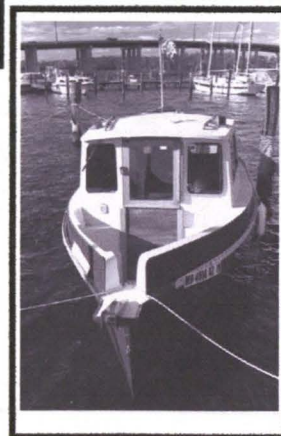
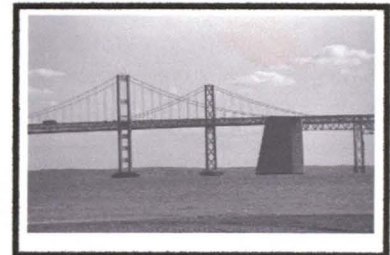
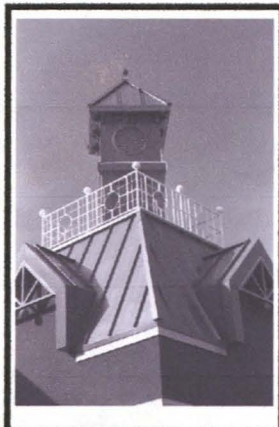


ANNE ARUNDEL COUNTY



**PART 2
BACKGROUND
GOALS & POLICIES**

**1997
GENERAL
DEVELOPMENT
PLAN**



Part 2
Anne Arundel County
General Development Plan

Adopted September 2, 1997
by Council Bill 51-97

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Revised per Bill 51-99, enacted July 13, 1999
Revised per Bill 69-99, enacted October 10, 1999

Department of Planning and Code Enforcement
410-222-7432

**Anne Arundel County General Development Plan
Summary of Revisions**

<u>Subject</u>	<u>Revision</u>	<u>Bill #</u> <u>Adopted</u>	<u>Pages</u>
Transportation Plan	Added two State road projects and one local road project (State projects are MD 295 And Arundel Mills Blvd (S17) and Ridge Road and Arundel Mills Blvd (S18); County Project is Arundel Mills Boulevard (L34)	51-99 7/6/99	Part 1, Pages 25 and 30 and Transportation Map
Land Use Plan Map	Changed National Business Park from Commercial to Industrial Park Land Map Use and changed Cedar Knoll School from Government/ Institutional to Industrial Park	69-99 10/4/99	Land Use Plan

INTRODUCTION TO PART 2

Part 2 of the General Development Plan is a resource document as well as a planning document. It is to be considered with Part 1 as constituting the whole of the General Development Plan.

Part 2 identifies and describes the natural and built resources of the County, identifies needs and establishes goals for the future. It identifies policies that should be followed and actions that should be accomplished to achieve the broader goals of the Plan. It provides a context for the recommendations contained in the implementation section of Part 1 of the Plan.

Part 2 also provides guidelines and examples for commercial revitalization, mixed use, transit oriented development, traditional neighborhood design and rural villages - concepts that the Plan recommends be incorporated into the fabric of our communities.

EXPLANATION OF MAPS

Text Maps

Maps are provided within the text of the General Development Plan to illustrate the general extent and location of various manmade and natural resources, such as airports, streams, steep slopes and greenways, and also to illustrate general boundary areas such as school feeder districts and town center growth management areas. *These maps are provided for general illustrative purposes only and are not to be construed to show specific locations of boundaries or resources.*

Official Maps

The Official Maps of the General Development Plan include the Land Use Plan Map and the Transportation Plan Map. The Land Use Plan Map shows general areas of different land use classifications through color coding and symbols and is not meant to be site, parcel or property line specific. The Transportation Plan Map shows general alignments for proposed roads and transit.

Some Existing Uses Not Shown On the General Development Plan Land Use Plan Map

The Land Use Plan Map shows general areas of different land use classifications. In some cases, areas shown for one land use classification, such as a residential area, may include some existing commercial uses within the overall area, but may not show that specific commercial use on the Map. The Land Use Plan Map does not attempt to show all existing uses. The Map generalizes these uses within an overall area.

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Chapter One

Process and Vision



A. Portrait of Anne Arundel County

Anne Arundel County lies between Baltimore, the growing Baltimore-Washington corridor, the Eastern Shore's suburban fringe and rural Southern Maryland. Its natural environment and development patterns range from Baltimore's outer suburbs to southern Anne Arundel's rolling countryside, and from the industrial corridor along the Howard County line to the waterfront communities of the Chesapeake Bay.

Although influenced by its central location in the Washington-Baltimore Consolidated Metropolitan Statistical Area, Anne Arundel County has its own character and economy. It is home to the historic City of Annapolis, established in 1649 and capital of Maryland since 1694. Annapolis was briefly the Capital of the United States, and has preserved some of the most remarkable buildings in America. In addition, the County contains 447 linear miles of tidal shoreline including scenic tributaries of the Chesapeake Bay, and is known throughout the world for its boating and seafood.

Anne Arundel County's neighborhoods are integrated with Baltimore City and Baltimore County to the north and, with only the rail line between them, Howard County to the northwest. It is separated from Prince Georges County to the west by the Patuxent River which extends 30 miles from Laurel to Calvert County. Meanwhile, to the south, the Anne Arundel-Calvert line extends across continuous farmland from the Patuxent

River to the Chesapeake Bay.

The Chesapeake Bay, with its extensive shoreline and tributaries, provides the clearest definition of Anne Arundel County to the east. More than 45 miles of direct Bay frontage offer dramatic vistas and recreational opportunities. The major tributaries penetrate eight to 10 miles inland, bringing waterfront into the heart of the County. In 1990 nearly two-thirds of the population lived within two miles of tidal waters. This water orientation reinforces the traditional image of Anne Arundel County as a boating mecca with commercial and recreational fishing, maritime industries and water sports. No where does this maritime image come into clearer focus than Annapolis with its City Dock, a thriving tourist trade and the U.S. Naval Academy.

"More than 90% of the growth in the County has occurred in the existing and planned sewer areas, which accounts for only 40% of the land area in the County."

Anne Arundel County is at a critical juncture. Between 1970 and 1995, the population increased by 54.2%. In the next 25 year period, the population is projected to grow by 15.6% from 459,700 in 1995 to 531,500 in 2020. More than 90% of the growth over the past 10 years has occurred in the existing and planned sewer areas, which accounts for only 40% of the land in the County.

As envisioned by previous General

Development Plans, most of the growth has occurred in western Anne Arundel County. However, residents and businesses in West County and other areas have expressed concern about traffic, the adequacy of services and neighborhood conservation. Although the County is committed to upholding the laws governing the development and use of real property, residents everywhere have voiced concern about the enforcement of land use regulations. Residents in rural areas have expressed particular concerns about the future of agriculture as an industry, land values, and the loss of open spaces to scattered development.

B. Legal Basis for the Plan

The Annotated Code of Maryland, Article 25A, gives Anne Arundel County the authority to plan and zone property. The Anne Arundel County Code directs the

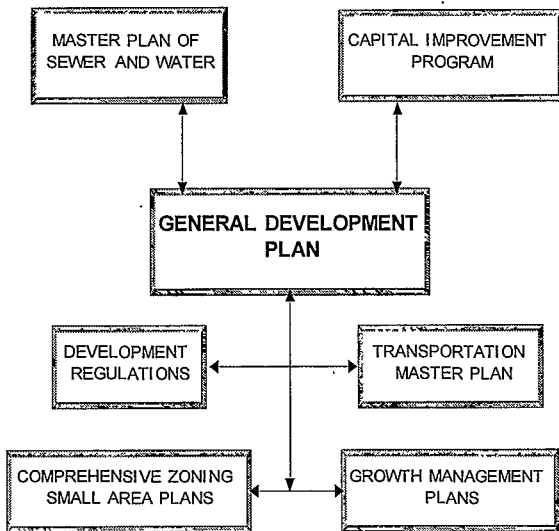


Chart 1-1, Implementation of the GDP

Department of Planning and Code Enforcement to prepare and periodically update a master plan for growth and development. Since 1965, when charter government was enacted, the County has prepared and adopted two General Development Plans in 1968 and 1978 and an addendum in 1986.

C. Relationship to Other County Planning Documents

The General Development Plan has a symbiotic relationship with other planning documents. For example, the county prepares specific service plans for essential County facilities and services, such as transportation, sewer and water, public safety, and parks and open space. The General Development Plan both relies on these documents for guidance and provides direction in their preparation (see Chart 1-1, Implementation of the GDP). Other examples include the Annapolis Sector Plan, the Odenton and Parole growth management area plans and the Glen Burnie Urban Renewal Plan.

The General Development Plan also will guide the creation of future Small Area Plans. Small Area Plans are specific land use and zoning documents for particular areas or communities in the County.

D. General Development Plan Process

This General Development Plan was created through the collaborative effort of a volunteer citizen Oversight Committee, a

volunteer citizen Steering Committee, the general public, County staff, and elected officials. From the beginning, the goal was to make the process as public as possible. The Oversight Committee reviewed goals and objectives from the 1978 and 1986 General Development Plans. They also reviewed historic trends from 1970 to 1990 and helped to identify issues and concerns of County residents. The citizen Steering Committee solicited public comments on issues, goals, policies, alternatives and a draft plan through a series of public forums held at locations throughout the County (see Chart 1-2, General Development Plan Process). County staff also solicited comments through a questionnaire mailed

"Each alternative had the same common goal: conserve areas of the County that are primarily rural, agricultural and open space by concentrating development in other areas that have existing or planned public facilities."

to citizen and business associations. Sixty civic associations and five business groups responded. The County also received written and verbal comments from 400 residents who attended the first set of public forums in July 1995. These responses and comments helped the Steering Committee understand the growth and development issues facing the County.

The Steering Committee split into three working groups to address the issues identified through the questionnaire and forums. These working groups helped to formulate goals and policies in three key areas:

CONSERVING THE ENVIRONMENT, MANAGING DEVELOPMENT, AND MEETING PEOPLE'S NEEDS

At public forums in October 1995, the Steering Committee presented draft goals and policies. It prioritized these draft goals and policies in November 1995. The Committee also used them to construct a vision for the General Development Plan and to analyze several plan alternatives.

The Steering Committee sought public comment on the plan alternatives at another series of forums in April 1996. The alternatives suggested a different emphasis for development in different regions of the County. However, each alternative had the same common goal: to conserve areas that are primarily rural, agricultural and open space by concentrating development in more suitable areas that have existing or planned public facilities.

The Steering Committee held a final series of public forums in November 1996 to review and receive comments on a draft plan.

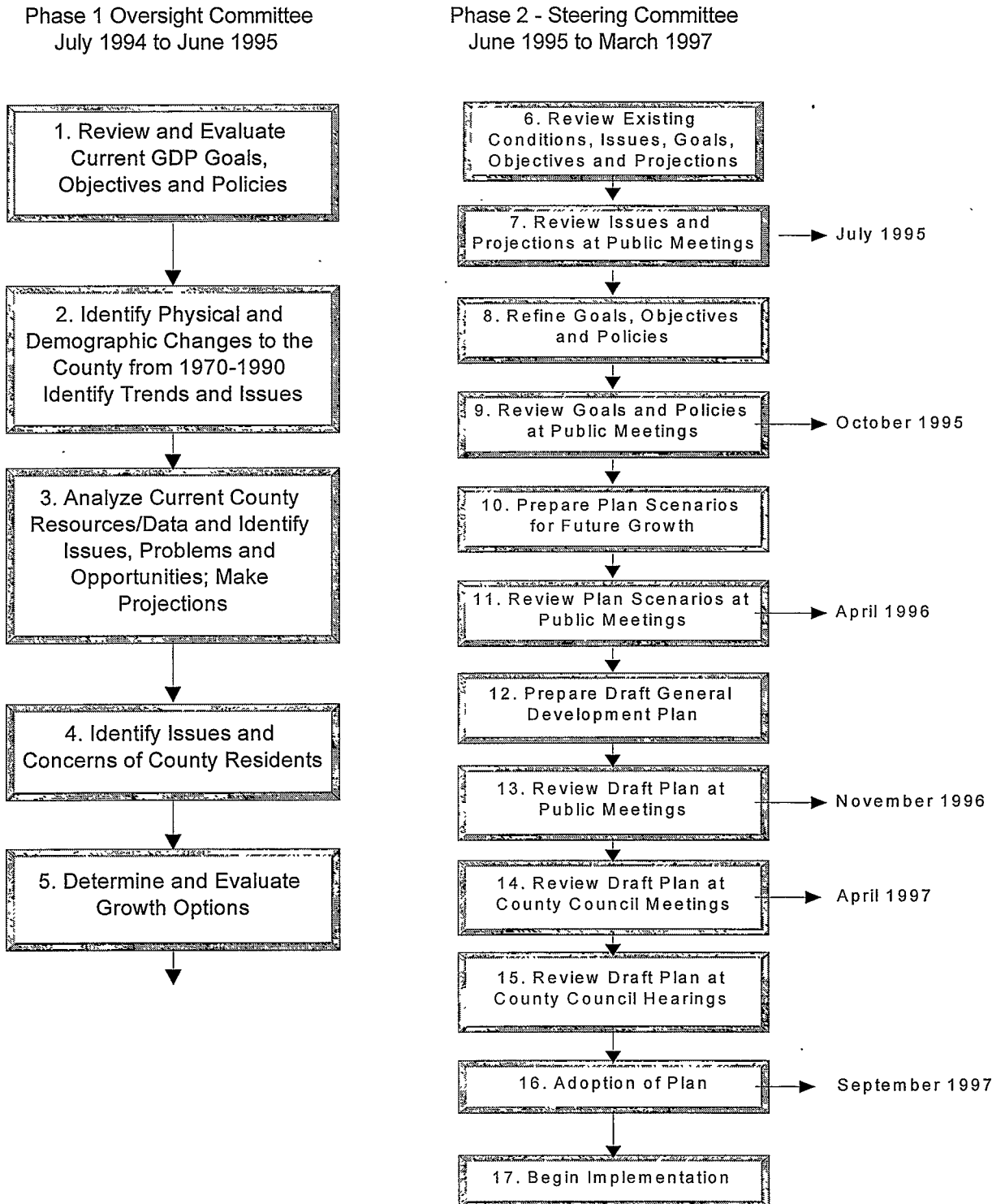
Throughout the process, the County mailed newsletters to over 600 citizen associations and to persons who attended the forums to update them on the Steering Committee's progress. In addition, the newsletters kept the public apprised of key upcoming meetings.

Other efforts were made to involve the public as well. The Steering Committee met publicly at least once a month to

review the progress of the plan, make decisions on key goals, policies and actions and to receive information from experts on key economic, preservation and development issues such as employment and economic projections, transfer of development rights, and traditional neighborhood design. After each set of forums, County planners briefed County Council members on the public comments heard. Planners and Steering Committee members attended community and business association meetings to encourage additional citizen involvement. Finally, a site was established on the Internet to provide information and receive comments.



CHART 1-2, GENERAL DEVELOPMENT PLAN PROCESS



E. A Vision for the County

"Anne Arundel County's natural environment and cultural heritage are among its most important assets"

Anne Arundel County will plan for growth and encourage development that provides positive benefits to the community. It will be a place that values, and strives to protect, the natural and cultural environment. Just as importantly, it will be a place where opportunities exist to live in a variety of safe, well-designed neighborhoods, work at jobs paying a living wage, and receive a quality education.

The County's natural environment and cultural heritage are among its most important assets. A healthy Chesapeake Bay system provides Anne Arundel's citizens with opportunities for recreation, employment and tourism. Combined with the County's historic and other cultural resources, the Bay helps drive the local economy and identify the County.

Anne Arundel County will:

- protect and preserve the Bay and its tributaries
- improve water and air quality
- achieve environmentally sensitive land use

Some areas of the County are currently served, or planned to be served, by sewer, water, roads, schools, and commercial and employment centers. These areas, which have a full-range of public services and

amenities, may be better suited for development than others. Locating services and facilities in these areas, and in close proximity to one another, promotes shorter work and shopping trips. It also discourages sprawl into rural and agricultural areas.

Anne Arundel County will:

- concentrate growth in areas that best use existing and planned infrastructure, protect the natural environment, promote economic growth and provide for a diversity of living environments
- strengthen and enhance our existing neighborhoods and communities
- keep and attract businesses in appropriate locations, particularly around the BWI Airport

"Anne Arundel County will plan for growth and encourage development that provides positive benefits to the community"

Quality education at all levels is a major factor in promoting a quality of life in which people can determine their own future. Safety and security in our neighborhoods and communities also are essential needs.

Anne Arundel County will:

- provide for the best education for all County residents and strive for equity among all schools
- provide for the safety and general welfare of the citizens

F. Concurrency with State Planning Act Visions

The Maryland Economic Growth, Resource Protection and Planning Act of 1992 gave new responsibilities to jurisdictions in the State of Maryland to establish priority areas for growth and resource conservation. The Planning Act is based on the widely accepted "visions" prepared as part of the 1987 Chesapeake Bay Agreement. The seven visions of the State Planning Act are:

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 and the land is a universal ethic.
5. Conservation of resources, including a reduction in resource consumption is practiced.
6. To assure the achievement of 1 through 5 above, economic growth is encouraged and regulatory mechanisms are streamlined.
7. Funding mechanisms are addressed to achieve these visions.

The goals, policies and recommendations contained within the General Development Plan incorporate these seven visions.

G. Relationship to State of Maryland Initiatives on Neighborhood Conservation and Smart Growth

State initiatives have been identified to help implement the Visions of the State Planning

Act. These initiatives are in response to concerns about sprawl development, the loss of rural and agricultural lands, and the impact of sprawl on existing and historic neighborhoods throughout the State. These initiatives will target State funds to help achieve the Visions of the State Planning Act.

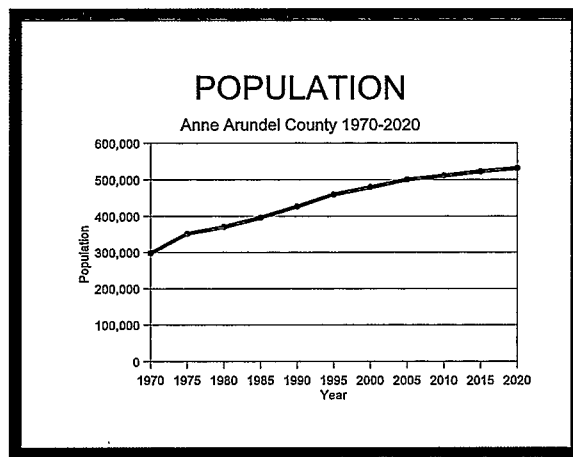
The initiatives include designating local growth areas based on existing and planned sewer and water service areas and baseline residential densities, designating neighborhood business redevelopment areas, identifying rural preservation areas, and identifying areas known as "brownfields," which are existing developed areas that are contaminated with hazardous material and have high clean-up costs. Through these initiatives, the State will direct funds to pay for infrastructure in locally designated growth areas. Funds will also be made available to provide grants and loans, acquire property and purchase easements to preserve existing neighborhoods, farms, fields, and open spaces.

The General Development Plan for Anne Arundel County is consistent with these initiatives for neighborhood conservation and smart growth. The Plan's focus is to direct development away from sensitive, natural areas and to more suitable land served by existing, or planned, public facilities. The Land Use Plan Map identifies potential commercial redevelopment areas. These areas already provide commercial services to nearby residents, but they can be enhanced through building and site improvements. The preservation of rural

areas is a major element of the Plan. The Land Use Plan Map identifies these areas and the Plan recommends the county increase funding for acquisition of agricultural and woodland easements, study the feasibility of developing a transfer of development rights program, and other initiatives to help preserve them.

Chapter Two

Background



A. Demographic

Changes in population, employment and the number of households over the next 25 years will affect the nature and location of new residential, commercial and industrial uses. They also will impact the nature and location of public facilities, including schools, roads, parks and utilities.

Several key trends will affect the level of change that occurs. Among these are birth, death and migration rates. Other influential trends will track the number of school age children, the size of the labor force, the number of persons over age 65, household income and household size.

1. Population

Between 1970 and 1995, the population of Anne Arundel County grew from 298,042 persons to 459,700, an increase of 161,658

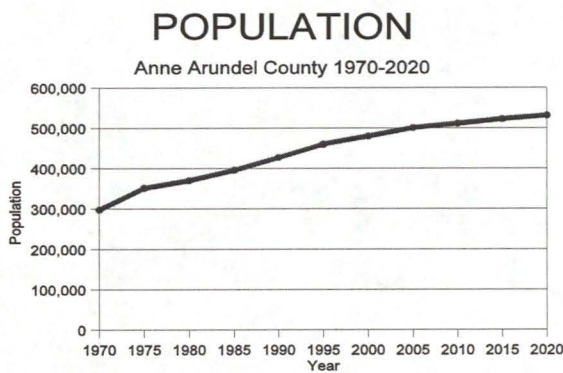


Chart 2-1, Population

or 54.2%. In this period there were 141,452 births, and 59,995 deaths resulting in a net natural increase (births minus

deaths) of 81,457 persons. Net migration was 80,201 persons. Thus, 49.6% of County growth from 1970 to 1995 was from net migration, and 50.4% was due to a net natural increase. The largest share of in-migration was from Prince George's County and the largest out-migration was to Queen Anne's County.

In the next 25 years, the population is projected to grow by 71,800 persons, or 15.6% from 459,700 in 1995 to 531,500 in 2020 (see Chart 2-1 Population 1970-2020). In the forecast period, the net natural increase will amount to 75.5% of growth, while net migration will amount to just 24.5%.

Of key concern are forecasts for various age groups, including pre-school, school age, labor force and retirement. These age groups will have an impact on the provision of child and senior care, schools, jobs, commercial services and housing.

"The fastest growing age segment is the age 65 and over group."

In 1970, there were 26,320 pre-schoolers (ages zero through four). This number decreased to 24,970 in 1980. In 1995,

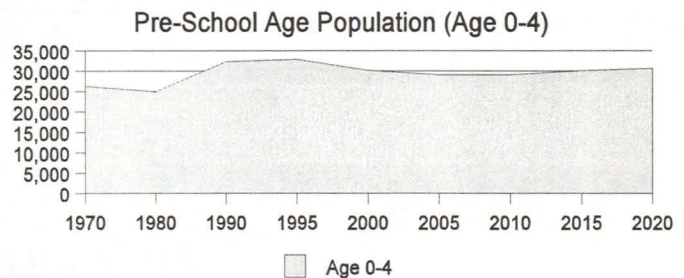


Chart 2-2, Pre-School Age Population

preschoolers numbered 32,840. It is projected that the number of preschoolers will decline to 29,040 in 2005, then increase to 30,670 in 2020 (see Chart 2-2, Pre-School Age Population 1970-2020).

"The school age population of 80,320 in 1995 will decline to 78,870 in 2020."

The school age population (ages five through 17) stood at 81,800 in 1970, declined to 73,370 in 1985 and increased to 80,320 in 1995. This age segment is projected to increase to 86,050 in 2000, decline to 78,645 in 2015, and grow slightly to 78,870 in 2020 (see Chart 2-3, School Age Population 1970-2020). Public school enrollment has reflected, and will continue to reflect, the changes in school age population (see Chart 2-4, Public

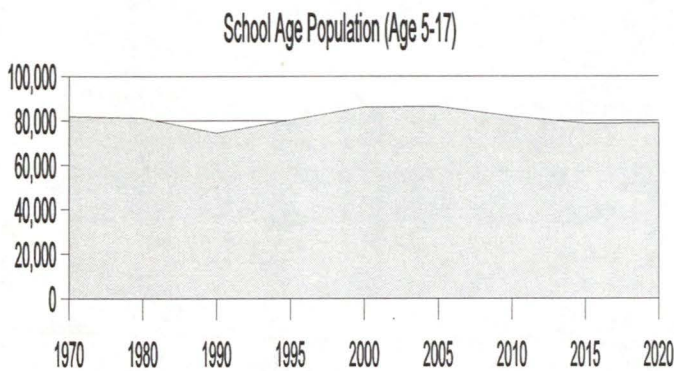


Chart 2-3, School Age Population

School Enrollment 1970-2020).

The fastest growing segment is the 65-and-over group which has increased from 15,940 persons in 1970 to 43,430 in 1995. This group is expected to reach 84,470 persons in 2020, a 94.5% increase over

Public School Enrollment

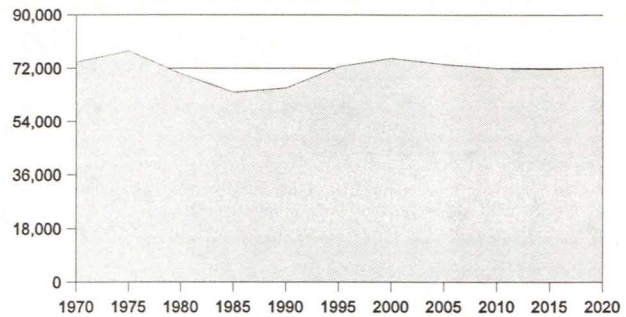


Chart 2-4, Public School Enrollment

1995. The entire population is expected to grow by just 15.5% (see Chart 2-5, Population Age 65 and Over 1970-2020).

Population Age 65 or Older

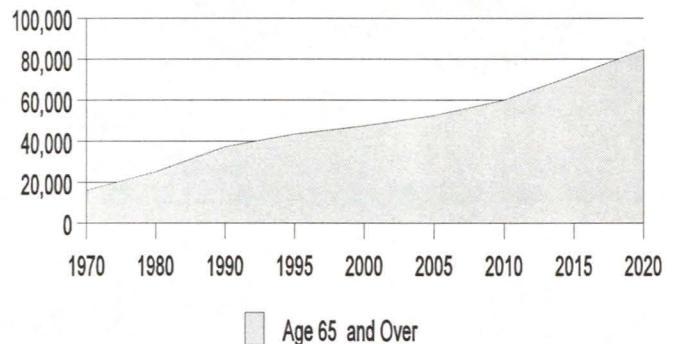


Chart 2-5, Population Age 65 and Over

2. Employment

The principal labor force (ages 18 through 64) has grown from 173,990 in 1970 to 303,110 in 1995. This group should grow to a peak in 2015 at 341,460, and drop slightly in 2020 (see Chart 2-6, Labor Force Population). The number of jobs has grown from 128,700 in 1970 to 258,300 in 1995. It is projected that the number of

jobs will increase to 313,000 by the year 2020 (See Chart 2-7, Employment).

Anne Arundel County's central location near the nation's capital with access to the Baltimore labor market has made it a desirable location for defense-related industries. The National Security Agency (NSA), with over 35,000 employees, is located at Fort George G. Meade. Westinghouse Electric Corporation's defense and electronic systems division (now Northrop Grumman, Electronic Sensors and Systems Division) is located just north of NSA and adjacent to the

total employment in 1970 to 27.8% in 1995, and is expected to fall to about 21% in 2020. Manufacturing jobs also have dropped from 12.4% in 1970 to 6.3% of the total in 1995. They are projected to decline to 4.9% of the total by 2020.

A major influence in commercial, industrial and employment growth in the County is the BWI Airport, the largest airport in the State and one of the most important aviation facilities in the Mid-Atlantic region. Over the last 20 years, passenger

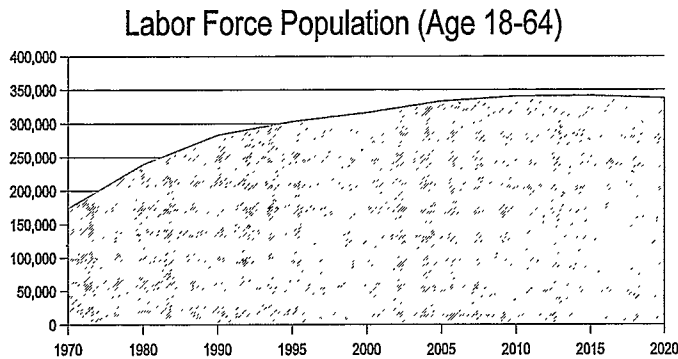


Chart 2-6, Labor Force Population

Baltimore-Washington International Airport (BWI). Northrop Grumman, with nearly 8,000 employees, is the County's largest private employer. The state government, seated in historic Annapolis, employs over 9,000 persons.

The County must take advantage of its central location to attract non-defense related jobs in the future as the defense industry recedes. The number of government jobs, including defense-related positions, already has fallen from 48.9% of

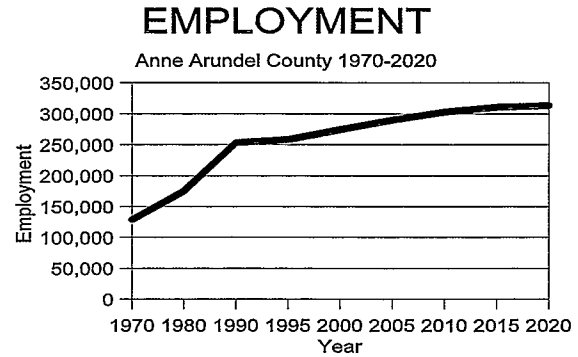


Chart 2-7, Employment

patronage at the airport increased more than 450%. Freight movement also grew by more than 280%. BWI is a major factor in attracting both business and jobs to the County and State. It occupies a major portion of northwestern Anne Arundel, is served by interstate highways and is convenient to the Baltimore and Washington markets. A vast amount of vacant, developable land exists nearby.

3. Housing

"Of the 157,194 housing units counted in the 1990 Census, 69% were designated single family."

The total number of households is projected to increase by 55,000 between 1995 and 2020.

Between 1970 and 1995, the number of housing units in Anne Arundel County increased by 92%. Of the 157,194 housing units counted in the 1990 Census, 69% were single family, 15% townhomes and 13% apartments. Three percent were designated as "other." While single family homes clearly dominate the housing market, townhouses and apartments have increased their share.

"Household size will continue to decline over the next 25 years to 2.346 persons per household."

Of all occupied housing units, 73% were owner-occupied and 27% renter-occupied.

In 1990, the median purchase price of a home was \$127,900 and the median monthly rent was \$534. The number of persons per household declined from 3.452 in 1970 to 2.720 in 1995.

Household size will continue to decline over the next 25 years to 2.346 persons. At the same time, the number of households is projected to increase by 33%. The total number of households in 2020 is projected to be 217,500. (See Chart 2-8 Households). This represents an increase of approximately 55,000 households between 1995 and 2020.

B. Land Use and Zoning

1. Land Use

"The dominant land use is low and medium density residential, accounting for 29% of the total land in the County, or 56% of all developed land."

The most recent inventory of land use, completed in 1995, reveals that, including the City of Annapolis, 50% of the County's land is developed. The dominant use is low and medium density residential, accounting for 29% of all County land, or 56% of all developed land. High density residential use accounts for only 0.5% of all land, not including the City of Annapolis. The incorporated limits of Annapolis occupies 1.6% of the County. (See Map 2-1 Residential Land Use); also see Chart 2-9 Land Use 1995).

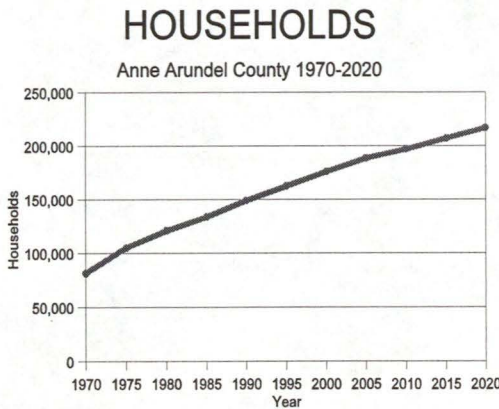


Chart 2-8, Households

"High density residential land use accounts for only 0.5% of all land."

"Commercial and office uses make up 2.1% and industrial uses 1.7%."

Non-residential, developed land accounts for 17% of all land, of which major roadways, power lines and BWI account for 6.5%. Commercial and office uses make up 2.1% and industrial uses 1.6%. Government and institutional uses account for 6.6% and parks for 2.4% (see Map 2-2 Commercial and Industrial Land Use).

"Agricultural land accounts for 13.6%, vacant land 24.1%, and open space 12.3% of the total."

Land classified as non-developed — comprising natural open space (including wetlands), vacant land, and agricultural land — makes up the remaining 50% of the County. Agricultural land accounts for 13.6%, vacant land 24.1%, and open space 12.3% (see Map 2-3 Agricultural, Open Space and Vacant/Wooded Land Use). Vacant land includes undeveloped woodlands.

The distribution of various uses reflects the County's diversity. Urban concentrations of residential and commercial uses are found in North County and Annapolis. Development in the eastern and western portions of the County are primarily suburban in character. Most of South County and parts of Central County are rural and undeveloped. Meanwhile, numerous shoreline communities have

developed as small villages or towns.

Large vacant areas remain in many developed portions of the County. These include areas near Mountain, Marley Neck, Solley and Fort Smallwood roads. It also includes areas along the Baltimore-Washington Parkway between MD Route 198 and MD Route 100.

Most industrial development is concentrated in North County near BWI, Marley Neck and Odenton. Commercial activities are concentrated in the

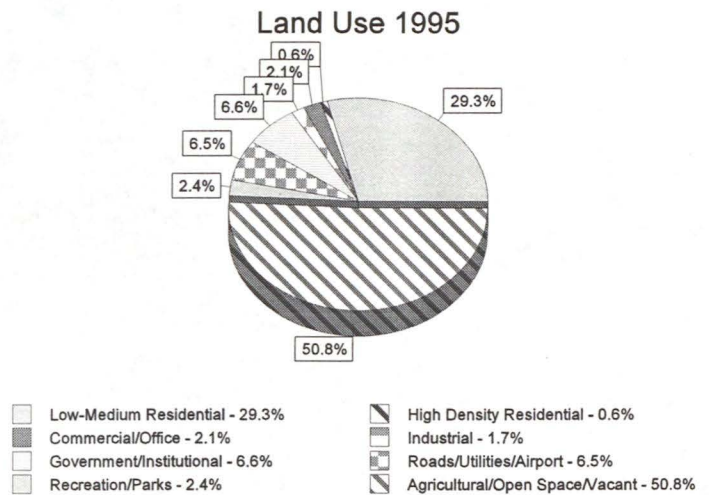
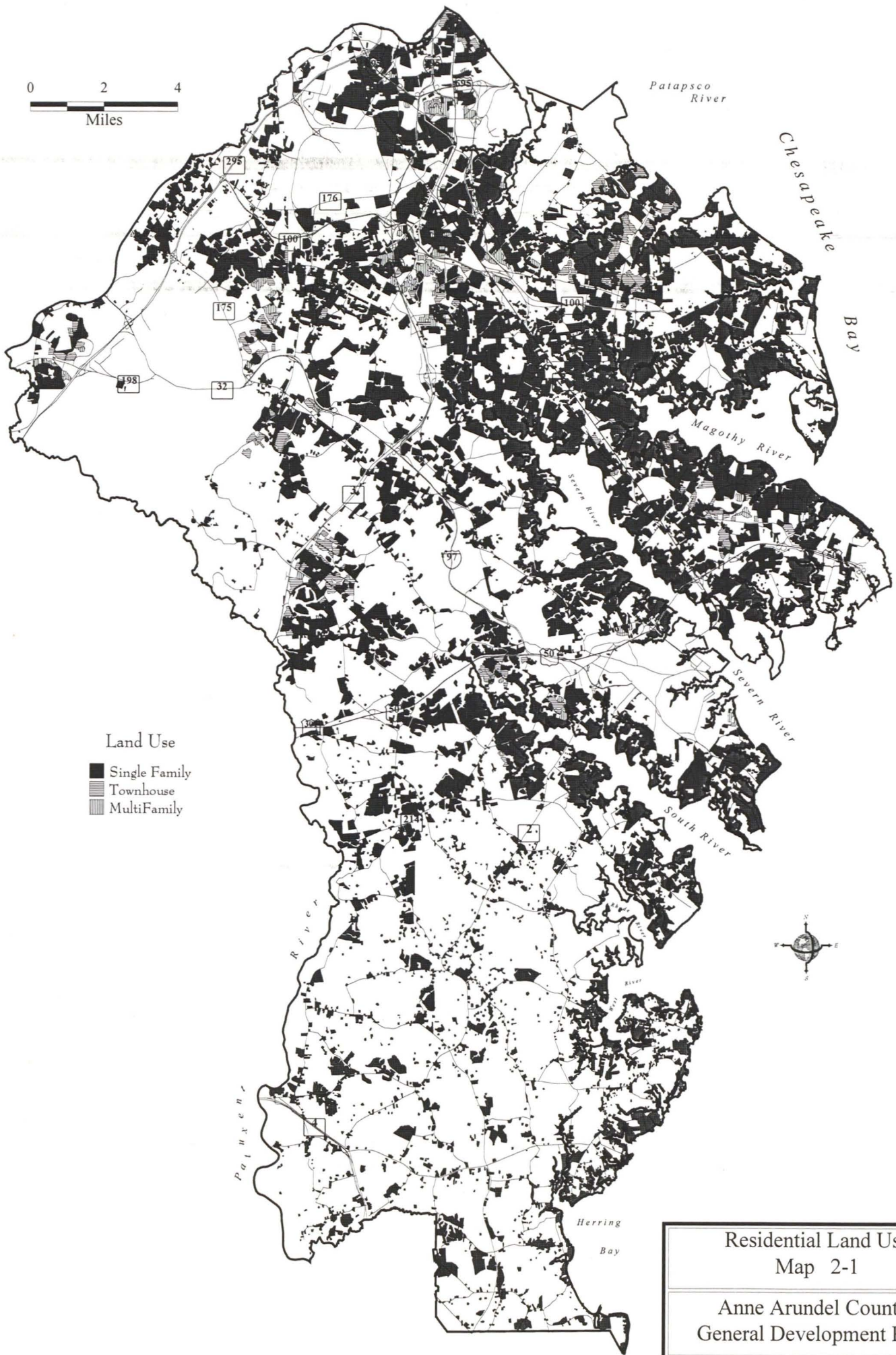
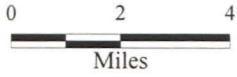


Chart 2-9, Land Use 1995

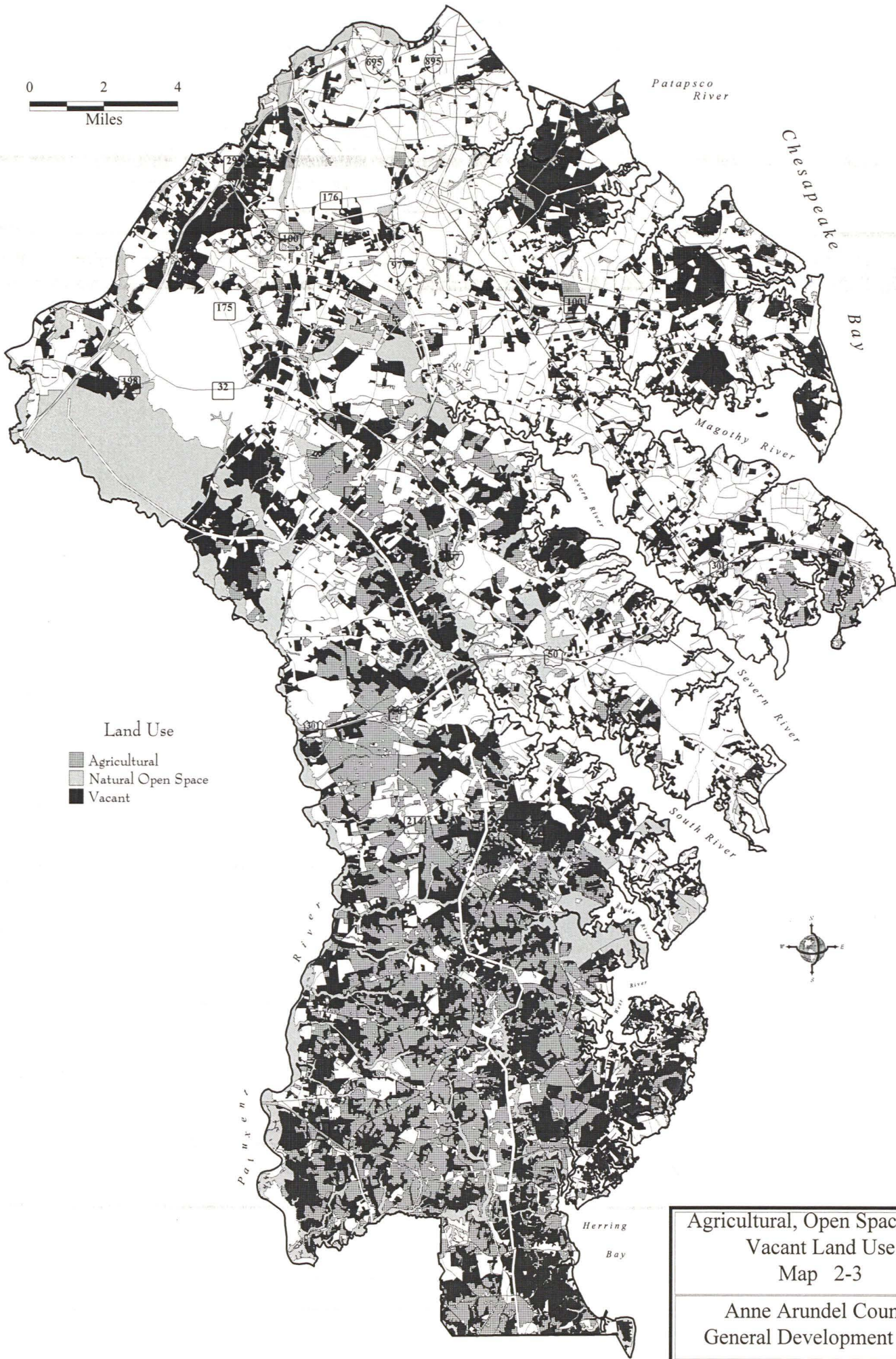


Land Use




- Single Family
- ▨ Townhouse
- ▩ MultiFamily



Residential Land Use
Map 2-1
Anne Arundel County
General Development Plan



Land Use

-  Agricultural
-  Natural Open Space
-  Vacant

Agricultural, Open Space, and
 Vacant Land Use
 Map 2-3
 Anne Arundel County
 General Development Plan

MD Route 2 and MD Route 3 corridor near Glen Burnie, Annapolis-Parole, and to a lesser extent in Odenton, Severna Park, Mountain Road, Edgewater, Maryland City, Crofton, Riviera Beach and Deale.

2. Zoning

"Residential zoning is still the predominant zoning classification in the County, comprising 80% of the total land area."

Zoning determines the type and level of intensity of land use. Residential zoning is the predominant zoning classification, comprising 80% of all County land. Of this, 83% is zoned for low density development of two dwelling units per acre or less (see Chart 2-10 Zoning Distribution).

Commercial zoning, including the Town Center category, is found on 2.6% of the land. Most of this has been developed. Almost 15,000 acres or 5.6% of the total, is zoned for industrial uses. Concentrations

of industrially zoned land exist around BWI, Marley Neck, Ordnance Road, Maryland City and Odenton. Some areas, such as Marley Neck, have not been fully developed as industrial centers.

Open Space zoning covers 11.4% of the County and consists primarily of floodplains, parks and environmental preserves. The remaining 0.4% of the County is zoned for maritime uses, including yacht clubs and community and commercial marinas.

C. Transportation

Transportation has had a profound effect upon development over the past 30 years. The improvement of existing roads and construction of new roads have improved access throughout the County and encouraged the development and redevelopment of a variety of residential, commercial and industrial uses. The existence of commuter rail and the introduction of light rail over the last several years will affect land uses near the rail lines and stations. BWI will influence the location of residential uses through protective noise regulations as well as businesses and industries which benefit from close proximity to airport operations.

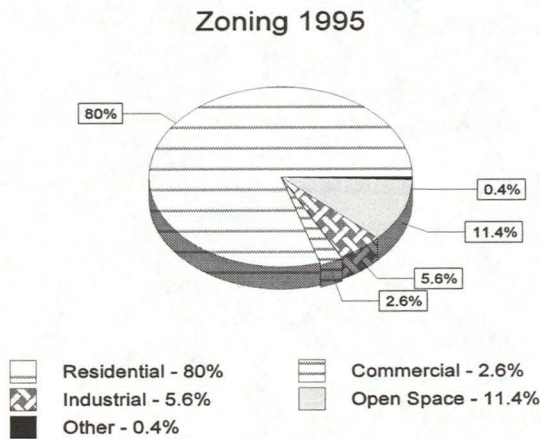


Chart 2-10, Zoning Distribution

1. The Transportation Network

“The 1970's saw the establishment of the Maryland Rail Commuter (MARC), providing passenger rail service between Baltimore and Washington along the Amtrak and B&O railroad lines.”

By 1970, most of the major roads were in place. Good north-south access was provided by Ritchie Highway (MD Route 2), Crain Highway (MD Route 3) and the Baltimore-Washington Parkway. The major east-west route was US Route 50/301, which also provided access to the Broadneck peninsula. The northern part of the County was served by the Baltimore Beltway, Ritchie Highway and Crain Highway. The Pasadena/Lakeshore area was served primarily by Mountain Road.

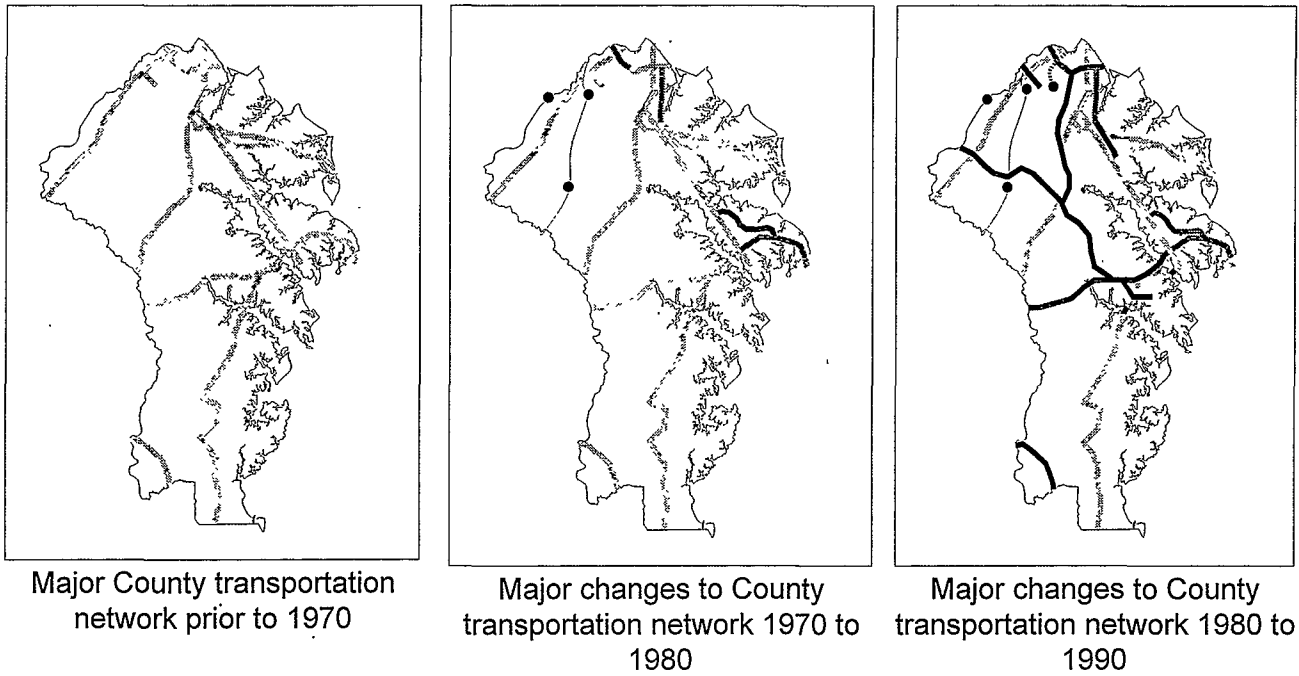
The 1970's saw the establishment of the Maryland Rail Commuter (MARC), providing passenger rail service between Baltimore and Washington along the Amtrak and B&O railroad lines. Three stations located in Anne Arundel County at Jessup, Odenton and BWI provided access and parking for commuters.

“During the 1980's, planning, acquisition of right-of-way and construction had begun for the extension of light rail into the County from Baltimore City.”

By 1980, a number of road improvements had been completed. The State widened the Baltimore Beltway between the County line and MD Route 170 to accommodate an increasing volume of traffic. MD Route 10, the Arundel Expressway, was extended to

MD Route 648 providing an alternate route between the Baltimore Beltway and Pasadena/Lake Shore. In Central and East County, the state widened Route US 50/301 and improved access to help traffic enter and leave the highway. Also, the county constructed a major new road, College Parkway, to serve the growing Broadneck peninsula and provide an alternate link between US Route 50 and MD Route 2.

By 1990, additional improvements were made to the road network. Chief among these were a new expressway from I-95 to the BWI Airport (I-195), further widening of the Baltimore Beltway, and the construction of I-97 which provided a new major access route between Annapolis and Baltimore. The State also widened US Route 50/301 between Prince Georges County and the Chesapeake Bay Bridge and constructed new interchanges, upgrading the road to a limited-access interstate highway. This helped implement the governor's "Reach the Beach" program. The construction of MD Route 665 (Aris Allen Boulevard) and relocation of Forest Drive improved access from MD Route 50/301 to the Annapolis Neck peninsula. In addition, the construction of MD Route 32 connected I-97 to Odenton and Howard County to the west. The extension of MD Route 10 from MD Route 648 to Ritchie Highway further improved access to North County.



Map 2-4, Major Transportation Improvements 1970-1990 (lines denote new roads or rail lines, circles new stations)

Since 1990, the state has extended the Central Light Rail Line from Baltimore to North County (see Map 2-4 Major Transportation Improvements 1970-1990). Other recent transportation improvements include the extension of MD Route 100 from I-97 west to Howard County, improving the access from Annapolis and Glen Burnie to points west.

2. Commuting Patterns

Commuting patterns in Anne Arundel County have changed over the last 25 years. Although most residents commute to jobs within the County, those residents who work outside the County now commute

primarily to the Washington instead of Baltimore area (see Chart 2-12 Commuting Patterns 1970-1990).

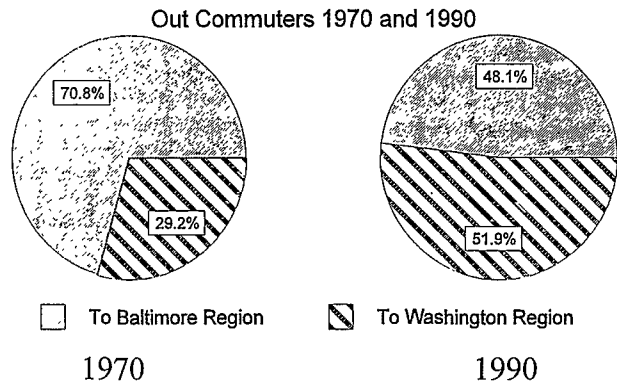


Chart 2-11, Commuting Patterns

In 1970, 30,376 residents commuted to the Baltimore Region and 12,857 commuted to the Washington Region, or about 70% commuted to Baltimore and 30% commuted to Washington. By 1990, the trend had reversed. 43,001 residents then commuted to the Baltimore Region, and 46,311 to the Washington Region, or 48% to Baltimore and 52% to Washington.

3. Transportation Modes

The automobile continues to be the primary means of transportation in the County. Most people choose to drive alone. Of the 234,578 workers in the County as of 1990, 180,538 drove alone to work, 31,826 carpoled with at least one other person and 3,688 used public transportation (see Chart 2-13 Transportation Mode to Work 1970-1990).

In 1970, ridesharing accounted for 14.8% of all work trips, and, in 1980, ridesharing comprised 22.7% of those trips. However, by 1990, ridesharing had fallen to 13.6% of the total. Average vehicle occupancy also declined from 1.17 persons per vehicle in 1980 to 1.09 persons in 1990. This confirms that fewer people are carpooling now than were carpooling in the previous two decades. One explanation for this trend may be that, while the cost of gasoline seems to be increasing, it has actually declined as a percentage of total income. Lower relative fuel costs for single occupant vehicles discourages carpooling. In addition, the commuting time and costs associated with public transportation may deter its use.

TRANSPORTATION MODE TO WORK

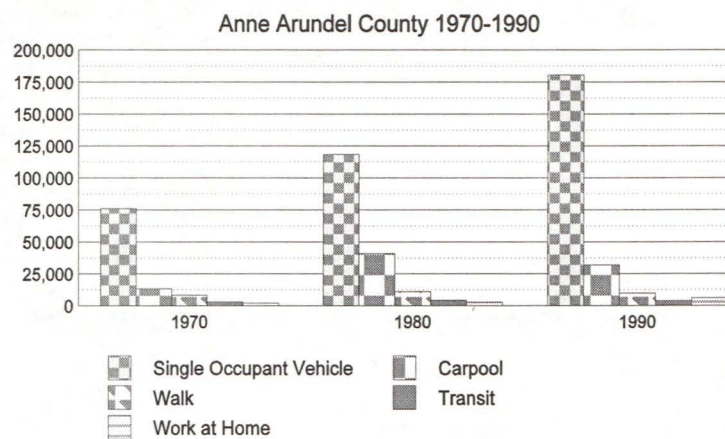


Chart 2-12, Transportation Mode to Work

D. Sewer and Water

"In 1966, approximately 86% of the County was proposed for sewer service."

"The most recent sewer plan for the County, adopted in 1993, shows approximately 41% of the County planned for public sewer."

The first countywide Master Plan for Water Supply and Sewerage Systems was completed in 1966 and helped guide the 1968 General Development Plan. The 1966 Master Plan recommended providing water and sewer service by the year 2000 to a much greater portion of the County than is recommended by the current Master Plan. In 1966, the Master Plan proposed extending sewer service to approximately 86% of the County including 10% that was currently served by existing public sewer and another 76% to be served. By 1977, the proposed sewer service area had been

reduced to 58% of the County, with 14% of the County being served and an additional 44% planned for future service. The most recent sewer plan, adopted in 1993, shows approximately 41% of the County planned for public sewer, with 21% already having sewer service and another 20% planned for service. Similar reductions occurred for planned water service.

By 1993, the County had removed the entire Hog Neck Peninsula from Jacobsville eastward from the planned sewer service area. Large areas of the Broadneck Peninsula, particularly south of Route 50, the southern portion of Fort Meade (now under the control of the U.S. Fish and Wildlife Service), portions of Annapolis Neck along the South River and the entire south shore of the Severn River from Route 3 to Luce Creek also were removed from the planned service area. The Chesapeake Bay Critical Area Program's Resource Conservation Area classification, which restricts development near the waterfront has reduced the need for utilities and has had a large impact on the sewer plan.

The 1993 Master Plan includes the provision of sewer service to Severna Park, North County, Mountain Road and the northern half of the Broadneck Peninsula. It reflected other changes to the system. Service had reached Heritage Harbour, various parts of Annapolis Neck, Deale, and the Mayo and Shadyside peninsulas. The County built a sewage treatment facility in Mayo that is innovative and non-traditional. The Mayo plant relies on a series of sand filters and vegetated lagoons

to purify effluent prior to discharge into the Chesapeake Bay. Also, by 1993, large areas had been shifted to the Master Plan's "No Public Service" category.

On the water side, the overall service area has shrunk since 1977. The following areas have been removed: the Mayo Peninsula, Woodland Beach-Londontown-Edgewater, Annapolis Neck along the South River, Lower Broadneck south of Route 50, the Hog Neck Peninsula east of Chelsea Beach-Lakeview Plaza-Oakview Beach, except Gibson Island, the southern portion of Fort Meade (now under the control of the U.S. Fish and Wildlife Service) and considerable amounts of shoreline classified as Resource Conservation Areas under the Chesapeake Bay Critical Area Program. On the other hand, water was extended to communities in Riva, South River Colony and Greater Odenton.

In general, the water and sewer systems have kept pace over the last 30 years with the arrival of people in the designated service areas. The water system has improved substantially by interconnecting well fields and treatment plants. In the case of sewer service, the County has, and will continue to, expand and improve its existing treatment plants before building new ones. Although the County has extended sewer and water service to remedy failing septic systems, saltwater intrusion and other health-related problems, the latest plan denies to broad, new areas.

E. Anne Arundel County in the Region

Anne Arundel County is located in the Baltimore-Washington Consolidated Metropolitan Statistical Area (CMSA), and is part of the Baltimore Primary Metropolitan Statistical Area (PMSA). With a 1995 population of 459,700, the County comprises 6% of the CMSA and 18% of the PMSA. It also is as a "corridor" county linking the Baltimore PMSA and the Washington PMSA.

Through its membership in the Baltimore Metropolitan Council (BMC) and the Washington Metropolitan Council of Governments (WASHCOG), Anne Arundel County participates in the discussion of regional land use and transportation issues and population forecasting. The BMC represents six local governments in the Baltimore region, while WASHCOG represents local governments in the Washington region. The County is represented on the BMC Transportation Steering Committee (TSC). The TSC acts as the Metropolitan Planning Organization (MPO) in the review of transportation and planning projects and programs funded under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991.

The County also participates in the Laurel/Quad County Coordinating Council (LQCCC) with local governments in both the Baltimore and Washington regions. The LQCCC shares information on various land use and development issues through a memorandum of understanding between

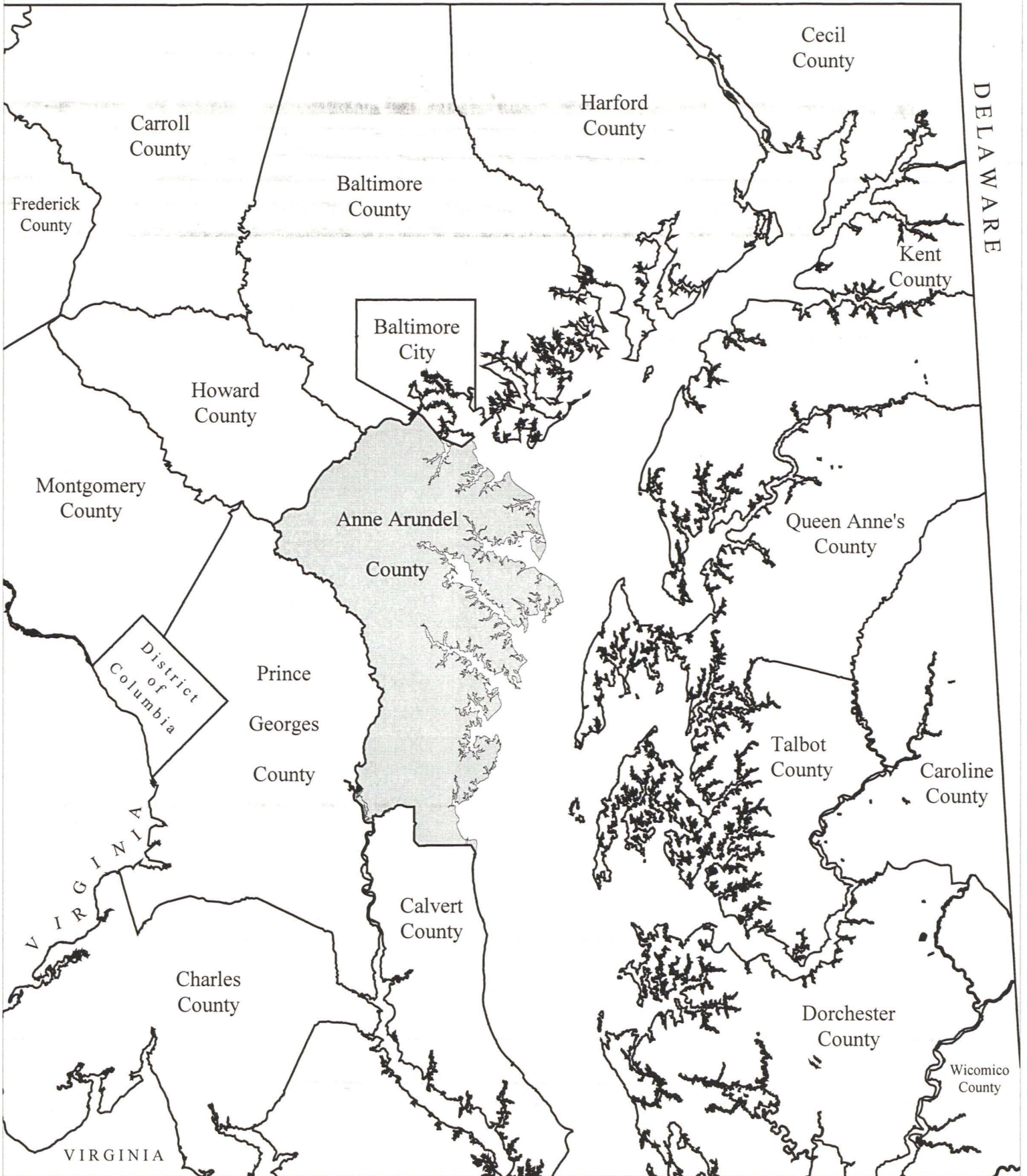
member governments. It is a vehicle for information exchange on regional issues such as regulatory cases and legislation, capital improvement projects and planning policy proposals.

The Maryland Office of Planning, State Clearinghouse, also is a vehicle for local governments to share information about planning and development. The Clearinghouse provides a process for local governments to review and comment on a wide range of projects and programs.

Anne Arundel County has recently been involved in two major transportation studies. The US 301 Corridor Study explored road and transit alternatives along US 301 in Prince George's, Charles and St. Mary's counties. Anne Arundel and Calvert counties were involved in the study as border counties. A MD Route 3 Study is exploring alternative road alignments for improvements to MD Route 3 between MD Route 32 and US Route 50.

Additionally, Anne Arundel County cooperates with nearby local governments in the provision of public facilities on a regional basis. Agreements exist between Anne Arundel and its neighbors for the provision of sewer and water service. Similar agreements exist for solid waste facilities with Baltimore and Howard counties. Anne Arundel and Howard are working together on joint use of the Tipton Airport near Fort Meade for general aviation.

PENNSYLVANIA



Map 2-5, Anne Arundel County in the Region

In regard to regional cooperation on water quality, Anne Arundel participates in the regional Tributary Strategies teams formed by the Chesapeake Bay Agreement. One of the primary goals of the Agreement is to reduce nutrient pollution into tributaries of the Bay by 40%.

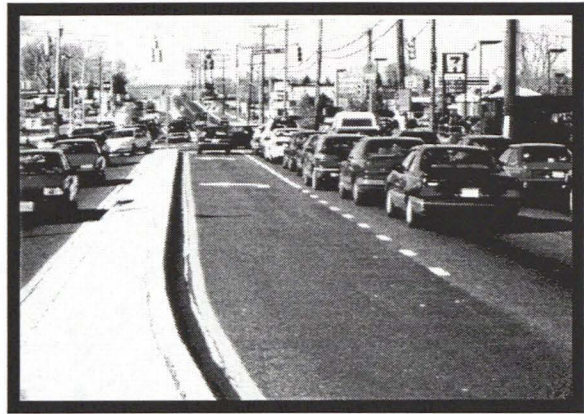
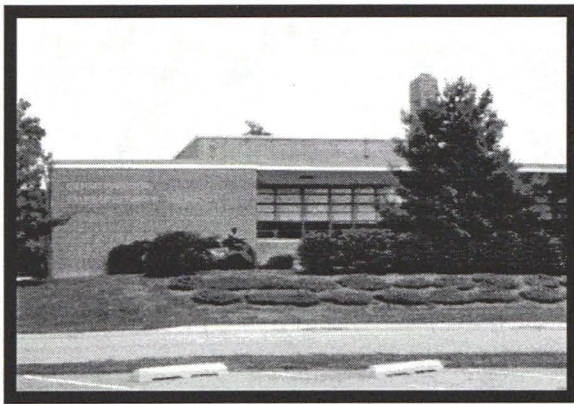
One the County's most important neighbors is the City of Annapolis. Annapolis is the County Seat, the State capital and an international tourist destination known for its history, architecture, boating, and the United States Naval Academy.

The County and the City of Annapolis share roads, schools, and other public facilities. They also cooperate in land use and transportation studies that address growth, development and redevelopment issues, such as the Forest Drive Corridor Study, the Parole Urban Design Plan and the Annapolis/Anne Arundel County Transit Study. Annapolis and Anne Arundel work together on tourism and heritage activities through their respective economic development and historic preservation offices.

Anne Arundel County will continue to be involved in regional activities concerning land use, transportation, public facilities, and air and water quality. In the future, the County and the City of Annapolis, in particular, should establish a mutually agreeable process or mechanism to address important land use, transportation and other interjurisdictional planning issues.

Chapter Three

Issues and Goals



The General Development Plan addresses current issues and prepares the County for the future. It seeks to preserve the County's character as a rural and waterfront community as well as provide well-designed rural, suburban and urban communities. The Plan seeks to balance conflicting needs and desires, while fairly allocating the benefits and costs of growth.

A. Issues and Goals

Through surveys, forums and other public participation, the Steering Committee identified key issues and concerns that it used to shape a common vision for Anne Arundel County. To formulate goals and policies to achieve that vision, the Committee created working groups around three broad themes:

CONSERVING THE ENVIRONMENT MANAGING DEVELOPMENT MEETING PEOPLE'S NEEDS

The following goals reflect the best efforts of the Steering Committee, residents and planners to address the key growth and development issues facing the County into the next century. These goals, in combination with the Vision Statement, are the foundation of the Plan.

1. CONSERVING THE ENVIRONMENT - ISSUES AND GOALS

"Anne Arundel County's natural environment is one of its most important assets."

ISSUES: The Chesapeake Bay and its tributaries are a major asset. Degradation of the Bay will adversely affect the County's environmental, social and economic health.

GOAL: Protect and preserve the Chesapeake Bay and its tributaries

ISSUES: Sensitive areas include streams, floodplains, steep slopes, tidal and nontidal wetlands and habitats of threatened and endangered species. Development could impact these sensitive areas. If sensitive areas are identified and regulations put in place to protect them, impacts can be reduced or avoided.

GOAL: Inventory, preserve and protect sensitive areas in accordance with the State Planning Act and achieve environmentally sensitive land use

ISSUES: Residents do not have adequate access to open space and recreation areas. This is particularly true on or near the water if they do not live in a waterfront community.

GOAL: Improve public access and expand open space without disturbing wildlife habitat and sensitive areas

ISSUES: Natural areas, parks, recreation areas and other green areas are disconnected, making it difficult for people to use these areas as trails and greenways.

GOAL: Connect fragmented natural areas, habitat and greenways

ISSUES: Residents are concerned about the effects of vehicle emissions on air quality. Improved transportation will reduce vehicle emissions and improve air quality.

GOAL: Improve air quality and reduce toxic air pollutants

ISSUES: The water quality of the County's tributaries and streams affects the water quality of the Chesapeake Bay. Maintaining and improving the quality of water in the streams and groundwater will help support a healthy aquatic system as well as provide recreational opportunities for residents.

GOAL: Improve and protect water quality

ISSUE: Noise generated by aircraft, vehicles traveling on roads and other sources affect the quality of life.

GOAL: Reduce noise pollution

ISSUES: Mineral resources, a staple of economic growth, must be managed efficiently to protect nearby residential and

environmentally sensitive areas from the detrimental effects of mining.

GOAL: Promote the prudent use of mineral resources for economic utilization while maintaining the quality of life of surrounding residents

ISSUES: The County's rural and farm areas are being lost to scattered residential development, depleting land available for agriculture and reducing forested lands and open space. Development in rural areas may also encourage unwanted and costly extension of primary public services and facilities.

GOAL: Preserve agriculture and rural areas of the County

ISSUE: The County is fortunate to have rich and extensive historic and archaeological resources. However, these historic structures, sites and archaeological resources are threatened by residential and commercial development, vandalism and neglect.

GOAL: Protect and preserve the historic and archaeological heritage of the County

2. MANAGING DEVELOPMENT - ISSUES AND GOALS

"Anne Arundel County will plan for growth and encourage development that provides positive benefits to the community."

ISSUES: Citizens expressed concern about rapid growth and the effect it has on roads and schools. They indicated that public facilities should be available concurrently with redevelopment or new development. Development should also be directed toward areas that are more able to support it and not sprawled into areas that are less suited.

GOAL: Focus growth in areas which best utilize existing and planned facilities, protect natural resources, promote economic growth, and provide a diversity of living environments

ISSUES: One of the many advantages of living in Anne Arundel County is its unique geography. Another is the character of its people and communities, from older waterfront Bay and river neighborhoods to farm areas and urban enclaves. Some older residential and commercial areas are experiencing a decline. This is evidenced by business areas that have high turnovers or attract uses not desired by the community.

GOAL: Strengthen and revitalize existing communities

ISSUES: Residents do not want their communities to look like everywhere else. They want to keep and maintain their special places and create new places that have functional and aesthetic appeal. New development should be designed to conserve land, enhance neighborhoods and preserve natural features.

GOAL: Preserve and enhance the scenic and aesthetic values of the County

ISSUES: Residents expressed the need to reduce traffic congestion. Public transportation should be more accessible to a greater number of residents, and new development should be located where public transportation exists or can be improved. In addition, pedestrian improvements are needed to allow people to walk safely to shops, schools, parks and jobs.

GOAL: Promote and encourage a safe, efficient, multimodal transportation system that adequately serves the public, minimizes negative environmental impacts, improves air quality, reduces resource consumption and reflects and strengthens the County's land use goals

ISSUES: Residential development in outlying areas requires longer commutes to work and extension of roads to serve larger populations as they grow. Land uses in close proximity to one another encourage shorter trips to shopping, employment and other services. Compact development uses

less land and reduces the need to extend facilities such as roads, sewer and water.

GOAL: Reduce the length and frequency of travel to housing, employment and services

ISSUES: Most residents are served by public sewer and water. Those who are not have individual or community wells and septic systems. In some cases, these private facilities are failing. Some residents would like to be considered for connection to the public system for health reasons; however, extension of sewer and water may encourage development in areas where it is not planned. The timing and provision of public sewer and water facilities are ways to manage growth. Public water and sewer should not be provided outside of the existing growth boundaries except for health or safety reasons.

GOAL: Promote and encourage safe, efficient, economical and environmentally sound sewer, water and solid waste facilities

ISSUES: Water resources are affected by development. The impervious surfaces of new development may affect the amount and rate of infiltration needed to maintain water yields.

GOAL: Promote conservation of water resources and protection of aquifers

ISSUES: The County needs to develop alternate waste disposal methods and sites to adequately manage future solid waste. Recycling should play a major role.

GOAL: Efficiently manage, reduce and recycle solid waste

ISSUES: Residents expressed concerns about inadequate storm drains and stormwater management. Concerns ranged from areas that flood after heavy storms to the impact of runoff and siltation on water quality.

GOAL: Promote improved stormwater management

ISSUES: Citizens want to be kept abreast of development projects in their neighborhoods. They also want to be aware of, and be involved with, any changes to development regulations. Some land use regulations are too complex and hard to understand. These should be simplified. County, City, State and Federal agencies should do a better job of coordinating land use reviews and approvals. People want to see the rules followed and see fair, equitable and timely enforcement of land use regulations.

GOAL: Improve public participation and understanding of the land use process and improve the monitoring and enforcement of land use regulations

3. MEETING PEOPLE'S NEEDS - ISSUES AND GOALS

"Anne Arundel County will continue to provide high quality services to all of its residents."

ISSUES: The County lacks a variety of housing choices. In some cases, accessory housing, attached to or a part of single family homes, is needed. Housing prices are generally high. Affordable housing for the disabled, seniors and low and moderate income families is in short supply.

GOAL: Promote an adequate supply of housing with a broad range types and prices that meet the needs of people at different ages and stages of their lives

ISSUES: Existing communities provide a good supply of housing. Some housing in these communities is aging and in need of repair or replacement. There is a need to focus on building neighborhoods not just housing.

GOAL: Encourage the redevelopment of existing communities and rehabilitation of existing housing as communities and housing stock age

ISSUES: High quality educational facilities and programs should be supported and maintained as an investment in the future. Adequacy of school facilities should be considered when planning for growth and development. Alternative solutions to school crowding should be explored. Avoid

busing by planning for growth and potential alternative uses of facilities for educational purposes. Also, school maintenance should be strongly supported.

GOAL: Provide the best education for all County residents and strive for equity among all schools

ISSUES: Residents expressed a need for additional recreation areas, including fields, pools and parks. These recreation areas should be located close to where people live. Also, public open space should be connected to allow walking, biking and horseback riding.

GOAL: Provide a diverse range of accessible recreational facilities and programs to serve the needs of all County residents

ISSUES: The Chesapeake Bay and its tributaries are an asset to residents. However, many residents do not have convenient access to the Bay and rivers. Additional public access should be provided to allow more residents to get to the water for boating, fishing and general recreational activities. It is also important to preserve open space and farms, not just active recreation space.

GOAL: Increase public access to the Chesapeake Bay and tributaries

ISSUES: Libraries need to be conveniently located to serve residents close to where they live.

GOAL: Provide a state of the art system of libraries that is convenient to all County residents

ISSUES: The population of residents over 65 is the fastest growing age group. In 25 years, the number of persons over 65 will nearly double to 84,000. Seniors currently have needs in the areas of health, recreation, housing and transportation. These needs will be even greater in 25 years. There is a need for long term elderly care and for more senior programs and facilities to house them, including improved access to emergency medical services.

GOAL: Promote quality health, recreation and transportation services for seniors

ISSUES: Fire stations should be located to provide timely responses to fire and medical emergencies. In areas where facilities are not as close, other methods of fire suppression and medical response should be explored.

GOAL: Provide a high level of fire prevention and suppression service and emergency medical response

ISSUES: Residents want to be assured that their safety is provided for, whether they are

in their homes, walking in their neighborhoods, shopping at community centers or traveling on the road. Residents want visible signs of protection such as foot and vehicle patrols in communities.

GOAL: Provide for the safety and promote the general welfare of citizens through the protection of life and property

ISSUES: The County must look continually to keep and attract jobs at all levels. Improved public transportation and the location of jobs closer to residential areas were identified as important. An aggressive economic development strategy is important to the long-term health of the community. Such a strategy should emphasize the creation of a more favorable regulatory environment. The Plan should look at the changing needs of business and industry and accommodate those needs.

GOAL: Retain and attract a diversity of businesses and industries to provide jobs, income and a solid tax base

ISSUES: Health issues and emerging growth patterns will affect the need for, and location of, new health care facilities. There is a growing need for affordable and accessible health care for the elderly.

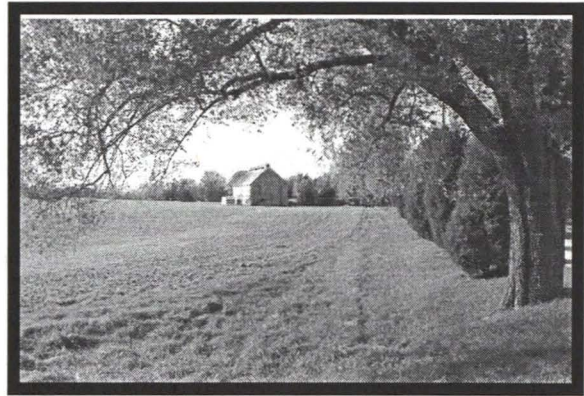
GOAL: Locate health facilities convenient to all to meet emergent needs for quality care

ISSUES: Health care facilities in the County are required to meet the health needs of the population. As the population of the County ages, additional care facilities will be required.

GOAL: Encourage the development of private health care facilities to supplement public facilities

Chapter Four

Conserving the Environment



Anne Arundel County's natural and cultural heritage are among its most important assets. The Chesapeake Bay and its tributaries are major natural and economic resources. A healthy Bay enhances the County's ability to provide recreation, employment and tourism. Historic and other cultural resources also are important to the County's economy and identity.

Development impacts the natural and cultural environment. Recognizing the importance of these resources, the policies and actions outlined in this Plan address those impacts. The Plan seeks to identify, designate and protect key resources. Natural and Cultural Resource policies and actions are grouped as follows:

NATURAL RESOURCES

- The Bay and Tributaries
- Sensitive Areas
- Open Space and Greenways
- Air and Water Quality
- Noise
- Mineral Resources

AGRICULTURAL AND FOREST PRESERVATION

HISTORIC AND ARCHAEOLOGICAL RESOURCES

A. NATURAL RESOURCES

1. The Chesapeake Bay and its Tributaries

In 1984, the Maryland General Assembly passed Senate Bill 664 which created the

Chesapeake Bay Critical Area Program. The Critical Area is defined as all land and water within 1,000 feet of the landward extension of tidal waters or tidal wetlands and the heads of tide. The County began, in 1984, to review all applications for subdivisions, rezonings, special exceptions and variances within the Critical Area that were received after June 1, 1984, for impacts on water quality and habitat. The General Assembly then approved the Critical Area Criteria in 1986 which directed local governments in the regulation of land use in the Critical Area.

The County developed its own Critical Area Program in August 1988. The three major goals of the program are:

- to minimize adverse impacts on water quality
- to conserve fish, wildlife and plant habitat
- to establish land use policies for development in the Critical Area

The Critical Area comprises about 49,000 acres or 18% of the County (see Map 4-1 Chesapeake Bay Critical Area). Land located within the Critical Area is classified in one of three categories. These categories are Intensely Developed Areas (IDA) where existing or adjoining uses are predominantly higher density residential, commercial or industrial; Limited Development Areas (LDA) where the land is moderately developed; and Resource Conservation Areas (RCA) where the land is primarily undeveloped or developed at low densities. Restrictions on new

development in the Critical Area range from more restrictive in the RCA classification to less restrictive in the IDA classification. However, in all cases, restrictions on development within the Critical Area are greater than without.



Chesapeake Bay and its Tributaries Goal:

**PROTECT AND PRESERVE THE
CHESAPEAKE BAY AND ITS
TRIBUTARIES**

Chesapeake Bay and its Tributaries Policies:

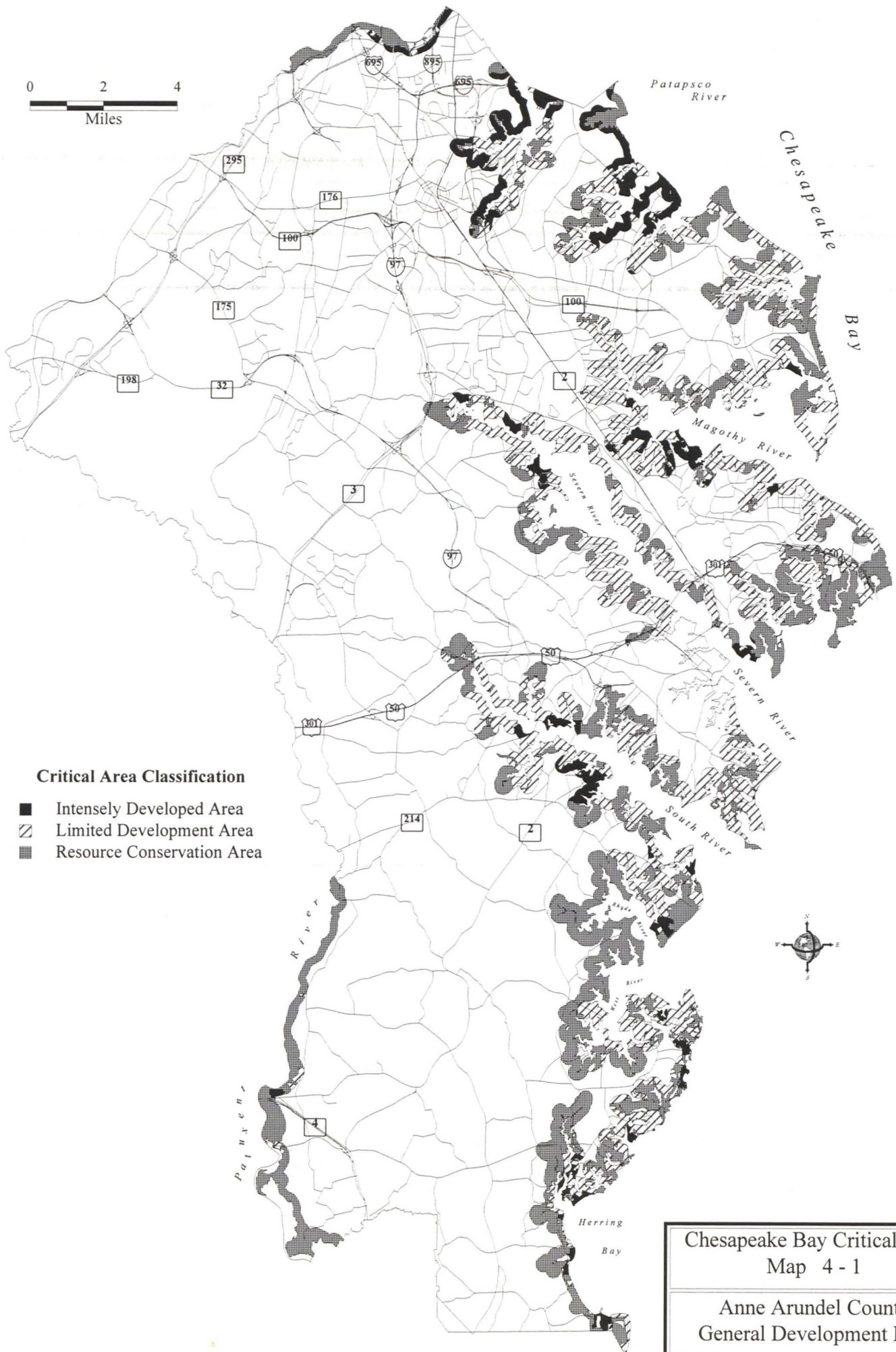
- Improve the viability of fish and wildlife habitats
- Monitor, control and decrease point and nonpoint source pollution
- Reduce aerial deposition of particulate matter through regional air quality efforts
- Manage the impacts of development

comprehensively on a watershed basis through integrated planning and review

- Protect and enhance designated State Scenic Rivers, (the Patuxent and the Severn) and other tributaries
- Recognize the uniqueness of the Jabez Branch as a Class III stream and protect it from adverse impacts

Chesapeake Bay and its Tributaries Actions:

- Implement Chesapeake Bay Program initiatives for local government involvement by participating in the tributary strategy teams for the Patapsco/Back rivers, Lower Western Shore and Patuxent River. Incorporate the teams' recommendations, as set forth in the annual report to the Governor, into PACE's work program
- Complete and adopt the South River Watershed Management Plan, and initiate the development of the Herring Bay Plan. Complete other watershed management plans at the rate of one per year; coordinate these watershed management plans with Small Area Plans
- Develop a tidal shoreline mitigation fund by charging fees for impacts to the shoreline



- Critical Area Classification**
- Intensely Developed Area
 - ▨ Limited Development Area
 - ▩ Resource Conservation Area

Chesapeake Bay Critical Area
 Map 4 - 1
 Anne Arundel County
 General Development Plan

- Identify and prioritize stream restoration projects for inclusion in development projects and the capital budget
- Develop watershed management plans for the Severn and Patuxent Rivers by utilizing previously completed studies and plans
- Develop a Class III stream watershed management plan

2. Sensitive Areas

In 1992, the State passed the Maryland Economic Growth, Resource Protection and Planning Act to direct development to suitable areas and preserve and protect sensitive areas. The law calls upon local jurisdictions to address sensitive areas in their General Development Plans. It identifies four specific sensitive areas that are to be addressed and protected. These include:

- Streams and Their Buffers
- 100-year Floodplains
- Habitats of Threatened and Endangered Species
- Steep Slopes

Anne Arundel County has included a fifth sensitive area, Tidal and Non-Tidal Wetlands.

A. *Streams and Their Buffers*

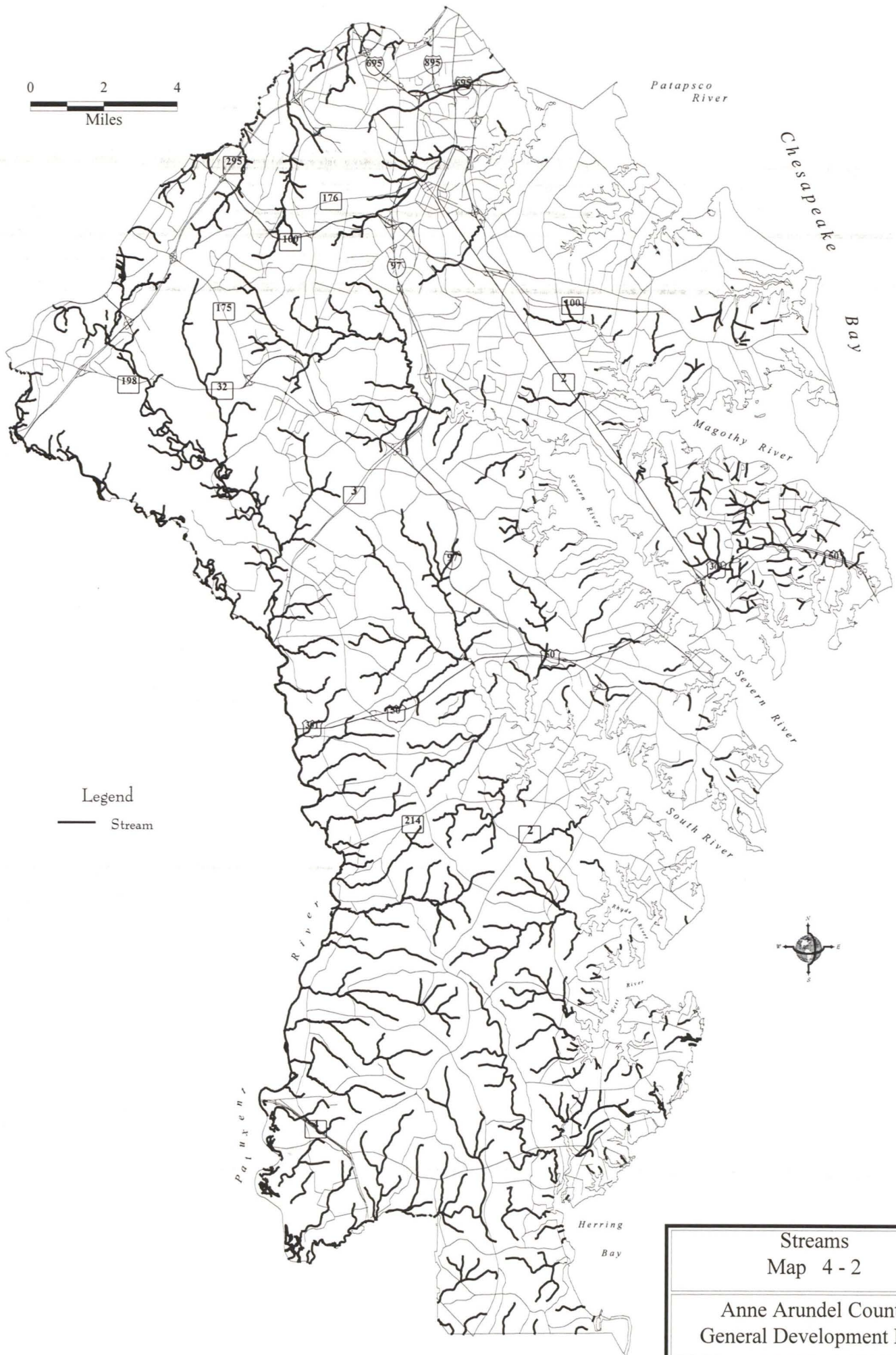
The County is laced by a network of streams that carry runoff from different



land uses to the tidal waters of its many creeks and rivers (see Map 4-2 Streams). Because of its topography, with over 447 miles of shoreline and numerous peninsulas, the County's streams tend to be short, first- and second-order, slow-moving, low-gradient waterways. All of Anne Arundel's streams originate within the County except for those draining into the Little Patuxent, which originates in Howard County.

The upper reaches of many streams in older, densely developed areas are enclosed in pipes or confined to man-made channels. However, the County is fortunate because the majority of its streams and their riparian buffers remain intact. Stream buffers are important in controlling nutrient and sediment runoff, maintaining stream temperatures, and providing aquatic and wildlife habitat. As a result, the County is home to the only naturally reproducing brook trout population in the Maryland coastal plain.

The County began protecting its streams as early as 1952 when it prohibited the platting of lots within the 50 year



Streams
 Map 4 - 2
 Anne Arundel County
 General Development Plan

floodplain. However, much of the legislation protecting floodplains was not adopted until the late 1960s and early 1970s. Thus, early development review did not consider the impacts of increased stormwater runoff from individual sites or the cumulative impacts within a drainage basin. This resulted in stream bank and stream bed erosion in many of the County's streams as well as increased storm flows.

B. 100 Year Floodplains

Floodplains are defined as the 100-year floodplain. They play a vital role in absorbing increased volumes of runoff from developed areas. If constricted or reduced, their capacity to absorb stormwater runoff decreases, resulting in increased potential for flooding of property and roadways. It is, therefore, essential that floodplains be maintained in their natural state, not only to protect stream quality and habitat, but to enhance public safety.

Floodplains in the County are protected by subdivision regulations, the zoning code and a floodplain ordinance. Subdivision regulations require the dedication of floodplains to the County in their natural condition (see Map 4-3 100 Year Floodplain). The zoning code classifies most floodplains as Open Space, and the floodplain ordinance requires that development obtain a waiver before encroaching on a floodplain.

C. Habitats of Threatened and Endangered Species

The Maryland Natural Heritage Program of the Department of Natural Resources (DNR) has classified 17 animal and 123 plant species in the County as rare, threatened or endangered (see Map 4-4 Significant Habitat Areas). The DNR identified where these species occurred in 1988 and 1989.

The one overriding issue related to protection of endangered species is habitat preservation. The reason species are listed as rare, threatened or endangered is that their health and/or existence is threatened by alteration, degradation or loss of their habitat.

As development occurs in Anne Arundel, the habitat of rare and endangered species is evaluated on a case-by-case basis. The County defers to the recommendation of State and Federal agencies in establishing the appropriate, development buffers to any habitat discovered. In the case of bald eagle nest sites, federal guidelines recommend a quarter-mile protection zone around each nest. The County currently has five active eagle nest sites.

D. Steep Slopes

Steep slopes are defined in the subdivision regulations as slopes with an incline of 15% or greater within the Critical Area. Outside the Critical Area, a steep slope is any incline greater than 15%. The Critical Area Program and the grading ordinance

protect steep slopes by requiring buffers. A nearly continuous stretch of steep slopes occurs between the headwaters of the Severn River to the County's southern boundary near Herring Bay (see Map 4-5 Steep Slopes).

E. Tidal and Non-Tidal Wetlands

Tidal

Due to the extensive length of tidal shoreline, the County contains large areas of tidal wetlands (see Map 4-6, Tidal and Non-Tidal Wetlands). Tidal wetlands have long been recognized as an important component in the health of the Bay. They provide numerous environmental benefits which include filtering sediment and nutrients from upland runoff, controlling flooding and shoreline erosion, providing nurseries for shellfish and finfish, absorbing nutrients from the water column and providing valuable habitat for many aquatic and terrestrial species of flora and fauna.

Tidal wetlands are important to commercial and recreational fisheries because many of the Bay's commercial fin and shellfish spend part of their lives there. The aesthetic value of tidal wetlands is demonstrated by the many residents who want to live on or near the water.

The County protects tidal wetlands through implementation and enforcement of the Chesapeake Bay Critical Area Program. It also works with the U.S. Army Corps of Engineers and the Maryland Department of

the Environment (MDE) to prevent adverse impacts to tidal wetlands from development projects.

Non-Tidal

Over one-half of all wetlands in the County are considered upland or non-tidal wetlands. These are areas where water is the primary factor controlling the hydrology and associated plant life. There are many types of non-tidal wetlands such as forested wetlands, scrub-scrub wetlands and wet meadows. Non-tidal wetlands provide many of the same environmental functions as tidal wetlands, including providing habitat for fish and wildlife, maintaining water quality and flood control, reducing nutrients from runoff and groundwater, and recharging groundwater.

Non-tidal wetlands are areas that are characterized by an ample water supply, saturated or hydric soils and hydrophytic vegetation. These characteristics distinguish wetlands from upland areas and provide the framework for the regulatory definition of non-tidal wetlands used by the State and the Federal government. The County protects these areas through enforcement of the Chesapeake Bay Critical Area Program and the sensitive area criteria of its grading ordinance. All permits that impact wetlands are required to obtain approval from the Army Corps of Engineers and MDE.

From 1991 to December 1996, according to the MDE, the State approved 48 applications to disturb 7.36 acres of wetlands in watersheds located in the County. Of these

48 authorizations, 20 required no mitigation, 16 had small impacts that required mitigation and 12 had medium to large impacts that required mitigation. Most of the impacts involved less than 1/4 acre. These impacts are occurred as follows:

Magothy River Watershed 1.40 acres

Severn River Watershed 2.06 acres

South River Watershed 0.51 acres

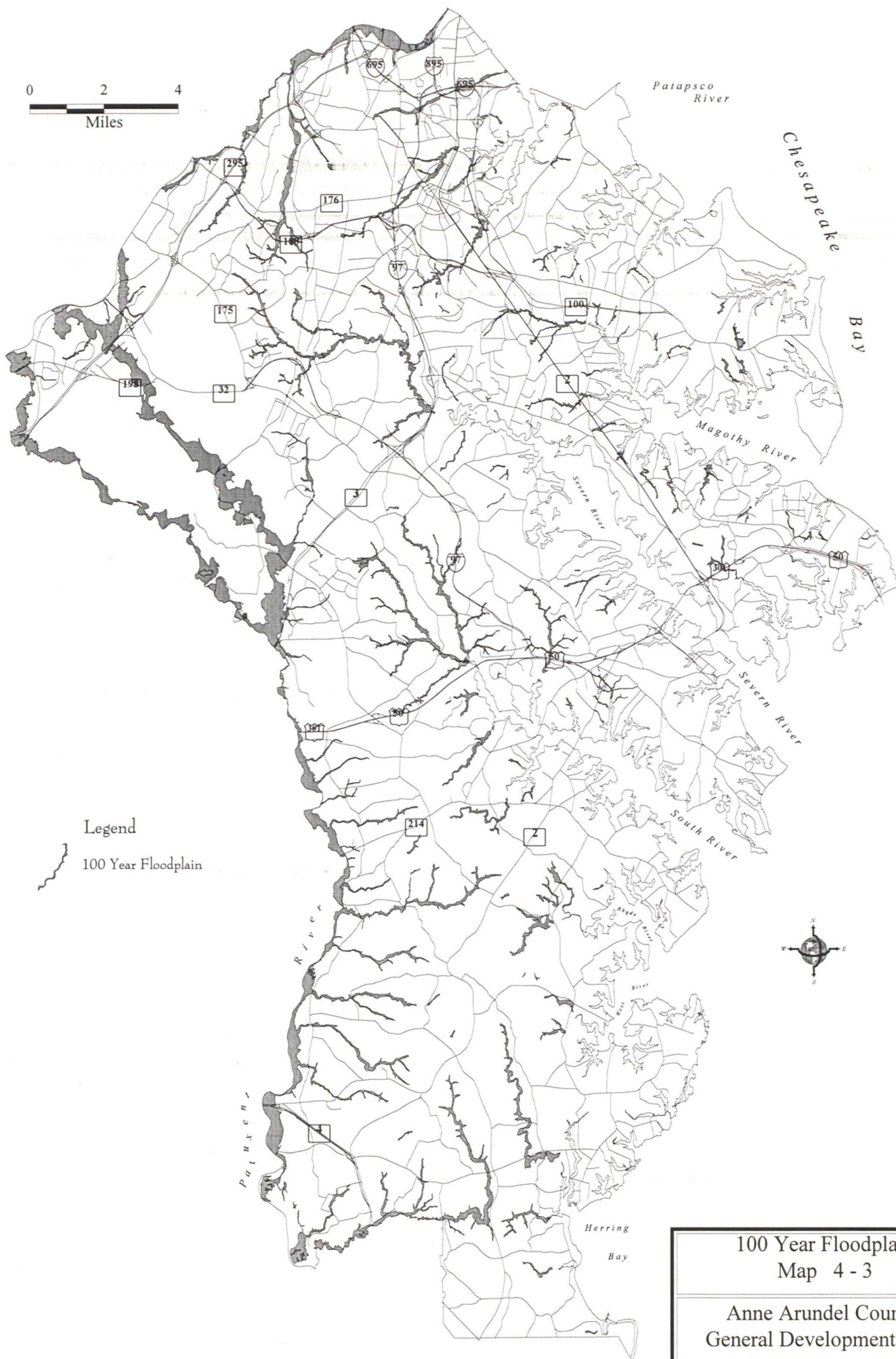
West River Watershed 0.65 acres

Other Drainage Areas 1.19 acres
(includes Anne Arundel and Calvert counties in the West Chesapeake Area)


Middle Patuxent River 1.55 acres
(includes portions of Anne Arundel, Howard, Prince Georges and Montgomery Counties)

Permits for an additional 4.37 acres of wetlands were issued in the Lower Patuxent Watershed (Charles County and St. Mary's County). Of the total of 12 acres of wetlands impacted in the above watersheds, 15 acres have been replaced, including five acres by private property owners and 10.3 acres through contributions paid as mitigation.

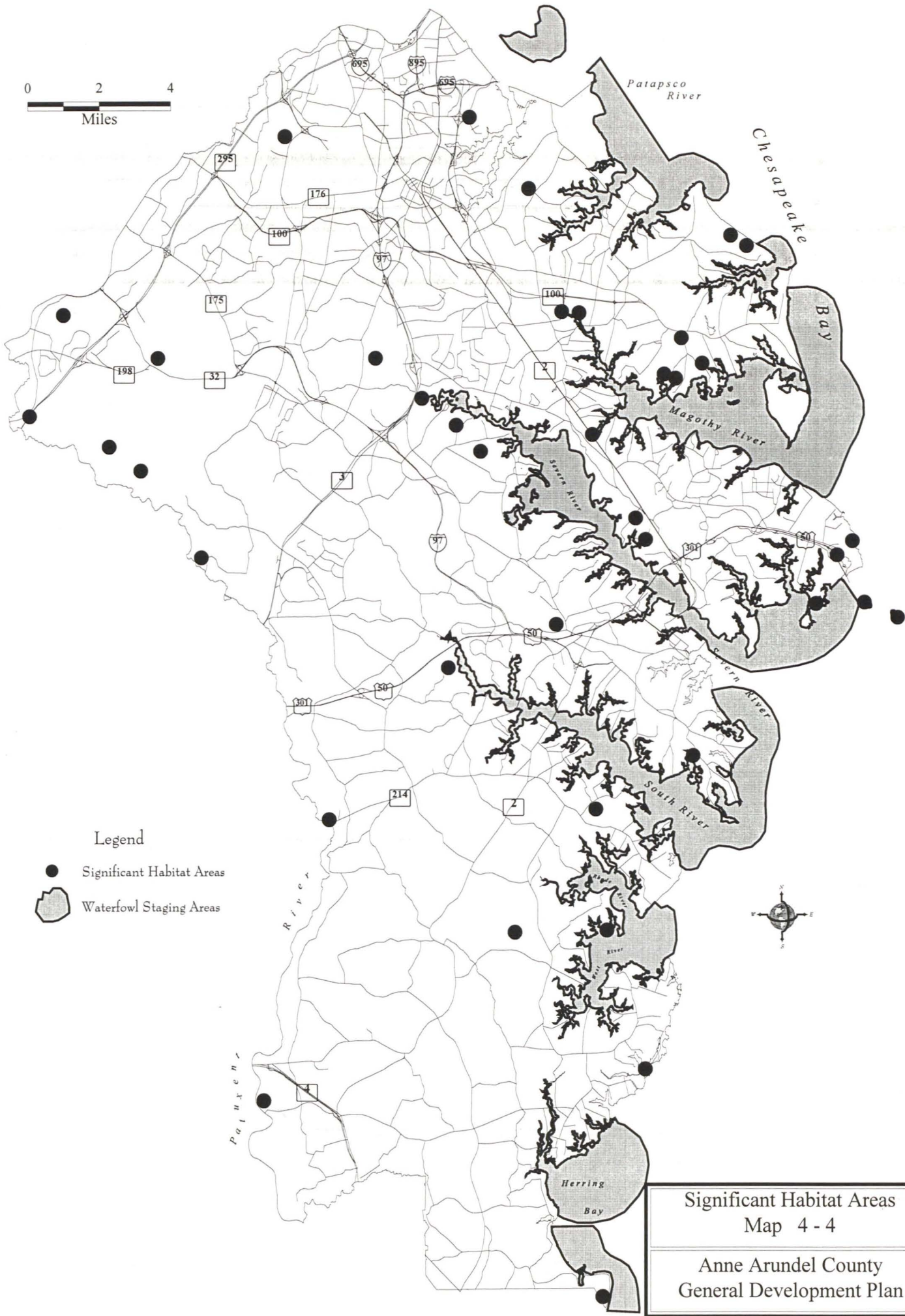




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Miles

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 100 Year Floodplain

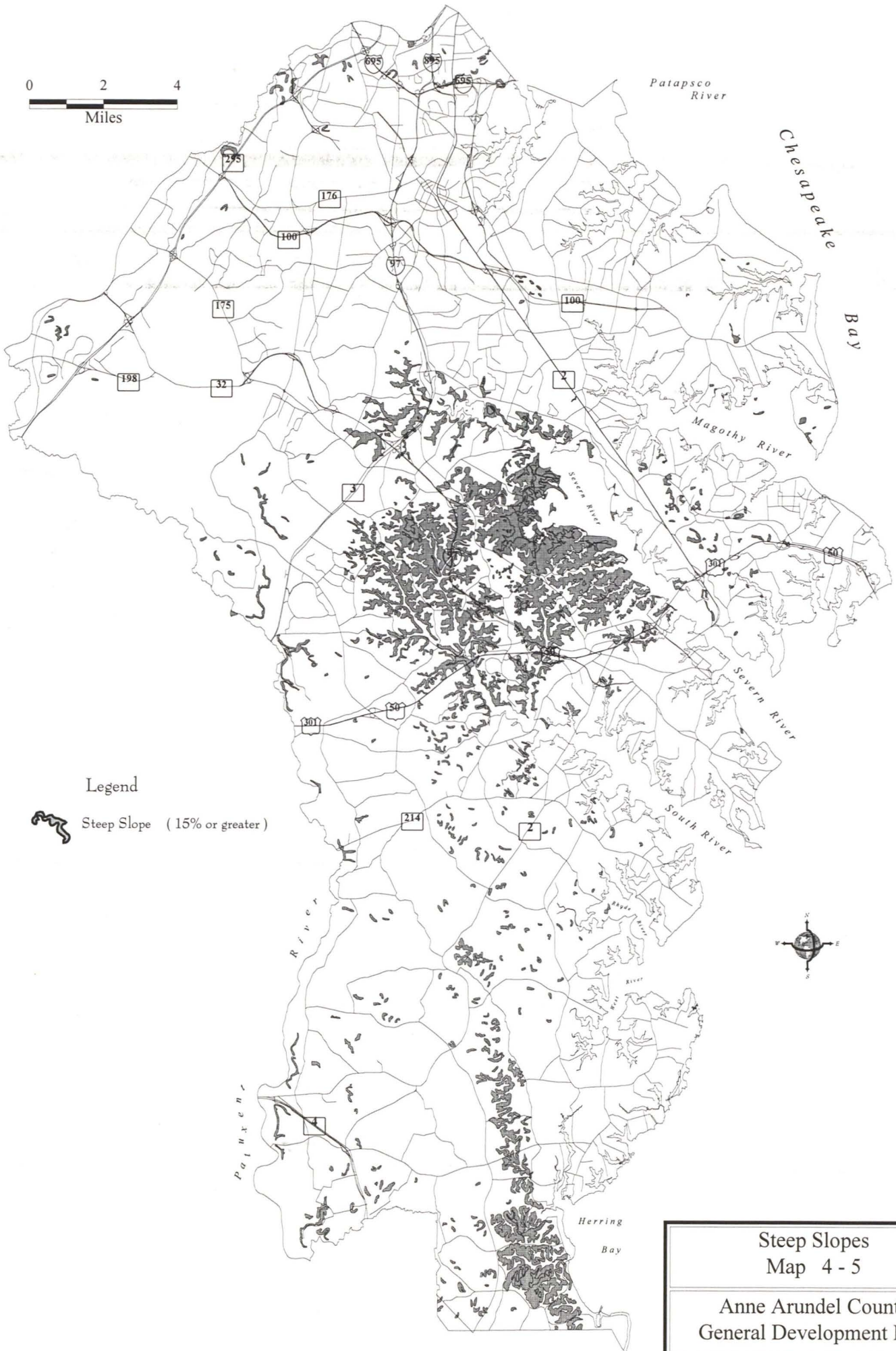
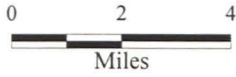
100 Year Floodplain
 Map 4 - 3
 Anne Arundel County
 General Development Plan



Legend

- Significant Habitat Areas
- Waterfowl Staging Areas

Significant Habitat Areas
 Map 4 - 4
 Anne Arundel County
 General Development Plan



Legend

 Steep Slope (15% or greater)

Steep Slopes
Map 4 - 5

Anne Arundel County
General Development Plan



Wetland Class

- Tidal Wetland
- Non-Tidal Wetland

Tidal and Non-Tidal Wetland
 Map 4 - 6
 Anne Arundel County
 General Development Plan

Sensitive areas goal:

INVENTORY, PRESERVE AND PROTECT SENSITIVE AREAS IN ACCORDANCE WITH THE STATE PLANNING ACT AND ACHIEVE ENVIRONMENTALLY SENSITIVE LAND USE

Sensitive Areas Policies:

- Protect streams by the use of riparian buffers
- Encourage no net loss and strive for overall gain of tidal and non-tidal wetlands
- Encourage flexibility in the standards for the disturbance and mitigation of impacts to wetlands, and other sensitive areas in designated growth areas
- Reduce flood damage along rivers through protection and preservation of floodplains
- Protect and preserve naturally occurring steep slopes and steep slopes adjacent to, and within, sensitive areas
- Work with the State to achieve the submerged aquatic vegetation restoration goals established by the Chesapeake Executive Council
- Encourage development methods and regulations that protect valuable

environmental resources

- Promote the use of urban growth boundaries to channel development to appropriate areas and to protect and preserve sensitive areas, the Bay and its tributaries

Sensitive Areas Actions:

- Revise development regulations to require undisturbed buffers along upland streams
- Identify potential areas for planting riparian buffers
- Identify and develop incentives for achieving net gain of tidal and non-tidal wetlands
- Identify wetland sites for mitigation banking and establish a County wetland bank
- Secure authority to use off-site drainage fees, and emphasize use of Critical Area and Tree Bill Reforestation fees, to acquire mitigation sites
- Establish a program for wetland and forest restoration, or creation, in rural areas and in appropriate areas in growth areas
- Enforce floodplain regulations
- Revise development regulations to more clearly define steep slopes

- Inventory shoreline areas for potential restoration of submerged aquatic vegetation; establish a program to restore these areas
- Identify preservation areas and establish growth boundaries through adoption of land use and infrastructure plans and Small Area Plans

3. Open Space and Greenways

A. Open Space

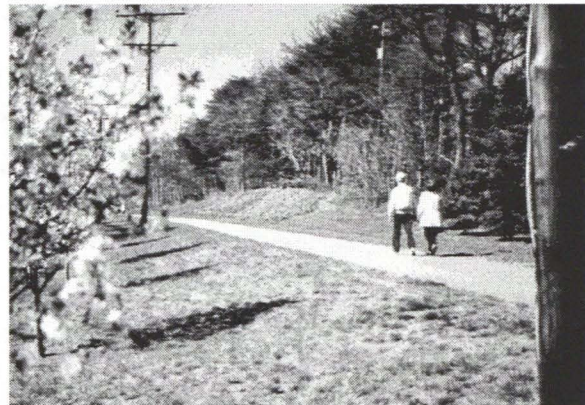
Open space is land that is protected from development and available on a long-term basis for a variety of active and passive uses. Open space includes recreation land, natural and productive land, and Cultural/Historic areas (see Map 2-3 Open Space).

Land can be zoned "Open Space." In 1989, during comprehensive rezoning, the amount of land zoned Open Space increased significantly. Included in Open Space zones were 100-year floodplains, wetlands, County parks, and some areas platted as open space in subdivisions. Currently, there are 32,600 acres zoned Open Space or 11.4% of the total acreage in the County.

Citizens have grown increasingly aware of the passive recreational opportunities that are created by the preservation of natural areas and open space. Some examples of these opportunities include bird watching, hiking, and photography. Traditionally, in

Anne Arundel County, natural areas were connected to the water, i.e., headwaters of streams, bogs or marshes. Natural areas also contain significant plant and wildlife. Preserving these areas aids in protecting the County's natural diversity.

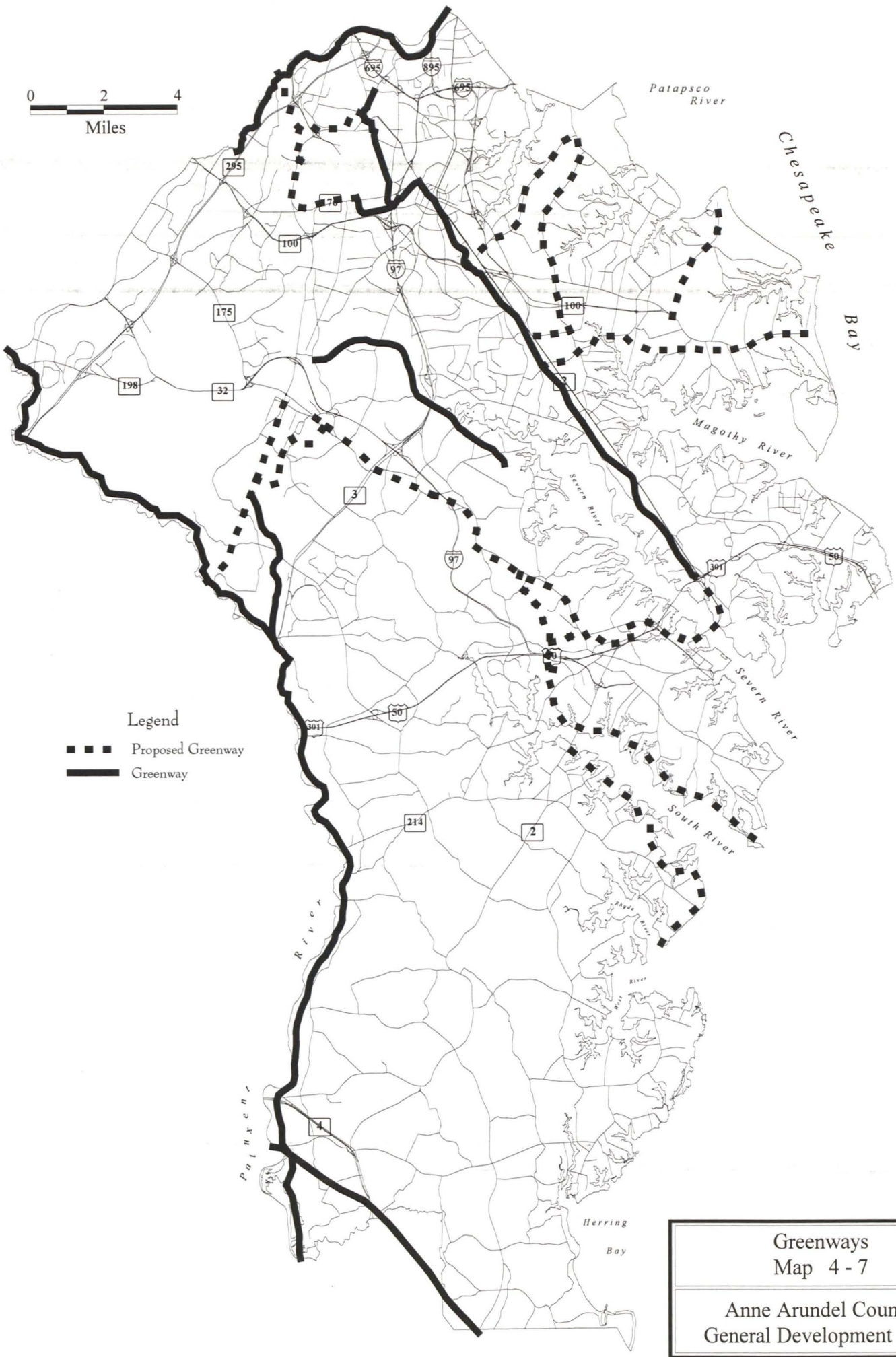
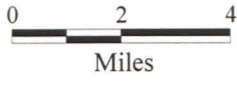
The County has purchased a significant amount of natural, sensitive and waterfront land that provides citizens with public access to the water. The County owns approximately 2,100 acres of sensitive areas and 1,700 acres of waterfront property.



B. Greenways

Greenways are natural linear areas that follow stream valleys, abandoned railroad lines and old trails. They provide natural resource protection, wildlife corridors, hiker-biker trails, and linear spaces for passive recreation.

The County's existing greenways are primarily rail-to-trail projects or river/stream valleys (see Map 4-7 Greenways). The challenge in the coming



Legend
 ■ ■ ■ Proposed Greenway
 ——— Greenway

Greenways
 Map 4 - 7
 Anne Arundel County
 General Development Plan

years will be to fill in the gaps, connect these greenways and extend them into the neighborhoods where people live and work. In addition, wildlife which may suffer from being locked in a small island-like park will have greater mobility as greenway links are made. Maintaining and enhancing forest and wildlife corridors is a major objective of the Critical Area Program and Tree Bill.

The County has the nucleus of an excellent greenway network. It manages approximately 42 miles of bicycle and nature trails. The B&A Trail provides a 13.3 mile-long, 66 foot-wide greenway extending southward from Glen Burnie to Annapolis.

The Patuxent River watershed forms perhaps the County's most important greenway, with several thousand acres preserved by Anne Arundel, Calvert, Howard, and Prince George's Counties as well as state and federal agencies. This greenway contains the County's premier environmental facility, the Jug Bay Wetlands Sanctuary, a unit of the National Estuarine Research Reserve system.

The Patapsco River is a prime example of a river valley greenway. It is located on the County's northern and northwestern boundaries and includes significant amounts of publicly owned land in the form of the Patapsco State Park. Linkages to adjoining neighborhoods will make this greenway more accessible and useful for nearby residents. The existing County parks in the Sawmill Creek stream valley near BWI,

combined with the recently constructed BWI Trail, could be linked with the Patapsco State Park and the B&A Trail to form a significant greenway system.

The Severn Run Natural Environmental Area and nearby Whitney's Landing Farm are major elements in a Central County greenway system which could be linked with the Annapolis City Waterworks.

Extending northwest from Annapolis is the South Shore Trail corridor which continues to Odenton. From there, it will link with the West County Trail, a corridor that follows the abandoned the WB&A Railroad south from Odenton to the Patuxent River and links with a trail in Prince George's County.

Other County parks, such as those that have frontage on the South River and Chesapeake Bay, would be difficult to link directly, yet provide important wildlife habitat and public access to the water.

There is strong interest in assembling a regional greenway to link the Baltimore and Washington areas, as well as to form an East Coast greenway. The emphasis on the national level encourages states to establish their own statewide greenway network that can be linked with adjacent states to eventually form a nationwide greenway system.

Open Space and Greenways Goals:

IMPROVE PUBLIC ACCESS AND
EXPAND OPEN SPACE WITHOUT
DISTURBING WILDLIFE HABITAT
AND SENSITIVE AREAS

CONNECT FRAGMENTED NATURAL
AREAS, HABITAT AND GREENWAYS

Open Space and Greenways Policies:

- Give priority to protection and preservation of wildlife habitat and sensitive areas when considering acquisition and development of waterfront access, open space and wildlife corridors
- Encourage innovative methods, including pursuit of private and public resources, to expand existing natural areas, greenways, and wildlife corridors
- Promote an open space system for active and passive recreation between existing and new communities

Open Space and Greenways Actions:

- Identify environmentally sensitive areas for acquisition by the County
- Identify where public access to the waterfront may be possible and establish a program to determine public support and funding

- Develop a countywide greenways master plan and integrate it into regional greenway planning efforts
- Identify and preserve greenways and open space through conservation easements. Establish a funding mechanism, such as a dedicated fund, and incentives as part of development agreements
- Revise subdivision regulations to provide pedestrian access and recreation linkage between subdivisions

4. Air and Water Quality**A. Air Quality**

The Baltimore region has been classified as a non-attainment area for ozone under the Clean Air Act of 1990. A major reason for this classification is exhaust emissions from vehicles traveling on roads. Under this classification, the region is required to show the MDE and the U.S. Environmental Protection Agency (EPA) how ozone levels will be reduced. The State has used vehicle emission inspections to monitor and reduce harmful effects of vehicle emissions. The State promotes other voluntary programs, such as Employee Commute Options, to help employers provide commuters with options to single occupant vehicles.

B. Water Quality

The primary threat to the County's water quality is the discharge of untreated sewage

and other contaminants into creeks and rivers. Sewage is occasionally spilled into creeks and rivers from pump station overflows. This problem occurs infrequently after major storms when rain enters the sewers and overwhelms the treatment and distribution systems. Failing septic systems also allow waste water to seep into groundwater. Other water quality problems occur from untreated and/or thermal runoff from roadways and other impervious surfaces directly into the Bay and its tributaries. The County has established monitoring stations at key locations along streams to measure the effects of this type of pollution.

Air and Water Quality Goals:

IMPROVE AIR QUALITY AND
REDUCE TOXIC AIR POLLUTANTS

IMPROVE AND PROTECT WATER
QUALITY

Air and Water Quality Policies:

Air Quality Policies

- Work regionally to control detrimental impacts of air pollutants upon public health, property, environment and climate

Water Quality Policies

- Require use of Best Management Practices to protect groundwater and surface water quality

- Promote and use innovative technology to improve wastewater treatment
- Protect aquifers from toxic waste and harmful leachates
- Encourage new technologies to protect water supply and reduce impacts from failing septic systems
- Educate the public about water conservation and nonpoint source pollution
- Promote innovative technologies to minimize impervious surfaces

Air and Water Quality Actions:

- Work with other jurisdictions in the Metropolitan Baltimore Intrastate Air Quality Control Region (AQCR), also known as the Baltimore Metropolitan Non-Attainment Area, to attain the ozone standard through a combination of controls on industrial sources, vehicle inspection and maintenance programs, and transportation control measures
- Incorporate use of innovative septic systems such as sand filters and mounds into building and site design standards; investigate new technologies to protect water supplies

- Retrofit existing storm drains and stormwater management systems to provide water quality management as identified by the County's National Pollutant Discharge Elimination System program
- Incorporate new wastewater treatment technology into the County's program as it becomes technically and financially feasible
- Coordinate with State and Federal agencies to develop a public education program on the hazards of toxic spills
- Provide information to the public about water conservation technologies and ways to minimize stormwater runoff
- Create incentives to encourage water conservation
- Revise development regulations to incorporate innovative methods to minimize impervious surfaces

5. Noise

Noise pollution in the County comes primarily from three sources: construction-related activities, land use-related activities, and transportation-related activities. Construction noise has short-term impacts, whereas land use and transportation noise may have longer term impacts. Most land use-related noise, such as from industrial processes, has been handled by requiring

additional buffers, such as earthen berms and larger property setbacks, to separate and muffle the effects. Transportation-related noise comes primarily from airports and highways. Airport noise has been addressed by the creation of a "noise zone" around BWI (see Map 4-8, BWI Noise Zone). Within the noise zone, residential and certain other uses are prohibited. Additional noise attenuation devices or use of special construction material are required. Uses near the airport, but outside the noise zone, also are affected by airport operations. Methods to address these noise impacts should be explored.

Noise along major highways is being handled through the construction of sound barriers. The State is constructing the barriers along major State and Interstate routes concurrent with capacity and safety improvements. The State also is encouraging new development to locate away from highway noise sources. Local requirements for noise berms and buffers can help.

Noise Goal:

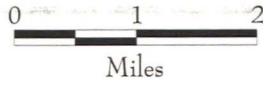
REDUCE NOISE POLLUTION

Noise Policy:




- Promote innovative techniques to reduce impacts from noise

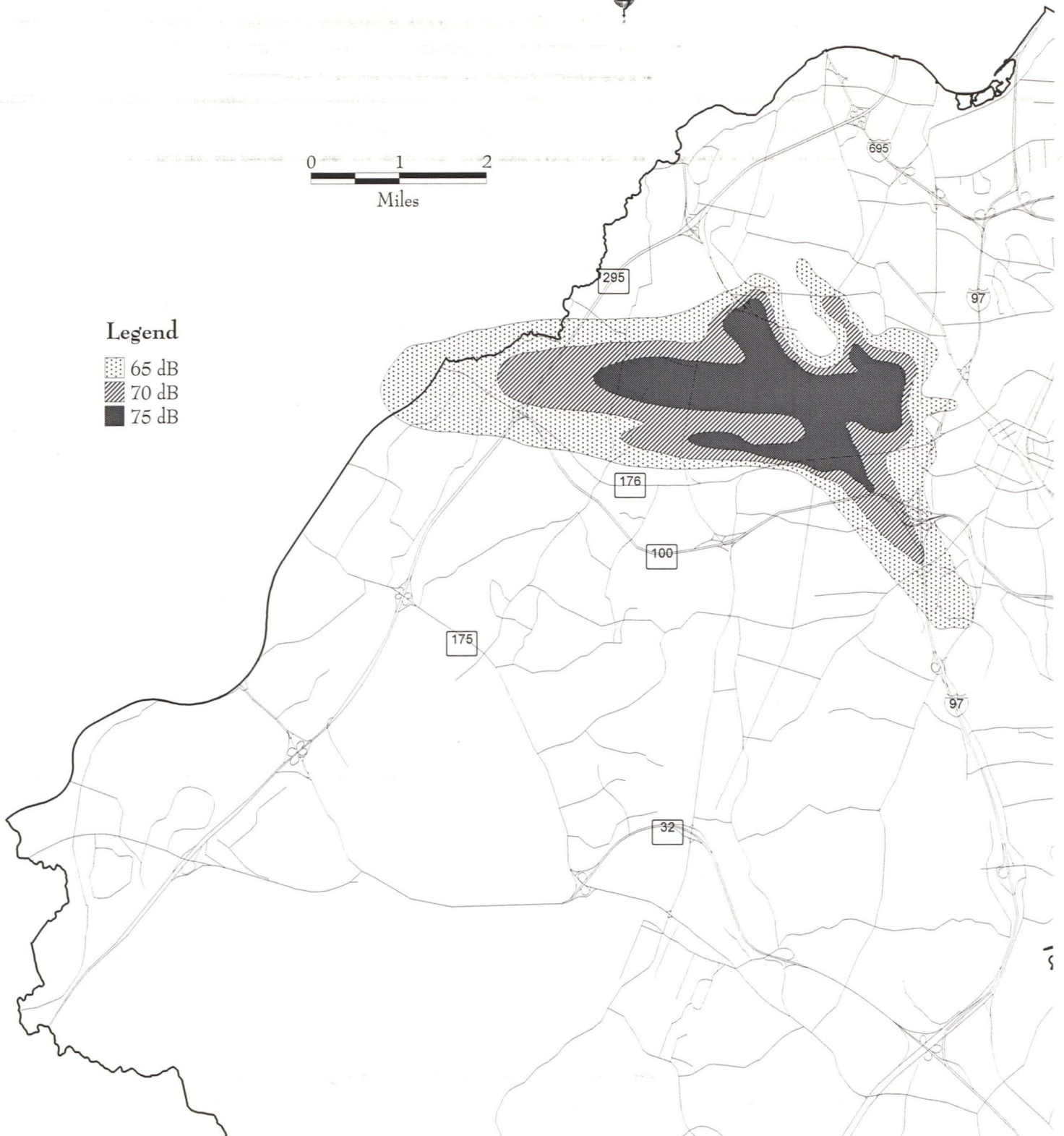
Noise Action:

- Revise existing County code to include noise reduction standards



Legend

-  65 dB
-  70 dB
-  75 dB



B.W.I. Noise Zone
Map 4 - 8
Anne Arundel County
General Development Plan

that are linked to decibel levels for specific uses

6. Mineral Resources

The County lies in the Coastal Plain physiographic region in Maryland. The Coastal Plain is underlain by a wedge-shaped mass of unconsolidated sedimentary deposits, consisting of stratified layers of sand, gravel, silt and clay. Mineral Resource Areas are shown on Map 4-9. The majority of the surface mining operations extract clay, sand and gravel. Sand and gravel are used for highway construction and concrete manufacturing. Clay is used to manufacture bricks and other structural clay products. Soil and loose material also are extracted from "borrow pits." These are areas "from which soil and unconsolidated materials are removed to be used, without further processing, as fill for activities such as landscaping, building construction, or highway construction and maintenance."

Generally, surface mining in the County is a viable, growing industry. There are about 25 active mines. These active operations encompass about 1,700 acres and are located primarily along the Patuxent River.

Mineral resources such as sand and gravel are major raw materials necessary for highway construction and concrete manufacturing. These natural resources need to be conserved and used efficiently. When extracted, the operation must also protect nearby residential areas and sensitive natural resources from any

negative impacts.

Land that has been identified as having potential mineral resources must be undeveloped and located within one of four zoning districts. In 1981, there were approximately 13,380 acres of land that had potential for mineral extraction. In 1986, the potential had declined to less than 10,000 acres and, in 1995, potential mineral deposits amounted to only about 2,200 acres.

Mineral Resource Goal:

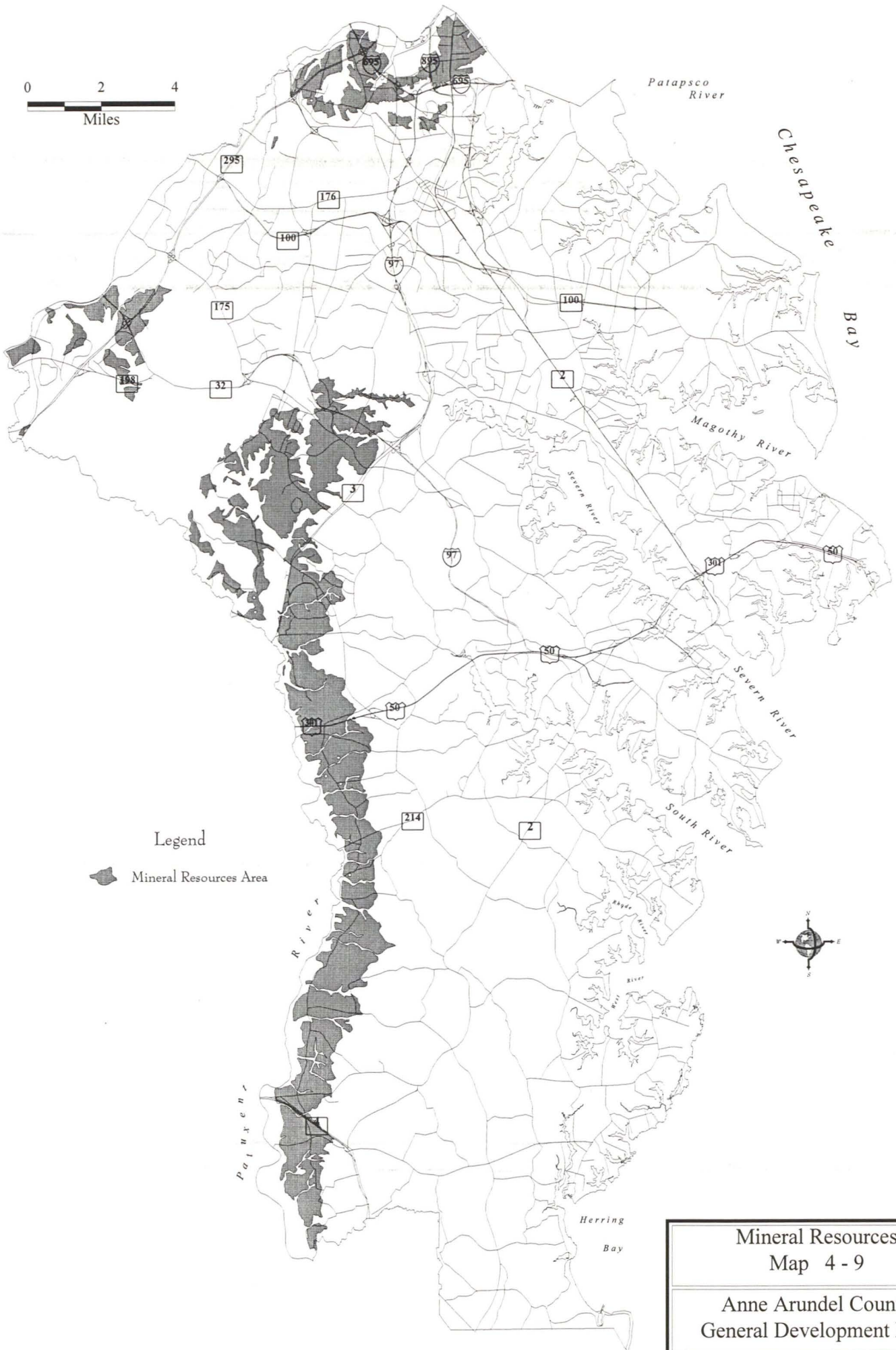
PROMOTE PRUDENT USE OF MINERAL RESOURCES FOR ECONOMIC USE WHILE MAINTAINING THE QUALITY OF LIFE OF SURROUNDING RESIDENTS

Mineral Resource Policies:

- Conserve mineral resources for future extraction.
- Protect natural resources prior to, during and after mining of mineral resources.

Mineral Resource Actions:

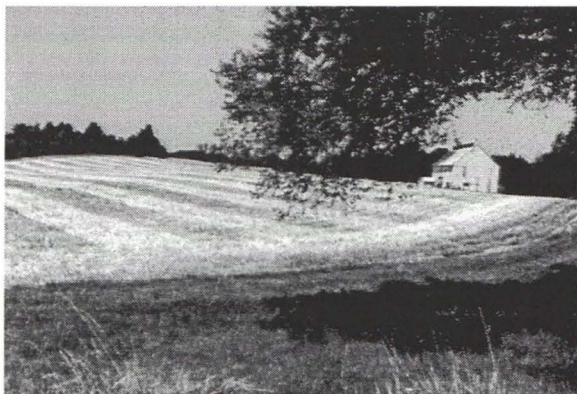
- Implement buffers to protect adjacent or nearby residential uses from mining activities
- Identify and evaluate inactive sand and gravel mines for reclamation and restoration, including wetlands mitigation sites, local/regional



Mineral Resources
 Map 4 - 9
 Anne Arundel County
 General Development Plan

recreation facilities and regional stormwater management sites

B. Agricultural and Forest Conservation



1. Agriculture

Agriculture is a major component of the County's economic base and occupies 43,320 acres or 16% of its land area. According to 1994 figures of the Maryland Department of Agriculture, the total value

of agricultural production in the County, except horses, exceeded \$13 million. Traditionally, the County has had smaller farms than other counties due to topography and development pressures generated by its central location between Baltimore and Washington. Overall, the amount of farmland has decreased from 81,700 acres in 1959 to 43,320 acres in 1992 (See Chart 4-1 Farmland 1959-1992).

County farms range from crops and livestock to timber production and horse breeding. Still largely family operations, County farms grow primarily tobacco, corn, soybeans, hay and flowering plants. There has been a general shift away from labor intensive crops such as tobacco, which has experienced a steady decline in the number of acres in production from 1964 to 1992. Many farmers have found that the boarding and breeding horses is more profitable than raising crops.

The farms and open space areas of South County are important to Anne Arundel's image in the region. Agriculture must remain viable if the County is to maintain substantial quantities of open space and low density development. Agriculture, therefore, has a dual role: providing a direct economic benefit and preserving the quality of life which is reflected in a rural environment.

2. Woodlands

The amount of forest cover in the County dwindled from 1955 to 1976. Forested lands during this period were cleared

Land in Farms 1959-1992

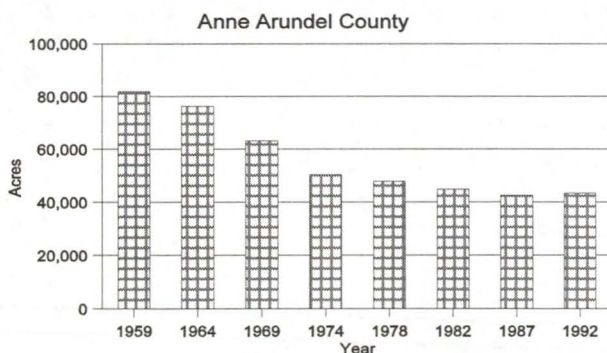


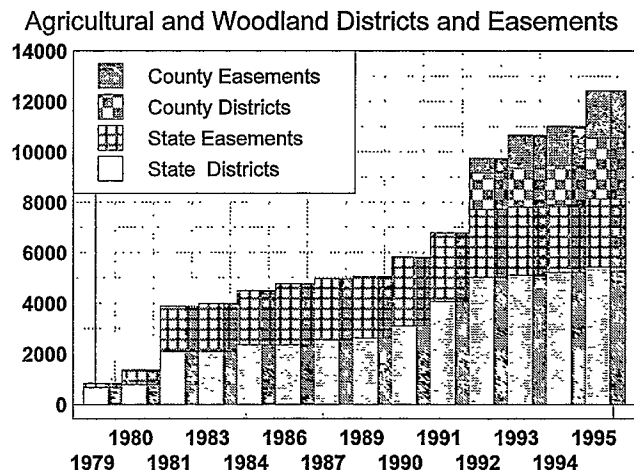
Chart 4- 1, Farmland 1959-1992

primarily for residential use. However, in 1986, the Maryland Forest Inventory reported that total forest cover had actually increased between 1976 and 1986. One explanation is that prior to 1986, the inventory did not include urban areas containing forests. Also, some agricultural land has reverted back to forest and is now used for wildlife, recreation and timber operations.

3. Agricultural and Woodland Preservation Programs

The County administers an Agricultural and Woodland Preservation Program that establishes voluntary agricultural and woodland districts and purchases conservation easements. Designation of a district requires that the property be maintained as an agricultural or woodland use for at least 10 years. The purchase of an easement preserves the property in perpetuity and keeps it from being developed. The program's goal is to preserve 20,000 acres of farm and forest through the purchase of easements. The County administers its own preservation program as well as a program funded by the State. The State program was created in 1979; the County began its program in 1990.

Since 1979, the County and State programs together have preserved nearly 5,000 acres through the acquisition of easements. An additional 9,400 acres have been maintained as agricultural and woodland districts (see Map 4-10 and Chart 4-2 Agricultural and Woodland Districts and



Easements).

Chart 4-2, Agricultural and Woodland Districts and Easements

Agricultural and Forest Preservation Goal:

PRESERVE AGRICULTURAL, FORESTED AND RURAL AREAS OF THE COUNTY

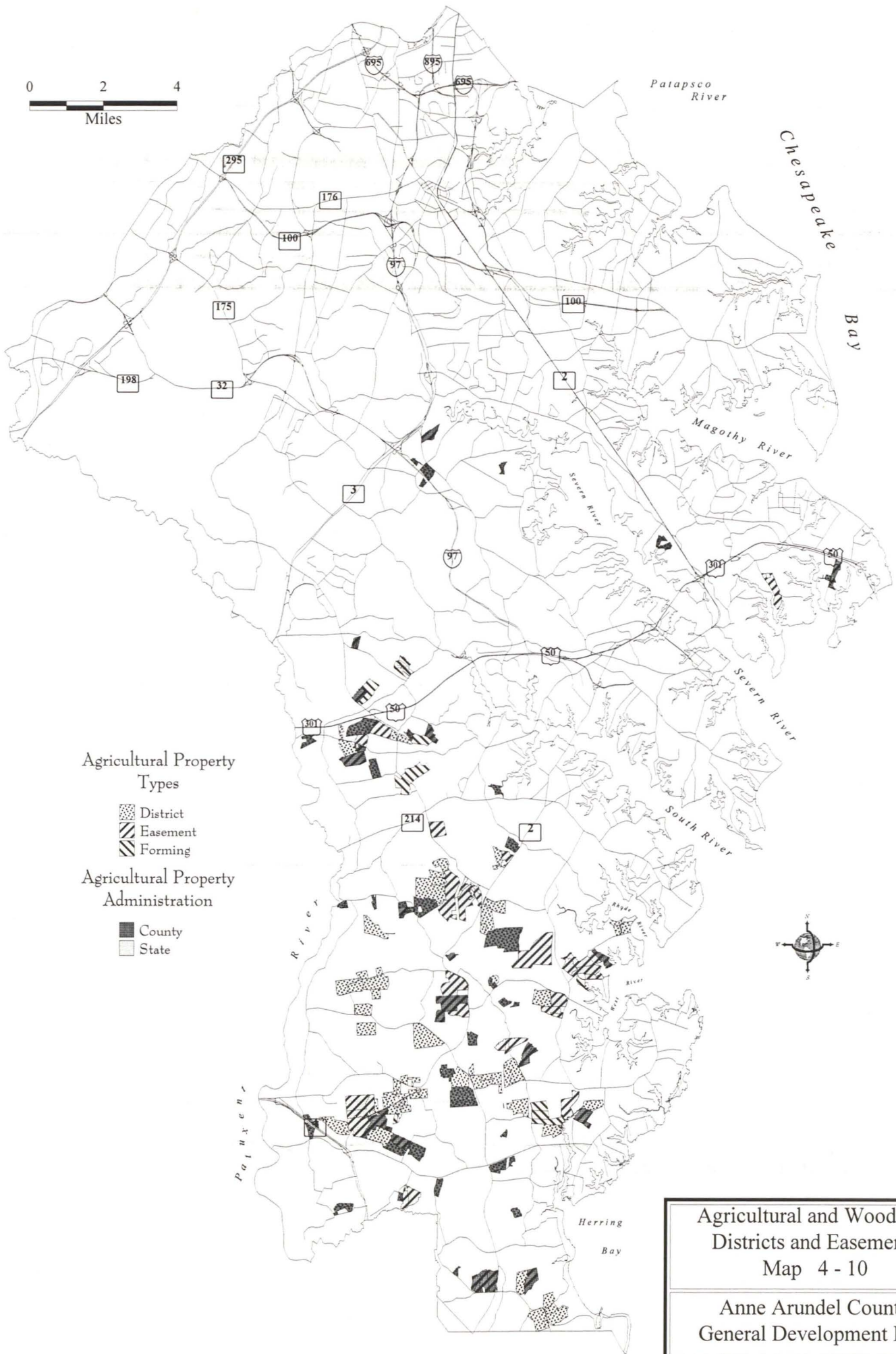
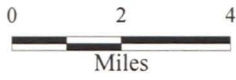
Agricultural and Forest Preservation Policies:

- Support the right to conduct agricultural activities
- Promote new and existing agricultural uses and products
- Promote agricultural education including use of Best Management Practices
- Discourage the loss of agricultural and forested land to development

- Assist Federal and State agencies, local organizations, conservation trusts and individual owners with obtaining and safeguarding agriculture preservation easements
- Preserve and create upland forested areas through implementation and enforcement of the Forest Conservation Act, Critical Area Program and reforestation projects

Agricultural and Forest Preservation Actions:

- Develop and implement right-to-farm legislation
- Conduct an economic analysis of the tax revenues and expenditures related to the long-term impact of buildout of RA zoned land
- Develop a strategy for marketing Anne Arundel County agricultural and Chesapeake Bay products
- Form cooperatives for local produce in local and chain supermarkets and restaurants
- Form an agricultural and marketing cooperative or council to promote local agricultural products and to develop a farm directory, farm tours and harvest sales
- Develop demonstration programs for alternative agricultural and forestry enterprises, including the development of specialty crops
- Develop an agricultural awareness campaign to create a positive awareness of the agricultural and seafood industry
- Require use of Best Management Practices in Agriculture
- Support the Soil Conservation District in its efforts to educate and assist farmers in establishing Best Management Practices
- Provide funding to establish an installment payment program for acquisition of agricultural easements
- Develop a challenge grant program by using Tree Bill reforestation funds to assist organizations in preserving sensitive areas
- Establish land use regulations that provide incentives to preserve agricultural land, and restore and create upland forests. These incentives might include Transfer of Development Rights, rural residential clustering that provides optimum environmental protection, and other innovative techniques
- Inventory community associations willing to place conservation easements on community open space and provide the inventory to land trusts for implementation



Agricultural Property Types

- District
- Easement
- Forming

Agricultural Property Administration

- County
- State

Agricultural and Woodland
Districts and Easements
Map 4 - 10
Anne Arundel County
General Development Plan



C. Historic and Archaeological Resources

"Anne Arundel County has more known archaeological sites than any other County in Maryland."

1. Historic Resources

The County's historic resources reflect its 300 year history. Its resources include dwellings, agricultural buildings, cemeteries, churches, commercial buildings, industrial and engineering structures, bridges, maritime resources, military structures, small villages and towns, and scenic and historic roads.

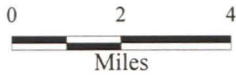
The Maryland Inventory of Historic Properties in Anne Arundel County list 750 historic resources (See Map 4-11, Historic Sites). The inventory includes such highly significant properties as Holly Hill. Located in South County, it was built in

1698, making it the oldest documented dwelling in Maryland. Cedar Park, also in the South County, was built in 1702 and is the oldest surviving earthfast constructed building in the Chesapeake region. London Town House and Gardens, Tulip Hill, and Whitehall are designated as National Historic Landmarks, the highest ranking for historic properties in the country. The diversity of significant properties in the County is reflected in the following: Curtis Bay U.S. Coast Guard Yard, Thomas Point Lighthouse, Frederick Douglass' Summer House in Highland Beach, Rising Sun Inn, Odenton Bank, Captain Salem Avery House in Shady Side, Benson-Hammond House at BWI, sailing vessels, such as the Mustang, a Chesapeake Bay brogan, and villages such as Woodwardville, Davidsonville, Owensville, and Linthicum Heights.


Most of the County's historic resources are privately owned. Fewer than a dozen are open to the public. Twenty-six historic properties with a total of 533 acres are protected by historic preservation easements which are held either by the Maryland Historical Trust or the National Trust for Historic Preservation.

2. Archaeological Resources

The County has more known archaeological sites than any other jurisdiction in Maryland. As of 1995, the State had recorded nearly 1,000 sites on its official inventory. These sites span the entire 13,000 years of human presence in the area. Each represents a unique and



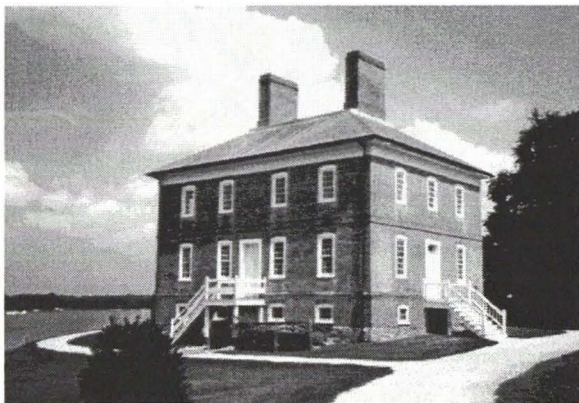
Legend

-  Historic Area
-  Historic Site

Historic Buildings
Map 4 - 11
Anne Arundel County
General Development Plan

non-renewable piece of cultural heritage. The prehistoric resources include such significant finds as the 13,000 year-old Higgins Site, the earliest undisturbed site in Maryland, the Garman Site with the oldest fireplaces excavated in the state, and the Adena Site which contained exotic and unexplained artifacts from the Ohio Valley. Prehistoric sites are clustered along the Bay and Patuxent River, but can be present at any location where potable water, natural resources, and flat, well-drained soils are available.

The County also saw extensive settlement by European and African-American colonists starting in 1649 at the Puritan settlement of Providence. Well-preserved resources such as tobacco plantations, tenant farms and slave quarters are abundant. Examples of significant finds include the house sites at Providence, the Stewart Shipyard burned by the British in 1781, and the lost town of London on the South River.



The oldest sites are clustered along navigable waterways. However, sites from this period can be found in all interior regions of the County thanks to the spread of roads and, later, railways.

Historic and Archaeological Resource Goal:

PROTECT AND PRESERVE THE HISTORIC AND ARCHAEOLOGICAL HERITAGE OF THE COUNTY

Historic and Archaeological Resource Policies:

- Promote the County's preservation and archaeology program
- Protect significant historic and archaeological resources
- Strengthen existing County codes and regulations to protect historic and archaeological resources, including historic sites and scenic and historic roads and bridges
- Promote incentives for preservation of historic and archaeological properties
- Provide public education, information and technical expertise on historic and archaeological resources

- Assist Federal and State agencies, and local public and private preservation organizations with obtaining and safeguarding preservation easements and historic and archaeological properties
- Encourage renovation, rehabilitation, and adaptive reuse of historic structures
- Preserve and protect historic neighborhoods and rural villages
- Establish grant and loan programs and tax incentives for the preservation of historic sites and structures and archaeological properties and sites
- Provide incentives to property owners to renovate, rehabilitate, preserve, reuse and protect historic structures and neighborhoods

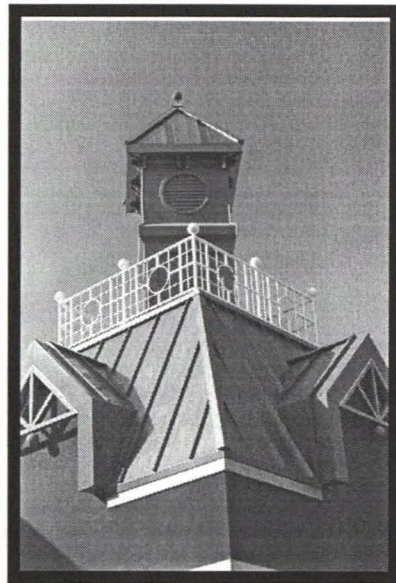
Historic and Archaeological Resource Actions:

- Provide public education, information and technical expertise on historic and archaeological resources.
- Revise existing County codes and regulations to protect historic and archaeological resources, including historic sites, historic neighborhoods and rural villages and scenic and historic roads and bridges; adopt and implement the scenic and historic roads program
- Create development guidelines for siting new structures in proximity to significant historic or archeological sites, including the use of topography, vegetation, landscaping, reforestation and scenic/agricultural easements



Chapter Five

Managing Development



"A principle goal of the Plan is to preserve forested, agricultural, and open space land in a large portion of the County by focusing future development in areas that have existing or planned public facilities."

A. LAND USE AND GROWTH MANAGEMENT

Community Character

Development in the County is widely scattered between waterways, open space and farmland. A road system links diverse communities. A hierarchy of large and small commercial centers provide services, diverse neighborhoods, new and old, offer varying densities and housing types. Some neighborhoods are well served with schools and parks within walking distance. Others depend on the automobile and bus for access to services.

As residential development has occurred, the growing population has attracted businesses and industries that in turn provide services and employment. These uses generally depend on good access and visibility, and have tended to group at or near transportation crossroads. This occurred even before a zoning code was adopted to control their location. As a result, these crossroads have become focal points of daily life and formed an important element in terms of planning and community design.

Prior to the Second World War, retail uses were scattered throughout South County to serve the semi-rural population.

Sometimes, small stores clustered at crossroads, such as Waysons Corner, or in Deale, Shady Side or Galesville. The purpose of these communities was to serve the outlying agricultural areas prior to the automobile, or to serve the watermen communities of the Bay. Some commercial activity occurred in Odenton, along Old Annapolis Road (now MD Route 175) opposite Fort Meade, near the railroad station, and, to the north, along the WB&A line. In North County, small shops located along the B&A Railroad in Severna Park, Glen Burnie, Ferndale and Linthicum.

During this pre-war period, free-standing businesses appeared along main roads or at busy intersections. However, only Glen Burnie and Annapolis had any semblance of a "downtown" where whole blocks of stores and restaurants lined urban streets. A few gas stations were built at strategic crossroads to serve the growing number of cars.

After the war, the automobile took over. Prosperity and mobility spawned a whole new retail culture focused on the shopping center, and strip commercial development appeared along major highways. Small shops at convenient crossroads gave way to larger groups of stores, often anchored by a supermarket, itself postwar innovation. Ritchie Highway between Baltimore and Annapolis and MD Route 3, which served the growing suburbs between Glen Burnie and Crofton, attracted miles of strip commercial development. Similar strip development also soon lined the east-west routes through Odenton and Maryland

City.

As a pattern of highway commercial uses emerged to meet the needs of a mobile population, congestion increased and traffic lights appeared at major intersections. Commuter traffic both supported and conflicted with local retail needs, so limited-access highways were conceived. The Federal government began building an Interstate Highway System in the late 1950s, and the Baltimore Beltway was among the first of these freeways. US Route 50 already provided a connection to the Bay Bridge. Grade-separated interchanges were planned to relieve congested intersections, but older roads, such as Ritchie Highway, through built-up commercial areas could not be easily upgraded, so extra lanes and improved traffic signals were provided.

As the population grew, more and larger shopping centers were built. Then came the regional shopping center. The Rouse Company developed the Harundale Mall in Glen Burnie, one of the first enclosed malls in America, in the early 1960s. However, not until the construction of the Annapolis Mall and Marley Station in the 1980s did the first major regional centers served by both freeways and arterial roads appear. The concentration of retail, office and other service-oriented uses continues, especially in Parole.

Over the years, major employment centers have cropped up around Annapolis, Fort Meade, Glen Burnie and BWI. Modern industrial parks appeared during the

postwar period, including Bay Meadows and Baltimore Commons in the 1970s, and National Business Park and Brandon Shores in the 1980s. Industrial parks also appeared near Crofton, Odenton, the MD Route 3 corridor and the airport. They provide conventional industrial lots, "flex space", and major office complexes, resulting in a broad mix of job opportunities. Individual industries are established along Telegraph Road in Severn, along Defense Highway and in North County. All are auto oriented and provide limited ancillary services for employees. This results in midday traffic congestion in some areas.

The rapid rate of development has prompted residents and local officials to examine the opportunities and challenges of growth. One of the Plan's most important challenges is how to protect natural and cultural resources and provide opportunities for orderly growth that benefits the community. The Plan sets as a principal goal the preservation of forested, agricultural, open space and environmentally sensitive areas by focusing future development in suitable areas that have existing or planned facilities. It seeks to balance the expansion of residential, business and employment opportunities in these areas, make the best use of existing and planned infrastructure, protect the natural environment and provide for a diversity of living environments.

Plan Focus

"The Plan identifies three development strategies with the principal function of managing growth: Transit Oriented Development, Town Center Development and Community Enhancement."

"The southern and rural areas of the County will remain essentially rural in character."

It is the policy of the General Development Plan to direct at least 90% of all development into areas that have existing or planned public facilities. This policy conserves fiscal resources by using and building upon existing facilities and services such as schools, roads, water and sewer. It conserves open land, limits the extension of infrastructure, and reduces sprawl.

The proposed land use pattern seeks to conserve valuable environmental and cultural resources. Protecting these resources and integrating them into the design of existing communities is an important goal of the Plan. The Plan seeks to strengthen and enhance existing communities and Town Centers by encouraging infill and redevelopment projects that support the existing mix of land uses and is compatible in scale and character.

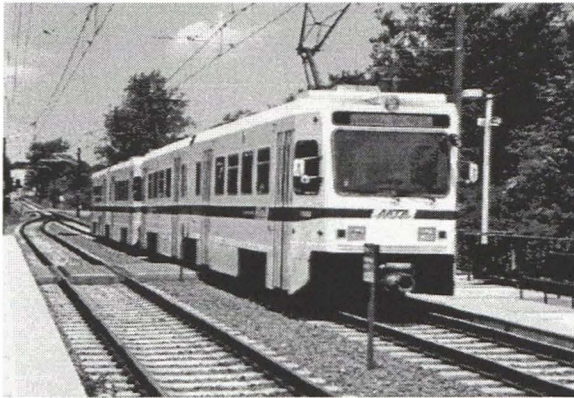
In shoreline and other environmentally sensitive areas, the location of homes, jobs and services will be restricted by lower densities, the Chesapeake Bay Critical Area requirements, and State and Federal wetlands regulations. This is consistent

with Plan goals for growth management and environmental protection.

The County has many peninsulas where limited road capacity and sensitive environmental features will restrict development. In developing Small Area Plans involving peninsulas, careful consideration must be given to the peninsula's infrastructure and its limits, the environmental implications of growth, and the impact of development on the quality of life.

In the Town Centers of Parole and Odenton, the existing Growth Management Area Plans will govern land use. These plans emphasize regional commercial and employment uses with higher density residential uses.

The Plan identifies three development strategies with the principal function of managing growth. These strategies are Transit Oriented Development, Town Center Development and Community Enhancement. Within each strategy, there will be opportunities for mixed use, employment and commercial centers, and traditional and neo-traditional residential development. The Town Centers and transit oriented development areas will be separated by greenways, greenbelts, environmental areas and low-density residential use. Design guidelines contained in Appendix 1 outline key design features and opportunities to be addressed by new development in these areas.



A. *Transit Oriented Development*

Transit Oriented Development will be located along existing and planned rail routes. Transit Station areas best suited for Transit Oriented Development have been identified on the Land Use Plan map with a symbol for Transit Mixed Use. These include the North Linthicum, Ferndale and Cromwell Light Rail station areas and the Dorsey, Jessup, Savage and BWI Commuter Rail station areas (see Map 5-1 Transit Station Areas).

Transit Oriented Development provides a mix of residential, employment and commercial uses located in close proximity to transit stations, with convenient pedestrian and vehicular access, in order to encourage greater use of transit for work and other daily trips. Transit Oriented Development will typically occur at higher levels of intensity than in other areas. However, it will be subject to design standards to assure appropriate scale and compatibility with the design and character of the surrounding area.

Transit Oriented Development is a long term goal. Concepts and guidelines for Transit Oriented Development are contained in Appendix 1.

B. *Town Center Growth Management*

Town Center Growth Management Areas provide for a mix of land uses including residential, commercial, civic, cultural and employment. The County has two existing Town Center Growth Management Areas in Odenton and Parole and a designated Town Center in Glen Burnie (see Map 5-2 Town Center Areas). Town Centers must be compact and designed to accommodate pedestrian and vehicular traffic with a full complement of services and amenities. Although different uses are located in close proximity to one another, or in some cases within the same structure, they are compatible in scale and character.

Areas immediately adjacent to Town Center Growth Management Areas are characterized by a gradual reduction in development densities the farther from the Town Center the area is located. Sprawling and disconnected commercial and residential development threatens the urban quality and design of the Town Center Growth Management Areas.

Town Center Growth Management Area boundaries were established for Parole and Odenton in 1990. Growth management plans for Parole and Odenton were adopted in 1994 and 1995, respectively. These adopted growth management plans will

continue to be used to guide development for these two areas in the future.

C. Community Enhancement

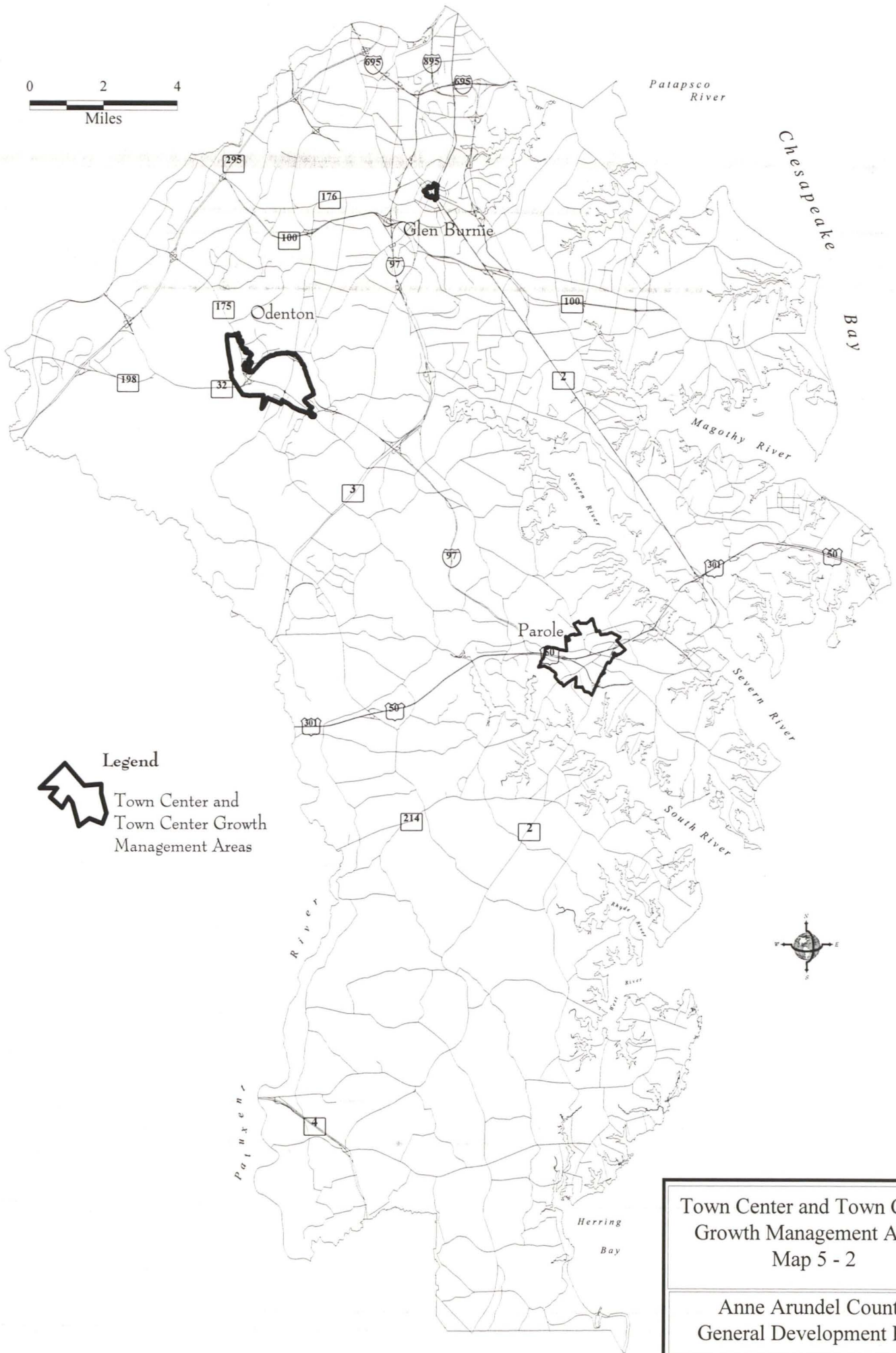
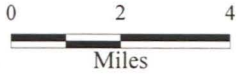
An objective of the Plan is to use the Community Enhancement strategy to strengthen existing neighborhoods while providing opportunities for new development. Community Enhancement means improving and revitalizing existing residential and commercial areas by targeting public and private improvements and investment in these areas. It encourages use of existing infill lots before new lots are created, and assures that development is in scale and character with the area. Enhancing communities means improving their design and their ability to provide a range of services and amenities to residents. Community Enhancement strives to maintain a balance between housing, jobs and services in locations that are in close proximity to one another, while making the best use of existing and planned public facilities.



Sixteen Small Planning Areas have been identified for planning purposes (see Map 5-3). Community Enhancement is a strategy for planning within each one of these 16 Small Areas where there are existing or planned public facilities. Each of these areas will be the subject of individual efforts to determine appropriate planning, zoning, circulation, environmental protection and design elements. There exist within these planning areas opportunities for incorporating mixed use development and community design that will help to strengthen their identities as places where people live, work, shop and play.

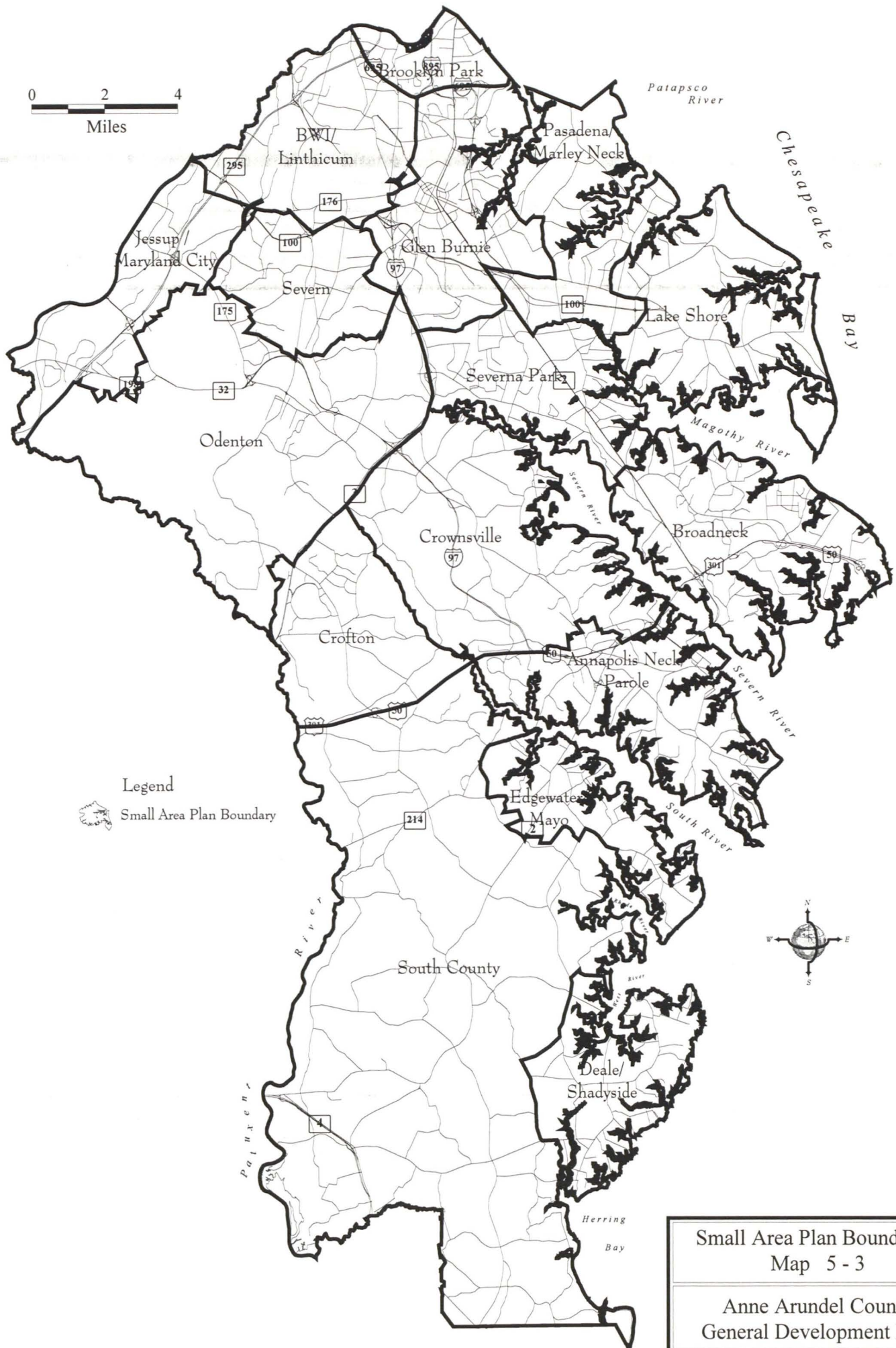
Community Enhancement provides opportunities for infill development and redevelopment of under-used sites. A well conceived strategy for community enhancement helps reduce the adverse impacts that result when different land uses are located adjacent to each other or when the existing land use is no longer viable.

To encourage development of under-used parcels, market forces must operate to make these parcels attractive to develop. The County can influence the market by limiting the sprawl or outward spread of development with the establishment of fixed boundaries, such as Town Center Growth Management Areas.



Legend
 Town Center and
 Town Center Growth
 Management Areas

Town Center and Town Center
 Growth Management Areas
 Map 5 - 2
 Anne Arundel County
 General Development Plan



Small Area Plan Boundaries
 Map 5 - 3
 Anne Arundel County
 General Development Plan



2. Rural Areas

A large portion of the County is characterized by rural, agricultural and low density residential development. Farming is one of the primary uses in these areas. However, it has been on the decline. Development pressures have reduced the amount of land available for agriculture. Residential subdivisions over the past 25 years have significantly depleted agricultural land. Recent changes in development regulations have helped to stem the decline. However, further actions are required if the County is to maintain its rural and agricultural character.

A primary focus of the Plan is to preserve forested, agricultural, environmentally sensitive and open space areas. It recommends that rural development be clustered in villages to conserve land and reduce the impact on agriculture and open space. The Plan would direct rural, commercial development to village centers or crossroads. A strong agriculture and woodland preservation program supplemented by a Transferable

Development Rights program also would help preserve these areas.

Growth Management Goal:

FOCUS GROWTH IN AREAS WHICH BEST USE EXISTING AND PLANNED FACILITIES, PROTECT NATURAL RESOURCES, PROMOTE ECONOMIC GROWTH, AND PROVIDE A DIVERSITY OF LIVING ENVIRONMENTS

Growth Management Policies:

- Discourage development in environmentally sensitive areas
- Promote land use and circulation patterns that minimize energy use and land consumption
- Provide flexibility and incentives in development regulations to maximize use of zoned densities in designated growth areas
- Encourage Purchase of Development Rights (PDR's) to protect low density areas from sprawl
- Evaluate the feasibility of a Transferable Development Rights program
- Target higher density development in areas well served by public facilities and away from sensitive natural areas

- Encourage comprehensive zoning to conform as closely as possible to the General Development Plan Land Use Map and Small Area Plans
- Provide flexible development and design regulations to eliminate excessive standards and development costs
- Improve coordination in review of land use proposals by County, Annapolis, State and Federal agencies
- Encourage mixed use development in Town Centers
- Provide incentives and flexible rules for innovative and adaptive reuse of commercial and residential structures for other uses in Town Centers
- Target transportation improvements, including road and transit improvements, to improve access in Town Center areas
- Accommodate growth in appropriate locations
- Develop financial incentives for environmentally sensitive land use, such as loan programs that target growth areas and split tax rates for growth and limited growth areas
- Revise zoning and subdivision regulations to provide flexibility
- Reduce required minimum lot sizes in residential zoning districts to increase open space and public space and to preserve sensitive areas on site
- Determine viability of a Transferable Development Rights (TDR) Ordinance and implement if appropriate
- Use zoning and land use regulations to provide incentives to develop in areas that have or are planned for infrastructure

Growth Management Actions:

- Evaluate location, function and adequacy of business centers in relation to population and work force served. Identify opportunities for development or redevelopment to accommodate desired uses
- Determine amount of, and provide, zoned developable land to
- Analyze and revise zoning code prior to comprehensive rezoning to include up-to-date uses and to incorporate improved methods to achieve goals and policies of the General Development Plan
- Study development regulations to determine appropriate changes to eliminate excessive standards and costs without sacrificing environmental quality

- Expedite the development review and approval process in designated growth areas such as Transit-Oriented Development Areas and Town Center Growth Management Areas
- Identify appropriate areas within Town Centers for higher density residential use
- Provide incentives for mixed use development in the Odenton Town Center Growth Management Area and consider changes to allow an incentive program as exists in the Parole Town Center Growth Management Area
- Develop new mixed use overlay regulations that combine commercial, office, employment and/or residential development
- Secure private and public funding for infrastructure improvements in the Town Centers

Community Enhancement Goal:

STRENGTHEN AND REVITALIZE EXISTING COMMUNITIES, ENCOURAGE THE REVITALIZATION OF OLDER RESIDENTIAL AND COMMERCIAL AREAS, AND PROVIDE INCENTIVES FOR THE USE OF EXISTING BUILDABLE LOTS

Community Enhancement Policies:

- Use Small Area Plans to implement the General Development Plan
- Locate employment, residential, commercial and community uses in close proximity to one another
- Locate new commercial development near existing retail and business centers and not in extended strips along major roads
- Use alternate methods, such as neo-traditional town planning, and improve existing methods, such as residential cluster and planned unit developments, to protect and preserve open space
- Encourage industrial and office development in attractive projects with convenient access from nearby residential areas
- Encourage well-designed convenience and commercial centers that serve the needs of local communities and satisfy environmental concerns
- Provide incentives for affordable housing
- Promote adaptive reuse of older and under used commercial buildings

- Encourage public and private investment in neighborhood preservation, housing rehabilitation, redevelopment and improvement
- Improve and relocate, if appropriate, vehicular and pedestrian access to community redevelopment areas and projects to facilitate reuse

Community Enhancement Actions:

- Prepare Small Area Plans and determine appropriate boundaries with participation from citizens representing varied interests in order to further refine the type, timing, location and extent of future development, circulation patterns and community design
- Prepare comprehensive pedestrian and streetscape plans
- Revise development regulations to incorporate standards for design and access between commercial, employment and residential areas
- Revise existing development regulations in commercial and industrial zoning districts to provide standards for improved design and flexible use
- Revise zoning and subdivision regulations to allow traditional neighborhood design and to improve residential cluster and planned unit

developments

- Research design and development standards through analysis of comparable projects in the region or elsewhere and prepare guidelines for use in preliminary project planning
- Develop an ordinance to permit the reuse and revitalization of vacant or under used buildings
- Develop incentives, such as tax and fee credits and expedition of the development review process, for the use of infill lots for commercial and residential development in designated revitalization areas

Rural Area Goal:

PRESERVE AGRICULTURAL, FORESTED AND RURAL AREAS OF THE COUNTY

Rural Area Policies:

- Encourage the preservation of agricultural and forested land
- Limit growth outside boundary of existing and planned sewer service areas
- Assist Federal, State and local agencies, organizations, conservation trusts and individual owners with obtaining and safeguarding agriculture preservation easements

- Preserve and create upland forested areas through the Forest Conservation Act, Critical Area requirements and reforestation projects

Rural Area Actions:

- Establish land use regulations, such as Transferable Development Rights and rural villages, to preserve agricultural and rural areas
- Define development limits in areas not planned to be served by public sewer
- Investigate innovative methods to finance the purchase of agricultural and woodland easements
- Secure funding to purchase agricultural and woodland easements
- Increase efforts to preserve and create upland forests

B. COMMUNITY DESIGN

“There is a need for an integrated approach to land use, circulation, site planning, architecture and landscaping to achieve successful community design.”

County residents have become increasingly concerned with quality of life issues. Central to these concerns is whether existing development patterns contribute or detract from the creation and preservation of

neighborhoods and communities.

Community design addresses the relationship between development patterns, traffic circulation and the natural environment. Major roads, landmarks, topography and vegetation all contribute to a community's image, its character and sense of place. Ease of access between homes, jobs, and retail services also can affect a community's vitality. While the physical environment alone cannot create a community, a poorly designed community can limit opportunities for social interaction and detract from residents' quality of life.

a successfully designed community has both functional and aesthetic qualities. Those qualities influence how residents perceive their neighborhoods, shopping areas and workplaces. Community design may consider broad factors involving transit corridors, river systems, farmland and forest. However, it becomes more meaningful by addressing neighborhoods on a smaller scale.

The County should look comprehensively at community design, considering all of the elements that make up the physical environment. There is a need for an integrated approach to land use, circulation, architecture, landscaping, and building style and materials. a description of community design concepts and guidelines is contained in Appendix 1.

Community Design Goal:

PRESERVE AND ENHANCE THE SCENIC AND AESTHETIC VALUES OF THE COUNTY

Community Design Policies:

- Encourage design that preserves natural features and enhances community character and identity
- Provide and maintain attractive landscapes along major roads, pedestrian paths and bikeways
- Recognize needs for senior and teen mobility, safety, and independence in the location and design of new communities, commercial facilities and community services

Community Design Actions:

- Establish and adopt standards and guidelines for design of residential, commercial, mixed use and industrial projects, addressing site layout, preservation of natural features, use of open space, construction materials, landscaping, lighting, signage and other design elements
- Incorporate design review early in the development review process
- Require concept alternatives for site plan review, prior to formal submittal and engineering design,

for all major subdivisions and permits

- Revise signage regulations to incorporate improved design standards and principles governing height, placement and size relative to the surrounding area
- Prepare conceptual streetscape and landscape plans along major routes, tailored to urban or suburban frontage and identify projects for funding through the capital budget or development process

C. TRANSPORTATION

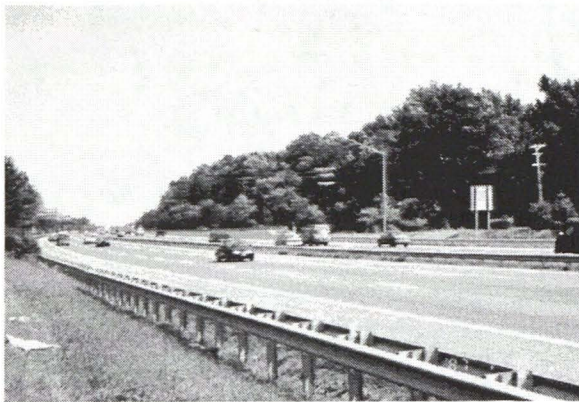
The transportation system impacts the quality of life and economic health of the County. The County recognizes the relationship between transportation and land use. It is committed to the development of a modern transportation network that supports community design objectives, protects the natural environment and accommodates local and regional travel demands.

1. Highway Network

"The County has been fortunate over the last decade to receive over a billion dollars in highway improvement funds."

Two major commuting patterns prevail in the County. The first follows the traditional north-south Baltimore City centered movement that tends to use routes such as

I-97, MD Route 2, MD Route 295 and MD Route 3. The second and increasingly popular movement reflects a shift to a more east-west commuting pattern. This suburban-to-suburban, Washington-centered commuting pattern focuses on MD Route 32, MD Route 100, MD Route 4, MD Route 175, MD Route 176, MD Route 214 and US Route 50/301.



The County has been fortunate over the last decade to receive \$1 billion in highway improvement funds. As a result, although some County roadways experience congestion during peak travel times, the system is one of the most efficient in the area. Completion of the MD Route 100 and I-97 projects will further enhance the efficiency of the highway system.

The highway system functions with relative efficiency. However, the growing number of drivers, diversified personal lifestyles, development of outlying areas, and limited numbers of transportation alternatives will all contribute to an increased congestion on the roads.

At the Federal level, the Interstate Highway

System construction program is virtually complete. No new projects will be started under this funding source. This, combined with the general trend to reduce Federal spending, could mean less money will be available for transportation-related construction. The Maryland Department of Transportation has stated that maintaining and operating the existing transportation system is the State's highest priority. With costs escalating at an increasing rate, the ability to fund large scale transportation projects in the future is uncertain.

The County, for transportation purposes, is considered to be a member of the Baltimore region. The Baltimore region is classified as a non-attainment area for air quality (ozone). Federally funded transportation projects in the County must, therefore, meet the region's strict air quality standards and financial reasonableness criteria. This could also affect the ability to construct future highway projects.

Design

The road network in the County consists of State and County roads. The State Highway Administration promulgates design standards for State roads. The County Department of Public Works sets the standards for County roads. Roads are designed to perform a variety of functions, from moving traffic safely along major routes during peak travel times to providing access to employment, commercial and residential areas. Roads are designed to move people by automobile, bus, commercial and emergency vehicle, and

bicycle. Roads are also designed to provide sidewalks for pedestrian movement and curbs, gutters and storm drains to direct the flow of stormwater.

Standards for the design of roads vary according to the level of traffic they serve and the character of the areas they traverse. Roads are generally classified as local, collector, arterial, and freeway.

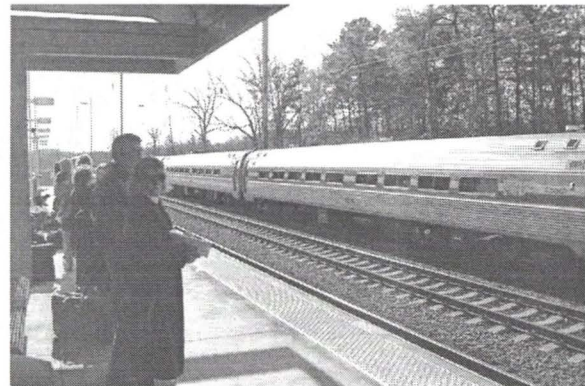
The County seeks to preserve the traditional character of rural roads, and to encourage the concept of interparcel connections to reduce the impact of new development on these road networks. Local roads have a role in defining community character and should provide pedestrian and bicycle access. Design of local roads should maintain safety as the primary goal, encourage slower speeds, and invite pedestrian activity.

2. Scenic and Historic Roads

The County is developing a Scenic and Historic Roads Program. The purpose is to protect the character of certain roads or road segments which have outstanding scenic or historic value. Protective measures, including guidelines and standards for road maintenance, improvements and adjacent land use, will be developed. Guidelines will address the appropriate use of land abutting scenic and historic roads to minimize impacts on scenic and historic views.

3. Transit

The County enjoys the benefits of an extensive and well-developed transit and commuter rail system. Light rail and fixed schedule bus service is provided to North County. Fixed schedule and flag stop bus service is provided between Annapolis and Baltimore. Maryland Transit Administration (MTA) bus service in the County carries approximately 4,500 passengers daily. Private bus service provides transportation to Kent Island, New Carrollton Metro Station, and Glen Burnie. The Maryland Rail Commuter (MARC) system with stations at BWI, Odenton, Laurel and Jessup has gained tremendous popularity as an alternative to driving to Baltimore and Washington. The City of Annapolis provides transit service within and adjacent to its boundaries and to Kent Island.



The MTA administers the MARC system. This system provides the County with a cost-effective mode of transport between Washington and Baltimore from two stations along the Penn line (BWI and Odenton) and two stations along the

Camden line (Laurel Race Track and Jessup). Patronage has more than doubled since 1985 to a current average ridership of 21,000 passengers a day.

Light Rail is the newest addition to the MTA transit system in the County. The service began in June of 1993 with the extension of the existing line from Baltimore to Cromwell Station in Glen Burnie. Other light rail stations in the County are located at Ferndale, Linthicum, North Linthicum and Nursery Road. A station at BWI is under construction. Four shuttle lines provide support service to these stations.

Transportation Management

Two Transportation Management Associations (TMA's) were established in the County to promote, inform and educate the commuting public about the benefits and alternatives to single occupancy vehicle commuting. The BWI Business Partnership, Inc. provides this service to North County while the Annapolis Regional Transportation Management Association (ARTMA) services the Annapolis/Parole area.

ARTMA and the BWI Business Partnership both provide ridesharing and ridematching services. ARTMA has also sponsored a downtown Annapolis parking study and is in the process of instituting a Guaranteed Ride Home Program. The BWI Partnership has been administering a Guaranteed Ride Home Program for several years. The Partnership is beginning a pilot program to

provide shuttle bus service between MARC stations in western Anne Arundel County, eastern Howard County and major employers near BWI.

4. Air Transportation

"BWI is the largest airport in the State and one of the most important aviation facilities in the Mid-Atlantic region."

Several private and public airports operate in the County. The most prominent airport is BWI in Linthicum. Lee Airport in Edgewater and Suburban Airport in Maryland City along Brock Bridge Road provide general aviation service for small aircraft. Tipton Airfield, located on land once a part of Fort Meade, is being transformed from a military to a general aviation airport and will provide service for small to medium aircraft in West County (see Map 5-4 Airports).



BWI is the largest airport in the State and one of the most important aviation facilities in the Mid-Atlantic region. Over the last 20 years, passenger patronage has increased more than 450% and freight movement by

more than 280%. It has been a major factor in attracting business related services, such as hotels, motels and offices, as well as employment uses such as freight warehousing and industrial parks.

The State has invested in transportation improvements in and around BWI, including new access roads, extension of light rail and parking improvements. The airport is also in the process of adding an international terminal and a parallel runway is expected to be open for operations before the end of the decade.

Transportation Goals:

PROMOTE AND ENCOURAGE A SAFE, EFFICIENT, MULTIMODAL TRANSPORTATION SYSTEM THAT ADEQUATELY SERVES THE PUBLIC, MINIMIZES NEGATIVE ENVIRONMENTAL IMPACTS, IMPROVES AIR QUALITY, REDUCES RESOURCE CONSUMPTION AND REFLECTS AND STRENGTHENS THE COUNTY'S LAND USE GOALS

REDUCE THE LENGTH AND FREQUENCY OF TRAVEL TO HOUSING, EMPLOYMENT AND SERVICES

ENCOURAGE THE DEVELOPMENT OF A MIX OF RESIDENTIAL, EMPLOYMENT AND COMMERCIAL USES NEAR TRANSIT NODES

Road Network Policies:

- Encourage improvement of the road network to further the land use, environmental protection and community design goals of the General Development Plan
- Concentrate growth in areas best served by existing and planned transportation facilities
- Provide transportation improvements to serve designated growth areas

Services and Connections Policies:

- Improve pedestrian and vehicular connections between residential areas and commercial and employment areas
- Improve access and safety along major pedestrian and biking routes
- Provide opportunities for co-location of public and commercial services that are in scale and compatible with one another

Design Policies:

- Encourage design of roads that minimizes impact on homes, businesses, historic sites and natural environmental features
- Encourage use of cluster subdivisions to minimize road

construction and maintenance requirements

- Allow flexibility in design so that road sections can be compatible with the character of the area and adequately serve traffic

Transit and Transportation Management Policies:

- Explore extension of transit along major transportation corridors
- Facilitate development in the vicinity of existing and planned transit nodes through improved access
- Focus growth in areas served by transit. Promote and encourage transit in areas with higher existing and planned densities
- Promote carpooling, vanpooling, transit programs and improvements to park-and-ride lots. Seek innovative methods to improve commuter transportation
- Promote the use of Transportation Demand Management to provide efficient, economical transportation service
- Encourage mixed use and higher density residential land use in the vicinity of existing light rail and commuter rail stations

- Provide flexibility in development rules as well as incentives to encourage planned development near transit stations
- Encourage improved access, parking and feeder bus service between rail stations and employment areas
- Ensure that new and redeveloped areas in the vicinity of transit stations are of appropriate scale and character

Air Transportation Policies:

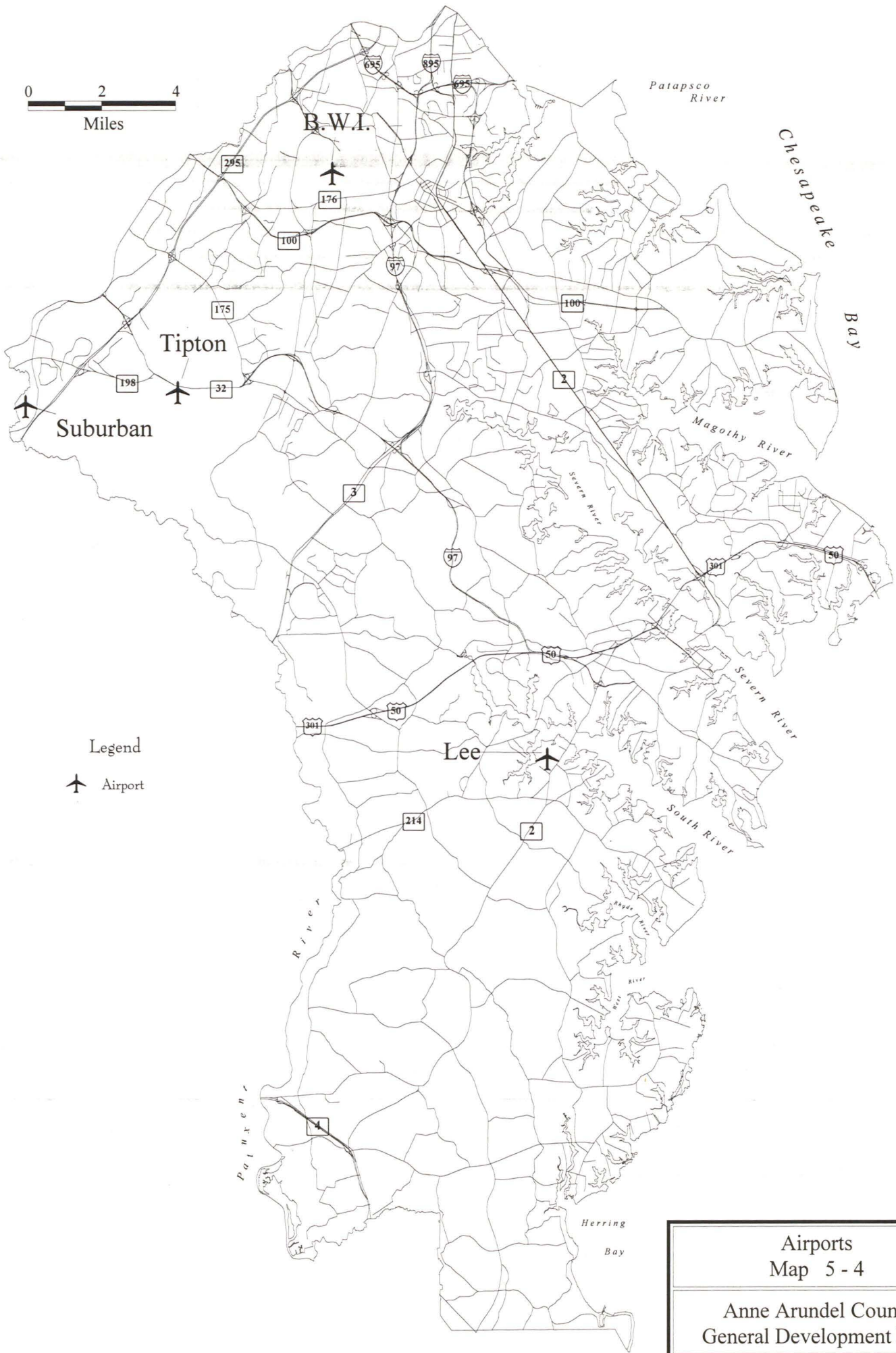
- Use BWI as an economic development tool to attract a diverse range of business, employment and ancillary commercial services
- Improve vehicular and transit access to BWI
- Improve transportation and utility infrastructure in the vicinity of BWI

Transportation Actions:

- Establish priorities for County transportation projects consistent with the General Development Plan and coordinate the timing of infrastructure improvements to address existing and projected needs
- Identify publicly owned properties in the vicinity of transit stations that could be used for joint public/private

- development
- Use the development review and approval process to encourage the provision of, or contribution toward, shuttle and/or feeder bus service or other forms of transit service
 - Develop circulation plans and reserve land for future roads and improvements around transit stations
 - Provide east-west bus links between light rail and commuter rail facilities and nearby employment and residential areas
 - Provide walkways and bikeways to connect residential areas with nearby activity centers
 - Develop interconnected pedestrian ways and bikeways through Small Area Planning
 - Revise the County's design manual to provide for flexibility in road design, including reduction of road widths in residential areas, and other road requirements adjacent to scenic and historic sites
 - Study feasibility of transit, including bus transit and rail transit, along corridors such as MD Route 2, US Route 50/301, I-97, MD Route 214, MD Route 100/32, and MD Route 3
 - Provide complementary land uses in and around transit stations that will
- make them focal points of activity
- Conduct a comprehensive study of potential park and ride locations to expand ridesharing and transit use
 - Define and designate transit station areas as special assessment districts
 - Develop and adopt Transit Station Area Zoning categories and/or overlay districts and designate Transit Station Area zoning districts as receiving areas for TDR's
 - Use Transportation Management Associations to promote transit and ridesharing
 - Revise development regulations to promote mixed use and flexibility in uses near BWI, particularly for ancillary commercial services, including retail uses, health clubs, and restaurants
 - Complete planned transportation and utility projects in the vicinity of BWI, including completion of MD Route 32 and Ridge Road
 - Extend Light Rail to the Glen Burnie Town Center
 - Study the extension of light rail to other areas of the County, including Annapolis
 - Study the feasibility of adding stations on the commuter rail line

- Establish mixed use and transit zoning districts in transit areas and incorporate design standards for development in such districts
- Revise development regulations to require improvements to access, parking and feeder bus service near transit stations



Airports
Map 5 - 4

Anne Arundel County
General Development Plan

D. PUBLIC FACILITIES

1. Sewer and Water

Sewer and water service levels and needs are not the same throughout the County. Land uses and development densities differ from area to area. Sewer and water facilities have allowed the County to plan for suburban and urban development patterns in the planned service areas. Limiting the expansion of sewer and water service in other areas has maintained a rural development pattern there. In the rural areas, on-site and small private treatment systems provide wastewater treatment. Groundwater continues to be the primary source of potable water for most rural residences.

Sewer

"Three out of every four homes in the County are served by public sewer service."

Three out of every four homes in the County are served by public sewer service. The County has 10 sewer service areas and a No Public Service (Rural) area. Each sewer service area has its own treatment plant with an outfall located on a river or the Chesapeake Bay. The capacity of these plants to accept sewage determines the limits of development which may occur in the service area. Because of sewer systems' reliance on gravity flow, the service areas follow drainage areas and are not interconnected.

One area is served by a Baltimore City

treatment plant and a Howard County and Baltimore County interceptor by agreement with those governments. Two other areas, Piney Orchard and Fort Meade, are served by private facilities. The Maryland House of Corrections and Crownsville Hospital are served by on-site facilities operated by Maryland Environmental Services (MES). BWI is served by a private sewer interceptor whose service is assigned to Baltimore County. The County and the City of Annapolis share the cost of the Annapolis treatment plant.

The capacity and usage of each treatment plant are summarized in bar graph below (see Chart 5-1 Waste Water Treatment Facilities).

"There has been a substantial reduction in the portion of the County which is planned to be served by public sewer from 86% in 1966 to 41% today."

System expansion over the past 30 years has generally kept pace with new development, especially since the Adequate Public Facilities Ordinance was enacted in 1978. Recent system expansions have been



concentrated in areas already served, except where health problems had to be addressed. In fact, the County has substantially reduced the area it plans to serve with public sewer from 86% of the land area in 1966 to 41% today (see Chart 5-3 Sewer Area Served). The area served by public sewer accounts for the greatest population density. By 1990, 75% of all households were on public sewer (see Chart 5-2 Housing Units Served by Public

Sewer). Between 1988 and 1994, 90% of all new residential development occurred in existing or planned sewer service areas.

Waste Water Treatment Facilities

Status, April 1997

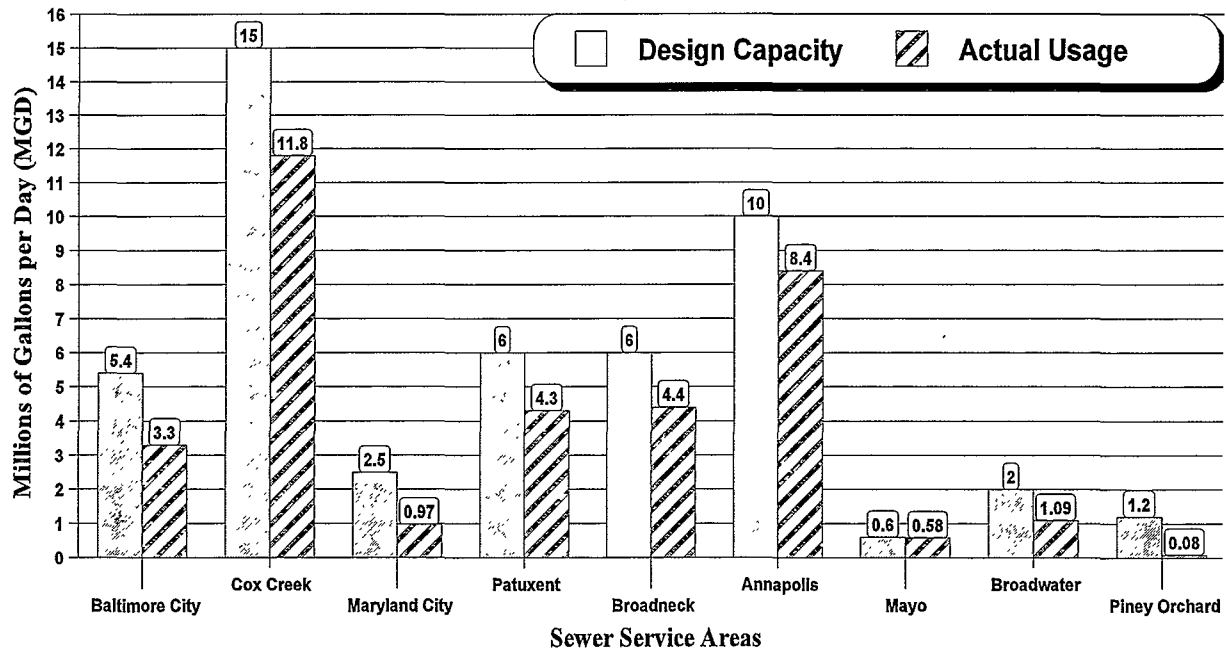


Chart 5-1, Wastewater Treatment Facilities

Housing Units Served by Public Sewer
1990

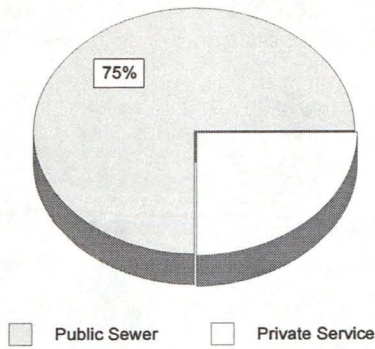


Chart 5-2, Housing Units Served by Sewer

Sewer Service - Area Served
1993 Sewer Plan

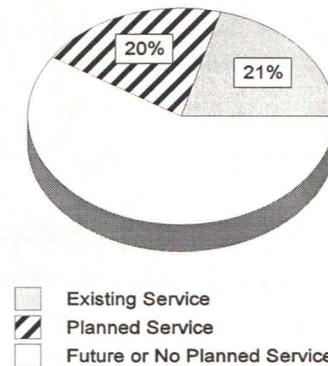


Chart 5-3, Sewer Area Served

Water

The County has seven water service areas and a limited service area (Rural). It is interconnecting its service areas. As it improves key transmission mains and booster pumps, the County will achieve a single service area. Annapolis City and Fort Meade each have a water supply system separate from the County. The State regulates the amount of water which can be pumped from wells or drawn from water surface bodies.

Similar to the development of sewerage systems, the water system in 1965 was planned to serve at least two-thirds of the County's land area. Today, the planned service area includes less than 40% of the County.

2. Solid Waste Management

The Millersville Landfill is the County's

"The goal of the Solid Waste Management Program is to extend the life of the Millersville Landfill for as long as possible."

only active municipal solid waste landfill. The 567 acre property contains four closed, capped landfill cells, one active cell (Cell 8), and space for a future cell (Cell 9). Additionally, the facility includes a residential convenience center where citizens can dispose of trash, recyclables, and yard waste. Administrative offices, a scalehouse, and a maintenance facility are also located on site. Cell 8 is state-of-the-art, including a double liner, and a leachate collection and conveyance system. The conveyance system transports leachate to an on-site Leachate Pretreatment Plant for initial treatment prior to discharge to the Patuxent Water Reclamation Facility. The landfill features a comprehensive gas management system, where landfill gas is conveyed from all closed disposal cells to a

central flare where it is combusted. Air, groundwater, surface water, and gas monitoring programs are in place to ensure the environmental integrity of the landfill.

In addition to the Millersville Landfill, the County maintains citizen convenience centers at closed landfill sites located in Sudley and Glen Burnie. Residents can use these facilities to dispose of their trash, recyclables, and yard waste. Residents can also schedule curbside collection of bulky items and arrange for annual community clean-up events.

The County contracts with private haulers to collect trash, recyclables and yard waste from over 125,000 homes. Recyclables (plastics, glass, aluminum, mixed paper, and cardboard) yard waste and trash are collected on a weekly schedule. Additionally, the County schedules household hazardous waste collection events in varying locations so that residents can safely dispose of household products that contain harmful chemicals. The County manages or participates in a variety of recycling activities in order to continuously meet or exceed the State mandated recycling rate.

The goal of the Solid Waste Management Program is to extend the life of the Millersville Landfill for as long as possible to meet the solid waste management needs of County residents well into the future. Achieving this goal requires a multifaceted approach which includes alternative disposal technologies, waste reduction and recycling. By diverting waste to disposal

options other than landfilling, it is feasible to extend the life of Cell 8 to 2015, and Cell 9 to 2063. Therefore, the County is evaluating recycling and composting, incineration at a waste-to-energy (WTE) facility, and other disposal alternatives. The County has implemented a program to divert waste to other landfills via transfer stations.

In order to assure that the waste management facilities continue to meet the needs of residents, the County maintains an aggressive capital improvement program. The Sudley Road and Glen Burnie convenience centers are continuously evaluated for improvements to accommodate the recycling and waste disposal needs of the communities they serve. The capital improvement program at Millersville Landfill includes projects to ensure environmental compliance, construction of waste disposal cells, efficient operations, and safe, effective customer service.

3. Stormwater Management

The primary goal of the County's stormwater management program is to limit or reduce the effects of runoff from existing and proposed development. As nearly as possible, runoff caused by new development should not exceed pre-development levels. The program also seeks to reduce stream channel erosion, water quality degradation, sedimentation and flooding.

In 1994, the County adopted its current

stormwater management ordinance. The Department of Planning and Code Enforcement is responsible for implementing the ordinance, including the preparation of watershed master plans and a stormwater management technical manual. The Stormwater Management Technical Manual, completed in 1996, outlines policies, design criteria and procedures, and provides the flexibility for the application of innovative stormwater management facilities.

The County has just recently initiated the first of 12 watershed management master plans in response to the requirements of its NPDES (National Pollution Discharge Elimination System) stormwater permit. When completed, these plans will offer strategies to prevent and control adverse impacts to tidal and nontidal surface waters. They also will provide a framework to make decisions regarding land use and infrastructure improvements based on documented conditions.

Public Facilities Goals:

PROMOTE AND ENCOURAGE SAFE, EFFICIENT, ECONOMICAL AND ENVIRONMENTALLY SOUND SEWER, WATER AND SOLID WASTE FACILITIES TO SERVE THE COUNTY'S NEEDS

CONSERVE WATER RESOURCES AND PROTECT AQUIFERS

EFFICIENTLY MANAGE, REDUCE AND RECYCLE SOLID WASTE

IMPROVE STORMWATER MANAGEMENT

Sewer and Water Policies:

- Give priority for extension of public service to areas that have septic or water problems if those areas are programmed in the Sewer and Water Master Plan. Otherwise, remediate through alternate methods
- Strongly discourage interim amendments to the Master Plan for Sewer and Water outside of planned growth areas except for health or safety reasons.
- Promote innovative methods for collection and treatment of private sewage
- Ensure that extensions of public sewer are within planned growth areas
- Direct growth within sewer service areas away from environmentally sensitive areas
- Ensure that development requirements are consistent with sewer and water plan policies
- Cooperate with neighboring jurisdictions to ensure that joint interests in sewer and water facilities are protected

- Explore methods to conserve water resources and protect aquifers

Solid Waste Policies:

- Encourage the public and business community to reduce and recycle solid waste
- Increase recycling of solid waste in the County and explore new markets for recyclable materials
- Encourage stricter standards for new rubble landfills (location, liners, traffic) and improve enforcement for existing rubble landfills
- Encourage new methods to reduce and recycle solid waste

Stormwater Management Policies

- Promote innovative methods to improve stormwater management systems and devices including regional and multi-site stormwater management
- Reduce stream channel erosion, sedimentation and local flooding

Public Facilities Actions:

- Target capital expenditures in existing and planned sewer service areas to remedy utility deficiencies in existing communities

- Pursue public-private partnerships in funding for sewer and water facilities

- Review and revise development regulations to ensure that they are consistent with sewer and water plan policies

- Maintain cooperative relationships with neighboring jurisdictions to ensure that the County's sewer and water interests are protected

- Work with the State to monitor and conserve water supplies and to determine actions necessary to maintain the stability of aquifers

- Maintain periodic testing to assess saltwater intrusion, excessive drawdowns and related groundwater problems

- Improve citizen convenience centers for solid waste and recyclables

- Investigate land use, financial and regulatory methods and incentives that can be used to increase recycling

- Pursue public-private partnerships in funding for solid waste facilities

- Identify potential sites for regional stormwater management and funding mechanisms including the capital program and developer contributions

- Promote wetland creation for stormwater management
- Provide incentives for innovative on-site stormwater facilities

E. PUBLIC PARTICIPATION

Citizens want to know what is going on in the County relative to development projects. They also want to be aware of, and involved in, any changes to development regulations. Some land use regulations are too complex and hard to understand. These should be simplified. County, City, State and Federal agencies should also do a better job of coordinating land use reviews and approvals. People want to see the rules followed and see fair, equitable and timely enforcement of land use regulations.

Public Participation Goal:

IMPROVE PUBLIC PARTICIPATION AND UNDERSTANDING OF THE LAND USE PROCESS AND IMPROVE THE MONITORING AND ENFORCEMENT OF LAND USE REGULATIONS

Public Participation Policies:

- Increase participation by citizens, businesses and others in land use issues
- Communicate changes in land use regulations in a timely manner

- Encourage the revision and streamlining of land use regulations

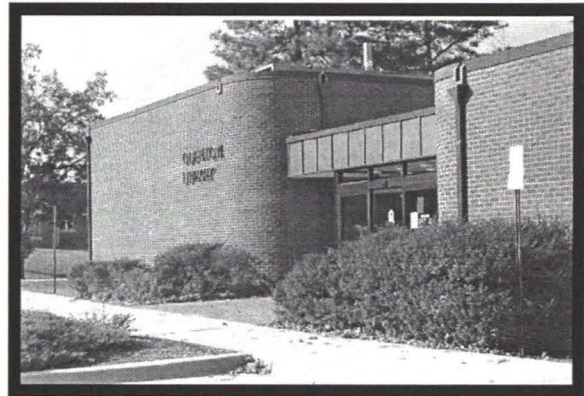
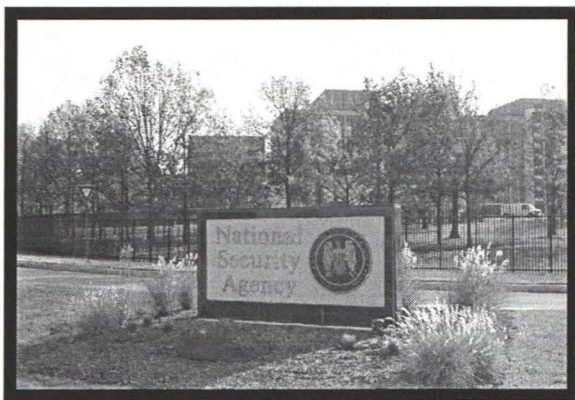
Public Participation Actions:

- Develop and implement methodology to utilize current technology such as the library system, print media, cable TV and on-line services to communicate information on land use issues, changes in development regulations, and meetings or hearings on development projects
- Develop and implement an outreach program to elicit citizen input on planning and development issues



Chapter Six

Meeting People's Needs



Our public buildings are an important part of our community life. Their appearance, place in the landscape and the services they offer reflect our values and bring us together. The County's public buildings include schools, fire and police stations, libraries, senior centers, community health clinics, detention facilities, the Courts and offices.

The City of Annapolis, the Naval Academy and Fort Meade also provide public services for residents. Annapolis maintains its own water and sewer lines and provides fire and police service. Fort Meade has separate water and sewer systems, military police, fire stations, a library and medical facilities. The County provides the residents of Fort Meade and the City with public schools, Community College classes, libraries and senior services.

Land use policy that effectively guides the location of new facilities can have a significant impact on our quality of life. Many schools, parks, and even libraries have been built as a direct result of new development. Impact fees, Program Open Space funds, and fee simple contributions of land from developers have permitted new facilities that would not have been possible otherwise. This trend is expected to continue as revenues from taxes and grants remain constant or are reduced. However, a balanced capital budget will ensure that public investment does not neglect the facilities serving older neighborhoods. Targeted public investment in older neighborhoods can stimulate private sector reinvestment.



A. HOUSING

The primary objective of the County's housing policies is to assure a range of housing choices to all residents. To accomplish this, the County should promote opportunities to create and redevelop a diversity of housing types in a broad range of prices. Housing options should be available in urban and rural areas in a range of prices that supports a socio-economically diverse community. Housing for special populations, such as the elderly and disabled, should also be provided.

Historically, the predominant housing type in the County has been single family detached units. A number of large multifamily rental complexes were constructed in the 1960s and 1970s, primarily in North and West County. In 1990, single family detached units accounted for 69% of all housing. Townhouses accounted for 15%, multi-family units 13% and other types 3%. Of the occupied units, 73% were owner occupied and 27% renter occupied.

According to the 1990 Census, approximately 22% of housing units were constructed prior to 1950. Older housing is scattered throughout the County, though the majority is found in the north. Attention to the needs of these communities and the rehabilitation of older housing stock will be critical to maintaining the stability of these areas.

The availability of housing for seniors in all income ranges will become a larger challenge in the future. Existing housing for seniors serves the lower income elderly through public and publicly assisted housing. Upper income seniors have access to continuing care communities such as Ginger Cove. However, there is a scarcity of senior housing available to those with moderate incomes. Although the County has experienced a rapid rise in the number of senior assisted living facilities from five to 28 homes in the last eight years, the demand still exceeds the supply.

Market demand and the potential return on investment for the developer plays the primary role in determining the type of housing built or redeveloped. The County cannot control the housing market, but it can encourage a diversity of housing types and a mix of uses through land use and zoning regulations and the investment of Federal and State funds.

Housing Costs and Affordability

Housing prices and rental rates in the County increased steadily until the 1980s when real estate values jumped dramatically. The desirability of waterfront

properties and proximity to the Washington, D.C., employment market have drawn new residents to the County and contributed to an increase in housing values. While these increases have leveled off, median housing prices and median rents remain high relative to median household income.

In 1990, the Census reported the median value of a home was \$127,900. By 1995, the median sales price of a home had increased by 14.6% to \$141,016. It is estimated that a family earning 80% of the median income in 1995 (approximately \$39,500) and paying 30% of income for housing (mortgage, taxes and insurance) could afford a home of approximately \$105,000. Sales prices in this range (\$110,000 and under) dropped from 33% of the houses sold in 1990 to 25% of houses sold in 1995.

Approximately 31% of rental households paid in excess of 30% of household income for rent, according to 1990 Census data. For elderly households, the cost burden of rental housing is even greater. Over 50% of elderly rental households paid in excess of 30% of their income for housing. The Anne Arundel County Housing Authority maintains long lists of households seeking public housing or Section 8 assisted housing. This indicates a need for affordable rental options. In 1995, approximately 1,600 households were on the waiting list for public housing and 2,800 on the list for Section 8 certificates.

During the Plan public participation process, concern was expressed about the

lack of affordable housing in the County. Housing affordability can be addressed by developing strategies to retain the existing supply of owner-occupied housing and rental housing and to encourage the construction of a range housing types, with a choice of prices, to meet residents' needs.

Housing Goals:

PROMOTE AN ADEQUATE SUPPLY OF HOUSING THROUGHOUT THE COUNTY WITH A BROAD RANGE OF HOUSING TYPES AND PRICES THAT MEET THE NEEDS OF PEOPLE AT DIFFERENT AGES AND STAGES OF THEIR LIVES

ENCOURAGE THE REDEVELOPMENT OF EXISTING COMMUNITIES AND REHABILITATION OF EXISTING HOUSING AS COMMUNITIES AND HOUSING STOCK AGE

Housing Policies:

- Encourage the development of housing for the elderly, the disabled and those with limited incomes. Address the needs of persons with disabilities and special needs through housing modifications and financial incentives using public and private resources
- Assist low-income homeowners to rehabilitate their homes and correct code violations using the State and Federal resources available to the County

- Support mixed income housing developments and housing which serves a diverse population
- Promote financial programs and development that enable first time home buyers
- Encourage the development of mixed use projects
- Encourage public and private investment in the preservation, redevelopment and stabilization of existing rental housing affordable to low and moderate income households
- Allow accessory apartments within existing single family neighborhoods while maintaining the appearance of single family housing
- Provide incentives for developers to build affordable housing
- Promote creative reuse of obsolete commercial buildings as housing through revision of zoning, subdivision and building regulations
- Encourage public and private investment in neighborhood preservation, housing rehabilitation, redevelopment and improvement

Housing Actions:

- Revise zoning and subdivision regulations to permit greater

densities for specific target markets, such as disabled and older persons

- Promote the availability of the County's Department of Aging as a resource in planning housing for older persons
- Review development regulations affecting housing costs to determine if they create excessive costs or delay, or if they discourage provision of a broad range of housing choices
- Evaluate transfer of County surplus land for construction of affordable housing by private and non-profit developers
- Provide incentives to developers, such as fee credits for development of affordable senior housing
- Revise zoning regulations to allow accessory apartments in appropriate locations
- Investigate the feasibility of a Moderately Priced Dwelling Unit (MPDU) Program that would provide moderately priced housing throughout the County.



B. EDUCATION

1. Anne Arundel County Public Schools

The Anne Arundel County Public School system provides a high quality of education to a diverse and variable population. Enrollment during school year 1995 was 72,000 students or 87% of the eligible school age population. The County public school system operates 115 educational facilities. It is the fifth largest school system in the State and the 47th largest in the nation. With an annual budget of over \$400 million dollars and an educational staff of over 4,000 teachers, this system is also one of the largest employers in the County.

In an attempt to provide community based education facilities, the public school system is organized around 12 high school feeder districts (see map 6-1, High School Districts — as of school year 1996). Each high school feeder district is comprised of one high school, one or two middle schools and four to 10 elementary schools. In addition to the 12 high schools, 17 middle

Board of Education operates 18 special centers. These centers provide specialized training or testing, and provide placement for children who have special needs that cannot be met at their home or neighborhood school.

Half of these facilities were built prior to 1950 and another quarter were built in the 1970s. The school system has scheduled major improvements to most of these facilities and in some cases replacement. In response to recent enrollments and projected growth, new schools are also planned.

Faced with more and more Federal and State mandates and community demands for excellent and appropriate education for all children, the Board of Education developed a guidance policy to lead the system into 2000. This VISION 2000 policy identifies the six goals listed below and establishes a framework for meeting these standards.

1. **One Hundred Percent Safety:** Achieve a 100% safe environment for all students and teachers. Provide a broad program of services to promote school safety and discipline.
2. **Achievement:** Students will have the highest academic achievement in the State of Maryland. Expand or develop programs and curricula to meet the learning needs of all students.
3. **Involvement:** All parents will become active participants in the

education of their children. Increase parent/community participation and public confidence in the school system.

4. **Training:** All Anne Arundel County Public School personnel will be participants in a professional development process that contributes to student success. Provide professional opportunities for all staff.
5. **Innovation:** Create an atmosphere that encourages and rewards creative and innovative approaches to achieve student success. Encourage innovation to achieve greater efficiency and effectiveness in meeting students needs.
6. **Access:** All students will have equitable access to educational resources for their success. Provide equitable resources to support all schools, including financial support based on the structural, technical and demographic needs or criteria of each school.

In recent years, older schools, such as Odenton, Solley and Park elementaries, have been modernized to bring them up to current standards and provide needed classrooms for new students. Several elementary and middle schools are presently over capacity. While the overall system has an adequate number of seats, use of existing capacity through school redistricting is hampered by issues of school location, busing and the perception

that some schools are inferior.

The provision of new and expanded schools has lagged behind the demand for school space. One solution to this problem has been the use of portables at over enrolled schools to maintain feeder system integrity and community school policies. As a result, under capacity schools continue to have empty seats or are used on a temporary basis as schools are expanded and built. While remedies other than building new schools have been investigated, only portable classrooms have been employed.

Although the school system is reviewed annually for boundary adjustment, effective redistricting is difficult to achieve. Communities strongly support "consistent vertical flow of students from kindergarten through grade 12." This consistency is based on "the desire to develop a family oriented, community based instructional and emotional support system" where "children can experience consistent and stable identities with instructional and student support services personnel." (Educational Facilities Master Plan, July, 1995)

The current overcrowding at the elementary school level is expected to move through the system. With the current feeder boundaries remaining the same, four of the 12 high schools will be crowded, four will be between 91% and 99% of capacity, and another four will be 90% or below capacity around 2004. Within the next few years, there may be crowding pressures that require building a high school in West County, in keeping with community school

policies, or redistricting a portion of the Arundel feeder area to South River High School.

Improving the quality of educational facilities to ensure countywide equity will mean continued progress toward modernizing or replacing obsolete schools. Targeting limited funds and balancing capacity decisions for long-term rather than short-term bulges will be critical if system equity is to be achieved.

Recent examination of subdivision waivers to the adequacy of schools requirements has produced several recommendations to improve use of existing schools and to plan for expansions, renovations, and new schools. Because waivers over the last six years have added less than 1% of the total school enrollment, they are not a major contributor to school overcrowding. Better use of existing facilities and improved collaboration and coordination between the Board of Education and the Department of Planning and Code Enforcement were recommended to make the best use of limited fiscal resources. Capacity caps of 115% for elementary and 120% for middle and high schools were also recommended.

2. Anne Arundel Community College

Anne Arundel Community College is a public, two-year college with the primary missions of teaching students who are planning to transfer to four-year colleges or universities, students preparing for employment, and citizens desiring continuing education and training. Established in 1961 under the Board of

Education, the College received full accreditation from the Middle States Association of Colleges and Schools in 1968. The College attracts 40,000 credit and non-credit students annually to the Arnold campus, neighborhood classroom sites, Arundel Center North, and its Fort Meade and Glen Burnie educational centers. Within its mission, the College provides educational and student support services as well as cultural, recreational and research opportunities to citizens.

Anne Arundel Community College occupies 17 buildings on a 230-acre site bordered by Maryland Route 2 on the west, College Parkway on the north, and residential development to the east and south. Surface parking, athletic fields, open space and tree-lined buffers occupy the remaining acreage.

Education Goal:

PROVIDE THE BEST EDUCATION FOR ALL COUNTY RESIDENTS AND STRIVE FOR EQUITY AMONG ALL SCHOOLS

Education Policies:

- Make better use of existing school facilities and, if necessary, provide new school facilities to accommodate new growth
- Improve coordination between County agencies and the Board of Education especially regarding waivers and impact fees

- Locate school sites for maximum accessibility, encourage pedestrian and bicycle access and minimize bus use
- Encourage, with community input, creative use of underutilized school property in compatible and appropriate locations
- Use school space for cultural, recreational and civic activities
- Give priority to regular maintenance of existing school infrastructure in the County's Capital Improvement Program
- Encourage the development of office and support services adjacent to the Community College campus to support College activities and provide additional employment

Education Actions:

- Explore alternative funding to pay for school improvements
- Phase in development of additional school facilities to accommodate new residential growth.
- Provide options for developers to build additions and facilities to existing schools
- Initiate periodic review and revision of impact fees to reflect current costs

- Develop and disseminate rules and procedures for maximizing use of schools
- Coordinate the Board of Education and General County budget process and prioritize maintenance of existing school infrastructure

C. COMMUNITY FACILITIES

1. Recreation



A principal goal of the Plan is the preservation of open space and protection of sensitive environmental resources. Two recent plans have been developed to identify trends and issues and set goals for public recreation and land preservation in the County. In May, 1994, the departments of Recreation and Parks and Planning and Code Enforcement completed the Anne Arundel County Land Preservation, Recreation and Open Space Plan. This plan identified current conditions and trends, quantified recreation demands for various types of facilities as well as preservation needs, established long range goals, and created an implementation program. The

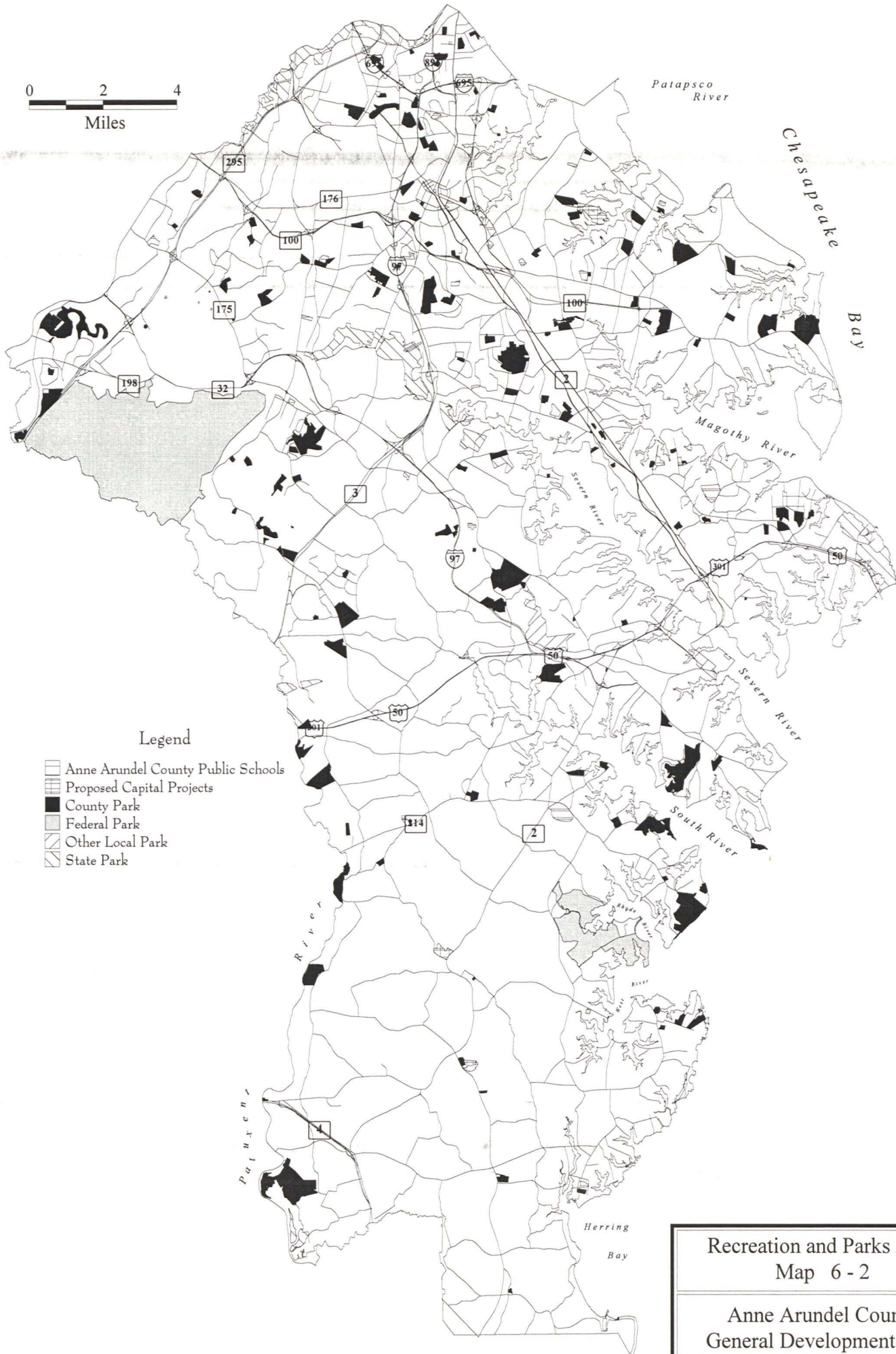
second plan, the Anne Arundel County Department of Recreation and Parks Master Plan, adopted the goals of the preceding report, identified key issues facing that department, and proposed a capital program for FY-1996 through FY-2005.

The County Department of Recreation and Parks Plan establishes a hierarchy of parks: State, County, district, community and neighborhood. The current trend is to develop large County parks with major facilities, with some smaller parks paired with school sites. Local needs will continue to be met with subdivision recreation areas and open space (see Map 6-2 Recreation and Parks Areas).

The County has the nucleus of an excellent greenway network. As part of this, the County manages approximately 42 miles of bicycle and nature trails. The Patapsco River, a prime example of a river valley greenway, includes a significant area of publicly owned land in the form of the Patapsco Valley State Park (see Map 4-6, Greenways). However, it is largely inaccessible and should be linked with the surrounding neighborhoods. County parks abutting the South River and the Bay are difficult to link directly with a greenway system, yet they provide important habitat as well as water access for the public. They could be classified as a "waterward" greenway because they are accessible and linked by boat.







2. Libraries

The County's first public library was opened in Annapolis in 1921. By 1927,



0 2 4
Miles

Legend

-  Anne Arundel County Public Schools
-  Proposed Capital Projects
-  County Park
-  Federal Park
-  Other Local Park
-  State Park

Recreation and Parks Area
Map 6 - 2
Anne Arundel County
General Development Plan

there were over 3,500 card holders with an average of 100 daily checkouts and branches in several outlying communities, sometimes in private homes. The system today consists of 15 branches. Two are considered regional libraries and three are located in strip mall storefronts. The system now handles well over 10,000 checkouts per day (see Map 6-3 Libraries). The Library hopes to convert one of its community branches to a third regional library of about 40,000 square feet soon.



The Library Board's principal goal is to place libraries within 15 minutes travel of all residents. A recently completed facility master plan recommends an additional two new buildings to meet the County's needs. The master plan finds that most of the existing facilities are undersized for the population served. West County is targeted for a regional library (that will involve moving or expanding an existing branch) and a branch relocation. Replacing the Crofton community library with a new regional facility is the option currently favored by the Library Board.

The newest of the shopping center libraries are the Mountain Road and Provinces

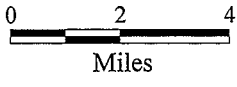
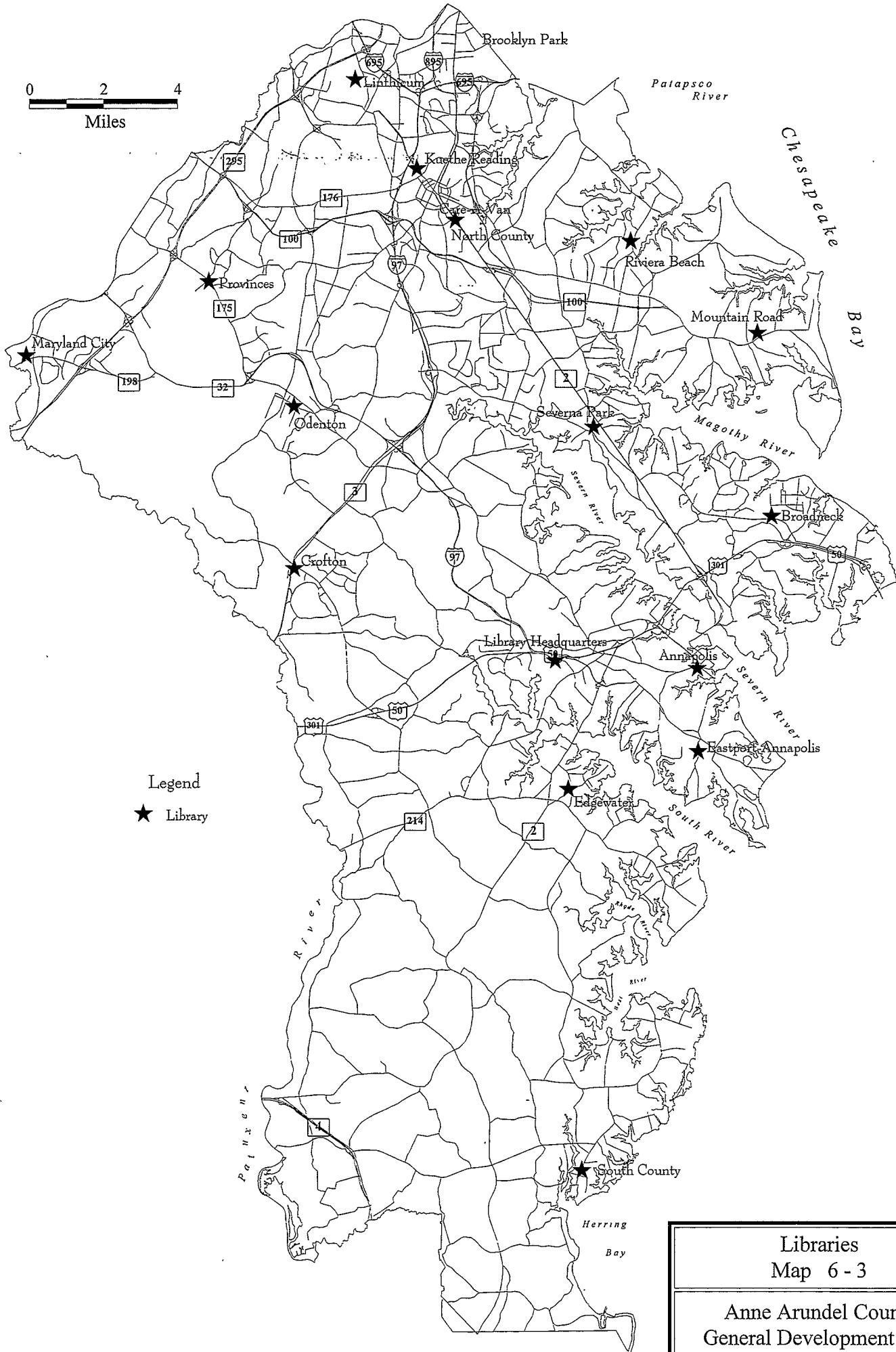
branches. They help anchor these commercial centers. The Maryland City and Crofton libraries will be relocated from shopping centers. The new Maryland City branch will be built in the Russett Community Center.

The Library Board is currently evaluating growing space demands for more materials and services at its regional branches in Glen Burnie and Annapolis. Both facilities serve larger populations which require more materials and services than the buildings can adequately accommodate.

3. Senior Services

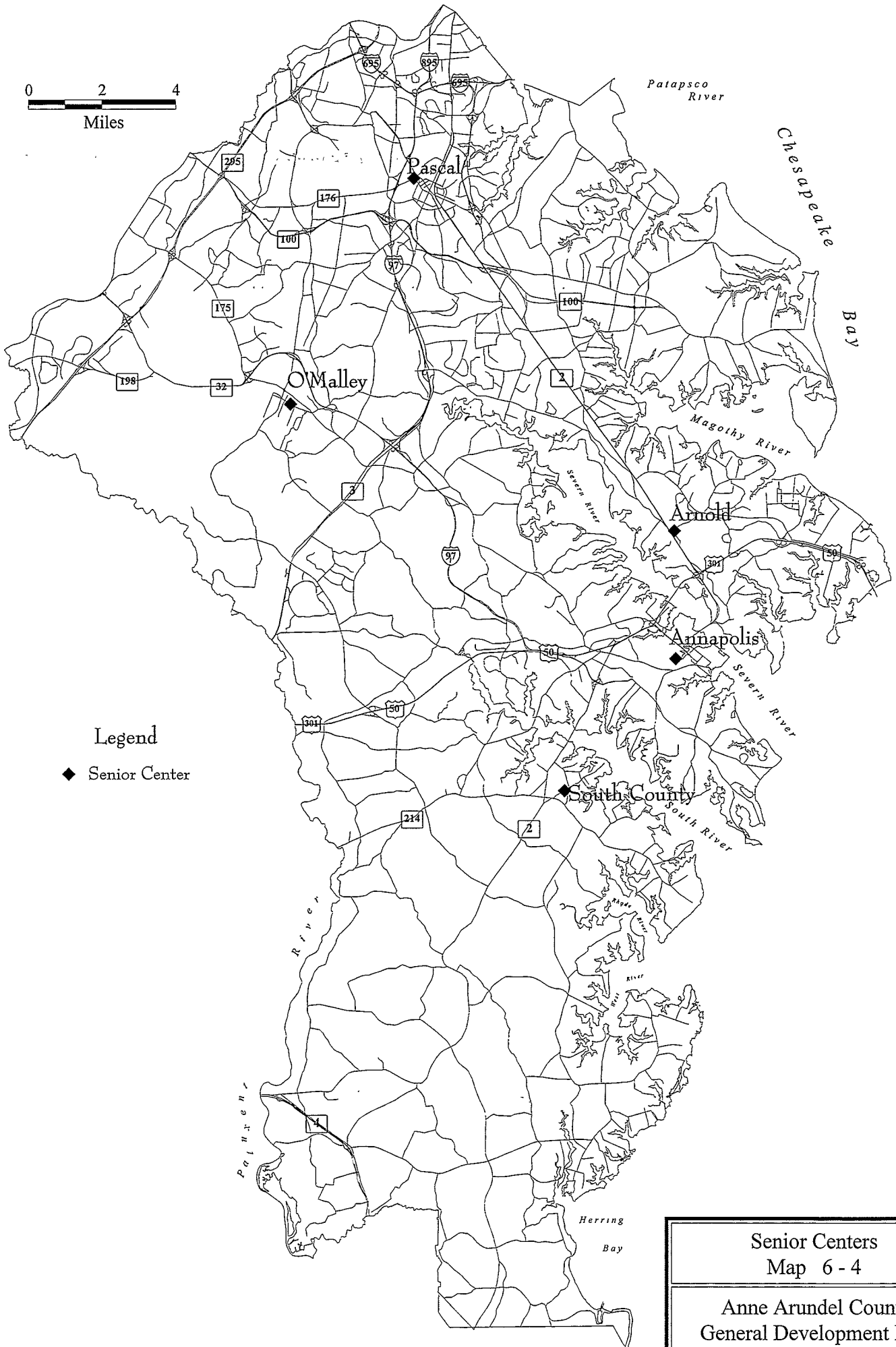
The County provides a wide array of senior services through community focal points which include five senior centers, two administrative offices and 13 nutrition sites distributed geographically throughout the County (see Map 6-4 Senior Centers). The centers are located in Glen Burnie, Arnold, Annapolis, Edgewater and Odenton. Nutrition sites are located from Deale to Brooklyn Park. The goal of senior centers is to keep seniors active in the community and to provide health screenings, tax assistance, educational programs and social services.

Facilities are generally designed to serve the population within a 3-5 mile radius and attract approximately 15% of the area's age 65 and over population or about 10% of the age 60 and over population. Approximately one-third of center attendees use Department of Aging van services and two thirds drive to the centers.



Legend
★ Library

Libraries
Map 6 - 3
Anne Arundel County
General Development Plan



0 2 4
Miles

Legend
◆ Senior Center

Senior Centers
Map 6 - 4
Anne Arundel County
General Development Plan

A recent needs survey of the age 60 and over population determined the priority problems to be income, selecting and understanding insurance, home repair and maintenance, medical care, isolation, crime and transportation.

Once older persons become inactive or reach advanced age, they frequently require additional services and assistance with basic needs or long term care. Long term care encompasses in-home assistance, adult day care, assisted living and nursing care. The need for long term care services is expected to increase as the County continues to age.

Senior designed housing exists for lower income (public and Section 8) and upper income persons, but there is little for moderate income persons despite the fact that many would chose to live in senior housing.

Emergency Medical Services and medical facilities must expand to accommodate the growing number of very old and frail persons. Increasing numbers of very old persons living alone with possible infirmities (hearing loss, diminished sight, mobility problems) indicate a need for training and possible adjustments in emergency personnel procedures (fire, police, EMS). Increased numbers of disoriented "wanderers" can also be anticipated.

The recent and rapid development of senior programs and services has created new issues which require new regulations, monitoring and other mechanisms to ensure

smooth delivery of services, ready access, and protection of frail, vulnerable elders. State and local regulatory and legislative bodies need to develop flexible, and often speedy, methods of identifying and responding to gaps and needs in this area.

Community Facilities Goals:

PROVIDE A DIVERSE RANGE OF ACCESSIBLE RECREATIONAL FACILITIES AND PROGRAMS TO SERVE THE NEEDS OF ALL COUNTY RESIDENTS

INCREASE PUBLIC ACCESS TO THE CHESAPEAKE BAY AND TRIBUTARIES

PROMOTE QUALITY HEALTH, RECREATION AND TRANSPORTATION SERVICES FOR SENIORS

PROVIDE A STATE OF THE ART LIBRARY SYSTEM THAT IS CONVENIENT TO ALL COUNTY RESIDENTS

Community Facilities Policies:

Recreation Policies:

- Pursue Federal funds to improve roads linking bike trails
- Provide dedicated bike lanes on major roads for safety of cyclists
- Increase land available for hiking, biking and equestrian trails

- Provide recreational opportunities affordable to all County residents
- Consider access to public transportation when locating new recreational facilities
- Encourage the private development and management of multi-use community centers
- Give priority in new park acquisition to sites along the Bay and major tributaries
- Promote public access and use of shoreline in selected locations through public purchase, scenic and open space easements, scenic restrictions and resource management

Library Policies:

- Provide library services in central locations in existing communities and developing areas
- Consider proximity to community services and numbers of nearby residents when locating libraries

Senior Services Policies:

- Promote alternative housing options for seniors at a variety of income levels, especially for middle income seniors
- Locate services and facilities used by seniors for their convenience and

safety

- Improve access to emergency medical services and medical facilities for seniors
- Promote cost-effective community services for seniors such as adult daycare and quality assisted living
- Improve tax incentives for home maintenance and repair, and provide additional tax incentives to senior homeowners, to retain value of the County's housing stock and allow aging in place

Community Facilities Actions:

- Identify and acquire, where feasible, available land — including suitable Federal and State surplus — to meet County recreation needs
- Identify sites and possible funding mechanisms for community and regional recreation areas
- Provide a western regional library to serve the entire West County area
- Study the future expansion of northern and southern regional libraries to meet growing needs
- Expand electronic resources in libraries available to all County residents regardless of location
- Identify potential for senior housing, senior services and medical services

in storefronts, shopping centers and shopping malls and for co-location with other community services (libraries, recreation centers, senior centers)

- Increase the quantity of EMS and medical facilities to meet the demands of an increasing aging population
- Review and revise development regulations to determine appropriate changes to allow health and senior care facilities that are compatible with existing neighborhoods in convenient locations

D. ECONOMIC DEVELOPMENT

A healthy economy is essential to the continued growth and development of the County. Without a strong economic base, the County will not have the fiscal strength to provide the kinds of services desired by existing and future residents.

The County's economic and population growth rate over the next twenty years is likely to be slower than in the boom years of the 1980s. The perception of the County as a bedroom community for the Washington and Baltimore employment markets is changing. The County now provides more than 258,000 jobs (a ratio of more than 1.5 jobs per household). The number of jobs is projected to increase to nearly 313,000 by 2020.

The County should designate sufficient,

strategically located land for economic expansion to take advantage of market demands. The County should also provide assurances to the business community that the kinds of infrastructure investments necessary to promote a viable economy are planned, and that an implementation strategy will be followed.

1. Maryland Heritage Preservation and Tourism Areas

The Heritage Preservation and Tourism Areas Program, created in 1996, is an economic development tool that will enable the State and local jurisdictions to build upon Maryland's potential for "heritage tourism." It is anticipated that heritage tourism will promote historic preservation and enhance areas of natural beauty to generate jobs, stimulate the creation of new businesses, and generate sales, income, and property tax revenues for the State and local jurisdictions.

Heritage Areas combine historic preservation, recreation, education and economic development for the benefit of visitors and residents of the community. The Maryland Heritage Areas Authority, appointed by the Governor, may approve up to two State Certified Heritage Areas in each fiscal year. Once certified, these areas are eligible for State assistance for programming, acquisition, and development, as well as certain tax incentives.

Tourism is already a significant contributor to the economy of Annapolis and the County. Further enhancement and

development of a Heritage Tourism industry will have an even greater impact on the local economy. Initial efforts are underway in Annapolis and the County to obtain certification of a Heritage Area and reap the economic benefits of the Heritage Areas Program.

Economic Development Goal:

MAINTAIN A FAVORABLE CLIMATE TO RETAIN AND ATTRACT DIVERSE BUSINESS AND INDUSTRY TO PROVIDE JOBS, INCOME AND TAX BASE, TO ACHIEVE SUSTAINED AND DIVERSIFIED GROWTH, AND TO ALLOW THE COUNTY TO MEET THE NEEDS OF ITS CITIZENS

Economic Development Policies:

- Expand and support industrial and business growth by combining public and private resources
- Locate industry, commerce and housing with the best access to employees, customers and suppliers
- Direct economic development efforts in designated areas of the County where there is minimum impact on the environment and maximum long-term benefits to employment and the tax base
- Promote an active program to retain and expand existing business and industry through financial assistance, employee training and tax incentives

- Streamline regulatory mechanisms and speed the development process in areas targeted for growth and investment
- Pursue Federal and State funding for commercial revitalization and provide technical assistance to implement needed improvements
- Attract industries that will diversify and stabilize the County's economy

Economic Development Actions:

- Provide improvements in public services and facilities and encourage improvements such as installation of utilities and roads by the private sector and the State in areas designated for residential, commercial and industrial development
- Evaluate location and amount of commercial and industrial zoning to ensure it is adequate to support retention and expansion of existing business and to help guide new business to appropriate locations
- Conduct a fiscal impact analysis in conjunction with planning of special areas, such as Growth Management Areas and Small Planning Areas
- Develop a program of incentives, including tax and financing measures, for the redevelopment of existing commercial sites

- Establish a fast track permit review process for job creation projects
- Conduct a comprehensive review of existing development fees and services; determine appropriate methods and levels of funding and fees for development and services
- Enhance marketing strategies to attract diversified business

E. PUBLIC SAFETY



1. Fire and Emergency Services

Fire protection prior to the adoption of Charter government in 1965 was provided by volunteer companies from stations in the communities they served. In 1966, the 23 volunteer companies were consolidated with arson investigation, fire prevention and communications under one department. Today, only 14 of the 29 stations are volunteer operated. All have fire suppression, emergency medical service, basic fire prevention code enforcement, and

public fire safety education functions. Ladder trucks and mobile water storage tankers are added to station equipment inventories based on area needs. EMS/Fire/Rescue's 600 career firefighter, paramedic, fire marshal, EMS and other personnel are enhanced by nearly 800 volunteers.

The most recent study of fire station location needs was completed in 1991. It targets areas of population density greater than one person per acre and where the greatest number of people can be served within a "five minute response time." Fire stations should be located near "target hazards", those commercial or multifamily residential properties presenting a high life or property value risk. These include hospitals, nursing homes, industrial, mercantile or warehouse structures, high rise office or residential buildings and garden apartments.

Improvements in code enforcement and use of built-in fire protection (sprinklers and smoke detectors) have significantly reduced severity and frequency of fire incidents. However, calls for emergency medical service are increasing, causing a shift in focus. EMS/Fire/Rescue is currently evaluating impacts on resources that reflect increasing demands in EMS, technical rescue, hazardous material response, and emergency management of manmade and natural disasters. Additional fire prevention measures may be appropriate, such as offering sprinklers as an option to home buyers. Before these measures become acceptable, they will require agreement by all interested parties.

The County's rivers, narrow peninsulas, and low density rural development in the south make the allocation and backup of emergency resources difficult in those areas. Additionally, those areas must compete with growing demands of denser areas and communities with growing numbers of aging residents.

2. Police Protection and Crime Prevention

The Police Department employs over 600 sworn officers and 200 administrative support personnel to carry out its responsibilities. It operates programs such as Neighborhood Watch, Operation Identification, Community Security Patrols, Commercial Security Network and other efforts to reduce crime and the fear of crime in the County.

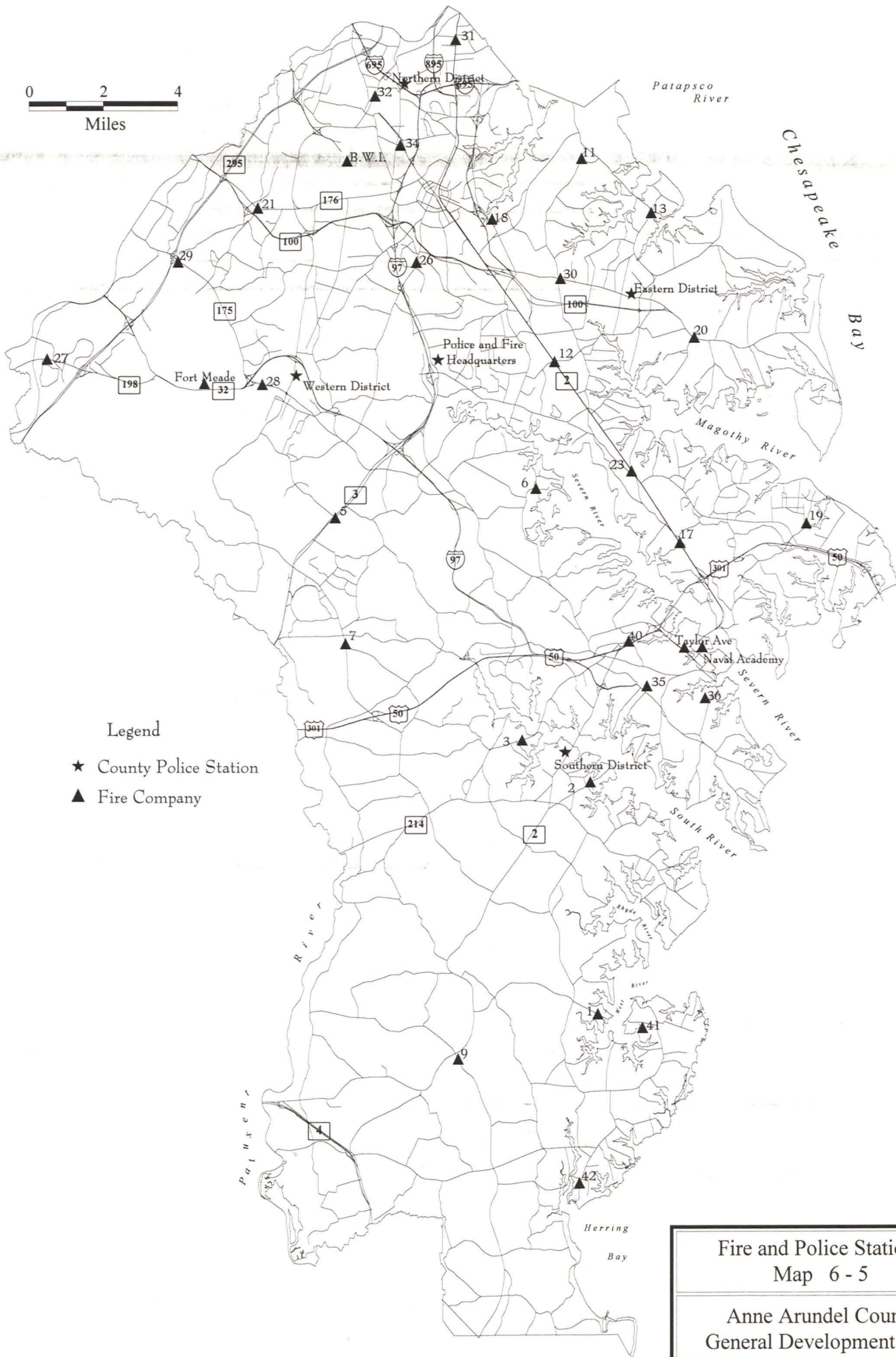
As part of community policing efforts, each of the four police patrol districts participate in Police Community Relations Councils to mediate citizen concerns and issues within these districts. In addition, Police and Community Together (PACT) officers are assigned to each patrol district to help reduce crime through non-traditional approaches. Tactical Patrol Units in each of the four patrol districts are available at the direction of the district commander to intensify efforts toward reducing criminal activities.

The 911 Primary Safety Answering Point (PSAP) for the County is located within the Police Department's 911 Communications Center. EMS/Fire/Rescue and the City of Annapolis Police Department serve as

back-up PSAPs. The responsibility for providing police, fire, and ambulance response to citizens is shared by EMS/Fire/Rescue and the Police Department. Highly trained fire and police communications dispatchers operate a state-of-the-art Computer Aided Dispatch (CAD) system coupled with the latest radio technology to help provide a rapid response of fire and police personnel and equipment.

Each of the County's police stations is strategically located to provide the greatest access to serve the area. These district stations provide administrative support to the patrol beats within the district and are used to process and hold arrested persons. Each of the district stations is considered an important part of the community. They are used by the communities for public meetings. The Northern and Western District stations are expected to remain at their current locations. The Eastern, Southern and Central stations will be relocated in coming years based on demographic shifts (See Map 6-5 Fire and Police Stations).

Peninsulas, single road access, population growth and land development impact the Police Department's ability to respond to calls for service. However, the County's relatively low crime rate and the Police Department's commitment to strategic planning and assessment of patrol force deployment help to maintain a safe environment for County residents.



Fire and Police Stations
Map 6 - 5
 Anne Arundel County
 General Development Plan

Public Safety Goals:

PROVIDE A HIGH LEVEL OF FIRE PREVENTION AND SUPPRESSION SERVICE AND EMERGENCY MEDICAL RESPONSE TO ALL CITIZENS OF THE COUNTY

PROVIDE FOR THE SAFETY AND PROMOTE THE GENERAL WELFARE OF THE COUNTY, THROUGH THE PROTECTION OF LIFE AND PROPERTY, TO ENHANCE AND MAINTAIN THE QUALITY OF LIFE OF ALL COUNTY CITIZENS

Public Safety Policies:

- Minimize response times for medical emergencies
- Require alternatives to public water systems in sparsely populated areas, assuring a reasonable degree of fire fighting capability, as a prerequisite to development in those areas
- Encourage the use of fire prevention and suppression technology to improve safety of life and property
- Coordinate planning for new fire stations between appropriate County agencies
- Provide police protection at the neighborhood level in a timely manner

Public Safety Actions:

- Provide funding for medical units in new and existing fire stations or provide advanced life support engine response with private EMS transport from new and existing fire stations
- Review and revise adequate facilities requirements for fire suppression
- Co-locate fire stations with other County facilities where possible
- Initiate and maintain community oriented policing partnerships to promote greater understanding, to meet the needs of communities, and to identify non-traditional police responses to crime

F. Community and Environmental Health

The Health Department's mission is to protect and promote the health of all County residents. To fulfill its mission, the Health Department provides a range of services. These services are divided among its three operating divisions which are Maternal and Child Health Services, Mental Health and Addictions, and Community and Environmental Health. Services are also provided through the Office of Health Information and Risk Reduction. It provides public education aimed at reducing the toll of cancer and other threats through proven interventions.

The Maternal and Child Health Division has the primary responsibility for protecting the health of families. This agency provides family planning, prenatal care, dental services, free supplemental food, and nutrition education through the Women, Infants and Children (WIC) program. It also addresses breast and cervical cancer prevention in Women's Health Services.

The division of Mental Health and Addictions plays an integral role in promoting the emotional and physical well being of residents. It is the single largest provider of mental health and substance abuse services and outpatient treatment in the County. Services are provided at clinics in Annapolis and Glen Burnie.

Community and Environmental Health responsibilities include ensuring that our food and water are safe, providing sanitary engineering and community hygiene services, services to the aging and communicable disease control. The Food Control and Recreational Waters program conducts regular inspections of about 1,900 restaurants and other "permanent" food facilities.

The Health Department's Sanitary Engineering program focuses on ensuring that safe sewage and solid waste disposal are available throughout the County. Health Department sanitarians review and approve all private residential and commercial sewage systems, ensuring that residents with private wells have safe systems.

The Health Department also delivers services to seniors. They include geriatric evaluations, counseling and case management for those seniors requiring in-home health and social services, and personal care services to residents receiving federally funded medical assistance.

Community and Environmental Health Goals:

LOCATE HEALTH FACILITIES IN THE COUNTY CONVENIENT FOR ALL RESIDENTS TO MEET EMERGENT NEEDS FOR QUALITY HEALTH CARE

ENCOURAGE THE DEVELOPMENT OF PRIVATE HEALTH CARE FACILITIES TO SUPPLEMENT PUBLIC FACILITIES

THROUGH RESEARCH AND SURVEILLANCE, ASSESS COMMUNITY HEALTH STATUS AND IDENTIFY CURRENT NEEDS FOR DISEASE PREVENTION, ESPECIALLY IN THE AREA OF CANCER, HEART DISEASE AND OTHER PUBLIC HEALTH PRIORITIES

Community and Environmental Health Policies:

- Improve the availability of community-based health centers so all citizens have access to quality health care
- Provide greater flexibility in development regulations to allow nursing care and assisted living facilities in appropriate and

convenient locations

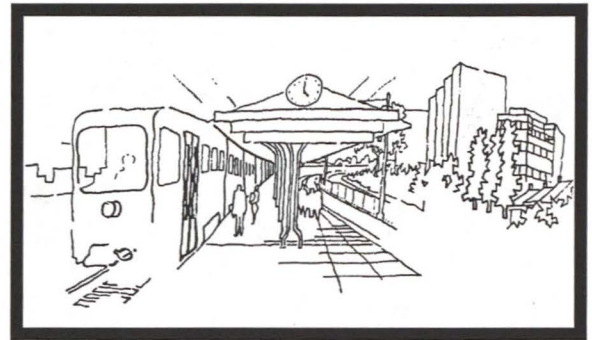
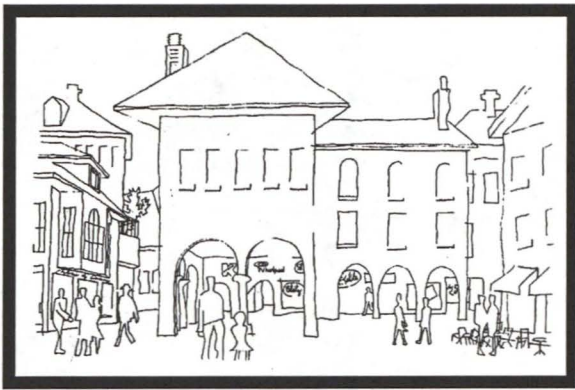
- Support the implementation of new and ongoing research and disease surveillance activities by identifying funding sources and developing or strengthening partnerships

**Community and Environmental Health
Actions:**

- Review and revise development regulations to determine appropriate changes to allow health and senior care facilities that are compatible with existing neighborhoods
- Develop a network of partnerships with government, private and academic institutions to improve community awareness of health and wellness issues, particularly in the area of cancer control

Appendix One

Guidelines for Community Design and Development



Community Design and Development: Concepts and Guidelines

The General Development Plan serves not only as a guide for development of the County, in terms of land use, transportation and community facilities, but also projects a vision of community life well into the next century.



This section is intended to set down general principles for community design, with further study, refinement and implementation to be accomplished under Small Area Planning. It will deal with alternative methods of planning and zoning, applied to old and new communities, as well as business development and rural conservation. General Development Plan concepts focusing on commercial revitalization, mixed use development, traditional neighborhood design, transit-oriented development, and rural villages and will be addressed.

Development brings economic benefits and opportunities, but has costs in terms of fiscal impact, traffic congestion and environmental quality. While we accommodate new development, the values and character of existing communities must be preserved and enhanced. There should be a concerted effort to upgrade and renovate older areas, providing new infrastructure and facilities, housing opportunities for groups in need, as well as environmental protection and aesthetic quality. Although newer communities meet conventional standards in layout and infrastructure, even these areas may need to be retrofitted to improve traffic safety and pedestrian or bicycle access.

The goal is to improve the quality of life for all who live or work in Anne Arundel County. This goes beyond normal functional requirements, prescribed by zoning and subdivision regulations. It often involves intangibles not reflected in the typical planning process, and is focused on creating more visual and social amenities, to strengthen local identity, orientation and community values. This approach is tailored to particular neighborhoods, employment and business areas, involving a diverse array of local problems and opportunities --- from the agricultural areas of South County and waterfront communities, to inland areas of West County to the older, densely developed portions of North County. Community Design criteria address the special needs of the young and old, and should help facilitate recreation, educational and cultural activities, with better access to jobs and transportation alternatives for all age groups.

Many of these objectives have been stated elsewhere in the Plan, however they need to be translated into physical planning and design guidelines to be effective. This will involve modifications of some current development regulations, adoption of new legislation, and funding programs to make a real difference in the quality of our communities.

Below are set down some basic ground rules for new and infill development, intended to protect natural features, assure aesthetic standards and provide for daily needs such as shopping and services, with improved local access and linkage between neighborhoods and public facilities.

- Retrofit older communities with desired amenities and improve safety, convenience and appearance (especially in highway strip development); upgrade infrastructure as needed
- Reinforce activity centers as a focal point of community life. (Strategically locate and group public facilities and open space); consolidate and supplement retail & service uses, as well as employment opportunities
- Improve orientation and access (view from the road, parking and streetscape; facilitate transit-friendly development, with pedestrian and bicycle linkage to communities served)
- Promote efficiency standards in land use and transportation (subject to life-cycle cost analysis for public infrastructure), and preservation of both public and private open space
- Provide for a variety of housing types where possible for different population needs in each community (e.g. senior housing, affordable rental units, patio homes, etc.)
- Maintain and enhance the visual character of each area, consistent with existing assets and setting (e.g. rural vs. suburban) and preserve special features, natural or historic
- Use open space as a public focus within the community, providing for visual relief, recreation and social interaction
- Coordinate location and design of public facilities (schools, churches, libraries, etc.) to create a sense of place and orientation for residents and visitors

To implement these policies under the General Development Plan, there are various concepts or methods which may be used, including traditional and innovative zoning, mixed use, planned unit development, traditional neighborhood design and cluster layout. All of these techniques can help provide the necessary flexibility for sensitive planning at the local level. More detailed area plans are needed to establish the context, or framework for design review, and priorities for capital improvements. These will be prepared along with comprehensive rezoning. In the meantime development regulations will be revised to facilitate the new planning and design standards.

Small area plans will involve both functional and visual analysis of each community to determine how it serves the daily needs of residents and employees. Basic human needs of housing, work, shopping and services will be evaluated, as well as educational and leisure time activities. The pattern of land use and circulation set the overall framework for community life, however natural features, civic focus and a sense of place are equally important. Through conscious planning, we will recognize and reinforce the unique character and identity of our existing communities, and help to create attractive and coherent designs for new communities, using innovative techniques and special incentives to assure quality development.

Activity Centers and Community Focus

Whether in old established neighborhoods or burgeoning new suburbs, there is a fundamental need for employment, shopping, entertainment and public services. These functions may be dispersed along various roads, or brought together in a central place, both highly accessible and meaningful to the people served. "Activity Centers" can provide the focal points for daily life, supported by surrounding land use and circulation systems. These multi-purpose centers should be seen as key elements in the social and spatial structure of the community. It is important to recognize and enhance their role in creating a sense of place and identity, so often lacking in our commercial and residential areas.

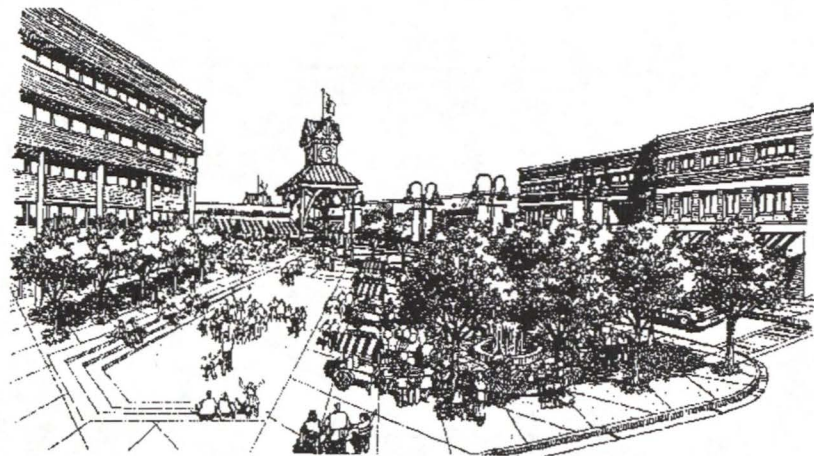


Main Street , Annapolis (rendering by Mahan Rykel Associates, Inc.)

Given its setting within two major metropolitan areas, Anne Arundel County contains a full range of commercial centers, from local convenience shopping to large regional malls. There is a hierarchy of centers, related to overall market areas served, and the size and type of stores varies accordingly. Major categories have been determined as follows:

Regional Malls	Three or more full line Department Stores, dozens of specialty shops, restaurants, cinemas, and banks
Sub-regional Centers (incl. "Power Centers")	Junior Department Stores, major grocery and drugstores; discount and volume specialty outlets
Major Local and Community Centers	Supermarket & pharmacy, specialty shops and services, local restaurants and branch banks
Neighborhood Centers	Superette (convenience stores), small shops, fast food

Some of these centers may be clustered at key intersections, or on contiguous sites forming a larger grouping. In strategic locations served by arterial roads and freeways, many other uses may be attracted, including hotels and offices. To the extent that public space and facilities are provided, these areas serve a variety of needs and become a true



DRAWING

Glen Burnie Town Center

community center. Major concentrations of activity in Glen Burnie, Parole and Odenton have been designated Town Centers since the first General Development Plan in 1968. Of these, Glen Burnie is the smallest, but already contains a balance of office and retail uses, with government facilities and public open space. Current plans call for infill commercial and apartments, with renovation of the plaza to include an ice skating rink and amphitheater for community events. In Parole, conventional retail development has been dominant, with some offices but little public focus. Future plans for the "core" area envision a more traditional downtown with grid streets and a diverse mix of residential, office, retail and entertainment uses with active public space. A similar image is presented in the Odenton Town Plan, however major development is not yet underway.

Activity Centers exist throughout the County in most communities but differ in type. Some are older retail strips, or “commercial corridors” in need of revitalization and streetscape improvements, while others are true “centers” with a focus of activity, involving a variety of stores, restaurants and service uses, as well as community facilities.

Commercial Corridors often stretch out along state highways and contain highway-oriented commercial, serving commuters and a broader market area, while others occur within neighborhoods along local streets and provide convenience commercial services for nearby residents. (For the latter, safe and convenient pedestrian and bicycle access is most important.)

Often there is no clear distinction between commercial corridors and centers as they have been developed along the same arterial roads. A major intersection, or traffic node, may become the nucleus of a “center” which will attract a variety of uses, both public and private. Strip commercial development may extend beyond the center some distance along major roads where zoning permits, or as older non-conforming uses.

The scale of these centers or commercial corridors varies widely, from a small string or cluster of freestanding businesses serving local needs, to a multi-block complex of shopping centers and offices serving a sub-regional market, as well as the surrounding neighborhoods.

Commercial Revitalization Areas

Several Commercial Revitalization Areas have been identified on the General Development Plan Land Use Plan Map. These are generally along major roads through older communities where strip development began prior to zoning in the early 1950s. A recent study characterized such strip development as an “eroded main street”, or “convenience strip”, with poor definition in terms of building continuity and setback, ugly signs, lack of curbing, scattered parking and fragmented sidewalks. In 1992, the County undertook major renovation of a five-block area in Ferndale adjacent to the Light-Rail station, involving streetscape and building facade improvements. New curbing and sidewalks were provided, with street trees and special lighting (See Figures 1 & 2).

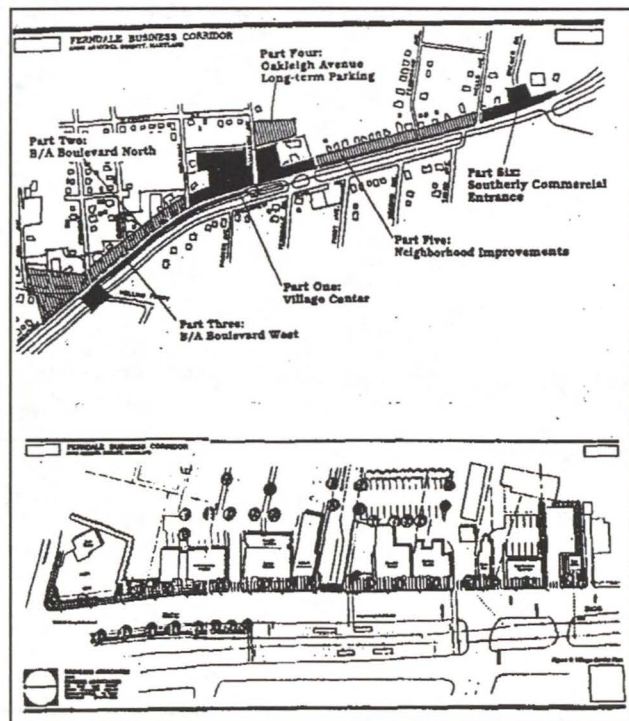


Figure 1. Ferndale Streetscape Plans

As an element of community enhancement, commercial revitalization efforts should be tailored to the particular setting and retail/service functions provided. Pedestrian linkage and streetscape improvements are important elements. Consolidated parking may be appropriate in larger centers, while shared access easements may work with smaller strip developments. Public space will depend on the size and configuration of the center and available land or related community facilities. Landscaping, signage and lighting design will also vary according to the type of center and proximity to housing in the area. Facade treatment and architectural styles depend on the age and condition of existing structures and the character of the surrounding community.



Figure 2. View from Light Rail Station

In summary, the real challenge in local planning is to bring together the disparate parts of the community and create a focus of activity and sense of place. Private commercial uses tend to stress individuality in a competitive environment, so there is little cooperation in sharing access, or coordination of site layout or building design. This results in a fragmented streetscape, both unsafe for motorists and unfriendly to people on foot. Residential density is a key factor in supporting viable activity centers, with convenient pedestrian access and orientation. Housing type and mix in the surrounding neighborhoods will either strengthen or weaken the quality of life for local merchants, employees, their clientele and residents of all ages and family circumstances from the area served. It should be a place which is easily accessible, with or without a car, where a variety of goods and services are available in an efficient and attractive setting for all to enjoy... a destination where people may come and go, or linger and interact.

Innovative Zoning Methods

Conventional zoning is generally responsible for the pattern of development we have today. It has segregated land use into distinct categories, allowing little flexibility or opportunity for mix of uses or housing types. Subdivision regulations prescribe rigid criteria for neighborhood layout and site planning. Minimum lot sizes and setbacks result in a “cookie cutter” pattern, with little provision for common open space, or true cluster development. There is need to introduce alternative approaches to regulation, which respond more sensitively to environmental constraints, land consumption and human needs. Performance standards should be emphasized, rather than hard and fast rules. Overlay zones have already been adopted for our Town Center Growth Management Areas, which impose additional design standards and review but permit more flexibility in development and response to market conditions. Also the concept of “floating zone” is being applied through newly enacted legislation for “Suburban Community Centers”, as a special detailed use district to be developed under a comprehensive site plan and subject to rigorous design standards and review procedures.

Our current regulations for Planned Unit Development and cluster subdivisions have proven quite useful in preserving more open space and preserving sensitive areas within the property, as well as achieving more variety in housing types and inclusion of some retail services in small activity centers. These concepts should be promoted and strengthened as provided under the goals and policies of this General Development Plan. An approach to Traditional Neighborhood Development has also been endorsed in the Plan, as well as Mixed-Use and special provisions for Transit-Oriented Development. These concepts are further described and elaborated in the following sections.

Mixed Use Development

A key component of the General Development Plan is mixed use. Mixed use areas combine residential, commercial, employment, open space, recreation, and community uses in close proximity to one another. Having a variety of uses close to one another encourages walking and traveling shorter distances for community and commercial services, housing and employment. Shorter trips means less vehicle miles traveled, which helps to reduce auto emissions and air pollution. Mixed use also concentrates development into smaller, more compact areas, reducing the amount of land consumed for development.

Mixed use is defined generally as a combination of two or more different uses on the same site or in close proximity so as to complement each other's function and facilitate pedestrian access between them. The term was coined to describe a more flexible context for planning, perhaps as a reaction to the strict segregation of the land uses under more traditional zoning. It suggests a desirable approach which serves to reintroduce more variety and choices with diverse but compatible uses brought together under a cohesive plan.

Provision for mixed-use development is not new in Anne Arundel County. It has been incorporated into several current zoning districts, allowing for a variety of uses in certain residential, commercial and industrial areas. It is a well established concept which offers flexibility in terms of project design and marketing of commercial properties, with retail, office and service uses, and offers some opportunity for inclusion of residential uses as well. However given the tendency of developers to specialize in either commercial or residential projects, and possible conflicts between them in terms of parking and amenity, the two disparate uses are seldom combined on the same site, resulting in a conventional pattern of separation. Current regulations do not adequately facilitate an inclusive approach to development, even where desired, and the prevailing tendency toward segregated land use is being perpetuated. Therefore a policy to encourage Mixed-Use development in certain specified areas is being recommended under this Plan.

There are already a number of mixed use areas in the County. Almost all of the older commercial areas are located near residential areas, with public uses, such as schools and parks, located nearby. Communities such as Annapolis, Brooklyn Park, Crofton, Deale, Edgewater, Glen Burnie, Linthicum, Severna Park, Odenton and Shady Side are examples of mixed use areas.

Mixed use areas are ideally located where there are available public utilities and access to major transportation systems, including roadways and transit. Areas close to existing population and employment centers are well suited for mixed use development.

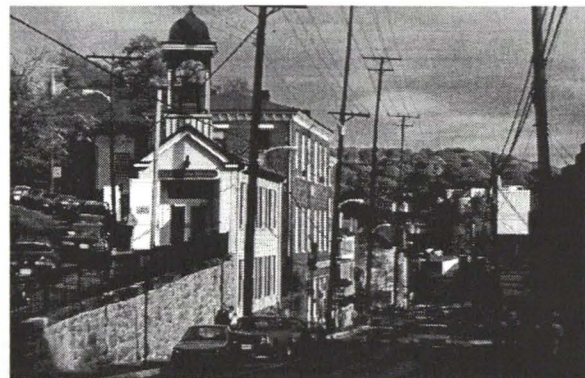
Mixed use developments can consist of a combination of new uses or combine new and existing uses located close to one another. Mixed use areas involving new development or redevelopment should strive for high quality of design. Individual elements that comprise the mixed use should relate well to one another, both in design and access. Open space and recreation are essential elements of mixed use. public use areas, such as plazas and parks, in central locations, should be included in all mixed use areas.

The Plan identifies four different types of mixed use. These include Employment, Transit, Commercial and Community Mixed Use. The type, proportion and intensity of uses within these different mixed use areas will vary. Employment Mixed Use areas are intended to provide employment uses mixed with limited residential and commercial services. Transit Mixed Use areas will include a balance of employment and residential uses near transit stations. Commercial Mixed Use areas will include predominantly community serving commercial uses mixed with residential uses. Community Mixed Use areas will be comprised of predominantly residential uses, with community commercial uses. Specific requirements for proportions and intensity of each use as part of a mixed use area will be developed subsequent to adoption of the General Development Plan in revisions to current development regulations.

Mixed use development should be considered using an “overlay” zone. An overlay zone places additional requirements or restrictions over an area determined to be suitable for mixed use development. Requirements in a mixed use overlay area should include a minimum site area. criteria for allowing mixed use would include enhancements such as compatibility and quality of design of new development and redevelopment, improvements in pedestrian circulation, enhancement of existing environmental features, creation of additional open space or recreational areas, improved access to transit stations, and provision of public transportation such as shuttle buses. Mixed use areas are not intended to be areas targeted for piecemeal or comprehensive rezoning for single uses. The process for approval of mixed use development would involve public review of the proposed development and opportunity for public input into the proposed mixed use plan.

Context and Elements for Successful Mixed-Use Development

To understand the concept of Mixed-Use and its relevance to the current General Development Plan, it is useful to look at the different settings and scale in which it occurs. Historically, the traditional Main Street provided offices or apartments over stores and generated a variety of activity, as in Annapolis or Ellicott City.



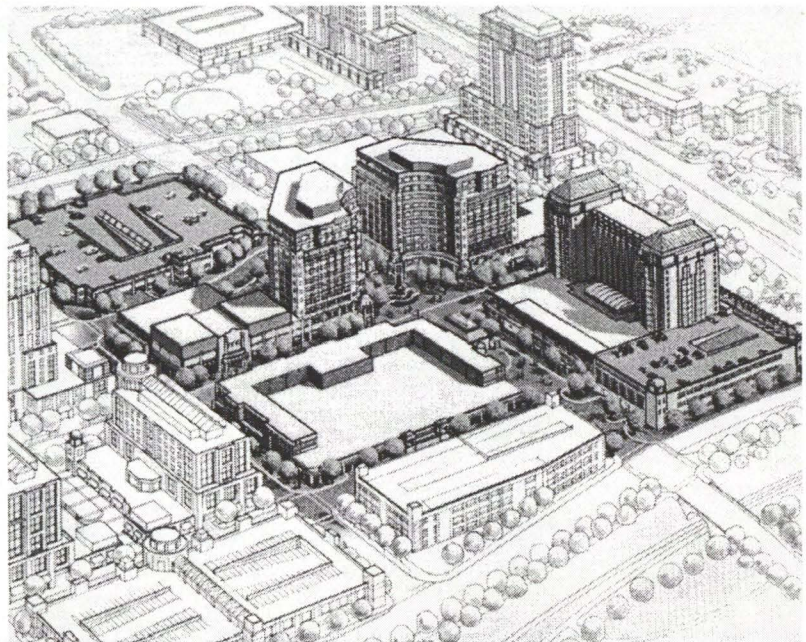
Ellicott City Main Street, Howard County

The largest mixed-use projects are to be found in downtown areas of central cities. Notable examples include Charles Center, Harborplace and the Gallery in Baltimore. These involve office, retail, entertainment and hotel uses, with adjacent residential. Suburban town centers such as Silver Spring, Towson and Parole also contain a full range of activities, with Columbia and Reston offering good examples of mixed-use centers serving large planned communities.



Patuxent Place, Laurel

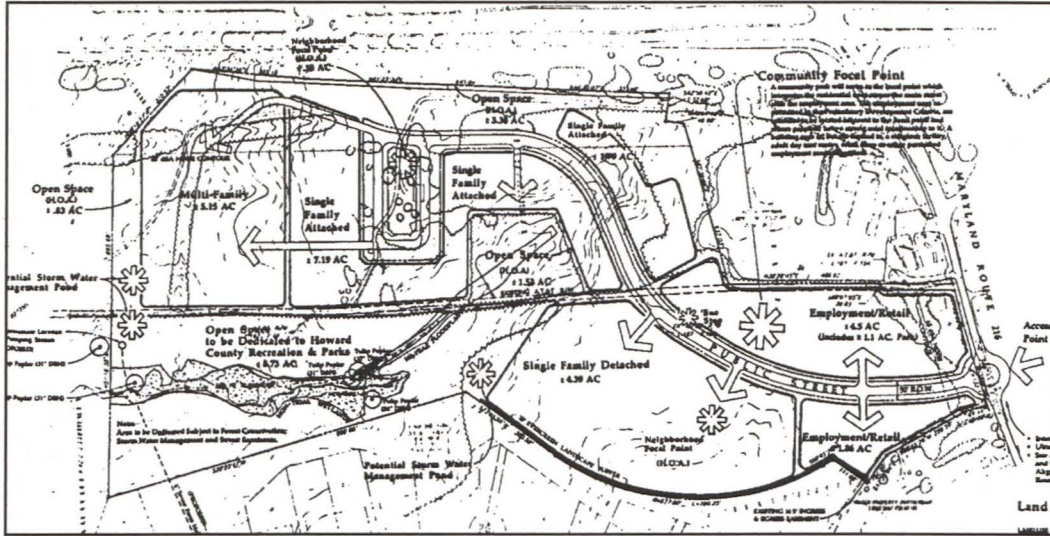
At the local community level, mixed-use development may be achieved in small centers and transit service areas, such as Patuxent Place in Laurel, Village of Cross Keys in Baltimore, the Glen Burnie Town Center project, and village centers of Columbia or Reston.



Reston Town Center, Phase I.

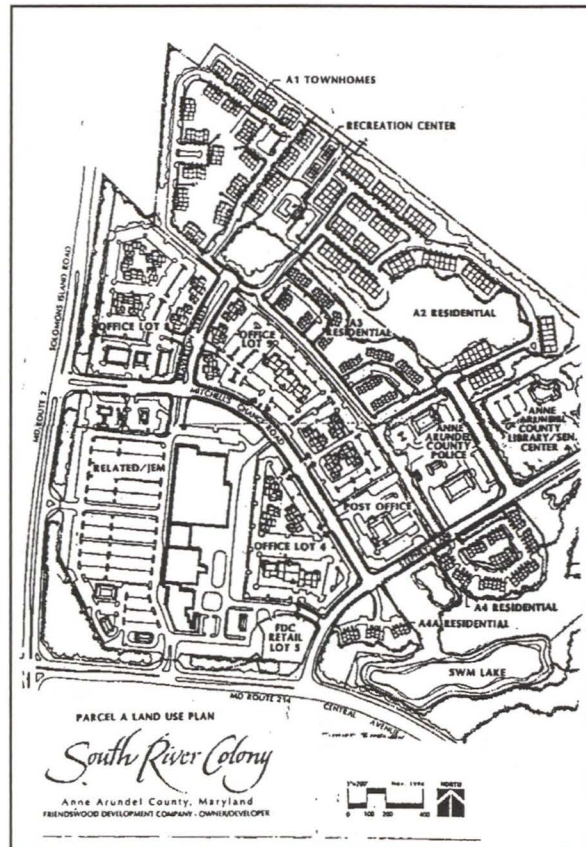
As reflected in the examples given above, the three most common elements of mixed use are employment, retail services and residential use. Due to prevailing land values, market and leasing factors, retail and office uses tend to occur together. These are generally compatible and complementary, given functional relationships and minimal conflicts in parking demand. Evening and weekend hours for retail and service uses generate activity when offices are closed, and satisfy needs of the surrounding community. Restaurants, for example, are supported at lunchtime by office workers, and nearby residents at other times. Employment opportunities are provided for the community and some social services may be as well.

Residential use may be predominant in some projects, developed in conjunction with offices and retail services. Open space and public facilities would be provided as an integral part of the plan. Current regulations in Howard County encourage a mix of residential and employment uses, with up to 45-50% in each category, a minimum of 35% open space and strict limitations on the amount of retail space. A variety of housing types is permitted in two mixed use zoning overlay districts of different overall densities, to assure that these developments are compatible with surrounding land uses. The first project under review is Cherrytree Park, with about 250 housing units proposed on a 42 acre site, including 6 acres for employment and retail use.



Cherrytree Park: Residential Mixed-Use, Howard County

Housing may be included as an integral part of a mixed-use project, where a single developer is responsible for all components of the plan. However due to inherent conflicts between residential and business activity, careful attention must be given to separate access and parking, privacy and security, as well as the type of amenities. The development concept may involve a “vertical mix” with housing above shops, as in the traditional Main Street, or on adjacent sites with convenient pedestrian access. In most suburban mixed-use projects, housing will occur on distinct parcels, next to commercial activity, without actually being a part of it. Development of this type depends less on a unified plan with a single developer and may be achieved through conventional zoning with residential districts abutting the zoned commercial area. For example, the new community center for South River Colony in Edgewater involves four separate uses on contiguous sites with a coordinated road system and pedestrian linkages. Commercial, office, residential and public facilities are grouped to form a major activity center serving the new development and surrounding community.



South River Colony, Community Center

In the three designated Town Centers in Anne Arundel County, “TC” zoning provides for a broad mix of uses in the same district. The Festival at Riva in Parole, in combination with Claiborne Place and Westwoods Apartments, provide a good example of related commercial and residential development in close proximity. These two projects, along with major office uses and hotels along Riva Road support a thriving mixed-use activity center, serving the daytime population, and a larger community in the evening and on weekends. Unfortunately there is no public space or facilities in the area, and arterial roads divide some uses, but over time more civic functions and community focus could be provided.



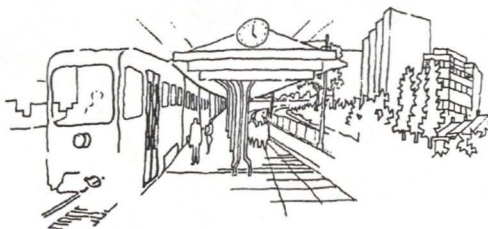
Festival at Riva, Parole Town Center



Claiborne Place and Westwoods Apartments

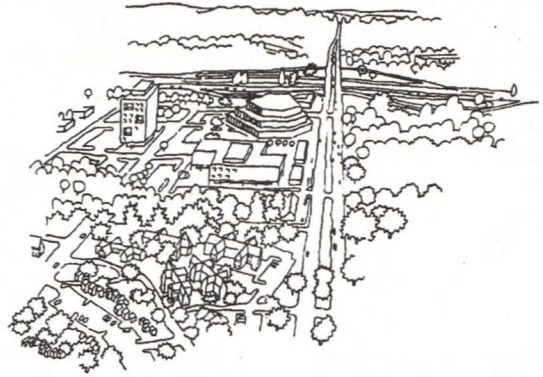
Types and Location of Mixed Use on the Land Use Map

The General Development Plan has designated four categories of mixed use development:



Transit Mixed Use areas are anticipated to include primarily a mix of residential and employment uses, including office and retail services. These areas would be located in and adjacent to Light Rail and Commuter Rail stations. Residential densities for transit mixed use areas are suggested in the range of 5 to 15 dwellings per acre.

Employment Mixed Use areas are envisioned to include mostly employment uses, such as industrial parks and office complexes, with residential uses and supporting retail services as secondary uses. These areas are located near major transportation corridors and employment and population centers. Densities for the residential component of employment mixed use areas are suggested in the range of 10 to 20 dwellings per acre.



Commercial Mixed Use areas would include a combination of general and professional offices, retail and residential uses, with predominantly office and retail use. These areas would be served by major roads and/or transit and serve nearby population centers. Residential densities in these areas are suggested in the range of 5 to 15 dwellings per acre.

Community Mixed Use areas would be primarily residential with retail and/or office uses provided within the mixed use project. These areas would be served by major roads and/or transit. Densities for residential uses are suggested in the range of 2-5 dwellings per acre.



Retail activity is often the key to successful mixed-use projects, but it must be appropriate in both type and scale. Whether the principal use or a supporting element for employment centers or the resident population, it should be an integral element in design and function. Retail businesses may be oriented to serve either a pedestrian or vehicular market, and sometimes a combination of both. In a project with major office uses, shops and restaurants may cater

primarily to the daytime population, located within the same buildings or within walking distance. The hours may be limited, unless there is sufficient patronage from nearby residents in the evenings and on weekends. These businesses are serving a pedestrian market, already there for work all day, or living in the vicinity, generally within walking distance.

Where retail and service activities are predominant in a mixed-use project, they serve a vehicular market, and are almost totally auto-dependent. There are massive parking requirements, mostly in surface lots, convenient for short term use. Pedestrian access is generally inconvenient, or even unsafe, and few people live within walking distance. With large areas of the site devoted to parking, the activity tends to be dispersed and mostly inside the buildings. Pedestrian walkways are generally an afterthought, with vehicular circulation the main concern.

There are some mixed-use centers which cater to both pedestrian and vehicular markets, such as Metro oriented projects in Bethesda and Silver Spring. Even Tysons Corner with its massive concentration of offices generates considerable pedestrian activity during the day, while serving as a magnet for suburban shopping after hours and on weekends.

Parking Implications

In combination with office use on the same site, there is potential for some overlap in parking with retail needs, since peak usage does not conflict. Shared parking would be more feasible with surface lots rather than garages, since retail customers are reluctant to park in structures, unless there is no other alternative (as in White Flint Mall or Towson Town Center). They value easy access, with their destination in sight. On the other hand, office workers will gladly use a garage assigned to them; it can be somewhat remote since their cars are left there all day. In Glen Burnie, the Town Center plan allocates most daytime parking for office tenants in the nearby garage, which is available to cinema patrons and restaurants after hours and on weekends. General retail parking will be provided on surface lots, while residential tenants will have reserved parking, under the proposed apartment building.



Central Plaza, Glen Burnie Town Center

Transit-Oriented Development

Under the mixed-use classification described above, six sites have been designated for transit-oriented development in the vicinity of Light Rail and MARC stations. The goal of transit oriented development is an appropriate combination of commercial and residential land uses and sufficient density to support public transit usage. It involves a growth management strategy that can spur private development or reinvestment in the vicinity of stations and reduce auto dependency. The following criteria are suggested for successful transit-oriented development:

- Station or stops visible and identifiable; focal point within the community
- Clear and direct vehicular access along convenient routes to station or stops
- Safe and convenient pedestrian access via continuous sidewalks and pathways
- Bike paths linking safely to station area with secure storage racks or lockers
- Safe and comfortable waiting areas with open seating or shelters
- Land use and major activity centers in the vicinity of transit stations or stops:

Major trip origins and/or destinations within easy walking distance of transit service, accessible via safe, attractive and interesting routes; housing of medium or higher density in the surrounding community (2500-3000 units within 1/3 mile of stops)

A mix of uses, including retail stores, restaurants and offices or other employment, government and community facilities, with essential services and convenience uses (e.g. day care & personal services) in close proximity to transit stop.

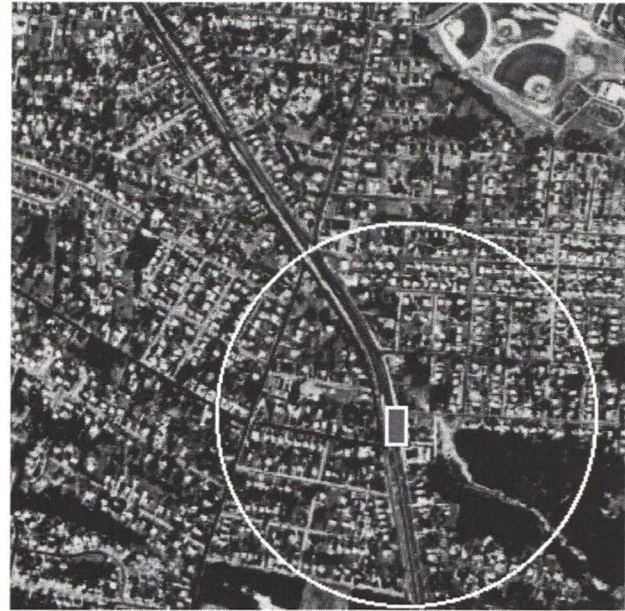
- Adequate drop-off areas and short-term parking abutting transit station or stop, with some all-day parking available nearby, and linkage with local bus or shuttle services for direct transfer.
- An overall level of activity and attractive pedestrian-oriented environment, with a sense of safety, security and predictability



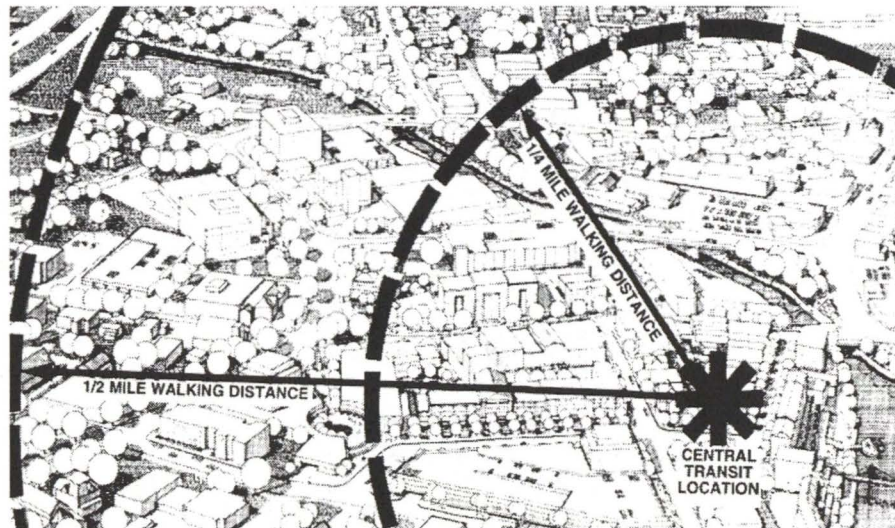
MARC Station in Odenton

A primary service area of 1/4 to 1/2 mile is suggested as the “reasonable walking distance” from an existing or proposed transit stop or station. This represents a 5-15 minute walk from within an area of 125 acres up to 500 acres (1/2 mile radius). Other factors such as topography, a sense of safety and security, and presence of interesting activity along the route will tend to limit or encourage walking to and from transit. Much depends on active commercial frontage, pedestrian scale and attractive streetscape, as in downtown Annapolis, where a half-mile walk from the Arundel Center to City Dock is routine. Unfortunately there are few communities in the County which are conducive to long walks, due to traffic conflicts, lack of sidewalks, or ugly strip commercial uses and endless blocks of look-alike housing.

Not only does the physical environment have to be conducive to walking to transit services, or vehicular and bicycle access direct and convenient. Transit usage depends basically on getting around without an automobile, between home and work or other daily activities such as school, shopping, recreation or entertainment. It tends to serve the young, the elderly and the visually impaired or handicapped, rather than the general population. The key to sustainable ridership is the pattern of land use, which involves a sufficient concentration of trip origins and destinations along a more or less fixed route, linking to major suburban centers and downtown Baltimore and Washington. The more extensive the regional transit network, the more viable the service to local communities, as long as overall time of travel, waiting and transfers is reasonable.



Ferndale Light Rail Station: 1/4 mile Radius

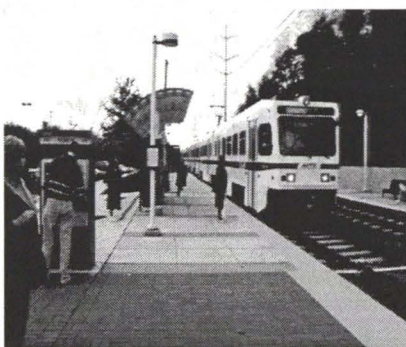


Typical Service Area (from Planning for Transit-Friendly Land Use, NJ Transit)

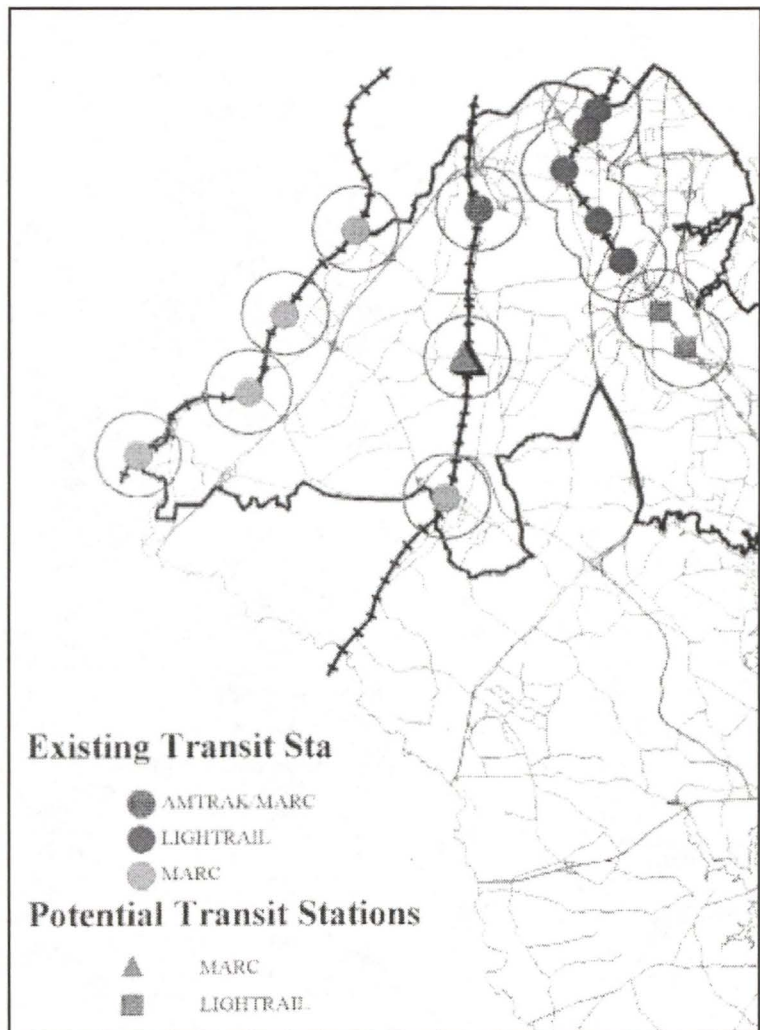
Rapid Transit Serving Anne Arundel County

Currently the Baltimore Central Light Rail system provides service in North County, with five stations operational and a planned extension to BWI Airport. Studies are underway for service to Glen Burnie Town Center and eventually to Harundale and Marley Station Mall, however there is uncertainty over the actual route alignment and location of future stations, given possible impact on existing neighborhoods and the B&A Trail. To date the light rail system serves the oldest built-up section of the County, with mostly single family detached homes (zoned R5) and prevailing densities of under 5 units per acre. There are no townhouses within the 1 mile service area, and only one apartment project is accessible to light rail, at the North Linthicum station.

There are six MARC commuter rail stations serving Anne Arundel County, half of which are located across the county line and accessible through Prince Georges or Howard County. The newest station is at Dorsey, with exclusive access only from new Route 100. There is somewhat more potential for new development in the vicinity of the MARC line, with about 400 acres of vacant land within one mile of these stations.



Light Rail Station, North Linthicum



Transit Service Areas in Northern Anne Arundel County

Traditional Neighborhood Design (TND)

Traditional Neighborhood Design is another tool of community design which could be applied in both new development and existing neighborhoods and business areas. There are many examples in Maryland and Virginia of TND, often in historic towns such as Annapolis, Ellicott City and Fredericksburg. However a few new suburban projects have incorporated this approach, notably The Kentlands in Montgomery County, Terra Maria in Howard County and Reston Town Center in Virginia. The following principles have been suggested by the Foundation for Traditional Neighborhoods, Inc.

- Land Use Pattern: Fine-grain Mix of Dwellings/ Shops / Workplaces, all in close proximity to each other; different housing types within the same or adjacent blocks
- Street Layout and Design: Cohesive block pattern with “grid” streets, shared by both pedestrian and vehicular traffic; a variety of street sections, generally narrow with low design speed and some with parallel parking and “circles” at key intersections; use of mid-block alleys for garage access and resident parking, with houses fronting on street; minimal setbacks with continuous streetscape and building facades, unbroken by parking lots; reinforce pedestrian scale and activity along public streets and squares
- Public open space: Well-defined squares surrounded by housing or commercial uses, providing for informal social activity and recreation, as well as visual relief in a fairly dense “urban” block pattern.
- Community Identity: Reinforced by purposeful location of civic buildings as landmarks at key intersections or public plazas; open vistas and approach to schools, churches and public facilities to enhance orientation within the community by automobile or on foot

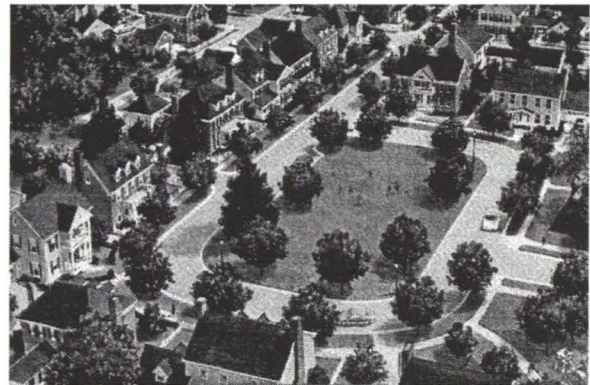
Traditional neighborhood design can also achieve the following:

- Mixed-use at the neighborhood scale brings many daily needs within walking distance, reducing dependence on the automobile and giving the elderly and young independence of movement
- A broader range of housing types and work opportunities will accommodate various age and income groups at the neighborhood level.
- Given a network of defined public spaces with pedestrian linkages, social interaction and collective security may be enhanced.
- Through traditional design, improved community identity and orientation to public space and facilities may foster social awareness and civic responsibility.

Relevance to current and future development in Anne Arundel County

There may be opportunity to apply certain principles of traditional design, given the surrounding road pattern, topography and environmental constraints, prevailing density and access to jobs and services. New development may relate to existing activity centers, or incorporate new commercial uses and public facilities as an integral part of the plan, providing the framework for neotraditional design. Its success depends on the scale of the project, an appropriate mix of housing types and innovative layout and site design.

A traditional neighborhood is more than a collection of grid streets, houses and small parks; it is inextricable from the larger community and therefore depends on a comprehensive planning approach, with direct linkage to shops, schools and jobs. The concept depends not only on creating a pedestrian environment, but a true walking relationship to local shopping, jobs and public services. Without such destinations, even the best path system becomes a closed loop, with noplaceto go. There are many attractive suburban projects, with abundant open space and internal pathways, but they are purely recreational, with the mailbox or swimming pool the only destination. Only the larger PUDs with several thousand units can function internally as full service communities, with their own shopping and public facilities. Smaller projects depend on direct linkage to nearby services outside the immediate neighborhood, which makes coordination with area plans so important. Also retrofitting existing communities with pedestrian connections, streetscape improvements and other amenities can establish a proper setting for traditional neighborhood design.



Terra Maria, Howard County (Illust. by Eric Hyne)



Typical Street in Kentlands (Montgomery County)

Rural Villages

The concept of Rural Villages has been proposed to help channel development in South County and other areas zoned RA or RLD to appropriate locations where good access and facilities can be provided, and environmental impacts are minimal. These new rural population centers would involve cluster development to help preserve large surrounding areas of agricultural land and sensitive open space. The General Development Plan would undertake the following measures.

- Identify focal points for activity in South County and opportunities to reinforce these areas as rural village centers, with appropriate commercial uses and cluster housing
- Establish rural commercial zones to accommodate various business activities, such as farm supply stores and nurseries, relating directly to the agricultural hinterland and serving the needs of the rural population as well.

Elements of a Rural Village

A Community Service Area of 5-10 acres should be designated to include 10,000 to 15,000 square feet of retail/service space, and any related public facilities on the same site or adjacent. Of this, 3 to 5 acres would be devoted to convenience commercial uses, with small shops, a restaurant and gas station. Other businesses related to agricultural use in the area might include a farmers market, nursery or landscape firm, farm supplies and equipment sales or rental. Another 5-10 acres could be used by community facilities, such as a school (probably elementary), church, post office, a small park or recreation center.

Low density residential uses would be clustered in the surrounding area. Within a quarter to half mile of the center there would be ½ to one acre lots, clustered around a village green or other common open area. Individual septic systems are assumed, however in major clusters with smaller lots, communal sewage treatment systems may be considered. No new residential density would be created to form these clusters.

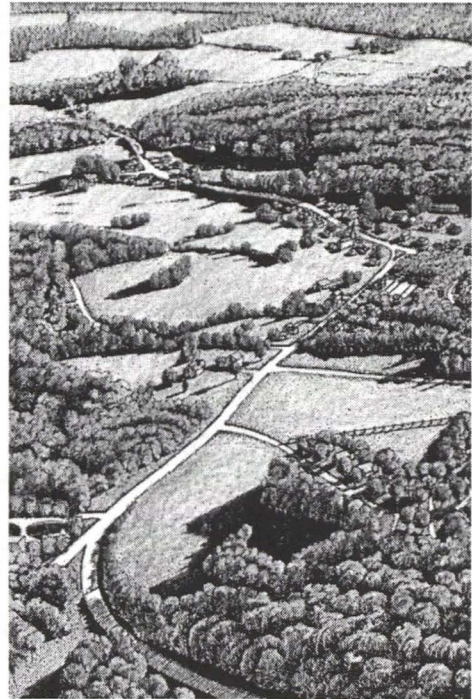
Open space for both active and passive use should be provided within the rural village, and agricultural and forest land might be preserved beyond ½ mile of the center. School grounds would be available for playfields, and a separate village “green” might serve as a focus for the community. Stream valley path systems and bike trails might link to the village center through floodplains or dedicated open space and recreation areas within subdivisions, also on easements along fencerows between properties.

Locational Criteria for Rural Village Centers

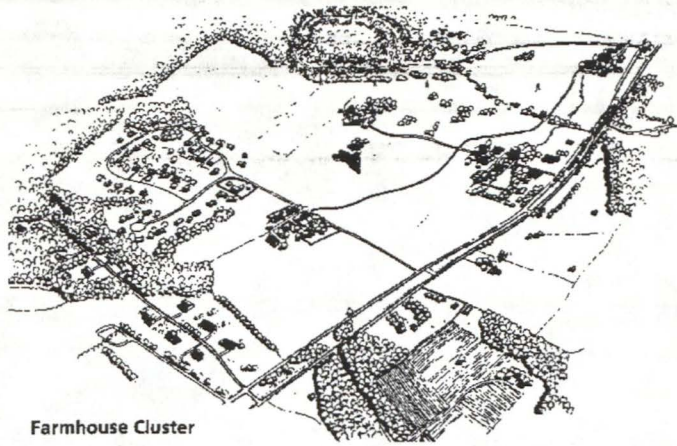
In determining appropriate locations for rural villages, a primary service area should be established to include sufficient population within a reasonable driving distance of the “center.” Given typical rural densities of about five acres per housing unit, a rural village center might serve an area of 25 square miles, containing up to 3500 dwellings, accessible to convenience shopping and facilities within a 5 minute drive. Major crossroads locations may be identified which meet these criteria, providing the nucleus for rural villages. The surrounding area would be predominantly in agricultural and forestry use, with natural terrain in a rural setting.

The villages should be located a minimum of 3-5 miles from existing commercial centers, and from each other, to assure a sufficient market area to support local facilities and services. Sites would be carefully chosen to avoid sensitive environmental areas, involving steep slopes, wetlands or unique vegetation, as well as prime agricultural land, to be preserved in districts or easements. There should be potential for limited pedestrian or bicycle access, and even equestrian trails in some areas. Topography and soils must be suitable for individual or communal septic systems, with adequate ground water supply for low density development of one or two acre cluster lots.

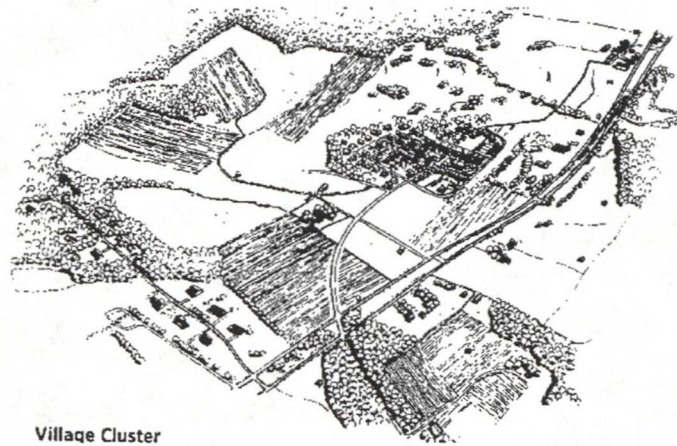
Possible conflicts between residential uses and agricultural activity should be considered. Where scenic roads have been designated in the area, both capacity and safety will be important factors in the location of new housing and facilities. Also the preservation of rural character and the natural landscape is critical to the success of the rural village concept. This involves thorough site analysis and careful placement of access drives and new building locations, with effective landscaping and buffers to minimize the visual impact of new development. Examples of rural cluster development and a potential village center site in Anne Arundel County are given below.



Rural Cluster Development Concept
in Rural by Design, by Randall
Arendt

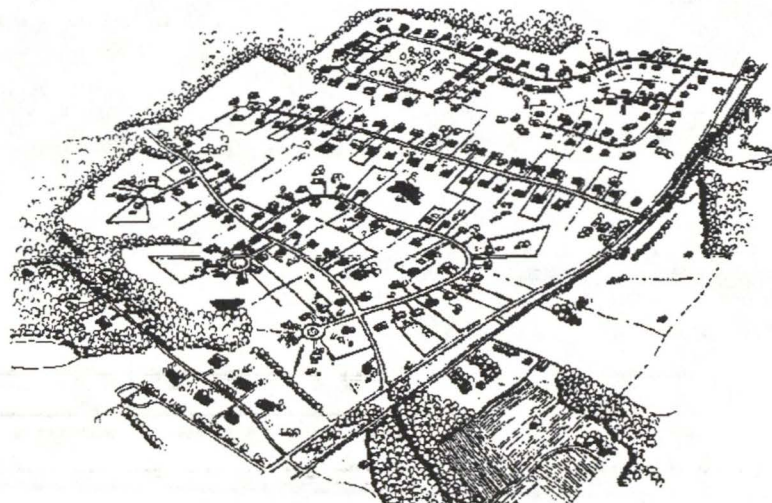


Farmhouse Cluster

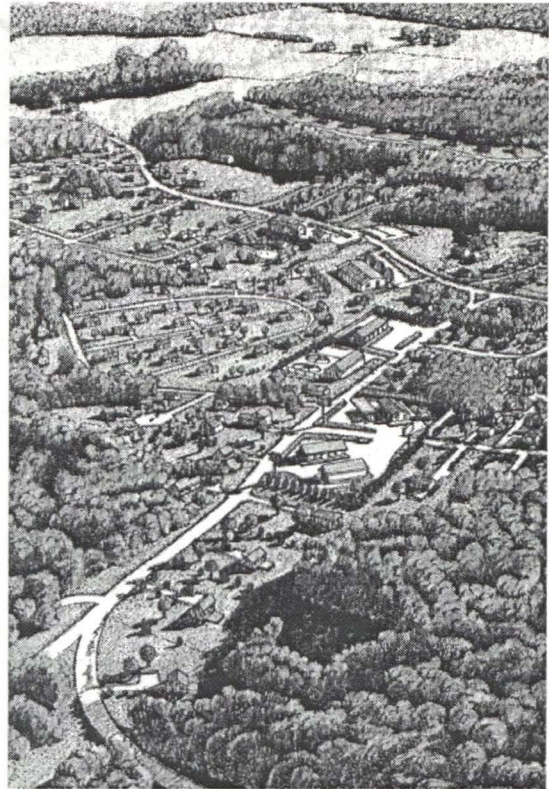


Village Cluster

Rural Cluster Development



Conventional Subdivision Layout



Conventional Development Pattern (example from Rural by Design, by Randall Arendt)

Appendix Two

Glossary

<u>Adaptive Reuse</u>	adapting an older unused structure to accommodate a new use, such as adapting a vacant motel to a residential use or a warehouse to office/retail use
<u>Affordable Housing</u>	housing that is available and affordable to households which earn at or below 80% of the median household income for the area and for which 30% of income is spent on housing costs (example: housing affordability for median household income of \$52,400 would not exceed \$1,048 per month (52,400 X .80 X .30)
<u>Antiquated Lots</u>	lots that were created prior to 1952 that are smaller than current regulations require and which must be combined to form buildable lots
<u>Best Management Practices (BMP's)</u>	<p>environmental protection measures applied to land development and agriculture, involving state-of-the-art techniques for maintenance of water quality through effective sediment and erosion control and stormwater management;</p> <p>also, practices designed to protect, manage and reduce the loss of soils, during periods of land cover disturbance from erosive forces. BMPs are generally considered as those vegetative, physical or mechanical barriers which reduce erosive impacts caused by the elements. Success of BMPs are dependent upon how management design structures incorporate soil erodibility, vegetative cover, topography and climate</p>
<u>Brownfields</u>	contaminated or potentially contaminated and underutilized industrial and commercial sites whose cleanup costs and future liability make it unattractive to redevelop and reuse
<u>General Development Plan Land Use Plan Map</u>	a map that shows proposed land use in general terms and in general locations in the County and which is used as a guide for future land use and zoning
<u>Goal</u>	the end toward which effort is directed
<u>Greenbelt</u>	an area with natural features that is targeted for rural and low density development and has limited planned public infrastructure, generally serving as a buffer between more intensively developed areas

<u>Greenway</u>	a system of contiguous open space between communities or through stream valley park land, providing for footpaths or bikeways, passive recreation and wildlife corridors
<u>Infill Lots</u>	buildable lots within existing subdivisions
<u>Mixed Use</u>	a flexible approach to land use planning, combining a variety of uses, including housing, employment, commercial and open space uses on a single development site or on adjacent sites within a designated area in accordance with a unified design
<u>Moderately Priced Dwelling Units</u>	housing units developed under governmental programs or private initiatives to assist families of low or moderate income, which are sold or rented at a cost that does not exceed a maximum price or rental established by the County
<u>Neotraditional Town Planning</u>	area planning which emphasizes more traditional layout, such as street grids, rather than curvilinear or cul-de-sac streets, with activity focused in common areas
<u>Overlay Zone</u>	a superimposed zone with special options, standards and guidelines applied to a given area, over and above requirements of the underlying zoning district(s); provides additional control over the type and quality of new development or redevelopment, administrative flexibility and special incentives to achieve defined objectives (as in Town Center Growth Management areas, commercial corridor revitalization projects, historic preservation districts, and the Critical Area environmental overlay zone)
<u>Planned Unit Development</u>	large area planning that allows mix of uses, with flexible lot size and setbacks and integrated network of roads and pathways for easy access
<u>Policy</u>	a definite course of action
<u>Residential Cluster Development</u>	large area planning which encourages grouping of dwelling units in clusters in order to preserve sensitive areas and open space
<u>Rhythm</u>	Rhythm refers to the regular reoccurrence of similar elements through time and space. An arcade is a classic example of a rhythmic architectural element as is the experience of walking down a street lined with large shade trees spaced 30 feet apart. Rhythm is a powerful organizing tool and is useful in developing and maintaining a sense of place.

<u>Sensitive Areas</u>	streams and their buffers, 100-year floodplains, habitats of threatened and endangered species, steep slopes, tidal and nontidal wetlands
<u>Small Area Plans</u>	plans that are prepared for areas smaller than the entire County that may encompass defined areas such as communities or special planning areas
<u>Space</u>	The space we live in can be numbing undifferentiated or richly imbued with variation and detail. Urban design is concerned with the presence and quality of public spaces in particular including public streets, squares, plazas and parks. The care we expend on creating and maintaining public spaces directly effects our image of a place.
<u>Transferable Development Rights</u>	development credits, usually for residential dwelling units, that may be purchased from a willing seller (usually on rural or agricultural property) to be transferred by the buyer to a designated and appropriate property for development, usually at a slightly higher density
<u>Town Centers</u>	the three designated areas of the County, Glen Burnie, Odenton and Parole, first shown on the 1968 General Development Plan and shown on each successive General Development Plan in 1978 and 1986, to serve as regional centers to provide a variety of uses and services to surrounding areas
<u>Town Center Zoning</u>	A special zoning category found in the County's three designated Town Centers that permits a variety of commercial, residential, office and other uses at higher levels of intensity than other zoning categories
<u>Town Center Growth Management Area</u>	Defined boundary areas in central Odenton and Parole for which plans have been adopted and policies set forth for future development
<u>Traditional Neighborhood Design</u>	similar to Neotraditional Town Planning, however applied at the scale of the residential neighborhood, or within individual subdivisions; generally based on grid pattern of streets with smaller lots and mix of housing types, with convenient commercial uses and orientation to public space and facilities
<u>Transit-Oriented Development</u>	new development, infill or redevelopment of land in the vicinity of commuter stations or light rail service, intended to provide an appropriate combination of commercial, employment and residential uses at sufficient density to support public transit usage

<u>Upland Forested Area</u>	woodlands located on dry ground outside floodplains and tidal or non-tidal wetland areas
<u>Watershed Management Plan</u>	A plan studying the natural environment of a watershed with a focus on improving and preserving the water resources including, but not limited to, water quality, water quantity, groundwater recharge, stormwater management and habitat
<u>Zoning</u>	a set of land use regulations that govern how real property is used and developed
<u>Zoning Map</u>	a map that shows how real property is zoned and which is used as a legal basis for how land can be developed