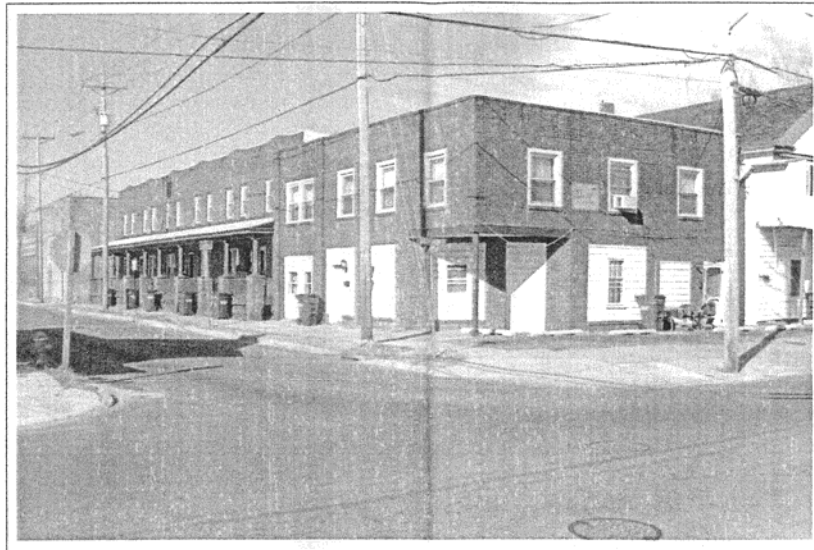
View from Marshy Hope hiker-biker trail of existing bed and breakfast located on the lower end of South Main Street, beyond the project limits.



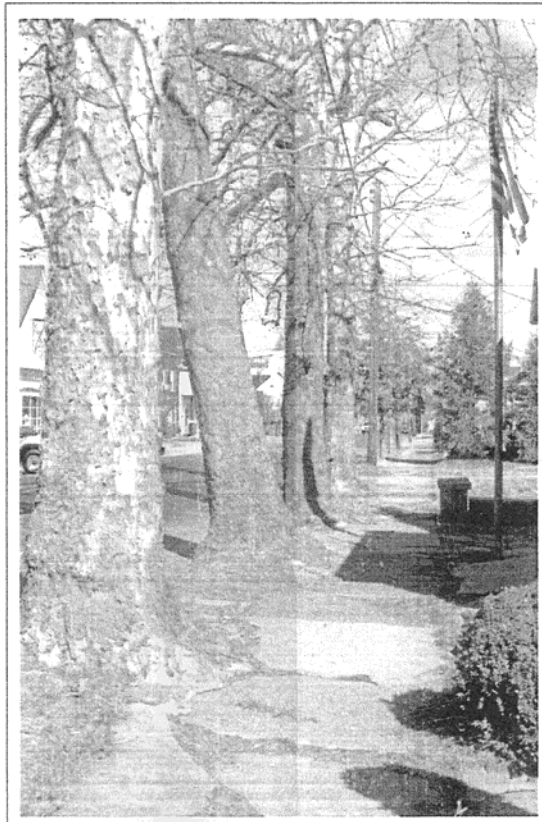
Union Methodist Church (on the west side of South Main Street) just completed a major renovation.



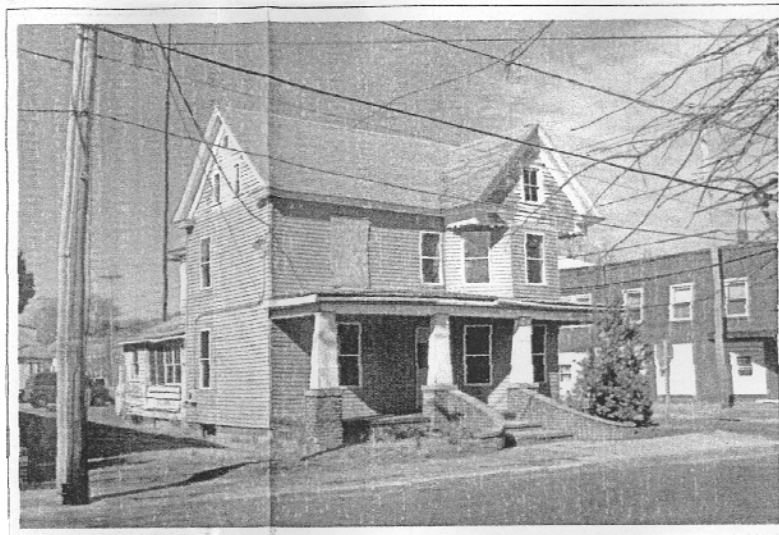
Streetscape facades on the east side of South Main Street which will be preserved and enhanced through private sector renovation and rehabilitation as part of the overall revitalization concept for Area 1.



Once a premier location, "Brick Row" is now low income housing, a "FIST" site and the location of numerous citizen complaints.



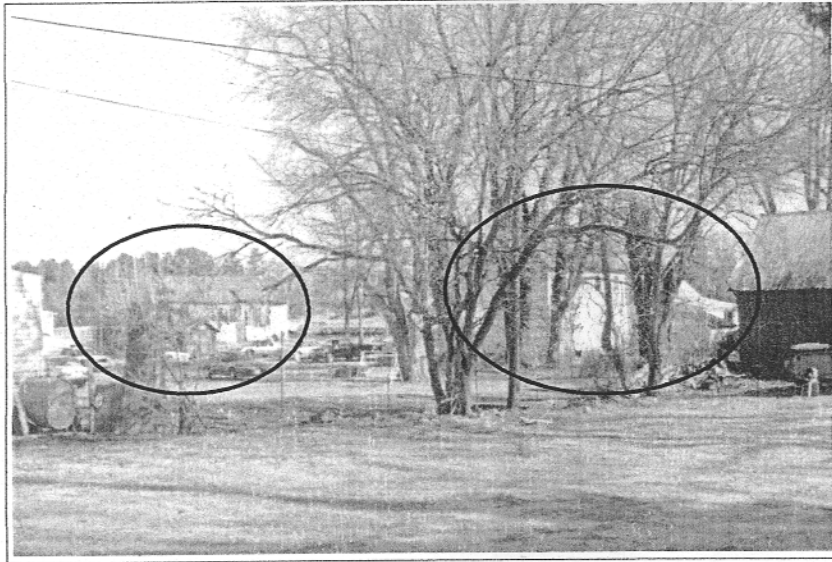
needed sidewalk improvements on the east side of South Main Street



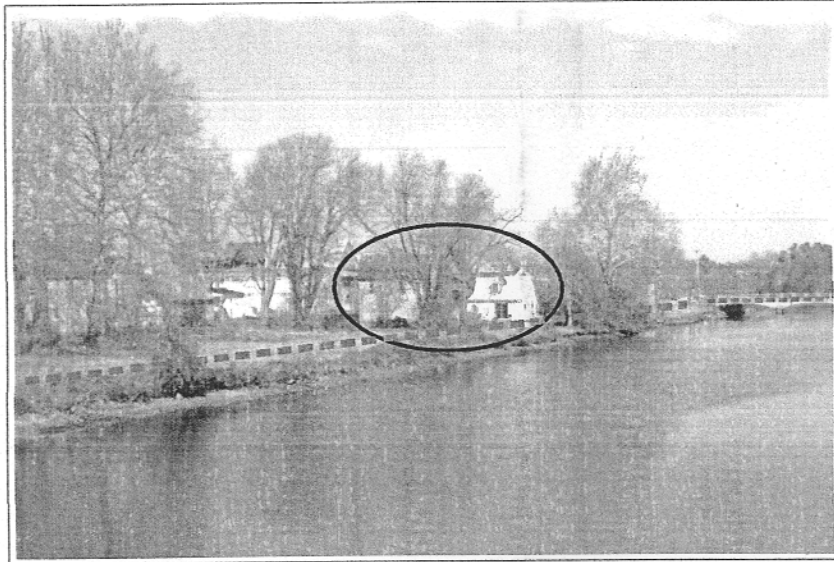
Blighted single family house (parcel 569) was cited for numerous code violations, and a lien was recorded to encourage compliance. The property was illegally occupied by numerous unrelated households. We hope to encourage additional revitalization by private property owners on the west side of South Main Street through our example with this revitalization effort on the east side.



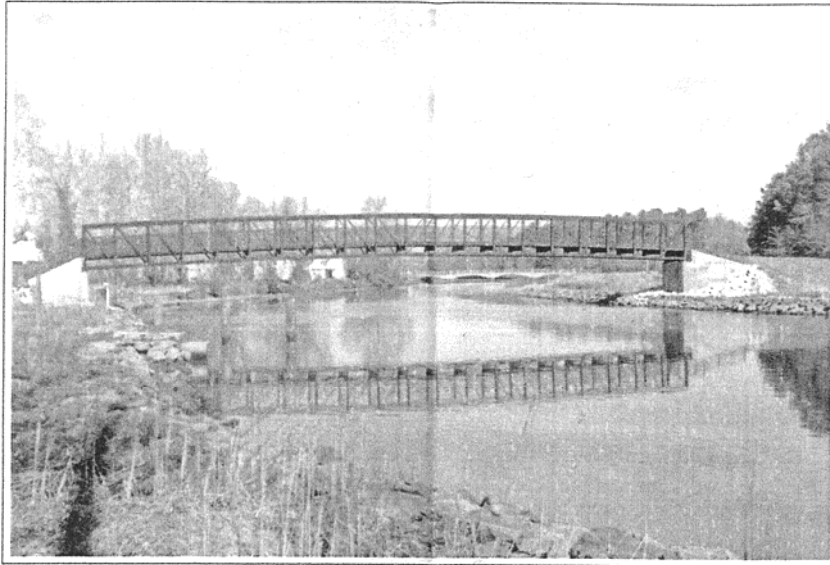
A successful example of mixed use renovation and revitalization on the west side of South Main Street (just south of parcel 569), this is a combination of commercial and residential uses in one structure and may be appropriate in other nearby buildings.



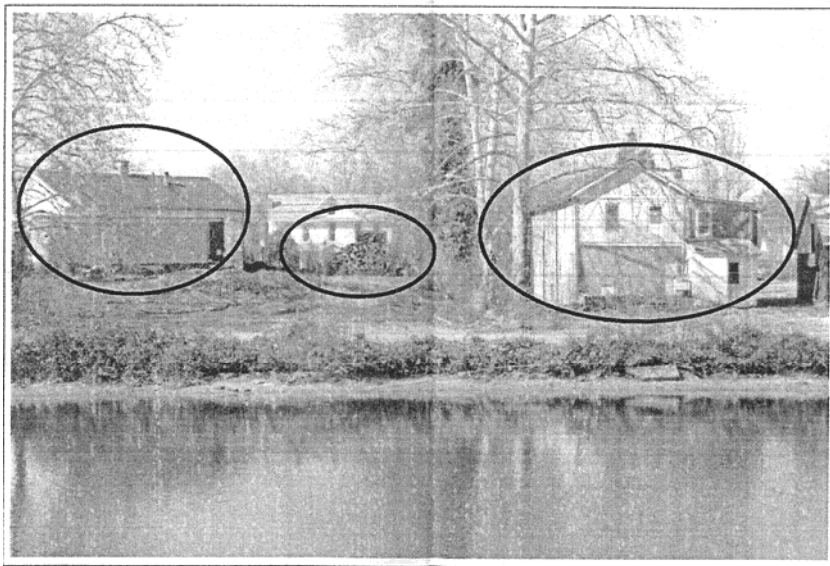
Old Town barn (parcel 702) to be removed plus two residences on parcel 691 (which are to be acquired and removed) highlight the site of the new Town parking lot.



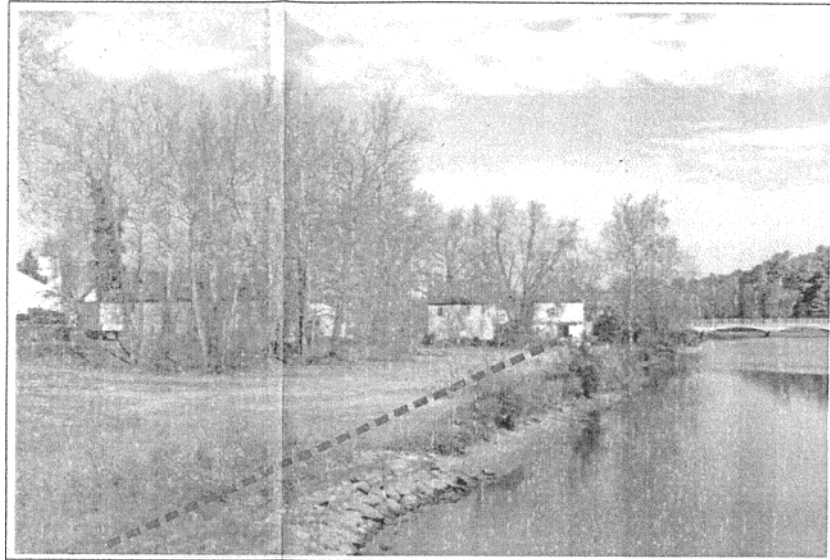
View north from the pedestrian bridge toward the buildings that will be removed. A landscaped pedestrian link should be added along the west side of the Creek to connect East Central Avenue with the hiker-biker trail, creating a loop along both sides of the Creek utilizing the pedestrian bridge on the south and the



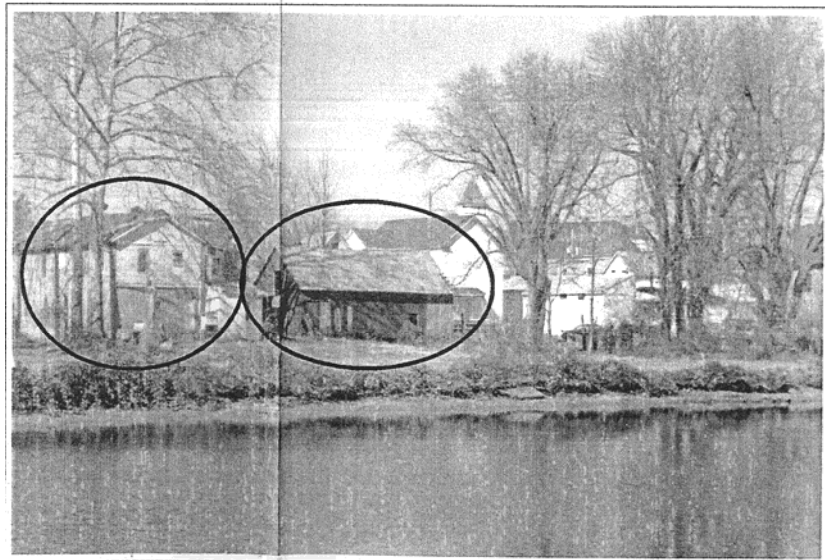
View of the new pedestrian bridge that carries the Marshy Hope hiker-biker trail over the Marshy Hope Creek



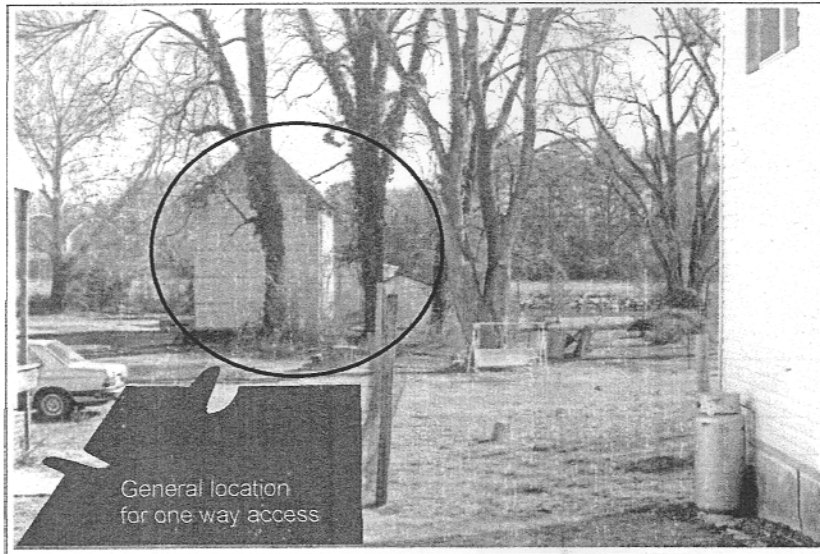
Tire business, "dead" tire pile, and old hotel to be acquired and removed. Trees to be protected and preserved. New water-oriented town homes to be constructed on the high ground with balconies and porches facing the water above the flood plain. Parking to be provided under units with access to South Main St.



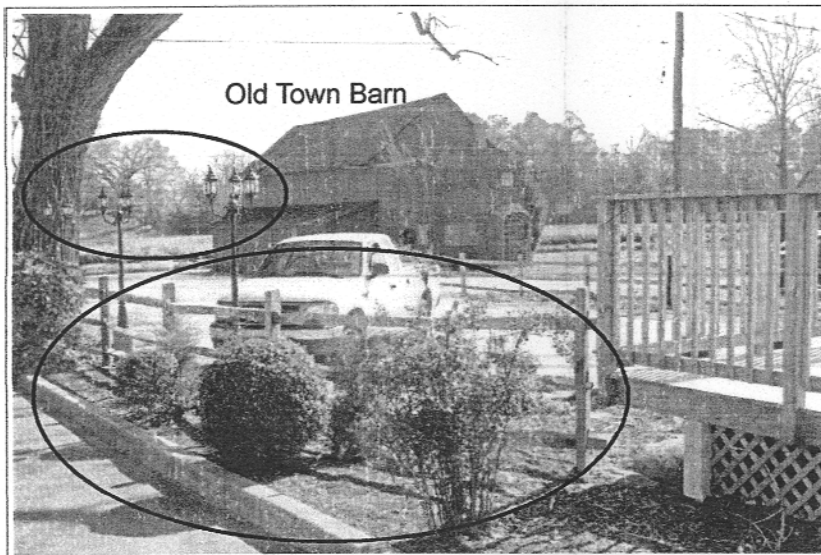
Shoreline stabilization improvements along Marshy Hope Creek...looking north from the pedestrian bridge toward the residences to be removed from the flood plain to make way for the new Town parking lot. Red dashed line indicates general alignment of landscaped pedestrian linkage to connect East Central Avenue to the hiker-biker trail.



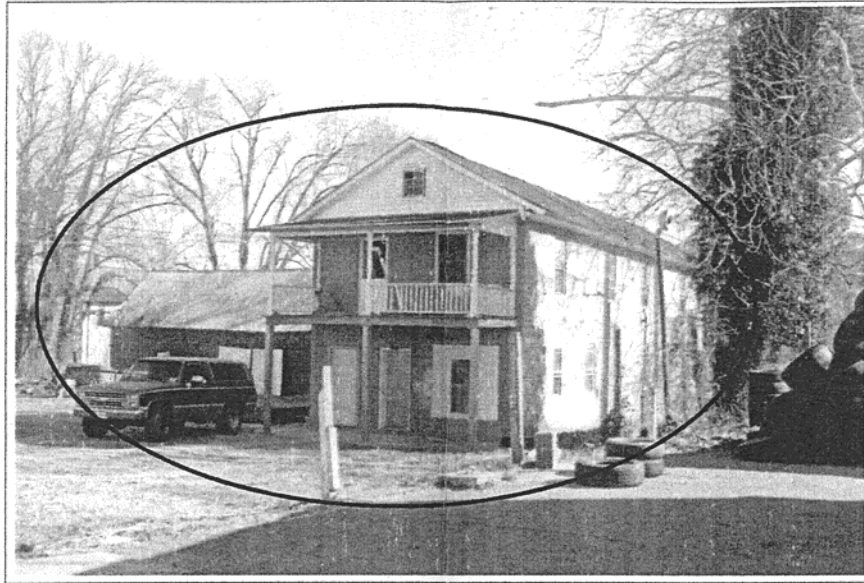
Old hotel and adjoining barn to be acquired and removed to make way for new water-oriented town homes. Existing trees to be protected before and after demolition and construction phases.



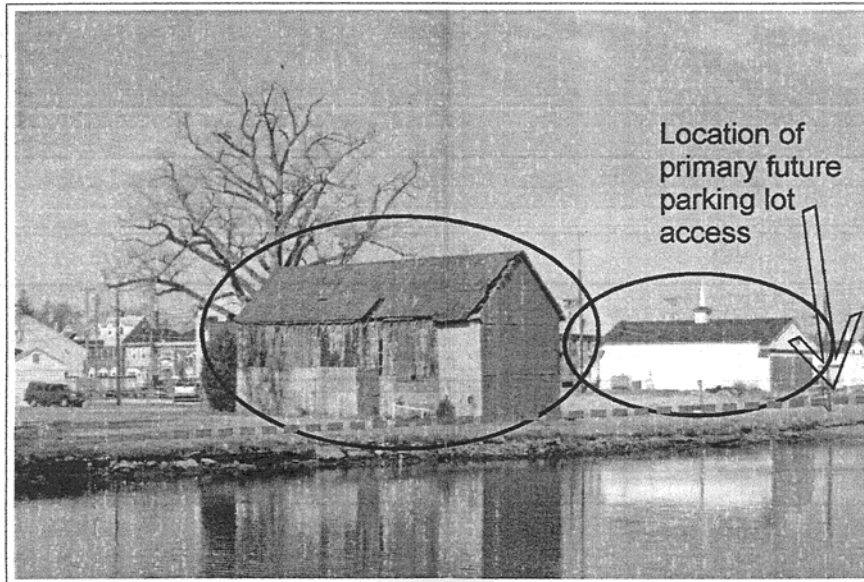
Residences to be acquired and removed. Location of one way exit from future parking lot out to South Main Street. Parking for future community center to be included in the new lot. New lot to be carefully designed to include landscaping, pedestrian scale lighting, seating along the Creek front, pedestrian access along the Creek, coordinated signage and color schemes.



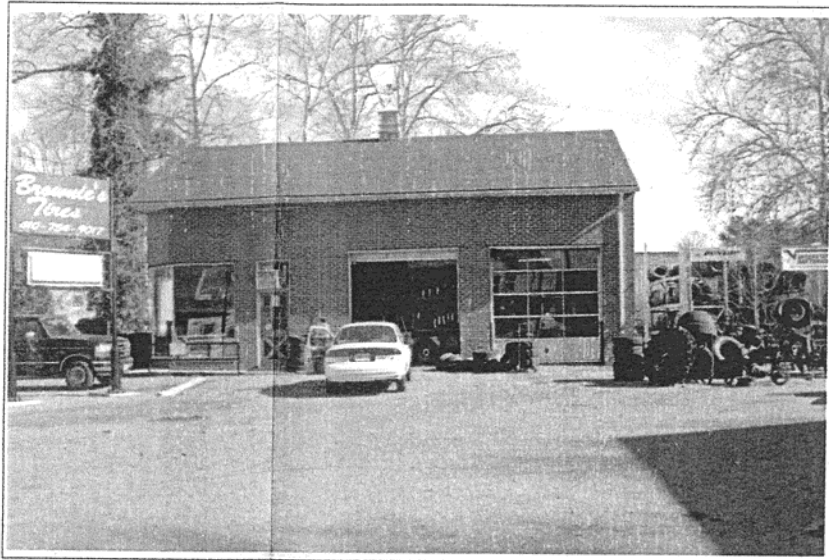
Existing pedestrian scale lighting to provide a guide for new additional lighting. Defined edges and landscaping will be continued in the design of the new Town parking lot. Materials and finishes will be specified in future public and private renovation projects to create a consistent overall appearance



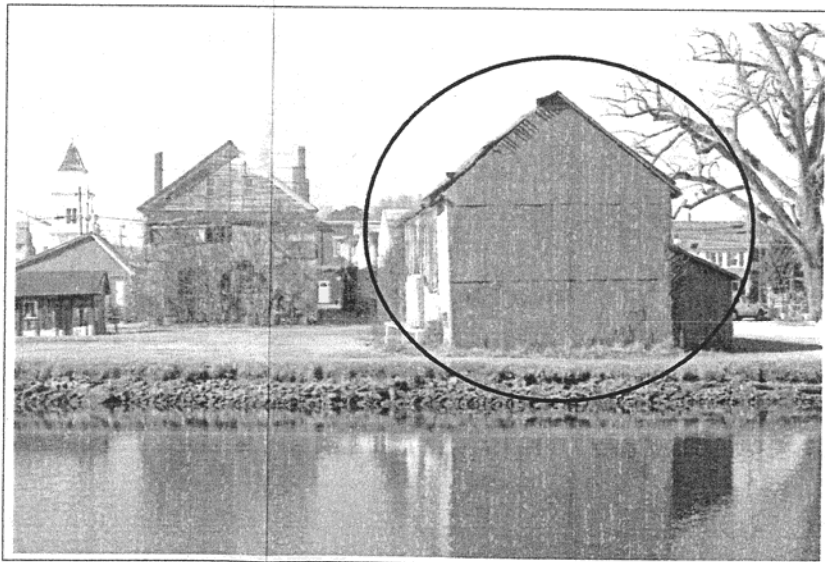
Old hotel and barn (parcel 687), as seen from South Main Street, to be acquired and removed. Site to be joined with Brownie's Tire Shop (parcel 686) and provide location for new medium density residential townhouses oriented toward the water.



Old Town Barn, Coastal Service Station in right rear (parcel 701) and general location of pedestrian access along Marshy Hope Creek (which will connect to East Central Avenue).



Brownie's Tire Shop. To be acquired and removed.



Old Town Barn (parcel 702) to be removed. Large tree in right background will be protected and preserved during demolition and subsequent construction phases.



Appendix D

Stories of the Chesapeake Heritage Area

The Town of Federalsburg supports the programs of the Stories of the Chesapeake Certified Heritage Area.

The Stories of the Chesapeake Heritage Area encompasses heritage sites and places in Caroline, Kent, Queen Anne's and Talbot Counties and was certified as a Maryland Certified Heritage Area by the Maryland Heritage Areas Authority on April 20, 2005. The *Stories of the Chesapeake heritage Area Management Plan* recognizes the Town of Federalsburg's unique heritage and sets forth programs and strategies that offer the Town opportunities for (1) coordinated and enhanced tourism and economic development activities; (2) recording and telling the history of the Town; and (3) the enhancement of cultural, historic, natural, and recreational resources of importance to the Town. Consequently, the *Stories of the Chesapeake Heritage Area Management Plan* is hereby incorporated by reference into this Comprehensive Plan. A copy of the *Stories of the Chesapeake Heritage Area Management Plan* is on file in the Town Office, and it is available on the Heritage Area's web site at: www.storiesofthechesapeake.org. Additional information is also available by calling (410) 778-1460.

The Town desires ESHI to administer the *Stories of the Chesapeake Heritage Area Management Plan* and implement the recommended strategies of the *Plan*. The Town realizes that ESHI is responsible for the designation and dispersal of funding from the Maryland Heritage Areas Authority (MHAA) and other funding sources for heritage preservation and tourism projects within the counties of Caroline, Kent, Queen Anne's and Talbot (collectively, the Region). Federalsburg desires ESHI to acknowledge the need for present and future local government financial and technical assistance for the development and administration of the *Stories of the Chesapeake Heritage Area* and the promotion of public and private partnerships for heritage preservation and tourism with the Region. Federalsburg also hereby clarifies that the Town's local plans, policies and regulations shall take priority in cases of conflict with ESHI objectives, and the Town policies and regulations shall supercede those of ESHI. Federalsburg expects ESHI's continued support for local heritage efforts by way of assisting the Town, its heritage organizations and entities with collaborative projects, goals and objectives and that ESHI will be an effective and catalytic organization for the implementation of defined regional heritage preservation and tourism efforts throughout the Region. The foregoing understandings were officially adopted in Resolution no. 2005-07 (see next page).

RESOLUTION NO. 2005-07

A RESOLUTION of the Mayor and Council of Federalsburg approving and authorizing the submittal of a Management Plan for the certification of the Stories of the Chesapeake Heritage Area as a Certified Maryland Heritage Area.

WHEREAS, the Mayor and Council of Federalsburg in partnership with Eastern Shore Heritage, Inc., has prepared a Heritage Management Plan to designate a portion of Caroline, Kent, Queen Anne's, and Talbot Counties as a Certified Heritage Area as part of the Maryland System of Heritage Areas, a copy of which is attached hereto as Exhibit A and incorporated herein by reference; and

WHEREAS, the Stories of the Chesapeake Heritage Area has important environmental, recreation, and cultural resources, as well as significant historical sites and districts on the National Register of Historic Places; and

WHEREAS, the Stories of the Chesapeake Heritage Area's Heritage Management Plan presents strategies for enhancing these resources, improving linkages, advancing economic development strategies, and providing for stewardship and preservation;

WHEREAS, the Heritage Management Plan will complement other state and County initiatives in the Certified Heritage Area; and

WHEREAS, upon approval of the Management Plan and the Certified Heritage Area proposed by the Maryland Heritage Areas Authority, Mayor and Council of Federalsburg will amend the Town of Federalsburg's Comprehensive Plan to adopt the portions of the Heritage Management Plan relevant to the Comprehensive Plan as a strategy to implement the Comprehensive Plan; and

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Council of Federalsburg of the Town of Federalsburg, Maryland that the Heritage Management Plan, attached hereto as Exhibit A, and the request to the Maryland Heritage Areas Authority that the Stories of the Chesapeake Heritage Area become a Certified Maryland Heritage Area are hereby approved and Eastern Shore Heritage, Inc., is hereby authorized on behalf of the Mayor and Council of Federalsburg to submit the Management Plan and certified heritage proposal to the Maryland Heritage Areas Authority for approval.

Be it further resolved, that this resolution shall take effect upon the date of its adoption

Approved by a vote of 5 to 0.

WITNESS our hands and seals this 4th day of APRIL, 2005.



Appendix E **Greenbelt and Planning Area Revisions**

(Based on Public Hearing comments and Caroline and Dorchester County input)

Extensive discussions occurred between the Town of Federalsburg and the planning offices of Caroline and Dorchester counties following receipt by the Town of county comments provided in the course of the official 60-day review and the public hearing process. Both counties expressed concern that the Federalsburg planning area include existing and proposed agricultural protection and preservation areas and incorporate protected farmland into the greenbelt concept described in the Plan. Toward that end, both counties provided maps and additional information concerning their farm land preservation activities, and that information has been reviewed, discussed, and incorporated on the revised planning area map that is made a part of this appendix.

For practical purposes of document preparation, it is the decision of the Town of Federalsburg to add this information as an appendix due to problems of pagination and document layout. As with the other appendices, it is the Town's intent that they be fully incorporated and receive that same consideration as all other elements of this Comprehensive Plan. Additionally, it is the Town's expectation that subject to further refinement(s) as may be appropriate, that this appendix shall be incorporated into the Municipal Growth Element that is anticipated to become a mandatory element when this Plan is due for its six-year comprehensive review.

In anticipation of potential future annexations into Dorchester County by the Town of Federalsburg, the Town has coordinated its growth area planning with current efforts by Dorchester County to update its County Comprehensive Plan. In recognition of certain potential annexation priorities, the County has made available to the Town copies of its Growth Allocation process related to lands subject to the Dorchester County Chesapeake Bay Critical Area Program. While to extensive and detailed for inclusion in this appendix, the Town acknowledges receipt of this information and expresses its appreciation to Dorchester County for the collegial and cooperative atmosphere that has developed over the course of the last number of months as issues of mutual concern were discussed.

When Dorchester County has completed its Comprehensive Plan update, and the land use and agricultural preservation maps become official, Federalsburg anticipates receiving a copy of the map that addresses Dorchester County's land use proposals within the Federalsburg Planning Area. It is the Town's expectation that this map will be consistent with its own map (and space is reserved for inclusion of that map directly following the newly revised Federalsburg map).

With regard to the Caroline County portion of the Federalsburg Planning Area, discussions with that county's planning staff have cemented a cooperative



working relationship that anticipates continued and enhanced coordination as the County makes plans to prepare a South County amendment to the Caroline County Comprehensive Plan. Caroline County is very interested in creating greenbelts in the vicinity of municipalities. One mutual benefit of this policy will be early, frequent and ongoing coordination between County and municipal staff. Federalsburg recognizes that a greenbelt, if appropriately located and sized, will help preserve its unique municipal character in the south county's rural landscape. At the same time, enhanced coordination should streamline and improve annexations in the growth area by helping to ensure that County planning and zoning policies reflect municipal policies and priorities. Federalsburg anticipates that potential development proposals in the County (within the growth areas) will be steered into Town in a manner that is consistent with the priorities contained in this Plan. Orderly, logical, and carefully timed growth that is managed in conjunction with Federalsburg's ability to provide needed infrastructure will also help ensure compatible and timely infrastructure planning by the County for those services it is responsible for. Working together, Federalsburg will continue to be the focus for growth in the southern part of Caroline County providing a high quality of life and enhanced economic opportunity without overwhelming local schools, water, sewer, or emergency services.

The Federalsburg greenbelt will consist of farms protected by agricultural easements, farms that have joined agricultural districts, rural legacy areas that are identified as priorities for future acquisition, and other parcels that Dorchester and Caroline counties have identified as potential parcels for preservation as part of an expanded future greenbelt. State and county-owned lands are also an integral part of the greenbelt.

Growth Area 1 has been greatly reduced in scope from what was proposed in the public hearing draft as a result of input from Caroline County. Similarly, input from Dorchester County led to most of Growth Area 2 being designated for agricultural preservation. Only a small area adjacent to Growth Area 3 is contemplated for development. Growth Area 6 has also been significantly scaled back in recognition of greenbelt priorities. Finally, for purposes of this Plan, some areas that are already relatively developed to the north and northeast of the municipal boundary are recognized but not designated specifically as municipal growth areas at this time. If it becomes necessary at some future date to extend municipal water or sewer into those areas to address health issues, then potential annexation will be considered as a condition of service. The County has recognized some responsibility for historic development approvals on lots with marginal capacities to accommodate individual well and septic systems. How these issues will ultimately be addressed remain unspecified at present and will require additional coordination and cooperation. In other respects, there is sufficient land between the proposed greenbelt areas and the current municipal boundary to accommodate the reasonable growth needs of Federalsburg for the foreseeable future.



Appendix F Forest and Woodland Protection

The following text is being added to the Federalsburg Comprehensive Plan to provide clarification concerning the Town's policies with respect to implementation (including Comprehensive Plan incorporation) of both Critical Area and Forest Conservation Act requirements. It is anticipated that this appendix will be fully integrated with the text in the Sensitive Areas Element as part of the next six-year comprehensive Comp Plan review.

The Forest and Woodland Protection Section (1-117) of the Town's Critical Area Ordinance provides implementation of both Critical Area and Forest Conservation Act requirements. In a cooperative effort the State and Town developed this section to efficiently protect forest resources. Section 1-117 provides the following policies for forest and woodland protection, recognizing the value of forested land for its water quality benefits and for habitat protection while accommodating the utilization of forest resources:

Maintain and increase the forested vegetation in the Critical Area;

Conserve forests and developed woodlands and provide for expansion of forested areas;

Provide that the removal of trees associated with development activities shall be minimized and, where appropriate, shall be mitigated; and

Recognize that forests are a protective land use and should be managed in such a manner so that maximum values for wildlife, water quality, timber, recreation, and other resources can be maintained, even when they appear to be mutually exclusive.

Encourage programs for the enhancement of biological resources within the Town for their positive effects on water quality and urban wildlife habitat. These programs may include urban forestry, landscaping, gardens, and wetland and aquatic habitat restoration.

The Town has identified and mapped forests and developed woodlands within the Critical Area and has identified and mapped habitat protection areas within the Critical Area.

Section 1-117 requires the protection of Forest Habitat through implementation of various measures including naturally vegetated stream banks for wildlife corridors, conservation of a minimum 100-foot Buffer landward from the mean high water line of tidal water, tributary streams and tidal wetlands, conservation



of forest areas utilized as breeding areas by forest interior dwelling birds, and conservation of existing mature riparian forests.

The Town ordinance includes policies for the establishment or replacement of forest including establishment of a diversified plant community such as canopy trees, shrubs and herbaceous plants and promotes the use of native species.

Section 1-117 specifically relates to development review on a zone and land use category basis. There are separate standards for 2 groups of zones and land use categories in Town. The first group is Limited Development and Resource Conservation Areas within the Critical Area and R-1, R-2, and R-3 Zoning Districts outside the Critical Area. The second group is Intensely Developed Areas in the Critical Area and in B-1, C-1, ID-1 and ID-2 outside the Critical Area.

Finally, Section 1-117 includes requirements for performance bonds, grading permits, enforcement, mitigation, application process, and allowances for tree cutting in the Buffer.



Appendix G Interjurisdictional Coordination

Additional interjurisdictional coordination took place during and after the 60-day review period that led up to the public hearing on the draft 2005 Federalsburg Comprehensive Plan. Those discussions involved officials from Federalsburg, Caroline County and Dorchester County and also included assistance from the Maryland Department of Planning. The result of this additional work is better information for Federalsburg citizens concerning the goals and policies that have been adopted by the adjacent counties concerning agriculture – its preservation and support, and efforts to create a regional greenbelt in the Federalsburg planning area. The Federalsburg Planning Area reflects the Town's desire to take a comprehensive look at existing land uses and parcel geographies in the region and identify both areas suitable for growth and areas intended for preservation. These issues are addressed in greater detail in the Land Use Element.

Information and guidance was also presented by Caroline County at the public hearing, and the comments received directly relate to the additional information presented in this section. This section is presented in the format of an additional appendix purely for clerical convenience. The reader should understand that the Town's intent is for this element to be an integral part of the Plan and that the policies contained herein help guide future land use decisions with regard to growth areas, resource protection, farmland preservation, and potential priorities for annexation. These issues are regional in scope and transcend municipal boundaries. It is Federalsburg's intent to support county efforts to achieve a viable greenbelt of public lands and protected private farms (that utilize tools from a variety of sources, both public and private).

Further, it is Federalsburg's intent to help develop, and ultimately enter into, Intergovernmental Agreements (IGA's) that may result from ongoing efforts between and among the various towns in Caroline County and efforts by the County to formalize future interjurisdictional coordination. It is also Federalsburg's hope that a successful model agreement can then subsequently also be applied between the Town and Dorchester County. Regarding Growth Areas, these agreements are envisioned to relate to mechanisms that will streamline the review and approval of future annexations that implement coordinated priorities and also address infrastructure needs, plans, and funding mechanisms.

It is important to note that IGA's in no way supplant nor diminish the autonomy or authorities and responsibilities that accrue due to Federalsburg's municipal status. This Comprehensive Plan does not seek to abrogate any municipal powers nor does it anticipate the surrender of any powers of self-determination



due to any future IGA. That made clear, it is the Town's intent to create coordinated "Growth Areas" and "Greenbelts" for targeted preservation within the identified Federalsburg Planning Area.

Growth Areas locate areas that are suitable for urbanization and are intended to develop on public water and sewer infrastructure. The sizing of growth areas are intended to be consistent with the existing and planned infrastructure capacity that potential development will require based on densities anticipated by the Federalsburg Zoning Ordinance. Priorities for annexation are intended to be consistent with the Town's needs to accommodate population growth and urbanization that is consistent with this Plan.

While all best efforts have been made to anticipate realistic needs, the Plan also recognizes that unanticipated opportunities (and potential problems) may necessitate updates, refinements or even revisions to the Plan before the State-mandated six year review. However, no major corrective measures are anticipated. If conditions warrant, the Town will coordinate its concerns with Caroline County, Dorchester County and appropriate State and Federal agencies.

County policies

Federalsburg recognizes that Caroline County planning has evolved in recent years and that the County plans a number of initiatives that will further interjurisdictional coordination and cooperation too.



Appendix H
Dorchester County Right to Farm statute
(added at the request of Dorchester County)

Chapter 38 RIGHT TO FARM LAW

[HISTORY: Adopted by the Laws of 1997, ch. 38. Amendments noted where applicable.]

GENERAL REFERENCES Right to farm -- See Ch. 127. § 38-1.

(A) Subject to Subsection (C) of this section, the County Commissioners may adopt an ordinance to protect a person's right to farm or to engage in agricultural or forestry operations.

(B) In adopting an ordinance under this section, the County Commissioners may:

(1) Define the terms "agricultural or forestry operations", "generally accepted agricultural or forestry practices", and any other terms necessary to carry out the provisions of this section;

(2) Provide that a private action may not be *maintained* with respect to an agricultural or forestry operation on the grounds that the operation interferes or has interfered with the use or enjoyment of property, whether public or private, if, at the time the interference is alleged to arise:

(i) The agricultural or forestry operation, including any change in the operation, has been under way for a period of 1 year or more and if the operation or the change did not constitute a nuisance from the date the operation began or the date the change in the operation began; and

(ii) The agricultural or forestry operation is conducted substantially in accordance with generally accepted agricultural or forestry practices;

(3) Establish a grievance committee to arbitrate disputes involving agricultural or forestry operations and whether agricultural or forestry operations are conducted in a manner consistent with generally accepted agricultural or forestry practices;



(4) Require a person claiming a nuisance as a result of agricultural or forestry operations to arbitrate the claim before the grievance committee before maintaining a private action in court;

(5) Provide that if the grievance committee finds that the conduct of a person claiming a nuisance as a result of agricultural or forestry operations was in bad faith or without substantial justification, the grievance committee shall require the person claiming the nuisance to pay the person against whom the complaint was made the costs of the arbitration proceeding and the reasonable expenses, including reasonable attorney fees, incurred by the person against whom the complaint was made in defending against the claim;

(6) Require a transferor of real property to provide to the transferee notice advising the transferee of the Dorchester County right to farm ordinance; and

(7) Include any other measure the County Commissioners find necessary to protect agricultural or forestry operations in Dorchester County.

(8) Before adopting an ordinance under this section, the County Commissioners shall hold a public hearing and shall provide reasonable notice of the hearing.



Appendix I Additional Considerations

The planning process is an ongoing and evolving enterprise that is subject to continual refinement and revision. Sometimes new information comes to light that has a direct and substantial bearing on growth management concerns. Other times changes in State or Federal law require that additional issues be addressed and included in the Comprehensive Plan. Locally, elected and appointed boards and commissions are subject to changes in membership and philosophy. These possibilities may require refinements or amendments to the Comprehensive Plan in order to clarify land use policies and priorities or to support changes to zoning, subdivision, or other implementation ordinances and regulations. Article 66B mandates that Comprehensive Plans be reviewed for relevancy and conformance to applicable requirements contained in the Annotated Code of Maryland on a cycle that is on a minimum interval of six years. That does not preclude more frequent adjustments. The primary role and responsibility of the Federalsburg Planning Commission is to continually look to the future and shape plans and provisions for the orderly and appropriate growth and development of the Town and its immediate vicinity. Growth management in the areas within the planning area but beyond Town limits require coordination and cooperation with Caroline and Dorchester Counties. It is the hope and desire of the Town of Federalsburg and both counties will adopt this Comprehensive Plan as subarea plans within their respective county comprehensive plans.

Changes to various sections of the Annotated Code enacted by the Maryland General Assembly in 2006 have mandated two additional elements be added to local Comprehensive Plans by 2009. These elements are: a Municipal Growth Element and a Water Resources Element. Both of these new elements have the potential to direct and to constrain growth. Additional mandates in House Bill 1141 call for improved interjurisdictional coordination at all levels.

Of particular concern to the Town of Federalsburg is the new Municipal Growth Element that must be incorporated into the Comprehensive Plan. Having been aware of the ongoing concerns and discussions that predated the passage of House Bill 1141, the Planning Commission endeavored to address as many of the issues in the preparation of this draft as could be reasonably anticipated. We feel this Plan meets the spirit and intent behind this aspect of House Bill 1141 and will seek clarification from the Maryland Department of Planning. Other additions are optional, and new procedures and requirements for municipal annexations will be in effect by the time this draft Comprehensive Plan is formally adopted. This Plan recognizes these recent changes and affirms the intent of the Town of Federalsburg to work with due diligence to satisfy the new requirements. In the spirit of continued interjurisdictional cooperation and coordination, the



Town will seek the assistance of appropriate county and State agencies to collect relevant information that may be needed and to seek additional technical assistance that is anticipated to become available.



MUNICIPAL GROWTH ELEMENT

INTRODUCTION

This Technical Addendum serves the purpose of consolidating the Comprehensive Plan's municipal growth policies into a new chapter of the Plan. This Addendum will be known officially as the Town's Municipal Growth Element, as required by House Bill 1141 of 2006.

This element is:

- Based on the background studies and content of the Comprehensive Plan for the Town of Federalsburg.
- Integrated with the Town's Comprehensive Plan, including the Land Use Element of the Plan.
- Prepared in conjunction with the Town's Water Resources Element (This Element is also required in our Plan as a result of HB 1141).
- Coordinated with Caroline and Dorchester Counties.

The purpose of the Municipal Growth element is to develop, in coordination with Caroline and Dorchester Counties, a plan for future territorial growth which will serve as a guide for annexation, growth, and land preservation. Under House Bill 1141 (2006), the element must consider 11 items; these are paraphrased below.

1. Future municipal growth
2. Past growth patterns
3. Municipal land capacity
4. Land supply that satisfies growth policy
5. Services needed for growth
6. Financing for infrastructure and services
7. Rural buffers and transitions
8. Any extra-territorial service responsibilities
9. Sensitive areas protection
10. Population growth projections
11. Future municipal character

PLANNING CONSIDERATIONS

Following are summary statements on how these items are weighed in the planning process, with references to the adopted Comprehensive Plan.

Future Municipal Growth

The Town of Federalsburg worked with Caroline and Dorchester County to identify "Growth Areas" and "Greenbelt Areas" (or rural buffers) around Federalsburg. These areas appear on the Land Use Plan Map in the Comprehensive Plan and are based on a reaffirmation of the Town's long held policy to function as a rural population center, suitable for growth under Maryland's statutory planning visions and Caroline and Dorchester County's



Comprehensive Plans. The Plan Map is also included in the Water Resources Element.

Past Growth Patterns

Historical growth patterns are described in the Background Section of the Comprehensive Plan (see Historic and Regional Setting). The Town has a long history of being a hub of commerce and industry in the mid-Shore region, and we plan to capitalize on this dynamic. The Town does not consider historical growth rates or patterns as necessary constraints on future growth policy.

Municipal Land Capacity

Estimates of land capacity within current Town boundaries were provided by the Maryland Department of Planning. The capacity analysis is included and integrated with annexation plans in the Land Use element. However, as a result of further study undertaken for the Water Resources element, the Town has since revised the land capacity downward, from 400 to 370 units. The revision is based on the presence of sensitive areas and ponds on one large vacant parcel zoned R-2, in the southern part of Town.

Municipal land capacity represents an in-Town supply of sites that can accommodate immediate needs and near-term growth. There are no assurances that owners of long held undeveloped parcels will make these sites available in a timely manner. However, the Town does make provisions to reserve water and sewer service for existing vacant lots-of-record, and for the possible subdivision of larger parcels. Moreover, the Town's planning and zoning program does not unnecessarily impede infill development or the use of vacant land in Town. There are many lots, however, that have disincentives for development including stream buffers, wetlands, and floodplains.

The Town Comprehensive Plan adopts a policy of economic growth and annexation (see the Vision element: Land Use and Growth, and the Land Use element: Annexation). The Town's Land Use Plan (which includes future municipal growth) is based on strategic land use control and the logical "filling out" of boundaries, guided by major features, such as a road, intersection, or waterway. Existing municipal capacity is not viewed by the Town as a constraint on annexation, provided services are adequate for annexed land.

Land Supply to Support the Growth Policy

Federalsburg is situated within southern Caroline County, along Dorchester County's northern border. Plans for municipal growth include expansion in Caroline County, and also into Dorchester County.

According to the Maryland Department of Planning (MDP), Caroline County will grow by 16,250 people between 2005 and 2030 (a 51 percent increase over 25 years). According to MDP, between 2000 and 2006, municipalities in Caroline captured about 37percent of all County growth. However, over the longer term,



the County predicts that 63 percent of future population growth will take place in incorporated municipalities (2005 Strategic Plan for Caroline County).

According to the Maryland Department of Planning, Dorchester County will grow by 8,600 people between 2005 and 2030 (a 27 percent increase over 25 years). Dorchester County's Comprehensive Plan calls for municipalities in the North County to attract 50 to 70 percent of the population growth. Between 2000 and 2006, 56 percent of the population growth was channeled to municipalities in Dorchester.

The two Counties each contain five municipalities with the infrastructure framework to support growth: Caroline County has the towns of Denton, Federalsburg, Greensboro, Preston, and Ridgely. Dorchester County has the City of Cambridge, and the Towns of Vienna, Hurlock, Secretary, and East New Market.

The Town of Federalsburg presumes that each municipality will exercise its own judgment about how much, if any, of County growth should be targeted. Federalsburg's Municipal Growth Element and Land Use Plan Map are based on the following principles:

a. County population projections to the year 2030 provide an estimate of the size of the pot of growth opportunity, and Town growth plans can affect how much of the pot will be captured.

b. State and County land use and environmental policy discourage large lot residential growth on septic systems.

c. State and County land use and environmental policy encourage growth in compact walkable forms, on smaller lots, and served by public sewer.

d. The choice of whether or not to grow is determined by each local government and implemented through the Comprehensive Plan.

e. The Town of Federalsburg will have a Comprehensive Plan and the facilities to accommodate growth, and can regulate land use and development to prevent adverse impacts to water supply and water quality.

Land Supply and land Demand

Land in the Growth Area will provide for an estimated 596 dwelling units and 1,550 people. The Town has capacity for 370 units and 962 people. The total growth capacity of the Town and Growth Areas is 2,512 people. The population is projected to be 4048 by 2030, growing by 1,437 people (the 2007 MDP population estimate for the Town is 2611 people). Land supply is thus about 1.7 times larger than demand.



Services Needed for Growth

Water, Sewer, and Stormwater Management: The Water Resources Element estimates the adequacy of sewer and water service to serve existing and future development. The Town Sewer and Water Plan will be a functional plan used (along with others) to implement the Land Use Plan Map. Upgrades to the Town's wastewater treatment plant are planned for 2010.

The Water Resources Element also examined stormwater management by assessing the non-point impacts of land use changes under the Land Use Plan Map, modeling revised development scenarios, and calling for urban best management practices for development.

The Town has the capacity to begin implementing the Land Use Plan Map. The Town will assess the impact of each project, keep good records, maintain a reasonable reserve capacity for water and sewer, guarantee service taps to vacant lots of record, and use a Water Supply Capacity Management plan or protocol. This will allow the Town to control growth rates.

Other Services: The Comprehensive Plan includes a thorough report on services including schools, libraries, public safety and EMS, and recreation (see Community Facilities and Services element). Services are adequate at present. A determination of service adequacy will be required for new development and may result in deferral of project approvals. Annexation proposals will be referred to the County and State for input on the adequacy of services that fall under County or State jurisdiction.

Once all municipalities in the Caroline-Dorchester County area have adopted municipal growth plans, the cumulative impact of municipal growth on town and county services and facilities should be assessed by the respective Counties. The Town notes that public services and facilities are already addressed in detail in local and State functional plans for open space and recreation, schools and libraries, water and sewer, planning and zoning, and public safety.

Financing Mechanisms

The Towns have both public and private sector sources for infrastructure financing. As incorporated municipalities, the Towns have the authority to enact excise taxes and impact fees. These tools exact infrastructure funds from developers as a condition of project approval; excise taxes are by far the more flexible tool in terms of how the funds can be used. The Towns can also enact a tax increment financing district to charge homeowners in a defined area to help pay for infrastructure.

Developer Rights and Responsibilities Agreements (DRRA) can be used to legally bind the Towns and a developer for specific development projects. Infrastructure responsibilities are often an important part of these agreements.



The Towns will continue to compete for federal and State funds that support growth. The Towns will review their Priority Funding Area (PFA) maps, and annexation proposals, and establish the necessary criteria, if possible, to achieve PFA status. Priority will be given to acreage within Growth Areas that have municipal adjacency.

Following are additional details on impact fees, excise taxes, and tax increment financing, taken from a 2007 Growth Report by the Sage Group.

Impact Fees

An impact fee is most commonly assessed on the construction of new structures to pay for the expansion of the service capacity of government, including by supporting the construction of fire stations, police stations, sewer/water supply systems, parks, libraries, etc. Impact fees are designated for specific uses and funds are not to be intermingled with the general fund.

In places lacking impact fees (e.g., municipalities, counties), jurisdictions must either generate funds for infrastructure expansion from the existing tax base or through the issuance of bonds. One can imagine a circumstance under which the existing community would see their taxes raised in order to finance new infrastructure and then eventually see their taxes dropped again once new taxpaying development formed around the infrastructure. The problem with this structure is that raising taxes is rarely politically convenient, and therefore communities end up in an equilibrium characterized by moderate taxes, permanently inadequate infrastructure and stunted development.

Impact fees would allow for projects to move forward within the growth corridor, thereby siphoning off much of the residential development pressure from the county's rural areas. Impact fees should be set considerably higher in the county's agricultural regions than within the growth corridor and presumably reinvested in water/sewer infrastructure, schools and other government controlled facilities

Excise Taxes

Excise taxes represent another approach. These are sales taxes and can be levied on real estate transactions. Excise taxes are not as constitutionally limited as impact fees, which is typically viewed as an advantage from the perspective of local government, but funds generated from these taxes may be diverted for non- infrastructure purposes. If excise taxes are adopted, the study team recommends that the use of these funds be largely limited to infrastructure build-out within the county's growth corridor.



Tax Increment Financing for Re-development

Tax increment financing (TIF) permits jurisdictions to create special districts and to make public improvements within those districts that will generate private sector development. During the development period, the tax base (assessed value) is frozen at the predevelopment level. Though property taxes continue to be collected, taxes derived from increases in assessed values (the tax increment) resulting from the new investment either head toward a special fund created to retire bonds issued to accommodate the development or to promote additional economic expansion in the district.

Impact fees [can be used] to help accelerate new development within the growth [area], while TIF districts could be defined to promote redevelopment of already developed areas that suffer from an unacceptably low average quality of development.

Rural Buffers and Transitions

Caroline and Dorchester Counties have “Greenbelt Area” Maps that indicate land planned for conservation and preservation around Federalsburg. These rural buffers are located primarily within the Marshy Hope Creek watershed and include most of the forested stream corridors that drain to the Marshy Hope Creek. In cooperation with the Counties, Greenbelts could be designated as sending areas for the voluntary transfer of development rights to the Town or to the Town’s Growth Areas. These areas will serve as rural open space that defines the Town’s setting, and may serve as transitions between growth and preservation areas.

Extra-Territorial Service Obligations

As a general rule, the Town will not extend service in the future to areas that are not within Town or annexed. However, the Town works cooperatively with the Counties to address issues of public health. The Town’s Land Use Plan Map should be reflected in, and supported by, the Dorchester and Caroline County Water and Sewer Plans.

Sensitive Areas Protection

Sensitive Areas are avoided and point and non-point sources of pollution will be reduced. Steep slopes, habitat of threatened or endangered species, and wetlands are avoided. Buffer exemption areas exist along the heavily developed shoreline of the Town, consistent with the Critical Area Program. Stream buffers are protected in the remainder of the Town. (See also, the Sensitive Areas element.)

Population Growth Projections

Population projections are discussed in the Comprehensive Plan in the Background chapter (Demographic Setting). The Town accounts for around nine percent of Caroline County’s population. The goal of the Town of Federalsburg



is to capture its fair share of County growth, thus past population growth projections are not treated as a controlling factor.

Future Municipal Character

Under the Town's long term development policy, the character, visual cohesiveness, and bounded edges of the Town will stay in tact. New edge development is permitted, but it must reflect traditional Town character in terms of scale, land use, and design. The Land Use element includes images and descriptions of Town neighborhoods, and design recommendations that can be used to guide future growth and development.

RECOMMENDATIONS

a) Annexation Plan:

The phasing of annexations, prioritizing of sites, site planning, and zoning coordination with the County should be addressed. Guidance should be developed for preparation of an Annexation Plan that is consistent with the Municipal Growth and Water Resources elements. This should include assessments of wastewater treatment, water supply, and non-point source impacts on the watershed.

b) TDR's:

The Town should evaluate the practical value of developing an interjurisdictional TDR program with the County, whereby development rights under County zoning can be voluntarily sold and transferred for use in the Town or in mapped Growth Areas. One important goal is long term protection on Greenbelt sites.

c) Municipal Character Policy:

Under the Town's long term development policy, the character, visual cohesiveness, and bounded edges of the Town should stay in tact. New edge development is permitted, but it must reflect traditional Town character in terms of scale, land use, and design. The Town should consider identifying patterns of housing styles, lot arrangements, setbacks, and other elements of design that can guide infill, redevelopment, and new growth in a manner that reinforces community character.

d) Development Review Policy:

Development projects and annexation proposals should include analyses of several key factors. Developers, landowners, and applicants should provide these analyses and the Town can refer these to the County and State Planning for review and comment (similar to the existing process for projects in the Critical Area). The key factors include:

- Preservation of Community Character
- Protection of water quality (stormwater runoff)



- Adequacy of sewer treatment capacity and potable water supply
- Consistency with smart growth principles and the Comprehensive Plan
- Coordinated development plans for the Growth and Joint Planning Areas in the Marshy Hope Creek watershed.

e) Planning Contracts:

Joint Planning Agreements: The law enables counties and municipalities to enter into contractual agreements as a means to solidify the inter-jurisdictional aspects of the new Comprehensive Plan (e.g., the Land Use Plan Map). A Joint Planning Agreement between the Town of Federalsburg and Caroline and Dorchester Counties should be developed. Components of a Joint Planning Agreement are listed below

Developer's Rights and Responsibilities Agreements: The DRRA is similar to the Joint Planning Agreement, but operates on a different level. The DRRA is a contract between the municipality and the developer that spells out rights and responsibilities of the parties. The tool was developed as a response to complaints from the development industry that Maryland's vesting law is too severe, and that developers need some assurance that their projects will not be abandoned under pressure to ignore the local Comprehensive Plan, zoning laws, and project approvals. The Town has a standardized DRRA that can be adapted to suit particular projects.

MUNICIPAL GROWTH PLAN

The Town of Federalsburg, in cooperation with Caroline and Dorchester Counties, has designated areas on the Land Use Plan Map for growth. The designations are based on three considerations:

- Adequate acreage for the long term that allows comprehensive interjurisdictional planning for growth, as opposed to case-by-case annexation.
- Adoption of a Plan that accommodates growth, preserves greenbelts, and minimizes the impacts of growth on water quality.
- Municipal capture of County population growth to reduce sprawl.

To be successful over the long term, the Town's plan for growth should include a Joint Planning Agreement with the two Counties.

A) Components of a Joint Planning Agreement for Growth

- These areas are the locations that the Town may annex in the future.
- The County agrees to provide the appropriate zoning in a timely fashion or to grant zoning waivers if needed.



- The County agrees to incorporate these areas in its Comprehensive Plan and Water and Sewer Plan during the next update.
- The order of annexation will be determined by adjacency, landowner choices, and availability of services.
- Forest conservation practices and 100 foot stream buffers will be required for developing sites.
- Annexation plans must be consistent with the Land Use Element.
- Developers will be required to estimate project impacts on water quality, water supply, and waste water treatment capacity.
- Project design will reflect traditional town character.
- Until annexed, the County will refer proposed land use changes in these areas to the Town for review and comment.
- As part of the process of annexation, the Town does not want the County to prematurely adopt zoning for implementation of the Growth Areas. The Town should work with the County to develop two-tiered zoning that allows higher density only upon successful annexation.

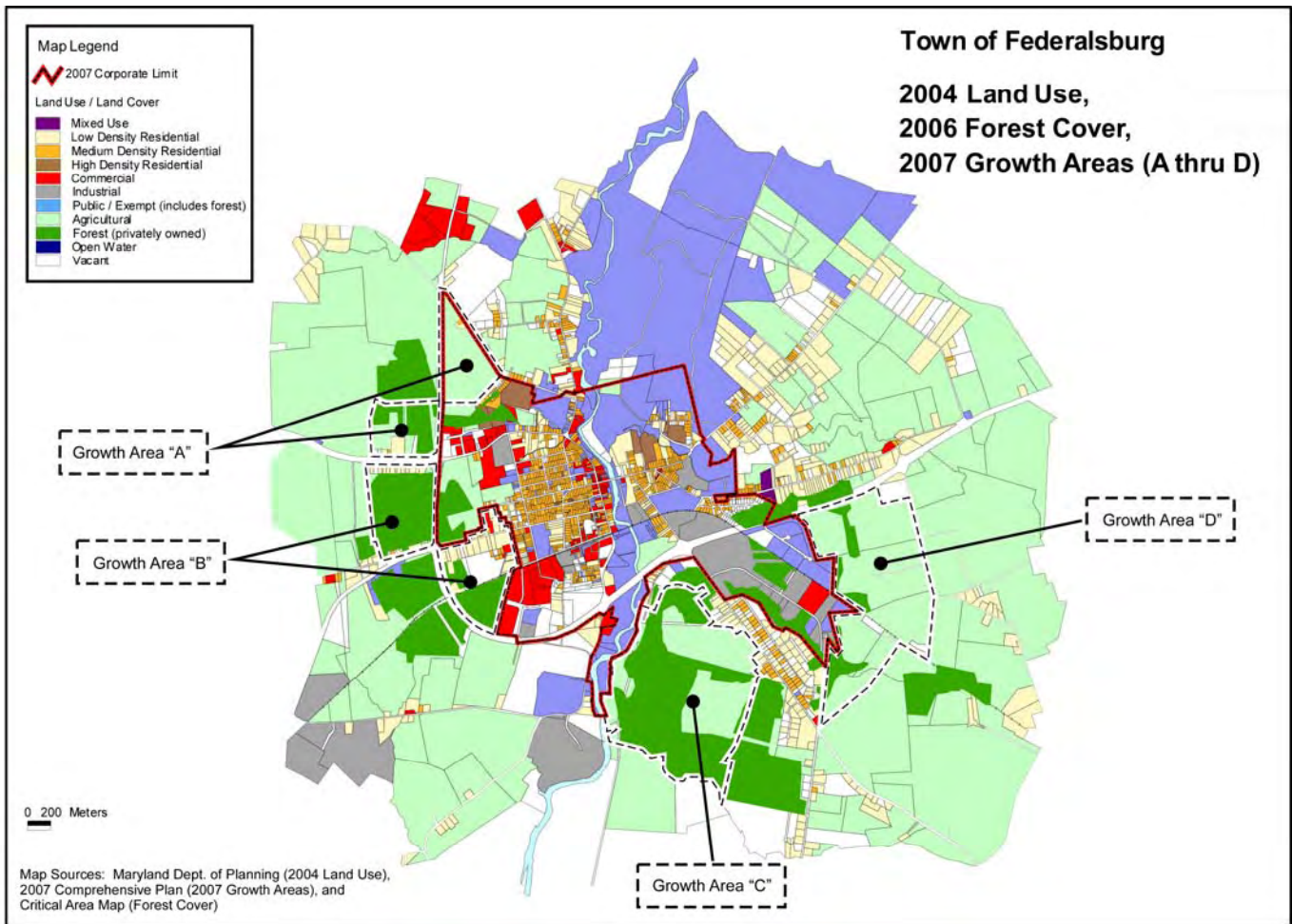
B) Components of a Joint Planning Agreement for Land Preservation

- These areas are planned for preservation by the County.
- The County and Town will explore the transfer of development rights from Greenbelts to areas within the Town and Growth Areas.
- These areas are part of the geographic setting of the Town and the Town has an interest in what happens on these sites.
- The County and Town will discourage growth and development.
- The County will refer proposed land use changes in these areas to the Town for review and comment.



MUNICIPAL GROWTH AREA MAP

The map below indicates potential areas for future territorial growth. It is the basis for estimated needs and impacts in the Town's Water Resources element. Specific planned land uses for the Town and the Growth Areas are found on the Future Land Use Plan at the end of the Land Use Element.





WATER RESOURCES ELEMENT

I. PURPOSE OF ELEMENT

Article 66B requires a Water Resources Element in the Comprehensive Plan that addresses the adequacy of water supply and the suitability of water and land areas for discharges. First, the Water Resources element must identify “drinking water and other water resources that will be adequate for the needs of existing and future development proposed in the Land Use Plan Element...” Second, the Water Resources element must identify “suitable receiving waters and land areas to meet stormwater management and wastewater treatment and disposal needs of existing and future developments proposed in the Land Use Element...” (Section 3.05(a)(4)(vi)(2) of Article 66B, Annotated Code of Maryland).

Background studies on water supply (i.e., drinking water and other resources) and water quality (i.e., suitability of receiving waters and land areas) were prepared by the Town’s consultant. The studies were reviewed by the Planning Commission and used as a reference source in preparing this element. The element incorporates the background studies by reference, highlights key study findings, and includes a series of goals, objectives, and recommendations on water supply and water quality.

II. EXISTING CONDITIONS: WATER RESOURCES

INTRODUCTION

Water Supply: In terms of water supply, Federalsburg relies on groundwater held in Coastal Plain aquifers at fairly deep levels. The supply is abundant, but there are problems in the Coastal Plain that deserve monitoring, and the surrounding area contains Maryland’s heaviest concentration of water withdrawals for spray irrigation of crops. The Town recently increased storage capacity with a new tank and the Town monitors usage with a metered delivery system.

Water Quality: In terms of water quality, Federalsburg is wholly contained within the Marshy Hope Creek watershed; the Creek receives pollution discharges from both point and non-point sources in the Town. Point sources, primarily the Town’s wastewater treatment plant, are controlled by State permits. Non-point source impacts are not controlled directly via permit, but rather are a consequence of how land is used and how stormwater runoff is managed. Federalsburg has experience with water quality issues under its Chesapeake



Bay Critical Area Program, where water quality plays a role in the Town's decision-making.

Land Use Plan: The Land Use Plan element of the Comprehensive Plan describes existing development and land uses in Town. It also shows areas for future growth and territorial expansion into both Caroline and Dorchester Counties. Existing development, the development of vacant infill parcels in Federalsburg, and development in areas that may be annexed into Town in the future, affect water supply and water quality. An annotated version of the Town's Land Use Plan is used in this element to illustrate water resource issues and opportunities. It should be noted that Federalsburg worked closely with Caroline and Dorchester Counties in identifying areas for future growth.

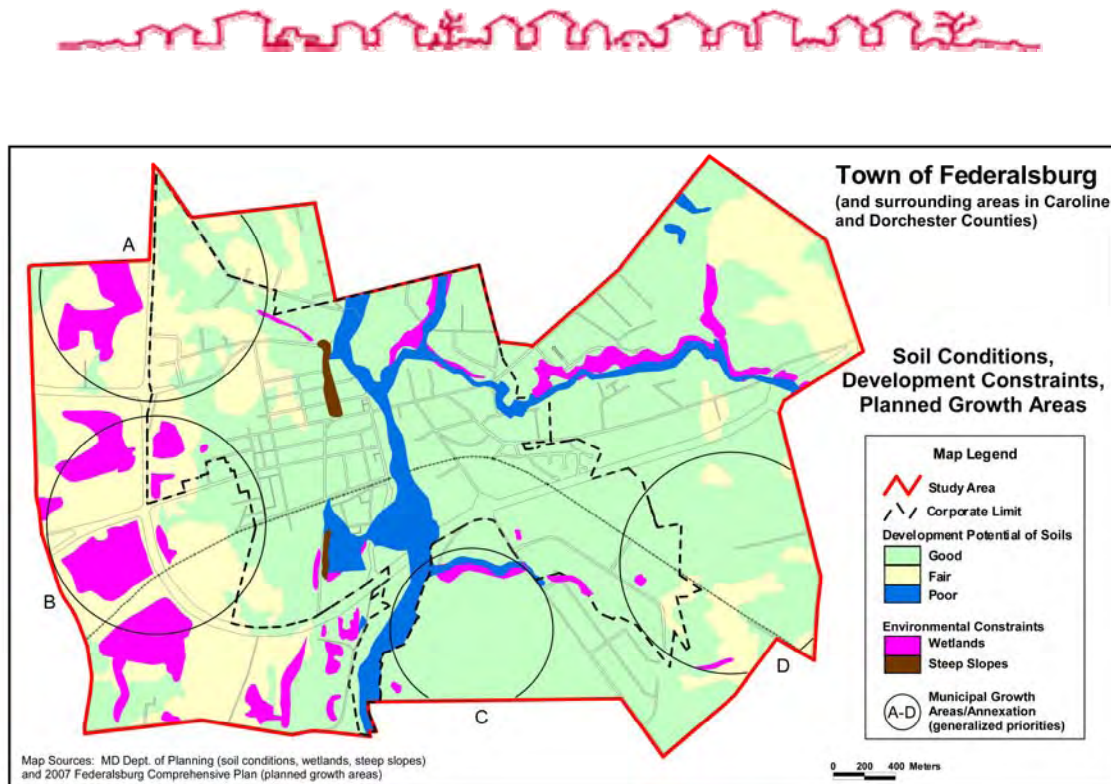
The background study estimates the demands and impacts on water resources of the Land Use Plan (and the zoning map) using a consistent set of general assumptions about future development including dwelling unit yields on large parcels, land uses, infill potential, site design, forest conservation, household size, water consumption, wastewater discharges, and land use pollutant coefficients for the Marshy Hope Creek (i.e., the receiving waters).

Environmental Constraints: Soil productivity, erodibility, runoff potential, drainage characteristics, and slope are examined in the Comprehensive Plan in the Background Chapter. The Comprehensive Plan also contains a separate element with details on "sensitive areas".

The map below is a composite of sensitive areas, soils, wetlands, and planned growth areas. (The sensitive areas also include a 100-foot buffer along the edges of Marshy Hope Creek and tributaries. It is not shown due to scale of the illustration, but it is included on and protected by the Town's official Critical Area Map.)

Soils in Town beyond the immediate edges of the Creek are good for development, as are the soils in Growth Areas C and D. Growth Areas A and B contain soils which are only fairly suitable for development (due to drainage qualities) and are interspersed with significant areas of wetland. Steep slope is not a factor in the planned growth areas. Areas A and C are near Tier II Waters (these are local streams that feed into the Marshy Hope Creek).

Land Use/Land Cover: Federalsburg and Vicinity: Most of the undeveloped land in and around Federalsburg consists of publicly owned forest (Idylwild) or privately owned agricultural land. However, many of the farm parcels also contain areas with forest cover. Under the current planning and zoning of Caroline and Dorchester Counties, these forested areas may, by right, be cleared for expansion of farm production and for tree harvesting.



Analytical Context: Existing conditions with respect to water supply and water quality provide needed context for this element and the choices the Town must make. Existing conditions point out major users of the region’s ground water supply and the relative water demand of the region’s growth centers including the Town of Federalsburg. Existing conditions point out major sources of point and non-point sources of pollution that reach the Marshy Hope Creek and the relative impacts generated in the Town. The Departments of the Environment (MDE) and Natural Resources (DNR) have studied the region’s water quality problems, leading to two major water quality initiatives for both point and non-point sources of pollution: MDE’s Total Maximum Daily Loads (TMDL) and DNR’s Tributary Strategy.

Current patterns and trends, and existing property rights defined by State, local, and federal law, provide benchmarks for comparing and evaluating the soundness of municipal growth plans in a water resources context. That is, in evaluating our Land Use Plan element for water resource issues, one of the important considerations in the policy analysis is how our plans for the future measure up to what currently exists, and to what currently is allowed by local planning and zoning, consistent with State and federal law.

WATER SUPPLY

Federalsburg uses a system of wells and water tanks to supply water for domestic, business, and industrial uses. The water tanks have an above ground



storage supply of one-half million gallons. Five active wells pump a total of 1,150 gallons per minute. This production rate can theoretically supply one-half million gallons in just a little over seven hours. A separate well is devoted to water for fire protection. In general, water supply is adequate and of good quality.

The wells draw ground water from one of ten Atlantic Coastal Plain aquifers, which reach to a depth of more than 1,400 feet. Three of these aquifers are used extensively in Town and throughout Caroline County, reaching to a depth of 600 feet. The USGS estimates that Maryland has 130,000 billion gallons of water stored in aquifers. This is an extremely large number. But a large supply is not the same thing as an always-present supply, a good quality supply, or an affordably-withdrawn supply.

Maryland experienced two recent periods of drought conditions (1999 and 2002), and experienced a dry spell in 2007. Streams on the Eastern Shore are experiencing below-normal stream flow and USGS test wells in Wicomico and Somerset Counties are below normal.

The critical issues identified in the Background Study are:

- The use of water for irrigation is significant from several planning perspectives and requires State and regional planning efforts to protect groundwater supply and quality for human settlements:
 - Water used for crop irrigation represents the single largest demand for water withdrawal in the Eastern Shore Region, comprising 37 percent of all water used on the Shore.
 - Water used for crop irrigation on the Shore represents 95 percent of all water used in Maryland for irrigation. The largest concentration of withdrawals for irrigation in Maryland occurs in Caroline (39 percent) and Dorchester Counties (22 percent). That is, over 60 percent of all the water used in Maryland for crop irrigation occurs in the area surrounding Federalsburg.
 - Water for irrigation does not correlate with population growth, but does correlate with rainfall, crop choices, and soil types.
 - Drip irrigation uses far less water than spray irrigation.
- Federalsburg depends on groundwater from the Coastal Plain aquifers. Supply is good in general, but specific issues have been reported:
 - Falling water levels in parts of the Eastern Region and recurring periods of low rainfall.
 - Potential for agricultural nutrient and chemical pollution, especially of surficial aquifers (not used by the Town)



- High levels of naturally occurring arsenic; mostly associated with the Aquia aquifer. Arsenic found in the vicinity of the Town of Secretary, Maryland, some 11 miles southwest of Federalsburg.
- Potential competition for withdrawals where agricultural and domestic users are in close proximity.

WATER QUALITY

In terms of water quality, the Town is responsible for point and non-point sources of pollution generated within Town that have potential to enter Marshy Hope Creek. The Creek is classified by the State as a “Use 1” water body, designated as suitable for “water contact recreation, fishing, and protection of aquatic life and wildlife.” This is the highest (or best) use classification, pointing to the importance of the Marshy Hope Creek and the need for protection. The forested corridor along the Creek is one of the region’s important habitat areas. The Creek, including the area within Federalsburg, contains anadromous fish spawning areas.

In addition, Faulkner Branch (near Growth Area A) and Davis Mill Pond Branch (near Growth Area C) are classified as Tier II Waters (very high water quality), thus the Town should adhere to MDE’s non-degradation policy.

TMDL: MDE’s TMDL Report for Marshy Hope Creek notes that the Creek was first identified in 1996 as showing signs of eutrophication due to high nutrient loads. The excess nutrients cause high levels of growth in aquatic plants, which, after death and decomposition, lead to bacterial consumption of the dissolved oxygen in the water. The TMDL analysis determined that it is “possible to eliminate the impairment by limiting the amount of phosphorous...without regard to loadings of other nutrients.” Thus, the TMDL focuses on phosphorous loads from both point and non-point sources.

MDE reports that point sources in the Marshy Hope Creek watershed contribute about 24 percent of the total phosphorous (TP) and 7 percent of the total nitrogen (TN). Non-point sources of TP are agriculture (72 percent), urban or developed land (3 percent), and forest (0.5 percent). Non-point sources of TN are agriculture (77 percent), urban (8 percent), and forest (7 percent). Most of the Marshy Hope’s impairment from non-point and point sources of phosphorous is due to agriculture, although the 24 percent of TP from the three wastewater treatment plants in the watershed are a significant factor as well. In terms of phosphorous, the non-point loading of TP from urban land uses is relatively small.

The TMDL for the Marshy Hope Creek is established at 767 pounds of phosphorous per month. This number consists of 249 pounds per month of non-



point source loads, 415 pounds per month of point source loads, 90 pounds per month for future allocations, and 13 pounds per month as a margin of safety.

Tributary Strategy: The DNR's Tributary Strategy addresses three major point and non-point types of pollution in the Chesapeake Bay watershed: nitrogen, phosphorous, and sediment. The Marshy Hope Creek is part of the Lower Eastern Shore Basin, and comprises nearly 10 percent of the Basin's land area.

The Lower Eastern Shore Basin Summary Report for 1985-2005 Data (January 2005, Maryland Department of Natural Resources) indicates that it contains 1.44 million acres (2256 square miles) and drains portions of Caroline, Dorchester, Somerset, and Worcester, and all of Wicomico Counties. Some of the watershed is located in the State of Delaware. The 2000 census reported a population of 139,000 people in Maryland's portion of the Basin. There are several major population centers including Salisbury, Pocomoke City, and Fruitland in Maryland, and Seaford and Laurel in Delaware.

The Basin is 32 percent agricultural, 61 percent forested, and 6 percent developed ("urban"). The urban land uses are 67 percent low intensity, 6 percent high intensity, and about 28 percent commercial. Housing is predominantly located in rural areas (72 percent). Housing in urban areas constitutes about 25 percent of the supply, but about 40 percent of the housing in the Basin uses municipal (public) water supply and sewage treatment.

The DNR Summary Report states that "point source pollution is not a major issue in this basin, despite the presence of 10 major wastewater treatment facilities..." of which (at the time of the Report) only two were employing biological nutrient removal (BNR). However, the upgrading of treatment plants in the Basin is an ongoing effort, and includes the planned use of enhanced nutrient removal (ENR) technologies. Nine municipal plants in the Lower Eastern Shore Basin are included on DNR's Implementation Schedule for upgrades to ENR; most are projected for completion by 2010. Both major treatment plants within the Marshy Hope Creek watershed (Federalsburg and Hurlock) are included on the ENR Schedule.

Unifying TMDL's and the Tributary Strategy

The planned upgrades of treatment plants within the Lower Eastern Shore Basin, and within its sub-area, the Marshy Hope Creek watershed, suggest that continued population growth on public sewerage systems will not have adverse impacts from a point source perspective. The combined efforts of DNR's Strategy (i.e., the ENR implementation schedule), MDE's published TMDL (for phosphorous), and MDE's control of plant discharge permits (NPDES), are intended to provide the tools needed to assure that water quality is protected from point sources, while the region's population centers grow. Also, the Town can push levels of point source pollution even lower (and thus provide offsets)



with spray irrigation of treated sewerage effluent. Finally, it is important to recognize that the alternative scenario, where growth is accommodated on septic systems, is far more environmentally damaging in terms of land consumption, resource fragmentation, and levels of fecal coliform and other non-point pollutants.

In terms of non-point sources in the Basin, the Tributary Strategy Report notes significant success in reducing the non-point sources of pollution from agricultural lands and indicates that more must be done with respect to other non-point sources, such as stormwater runoff from urban areas. The Strategy's focus on urban non-point sources as the main problem, in combination with MDE's TMDL, which focuses on phosphorous as the key to improving water quality, suggests that priority be given to minimizing non-point phosphorous loads. Estimating and comparing non-point phosphorous loads for existing conditions with uses allowed by right, and uses envisioned by the Land Use Plan, will provide a sound and rationale policy basis for judging consistency of our plans for growth with State agency goals and programs for water quality. This observation is not intended to overlook non-point nitrogen or sediment loads, but rather to prioritize actions to give utmost attention to phosphorous in stormwater runoff.

Phosphorous Pollution

As a result of on-going pollution control efforts in the Lower Eastern Shore Basin, between 1985 and 2002, total phosphorous loadings were down 50 percent (from 1.1 to .55 million pounds) In 1985, urban land contributed 0.06 million pounds of phosphorous in the Lower Shore Basin. By 2002, urban land, in spite of 17 years of growth, contributed only 0.05 million pounds of phosphorous, for a 17 percent reduction. Phosphorous contributions from agricultural land declined 58 percent between 1985 and 2002 (from .76 to .32 million pounds). These successes are the result of farm and urban best management practices. As of 2002, the sources of phosphorous in the Basin were 58 percent from agriculture, 10 percent from point sources (treatment plants), 19 percent from mixed open, 9 percent from urban, and 2 percent from forest.

Land Use Pollutant Coefficients for Marshy Hope Creek: Most of the non-point source water quality problems in the Basin and the Marshy Hope Creek watershed stem from agricultural activity, but the adverse impacts of population growth and new development are also significant. The table below presents pollution coefficients by type of land use and was obtained from the Chesapeake Bay Program Data Hub. The data are specifically associated with the Marshy Hope Creek watershed (Bay Program watershed segment number 410) and represent two different sets of loading rates: one is the "Annual Assessment" data (2007), which represents current loading rates; the second is based on full implementation of the Tributary Strategy. The data in the table are for pollutants at the "edge of stream." The data are an indicator of the non-point source



impacts of replacing one land use with another. The following general observations apply to both sets of loading rates.

It is apparent, for example, that forest land is good for water quality because it contributes far smaller loads of nitrogen (N), phosphorous (P), and sediment (S) than agriculture or urban uses. Development on forestland increases all pollutants significantly.

Converting farmland to urban land uses (“developed land”) reduces N, P, and S. However, new development is not impact neutral, and the use of smart growth principles should guide land use decisions, rather than pollutant loads, alone. The clearing of forest land for agriculture creates high levels of pollution for all types of pollutants, and in terms of adverse impacts on water quality, is the most significant form of land use change. The loading rates under the Tributary Strategy reflect the pollution reductions that are possible under the Strategy.

Non-Point Source Pollution Coefficients by Land Use
(Loading rates listed are calculated using data from Source)

Source of Land Use Coefficients	Annual Assessment (2007) “Edge of Stream	Trib Strategy (2006) Final “Edge of Stream”
Land Use	pounds/acre/year	pounds/acre/year
Agriculture		
TN	20.88	12.30
TP	1.40	1.14
S	0.20	0.15
Forest		
TN	1.68	1.60
TP	0.23	0.02
S	0.21	0.02
Urban		
TN	8.90*	6.42*
TP	1.13	0.89
S	0.62	0.07

*Note: TN from septic systems has been factored out of the urban rates

Best Management Practices: DNR and MDE recommend a series of best management practices (BMPs) that help minimize non-point source loadings of nitrogen, phosphorous, and sediment. Best practices exist for agriculture, forestry, and development. For development, impacts can be minimized with stream buffers, retention and detention stormwater ponds, minimized impervious surfaces, low impact development techniques, environmentally sensitive design, protected forest areas, cluster development, and so on. The effectiveness of



BMPs for pollutant removal depends on a variety of conditions in the area including soil type, slope, ground cover, and land use, and also depends on the BMP type, quality of implementation, and maintenance.

Summary of Water Quality Issues: Based on the TMDL Report, the Tributary Strategy Report, and pollution coefficients for the Marshy Hope Creek (both Annual Assessment and Tributary Strategy coefficients), the following principles are used in planning for growth:

- Point sources are not a major problem in the Basin, and on-going upgrades to sewage treatment plants will provide reductions in nitrogen and phosphorous that should help offset the non-point source impacts of new growth and development.
- The TMDL points out the need to limit phosphorous loads in order to reduce or eliminate the source of impairment in the Marshy Hope Creek portion of the Basin.
- The non-point source pollution coefficients for land use in the Marshy Hope watershed show that:
 - Phosphorous, nitrogen, and sediment will decline where agricultural land is used for new growth, and these pollutants will increase where forest land is used for growth.
 - Phosphorous, nitrogen, and sediment will increase significantly where forest land is cleared for agriculture.
 - Reforestation of agricultural land is the most beneficial form of land use change (from a water quality perspective). Accommodation of population growth in a smart growth pattern will minimize the preemption of, and interference with, continued land acquisition and reforestation projects by reducing sprawl growth (large residential lots on septic systems).
- The majority of the non-point pollution in the watershed comes from agricultural land.
- Best management practices should be employed on all developing sites to minimize adverse impacts on water quality; reduction of phosphorous loadings should be a priority consideration.
- Implementation of the TMDL cap among Federalsburg, Hurlock, and the County will require a cooperative, rational, and flexible method for distributing the cap among the jurisdictions that make up the watershed.

The following section estimates the demand on water resources and the impacts on water quality for development and growth envisioned in the Land Use Plan element.



III. DEMAND AND IMPACT ON WATER RESOURCES

WATER SUPPLY NEEDED FOR THE LAND USE PLAN

The background study shows that the Town's recently upgraded system of wells and tanks can provide adequate water supply for existing and future growth. In addition, Capacity Management Plans can be developed to track overall use, to reserve capacity for infill development and emergencies, to assess the impacts of new development, to prioritize service to sites planned for annexation, and to periodically adjust reserved capacity.

The illustrated map at the end of this element shows the locations of local businesses and institutions that use regulated substances or have discharges that can adversely affect groundwater. Thus, this element includes a recommendation for a Town wellhead protection plan. Following is an estimate of water needed by both existing and future development under our Land Use Plan.

Estimated water needs are based on two sources: 1) actual measured use for residential development, and 2) estimated use for commercial and industrial land, based on Caroline County's pattern of usage.

Existing Development

- **Residential Needs**

Quantifying water needs for existing residential development is straight-forward: the Town has meters for billing and usage analyses. The Town's 1,157 dwelling units consume 144,625 gallons per day (average 125 gallons per unit).

- **Non-residential Needs**

Industrial, commercial, and institutional needs are about 110,000 gallons per day. This is based on a commercial/industrial use coefficient of 344 gallons per day per acre; this coefficient is based on Caroline County's 2000 withdrawal of .49 MGD which supplies 1,426 acres of commercial and industrial land. Applied to the Town's 320 acres of commercial and industrial land, water supply is estimated at .11 MGD.

These estimates, while reflecting local practices, may not be reliable indicators of future needs. The Town should be cautious about new industrial uses, in particular. For example, trucking companies can be relatively low



consumers of water as drivers are on the road. However, a new ice plant or mining operation could very well demand large volumes of water.

Estimating Non-residential Needs

Jurisdiction:	Caroline Co.	Federalsburg
Commercial and Industrial (C&I)	1,426 acres	320 acres
Withdrawal (C&I):	.49 MGD	.11 MGD (estimate)
(C&I Use Coefficient: 344 gallons per day per acre)		

- **All Existing Water Needs: .255 MGD**

Total current needs are estimated at 254,625 gallons per day (.255 MGD). The following section estimates water needed by future growth.

Future Development

- **Future Residential Needs**

The highest population growth projection (3,360 by 2025) (see pages 22-23 of the Comprehensive Plan) can be used to estimate the number of additional housing units (327 units), to arrive at a need for at least an additional 40,875 gallons per day in 2025. However, the Comprehensive Plan (including the Land Use Plan element) envisions the potential for larger growth numbers as the consequence of a few larger-scale projects, particularly those associated with annexation. The following examines the total water resource needs implied by the Land Use Plan. This will give the Town a “worst case” scenario in terms of water demand over the next 20 years (the Plan’s time horizon).

- **Residential within the current Town boundary:**

The Comprehensive Plan’s preliminary development capacity analysis indicates a theoretical build-out of 400 additional dwelling units. The maximum needed for new residential development in Town, including small lot in-fill, is an additional 50,000 gallons of water per day.

- **Residential outside the current Town boundary:**

The Comprehensive Plan identifies key parcels that may be suitable for annexation and development in the future. Following is a summary of the water needed to support the residential growth, assuming maximum build out. Some estimates are based on subdivision plans. Others were calculated by defining the development envelop, deducting 18 percent for roads, utilities, and common open areas, and developing the remaining acreage at 3.5 dwelling units (DU) per acre. The referenced Growth Areas are defined on the map below.



Properties, estimated dwelling units, estimated water needed:

- Growth Area A
 - LaCrosse site 160 du's
 - Remainder 116 du's
 - Growth Area B
 - West of Town 308 du's
 - Growth Area C
 - Williams/Henry 100 du's
- Total 684 du's

684 du's @ 125gpd/du = 85,500 gpd

- **All Future Residential:** .05 MGD (in Town)
 .09 MGD (outside Town)
 Total **.14 MGD**

• **Future Non-residential Needs**

- **Within the current Town boundary:**
 Water needed by future non-residential development is included above in the calculation of existing non-residential development.

- **Outside the current Town boundary:**
 There are 272 acres of planned non-residential growth located outside of the current Town boundary (most of it is industrial). It is estimated that these uses will require 93,568 gallons per day (.09 MGD).

- **All Future Needs:** .14 MGD (future residential)
 .09 MGD (future non-residential)
 Total **.23 MGD**

Total Water Needed for Land Use Plan Element

The following summary of water resources needed under the Land Use Plan, and water available in the Town, shows that the Town has a more than adequate supply of water, extending beyond the time horizon of the Comprehensive Plan.

- Existing Needs: .255 MGD
- Future Needs: .230 MGD
- All Needs (Land Use Plan): **.485 MGD**

The Town has an above ground water supply of 500,000 gallons. Water needed under the Land Use Plan element is estimated at 485,000 gallons per day. The



stored surplus is 15,000 gallons. Since the water tanks refill while draw downs occur, the dynamic (or operating) capacity of the system provides additional surplus.

The MDE water appropriation permit establishes limits and conditions on the Town's water withdrawals. Thus, the appropriation permit may have to be amended or updated to allow withdrawals that exceed current limits. The Town's practice is to consult with the Town's Engineer and MDE to ensure adequacy of water for development and growth, and to address permit matters.

WATER QUALITY: STORMWATER AND WASTEWATER MANAGEMENT

Article 66B requires that we identify "suitable receiving waters and land areas to meet stormwater management and wastewater treatment and disposal needs of existing and future developments proposed in the Land Use Plan element."

Jurisdictions with large territories may have to make choices about which receiving waters (and watersheds) are used for discharges and growth.

However, Federalsburg is situated in the geographic middle of the watershed, and is over four miles away from the nearest alternative watershed, and much further away from an alternative receiving stream. Thus, as with many small Towns, Federalsburg must "play it as it lies," focusing its efforts on responsible use of the only receiving waters available to it. The Town also has the obligation to look at land disposal options (such as spray irrigation of treated wastewater effluent) in order to lessen the burden on Marshy Hope Creek.

Stormwater Runoff and Management

The land use pollution coefficients for Marshy Hope Creek are used in the background study to model the effects of infill development and municipal growth. The models include three basic scenarios: pollutant loads based on existing land use and land cover, pollutant loads based on the use of land as envisioned in County Comprehensive Plans and as permitted by right under the zoning map, and pollutant loads based on development and municipal growth under the Town's Land Use Plan.

Non-Point Source Estimates (Land Use Changes): This element examines the non-point sources of pollution delivered in stormwater runoff within the current Town boundaries and within the four Growth Areas adopted in the 2007 Comprehensive Plan (A thru D). A separate sub-analysis of two infill locations within the current Town limits (West Side, adjacent to Area B, and Rifkin Village, adjacent to Area D) are also included. This element also assesses the impacts of connecting the wastewater treatment plant to nearby properties in the Counties with failing septic systems.



Spreadsheets and Scenarios: There are four Exhibits at the end of this element.

- Exhibit A: Base Scenario for Growth at Current Rates (based on the current loading rates, or the Annual Assessment data)
- Exhibit A1: Base Scenario for Growth at Strategy Rates (based on Tributary Strategy loading rates)
- Exhibit B: Cluster Scenario for Growth at Current rates (based on the current loading rates, or the Annual Assessment data)
- Exhibit B1: Cluster Scenario for Growth at Strategy Rates (based on Tributary Strategy loading rates)

The Exhibits contain the acres of agriculture, forest, and urban land within the current Town boundaries, within each Growth Area and within key infill sites based on different land use scenarios. Three different scenarios are examined in each of the four Exhibits:

- Existing Conditions (self explanatory)
- Use-by-Right (future land use consistent with current town and county planning and zoning, and State laws).
- Growth Plan (Town infill and development of Growth Areas under the Town's 2007 Comprehensive Plan)

The Exhibits also contain the pollution coefficients in the Marshy Hope Creek watershed for each type of land use; calculate Nitrogen, Phosphorous, and Sediment for each end-state scenario; and calculate the change going from "existing conditions" to both the "by-right" and "municipal growth" scenarios.

In the by-right scenario, the effects of expanded agriculture or forest harvesting are shown. Although forested wetlands may be cleared for farming and forestry activities under a best management plan and without a permit, that worse-case by-right scenario is not used simply to avoid purposely skewing the data towards favoring development. Thus, wetlands are assumed to be protected from alteration. If wetlands are cleared under the by-right scenario, then the pollutant reductions of the growth scenario would be even greater (i.e., more beneficial) than shown on the Exhibits.

Summary of Non-Point Source Modeling:

The Table below summarizes the data from the four Exhibits, indicating how pollutant loadings associated with existing conditions will change in the future. It should be noted that regardless of the future Growth Scenarios (Base or Cluster) and the loading rates used (Annual Assessment or Tributary Strategy), the



Growth Scenario will result in far less total nitrogen (TN), phosphorous (TP), and sediment (SED) than would occur if the Town abandoned its growth plans and the land was used, instead, under current County comprehensive planning and zoning and State laws. In comparison to the existing conditions, the Town's Growth Plan will significantly reduce TN and SED. However, TP would increase from one to five percent, depending on the scenario. The most favorable result for TP would be if the Town fully implemented the Tributary Strategy and clustered new development in Growth Area B, to reduce the amount of forest cover that would otherwise be lost.

Comparing Future Possibilities to Existing Conditions

Scenario	Pollutant Type	Land Use By-Right	Growth Plan
Base development using Annual Assessment Loads (Exhibit A)	TN	29% more	21% less
	TP	33% more	5% more
	SED	27% more	28% less
Base development using Tributary Strategy Loads (Exhibit A1)	TN	25% more	14% less
	TP	33% more	4% more
	SED	25% more	18% less
Cluster Development using Annual Assessment Loads (Exhibit B)	TN	29% more	23% less
	TP	33% more	3% more
	SED	27% more	29% less
Cluster Development using Tributary Strategy Loads (Exhibit B1)	TN	25% more	15% less
	TP	33% more	1% more
	SED	25% more	19% less

TMDL

As noted above, the TMDL for the Marshy Hope Creek watershed establishes a maximum non-point source load of 249 pounds of TP per month. The Table below summarizes the TP that would be generated by each scenario.



Pounds of Total Phosphorous (in pounds per month)
TMDL for Non-Point Sources = 249 pounds per month

Scenario	Existing Conditions	By-Right Land Use	Growth Plan
Base development using Annual Assessment Loads (Exhibit A)	146	195	154
Base development using Tributary Strategy Loads (Exhibit A1)	118	157	122
Cluster Development using Annual Assessment Loads (Exhibit B)	146	195	150
Cluster Development using Tributary Strategy Loads (Exhibit B1)	118	157	119

The Table above shows that under the best scenario (cluster development with implementation of the Tributary Strategy) the Town would consume about 48% of the total maximum daily load allocated for non-point sources. This data shows the political difficulty of implementing TMDLs.

One can make an argument that the Town is the major growth center, Hurlock is the second-major growth center, and the County has no major growth centers in the watershed, thus it is not unreasonable for Federalsburg to lay claim to 119 out of 249 pounds of non-point source phosphorous. Hurlock is also in a position to lay claim to a sizeable portion of the TMDL. But Caroline County would have to implement its anti-sprawl planning policies in an ideal manner. For example, the County would have to adopt new zoning and subdivision rules that outright prohibited further development in rural areas.

Devising a rational and equitable allocation of the TMDL among three competing jurisdictions is currently beyond the power and authority of the Town of Federalsburg. In the State's official guidance booklet *The Water Resources Element (June 2007)* the State notes that implementation of TMDLs is a "puzzle" and that the modeling effort "represents a bridge to achieving...goals." Thus, in this first iteration of the Water Resources Element, the Town takes the first step in assessing impacts and needs, and in identifying issues that need to be addressed (see Implementing TMDLs below).



Wastewater Management

Wastewater Treatment Needs: The Federalsburg WTPP is designed for .75 million gallons per day (MGD), average daily flows are .25 MGD, and wet weather conditions can increase the daily flow up to .375 MGD. This wet weather flow is expected to drop significantly when the Town completes its stormwater separation project. Also, the Town is planning to implement a program of enhanced nutrient removal at the wastewater treatment plant with assistance from the Bay Restoration Fund.

The WTPP serves 1157 residential dwellings, and a host of businesses and industries. There are about 320 acres of industrial parks and downtown businesses located on 149 parcels. There are eight major employers in Town with a total of 1380 employees. This Study estimates that commercial and industrial uses require 50 equivalent dwelling units (EDUs) of capacity. Total EDUs is 1207.

For planning purposes, a figure of 250 GPD per EDU is used to estimate increased demand due to infill development and planned growth. The 250 GPD/EDU is made up of the 125 GPD/EDU of water used by development, and another 125GPD/EDU to account for flows into the WTPP from infiltration, inflow, stormwater, occasional higher-than-normal usage, and maintenance or emergency situations.

The inflows and outflows of water through the WTPP are normally balanced in the County's Water and Sewerage Plan, which is a functional engineering plan, overseen and approved by MDE. The primary purpose of the Town's Water Resources Element is to examine impacts. For water supply, it uses actual data and local practice to produce estimates of water needed from the aquifers. For wastewater needs, it uses a worst-case assumption that includes (as wastewater) the water withdrawn from the aquifers, in addition to flows from stormwater, infill, and infiltration.

Infill Development: The land capacity analysis of the 2007 Comprehensive Plan estimates a supply of 400 dwelling units within Town limits. The estimate is revised downwards to 370 dwelling units. This is based on the existence of ponds, wetlands, and steep slopes on one large R-2 parcel in the southern part of Town. Infill of 370 units will require an estimated 92,500 GPD of treatment capacity.

- **Municipal Growth Area A:** Area A Contains a 96.2 acre development envelop. Deducting 18 percent for roads, utilities, and common open areas, leaves 78.9 acres for development. At 3.5 dwelling units (DU) per



acre, Area A will yield an estimated 276 DUs and will require 69,000 GPD of treatment capacity.

Area B: Contains a 107 acre development envelope for new housing and a 30 acre industrial parcel. For the housing area, deducting 18 percent leaves 88 acres for development, and yields 308 DUs. The industrial parcel (based on the Town's average industrial lot size of 8 acres) will yield 4 parcels and requires 1.4 EDUs (based on 34 percent of full time residential usage). There are also 21 existing developed parcels, for a total of 331 EDUs in Area B. This will require 82,750 GPD of treatment capacity.

Area C: Contains a 241 acre development envelope for housing. Most of the land is within the Chesapeake Bay Critical Area and is classified as Resource Conservation Area (RCA), which permits development at one unit per 20 acres, unless growth allocation can be obtained from the County and approved by the Critical Area Commission. Using a 300 foot setback from tidal waters and information from preliminary site plans (not official), this area is estimated to yield 100 DUs. This Area will require 25,000 GPD of treatment capacity. (If Critical Area growth allocation is not used, the area will yield only 12 units.)

Area D: This area is for industrial and commercial development (the 2007 Comprehensive Plan recommends against residential use). The Area contains a 295 acre development envelope, less 18 percent leaves 242 acres. The average industrial parcel in Town is 8 acres; this yields 30 new industries. At 34 percent of full time residential usage, service will be needed for an estimated 10 EDUs. This will require 2500 GPD of treatment capacity.

Total Wastewater Treatment Needs for the Land Use Element

Total Planned Municipal Growth will produce an estimated 717 new EDU's. This, plus the 370 DU's from infill development will yield 1087 EDU's, requiring 271,750 GPD in treatment capacity. Added to the existing average daily flow of 250,000, the total demand on the wastewater treatment system will be 521,750 GPD.

Periodic higher daily flows of .375MGD could push the system to its limits if the Growth Areas are fully implemented. But total needs would not occur for many years, allowing the Town to continue to reduce periodic high daily flows by completing on-going projects for stormwater separation and reduction of inflow and infiltration.

Finally, the Town has considered the extension of sewer to an area with failing septic systems, located southeast of Town. Sixty-nine units exist and these units would require 17,250 GPD of treatment capacity should the sewer be extended. Under this scenario, the total needs would increase slightly to 539,000 GPD.



Point Source Pollution Estimates (WWTP): The planned upgrade of the Federalsburg WWTP will implement enhanced nutrient removal (ENR); this will be triggered when flows reach .5 MGD. The Town's current nitrogen load cap is 18,117 pounds per year, and the phosphorous cap is 913 pounds per year. Under the ENR program, the nitrogen loads will be capped at 9,137 pounds per year, and the phosphorous at 685 pounds per year. The NPDES permit process at MDE will establish the new discharge limitations.

Without nutrient removal, the existing flows would produce 13,689 pounds of nitrogen per year, and 3422 pounds of phosphorous per year. Infill and municipal growth would produce an additional 25,023 pounds of nitrogen per year and 6255 pounds of phosphorous per year. Total uncontrolled point sources of nitrogen (existing and future additions) are reduced by 76 percent, and phosphorous by 93 percent, with the ENR caps.

Land Treatment Options: As noted in the 2007 Comprehensive Plan, the Town foresees the need, over the longer term, to identify and protect suitable sites for the spray irrigation of wastewater. According to MDE, depending on crop type, the pollutant uptake from spray irrigation is as effective as enhanced nutrient removal installed in an advanced WWTP. There is an abundance of undeveloped acres in the vicinity of Town with soil conditions that are suitable for spray irrigation. One hundred acres with excessively drained soils can treat about 640,000 GPD of spray. At the lower end of acceptable soil type (only moderately well drained), 100 acres can treat 320,000 GPD.

A land bank of 200 to 300 acres would provide adequate land to permit Federalsburg to use spray irrigation as a meaningful complement to its wastewater treatment plant. Sites south of Town are under consideration and can be protected by Rural Legacy and farm preservation.

IV. CONCLUSIONS:

Water Supply

- The supply of groundwater and means of delivery is adequate in Federalsburg to meet the needs of existing and future development proposed in our Land Use Plan element.
- Wells require periodic monitoring in order to identify trends in water levels.
- There are no known limits to groundwater availability in the aquifers used by the Town.
- There is no known groundwater contamination, but there is reason to be cautious. Naturally occurring arsenic has been found in the Aquia and Piney Point aquifers of the Coastal Plain.



- The protection of the Town's wellheads is needed to assure good quality. A foundation for a wellhead protection plan is included in this element.
- Commercial, industrial, and institutional land uses store and/or release regulated materials that have potential to pollute groundwater and waterways; these land uses should be part of the wellhead protection plan.
- The Town should reserve 92,500 GPD of treatment capacity for infill development and 17,250 GPD for the homes with failing systems located southeast of Town.

Water Quality

- The waters of the Marshy Hope Creek are suitable receiving waters for both point and non-point sources from the Town of Federalsburg under the Town's Comprehensive Plan (including the Land Use and Municipal Growth elements) with the use of urban stormwater best management practices (BMPs).
- The Town's future implementation of ENR at the wastewater treatment plant will provide offsets that help minimize the non-point source impacts of municipal growth beyond levels attained with BMPs.
- Planning should continue for spray irrigation (land application) of wastewater for the longer term. This action would provide additional offsets for municipal growth.
- For development near sensitive areas and in the Critical Area, the Town should encourage state-of-the-art BMPs, rather than rely on minimum State requirements.
- MDE commented that our element should reflect a unified approach towards TMDLs, wherein the Town would work with the County and the Town of Hurlock to identify ways to meet the loading limits in the Marshy Hope Creek watershed. Several issues require additional work and coordination to determine practical ways to address this MDE comment. These are examined in the following section.

V. IMPLEMENTING TMDLs

Background

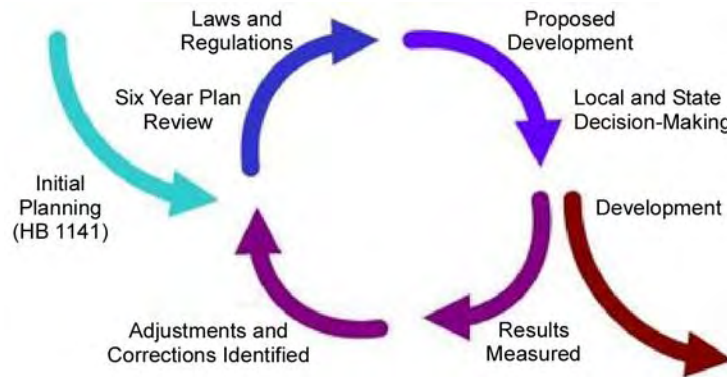
A TMDL is a watershed-based planning and regulatory "cap" on watershed pollution. It is a federal initiative, administered by MDE. House Bill 1141 of the 2006 Session was originally drafted to require that TMDLs, in particular, be addressed in the local Water Resources Element; the original Bill also gave MDE approval authority over the local element.

The final version of the Bill replaced "TMDL" and MDE's approval authority with a more general and singular directive: the new element simply "identifies suitable



receiving waters and land areas to meet stormwater management and wastewater treatment and disposal needs of existing and future developments proposed in the Land Use Element of the Plan, considering available data provided by the MDE.”

MDE has urged the Town to move forward with implementing a multi-jurisdictional approach to TMDLs. It is reasonable to conclude that the Town should be a cooperative partner with Hurlock, Caroline County, and the State in implementing the TMDL. However, implementation should be developed in an iterative fashion, and should be subject to periodic revision, based on relevant circumstances. A simple diagram of an iterative model appears below. The WREs adopted by October 1, 2009 will represent the “initial planning” stage indicated below.



Long range planning is iterative by nature, and the complexities of TMDL implementation beg a carefully considered solution, developed over time. House Bill 1141 wisely made the WRE a part of the planning process, thus requiring a re-examination of the element once every six years. After the first iterations of local WREs (and Municipal Growth elements) are adopted in late 2009, the cumulative affects of individual elements and overall Plans will be better understood, and should be helpful for improving the WREs. Over time, development patterns and population distributions that result from the various local Plans may have to be re-examined to re-distribute watershed pollution loads, or perhaps MDE will change the TMDL among the partner jurisdictions. Accounting for market shifts, emerging regional forces, improved technologies, new growth policies, and other factors will be possible under the long range planning process. Several conclusions are made below to guide future iterations of our WRE.



Conclusions

TMDL implementation may likely take the form of controls over population and economic growth (i.e., “growth caps”) if the means to greatly minimize or eliminate excessive loadings through engineering, technology, and site design are not feasible. Several issues are worthy of discussion and review:

- Local use of the police power to enact a cap on growth is scrutinized by reviewing Courts for a variety of constitutional issues.
- Maryland legislative efforts to enact population growth controls through local planning and zoning have not been successful, primarily due to constitutional and practical issues.
- Under Adequate Public Facilities ordinances (which act as caps on growth), the government has a duty to remedy facility shortcomings, and may not permanently block development. The caps under TMDL are envisioned as more permanent restrictions on growth.
- The Maryland Courts have cautioned against local zoning decisions that constitute an unwarranted intrusion into the private market and have the undesirable effect of eliminating competitiveness. (The primary example is the prohibition of zoning decisions based solely on the lack of a demonstrated economic need.) It would seem that excessive market interference would be suspect. Thus, the ability to use the municipal police powers, as authorized under Article 66B, in a manner that places caps on economic growth is worthy of discussion. TMDL implementation may ultimately rest, instead, with the regulatory and permit powers of MDE.
- Under TMDLs, land use planning is significantly altered from a process that allows, if not encourages, big plans (e.g., a high-growth vision of the future), to one that is potentially burdened by the over-arching loading cap.
- The County appears to be best-suited to coordinate the local watershed effort to meet the TMDL for Marshy Hope Creek given that the County has jurisdiction over nearly the entire Maryland portion of the watershed, and has the staffing and expertise to work on TMDLs in-house.
- Specific and rigid allocations of the TMDL, divided among the County and municipalities within the watershed, may be impractical because of artificial and unnecessary impediments on economic growth and due to the difficulty of devising a rational formula. Such an approach would also require a level of accuracy in speculating about the future that exceeds current predictive skills.
- On the other hand, an initial distribution of loading caps could be used as a starting point. Over time, these cap allocations (or at least an eligible percentage of the cap allocations) would shift to favor (i.e., to support and permit) jurisdictions that will actually accrue new loadings generated by new growth and development. Competitiveness would be rewarded, markets encouraged, and some modicum of flexibility exhibited.
- In general, useful implementation tools may include pollution off-sets, impact trading, impact fees, excess loading taxes, and alternative technologies.



- Of primary importance in meeting the TMDL is the accommodation of future growth in a smart growth pattern (i.e., on small lots, served by public facilities, located as infill and as new growth on the leading edge of developed areas), and the elimination of growth on large lots and septic systems in the County.
- Also, continued farmland preservation in the watershed, and substantial reforestation thereof, would provide significant reductions in pollutant loadings.

VI. WATER RESOURCE GOALS AND OBJECTIVES

Water Supply

GOALS:

- The Town will provide an adequate supply and a good quality of water for existing and planned development, consistent with the Comprehensive Land Use Plan and with the State's goals and programs for water resources.
- The Town will implement measures to avoid or minimize risks associated with potential contamination or degradation of water sources from the surface.

OBJECTIVES:

- The Town will provide and maintain infrastructure including a system of ground water wells, water pumps, surface tanks, and distribution lines.
- The Town will continue to monitor water usage to periodically assess the adequacy of water supply, and will continue to make individual and cumulative assessments about the resource demands and impacts associated with development projects.
- The Town will work with the State to implement a water source and wellhead protection strategy in order to protect the quality of ground water and the suitability of our wells.
- The Town will consider new study results from USGS, MDE, and other sources as part of the State-mandated six year Plan review process, and make adjustments and recommend actions, as appropriate.
- The Town will adopt a Water Supply Capacity Management Plan, using MDE's model as input.



Water Quality

GOALS:

- The Town will strive to achieve MDE's TMDL for point and non-point sources in the Marshy Hope Creek.
- The Town will minimize the adverse impacts of development and growth in the Marshy Hope Creek watershed and the larger Lower Eastern Shore Basin.

OBJECTIVES:

- The Town will proceed with implementation of ENR at the wastewater treatment plant.
- The Town will require that developers identify and map wetland areas on-site and in adjacent areas using the following sources:
 - National wetlands Inventory
 - DNR wetland data layers (GIS)
 - MDE's associated priority preservation and restoration areas
 - Hydric soils maps
 - 100 year floodplain maps
- The Town will require the use of Best Management Practices (BMPs) for development on infill parcels and in growth areas. BMP's that are effective in phosphorous, nitrogen, and sediment removal will be required. BMPs include, but are not limited to, stream setbacks, tree plantings, creation of natural areas around streams and wetlands, minimized impervious surface, avoidance of sensitive areas, and stormwater management.
- The Town will require that impervious surfaces be minimized insofar as possible, consistent with the type of land use planned and zoned. High levels of impervious surface will be offset with suitable plantings and large setbacks, especially around associated streams and wetlands.
- Projects that drain to Faulkner Branch (north of Town, near Growth Area A), and to Davis Mill Pond Branch (south of Town, near Growth Area C) will be designed with BMPs that will promote protection of these Tier II Waters, and comply with MDE's non-degradation policy. The Town will refer projects that change the discharge in these areas to MDE to determine whether a "Tier II Anti-degradation Review" is needed.



- The Town will continue implementation of its Critical Area Program, and will require superior BMPs, including 200 foot stream buffers, for future development using growth allocation (see Growth Area C on the map on page 13).
- The Town will review site and subdivision requests with attention to on-site natural areas that extend to adjacent parcels and form natural corridors. The Town will follow up by continuing to create protected corridors as adjacent parcels come in with development requests, or are considered for open space acquisition.
- The Town will use the Tributary Strategy as a guide for planning and as a consideration in decision-making.
- The Town will consider new study results from USGS, MDE, and other sources as part of the State-mandated six year Plan review process, and make adjustments and recommend actions, as appropriate.
- The Town will identify, as part of the on-going planning process, potential sites for wetland and stream mitigation that can be used to mitigate impacts of capital projects where impact avoidance is not possible.
- The Town will update the Water Resources Element to incorporate new TMDLs.
- The Town will adopt a Wastewater Capacity Management Plan, using MDE's model as input.

VII. WELLHEAD PROTECTION PLAN

A review of the aquifer outcrop areas for the Eastern Shore region indicates that Federalsburg is not near locations that function as aquifer recharge areas. However, a review of the commercial, industrial, and institutional uses in and around Federalsburg that use, store, or discharge hazardous materials does indicate the need to consider a wellhead protection plan. The Map below summarizes the names and locations of places that have potential to pollute based on EPA's website. This information would have to be studied in the context of topography, drainage characteristics, impervious surfaces, proximity, and existing safeguards to determine if a wellhead protection is needed. The spatial data indicate that the need for such a plan is likely.

A wellhead protection plan would include:

- A delineation around each Town well that needs to be protected
- An inventory of potential contaminants (see Map below)



- Outline of management techniques
 - Education
 - Land purchase (to create an open space buffer around the well)
 - Best management practices for commercial, industrial, and institutional land uses and activities
- Emergency plans for discharges and spills
- Contingency plans in the event the water supply is contaminated (actions, notifications, temporary alternative sources, funding sources and technical assistance for cleanup or well replacement).

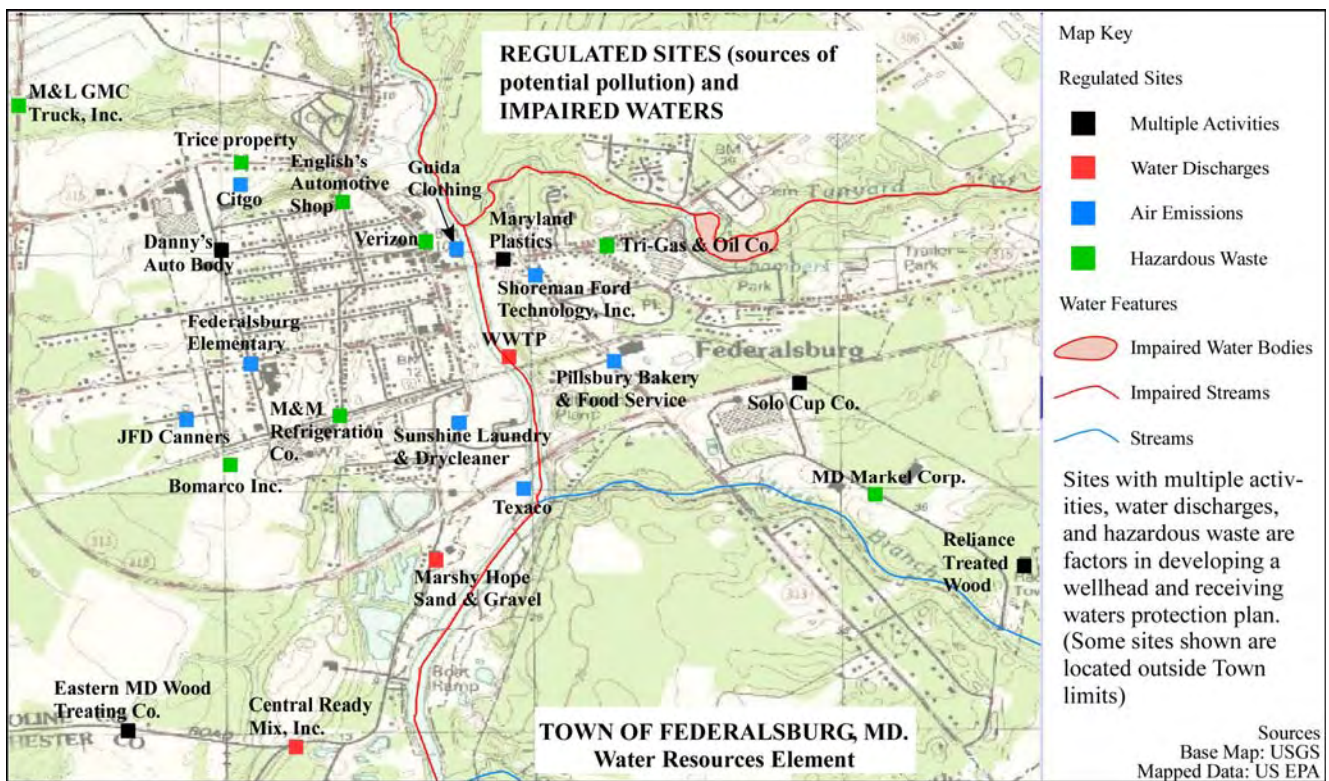


Exhibit A: Base Scenario for Growth at Current Loading Rates (Annual Assessment 2007)

Town of Federalsburg, MD Existing Pollutant Loading Rates for the Town, Four Growth Areas, and Two Neighborhoods (water quality data: Annual Assessment 2007) (septic loads separated out from urban uses)

BASE Development Scenario: Maximum Use of Acreage With Current Loading Rates

Current Town Limits (except for Rifkin Village and Westside, which are separately shown below for Town Infill guidance)

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
FOREST	722.1	629.1	626.3	1.00	334.976	839.376	2088	1.4	224.28	56.28	140	0.2	14.442	12.582	12.582
URBAN	619	832	775	8.9	1155.36	1006.56	1002.08	0.02	14.442	840.16	875.75	0.07	43.33	58.24	54.25
total acres, TN, TP, or S	1501.3	1501.3	1501.3		10009.436	9290.736	6987.58	1.13	938.192	1009.022	1028.276		89.812	78.862	86.776
change from existing					758.7	597.58			70.83				-10.95	-3.036	
change as percent					-0.075796477	-0.00216334			0.075496274	0.096016725			-0.121921347	-0.033693940	

Area A

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
FOREST	85.1	98.5	98.5	20.88	1776.888	2056.68	0	1.4	116.14	137.9	0	0.2	17.02	19.7	0
URBAN	33.1	19.7	29	1.6	52.96	31.52	46.4	0.02	0.662	0.394	0.58	0.07	0.662	0.394	0.58
total acres, TN, TP, or S	125.2	125.2	125.2	8.9	1892.148	2150.5	902.58	1.13	127.112	146.204	109.286		18.172	20.594	7.314
change from existing					288.352	-889.568			18.492	-18.492			2.412	-10.888	
change as percent					0.136539002	-0.522895674			0.144794538	-0.144271775			0.132731675	-0.597512657	

Area B

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
FOREST	121.8	31.8	31.8	20.88	393.312	2242.512	0	1.4	24.36	2242.512	0	0.2	3.48	21.48	0
URBAN	54.9	54.9	162.3	8.9	194.88	50.88	50.88	0.02	2.436	50.88	0.636	0.07	2.436	0.636	0.636
total acres, TN, TP, or S	194.1	194.1	194.1		1046.802	488.61	1444.47	1.13	62.037	488.61	183.399	0.07	3.843	3.843	11.381
change from existing					1735.2	2782.002	-1495.35		88.333	2693.169	184.035		9.759	25.959	11.997
change as percent					1.657620066	0.428493641			30.3172132	1.071690329			1.660006148	0.229326775	

Area C

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
FOREST	208.3	338.2	338.2	20.88	2973.088	7061.616	1208.952	1.4	192.64	7061.616	8106	0.2	27.52	67.64	11.58
URBAN	345.9	0	80	8.9	333.28	12.32	332.8	0.02	4.166	12.32	4.16	0.02	4.166	0.154	4.16
total acres, TN, TP, or S	345.9	345.9	345.9		3206.368	7073.936	2253.752	1.13	196.806	7073.936	1752.62	0.07	31.686	67.794	21.34
change from existing					3867.568	-952.616			6877.13	-21.186			1.139559902	-0.326516443	
change as percent					1.206214633	-0.297101268			34.9437009	-0.107649157			1.139559902	-0.326516443	

Area D

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
FOREST	242	236	44.3	20.88	526.76	6129.36	0	1.4	352.8	6129.36	0	0.2	6.4	68.7	0
URBAN	43	0	250.7	8.9	68.8	2.4	70.88	0.02	0.66	0.03	0.896	0.02	0.66	0.03	0.896
total acres, TN, TP, or S	285	285	295		5330.56	6130.68	2302.11	1.13	355.66	410.93	284.177	0.07	51.26	58.73	18.435
change from existing					800.12	-3028.45			0.161935192	-0.196486359			0.145727663	-0.640362856	
change as percent					0.150100552	-0.568129602			0.161935192	-0.196486359			0.145727663	-0.640362856	

Rifkin Village

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
FOREST	0	15.2	0	20.88	0	317.376	0	1.4	0	317.376	0	0.2	0	3.04	0
URBAN	15.2	0	12.4	8.9	24.32	0	110.36	1.13	0.904	0	14.012	0.07	0.304	0	0.888
total acres, TN, TP, or S	15.2	15.2	15.2		24.32	317.376	114.84		0.904	317.376	14.068		0.304	3.04	0.924
change from existing					293.056	90.52			0	0	0		0	0	0
change as percent					12.05	3.722038474			1043	45.27631579			2.736	9	2.038473684

West Side

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
FOREST	32.8	44.6	0	20.88	694.864	931.248	0	1.4	45.92	931.248	0	0.2	6.56	8.92	0
URBAN	22.7	10.9	10.9	1.6	36.32	17.44	17.44	0.02	0.454	17.44	0.218	0.02	0.454	0.218	0.218
total acres, TN, TP, or S	55.5	55.5	55.5		721.184	948.688	17.44	1.13	46.374	948.688	50.616	0.07	7.014	9.138	3.34
change from existing					227.904	-306.904			0	0	0		0	0	0
change as percent					0.315459023	-0.425417092			19.45732523	0.091473671			0.30282926	-0.523609524	

The Town and Six Areas (Total)

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
FOREST	1685.1	937.6	157.9	20.88	14304.888	19577.088	3296.352	1.4	955.14	1312.64	221.06	0.2	137.02	187.52	31.58
URBAN	1890.2	893.9	1421.2	8.9	18992.4	1010.07	1695.956	0.02	769.417	1010.07	1695.956	0.07	47.865	62.574	19.582
total acres, TN, TP, or S	2532.2	2532.2	2532.2		22200.818	20653.918	17270.592	1.13	1751.981	2336.781	1846.678	0.07	208.907	264.107	100.126
change from existing					6423.1	-4160.266			19.45732523	0.091473671			0.30282926	-0.523609524	
change as percent					0.28892774	-0.214127343			0.333658293	0.053769063			0.28892774	-0.523609524	

Exhibit A1: Base Scenario for Growth at Tributary Strategy Loading Rates (Final 2006)

Town of Federalsburg, MD Tributary Strategy 2006 Final Loading Rates for the Town, Four Growth Areas, and Two Neighborhoods (septic loads separated out from urban uses)
 BASE Development Scenario: Minimum Use of Acres with Strategy Implementation Loading Rates

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
MAJOR LAND USE	160.2	40.2	100	12.3	1970.46	494.46	1230	1.14	182.628	45.828	114	0.15	24.03	6.03	15
AGRICULTURE	722.1	629.1	626.3	1.6	1155.36	1006.56	1002.08	0.02	14.442	12.582	12.526	0.02	14.442	12.582	12.526
FOREST	619	832	775	6.42	3973.98	5341.44	4975.5	0.89	550.91	740.48	689.75	0.07	43.33	58.24	58.24
URBAN	1501.3	1501.3	1501.3	6.42	7099.8	6842.46	7207.58	0.89	747.98	798.89	816.276	0.07	81.802	76.852	81.776
total acres, TN, TP, or S															
change from existing															
change as percent															

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
MAJOR LAND USE	85	98	29	12.3	1046.73	1215.55	46.4	1.14	97.014	122.29	0	0.15	17.865	44.779	0
AGRICULTURE	33.1	19.7	0	1.6	52.96	31.32	46.4	0.02	0.692	0.394	0.58	0.02	0.692	0.394	0.58
FOREST	7	7	96.2	6.42	44.94	44.94	67.604	0.89	103.906	6.23	85.618	0.07	0.49	0.49	67.34
URBAN	125.2	125.2	125.2	6.42	1144.63	1288.01	614.004	0.89	103.906	118.914	86.198	0.07	13.917	15.659	7.314
total acres, TN, TP, or S															
change from existing															
change as percent															

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
MAJOR LAND USE	137.6	338.2	57.9	12.3	1692.48	4159.86	712.17	1.14	156.864	4159.86	66.006	0.15	20.64	50.73	6.885
AGRICULTURE	208.3	7.7	80	1.6	333.28	12.32	332.8	0.02	4.166	12.32	4.16	0.02	4.166	12.32	4.16
FOREST	345.9	345.9	345.9	6.42	2025.76	4172.0	513.6	0.89	161.03	4172.0	71.2	0.07	24.806	50.884	5.6
URBAN	0	0	0	6.42	0	2146.19	1939.57	0	0	401.16	141.694	0	0	20.874	18.465
total acres, TN, TP, or S															
change from existing															
change as percent															

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
MAJOR LAND USE	252	293.5	0	12.3	3099.6	3610.05	70.88	1.14	287.28	334.59	0	0.15	37.8	44.025	0
AGRICULTURE	43	1.5	44.3	1.6	68.8	2.4	332.8	0.02	0.86	0.03	0.886	0.02	0.86	0.03	0.886
FOREST	295	295	295	6.42	3168.4	3612.45	1609.494	0.89	288.14	334.62	224.009	0.07	38.66	44.055	18.435
URBAN	0	0	0	6.42	0	444.05	-1488.026	0	0	0	46.48	0	0	5.395	-20.225
total acres, TN, TP, or S															
change from existing															
change as percent															

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
MAJOR LAND USE	15.2	15.2	15.2	12.3	24.32	186.96	0	1.14	0	186.96	0	0.15	0	2.28	0
AGRICULTURE	0	0	0	1.6	0	0	0	0.02	0.304	0	0.056	0.02	0.304	0	0.056
FOREST	0	0	12.4	6.42	24.32	186.96	84.088	0.89	0.304	186.96	11.092	0.07	0.304	2.28	0.868
URBAN	15.2	15.2	15.2	6.42	24.32	186.96	59.768	0.89	0.304	186.96	10.788	0.07	0.304	1.976	0.62
total acres, TN, TP, or S															
change from existing															
change as percent															

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
MAJOR LAND USE	55.5	55.5	55.5	12.3	439.76	126.26	-135.988	1.14	37.846	566.02	303.772	0.15	5.374	6.908	3.34
AGRICULTURE	0	0	0	1.6	0	0	286.332	0.02	0	0	0	0.02	0	0	0
FOREST	22.7	10.6	44.6	6.42	36.32	17.44	17.44	0.89	0.454	17.44	0.218	0.02	0.454	0.218	0.218
URBAN	32.8	44.9	11.1	6.42	403.44	108.82	-152.986	0.89	37.846	566.02	303.772	0.15	5.374	6.908	3.34
total acres, TN, TP, or S															
change from existing															
change as percent															

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
MAJOR LAND USE	1166.2	700.7	853.1	1.6	1865.92	1121.12	1524.104	1.14	76.426	1496.426	10.062	0.02	21.324	14.014	19.062
AGRICULTURE	680.9	893.9	1421.2	6.42	4371.378	5738.838	9124.104	0.89	696.001	705.571	1264.888	0.07	47.683	62.573	99.484
FOREST	2532.2	2532.2	2532.2	6.42	14664.028	18392.438	12591.234	0.89	1410.339	1878.449	1483.936	0.07	173.762	217.227	142.231
URBAN	0	0	0	6.42	0	0	0	0	0	0	0	0	0	0	0
total acres, TN, TP, or S															
change from existing															
change as percent															

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
MAJOR LAND USE	2532.2	2532.2	2532.2	12.3	439.76	126.26	-135.988	1.14	37.846	566.02	303.772	0.15	5.374	6.908	3.34
AGRICULTURE	0	0	0	1.6	0	0	286.332	0.02	0	0	0	0.02	0	0	0
FOREST	22.7	10.6	44.6	6.42	36.32	17.44	17.44	0.89	0.454	17.44	0.218	0.02	0.454	0.218	0.218
URBAN	32.8	44.9	11.1	6.42	403.44	108.82	-152.986	0.89	37.846	566.02	303.772	0.15	5.374	6.908	3.34
total acres, TN, TP, or S															
change from existing															
change as percent															

MAJOR LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
MAJOR LAND USE	1665.9	1496.4	853.1	1.6	1865.92	1121.12	1524.104	1.14	76.426	1496.426	10.062	0.02	21.324	14.014	19.062
AGRICULTURE	680.9	893.9	1421.2	6.42	4371.378	5738.838	9124.104	0.89	696.001	705.571	1264.888	0.07	47.683	62.573	99.484
FOREST	2532.2	2532.2	2532.2	6.42	14664.028	18392.438	12591.234	0.89	1410.339	1878.449	1483.936	0.07	173.762	217.227	142.231
URBAN	0	0	0	6.42	0	0	0	0	0	0	0	0	0	0	0
total acres, TN, TP, or S															
change from existing															
change as percent															



Exhibit B: Cluster Scenario for Growth at Current Loading Rates (Annual Assessment 2007)

Town of Federalsburg, MD Existing Pollutant Loading Rates for the Town, Four Growth Areas, and Two Neighborhoods (water quality data: Annual Assessment 2007) (septic loads separated out from urban uses)
 CLUSTER Development Scenario: Minimized Use of Acreage With Current (2007) Loading Rates

Town of Federalsburg, MD (except for Rifkin Village and Westside, which are separately shown below for Town inflit guidance)

MAJOR/LAND USE	ACRES Existing	ACRES Use-By-Right	ACRES Growth Element	N COEFF	TN Exist	TN By Right	TN Growth	P COEFF	TP Exist	TP By Right	TP Growth	S COEFF	SED Exist	SED By Right	SED Growth
AGRICULTURE	160.2	0	40.2	100	344.976	839.376	2088	1.4	224.28	562.28	140	0.2	32.14	8.04	20
FOREST	729.1	69.7	639.4	20	184.8	106.8	106.8	0	144.8	144.8	0	0	144.8	144.8	0
URBAN	619	832	1501.3	8.9	5009.1	7040.8	6897.58	1.13	699.47	940.16	125.26	0.07	43.33	58.24	54.25
total acres, TN, TP, or S change from existing change as percent	1501.3	1501.3	1501.3	1501.3	10009.436	9250.736	6897.58	1.13	898.192	1009.022	1028.276	0.07	89.812	78.862	86.776
						-758.7	-21.856			0.075496274	0.096018725			-10.95	-3.036
						-0.075984777	-0.00218354							-0.121921347	-0.033803946
Area A															
MAJOR/LAND USE	85.1	98.5	17.4	20.88	1776.888	2056.68	280	1.4	119.14	137.9	0	0.2	17.02	19.7	0
AGRICULTURE	33.1	19.7	13.4	29	52.96	31.52	46.4	0.02	0.662	0.394	0.58	0.02	0.62	0.394	0.58
FOREST	7	7	0	96.2	62.3	62.3	62.3	1.13	7.91	7.91	108.708	0.07	0.49	0.49	6.734
URBAN	125.2	125.2	0	125.2	1892.148	2150.5	892.58	1.13	127.772	146.204	102.266	0.07	18.172	20.384	7.314
total acres, TN, TP, or S change from existing change as percent	125.2	125.2	125.2	125.2	2150.5	892.58	892.58	1.13	127.772	146.204	102.266	0.07	18.172	20.384	7.314
						229.352	68.426			16.826	4.412			10.858	-10.858
						0.136539302	-0.522965974			0.144794538	-0.1427775			0.132731975	-0.597512637
Area B															
MAJOR/LAND USE	17.4	107.4	90	20.88	363.312	2242.512	114.24	1.4	24.36	2242.512	0	0.2	3.48	21.48	0
AGRICULTURE	121.8	31.8	89.9	71.4	194.88	50.88	114.24	0.02	2.436	50.88	1.428	0.02	2.436	0.636	1.428
FOREST	54.9	194.1	139.2	122.7	488.61	488.61	1092.03	1.13	62.037	488.61	138.651	0.07	3.843	3.843	8.589
URBAN	194.1	194.1	0	194.1	1046.802	2782.002	1206.27	1.13	88.833	2782.002	140.079	0.07	9.759	25.559	10.017
total acres, TN, TP, or S change from existing change as percent	194.1	194.1	194.1	194.1	1046.802	2782.002	1206.27	1.13	88.833	2782.002	140.079	0.07	9.759	25.559	10.017
						1735.2	159.468			2693.169	51.246			16.2	0.258
						1.657620066	0.152332625			30.3172132	0.576880213			1.660006148	0.026437135
Area C															
MAJOR/LAND USE	137.6	338.2	200.6	57.9	2873.088	7061.616	1208.862	1.4	192.64	7061.616	81.06	0.2	27.52	67.64	11.58
AGRICULTURE	208.3	7.7	200.6	80	333.28	12.32	332.8	0.02	4.166	12.32	4.16	0.02	4.166	0.154	4.16
FOREST	0	0	0	0	0	0	0	1.13	0	0	90.4	0.07	0	0	0
URBAN	345.9	345.9	0	345.9	3206.368	7073.936	2253.752	1.13	196.806	7073.936	175.62	0.07	31.686	67.794	21.34
total acres, TN, TP, or S change from existing change as percent	345.9	345.9	345.9	345.9	3206.368	7073.936	2253.752	1.13	196.806	7073.936	175.62	0.07	31.686	67.794	21.34
						3867.568	-952.616			6877.13	-21.186			36.108	-10.346
						1.208214633	-0.297101268			34.9437009	-0.10764916			1.139555902	-0.326516443
Area D															
MAJOR/LAND USE	252	293.5	41.5	20.88	5261.76	6128.28	70	1.4	352.8	410.9	0	0.2	50.4	58.7	0
AGRICULTURE	43	1.5	0	44.3	68.8	2.4	70.88	0.02	0.86	0.03	0.886	0.02	0.86	0.03	0.886
FOREST	0	0	0	0	0	0	0	1.13	0	0	263.271	0.07	0	0	17.549
URBAN	295	295	0	295	5330.56	6130.68	221.12	1.13	353.96	410.9	0	0.07	51.26	58.7	17.549
total acres, TN, TP, or S change from existing change as percent	295	295	295	295	5330.56	6130.68	221.12	1.13	353.96	410.9	0	0.07	51.26	58.7	17.549
						800.12	-3028.45			57.27	-69.483			7.47	-32.825
						0.150100552	-0.568129802			0.161935192	-0.19646836			0.145727663	-0.640362856
Rifkin Village															
MAJOR/LAND USE	0	15.2	0	20.88	0	317.376	0	1.4	0	317.376	0	0.2	0	3.04	0
AGRICULTURE	0	0	0	0	0	0	0	0.02	0	0	0	0.02	0	0	0
FOREST	15.2	0	0	2.8	24.32	0	4.48	1.13	0.304	0	14.012	0.07	0.304	0	0.656
URBAN	0	0	0	8.9	0	0	0	1.13	0.304	0	0	0.07	0.304	0	0.888
total acres, TN, TP, or S change from existing change as percent	15.2	15.2	15.2	15.2	24.32	0	0	1.13	0.304	0	0	0.07	0.304	0	0.888
						283.056	90.52			317.072	13.764			2.736	0.62
						12.05	3.722039474			1043	45.27631979			9	0.039473684
West Side															
MAJOR/LAND USE	32.8	44.6	11.8	20.88	884.864	931.248	17.44	1.4	45.92	931.248	0	0.2	6.56	8.92	0
AGRICULTURE	22.7	10.9	11.8	10.9	36.32	17.44	17.44	0.02	0.454	17.44	0.218	0.02	0.454	0.218	0
FOREST	0	0	0	44.6	0	0	0	1.13	0	0	50.398	0.07	0	0	3.122
URBAN	55.5	55.5	0	55.5	721.184	948.688	414.38	1.13	46.374	948.688	50.616	0.07	7.014	9.138	3.34
total acres, TN, TP, or S change from existing change as percent	55.5	55.5	55.5	55.5	721.184	948.688	414.38	1.13	46.374	948.688	50.616	0.07	7.014	9.138	3.34
						227.504	-306.804			502.314	4.242			2.124	-3.674
						0.315459023	-0.425417092			19.45732523	0.091473971			0.302822926	-0.523809524
Six Areas (Total)															
MAJOR/LAND USE	1186.2	1306.6	120.6	20.88	14204.888	19128.88	3408.62	1.4	1459.14	1410.14	19.86	0.2	23.324	14.714	19.86
AGRICULTURE	166.5	700.7	992.7	199.2	1865.92	1121.12	1268.32	0.02	23.324	1010.07	1561.208	0.02	23.324	62.573	98.712
FOREST	680.9	883.9	203.2	8.9	6060.01	7555.71	12268.24	1.13	769.417	1010.07	1561.208	0.07	47.863	62.573	98.712
URBAN	883.9	883.9	0	883.9	22230.818	28653.918	17181.512	1.13	1751.881	2336.761	1802.222	0.07	208.007	264.107	148.246
total acres, TN, TP, or S change from existing change as percent	2532.2	2532.2	2532.2	2532.2	22230.818	28653.918	17181.512	1.13	1751.881	2336.761	1802.222	0.07	208.007	264.107	148.246
						6423.1	-5049.306			584.88	50.241			56.1	-59.861
						0.28892774	-0.227130913			0.333856293	0.028678318			0.268702462	-0.287783584

